

## A Picture of Health in South Taranaki

### Rapid Health Profile

**FINAL**  
**14 April 2011**



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Owner	Sandra Boardman, General Manager – Planning, Funding and Population Health
Main Authors	Becky Jenkins Dr Greg Simmons
Acknowledgments	Steve Perry, Ian Dawson, Maree Young, Nicola Johnson, Wendy Marshall, Janet Amey and Pauline Cruickshank
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# Executive Summary

## 1. Background

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The *South Taranaki Alive with Opportunity* Project commenced in January 2011. As part of the Project, a health profile for the population of South Taranaki has been undertaken using existing available data sources. “A Picture of Health in South Taranaki – Rapid Health Profile” aims to describe the health status of the South Taranaki population and identify health inequalities in population groups residing there.

Data were obtained from a range of sources including, but not limited to: Statistics New Zealand, New Zealand Health Survey, Plunket Society, Taranaki District Health Board, Ministry of Health and Primary Health Organisations. The data are limited by availability, small sample sizes, variable quality, timeliness and comparability over time and between districts.

This report presents the key findings and makes recommendations for future analyses.

## 2. Geographical Area

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The profile covers the population of the South Taranaki Territorial Local Authority Area (South Taranaki District Council) which includes Warea and Opunake in the North, to Waverley in the South. Hawera is the main urban centre of the District.

### KEY FINDINGS: HEALTH STATUS

## 3. People

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As at the 2006 Census, 26,500 people resided in South Taranaki, representing 25.4% of the population of the Taranaki Region. Māori accounted for 21.7% of the South Taranaki population, higher than for the region as a whole (15.8%). Pacific and Asian peoples comprised a very small proportion of the South Taranaki population.

Between the 2001 and 2006 Censuses, the European population of South Taranaki dropped by 12.3% to 74.5%, whereas the Māori population increased by 4.3%.

Population estimates in 2010, indicate that South Taranaki has a youthful profile with 23% aged under 15 years compared to 20% in New Plymouth and Stratford. Some 6.5% of the South Taranaki population is aged over 75 years compared to 8% of New Plymouth and Stratford.

There are around 430 live births each year to South Taranaki mothers. The crude birth rate per 1,000 females aged 15–44 years is higher in South Taranaki at 89.8 per 1000 compared to New Plymouth and Stratford at 76.9 per 1,000.

#### **4. Social and Economic Determinants of Health**

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The average NZ Deprivation Index score for South Taranaki was 6.7 in 2006, compared to 5.2 for the rest of the Taranaki Region. A higher proportion (27%) of people in South Taranaki were living in communities with a deprivation index of 9 or 10 compared to the rest of Taranaki (10%). The most deprived areas (NZDep score 10 and 9) in South Taranaki included Kaponga, Waitotara, Patea and Waverley, Opunake and Manaia.

#### **5. Health Risk and Protective Factors**

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In 2006, 25.1% of the South Taranaki population aged 15 years and over, reported smoking cigarettes regularly, compared to 22.4% for the Taranaki Region. The highest smoking prevalence in South Taranaki was among the most socio-economically deprived communities. The school-based survey for Year 10 students last undertaken in 2010 by Action on Smoking on Health (ASH) shows that rates of regular smoking over the past few years were higher in South Taranaki schools than in the region as whole.

The NZ Health Survey, completed in 2007, estimated that 71% of Taranaki Māori and 65% of non-Māori were either overweight or obese, although data at South Taranaki District level were not available.

Breastfeeding data were not available at South Taranaki District level, but Plunket Society data in 2009 estimated the prevalence of full and exclusive breastfeeding to be 13% for Māori and 23% for non-Māori mothers six months following birth.

#### **6. Mortality**

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Mortality data for South Taranaki area by cause of death are not routinely available. Based on the Taranaki Regional Statistics the main causes of death are likely to be cardiovascular disease, cancer and stroke.

### **KEY FINDINGS: HEALTH SERVICE UTILISATION**

#### **7. Primary Care**

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There are seven General Practices in the South Taranaki District, with six of these affiliated to one of three PHOs. The seventh practice is not affiliated to any PHO. An estimated 94% of

the South Taranaki population is enrolled with a primary care practice. Some 23% of those enrolled with a PHO have a recorded primary ethnicity of Māori.

Primary care indicators show that the uptake of immunisation and screening services is generally lower in South Taranaki than for Taranaki as a whole.

## **8. Emergency Department Attendance**

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There are two hospital-based Emergency Departments in Taranaki, at Hawera Hospital and Taranaki Base Hospital, in New Plymouth. For the 2009–10 fiscal year there were 15,247 presentations at Hawera ED and 29,291 at Base ED.

The crude attendance rate of South Taranaki people was 591 per 1,000 population per annum compared to 324 per 1,000 for those people residing in Stratford and New Plymouth Districts.

In general, attendees at Hawera ED were younger than at Base ED with a very high rate of attendance at Hawera ED for children aged 0–4 years (693 per 1,000). Māori represented 26% of attendees at Hawera ED compared to 16% of those residing in Stratford or New Plymouth Districts attending Base ED.

A higher proportion of attendances were in-hours at Hawera (40%) than at Base (33%). In 2009–10 a higher proportion of South Taranaki residents attended ED for lower acuity category conditions (Cat 4&5) than Stratford and New Plymouth residents.

## **9. Hospital Outpatient Attendances**

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In 2009–10 crude rates per 1000 for first attendance at Surgical and Medical Outpatient Clinics were similar between New Plymouth and Stratford. Crude Rates per 1000 for subsequent attendance at Surgical and Medical Outpatients were lower for South Taranaki residents than for New Plymouth and Stratford Districts.

## **10. Hospital Inpatient Activity**

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In 2009–10, there were 7,690 hospital discharges recorded for patients residing in South Taranaki out of a total of 30,180 hospital discharges for all Taranaki residents.

Crude access rates were higher for South Taranaki residents for arranged admissions at 81.07 per 1,000 per annum compared to 70 per 1,000 for New Plymouth and Stratford residents and also for acute admissions (148 per 1,000 for South Taranaki compared to 138 per 1000 for New Plymouth and Stratford).

For those patients admitted from a waiting list – rates were 64 per 1,000 per annum for New Plymouth and Stratford and lower at 57 per 1,000 for South Taranaki.

During 2009–10, 42% of acute hospital admissions for South Taranaki residents were to Hawera Hospital and 45% were to Taranaki Base Hospital. For admission of any Taranaki resident to Whanganui Hospital in 2009–10, 95% resided in the South Taranaki District.

The most common conditions relating to hospital admission involved the following specialties: emergency medicine, general medicine, general surgery, orthopaedics and maternity.

Age-specific admission rates were generally higher in South Taranaki for acute and arranged admission and lower for admission from a waiting list.

## **11. Recommendations for Future Data Procurement and Analysis**

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This profile has been collated using routinely available data within a short timeframe. The profile is limited in a number of areas where data were not available at all, or not able to be procured within the timeframe for the project. It is appropriate that any future profiles assess those datasets. Specifically, the profile lacks information on mortality; disease prevalence; risk and protective factors at a South Taranaki level; mental health needs and mental health service use, including alcohol and drug services; community services provided by NGOs and other providers; primary care and aged care services. Further analyses of hospital inpatient activity including length of stay, specific procedures, and ambulatory sensitive admissions at a South Taranaki level should also be a focus for further work.

# Section 1: Background, Introduction and Methodology

## 1.1 Background and Rationale

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In January 2011, Taranaki District Health Board initiated the “South Taranaki Alive with Opportunity” project. This project considers future plans for health services in the South Taranaki District and is a whole system view of health care services provided to people in South Taranaki.

*A Picture of Health in South Taranaki – Rapid Health Profile* was requested as part of the “South Taranaki Alive with Opportunity” project.

## 1.2 Aim

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This profile aims to provide a broad overview of the social, physical, economical, cultural and environmental characteristics of South Taranaki including key demographic and health-related statistics as well as describing some patterns of utilisation of health services.

## 1.3 Purpose

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The purpose of this project report is to:

**Describe the health of the South Taranaki District to inform the “South Taranaki Alive with Opportunity” Project.**

Understanding the current health status of the population is an essential precursor to the identification of priority areas for health improvement. Whilst this project does not represent a comprehensive health needs assessment for South Taranaki, it does maximise the use of existing national and local data sets that describe the health status of the South Taranaki population, and complements other areas of the “South Taranaki Alive with Opportunity” Project such as the community engagement framework.

## 1.4 Report Audience

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The main audience for this report is the “South Taranaki Alive with Opportunities for Better Health Care” Steering Group and the South Taranaki Clinical Forum.

## 1.5 Objectives

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The following objectives were established at the initiation of the project:



- To identify and assess existing analyses and data sets as they relate to the South Taranaki population including information sourced from TDHB Planning and Funding, TDHB Public Health Unit, PHOs and Primary Care, Hospital Services and other relevant sources
- To describe the health of the South Taranaki population overall or where there are health inequalities between population groups, and in particular, for Māori
- To present the findings to the South Taranaki Clinical Forum for discussion and to summarise key issues
- To complete the report within the timeframe for the South Taranaki Steering Group.

## **1.6 Out of Project Scope**

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The following are out of scope of the project:

- Comprehensive needs assessment
- New data collection
- Information gathered from NGOs and other providers
- Prioritisation of key issues.

## **1.7 Authors Roles and Responsibilities**

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This project is sponsored by Sandra Boardman, General Manager Planning, Funding and Population Health, Taranaki District Health Board.

The responsible authors for the report are Becky Jenkins, Healthy Taranaki Development Manager and Dr Greg Simmons, Medical Officer of Health. The primary analysis and the report writing was undertaken by Becky Jenkins. Dr Greg Simmons advised on the design and interpretation of the analyses and provided advice and peer review of the document. Analytical support and advice was also provided by Steve Perry, Ian Dawson and Maree Young within TDHB. We acknowledge the contribution of others, particularly in Primary Health Organisations and Hospital Services for the provision of data and advice for its interpretation.

## **1.8 Data Sources**

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The following key data sources were used to complete the report.

**TABLE 1: Summary of Key Data Sources**

Data Source	Description	Sections Used
<p>Statistics New Zealand Census 2006 – Quick stats</p>	<p>Every five years Statistics New Zealand makes an official count of the population and dwellings in New Zealand. Statistics New Zealand conducted the 2006 Census of Population and Dwellings on Tuesday, 7 March 2006.</p> <p><a href="http://www.stats.govt.nz/census/2006censushomepage/quickstats/">www.stats.govt.nz/census/2006censushomepage/quickstats/</a></p>	<p>Section 3: People Section 4: Socio-Economic Determinants of Health</p>
<p>Ministry of Health NZ Deprivation</p>	<p>NZDep2006 combines a number of 2006 census data (calculated as proportions for each small area) to create a single deprivation score.</p> <p><a href="http://www.moh.govt.nz/moh.nsf/indexmh/dhb-maps-and-background-information-atlas-of-socioeconomic-deprivation-in-nz-nzdep2006">http://www.moh.govt.nz/moh.nsf/indexmh/dhb-maps-and-background-information-atlas-of-socioeconomic-deprivation-in-nz-nzdep2006</a></p>	<p>Section 4: Socio Economic Determinants of Health</p>
<p>Action on Smoking on Health Year 10 Survey</p>	<p>The Year 10 survey is an annual questionnaire of around 30,000 students in New Zealand. It is conducted each year in schools throughout the country and is one of the biggest surveys of its kind. It has been going for a decade and gives us a valuable and robust insight into youth smoking. Each year ASH publishes a summary report showing youth smoking trends. <a href="http://www.ash.org.nz/">http://www.ash.org.nz/</a></p>	<p>Section 5: Risk and Protective Factors</p>
<p>Ministry of Health NZ Health Survey A portrait of health 2006/07</p>	<p>The 2006/07 New Zealand Health Survey was carried out from October 2006 to November 2007, collecting information on 4921 children aged from birth to 14 years and 12,488 adults aged 15 years and over. The 2006/07 New Zealand Health Survey measured self-reported physical and mental health states (including diagnosed health conditions), modifiable risk and protective factors for health outcomes, and the use of health care services. Data have been weighted in order to be representative of New Zealand's resident population living in permanent private dwellings. A final response rate of 68% was achieved for the adult questionnaire and 71% for the child questionnaire.</p> <p><a href="http://www.moh.govt.nz/moh.nsf/indexmh/portrait-of-health/">http://www.moh.govt.nz/moh.nsf/indexmh/portrait-of-health/</a></p>	<p>Section 5: Risk and Protective Factors</p>
<p>Plunket – Breastfeeding Rates</p>	<p>The NZ Plunket Society currently collects breastfeeding data in New Zealand. Some 10% of children in New Zealand are not currently utilising the Plunket service therefore those children are not included in the dataset.</p>	<p>Section 5: Risk and Protective Factors</p>
<p>Public Health Intelligence</p>	<p>PHI Online is a tool for the visualisation of health and related information. It displays an interactive map with linked tables and charts which allows data to be viewed in multiple dimensions and is an alternative way to viewing information. Information is provided at the District Health Board (DHB) and Territorial Authority (TA) level, and includes New Zealand health survey data, hospitalisations and disease registrations as well as risk behaviour and Healthy Eating Healthy Action (HEHA) related data. It has been developed by Public Health Intelligence, part of the Health &amp; Disability Systems Strategy Directorate (HDSSD) of the Ministry of Health.</p>	<p>Section 5: Risk and Protective Factors</p>

	<a href="http://www.phionline.moh.govt.nz/">http://www.phionline.moh.govt.nz/</a>	
Primary Health Organisation Enrolment Data	<p>The PHO Enrolment Collection holds Primary Healthcare System patient enrolment data. These data are made available to DHBs on a quarterly basis to assist:</p> <ul style="list-style-type: none"> <li>• PHOs, DHBs and the Ministry of Health in reporting and monitoring patient enrolment under the PHOs</li> <li>• PHOs, DHBs, the Ministry of Health and health researchers with population data to assist with population health research</li> <li>• PHOs in examining and improving the quality of their enrolment information</li> </ul> <p>The date of the PHO enrolment data used in “A Picture of Health in South Taranaki – Rapid Health Profile” is as at 1 January 2011.</p>	Section 7: Primary Care
Primary Health Organisation Performance Data	<p>The PHO Performance Programme has been designed by primary care representatives, DHBs and the Ministry of Health to improve the health of enrolled populations and reduce inequalities in health outcomes through supporting clinical governance and rewarding quality improvement within PHOs. Improvements in performance against a range of nationally consistent indicators will result in incentive payments to PHOs. The progress reports are released quarterly and the latest report available (September 2010) was used in the Rapid Health Profile.</p>	Section 7: Primary Care
Emergency Department Attendances	<p>The ED data were extracted from the Taranaki Hospital Patient Management system, IBA, using a report written by the Management Information Unit (MIU) and relates to the financial year 2009/10.</p>	Section 8: Emergency Department
Hospital Outpatient Attendances	<p>The outpatient attendance datasets were extracted from the national Non-admitted Patient Collection (NNPAC) using a locally created report via the reporting tool Business Objects. NNPAC provides nationally consistent data on non-admitted patient (outpatient and emergency department) activity and relates to the financial year 2009/10.</p>	Section 9: Emergency Outpatients
Hospital Inpatient Activity	<p>The inpatient datasets were extracted from the National Minimum Data Set (NMDS) using a locally created report via the reporting tool Business Objects. The NMDS is a national collection of public and private hospital discharge information, including clinical information, for inpatients and day patients.</p>	Section 10 : Inpatients

## 1.9 Limitations of the Process

This project has a number of key limitations including:

- i. **Data Availability at South Taranaki Level:** Many health datasets are not routinely available at a South Taranaki District level for example, mortality.

