

## 3 DEMOGRAPHICS

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### 3.1 Introduction

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This chapter will examine the population of the Waikato DHB. The demographic mix of the population will be presented in a number of different ways. Age, gender, ethnicity, deprivation levels, and geography will all be used to study the diversity of the population. The changing nature of the population will also be highlighted so that we may analyse trends and give insight into how the population will be structured in the future.

Where possible the latest population estimates and projections will be used. Additionally, population count information obtained from the 2006 Census will be presented. It is important to note the difference between each of these population measures as each one will give slightly different numbers and can be broken down into further demographic descriptors in different views depending on how each dataset is structured.

- **Population Counts** – are a measure of the number of people who filled out a Census form on the night of the Census. It is a straight count and no adjustment is made for the estimated undercount.
- **Population Estimates** – are based on the Census counts and then adjusted for the estimate of people that did not fill in a Census form. A few months after each five yearly Census, Statistics NZ conducts a Post Enumeration Survey that estimates the number of people missing from the Census. The results of this survey (usually 2-3% undercount) are used to increase the Census Counts to give a more accurate representation of the actual usually resident population. In the years between each Census year the estimates are created by Statistics NZ using data obtained from the births and deaths register, and from immigration and emigration records.
- **Population Projections** - are created by Statistics NZ based on forecasting the Population Estimates for future years using trends in net immigration, births, and deaths.

At the timing of writing this HNA the Census Counts for the 2006 Census had been released by Statistics NZ. However, the most accurate representation of the Waikato DHB population is the Population Estimates and Projections that were commissioned by the Ministry of Health from Statistics NZ in Sep-07 for use in the Population Based Funding Formula. These estimates are based on the 2006 Census and can be split by age, ethnicity, and gender. Unfortunately they cannot be split by Territorial Authority (geographic region) or deprivation (NZDep01 or NZDep06) so for these measures different releases of Population Estimates from Statistics NZ have been used. For this reason some of the numbers presented in this document may seem not to match and care must be taken to read and understand the source of the data.

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Additionally small numbers are usually rounded to the nearest ten and therefore some tables may not match or sum correctly due to rounding differences.

### **3.2 Geographic Overview**

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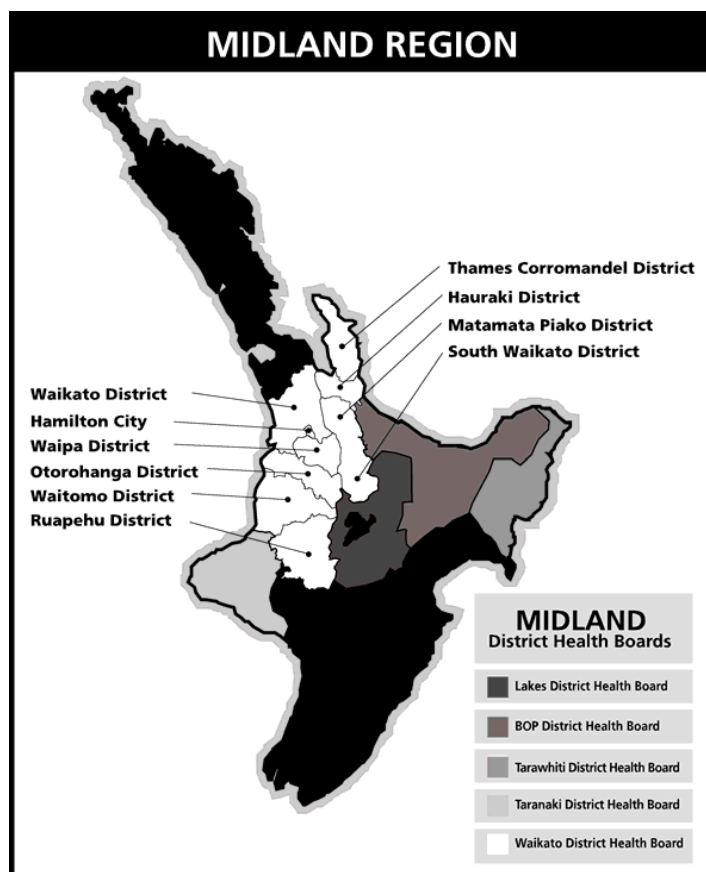
The Waikato DHB area is made up of the following ten distinct areas:

- Thames Coromandel
- Hauraki
- Hamilton City
- Waikato
- Waipa
- Matamata Piako
- South Waikato
- Otorohanga
- Waitomo
- Ruapehu (part)

These areas are within the geographical boundaries for Tainui waka: Ko Mokau ki runga, Ko Tamaki ki raro, Ko Mangatoatoa ki waenganui, Pare Hauraki, Pare Waikato.

The district covers 21,220 km<sup>2</sup>, and comprises 7.9% of New Zealand's land area.

The Waikato DHB area is part of the Midland region that also includes the Taranaki and Lakes DHBs in the south, and the Bay of Plenty and Tairāwhiti DHBs in the east. The Midland area covers 56,738 km<sup>2</sup>, and comprises 21.2% of New Zealand's land area.



### 3.3 Current Population Overview

- With 353,460 people<sup>20</sup>, the Waikato DHB population comprises 8.36% of New Zealand's population based on the latest 2007 estimate;
- The total Midland Region population estimate is 812,265 for 2007, of which Waikato DHB comprises 43.5%;
- 49.1% (173,440) of the total population of the Waikato DHB is male and 50.9% (180,020) is female;

Waikato DHB covers ten Territorial Local Authorities (TLAs) (Council Boundaries) and has the most TLAs of any DHB in New Zealand (Canterbury, in 2<sup>nd</sup> place, has 6 TLAs).

<sup>20</sup> Source: Statistics NZ 30 June 2007 Population Estimates prepared for MoH

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**Table 2: Waikato DHB Population and Density by TLA**

TLA	2006 Population	Area in km <sup>2</sup>	Density per km <sup>2</sup>
Hamilton City	134,400	94	1,430
Hauraki District	17,600	1,188	15
Matamata Piako District	31,200	1,754	18
Otorohanga District	9,300	1,999	5
Ruapehu (Waikato DHB part) District	8,953	4,019	2
South Waikato District	23,200	1,816	13
Thames Coromandel District	26,700	2,206	12
Waikato District	45,400	3,137	14
Waipa District	43,700	1,474	30
Waitomo District	9,700	3,533	3
<b>Waikato DHB</b>	<b>350,153</b>	<b>21,220</b>	<b>17</b>
<b>New Zealand</b>	<b>4,184,000</b>	<b>268,021</b>	<b>16</b>

Source: Statistics NZ 30 June 2006 Subnational Population Estimates

Waikato DHB covers a large rural area as well as having a major metropolitan city. This presents diverse challenges in service delivery and additional barriers to accessing health services for people travelling from remote rural locations. A further breakdown of the Urban/Rural split of the population is shown below based on the 2006 census counts.

**Table 3 Waikato DHB Census Count, Urban and Rural split**

Urban Rural Group	Urban Rural Description	2006 Census Count	% of Total Population
Other	Other (Inland Water, Inlet, and Oceanic)	54	0.02%
Rural	Other Rural	65,865	19.42%
	Rural Centre	7,578	2.23%
<b>Rural Total</b>		<b>73,443</b>	<b>21.65%</b>
Urban	Main Urban Area	184,908	54.51%
	Minor Urban Area	67,275	19.83%
	Secondary Urban Area	13,521	3.99%
<b>Urban Total</b>		<b>265,704</b>	<b>78.33%</b>
<b>Grand Total</b>		<b>339,201</b>	<b>100.00%</b>

Source: Statistics NZ 2006 Census Counts, Statistics NZ definitions of Rural/Urban areas

## 3.4 Population Projections

### Waikato DHB Population Projections and Percentage of Total NZ

## Demographics

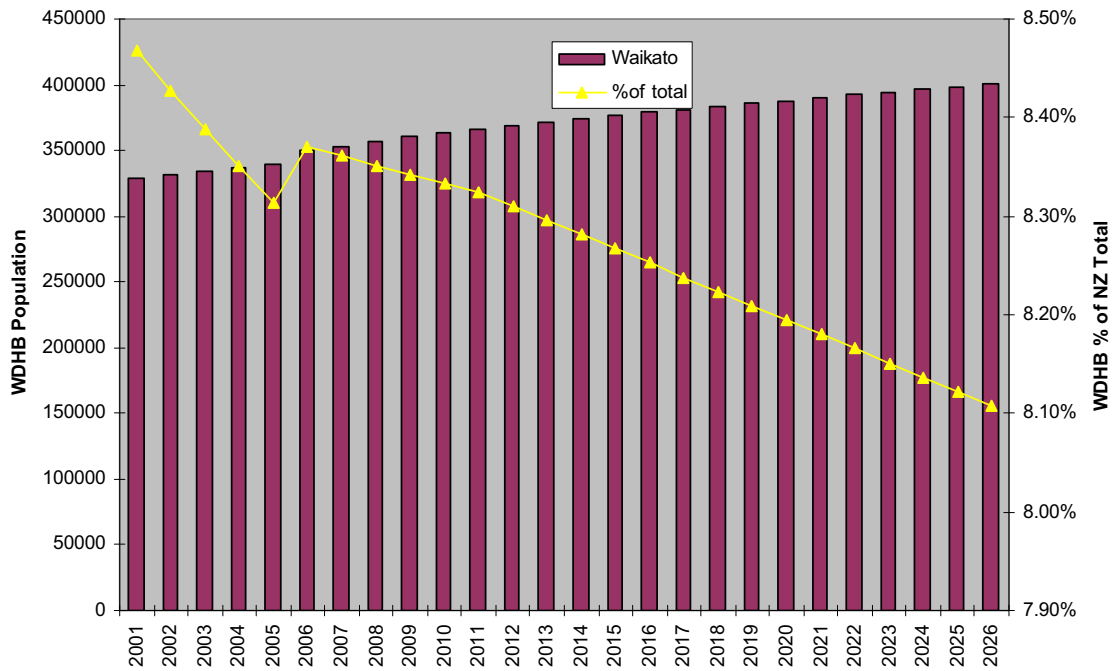
**Table 4 Waikato DHB Population projections and % of New Zealand**

