

Suicide Prevention Area Profile

Data as at November 2017

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We acknowledge the peoples of the Kulin nation as the Traditional Owners of the land on which our work in the community takes place. We pay our respects to their Elders past and present.



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1 SUICIDE PREVENTION PROFILE

SUMMARY

- Suicide remains the leading cause of death for Australians between the ages of 15 and 44 years.
- In Victoria, age-standardised suicide rates are 3 times greater in males than females.
- Aboriginal and Torres Strait Islander age standardised suicide rates occurs at double the rate of other Australians.
- Within the North-Western Melbourne region, Macedon Ranges has the highest average annual age-standardised rate of suicide for adults, this trend is also evident in young people.
- Major depression, relationship breakdown, previous suicide attempts, alcohol use, financial factors, rural location, media coverage and Indigenous heritage are all correlated with suicide.
- Aftercare and crisis care, psychosocial and pharmacotherapy treatment, GP capacity building and support, and community campaigns are some of the evidence-based strategies that can support suicide prevention.

2 ACRONYMS

ABS	Australian Bureau of Statistics
ASR	Age Standardised Rates
DALY	Disability-adjusted life years, measure in years of healthy life lost
MBS	Medicare Benefits Schedule
NWMPHN	North Western Melbourne Primary Health Network
YLD	Years lived with disability, measure in years lost in less than full health
YLL	Years of life lost, measure in years lost due to premature death before life expectancy

3 ANALYSIS NOTES

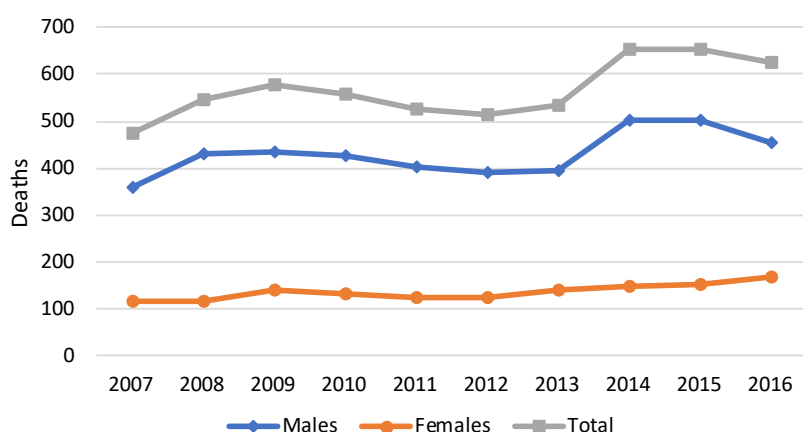
Throughout this profile, colour schemes have been added to tables to provide a ranking within a comparison population. In most analyses where Local Government Area (LGA) values or rates are displayed, the colours correspond to the decile of the value within the distribution comprised of Greater Melbourne LGAs.

In other words, the 31 Greater Melbourne LGA's are ranked in order and arranged into approximately 10 groups (~3 in each). For purposes of consistency, if an LGA within the NWMPHN catchment is performing worse than the median Greater Melbourne LGA it is red, the deeper the red the worse it is. The better performing LGAs are coloured varying shades of green.

4 ABOUT SUICIDE

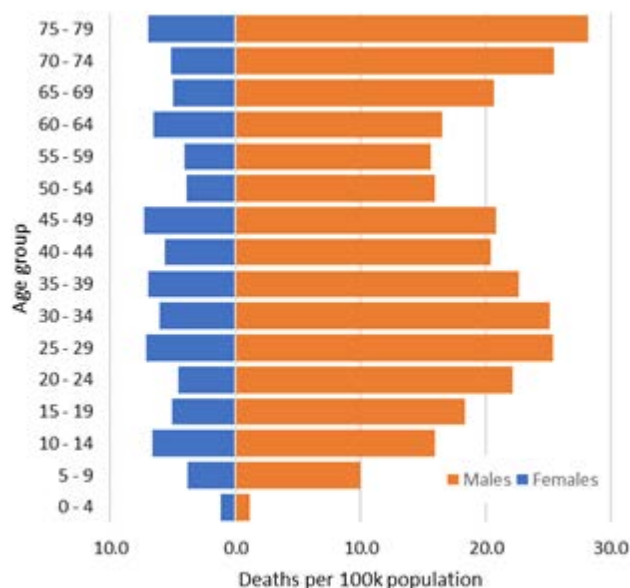
Suicide is the leading cause of death for Australians aged between 15 and 44 years, and in Victoria is the cause of death in more than 600 cases per year. The number of deaths has varied across years and has appeared to have plateaued following a large increase in 2014 (Figure 1).

Figure 1: Intentional self-harm, Victoria, Number of deaths, Sex, 2007–2016 (ABS, 3303.0 Causes of Death, Australia, 2016)



In 2016, the national age standardised suicide death rate was 11.8 per 100,000 people, with Victoria having a lower suicide death rate of 9.9 per 100,000 people. Death rates are higher in males than females (19.3 per 100,000 and 6.1 per 100,000 respectively) (Figure 2).¹

Figure 2: Age-specific suicide rates, by sex, Australia, 2010–11 (deaths per 100,000 population)



Source: AIHW <https://www.aihw.gov.au/reports/injury/suicide-hospitalised-self-harm-in-australia/data>

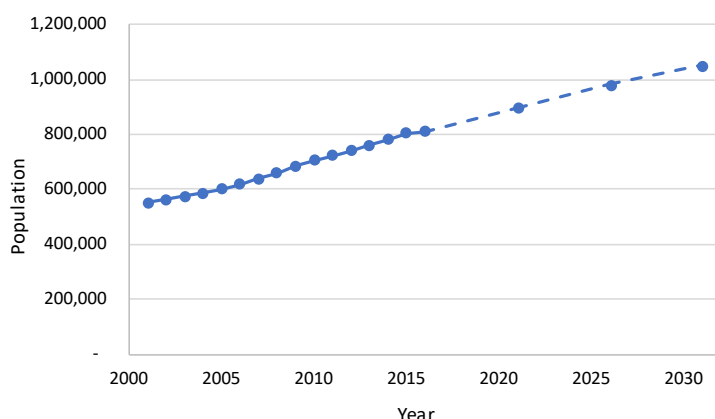
¹ ABS (2016) 3303.0 Causes of Death, Australia, 2016. Released at 11.30am (Canberra time) 27 September 2017

5 TARGET POPULATION FOR NWMPHN

An understanding of the distribution of the target population for interventions by NWMPHN is essential in developing an understanding of the potential demand and location of need.