- ii. **Comparability of Data:** The profile presents a range of measures e.g. absolute numbers, crude rates, proportions and synthetic predictions rather than precise data in some cases. These measures may not be readily comparable between the different data sources used in this overview.
- iii. **Small Numbers and Issues Associated with Statistical Significance:** A number of data sources did not report findings as 'statistically significant' or 'not statistically significant' (i.e. 95% confidence intervals were not available). South Taranaki data are based on small numbers and therefore, should be interpreted with caution
- iv. **Māori and Other Ethnicities:** The quality of ethnicity recording may vary between datasets.
- v. **Age of Data:** Wherever possible the most up-to-date data sources have been used, in some cases these data sources are very out of date — e.g. Mortality from 2002.
- vi. **Timeframe and Resource Availability:** This profile has been produced within a short timeframe (three weeks) and the comprehensiveness of the profile reflects this limited timeframe.

## 1.10 Implications for Māori, Other High Needs Group and Reducing Inequalities

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Accurate ethnicity data analysis and reporting is critical to monitoring the health status of Māori, identifying inequalities in health and access to health services for Māori, and in strategic planning to improve Māori health and reduce inequalities. Inequalities in health status will be reported in the profile where the information exists, between population groups, and in particular for Māori.

### Section 1: Summary Project Methodology and Key Data Sources

- The “South Taranaki Alive with Opportunity” Project commenced in January 2011. As part of the Project a health profile for the population of South Taranaki has been undertaken using existing available data sources.
- “A Picture of Health in South Taranaki — Rapid Health Profile” aims to describe the health status and some aspects of health care utilisation of the South Taranaki population and to identify health inequalities in population groups residing there.
- Datasets were obtained from a range of sources including, but not limited to: Statistics NZ, NZ Health Survey, NZ Plunket Society, Taranaki District Health Board, Taranaki PHOs. The data are limited by availability, small sample sizes, quality, timeliness and comparability over time and between districts.

# Section 2: Geography and Boundaries

## 2.1 Geographical Area

The geographical area of the profile is based on the South Taranaki District Council area. The South Taranaki District stretches from Warea and Opunake in the North, to Waverley in the South. Hawera is the main urban centre of the District (Figure 1).

South Taranaki includes the main towns and rural areas surrounding Opunake, Manaia, Kaponga, Eltham, Normanby, Hawera, Patea and Waverley.

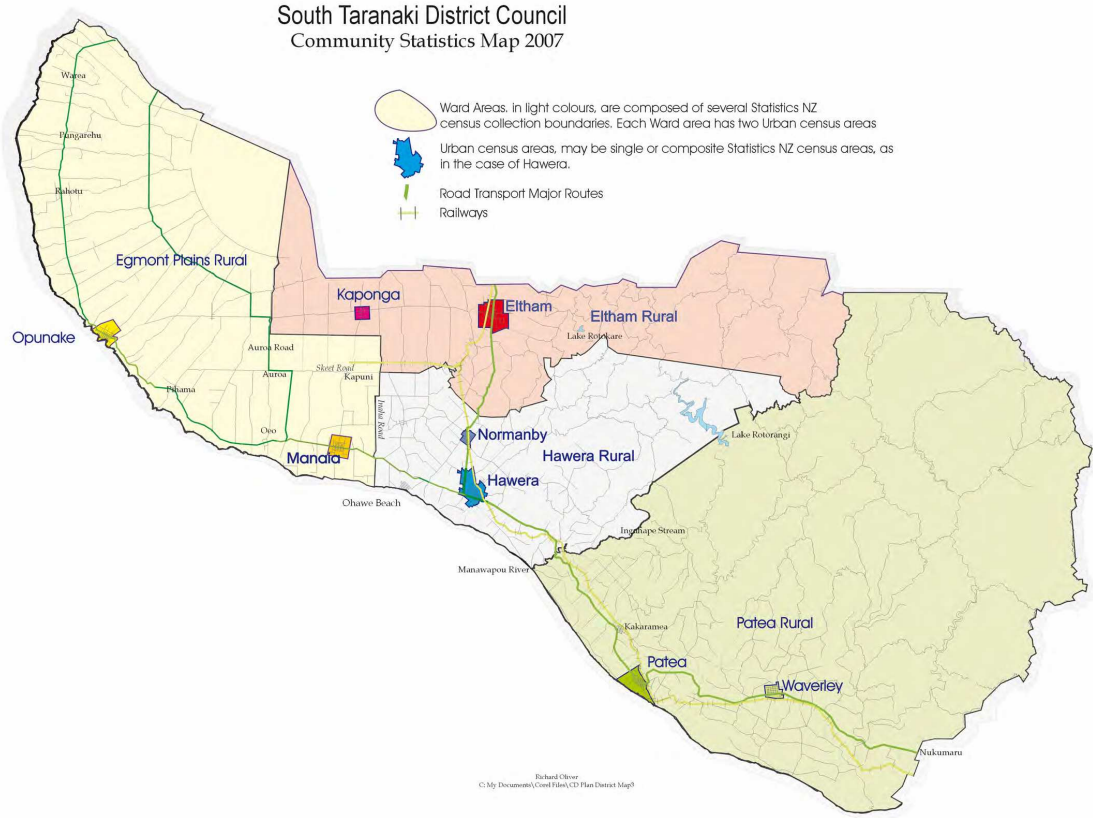


Figure 1: Map of South Taranaki District Council Area (2007)

## 2.2 Taranaki Iwi

### Iwi boundaries

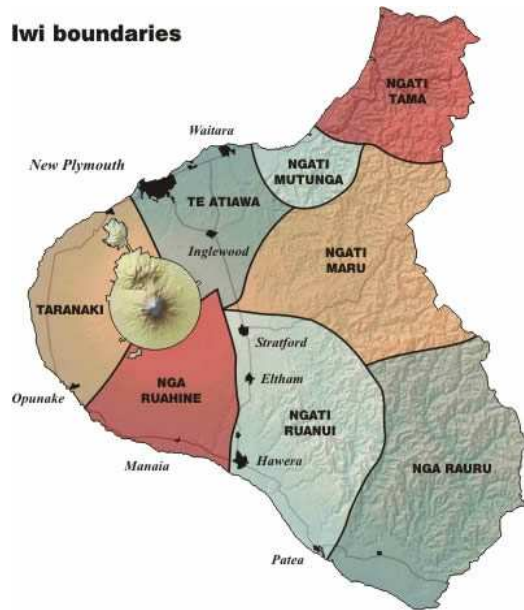


Figure 2: Map Iwi Boundaries

Taranaki, Nga Ruahine, Ngati Ruanui and Nga Rauru iwi are in the South Taranaki Area (Figure 2). The iwi with the largest number of members resident in South Taranaki at the 2006 Census include Nga Ruahine and Ngati Ruanui. These figures do not include iwi population living outside the province.

Table 2.1: Iwi (Total Responses) for the Māori descent, Census Usually Resident Population Count, 2006

Iwi (Total Responses) for the Māori Descent Census Usually Resident Population Count, 2006	Iwi Population resident in Taranaki	Total Iwi Population	Total Iwi population in Taranaki
Nga Ruahine	1,449	3726	27.52%
Ngati Ruanui	1,614	7035	17.94%
Taranaki	1473	5352	21.17%
Nga Rauru	726	4047	26.22%
Te Atiawa (Taranaki)	2721	12852	24.64%
Ngati Tama (Taranaki)	306	1167	26.12%
Ngati Mutunga (Taranaki)	516	2094	26.22%
Ngati Maru (Taranaki)	192	735	27.52%
Ngati Tama	306	1167	17.94%

There are over 50 hapū represented in Ngā Iwi o Taranaki. Ngāti Tama, Ngāti Mutunga and Ngāti Maru are not hapū based. Ngā Rauru Kiiitahi is made up of 17 hapū; Ngāti Ruanui has 16 hapū, Te Atiawa 6, Taranaki 9 and Ngāruahinerangi is made up of 6 hapū groupings.

There are 42 Marae in the region. The majority of Marae are in the southern part of the region across four iwi rohe - Taranaki, Ngāruahinerangi, Ngāti Ruanui and Ngā Rauru Kiiitahi

## 2.3 Governance Structures

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### **Territorial Local Authority**

- South Taranaki District Council

### **Regional Council**

- Taranaki Regional Council

### **Community Boards**

- South Taranaki District Council – Egmont Plains Community Board
- South Taranaki District Council – Eltham Community Board
- South Taranaki District Council – Hawera – Tangahoe Community Board
- South Taranaki District Council – Patea Community Board

### **District Health Board**

- Taranaki District Health Board

### **Section 2: Summary Geography and Boundaries**

- The profile involves the population of the South Taranaki District: Warea and Opunake in the North to Waverley in the South and with Hawera as the main urban centre. There are four main iwi in the South Taranaki area: Taranaki, Nga Ruahine, Ngati Ruanui and Nga Rauru.

## Section 3: South Taranaki People

### 3.1 Resident Population – Numbers

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On Census night 2006 around 26,500 people were resident in South Taranaki . This was a decrease of 3.8% from the previous Census in 2001. Between 1996 and 2001 there was a population decrease of 5.5% (1,596 people). South Taranaki has 25.4% of the Taranaki Region’s population.

Please note that this data has been randomly rounded to protect confidentiality. Individual figures may not add up to totals, and values for the same data may vary in different text, tables and graphs. For areas with small populations, the data may not look as expected because of this rounding.

**TABLE 3.1: Population of South Taranaki and Taranaki Region, 2006 Census**

	<b>South Taranaki</b>	<b>Taranaki Region</b>
Male	13,302	51,144
Female	13,185	52,983
Total	26,484	104,124

Source: [www.stats.govt.nz/Census/2006CensusHomePage/QuickStats](http://www.stats.govt.nz/Census/2006CensusHomePage/QuickStats)

### 3.2 Resident Population – Gender

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The population of South Taranaki District by gender is shown in Table 3.1. There is a fairly even gender split in South Taranaki with 50.2% men and 49.8% women. There was no significant change in the population with regards to gender between the 2001 and 2006 Censuses.

### 3.3 Resident Population – Ethnicity

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About one-fifth (21.7%) of the South Taranaki population identified as Māori. This is higher than the percentage of Māori for the Taranaki Region as a whole (15.8%).

Approximately three-quarters (74.5%) of the population was New Zealand European. Pacific people were 1.3%, Asian 1.2% and people of ‘Other’ ethnicity comprised 12.5%. In comparison, for the Taranaki Region, NZ European people made up 77.1% of the population, Pacific people 1.4%, Asian 2.1% and ‘Other’ 13.6%.

Between the 2001 and 2006 Censuses, the proportion of the population of South Taranaki identifying as New Zealand European decreased by 12% (86.8% to 74.5%). There was an



increase of 4.3% or 228 people who identified as Māori in South Taranaki since the 2001 Census. In comparison, there was an increase of 8.5% or 1,242 people who identified as Māori in the Taranaki Region. There were no significant changes with regards to the Pacific Islands or Asian populations from 2001 to 2006. The ethnicity of the South Taranaki population is shown in Table 3.2. This data includes all of the people who stated each ethnic group, whether as their only ethnic group, or as one of several ethnic groups. Where a person reported more than one ethnic group, they have been counted in each applicable group. Therefore the total number of responses in the table will be greater than the total number of people.

There is anecdotal evidence from health providers that due to the nature of some of the key industries in the South Taranaki area, the diversity of the workforce is changing and they are responding to needs from a variety of different countries. This may not be captured in the 2006 Census.

**TABLE 3.2: Ethnic Groups in South Taranaki District, 2001– 2006**

	2001	2006
European	23,070	18,807
Māori	5,253	5,478
Pacific Peoples	264	336
Asian	228	318
Middle Eastern/Latin American/African	33	54
New Zealander	—	3,153
Total People	26,589	25,245

### 3.4 Resident Population 2006 – Age

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South Taranaki District has a slightly younger population (median age 36.3 years) than Taranaki as a whole (median age 37.5 years). Some 23.9% of the population in South Taranaki was aged under 15 years, compared to 21.8% of the Taranaki population. There was a 1.6% decrease in the number of people aged under 15 years between the 2001 and 2006 Censuses (25.5% to 23.9%). Gender and age group for the South Taranaki District is shown in Table 3.3.

