

8 EXTERNAL CAUSES

KEY FINDINGS

Youth 15-24 Year Olds - Deaths to Road Traffic Accidents

- In the Waikato, around 25% of the mortality to road traffic accidents was in the 15-24 age groups and 36% in the 25-44 age groups.
- The highest number of road traffic deaths from motor vehicle crashes was in 15-24 year olds (35% of male deaths and 30% of female deaths).
- In New Zealand, 15-19 year olds and 20-24 year olds had the highest number of hospitalisation days at 6238 and 5099.
- The largest groups of alcohol offenders in New Zealand were 15-19 year olds at 6556 and 20-24 year olds at 5134. The alcohol level was the highest among 20 year or older age groups at 121 to 200 (blood equivalent - mg/100ml).
- When ranked among other countries, the percentage of road traffic deaths occurring in the 15-24 age group in New Zealand was the second highest at 32.8, the highest being Iceland at 42.1.
- In New Zealand the deaths per 100,000 people in the 15-24 age group was the third highest at 68.4, United States was first at 77.6, followed by Greece at 73.2.

Youth 15-24 Year Olds - Intentional Self Harm

- In the Waikato, 67% of mortality to intentional self harm in 2004 was of Maori youth aged 15-24. Around 78% of Maori deaths occurred in the highest deprivation quintile 5. Among Other ethnic group deaths spread across deprivation quintile 3 to 5.
- From 2002 to 2006, the age proportion of hospitalisation in the Waikato was consistently high among 15-24 and 25-44 year olds.
- In the Waikato from 2002 to 2006, the highest number of hospitalisation to intentional self harm was among Maori, Asians and Pacific People aged 18-24 year old.
- At a national level, the highest intentional self harm (suicide) hospitalisation rates in 2006 were female Maori (as opposed to non-Maori) those in the age group of 15-24 years and those residing in the most deprivation quintile 5.
- Median ages of onset for all three behaviours were in the twenties: Suicide ideation - 25 years, Making a suicide plan - 25 years and Suicide attempts - 21 years.
- When ranked along other countries, the New Zealand 2005 suicide rate for males aged 15-24 years was the second highest at 27.6 per 100,000 (Finland was first at 33.1). Similarly the suicide rate among the same age group females was the third highest at 8.2 per 100,000 (Finland at 9.7 and Japan at 8.4).

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All Age groups - Road Traffic Accidents

- Two leading causes of mortality and hospitalisations in the Waikato were road traffic accidents and intentional self harm. This trend in the Waikato is consistent with the national trend.
- Injuries to all types of road users increased significantly, consequently the number of stays in hospitals also increased.
- In the Midland region, casualties per 100,000 population was the highest in Waitomo followed by Otorohanga and Ruapehu.
- In New Zealand in 2005, road traffic deaths per 100,000 at 9.9 were higher than Australia at 8.1 and France at 8.8.

All Age groups - Intentional Self-harm

- In Waikato, 67% of Maori deaths to hanging\suffocation\strangulations in 2004 occurred in 15-24 year olds and 53% of Other ethnic group deaths occurred in 25-44 year olds. The trend among Asians and Pacific People are similar to Maori.
- From 2000 to 2006, the highest intentional self harm categories were poisoning and self harm by sharp objects.
- Gender proportion of female hospitalisation for intentional self harm was consistently higher than male and in 2006 it rose to 72.54%.
- Waikato age specific rate of hospitalisation was 5th highest among the 21 DHBs

RECOMMENDATIONS FOR STRATEGIC CONSIDERATION

Youth today are at much higher risk of death to road traffic accidents, alcohol misuse and intentional self harm. Key areas of focus have to be on the determinants of health:

- Greater focus on the youth population (15-24 and adult aged 25-44 year), with programmes focusing on road traffic accidents and hospitalisation and deaths to intentional self harm.
- Alcohol control and education for 20+ age groups to reduce alcohol offences.
- Active participation and contribution to relevant interagency initiatives that are focused on reducing road traffic fatalities, alcohol misuse and suicide, may reduce the current burden of hospitalisation. Working together, the agencies must set shared outcomes. In addition, these initiatives need to include training and educating parents in early identification and need for prompt referral for intervention and support.

