

## 12 MENTAL HEALTH SERVICES

### KEY FINDINGS

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- Hospitalisation related to schizophrenia, mood disorders and substance abuse increased steadily from 2000 to 2006.
- Young Maori aged 25-44 and 15-24 made up most of the hospitalisation. The age proportion of hospitalisation among Pacific People is similar to Maori.
- Among the Other ethnic group aged 15-24, hospitalisation was lower than among Maori aged 15-24.
- Hospitalisation for depressive episode was higher for the 25-44 age group than any other age group across all ethnicities.
- In the Waikato, inpatient volume increased from 29 in 1999 to 43 in 2005 (59% change) and community based forensic service users decreased from 41 in 1999 to 32 in 2005 (-22% change). This decrease may be attributable to service users moving to general non-forensic mental health services in the community<sup>75</sup>.
- In 2005, 87% of inpatients were aged 25+, 45% were 25-34 and 42% were 35+.
- In 2005, 92% of community forensic service users were aged 25+, 31% were 25-34 and 61% were 35+.
- The major sources of forensic inpatient referrals in 2005 were courts (32%), prisons (25%) and other regional forensic services (20%). For community based forensic services, the major referral source was forensic inpatient units (56%), followed by prisons (17%)

### RECOMMENDATIONS FOR STRATEGIC CONSIDERATION

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Currently, the trend is for the establishment of more community based alternative centres for addressing the needs of mental health users, that are adequately resourced with trained staff to deliver in the community and improve the quality of care. For financial sustainability, these centres may need to be small with plans for progressive expansion into the future.

The prevalence of mental health will be significantly underestimated when using the national mortality data as only one cause can be entered as the primary cause of death. Likewise, while the national hospitalisation data holds many diagnoses, for the population based health needs analysis of all hospitalisation, only the primary diagnosis is considered as the reason for admission. This prevents double counting of hospitalisation, but is one of the critical limitations of hospitalisation analysis.

It is recommended that the Waikato District Health Board commit adequate resources to be actively involved in the development and implementation of the new national mental health information system "Programme for the Implementation of Mental health Data (PRIMED).

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<sup>75</sup> Census of Forensic Mental Health services 2005, Ministry of Health, 2007, report available on [www.moh.govt.nz](http://www.moh.govt.nz)

## Mental Health Services

Until the information infrastructure is improved to an acceptable level, any analysis and recommendations based on current information will significantly underestimate the prevalence of mental health issues and the necessary community based services required for achieving positive outcomes in mental health services.

### **12.1 Introduction**

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Mental health is crucial to the overall well-being of an individual, societies and the country as a whole. The World Health Organisation (WHO) defines mental health as: “a state of well-being enabling individuals to realise their abilities, cope with the normal stresses of life, work productively and fruitfully, and make a contribution to their communities”<sup>76</sup>. It is evident from many research findings that mental function is fundamentally interconnected with physical and social functioning and health outcomes.

Mental health is a priority health area for the New Zealand Government, as reflected in the following strategic and policy documents:

- New Zealand Health Strategy (Minister of Health 2000)
- New Zealand Disability Strategy (Minister for Disability Issues 2001)
- Te Tahuu – Improving Mental Health 2005-2015
- The Second Mental Health and Addiction Plan (Minister of Health 2005)
- Te Kokiri: The Mental Health and Addiction Action Plan 2006-2015

These documents are available from the website: <http://www.moh.govt.nz>

Te Tahuu broadens the government’s interest in mental health and addiction from people who are severely affected by mental illness to all New Zealanders – while continuing to place an emphasis on ensuring people with the highest needs can access specialist services.

### **12.2 New Zealand Mental Health Survey findings**

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The findings in this section are drawn from the Te Rau Hinengaro: The New Zealand Mental Health Survey report<sup>77</sup>: Document available in: <http://www.moh.govt.nz>

Te Rau Hinengaro: The New Zealand Mental Health Survey was carried out between October 2003 and December 2004, by the National Research Bureau, under contract to the Ministry of Health. The four main objectives of the survey were, for the total New Zealand, Maori, and Pacific populations living in New Zealand, to:

- describe the one-month, 12 month and lifetime prevalence rates of major mental disorders among those aged 16 and over living in private households, overall and by sociodemographic correlates
- describe patterns of and barriers to health service use for people with mental disorders
- describe the level of disability associated with mental disorder

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<sup>76</sup> Investing in Mental Health”, World Health Organisation (WHO) 2003

<sup>77</sup> Te Rau Hinengaro: The New Zealand Mental Health Survey, Citation: MA Oakley Browne, JE Wells, KM Scott (eds), published by the Ministry of Health, September 2006

## Mental Health Services

- provide a baseline data and calibrate brief instruments measuring mental disorders and psychological distress to inform the use of these instruments in future national health surveys.

The target population was people aged 16+ living in permanent private dwellings throughout New Zealand. The response rate of the survey was 73.3%. The total number of interviews was 12,992. The number of participants reporting Maori ethnicity was 2595 and the number reporting Pacific ethnicity was 2374. The 12 month prevalence related to the presence of the illnesses in 2002 or 2003.

Four groups of mental disorders were assessed in the survey:

- anxiety disorders (panic disorders, agoraphobia without panic, specific phobia, social phobia, generalised anxiety disorders, post-traumatic stress disorder and obsessive-compulsive disorder)
- mood disorders (major depressive disorder, dysthymia and bipolar disorder)
- substance use disorders (abuse of or dependence on alcohol or other drugs)
- eating disorders (anorexia and bulimia).

Other modules assessed suicidal behaviours, health services use, chronic physical conditions, disability, psychological distress and alcohol use and its consequences in the past 12 months.

### **12.2.1 Prevalence and severity across aggregated disorders**

Mental disorder is common in New Zealand: 46.6% of the population are predicted to meet criteria for a disorder at some time in their lives, with 39.5% having already done so and 20.7% having a disorder in the past 12 months.

Of those with disorder in the past 12 months (20.7%), the prevalence of serious disorder was 4.7%, moderate disorder 9.4% and mild disorder 6.6%, with the remaining 79.3% of the population not diagnosed with a disorder.

A mental health visit in the health sectors (mental health and general health) was made in the past 12 months by 58% of those with a serious disorder, 36.5% with a moderate disorder, 18.5% with a mild disorder and 5.7% with those not diagnosed with a disorder. Sociodemographic correlates had little relationship to the percentage who made a mental health visit in the health sector.

Prevalence of serious disorder was higher for younger people, people with less education, less income and who lived in more deprived areas.

Maori and Pacific People had a higher prevalence of disorder and serious disorder in the past 12 months than was found for the Other composite ethnic group, but these differences were much reduced, particularly for Pacific People, after adjustment for sociodemographic correlates (the adjusted prevalence of disorder for Maori, Pacific and Others was 23.9%, 19.2% and 20.3% respectively).

Both Maori and Pacific People were less likely than the Other group to access treatment when severity was taken into account (9.4%, 8.0% and 12.6% respectively).

### **12.2.2 Twelve month prevalence and lifetime prevalence of disorders**

Anxiety disorders were the most common group of disorders in the past 12 months (14.8%) followed by mood disorders (7.9%), then substance use disorders (3.5%) with eating disorders the least common group (0.5%). The lifetime prevalence of anxiety disorders was 24.9%, mood disorders 20.2%, substance use disorders 12.3%, and eating disorders 1.7%.

Nearly all disorders were most common in the group aged 16-24 and the prevalence declined across older age groups. This trend was most marked for substance use disorders.

Anxiety disorders and major depressive disorder were more common in females. Dysthymic and bipolar disorder occurred equally for females and males. There was a clear male predominance for substance use disorders.

Case severity, which included the impact of a disorder and co-morbid disorders, was predominantly serious or moderate for all disorders.

Unadjusted prevalence which shows the burden of disorder, were generally highest for Maori, intermediate for Pacific People and lowest for Other composite ethnic groups.