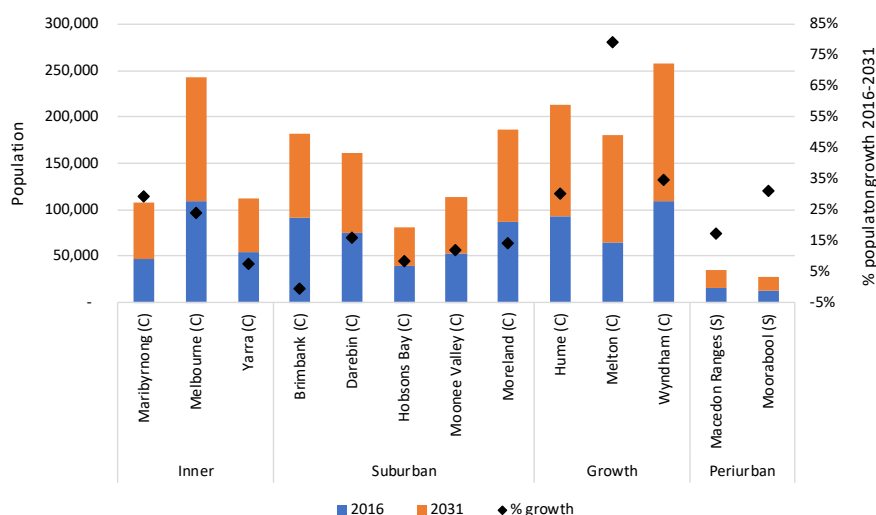
Given the highest prevalence is in the 15-44 age group, this cohort is of key interest. It is estimated that there are 851,000 people aged 15-44 years in the NWMPHN area, with this population projected to increase by 24 per cent to 1,052,000 people by 2031 (Figure 3, below).

Figure 3: Historical and forecast population of people aged 15 to 44 years in NWMPHN catchment (ABS ERP, VIF2016)



Within the region, the municipalities of Melbourne and Wyndham have the largest number of people aged 15-44 years. Additionally, Melton is forecast to have the highest proportional growth in the cohort, of more than 75 per cent, by 2031 (Figure 4, below).

Figure 4: 2016 and forecast 2031 population of people aged 15-44 by LGA NWMPHN catchment (ABS Census and VIF2016)



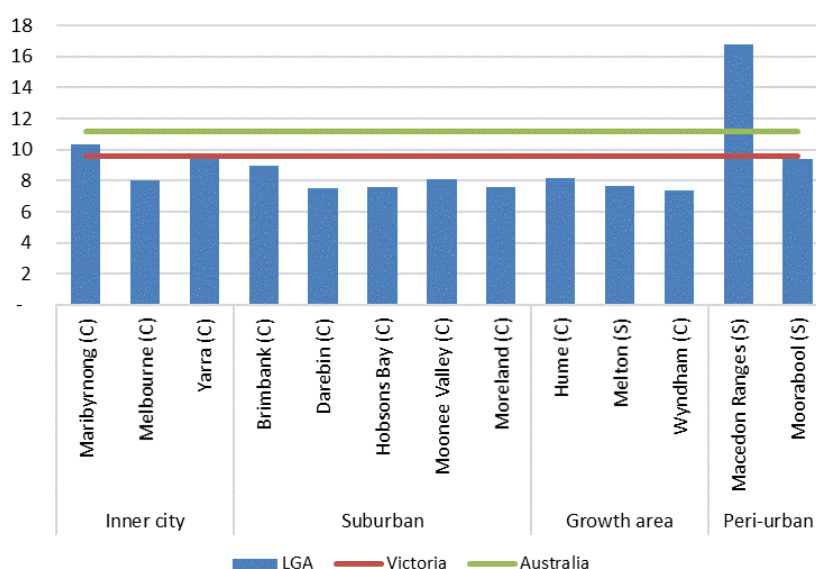
Analysis of suicide rates across local government areas illustrates a variation in incidence across the NWMPHN area, with most areas lower than the Victorian and Australian average rate (Figure 5). Macedon Ranges is the only municipality that has a rate that is statistically significantly higher than the Australian rate (Table 8).

With regard to youth suicide mortality (15-24 years), Macedon Ranges is again the municipality with the highest rate (Figure 6), although it is not significantly different to the overall Australian rate (Table 10).

These data illustrate the variation in population rates across areas. When combined with the estimated population in the target age group, it is apparent that the highest volume of suicide is likely to occur in the Melbourne, Brimbank and Wyndham municipalities, despite having low prevalence rates. This is driven by these locations having the highest combination of populations and per capita rates². (Figure 8).

Consistent with these trends, the hospitalization rate for intentional self-harm was lowest in the NWMPHN across all PHNs (84 per 100,00 people), the national rate being 161 per 100,000 people (Figure 7).

Figure 5: Deaths from suicide and self-inflicted injuries, 0 to 74 years 2010 to 2014 Average annual ASR per 100,000 (PHIDU, 2017)



² AIHW, Healthy Communities: Hospitalisations for mental health conditions and intentional self-harm in 2014-15. 2017

Figure 6: Youth mortality: Deaths of persons aged 15 to 24 years, 2010 to 2014, Average annual ASR per 100,000 (PHIDU, 2017)

