phn
NORTH WESTERN
MELBOURNE

An Australian Government Initiative

Suicide Prevention Profile

November 2018

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1 SUICIDE PREVENTION PROFILE

SUMMARY

- Suicide is the main cause of death among Australians aged 15 to 44.
- In Victoria, age-standardised suicide rates are three times greater for males than females.
- The Aboriginal and Torres Strait Islander age-standardised suicide rate is double the rate of other Australians.
- In the North Western Melbourne Primary Health Network (NWMPHN) catchment, 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 Aboriginal heritage are all correlated with suicide.
- Evidence-based strategies for suicide prevention include: aftercare and crisis care, psychosocial and pharmacotherapy treatment, GP capacity-building and support, and community campaigns.

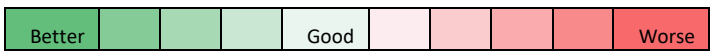
2 ACRONYMS

ABS	Australian Bureau of Statistics
ADIS	Alcohol and Drug Information Services
ASR	Age-Standardised Rates
DALY	Disability-adjusted life years (measure in years of healthy life lost)
ICD	International Statistical Classification of Diseases
LGA	Local government area
LGBTIQ	Lesbian, gay, bi, trans, intersex, queer
MBS	Medicare Benefits Schedule
NSPT	National Suicide Prevention Trail
NWMPHN	North Western Melbourne Primary Health Network
PHIDU	Public Health Information Development Unit
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

Many tables in this profile include shaded columns, with colours that correspond to a 'rank' relative to a comparison population – generally Victoria.

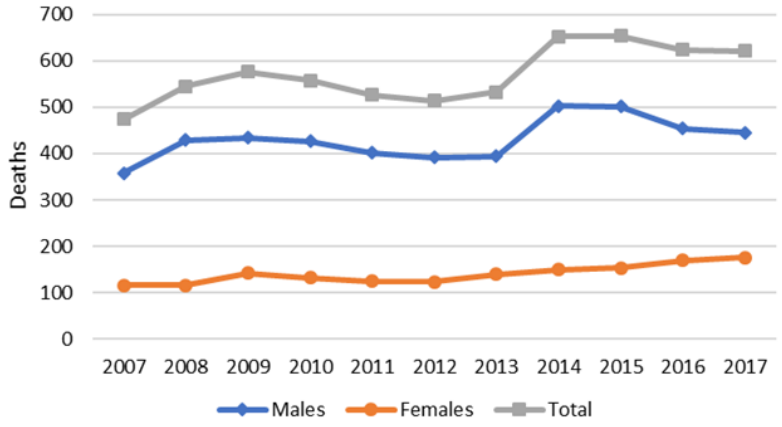
If an LGA in the NWMPHN catchment is performing worse than the comparison population, it is red. The deeper the shade of red, the worse it is performing. Green indicates performance better than the comparison population. Again, the deeper the shade of green, the better it is performing, similar to the sample below. No shading indicates a similar score to the comparison population.



4 ABOUT SUICIDE

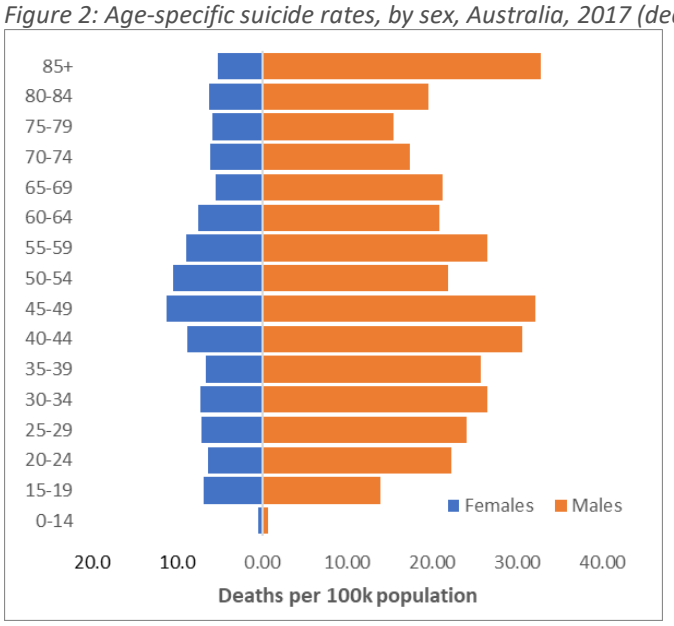
Suicide is the main cause of death among Australians aged 15 to 44. In Victoria, about 600 people lose their lives to suicide each year. Figure 1 shows deaths by suicide in Victoria. (See Figure 12 in the Appendix for deaths by suicide by age group).

