

# **Suicide Data related to Mental Health Service Users (2016)**

Note: This report presents some of the information that the Office of the Director of Mental Health and Addiction Services Annual Reports covered in the past. The establishment of the Suicide Prevention Office has prompted this change. The specific information in this report concerns deaths by suicide, or deaths of undetermined intent, by mental health service users.

Mental health service users are defined in this context as people who accessed district health board or non-governmental organisation specialist mental health services (including services treating people with alcohol and other drugs (AOD) addiction) in the year before their death. People with no history of mental health service use in the year before their death are referred to as 'non-service users' here, although we acknowledge that some non-service users may have used mental health or AOD services at some earlier time in their lives. This data covers people aged 10–64 years.

Please interpret the data provided cautiously because it has a small statistical base. For further statistics on deaths by suicide, see 'Understanding suicide in New Zealand' on the Ministry of Health's website.

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# Overview

Every suicide is a tragedy and has a significant impact on friends, whānau and communities. People who die by suicide are almost always acutely distressed but not all of them are mentally ill.

Note that, in a statistical sense, the number of suicides per year is low enough for it to be classified as an event with a low base rate. The low base rate means that the number of suicides in one year can differ quite substantially from the number in the previous year, but this change is not a clear or reliable indicator of a decrease or increase in rates. Even large fluctuations in rates over short periods can be unreliable. Understanding data in specific population groups, such as mental health service users, is still more difficult because the numbers involved are even smaller. Therefore, we must look at patterns over very long periods to understand longer-term trends.

In addition, methodological developments have highlighted improved ways of reporting data from low base events, but these new approaches have not been used for the data presented in this report. Our intention is to improve the way we analyse and present data in the future.

# Prevalence of suicide in the population for the 2016 year

In 2016, at the time the data was extracted, 496 suicides were recorded in the mortality database.<sup>1</sup> A further 28 deaths of undetermined intent were recorded and are included in this report.

As Table 1 shows, in 2016 there were 524 deaths by suicide or of undetermined intent. Of these 524 people, 226 (43 percent) had contact with specialist mental health services in the year before death.

**Table 1: Number and age-standardised rate of suicide, by service use, people aged 10–64 years, 2016**

	Number	Age-standardised rate
<b>Deaths due to intentional self-harm</b>		
Service users	216	132.0
Non-service users	280	6.9
Total	496	12.4
<b>Deaths of undetermined intent</b>		
Service users	10	6.3
Non-service users	18	0.4
Total	28	0.7
<b>Total deaths</b>		
Service users	226	138.3
Non-service users	298	7.3
Total	524	12.3

Notes: Age-standardised rate is per 100,000, standardised to the World Health Organization (WHO) standard population aged 0–64 years. Service user denominator excludes service users of unknown age.

Source: Ministry of Health mortality database data, extracted on 19 April 2021.

<sup>1</sup> The Mortality Collection classifies the underlying cause of death for all deaths registered in New Zealand, and all registerable stillbirths (fetal deaths). These numbers are subject to change. The mortality database is a dynamic collection, as it regularly receives new data, including final coroners' findings, and updates are ongoing. Changes can be made even after the data is considered nominally final.

Of the 226 service users who died by suicide in 2016, four died while they were inpatients,<sup>2</sup> seven died within a week of being discharged<sup>3</sup> and 50 died within 12 months of discharge from an inpatient team.<sup>4</sup>

<sup>2</sup> This figure is determined from the number of people who had an inpatient activity on the day they died; PRIMHD, the national mental health and addiction database, cannot identify the number of people who died at an inpatient unit. In addition to capturing suicide deaths that occurred in inpatient facilities, this figure may capture people who:

- received care in an inpatient facility, were discharged and died by suicide in the community later that day
- attempted suicide in the community and later died in hospital
- died by suicide in the community while on leave from an inpatient facility.

Note these figures should not be compared with those of previous annual reports, as the definitions for 'inpatient' and 'community service user' have been updated since the 2014 report published on 3 December 2015.

<sup>3</sup> Excluding those who received treatment on the day of their death.

<sup>4</sup> Excluding those who received treatment on the day of their death and those who died within a week of being discharged from an inpatient service.