Collectively, government agencies need to set up centres that attract youth and allow them to communicate their views and issues. It is essential for these centres to be appropriately located and staffed with specialist resources that youth in the area trust and respect.

8.1 Introduction

The category “External Causes” includes:

- Road traffic accidents, vehicles and pedestrians
- Intentional Self Harm (Suicide)
- Drowning
- Falls
- Other non clinical causes, eg poisoning

8.2 Leading Causes of Mortality

In the Waikato, the top two leading causes of mortality from external causes were:

- Road traffic accidents; and
- Intentional self harm.

8.2.1 Road Traffic Accidents - Waikato

Total mortality to road traffic accidents in the Waikato was approximately 395 from 1998 to 2004. 67% of the mortality was of people from the Other ethnic groups, 31% from Maori and 2% from Pacific People.

More mortality to road traffic accidents was in the 25-44 age group than any other age group, (36% followed by 15-24 at 25%). Male mortality was consistently higher than female, ranging from 63% to 80% of total mortality.

8.2.2 Statistical Findings from the Ministry of Transport

Some of the national health statistics from the Ministry of Transport, “Yearly Report 2007”⁵⁷ on “Motor vehicle crashes in New Zealand for year ending 31 December 2006” are:

- The highest number of deaths from motor vehicle crashes was in the 15-24 age group (approximately 35% of male deaths and 30% of female).
- From 1999 to 2006 there were no significant changes to the annual number of road traffic accident related hospital discharges, which were around 8,000 in 2006.
- The number of hospitalisations in each length of stay band i.e. over 1 day in hospital and over 3 days in hospital decreased significantly over the years to approximately 4000 and 3000 discharges respectively in 2006.

⁵⁷ Prepared by Transport Monitoring Strategy & Sustainability, Ministry of Transport, The report is available from the website: www.transport.govt.nz

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- 15-19 year olds and 20-24 year olds had the highest number of hospitalisation days at 6238 and 5099 respectively.
- The total volume of alcohol offenders was 21,279. When split by age and sex, the largest groups of offenders were 15-19 year olds at 6556 (5018 males and 1538 females) and 20-24 year olds at 5134 (4097 males and 1037 females).
- The alcohol level was the highest among 20 years or older age groups at 121 to 200 (blood equivalent -mg/100mls).

In the "Road User behaviour survey" carried out in March and April 2006 by the Ministry of Transport, about 90,000 adult drivers and front seat passengers were surveyed at 274 sites around the country. The survey expanded from 114 sites in 2002 to 274 in 2003, so the results from 2003 onwards were not strictly comparable with those from earlier surveys. Key findings from the survey are:

Table 105: Road User Survey Categories and Rates - Waikato

Survey Categories and Rates for Waikato	2000	2001	2002	2003	2004	2005	2006
Safety belt wearing rates for front seats adults	90%	93%	94%	93%	94%	96%	94%
Safety belt wearing rates for rear seat adults	78%	80%	78%	82%	85%	83%	83%
Child restraints in cars	78%	81%	88%	90%	87%	89%	87%
Cycle helmet wearing rates	91%	96%	92%	93%	91%	91%	88%

- The changes in behaviours shown above may reduce the impact to health from the outcomes of road accidents.
- At a national level injuries to all types of road users injured increased significantly and consequently the number of stays in hospitals also increased.

8.3 International Comparisons

Comparative analysis of road traffic accidents in New Zealand and other countries showed that:

- In New Zealand, the rate of deaths was 9.9 per 100,000 people in 2005. The rate was higher than Australia at 8.1 and France at 8.8.
- Percentage of total deaths occurring in the 15-24 age group in New Zealand was the second highest at 32.8, the highest being Iceland at 42.1.
- In New Zealand, deaths per 100,000 people in the 15-24 age group was the third highest at 68.4, United States was first at 77.6, followed by Greece at 73.2.