After adjustment for age, sex, educational qualifications and equivalised household income the results were:

- there was no difference across the ethnic groups in the prevalence of anxiety disorders
- Pacific people had the lowest prevalence of major depressive disorders (3.5%) while Maori and Others had very similar prevalences (5.7% and 5.8%)
- Maori and Pacific People had a higher prevalence of bipolar disorder (3.4% and 2.7%) than Others (1.9%)
- Maori had a higher prevalence of substance use disorders than Pacific People (3.2%) or Others (3%).

Compared with the group aged 65+, the other age groups have significantly higher hazard ratios for lifetime anxiety, mood, substance use and eating disorders.

The general pattern was for Maori to have the highest prevalence across all disorders, followed by Pacific People, with the lowest prevalence for Others. After adjustments for sociodemographic correlates, Maori and Others had the same prevalence for depression, but Pacific People had a lower prevalence.

### **12.2.3 Co-morbidity**

Co-morbidity is the simultaneous occurrence in a person of two or more disorders. Researchers suggest that a number of mental disorders such as depression, anxiety and substance abuse occur in people suffering from both communicable and non-communicable diseases. People suffering from physical disabilities often have a greater probability of developing mental disorders such as depression.

Around 63% of people who experience a 12 month mental disorder have only one disorder, 37% have more than one disorders.

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Only a small proportion of population (7.7%) experience multiple disorders.

Close relationship exists between the increasing number of disorders and the case severity - 59.6% experiencing multiple disorders classified as serious cases.

The more disorders experienced, the greater the likelihood of accessing health services of all kinds, particularly specialist mental health services.

People with mental disorders show higher prevalence of physical disorders and vice versa.

### **Disability**

Mood disorders are reported to be more disabling than either anxiety disorders or substance use disorders.

The experience of multiple mental disorders is associated with greater role impairment than is with the experience of single disorders.

Mental disorders and chronic physical conditions are on average associated with similar degrees of disability, and the combination of the two is more disabling than either alone.

### **12.2.4 Suicidal behaviour**

Individuals with a mental disorder had elevated risks of suicidal behaviour with 11.8% of people with any mental disorder reporting suicidal ideation, 4.1% making a suicide plan and 1.6% making a suicide attempt.

Mood disorders, anxiety disorders, eating disorders and substance use disorders were all associated with the three suicidal behaviours.

### **Health Services**

There is a significant unmet need for treatment for people with mental disorders.

Of all 12 month cases of mental disorders, 38.9% had a mental health visit to a health or non-health provider in the past 12 months. Of these 12 month cases, 16.4% had contact with a mental health specialist, 28.3% with a general medical provider, 4.8% within the human services sector and 6.9% with a complementary and alternative medicine (CAM) practitioner.

Unmet need for treatment was greatest in younger people and Pacific People. Unmet need for treatment did not vary significantly by socioeconomic status.

The proportion of people with disorders who made a mental health visit to any provider before the disorder ended was around 55.7% for post traumatic stress to 99.5% for alcohol dependence.

The median duration of delay until contact varied from one year for major depressive disorder to 38 years for specific phobias.

### **12.2.5 Key survey results by ethnicity - Maori**

The prevalence of mental disorders in Maori was 50.7% over their lifetime, 29.5% in the past 12 months and 18.3% in the previous month.

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The most common disorders among Maori were:

Table 174: Most common disorders among Maori - New Zealand

12 Month disorders	Percentage	Lifetime Disorders	Percentage
Anxiety disorders	19.4%	Anxiety disorders	31.3%
Mood disorders	11.4%	Substance use disorders	26.5%
Substance use disorders	8.6%	Mood disorders	24.3%
		Eating disorders	3.1%

The lifetime prevalence of any disorder was highest in Maori aged 25-44 (58.1%) and lowest in those aged 65+ (22.7%).

The lifetime prevalence among Maori females was 52.7% and among Maori males was 48.4%.

With any mental disorder 29.6% had serious disorders, 42.6% moderate disorders and 27.8% mild disorders.

Of Maori with serious disorders, 47.9% had some contact with health services compared with 25.4% of those with moderate disorder and 15.7% of those with mild disorder.

Lifetime suicidal ideation was reported by 22.5% of Maori, with 8.5% making suicidal plans and 8.3% making suicide attempts.

Maori females reported higher rates of suicidal ideation, suicide plans and suicide attempts compared with Maori males across lifetime and 12 month periods.

Compared with Pacific People and the Other ethnic group, a higher proportion of Maori had 12 month anxiety, mood, substance use and eating disorders.

### 12.2.6 Key survey results by ethnicity - Pacific People

A total of 2374 Pacific people were interviewed in the survey: 49.2% were Samoan; 20.7% were Cook Island Maori; 16.5% were Tongan and 17.5% were other Pacific people.

Of Pacific people, 25% had experienced a mental disorder in the past 12 months and 46.5% had experienced a disorder at some stage during their lifetime.

Of the Pacific people who experienced a mood disorder, 34.9% also experienced an anxiety disorder and 16.8% a substance use disorder.

Pacific people had lower rates of mental health visits compared with other ethnic groups. Of Pacific people with serious disorder, 25% had a mental health visit in the health sector. (The total New Zealand population with serious disorder was twice as likely to have had a mental health visit in the healthcare sector).

Of Pacific people aged 16-24 and 24-44, 21.1% and 20.4% respectively reported suicidal ideation over their lifetime. A suicide attempt within their lifetime was reported by 4.8% (almost 1 in 20) of Pacific people.

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Of New Zealand born Pacific people, 31.4% had a 12 month prevalence of any mental health disorder compared with 15% of Pacific people who migrated after the age of 18.

### 12.2.7 Overall summary of survey findings

Mental disorder is common in New Zealand, but is much more common in some groups in the population than in others.

Access to healthcare for mental health problems is low, but for people with a need for such care it is fairly equitable across population groups, except for Pacific people and to lesser extent Maori. Both these ethnic groups are less likely to have had access to services.

People with mental disorder frequently have more than one disorder and there are some correlations between mental disorder and chronic physical conditions.

Suicidal behaviours are more common in some population groups than in others.

Mental health is identified as one of the five health priorities among refugees and migrant population<sup>78</sup>. For further details, refer the chapter on Health Status of Refugees and Migrants.,

Te Kokiri: The Mental Health and Addiction Action Plan sets the next steps for progressing the 10 leading challenges for improving mental health and addiction over the next 10 years.

- Promotion and prevention
- Building mental health services
- Responsiveness
- Workforce and culture for recovery
- Maori mental health
- Primary health care
- Addiction
- Funding mechanisms for recovery
- Transparency and trust
- Working together.

The Midland Region Mental Health and Addictions Strategy Plan (2005-2015) developed through extensive engagement process involving key stakeholders from each of the five districts within the Midland region: Waikato, Bay of Plenty, Lakes, Tairāwhiti and Taranaki. The regional plan has eight overarching principles and four interconnected pathways, each with its own objective, strategies and expected outcomes. The plan is built around the 10 national challenges.

## 12.3 Mental health information

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A new national mental health information collection, the Programme for the Integration of Mental Health Data (PRIMHD), is under development and planned to “go live” in July 2008<sup>79</sup>. It is understood that the first implementation will include only information from the

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<sup>78</sup> The Public Health Needs of Waikato Migrants and Refugees - 2005, E S Ho, P B Guerin, J C Cooper and B Guerin, Migration Research Group, University of Waikato,

<sup>79</sup> Health [e] News, Ministry of Health, Issue 17, January 2008, ISBN 1175-8848 Online

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mental health providers of district health boards, and the information related to non government organisations (NGOs) will be implemented over the following three years. The programme is expected to provide a more comprehensive picture of service provision and health outcomes for people accessing mental health services and to enable future service planning.

PRIMHD is one of the priority projects outlined in the National Mental Health Information Strategy 2005-2010, released in 2005.

PRIMHD involves integrating the current Mental Health Information National Collection (MHINC) with the consumer outcome dataset known as the Mental Health Standard Measures of Assessment and Recovery (MH-SMART). In addition, the development of information standards for PRIMHD by the Health Information Standards Organisation (HISO) have addressed information gaps identified through a feasibility study conducted in 2005. A copy of the standards is available at: [www.hiso.govt.nz](http://www.hiso.govt.nz)

## 12.4 Mental health - mortality

Deaths occurring in New Zealand each year are manually coded within New Zealand Health Information System (NZHIS) based at the Ministry of Health. For most deaths the medical certificate of cause of death provides the information required, although coders have access to the information residing in NMDS, NZ Cancer Registry, LTSA, Police, Water Safety NZ and ESR.