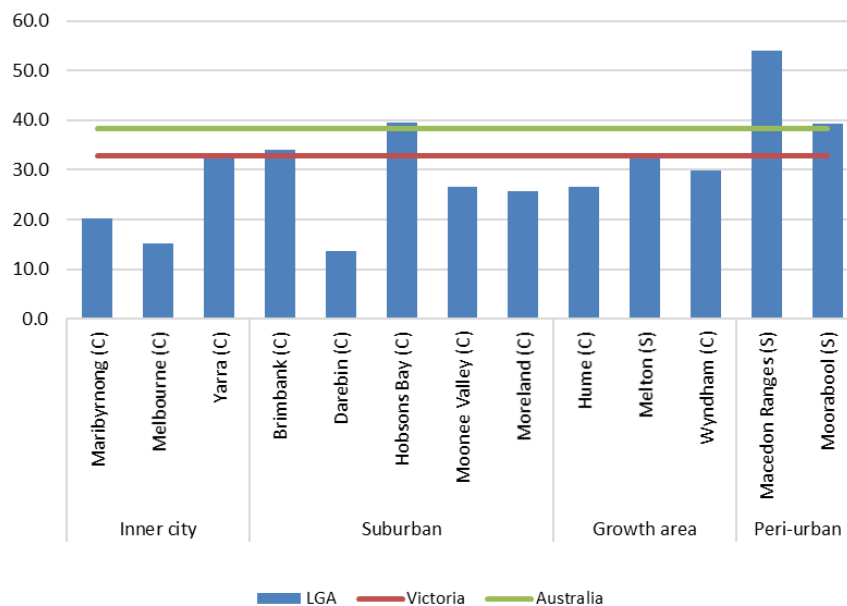
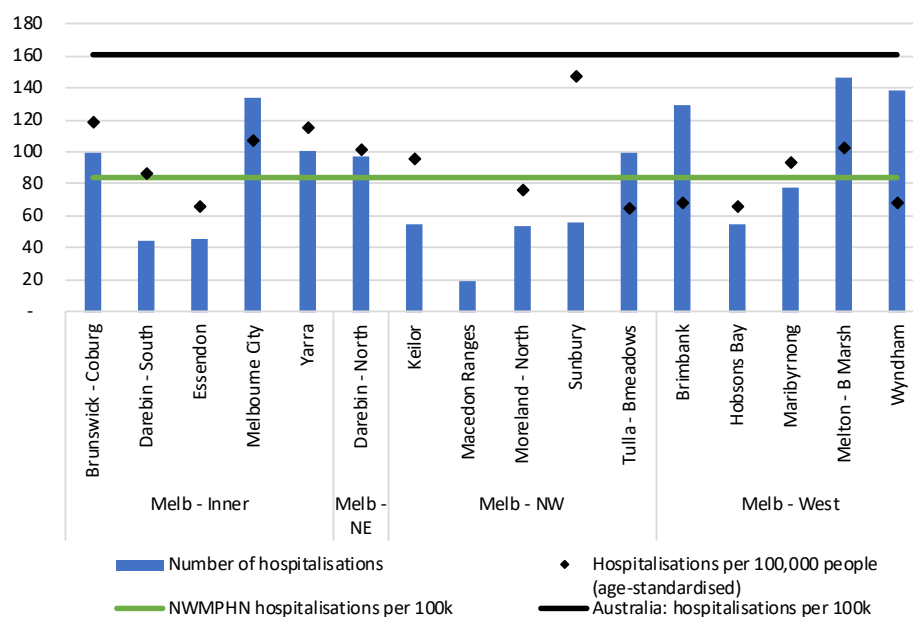
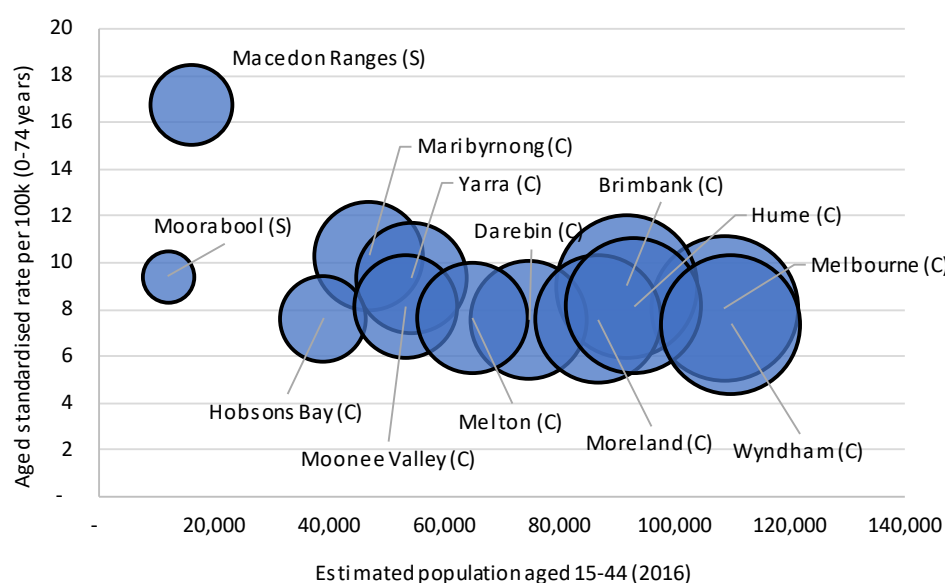


Figure 7: NWMPHN SA3, national and metropolitan/regional hospitalisations for intentional self-harm (same day and overnight), 2014–15



Source: Healthy Communities: Hospitalisations for mental health conditions and intentional self-harm in 2014-15 (2017)
<https://www.myhealthycommunities.gov.au/our-reports/mental-health-and-intentional-self-harm/february-2017/web-update>

Figure 8: Estimated incidence of suicide by LGA – NWMPHN. Bubble size notates the estimated number of suicides by LGA.



Source: NWMPHN analysis of ABS ERP, PHIDU 2017.

5.1 Other demographic features

The incidence of suicide and hospitalisation's due to self-harm has been demonstrated to be higher across some demographic groups. These include:

- disadvantaged communities
- remote communities
- Aboriginal and Torres Strait Islanders with
 - a. the suicide rate is nearly triple the national rate (5.2 per cent vs 1.8 per cent) and the age standardised all causes Aboriginal death rate was double that of non-Indigenous (25.5 vs 12.5 per 100,000).
 - b. Intentional self-harm rates for children and young people aged 5-17 years was 4 times greater in Indigenous than non-Indigenous people (9.3 vs 1.8 per 100,000)³.