For further details on road traffic statistics, refer to: www.transport.govt.nz

8.3.1 Mortality to Intentional Self Harm - all ethnic groups

Total mortality to intentional self harm (suicide) was 282 from 1998 to 2004 (82% male and 18% female). The leading cause was: Hanging / suffocation / strangulation - 142 deaths (27 females and 115 males).

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Table 106: Intentional self harm by hanging, strangulations and suffocations by ethnicity and by age groups

Ethnic Groups - Waikato	No. of Deaths to Hanging, Stangulations and Suffocation 1998-2004		Age Proportions (2004)		Deprivations - 2004			Waikato Age Standardised Rate 2003 and 2004 - Per 100,00 Population	
	Female	Male	15-24 Year Olds	25-44 Year Olds	Quintile 3	Quintile 4	Quintile 5	DHB	NZ
Maori	9	40	67%	33%		22%	78%	18.87	25.61
Other (Incl.Asians)	17	71	35%	53%	35%	29%	29%	12.48	9.93
Pacific People	1	4	Too low number		Too low number			11.75	12.04

- In the Waikato approximately 67% of Maori mortality to hanging\suffocation\strangulations in 2004 was of people aged 15-24, however among the Other ethnic group 53% of mortality occurred in the 25-44 age group. In general suicides occurred among younger age groups across the population.
- 78% of Maori deaths to hanging\suffocation\strangulation were concentrated in the highest deprivation quintile 5. Among Other ethnic group deaths were spread across deprivation quintiles 3 to 5.
- The Waikato age standardised rate of mortality to suicide gradually increased over the reporting periods reaching 14.33 per 100,000 in 2003 and 2004. There were no significant differences between the Waikato age standardised rate and the national rate.
- The Maori age standardised rate of mortality to intentional self harm increased slightly from 14.61 in 2001 and 2002 to 18.87 in 2003 and 2004. The Waikato age standardised rate was lower than the national rate of 25.61 per 100,000 in 2003 and 2004. The Other age standardised rate of mortality to hanging\strangulation\suffocation increased from 8.92 in 2001 and 2002 to 12.48 per 100,000 in 2003 and 2004.

8.3.2 Leading Causes Injury Related Death - New Zealand 1998-2002

Based on the "Fact Sheet no.39, Causes of Injury by Age⁵⁸" the leading causes of injury resulting in death in New Zealand 1998-2002 were as follows:

⁵⁸ Injury Prevention Research Unit, Fact Sheet No. 39, Department of Preventive and Social Medicine, University of Otago, Website: www.otago.ac.nz/ipru

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Table 107: Causes of Injury resulting in death by Age

Rank	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Total
1	Suffocation 27.8%	Pedestrian 23.3%	MVT Occupant 23.8%	MVT Occupant 41%	Suicide 42.6%	Suicide 42.9%	Suicide 44.4%	Suicide 37.9%	Suicide 35.9%	Suicide 26.1%	Fall 49.1%	Fall 77.3%	Suicide 31.2%
2	Drowning 19.2%	MVT Occupant 19.6%	Suicide 14.5%	Suicide 34.5%	MVT Occupant 30.8%	MVT Occupant 23.0%	MVT Occupant 20.4%	MVT Occupant 24.3%	MVT Occupant 22.0%	MVT Occupant 26.1%	MVT Occupant 16.3%	Suicide 3.2%	MVT 22.3%
3	Pedestrian 13.5%	Cyclist 12.1%	Cyclist 9.9%	Pedestrian 4.3%	Homicide 5.1%	Drowning 5.1%	Homicide 4.6%	Other Transport 8.0%	Fall 7.0%	Fall 19.3%	Suicide 14.1%	MVT 3.2%	Fall 15.9%
4	MVT Occupant 13.2%	Fire 11.2%	Drowning 9.3%	Drowning 3.3%	Drowning 3.8%	Other Transport 4.9%	Other Transport 6.2%	Fall 5.6%	Drowning 6.0%	Other Transport 5.4%	Pedestrian 5.3%	Pedestrian 3.1%	Other Transport 4.4%
5	Homicide 11.3%	Other Transport 10.2%	Other Transport 9.3%	Other Transport 2.9%	MVT Motorcyclist 3.7%	MVT Motorcyclist 4.8%	Drowning 4.4%	Drowning 4.8%	Homicide 4.6%	Pedestrian 5.1%	Suffocation 1.8%	Suffocation 1.2%	Drowning 4.4%