Year	Waikato DHB	New Zealand	DHB % of NZ
2001	328,560	3,879,940	8.47%
2002	331,378	3,931,829	8.43%
2003	334,196	3,983,718	8.39%
2004	337,014	4,035,607	8.35%
2005	339,832	4,087,496	8.31%
2006	350,250	4,184,095	8.37%
2007	353,460	4,227,245	8.36%
2008	356,870	4,273,770	8.35%
2009	360,270	4,318,765	8.34%
2010	363,400	4,361,270	8.33%
2011	366,390	4,401,460	8.32%
2012	368,892	4,439,375	8.31%
2013	371,394	4,477,290	8.30%
2014	373,896	4,515,205	8.28%
2015	376,398	4,553,120	8.27%
2016	378,900	4,591,035	8.25%
2017	381,184	4,627,107	8.24%
2018	383,468	4,663,179	8.22%
2019	385,752	4,699,251	8.21%
2020	388,036	4,735,323	8.19%
2021	390,320	4,771,395	8.18%
2022	392,354	4,805,086	8.17%
2023	394,388	4,838,777	8.15%
2024	396,422	4,872,468	8.14%
2025	398,456	4,906,159	8.12%
2026	400,490	4,939,850	8.11%

Source: Statistics NZ 30 June Population Estimates prepared for MoH 2007 (from '06 onwards)

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**Graph 1: Waikato DHB and New Zealand total population projections**



The table and graph above show that the population of the Waikato DHB is growing. However, New Zealand's total population is also growing. In fact the total New Zealand population is growing faster than the Waikato DHB and therefore the percentage of the New Zealand population that resides in the Waikato DHB area is projected to decline. The rebasing of the projections on the 2006 Census has slowed this rate of decline.

In the respective sections, these population projections are examined in detail, first by gender, and then by age and ethnicity.

### Population Projections by Gender

## Demographics

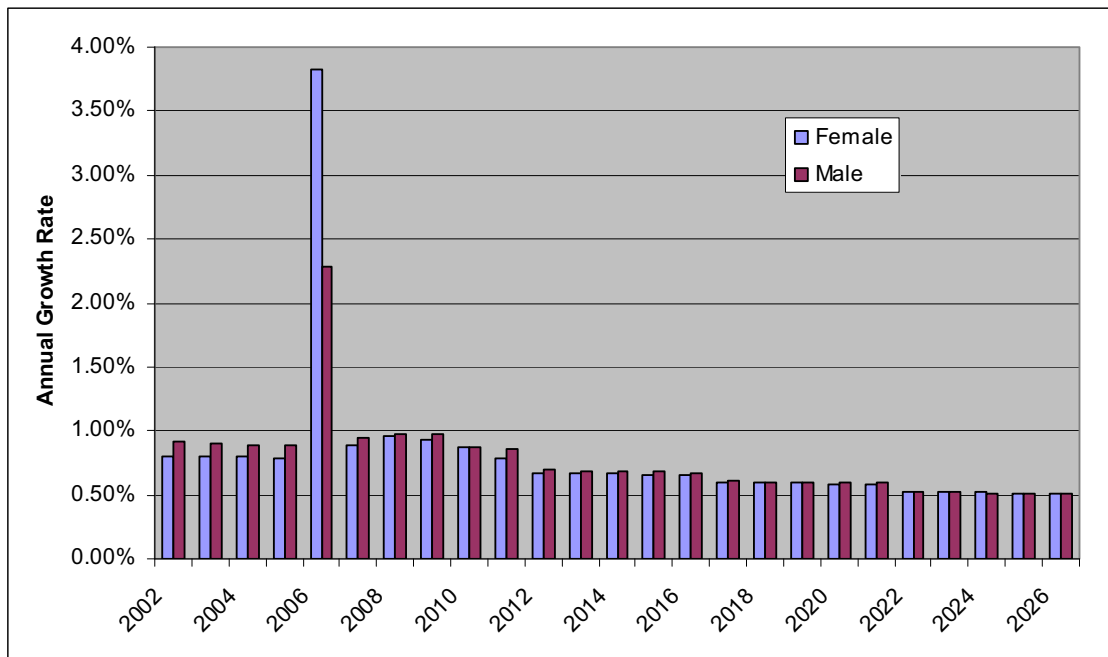
**Table 5: Waikato DHB Population Projections by Gender with annual growth rates**

Year	Female	Male	Female Annual Growth Rate	Male Annual Growth Rate
2001	166,490	162,070		
2002	167,834	163,544	0.81%	0.91%
2003	169,178	165,018	0.80%	0.90%
2004	170,522	166,492	0.79%	0.89%
2005	171,866	167,966	0.79%	0.89%
2006	178,440	171,810	3.83%	2.29%
2007	180,020	173,440	0.89%	0.95%
2008	181,740	175,130	0.96%	0.97%
2009	183,430	176,840	0.93%	0.98%
2010	185,020	178,380	0.87%	0.87%
2011	186,470	179,920	0.78%	0.86%
2012	187,728	181,164	0.67%	0.69%
2013	188,986	182,408	0.67%	0.69%
2014	190,244	183,652	0.67%	0.68%
2015	191,502	184,896	0.66%	0.68%
2016	192,760	186,140	0.66%	0.67%
2017	193,914	187,270	0.60%	0.61%
2018	195,068	188,400	0.60%	0.60%
2019	196,222	189,530	0.59%	0.60%
2020	197,376	190,660	0.59%	0.60%
2021	198,530	191,790	0.58%	0.59%
2022	199,568	192,786	0.52%	0.52%
2023	200,606	193,782	0.52%	0.52%
2024	201,644	194,778	0.52%	0.51%
2025	202,682	195,774	0.51%	0.51%
2026	203,720	196,770	0.51%	0.51%

Source: Statistics NZ 30 June Population Estimates prepared for MoH 2007

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Graph 2: Waikato DHB Annual Population Growth rates by gender



The graph and table above show that the projected population growth for the Waikato DHB area is slowing and the faster growth rate for males over the past few years is set to be more in line with female growth rates. However, there will continue to be four or five thousand more females than males in the Waikato DHB population. Note the large spike in 2006 growth rates, this is due to the rebasing and correction of the projections from the 2006 Census.

### 3.5 Ethnicity Overview

Ethnicity is recognised as an important measure of differences between groups of people. Statistics New Zealand is bound by the Statistics Act 1975 to ask a question on ethnic origin in the Census of Population and Dwellings. The definition of ethnicity used by Statistics New Zealand is that ethnicity is self-perceived and people can belong to more than one ethnic group.

Responses to ethnic group questions are influenced by people's understanding of the term ethnicity, and by factors such as their ancestry, nationality, culture and religion. People's reported ethnic group(s) can change over their lifetime, either because of a change in perception or change in understanding of the mode of collection, or a change in the forms used. The context in which the ethnicity question is asked and questionnaire response categories influence people's responses. With these issues in mind, ethnicity is not considered to be as robust a variable as some others.

There are problems with some terms used for categories within the classification. There is a lack of agreement of what term best describes the largest ethnic group in New Zealand. For example, some people prefer 'Pākehā' and others prefer 'New Zealand European'. Across all ethnic groups,

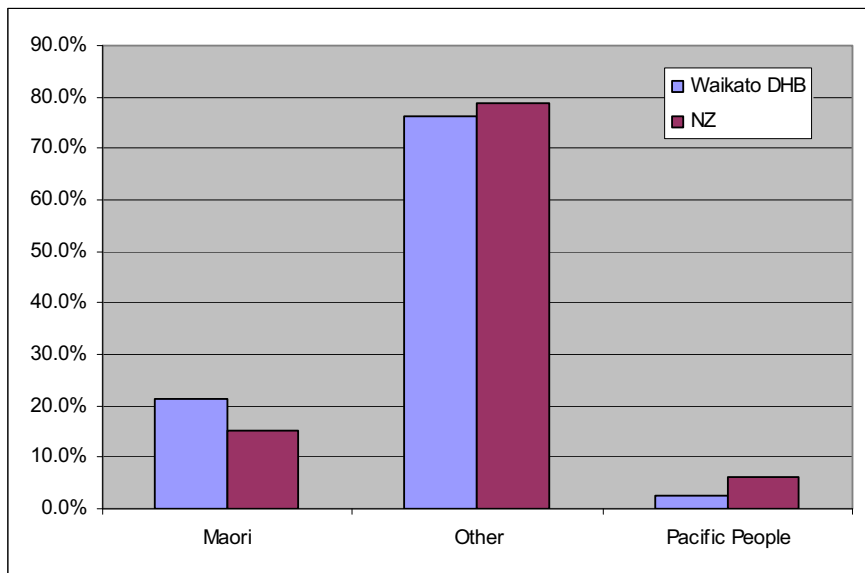
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an increasing number of people answering an ethnicity question refer to themselves as 'New Zealanders' or 'Kiwis'. 'New Zealanders' was given an official selection option in the 2006 Census rather than being grouped into 'Others'. This separation combined with widespread media coverage of the issue led the responses for 'New Zealander' to rise from 2.4% in 2001 to 11.1% in 2006 of the total NZ population. More on this issue and an analysis of 'New Zealander' responses can be found in the document *'Profile of New Zealander Responses, Ethnicity Question, 2006 Census'* available from Statistics NZ

Where "Other" is used in this HNA it will represent all non Māori and non Pacific people, unless stated otherwise.