Additionally, recent studies of serving and ex-serving Australian Defence Force (ADF) personnel has illustrated a non-statistically significant lower rate among serving men and a statistically significant higher rate among ex-serving men, potentially pointing to an unmet need for suicide prevention interventions when people leave the ADF.⁴

³ Lifeline. Statistics on Suicide in Australia. 2015 [cited 2017 18/08/2017]; Available from: <https://www.lifeline.org.au/about-lifeline/lifeline-information/statistics-on-suicide-in-australia>

⁴ Australian Institute of Health and Welfare 2016. Incidence of suicide among serving and ex-serving Australian Defence Force personnel 2001–2014. Cat. no. PHE 212. Canberra: AIHW. ISBN 978-1-76054-044-9 (PDF)

6 CAUSES OF SUICIDE

Beaton et al reported in 2012 that suicide was correlated to a diagnosis of major depression, relationship breakdown, previous suicide attempts, alcohol use, financial factors, rural location and Indigenous heritage⁵. Additionally, media reports on suicide and sexual orientation have also been shown to influence suicide⁶⁷.

6.1 Depression

The prevalence of depression varies across life stages and a range of other factors. The proportion of people that had a lifetime prevalence of self-reported doctor diagnosed depression or anxiety is approximately a quarter of the population in Victoria. The highest rates were in Moorabool, which Table 1 (below) shows were 1.2 times higher than the Victorian percentage (29.3 per cent vs 24.2 per cent).

Additionally, the prescribing rates of antidepressant medicines can be used to estimate the variation in need across the region, although variation in practice standards and patients behaviours may be factors in the differences between areas. These data do, however, illustrate higher prescribing rates in the outer metropolitan growth areas and peri-urban fringe.

Table 1: Antidepressant medicines dispensing, MBS (ASR per 100,000) and proportion of persons with lifetime prevalence of self-reported doctor diagnosed depression or anxiety

Region	LGA Name	Antidepressant medicines dispensing, MBS (ASR per 100,000)			% depression or anxiety
		<17 years	18-64 years	>65 years	
Inner city	Maribyrnong (C)	5,294	79,564	171,740	16
	Melbourne (C)	2,679	64,188	150,572	27
	Yarra (C)	6,191	88,414	174,144	24
Suburban	Brimbank (C)	3,609	73,869	162,730	17
	Darebin (C)	4,400	83,782	192,085	28
	Hobsons Bay (C)	5,311	94,601	185,406	17
	Moonee Valley (C)	5,345	83,522	176,533	24
	Moreland (C)	5,389	85,855	199,186	25
Growth area	Hume (C)	3,807	84,455	194,029	20
	Melton (C)	5,983	101,895	227,323	22
	Wyndham (C)	6,714	83,950	192,342	23
Peri-urban	Macedon Ranges (S)	8,097	96,307	178,070	20
	Moorabool (S)	13,379	140,447	236,626	29
NWMPHN		5,861	89,296	187,753	23
Victoria		8,813	121,623	195,907	24

Source: Victorian Population Health Survey 2014, NHPA 2014-15

⁵ Beaton, S.a.F., P., Insights into men's suicide. InPsych, 2012. 34(4).

⁶ Council, A.P., Specific Standards on Coverage of Suicide. 2014, Australian Press Council.

⁷ Rosenstreich, G., LGBTI People Mental Health and Suicide. . 2013, National LGBTI Health Alliance: Sydney

Hospitalisation data for 2014-15 within the NWMPHN showed age-standardised rates per 100,000 (Table 2, below). These data illustrate a variation in aged standardised rates across the PHN area, with NWMPHN having a rate lower than the Australian average.

Table 2: NWMPHN SA3, national and metropolitan/regional hospitalisations for depression (same day and overnight), 2014–15

SA4	SA3	Number of hospitalisations	Hospitalisations per 100,000 people (age-standardised)	Bed days per 100,000 people (age-standardised)
Melbourne - Inner	Brunswick - Coburg	109	134	1,816
	Darebin - South	41	80	1,185
	Essendon	84	126	1,742
	Melbourne City	87	83	1,424
	Yarra	94	109	1,652
Melbourne - NE	Darebin - North	87	87	1,440
Melbourne - NW	Keilor	55	89	1,453
	Macedon Ranges	20	77	1,567
	Moreland - North	77	102	1,377
	Sunbury	51	127	1,334
	Tullamarine - Broadmeadows	108	72	1,024
Melbourne - West	Brimbank	137	71	1,089
	Hobsons Bay	84	99	1,623
	Maribyrnong	84	98	1,441
	Melton - Bacchus Marsh	148	108	1,692
	Wyndham	136	74	1,105
North Western Melbourne		1,400	90	1,351
Australian - Metropolitan		-	110	1,748
Australian - Regional		-	132	1,556
National		-	118	1,678

Source: *Healthy Communities: Hospitalisations for mental health conditions and intentional self-harm in 2014-15 (2017)*
<https://www.myhealthycommunities.gov.au/our-reports/mental-health-and-intentional-self-harm/february-2017/web-update> Accessed 20 November 2017

Note: Highlights on a red (poorer performance) to green (better performance) scale. Np= data is not provided as it could lead to the identification of individuals.

6.2 Alcohol use

Alcohol can trigger impulsive behaviours causing people to feel hopeless and depressed. It can cloud judgment and problem-solving and is therefore associated with suicide⁸.

Inner city locations (Melbourne, Yarra and Maribyrnong) are associated with higher rates of alcohol related ambulance use and emergency department presentations.

Alcohol and Drug Information Services (ADIS) report drug treatment episode of care total alcohol rates at 45.4 per 10,000 people in Victoria⁹. Higher rates are reported in Yarra and Maribyrnong for drug treatment episodes of care, at 65.8 and 55 per 10,000 persons respectively (Table 3, below).

