

Suicide Facts

Deaths and intentional self-harm hospitalisations 2009

Copyright

The copyright owner of this publication is the Ministry of Health, which is part of the New Zealand Crown.

The Ministry of Health permits the reproduction of material from this publication without prior notification, provided that all the following conditions are met:

- · the content is not distorted or changed
- · the information is not sold
- the material is not used to promote or endorse any product or service
- the material is not used in an inappropriate or misleading context having regard to the nature of the material
- · any relevant disclaimers, qualifications or caveats included in the publication are reproduced
- · the New Zealand Ministry of Health is acknowledged as the source.

Disclaimer

The purpose of this publication is to inform discussion and assist policy development. The opinions expressed in the publication do not necessarily reflect the official views of the Ministry of Health.

All care has been taken in the production of this publication; the data were deemed to be accurate at the time of publication, but may be subject to slight changes over time as more information is received. It is advisable to check the current status of figures given here with the Ministry of Health before quoting or using them in further analysis.

The Ministry of Health makes no warranty, expressed or implied, nor assumes any legal liability or responsibility, for the accuracy, correctness, completeness or use of the information or data in this publication. Further, the Ministry of Health shall not be liable for any loss or damage arising directly or indirectly from the information or data presented in this publication.

This publication reports information provided to the Ministry of Health's Mortality Collection and the National Minimum Dataset (Hospital Events) by District Health Boards. It has not been possible to verify the accuracy of information in some instances where additional information, such as medical records, would be required to do so. It is important to note that because these national collections are dynamic, it is necessary to wait a certain period before publishing a record of the information in them. This reduces the chances of amendments to information after publication.

Citation: Ministry of Health. 2012. Suicide Facts: Deaths and intentional self-harm hospitalisations 2009. Wellington: Ministry of Health.

Published in April 2012 by the Ministry of Health PO Box 5013, Wellington 6145, New Zealand

> ISBN: 978-0-478-37396-7 (print) ISBN: 978-0-478-37397-4 (online) HP 5456

This document is available at www.health.govt.nz



Preface

Suicide and suicidal behaviours are a major health and social issue in New Zealand. Each year approximately 500 people take their own lives. This figure represents a tragic loss of potential and a tremendous impact on those families, friends, workplaces and communities that are affected by the loss of someone through suicide.

There are at least 2500 admissions to hospital for serious intentional self-harm injuries every year. For data comparability purposes, this figure excludes patients who were discharged from an emergency department with a length of stay of less than two days. Further, the data presented here also excludes any admissions for an intentional self-harm incident within two days of a previous discharge involving intentional self-harm. These exclusions allow the best possible identification of real trends in intentional self-harm behaviour within the New Zealand population, and optimal regional comparison. More details about exclusions are provided in the 'Technical notes' section. It is important to recognise that the motivation for intentional self-harm varies, and therefore hospitalisation data for self-harm is not a measure of suicide attempts.

Understanding the numbers, trends and demographic profiles of people who suicide or seriously harm themselves is important for policy makers, clinicians and others who work to prevent suicide and intentional self-harm. This publication presents data by age, sex, youth, ethnicity, deprivation and District Health Board (DHB) area. It also includes comparisons with international data.

Suicide prevention in New Zealand is guided by the *New Zealand Suicide Prevention Strategy 2006–2016* and the *New Zealand Suicide Prevention Action Plan 2008–2012. Suicide Facts 2009* and other annual data updates assist in monitoring and evaluating the progress and success of the implementation of the strategy and action plan.

Comparability of this publication with other statistical publications on suicide

Note that the numbers of deaths from suicide recorded in this publication will differ from those released by the Chief Coroner's Office, for a number of reasons. The Chief Coroner's Office data covers different time periods (years ended 30 June rather than the calendar years used in this publication). Additionally, the Chief Coroner's Office data are subject to considerable revision, as the figures include deaths recorded with a provisional cause: that is, deaths for which the cause of death has not been finally determined to be suicide.

Note that because of changes in methodology, it is not advisable to compare self-harm hospitalisation data in this publication to *Suicide Facts* documents published before 2008. More details are included in the 'Technical notes' section.

The 2009 information presented is this publication is provisional and subject to change. Final data will be presented in the *Mortality and demographic data 2009* publication.

While this publication provides the latest suicide and intentional self-harm hospitalisation data for 2009, it does not attempt to explain causes of suicidal behaviour or discuss measures to reduce suicide or intentional self-harm.

Contents

Key points	ĺΧ
Suicide	ix
Intentional self-harm hospitalisations	xi
Suicide deaths in 2009	1
Overview	1
Sex	4
Age	7
Ethnicity	17
Deprivation	24
District Health Boards	26
Methods of suicide	28
International comparisons	32
Summary	32
All ages	33
Youth (15–24-year-olds)	35
Intentional self-harm hospitalisations in 2009	37
Summary	37
Overview	37
Sex	40
Age	41
Ethnicity	46
Deprivation	55
District Health Boards	57
Technical notes	62
Data	62
International Classification of Diseases (ICD) codes	64
Serious Injury Outcome Indicator Reports	65
Definitions	66
References	70
Appendix 1: Further tables	72
Appendix 2: Further information	94

List of Tables

Table 1:	Suicide deaths and age-standardised rates, 1985–2009	2
Table 2:	Suicide deaths and age-standardised rates, by sex, 1985–2009	5
Table 3:	Suicide deaths and age-specific rates, by five-year age group and sex, 2009	8
Table 4:	Youth suicide age-specific deaths and rates, by sex, 1981–2009	12
Table 5:	Suicide deaths, by ethnicity, age and sex, 2009	18
Table 6:	Suicide deaths and age-standardised rates for Māori and non-Māori, by sex, 1996–2009	20
Table 7:	Youth suicide deaths and age-specific rates for Māori and non-Māori, by sex, $1996-2009$	23
Table 8:	Suicide deaths and age-standardised rates, by NZDep2006 quintile and sex, 2009	25
Table 9:	Methods used for suicide deaths, 1997–2009	30
Table 10:	Intentional self-harm hospitalisation numbers and age-standardised rates, 1996–2009	38
Table 11:	Intentional self-harm hospitalisation numbers and age-standardised rates, by sex, 1996–2009	40
Table 12:	Intentional self-harm hospitalisation numbers and age-specific rates, by sex and five-year age group, 2009	42
Table 13:	Youth intentional self-harm hospitalisation numbers and age-specific rates, by sex, 1996–2009	44
Table 14:	Intentional self-harm hospitalisations, by ethnicity, age group and sex, 2009	48
Table 15:	Intentional self-harm hospitalisation numbers and age-specific rates, by ethnicity and sex, 1996–2009	49
Table 16:	Youth intentional self-harm hospitalisation numbers and age-specific rates for Māori and non-Māori, by sex, 1996–2009	53
Table 17:	Intentional self-harm hospitalisation numbers and age-standardised rates, by NZDep2006 quintile, 2009	55
Table 18:	Intentional self-harm hospitalisation numbers and age-standardised rates, by DHB of domicile and sex, 2009	58
Table 19:	Intentional self-harm hospitalisation numbers and age-standardised rates, by DHB of domicile, 2007, 2008 and 2009 (accumulated data)	59
Table 20:	Intentional self-harm hospitalisation numbers and age-standardised rates for Māori and non-Māori, by DHB of domicile and sex, 2007, 2008 and 2009 (accumulated data)	61
Table A1:	Estimated New Zealand resident population for mean year ending 31 December 2009, by five-year age group and sex	72
Table A2:	Estimated New Zealand resident population as at 30 June 2007, by DHB of domicile, five-year age group and sex	73
Table A3:	Estimated New Zealand resident population as at 30 June 2008, by DHB of domicile, five-year age group and sex	77
Table A4:	Projected New Zealand population, by deprivation quintile, sex and five-year age group, 2009	81
Table A5:	Suicide deaths and age-standardised rates, by DHB, 2005–2009	82
Table A6:	Suicide deaths by five-year age group and sex, 1948–2009	83

Table A7:	Suicide age-specific rates for OECD countries, by age group and sex	90
Table A8:	Intentional self-harm short-stay emergency department hospitalisations, 1996–2009 (excluded from this publication)	91
Table A9:	Intentional self-harm hospitalisations within two days of a previous intentional self-harm hospitalisation, 1996–2009 (excluded from this	00
TI 11 A40	publication)	92
Table A10:	World Health Organization world standard population	93
List of F	igures	
Figure 1:	Suicide age-standardised death rates, 1948–2009	3
Figure 2:	Suicide age-standardised death rates, by sex, 1948–2009	6
Figure 3:	Suicide as a percentage of all deaths, 2009	9
Figure 4:	Suicide age-specific death rates, by five-year age group, 2009	10
Figure 5:	Suicide age-specific death rates, by life stage age group, 1948–2009	11
Figure 6:	Youth suicide age-specific death rates, by sex, 1948–2009	13
Figure 7:	Suicide age-specific death rates, ages 25–44 years, by sex, 1948–2009	14
Figure 8:	Suicide age-specific death rates, ages 45–64 years, by sex, 1948–2009	15
Figure 9:	Suicide age-specific death rates, ages 65 years and over, by sex, 1948–2009	16
Figure 10:	Suicide age-standardised death rates for Māori and non-Māori, 1996–2009	21
Figure 11:	Suicide age-standardised death rates for Māori and non-Māori, by sex, 1996–2009	22
Figure 12:	Youth suicide age-specific death rates, by ethnicity, 1996–2009	24
Figure 13:	Suicide age-standardised death rates, by NZDep2006 quintile, 2009	26
Figure 14:	Suicide age-standardised death rates, by DHB, 2005–2009	27
Figure 15:	Methods used for suicide deaths, 2009	28
Figure 16:	Methods used for suicide deaths, by sex and broad age group, 2009	31
Figure 17:	Suicide age-standardised rates for OECD countries, males	33
Figure 18:	Suicide age-standardised rates for OECD countries, females	34
Figure 19:	Suicide age-specific rates for OECD countries, males, 15–24 years	35
Figure 20:	Suicide age-specific rates for OECD countries, females, 15–24 years	36
Figure 21:	Intentional self-harm hospitalisation age-standardised rates, 1996–2009	39
Figure 22:	Intentional self-harm hospitalisation age-standardised rates, by sex, 1996–2009	41
Figure 23:	Intentional self-harm hospitalisation age-specific rates, by age group and sex, 2009	43
Figure 24:	Youth intentional self-harm hospitalisation age-specific rates, by sex, 1996–2009	45
Figure 25:	Intentional self-harm hospitalisation age-standardised rates for Māori and non-Māori, 1996–2009	50
Figure 26:	Intentional self-harm hospitalisation age-standardised rates for Māori and non-Māori males, 1996—2009	51
Figure 27:	Intentional self-harm hospitalisation age-standardised rates for Māori and non-Māori females, 1996—2009	51

Figure 28:	Youth intentional self-harm hospitalisation age-specific rates, by ethnicity, 1996–2009	52
Figure 29:	Youth intentional self-harm hospitalisation age-specific rates, by ethnicity and sex, 1996–2009	54
Figure 30:	Intentional self-harm hospitalisation age-standardised rates, by deprivation quintile and sex, 2009	56
Figure 31:	Intentional self-harm hospitalisation age-standardised rates, by DHB of domicile, 2007, 2008 and 2009 (accumulated data)	60

Key points

Suicide

Overview

- A total of 506 people died by suicide in New Zealand in 2009.
- This equates to 11.2 deaths per 100,000 population (age-standardised).
- The 2009 suicide rate was 25.5 percent below the peak rate in 1998.

Sex

- There were 391 male suicide deaths (17.8 deaths per 100,000 male population, age-standardised) in 2009.
- There were 115 female suicide deaths (5.0 deaths per 100,000 female population, age-standardised) in 2009.
- The 2009 male suicide rate was 25.4 percent below the peak rate in 1995. The female suicide rate has remained steady over time.
- The ratio of male suicide death rates to female was 3.6:1 in 2009.

Youth (15-24 years)

- In 2009 the youth suicide rate was 18.1 deaths per 100,000 people aged 15–24.
- There were 93 male youth suicide deaths (29.0 per 100,000 population) and 21 female youth suicide deaths (6.8 per 100,000 population).
- · Overall, the youth suicide rate has declined by 36.8 percent since the peak rate in 1995.
- The Māori youth suicide rate was 28.7 per 100,000 Māori youth population: more than 80 percent higher than that of non-Māori youth (15.6 per 100,000).

Adults

- In 2009 the total suicide rate for adults aged 25–44 was 14.9 per 100,000 population. Male rates fell by 32.9 percent between 1997 (the peak rate) and 2009; female rates showed no obvious change between 1948 (when records began) and 2009.
- The total suicide rate for adults aged 45–64 was 14.6 per 100,000 population. Rates appear to have trended upwards between 2001 and 2009.
- Adults aged 65 and over had the lowest suicide rates (9.4 per 100.000 population). Between 1950 and 2009, the rate for this group fell by 67.6 percent.

Ethnicity

- There were 83 Māori suicide deaths in 2009. This represents an age-standardised rate of 13.1 per 100,000 Māori population: the lowest Māori rate since 1999.
- There were 10.6 non-Māori deaths per 100,000 population (age-standardised) in 2009.
- There were 28 suicide deaths among Pacific people and 25 among Asian ethnic groups in 2009.

Deprivation

There were 15.0 deaths per 100,000 population (age-standardised) in the most deprived and 8.0 deaths per 100,000 population (age-standardised) in the least deprived areas in 2009. This represents a significant difference in rates.

DHBs

- Five DHB areas (Northland, Bay of Plenty, Tairawhiti, MidCentral and Southland) had significantly higher average suicide rates than the total New Zealand rate for the five years 2005–2009.
- Waitemata, Auckland and Capital & Coast DHB areas had significantly lower average suicide death rates than the total New Zealand rate for the five years 2005–2009.

Intentional self-harm hospitalisations¹

Overview

- There were 2539 intentional self-harm hospitalisations in New Zealand in 2009, which equates to 59.6 hospitalisations per 100,000 population (age-standardised).
- Between 1996 and 2009 there was a decrease of 30.5 percent in rates of intentional selfharm hospitalisations.

Sex

- Male hospitalisations involving intentional self-harm decreased markedly (by 33.2 percent) between 1996 and 2009.
- Female hospitalisations decreased by 29.7 percent between 2001 (when the rate peaked) and 2009.
- The ratio of female self-harm hospitalisation rates to male was 1.7:1 in 2009.

Age

- In 2009 males aged 35–39 had the highest rate of male self-harm hospitalisations (82.1 per 100,000).
- Females aged 15–19 had the highest rate of female self-harm hospitalisations (181.1 per 100,000).

Youth (15-24 years)

- Self-harm hospitalisation rates in males aged 15–24 years showed a significant downward movement of 49.5 percent between 1996 and 2009 (from 398 to 240 hospitalisations).
- Self-harm hospitalisation rates in females aged 15–24 years showed a downward movement of 37.3 percent in the same period (from 675 to 489 hospitalisations).

Ethnicity

- Age-standardised rates for Māori self-harm hospitalisations remained relatively stable between 1996 and 2009.
- Age-standardised rates for non-Māori self-harm hospitalisations dropped markedly (by 35.1 percent) between 1996 and 2009.

Deprivation

- Self-harm hospitalisation rates among the most deprived New Zealanders were more than twice that among the least deprived in 2009.
- For both males and females the differences between self-harm hospitalisation rates among the least and most deprived were statistically significant in 2009.

DHBs

For a description of the data and exclusions made in this section, refer to the 'Technical notes' section.

- Wairarapa DHB had the highest age-standardised rate of self-harm hospitalisation in 2009.
- Auckland and Counties-Manukau DHBs had the lowest age-standardised rate of self-harm hospitalisation in 2009.
- Wairarapa DHB had the highest female-to-male rate ratio of self-harm hospitalisations (3.1:1) in 2009.
- \cdot Only in MidCentral DHB did male self-harm hospitalisation rates exceed female rates in 2009.

Suicide deaths in 2009

Overview

This section illustrates suicide deaths and rates:

- · in 2009 and over time
- by sex
- by five-year age groups and 'life stage' age groupings
- by ethnicity
- by deprivation
- · by DHB region of domicile.

It also includes a brief outline of the most common suicide methods.

A total of 506 people died by suicide in 2009. Table 1 shows the number of suicides and age-standardised rates for the period 1985–2009.

Table 1: Suicide deaths and age-standardised rates, 1985-2009

Year	Tota	al
	Number	Rate
1985	338	10.0
1986	414	12.3
1987	463	13.6
1988	484	13.9
1989	465	13.4
1990	455	13.0
1991	474	13.7
1992	493	14.1
1993	443	12.5
1994	512	14.1
1995	543	15.0
1996	540	14.7
1997	561	14.8
1998	577	15.1
1999	516	13.4
2000	458	11.9
2001	507	12.9
2002	466	11.6
2003	517	12.4
2004	488	11.7
2005	511	12.2
2006	526	12.2
2007	487	11.0
2008	520	11.8
2009 p	506	11.2

Source: New Zealand Mortality Collection

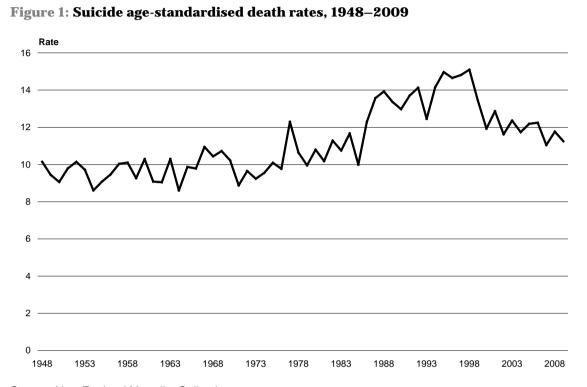
Notes:

The 2009 figure of 11.2 deaths per 100,000 population contributes to a marked decrease of 25.5 percent between 1998 (when the rate peaked at 15.1) and 2009, although there was considerable variation from year to year.

¹ The rate shown is the age-standardised rate (ASR) per 100,000 population, standardised to the World Health Organization (WHO) standard world population.

² p = provisional (see the 'Definitions' section).

Figure 1 presents annual age-standardised suicide death rates for New Zealand over time. In 1998 the rate of suicide for the total population was at its highest since 1948 (the first year for which comparable data is available). The rate generally declined between 1998 and 2009. However, it is highly likely that there will always be year-on-year variation.



Source: New Zealand Mortality Collection

Notes:

- 1 The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.
- 2 Numbers of suicides for all years since 1948, from which the rates for this graph were calculated, are shown in Appendix 1, Table A6.

The subgroups of the New Zealand population with the highest suicide mortality rates in 2009 were males, Māori (compared to non-Māori), male youth (those aged 15-24 years) and those residing in the most deprived areas. Further data for these groups are presented in later sections of this publication.

² For an explanation of deprivation, see the 'Definitions' section.

Sex

Summary

In 2009:

- 391 males and 115 females died by suicide; this equates to rates of 17.8 deaths per 100,000 male population and 5.0 deaths per 100,000 female population
- the male rate was 3½ times that of the female rate
- the male rate was 25.4 percent lower than its highest rate in 1995, while the female rate remained relatively unchanged, as it had done over a long period of time.

Table 2 sets out male and female suicide death rates per 100,000 population between 1985 and 2009.

Table 2: Suicide deaths and age-standardised rates, by sex, 1985-2009

Year	Male	es	Fema	les	Sex rate ratio		
	Number	Rate	Number	Rate	(M:F)		
1985	255	15.5	83	4.9	3.2		
1986	301	18.3	113	6.6	2.8		
1987	363	21.7	100	5.8	3.7		
1988	381	22.4	103	5.7	4.0		
1989	372	21.8	93	5.3	4.1		
1990	363	21.1	92	5.1	4.1		
1991	380	22.3	94	5.4	4.2		
1992	397	23.1	96	5.4	4.2		
1993	349	19.9	94	5.2	3.8		
1994	409	23.1	103	5.5	4.2		
1995	427	23.9	116	6.3	3.8		
1996	428	23.8	112	6.1	3.9		
1997	440	23.7	121	6.3	3.7		
1998	445	23.7	132	6.8	3.5		
1999	385	20.4	131	6.8	3.0		
2000	375	20.0	83	4.2	4.7		
2001	388	20.3	119	5.9	3.4		
2002	353	18.0	113	5.6	3.2		
2003	376	18.4	141	6.6	2.8		
2004	379	18.6	109	5.2	3.6		
2005	380	18.6	131	6.0	3.1		
2006	388	18.6	138	6.3	3.0		
2007	371	17.4	116	5.0	3.5		
2008	381	17.6	139	6.2	2.8		
2009 p	391	17.8	115	5.0	3.6		

Source: New Zealand Mortality Collection

Notes:

¹ The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

² p = provisional (see the 'Definitions' section).

A total of 391 males (17.8 per 100,000 population) died by suicide in 2009: a decrease of 25.4 percent from the peak rate of 23.9 in 1995. Figure 2 illustrates this.

A total of 115 females (5.0 per 100,000 population) died by suicide in 2009. The female suicide rate remained relatively steady between 1948 and 2009, averaging 5.7 between 1985 and 2009.

Figure 2: Suicide age-standardised death rates, by sex, 1948-2009 30 •Males Females 10 1958 1963 1948 1953 1968 1973 1978 1983 1988 1993 1998 2003 2008

Source: New Zealand Mortality Collection

Note: The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

The rate of male suicides was significantly higher than the rate of female suicides between 1985 and 2009, by a ratio of 3.6:1 (see the 'Definitions' section for information on statistical significance.)

Age

Summary

In 2009:

- the youth suicide rate was 18.1 deaths per 100,000 people aged 15–24
- the male youth suicide rate was more than four times higher than the comparable female rate
- adults aged 25–44 and 45–64 had similar rates of suicide to each other (14.9 and 14.6 respectively)
- \cdot people aged 65 and over had a suicide rate of 9.4 per 100,000 population.