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



In 2017, the national age-standardised suicide death rate was 12.6 per 100,000 people. (Victoria's was 9.6 per 100,000 people.) National death rates were significantly higher in males (75.1%) than females (24.9%), as shown in Figure 2.[1]

Figure 2: Age-specific suicide rates, by sex, Australia, 2017 (deaths per 100,000 population)



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

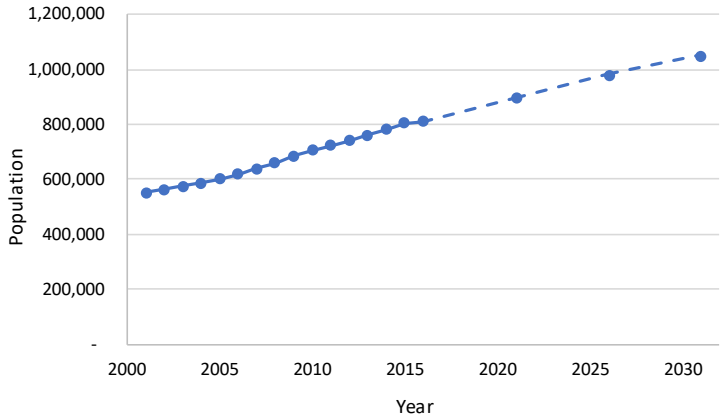
[1] ABS (2016) 3303.0 Causes of Death, Australia, 2016. Released at 11.30am (Canberra time) 27 September 2017

5 TARGET POPULATION FOR NWMPHN

Analysis of the distribution of NWMPHN's target population is essential to understanding potential demand and locations of need.

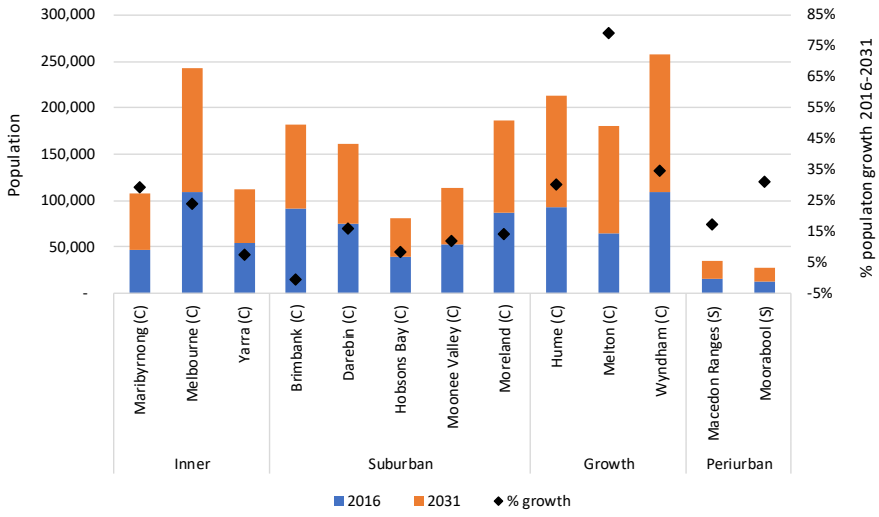
The 15 to 44-year-old age group, with the highest prevalence of suicide, is a focus. About 851,000 people aged 15 to 44 live in the NWMPHN catchment, and this population is expected to increase by 24 per cent to 1,052,000 by 2031 (Figure 3).