**TABLE 3.3: Broad Age Group and Sex, South Taranaki District, 2006 Census**

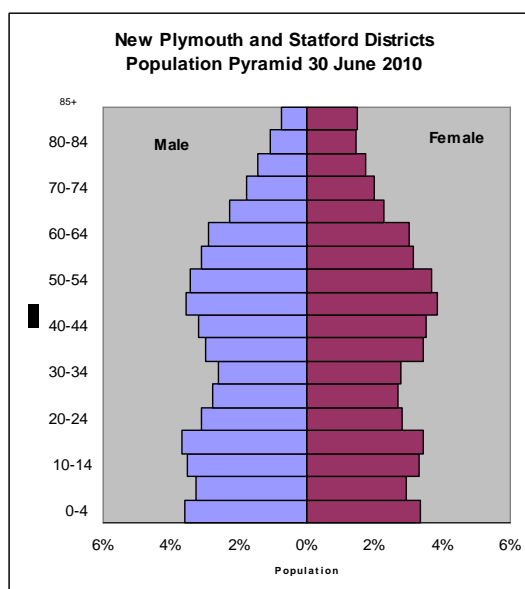
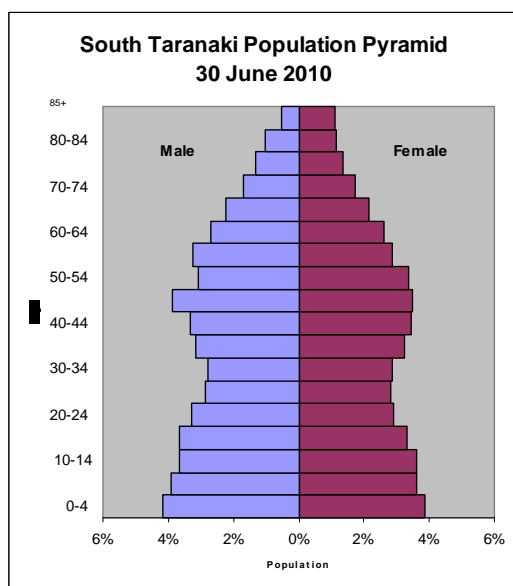
Age Group (years)	Male	Female	Total
Under 15	3,228	3,090	6,318
15–64	8,445	8,226	16,671
65 and over	1,629	1,866	3,495
Total	13,302	13,182	26,484

Source: [www.stats.govt.nz/Census/2006CensusHomePage/QuickStats](http://www.stats.govt.nz/Census/2006CensusHomePage/QuickStats)

There was a slightly lower proportion of the South Taranaki population aged over 65 years (13.2%) compared to Taranaki as a whole (14.8%). Nearly 63% of South Taranaki residents were of ‘working age’, i.e. aged 15 to 64 years, which is similar to the Taranaki Region (63.4%).

### 3.5 Resident Population – June 2010 Population Estimate

Estimates of Population by Age and Sex as at 30 June 2010 indicate a total of 109,240 people in Taranaki with 26,890 in South Taranaki and 82,350 in New Plymouth and Stratford. The following population pyramids show the distribution of the population by age group and sex.



### 3.6 Live Births

There were 432 live births to South Taranaki mothers each year on average for the five year period 2006–2010. The crude birth rate per 1,000 females aged 15–44 was higher in South

Taranaki at 89.8 per 1000 compared to New Plymouth and Stratford. Absolute numbers of live births in Taranaki are shown in Table 3.4 and live births by ethnicity in Table 3.5.

As shown in Table 3.5, generally the proportion of live births to Maori is higher in South Taranaki than in New Plymouth and Stratford. This reflects the higher populations of Maori in the population in South Taranaki.

**TABLE 3.4: Number of Live Births 2006–10**

	New Plymouth and Stratford	South Taranaki District	Taranaki Region
2006	1004	385	1389
2007	1126	424	1550
2008	1154	434	1588
2009	1119	469	1588
2010	1181	449	1630
Birth Rate per 1,000 Females 15–44 (2010)	76.9	89.8	80.1

**TABLE 3.5: Proportion of Live Births by Ethnicity of Baby 2006–10**

	New Plymouth and Stratford			South Taranaki		
	Māori	Total	Māori %	Māori	Total	Māori %
2006	289	1004	29%	146	385	38%
2007	353	1126	31%	171	424	40%
2008	352	1154	31%	206	434	47%
2009	365	1119	33%	186	469	40%
2010	381	1181	32%	178	449	40%

### Section 3: Summary South Taranaki People

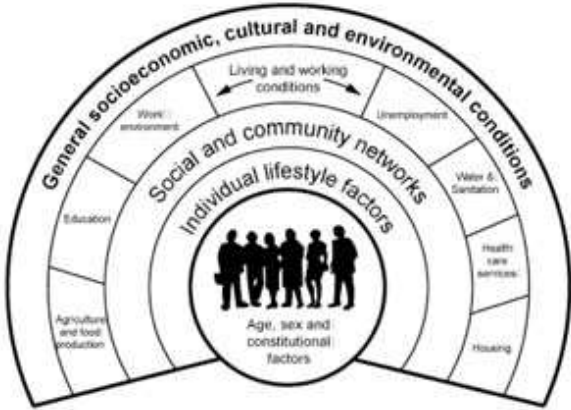
- As at the 2006 Census, 26,500 people resided in South Taranaki representing 25.4% of the population of the Taranaki Region.
- Māori accounted for 21.7% of the South Taranaki population, higher than for the region as a whole (15.8%).
- Pacific and Asian peoples comprised a very small proportion of the population.
- Between the 2001 and 2006 Censuses, the European population of South Taranaki dropped by 12.3% to 74.5% whereas the Māori population increased by 4.3%.
- The South Taranaki population has a youthful profile with 23.9% aged under 15 years.
- There are around 430 live births each year to South Taranaki mothers. The crude Birth Rate per 1,000 females aged 15–44 is higher in South Taranaki at 89.8 per 1,000 compared to New Plymouth and Stratford 76.9 per 1,000.

# Section 4: Social, Economic and Environmental Determinants of Health in South Taranaki

## 4.1 Determinants of Health

A central aspect of a population health approach, is addressing the determinants of health. This approach acknowledges that a range of social, economic, political and environmental factors impact upon the health of individuals and groups.

Dahlgren and Whitehead’s Model (1991), as shown, illustrates the way in which determinants of health can be understood as rainbow-like layers of influence. Further, it shows that that the differential distribution of determinants of health leads to disparities in health outcomes. This is reflected in the socio-economic gradient in health, whereby those who have greater access to socio-economic resources experience improved health outcomes, and those who are less well off experience poorer health. Therefore, what keeps us well, often lies outside the direct influence of the health and disability sector, and includes factors such as income and employment, good housing conditions and urban design, high quality water and access to education.



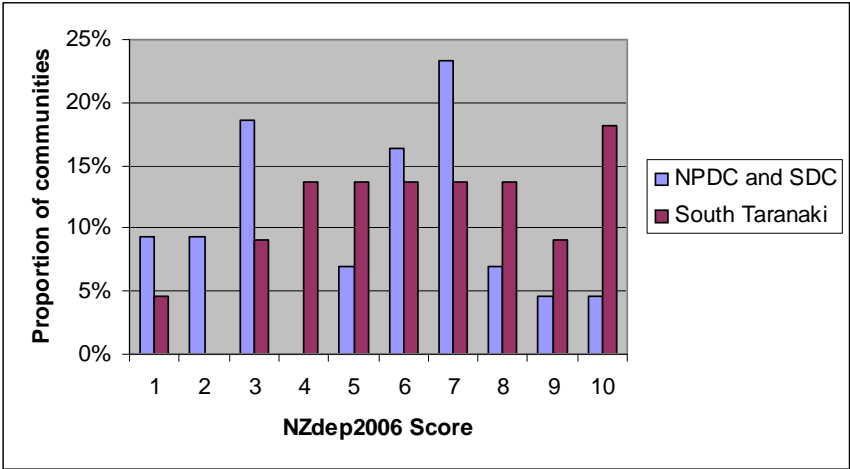
## 4.2 Deprivation

NZDep2006 combines the following Census data (calculated as proportions for each small area):

Dimension of Deprivation	Variable Description (in order of decreasing weight)
Income	People aged 18–64 receiving a means tested benefit
Income	People living in equivalised households with income below an income threshold
Owned home	People not living in own home
Support	People aged <65 living in a single parent family
Employment	Qualifications — People aged 18–64 without any qualifications
Living space	People living in equivalised households below a bedroom occupancy threshold
Communication	People with no access to a telephone
Transport	People with no access to a car

The NZDep2006 rating by proportion of the population is shown in Graph 4.1.

**GRAPH 4.1: Proportion (%) of NZ Deprivation Index Rating for South Taranaki and New Plymouth and Stratford Combined**



**TABLE 4.2: NZDEP2006 Score for South Taranaki Census Area Units**

Areas	Deprivation Score	Areas	Deprivation Score
Kaponga	10	Okaiawa	7
Waitotara	10	Kahui	6
Patea	10	Ohawe Beach	6
Waverley	10	Ohangai	6
Opunake	9	Kapuni	5
Manaia	9	Whenuakura	5
Rahotu	8	Makakaho	5
Eltham	8	Mangatoki – Moeroa	4
Hawera South	8	Waingongoro	4
Normanby	7	Tawhiti	3
Hawera North	7	Hawera West	1

The average NZ Deprivation Index rating for South Taranaki is 6.7, compared to 5.2 for the rest of Taranaki, i.e. New Plymouth District Council and Stratford District Council combined. As shown in Graph 4.1 a higher proportion (27%) of communities in South Taranaki have deprivation ratings of 9–10 representing the most deprived communities, than the rest of Taranaki (10%).

The most deprived areas of the South Taranaki Region include Kaponga, Waitotara, Patea Waverley, Opunake and Manaia (Table 4.2). The least deprived areas include Hawera West and Tawhiti.

NZ deprivation is a composite indicator of a number of variables and reflects the 'average' characteristics of the geographical area.

**TABLE 4.3: Selected Indicators Used to Create the Deprivation Score**

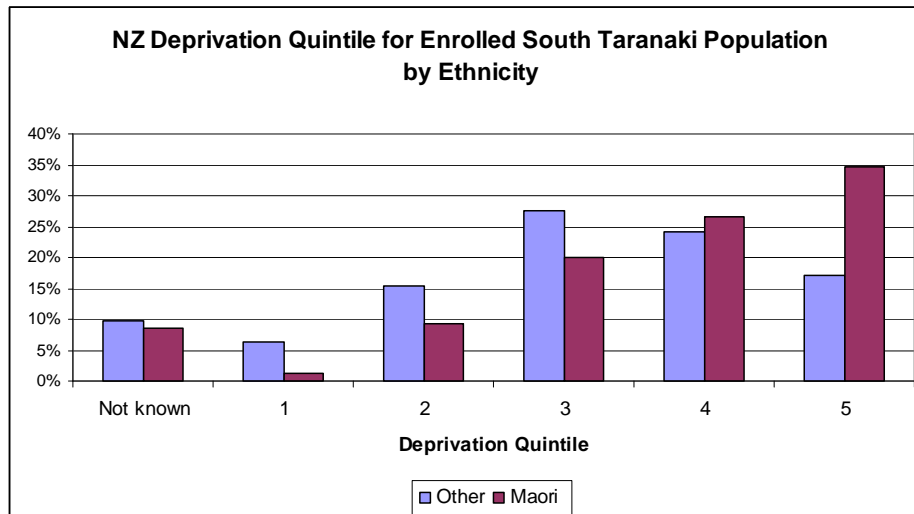
		NZdep2006	People aged 18–64 without any qualifications	People (15–64) receiving a means tested benefit	People not living in own home	People aged <65 living in a single parent family	People with no access to a telephone	People with no access to a car (2001 Census only)
554115	Hawera West	1	25%	7%	10%	3%	4%	3%
554113	Tawhiti	3	32%	11%	22%	11%	10%	3%
553500	Mangatoki—Moeroa	4	31%	9%	43%	10%	11%	2%
554114	Waingongoro	4	31%	11%	39%	9%	9%	7%
553700	Kapuni	5	34%	10%	53%	9%	10%	1%
554400	Whenuakura	5	28%	14%	36%	10%	20%	5%
554500	Makakaho	5	31%	13%	37%	12%	14%	3%
553302	Kahui	6	33%	14%	48%	13%	13%	3%
554111	Ohawe Beach	6	29%	15%	35%	14%	16%	3%
554120	Ohangai	6	32%	10%	35%	12%	19%	3%
553900	Normanby	7	37%	20%	21%	25%	17%	7%
554010	Hawera North	7	32%	19%	27%	20%	15%	13%
554130	Okaiawa	7	37%	13%	43%	16%	16%	3%
553301	Rahotu	8	38%	20%	48%	30%	18%	6%
553601	Eltham	8	39%	23%	23%	23%	21%	10%
554020	Hawera South	8	34%	19%	28%	21%	17%	11%
553200	Opunake	9	41%	29%	30%	25%	17%	14%
553800	Manaia	9	45%	27%	25%	28%	21%	10%
553400	Kaponga	10	46%	28%	31%	24%	22%	7%
554300	Waitotara	10	53%	n/s	25%	n/s	9%	8%
554700	Patea	10	38%	40%	34%	34%	31%	21%
554800	Waverley	10	37%	32%	28%	27%	25%	14%

### 4.3 Enrolled Population Deprivation Quintile

Some 21% of the population enrolled with a PHO in South Taranaki is NZ Deprivation Quintile Category 5 (most deprived) with 17% of 'other' ethnicity and 34.64% of Māori in NZ Deprivation Quintile Category 5 (Graph 4.3).