Table 3: Alcohol related Emergency Department, Ambulance presentations and ADIS rate ASR per 100,000 (2014-15)

Region	LGA Name	ED presentations, 15-24yo	ED presentations, total	ADIS service rates, total	Alcohol related ambulance episodes
Inner city	Maribyrnong (C)	25	19	55	56
	Melbourne (C)	21	26	32	160
	Yarra (C)	29	30	66	70
Suburban	Brimbank (C)	23	12	37	31
	Darebin (C)	19	14	44	31
	Hobsons Bay (C)	27	16	46	31
	Moonee Valley (C)	20	13	33	31
	Moreland (C)	12	13	48	30
Growth area	Hume (C)	13	9	36	25
	Melton (C)	13	8	36	27
	Wyndham (C)	13	6	32	18
Peri-urban	Macedon Ranges (S)	22	7	44	20
	Moorabool (S)	25	12	37	27
NWMPHN		20	14	42	43
Victoria		25	14	45	34

Source: AODStats

⁸ Australian Institute of Health and Welfare 2016. Incidence of suicide among serving and ex-serving Australian Defence Force personnel 2001–2014. Cat. no. PHE 212. Canberra: AIHW. ISBN 978-1-76054-044-9 (PDF)

⁹ AODstats [Internet]. 2014. Available from: <http://aodstats.org.au/VicLGA/>.

6.3 Financial factors

Financial stress may play a role in suicide. It has been suggested that the effect of financial crisis can lead to higher levels of suicide, in particular among males¹⁰.

Table 4 (below) reports on data relating to the regional variation in relation to personal financial indicators. Brimbank and Hume have the highest age-standardised rates overall for financial stress and unemployment percentage within the NWMPHN. Melbourne has the highest percentage of low income households under financial stress from mortgage and rent.

Table 4: Personal and financial stressors

Region	LGA Name	>17yo, who could raise \$2k in a week	>17yo, on Govt support income last year	% unemployed	% reporting mortgage or rent stress
Inner city	Maribyrnong (C)	81	22	7	37
	Melbourne (C)	86	9	4	65
	Yarra (C)	90	14	6	38
Suburban	Brimbank (C)	73	27	10	31
	Darebin (C)	83	23	6	31
	Hobsons Bay (C)	84	21	6	28
	Moonee Valley (C)	88	19	5	27
	Moreland (C)	84	22	7	30
Growth area	Hume (C)	74	25	9	39
	Melton (C)	80	19	8	41
	Wyndham (C)	83	16	7	43
Peri-urban	Macedon Ranges (S)	89	14	3	27
	Moorabool (S)	83	19	6	27
NWMPHN		82	20	7	
Victoria		84	19	6	

Source: Victorian Population Health Survey and ABS Census

¹⁰ Milner A, Hjelmeland H, Arensman E, Leo D. Social-Environmental Factors and Suicide Mortality: A Narrative Review of over 200 Articles. *Sociology Mind*. 2013;3:137-48

6.4 Aboriginal heritage

While suicide is believed to have been a rare occurrence among the Aboriginal and Torres Strait Islander people of Australia in pre-colonial times, it has become increasingly prevalent over recent decade. Rates accelerated after the 1980s, albeit with variations in rates and in geographical distribution from year to year.¹¹

For example, the Royal Commission into Aboriginal Deaths in Custody (RCIADIC, 1991) drew attention to the links between substance misuse and mental health disorders in the years and months before most of the deaths that it investigated. It also highlighted the disproportionate number of these deaths (over three-quarters) where there was a history of having been forcibly separated from natural families as children. The interconnected issues of cultural dislocation, personal trauma and the ongoing stresses of disadvantage, racism, alienation and exclusion were all acknowledged by the Commission as contributing to the heightened risk of mental health problems, substance misuse and suicide.¹²

The Aboriginal population in the NWMPHN area was estimated to be 10,144 at the 2016 Census. This is 0.6 per cent of the total NWMPHN population, a smaller proportion than the total Victorian rate of 0.85 per cent.

Among the 13 LGAs in NWMPHN, Moorabool has the highest population proportion of Aboriginal residents compared to non-Aboriginal (1.1 per cent), followed by Melton (0.9 per cent).

The LGA's with the highest total number of Aboriginal people are Wyndham, Hume and Melton. This profile of location is a meaningful change in 2016, from the longstanding profile of Darebin as the municipality with the highest number of Aboriginal persons. This results in these growth areas being the location of 44 per cent of the Aboriginal people within the region (Table 5, below).

Table 5: Proportion of Indigenous population to the total population

Region	LGA name	2011 popn.	2016 popn.	% 2016 LGA popn.	% of NWMPHN 2016	Growth 2011-2016	% growth 2011-2016
Inner city	Maribyrnong (C)	324	429	0.5%	4.2%	105	32%
	Melbourne (C)	262	471	0.3%	4.6%	209	80%
	Yarra (C)	318	386	0.4%	3.8%	68	21%
Suburban	Brimbank (C)	700	818	0.4%	8.1%	118	17%
	Darebin (C)	1,156	1,167	0.8%	11.5%	11	1%
	Hobsons Bay (C)	393	490	0.6%	4.8%	97	25%
	Moonee Valley (C)	315	430	0.4%	4.2%	115	37%
	Moreland (C)	702	811	0.5%	8.0%	109	16%
Growth area	Hume (C)	1,046	1,455	0.7%	14.3%	409	39%
	Melton (C)	789	1,283	0.9%	12.6%	494	63%
	Wyndham (C)	1,144	1,742	0.8%	17.2%	598	52%
Periurban	Macedon Ranges (S)	194	297	0.6%	2.9%	103	53%
	Moorabool (S)	259	365	1.1%	3.6%	106	41%
NWMPHN		7,602	10,144	0.6%	100.0%	2,542	33%
Victoria		37,992	47,796	0.8%		4,979	13%

Source: ABS Census 2011 and 2016

¹¹ Australian Bureau of Statistics (ABS) (2012) Suicides in Australia, 2010. Catalogue 3309.0. Canberra: ABS.

¹² Dudgeon P, Milroy H, Walker R, (2014) Working together: Aboriginal and Torres Strait Islander mental health and wellbeing principles and practice. Department of The Prime Minister and Cabinet.

6.5 Relationship breakdown

Risk of suicide has been shown to be high among people that have gone through a relationship breakdown, especially younger males aged 15-24 years¹³.

While the prevalence of relationship breakdown is not reported by age group, the ABS Census reports on the marital status of Australians. Data for 2016 in the table below shows the percentage of people that have been divorced or separated in the NWMPHN, with the highest proportions in Moorabool and Hobsons Bay.