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



Within the NWMPHN catchment, the LGAs of Melbourne and Wyndham have the greatest number of people aged 15 to 44. Melton is expected to have the highest proportional growth in the cohort – of more than 75 per cent – by 2031 (Figure 4).

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



Suicide rates in LGAs in the catchment vary. All but three (Hobsons Bay, Macedon Ranges and Moorabool) are lower than the Victorian averages; Macedon Ranges is significantly higher than the Australian average (Figure 5; Table 10). Macedon Ranges also has the highest rate of suicide mortality for ages 15 to 24 (Figure 6), although it is not significantly different to the overall Australian rate (see Table 11 in the appendix).

Combining this data with the estimated population in 2031 for the 15 to 44 target age group suggests the the Melbourne, Brimbank and Wyndham LGAs will be communities of concern. Despite lower prevalence rates, these LGAs have the highest combination of populations and per capita rates [2] (Figure 8).

Consistent with these trends, the hospitalization rate for intentional self-harm was lowest in NWMPHN compared to other 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 2011 to 2015 Average annual ASR per 100,000 (PHIDU, 2018)

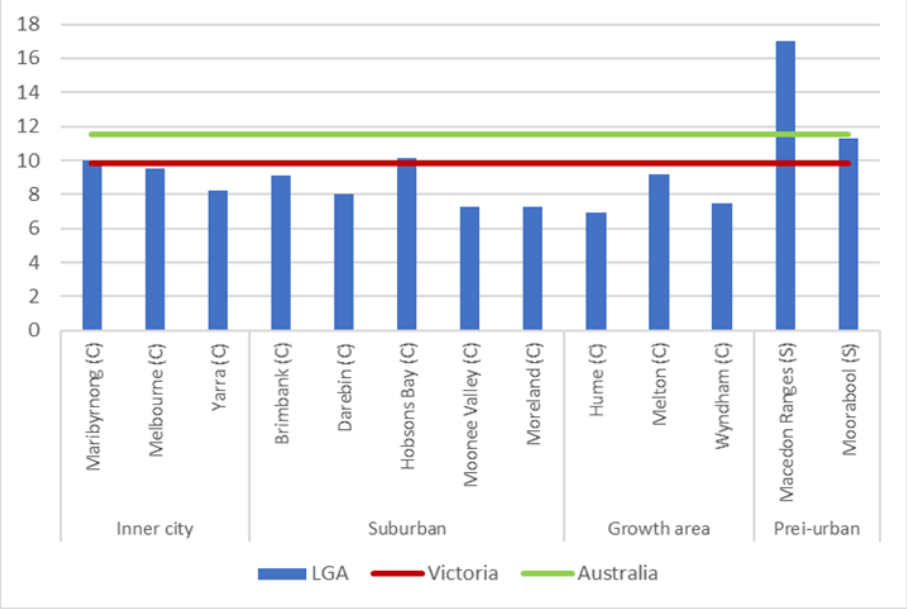
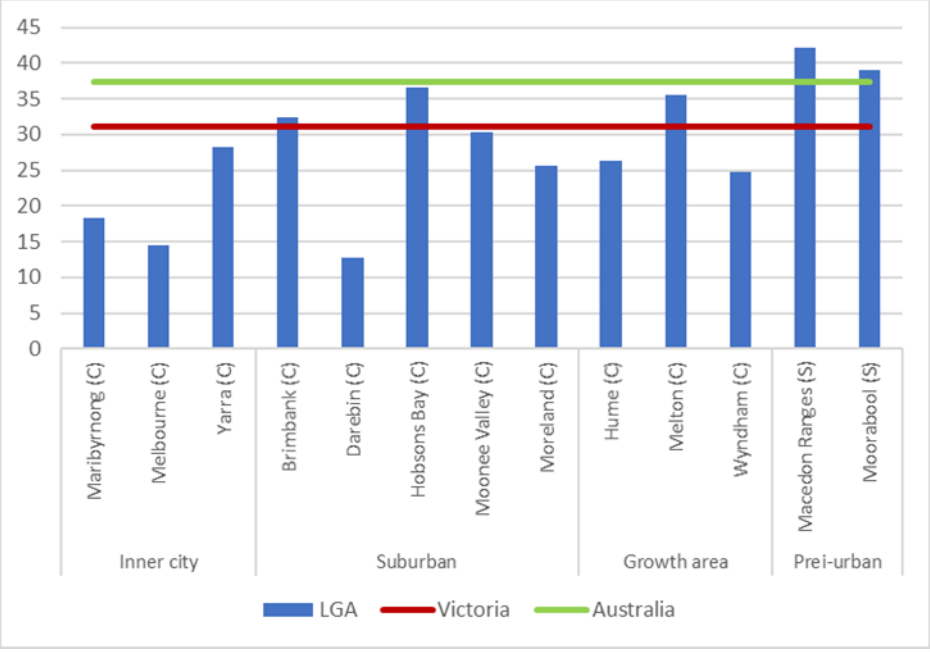
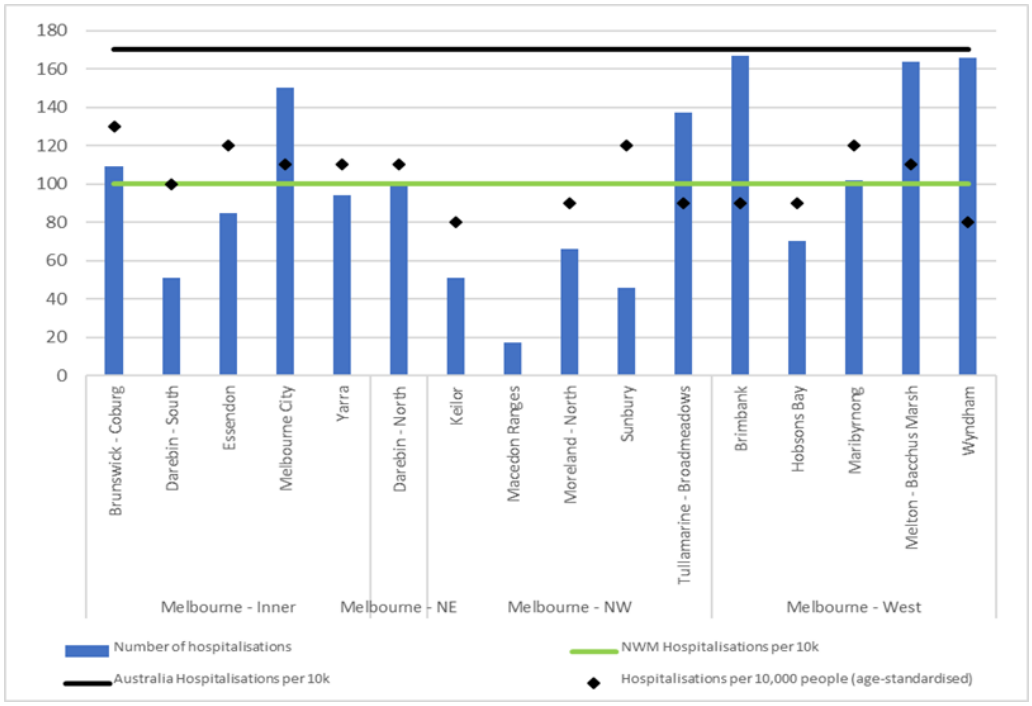


Figure 6: Youth mortality: Deaths of persons aged 15 to 24 years, 2011 to 2015, Average annual ASR per 100,000 (PHIDU, 2018)