This section initially focuses on suicides by five-year age groups for 2009, and then looks at broader 'life stage' age groups to show trends over time.

Table 3 shows numbers of suicide deaths and age-specific rates for five-year age groups in 2009. Males had higher rates of suicide than females for every age group; the highest rate applied to males aged 20-24. Female rates were also very high among 20-24 year olds. The 80-84 age group had the highest rate for females, although the small population in this group means that this figure should be treated with caution.

Table 3: Suicide deaths and age-specific rates, by five-year age group and sex, 2009

Age	Mal	es	Fema	ales	Tot	al
group	Number	Rate	Number	Rate	Number	Rate
5-9	0	_	0	_	0	_
10–14	5	3.3	4	2.8	9	3.0
15–19	42	25.4	12	7.6	54	16.7
20-24	51	32.8	9	6.0	60	19.7
25–29	23	16.6	12	8.4	35	12.4
30–34	41	31.8	8	5.7	49	18.2
35–39	35	23.9	6	3.7	41	13.3
40–44	35	23.3	14	8.6	49	15.7
45-49	36	23.0	13	7.8	49	15.2
50-54	39	28.0	7	4.8	46	16.2
55-59	27	22.2	10	8.0	37	15.0
60-64	18	16.5	7	6.2	25	11.3
65-69	5	6.0	3	3.4	8	4.7
70–74	10	16.0	2	2.9	12	9.2
75–79	6	12.4	1	1.8	7	6.7
80-84	11	32.5	5	11.0	16	20.2
85+	7	31.5	2	4.5	9	13.5
Total	391	17.8	115	5.0	506	11.2

Source: New Zealand Mortality Collection

Figure 3 shows the number of suicides by five-year age group as a percentage of deaths from all causes in 2009. It shows that suicide accounted for almost one-third of all deaths in males aged 15–19, 20–24 and 30–34. More than one-fifth of all deaths of females aged 10–14 and 25–29 were due to suicide. However, general mortality for females aged 10–14 was very low, so this information should be treated with caution.

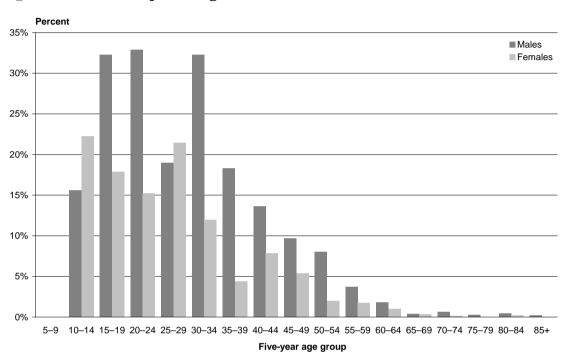


Figure 3: Suicide as a percentage of all deaths, 2009

Source: New Zealand Mortality Collection

Figure 4 shows age-specific suicide rates by sex for 2009 in five-year age groups. It includes confidence intervals,³ which indicate that there was a significant difference between male and female rates in all five-year age groups from 15 to 59 years, with the exception of those aged 25–29. The figure shows very broad confidence intervals for the oldest age groups, indicating that the rates are volatile, mainly because of the small number of deaths involved.

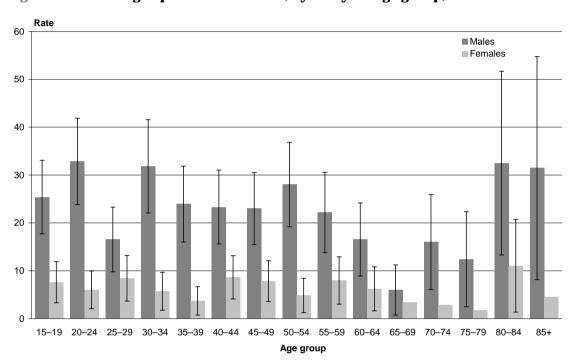


Figure 4: Suicide age-specific death rates, by five-year age group, 2009

Source: New Zealand Mortality Collection

Notes:

- 1 Confidence intervals for some older age groups are not shown because the small numbers of deaths in these categories produce nonsensical confidence intervals.
- 2 The rates in this figure are the age-specific rates, measuring the frequency of suicides per 100,000 population relative to particular population age groups.

The remainder of this section focuses on suicides by life stage age group: youth (15-24), adults aged 25-44, adults aged 45-64 and adults aged 65 and over.

Figure 5 shows suicide rates for life stage groups over time. Between 1948 and 2009, differences between the age groups became less marked, and rates among each of the four groups showed distinct trends. This figure also highlights the volatility of New Zealand's suicide rates since 1948.

³ For an explanation of confidence intervals, see the 'Definitions' section.

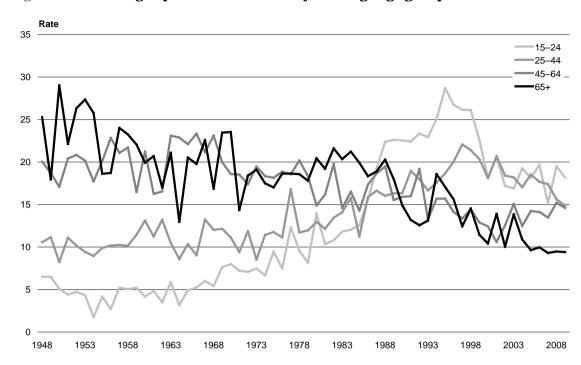


Figure 5: Suicide age-specific death rates, by life stage age group, 1948-2009

Source: New Zealand Mortality Collection

Notes:

- 1 The rates in this figure are age-specific rates, measuring the frequency of suicides per 100,000 population relative to particular population age groups.
- 2 This graph reflects data presented in Appendix 1, Table A6.

Youth (aged 15-24 years)

Deaths from suicide in 2009 made up more than one-quarter of all deaths in the 15–24 years age group, accounting for 32.6 percent of all male youth deaths and 16.7 percent of female youth deaths.⁴

In 2009 death from suicide was the second most common cause of death for youth; 119 youths died from motor vehicle accidents and 114 from suicide. This equates to youth mortality rates of 18.9 per 100,000 for motor vehicle accidents and 18.1 for suicide.

Table 4 shows that in 2009 the total youth suicide rate was 36.8 percent lower than it was at its highest point in 1995. Rates were significantly higher among males than females; in 2009 the male rate youth suicide rate was more than four times that of females.

These percentages have been calculated from provisional New Zealand Mortality Collection 2009 data, which has not yet been published.

Table 4: Youth suicide numbers and age-specific death rates, by sex, 1981-2009

Year	Mal	es	Fema	ales	Tot	al	
	Number	Rate	Number	Rate	Number	Rate	
1981	50	16.9	10	3.5	60	10.4	
1982	52 17.5		11	3.8	63	10.8	
1983	58	19.2	12	4.1	70	11.8	
1984	57	18.7	15	5.1	72	12.0	
1985	60	19.6	15	5.1	75	12.6	
1986	68	22.9	23	8.0	91	15.6	
1987	93	31.2	20	6.9	113	19.3	
1988	106	35.7	25	8.7	131	22.4	
1989	111	37.9	20	7.0	131	22.6	
1990	111	38.0	19	6.7	130	22.5	
1991	109	38.7	16	5.8	125	22.4	
1992	112	39.9	17	6.2	129	23.3	
1993	110	39.4	16	5.9	126	22.9	
1994	111	39.9	26	9.7	137	25.1	
1995	122	44.1	34	12.8	156	28.7	
1996	105	39.1	38	14.3	143	26.7	
1997	113	41.1	29	10.8	142	26.2	
1998	105	38.5	35	13.3	140	26.1	
1999	83	30.6	37	14.2	120	22.6	
2000	81	29.9	15	5.8	96	18.1	
2001	87	32.2	23	8.7	110	20.6	
2002	65	23.2	30	11.0	95	17.2	
2003	66	22.5	31	11.0	97	16.9	
2004	83	27.7	30	10.5	113	19.3	
2005	84	27.6	24	8.2	108	18.1	
2006	95	31.1	24	8.0	119	19.7	
2007	70	22.5	23	7.6	93	15.2	
2008	83	26.4	38	12.5	121	19.5	
2009 p	93	29.0	21	6.8	114	18.1	

Source: New Zealand Mortality Collection

Notes:

¹ The rate in this figure is the age-specific rate, measuring the frequency of suicides per 100,000 population relative to particular population age groups.

² p = provisional (see the 'Definitions' section).

Figure 6 shows trends in male and female suicide rates for youth between 1948 and 2009.

Male youth suicide rates began to rise sharply in the early 1970s and reached a peak of 44.1 per 100,000 in 1995. After that time, the rate trended downwards and had fallen by 34.2 percent by 2009.

Rates of female youth suicide also showed a general increase over time to a peak in 1996, although rates remained highly variable up until 2009.

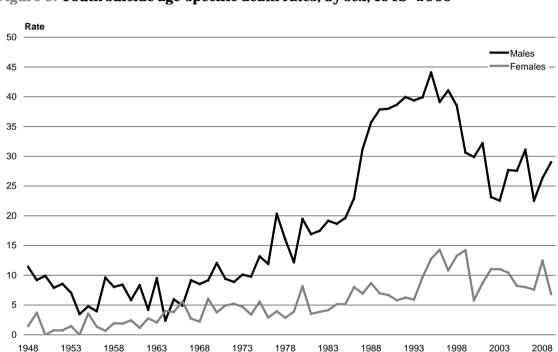


Figure 6: Youth suicide age-specific death rates, by sex, 1948-2009

Source: New Zealand Mortality Collection

Adults aged 25-44 years

The total suicide rate for adults aged 25–44 years was 14.9 per 100,000 in 2009. The male rate was 23.8 per 100,000 males: a figure more than three times the female rate of 6.6.

Figure 7 shows that the pattern of suicide rates for adults aged 25–44 years was quite different among males and females. While there was year-on-year variation, male suicide rates climbed until they reached a peak in 1997 (35.4 suicide deaths per 100,000 males), and then fell by 32.9 percent between 1997 and 2009. In contrast, the corresponding rates for females in that age group showed no real trend, and varied around an average rate of 6.9 deaths per 100,000 females.

Males Females

Figure 7: Suicide age-specific death rates, ages 25-44 years, by sex, 1948-2009

Source: New Zealand Mortality Collection

Adults aged 45-64 years

The suicide rate for adults aged 45–64 years was 14.6 per 100,000 total population in 2009. The male and female rates were 22.8 and 6.7 respectively; very similar to those in the 25–44 year group. However, as Figure 8 shows, over time suicide rates for adults aged 45–64 showed very different trends from those for adults aged 25–44.

Male rates for this age group were highly volatile between 1948 and 2009, but reached a low of 15.1 suicides per 100,000 males in 2001. After that, rates appeared to rise again (there were 22.8 suicide deaths per 100,000 males in 2009).

There was a more obvious downwards trend for females. Between 1963 and 1999, the female suicide rate dropped from 20.8 to 5.2 per 100,000 females (a reduction of 75.0 percent). The female rate rose again after 1999, although not as markedly as the male rate.

Males Females

Figure 8: Suicide age-specific death rates, ages 45-64 years, by sex, 1948-2009

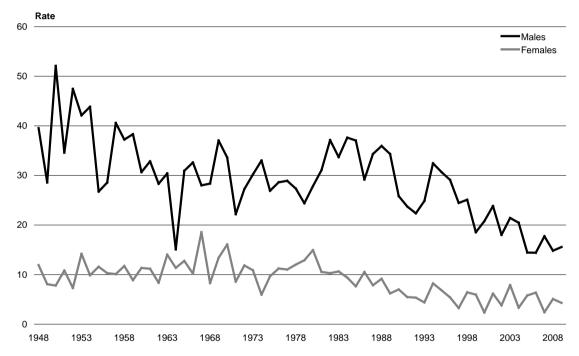
Source: New Zealand Mortality Collection

Adults aged 65 years and over

In 2009, the suicide rate for those aged 65 and over was the lowest of all the life stage age groups (9.4 per 100,000 people), and had dropped by 67.6 percent since its highest rate in 1950.

Figure 9 illustrates distinct trends among males and females in this age group. Between 1950 and 2009, the male rate of suicide trended downwards, falling by 70 percent. The female rate also showed a general downward trend over this period, falling by 76.8 percent between 1967 (when it peaked) and 2009.

Figure 9: Suicide age-specific death rates, ages 65 years and over, by sex, 1948–2009



Source: New Zealand Mortality Collection

Ethnicity⁵

Summary

In 2009:

- the total Māori suicide rate was 13.1 per 100,000 population: 23.6 percent higher than the non-Māori rate (of 10.6)
- between 1996 and 2009, both Māori and non-Māori male rates trended downwards;
 no such trend was evident among females
- the Māori youth rate (28.7 per 100,000 population) was 83.9 percent higher than the equivalent rate for non-Māori (of 15.6)
- · youth rates for both Māori and non-Māori seemed to trend downwards over time; however, Māori rates are highly variable due to the small numbers involved.

Table 5 shows suicide deaths by ethnicity, age and sex for 2009. Note that small numbers of suicide deaths for Pacific and Asian peoples mean that rates for these groups tend to be highly variable and may be misleading; they have therefore not been calculated.

Note that ethnicity data can only be compared back to 1996 because of changes in the way ethnicity was recorded from that year.

Table 5: Suicide deaths, by ethnicity, age and sex, 2009

Ethnicity	Sex	ex Total							A	ge grou	ıp (years)						
			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+
Māori	Total	83	5	20	15	10	7	8	6	4	3	2	2	0	1	0	0	0
	Males	58	3	11	13	7	5	8	3	2	2	1	2	0	1	0	0	0
	Females	25	2	9	2	3	2	0	3	2	1	1	0	0	0	0	0	0
Pacific	Total	28	0	8	5	2	5	4	2	0	1	1	0	0	0	0	0	0
	Males	21	0	7	3	1	5	3	0	0	1	1	0	0	0	0	0	0
	Females	7	0	1	2	1	0	1	2	0	0	0	0	0	0	0	0	0
Asian	Total	25	0	2	2	3	2	1	2	2	2	1	2	2	0	2	2	0
	Males	16	0	2	1	1	2	1	2	0	2	0	2	2	0	1	0	0
	Females	9	0	0	1	2	0	0	0	2	0	1	0	0	0	1	2	0
Other	Total	370	4	24	38	20	35	28	39	43	40	33	21	6	11	5	14	9
	Males	296	2	22	34	14	29	23	30	34	34	25	14	3	9	5	11	7
	Females	74	2	2	4	6	6	5	9	9	6	8	7	3	2	0	3	2
Total	Total	506	9	54	60	35	49	41	49	49	46	37	25	8	12	7	16	9
	Males	391	5	42	51	23	41	35	35	36	39	27	18	5	10	6	11	7
	Females	115	4	12	9	12	8	6	14	13	7	10	7	3	2	1	5	2

Source: New Zealand Mortality Collection

18

Māori

Eighty-three Māori died by suicide in 2009. The age-standardised rate was 13.1 deaths per 100,000 Māori population (see Table 6): the lowest rate for Māori since 1999. The rate ratio of Māori suicide deaths to non-Māori deaths was 1.2:1.

Pacific peoples

There were 28 deaths by suicide among the 'Pacific peoples' ethnic group in 2009 (21 males and seven females). It is difficult to draw conclusions about changes over time for this group, because the number of suicides is consistently small. However, it is notable that in 2009, almost one-third of male Pacific youth deaths were suicides. There were no suicide deaths among Pacific peoples aged over 60 years.

Asian peoples

There were 25 suicides among the 'Asian peoples' ethnic group in 2009 (16 males and nine females). Again, it is difficult to draw conclusions about changes over time: not only was the number of suicides in the group small, but the population of Asian peoples increased markedly between 1996 and 2009.

Māori and non-Māori comparisons

Table 6 shows suicide death numbers and rates for Māori and non-Māori, by sex, for the period 1996–2009.

In 2009 the age-standardised suicide death rate for Māori (13.1 deaths per 100,000 Māori population) was 23 percent higher than that for non-Māori (10.6 deaths per 100,000 non-Māori population).

The rate of suicide for Māori males was 19.3 deaths per 100,000 population in 2009, compared with 17.3 for non-Māori males.

Māori females showed a higher rate of suicide than non-Māori females in 2009 (7.4 and 4.3 deaths per 100,000 females respectively).

Table 6: Suicide deaths and age-standardised rates for Māori and non-Māori, by sex, 1996-2009

Year			Number	of deaths			Age-standardised rate							Rate ratio			
		Māori			Non-Māori			Māori			Non-Māori		Mā	Māori:non-Māori			
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total		
1996	71	24	95	357	88	445	28.3	9.1	18.3	22.5	5.5	13.7	1.3	1.7	1.3		
1997	77	26	103	363	95	458	28.0	9.4	18.5	22.4	5.8	13.9	1.3	1.6	1.3		
1998	87	25	112	358	107	465	32.5	8.3	20.0	21.8	6.2	13.9	1.5	1.3	1.4		
1999	58	20	78	327	111	438	19.9	6.3	12.9	19.9	6.6	13.1	1.0	1.0	1.0		
2000	69	11	80	306	72	378	25.5	3.8	14.2	18.8	4.2	11.4	1.4	0.9	1.2		
2001	57	22	79	331	97	428	20.3	6.7	13.3	20.0	5.4	12.5	1.0	1.2	1.1		
2002	59	21	80	294	92	386	21.2	6.8	13.8	17.0	5.2	10.9	1.3	1.3	1.3		
2003	67	20	87	309	121	430	22.7	6.4	14.2	17.0	6.4	11.6	1.3	1.0	1.2		
2004	82	27	109	297	82	379	29.0	8.4	18.3	16.5	4.5	10.4	1.8	1.9	1.8		
2005	78	26	104	302	105	407	26.9	8.3	17.2	16.8	5.4	11.0	1.6	1.5	1.6		
2006	75	33	108	313	105	418	25.9	10.7	18.0	17.0	5.3	11.0	1.5	2.0	1.6		
2007	74	23	97	297	93	390	25.9	7.3	16.1	15.7	4.4	9.9	1.6	1.6	1.6		
2008	56	31	87	325	108	433	19.8	8.9	14.0	17.0	5.4	11.1	1.2	1.6	1.3		
2009 p	58	25	83	333	90	423	19.3	7.4	13.1	17.3	4.3	10.6	1.1	1.7	1.2		

Source: New Zealand Mortality Collection

Notes:

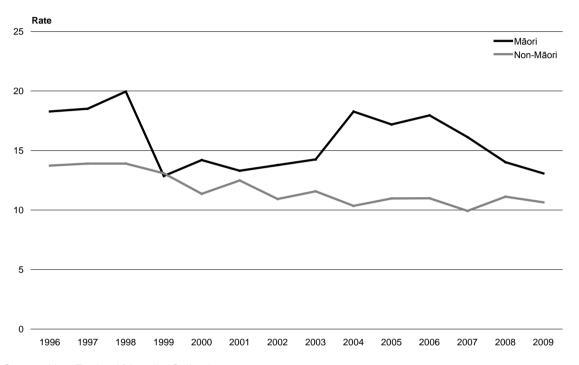
¹ The rate shown is the age-standardised rate (ASR per 100,000 population, standardised to the WHO standard world population.

² p = provisional (see the 'Definitions' section).

Figure 10 shows that between 1996 and 2009, Māori suicide rates were highly variable. However, between 2004 and 2009, they showed a steady decline, and fell by 28 percent.

Between 1996 and 2009, non-Māori suicide rates appeared to trend downwards, showing a decrease of 23 percent.

Figure 10: Suicide age-standardised death rates for Māori and non-Māori, 1996–2009



Source: New Zealand Mortality Collection

Note: The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

Figure 11 shows that the rate of suicides between 1996 and 2009 appeared to decline among non-Māori males. The rates for Māori males were highly variable year-on-year. There seemed to be no obvious downward trend for either Māori or non-Māori females.

Rate

Māori male

Māori female

Non-Māori male

Non-Māori female

10

5

Figure 11: Suicide age-standardised death rates for Māori and non-Māori, by sex, 1996–2009

Source: New Zealand Mortality Collection

Note: The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

Youth by ethnicity

Table 7 shows rates for Māori and non-Māori youth, by sex. Māori youth suicide rates in 2009 were more than 80 percent higher than those for non-Māori youth (28.7 and 15.6 per 100,000 population respectively).

Table 7: Youth suicide deaths and age-specific rates for Māori and non-Māori, by sex, 1996-2009

Year			Māo	ri					Non-M		Rate ratio				
	Mal	es	Fema	les	Tota	al	Male	es	Females		Total		Māori:non-Māori		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Males	Females	Total
1996	29	59.6	9	17.8	38	38.4	76	34.6	29	13.4	105	24.1	1.7	1.3	1.6
1997	27	51.1	9	16.9	36	33.9	86	38.7	20	9.3	106	24.3	1.3	1.8	1.4
1998	30	56.1	13	24.4	43	40.3	75	34.2	22	10.5	97	22.6	1.6	2.3	1.8
1999	23	42.4	10	18.7	33	30.6	60	27.7	27	13.1	87	20.5	1.5	1.4	1.5
2000	24	43.5	4	7.4	28	25.7	57	26.4	11	5.4	68	16.2	1.6	1.4	1.6
2001	20	35.6	9	16.4	29	26.1	67	31.3	14	6.7	81	19.1	1.1	2.5	1.4
2002	23	43.7	10	18.8	33	31.2	42	18.4	20	9.1	62	13.9	2.4	2.1	2.2
2003	20	37.1	11	20.2	31	28.6	46	19.3	20	8.8	66	14.2	1.9	2.3	2.0
2004	28	50.5	13	23.3	41	36.9	55	22.5	17	7.3	72	15.1	2.2	3.2	2.4
2005	29	50.5	10	17.4	39	34.0	55	22.2	14	6.0	69	14.3	2.3	2.9	2.4
2006	29	50.6	8	13.5	37	31.8	66	26.6	16	6.6	82	16.8	1.9	2.0	1.9
2007	23	39.5	10	16.8	33	28.1	47	18.6	13	5.3	60	12.1	2.1	3.2	2.3
2008	17	28.6	18	30.0	35	29.3	66	25.8	20	8.2	86	17.2	1.1	3.7	1.7
2009 p	24	39.2	11	18.1	35	28.7	69	26.6	10	4.1	79	15.6	1.5	4.5	1.8

Source: New Zealand Mortality Collection

Notes:

¹ The rate shown is the age-specific rate, measuring the frequency of suicides relative to particular population age groups.