Suicide is the top leading cause of death at 31.2%, followed by motor vehicle accidents and falls. Deaths to injury resulting from falls were highest among 75-84 age groups at 49.5% and 85+ age groups at 77.3%. Deaths to suicide were highest among 35-44 age groups, followed by 20-24 and 25-34 age groups.

8.4 Hospitalisation for Intentional Self Harm

The hospitalisation data for intentional self harm was extracted from the Waikato DHB Patient Management System (iPM). The scope of this analysis includes inpatient hospitalisation only and excludes emergency and outpatient attendances.

Hospitalisation for intentional self harm represent unique “events” of self harm rather than a count of the individual people being hospitalised following an intentional self harm event.

The number of hospitalisations for the 2002 to 2006 calendar years was 2369 and the highest intentional self harm category (83% of total intentional self harm) was poisoning, followed by self harm by sharp object at 10%.

Table 108: Hospitalisation for intentional self harm by accident categories

Accident Group	2002	2003	2004	2005	2006	Total
Poisoning	205	413	421	480	453	1972
self-harm - hanging, strangulation and suffocation	9	9	14	26	17	75
self-harm - sharp object	21	48	60	53	60	242
Remaining Hospitalisation to Intentional Self Harm						80
Grand Total	250	491	514	575	539	2369

Hospitalisation figures by Waikato DHB hospitals were:

Table 109: Hospitalisation for intentional self harm by Waikato DHB hospitals

Intentional Self Harm Hospitalisation	2002		2003		2004		2005		2006	
	Discharges	%	Discharges	%	Discharges	%	Discharges	%	Discharges	%
Taumarunui	2	0.80%	8	1.63%	4	0.78%	11	1.91%	14	2.60%
Thames	14	5.60%	12	2.44%	22	4.28%	43	7.48%	25	4.64%
Waikato	178	71.20%	354	72.10%	344	66.93%	337	58.61%	377	69.94%
Te Kuiti		0.00%		0.00%	1	0.19%	2	0.35%	1	0.19%
Tokoroa	1	0.40%	3	0.61%	1	0.19%	4	0.70%	2	0.37%
Henry Bennett Centre	55	22.00%	114	23.22%	142	27.63%	178	30.96%	120	22.26%
Grand Total	250	100.00%	491	100.00%	514	100.00%	575	100.00%	539	100.00%

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The ethnic group classification used here differs slightly from the classification by Statistics New Zealand. The differences are:

- Ethnic group European refers to Europeans born in New Zealand;
- Ethnic group Other includes European born elsewhere and non-Europeans not elsewhere specified.
- Ethnic group Unknown is used where the ethnic group is not declared/stated.

Around 80% of the hospitalisation was among Europeans and 17% among Maori. Asian and Pacific People hospitalisation numbers were too small for further detailed analysis to be meaningful.

Table 110: Hospitalisation for intentional self harm by ethnic groups - Waikato

Years	Asian	European	Māori	Other / Unknown	Pacific People	Total
2002	4	189	51	1	5	250
2003	6	405	73	1	6	491
2004	7	412	84	3	8	514
2005	9	449	112	4	1	575
2006	9	437	85	1	7	539
Grand Total	35	1892	405	10	27	2369

The gender proportion of female hospitalisation for intentional self harm was consistently higher than male and in 2006 rose to 72.54%.