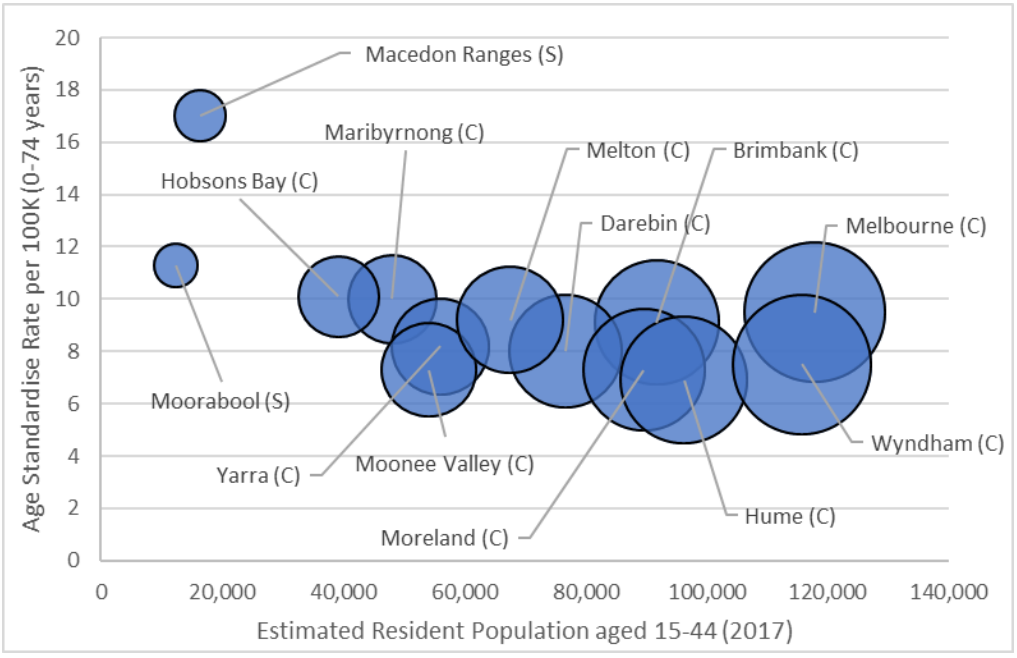
[2] AIHW, Healthy Communities: Hospitalisations for mental health conditions and intentional self-harm in 2014-15. 2017

Figure 7: NWMPHN SA3, national and metropolitan/regional hospitalisations for intentional self-harm (same day and overnight), 2015–16



Source: Healthy Communities: Hospitalisations for mental health conditions and intentional self-harm in 2015-16 (2018)
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 indicates the estimated number of suicides by LGA.



Source: NWMPHN analysis of ABS ERP, PHIDU 2018.

5.1 Other demographic features

A 2015 Lifeline Report showed the incidence of suicide and hospitalisations from self-harm was higher across certain demographic groups, including Aboriginal and Torres Strait Islanders, people in disadvantaged and remote communities, and in the Lesbian, gay, bi, trans, intersex, queer (LGBTIQ) communities.[3]

Among Aboriginal and Torres Strait Islanders, the report showed the suicide rate was nearly triple the national rate (5.2 per cent compared to 1.8 per cent). The age-standardised 'all causes' Aboriginal death rate was double that for non-Aboriginal people (25.5 per 100,000, compared to 12.5 per 100,000).

The report also showed that intentional self-harm rates for children and young people aged 5 to 17 years were four times greater for Aboriginal people than the rest of the population (9.3 per 100,000 compared to 1.8 per 100,000).