² p = provisional (see the 'Definitions' section).

Figure 12 shows that the non-Māori youth rate declined over time. The Māori youth rate also appeared to be declining, but showed more variability.

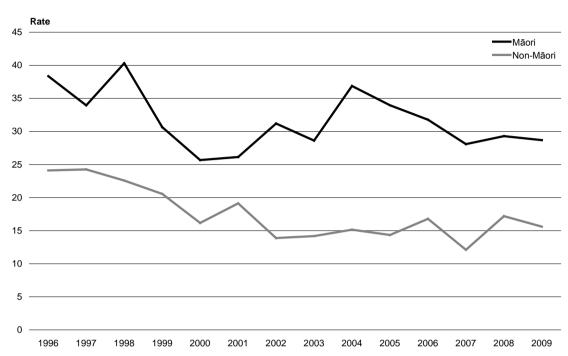


Figure 12: Youth suicide age-specific death rates, by ethnicity, 1996-2009

Source: New Zealand Mortality Collection

Note: The rate in this figure is the age-specific rate, measuring the frequency of suicides relative to particular population age groups.

Deprivation

Summary

In 2009:

- suicide rates increased with deprivation
- the suicide rate for the most deprived areas was almost 90 percent higher than it was for the least deprived areas.

Deprivation has been associated with various adverse health outcomes. From the social inequalities literature it is evident that those who are most deprived generally experience poorer health (White et al 2008, Benzeval et al 2001). Suicide mortality and hospitalisation rates for intentional self-harm are presented in this publication by deprivation quintile according to the New Zealand Deprivation Index 2006 (NZDep2006) (Salmond and Crampton 2002). (See the 'Definitions' section of this document for more information on NZDep2006.)

In 2009 the least deprived areas had an age-standardised suicide rate of $8.0~\rm per$ $100,000~\rm population$, compared with $15.0~\rm per$ $100,000~\rm population$ in the most deprived areas (Table 8).

Table 8: Suicide deaths and age-standardised rates, by NZDep2006 quintile and sex, 2009

Deprivation quintile		Number	Rate
1 (least deprived)	Total	76	8.0
	Males	64	13.6
	Females	12	2.3
2	Total	87	9.2
	Males	68	14.7
	Females	19	3.8
3	Total	85	9.6
	Males	63	14.5
	Females	22	4.9
4	Total	130	14.5
	Males	96	22.1
	Females	34	7.4
5 (most deprived)	Total	125	15.0
	Males	98	24.3
	Females	27	6.4

Source: New Zealand Mortality Collection

Note: The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

As in previous years, in 2009, suicide rates increased with deprivation. As Figure 13 shows, there was no significant difference between rates for the first, second and third quintiles; however, the rates for the two most deprived quintiles were significantly higher.

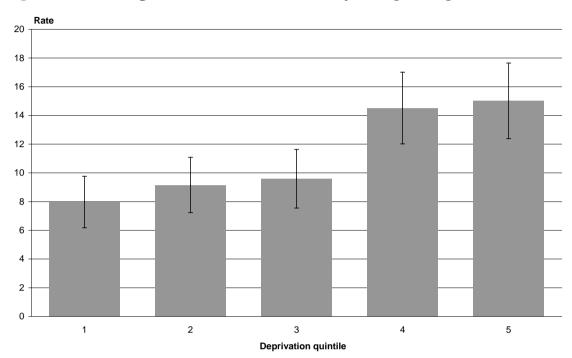


Figure 13: Suicide age-standardised death rates, by NZDep2006 quintile, 2009

Source: New Zealand Mortality Collection

Note: The rate in this figure is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

District Health Boards

Summary

Over the five years 2005–2009:

- five DHB areas (Northland, Bay of Plenty, Tairawhiti, MidCentral and Southland)
 had significantly higher average suicide rates than the total New Zealand rate
- · Waitemata, Auckland and Capital & Coast DHB areas had significantly lower average suicide death rates than the country as a whole.

In this section, data for DHBs have been aggregated over five years (2005–2009) because the small number of suicides annually in most areas makes analysis using rates uncertain.

The New Zealand rate for this five-year period⁶ was 11.2 suicides per 100,000 population; this is shown by the horizontal line in Figure 14. The figure also shows confidence intervals to aid interpretation. Where confidence intervals overlap the national rate, they are not significantly different from it⁷.

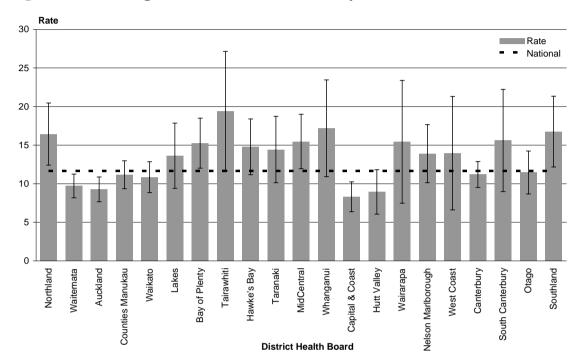


Figure 14: Suicide age-standardised death rates, by DHB, 2005-2009

Source: New Zealand Mortality Collection

Notes:

- 1 The rate in this figure is the age-standardised rate per 100,000 population, standardised to WHO standard world population.
- 2 This figure is based on information presented in Appendix 1, Table A5.

- ⁶ The national rate has been calculated based on the New Zealand estimated resident population as at 30 June 2007 (the mid-point) and standardised to the WHO standard world population. This population can be found in Appendix 1 (Table A2).
- Confidence intervals are for 99 percent confidence; see the 'Definitions' section for more information.

Methods of suicide

Summary

In 2009:

- hanging, strangulation and suffocation (collectively) was the most common method of suicide between 1997 and 2009 for both males and females (61.4 percent and 55.7 percent respectively)
- for males the second most common method was use of firearms and explosives (13.9 percent of male suicides)
- for females the second most common method was poisoning by solids and liquids (20.9 percent of female suicides)
- poisoning by gases and vapours as a cause of suicide death decreased from 28.0 percent in 1997 to 9.9 percent in 2009
- hanging, strangulation and suffocation was the method used by almost all youth, regardless of sex.

Figure 15 shows that hanging, strangulation and suffocation was used in 60.1 percent of all suicide deaths. Poisoning by solids and liquids was used in 10.7 percent of cases, firearms and explosives were used in 10.3 percent of cases, and poisoning by gases or vapours was used in 9.9 percent of cases.⁸

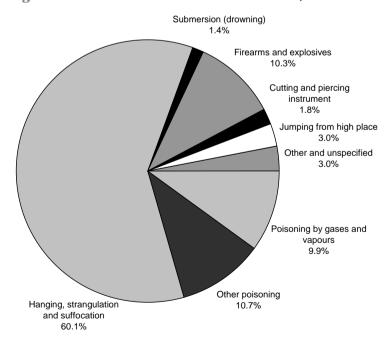


Figure 15: Methods used for suicide deaths, 2009

Source: New Zealand Mortality Collection

⁸ See the 'Technical notes' section for the ICD codes used for each method. Note that there is possibly some ambiguity as to the codes used to distinguish between poisoning methods.

In 2009, males were slightly more likely to use hanging, strangulation and suffocation as a method of suicide (this method accounted for 61.4 percent of male and 55.7 percent of female deaths).

As Table 9 and Figure 16 show, between 1997 and 2009 there was an increase in the proportion of suicide deaths by hanging, strangulation and suffocation (from 41.4 percent in 1997 to 60.1 percent in 2009). Over the same period, suicides from poisoning by gases and vapours sharply decreased, from 28.0 percent of suicide deaths in 1997 to 9.9 percent in 2009.

Table 9: Methods used for suicide deaths, 1997-2009

Year		ng — solids iquids		ng – gases apours	Hanging, strangulation and suffocation			ersion vning)		ms and osives	Other	means	Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1997	58	10.3	157	28.0	232	41.4	17	3.0	56	10.0	41	7.3	561	100.0
1998	64	11.1	133	23.1	249	43.2	10	1.7	72	12.5	49	8.5	577	100.0
1999	52	10.1	116	22.5	241	46.7	16	3.1	47	9.1	44	8.5	516	100.0
2000	37	8.1	112	24.5	215	46.9	15	3.3	36	7.9	43	9.4	458	100.0
2001	54	10.7	110	21.7	234	46.2	7	1.4	51	10.1	51	10.1	507	100.0
2002	47	10.1	99	21.2	221	47.4	12	2.6	49	10.5	38	8.2	466	100.0
2003	58	11.2	104	20.1	247	47.8	14	2.7	41	7.9	53	10.3	517	100.0
2004	47	9.6	93	19.1	268	54.9	12	2.5	38	7.8	30	6.1	488	100.0
2005	50	9.8	110	21.5	255	49.9	13	2.5	44	8.6	39	7.6	511	100.0
2006	49	9.3	87	16.5	286	54.4	9	1.7	50	9.5	45	8.6	526	100.0
2007	44	9.0	67	13.8	282	57.9	11	2.3	47	9.7	36	7.4	487	100.0
2008	56	10.8	75	14.4	289	55.6	8	1.5	43	8.3	49	9.4	520	100.0
2009 p	54	10.7	50	9.9	304	60.1	7	1.4	52	10.3	39	7.7	506	100.0

Source: New Zealand Mortality Collection

Note: p = provisional (see the 'Definitions' section).

Figure 16 shows how methods of suicide varied by age and sex in 2009. Hanging, strangulation and suffocation were predominantly used by both male and female youth (80.6 and 95.2 percent respectively). Firearms and explosives were the next most common methods used by male youth (9.7 percent), whereas no females of any age group used those methods.

Among males aged 25–64, hanging, strangulation and suffocation was the most common suicide method (57.1 percent), followed by a variety of other methods, including poisoning and firearms and explosives. Females in this age range most frequently used hanging, strangulation and suffocation (49.4 percent), followed by poisoning by solids and liquids (24.7).

In the oldest age group (65 years and older), males most commonly used hanging, strangulation and suffocation (38.5 percent), followed by firearms and explosives and poisoning by solids and liquids (both 17.9 percent). Females in this age group used poisoning by solids and liquids, poisoning by gases and vapours, and hanging, strangulation and suffocation in equal proportions (30.8 percent for each method).

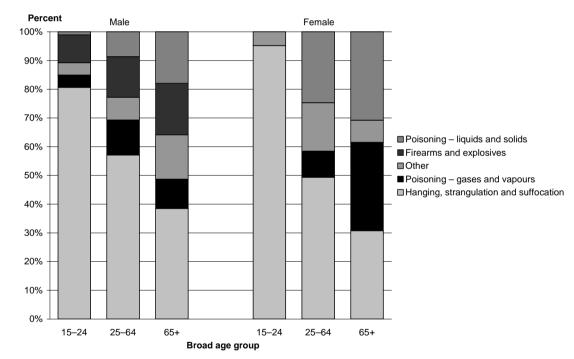


Figure 16: Methods used for suicide deaths, by sex and broad age group, 2009

Source: New Zealand Mortality Collection

International comparisons

Summary

- When compared with other Organisation for Economic Co-operation and Development (OECD) countries, rates of suicide for both males and females in New Zealand are towards the middle of the range.
- · Youth rates for male and female New Zealanders do not compare favourably with other OECD countries: New Zealand male rates are the highest, and female rates the fifth-highest, of the selected countries covered in this publication.

This section compares New Zealand suicide rates with those from other countries in the OECD. The countries used in this publication were members of the OECD in 2011. Two OECD countries (Iceland and Luxembourg) have been omitted from this analysis, because their small populations mean that analysis of suicide rates is inherently unstable. No data is available for Turkey. In general, OECD countries are considered to produce reliable data collections and have similar economic status to New Zealand, and so their health statistics are often used for comparison with New Zealand's.

A cautious approach is recommended when comparing international suicide statistics, because many factors affect the recording and classification of suicide in different countries, including the level of proof required for a verdict; stigma associated with suicide; the religion, social class or occupation of victims; and confidentiality (Andriessen 2006). As a result, deaths that are classified as suicide in some countries may be classified as accidental or of undetermined intent in others.

In addition, while the international figures cited here for all countries except New Zealand are the latest available from WHO

(www.who.int/mental_health/prevention/suicide/country_reports/en), the years they cover are different to those covered by this publication. Hence New Zealand rates are sometimes being compared with earlier years, in which different social and/or economic conditions may have applied.

All ages

When ranked alongside rates for other OECD countries (Figures 17 and 18) the New Zealand 2009 suicide rates for both males and females are towards the middle of the groups. Note that all the OECD countries have higher male than female suicide rates, as New Zealand does.

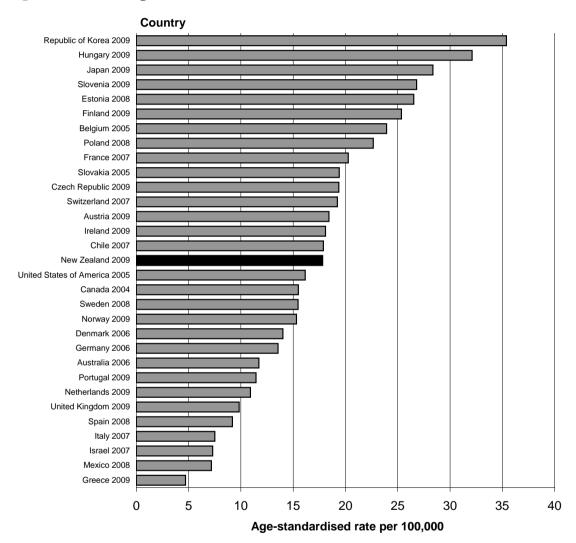


Figure 17: Suicide age-standardised rates for OECD countries, males

Source: WHO (nd)

Note: The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

Country Republic of Korea 2009 Japan 2009 Finland 2009 Belgium 2005 Switzerland 2007 Hungary 2009 France 2007 Norway 2009 Slovenia 2009 Sweden 2008 Estonia 2008 New Zealand 2009 Denmark 2006 Austria 2009 Canada 2004 Ireland 2009 Netherlands 2009 Germany 2006 Chile 2007 United States of America 2005 Poland 2008 Czech Republic 2009 Australia 2006 Slovakia 2005 Portugal 2009 United Kingdom 2009 Spain 2008 Italy 2007 Israel 2007 Mexico 2008 Greece 2009 0 2 6 8 10 20 4 12 14 16 18 Age-standardised rate per 100,000

Figure 18: Suicide age-standardised rates for OECD countries, females

Source: WHO (nd)

Note: The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

Youth (15-24-year-olds)

When ranked alongside those of other OECD countries, the New Zealand suicide rate for males aged 15–24 years in 2009 was higher than the comparable rate in any other country, as Figure 19 shows.

Country New Zealand 2009 Estonia 2008 Finland 2009 Ireland 2009 Chile 2007 Japan 2009 Poland 2008 Hungary 2009 Canada 2004 Switzerland 2007 United States of America 2005 Norway 2009 Republic of Korea 2009 Sweden 2008 Belgium 2005 Slovenia 2009 Austria 2009 Slovakia 2005 Australia 2006 Czech Republic 2009 Mexico 2008 France 2007 Germany 2006 United Kingdom 2009 Israel 2007 Denmark 2006 Netherlands 2009 Portugal 2009 Italy 2007 Spain 2008 Greece 2009 5 0 10 15 20 25 30 35 Age-standardised rate per 100,000

Figure 19: Suicide age-specific rates for OECD countries, males, 15-24 years

Source: WHO (nd)

Note: The rate in this figure is the age-specific rate, measuring the frequency of suicides per 100,000 population relative to particular population age groups.

As Figure 20 shows, the New Zealand female youth suicide rate in 2009 was the fifth highest of those in other OECD countries, behind the Republic of Korea (2009), Japan (2009), Finland (2009) and Switzerland (2007). New Zealand's female youth rate was similar to that of Sweden (2008) and Ireland (2009).

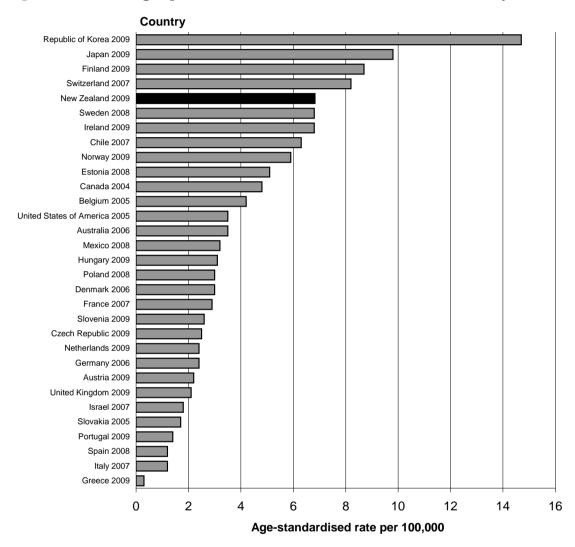


Figure 20: Suicide age-specific rates for OECD countries, females, 15-24 years

Source: WHO (nd)

Note: The rate in this figure is the age-specific rate, measuring the frequency of suicides per 100,000 population relative to particular population age groups.

For completeness, Table A7 in Appendix 1 provides a brief overview of New Zealand's suicide rates for adult age groups in comparison to other OECD countries.

Intentional self-harm hospitalisations in 2009

Summary

- To allow the best possible identification of real trends, approximately 60 percent of all self-harm hospitalisation data has been excluded from this analysis (due to inconsistencies in the way DHBs report data).
- Between 1996 and 2009 the rate of self-harm hospitalisations decreased by 30.5 percent.
- The motivation for intentional self-harm varies. Note that data on hospitalisation for intentional self-harm do not provide a measure of suicide attempts.

Overview

This section discusses hospitalisations for intentional self-harm. For comparative purposes, the data presented here exclude patients who were only seen in an emergency department and those who were discharged within two days. This data was filtered, due to inconsistent reporting between DHBs. Information collection is expected to become more consistent within the next few years; this will allow the full set of data to be included in future versions of *Suicide Facts*.

The filtering allows the best possible identification of real trends in intentional self-harm behaviour within the New Zealand population, and optimal regional comparison. The information presented here is not intended to represent a total count of those who received hospital treatment for an intentional self-harm event: approximately 60 percent has been excluded. See the 'Technical notes' section for further information.

This section presents data on hospitalisations by sex, age, ethnicity, deprivation and DHB region of domicile.

Taking into account that a subset of the data has been removed, the total number of hospitalisations involving intentional self-harm showed a steady decrease between 1996 and 2008, with a slight increase in 2009.

Table 10 shows a decline from 3030 hospitalisations in 1996 to 2539 hospitalisations in 2009. Expressed as rates, this decline represents a clear downward movement, from 85.8 per 100,000 population in 1996 to 59.6 per 100,000 population in 2009: a drop of 30.5 percent overall (see Figure 21).

Table 10: Intentional self-harm hospitalisation numbers and age-standardised rates, 1996–2009

Year	Tot	al
	Number	Rate
1996	3030	85.8
1997	3074	83.8
1998	3103	83.5
1999	2838	76.3
2000	3017	80.9
2001	3136	83.2
2002	2902	75.2
2003	3141	80.3
2004	3000	75.5
2005	2743	68.3
2006	2869	69.6
2007	2686	64.0
2008	2468	58.2
2009	2539	59.6

Source: New Zealand National Minimum Dataset

Note: The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

This decline may be due to a real change in behaviour within the population, but it is also likely to be due to changes in clinical practice and clinical administration over the last decade. For example, the move towards community-based mental health care is likely to be reducing the numbers of people who may previously have been admitted to inpatient mental health services following an intentional self-harm event. In addition, increased use of stomach pumps in emergency departments may have resulted in fewer admissions of longer than two days.

Rate

90

80

70

60

40

1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009

Figure 21: Intentional self-harm hospitalisation age-standardised rates, 1996–2009

Source: New Zealand National Minimum Dataset

Note: The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

Sex

Summary

In 2009:

- females were 70 percent more likely to be hospitalised for intentional self-harm than males
- there were 947 males (44.6 per 100,000 male population) and 1592 females (74.7 per 100,000 female population) hospitalised. Between 1996 and 2009 male and female hospitalisations decreased similarly over time.

It is well documented that females are more likely to be hospitalised for intentional self-harm than males (Berry and Harrison 2006). Table 11 shows that, in general, females are hospitalised for intentional self-harm at slightly less than twice the rate that males are.

Table 11: Intentional self-harm hospitalisation numbers and age-standardised rates, by sex, 1996–2009

Year	Ma	le	Fem	ale	Sex rate
	Number	Rate	Number	Rate	ratio (F:M)
1996	1173	66.8	1857	104.9	1.6
1997	1156	63.1	1918	104.8	1.7
1998	1229	66.9	1874	100.3	1.5
1999	1089	59.2	1749	93.7	1.6
2000	1148	62.0	1869	100.2	1.6
2001	1114	60.2	2022	106.2	1.8
2002	994	52.2	1908	98.1	1.9
2003	1048	54.3	2093	106.0	2.0
2004	982	50.1	2018	100.7	2.0
2005	953	48.0	1790	88.7	1.8
2006	991	48.8	1878	90.2	1.8
2007	940	45.6	1746	82.4	1.8
2008	877	41.9	1591	74.5	1.8
2009	947	44.6	1592	74.7	1.7

Source: New Zealand National Minimum Dataset

Note: The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

Figure 22 shows that for males and females, rates of hospitalisation for intentional self-harm trended downwards between 1996 and 2009. Over that time rates fell by 33.2 percent for males and 28.8 percent for females.