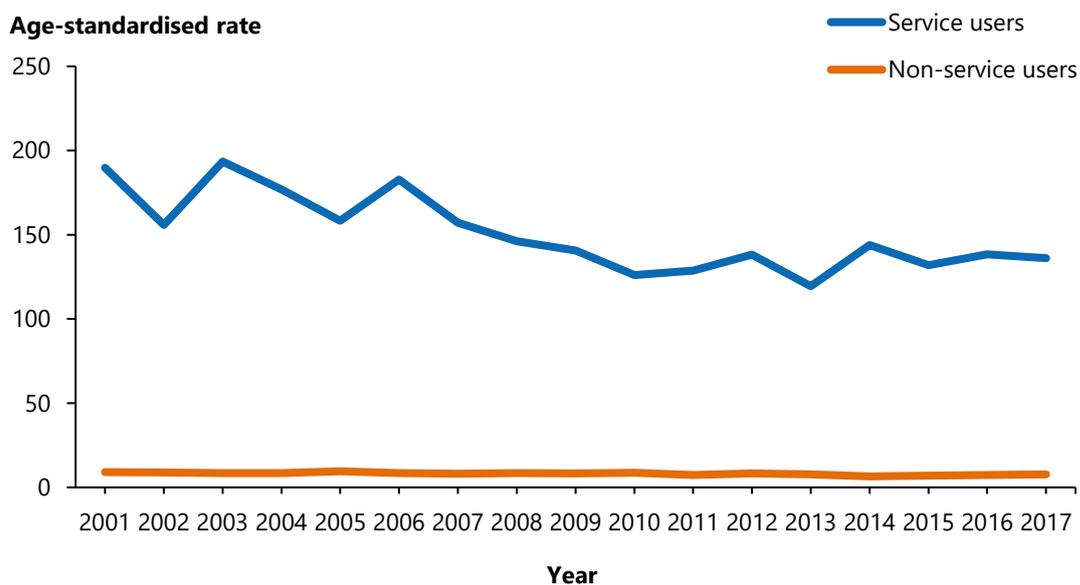
# Changes in number of suicides over time

From 2001 to 2016, 2,832 service users died by suicide.<sup>5</sup> Of this total, 55 service users (1.9 percent) died while they were an inpatient, 178 (6.3 percent) died within a week of being discharged and 816 (28.8 percent) died within 12 months of discharge from an inpatient team.

Of the 2,832 service user suicides that have occurred since 2001, 2,793 people had received treatment from a community mental health team in the 12 months before their death, and 678 had received treatment from an AOD team in the 12 months before their death.<sup>6</sup>

Figure 1 shows the changes in the rates of suicide by service users and non-service users between 2001 and 2016.

**Figure 1: Age-standardised rate of suicide, by service use, people aged 10–64 years, 2001–2016**



Notes: Age-standardised rate is per 100,000 population, standardised to the WHO standard population aged 0–64 years. The service user population is much smaller than the non-service user population and will therefore produce rates more prone to fluctuation from year to year.

Source: Ministry of Health mortality database data, extracted on 19 April 2021.

<sup>5</sup> Includes deaths of undetermined intent.

<sup>6</sup> People could be seen by more than one team.

## Sex and age in relation to suicide

In 2016, as Table 2 and Figure 2 show, 2.6 times more males than females died by suicide. Of the service users who died by suicide in 2016, 33.6 percent were female and 66.4 percent were male.

Table 3 shows the number and rate of suicide by age group, sex and service use.

When considering these numbers, remember that these age-standardised rates are highly variable over time because they come from a small population of service users.