Another recent study, of serving and ex-serving Australian Defence Force personnel, found ex-service personnel had a statistically significant higher rate of suicide compared to all Australian men, suggesting the need for greater suicide prevention interventions for this group.[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

A 2012 study published in the journal InPsych found that suicide was correlated to: a diagnosis of major depression, relationship breakdown, previous suicide attempts, alcohol use, financial factors, rural location and Aboriginal heritage.[5]

Media reports on suicide and sexual orientation have also been shown to influence suicide .[6][7]

6.1 Co-morbidities and correlations

National statistics show that in 2017, approximately 80 per cent of intentional self-harm deaths had co-morbidities mentioned as contributing factors of death.[8] Mood disorders, including depression, were the main co-morbidity, present in 43 per cent of deaths (see Table 13 in the Appendix).[9]

Data from the 2014 Victorian Population Health Survey gives an indication of the prevalence of depression among Victorians according to age and other factors.[10] Table 1 shows that about a quarter of Victorians had a lifetime prevalence of self-reported, doctor-diagnosed depression or anxiety. Moorabool LGA had the highest depression rates in the NWMPHN catchment – 1.2 times above the overall Victorian rate.

Rates of antidepressant medication prescription can also be used to estimate degrees of need in the catchment. Data shows higher prescribing rates in the Growth Areas and Peri-Urban LGAs. However, it is important to note that variation in practice standards and patients' behaviour may affect the figures.

[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
[8] ABS (2018). 3303.0 - Causes of Death, Australia, 2017. Canberra, Australian Bureau of Statistics.
[9] ABS (2018). 3303.0 - Causes of Death, Australia, 2017. Canberra, Australian Bureau of Statistics.
[10] DHHS (2016). Victorian Population Health Survey 2014: Health and wellbeing, chronic conditions, screening and eye health, Department of Health & Human Services.

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

		Antidepressant medicines dispensing, MBS (ASR per 100,000)			% depression or anxiety
Region	LGA Name	<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

Table 2 shows hospitalisation data for the NWMPHN catchment in 2015-16 by age-standardised rates per 10,000. Again, there is a variation in age-standardised rates across the NWMPHN catchment, and the overall NWMPHN rate is 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*

6.2 Alcohol use

Alcohol consumption can trigger impulsive behaviour, and lead to feelings of hopelessness and depression. It can cloud judgement and problem-solving and is associated with suicide in some groups. [11]

Drug and alcohol disorders were the second most common co-morbidity, after mood disorders, present in 29.5 per cent of suicide deaths in 2017.[12] In the 25 to 44-year-old age group, the second highest co-morbidity with suicide deaths was 'mental and behavioural disorders due to psychoactive substances' (41.6 per cent of suicides).[13]

In the NWMPHN catchment, suicide deaths in the three inner-city LGAs of Melbourne, Yarra and Maribyrnong co-occurred with higher rates of alcohol-related ambulance use and emergency department presentations.

Table 3 uses data from an Alcohol and Drug Information Services (ADIS) report. In Victoria, drug treatment 'episodes of care' related to alcohol occurred at a rate of 28.8 per 10,000 people.[14] Yarra and Maribyrnong had higher comparable rates, at 40.9 and 34.8 per 10,000 persons respectively.

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, Alcohol and Drug Information Services (ADIS) report

[11] 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)
[12] ABS (2018). 3303.0 - Causes of Death, Australia, 2017. Canberra, Australian Bureau of Statistics.
[13] ABS (2018). 3303.0 - Causes of Death, Australia, 2017. Canberra, Australian Bureau of Statistics.
[14] Lloyd, D. B., et al. (2017). Turning Point: AODstats, Victorian alcohol and drug interactive statistics and mapping webpage.

6.3 Financial factors

Financial stress may contribute to suicide. Studies have indicated that financial crisis can lead to higher levels of suicide, especially among males.[15]

Table 4 shows regional variation in the NWMPHN catchment in relation to personal financial indicators. Brimbank and Hume have the highest age-standardised rates overall for financial stress and percentage of people unemployed.