The mortality data presented below are extracted from the NZHIS however care must be taken when using this data for any statistical analysis, as there are significant inaccuracies and oversimplification in the ICD10 coding for cause of deaths.

In total, there were 382 deaths (241 female and 141 male) reported as related to mental health disorders from 1998 to 2004. Approximately 92% of the deaths were of people from Other ethnic groups and 7% were of Maori.

Table 175: Mortality to Mental Health Disorders by Ethnic Groups

Year	Maori	Asian	Other	Pacific People	Total
1998	7		56	2	65
1999	6		46		52
2000	3		35		38
2001	2		48		50
2002	2	1	48		51
2003	2	1	70		73
2004	3		50		53
<b>Grand Total</b>	<b>25</b>	<b>2</b>	<b>353</b>	<b>2</b>	<b>382</b>

Around 89% of the deaths were related to dementia, and almost all deaths were among 65+ age groups. The gender proportion of death due to dementia was stable, with 2004 a typical year at 64% female and 36% male.

Deaths related to other mental illnesses were: mental and behavioural disorders due to psychoactive substance use, schizophrenia and mood affecting disorders.

## 12.5 Hospitalisation

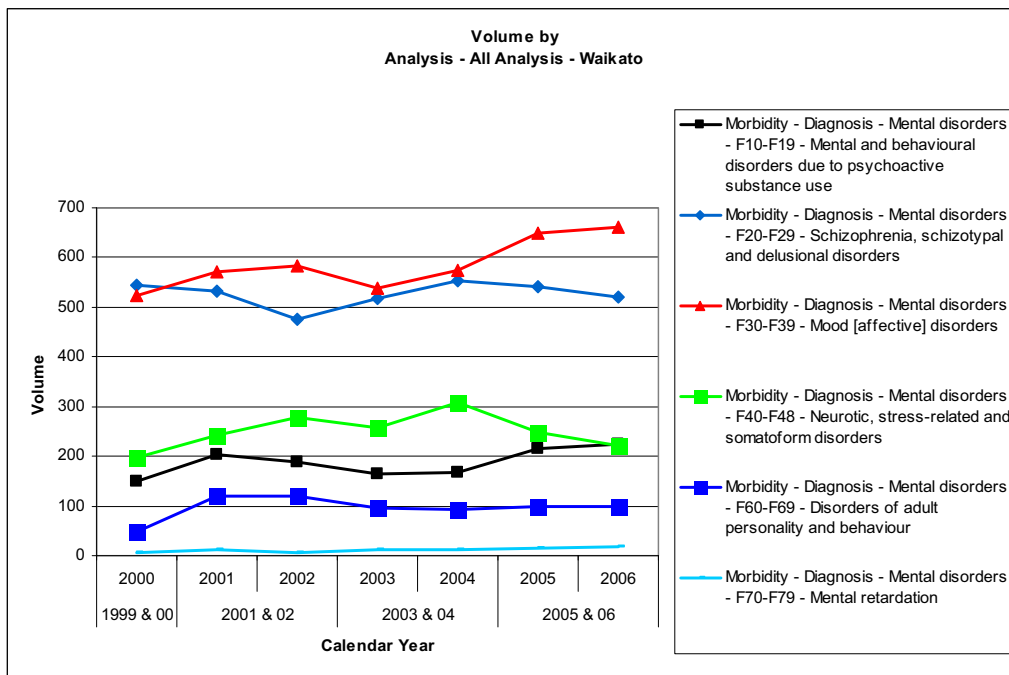
From 2000 to 2006, the leading causes of hospitalisation related to mental health were:

**Table 176: Leading causes of hospitalisation for mental disorders - Waikato**

Leading Causes of Hospitalisation	2000	2001	2002	2003	2004	2005	2006	Total
F20 - Schizophrenia	371	354	294	365	352	342	321	2399
F32 - Depressive episode	232	265	263	255	297	297	368	1977
F31 - Bipolar affective disorder	194	227	247	210	209	244	237	1568
F43 - Reaction to severe stress, and adjustment disorders	112	139	193	161	209	167	140	1121
F10 - Mental and behavioral disorders due to use of alcohol	86	117	119	111	114	151	135	833
F25 - Schizoaffective disorders	85	86	100	91	122	103	135	722
F60 - Specific personality disorders	46	118	118	94	93	98	89	656
Remaining Hospitalisations								3922
<b>Grand Total</b>	<b>1722</b>	<b>1972</b>	<b>1928</b>	<b>1835</b>	<b>1857</b>	<b>1968</b>	<b>1916</b>	<b>13198</b>

Hospitalisations related to schizophrenia, mood disorders and substance use increased steadily over the years, as shown below:

**Graph 65: Leading causes of hospitalisation for mental disorders - Waikato**



In the Waikato, hospitalisation for mental disorders was stable over the reporting years 2000-2006, although at a national level minor reductions were noticed.

The ethnic composition of hospitalisation for mental disorders showed around 70% were people from Other ethnic groups, followed by Maori at 26%, Pacific People at 2% and Asians at 1%.

**Table 177: Hospitalisation for mental disorders by ethnic groups - Waikato**

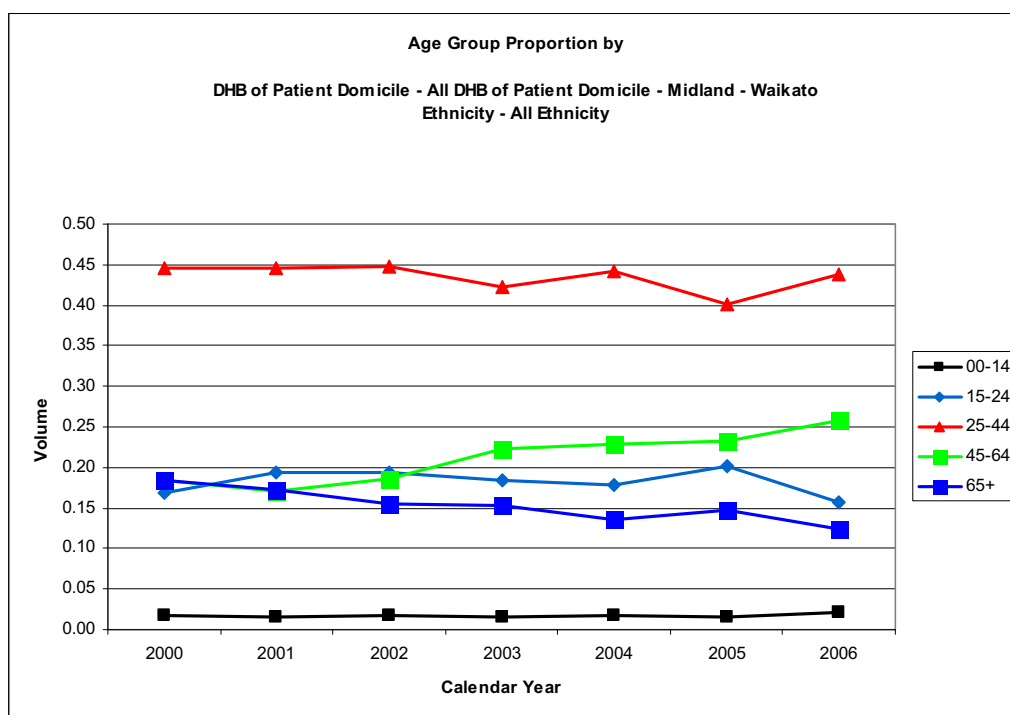
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Year	Maori	Asian	Other	Total Other	Pacific People	Total
2000	424	20	1234	1254	44	1722
2001	501	11	1433	1444	27	1972
2002	501	19	1360	1379	48	1928
2003	483	18	1295	1313	39	1835
2004	518	25	1272	1297	42	1857
2005	528	27	1374	1401	39	1968
2006	535	31	1319	1350	31	1916
<b>Grand Total</b>	<b>3490</b>	<b>151</b>	<b>9287</b>	<b>9438</b>	<b>270</b>	<b>13198</b>

Over the seven year reporting period more females were hospitalised than males, with female hospitalisations moving from 54% to the total in 2000 to 52% in 2006. Most people hospitalised lived in deprivation quintile 5 (44% in 2006). Quintiles 4 and 5 had an increasing share of hospitalisations from 2004.