Table 111: Gender Proportion of hospitalisation for intentional self harm - Waikato

Gender Proportion	2002		2003		2004		2005		2006	
	Discharges	%	Discharges	%	Discharges	%	Discharges	%	Discharges	%
Female	171	68.40%	346	70.47%	340	66.15%	398	69.22%	391	72.54%
Male	79	31.60%	145	29.53%	174	33.85%	177	30.78%	148	27.46%
Grand Total	250	100.00%	491	100.00%	514	100.00%	575	100.00%	539	100.00%

The age proportion of hospitalisation was consistently higher among the younger age groups from 2002 to 2006. Most hospitalisation was of 18 to 44 year olds.

Table 112: Age proportion of hospitalisation for intentional self harm - Waikato

Intentional Self-Harm Hospitalisation Age Description	2002		2003		2004		2005		2006	
	Discharges	%	Discharges	%	Discharges	%	Discharges	%	Discharges	%
15 to 17 years	21	8.40%	59	12.02%	40	7.78%	60	10.43%	61	11.32%
18 to 24 years	56	22.40%	115	23.42%	113	21.98%	122	21.22%	102	18.92%
25 to 34 years	58	23.20%	130	26.48%	153	29.77%	183	31.83%	120	22.26%
35 to 44 years	67	26.80%	102	20.77%	98	19.07%	95	16.52%	118	21.89%
Remaining Age Groups	48	19.20%	85	17.31%	110	21.40%	115	20.00%	138	25.60%
Grand Total	250	100.00%	491	100.00%	514	100.00%	575	100.00%	539	100.00%

8.4.1 Hospitalisation for Intentional Self Harm - Waikato Maori

The highest number of hospitalisations to intentional self harm among Waikato Maori from 2002 to 2006 was in the 18-24 age group at 128 followed by the 25-34 age group at 100. Hospitalisation decreased in 2006 from 2005.

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Table 113: Age Proportion of hospitalisation for Intentional self harm - Waikato Maori

Age Description	2002	2003	2004	2005	2006	Total
01 to 04 years		2				2
10 to 14 years	1	4	3	3	4	15
15 to 17 years	5	13	12	11	10	51
18 to 24 years	19	23	24	36	26	128
25 to 34 years	13	14	24	34	15	100
35 to 44 years	12	13	9	17	19	70
45 to 54 years	1	4	10	10	6	31
55 to 64 years			1	1	2	4
65 to 74 years					3	3
75 to 84 years			1			1
Grand Total	51	73	84	112	85	405

8.4.2 Hospitalisation for Intentional Self Harm - Waikato European

The age proportion of hospitalisation among Europeans was highest among the 25-34 age group at 531, followed by the 35-44 age group at 400 for 2002-2006. As with Maori, hospitalisation reduced slightly in 2006 from 2005.

Table 114: Age Proportion of hospitalisation for Intentional self harm - Waikato Europeans

Age Description	2002	2003	2004	2005	2006	Total
01 to 04 years	2	1				3
05 to 09 years					1	1
10 to 14 years	5	5	11	5	18	44
15 to 17 years	13	43	28	48	49	181
18 to 24 years	35	87	81	79	68	350
25 to 34 years	43	114	127	146	101	531
35 to 44 years	54	87	85	76	98	400
45 to 54 years	26	45	54	64	63	252
55 to 64 years	3	12	20	23	23	81
65 to 74 years	4	4	3	4	8	23
75 to 84 years	3	4	2	2	7	18
85 years or over	1	3	1	2	1	8
Grand Total	189	405	412	449	437	1892

8.4.3 Hospitalisation Intentional Self Harm - Waikato Asians

Hospitalisation to intentional self harm was highest among Asians aged 18 to 24 years old at 13, followed by 25-34 years old at 7 for 2002-2006. This is similar to the pattern for Maori. The number of hospitalisations was stable from 2005 to 2006.