Rate 120 Male Female - Linear (Female) 100 മറ 20 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009

Figure 22: Intentional self-harm hospitalisation age-standardised rates, by sex, 1996–2009

Source: New Zealand National Minimum Dataset

Note: The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

Age

Summary

- Males aged 35–39 years had the highest rate of male hospitalisations for intentional self-harm (82.1 per 100,000 male population) in 2009.
- Females aged 15–19 years had the highest rate of female hospitalisations for intentional self-harm (181.1 per 100,000 female population) in 2009.
- Between 1996 and 2009 youth hospitalisation rates for intentional self-harm declined by 42.2 percent: 49.5 percent among male youth and 37.3 percent among female youth.

This section discusses intentional self-harm hospitalisations by five-year age group, and also analyses the data for youth (those aged 15–24 years).

Table 12 shows that males aged 35–39 had the highest rate of male self-harm hospitalisation. In comparison, females aged 15–19 showed the highest female rates.

Table 12: Intentional self-harm hospitalisation numbers and age-specific rates, by sex and five-year age group, 2009

Age group	Mal	es	Fem	ales	Tot	tal
(years)	Number	Rate	Number	Rate	Number	Rate
5-9	0	_	0	_	0	_
10–14	14	9.2	68	46.9	82	27.6
15–19	129	78.0	286	181.1	415	128.4
20-24	111	71.5	203	135.6	314	103.0
25–29	109	78.4	144	101.1	253	89.9
30–34	71	55.1	109	77.8	180	66.9
35–39	120	82.1	201	124.5	321	104.3
40–44	104	69.3	165	101.7	269	86.1
45–49	75	47.9	157	94.4	232	71.9
50-54	81	58.2	117	80.8	198	69.7
55–59	37	30.4	54	43.0	91	36.8
60-64	27	24.8	39	34.6	66	29.8
65-69	12	14.4	18	20.5	30	17.5
70–74	18	28.8	9	13.2	27	20.7
75–79	14	28.9	8	14.2	22	21.0
80-84	18	53.2	11	24.2	29	36.6
85+	7	31.5	3	6.8	10	15.0
Total	947	44.6	1592	74.7	2539	59.6

Source: New Zealand National Minimum Dataset

Note: The rate in this figure is the age-specific rate, measuring the frequency of intentional self-harm hospitalisations per 100,000 population relative to particular population age groups.

Figure 23 shows that the differences between male and female rates were significant for all five-year age groups under 50 years except the 25–29-year and 30–34-year groups.

Figure 23: Intentional self-harm hospitalisation age-specific rates, by age group and sex, 2009

Source: New Zealand National Minimum Dataset

Note: The rate in this figure is the age-specific rate, measuring the frequency of hospitalisations per 100,000 population relative to particular population age groups.

Youth

Table 13 shows age-specific rates of hospitalisations for intentional self-harm among those aged 15–24. In 2009 the female rate was more than twice that of the male rate (159.0 and 74.8 per 100,000 population respectively).

Table 13: Youth intentional self-harm hospitalisation numbers and age-specific rates, by sex, 1996–2009

Year	Mal	es	Fema	ales	Tot	al
	Number	Rate	Number	Rate	Number	Rate
1996	398	148.3	675	253.4	1073	200.7
1997	346	125.7	657	245.3	1003	184.7
1998	352	129.1	549	208.2	901	168.0
1999	276	101.9	506	194.5	782	147.3
2000	287	105.9	551	213.0	838	158.2
2001	282	104.4	615	232.6	897	167.8
2002	235	83.7	556	204.5	791	143.1
2003	275	93.9	622	221.2	897	156.2
2004	278	92.7	580	202.1	858	146.2
2005	224	73.5	503	172.8	727	122.0
2006	247	80.9	573	191.1	820	135.5
2007	219	70.5	520	171.6	739	120.4
2008	214	68.0	485	159.0	699	112.8
2009	240	74.8	489	159.0	729	116.0

Source: New Zealand National Minimum Dataset

Note: The rate shown is the age-specific rate, measuring the frequency of intentional self-harm hospitalisations per 100,000 population relative to particular population age groups.

Figure 24 shows a reduction in youth intentional self-harm hospitalisation rates over time for both males and females. Trend lines plotted from the data for the years 1996–2009 show figures decreasing at a similar rate (the trend lines have similar gradients). However, the female rate shows more variation over time. Male youth rates declined by 49.5 percent and female youth rates by 37.3 percent over the period.

Rate •Males Females - Linear (Females)

Figure 24: Youth intentional self-harm hospitalisation age-specific rates, by sex, 1996–2009

Source: New Zealand National Minimum Dataset

Note: The rate shown is the age-specific rate, measuring the frequency of intentional self-harm hospitalisations per 100,000 population relative to particular population age groups.

Ethnicity

Summary

- There were 71.6 Māori intentional self-harm hospitalisations per 100,000 Māori population in 2009, compared to 28.3 per 100,000 Pacific population and 59.4 per 100,000 population of other ethnicity.
- The most common age group for both Māori males and females to be hospitalised for intentional self-harm was 15–19 years.
- Pacific females accounted for 54.5 percent of Pacific hospitalisations for intentional self-harm: a noticeably smaller proportion than the comparable figure for other groups.
- Intentional self-harm hospitalisation rates for non-Māori dropped markedly between 1996 and 2009, by 35.1 percent, while Māori rates remained relatively stable.

Māori

In 2009 there were 457 intentional self-harm hospitalisations of Māori (18.0 percent of total intentional self-harm hospitalisations) (see Table 14). The most common age for Māori males to be hospitalised for intentional self-harm was 15–19 years (there were 31 hospitalisations for this age group, equating to 89.0 per 100,000 population). Māori females were also most commonly hospitalised for intentional self-harm between the ages of 15 and 19 (there were 71 hospitalisations, equating to 213.4 per 100,000 population).

Pacific peoples

Seventy-seven Pacific people were hospitalised for intentional self-harm in 2009 (3.0 percent of total intentional self-harm hospitalisations), equating to an age-standardised rate of 28.3 per 100,000 Pacific population. Pacific females accounted for 54.5 percent of these hospitalisations: a noticeably smaller proportion than the total female proportion of 62.7 percent.

Asian peoples

In 2009 there were 87 intentional self-harm hospitalisations of Asian people (3.4 percent of total intentional self-harm hospitalisations). Age-standardised rates have not been calculated, because reliable 2009 population data was not available for Asian peoples at the time of analysis. Females accounted for 58.6 percent of all Asian intentional self-harm hospitalisations.

Other groups

There were 1918 intentional self-harm hospitalisations for ethnic groups classified as 'Other' in 2009 (75.5 percent of total intentional self-harm hospitalisations). The most common age for males in the 'Other' group to be hospitalised was 35–39, while females were more commonly hospitalised between the ages of 15 and 19. Females accounted for 63.5 percent of intentional self-harm hospitalisations in this group.

Table 15 shows age-standardised rates calculated using groupings of Māori, Pacific and non-Māori/non-Pacific populations. Rates of hospitalisations for intentional self-harm among Māori and Pacific people remained stable over the period 1996–2009; however, Pacific rates were on average about 44 percent lower than Māori rates. Non-Māori/non-Pacific rates fell by 35.0 percent over the period.

Table 14: Intentional self-harm hospitalisations, by ethnicity, age group and sex, 2009

Ethnicity	Sex	Total		Age group (years)																
			0-4	5-9	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+
Māori	Total	457	0	0	30	102	78	52	38	55	42	30	12	6	7	4	0	1	0	0
	Males	176	0	0	5	31	28	30	17	22	20	9	6	2	3	2	0	1	0	0
	Females	281	0	0	25	71	50	22	21	33	22	21	6	4	4	2	0	0	0	0
Pacific	Total	77	0	0	2	15	15	9	7	9	8	5	5	0	0	1	1	0	0	0
	Males	35	0	0	0	7	6	3	2	4	4	3	4	0	0	1	1	0	0	0
	Females	42	0	0	2	8	9	6	5	5	4	2	1	0	0	0	0	0	0	0
Asian	Total	87	0	0	0	10	16	19	12	6	7	1	4	2	0	2	4	3	1	0
	Males	36	0	0	0	3	5	5	7	2	7	0	2	0	0	1	1	3	0	0
	Females	51	0	0	0	7	11	14	5	4	0	1	2	2	0	1	3	0	1	0
Other	Total	1918	0	0	50	288	205	173	123	251	212	196	177	83	59	23	22	18	28	10
	Males	700	0	0	9	88	72	71	45	92	73	63	69	35	24	8	16	10	18	7
	Females	1218	0	0	41	200	133	102	78	159	139	133	108	48	35	15	6	8	10	3
Total	Total	2539	0	0	82	415	314	253	180	321	269	232	198	91	66	30	27	22	29	10
	Males	947	0	0	14	129	111	109	71	120	104	75	81	37	27	12	18	14	18	7
	Females	1592	0	0	68	286	203	144	109	201	165	157	117	54	39	18	9	8	11	3

Source: New Zealand National Minimum Dataset

Table 15: Intentional self-harm hospitalisation numbers and age-standardised rates, by ethnicity and sex, 1996-2009

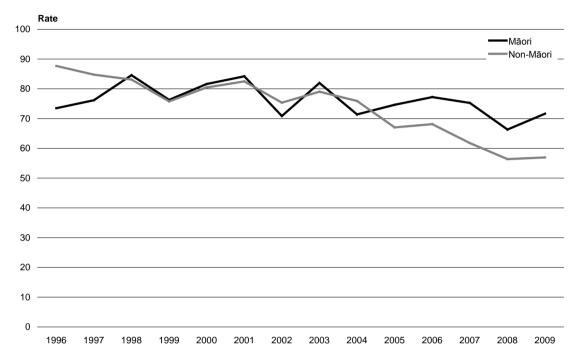
Year					Number					Rate								
		Māori		Pa	cific peop	les	Non-M	āori/non	-Pacific		Māori		Pa	cific peop	les	Non-M	āori/non	-Pacific
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
1996	147	249	396	32	32	64	994	1576	2570	56.3	89.7	73.5	32.8	31.3	31.8	69.9	113.5	91.5
1997	178	262	440	23	51	74	955	1605	2560	64.0	87.9	76.1	26.1	50.0	38.2	64.7	112.0	88.0
1998	217	268	485	29	34	63	983	1572	2555	76.7	91.9	84.5	29.4	35.0	32.2	66.6	107.2	86.7
1999	194	260	454	28	48	76	867	1441	2308	67.4	85.0	76.3	29.6	47.0	38.4	58.9	98.5	78.5
2000	191	293	484	38	41	79	919	1535	2454	66.7	96.2	81.6	35.7	38.1	37.0	62.0	105.8	83.6
2001	211	302	513	30	42	72	873	1678	2551	71.7	96.6	84.1	26.6	35.3	30.8	59.2	113.9	86.5
2002	152	268	420	46	59	105	796	1581	2377	53.0	87.9	70.8	40.7	50.3	45.5	51.4	103.6	77.5
2003	193	305	498	29	52	81	827	1736	2563	66.1	97.1	82.0	25.1	46.1	36.2	53.3	112.0	82.6
2004	178	259	437	27	41	68	777	1718	2495	60.8	81.9	71.4	22.2	35.8	29.3	49.5	110.2	79.7
2005	187	275	462	40	42	82	726	1473	2199	63.9	85.2	74.6	33.3	33.3	33.2	45.8	93.8	69.7
2006	174	299	473	36	34	70	781	1545	2326	60.2	93.5	77.2	28.5	25.9	27.2	47.5	95.5	71.5
2007	194	269	463	36	40	76	710	1437	2147	68.0	82.9	75.3	29.6	30.4	29.9	42.4	86.7	64.5
2008	152	262	414	47	36	83	678	1293	1971	52.3	79.8	66.3	35.2	26.3	30.6	39.5	77.5	58.4
2009	176	281	457	35	42	77	736	1269	2005	59.7	83.7	71.6	27.0	29.7	28.3	43.0	75.9	59.4

Source: New Zealand National Minimum Dataset

Note: The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

Figure 25 shows rates for Māori and non-Māori intentional self-harm hospitalisations. Between 1996 and 2009 rates for Māori were variable year on year, and showed no real sign of improvement. In comparison, rates for non-Māori dropped markedly (by 35.1 percent) over the same period.

Figure 25: Intentional self-harm hospitalisation age-standardised rates for Māori and non-Māori, 1996–2009



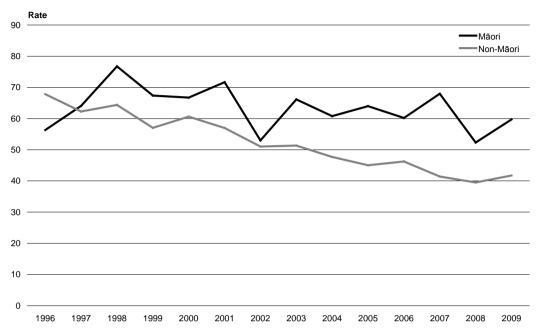
Source: New Zealand National Minimum Dataset

Note: The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

Figure 26 shows rates of intentional self-harm hospitalisation for Māori and non-Māori males. Rates for non-Māori males showed a decline between 1996 and 2009, falling by 38 percent. No such trend was evident for Māori males.

Figure 27 shows comparative rates for females. The female non-Māori rate of self-harm hospitalisation fell by 33 percent between 1996 and 2009. As with the comparable male figure, the rate for Māori females showed no obvious downward trend over this time.

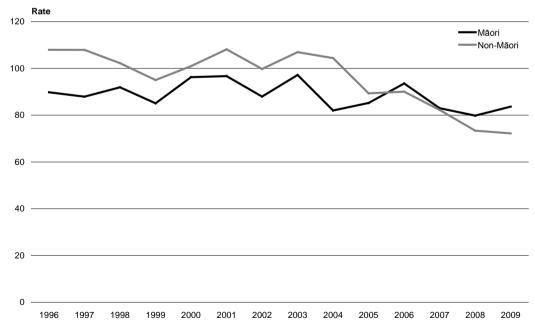
Figure 26: Intentional self-harm hospitalisation age-standardised rates for Māori and non-Māori males, 1996–2009



Source: New Zealand National Minimum Dataset

Note: The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

Figure 27: Intentional self-harm hospitalisation age-standardised rates for Māori and non-Māori females, 1996–2009



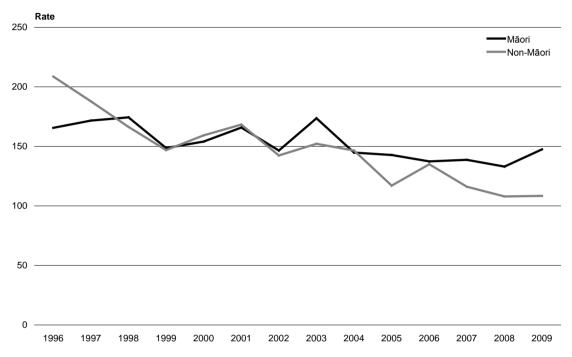
Source: New Zealand National Minimum Dataset

Note: The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

Youth

Among Māori and non-Māori youth (those aged 15–24 years), intentional self-harm hospitalisation rates were generally of a similar magnitude over the period 1996–2009 (see Figure 28 and Table 16). However, in 2009 the rate for Māori youth was 36.1 percent higher than the comparable rate for non-Māori youth.

Figure 28: Youth intentional self-harm hospitalisation age-specific rates, by ethnicity, 1996–2009



Source: New Zealand National Minimum Dataset

Note: The rate in this figure is the age-specific rate, measuring the frequency of intentional self-harm hospitalisations relative to particular population age groups.

Table 16: Youth intentional self-harm hospitalisation numbers and age-specific rates for Māori and non-Māori, by sex, 1996-2009

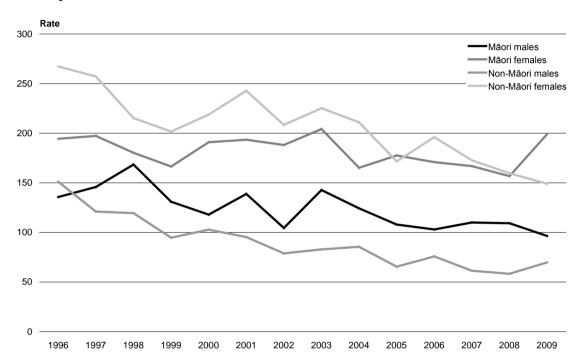
Year			Māo	ori			Non-Māori						
	Ma	le	Fem	ale	Total		Ma	le	Fem	ale	Tot	al	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
1996	66	135.7	98	194.4	164	165.6	332	151.1	577	267.2	909	208.6	
1997	77	145.8	105	197.3	182	171.6	269	121.0	552	257.2	821	187.9	
1998	90	168.4	96	180.3	186	174.4	262	119.5	453	215.3	715	166.4	
1999	71	131.0	89	166.4	160	148.6	205	94.6	417	201.7	622	146.9	
2000	65	117.9	103	191.0	168	154.0	222	102.8	448	218.8	670	159.2	
2001	78	138.8	106	193.5	184	165.8	204	95.3	509	242.8	713	168.3	
2002	55	104.4	100	188.1	155	146.5	180	78.9	456	208.4	636	142.3	
2003	77	142.7	111	204.2	188	173.6	198	82.9	511	225.2	709	152.2	
2004	69	124.3	92	165.1	161	144.8	209	85.5	488	211.0	697	146.5	
2005	62	107.9	102	177.6	164	142.8	162	65.5	401	171.6	563	117.1	
2006	59	102.9	101	170.8	160	137.4	188	75.7	472	196.1	660	135.0	
2007	64	110.0	99	166.8	163	138.7	155	61.4	421	172.7	576	116.1	
2008	65	109.2	94	156.7	159	133.0	149	58.4	391	159.6	540	107.9	
2009	59	96.4	121	199.0	180	147.5	181	69.7	368	149.1	549	108.4	

Source: New Zealand National Minimum Dataset

Note: The rate shown is the age-specific rate, measuring the frequency of intentional self-harm hospitalisations relative to particular population age groups.

Māori male youth tend to have higher rates of intentional self-harm hospitalisation than non-Māori male youth. Conversely, however, Māori female youth generally have lower rates than non-Māori female youth, although this was not always the case between 2004 and 2008. Over time these ethnic differences were not significantly different. Figure 29 shows this, and indicates that rates decreased for all four subgroups, although the downward trend was strongest for non-Māori males and females.

Figure 29: Youth intentional self-harm hospitalisation age-specific rates, by ethnicity and sex, 1996–2009



Source: New Zealand National Minimum Dataset

Note: The rate in this figure is the age-specific rate, measuring the frequency of intentional self-harm hospitalisations per 100,000 population relative to particular population age groups.

Deprivation

Summary

In 2009:

- · rates of self-harm hospitalisation increase with deprivation
- those in the most deprived quintile (quintile 5) have rates more than twice the comparable rate of those in the least deprived quintile (quintile 1)
- for both males and females the differences between rates for the least and most deprived quintiles are statistically significant.

As discussed in the 'Suicides' section of this publication, deprivation has been found to be associated with various adverse health outcomes; those who are most deprived generally experience poorer health.

Table 17 shows that in 2009 the rate of intentional self-harm hospitalisations for the least deprived quintile (quintile 1), 37.4 per 100,000 quintile 1 population, was about half the rate for the most deprived quintiles (quintiles 4 and 5).

Table 17: Intentional self-harm hospitalisation numbers and age-standardised rates, by NZDep2006 quintile, 2009

Deprivation quin	tile	Number	Rate
1 least deprived	Total	304	37.4
	Males	107	24.9
	Females	197	50.2
2	Total	343	40.7
	Males	127	30.2
	Females	216	51.2
3	Total	542	63.5
	Males	211	49.3
	Females	331	78.1
4	Total	668	78.9
	Males	229	54.1
	Females	439	103.5
5 most deprived	Total	673	80.7
	Males	269	67.5
	Females	404	93.4

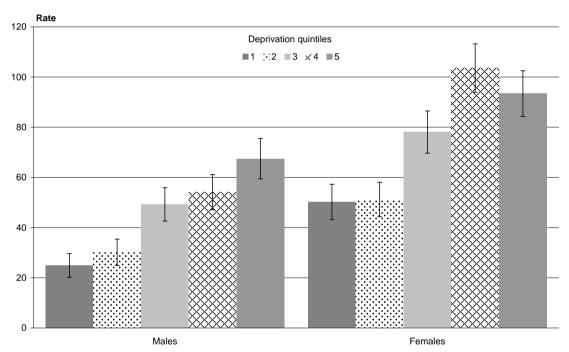
Source: New Zealand National Minimum Dataset

Note: The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

Figure 30 shows 2009 intentional self-harm hospitalisation rates and confidence intervals by deprivation quintile and sex. There was a significant difference between male rates in the least and most deprived quintiles: the rate in the most deprived quintile (67.5 per 100,000 population) was more than $2\frac{1}{2}$ times higher than the rate in the least deprived quintile (24.9 per 100,000 population). However, there was no significant difference between rates in quintiles 1 and 2, or in quintiles 4 and 5.

Similarly, there was no significant difference between female rates in the two least deprived quintiles. However, the rates for quintiles 1 and 2 were significantly lower than the rates for quintiles 3, 4 and 5. In 2009 the female rate was highest in quintile 4 (103.5 per 100,000 population); this rate was more than twice as high as the rate in the least deprived quintile (50.2 per 100,000 population).