In 2006, 44% of hospitalisations for mental disorders were of young people aged 25-44 years followed by 45-64 year olds at 26%. Hospitalisation of 45-64 year olds is increasing faster than any other group.

Graph 66: Age proportion of hospitalisation for mental disorders - Waikato



Further breakdown of 25-44 year olds showed that the highest incidence was among 30-34 year olds, although the incidence was spread across all five year age bands from 20 to 49.

Table 178: Age breakdown of hospitalisation for mental disorders - Waikato

Year	00-15	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
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2000	2%	7%	10%	11%	14%	10%	11%	7%	5%	4%	2%	18%
2001	1%	8%	11%	12%	12%	11%	9%	6%	6%	3%	2%	17%
2002	2%	7%	13%	12%	12%	12%	8%	9%	5%	3%	2%	15%
2003	2%	7%	12%	11%	12%	9%	10%	9%	6%	4%	3%	15%
2004	2%	7%	11%	11%	15%	11%	8%	9%	6%	4%	4%	14%
2005	1%	10%	11%	10%	12%	10%	8%	10%	7%	4%	3%	15%
2006	2%	8%	8%	10%	11%	12%	11%	12%	6%	5%	3%	12%
<b>All years</b>	<b>2%</b>	<b>8%</b>	<b>11%</b>	<b>11%</b>	<b>13%</b>	<b>11%</b>	<b>9%</b>	<b>9%</b>	<b>6%</b>	<b>4%</b>	<b>3%</b>	<b>15%</b>

### 12.5.1 Schizophrenia - All Ethnic Groups

In total there were 2399 hospitalisations (658 female and 1741 male) from 2000 to 2006. More males were hospitalised than females. 2006 was a typical year at 27% female and 73% male

The ethnic composition of hospitalisation showed around 50% in Other ethnic groups (excluding Asians), 46% Maori, 3% Pacific People and 1% Asians.

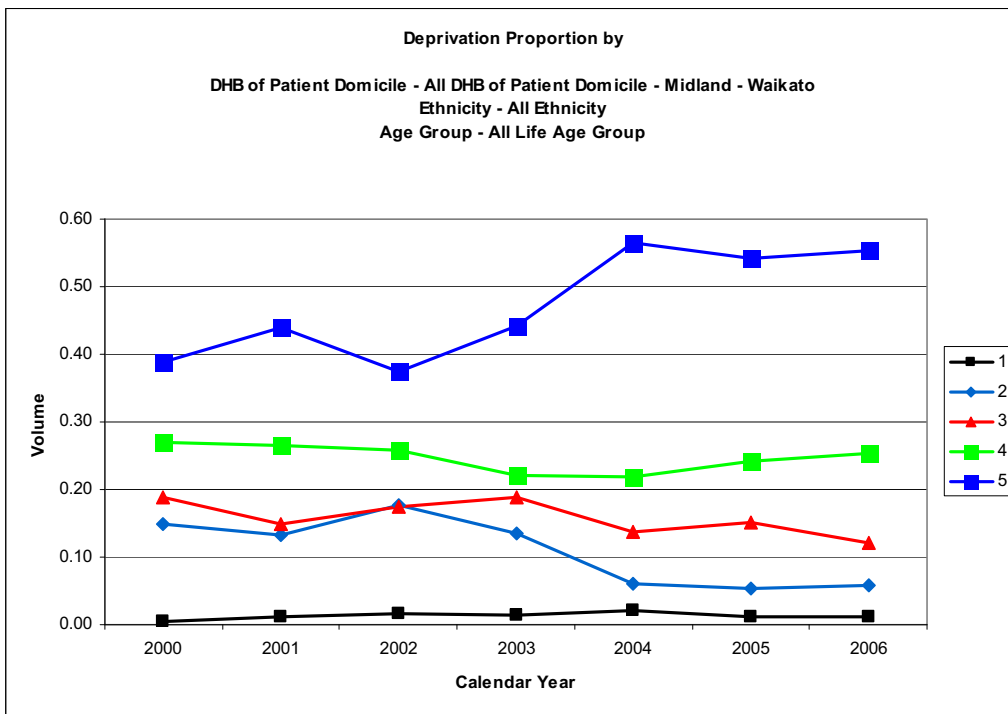
Table 179: Number of hospitalisation for schizophrenia by ethnic groups - Waikato

Year	Maori	Asian	Other	Pacific People	Total
2000	142	3	208	18	371
2001	152		196	6	354
2002	146	5	135	8	294
2003	169	3	182	11	365
2004	182	2	154	14	352
2005	167	5	161	9	342
2006	147	5	159	10	321
<b>Grand Total</b>	<b>1105</b>	<b>23</b>	<b>1195</b>	<b>76</b>	<b>2399</b>

An increasing proportion of hospitalisations for schizophrenia were of people living in the highest NZDep quintile 5, however this trend stabilised at approximately 55% of hospitalisations from 2004 to 2006.

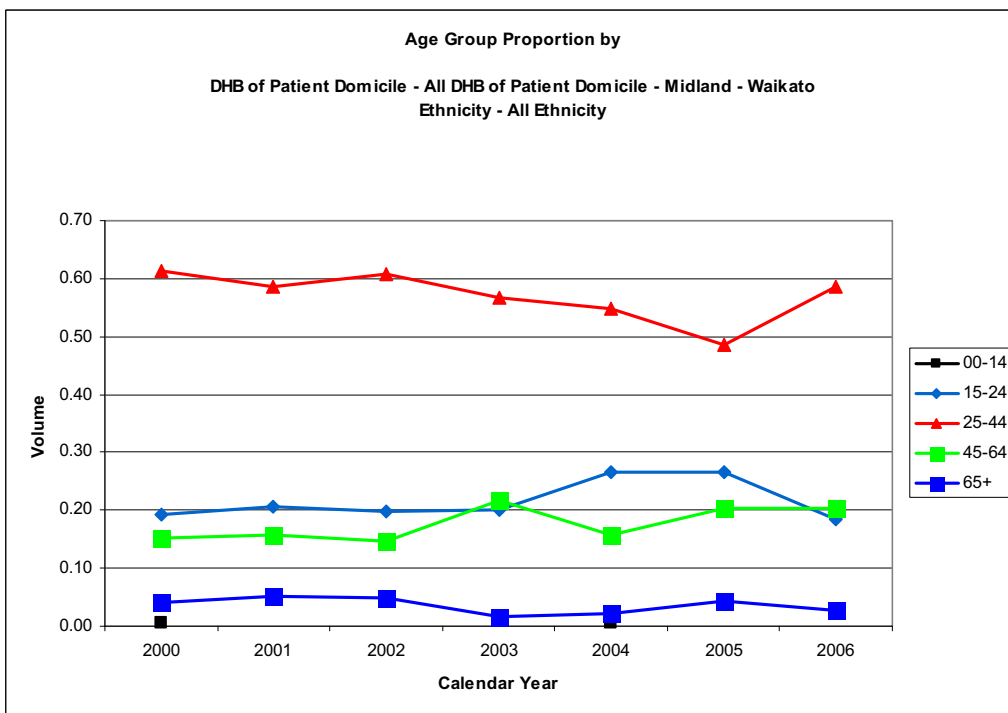
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Graph 67: Deprivation proportion of hospitalisation for schizophrenia - Waikato



In 2006, around 60% of the hospitalisations were in the 25-44 age groups, followed by 20% among 45-64 age groups. The 15-24 age group proportion increased in 2004 and 2005, but decreased back to 20% in 2006.