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Table 115: Age Proportion of hospitalisation for Intentional self harm - Waikato Asians

Age Descriptions	2002	2003	2004	2005	2006	Total
10 to 14 years		1				1
15 to 17 years	2	2		1	1	6
18 to 24 years	1	2	2	5	3	13
25 to 34 years	1		1	3	2	7
35 to 44 years		1	3		1	5
45 to 54 years					1	1
55 to 64 years			1		1	2
Grand Total	4	6	7	9	9	35

8.4.4 Hospitalisation Intentional Self Harm - Waikato Pacific People

The pattern of hospitalisation among Waikato Pacific People for intentional self harm was also similar to Waikato Maori and Asians as the highest hospitalisation was among the 18-24 age group at 14. However hospitalisation to self harm decreased considerably in 2005, but increased to former levels in 2006.

Table 116: Age Proportion of hospitalisation for Intentional self harm - Waikato Pacific People

Age Description	2002	2003	2004	2005	2006	Total
18 to 24 years	1	3	4	1	5	14
25 to 34 years	1	2	1		2	6
35 to 44 years	1	1	1			3
45 to 54 years			1			1
55 to 64 years			1			1
65 to 74 years	2					2
Grand Total	5	6	8	1	7	27

Note that there were 10 hospitalisations in the Other\Unknown ethnic groups for 2002 to 2006.

Hospitalisations for intentional self harm for each of the Waikato region territorial authorities were:

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Table 117: Hospitalisation for Intentional self harm - by TLAs

Territorial Authorities	2002	2003	2004	2005	2006
Hamilton	113	285	255	268	251
Hauraki	4	9	13	18	19
Matamata-Piako	16	27	33	34	37
Otorohanga	2	3	3	7	9
Ruapehu	2	10	6	19	16
South Waikato	19	20	18	21	23
Thames-Coromandel	13	16	25	38	21
Waikato	19	31	62	45	33
Waipa	45	60	63	97	85
Waitomo	5	6	11	7	8
Grand Total	238	467	489	554	502

8.5 Suicide - A National Perspective

Suicide Deaths 2002-2005

The summary findings presented below, are from the "Suicide Facts 2005-2006 data" report from Public Health Intelligence (Monitoring Report No. 15). The findings highlight the suicide deaths and hospitalisation at the national and individual district health board levels.

Suicide Facts in 2005⁵⁹ were:

- A total of 502 people died by suicide in 2005, compared with 488 in 2004. The three-year moving average rate of suicide for 2003–2005 was 13.2 deaths per 100,000 population. This rate represents a 19.0% decrease from the 1996-1998 peak (16.3 per 100,000), and continues the downward trend of recent years.
- The three year moving average age standardised rate of suicide for the total population increased to a peak of 16.3 deaths per 100,000 for the 1995-1997 and 1996-1998 periods and then declined until 2002-2004, when the rate was 13.1 deaths per 100,000. This change represents a statistically significant decrease of 20.4%.
- The three-year moving average age standardised suicide rate for males was 20.3 per 100,000 in 2003-2005. This rate represents a statistically significant decrease of 22.0% from 1996-1998 (26.0 per 100,000 population).
- The three year moving average age standardised rate for females was 6.5 per 100,000 population in 2003-2005 and this rate has remained relatively steady since 1985.

⁵⁹ Suicide Facts 2005-2006 data, Erin Holmes (Advisor, Epidemiology), Public Health Intelligence, Monitoring Report No. 15, Published in November 2007

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- The all-ages sex ratio for the three year moving average age standardised suicide rate for 2003-2005 was 3.1 male suicides to every female suicide.

8.6 Suicide - Ethnic Comparisons

Some of the key findings by ethnicity were:

Maori

- 100 Maori died by suicide in 2005 compared with 109 in 2004.
- The sub-groups of the New Zealand population with the highest intentional self-harm hospitalisation rates in 2006 were females, Māori (as opposed to non- Māori), those in the age group of 15–24 years, and those residing in the most deprived areas (quintile 5).
- The sub-groups of the population with the highest three-year moving suicide mortality rates in 2003–2005 were males, Māori (as opposed to non- Māori), those in the age group of 15–44 years, and those residing in the most deprived areas (deprivation quintile 5).
- The three year age standardised Maori rate in 2003-2005 increased by 5.3% from the 2002-2004 rate of 17 per 100,000 population.