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

A 2018 study by researchers in Europe found a child's risk of criminal behaviour and self-harm was associated with parents' socio-economic status.[16] The report found that children living in low socio-economic families throughout childhood had higher risks of self-harm and violent offending than counterparts in higher socio-economic families. The report concluded that improved interventions supporting low socio-economic families in developed countries could prevent self-harm and violent behaviour in younger adults.[17]

Table 4, above, shows that Brimbank and Hume have the greatest proportion of low-income households, and the lowest weekly median total household incomes in the catchment.

[15] 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

[16] Mok, P. L. H., et al. (2018). "Family income inequalities and trajectories through childhood and self-harm and violence in young adults: a population-based, nested case-control study." Lancet Public Health 3: 498-507.

[17] Mok, P. L. H., et al. (2018). "Family income inequalities and trajectories through childhood and self-harm and violence in young adults: a population-based, nested case-control study." Lancet Public Health 3: 498-507.

6.4 Aboriginal heritage

Suicide has become increasingly prevalent among Aboriginal and Torres Strait Islanders in recent decades. Rates have accelerated since the 1990s, with variations in geographical distribution and from year to year.[18] In 2017, Aboriginal suicides accounted for a greater proportion of total deaths (5.5%) compared with non-Aboriginal populations (2.0%). Intentional self-harm is ranked as the fifth-most prevalent cause of death in the Aboriginal population but is thirteenth in the non-Aboriginal population.[19]

The 1991 Royal Commission into Aboriginal Deaths in Custody found a link between recent substance misuse and mental health disorder and Aboriginal deaths in custody. In more than three-quarters of cases, the deceased had a history of forcible separation from their natural families as children. The Commission found that the related issues of cultural dislocation, trauma and the ongoing stresses of disadvantage, racism, alienation and exclusion increased the risk of mental health problems, substance misuse and suicide. [20]

The 2016 Census estimated the Aboriginal population in the NWMPHN catchment at 10,144 – 0.6 per cent of the total. In Victoria overall, the Aboriginal population accountants for 0.85 per cent of the total. Of the 13 LGAs in the NWMPHN catchment, Moorabool has the highest population proportion of Aboriginal residents (1.1 per cent), followed by Melton (0.9 per cent).

Until recently, the Darebin LGA had the highest total number of Aboriginal people. Now, the LGAs with the highest total number of Aboriginal people are Wyndham, Hume and Melton. Together, these growth areas account for 44 per cent of the NWMPHN Aboriginal population, as seen in Table 5.

Table 5: Proportion of Aboriginal 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

[18] Australian Bureau of Statistics (ABS) (2012) Suicides in Australia, 2010. Catalogue 3309.0. Canberra: ABS.
[19] 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.
[20] 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

Studies indicate that people who have experienced relationship breakdown are at higher risk of suicide, especially males aged 15 to 24.[21]

The ABS Census collects data on marriages and divorces, but not on relationship breakdown more broadly. Table 6 shows the percentage of people divorced or separated in the NWMPHN catchment. The highest proportions are in the Moorabool and Hobsons Bay LGAs.

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

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

6.6 Other causes

6.6.1.1 Media reporting

Media reporting about suicides and suicidal behaviour can increase the risk of those vulnerable to suicide and can lead to imitative or 'copycat' behaviours.[22]

A resource by Mindframe, The Australian Government's Mindframe National Media Initiative; supports and advises media professionals reporting on suicide and mental illness.[24] Academic reports have also suggested that the media can help prevent suicide, by reporting about 'help-seeking', which may encourage adaptive behaviour in those susceptible to suicide.[25]

A 2017 study by researchers in the United States found that internet searches for 'suicide' increased noticeably in the 19-day period after the release of the suicide-related Netflix series, 13 Reasons Why.[23]

6.6.1.2 Disability

People with severe disability are likely to be at greater risk of suicide. A 2010 report showed that about 42 per cent of people aged 16 to 64 with severe disability had had suicidal thoughts; 18 per cent had attempted suicide.[26] Table 7 shows the age-standardised rate of people in the NWMPHN catchment receiving home and community care in 2012-13. Moorabool, Melton and Macedon Ranges had the highest rates.