Graph 68: Age proportion of hospitalisation for schizophrenia - Waikato



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Further breakdown in smaller age bands showed most hospitalisation for schizophrenia is in the 20-34 age groups.

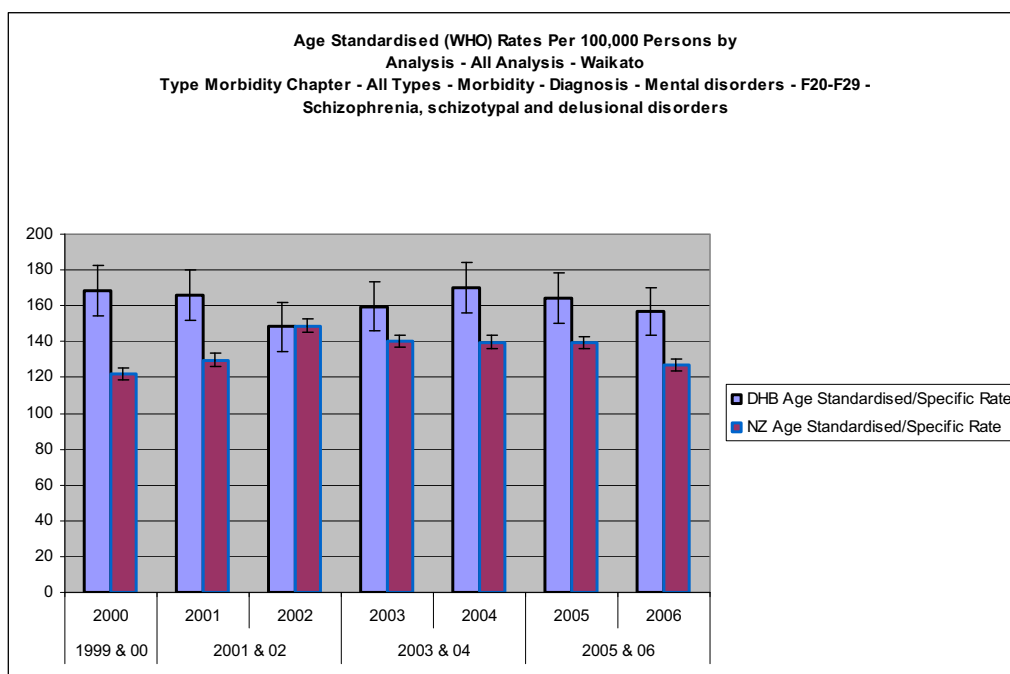
**Table 180: Age breakdown of hospitalisation for schizophrenia – Waikato**

Year	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64
2000	6%	13%	16%	22%	12%	14%	8%	4%	3%	2%
2001	5%	17%	16%	18%	13%	14%	7%	5%	4%	2%
2002	5%	16%	17%	19%	13%	10%	9%	7%	3%	2%
2003	4%	17%	17%	17%	12%	10%	12%	6%	3%	3%
2004	5%	19%	13%	14%	17%	11%	9%	5%	4%	3%
2005	9%	19%	16%	11%	13%	9%	9%	6%	4%	5%
2006	6%	12%	17%	14%	16%	10%	14%	2%	4%	4%
<b>All years</b>	<b>6%</b>	<b>16%</b>	<b>16%</b>	<b>17%</b>	<b>14%</b>	<b>11%</b>	<b>10%</b>	<b>5%</b>	<b>3%</b>	<b>3%</b>

The age standardised rate of hospitalisation for schizophrenia includes schizophrenia, schizotypal and delusional disorders (ICD Codes: F20-F29).

In Waikato, the age standardised rate decreased to 156.74 per 100,000 in 2006, however the Waikato rate was significantly higher than the national rate in all years except 2002.

**Graph 69: Age standardised rate of hospitalisation for schizophrenia, schizotypal and delusional disorders - Waikato all ethnic groups**



## Schizophrenia - Maori

## Mental Health Services

In total 1105 Maori were hospitalised with this disorder from 2000 to 2006.

In 2006, 82% of Maori hospitalisation for schizophrenia was male. This was typical of all years.

The deprivation proportion was the highest among quintile 5 at 63%. The proportion of hospitalisation from this quintile increased over the years reported.

Young Maori aged 25-44 and 15-24 made up most of the hospitalisation. In most years studied almost 90% of all Maori hospitalisations were aged 15-44.

Further age breakdown analysis revealed that Maori aged 20-39 represented most of the hospitalisation.

**Table 181: Further age breakdown of hospitalisation for Schizophrenia - Waikato Maori**

Year	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64
2000	7%	17%	22%	22%	14%	11%	7%	2%	1%	
2001	6%	22%	20%	17%	13%	10%	7%	1%	3%	0%
2002	6%	18%	24%	22%	16%	4%	7%	1%	0%	
2003	3%	20%	23%	16%	15%	7%	11%	3%	1%	1%
2004	6%	27%	16%	16%	18%	8%	6%	1%	1%	1%
2005	13%	25%	22%	10%	11%	6%	8%	3%	1%	1%
2006	9%	14%	20%	18%	21%	8%	9%	1%	0%	0%
<b>All years</b>	<b>7%</b>	<b>21%</b>	<b>21%</b>	<b>17%</b>	<b>15%</b>	<b>8%</b>	<b>8%</b>	<b>2%</b>	<b>1%</b>	<b>1%</b>

## Schizophrenia - Other ethnic group

There were 1218 hospitalisations for schizophrenia from Other ethnic groups (including 23 Asians) from 2000 to 2006. Like Maori, the gender proportions were stable at 35% female and 65% male in 2006.

48% of hospitalisation was from quintile 5 followed by quintile 4 at 30% in 2006. Over the year analysed, there was an increasing likelihood that hospitalisations were from quintiles 4 or 5.

Unlike Maori, the proportion of hospitalisation was higher among the older age groups of 25-44 and 45-64 year olds and lower among 15-24 year olds.

Further age breakdown analysis revealed that among Other ethnic groups, most hospitalisation was in age bands 30-34 and 40-44.

**Table 182: Further age breakdown of hospitalisation for schizophrenia - Waikato Other**

Year	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64
2000	6%	12%	11%	21%	10%	18%	10%	6%	4%	3%

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Year	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64
2001	4%	13%	13%	17%	12%	17%	8%	9%	4%	3%
2002	4%	12%	12%	18%	11%	15%	10%	12%	5%	2%
2003	4%	12%	13%	18%	9%	13%	13%	9%	4%	4%
2004	4%	10%	10%	12%	14%	14%	13%	9%	8%	5%
2005	7%	11%	10%	12%	14%	13%	10%	9%	6%	8%
2006	4%	9%	13%	11%	11%	14%	19%	3%	9%	8%
<b>All years</b>	<b>5%</b>	<b>11%</b>	<b>12%</b>	<b>16%</b>	<b>11%</b>	<b>15%</b>	<b>12%</b>	<b>8%</b>	<b>6%</b>	<b>5%</b>

### Schizophrenia - Pacific People

In total there were 76 Pacific people (18 female and 58 male) hospitalised for schizophrenia from 2000 to 2006. 76% of the hospitalisation was male. 60% of the 2006 hospitalisation lived in the most deprived NZDep quintile 5 and 30% in quintile 4.

The age proportion of hospitalisation among Pacific People is similar to Maori, as 60% of hospitalisations were aged 25-44 years old. Further breakdown of this age group revealed 67% were 25-29 year olds and 33% were 30-34 year olds in 2006.

The age standardised rate of avoidable hospitalisation for schizophrenia, schizotypal and delusional disorders among Pacific People increased slightly to 213.9 per 100,000 in 2006. There was no significant difference between the Waikato age standardised rate and the national rate.

### 12.5.2 Depressive episode - Waikato all ethnic groups

Depressive episode is one of the mood affective disorders. In total there were 1977 hospitalisations (1299 female and 678 male) related to depressive episodes from 2000 to 2006.

Over 80% of the hospitalisations were of people from the Other ethnic group.