Other

- 368 European/Other died by suicide in 2005 (276 males and 92 females), compared with 355 deaths in 2004 (279 males and 76 females).

Pacific People

- 21 Pacific People died by suicide in 2005 (18 males and 3 females), compared with 14 deaths in 2004 (12 males and 2 females).

Asians

- 13 Asians died by suicide in 2005 (6 males and 7 females), compared with 10 deaths in 2004 (6 males and 4 females).

8.6.1 Suicide and Deprivation

In 2003-2005 the least deprived areas had a moving average age standardised suicide rate of 9.1 per 100,000 population compared with 15.6 per 100,000 in the most deprived areas, as shown below. This difference is statistically significant.

Table 118: Suicide - Age Standardised Rate and deprivation quintiles

NZDep01 Quintile - 2003-2005	Age Standardised Rate per 100,000 Population
Quintile 1 (Least Deprived)	9.1 (7.9-10.4)
Quintile 2	10.8 (9.5-12.2)
Quintile 3	12.9 (11.5-14.5)
Quintile 4	14.5 (13.0-16.1)
Quintile 5 (Most Deprived)	15.6 (14.0-17.4)

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The numbers in brackets indicate the 95% confidence intervals.

8.6.2 Suicide -- District Health Boards (2003-2005)

PHI advises caution should be exercised when comparing rates between DHBs because some of the regional differences are due to different practices in reporting and patient management.

- The Waikato age specific rate was 175.5 per 100,000 and the Waikato age specific rate was 5th highest among the 21 DHBs (top four highest in order of priority: Midcentral, Canterbury, Lakes, Wairarapa).
- Lowest rate of hospitalisation was recorded in Capital and Coast DHB at 79.6 per 100,000.
- It was also evident that MidCentral, Canterbury, Lakes, Waikato and Otago had significantly higher hospitalisation rates for self-harm than the national average in 2003–2005.
- Wairarapa, Tairāwhiti and Northland had significantly higher suicide rates than the national average for the period 2003-2005.
- The lowest rate of suicide in 2003-2005 was recorded in Auckland DHB (10.4 suicides per 100,000 population)
- The highest rate of suicide in 2003-2005 was recorded in Wairarapa DHB (27.5 suicides per 100,000 population), followed by Tairāwhiti and Northland.
- Waikato DHB rate for 2003-2005 was 12.5 and the national low was 10.4 in Auckland DHB.

Note: deaths in 2003-2005 were summed across these three years to provide sufficient numbers to calculate robust rates and protect confidentiality.

8.6.3 Suicide Hospitalisation 2006 - National Perspective

- There were 5400 hospitalisations for intentional self-harm in 2006, equating to a rate of 151.7 per 100,000 population. This represents a 7.5% increase from the rate in 2005 (141.1 per 100,000 or 4,992 hospitalisations).
- The sub-groups of the New Zealand population with the highest intentional self-harm hospitalisation rates in 2006 were females, Māori (as opposed to non-Māori), those in the life cycle stage of 15-24 years and those residing in the most deprived areas (Quintile 5).

The life cycle stage with the highest self harm hospitalisation rate for both genders in 2006 was 15-24 years at 299.9 and this ranking had not changed from the past three years.

In 2006, the lowest life cycle stage was in children 5-14 years at 32.1 whereas in 2005 adults aged 65+ years had the lowest rate of 21.6.

The hospitalisation rate increases significantly with increasing deprivation. The rate of most deprived quintile (quintile 5) was 77% higher than the rate in the least deprived quintile (quintile 1). There were no statistically significant

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changes in the rate of hospitalisation in 2004 and 2006 for intentional self harm.