Figure 30: Intentional self-harm hospitalisation age-standardised rates, by deprivation quintile and sex, 2009



Source: New Zealand National Minimum Dataset

Note: The rate shown is the per 100,000 population, standardised to the WHO standard world population.

District Health Boards

Summary

Over 2007-2009:

- the Northland, Waikato, Bay of Plenty, Taranaki, Hutt Valley, Wairarapa, Nelson Marlborough, West Coast, Canterbury and Otago District Health Board (DHB) regions had significantly higher rates for intentional self-harm hospitalisations than the national rate
- Auckland, Counties Manukau, Hawke's Bay and MidCentral DHB regions had significantly lower rates than the national rate.

Hospitalisation data has been filtered to allow as much consistency as possible over time and between DHBs (see the 'Technical notes' section for more information). However, filtering cannot completely eliminate differences caused by different methods of managing patients and keeping records.

2009 data

Table 18 shows that the DHB region with the highest age-standardised rate of intentional self-harm hospitalisations in 2009 was Wairarapa. Auckland and Counties Manukau DHB regions had the lowest rates. The MidCentral DHB region was the only one in which the rate of male intentional self-harm hospitalisations exceeded that of females. Other DHB regions with low female-to-male rate ratios were Lakes and Counties Manukau (1.1 females hospitalised for each male) and Auckland and Bay of Plenty (in which the ratio was 1.2:1). Wairarapa DHB region had the highest female-to-male rate ratio: 3.1 females hospitalised for every male.

Table 18: Intentional self-harm hospitalisation numbers and age-standardised rates, by DHB of domicile and sex, 2009

DHB	Male	es	Fema	ales	Tota	ıl	Sex rate
	Number	Rate	Number	Rate	Number	Rate	ratio (F:M)
Northland	48	73.1	87	121.7	135	96.7	1.7
Waitemata	112	42.7	160	59.9	272	51.1	1.4
Auckland	65	27.5	72	31.8	137	29.3	1.2
Counties Manukau	64	27.6	78	31.3	142	29.4	1.1
Waikato	104	61.2	161	94.1	265	77.6	1.5
Lakes	34	75.1	39	83.0	73	78.3	1.1
Bay of Plenty	60	62.6	73	78.0	133	69.8	1.2
Tairawhiti	12	56.9	25	120.7	37	89.1	2.1
Hawke's Bay	21	31.6	32	41.4	53	36.8	1.3
Taranaki	31	66.0	47	92.0	78	78.8	1.4
MidCentral	33	41.3	32	38.6	65	39.9	0.9
Whanganui	12	40.5	32	110.4	44	75.5	2.7
Capital & Coast	53	35.6	132	87.2	185	62.0	2.4
Hutt Valley	29	44.3	96	131.4	125	87.9	3.0
Wairarapa	9	60.3	32	187.0	41	123.9	3.1
Nelson Marlborough	40	62.5	78	119.5	118	91.4	1.9
West Coast	12	80.7	20	111.2	32	95.7	1.4
Canterbury	101	39.3	223	93.7	324	66.2	2.4
South Canterbury	15	63.1	24	118.3	39	89.5	1.9
Otago	61	66.1	102	113.5	163	89.8	1.7
Southland	29	54.5	43	89.7	72	71.3	1.6
Overseas and undefined	2		4		6		

Source: New Zealand National Minimum Dataset

Notes:

Aggregated data, 2007-2009

Since intentional self-harm hospitalisation rates vary considerably from year to year, it is useful to consider age-standardised rates based on three years' accumulated data: in this case 2007–2009. Table 19 and Figure 31 show accumulated rates for each DHB region by sex.

¹ The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

^{2 .. =} not available.

The national figure was 60.7 intentional self-harm hospitalisations per 100,000 population over the three years: the horizontal line in Figure 31 represents this. ⁹ The figure also provides confidence intervals ¹⁰ to aid interpretation.

Table 19: Intentional self-harm hospitalisation numbers and age-standardised rates, by DHB of domicile, 2007, 2008 and 2009 (accumulated data)

DHB	Male	es	Fema	les	Tota	al	Sex rate
	Number	Rate	Number	Rate	Number	Rate	ratio (F:M)
Northland	115	57.6	232	113.9	347	85.5	2.0
Waitemata	343	44.0	546	68.1	889	56.0	1.5
Auckland	221	31.4	221	32.2	442	31.5	1.0
Counties Manukau	199	29.2	304	41.9	503	35.5	1.4
Waikato	305	61.2	478	92.0	783	76.9	1.5
Lakes	84	63.0	115	80.7	199	71.2	1.3
Bay of Plenty	176	62.0	231	81.0	407	71.2	1.3
Tairawhiti	31	50.9	59	97.8	90	75.0	1.9
Hawke's Bay	77	39.6	110	49.3	187	44.5	1.2
Taranaki	74	50.1	164	105.9	238	77.9	2.1
MidCentral	91	38.7	145	57.2	236	48.0	1.5
Whanganui	42	50.2	84	98.1	126	74.0	2.0
Capital & Coast	158	35.5	381	85.4	539	61.0	2.4
Hutt Valley	100	51.1	249	113.8	349	82.8	2.2
Wairarapa	44	93.3	129	260.8	173	176.7	2.8
Nelson Marlborough	102	53.8	257	147.6	359	99.3	2.7
West Coast	31	71.0	54	109.6	85	89.4	1.5
Canterbury	299	39.5	697	97.5	996	68.3	2.5
South Canterbury	40	56.6	66	100.1	106	77.8	1.8
Otago	145	52.2	280	100.8	425	76.8	1.9
Southland	78	49.1	113	74.4	191	61.4	1.5
Overseas and undefined	9		9		18		

Source: New Zealand National Minimum Dataset

Notes:

¹ The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

^{2 .. =} not available.

The national rate has been calculated based on the New Zealand estimated resident population as at 30 June 2008 (the mid-point) and standardised to the WHO standard world population. This population can be found in Appendix 1 (Table A3).

Confidence intervals are for 99 percent confidence; see the 'Definitions' section for more information.

Figure 31 shows clearly that Northland, Waikato, Bay of Plenty, Taranaki, Hutt Valley, Wairarapa, Nelson Marlborough, West Coast, Canterbury and Otago DHB regions had a significantly higher rate for intentional self-harm hospitalisations than the national rate over 2007–2009. Auckland, Counties Manukau, Hawke's Bay and MidCentral DHB regions had significantly lower rates.

250 DHR rate National rate 200 150 100 Northland Lakes Tairawhiti Whanganui Southland Auckland Counties Manukau Waikato 3ay of Plenty Taranaki MidCentral Capital & Coast Hutt Valley Hawke's Bay Nelson Marlborough West Coast Canterbury South Canterbury Wairarapa

Figure 31: Intentional self-harm hospitalisation age-standardised rates, by DHB of domicile, 2007, 2008 and 2009 (accumulated data)

Source: New Zealand National Minimum Dataset

Note: The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

Ethnicity

Table 20 indicates considerable variation between DHB regions for Māori and non-Māori rates of intentional self-harm hospitalisations over the period 2007–2009.

Among Māori, the highest rates were in the South Canterbury DHB region for males and the Wairarapa DHB region for females. The highest non-Māori rates for both males and females were seen in the Wairarapa DHB region. However the numbers involved are small and should be treated with caution.

Table 20: Intentional self-harm hospitalisation numbers and age-standardised rates for Māori and non-Māori, by DHB of domicile and sex, 2007, 2008 and 2009 (accumulated data)

DHB		Mā	iori			Non-	Māori		Māori:non-M	āori rate ratio
	Ma	les	Fem	ales	Mal	es	Fem	ales		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Males	Females
Northland	39	61.6	80	110.1	76	58.0	152	117.3	1.1	0.9
Waitemata	48	64.7	70	88.4	295	40.8	476	65.0	1.6	1.4
Auckland	32	57.0	26	45.3	189	28.7	195	30.8	2.0	1.5
Counties Manukau	49	47.4	71	56.9	150	25.6	233	38.2	1.9	1.5
Waikato	86	82.3	108	92.7	219	54.1	370	90.4	1.5	1.0
Lakes	28	64.4	48	90.2	56	62.3	67	77.2	1.0	1.2
Bay of Plenty	38	60.4	60	80.7	138	62.6	171	80.2	1.0	1.0
Tairawhiti	16	57.4	34	108.1	15	38.0	25	86.8	1.5	1.2
Hawke's Bay	23	48.5	25	44.3	54	35.0	85	51.2	1.4	0.9
Taranaki	18	75.3	26	103.0	56	43.0	138	109.4	1.8	0.9
MidCentral	14	32.8	18	37.9	77	39.4	127	61.1	0.8	0.6
Whanganui	12	61.4	21	86.6	30	45.3	63	104.6	1.4	0.8
Capital & Coast	16	37.9	53	104.1	142	35.3	328	82.5	1.1	1.3
Hutt Valley	29	85.9	30	79.3	71	42.5	219	120.2	2.0	0.7
Wairarapa	5	64.7	30	317.8	39	94.7	99	243.3	0.7	1.3
Nelson Marlborough	10	48.2	15	85.7	92	53.0	242	156.1	0.9	0.5
West Coast	2	37.3	5	83.9	29	73.5	49	107.5	0.5	0.8
Canterbury	26	48.3	30	55.1	273	39.0	667	102.0	1.2	0.5
South Canterbury	6	124.1	6	116.4	34	50.3	60	100.8	2.5	1.2
Otago	12	65.9	35	189.6	133	51.4	245	94.8	1.3	2.0
Southland	11	55.6	18	94.3	67	46.9	95	71.4	1.2	1.3
Overseas and undefined	2		3		7	••	11			

Source: New Zealand National Minimum Dataset

Note: The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

Technical notes

Data

Population denominator

The suicide and self-harm hospitalisation rates presented in this report and the last three years' publications will differ from those editions of *Suicide Facts* prior to *Suicide Facts*: *Deaths and intentional self-harm hospitalisations 2006*. In 2006, 2007, 2008 and 2009 data, any population analysis is based on New Zealand population estimates as calculated by Statistics New Zealand. In *Suicide Facts* publications using data for 2005 or earlier, different population denominators were used (note that the only exception to this is the deprivation data and data for Pacific peoples, for which population projections have been used).

Suicide deaths

All suicide mortality data in this publication was obtained from the New Zealand Mortality Collection, except for that used in international comparisons, which were obtained from WHO.

In New Zealand, classification of a death as suicide is subject to a coroner's inquiry, and only on completion of this inquiry can a death be officially classified as suicide. In some cases an inquest may be heard several years after the death; particularly if there are factors relating to the death that need to be investigated first (for example deaths in custody). Consequently, a provisional suicide classification may be made before a coroner's verdict. The suicide mortality data used in this report are provisional 2009 data. Three deaths that were registered in 2009 are still subject to coroners' findings, and no provisional cause of death had been assigned to them at the time of data extraction.

The number of provisionally classified deaths from suicide in 2009 presented in this report may differ slightly from the number for the same year presented in future reports, when data has been finalised. The Ministry of Health will release the final data in the publication *Mortality and Demographic Data 2009*.

The suicide data in this report are based on deaths that were registered in 2009, at the office of Births, Deaths and Marriages. Whilst most deaths are registered in the year the death occurred, a few deaths (approximately 2 percent) are registered in later years.

Hospitalisation for intentional self-harm

The motivation for intentional self-harm varies, and therefore data on hospitalisation for intentional self-harm is not a measure of suicide attempts.

The hospitalisation data used in this report has been filtered to exclude information on patients who were discharged from the emergency department and those who stayed less than two days in hospital. There are huge variations between the numbers of short-stay emergency department admissions recorded by DHBs because admission practices vary, and so this filtering was necessary to allow better comparisons between DHBs and over time.

Small numbers and rates

Caution is advised when interpreting rates derived from small numbers as they may fluctuate markedly over time. This may apply to both small numbers of cases and/or small population groups.

Filtering of data on hospitalisation for intentional self-harm

Data for the section on intentional self-harm hospitalisation was extracted for the years from 1996 onwards for comparison of trends (hospitalisation data can only be compared consistently back to this year because of changes in recording and reporting of data in July 1995).

When considering all the information in the 'Self-harm hospitalisations' section, it is very important to note that a large subset of the data has been removed. This is because DHBs had differing admission practices, which resulted in differences in data reported. The excluded data represent patients who were discharged from an emergency department or from hospital after a length of stay of less than two days. It is evident in Table A8 that these events were reported very differently within individual DHBs between 1996 and 2009. The data that was clearly inconsistent having been removed, the remaining data can be used to make meaningful comparisons across years and DHBs.

Table A8 in Appendix 1 shows admissions that have been excluded from the main 1996–2009 data presented in this document.

The data presented here also exclude any admissions for an intentional self-harm incident within two days of a previous discharge involving intentional self-harm (see Table A9). It is not unusual for patients to be transferred between hospitals after an intentional self-harm event. In many cases, DHBs were recording such transfers as additional admissions. These admissions usually occurred within two days of the previous discharge, thereby artificially inflating the numbers of recorded admissions. For the sake of consistency, and to give a more accurate picture of changes within the population, all admissions involving intentional self-harm within two days of a previous admission for intentional self-harm have been removed from the dataset.

The data shown in Tables A8 and A9 having been removed, any trends found within the remaining data are more likely to be due to changes in population behaviour, rather than changes in administrative procedures within or across DHBs. The Ministry of Health is endeavouring to address inconsistencies in data collection.

The hospitalisations for intentional self-harm data recorded in this publication do not therefore present total numbers of people receiving hospital treatment for intentional self-harm. Even once consistency issues between DHBs are addressed, the total extent of intentional self-harm is still difficult to capture, because many people who intentionally self-harm do not seek hospital treatment. *Te Rau Hinengaro: The New Zealand Mental Health Survey* estimated that in the 12 months prior to that survey (conducted in late 2003/early 2004), 0.4 percent of the population (400 per 100,000 population) had reported an attempt of suicide (Oakley Browne et al 2006, p 99). An estimate based on these figures would result in a much higher number than the 2539 intentional self-harm events reported in this document for 2009.

It is important to note that hospitalisations for intentional self-harm represent individual events of self-harm, rather than individual people: a single person can contribute numerous unique intentional self-harm events to the dataset.

Between 1996 and 2009 there were two hospitalisations reported for intentional self-harm among children aged under five. For simplicity, these admissions have not been excluded.

The data-filtering methods used in this report mean that data within this publication cannot be compared with that in any previous documents published by the Ministry of Health in this series prior to the 2008 publication *Suicide Facts: Deaths and intentional self-harm hospitalisations 2006*.

Percentage calculations

All percentage calculations comparing numbers or rates between years have been undertaken using the raw data. Due to rounding, this may mean that the resultant information may be slightly different to any calculations based on tabular data supplied in this publication.

International Classification of Diseases (ICD) codes

For the years 2000–2009 the *International Statistical Classification of Diseases and Related Health Problems*, *10th Revision, Australian Modification* (ICD-10-AM) codes used for mortality and hospitalisation data were X60–X84: Intentional self-harm (National Centre for Classification in Health).

Prior to the year 2000 the codes used were E950–EE959: Suicide and Self-inflicted injury from the WHO *International Statistical Classification of Diseases and Related Health Problems, 9th Revision, Clinical Modification* (ICD-9-CM). Note that code E959 was excluded from hospitalisation data in this publication, since it covers 'late effects', and hence is not relevant to current episodes.

For this publication, the intentional self-harm codes used to distinguish between methods were as follows:

X66–X67: Poisoning by gases and vapours

- X60–X65, X68–X69: Poisoning by solids and liquids
- X70: Hanging, strangulation and suffocation
- · X71: Submersion (drowning)
- · X72–X75: Firearms and explosives
- · X78: Sharp object
- · X80: Jumping from a high place
- · X76–X77, X79, X81–X84: Other methods.

Serious Injury Outcome Indicator Reports

Statistics New Zealand produces the annual serious injury outcome indicator reports. These indicators report on numbers and rates of suicide death. The information for the reports is also sourced from the New Zealand Mortality Collection, and is therefore broadly comparable with the information published in *Suicide Facts*. The Mortality Collection is a dynamic database and any small discrepancies in data between the two publications are due to changes in the database over time.

The serious injury outcome indicator reports also present data on 'Serious non-fatal intentional self-harm injury'. These indicators cover only a subset of the self-harm hospitalisation data held within *Suicide Facts* and therefore cannot be directly compared.

For more information and access to the indicator's technical report please see this web page: www.stats.govt.nz/browse_for_stats/health/injuries/serious-injury-outcome-indicators-reports.aspx.

If you require further information relating to the methodology, classifications and processes used, and how they differ between publications, please contact data-enquiries@moh.govt.nz.

Definitions

Age-specific rates

An age-specific rate measures the frequency with which an event occurs relative to the number of people in a defined age group. In this document age-specific rates are given in both five-year age groups and life stage age groups.

Age-standardised rates and rate ratios

An age-standardised rate is a rate that has been adjusted to take account of differences in the age distribution of the population over time or between different groups (for example, different ethnic groups).

An age-standardised rate ratio is the ratio of two groups' rates, taking into account differences in the groups' size and age structure.

This publication has used the WHO standard world population in determining agestandardised rates and rate ratios (see Table A10).

Comparison with international data

A cautious approach is recommended when comparing international suicide statistics, because many factors affect the recording and classification of suicide in different countries, including the level of proof required for a verdict; stigma associated with suicide; the religion, social class or occupation of victims; and confidentiality (Andriessen 2006). As a result, deaths that are classified as suicide in some countries may be classified as accidental or of undetermined intent in others.

Furthermore, statistical measures, such as confidence intervals, cannot account for these differences. Providing them may create a false sense of confidence in the recording of differences. Confidence intervals have therefore been excluded from the section on international comparisons in this publication. The data used in this publication to make international comparisons are the most recent available. Note that 2009 data is not yet available for many of the other countries referred to in this report.

Confidence intervals and statistical significance

The confidence intervals in this publication have been calculated for age-standardised rates at the 95 percent level using the methods presented in Keyfitz 1966, except for rates for DHB data, which have been calculated at the 99 percent level.

A confidence interval is a range of values used to describe the uncertainty around a single value (such as an age-standardised rate). Confidence intervals describe how different the estimate could have been if chance had led to a different set of data. Confidence intervals are calculated with a stated probability: typically 95 percent (which would indicate that there is a 95 percent chance that the true value lies within the confidence intervals).

Confidence intervals may assist in comparing rates between different groups. If two confidence intervals do not overlap, then it is reasonable to assume that the difference is not due to chance. If they do overlap, it is not possible to draw any conclusion about the significance of any difference between them.

Deprivation

The New Zealand Deprivation Index is a measure of socioeconomic status calculated for small geographic areas. The calculation uses a range of variables from the 2006 Census of Population and Dwellings, which represent nine dimensions of social deprivation. The Deprivation Index is calculated at the level of meshblocks (geographical units containing a median of 90 people), and the Ministry of Health maps these to domicile codes, which are built up to the relevant geographic scale using weighted average census usually resident population counts. The nine variables (proportions in small areas) in the index, by decreasing weight, are:

- 1. income: people aged 18–64¹¹ receiving a means-tested benefit
- 2. income: people living in an equivalised¹² household whose income is below a certain threshold
- 3. home ownership: people not living in their own home
- 4. support: people aged under 65 living in a single-parent family
- 5. employment: people aged 18-64 who are unemployed
- 6. qualifications: people aged 18–64 with no qualifications
- 7. living space: people living in an equivalised household below a bedroom occupancy threshold
- 8. communication: people with no access to a telephone
- 9. transport: people with no access to a car.

Further information is available from www.health.govt.nz, search for 'NZDep2006 Index of Deprivation'.

¹¹ The upper age boundary of 65 has been increased from the NZDep01 value of 60 to better reflect societal norms.

¹² Equivalisation is a method used to control for household composition.

District Health Board rates

Age-standardised rates were calculated for each DHB region. When interpreting regional differences in hospitalisation rates for intentional self-harm among DHBs, it should be noted that DHBs differ in their reporting and patient management practices.

Ethnicity

There are different methods for outputting ethnicity data. This publication uses 'prioritised ethnicity', by which each person represented in the data is allocated to a single ethnic group using the priority system Māori > Pacific peoples > Asian > European/other (Ministry of Health 2004). The aim of prioritisation is to ensure that where it is necessary to assign people to a single ethnic group, ethnic groups that are small or important in terms of policy are not swamped by the European ethnic group (Ministry of Health 2004). This method is also a more robust method of dealing with the low rate of multiple ethnicities in health sector data.

This publication uses two ethnic classifications for analysing suicides and intentional self-harm hospitalisations: the first comprises Māori, Pacific peoples, Asian peoples and European/other; and the second divides the population into Māori and non-Māori.

Prior to 1996, the concept of ethnicity was based on biological race (that is, percentage of blood), as recorded on death registration forms, and on a sociocultural concept (that is, cultural affiliation) as defined in the Census. Since September 1995 death certificates have included a question comparable with the self-identified ethnicity question in the 1996 Census, which allows for multiple ethnic identities. New Zealand Census — Mortality Study adjustors can be applied to mortality counts from 1996 to 1999 (Blakely 2002). These adjust data to allow for an undercount of Māori and Pacific peoples. (They are not used in this publication.) From 2000 onwards comparisons across all ethnic groups are possible, because adjustors are not necessary. For further discussion on inconsistencies in ethnicity collection, refer to Decades of Disparity: Ethnic mortality trends in New Zealand 1980–1999 (Ajwani et al 2003).

Median

The median is the middle score in a range of scores, so that one half of the values will lie above it and one half below it. It is a more appropriate measure of centrality than the mean or average score when an extremely high or low value would give a distorted measure.