**GRAPH 4.3: Enrolled Population Deprivation Score**

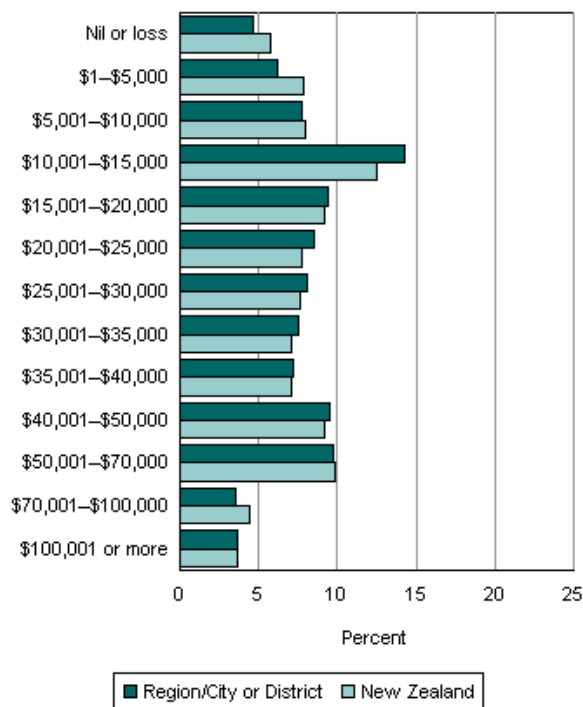
\*Figures do not include Dr Keith Blayney Practice Population



Source PHO Enrolment File 31 December 2010

### 4.4 Employment/Income

**GRAPH 4.4: Income for People Aged 15 Years and Over – South Taranaki and New Zealand 2006 Census**

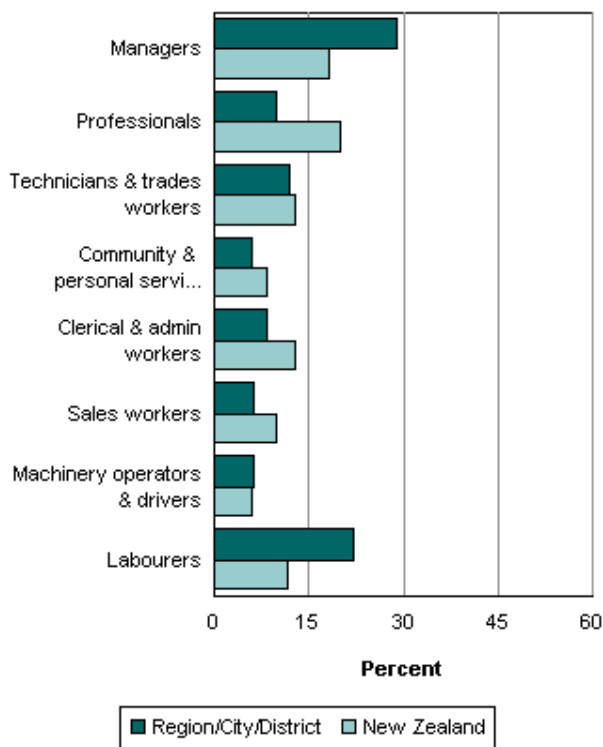


The calculated median income of people aged 15 years and over in South Taranaki was \$24,500. This is slightly higher than the median for the Taranaki Region of \$23,200 and \$24,400 for all of New Zealand (Graph 4.4).

Source:  
[www.stats.govt.nz/Census/2006CensusHomePage/QuickStats](http://www.stats.govt.nz/Census/2006CensusHomePage/QuickStats)

## 4.5 Occupation (1) for Employed People Aged 15 Years and Over

**GRAPH 4.5: Occupation for Employed People Aged 15 Years and Over – South Taranaki and New Zealand, 2006 Census**



(1) Australian and New Zealand Standard Classification of Occupations (ANZSCO V1.0).

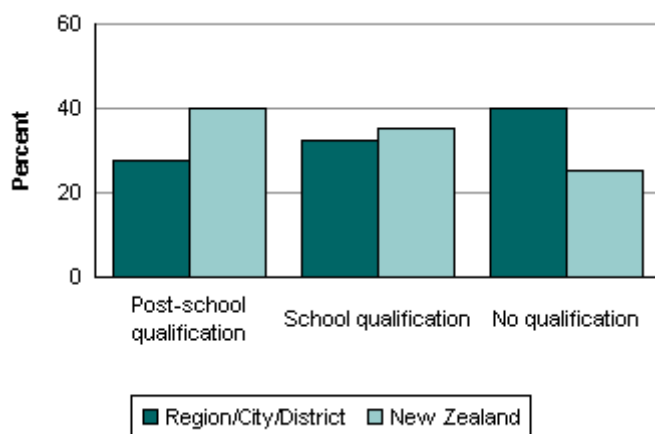
At the 2006 Census, the unemployment rate for people aged 15 and over was 4.9%. This was similar to that for the Taranaki Region (4.7%). Between the 2001 and 2006 Censuses, the unemployment rate decreased from 6.6% to 4.9%.

In 2006, the most common occupational groups was 'Managers' and 'Professionals' (~27%) followed by 'Labourers' (~20%) (Graph 4.5). This is a change from the 2001 Census when the most popular group was among Agriculture and Fishery Workers (30.8%).

## 4.6 Education and Training

About one-quarter (27.8%) of the South Taranaki population had a post-school qualification. This is lower than for the Taranaki Region (35.4%), and New Zealand as a whole (39.9%).

**GRAPH 4.6: Highest Qualifications for People Aged 15 Years and Over – South Taranaki and New Zealand, 2006 Census**

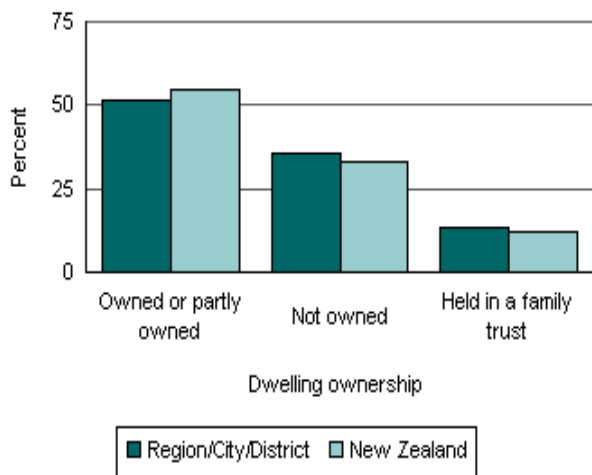


In South Taranaki, 40% of people aged over 15 years had no formal qualifications, compared to 33% for the Taranaki Region and 25% for New Zealand as a whole (Graph 4.6).



## 4.7 Housing

**GRAPH 4.7: Ownership of a Dwelling by Household – South Taranaki and New Zealand, 2006 Census**



There were 10,230 occupied dwellings in South Taranaki.

About half (51.2%) of households lived in privately-owned homes, with or without a mortgage. This is slightly under the percentage for the Taranaki Region (56.5%) and New Zealand as a whole (54.5) (Graph 4.7).

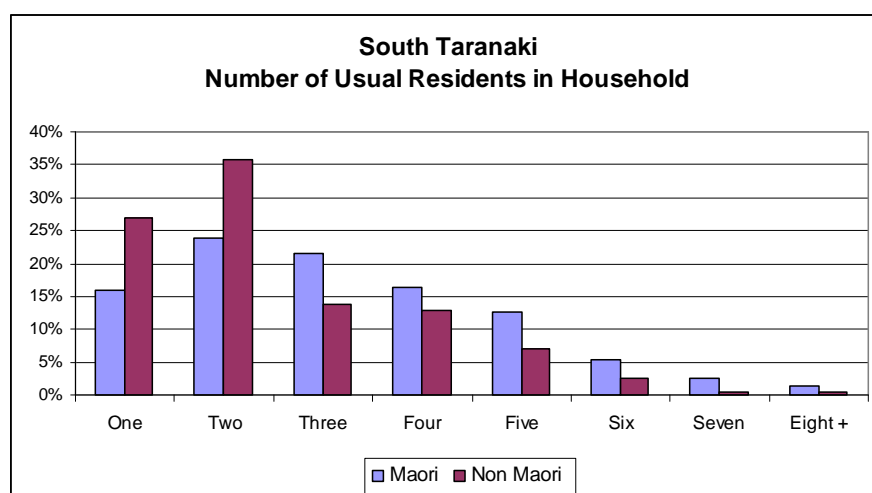
Data are not available regarding the percentage of housing built prior to 1980 (potentially uninsulated).

Source: [www.stats.govt.nz/Census/2006CensusHomePage/QuickStats](http://www.stats.govt.nz/Census/2006CensusHomePage/QuickStats)

## 4.8 Household Size

The average household size was 2.5 people, which is the same of that of the Taranaki Region. Some 16% of Māori households and 27% of non-Māori households were single person households (Graph 4.8).

**GRAPH 4.8: Number of Usual Residents in Households**



## 4.9 Communication

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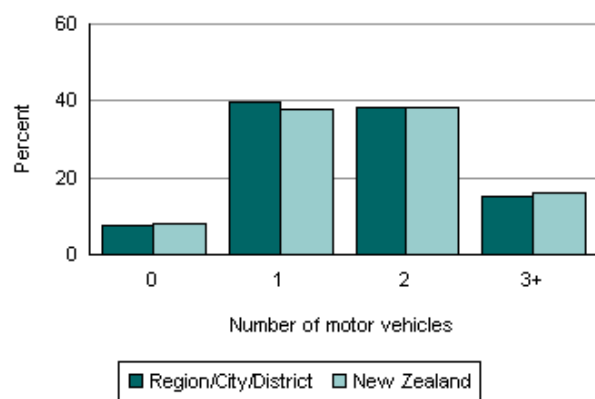
A total of 50% of households in the South Taranaki District had access to the internet at home, compared to 54.5% of households in the Taranaki Region, and 60.5% of households throughout New Zealand. Over two-thirds (71.5%) had access to a mobile phone. This is about the same as the proportion for Taranaki as a whole (72.1%), and slightly lower than the proportion of households for New Zealand as a whole (74.2%).

Mobile phone access may not reflect mobile phone network coverage which does not cover the whole of the South Taranaki Region and is limited in others.

## 4.10 Transport

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GRAPH 4.10: Household Access to Motor Vehicles – South Taranaki and New Zealand , 2006 Census



About 7% of households in South Taranaki did not have access to a motor vehicle (Graph 4.10).

The main means of travelling to work, excluding driving a private vehicle, was walking or jogging. For Taranaki as a whole, the second most common means of travel is using a company vehicle.

Car ownership is one indicator of access, other access barriers may include the cost of fuel, WOF for vehicles and the use of the vehicle by other members of the household.

Source: [www.stats.govt.nz/Census/2006CensusHomePage/QuickStats](http://www.stats.govt.nz/Census/2006CensusHomePage/QuickStats)

## 4.11 Language Spoken

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English was the most commonly spoken language in South Taranaki. Some 6.1% of people in South Taranaki speak Māori, compared to 4.0% of people for all of the Taranaki Region.

## 4.12 Resident Population – Family Structures

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About two-fifths of the families in South Taranaki were couples with children (41.0%), or couples without children (41.0%). This is illustrated in Table 4.12. 'One parent with children families' made up 18.3% of South Taranaki families. These percentages are similar to those for the Taranaki Region.

About a quarter (26.0%) of South Taranaki residents were people who live alone. This was similar to the proportion for the Taranaki Region (25.7%).

**TABLE 4.12: Family Types in South Taranaki and Taranaki Region, 2006 Census**

Family Type	South Taranaki (%)	Taranaki Region (%)
Couple without child(ren)	41.0	42.3
Couple with child(ren)	40.7	39.6
One parent with child(ren)	18.3	18.2

Source: [www.stats.govt.nz/Census/2006CensusHomePage/QuickStats](http://www.stats.govt.nz/Census/2006CensusHomePage/QuickStats)

Between the 2001 and 2006 Censuses, there was a decrease in couples with children of 3% (43.9% to 40.7%), and a corresponding increase in 'one parent with children' families (16.9% to 18.3%). The proportion of 'couples without children' families remained stable (39.2% to 41.0%).

#### 4.13 Enrolled Population – Community Service Card

The Community Services Card helps families with the costs of health care including prescription fees, fees for after hours doctor visits, visits to a doctor who is not their regular doctor, glasses for children aged under 16 years, emergency dental care provided by hospitals and approved dental contractors, travel and accommodation for treatment at a public hospital outside their area when referred (at least 80km away for adults and 25km for children) and home help. Eligibility for a Community Services Card includes: if you are 18 years old or over (or 16–17 years old in full-time tertiary study), on a low to middle income (the amount depends on your family situation), are a New Zealand citizen or permanent resident or on other forms of assistance.

As at 31 December 2010, 23.6% of the South Taranaki enrolled population had a Community Services Card. Some 30% of the Māori enrolled population and 22% of Other Ethnicity had a Community Services Card (Table 4.13).

**TABLE 4.13: Community Service Card Holders in South Taranaki by Ethnicity**

	Community Service Card			
	No	Yes	Total	% CSC
Other	13213	3675	16888	21.76%
Māori	3560	1533	5093	30.10%
Not Stated	112	21	133	15.79%
Pacific Island	105	29	134	21.64%
	16990	5258	22248	23.63%

#### **Section 4: Summary Social, Economic and Environmental Determinants of Health in South Taranaki**

- The average NZ Deprivation Index score for South Taranaki is 6.7, compared to 5.2 for the rest of Taranaki, i.e. New Plymouth District Council and Stratford Districts combined. A higher proportion (27%) of communities in South Taranaki have a deprivation index of 9–10 representing the most deprived communities, than the rest of Taranaki (10%).
- The most deprived areas of the South Taranaki District include Kaponga, Waitotara, Patea, Waverley, Opunake and Manaia. The least deprived areas include Hawera West and Tawhiti. The median income for South Taranaki residents aged over 15 years in 2006 was \$24,500, slightly higher than that for the Region (\$23,200) and New Zealand overall (\$24,400).
- In 2006 the most common occupational group in South Taranaki was that of “Manager” (27%) followed by “Labourers” (22%).
- Some 27.8% of people in South Taranaki had a post–school qualification, a lower proportion than for the Taranaki Region (35.4%) and New Zealand (39.9%) and 40% of people in South Taranaki had no formal qualifications.
- The average household size was 2.5 people and 51.2% of householders lived in privately owned homes, less than for the Taranaki Region (56.5%).
- Fifty percent of households had internet access compared to 54.5% for the Taranaki region and 60.5% for NZ.
- Seven percent of South Taranaki households had no access to a motor vehicle.
- Six percent of South Taranaki people speak Te Reo compared to 4% for the Taranaki Region.
- “One parent with children” families made up 18.3% of families in South Taranaki in 2006.
- At 31 December 2010, 23.6% of the South Taranaki enrolled population had a Community Services Card. Some 30% of the Māori enrolled population and 22% of Other ethnicity had a Community Services Card.

## SECTION 5: Health Risk and Protective Factors

### 5.1 Adult Smoking

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In the 2006 Census, 25.1% of the South Taranaki population aged 15 years and over reported smoking cigarettes regularly, i.e. more than one a day. This is higher than the rate for the Taranaki Region of 22.4%. South Taranaki had a higher proportion of smokers than the Stratford or New Plymouth Districts. All Taranaki districts have experienced a decrease in the prevalence of smoking over the last 10 years with New Plymouth showing the largest reduction of 2.8%. South Taranaki displayed the smallest decrease of 0.4%.

### 5.2 Adult Smoking by Geographical Area

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Areas with higher levels of deprivation also had higher numbers of smokers in their population.