Table 183: Hospitalisation for depressive episode - Waikato - by ethnicity

Year	Maori	Asian	Other	Pacific People	Total
2000	31	2	196	3	232
2001	24	2	233	6	265
2002	33	5	220	5	263
2003	33	2	220		255
2004	32	6	254	5	297
2005	39	4	248	6	297
2006	55	10	297	6	368
<b>Grand Total</b>	<b>247</b>	<b>31</b>	<b>1668</b>	<b>31</b>	<b>1977</b>

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Female hospitalisation remained consistently higher, increasing to around 70% of the total. Most people hospitalised for a depressive episode came from the more deprived NZDep quintiles but quintile 2 and 3 combined had almost 40% of hospitalisations.

Most hospitalisation for depressive episode was of 25-44 year olds (41% of total in 2006) and 45-64 year olds (30% of total in 2006).

Further breakdown of age groups revealed the highest proportion of hospitalisations was of 35-49 year olds.

**Table 184 Hospitalisation for depressive episode - 5 year age bands - Waikato**

Year	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64
2000	7%	13%	13%	14%	14%	13%	10%	5%	6%	6%
2001	8%	14%	9%	18%	11%	11%	9%	10%	5%	3%
2002	6%	11%	11%	10%	18%	15%	20%	6%	1%	2%
2003	7%	9%	8%	7%	14%	11%	23%	7%	8%	3%
2004	8%	11%	12%	18%	8%	5%	13%	16%	5%	5%
2005	14%	8%	11%	10%	14%	10%	19%	9%	5%	0%
2006	6%	5%	9%	8%	15%	19%	22%	7%	5%	3%
<b>All years</b>	<b>8%</b>	<b>10%</b>	<b>10%</b>	<b>12%</b>	<b>13%</b>	<b>12%</b>	<b>17%</b>	<b>9%</b>	<b>5%</b>	<b>3%</b>

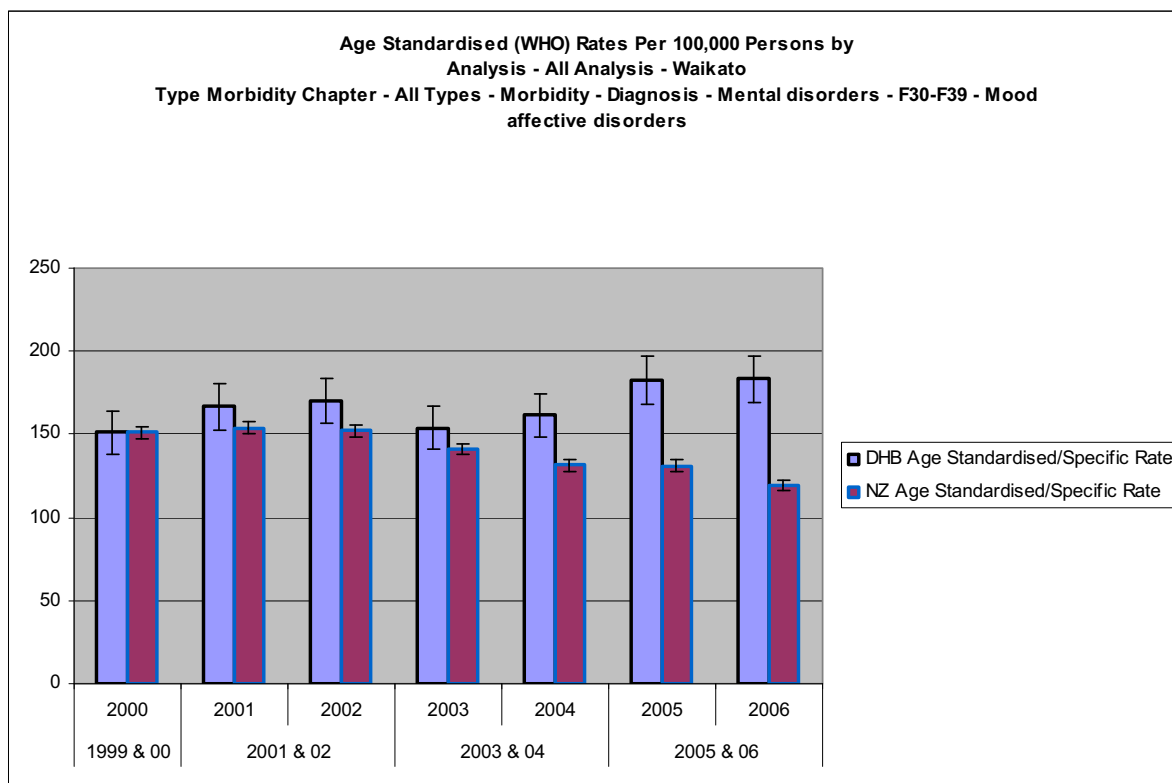
The age standardised rate data is based on the group mood affective disorder (ICD Codes F30-F39) which includes:

- manic episode
- bipolar affective disorder
- depressive episode
- recurrent depressive disorder
- persistent mood affective disorder
- other and unspecified mood affective disorders

The age standardised rate of hospitalisation for mood affective disorders was 183.27 per 100,000 in 2006. The Waikato age standardised rate was significantly higher than the national rate from 2004 to 2006.

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Graph 70: Age standardised rate for hospitalisation for mood affective disorders - Waikato rate compared to national rate



### Depressive episode - Maori

In total there were 247 hospitalisations of Maori for depressive episodes. Annually there was a steady increase from 2000 to 2006.

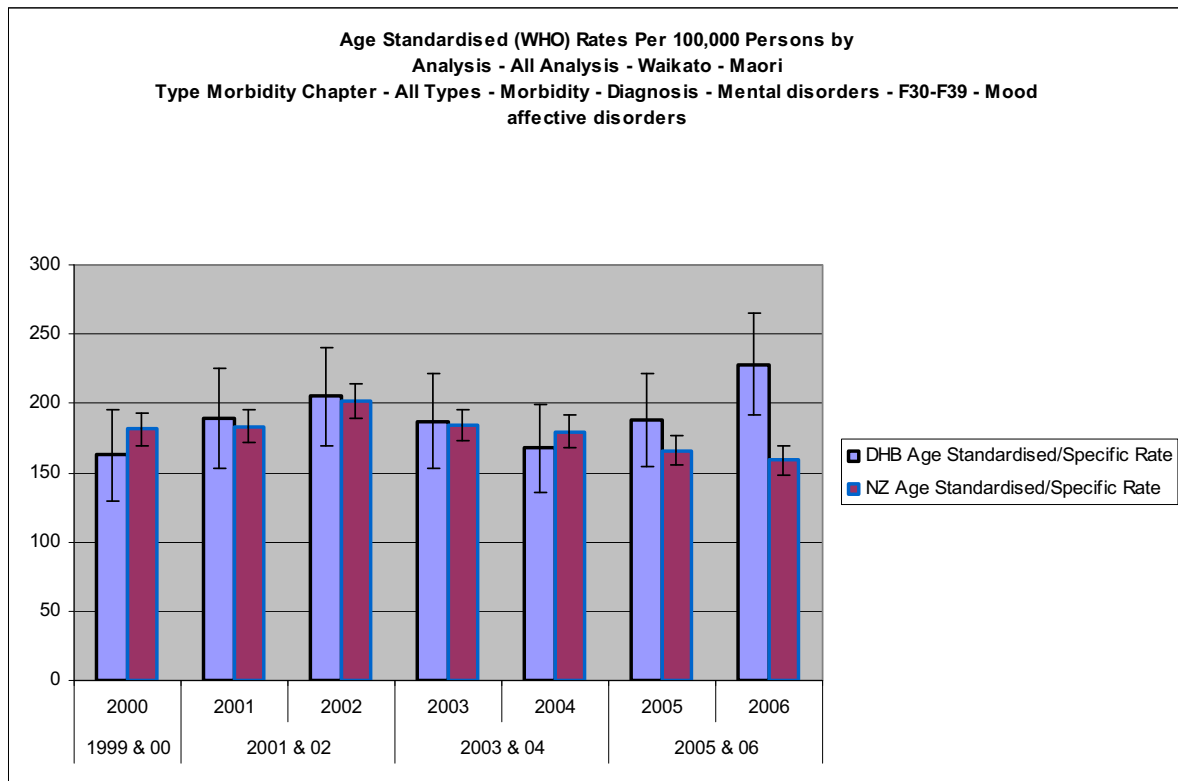
Hospitalisation was equally shared between the genders.