Numbers, rates and ratios

The number of suicide deaths refers to the actual number of people who have died by suicide. The number of hospitalisations refers to the number of discharges from hospital with an intentional self-harm code on the patient record.

The rate of suicide or intentional self-harm hospitalisation refers to the frequency with which these events occur relative to the number of people in a defined population and a defined time period.

The rate ratio refers to the frequency with which these events are reported in one population group compared with another.

Provisional data

The label 'provisional' relates to information that is not final; that is, it is subject to change. See 'Suicide deaths' in the 'Technical notes' section for more information.

References

Ahmad O, Boschi-Pinto C, Lopez AD, et al. 2001. *Age Standardization of Rates: A new WHO standard*. GPE Discussion Paper Series No. 31. Geneva: World Health Organization. URL: www.who.int/healthinfo/paper31.pdf (accessed 3 March 2011).

Ajwani S, Blakely T, Robson B, et al. 2003. *Decades of Disparity: Ethnic mortality trends in New Zealand 1980–1999*. Wellington: Ministry of Health and University of Otago.

Andriessen K. 2006. Do we need to be cautious in evaluating suicide statistics? *European Journal of Public Health* 16(4): 445–7.

Associate Minister of Health. 2006. *The New Zealand Suicide Prevention Strategy* 2006–2016. Wellington: Ministry of Health.

Benzeval M, Judge K, Shouls S. 2001. Understanding the relationship between income and health: how much can be gleaned from cross-sectional data? *Social Policy and Administration* 35: 376–96.

Berry J, Harrison J. 2006. Hospital separations due to injury and poisoning, Australia 2001–02. *Injury Research and Statistics Series Number 26*. Adelaide: Australian Institute of Health and Welfare.

Blakely T. 2002. *The New Zealand Census – Mortality Study: Socioeconomic inequalities and adult mortality 1991–94.* Wellington: Ministry of Health.

Keyfitz N. 1966. Sampling variance of standardized mortality rates. *Human Biology* 38: 309–17.

Ministry of Health. 2004. *Ethnicity Data Protocols for the Health and Disability Sector*. Wellington: Ministry of Health.

National Centre for Classification in Health. 2002. *The International Statistical Classification of Diseases and Related Health Problems, 9th Revision, Clinical Modification (ICD-9-CM)*. Sydney: National Centre for Classification in Health.

National Centre for Classification in Health. 2008. *The International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM)*. Sydney: National Centre for Classification in Health.

Oakley Browne MA, Wells JE, Scott KM (eds). 2006. *Te Rau Hinengaro: The New Zealand Mental Health Survey.* Wellington: Ministry of Health.

OECD. (nd). OECD.StatExtracts. URL: http://stats.oecd.org/index (accessed 6 September 2011).

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

Statistics New Zealand (2011). Serious injury outcome indicators: 1994–2010. Wellington: Statistics New Zealand. URL:

www.stats.govt.nz/browse_for_stats/health/injuries/serious-injury-outcome-indicators-94-10.aspx (accessed 26 January 2012).

Statistics New Zealand (2011). Serious injury outcome indicators – technical report. Wellington: Statistics New Zealand. URL:

www.stats.govt.nz/browse_for_stats/health/injuries/serious-injury-outcome-tech-report.aspx (accessed 26 January 2012).

White P, Gunston J, Salmond C, et al. 2008. *Atlas of Socioeconomic Deprivation in New Zealand NZDep2006*. Wellington: Ministry of Health.

WHO. (nd). Mental Health: Suicide Prevention and special programmes: Country reports and charts. URL: www.who.int/mental_health/prevention/suicide/country_reports/en (accessed 6 September 2011).

Appendix 1: Further tables

Table A1: Estimated New Zealand resident population for mean year ending 31 December 2009, by five-year age group and sex

	Total								F	ive-vear	age grou	ın							
	200																		
		0–4	5–9	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+
Total																			
Total	4,318,100	305,760	287,990	297,520	323,330	305,000	281,360	269,030	307,640	312,320	322,650	284,050	247,290	221,560	171,310	130,630	104,810	79,230	66,580
Males	2,118,600	156,960	147,410	152,570	165,390	155,310	138,970	128,890	146,180	150,150	156,420	139,230	121,670	108,900	83,620	62,450	48,370	33,860	22,250
Females	2,199,500	148,790	140,580	144,960	157,930	149,700	142,390	140,140	161,460	162,170	166,240	144,820	125,610	112,660	87,690	68,190	56,440	45,370	44,320
Māori																			
Total	653,100	85,270	69,960	68,840	68,090	53,910	42,700	41,820	43,220	40,030	38,800	30,670	23,250	17,000	12,110	8490	5040	2560	1330
Males	320,700	43,960	35,910	35,320	34,820	26,370	20,300	19,560	20,030	18,950	18,160	14,570	11,130	8140	5780	3970	2190	1030	470
Females	332,400	41,310	34,040	33,520	33,270	27,540	22,400	22,260	23,190	21,080	20,630	16,090	12,120	8860	6330	4520	2860	1520	860
Non-Māori																			
Total	3,665,000	220,490	218,030	228,680	255,240	251,090	238,660	227,210	264,420	272,290	283,850	253,380	224,040	204,560	159,200	122,140	99,770	76,670	65,250
Males	1,797,900	113,000	111,500	117,250	130,570	128,940	118,670	109,330	126,150	131,200	138,260	124,660	110,540	100,760	77,840	58,480	46,180	32,830	21,780
Females	1,867,100	107,480	106,540	111,440	124,660	122,160	119,990	117,880	138,270	141,090	145,610	128,730	113,490	103,800	81,360	63,670	53,580	43,850	43,460

Source: Statistics New Zealand

Table A2: Estimated New Zealand resident population as at 30 June 2007, by DHB of domicile, five-year age group and sex

	Total								F	ive-year	age grou	p							
		0-4	5–9	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+
Northland																			
Total	153,800	10,860	11,610	12,740	11,350	6,840	6,520	8,100	10,080	11,190	11,740	10,830	10,060	8,810	7730	5550	4480	3010	2320
Male	75,500	5450	5910	6550	5930	3550	3050	3790	4730	5330	5600	5310	4970	4330	3930	2770	2200	1360	790
Female	78,300	5420	5700	6190	5420	3290	3470	4300	5350	5860	6140	5510	5090	4480	3790	2780	2280	1650	1530
Waitemata																			
Total	513,300	35,560	35,360	37,390	38,670	34,870	31,770	34,580	41,700	42,120	39,540	32,240	28,680	23,290	18,190	13,330	11,130	8240	6670
Male	251,200	18,400	18,040	19,200	19,770	17,830	15,580	16,310	19,840	20,270	19,170	15,690	14,050	11,340	8740	6280	5110	3440	2130
Female	262,100	17,160	17,320	18,190	18,910	17,040	16,190	18,270	21,870	21,850	20,370	16,550	14,620	11,950	9450	7050	6020	4800	4540
Auckland																			
Total	433,200	28,250	24,770	25,490	30,020	43,420	41,870	36,860	35,340	33,440	30,260	25,390	21,400	16,070	12,720	8880	7360	5940	5750
Male	212,600	14,580	12,760	13,160	15,020	21,150	20,570	17,900	17,120	16,490	14,850	12,480	10,690	7940	6170	4240	3340	2380	1730
Female	220,700	13,660	12,010	12,340	15,000	22,270	21,300	18,950	18,220	16,950	15,410	12,910	10,710	8130	6550	4640	4020	3560	4020
Counties Manukau																			
Total	464,600	39,500	38,350	39,460	39,210	32,670	29,620	30,630	35,660	35,610	32,750	27,010	23,450	18,960	14,600	9940	7880	5310	4030
Male	227,200	20,330	19,470	20,110	20,000	16,160	13,980	14,200	16,810	17,200	15,940	13,300	11,490	9310	7100	4700	3610	2230	1290
Female	237,400	19,180	18,880	19,350	19,210	16,520	15,640	16,430	18,840	18,410	16,800	13,710	11,960	9650	7510	5230	4280	3080	2740
Waikato																			
Total	353,100	25,500	25,770	27,160	27,860	24,560	21,210	21,480	24,590	25,060	25,230	22,440	20,150	16,740	14,100	10,810	9210	6260	4990
Male	173,400	12,800	13,200	14,130	14,090	12,540	10,660	10,300	11,630	12,020	12,180	11,020	9910	8160	6880	5240	4280	2700	1630
Female	179,800	12,690	12,570	13,020	13,770	12,030	10,560	11,180	12,970	13,040	13,040	11,430	10,240	8580	7220	5570	4930	3570	3360
Lakes																			
Total	101,400	7930	7880	8270	7600	5400	5800	6490	7410	7320	7670	6460	5870	4890	4090	2960	2480	1680	1250
Male	49,800	4080	4080	4230	3930	2760	2740	3090	3540	3470	3760	3120	2840	2390	2030	1440	1190	680	400
Female	51,700	3860	3800	4040	3660	2650	3070	3400	3870	3860	3910	3340	3030	2500	2070	1520	1290	990	850
Bay of Plenty																			
Total	203,300	13,970	14,840	15,840	14,370	9,450	9,980	11,520	13,830	14,560	15,040	13,720	12,320	10,920	10,010	7810	6740	4850	3590
Male	99,000	7240	7710	8050	7420	4730	4830	5450	6380	6910	7240	6560	6060	5230	4770	3750	3240	2120	1250
Female	104,400	6730	7130	7780	6950	4710	5150	6070	7450	7640	7800	7160	6250	5690	5240	4060	3500	2720	2340

73

	Total								Fi	ive-year	age grou	p							
		0-4	5–9	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+
Tairawhiti																			
Total	45,900	3750	3830	4110	3740	2400	2350	2700	3130	3150	3380	3060	2720	1990	1720	1350	1120	770	630
Male	22,300	1910	1970	2050	1930	1150	1130	1270	1440	1510	1570	1540	1390	980	830	630	500	310	180
Female	23,600	1840	1860	2060	1810	1250	1220	1430	1690	1640	1800	1520	1340	1010	890	720	620	460	450
Hawke's Bay																			
Total	153,000	10,950	11,430	12,210	11,520	7440	7770	9080	10,540	11,130	11,540	10,160	9760	7870	6570	5000	4350	3140	2560
Male	74,400	5570	5790	6300	5800	3840	3740	4270	5010	5300	5530	4970	4780	3900	3150	2390	1990	1250	830
Female	78,600	5370	5640	5910	5730	3610	4030	4820	5540	5830	6010	5190	4970	3960	3420	2600	2360	1890	1730
Taranaki																			
Total	107,300	7220	7620	8060	8090	5510	5750	6520	7380	7820	8100	7240	6530	5430	4530	3740	3320	2570	1910
Male	52,900	3750	3940	4100	4190	2890	2870	3110	3530	3820	3940	3590	3280	2680	2210	1790	1550	1010	650
Female	54,400	3470	3680	3960	3900	2620	2880	3410	3850	4000	4160	3650	3250	2760	2330	1950	1770	1560	1260
MidCentral																			
Total	164,200	11,000	11,160	12,030	13,510	12,270	9,480	9,530	10,900	11,450	11,760	10,190	9470	7960	7050	5600	4740	3420	2700
Male	79,900	5600	5610	6120	6770	6250	4630	4570	5170	5470	5770	4900	4610	3890	3410	2670	2200	1420	850
Female	84,300	5400	5550	5910	6750	6020	4850	4960	5730	5980	5990	5280	4850	4070	3630	2930	2540	2010	1840
Whanganui																			
Total	63,500	4190	4470	5090	4950	3240	3030	3440	4120	4550	4780	4380	3850	3250	2900	2400	2140	1520	1210
Male	31,000	2100	2330	2570	2580	1700	1530	1630	1970	2210	2290	2200	1910	1560	1360	1090	1010	620	370
Female	32,500	2080	2140	2510	2370	1540	1500	1810	2150	2340	2490	2180	1940	1690	1540	1310	1130	910	840
Capital and Coast																			
Total	281,500	18,550	17,320	17,440	20,370	25,150	22,820	21,950	23,000	22,130	19,990	16,630	14,760	11,640	9330	6910	5680	4280	3510
Male	136,100	9420	8750	8950	9900	11,870	11,290	10,460	10,950	10,650	9750	8080	7200	5690	4460	3250	2550	1780	1110
Female	145,400	9130	8570	8490	10,470	13,280	11,530	11,490	12,050	11,480	10,240	8550	7560	5950	4860	3670	3140	2510	2400
Hutt Valley																			
Total	141,500	10,290	10,400	10,660	10,940	8,700	8,220	9,580	11,110	10,980	10,910	8970	7990	6340	5120	3750	3290	2390	1900
Male	69,600	5330	5370	5460	5610	4380	3940	4590	5410	5290	5330	4440	4000	3160	2510	1740	1470	990	550
Female	72,000	4960	5030	5190	5320	4320	4280	4990	5690	5690	5580	4530	3980	3180	2600	2010	1820	1400	1350

	Total								Fi	ive-year	age grou	ıp							
		0-4	5–9	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+
Wairarapa																			
Total	39,500	2590	2660	3010	2720	1530	1690	2040	2590	2710	3080	2970	2880	2390	2040	1550	1380	950	770
Male	19,300	1310	1360	1510	1420	810	790	1000	1200	1310	1460	1480	1430	1200	1000	770	620	390	230
Female	20,200	1290	1300	1500	1300	710	900	1040	1390	1400	1620	1490	1440	1190	1040	780	760	550	530
Nelson Marlborough																			
Total	134,600	8210	8520	9320	9120	5970	6610	7790	9620	10300	11070	9940	9640	7890	6320	4770	3990	3030	2450
Male	66,600	4180	4400	4870	4810	3150	3280	3810	4620	4880	5410	4930	4740	4020	3150	2330	1850	1300	850
Female	68,000	4020	4120	4450	4300	2830	3320	3980	5000	5420	5670	5010	4910	3860	3170	2440	2140	1730	1600
West Coast																			
Total	32,200	1930	2030	2390	2130	1430	1650	1870	2340	2570	2790	2470	2190	1820	1540	1100	900	610	490
Male	16,350	1050	1040	1210	1120	770	800	870	1120	1280	1450	1330	1150	930	790	570	460	270	160
Female	15,900	880	990	1180	1010	660	840	1000	1220	1290	1340	1130	1040	890	750	530	440	330	340
Canterbury																			
Total	490,100	31,370	30,660	32,430	35,650	35,820	30,070	32,190	37,200	37,010	36,670	32,050	29,280	23,530	19,250	14,970	13,520	10,230	8180
Male	240,200	16,090	15,550	16,540	18,520	18,520	14,790	15,360	17,920	17,950	18,060	15,750	14,430	11,550	9350	7000	6030	4190	2610
Female	249,900	15,280	15,120	15,890	17,130	17,300	15,280	16,830	19,280	19,050	18,610	16,300	14,860	11,980	9900	7970	7490	6030	5570
South Canterbury																			
Total	55,300	3130	3490	4000	3730	2130	2340	2930	3670	4050	4360	4040	3940	3260	2930	2400	2170	1540	1170
Male	27,200	1590	1810	2080	1950	1150	1140	1420	1780	1910	2130	2060	1990	1620	1410	1130	1040	580	380
Female	28,100	1530	1680	1920	1780	980	1200	1510	1890	2140	2240	1980	1950	1640	1520	1270	1130	950	790
Otago																			
Total	185,800	10,250	10,530	11,360	16,630	17,490	10,030	10,820	12,040	12,810	13,730	12,420	11,500	9240	7940	6130	5540	4100	3240
Male	90,700	5200	5440	5840	8170	8570	4990	5290	5710	6230	6690	6290	5670	4640	3910	2910	2550	1650	980
Female	95,100	5040	5100	5520	8470	8920	5040	5530	6330	6580	7040	6130	5830	4600	4030	3220	2990	2450	2260
Southland																			
Total	110,400	7360	7210	7680	7330	6810	7340	7720	8220	8550	8590	7360	6600	5200	4470	3460	2920	1930	1680
Male	55,300	3820	3710	4000	3800	3490	3670	3880	4000	4190	4300	3800	3430	2660	2230	1670	1360	770	480
Female	55,200	3540	3500	3680	3530	3320	3670	3850	4220	4360	4290	3550	3170	2540	2240	1790	1560	1160	1200

	Total								F	ive-year	age grou	ıp							
		0-4	5–9	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+
Other and unspecified																			
Total	420	5	10	10	5	20	25	35	30	30	45	50	45	45	30	15	10	5	0
Male	280	0	5	5	5	15	20	25	20	15	30	35	30	30	25	10	10	5	0
Female	140	0	5	5	5	5	5	10	5	10	15	15	15	15	10	10	0	0	0
Total																			
Total	4,228,300	292,390	289,910	306,140	319,510	293,140	265,940	277,860	314,510	318,530	313,030	270,030	243,100	197,530	163,170	122,410	104,370	75,760	60,990
Male	2,070,800	149,810	148,230	157,040	162,720	147,270	130,010	132,590	149,900	153,710	152,450	132,880	120,070	97,240	79,410	58,370	48,150	31,440	19,470
Female	2,157,600	142,580	141,680	149,100	156,790	145,870	135,930	145,280	164,600	164,830	160,570	137,150	123,030	100,290	83,760	64,040	56,220	44,320	41,530

Source: Statistics New Zealand

76

Table A3: Estimated New Zealand resident population as at 30 June 2008, by DHB of domicile, five-year age group and sex

	Total								F	ive-year	age grou	р							
		0-4	5-9	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+
Northland																			
Total	154,700	11,050	11,410	12,310	11,290	7,790	6,600	7,700	9,820	10,830	11,820	11,080	10,100	9,370	7,790	5,680	4,590	3,120	2,350
Male	76,100	5,560	5,820	6,320	5,900	4,030	3,130	3,620	4,640	5,140	5,600	5,430	4,980	4,640	3,920	2,850	2,240	1,430	820
Female	78,600	5,490	5,590	5,990	5,390	3,770	3,480	4,080	5,180	5,690	6,220	5,650	5,120	4,730	3,870	2,830	2,340	1,690	1,540
Waitemata																			
Total	520,700	36,640	35,400	37,360	39,860	35,080	33,180	34,220	41,170	42,020	40,640	33,090	28,500	24,800	18,520	13,920	11,010	8,420	6,910
Male	255,200	19,000	18,090	19,130	20,400	17,970	16,540	16,210	19,540	20,230	19,730	16,000	14,000	12,030	8,880	6,580	5,090	3,530	2,310
Female	265,500	17,650	17,310	18,230	19,450	17,110	16,640	18,010	21,630	21,800	20,910	17,080	14,500	12,770	9,640	7,340	5,930	4,900	4,600
Auckland																			
Total	438,100	28,860	24,600	24,990	30,710	40,380	43,900	36,710	36,150	33,640	31,250	26,340	21,820	17,410	13,030	9,140	7,330	5,900	5,880
Male	214,900	14,900	12,670	12,870	15,550	19,730	21,600	17,700	17,520	16,540	15,220	12,970	10,840	8,570	6,320	4,410	3,360	2,360	1,800
Female	223,100	13,950	11,930	12,120	15,160	20,660	22,310	19,010	18,630	17,100	16,030	13,370	10,990	8,840	6,720	4,730	3,970	3,540	4,080
Counties Manukau																			
Total	473,400	40,360	38,870	39,310	39,880	34,280	30,360	30,410	35,380	35,620	33,880	27,980	23,730	20,150	15,000	10,500	7,860	5,590	4,220
Male	231,700	20,720	19,880	20,010	20,450	17,090	14,430	14,140	16,530	17,160	16,420	13,790	11,600	9,860	7,320	5,010	3,570	2,380	1,330
Female	241,700	19,640	18,980	19,300	19,430	17,190	15,930	16,270	18,850	18,460	17,450	14,180	12,130	10,290	7,690	5,490	4,300	3,200	2,890
Waikato																			
Total	356,300	26,330	25,410	26,920	28,140	24,410	21,880	20,920	24,420	24,690	25,670	22,940	20,290	17,890	14,310	11,070	9,220	6,540	5,180
Male	175,000	13,330	12,920	13,990	14,280	12,410	11,020	10,140	11,570	11,830	12,390	11,200	9,950	8,770	6,950	5,400	4,250	2,860	1,720
Female	181,300	13,000	12,490	12,930	13,860	11,990	10,860	10,780	12,850	12,870	13,280	11,740	10,350	9,130	7,360	5,680	4,970	3,680	3,460
Lakes																			
Total	101,500	7,900	7,770	8,020	7,690	5,770	5,740	6,240	7,230	7,150	7,700	6,550	5,890	5,190	4,140	3,030	2,500	1,740	1,260
Male	49,700	4,060	4,010	4,080	3,970	2,880	2,730	2,970	3,430	3,400	3,720	3,200	2,840	2,570	2,050	1,470	1,170	730	420
Female	51,800	3,840	3,760	3,950	3,720	2,890	3,010	3,270	3,800	3,750	3,990	3,340	3,050	2,630	2,090	1,550	1,330	1,010	840
Bay of Plenty																			
Total	205,400	14,300	14,590	15,360	14,890	10,260	10,200	11,130	13,760	14,230	15,290	13,930	12,310	11,580	9,930	8,110	6,770	4,980	3,820
Male	100,100	7,380	7,620	7,840	7,680	5,200	4,880	5,380	6,360	6,680	7,360	6,640	6,040	5,580	4,750	3,860	3,250	2,180	1,370
Female	105,400	6,920	6,970	7,520	7,210	5,060	5,310	5,750	7,410	7,550	7,930	7,280	6,270	5,990	5,180	4,250	3,510	2,800	2,460