### Waikato DHB and New Zealand Ethnicity Percentages for 2007

Graph 3 Waikato DHB and New Zealand Ethnicity Percentages for 2007



Source: Statistics NZ 30 June Population Estimates prepared for MoH 2007

#### 3.5.1 Māori Overview

- Approximately 21% of the Waikato DHB population are Māori, compared to a national average of 15%;
- With 75,080 people who identify as Māori, the Waikato DHB Māori population comprises 12% of the total New Zealand Māori population based on the latest 2007 projections; and
- Of the 75,080 total, 49.1% of the Māori population is male and 50.9% is female, the same as the total DHB population

#### 3.5.2 Pacific Overview

- Approximately 2% of the Waikato DHB population are Pacific people, compared to a national average of 6%;
- With 8,330 people that identify as Pacific people, the Waikato DHB Pacific population comprises 3.2% of the national Pacific people's population, based on the latest 2007 projections; and

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- Of the 8,330 total, 50.8% of the Pacific people population is male and 49.2% is female, almost the reverse of the total DHB population.

### 3.5.3 Other Overview

- Approximately 76% of the Waikato DHB population are Other ethnicities, compared to a national average of 79%;
- With 270,050 people that identify as Other ethnicities, the Waikato DHB Other population comprises 8% of national Other ethnicities population, based on the latest 2007 projections; and
- Of the 260,910 total, 49.0% of the Other ethnicities population is male and 51.0% is female.

### Population Projections by Ethnicity

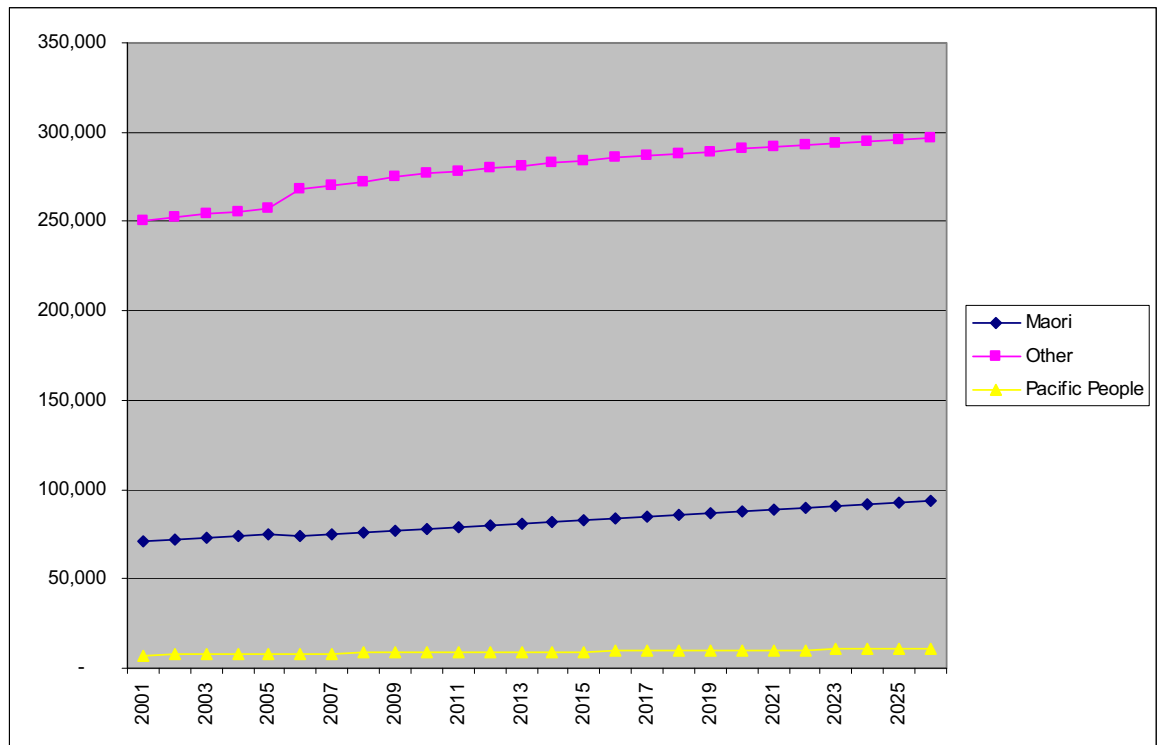
Table 6 Waikato DHB Population projections by ethnicity

Year	Maori	Other	Pacific
2001	70,670	250,580	7,310
2002	71,632	252,326	7,420
2003	72,594	254,072	7,530
2004	73,556	255,818	7,640
2005	74,518	257,564	7,750
2006	74,030	268,000	8,220
2007	75,080	270,050	8,330
2008	76,100	272,290	8,480
2009	77,090	274,600	8,580
2010	78,060	276,610	8,730
2011	79,070	278,460	8,860
2012	80,018	279,888	8,986
2013	80,966	281,316	9,112
2014	81,914	282,744	9,238
2015	82,862	284,172	9,364
2016	83,810	285,600	9,490
2017	84,748	286,822	9,614
2018	85,686	288,044	9,738
2019	86,624	289,266	9,862
2020	87,562	290,488	9,986
2021	88,500	291,710	10,110
2022	89,442	292,674	10,238
2023	90,384	293,638	10,366
2024	91,326	294,602	10,494
2025	92,268	295,566	10,622
2026	93,210	296,530	10,750

Source: Statistics NZ 30 June Population Estimates prepared for MoH 2007

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Graph 4: Waikato DHB Population projections by ethnicity



The Maori population is growing at a slightly faster rate than Pacific and Others and by 2026 Maori are projected to equate to 23.3% of the Waikato DHB population up from the current 21.2%.

### 3.6 Age Structure of the Population

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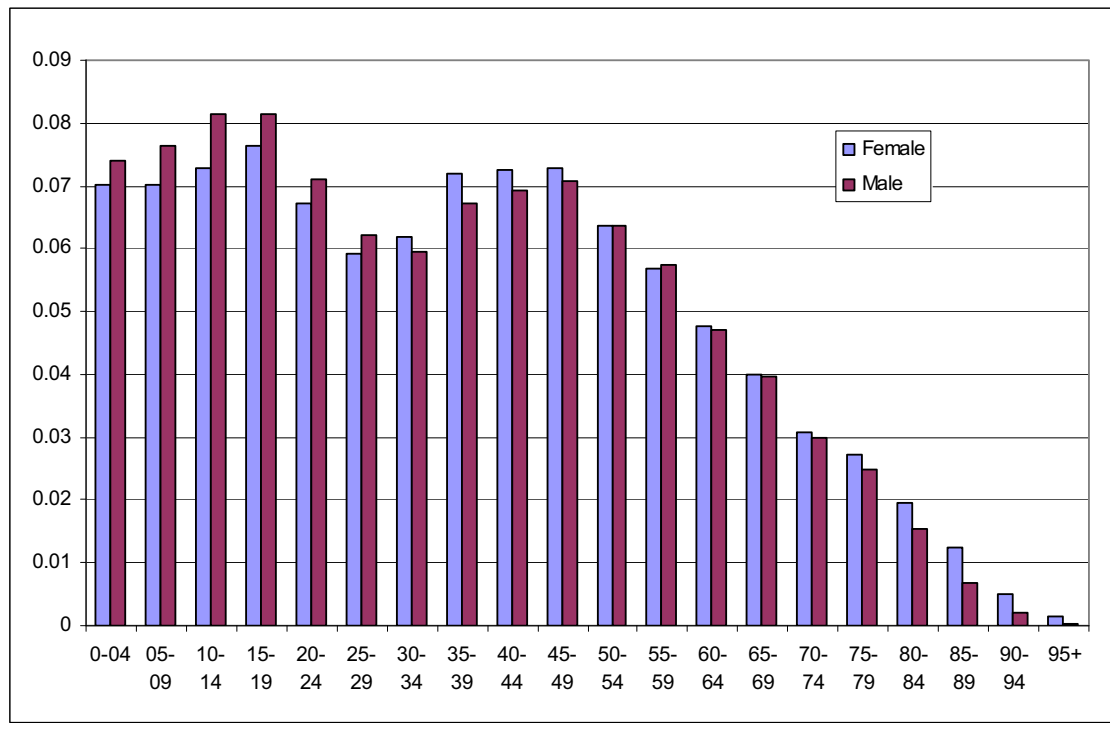
Table 7: Waikato DHB Population by Age and Gender 2007

Age Group	Female	Male	Total
01-04	12,630	12,840	25,470
05-09	12,630	13,230	25,860
10-14	13,110	14,130	27,240
15-19	13,760	14,120	27,880
20-24	12,080	12,300	24,380
25-29	10,660	10,790	21,450
30-34	11,150	10,310	21,460
35-39	12,970	11,660	24,630
40-44	13,050	12,040	25,090
45-49	13,090	12,250	25,340
50-54	11,460	11,020	22,480
55-59	10,250	9,940	20,190
60-64	8,570	8,160	16,730
65-69	7,220	6,880	14,100
70-74	5,550	5,190	10,740
75-79	4,920	4,290	9,210
80-84	3,540	2,650	6,190
85-89	2,240	1,200	3,440
90-94	900	370	1,270
95+	240	70	310
Total	180,020	173,440	353,460

Source: Statistics NZ 30 June 2007 Population Estimates prepared for MoH 2007

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**Graph 5: Waikato DHB Population Age group proportion**



The age structure of the population can be seen in the graph above. Points of note in the current age structure of the Waikato DHB population are:

- 45,260 people are 65 or older, representing 12.8% of the total population
- 78,570 children 14 years old or younger reside in the Waikato DHB district, this is 22.2% of the total population
- There is a notable dip in the 25-35 age group
- The male population is slightly younger than the female population

### Population Projections by Age

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**Table 8: Waikato DHB Population Projections by 5 year Age Band**