Most hospitalisation was of 25-44 year olds at 58% in 2006. However, further breakdown of this age group into five year bands showed the biggest volume of hospitalisation was of 35-44 year olds.

The age standardised rate of hospitalisation for mood affective disorders among Maori has been increasing, reaching 228.14 per 100,000 in 2006. For the first time in seven years, the Waikato age standardised rate was significantly higher than the national rate of 159.21 per 100,000 in 2006.

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**Graph 71: Age standardised rate of hospitalisation for mood affective disorders - Waikato Maori rate compared to national Maori rate**



### Depressive episode - Other

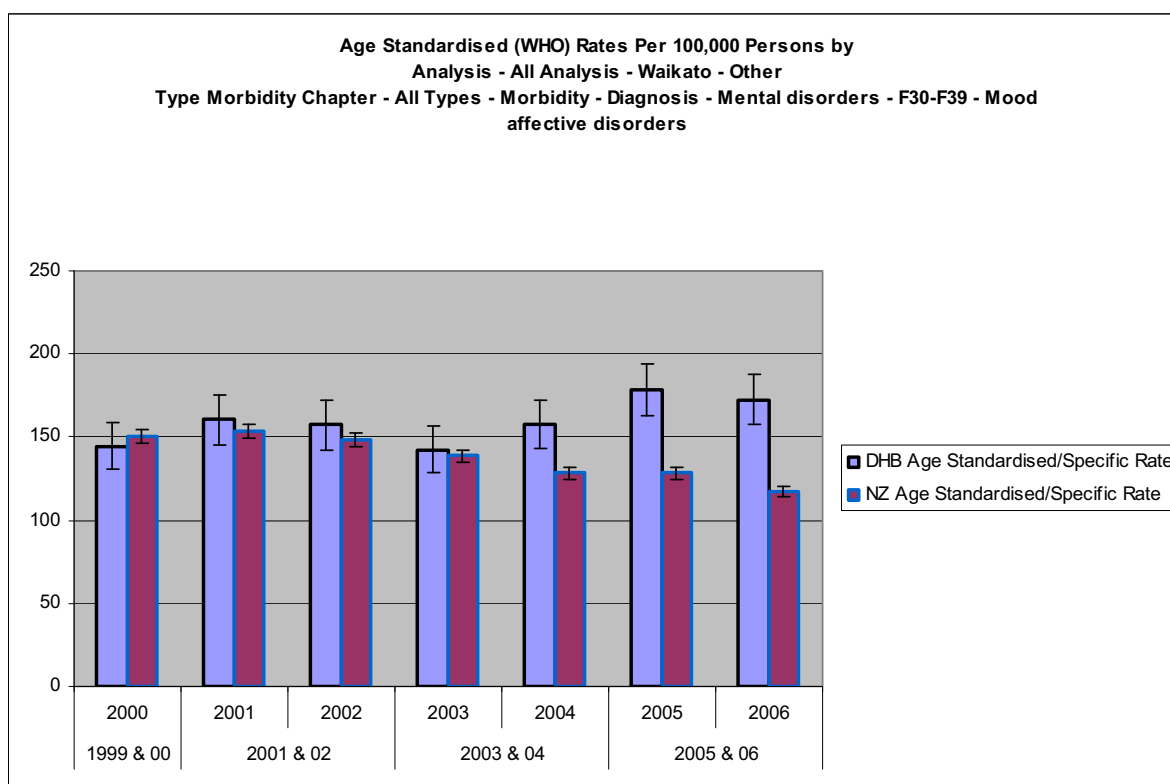
1668 people from Other ethnic groups were hospitalised for a depressive episode from 2000 to 2006. Around 60% of the hospitalisation was female in 2000, rising to 76% in 2006.

Like Maori, most hospitalisation was the highest in 25-44 and 45-64 year olds at around 38% and 32% of hospitalisation respectively. Further breakdown of the above age groups showed more hospitalisation among 35 to 49 year olds than other age bands.

Among Other ethnic groups, the age standardised rate of hospitalisation increased overall with a minor decrease in 2006 to 172.41 per 100,000. The Waikato age standardised rate was significantly higher than the national rate from 2004 to 2006.

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Graph 72: Age standardised rate of hospitalisation for mood affective disorders - Waikato Other rate compared to national Other rate



### Depressive episode – Pacific People

There were 62 hospitalisations for Asians and Pacific People (31 each) spread over the 2000 to 2006 years. The low volume precludes detailed analysis for informed decision making.

### 12.5.3 Bipolar affective disorder - hospitalisation

In total there were 1568 hospitalisations related to bipolar affective disorders for 2000 to 2006. Approximately 61% of the hospitalisations were of people from Other ethnic groups followed by Maori at 31%.

Table 185: Bipolar disorder by ethnicity - Waikato

Year	Maori	Asian	Other	Pacific People	Total
2000	58	6	124	6	194
2001	85	2	134	6	227
2002	87	4	142	14	247
2003	78		123	9	210
2004	71		135	3	209
2005	74	4	155	11	244
2006	86	1	145	5	237
<b>Grand Total</b>	<b>539</b>	<b>17</b>	<b>958</b>	<b>54</b>	<b>1568</b>

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The gender and age proportion of hospitalisations for bipolar affective disorders were consistently similar to the depressive episode data outlined above.

## 12.6 National perspective - mental disorders

Table 186 Hospitalisation by local authority – Waikato DHB

Mental Health - Hospitalisation - Territorial Authorities	2000	2001	2002	2003	2004	2005	2006	Total
Hamilton City	845	1108	956	914	925	936	990	6674
Hauraki District	77	67	79	86	71	90	84	554
Matamata-Piako District	99	108	118	93	130	149	110	807
Otorohanga District	27	23	30	14	23	23	32	172
Ruapehu District	58	54	54	61	55	57	51	390
South Waikato District	122	104	114	126	111	123	96	796
Thames-Coromandel District	126	127	121	111	105	123	128	841
Undefined	1	2						3
Waikato District	161	147	180	200	228	201	185	1302
Waipa District	156	182	230	182	174	215	188	1327
Waitomo District	50	50	46	48	35	51	52	332
<b>Grand Total</b>	<b>1722</b>	<b>1972</b>	<b>1928</b>	<b>1835</b>	<b>1857</b>	<b>1968</b>	<b>1916</b>	<b>13198</b>

### Summary of findings:

- Affluent areas such as, Hamilton City, Waipa and Waikato Districts showed high number of hospitalisations for mental illnesses, which suggests:
  - high prevalence of mental illnesses in those areas; and/or
  - people living in other territorial local authorities are not accessing the mental health services.

## 12.7 Forensic mental health services

The content of this section of the HNA was extracted from the Census of Forensic Mental Health Services 2005<sup>80</sup> report. This document is available on the Ministry of Health's website: <http://www.moh.govt.nz>

Forensic mental health services were first established in New Zealand as a response to the issues raised in the Mason Report, which presented the findings of the Committee of Inquiry into Procedures used in Certain Psychiatric Hospitals in relation to Admissions, Discharge or Release on Leave of Certain Classes of Patients 1989 (Mason 1988). Regional forensic services were established in Auckland, Wellington, Wanganui, Hamilton, Christchurch and Dunedin. These services were in addition to the National Secure Unit at Lake Alice Hospital. The role of these regional services was to assess, treat and rehabilitate people with mental illness who had, or were alleged to have, committed a crime and those who were likely to offend. In October 2005 a new census of forensic services was carried out. This census had wider coverage than the 1999 census, and information was collected on:

- Forensic inpatients and community based forensic service users at all regional forensic services, and Hauora Waikato, as at 10 October 2005.
- Prison liaison service users as at census date (10 October 2005), and prison liaison service activity for the month from 10 October to 10 November 2005.