The areas with the highest smoking prevalence in South Taranaki are:

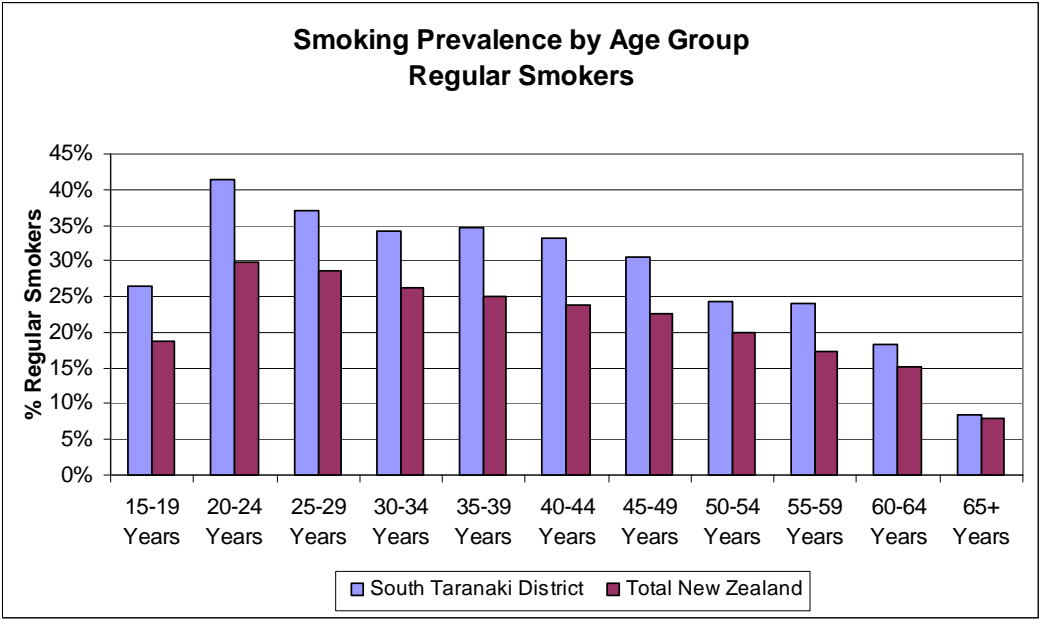
- Waitotara (50% in 1996, 36.8% in 2006, NZDep 10)
- Kaponga (33.7 in 1996, 36.3% in 2006, NZDep 10)
- Rahotu (29.9% in 1996, 35% in 2006, NZDep 8)
- Manaia (33.4% in 1996, 33.6% in 2006, NZDep 9)
- Waverley (30.9% in 1996, 29.6% in 2006, NZDep10)
- Patea (32.6% in 1996, 29.0% in 2006, NZDep 10)
- Normanby (31.1% in 1996, 28.8% in 2006, NZDep 7)
- Eltham (28.2% in 1996, 28.8% in 2006, NZDep 8)
- Opunake (29.7% in 1996, 28.0% in 2006, NZDep 9)
- Okaiawa (31.8% in 1996, 27.6% in 2006, NZDep 7)
- Makakaho (25.8% in 1996, 26.8% in 2006, NZDep 5)
- Kahui (25.3% in 1996, 25.3% in 2006, NZDep 6)
- Ohawe Beach (26.5% in 1996, 25.2% in 2006, NZDep 6)
- Hawera South (22.0% in 1996, 22.7% in 2006, NZDep 8)

### 5.3 Smoking by Age Group

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The prevalence of adult smoking in South Taranaki in all age groups is higher than the national prevalence. Prevalence of smoking is highest in the younger age groups (Graph 5.1).

**GRAPH 5.1: Smoking Prevalence by Age Group**



**5.4 Smoking by Ethnicity**

Smoking amongst Māori adults is almost twice as prevalent as that of non-Māori. Smoking prevalences in South Taranaki Māori and non-Māori are higher than New Zealand as a whole (Table 5.1).

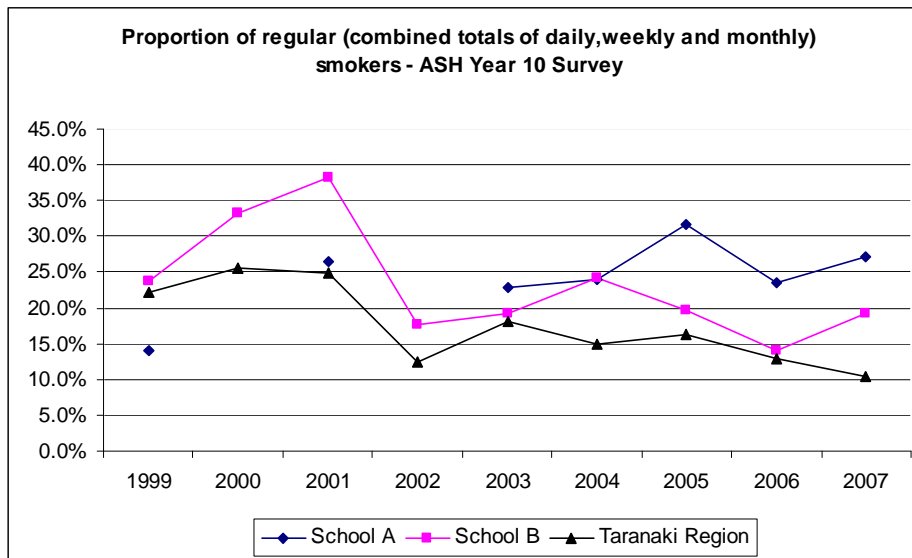
**TABLE 5.1: Smoking Prevalence by Ethnicity**

Territorial Authority	Ethnic Group	Smoking Prevalence
South Taranaki District	Māori	46.1%
South Taranaki District	Non Māori	26.8%
Total New Zealand	Māori	42.2%
Total New Zealand	Non Māori	20.7%

**5.5 Youth Smoking**

The school based survey for Year 10 students undertaken by ASH shows that rates of regular smoking over the past few years are higher in South Taranaki schools than for the region as a whole (Graph 5.2).

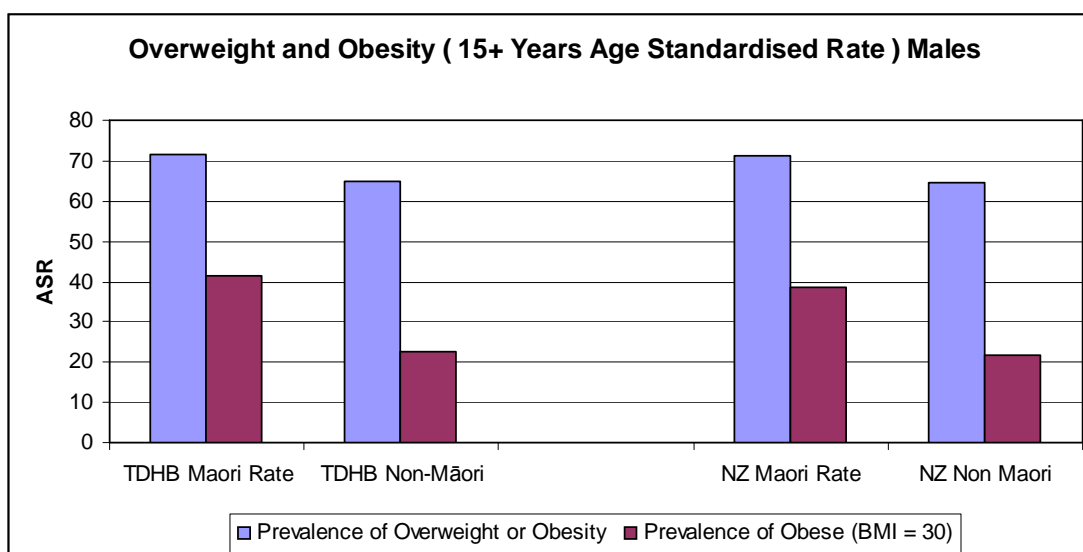
**GRAPH 5.2: Year 10 Proportion of Daily Smokers**



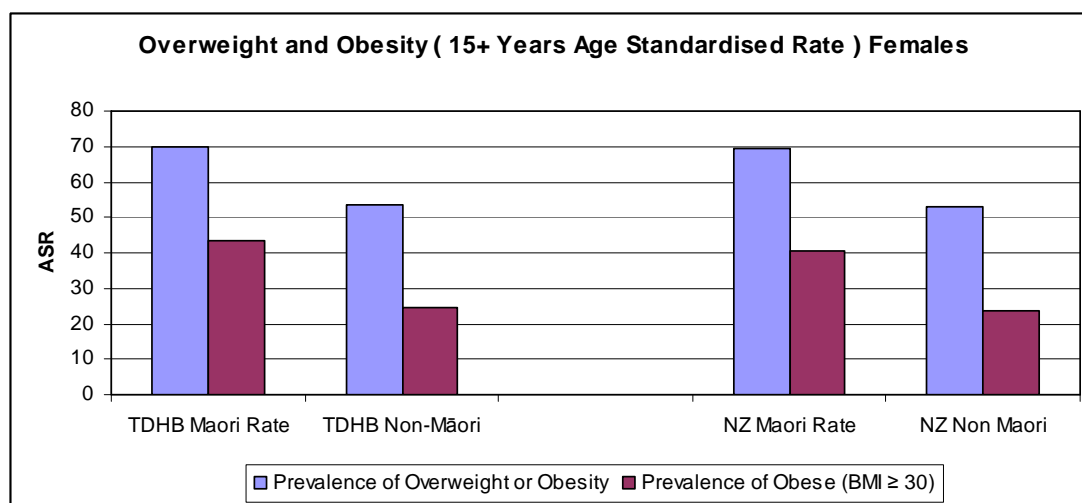
## 5.6 Overweight and Obesity

The New Zealand Health Survey 2006–7 provides synthetic estimates of local prevalence of overweight and obesity for the Taranaki DHB as a whole to provide an indication for local planning. These synthetic estimates are not sufficiently robust for monitoring and evaluation. There are no South Taranaki datasets from which to estimate the prevalence of overweight and obesity in the local population. The NZ Health Survey 2006–07 estimates that 71% of Taranaki Māori and 65% of non-Māori adult males are overweight or obese (Graph 5.6). Some 60.7% of Māori women and 53.4% non-Māori women are overweight or obese (Graph 5.7).

**GRAPH 5.6: Overweight and Obesity – Males**



**GRAPH 5.7: Overweight and Obesity – Females**



## 5.7 Regular Physical Activity

In Taranaki in 2006–7 males reported regular physical activity more frequently than females with activity greater among Māori than non-Māori (Table 5.2).

**TABLE 5.2: Regular Physical Activity (30 minutes a day on five or more of the past seven days) – 15+ Years ASR – 2006–7**

	TDHB		NZ	
	Māori	Non-Māori	Māori	Non Māori
Females	57.6	54.4	49.9	47.2
Males	69.8	62.7	60.6	54.3

## 5.8 Two or More Servings of Fruit a Day

Taranaki Māori were more likely to report eating two or more servings of fruit a day than non-Māori and males more than females (Table 5.3). The opposite was the case for those reporting the consumption of three or more servings of vegetables per day (Table 5.4).

**TABLE 5.3: Fruit and Vegetable Servings : Eat Two or More Servings of Fruit a Day – 15+ Years ASR**

	TDHB		NZ	
	Māori	Non-Māori	Māori	Non Māori
Females	57.6	54.4	49.9	47.2
Males	69.8	62.7	60.6	54.3



## 5.9 Three of More Servings of Vegetables as Day

**TABLE 5.4: Eat Three or More Servings of Vegetables Per Day – 15+ Years ASR**

	TDHB		NZ	
	Māori	Non-Māori	Māori	Non Māori
Females	62.5	67.1	64.6	69.2
Males	51.4	54.5	53.1	56.2

## 5.10 Breastfeeding

There are no specific data on breastfeeding rates in the South Taranaki population. National Plunket data indicates that breastfeeding rates in Taranaki DHB area in 2009 are below the recommended targets. This information does not include other Tamariki/WellChild Providers.

**TABLE 5.5: Percentage Full and Exclusive Breastfeeding Plunket Data – 2009**

	6 Weeks	3 Months	6 Months
Taranaki Māori	68	46	13
Taranaki Other Ethnicity	73	55	23
2010 MOH Target ( All )	75	54	22

## 5.11 Hazardous Drinking and Marijuana Use

Taranaki Māori were more prevalent users of Marijuana than non-Māori and men more prevalent users than women (Table 5.6).

**TABLE 5.6: Prevalence of Marijuana Used in Last 12 Months, 15 Years – 2002/2003**

	TDHB		NZ	
	Māori	Non-Māori	Māori	Non Māori
Females	22.6	11	22.5	11.2
Males	29.2	20.9	32.9	18.9

Even more prevalent hazardous drinking was reported by Taranaki Māori compared to non-Māori with an important male predominance (Table 5.7).

**TABLE 5.7: Hazardous Drinking in Last Months, 15 Years – 2006/2007 percent**

	TDHB		NZ	
	Māori	Non-Māori	Māori	Non Māori
Females	25.6	9.2	27.3	9.9
Males	43.2	23.5	46.1	25.1

## **Section 5: Summary Health Risk and Protective Factors**

- In 2006, 25.1% of the South Taranaki population aged 15 years and over, reported smoking cigarettes regularly compared to 22.4% for the Taranaki Region.
- Taranaki showed the smallest reduction in the prevalence of smoking in the previous 10 years of any district in the region with 0.44%.
- The highest areas for smoking prevalence in South Taranaki were the most socio-economically deprived.
- The school based survey for Year 10 students undertaken by ASH shows that rates of regular smoking over the past few years are higher in South Taranaki schools than the region as whole.
- The New Zealand Health Survey completed in 2007 estimates that 71% of Taranaki Māori and 65% of non-Māori were either overweight or obese although data at South Taranaki District level were not available.
- Rates of regular physical activity appear higher in Taranaki than New Zealand.
- Breastfeeding data were not available at South Taranaki District level, but New Zealand Plunket Society data in 2009 estimated the prevalence of full and exclusive breastfeeding to be 13% for Māori and 23% for non-Māori mothers at six months after giving birth.

# Section 6: Mortality

Mortality data for the South Taranaki area are not routinely available by cause of death. Based on the Taranaki Regional Statistics the main causes of death are likely to be cardiovascular disease, cancer and stroke.

Table 6.1 shows all cause death rate per 1000 population standardised by age and gender against the estimated NZ population as at 30 June 1996.