Year	00-04	05-09	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95+	Total
2006	25,130	25,980	27,720	27,190	24,350	20,930	22,060	24,700	25,470	24,720	21,850	20,210	15,960	13,510	10,890	8,920	6,110	3,250	1,220	280	350,250
2007	25,470	25,860	27,240	27,880	24,380	21,450	21,460	24,630	25,090	25,340	22,480	20,190	16,730	14,100	10,740	9,210	6,190	3,440	1,270	310	353,460
2008	25,850	25,580	27,000	28,290	24,430	22,010	21,030	24,520	24,850	25,820	23,020	20,340	17,900	14,330	10,960	9,240	6,430	3,630	1,300	340	356,870
2009	26,010	25,630	26,790	28,320	24,770	22,310	20,880	24,220	24,850	25,890	23,670	20,730	18,590	14,860	11,310	9,300	6,620	3,820	1,350	350	360,270
2010	25,960	25,770	26,580	28,130	25,300	22,530	21,160	23,660	24,860	25,870	24,110	21,170	19,300	15,220	11,850	9,300	6,850	3,940	1,440	400	363,400
2011	26,020	25,790	26,440	27,740	25,920	22,680	21,590	22,790	25,130	25,670	24,680	21,650	19,900	15,470	12,500	9,330	7,050	4,060	1,550	430	366,390
2012	25,840	25,944	26,380	27,462	25,970	22,902	21,886	22,668	24,722	25,586	24,856	22,198	20,186	16,232	12,884	9,676	7,146	4,210	1,668	476	368,892
2013	25,660	26,098	26,320	27,184	26,020	23,124	22,182	22,546	24,314	25,502	25,032	22,746	20,472	16,994	13,268	10,022	7,242	4,360	1,786	522	371,394
2014	25,480	26,252	26,260	26,906	26,070	23,346	22,478	22,424	23,906	25,418	25,208	23,294	20,758	17,756	13,652	10,368	7,338	4,510	1,904	568	373,896
2015	25,300	26,406	26,200	26,628	26,120	23,568	22,774	22,302	23,498	25,334	25,384	23,842	21,044	18,518	14,036	10,714	7,434	4,660	2,022	614	376,398
2016	25,120	26,560	26,140	26,350	26,170	23,790	23,070	22,180	23,090	25,250	25,560	24,390	21,330	19,280	14,420	11,060	7,530	4,810	2,140	660	378,900
2017	25,118	26,382	26,296	26,288	25,896	23,842	23,294	22,472	22,972	24,848	25,482	24,574	21,876	19,566	15,142	11,420	7,836	4,910	2,242	728	381,184
2018	25,116	26,204	26,452	26,226	25,622	23,894	23,518	22,764	22,854	24,446	25,404	24,758	22,422	19,852	15,864	11,780	8,142	5,010	2,344	796	383,468
2019	25,114	26,026	26,608	26,164	25,348	23,946	23,742	23,056	22,736	24,044	25,326	24,942	22,968	20,138	16,586	12,140	8,448	5,110	2,446	864	385,752
2020	25,112	25,848	26,764	26,102	25,074	23,998	23,966	23,348	22,618	23,642	25,248	25,126	23,514	20,424	17,308	12,500	8,754	5,210	2,548	932	388,036
2021	25,110	25,670	26,920	26,040	24,800	24,050	24,190	23,640	22,500	23,240	25,170	25,310	24,060	20,710	18,030	12,860	9,060	5,310	2,650	1,000	390,320
2022	25,126	25,670	26,740	26,196	24,740	23,780	24,244	23,866	22,794	23,128	24,774	25,234	24,246	21,242	18,312	13,522	9,376	5,592	2,708	1,064	392,354
2023	25,142	25,670	26,560	26,352	24,680	23,510	24,298	24,092	23,088	23,016	24,378	25,158	24,432	21,774	18,594	14,184	9,692	5,874	2,766	1,128	394,388
2024	25,158	25,670	26,380	26,508	24,620	23,240	24,352	24,318	23,382	22,904	23,982	25,082	24,618	22,306	18,876	14,846	10,008	6,156	2,824	1,192	396,422
2025	25,174	25,670	26,200	26,664	24,560	22,970	24,406	24,544	23,676	22,792	23,586	25,006	24,804	22,838	19,158	15,508	10,324	6,438	2,882	1,256	398,456
2026	25,190	25,670	26,020	26,820	24,500	22,700	24,460	24,770	23,970	22,680	23,190	24,930	24,990	23,370	19,440	16,170	10,640	6,720	2,940	1,320	400,490

Source: Statistics NZ 30 June 2007 Population Estimates prepared for MoH

The table above shows the population projections for each five year age band through to 2026. This table can be refined further by grouping the ages into the 'Life Bands' as shown in the table below.

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**Table 9: Waikato DHB Population Projections by 'Life Bands'**

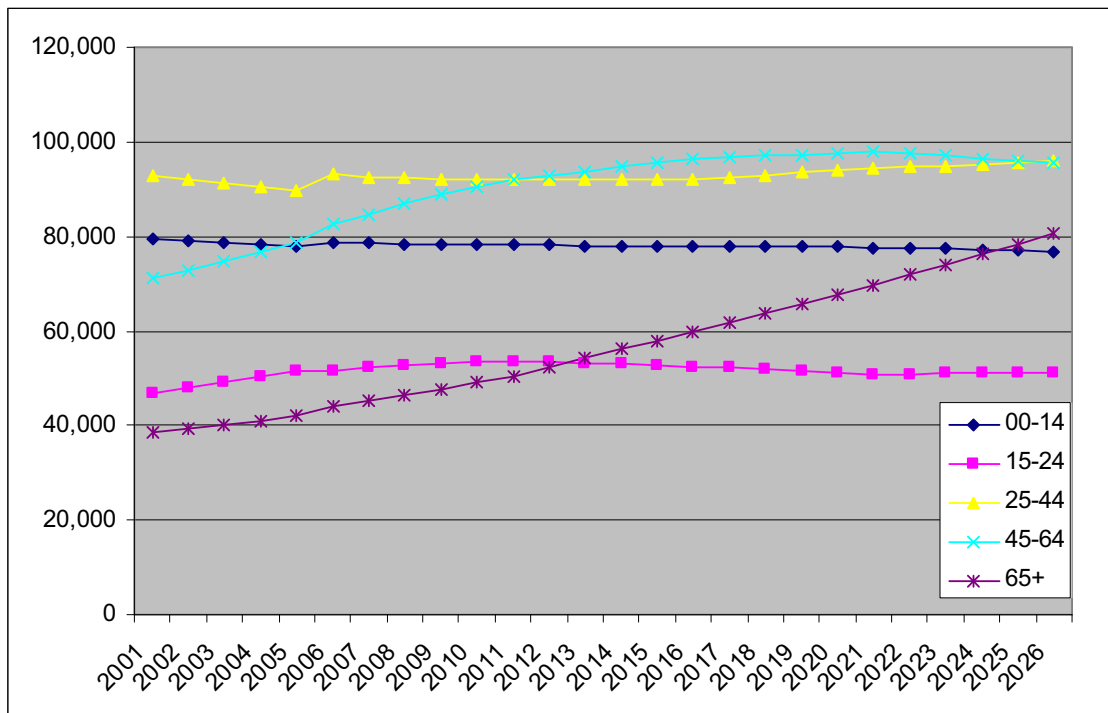
Year	00-14	15-24	25-44	45-64	65+	Total
2001	79,500	46,820	92,750	71,020	38,470	328,560
2002	79,124	48,002	91,944	72,966	39,342	331,378
2003	78,748	49,184	91,138	74,912	40,214	334,196
2004	78,372	50,366	90,332	76,858	41,086	337,014
2005	77,996	51,548	89,526	78,804	41,958	339,832
2006	78,830	51,540	93,160	82,740	43,980	350,250
2007	78,570	52,260	92,630	84,740	45,260	353,460
2008	78,430	52,720	92,410	87,080	46,230	356,870
2009	78,430	53,090	92,260	88,880	47,610	360,270
2010	78,310	53,430	92,210	90,450	49,000	363,400
2011	78,250	53,660	92,190	91,900	50,390	366,390
2012	78,164	53,432	92,178	92,826	52,292	368,892
2013	78,078	53,204	92,166	93,752	54,194	371,394
2014	77,992	52,976	92,154	94,678	56,096	373,896
2015	77,906	52,748	92,142	95,604	57,998	376,398
2016	77,820	52,520	92,130	96,530	59,900	378,900
2017	77,796	52,184	92,580	96,780	61,844	381,184
2018	77,772	51,848	93,030	97,030	63,788	383,468
2019	77,748	51,512	93,480	97,280	65,732	385,752
2020	77,724	51,176	93,930	97,530	67,676	388,036
2021	77,700	50,840	94,380	97,780	69,620	390,320
2022	77,536	50,936	94,684	97,382	71,816	392,354
2023	77,372	51,032	94,988	96,984	74,012	394,388
2024	77,208	51,128	95,292	96,586	76,208	396,422
2025	77,044	51,224	95,596	96,188	78,404	398,456
2026	76,880	51,320	95,900	95,790	80,600	400,490

Source: Statistics NZ 30 June Population Estimates prepared for MoH 2007

The projected growth in the population ages can be better represented in a graph as shown below:

## Demographics

**Graph 6: Waikato DHB Population Growth by Age Life Bands**



As can be seen from the above data there are significant changes in the age structure of the population forecast of the next two decades. The population is ageing. Some of the key points to highlight are:

- The 65+ age group is set for large growth over the next 20 years with the population in this age group increasing by more than 78% from the current level of 45,260 to 80,600 by the year 2026
- The 85+ age group sees even more significant growth, more than doubling by 2026 (118% growth). This reflects the fact that we are on average living longer
- The 65+ age group is currently the smallest life age group, but by 2013 there will be more 65+ people than 15-24 year olds and by 2025 there will be more 65+ than 0-14 year olds.
- Children (0-14) and youth (15-24) age groups are actually declining slightly
- Currently 25-64 year olds equate for approx 50.2% of the Waikato DHB population, this percentage will drop to 47.9% by 2026

The differences in the age structure can be seen in more detail in the series of graphs below:

### **Waikato DHB Changes in Population Age Structure 2007 - 2026**

## Demographics

Graph 7: Waikato DHB - changes in population age structure from 2007 to 2026 in 5 year band



As can be seen in the series of graphs above the age structure of the population flattens considerably as the population ages and the 65+ age group becomes a higher proportion of the total.