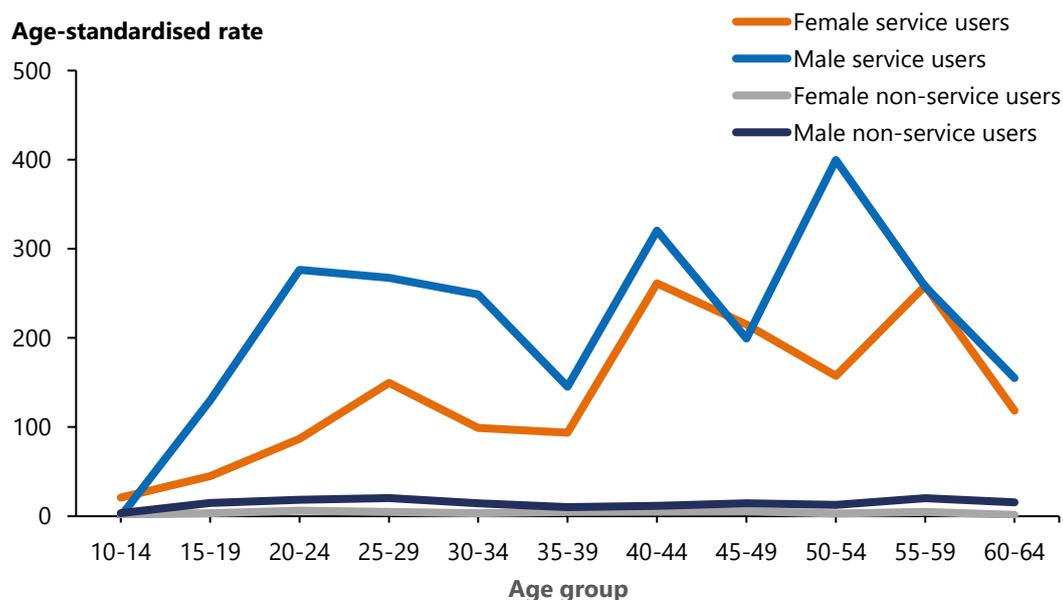
**Table 2: Number and age-standardised rate of suicide, by service use and sex, people aged 10–64 years, 2016**

Sex	Service users		Non-service users		Total	
	Number	ASR	Number	ASR	Number	ASR
Males	150	170.3	229	11.3	379	18.0
Females	76	102.0	69	3.4	145	6.4
<b>Total</b>	<b>226</b>	<b>138.3</b>	<b>298</b>	<b>7.3</b>	<b>524</b>	<b>12.3</b>

Notes: ASR = Age-standardised rate. Includes deaths of undetermined intent. Age-standardised rate is per 100,000, standardised to the WHO standard population aged 0–64 years. Service user denominator excludes service users of unknown age.

Source: Ministry of Health mortality database data, extracted on 19 April 2021.

**Figure 2: Age-standardised rate of suicide, by age group, sex and service use, people aged 10–64 years, 2016**



Source: Ministry of Health mortality database data, extracted on 19 April 2021.

**Table 3: Number and age-specific rate of suicide, by age group, sex and service use, people aged 10–64 years, 2016**

Age band (years)	Service users				Non-service users				Total number
	Female		Male		Female		Male		
	Number	ASR	Number	ASR	Number	ASR	Number	ASR	
10–14	1	20.9	0	0.0	3	2.2	5	3.5	9
15–19	5	45.1	12	129.8	5	3.5	23	14.9	45
20–24	6	86.7	24	276.4	10	6.2	32	18.4	72
25–29	10	149.5	22	267.5	8	4.9	33	20.4	73
30–34	6	99.2	17	248.9	5	3.4	20	14.5	48
35–39	5	93.6	9	145.3	7	5.0	13	10.2	34
40–44	13	261.3	20	320.4	8	5.2	16	11.6	57
45–49	11	215.0	12	199.5	9	5.6	21	14.4	53
50–54	7	157.5	20	399.7	5	3.1	19	12.8	51
55–59	9	258.5	10	257.3	7	4.7	28	20.1	54
60–64	3	118.4	4	155.0	2	1.5	19	15.5	28

Notes: ASR = Age-specific rate. Includes deaths of undetermined intent.

Source: Ministry of Health mortality database data, extracted on 19 April 2021.

# Ethnicity and suicide

Table 4 indicates that, among people using mental health services in 2016, the age-specific rate of suicide was higher for Māori (126.3 per 100,000 service users) than for Pacific peoples (56.4 per 100,000 service users) but lower than the age-specific rate of suicide for those in the 'Other' category (146.2 per 100,000 service users). (Note: The suicide rate for Pacific peoples is highly variable over time.)

**Table 4: Number and age-standardised rate of suicide and deaths of undetermined intent, by ethnicity and service use, people aged 10–64 years, 2016**

Ethnicity	Service users		Non-service users		Total	
	Number of deaths	ASR	Number of deaths	ASR	Number of deaths	ASR
Māori	66	126.3	75	13.2	141	26.2
Pacific	6	56.4	13	4.7	19	8.0
Other	154	146.2	210	6.2	364	10.8
<b>Total</b>	<b>226</b>	<b>138.3</b>	<b>298</b>	<b>7.3</b>	<b>524</b>	<b>12.3</b>

Note: ASR = Age-standardised rate.

Source: Ministry of Health mortality database data, extracted on 19 April 2021.