<sup>80</sup> Ministry of Health, 2007

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- Court liaison service activity for the month from 10 October to 10 November 2005, and court reports prepared in the month from 10 October to 10 November 2005.
- Bed numbers and staffing levels at all regional forensic services and Hauora Waikato.

The census did not cover specialised youth services or intellectual disability services. With some exceptions, most mental health services to youth who are in contact with the youth justice system are not provided by the forensic service providers included in this census. While a small number of service users captured in the census were below 20 years of age, the census data primarily covers people in contact with the adult justice system.

### 12.7.1 Inpatient and community census

The following forensic inpatient facilities exist in New Zealand:

- Mason Clinic, Auckland; 84 beds; Auckland Regional Forensic Service (RFS)
- Henry Rongomau Bennett Centre, Hamilton; 40 beds; Waikato RFS
- Standord House, Wanganui; 10 beds; Central RFS
- Ratonga-Rua-o-Porirua; 40 beds; Central RFS
- Hillmorton Hospital, Christchurch; 34 beds; Canterbury RFS
- Wakari Hospital, Dunedin; 13 beds; Otago/Southland RFS

Hauora Waikato also provides 15 “step-down” inpatient beds for forensic patients who are being transferred out of secure care.

Community based services are provided by the five regional forensic services plus Hauora Waikato.

On 10 October 2005, there were 380 users of inpatient and community services. This compares to 445 service users in 1999, a reduction of 65 (15%). Within this reduction, there was significant regional variation in both direction and magnitude of change. Auckland and Waikato had seen an increase in total service users.

Table 187: Number of forensic mental health service users by regions and percentage of change

Region	Number of Service Users		% Change
	1999	2005	
Auckland	81	119	47%
Waikato	70	75	7
Central	96	79	-18
Canterbury	124	67	-46
Otago/Southland	74	40	-46

The 2005 census includes Hauora Waikato patients, who were not included in the 1999 census.

The mix of inpatient and community services users also changed to 215 (57%) inpatients and 165 (43%) community based forensic service users in 2005. The number of forensic inpatients nationwide increased by 14% (26) between the two census dates, and community based forensic service user numbers decreased by 36% (91). In Waikato inpatients increased from 29 in 1999 to 43 in 2005 (59% change), and community based forensic service users decreased from 41 in 1999 to 32 in 2005 (-22% change). This decrease may be attributable to service users moving to general, non-forensic mental health services in the community.

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Around 87% of inpatients and 92% of community forensic service users were 25 years old and over, while 42% of forensic inpatients and 61% of community forensic service users were over the age of 35 years.

The major sources of forensic inpatient referrals in 2005 were courts (32%), prisons (25%) and other regional forensic services (20%). For community based forensic services the major referral source was forensic inpatient units (56%), followed by prisons (17%).

Regional variations in referral sources were significant indicating differences in coding practices between regions, in addition to real significant regional differences, for example in terms of willingness to provide community based services to ex-inmates.

In Waikato 51% of inpatients were special or restricted patients, slightly lower than the national rate of 53%.

At a national level schizophrenia was the most common diagnosis among inpatients (157, or 71%) and community forensic service users (121 or 73%) in 2005. Almost three-quarters (74%) of male inpatients had a diagnosis of schizophrenia compared to 55% of females service users. Conversely, female service users (14%) were more likely to have an unspecified psychosis than males (3%).

Nationally, the number of Maori community based service users remained constant between 1999 (73) and 2005 (74), and the number of Pacific service users increased from 13 to 18, whereas the number of Europeans fell by 55% (from 158 to 71) over the same period. The ethnic composition of New Zealand prisons on 9 October 2005 was 49% Maori, 30% European, 10% Pacific and 11% Other.

### **12.7.2 Cultural assessments and Maori therapeutic processes**

Cultural assessment refers to “the process through which the relevance of culture to mental health is ascertained” (Durie 1995). Nationwide, 176 cultural assessments were carried out for forensic inpatients and community service users, representing 85% of all Maori and Pacific service users.

Maori who are culturally assessed may have access to a Maori therapeutic process, which takes account of tikanga Maori and the importance of cultural wellbeing to Maori mental health. In Waikato 71% (35) of Maori forensic inpatients and community service users participated in this therapeutic process, in addition to two Pacific people who also went through this process.

### **Staffing and bed numbers**

In 2005, the inpatient service staff full-time equivalents in the Waikato Regional Forensic Service (RFS) was 2.2 per bed. This equated to 123 staff in total (39 Maori specialist within total, 2 vacancies within total and 55 bed numbers), compared to 3.2 staff per bed in Auckland RFS, 2.9 staff per bed in Central RFS, 1.9 staff per bed in Canterbury RFS and 2.5 staff per bed in Otago RFS. In Waikato DHB and Hauora Waikato, there were a total of 55 beds, of which 30 were secure (acute, sub-acute or long-term) and 25 non-secure beds in 2005, increased from 30 total beds in 1999.

## 12.8 Findings from Hauora study

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The information presented below is extracted from the “Hauora Maori Standards of Health IV report”<sup>81</sup>. This report is available on the website: <http://www.hauora.maori.nz>

In 2003/04, Te Rau Hinengaro, the New Zealand Mental Health Survey showed that:

- Just over half of Maori had experienced a mental disorder during their lifetime, and just under a third within the past 12 months
- Most common lifetime disorders for Maori were anxiety (31.3%), substance (26.5%) and mood (24.3%) disorders.
- Mental disorders were common among 16 to 24 and 25 to 44 year olds, those living in low income and high deprivation areas. There were no differences in rates by region or rurality.
- Maori had higher overall rates of disorders and higher rates of serious disorders than Pacific People and non-Maori non-Pacific people.
- Contact with mental health services for service needs was low for Maori relative to their needs. Only half of those with serious disorders in the past 12 months had any contact with mental health services compared with two thirds of non-Maori.
- General practice was the leading sources of service contact.
- Leading causes of hospitalization among Maori were Schizophrenia, followed by bipolar disorders (more than half).
- Age standardized rate of hospitalization among Maori for mental disorders were 80% higher than those of non-Maori.
- Maori were less likely to be hospitalized for depressive, personality and eating disorders, but over 3.5 times more likely for schizophrenia and 2.4 times more likely to be hospitalized for bipolar disorder.
- In 2000-2004 suicide mortality was the highest among Maori aged 15-24 and 25-44 year olds
- Maori aged 15-24 years were two times more likely to die by suicide than non-Maori, and 1.5 times more likely than non-Maori aged 25-44 years.
- Suicide rates among Maori in older age groups were lower than rates for non-Maori.

### 12.8.1 Recommendations

The recommendations outlined below may be addressed either fully or partly in the Mental Health Strategic Action Plan 2006-2015.

Currently, the trend is for the establishment of more community based alternative centres for addressing the needs of mental health users, that are adequately resourced with trained staff to deliver in the community and improve the quality of care. For financial sustainability, these centres may need to be small centres with plans for progressive expansion into the future.

- More education and support is needed for people caring for mental health patients.
- Early interventions, such as cognitive therapy and family oriented interventions for high risk children may reduce the development of mental health problems.

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<sup>81</sup> A study of the Years 2000-2005, Robson B, Harris R (eds), Wellington, Te Ropu Rangahau Hauora A Eru Pomare

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- To prevent suicide and suicide attempts, it is essential to work closely with the Ministry of Education in the introduction of training for teachers and parents, in addition to setting up a school professional team of people to address any crisis.
- The gap between the burden of mental disorders and workforce resources and the effective utilisation of the resources must be addressed.
- Increasing the training and support required at the primary health care level, as it is essential for the primary health doctors and nurses to recognise and properly treat mental disorders. Mental disorders such as depression can be treated by a primary health professional with common and inexpensive medicines and social interventions.
- Implementation of technological support service is essential to increase and improve on the current mental health information base.
- It was suggested by a visiting international health policy expert that New Zealand should reconsider the classification of drugs, i.e. should alcohol be an illegal drug, as the ill effect of alcohol is greater than other drugs that are currently classified as illegal drugs.

Service provision gaps in rural areas and in the provision of specialised mental health professional must be addressed.