Table 10.1: Age Standardised Death Rates by District

District	1995-1997	2000-02	2006-2007
South Taranaki	7.9*	7.1	6.4
Stratford	6.0	7.3	6.6
New Plymouth	7.0	6.4	6.0

**Section 6: Summary Mortality**

- Mortality data for the South Taranaki area are not routinely available. Based on the Taranaki Regional Statistics the main causes of death are likely to be cardiovascular disease, cancer and stroke.
- Mortality analysis at Territory Local Authority Level is considered a priority area for future work.

## Section 7: Primary Care

### 7.1 General Practices in South Taranaki

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There are seven General Practices based in the South Taranaki District. Six of the seven practices are affiliated with one of three Primary Health Organisation. One practice is not affiliated to any PHO (Table 7.1).

TABLE 7.1: Practices and PHOs in South Taranaki

Practice	Base Location	PHO
Eltham Health Centre	Eltham	Midlands Regional Health Network Charitable Trust
Opunake Medical Centre	Opunake	Midlands Regional Health Network Charitable Trust
Patea & District Community Medical	Patea	Midlands Regional Health Network Charitable Trust
SouthCare	Hawera	Midlands Regional Health Network Charitable Trust
Te Waipuna Health Centre	Waverley	Te Oranganui Trust Inc
Ngati Ruanui Health Centre	Hawera	Te Tihi Hauora O Taranaki
Dr Keith Blayney	Hawera	Not affiliated to a PHO

### 7.2 Enrolled Population – Number of Enrolments

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The total enrolled population of these seven practices as at 31 December 2010 was 24,783 people. Enrolment data are usually based on the GP Practice of Registration rather than patient domicile. The most recent population estimates (2006 Census) indicate a resident population in South Taranaki of 26,487. Comparing the number of people enrolled in a South Taranaki practice to the estimated population projections provides an indication of the number of people in South Taranaki enrolled in a Primary Care practice.

In this case, 24,783 Number enrolled / 26,487 Total Population Estimate = 94%.

This indicator is only a proxy as some residents may be registered in neighbouring districts, and some people in other districts may be resident with South Taranaki GPs. However, it is reasonable to assume that a large proportion of the population will be registered with a General Practice and a large number of the South Taranaki domiciled population will be registered with a South Taranaki practice. However, the precision of this assumption can not be estimated at this stage. This is supported by analysis undertaken in three GP Practices in South Taranaki which showed that 87% of their enrolled patients were domiciled in the South Taranaki District.

### 7.3 Enrolled Population – Age

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The age structure of the population enrolled with a PHO and South Taranaki practice is shown in Table 7.2.

TABLE 7.2: Age Structure Population Enrolled with PHO South Taranaki Practice

Age Group	Number South Taranaki	% South Taranaki	% NP/Stratford
0–4	1,712	7.7	7.2
5–14	3,379	15.2	13.4
15–24	3,079	13.8	12.8
25–44	5,410	24.3	23.9
45–64	5,449	24.5	26.9
65+	3,219	14.5	15.8
Total	22,248	100	100

\* Figures do not include Dr Keith Blayney registered population

### 7.4 Enrolled Population – Primary Recorded Ethnicity

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The ethnicity of the population enrolled with a PHO and South Taranaki practice is shown in Table 7.3.

TABLE 7.3: Primary Recorded Ethnicity

Ethnicity	Number South Taranaki	% South Taranaki	% NP/Stratford
Māori	5,093	22.9	12.1
Pacific Islander	134	0.6	0.9
Other	16,888	76.0	86.2
Not stated	133	0.6	0.8
Total	22,248	100%	100%

\* Figures do not include Dr Keith Blayney registered population

### 7.5 Primary Care Key Indicators

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PHO Performance Indicators (PPP) as at 30 September 2010 are shown in Table 7.4 for the six South Taranaki practices that are part of a PHO.

**TABLE 7.4: PHO PPP Indicators as at 30 September 2010**

Indicator	South Taranaki	Taranaki DHB	NZ
Flu Vaccine Coverage Total Population	67.2	68.8	66.1
Flu Vaccine Coverage High Needs	66.3	66.6	64.4
Cervical Cancer Screening Coverage Total Population	72.3	83.7	74.7
Cervical Cancer Screening Coverage High Needs	64.9	66.4	76.7
Age Appropriate Vaccinations – 2 yr olds Total Population	85.3	87.9	86.0
Age Appropriate Vaccinations – 2 yr olds High Needs	76.9	84.6	84.8
Breast Cancer Screening Coverage Total Population	54.4	70.3	67.2
Breast Cancer Screening Coverage High Needs	50.0	59.3	60.5
Percentage Valid NHI on Register Total Population	99.9	99.7	99.4

\* Figures do not include Dr Keith Blayney population

## 7.6 Most Common READ code at South Care Practice

Read Codes are a hierarchical clinical coding system used in primary care. They provide the ability to classify the reasons for patient consultation in a simple, standardised way. In 2008, the South Care Practice provided a snapshot of the most common read codes for patients enrolled. Table 7.5 shows the top 20 reasons for patient consultation in the practice currently.

**TABLE 7.5: South Care’s Top 10 Read Codes by Descending Commonality – 2008 Snapshot**

READCODE	READTERM
1371.00	Never smoked tobacco
G2.00	Hypertensive disease
H33.00	Asthma
C1001.00	Diabetes Mellitus Type 2
137R.00	Current smoker
C320.00	Pure hypercholesterolaemia
137S.00	Ex smoker
6798.00	Health ed. – exercise
C10:.00	TRIUMPH Diabetes
G3.00	Ischaemic heart disease
Eu32z.11	[X]Depression NOS
G30.00	Acute myocardial infarction
H3.00	Chronic obstructive pulmonary disease
G580.00	Congestive heart failure

READCODE	READTERM
R102.12	[D]Impaired glucose tolerance
14B4.00	H/O: asthma
G66.00	Stroke/CVA unspecified
E200.00	Anxiety states
44U9.00	Blood glucose abnormal
C109.00	Non-ins-dep diabetes mellitus

### Section 7: Primary Care

- There are seven General Practices in the South Taranaki District, with six of these affiliated to one of three PHOs. The seventh practice is not affiliated to any PHO.
- An estimated 94% of the South Taranaki population is enrolled with a primary care practice although this is likely to be an underestimate as there is no way of identifying those who reside in South Taranaki but are enrolled with practices outside the Region.
- Some 23% of those enrolled with a PHO have a primary recorded ethnicity of Māori.
- Primary care indicators show that uptake of immunisations and screening services is generally lower in South Taranaki than Taranaki as a whole.

## **Section 8:           Emergency Department**

### **8.1    Emergency and Out Of Hours Service Provision**

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#### **Emergency Departments**

There are two hospital-based Emergency Departments in Taranaki, at Hawera Hospital and at Taranaki Base Hospital, in New Plymouth.

The Emergency Department at Hawera Hospital has 24 hours designated treatment and assessment areas. The Department covers a range of acute illness and injury from responding to minor injuries and ailments to resuscitation, assessment, stabilisation and treatment of most emergencies before expediting transfer to the secondary hospital where indicated. Nursing Staff are available to cover emergency presentations and medical officers are on site. Laboratory and radiology services available on call 24 hours

The Base Hospital Emergency Department provides 24 hour emergency services and is supported by a range of surgical services, anaesthetics and an Intensive Care Unit (ICU), Paediatrics, Obstetric and Gynaecology, Medical, Laboratory and Radiology services to enable the acute care of all health emergencies.

#### **Accident and Medical Clinics**

There are two Accident and Medical clinics which are both located in New Plymouth. These clinics are the delegated after-hours service providers of the majority of the GP Practices in Taranaki. These two clinics are open 8.30am–8.00pm and 8.30am–8.30pm respectively. A doctor is available outside of these hours, if required. One New Plymouth Accident and Medical Clinic advises that the cost to the patient to call the on-call GP after 8pm is \$200.00 and the other Accident and Medical Clinic advises the cost to call the on-call GP after 8.30pm is \$150.00.

#### **Rural After Hours Primary Care Funding**

Some GP Practices provide medical services to their patient group 24 hours a day and seven days a week and are eligible for Rural After-Hours Primary Health Care Funding. In Taranaki , these GP Practices are: Opunake Medical Centre, Oakura Medical Centre, Eltham Medical Centre and Dr Keith Blayney, Hawera. Practices receiving this funding are required to guarantee the provision of 24/7 primary care services either as a solo practice or within a shared roster.

#### **General Practice**

Some GP Practices have week day after hours services available for their enrolled patients.

This profile only analyses Emergency Department attendances as information on accidental emergency medical clinics and rural after-hours attendance are not routinely available.



## 8.2 Emergency Department Attendances

For 2009–10, there were 44,538 attendances identified from Base ED (29,291) and Hawera Hospital ED (15,247). This includes the total of admitted and non-admitted attendances and those classified as Casualty, ED Presentation, reviews, and return visits. Taranaki residents (domiciled) accounted for 42,624 of 44,538 (96% ) of attendances.

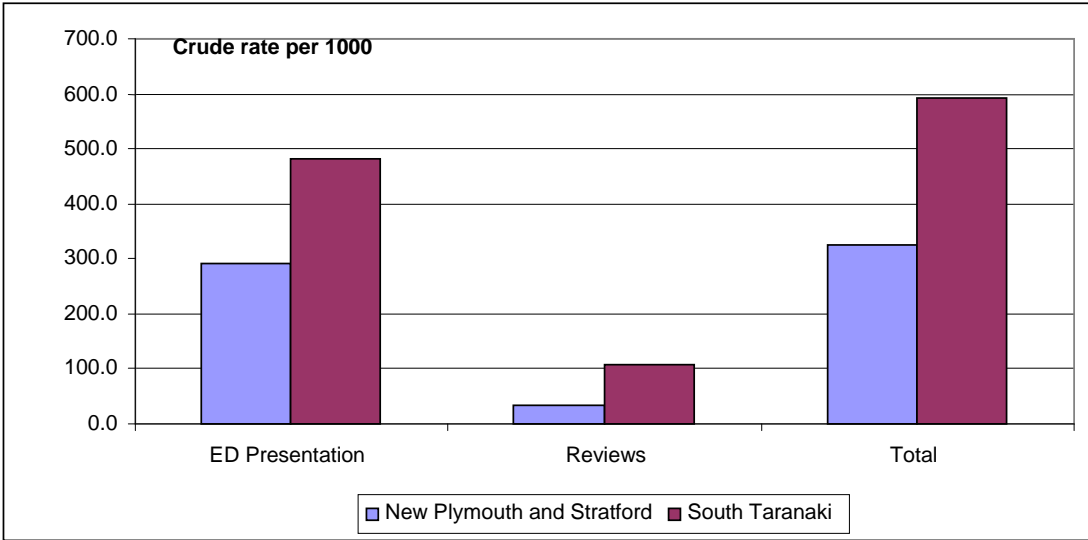
Based on all attendances and the 2010 population estimate for Taranaki, the crude attendance rate to Emergency Departments from South Taranaki residents was 591 per 1,000 compared to 324 for Stratford and New Plymouth residents combined.

## 8.3 Emergency Department Admission Type

The most common admission types for 2009-10 are C (Casualty) at 67% and ED presentation (19%). The proportions of C and ED cases are very different between Base Hospital and Hawera EDs. This is an artefact of the way in which attendances are coded in terms of the classification of patients. For this reason, attendance type C and ED have been combined for the analysis and referred to generically as “ED Attendances”. Return and Review visits have been excluded from the analysis unless otherwise stated.

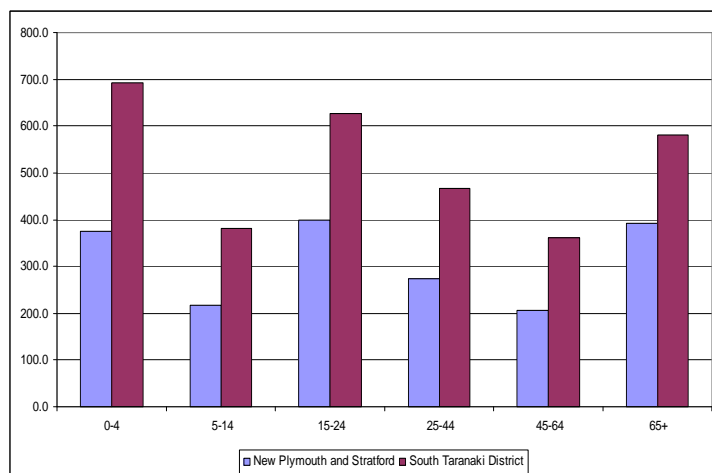
Crude attendance rates for South Taranaki at Emergency Departments are higher for both ED presentations and Reviews than for the population living in New Plymouth and Stratford Districts (Graph 8.1).

**GRAPH 8.1: All Attendance Types – Crude Rates per 1,000 People – Taranaki Residents Hawera and Base Hospital EDs, 2009 – 10**



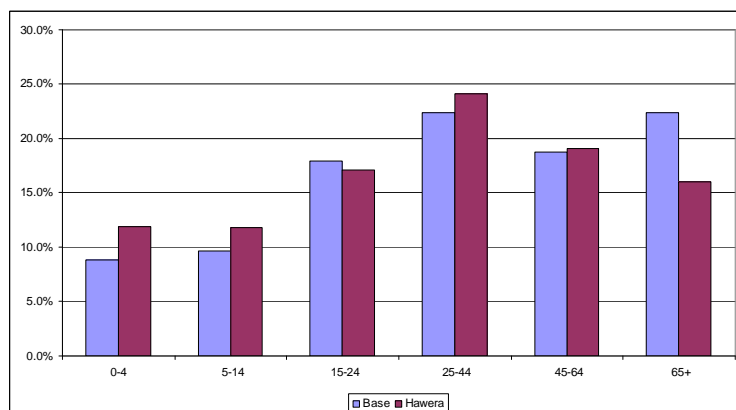
## 8.4 Age Specific Attendance Rates

**GRAPH 8.2: ED Attendances – Crude Rates per 1,000 People – Taranaki Residents Hawera and Base Hospital EDs, 2009–10**



Age specific attendance rates for South Taranaki residents are higher than Stratford and New Plymouth residents in all age groups. The age specific attendance rate for South Taranaki children aged 0–4 years was 693 per 1000 compared to 373 for New Plymouth and Stratford Combined (Graph 8.2).