### Population by Ethnicity and Age

We can view the population by age for each major ethnic group separately.

## Demographics

**Table 10: Waikato DHB 2007 Population by Ethnicity and 5 Year Age Band**

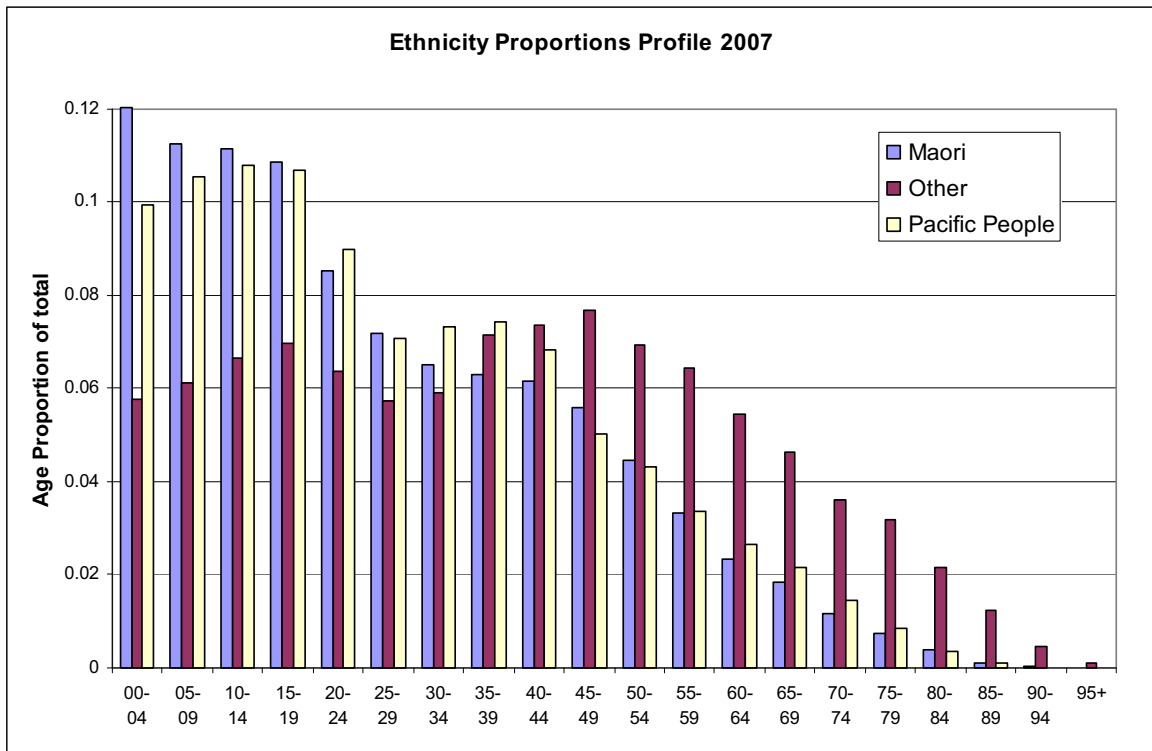
Age Group	Maori	Other	Pacific	Total
00-04	9,030	15,610	830	25,470
05-09	8,440	16,540	880	25,860
10-14	8,370	17,970	900	27,240
15-19	8,150	18,840	890	27,880
20-24	6,410	17,220	750	24,380
25-29	5,390	15,470	590	21,450
30-34	4,890	15,960	610	21,460
35-39	4,730	19,280	620	24,630
40-44	4,620	19,900	570	25,090
45-49	4,200	20,720	420	25,340
50-54	3,360	18,760	360	22,480
55-59	2,490	17,420	280	20,190
60-64	1,760	14,750	220	16,730
65-69	1,390	12,530	180	14,100
70-74	890	9,730	120	10,740
75-79	560	8,580	70	9,210
80-84	290	5,870	30	6,190
85-89	80	3,350	10	3,440
90-94	30	1,240	0	1,270
95+	0	310	0	310
<b>Total</b>	<b>75,080</b>	<b>270,050</b>	<b>8,330</b>	<b>353,460</b>

Source: Statistics NZ 30 June Population Estimates prepared for MoH 2007

The differences in the age structure of the population for each respective ethnicity can be seen more easily using the table below that shows the proportion of the total for each age group within the ethnicity.

## Demographics

**Graph 8: Waikato Population Ethnicity Proportions Profile 2007**



Source: Statistics NZ 30 June Population Estimates prepared for MoH 2007

The graph highlights the significantly younger population structure of Maori compared to Other ethnicities.

## Waikato DHB Population Projections by Ethnicity and Age

**Table 11: Waikato Maori population projection by 5 year age band**

Year	00-04	05-09	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95+	Total
2006	8,730	8,540	8,500	8,000	6,140	5,360	4,950	4,740	4,630	4,030	3,180	2,440	1,690	1,340	870	520	250	80	30	10	74,030
2007	9,030	8,440	8,370	8,150	6,410	5,390	4,890	4,730	4,620	4,200	3,360	2,490	1,760	1,390	890	560	290	80	30	0	75,080
2008	9,280	8,370	8,340	8,190	6,670	5,400	4,820	4,840	4,520	4,380	3,410	2,630	1,880	1,420	910	610	310	90	30	0	76,100
2009	9,380	8,440	8,290	8,190	6,970	5,320	4,890	4,870	4,450	4,350	3,580	2,750	1,960	1,470	960	630	330	110	30	0	77,090
2010	9,470	8,500	8,250	8,150	7,250	5,290	5,030	4,910	4,440	4,450	3,710	2,860	2,080	1,490	1,030	650	340	120	30	10	78,060
2011	9,600	8,500	8,260	8,050	7,520	5,340	5,150	4,770	4,590	4,460	3,840	2,970	2,220	1,490	1,110	670	360	130	30	10	79,070
2012	9,574	8,670	8,252	8,004	7,534	5,602	5,144	4,814	4,596	4,454	3,926	3,100	2,324	1,590	1,142	716	384	144	38	10	80,018
2013	9,548	8,840	8,244	7,958	7,548	5,864	5,138	4,858	4,602	4,448	4,012	3,230	2,428	1,690	1,174	762	408	158	46	10	80,966
2014	9,522	9,010	8,236	7,912	7,562	6,126	5,132	4,902	4,608	4,442	4,098	3,360	2,532	1,790	1,206	808	432	172	54	10	81,914
2015	9,496	9,180	8,228	7,866	7,576	6,388	5,126	4,946	4,614	4,436	4,184	3,490	2,636	1,890	1,238	854	456	186	62	10	82,862
2016	9,470	9,350	8,220	7,820	7,590	6,650	5,120	4,990	4,620	4,430	4,270	3,620	2,740	1,990	1,270	900	480	200	70	10	83,810
2017	9,496	9,328	8,388	7,812	7,550	6,670	5,376	4,982	4,662	4,438	4,266	3,706	2,868	2,088	1,362	930	518	218	76	14	84,748
2018	9,522	9,306	8,556	7,804	7,510	6,690	5,632	4,974	4,704	4,446	4,262	3,792	2,996	2,186	1,454	960	556	236	82	18	85,686
2019	9,548	9,284	8,724	7,796	7,470	6,710	5,888	4,966	4,746	4,454	4,258	3,878	3,124	2,284	1,546	990	594	254	88	22	86,624
2020	9,574	9,262	8,892	7,788	7,430	6,730	6,144	4,958	4,788	4,462	4,254	3,964	3,252	2,382	1,638	1,020	632	272	94	26	87,562
2021	9,600	9,240	9,060	7,780	7,390	6,750	6,400	4,950	4,830	4,470	4,250	4,050	3,380	2,480	1,730	1,050	670	290	100	30	88,500
2022	9,656	9,266	9,038	7,944	7,382	6,714	6,424	5,200	4,824	4,514	4,260	4,050	3,464	2,600	1,820	1,130	696	316	112	32	89,442
2023	9,712	9,292	9,016	8,108	7,374	6,678	6,448	5,450	4,818	4,558	4,270	4,050	3,548	2,720	1,910	1,210	722	342	124	34	90,384
2024	9,768	9,318	8,994	8,272	7,366	6,642	6,472	5,700	4,812	4,602	4,280	4,050	3,632	2,840	2,000	1,290	748	368	136	36	91,326
2025	9,824	9,344	8,972	8,436	7,358	6,606	6,496	5,950	4,806	4,646	4,290	4,050	3,716	2,960	2,090	1,370	774	394	148	38	92,268
2026	9,880	9,370	8,950	8,600	7,350	6,570	6,520	6,200	4,800	4,690	4,300	4,050	3,800	3,080	2,180	1,450	800	420	160	40	93,210