8.7 Suicide - International Comparisons

Based on the Suicide Facts 2005-2006 report from the PHI the key findings when ranked alongside OECD countries are:

- New Zealand age standardised rate for suicide in males was near the top, i.e. 4th at 18.2 (Finland - 28.1, Japan 27.7, France 23). For females, New Zealand was ranked 5th at 5.9 (Japan 9.5, Finland 8.4, France 7.3, Norway 6.7)
- New Zealand 2005 suicide rate for males aged 15-24 years was the second highest at 27.6 per 100,000, (Finland 33.1).
- New Zealand 2005 suicide rate for females aged 15-24 years was the third highest at 8.2 per 100,000, (Finland 9.7, Japan 8.4).

8.8 Suicide - Mental Health Survey Findings - National Perspective

The National Research Bureau, under contract to the Ministry of Health, carried out the field work for Te Rau Hinengaro: The New Zealand Mental Health Survey, in late 2003 and 2004. A copy of the report is available from: www.moh.govt.nz website. Summary of findings from the survey report are presented in the Mental Health, chapter of the HNA 2008.

Some of the key results from the survey related to suicidal behaviour are:

- Lifetime prevalences for suicidal behaviours were: suicidal ideation 15.7%, suicide plan 5.5% and suicide attempt 4.5%.
- Prevalences of suicidal behaviours were consistently and significantly higher in females than males.
- Median ages of onset for all three behaviours were in the twenties: suicidal ideation, 25 years, making a suicide plan, 25 years and suicidal attempts, 21 years.
- The risks of suicidal ideation and suicide plan are higher in females, people with lower educational qualifications, low household income and people living in more deprived areas.
- The risk of making a suicide attempt was higher in people in urban areas.
- Maori and Pacific People reported higher rates of suicidal behaviour than the Other ethnic group.
- Individuals with a mental disorder had elevated risks of suicidal behaviour with 11.8% of these people reporting suicidal ideation, 4.1% making a suicide plan and 1.6% making a suicide attempt.
- Almost half of those with a 12 month history of suicidal ideation, suicide plan or suicide attempt did not report making any general medical or specialist mental health visits within the same 12 month period in which they were suicidal.

8.9 Leading Causes of Injury Related hospitalisation 2000-2004

Based on the “Fact Sheet no.39”, Causes of Injury by Age⁶⁰ the leading causes of injury resulting in hospitalisation in New Zealand 2000-2004 were as follows:

Hospitalisation related to falls (injury resulting from a fall, eg. from stairs, tripping, slipping or from playground equipment) was the number one leading cause at 40.4%.

Summary of findings from the Injury Prevention Network of Aotearoa NZ, NZ Injury Facts (refer to www.ipn.org.nz) were:

- For people 20 to 74 years of age, suicide is the leading cause of injury resulting in death.
- For children aged 5-9, motor vehicle traffic crashes where the child is a pedestrian are the leading cause of injuries resulting in death
- For 10-19 year olds, motor vehicle traffic crashes, where the person is a motor vehicle occupant are the leading cause of injuries resulting in death.
- Motor vehicle traffic crashes are the second major cause of injuries resulting in death for people aged 20-84.
- Falls are the leading case of injury resulting in hospitalisation throughout the lifespan, accounting for 40 percent of all injury hospitalisations.

8.10 External Causes by Territorial Local Authorities

Findings from Population Health Planning Resource Report⁶¹ are:

For Maori, motor vehicle traffic crashes are one of the top three causes of injury in all Territorial Authorities with the exception of Hamilton City, where assaults are the second top cause of injury. Otorohanga, Waitomo and Part Ruapehu have relatively high levels of other land transport crashes for non Maori.

The injury rate across most TAs was consistent with the Waikato DHB injury rate. Part Ruapehu and Waitomo showed higher injury rates than the Waikato DHB total.

⁶⁰ Injury Prevention Research Unit, Fact Sheet No. 39, Department of Preventive and Social Medicine, University of Otago, Website: www.otago.ac.nz/ipru

⁶¹ Population Health Planning Resource 2007-2012 report, Population Health, Health Waikato