Table 6: Percentage of people divorced or separated (ABS Census, 2016)

Region	LGA Name	% divorced or separated
Inner city	Maribyrnong (C)	10%
	Melbourne (C)	7%
	Yarra (C)	10%
Suburban	Brimbank (C)	11%
	Darebin (C)	10%
	Hobsons Bay (C)	12%
	Moonee Valley (C)	10%
	Moreland (C)	9%
Growth area	Hume (C)	11%
	Melton (C)	11%
	Wyndham (C)	10%
Peri-urban	Macedon Ranges (S)	11%
	Moorabool (S)	12%
Victoria		11%

Source: ABS Census 2016

6.6 Other causes

Reporting suicides and suicidal behaviours in the media can negatively impact and increase the risk of those who are vulnerable to suicide¹⁴. Media reports of suicides can also lead to imitative suicidal behaviours (copycat behaviour). A resource by Mindframe offers advice to support media professionals when reporting on suicide and mental illness¹⁵. Recently, researchers in the USA found that internet searches for suicide after airing the Netflix series, “13 Reasons Why”, was significantly greater than expected¹⁶. There have also been potential benefits of media noted in playing a positive role in suicide prevention. Help-seeking reporting may encourage adaptive behaviour in susceptible individuals¹⁷.

About 42 per cent of people aged 16-64 years with severe disability have had suicidal thoughts, including 18 per cent who have attempted suicide¹⁸. The age standardised rate of people receiving

¹³ Wyder M, Ward P et al. Separation as a suicide risk factor. Journal of Affective Disorders. 2009; 116:208-13

¹⁴ Hawton K, Williams K. Influences of the media on suicide : Researchers, policy makers, and media personnel need to collaborate on guidelines. BMJ : British Medical Journal. 2002;325(7377):1374-5

¹⁵ Everymind. Reporting suicide and mental illness: A Mindframe resource for media professionals. Newcastle: Department of Health; 2014

¹⁶ Ayers JW, Althouse BM, Leas EC, Dredze M, Allem J. Internet searches for suicide following the release of 13 reasons why. JAMA Internal Medicine. 2017

¹⁷ Pirkis J, Skehan J. Suicide and the media: The role of psychologist. InPsych. 2016;38(1)

¹⁸ 1Welfare AloHa. Health of Australians with disability: health status and risk factors. Canberra Australia: AIHW; 2010.

overall home and community care living in their communities in NWMPHN is shown in Table 7 below. Moorabool, Melton and Macedon Ranges show the highest rates which are 1.4, 1.3 and 1.3 times higher than the Victorian level respectively (121.6, 111.6 and 105.6 vs 84.3).

Table 7: Total instances of assistance in the Home and Community Care Program (PHIDU 2012/13)

Region	LGA Name	Total instances of assistance (ASR per 1000)
Inner city	Maribyrnong (C)	89
	Melbourne (C)	96
	Yarra (C)	94
Suburban	Brimbank (C)	71
	Darebin (C)	79
	Hobsons Bay (C)	76
	Moonee Valley (C)	70
	Moreland (C)	83
Growth area	Hume (C)	85
	Melton (S)	112
	Wyndham (C)	75
Peri-urban	Macedon Ranges (S)	106
	Moorabool (S)	122

The trans pathways study surveyed trans individuals aged 14-25 and parents with a trans child aged 25 years or younger. It revealed that mental health related issues were common with trans gender youth; 75 per cent of participants had at some time been diagnosed with depression, 72 per cent with an anxiety disorder, 8 per cent self-harmed and 48 per cent attempted suicide¹⁹.

¹⁹ Strauss P, Cook A, Winter S, Watson V, Wright Toussaint D, Lin A. Trans Pathways: the mental health experiences and care pathways of trans young people. Perth: Telethon Kids Institute; 2017

6.7 Suicide Prevention and treatment

A Black Dog Institute 2016 report offered nine evidence based intervention strategies included in the Australian system approach model that PHNs could implement²⁰. These strategies were:

- Individual based: Aftercare and crisis care, psychosocial and pharmacotherapy treatments, GP capacity building and support, frontline staff training and gatekeeper training.
- Population based: School programs, community campaigns, media guidelines and means restrictions.

Prioritising these strategies regarding the existing suicide prevention activities within the NWMPHN is recommended.

6.8 After care and crisis care

People that have attempted suicide have a higher chance of subsequent suicide²¹. Reaching out to people that have attempted suicide when they leave hospital is achieved by ensuring there is a chain of care that links general hospitals and community aftercare services.

Table 8 (below) provides data on the distribution of hospital presentation for suicide attempts, with 8120 presentations identified between 2008/09-2015/16, with the highest volume from Wyndham, Hume and Brimbank. The highest rate per 100,000 was found in Moorabool, followed by Maribyrnong and Wyndham, at 193.5, 146.8 and 134.8 respectively

Table 8: Hospital presentation with a diagnosis of suicide attempt/ideation (VEMD 2008/09-2015/16)

Region	LGA Name	Presentation Count	Rate per 100K
Inner city	Maribyrnong (C)	639	146.8
	Melbourne (C)	380	61.3
	Yarra (C)	399	109.1
Suburban	Brimbank (C)	1034	94.0
	Darebin (C)	860	106.3
	Hobsons Bay (C)	641	130.6
	Moonee Valley (C)	212	54.5
	Moreland (C)	462	57.5
Growth area	Hume (C)	1115	110.1
	Melton (S)	770	124.0
	Wyndham (C)	1382	134.8
Peri-urban	Macedon Ranges (S)	76	99.1
	Moorabool (S)	150	193.5

Figure 9 (below) illustrates the hospital presentation by age-group of people that have been discharged with a diagnosis of suicide attempt from within the NWMPHN area. Age-groups 15-19 and 20-24 have the highest rate of people that have been discharged with a diagnosis of suicide attempt/ideation harm at 168.5 and 126 per 100,000 persons. When split by gender, females have higher rates than male for 5-29 ages (age-group 15-19 that is 2 times higher, 222.1 vs 112).