Source: Statistics NZ 30 June Population Estimates prepared for MoH 2007

## Other Ethnicity Population Projections by Five Year Age Band

**Table 12: Waikato Other ethnic group population projection by 5 year age band**

## Demographics

Year	00-04	05-09	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95+	Total
2006	15,550	16,580	18,300	18,320	17,520	14,970	16,490	19,340	20,290	20,290	18,320	17,500	14,050	11,990	9,710	8,330	5,830	3,160	1,190	270	268,000
2007	15,610	16,540	17,970	18,840	17,220	15,470	15,960	19,280	19,900	20,720	18,760	17,420	14,750	12,530	9,730	8,580	5,870	3,350	1,240	310	270,050
2008	15,740	16,340	17,790	19,180	16,980	16,010	15,600	19,060	19,730	21,010	19,230	17,420	15,790	12,720	9,920	8,550	6,090	3,520	1,270	340	272,290
2009	15,800	16,320	17,630	19,210	17,010	16,370	15,390	18,710	19,790	20,980	19,700	17,690	16,410	13,180	10,220	8,570	6,260	3,690	1,320	350	274,600
2010	15,670	16,370	17,480	19,080	17,200	16,620	15,520	18,150	19,790	20,930	20,000	18,000	16,990	13,520	10,670	8,550	6,470	3,800	1,410	390	276,610
2011	15,600	16,400	17,310	18,790	17,540	16,690	15,840	17,400	19,930	20,680	20,440	18,330	17,430	13,780	11,240	8,570	6,640	3,910	1,520	420	278,460
2012	15,440	16,390	17,252	18,566	17,574	16,620	16,130	17,238	19,518	20,588	20,506	18,742	17,596	14,436	11,586	8,862	6,708	4,042	1,628	466	279,888
2013	15,280	16,380	17,194	18,342	17,608	16,550	16,420	17,076	19,106	20,496	20,572	19,154	17,762	15,092	11,932	9,154	6,776	4,174	1,736	512	281,316
2014	15,120	16,370	17,136	18,118	17,642	16,480	16,710	16,914	18,694	20,404	20,638	19,566	17,928	15,748	12,278	9,446	6,844	4,306	1,844	558	282,744
2015	14,960	16,360	17,078	17,894	17,676	16,410	17,000	16,752	18,282	20,312	20,704	19,978	18,094	16,404	12,624	9,738	6,912	4,438	1,952	604	284,172
2016	14,800	16,350	17,020	17,670	17,710	16,340	17,290	16,590	17,870	20,220	20,770	20,390	18,260	17,060	12,970	10,030	6,980	4,570	2,060	650	285,600
2017	14,768	16,190	17,012	17,612	17,484	16,368	17,228	16,882	17,712	19,810	20,682	20,462	18,672	17,232	13,594	10,354	7,242	4,650	2,154	714	286,822
2018	14,736	16,030	17,004	17,554	17,258	16,396	17,166	17,174	17,554	19,400	20,594	20,534	19,084	17,404	14,218	10,678	7,504	4,730	2,248	778	288,044
2019	14,704	15,870	16,996	17,496	17,032	16,424	17,104	17,466	17,396	18,990	20,506	20,606	19,496	17,576	14,842	11,002	7,766	4,810	2,342	842	289,266
2020	14,672	15,710	16,988	17,438	16,806	16,452	17,042	17,758	17,238	18,580	20,418	20,678	19,908	17,748	15,466	11,326	8,028	4,890	2,436	906	290,488
2021	14,640	15,550	16,980	17,380	16,580	16,480	16,980	18,050	17,080	18,170	20,330	20,750	20,320	17,920	16,090	11,650	8,290	4,970	2,530	970	291,710
2022	14,594	15,518	16,818	17,376	16,522	16,252	17,006	17,994	17,370	18,016	19,926	20,662	20,396	18,326	16,268	12,228	8,576	5,222	2,574	1030	292,674
2023	14,548	15,486	16,656	17,372	16,464	16,024	17,032	17,938	17,660	17,862	19,522	20,574	20,472	18,732	16,446	12,806	8,862	5,474	2,618	1090	293,638
2024	14,502	15,454	16,494	17,368	16,406	15,796	17,058	17,882	17,950	17,708	19,118	20,486	20,548	19,138	16,624	13,384	9,148	5,726	2,662	1150	294,602
2025	14,456	15,422	16,332	17,364	16,348	15,568	17,084	17,826	18,240	17,554	18,714	20,398	20,624	19,544	16,822	13,962	9,434	5,978	2,706	1210	295,566
2026	14,410	15,390	16,170	17,360	16,290	15,340	17,110	17,770	18,530	17,400	18,310	20,310	20,700	19,950	16,980	14,540	9,720	6,230	2,750	1270	296,530

Source: Statistics NZ 30 June Population Estimates prepared for MoH 2007

**Table 13: Waikato Pacific People population projection by 5 year age band**

Year	00-04	05-09	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95+	Total
2006	850	860	920	870	690	600	620	620	550	400	350	270	220	180	110	70	30	10	0	0	8,220
2007	830	880	900	890	750	590	610	620	570	420	360	280	220	180	120	70	30	10	0	0	8,330
2008	830	870	870	920	780	600	610	620	600	430	380	290	230	190	130	80	30	20	0	0	8,480
2009	830	870	870	920	790	620	600	640	590	460	390	290	220	210	130	100	30	20	0	0	8,580
2010	820	900	850	900	850	620	610	600	630	490	400	310	230	210	150	100	40	20	0	0	8,730
2011	820	890	870	900	860	650	600	620	610	530	400	350	250	200	150	90	50	20	0	0	8,860
2012	826	884	876	892	862	680	612	616	608	544	424	356	266	206	156	98	54	24	2	0	8,986
2013	832	878	882	884	864	710	624	612	606	558	448	362	282	212	162	106	58	28	4	0	9,112
2014	838	872	888	876	866	740	636	608	604	572	472	368	298	218	168	114	62	32	6	0	9,238
2015	844	866	894	868	868	770	648	604	602	586	496	374	314	224	174	122	66	36	8	0	9,364
2016	850	860	900	860	870	800	660	600	600	600	520	380	330	230	180	130	70	40	10	0	9,490
2017	854	864	896	864	862	804	690	608	598	600	534	406	336	246	186	136	76	42	12	0	9,614
2018	858	868	892	868	854	808	720	616	596	600	548	432	342	262	192	142	82	44	14	0	9,738
2019	862	872	888	872	846	812	750	624	594	600	562	458	348	278	198	148	88	46	16	0	9,862
2020	866	876	884	876	838	816	780	632	592	600	576	484	354	294	204	154	94	48	18	0	9,986
2021	870	880	880	880	830	820	810	640	590	600	590	510	360	310	210	160	100	50	20	0	10,110
2022	876	886	884	876	836	814	814	672	600	598	588	522	386	316	224	164	104	54	22	2	10,238
2023	882	892	888	872	842	808	818	704	610	596	586	534	412	322	238	168	108	58	24	4	10,366
2024	888	898	892	868	848	802	822	736	620	594	584	546	438	328	252	172	112	62	26	6	10,494
2025	894	904	896	864	854	796	826	768	630	592	582	558	464	334	266	176	116	66	28	8	10,622
2026	900	910	900	860	860	790	830	800	640	590	580	570	490	340	280	180	120	70	30	10	10,750

Source: Statistics NZ 30 June Population Estimates prepared for MoH 2007

## 3.7 Deprivation

There is a consistent and pervasive correlation between increasing deprivation and worsening health and risk factor measures across the board. This includes shorter life expectancy, higher mortality rates, higher hospitalisation rates and higher smoking rates.

There are two different types of variables that can be used to measure the level of deprivation: demographic and deprivation variables. Demographic variables such as age, sex and ethnicity are not directly amenable to change or influence, but may be associated with increased risk of deprivation. Deprivation variables are more direct markers of deprivation; for example income, housing occupancy and access to telephone (Salmond C, Crampton P, Atkinson J. NZDep2006 Index of Deprivation. Wellington: Department of Public Health, University of Otago Wellington, 2007.).

NZDep2006 is one measure of deprivation. It is a relative measure, and refers to the average level of deprivation of people living in an area at a particular point in time, relative to the whole of New Zealand. An individual residing in that area can not be assumed to have that level of deprivation. Areas are

## Demographics

often not homogenous in terms of the socio-economic status of the inhabitants. The more that areas are aggregated (e.g. aggregating NZDep2006 small areas to Census Area Units (CAUs)), the more detail is lost in terms of variation in deprivation.

NZDep2006 was created from data from the 2006 Census of Population and Dwellings. The index describes the deprivation experienced by groups of people in small areas. Nine deprivation variables were used in the construction of the index and are outlined in the table below.

### Dimensions Assessed and the Variables Used in NZDep2006

\*Equivalisation: methods used to control for household composition.

*Source Salmond C, Crampton P, Atkinson J. NZDep2006 Index of Deprivation. Wellington: Department of Public Health, University of Otago Wellington, 2007*

Note that NZDep2006 only measures certain socio-economic factors at a certain point of time for a neighbourhood (not an individual). It represents certain dimensions of deprivation and should not be seen as a complete measurement of socio-economic factors. An 'average' New Zealand population has roughly equal numbers of people living in areas at each level of deprivation.

Table 14: Dimensions of deprivation and variables

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	People aged 18-64 unemployed
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 scale of deprivation quintiles from 1 to 5 divides New Zealand into fifths of the distribution of the first principal component scores. For example, a value of 5 indicates that the small area is the most deprived 20 % of small areas in New Zealand as measured by NZDep01. Deciles are

## Demographics

used to reflect the level of deprivation in 10% bands, with decile 10 being the most deprived 10%.

It is important to note that deprivation is based on a geographic location rather than an individual.