	Total								F	ive-year	age grou	р							
		0-4	5–9	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+
Tairawhiti																			
Total	45,900	3,830	3,780	3,960	3,680	2,700	2,350	2,550	3,060	3,090	3,420	3,060	2,750	2,100	1,750	1,340	1,130	760	610
Male	22,400	1,950	1,940	2,010	1,930	1,300	1,100	1,220	1,420	1,470	1,610	1,520	1,400	1,040	850	630	500	310	190
Female	23,500	1,880	1,840	1,950	1,750	1,400	1,250	1,330	1,640	1,620	1,810	1,540	1,350	1,060	900	720	630	450	430
Hawke's Bay																			
Total	153,300	11,130	11,100	12,070	11,330	8,220	7,670	8,680	10,310	10,670	11,760	10,220	9,600	8,480	6,730	5,080	4,320	3,200	2,710
Male	74,600	5,680	5,610	6,210	5,780	4,200	3,670	4,100	4,920	5,060	5,640	4,950	4,650	4,200	3,280	2,430	1,970	1,300	900
Female	78,700	5,450	5,490	5,850	5,550	4,010	4,000	4,580	5,390	5,610	6,120	5,270	4,950	4,280	3,440	2,650	2,350	1,900	1,810
Taranaki																			
Total	107,600	7,410	7,370	7,870	7,980	6,030	5,750	6,120	7,270	7,500	8,270	7,330	6,530	5,780	4,660	3,820	3,320	2,630	2,000
Male	53,000	3,830	3,830	4,000	4,150	3,160	2,870	2,940	3,450	3,670	4,020	3,580	3,290	2,850	2,300	1,820	1,520	1,090	670
Female	54,600	3,580	3,540	3,870	3,830	2,880	2,890	3,180	3,820	3,830	4,250	3,750	3,250	2,930	2,360	2,000	1,800	1,540	1,330
MidCentral																			
Total	164,800	11,280	11,020	11,790	13,440	12,240	9,770	9,150	10,730	11,080	11,970	10,410	9,440	8,510	7,100	5,670	4,800	3,570	2,810
Male	80,200	5,700	5,610	5,970	6,750	6,260	4,760	4,350	5,090	5,280	5,820	5,040	4,570	4,170	3,410	2,740	2,240	1,490	930
Female	84,600	5,580	5,410	5,830	6,690	5,980	5,020	4,800	5,640	5,800	6,150	5,370	4,880	4,330	3,700	2,930	2,560	2,080	1,880
Whanganui																			
Total	63,300	4,240	4,290	4,920	4,860	3,620	3,060	3,210	3,990	4,250	4,860	4,440	3,860	3,430	2,900	2,450	2,100	1,600	1,240
Male	31,100	2,170	2,210	2,560	2,500	1,910	1,560	1,520	1,920	2,020	2,380	2,170	1,920	1,670	1,340	1,130	990	670	410
Female	32,300	2,060	2,080	2,360	2,360	1,710	1,500	1,690	2,080	2,230	2,480	2,260	1,930	1,760	1,560	1,330	1,110	930	830
Capital and Coast																			
Total	284,400	19,040	17,500	17,340	19,720	25,060	23,520	21,670	23,070	21,950	20,750	16,970	14,890	12,500	9,550	6,990	5,750	4,440	3,730
Male	137,700	9,670	8,810	8,910	9,790	11,920	11,600	10,290	10,920	10,590	10,080	8,180	7,290	6,110	4,580	3,310	2,570	1,860	1,220
Female	146,700	9,370	8,690	8,430	9,930	13,140	11,920	11,370	12,150	11,360	10,670	8,790	7,600	6,400	4,980	3,680	3,180	2,580	2,500
Hutt Valley																			
Total	141,800	10,560	10,230	10,470	10,990	8,870	8,210	9,140	10,880	10,790	11,080	9,120	7,950	6,780	5,210	3,800	3,360	2,370	2,010
Male	69,800	5,390	5,330	5,380	5,610	4,550	3,940	4,390	5,240	5,250	5,380	4,480	4,020	3,380	2,530	1,790	1,490	1,000	620
Female	72,100	5,160	4,910	5,080	5,390	4,330	4,270	4,740	5,640	5,540	5,700	4,640	3,930	3,410	2,670	2,020	1,870	1,370	1,390

78

	Total								F	ive-year	age grou	p							
		0-4	5-9	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+
Wairarapa																			
Total	39,700	2,640	2,590	2,850	2,850	1,680	1,730	1,910	2,530	2,670	3,030	3,000	2,820	2,540	2,080	1,630	1,360	1,020	790
Male	19,350	1,310	1,320	1,450	1,440	900	830	910	1,190	1,300	1,440	1,480	1,410	1,270	1,020	800	620	430	240
Female	20,300	1,330	1,270	1,400	1,410	780	890	990	1,330	1,370	1,590	1,520	1,410	1,270	1,050	830	740	590	550
Nelson Marlborough																			
Total	135,700	8,500	8,400	9,090	9,250	6,630	6,550	7,430	9,530	9,960	11,160	10,180	9,480	8,520	6,440	4,920	4,020	3,060	2,560
Male	67,200	4,330	4,340	4,720	4,870	3,540	3,270	3,630	4,580	4,730	5,380	5,090	4,680	4,300	3,210	2,410	1,870	1,310	930
Female	68,500	4,170	4,060	4,370	4,380	3,090	3,280	3,800	4,950	5,230	5,770	5,090	4,800	4,210	3,230	2,510	2,150	1,760	1,630
West Coast																			
Total	32,400	2,050	1,970	2,280	2,180	1,570	1,580	1,780	2,240	2,500	2,820	2,470	2,190	1,960	1,590	1,120	940	620	500
Male	16,450	1,130	1,010	1,150	1,160	830	770	830	1,080	1,250	1,450	1,310	1,170	1,010	830	570	470	300	160
Female	15,900	930	970	1,130	1,010	740	800	950	1,160	1,260	1,370	1,160	1,020	950	760	560	470	320	340
Canterbury																			
Total	495,900	32,570	30,650	32,310	36,430	34,970	30,250	31,360	37,110	36,980	37,520	32,940	29,730	25,480	19,740	15,290	13,550	10,390	8,670
Male	243,300	16,710	15,550	16,520	18,700	18,250	15,080	15,050	17,770	17,980	18,420	16,200	14,630	12,490	9,570	7,180	6,070	4,300	2,780
Female	252,700	15,860	15,100	15,790	17,730	16,710	15,170	16,310	19,340	19,000	19,100	16,740	15,100	12,990	10,170	8,110	7,480	6,090	5,900
South Canterbury																			
Total	55,300	3,190	3,360	3,860	3,820	2,490	2,330	2,730	3,530	3,870	4,390	4,020	3,890	3,460	2,950	2,430	2,130	1,610	1,290
Male	27,200	1,670	1,730	1,990	1,980	1,340	1,150	1,320	1,720	1,830	2,120	2,040	1,950	1,720	1,450	1,120	1,020	650	420
Female	28,100	1,520	1,630	1,870	1,840	1,150	1,180	1,410	1,810	2,030	2,270	1,980	1,940	1,750	1,500	1,310	1,110	960	870
Otago																			
Total	187,200	10,510	10,360	11,090	16,240	17,880	10,860	10,300	12,030	12,430	13,750	12,720	11,530	10,040	8,060	6,310	5,530	4,130	3,470
Male	91,600	5,340	5,330	5,740	7,950	8,920	5,360	5,020	5,800	5,940	6,720	6,400	5,720	5,030	3,940	3,020	2,540	1,710	1,080
Female	95,700	5,170	5,030	5,350	8,280	8,950	5,500	5,280	6,230	6,500	7,020	6,310	5,810	5,020	4,120	3,290	2,990	2,420	2,390
Southland																			
Total	110,900	7,640	7,030	7,460	7,320	6,680	7,480	7,630	8,220	8,150	8,720	7,610	6,570	5,620	4,480	3,580	2,970	2,010	1,710
Male	55,500	3,950	3,650	3,840	3,860	3,410	3,710	3,830	4,030	4,000	4,340	3,900	3,420	2,830	2,230	1,780	1,390	820	510
Female	55,400	3,690	3,380	3,620	3,460	3,270	3,770	3,800	4,190	4,150	4,370	3,710	3,150	2,790	2,250	1,800	1,580	1,190	1,200

	Total								F	ive-year	age grou	ıp							
		0-4	5–9	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+
Other and unspecified																			
Total	420	5	5	10	5	25	20	35	35	25	40	55	45	50	35	20	15	5	0
Male	280	5	5	5	5	15	15	25	25	15	25	30	30	30	25	15	10	5	0
Female	140	0	5	5	5	5	5	10	10	10	15	20	15	20	10	5	5	0	0
Total																			
Total	4,268,720	300,035	287,705	301,640	322,555	296,635	272,990	271,025	312,465	314,095	319,790	276,455	243,915	211,640	165,995	125,900	104,575	77,705	63,720
Male	2,092,380	153,785	147,285	154,695	164,705	149,815	134,015	129,585	148,745	151,365	155,265	135,600	120,400	104,120	80,755	60,325	48,200	32,715	20,830
Female	2,176,640	146,240	140,435	146,945	157,835	146,815	138,985	141,410	163,730	162,760	164,495	140,790	123,545	107,550	85,250	65,615	56,375	45,000	42,920

Source: Statistics New Zealand

Table A4: Projected New Zealand population, by deprivation quintile, sex and five-year age group, 2009

	Total								F	ive-year	age grou	p							
		0-4	5-9	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+
Total population																			
Total	4,315,374	305,480	288,110	297,500	323,185	304,270	280,595	268,735	307,705	311,990	322,724	283,941	247,281	221,196	171,725	130,221	104,816	79,337	66,562
Male	2,117,147	156,925	147,370	152,545	165,310	154,930	138,605	128,790	146,200	149,900	156,479	139,185	121,630	108,715	83,870	62,215	48,331	33,915	22,231
Female	2,198,227	148,555	140,741	144,955	157,875	149,340	141,990	139,945	161,505	162,090	166,245	144,756	125,651	112,481	87,855	68,006	56,485	45,421	44,331
Quintile 1																			
Total	891,119.2	56,722.5	59,828.9	63,554.2	62,655.9	43,101.0	40,777.6	48,369.9	67,062.9	74,703.7	80,092.5	71,910.7	62,138.2	53,040.6	37,829.8	26,008.0	19,387.0	13,585.9	10,349.9
Male	441,749.2	29,108.0	30,491.5	32,420.5	32,609.1	23,009.0	20,270.0	22,490.4	31,133.5	35,747.6	38,871.1	35,806.7	31,144.2	26,885.2	19,085.2	13,042.1	9534.6	6271.2	3829.3
Female	449,370.0	27,614.5	29,337.4	31,133.7	30,046.8	20,092.0	20,507.6	25,879.5	35,929.4	38,956.1	41,221.4	36,104.0	30,994.0	26,155.4	18,744.6	12,965.9	9852.4	7314.7	6520.6
Quintile 2																			
Total	873,597.6	55,949.4	54,940.0	58,035.0	60,135.1	52,243.9	54,438.3	55,482.1	65,590.3	67,452.7	70,587.3	62,134.4	54,083.1	48,112.1	36,755.6	26,952.4	21,334.2	15,950.0	13,421.7
Male	430,525.4	28,725.5	27,932.9	30,084.8	31,409.5	27,303.8	26,939.1	26,691.6	31,137.0	32,246.9	34,573.8	30,406.8	26,742.6	23,779.4	18,048.9	13,063.8	9954.7	7066.2	4418.1
Female	443,072.2	27,223.9	27,007.1	27,950.2	28,725.6	24,940.1	27,499.2	28,790.5	34,453.3	35,205.8	36,013.5	31,727.6	27,340.5	24,332.7	18,706.7	13,888.6	11,379.5	8883.8	9003.6
Quintile 3																			
Total	856,181.7	56,128.8	52,162.2	55,079.4	59,981.3	61,288.3	61,153.0	56,928.9	62,128.2	61,237.0	62,866.3	54,865.7	48,335.7	44,670.4	35,764.1	27,903.4	22,717.4	17,675.6	15,296.0
Male	419,805.2	28,717.8	26,836.4	28,152.3	30,882.1	31,460.5	30,563.8	27,618.7	29,886.4	29,547.5	30,565.7	26,691.2	23,537.6	21,710.3	17,340.5	13,284.5	10,415.4	7432.0	5162.5
Female	436,376.5	27,411.0	25,325.8	26,927.1	29,099.2	29,827.8	30,589.2	29,310.2	32,241.8	31,689.5	32,300.6	28,174.5	24,798.1	22,960.1	18,423.6	14,618.9	12,302.0	10,243.6	10,133.5
Quintile 4																			
Total	845,769.6	59,675.6	53,053.3	54,102.9	62,597.6	70,121.5	64,213.8	56,207.2	58,704.4	55,984.4	56,957.7	50,162.2	44,124.8	40,641.1	33,308.6	27,131.3	23,400.7	18,964.8	16,417.7
Male	411,962.6	30,904.4	27,169.1	27,825.4	31,839.3	35,222.8	31,697.8	27,428.9	28,326.7	27,244.9	27,537.7	24,454.6	21,317.2	19,507.6	15,781.5	12,417.9	10,381.9	7693.8	5211.1
Female	433,807.0	28,771.2	25,884.2	26,277.5	30,758.3	34,898.7	32,516.0	28,778.3	30,377.7	28,739.5	29,420.0	25,707.6	22,807.6	21,133.5	17,527.1	14,713.4	13,018.8	11,271.0	11,206.6
Quintile 5																			
Total	848,705.4	77,003.9	68,126.0	66,728.7	77,815.1	77,515.5	60,012.6	51,747.0	54,219.6	52,612.2	52,220.2	44,868.4	38,598.8	34,731.3	28,066.8	22,225.5	17,976.9	13,160.2	11,076.7
Male	413,104.1	39,469.2	34,939.8	34,061.8	38,570.0	37,933.9	29,134.7	24,560.2	25,716.5	25,112.9	24,930.7	21,825.9	18,887.9	16,832.5	13,614.1	10,406.8	8044.7	5452.2	3610.3
Female	435,601.3	37,534.7	33,186.2	32,666.9	39,245.1	39,581.6	30,877.9	27,186.8	28,503.1	27,499.3	27,289.5	23,042.5	19,710.9	17,898.8	14,452.7	11,818.7	9932.2	7708.0	7466.4

Source: Statistics New Zealand

Table A5: Suicide deaths and age-standardised rates, by DHB, 2005-2009

DHB	Number	Rate
Northland	111	16.4
Waitemata	265	9.7
Auckland	222	9.3
Counties Manukau	255	11.2
Waikato	197	10.8
Lakes	69	13.6
Bay of Plenty	148	15.3
Tairawhiti	42	19.4
Hawke's Bay	111	14.8
Taranaki	75	14.4
MidCentral	128	15.5
Whanganui	50	17.2
Capital & Coast	124	8.3
Hutt Valley	64	8.9
Wairarapa	25	15.4
Nelson Marlborough	91	13.9
West Coast	24	14.0
Canterbury	295	11.2
South Canterbury	37	15.6
Otago	113	11.5
Southland	89	16.8

Source: New Zealand Mortality Collection

82

Note: The rate shown is the age-standardised rate per 100,000 population, standardised to the WHO standard world population.

Table A6: Suicide deaths by five-year age group and sex, 1948–2009

		Total								F	ive-year	age grou	ир							
			0-4	5-9	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+
1948	Total	187	0	0	0	6	12	8	17	17	14	16	24	14	18	19	12	9	1	0
	Male	134	0	0	0	5	11	6	9	9	10	12	18	8	15	15	7	8	1	0
	Female	53	0	0	0	1	1	2	8	8	4	4	6	6	3	4	5	1	0	0
1949	Total	176	0	0	0	5	13	16	19	11	14	19	17	16	16	14	10	2	2	2
	Male	119	0	0	0	4	9	9	12	10	7	15	11	9	10	8	10	1	2	2
	Female	57	0	0	0	1	4	7	7	1	7	4	6	7	6	6	0	1	0	0
1950	Total	172	0	0	0	8	6	4	13	15	13	15	13	22	13	23	17	2	5	3
	Male	128	0	0	0	8	6	3	9	12	8	8	8	17	6	19	14	2	5	3
	Female	44	0	0	0	0	0	1	4	3	5	7	5	5	7	4	3	0	0	0
1951	Total	188	0	0	0	4	8	9	20	15	17	22	22	20	12	16	14	6	2	1
	Male	141	0	0	0	4	7	6	15	11	12	20	17	12	8	14	9	5	1	0
	Female	47	0	0	0	0	1	3	5	4	5	2	5	8	4	2	5	1	1	1
1952	Total	198	0	0	1	6	7	18	13	11	15	14	20	24	21	13	13	13	7	2
	Male	148	0	0	1	5	7	12	9	8	10	10	12	21	12	11	10	12	7	1
	Female	50	0	0	0	1	0	6	4	3	5	4	8	3	9	2	3	1	0	1
1953	Total	196	0	0	1	4	8	7	9	15	23	14	24	24	16	19	17	11	1	3
	Male	140	0	0	1	4	6	6	8	7	18	10	18	14	11	12	15	7	1	2
	Female	56	0	0	0	0	2	1	1	8	5	4	6	10	5	7	2	4	0	1
1954	Total	177	0	0	1	2	3	19	10	13	10	9	20	26	15	20	15	9	3	2
	Male	134	0	0	1	2	3	13	10	11	7	8	14	18	8	16	12	7	2	2
	Female	43	0	0	0	0	0	6	0	2	3	1	6	8	7	4	3	2	1	0
1955	Total	187	0	0	0	3	9	19	11	10	18	19	20	25	17	11	13	7	4	1
	Male	136	0	0	0	2	5	15	10	9	14	16	13	18	10	3	10	6	4	1
	Female	51	0	0	0	1	4	4	1	1	4	3	7	7	7	8	3	1	0	0
1956	Total	199	0	0	0	2	6	12	10	14	24	22	36	19	17	14	8	10	3	2
	Male	132	0	0	0	1	5	10	7	10	11	13	25	13	11	11	4	7	2	2
	Female	67	0	0	0	1	1	2	3	4	13	9	11	6	6	3	4	3	1	0

		Total								F	ive-year	age gro	ир							
			0-4	5-9	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+
1957	Total	215	0	0	1	4	12	13	21	12	15	21	29	19	20	21	14	10	3	0
	Male	153	0	0	1	4	11	9	16	11	9	15	18	11	11	18	8	8	3	0
	Female	62	0	0	0	0	1	4	5	1	6	6	11	8	9	3	6	2	0	0
1958	Total	220	0	0	2	7	9	11	10	17	23	29	34	14	17	17	11	8	4	7
	Male	164	0	0	2	6	7	8	9	12	16	23	26	9	12	13	6	7	2	6
	Female	56	0	0	0	1	2	3	1	5	7	6	8	5	5	4	5	1	2	1
1959	Total	204	0	0	0	6	11	13	15	18	23	23	19	20	11	9	14	11	9	2
	Male	157	0	0	0	5	9	10	13	16	17	18	15	14	5	5	11	9	8	2
	Female	47	0	0	0	1	2	3	2	2	6	5	4	6	6	4	3	2	1	0
1960	Total	230	0	0	0	6	8	16	12	19	32	33	19	27	17	12	16	8	4	1
	Male	165	0	0	0	3	7	15	9	14	23	26	13	18	9	6	11	7	3	1
	Female	65	0	0	0	3	1	1	3	5	9	7	6	9	8	6	5	1	1	0
1961	Total	204	0	0	1	4	13	18	12	22	16	22	19	27	7	18	14	7	3	1
	Male	155	0	0	1	4	11	16	8	19	13	13	14	20	6	13	8	6	3	0
	Female	49	0	0	0	0	2	2	4	3	3	9	5	7	1	5	6	1	0	1
1962	Total	208	0	0	0	5	8	14	19	20	28	20	18	17	23	9	12	9	3	3
	Male	142	0	0	0	4	4	10	17	12	18	11	13	9	18	6	8	8	2	2
	Female	66	0	0	0	1	4	4	2	8	10	9	5	8	5	3	4	1	1	1
1963	Total	244	0	0	0	5	18	9	14	15	27	35	28	28	20	12	20	7	5	1
	Male	157	0	0	0	5	14	7	11	12	19	21	14	14	12	8	13	3	3	1
	Female	87	0	0	0	0	4	2	3	3	8	14	14	14	8	4	7	4	2	0
1964	Total	207	0	0	0	2	11	13	12	11	18	27	25	30	30	10	11	5	2	0
	Male	127	0	0	0	1	4	8	9	8	15	20	14	16	18	5	3	5	1	0
	Female	80	0	0	0	1	7	5	3	3	3	7	11	14	12	5	8	0	1	0
1965	Total	242	0	0	0	6	15	14	15	17	20	29	32	25	24	9	16	13	6	1
	Male	161	0	0	0	2	11	9	9	11	15	20	25	17	13	6	10	7	5	1
	Female	81	0	0	0	4	4	5	6	6	5	9	7	8	11	3	6	6	1	0