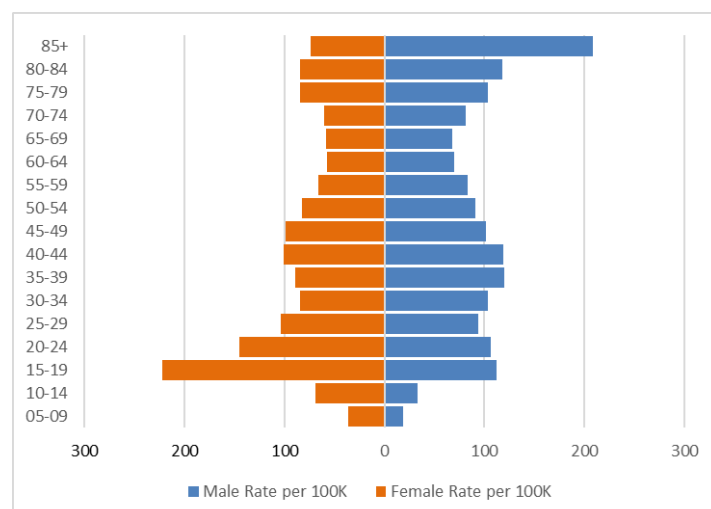
²⁰ Ridani R, Torok M, Shand F, Holland C, Murray S, Borrowdale K, et al. An evidence-based systems approach to suicide prevention: guidance on planning, commissioning, and monitoring. Sydney, Australia: Black Dog Institute.; 2016

²¹ ibid

For other aged groups, the male separation rate is higher, and especially for 85 and over, where men are almost three time higher (208.8 vs 74.2 per 100,000).

Table 11 provides data on the distribution of hospitalisation for intentional self-harm, with 1350 episodes identified in 2014-15, with the highest volume from Melton, Wyndham and Melbourne City.

Figure 9: Suicide attempt/ideation hospital presentation by age group, NWMPHN (2008/09-2015/16) (VEMD)



6.9 Psychosocial and pharmacotherapy treatment

Psychosocial and pharmacotherapy are two treatment options for people that have attempted suicide or people with suicidal thoughts. Table 1 (p.7) shows antidepressant medicines dispensing, MBS (ASR per 100,000) and proportion of persons with lifetime prevalence of self-reported doctor diagnosed depression or anxiety. Moorabool has highest cases of antidepressant medicine dispensing per 100k and proportion of persons with lifetime prevalence of self-reported doctor diagnosed depression or anxiety. This might be a consideration used to treat the highest percentage rate of people with self-reported doctor diagnosed depression or anxiety in that area.

Figure 10 below illustrates where the patients who attempted suicide were referred to before being discharged. 14 per cent of the referrals were to local medical officers and 7.4 per cent were to mental health community services. Seven per cent were not referred to any support services. Data on where they were referred to on departure was missing or not applicable for 61 per cent of the presentations. Figure 11 showed a larger proportion (41 per cent) had medical health community services arranged before discharge, followed by referral to GP (21.8 per cent) and no referral (8.2 per cent) arranged before discharge.

Figure 9: Proportion of presentation for suicide attempt by discharge referral location (POLAR VEMD, 2008/09-2015/16)

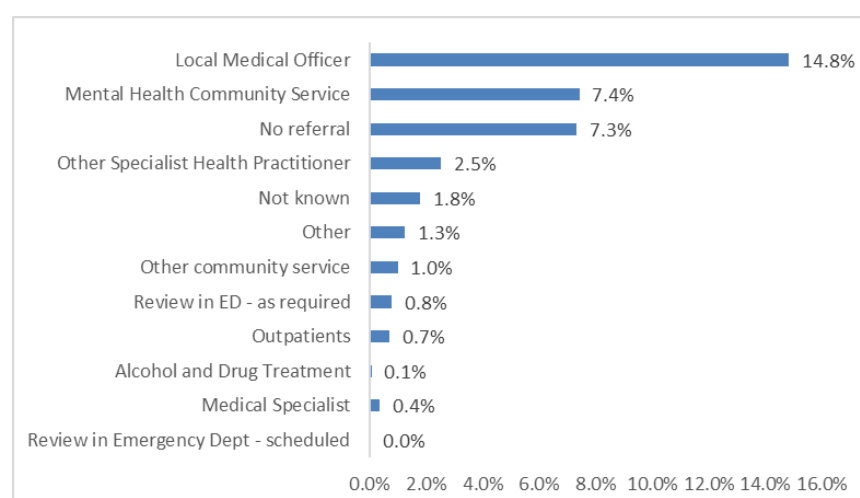
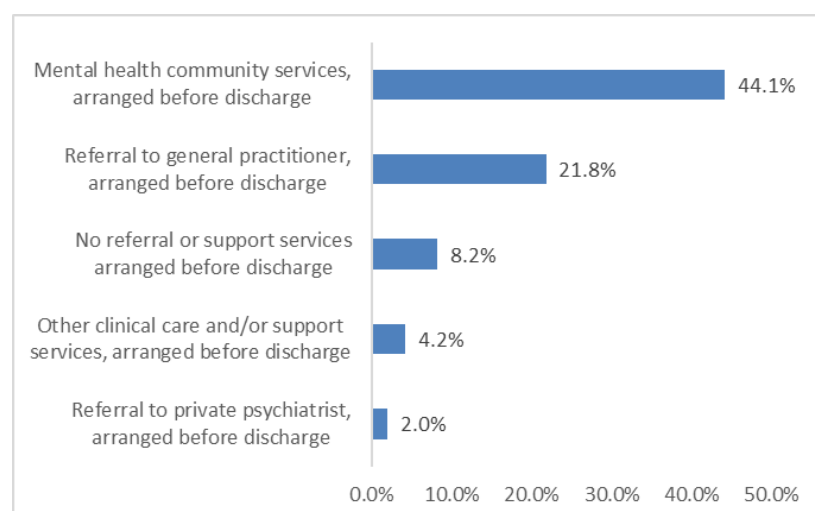


Figure 101: Proportion of separations for suicide attempt by discharge referral location (POLAR VAED, 2012/13-2015/16)



6.10 Community campaigns

To improve mental health literacy in the general population, suicide awareness campaigns are particularly suited to reach at-risk people that would normally avoid seeking help and additionally can improve the public's knowledge of suicide.

Little to no evidence suggests that community campaigns reduce suicidal behaviours, and that is why it should be delivered in conjunction with other strategies like GP capacity building²².