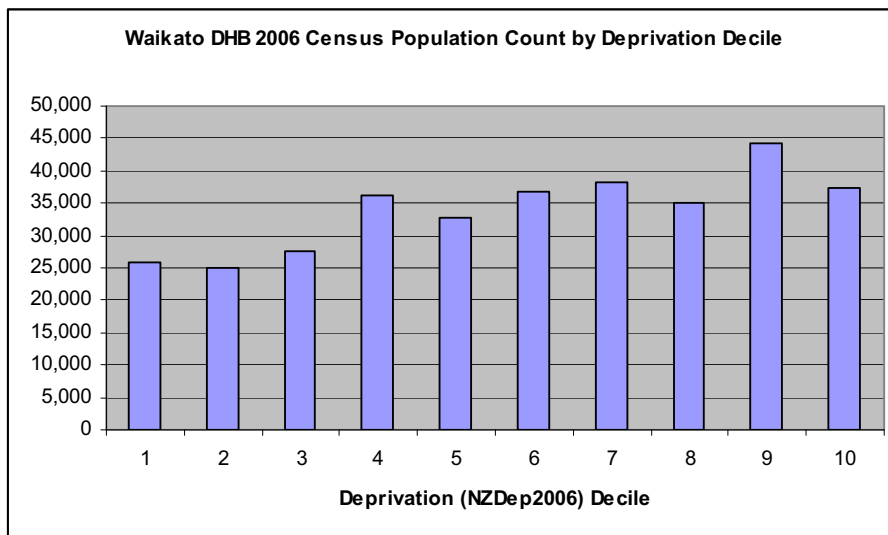
Please Note: At the time of writing this HNA, population estimates and projections by NZDep2006 were not available at a DHB Level and therefore Census Counts are presented in the selections below and will not have the same totals as the latest projections and estimates in the sections above.

**Table 15 Waikato DHB and New Zealand Population Counts by Deprivation (NZDep2006) decile**

Deprivation Decile	Waikato DHB	Waikato DHB %	NZ Total	NZ Total %
1	25,749	7.59%	415,155	10.31%
2	25,137	7.41%	410,361	10.19%
3	27,552	8.12%	409,266	10.16%
4	36,093	10.64%	401,736	9.97%
5	32,703	9.64%	402,165	9.98%
6	36,819	10.85%	399,828	9.93%
7	38,280	11.29%	397,074	9.86%
8	35,109	10.35%	394,425	9.79%
9	44,265	13.05%	401,916	9.98%
10	37,494	11.05%	396,219	9.84%
Total	339,201	100.00%	4,028,145	100.00%

Source: Statistics NZ 2006 Census Counts provided by Central TAS

**Graph 9: Waikato DHB 2006 Census population Count by Deprivation decile**



Source: Statistics NZ 2006 Census Counts provided by Central TAS

As shown above, Waikato DHB has a larger proportion of people living in high deprivation areas than in low deprivation areas.

Area deprivation within Waikato DHB can also be shown for each TLA population:

## Demographics

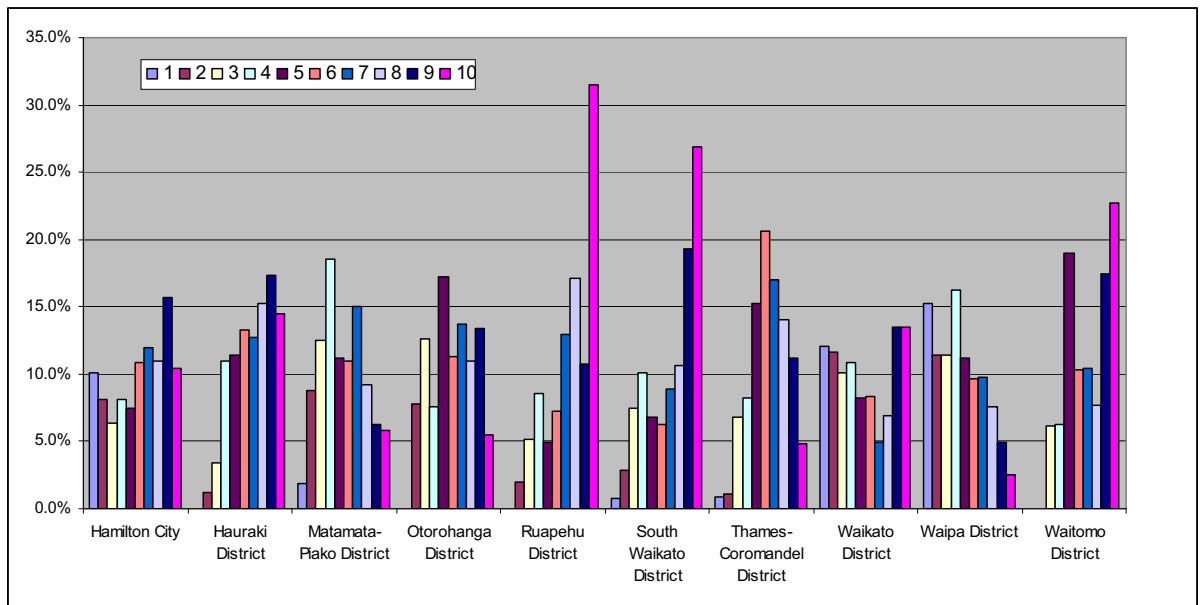
**Table 16: Waikato DHB Population Counts by Deprivation (NZDep2006) decile by TLA**

TLA Name	Deprivation Decile										Total
	1	2	3	4	5	6	7	8	9	10	
Hamilton City	12,987	10,509	8,247	10,440	9,696	14,031	15,402	14,148	20,280	13,515	129,255
Hauraki District		207	585	1,884	1,959	2,280	2,196	2,628	2,973	2,484	17,196
Matamata-Piako District	570	2,667	3,804	5,655	3,426	3,333	4,572	2,796	1,902	1,773	30,498
Otorohanga District		705	1,143	687	1,566	1,023	1,239	990	1,218	495	9,066
Ruapehu District		168	444	744	429	627	1,122	1,482	936	2,730	8,682
South Waikato District	165	639	1,692	2,280	1,533	1,425	2,019	2,409	4,380	6,093	22,635
Thames-Coromandel District	240	288	1,773	2,121	3,963	5,343	4,410	3,642	2,913	1,251	25,944
Waikato District	5,292	5,115	4,428	4,770	3,600	3,675	2,169	3,057	5,934	5,934	43,974
Waipa District	6,495	4,839	4,860	6,921	4,737	4,110	4,167	3,228	2,085	1,071	42,513
Waitomo District			576	591	1,794	972	984	729	1,644	2,148	9,438
<b>Total</b>	<b>25,749</b>	<b>25,137</b>	<b>27,552</b>	<b>36,093</b>	<b>32,703</b>	<b>36,819</b>	<b>38,280</b>	<b>35,109</b>	<b>44,265</b>	<b>37,494</b>	<b>339,201</b>

Source: Statistics NZ 2006 Census Counts provided by Central TAS.

The above table can be represented in a graph showing the proportion of each populations deprivation decile. This gives a view to the structure of deprivation within TLA.

**Graph 10: Waikato DHB Population Counts by Proportion of Deprivation decile by TLA**



Source: Statistics NZ 2006 Census Counts provided by Central TAS.

The graph above shows that Ruapehu, Waitomo, and South Waikato TLAs have the highest proportion of people living high deprivation areas. Waipa TLA has a distribution skewed towards the least deprived.

### 3.8 Socioeconomic Population Information

This section presents detailed analysis of the key determinants of health, such as the levels of educational attainments, income and household environment of the population.

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### 3.8.1 Levels of Educational Attainment

Table 17: Waikato DHB 2006 Census, Highest Qualification, Usually Resident Population aged 15 Years and Over

Qualification Level	Responses
No Qualification	68,145
Level 1 Certificate Gained at School	34,962
Level 2 Certificate Gained at School	21,690
Level 3 or 4 Certificate Gained at School	12,057
Overseas Secondary School Qualification	10,104
Level 1, 2 or 3 Certificate Gained Post-school	10,968
Level 4 Certificate Gained Post-school	25,170
Level 5 Diploma	8,256
Level 6 Diploma	12,585
Bachelor Degree and Level 7 Qualifications	21,096
Postgraduate and Honours Degrees	3,390
Masters Degree	3,663
Doctorate Degree	1,305
Not Elsewhere Included Qual	28,404
Total	261,795

Source: Statistics NZ 2006 Census Counts – Meshblock Dataset Release

See <http://www.kiwiquals.govt.nz/about/levels/index.html> for details on Qualification Levels.

Waikato DHB has 26% of its resident population over the age of 15 with no formal qualifications. This compares to a national rate of 22.4%. A Bachelors Degree or higher qualification is held by 11.3% of the Waikato DHB population over age 15, compared with a national rate of 14.2%.

Of the TLA regions within Waikato DHB, Hamilton city has the lowest percentage of people with no qualifications (20.0%) and Hauraki District has the highest (35.3%). Hamilton City has the highest percentage of people with a bachelors degree or above (16.7%) and South Waikato District has the lowest proportion (4.8%).

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### 3.8.2 Income

**Table 18: Waikato DHB 2006 Census, Total Personal income, for the Usually Resident population Aged 15 Years and Over**

Personal Income Level	Responses
\$5,000 or Less	30,165
\$5,001 - \$10,000	19,467
\$10,001 - \$20,000	53,577
\$20,001 - \$30,000	37,185
\$30,001 - \$50,000	54,591
\$50,001 or More	39,330
Not Stated	27,492
<b>Total</b>	<b>261,807</b>

Source: Statistics NZ 2006 Census Counts – Meshblock Dataset Release

Waikato DHB has 19.0% of its resident population over the age of 15 earning less than \$10,000 per annum. This compares to a national rate of 19.3%. \$50,000 or higher is earned by 15.0% of the Waikato DHB population over age 15, compared with a national rate of 16.2%.

Of the TLA regions within Waikato DHB, Hamilton city has the highest percentage of people earning less than \$10,000 (20.9%) and Matamata-Piako District has the lowest (16.2%). Waipa District has the highest percentage of people earning \$50,000 or above (18.1%) and Ruapehu District (Waikato DHB part) has the lowest proportion (8.4%).

### 3.8.3 Households

A series of questions in the Census examine household composition and information on household access to transport etc.