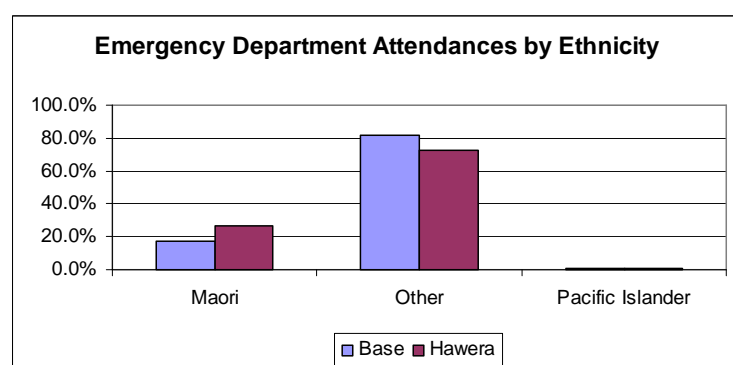
**GRAPH 8.3: ED Attendances Proportions by ED Site – Crude Rates Per 1,000 People – Taranaki Residents Hawera and Base Hospital EDs, 2009–10**



In general, attendees at Hawera ED were younger than at Base ED. Some 23.7% of attendees at Hawera were aged 0–14 years compared to 18.5% at Base ED.

## 8.5 Ethnicity

**GRAPH 8.4: Ethnicity for All Taranaki Resident Attendees – Hawera and Base Hospital EDs 2009–10**



Māori represent 26% of all attendances for South Taranaki residents compared to 16% for New Plymouth and Stratford (Graph 8.4).

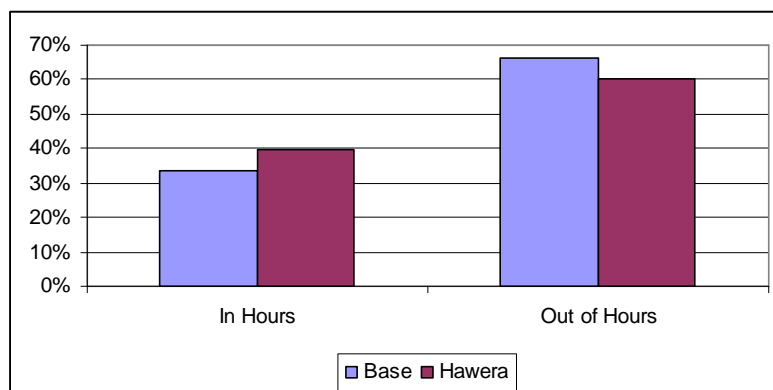
## 8.6 Time and Day of Attendance

Emergency Department attendances have been classified into two groups to indicate 'in hours' and 'out of hours' attendance using the time and day of attendance (Table 7.6).

TABLE 7.6: Summary of Key Data Sources

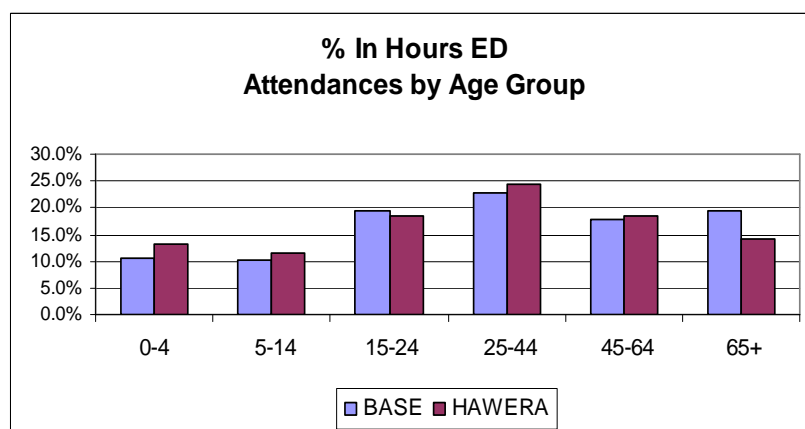
	Time	Day
In Hours	8am – 5pm	Mon – Friday
Out of Hours	5pm – 8am Any time	Mon- Friday Sat – Sun

GRAPH 8.5: Time of Attendance for Taranaki Residents – Hawera and Base EDs, 2009–10



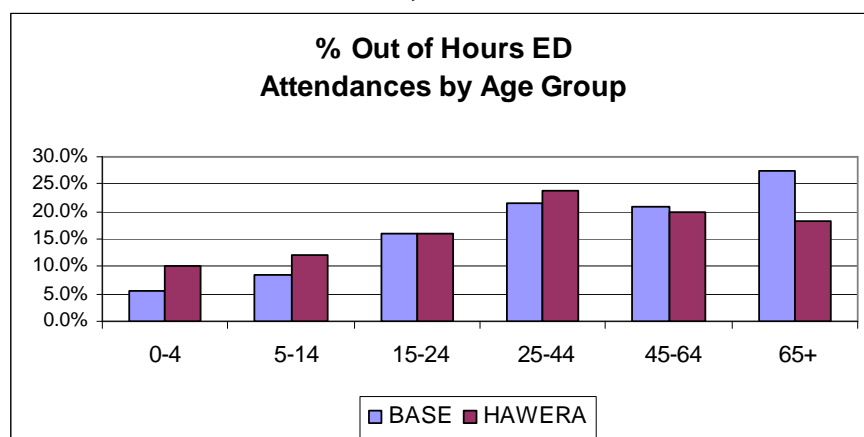
Slightly over one third of attendances at Base ED were from 0800 to 1700 hours, compared to 40% of those at Hawera ED (Graph 8.5).

GRAPH 8.6: Taranaki Resident Hawera and Base Hospital ED Attendances IN HOURS, 2009–10



There appears to be no difference in the proportions of attendances by age group either in or out of hours (Graph 8.6). Except a greater proportion of under 14 years at Hawera both in and out of hours and a higher proportion of 65years + at Base ED (Graph 8.7).

**GRAPH 8.7: Taranaki Resident Hawera and Base Hospital ED Attendances OUT OF HOURS, 2009–10**



### 8.7 Triage Code – Acuity

Triage is an essential function in EDs, where many patients may present simultaneously. ‘Urgency’ refers to the need for time-critical intervention – it is not synonymous with severity. For patients triaged to lower acuity categories, it may be safe to wait longer for assessment and treatment but they may still require hospital admission.

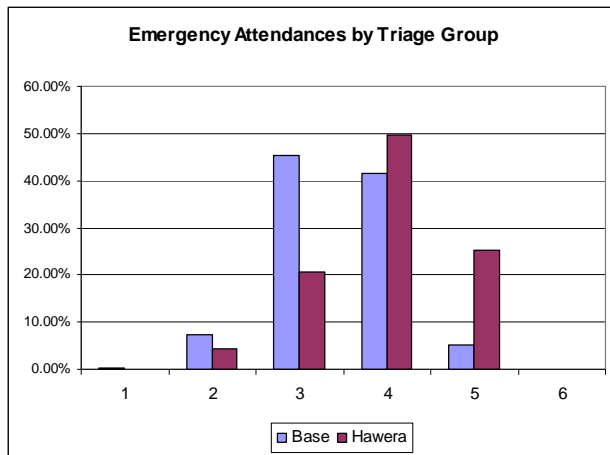
The aim of triage is to ensure that patients are treated in the order of clinical urgency, utilising the most appropriate staffing and facility resources available. In New Zealand, the Australasian Triage Scale is used, and staff undergo specific training to apply this tool (Table 8.1).

The highest proportion of attendances at Base ED were in triage categories 3 and 4. The highest proportion of attendances at Hawera ED were in categories 4 and 5. Crude ED presentation rates for South Taranaki residents were higher in all triage categories. This is most notable in categories 4 and 5 (Graph 8.8). This was the case for both in-hours (Graph 8.9) and out-of-hours (Graph 8.10) presentations.

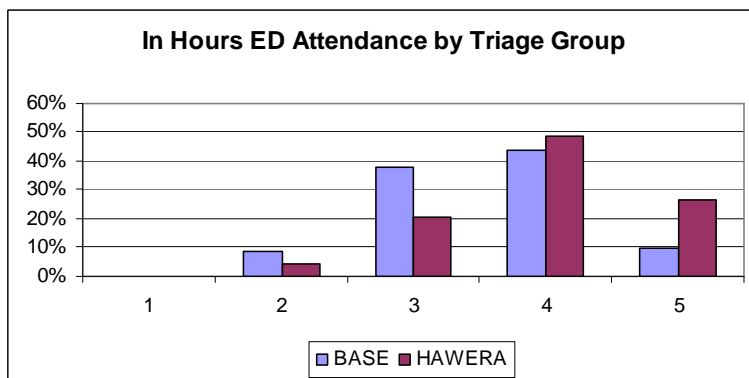
**TABLE 8.1: Australasian Triage Scale**

Category	ACUITY (Max waiting time)	Indicative Description
ATS 1	Immediate	Immediate simultaneous assessment and treatment. Conditions that are threats to life (or imminent risk of deterioration) and require immediate aggressive intervention
ATS 2	10 minutes	Assessment and treatment within 10 minutes (often simultaneously) Imminently Life–Threatening. Important time-critical treatment or very severe pain
ATS 3	30 minutes	Potentially Life-Threatening. Situational urgency
ATS 4	60 minutes	Potentially Life-Threatening. Situational urgency. Potentially serious or significantly complex to require work up
ATS 5	120 minutes	Less Urgent. The patients condition is chronic or minor enough that symptoms or clinical outcome will not be significantly affected if assessment and treatment are delayed up to two hours. Results review, medical certificates and prescriptions

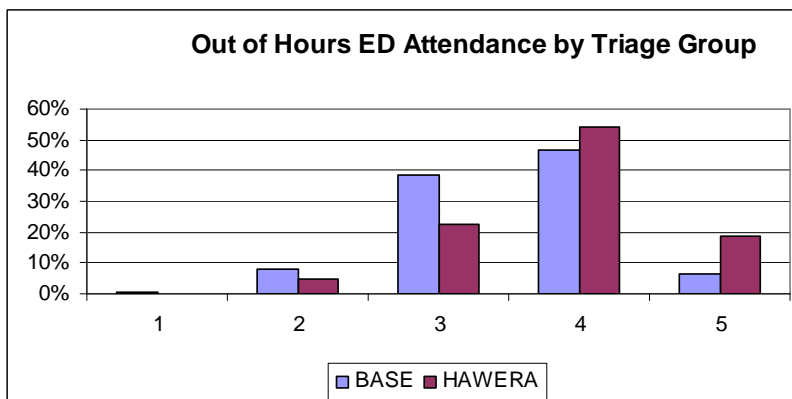
**GRAPH 8.8: Triage Category for Taranaki Residents – Crude Rate per 1,000 People – Hawera and Base Hospital ED Attendances, 2009–10**



**GRAPH 8.9: Triage Category for Taranaki Residents IN HOURS – Proportion in Each Category by ED Site – All Attendance Types, 2009–10**



**GRAPH 8.10: Triage Category for Taranaki Residents OUT OF HOURS – Proportion in Each Category by ED Site – All Attendance Types, 2009–10**



## 8.8 Discharge

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A higher proportion (76%) of South Taranaki residents were discharged from ED compared to 68% of patients domiciled in New Plymouth or Stratford. A lower proportion (16%) of South Taranaki residents were admitted to a ward (anywhere not just at Hawera) compared to 22% of patients domiciled in New Plymouth or Stratford. Some 1.3% of South Taranaki residents were discharged to ICU compared to 0.6% domiciled in New Plymouth or Stratford.

### **Section 8: Summary Emergency Department Attendances**

- There are two hospital based EDs in Taranaki, at Hawera Hospital and Taranaki Base Hospital in New Plymouth.
- For the 2009–10 fiscal year there were 15,247 presentations at Hawera ED compared to 29,291 at Base ED.
- The crude attendance rate of South Taranaki people was 591 per 1,000 population per annum compared to 324 per 1,000 for those people residing in Stratford and New Plymouth Districts.
- In general, attendees at Hawera ED were younger than at Base ED with a very high rate of attendance at Hawera ED for children aged 0–4 years (693 per 1,000).
- Māori represented 26% of attendees at Hawera ED compared to 16% of those residing in Stratford or New Plymouth Districts attending Base ED.
- A higher proportion of attendances were in-hours at Hawera (40%) than at Base (33%).
- In 2009–10 a higher proportion of South Taranaki residents attended ED for acuity category conditions (Cat 4&5) than Stratford and New Plymouth residents.

# Section 9: Hospital Outpatient Activity

## 9.1 Outpatient Attendance Volumes

In 2009–10 Taranaki residents attended 28,800 medical and 30,837 surgical outpatients appointments.

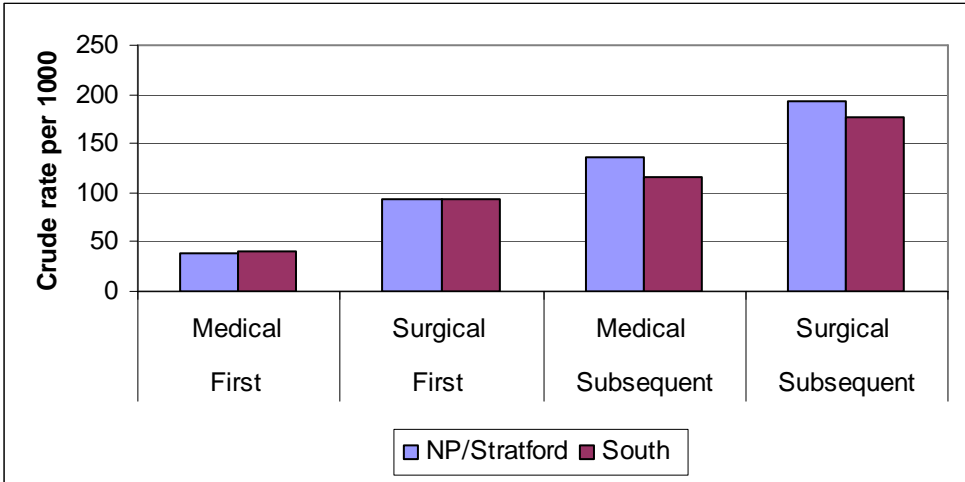
## 9.2 Medical Specialities – Outpatient Attendances

For medical specialities the crude access rate per 1,000 in 2009–10 was 283.3 for New Plymouth and Stratford residents compared to 203.4 per 1,000 for South Taranaki. These figures include renal dialysis and chemotherapy.