Recently around Australia, R U OK? Conversation Convoy has been visiting over 20 communities to provide resources for communities and individuals to assist in suicide prevention²³.

²² Ridani R, Torok M, Shand F, Holland C, Murray S, Borrowdale K, et al. An evidence-based systems approach to suicide prevention: guidance on planning, commissioning, and monitoring. Sydney, Australia: Black Dog Institute.; 2016

²³ OK? RU. R U OK? Conversation Convoy 2017 [cited 2017 14/09/2017]. Available from: <https://www.ruok.org.au/conversation-convoy>.

6.11 GP capacity building and support and gate keeper training

Having an effective general practitioner care can greatly decrease suicide deaths and attempts, especially when a suicide prevention program is incorporated^{24,25}. Gate keepers are the people most likely to encounter at-risk individuals, for example would be GPS, nurses, cops and teachers²⁶.

There are 540 GP clinics servicing the NWMPHN region and primary care physician education and capacity building is an effective intervention to reduce suicide rates and identify suicidal behaviour²⁷.

Figure 10 and 11 above shows patients being referred to GPs after separation from intentional self-harm (35%), which is higher than other services. The “GP in schools” initiative could be incorporated with the school programs to promote suicide prevention continued care of young individuals.

²⁴ Almeida OP, Pirkis J, Kerse N, Sim M, Flicker L, Snowdon J, et al. A randomized trial to reduce the prevalence of depression and self-harm behavior in older primary care patients. *Annals of family medicine*. 2012;10(4):347-56

²⁵ Saini P, Windfuhr K, Pearson A, Da Cruz D, Miles C, Cordingley L, et al. Suicide prevention in primary care: General practitioners' views on service availability. *BMC Research Notes*. 2010;3(1):246

²⁶ Ridani R et al

²⁷ Ridani R et al

7 OTHER DATA

Table 9: Deaths from suicide and self-inflicted injuries, 0 to 74 years, 2010 to 2014, Average annual ASR per 100,000 (+/- 95% confidence intervals) (PHIDU, 2017)

Region	LGA Name	Measure (+/-95%CI)	Significance
Inner city	Maribyrnong (C)	10.3 (7.1 - 13.5)	*
	Melbourne (C)	8.1 (5.8 - 10.3)	
	Yarra (C)	9.4 (6.5 - 12.2)	
Suburban	Brimbank (C)	9.0 (7.0 - 10.9)	*
	Darebin (C)	7.5 (5.5 - 9.6)	**
	Hobsons Bay (C)	7.6 (5.0 - 10.2)	*
	Moonee Valley (C)	8.1 (5.7 - 10.5)	*
	Moreland (C)	7.6 (5.6 - 9.5)	**
Growth area	Hume (C)	8.1 (6.2 - 10.1)	**
	Melton (C)	7.6 (5.3 - 9.9)	*
	Wyndham (C)	7.4 (5.5 - 9.2)	**
Peri-urban	Macedon Ranges (S)	16.8 (11.1 - 22.4)	*
	Moorabool (S)	9.4 (4.3 - 14.5)	
Victoria		9.6 (9.2 - 9.9)	**
Australia		11.2 (11.0 - 11.4)	

Note: * = significantly different to Australian rate at 95%; ** = significant different to Australian rate at 99%

Table 10: Youth mortality: Deaths of persons aged 15 to 24 years, 2010 to 2014, Average annual ASR per 100,000(+/- 95% confidence intervals) (PHIDU, 2017)

Region	LGA Name	Measure (+/-95%CI)	Significance
Inner city	Maribyrnong (C)	20.2 (8.3 - 32.2)	*
	Melbourne (C)	15.2 (9.1 - 21.3)	
	Yarra (C)	32.3 (16.8 - 47.7)	
Suburban	Brimbank (C)	34.1 (24.5 - 43.6)	
	Darebin (C)	13.7 (6.3 - 21.2)	
	Hobsons Bay (C)	39.5 (22.8 - 56.2)	
	Moonee Valley (C)	26.6 (14.9 - 38.2)	
	Moreland (C)	25.7 (16.1 - 35.4)	
Growth area	Hume (C)	26.6 (18.0 - 35.2)	*
	Melton (S)	33.0 (20.4 - 45.6)	
	Wyndham (C)	29.9 (20.1 - 39.8)	
Peri-urban	Macedon Ranges (S)	53.9 (25.7 - 82.2)	
	Moorabool (S)	39.4 (10.6 - 68.2)	
Victoria		32.9 (31.1 - 34.7)	**
Australia		38.3 (37.3 - 39.2)	

Note: * = significantly different to Australian rate at 95%; ** = significant different to Australian rate at 99%

Table 11: NWMPHN SA3, national and metropolitan/regional hospitalisations for intentional self-harm (same day and overnight), 2014–15

SA4	SA3	Number of hospitalisations	Hospitalisations per 100,000 people (age-standardised)	Bed days per 100,000 people (age-standardised)
Melbourne - Inner	Brunswick - Coburg	100	118	1,044
	Darebin - South	44	86	771
	Essendon	46	66	570
	Melbourne City	134	107	669
	Yarra	101	115	1,007
Melbourne - NE	Darebin - North	97	101	422
Melbourne - NW	Keilor	55	96	804
	Macedon Ranges	19	np	np
	Moreland - North	54	76	306
	Sunbury	56	147	753
	Tullamarine - Broadmeadows	99	64	294
Melbourne - West	Brimbank	129	68	357
	Hobsons Bay	55	66	262
	Maribyrnong	78	93	412
	Melton - Bacchus Marsh	146	102	463
	Wyndham	139	68	340
North Western Melbourne		1,354	84	476
Australian - Metropolitan		-	136	794
Australian - Regional		-	202	887
National		-	161	838

Source: Healthy Communities: Hospitalisations for mental health conditions and intentional self-harm in 2014-15 (2017)
<https://www.myhealthycommunities.gov.au/our-reports/mental-health-and-intentional-self-harm/february-2017/web-update> Accessed 20 November 2017

Note: Highlights on a red (poorer performance) to green (better performance) scale. Np= data is not provided as it could lead to the identification of individuals.