		Total								F	ive-year	age gro	ир							
			0-4	5-9	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+
1966	Total	246	0	0	3	10	13	4	11	20	23	28	39	26	25	14	18	6	5	1
	Male	156	0	0	2	4	7	2	8	12	16	21	22	13	18	8	13	5	4	1
	Female	90	0	0	1	6	6	2	3	8	7	7	17	13	7	6	5	1	1	0
1967	Total	274	0	0	1	6	21	11	21	27	27	27	26	32	24	18	15	11	5	2
	Male	191	0	0	1	5	16	8	18	24	19	19	16	20	18	9	6	8	3	1
	Female	83	0	0	0	1	5	3	3	3	8	8	10	12	6	9	9	3	2	1
1968	Total	265	0	0	2	8	17	10	18	27	23	34	33	25	29	22	7	5	4	1
	Male	179	0	0	1	6	14	8	12	21	16	23	18	17	15	17	4	4	2	1
	Female	86	0	0	1	2	3	2	6	6	7	11	15	8	14	5	3	1	2	0
1969	Total	278	0	0	2	13	23	21	18	15	25	31	22	31	22	25	14	10	4	2
	Male	181	0	0	2	6	16	16	11	9	20	20	10	20	14	13	10	8	4	2
	Female	97	0	0	0	7	7	5	7	6	5	11	12	11	8	12	4	2	0	0
1970	Total	271	0	1	2	15	24	12	11	17	33	26	28	28	18	24	16	7	9	0
	Male	178	0	1	2	12	18	8	10	11	26	19	17	13	7	16	8	5	5	0
	Female	93	0	0	0	3	6	4	1	6	7	7	11	15	11	8	8	2	4	0
1971	Total	237	0	0	2	15	21	14	10	20	19	28	29	22	22	11	13	7	2	2
	Male	149	0	0	2	10	14	7	5	15	16	17	16	12	12	6	9	5	1	2
	Female	88	0	0	0	5	7	7	5	5	3	11	13	10	10	5	4	2	1	0
1972	Total	262	0	0	2	12	24	20	25	13	24	22	28	27	19	17	17	7	1	4
	Male	173	0	0	1	10	13	12	15	9	16	16	20	19	13	8	12	5	1	3
	Female	89	0	0	1	2	11	8	10	4	8	6	8	8	6	9	5	2	0	1
1973	Total	261	0	0	3	19	20	18	17	12	14	29	35	21	24	14	16	11	5	3
	Male	181	0	0	2	14	13	12	15	11	10	22	22	15	12	7	13	7	3	3
	Female	80	0	0	1	5	7	6	2	1	4	7	13	6	12	7	3	4	2	0
1974	Total	273	0	0	2	13	23	24	17	20	24	26	19	28	31	19	17	3	4	3
	Male	187	0	0	1	10	17	13	12	15	14	21	13	15	19	16	12	3	3	3
	Female	86	0	0	1	3	6	11	5	5	10	5	6	13	12	3	5	0	1	0

		Total								F	ive-year	age gro	ир							
			0-4	5-9	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+
1975	Total	293	0	0	1	20	32	25	16	25	24	30	20	26	28	20	10	5	7	4
	Male	195	0	0	1	12	25	17	9	19	15	20	13	16	17	12	7	4	5	3
	Female	98	0	0	0	8	7	8	7	6	9	10	7	10	11	8	3	1	2	1
1976	Total	291	0	0	1	15	27	28	18	17	24	25	22	31	31	19	18	11	3	1
	Male	198	0	0	1	11	23	18	13	13	16	15	11	21	22	15	8	9	1	1
	Female	93	0	0	0	4	4	10	5	4	8	10	11	10	9	4	10	2	2	0
1977	Total	365	0	0	2	26	44	41	33	34	25	30	29	28	20	20	11	11	8	3
	Male	256	0	0	1	23	36	29	23	20	18	25	20	13	13	12	6	8	6	3
	Female	109	0	0	1	3	8	12	10	14	7	5	9	15	7	8	5	3	2	0
1978	Total	322	0	0	3	18	37	29	22	20	23	29	25	30	32	15	20	13	4	2
	Male	208	0	0	2	17	30	21	16	12	15	16	15	13	17	9	13	8	3	1
	Female	114	0	0	1	1	7	8	6	8	8	13	10	17	15	6	7	5	1	1
1979	Total	302	0	0	0	23	24	31	26	21	19	31	27	23	24	16	17	14	5	1
	Male	213	0	0	0	17	19	22	21	14	14	24	22	12	17	9	9	8	4	1
	Female	89	0	0	0	6	5	9	5	7	5	7	5	11	7	7	8	6	1	0
1980	Total	337	0	0	2	34	47	34	30	24	19	16	34	20	15	17	19	13	7	6
	Male	225	0	0	2	20	38	25	17	18	13	11	16	16	13	10	12	6	5	3
	Female	112	0	0	0	14	9	9	13	6	6	5	18	4	2	7	7	7	2	3
1981	Total	320	0	0	4	17	43	26	27	30	20	24	19	25	25	15	23	11	8	3
	Male	241	0	0	4	14	36	16	21	25	17	19	12	19	17	12	17	6	3	3
	Female	79	0	0	0	3	7	10	6	5	3	5	7	6	8	3	6	5	5	0
1982	Total	364	0	0	1	18	45	34	35	29	19	18	23	47	26	21	25	10	10	3
	Male	257	0	0	1	16	36	27	28	21	12	10	14	27	15	17	18	7	6	2
	Female	107	0	0	0	2	9	7	7	8	7	8	9	20	11	4	7	3	4	1
1983	Total	352	0	0	4	24	46	37	27	34	29	18	21	27	19	30	15	14	5	2
	Male	250	0	0	3	20	38	26	22	25	15	12	12	20	11	24	8	9	4	1
	Female	102	0	0	1	4	8	11	5	9	14	6	9	7	8	6	7	5	1	1

		Total								F	ive-year	age grou	ир							
			0-4	5-9	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+
1984	Total	389	0	0	4	25	47	49	38	30	29	23	22	27	25	18	18	16	14	4
	Male	297	0	0	2	21	36	41	28	26	22	17	16	18	18	13	14	12	11	2
	Female	92	0	0	2	4	11	8	10	4	7	6	6	9	7	5	4	4	3	2
1985	Total	338	0	0	5	30	45	36	28	21	21	23	21	25	16	25	20	14	6	2
	Male	255	0	0	2	25	35	26	25	15	15	17	17	14	12	20	14	11	5	2
	Female	83	0	0	3	5	10	10	3	6	6	6	4	11	4	5	6	3	1	0
1986	Total	414	0	0	4	38	53	43	31	41	37	23	30	23	28	22	14	15	9	3
	Male	301	0	0	2	29	39	34	19	32	29	19	20	14	22	14	10	9	7	2
	Female	113	0	0	2	9	14	9	12	9	8	4	10	9	6	8	4	6	2	1
1987	Total	463	0	0	8	36	77	64	39	30	30	33	27	35	18	18	11	17	16	4
	Male	363	0	0	7	29	64	51	28	24	26	24	18	26	16	14	8	14	11	3
	Female	100	0	0	1	7	13	13	11	6	4	9	9	9	2	4	3	3	5	1
1988	Total	484	0	0	2	54	77	53	48	28	31	34	23	30	32	17	25	19	10	1
	Male	381	0	0	2	47	59	40	32	24	28	32	18	27	19	12	21	14	6	0
	Female	103	0	0	0	7	18	13	16	4	3	2	5	3	13	5	4	5	4	1
1989	Total	465	0	1	7	58	73	66	35	30	34	31	26	15	24	25	17	7	11	5
	Male	372	0	1	7	50	61	50	29	26	27	23	20	10	16	21	10	7	10	4
	Female	93	0	0	0	8	12	16	6	4	7	8	6	5	8	4	7	0	1	1
1990	Total	455	0	0	2	44	86	53	40	42	34	27	25	25	22	14	14	13	10	4
	Male	363	0	0	2	37	74	43	29	35	22	23	19	20	19	9	10	8	9	4
	Female	92	0	0	0	7	12	10	11	7	12	4	6	5	3	5	4	5	1	0
1991	Total	474	0	0	4	45	80	65	49	42	39	41	28	13	18	18	14	10	7	1
	Male	380	0	0	4	41	68	53	42	33	27	31	19	11	13	15	6	9	7	1
	Female	94	0	0	0	4	12	12	7	9	12	10	9	2	5	3	8	1	0	0
1992	Total	493	0	0	5	44	85	71	42	39	34	33	30	27	34	13	15	8	7	6
	Male	397	0	0	4	39	73	60	38	34	25	24	18	18	27	9	13	5	6	4
	Female	96	0	0	1	5	12	11	4	5	9	9	12	9	7	4	2	3	1	2

		Total								F	ive-year	age grou	ир							
			0-4	5-9	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+
1993	Total	443	0	0	3	40	86	50	55	36	33	35	19	17	17	20	13	12	5	2
	Male	349	0	0	2	34	76	38	40	33	22	29	11	13	9	18	9	10	4	1
	Female	94	0	0	1	6	10	12	15	3	11	6	8	4	8	2	4	2	1	1
1994	Total	512	0	0	7	56	81	53	63	32	38	34	25	23	25	20	24	10	14	7
	Male	409	0	0	5	44	67	44	49	27	32	26	17	19	23	17	17	6	10	6
	Female	103	0	0	2	12	14	9	14	5	6	8	8	4	2	3	7	4	4	1
1995	Total	543	0	0	6	59	97	66	50	47	38	44	29	23	14	26	16	15	10	3
	Male	427	0	0	4	45	77	58	38	38	29	35	20	20	9	21	14	9	8	2
	Female	116	0	0	2	14	20	8	12	9	9	9	9	3	5	5	2	6	2	1
1996	Total	540	0	0	7	59	84	73	69	49	31	38	25	24	15	20	22	8	10	6
	Male	428	0	0	3	38	67	64	57	42	24	27	19	21	13	18	16	5	8	6
	Female	112	0	0	4	21	17	9	12	7	7	11	6	3	2	2	6	3	2	0
1997	Total	561	0	0	8	72	70	83	71	51	50	31	29	24	18	13	17	10	9	5
	Male	440	0	0	5	53	60	70	54	40	36	22	21	17	16	12	15	7	9	3
	Female	121	0	0	3	19	10	13	17	11	14	9	8	7	2	1	2	3	0	2
1998	Total	577	0	0	12	66	74	80	56	56	56	40	23	28	22	16	22	14	8	4
	Male	445	0	0	8	40	65	66	45	46	37	30	17	24	19	14	14	14	4	2
	Female	132	0	0	4	26	9	14	11	10	19	10	6	4	3	2	8	0	4	2
1999	Total	516	0	0	6	48	72	67	59	61	48	33	33	23	15	9	18	13	8	3
	Male	385	0	0	3	29	54	56	50	45	29	25	26	19	13	4	14	10	6	2
	Female	131	0	0	3	19	18	11	9	16	19	8	7	4	2	5	4	3	2	1
2000	Total	458	0	0	4	42	54	71	55	51	31	30	31	26	16	14	13	5	9	6
	Male	375	0	0	3	31	50	58	47	40	25	23	25	21	11	12	13	5	6	5
	Female	83	0	0	1	11	4	13	8	11	6	7	6	5	5	2	0	0	3	1
2001	Total	507	0	0	3	43	67	59	62	57	61	27	23	20	21	17	13	17	13	4
	Male	388	0	0	1	30	57	42	50	46	50	18	15	16	15	13	10	14	7	4
	Female	119	0	0	2	13	10	17	12	11	11	9	8	4	6	4	3	3	6	0

		Total								F	ive-year	age gro	ир							
			0-4	5-9	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+
2002	Total	466	0	0	0	40	55	52	56	57	48	35	30	28	18	14	12	6	6	9
	Male	353	0	0	0	25	40	43	39	43	40	27	21	25	13	11	10	5	4	7
	Female	113	0	0	0	15	15	9	17	14	8	8	9	3	5	3	2	1	2	2
2003	Total	517	0	0	5	51	46	46	55	60	51	47	41	25	24	12	17	17	14	6
	Male	376	0	0	4	35	31	35	44	37	44	34	28	21	18	8	11	14	9	3
	Female	141	0	0	1	16	15	11	11	23	7	13	13	4	6	4	6	3	5	3
2004	Total	488	0	0	6	50	63	50	45	57	47	41	24	32	20	11	12	12	9	9
	Male	379	0	0	4	34	49	44	32	44	40	31	17	23	17	9	8	11	7	9
	Female	109	0	0	2	16	14	6	13	13	7	10	7	9	3	2	4	1	2	0
2005	Total	511	0	0	2	45	63	56	54	55	51	41	39	42	15	18	5	12	6	7
	Male	380	0	0	0	36	48	44	40	42	33	32	31	29	13	13	3	8	2	6
	Female	131	0	0	2	9	15	12	14	13	18	9	8	13	2	5	2	4	4	1
2006	Total	526	0	0	6	61	58	54	48	53	54	38	43	46	14	13	16	4	6	12
	Male	388	0	0	2	49	46	36	37	37	38	30	31	36	13	8	11	1	4	9
	Female	138	0	0	4	12	12	18	11	16	16	8	12	10	1	5	5	3	2	3
2007	Total	487	0	0	2	41	52	40	52	60	53	46	42	31	19	10	9	10	13	7
	Male	371	0	0	1	29	41	34	45	45	35	38	29	20	12	10	9	10	10	3
	Female	116	0	0	1	12	11	6	7	15	18	8	13	11	7	0	0	0	3	4
2008	Total	520	0	0	5	56	65	47	41	48	47	53	43	41	23	15	12	6	11	7
	Male	381	0	0	2	31	52	34	36	30	34	40	35	32	19	11	7	5	7	6
	Female	139	0	0	3	25	13	13	5	18	13	13	8	9	4	4	5	1	4	1
2009	Total	506	0	0	9	54	60	35	49	41	49	49	46	37	25	8	12	7	16	9
(provisional)	Male	391	0	0	5	42	51	23	41	35	35	36	39	27	18	5	10	6	11	7
	Female	115	0	0	4	12	9	12	8	6	14	13	7	10	7	3	2	1	5	2

Source: New Zealand Mortality Collection

Table A7: Suicide age-specific rates for OECD countries, by age group and sex

Country		Age-specifi	ic rate pe	r 100,000 j	populatio	n
	25	-44	45	-64	6	5+
	Males	Females	Males	Females	Males	Females
Australia (2006)	16.8	4.6	17.1	4.8	15.0	4.4
Austria (2009)	19.8	4.7	30.4	9.5	52.9	14.8
Belgium (2005)	34.1	10.5	40.6	17.1	44.2	13.6
Canada (2004)	22.5	6.6	23.1	8.4	17.8	4.6
Chile (2007)	24.4	5.8	23.5	4.9	29.4	2.9
Czech Republic (2009)	23.4	2.9	37.6	7.0	36.3	7.3
Denmark (2006)	16.5	5.4	22.4	9.4	43.0	12.3
Estonia (2008)	31.0	5.3	45.2	11.2	43.4	10.4
Finland (2009)	34.5	12.6	39.4	15.6	35.4	7.5
France (2007)	27.4	8.1	34.5	13.9	49.3	12.8
Germany (2006)	15.6	4.4	23.2	7.9	35.6	11.3
Greece (2009)	6.0	1.3	9.3	1.1	8.2	1.5
Hungary (2009)	32.8	7.4	67.5	17.3	75.2	17.6
Ireland (2009)	28.7	6.1	21.9	5.8	14.0	4.0
Israel (2007)	9.8	1.6	9.5	2.4	15.2	3.5
Italy (2007)	8.6	2.6	12.0	3.6	21.1	4.5
Japan (2009)	36.3	13.6	53.9	14.5	42.0	18.5
Mexico (2008)	10.3	1.8	8.2	1.4	12.1	0.8
Netherlands (2009)	14.0	6.2	21.0	8.7	16.6	7.1
New Zealand (2009)	23.8	6.6	22.8	6.7	15.6	4.3
Norway (2009)	21.4	8.5	23.3	10.1	23.0	4.7
Poland (2008)	27.8	3.1	42.4	6.8	32.5	5.9
Portugal (2009)	10.4	2.5	21.0	5.1	40.4	9.2
Republic of Korea (2009)	36.5	26.8	59.8	20.4	118.5	50.9
Slovakia (2005)	23.2	3.0	40.1	5.8	32.2	5.6
Slovenia (2009)	32.3	3.8	53.4	14.3	63.1	20.8
Spain (2008)	11.4	3.1	15.1	4.4	25.6	6.2
Sweden (2008)	18.3	7.3	25.9	9.1	30.4	8.2
Switzerland (2007)	18.8	7.3	31.4	13.5	61.4	26.1
United Kingdom (2009)	16.5	3.9	15.3	4.3	9.7	3.3
United States of America (2005)	21.8	5.8	24.0	7.2	29.3	4.0
Median	21.8	5.4	23.5	7.9	32.2	7.1
Maximum	36.5	26.8	67.5	20.4	118.5	50.9
Minimum	6.0	1.3	8.2	1.1	8.2	0.8

Sources: (1) WHO (nd); (2) OECD (nd).

Note: The rate shown is the age-specific rate, measuring the frequency of suicides per 100,000 population relative to particular population age groups.

Table A8: Intentional self-harm short-stay emergency department hospitalisations, 1996–2009 (excluded from the main body of this publication)

DHB of						Ye	ear of c	lischai	ge					
domicile	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Northland					8	18	35	38	43	56	73	66	63	79
Waitemata		9	7	104	206	313	452	380	320	310	370	422	468	433
Auckland	151	126	92	62	248	387	396	383	444	419	489	462	518	497
Counties Manukau	120	94	133	173	250	311	372	376	373	451	436	468	505	481
Waikato	8	9	20	23	56	128	166	185	203	224	245	71	148	248
Lakes		2	1	2	4	13	35	39	56	59	53	53	75	59
Bay of Plenty				1	12	1		13	12	5	22	70	91	94
Tairawhiti				3	2									2
Taranaki	3	3	2	1	4	4	11	24	7	1			25	62
Hawke's Bay		2			1						43	67	88	150
MidCentral									19	114	131	181	177	190
Whanganui				2	1	3	20	12	13	11	16	18	44	89
Capital & Coast	6	5	4	4		2	1	1	3	2	7	1	20	215
Wairarapa	4	2												
North Island 'Other'	1				1									
Nelson Marlborough	6	10	3	2	5	2							18	50
West Coast	15	10	7	8	9	14	20	14	9	23	3	4		1
Canterbury	13	117	246	309	342	433	460	508	408	443	519	427	514	497
South Canterbury		1							1					
Otago	3	10	15	12	64	84	82	104	154	136	122	134	105	110
Southland	2	4	9	3	8	1		1	1	1	18	18	26	44
South Island 'Other'				4	6	11	4	8	15	12	4	2	10	11
Total New Zealand	332	404	539	713	1227	1725	2054	2086	2081	2267	2551	2464	2895	3312

Source: New Zealand National Minimum Dataset

Notes:

^{1.} A 'short stay' is a stay of one day or less; see the 'Technical notes' section for more detail.

^{2.} There were no events excluded from the dataset for Hutt Valley DHB.

Table A9: Intentional self-harm hospitalisations within two days of a previous intentional self-harm hospitalisation, 1996–2009 (excluded from the main body of this publication)

DHB of						Ye	ear of d	lischar	ge					
domicile	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Northland	8	3	11	11	17	15	11	16	20	15	8	13	11	12
Waitemata	16	16	14	20	42	36	28	44	58	34	44	45	43	32
Auckland	6	17	37	31	28	20	35	32	27	19	16	16	23	31
Counties Manukau	2	7	12	21	22	19	16	9	11	9	10	15	13	5
Waikato	21	9	22	31	44	77	58	34	42	52	29	31	27	42
Lakes	6	11	7	4	12	14	16	10	6	3	6	11	7	11
Bay of Plenty	3	7	8	18	31	15	9	14	23	20	11	21	21	19
Tairawhiti	1	4	7	1	1	8	5	4	3	5	2	7	3	7
Taranaki	12	4	9	18	24	18	10	14	17	20	25	19	18	16
Hawke's Bay	3	9	5	1	9	9	3	5	2	1	7	1	4	
MidCentral	8	11	21	21	23	11	21	19	21	11	15	11	9	5
Whanganui	2	3	5	6	2	2	2	1		1		5	1	
Capital & Coast	27	18	14	13	20	16	5	14	14	7	8	12	10	15
Hutt Valley	5	8	15	32	15	23	40	32	12	9	10	16	5	9
Wairarapa	5	4	4	2	4	4	6	7	2		2	1	8	
Nelson Marlborough	2	8	3		2	2	2	5	5	5	8	7	3	8
West Coast	7	5	3	8	13	12	12	19	10	14	9	10	8	6
Canterbury	10	9	25	79	70	94	57	82	81	57	50	29	14	13
South Canterbury	1	3	1	4	11	11	10	12	6	3	6	3	1	2
Otago	9	16	6	2	7	8	10	6	11	8	8	12	7	29
Southland	2	5	2	4	11	12	9	7	4	7	7	10	5	7
Other	1	2	3	3	2		2	2		2	1	1		
Total New Zealand	157	179	234	330	410	426	367	388	375	302	282	296	241	269

Source: New Zealand National Minimum Dataset

Table A10: World Health Organization world standard population

Age group	Population
0–4	8860
5-9	8690
10–14	8600
15–19	8470
20–24	8220
25–29	7930
30–34	7610
35–39	7150
40–44	6590
45–49	6040
50-54	5370
55-59	4550
60-64	3720
65-69	2960
70–74	2210
75–79	520
80-84	910
85+	635
Total	100,035

Source: Ahmad et al 2001

Appendix 2: Further information

General information about suicide prevention

For general information about suicide and suicide prevention, contact:

Suicide Prevention Information New Zealand (SPINZ)

PO Box 10-051 Dominion Road

Auckland 1446

Ph: (09) 300 7035 Fax: (09) 300 7020

Email: info@spinz.org.nz Website: www.spinz.org.nz

To find out more about the *New Zealand Suicide Prevention Strategy 2006–2016*, see the Ministry of Health's suicide prevention web page (www.health.govt.nz/our-work/mental-health-and-addictions/suicide-prevention).

Statistics

For health data, including suicide statistics, contact:

Analytical Services National Collections and Reporting National Health Board Ministry of Health PO Box 5013 Wellington

Ph: (04) 496 2000 Fax: (04) 816 2898

Email: data-enquiries@moh.govt.nz

Website: www.health.govt.nz

More copies of this publication

For more copies of this publication, or *Suicide Facts* for previous years, see the Ministry of Health website or contact SPINZ (see above).