**Table 19: Waikato DHB 2006 Census, Number of Usual Residents in Households**

TLA	Number of Usual Residents in Household							
	One	Two	Three	Four	Five	Six	Seven	Eight or more
Hamilton City	9,957	14,822	8,081	7,195	3,340	1,348	504	478
Hauraki District	1,694	2,517	999	769	424	164	46	54
Matamata-Piako District	2,623	4,144	1,618	1,617	860	290	98	70
Otorohanga District	642	1,051	488	438	258	110	29	23
Ruapehu District (Waikato DHB)	902	1,119	512	390	204	91	35	37
South Waikato District	1,810	2,770	1,260	1,170	594	283	122	83
Thames-Coromandel District	3,003	4,632	1,381	1,136	438	141	42	27
Waikato District	2,752	4,991	2,515	2,414	1,323	564	204	168
Waipa District	3,282	5,755	2,495	2,386	1,121	416	122	68
Waitomo District	796	1,191	493	428	286	106	49	39
<b>Total</b>	<b>27,461</b>	<b>42,992</b>	<b>19,842</b>	<b>17,943</b>	<b>8,848</b>	<b>3,513</b>	<b>1,251</b>	<b>1,047</b>

Source: Statistics NZ 2006 Census Counts – Meshblock Dataset Release

Household crowding is a known factor in determination of population health. Of the 122,897 total households within the Waikato DHB area 4.7% have six or more people living within them. Care must be taken with these results as a

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large number of residents does not necessarily exactly correlate to overcrowding as some houses may be large enough to easily accommodate six or more people, but the data does give some indication to the density of the population within our housing stocks.

Of the TLAs Thames-Coromandel has the lowest percentage (1.9%) of households with six or more people usually resident and Waikato District has the highest percentage (6.3%).

Household composition can be examined further by looking at the number of families within each house to give an indication of where families have banded together to share accommodation.

**Table 20 Waikato DHB 2006 Census, Household Composition, for Households in Private Occupied Dwellings**

TLA	One-family household	Two-family household	Three or more family household	Other Multi-Person Household	One Person Household	Household Composition Unidentifiable
Hamilton City	30,006	1,188	84	3,408	9,951	1,110
Hauraki District	4,560	120	9	216	1,695	72
Matamata-Piako District	7,965	198	12	348	2,619	165
Otorohanga District	2,208	57	3	93	642	36
Ruapehu District (Waikato DHB)	2,067	48	6	126	906	141
South Waikato District	5,523	201	12	243	1,809	300
Thames-Coromandel District	7,215	129	9	348	3,006	93
Waikato District	10,680	432	21	474	2,754	570
Waipa District	11,343	273	3	516	3,291	225
Waitomo District	2,307	75	12	120	798	69
Total	83,874	2,721	171	5,892	27,471	2,781

Source: Statistics NZ 2006 Census Counts – Meshblock Dataset Release

*One, Two, and Three or more family households may also be with or without other persons.*

The table above shows that 7.1% of the households within the Waikato DHB area contain more than one family (two, three or more). Hamilton City TLA has the highest percentage of multiple family households (10.2%) and Matamata-Piako has the lowest (4.9%).

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**Table 21: Waikato DHB 2006 Census, Number of Motor vehicles to which the household has access, for Households in Private Occupied Dwellings**

TLA	Number of Motor Vehicles				
	None	One	Two	Three or More	Not Elsewhere Included
Hamilton City	3,522	16,914	16,209	6,915	2,160
Hauraki District	477	2,619	2,388	954	225
Matamata-Piako District	624	4,074	4,452	1,827	369
Otorohanga District	168	978	1,257	552	81
Ruapehu District (Waikato DHB)	324	1,239	1,059	414	255
South Waikato District	696	3,207	2,655	1,023	513
Thames-Coromandel District	783	4,599	3,888	1,218	315
Waikato District	750	4,395	5,838	2,979	972
Waipa District	801	5,157	6,327	2,889	462
Waitomo District	252	1,224	1,284	459	165
Grand Total	8,397	44,406	45,357	19,230	5,517

Source: Statistics NZ 2006 Census Counts – Meshblock Dataset Release

The table above shows the number of motor vehicles that a household has access to. Access to transport is often viewed as a key factor in the health status of a population.

The data shows that 6.8% of households within the Waikato DHB area do not have access to a motor vehicle. Ruapehu District (Waikato DHB part) has the highest percentage (9.8%) of households with no access to a motor vehicle and Waikato district has the lowest percentage (5.0%).

Another factor in access to healthcare is communication. The table below shows the different forms of communication available to households.

**Table 22: Waikato DHB 2006 Census, Access to Telecommunications for Households in Private Occupied Dwellings**

TLA	No Access to Telecommunication Systems	Access to a Cellphone/ Mobile Phone	Access to a Telephone	Access to a Fax Machine	Access to the Internet	Total Households
Hamilton City	870	33,438	39,147	9,213	26,790	45,732
Hauraki District	195	4,644	5,538	1,761	3,102	6,666
Matamata-Piako District	225	8,208	9,840	3,273	5,892	11,322
Otorohanga District	78	2,202	2,589	1,044	1,524	3,042
Ruapehu District (Waikato DHB)	183	1,746	2,583	918	1,371	3,285
South Waikato District	282	5,643	6,336	1,656	3,618	8,088
Thames-Coromandel District	324	7,401	9,081	3,147	5,409	10,803
Waikato District	420	10,473	12,162	4,620	7,932	14,922
Waipa District	204	11,607	14,076	4,914	9,237	15,639
Waitomo District	165	1,986	2,742	972	1,389	3,387
Total	2,946	87,348	104,094	31,518	66,264	122,886

Source: Statistics NZ 2006 Census Counts – Meshblock Dataset Release

This data shows that 2.4% of the households within the Waikato DHB area have no access to any form of telecommunication. Across the TLAs, Ruapehu District (Waikato DHB part) has the lowest level of

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telecommunications access with 5.6% having no access at all and Waipa district has the lowest percentage of people with no access (1.3%).

Interestingly, only 54% of the households within the Waikato DHB area have internet access, 85% have a telephone landline, and 71% have access to a mobile phone.

**Table 23 Waikato DHB 2006 Census, Work and Labour Force Status, for the Census Usually Resident Population Count aged 15 Years and Over**

TLA	Employed Full-time	Employed Part-time	Unemployed	Not in the Labour Force	Work and Labour Force Status Unidentifiable
Hamilton City	48,543	14,226	4,584	29,742	3,894
Hauraki District	5,757	2,016	441	4,884	249
Matamata-Piako District	11,607	3,528	588	7,146	594
Otorohanga District	3,450	1,149	186	1,980	117
Ruapehu District (Waikato DHB)	2,895	945	243	2,016	432
South Waikato District	7,206	2,208	810	5,532	870
Thames-Coromandel District	8,769	3,378	474	8,190	564
Waikato District	16,062	4,773	1,167	8,982	1,785
Waipa District	16,998	4,902	759	9,504	732
Waitomo District	3,540	1,044	222	1,923	246
Total	124,827	38,169	9,474	79,899	9,483

Source: Statistics NZ 2006 Census Counts – Meshblock Dataset Release

The table above shows the employment status for the Waikato DHB population aged 15 or over. Unemployment is often used as a proxy measure for health status determination.

Waikato DHB has an unemployment rate of 3.6% according to the 2006 Census. Of the TLAs, South Waikato has the highest unemployment rate (4.9%) and Thames-Coromandel has the lowest unemployment rate (2.2%).

## 3.9 Life Expectancy

Life expectancy is a summary measure of population health, reflecting mortality at all ages from all causes. This measure is calculated from time to time by Statistics New Zealand. At the time of preparing this HNA the 2004 calculation was the most current.

Life expectancy at birth is an estimation of the average number of years that children born now can expect to live if current mortality rates persist for the whole of their lives. Overall, in New Zealand, females have a longer life expectancy at birth than males. Non-Māori also have a longer life expectancy at birth than Māori. The difference between Māori and non-Māori life expectancy has narrowed by at least 0.6 years from 1995/97 to 2000/02 after widening steadily over the preceding 15 years.

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Table 24: Life Expectancy at Birth (years) by sex and ethnicity, 2000-2002

Sex	Māori	Non- Māori	Total
Male	69.0	77.2	76.3
Female	73.2	81.9	81.1

Source: Statistics New Zealand, quoted from "An Indication of New Zealanders' Health, 2004" Public Health Intelligence, Ministry of Health.

Overall life expectancy has been slowly increasing. During the last two decades of the 20th century the female advantage over males in life expectancy has decreased, as males' life expectancy has improved more than that of females.

Prior to the 1980s, relatively high infant death rates substantially affected life expectancy at birth. During the past decade, most of the improvement in life expectancy has occurred at older ages (especially at ages 65 years and over). The level of, and improvement in, life expectancy varies by ethnic group. During the 1980s and 1990s, the non-Māori, non-Pacific life expectancy improved by about four years, while improvements for Māori and Pacific life expectancy were about half this level.

In New Zealand there is a linear gradient in life expectancy by level of deprivation, from the most to least deprived areas, using NZDep96 as an index of deprivation. Using 1998–2000 data, for females' life expectancy at birth varies from 77.2 years for the most deprived to 82.8 years for the least deprived, a difference of 5.6 years. For males the corresponding figures are 69.8 years to 79.3 years, a difference of 9.5 years.

Table 25: Life Expectancy at selected ages, NZ and Waikato Regional Council, 1995-97

	Life expectancy (years)		
	Males	Females	Total
<b>At birth</b>			
New Zealand	74.4	79.8	77.1
Waikato Regional Council	74.3	80.0	77.1
<b>At age 65</b>			
New Zealand	15.6	19.2	17.5
Waikato Regional Council	15.6	19.7	17.7

Life expectancy in the Waikato is similar to that in New Zealand overall.

New Zealand life expectancy is similar to that in the Netherlands and slightly higher than in the U.S.A. and U.K. The Organisation for Economic Co-operation and Development (OECD) measured gains in life expectancy at birth across its 30 member countries from 1960 to 2000.