For first attendances to medical specialities, crude rates are 37.8 per 1,000 for New Plymouth and Stratford residents compared to 40.4 per 1,000 for South Taranaki. For subsequent attendances, the rates are 135.6 per 1,000 for New Plymouth and Stratford compared to 115 per 1,000 for South Taranaki (Graph 9.1).

Renal, Oncology, Paediatrics, and General Medicine were the medical specialities with the highest volumes.

**GRAPH 9.1: Outpatient Attendances – Crude Rates per 1,000 People**



## 9.3 Surgical Specialities – Outpatient Attendances

For surgical specialities the crude access rate per 1,000 in 2009–10 was 286 for New Plymouth and Stratford residents compared to 268 per 1,000 for South Taranaki. For First attendances, 94 per 1,000 for New Plymouth and Stratford residents compared to 92 per

1,000 for South Taranaki and for subsequent visits, 193 per 1,000 for New Plymouth and Stratford residents compared to 176 per 1,000 for South Taranaki.

Orthopaedics, General Medicine and Ophthalmology and the specialists with the highest volumes specialities

**Section 9: Summary Outpatient Attendances**

- Crude rates per 1,000 for first attendance at Surgical and Medical outpatient clinics were similar between New Plymouth and Stratford residents and South Taranaki residents.
- Crude rates per 1,000 for sequent attendance at Surgical and Medical outpatient attendances are lower for South Taranaki residents than for those of Plymouth and Stratford.



# Section 10: Hospital Inpatient Activity (Discharges)

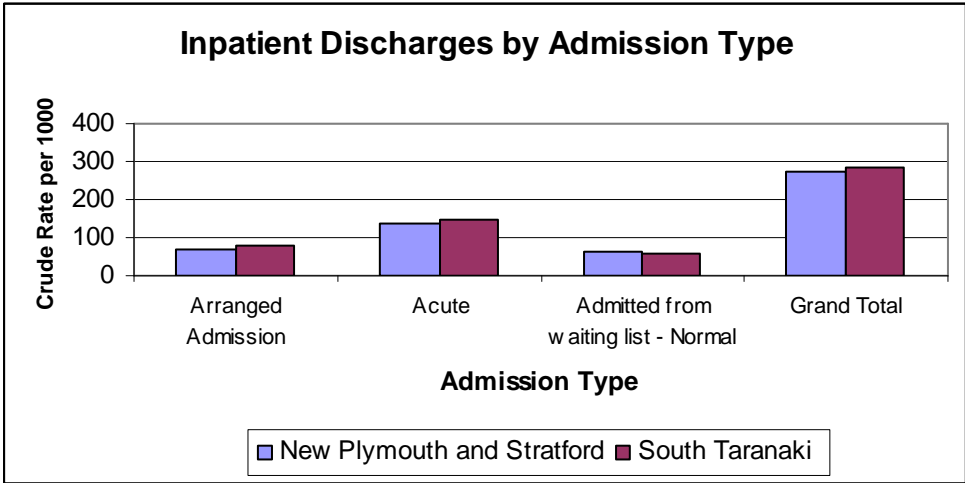
## 10.1 Number of Discharges in 2009–10

The number of discharges in the 2009–10 year has been used as the basis for analysis. In 2009–10 there were 30,180 discharges for Taranaki residents from all hospitals in New Zealand.

A total of 23,366 (78%) discharges were from Taranaki Base Hospital, 2634 (9%) were from Hawera and 4180 (14%) from other hospitals. There were 7690 discharges for patients domiciled in South Taranaki in 2009–10.

## 10.2 Crude Discharge Rates

GRAPH 10.1: Admission Type



Admissions are classified into three main groups:

- Acute Admission: *Largely urgent and seen on same day*
- Arranged Admission: *Not acute but seen within seven days*
- Admitted from Waiting List: *Elective*

Crude access rates for arranged admissions were 70 per 1,000 for New Plymouth and Stratford and 81.07 for South Taranaki (Graph 10.1). Acute Admissions were 138 per 1,000 for New Plymouth and Stratford and 148 for South Taranaki. For those admitted from waiting lists – rates were 64 per 1,000 for New Plymouth and Stratford residents and 57 for South Taranaki.

### 10.3 Place of Discharge

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For all admission types, 89% of discharges for South Taranaki residents were from the following three facilities: Taranaki Base, Hawera, and Whanganui. For acute admissions 42% of all discharges for South Taranaki residents were from Hawera and 45% from Base. South Taranaki residents made up 95% of Taranaki discharges from Hawera and 92% of Taranaki discharges from Whanganui Hospitals.

Some 75% of discharges who had been admitted from the waiting list for South Taranaki residents were to Base Hospital compared to 88% of New Plymouth and Stratford residents. Some 41% of arranged admissions for South Taranaki residents were to Base Hospital compared to 70% for New Plymouth and Stratford residents.

### 10.4 Speciality

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The most common specialties accessed were: emergency medicine, general medicine, general surgery, orthopaedic and maternity and paediatrics (Tables 10.1, 10.2, 10.3).

**TABLE 10.1: All Admission Types 2009–10 by Most Common Specialities**

Health Specialty Full Description	Crude Rate Per 1,000 Population	
	New Plymouth/ Stratford	South Taranaki
Emergency Medicine	40.3	53.6
General Medicine	43.1	49.8
General Surgery	40.3	34.6
Orthopaedic Surgery	21.1	19.0
Maternity Services – mother [with community LMC]	12.1	18.1
Paediatric Medicine	19.1	18.0
Maternity Services – well newborn [with community LMC]	10.8	17.1
Gynaecology	10.5	8.7
Gastroenterological Surgery	11.5	7.6
Maternity Services – mother [no community LMC]	6.9	7.4
Other specialities	57.4	52.1
	273.1	286.0

**TABLE 10.2: Acute Admission 2009–10 by Most Common Specialities**

Health Specialty Full Description	Crude Rate Per 1,000 Population	
	New Plymouth and Stratford	South Taranaki
Emergency Medicine	40.2	53.6
General Medicine	37.7	40.2
Paediatric Medicine	17.6	16.7
General Surgery	15.6	14.0
Orthopaedic Surgery	12.4	10.1

**TABLE 10.3: Admission from Waiting List 2009–10 by Most Common Specialities**

Health Specialty Full Description	Crude Rate Per 1,000 Population	
	New Plymouth and Stratford	South Taranaki
General Surgery	14.8	12.9
Orthopaedic Surgery	7.7	7.6
Gastroenterological Surgery	11.3	7.3
Otorhinolaryngology (ENT)	6.0	5.3
Ophthalmology	5.7	4.7

## 10.5 DRG (Diagnosis—Related Group)

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The ten most common reasons for acute admission in 2009–10 for South Taranaki Residents based on DRG were:

- Other Factors Influencing Health Status
- Chest Pain
- Oesophagitis Gastroent & Misc Digestive System Disorders Age>9 W/O Cat/Sev CC
- Abdominal Pain or Mesenteric Adenitis W/O CC
- Chronic Obstructive Airways Disease W/O Catastrophic or Severe CC
- Bronchitis and Asthma Age <50 W/O CC
- Non-Major Arrhythmia and Conduction Disorders W/O Catastrophic or Severe CC
- Cellulitis (Age >59 W/O Catastrophic or Severe CC) or Age <60
- Respiratory Infections/Inflammations W/O CC
- Syncope and Collapse W/O Catastrophic or Severe CC

The ten most common reasons for admission from the waiting list in 2009–10 for South Taranaki residents based on DRG were:

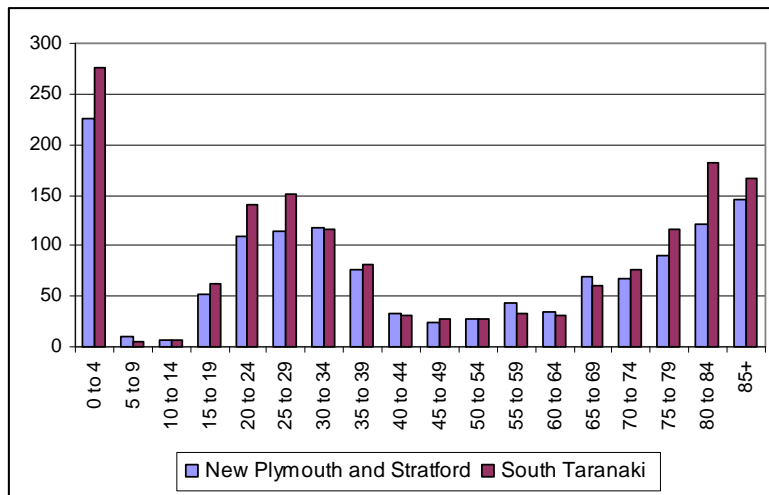
- Other Skin Subcutaneous Tissue and Breast Procedures
- Dental Extractions and Restorations
- Lens Procedures Same day
- Other Gastroscopy for Non—Major Digestive Disease Same day

- Other Colonoscopy Same day
- Circulatory Disorders W/O AMI W Invasive Cardiac Inves Proc W/O Complex DX/Pr
- Tonsillectomy and/or Adenoidectomy
- Red Blood Cell Disorders W/O Catastrophic or Severe CC
- Inguinal and Femoral Hernia Procedures Age>0
- Hip Replacement W/O Catastrophic or Severe CC

## 10.6 Age Specific Admission Rates

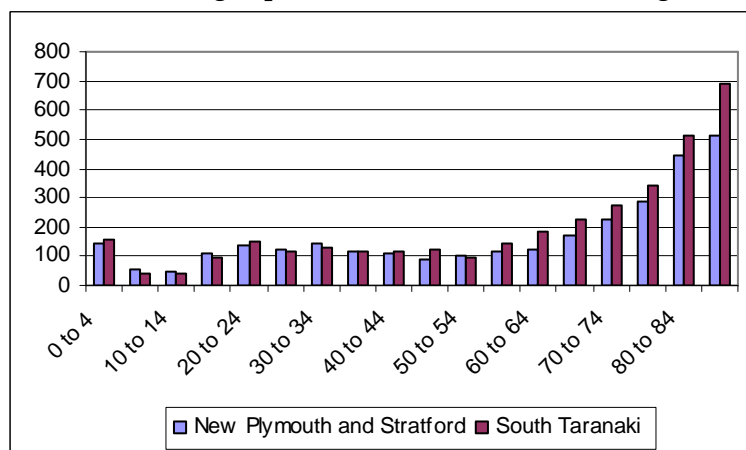
Age-specific acute admission rates followed the same pattern among South Taranaki and New Plymouth and Stratford residents however, rates were slightly higher for Taranaki residents at the extremes of age (Graph 10.2).

**GRAPH 10.2: Age Specific Admission Rates – Acute Admissions 2009–10**

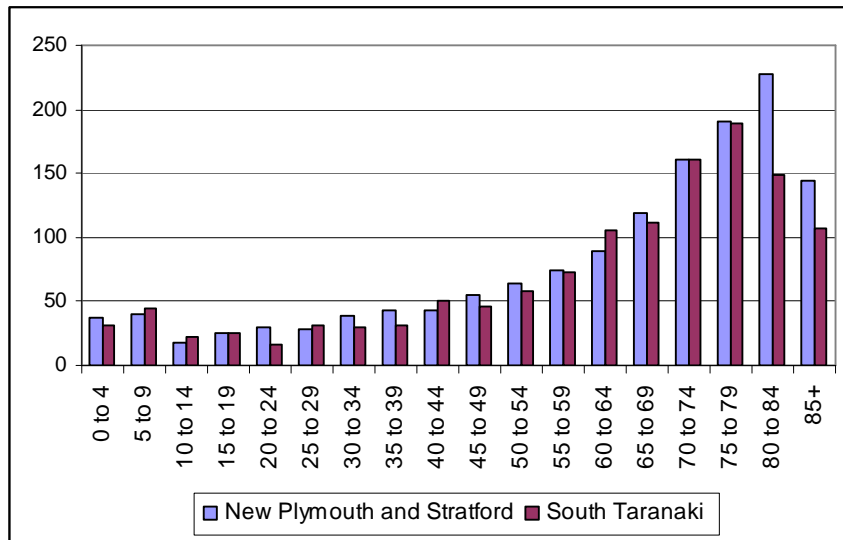


Age-specific arrange admission rates followed the same pattern among South Taranaki and New Plymouth and Stratford residents however, rates were slightly higher for Taranaki residents in older people (Graph 10.3).

**GRAPH: 10.3: Age Specific Admission Rates – Arranged Admissions 2009–10**



**GRAPH 10.4: Age Specific Admission Rates – Admissions from Waiting List 2009–10**



Age-specific waiting list admission rates were overall, slightly higher for New Plymouth and Stratford residents (Graph 10.4).

### Section 10: Inpatient Activity

- In 2009–10 there were 7,690 hospital discharges recorded for patients residing in South Taranaki out of a total of 30,180 hospital discharges for all Taranaki residents.
- Crude access rates were higher for South Taranaki residents. For arranged admission 70 per 1,000 for New Plymouth and Stratford and 81 per 1,000 for South Taranaki. For acute admissions, 138 per 1,000 for New Plymouth and Stratford and 148 for South Taranaki.
- For those admitted from waiting lists – rates were 64 per 1,000 for New Plymouth and Stratford and lower at 57 per 1,000 for South Taranaki.
- During 2009–10, 42% of acute hospital admissions for South Taranaki residents were to Hawera Hospital and 45% were to Base Hospital. For admission of Taranaki residents to Whanganui Hospital in 2009–10, 95% came from the South Taranaki District.
- The most common conditions relating to hospital admission involved the following specialties: emergency medicine, general medicine, general surgery, orthopaedics and maternity.

## **SECTION 11:            Recommendations for Further Data Development**

This profile has been collated using routinely available data within a short time frame. The profile is limited in a number of areas and in these would be areas for further development. Specifically the profile lacks information on:

- Mortality, Disease Prevalence, Risk and Protective Factors at a South Taranaki level.
- Mental Health Needs and Mental Health Service Uses including alcohol and drug services.
- Maternity
- Community Services provided by NGOs and other providers Primary Care.
- Aged Care and Disability Services.
- Allied Health Services, for example physiotherapy, OT, audiology and dental services.
- Further analysis of hospital inpatient activity including length of stay, specific procedures, and ambulatory sensitive admissions at a South Taranaki level.