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

[22] 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
[23] 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
[24] Everymind. Reporting suicide and mental Illness: A Mindframe resource for media professionals. Newcastle: Department of Health; 2014
[25] Pirkis J, Skehan J. Suicide and the media: The role of psychologist. InPsych. 2016;38(1)
[26] 1Welfare AIoHa. Health of Australians with disability: health status and risk factors. Canberra Australia: AIHW; 2010.

6.6.1.3 Sexuality

Trans gender young people are at very high risk of poor mental health, self-harming and suicide attempts. The 2017 Trans Pathways Study found that four out of five trans young people had engaged in self-harm, and almost one in two trans young people had attempted suicide.[27]

The study surveyed trans people aged 14 to 25, and parents with a trans child aged 25 or younger. It found that mental health issues were common among 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 had self-harmed and 48 per cent had attempted suicide[28]

6.6.1.4 Age

Advanced age, combined with chronic illness, may also be a factor in suicide. According to the 2017 ABS age-related associated causes, people aged 65 years and over were more likely to have a chronic health condition present at death than those under 65 years. Cancer was present in about a quarter of suicides of those aged over 85.[29]

Table 8 shows that in the NWMPHN catchment, people in growth areas admitted to hospital for chronic conditions had higher age-standardised rates of suicide. People in Melbourne LGA admitted with cancer as the principal diagnosis had a higher age-standardised suicide rate.

Table 8: Admissions to all hospitals for chronic conditions and cancers (PHIDU 2014-15)

Region	LGA	Admissions for total chronic conditions, all hospitals (ASR, 100k)	Admissions for all cancers, all hospitals (ASR, 100k)
Inner City	Maribyrnong (C)	1419.5	2457.9
	Melbourne (C)	1067.4	3538.7
	Yarra (C)	1098	3040
Suburban	Brimbank (C)	1447.4	2367.6
	Darebin (C)	1461.1	3125
	Hobsons Bay (C)	1347.2	2978
	Moonee Valley (C)	1213.1	2993
	Moreland (C)	1377.8	2783.9
Growth Area	Hume (C)	1810.1	2949.5
	Melton (C)	1711.9	3150.6
	Wyndham (C)	1818.3	3166.7
Peri-Urban	Macedon Ranges (S)	968.8	2922.4
	Moorabool (S)	1463.3	3163.7

[27] 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

[28] 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

[29] ABS (2018). 3303.0 - Causes of Death, Australia, 2017. Canberra, Australian Bureau of Statistics.

7 Suicide Prevention and treatment

NWMPHN is leading two place-based suicide prevention trials in partnership with the Victorian Government and is also part of a National Suicide Prevention Trial (NSPT).

The suicide prevention trials are using local insight and lived experience, applied through a systems-based framework, seeking to impact the rate of suicide.. The trials will also identify new learnings about suicide prevention in at-risk populations.

The place-based suicide prevention trials are located in Macedon Ranges and the Melton and Brimbank Local Government Areas. The focus of the NSPT at NWMPHN is on the LGBTI community, recognising the higher representation in suicide and self harm data.

A 2016 report by Australia's Black Dog Institute, which is dedicated to understanding, preventing and treating mental illness, described nine evidence-based suicide intervention strategies.[30] These have been included in the systems approach model for primary health networks. Strategies are:

- Individual-based, and can include aftercare and crisis care, psychosocial and pharmacotherapy treatments, GP capacity-building and support, frontline training of staff and 'gatekeeper' training. Gatekeepers are those most likely to encounter people at risk of suicide. Gatekeepers can include GPs, nurses, police and teachers.
- Population-based, and can include school programs, community campaigns, media guidelines and means restrictions.

7.1 After care and crisis care

People are more likely to attempt suicide if they have a history of previous attempts, so caring for people who have attempted suicide after they leave hospital is vital. A 'chain of care' must link general hospitals with community aftercare services.

Table 9 shows the distribution of hospital presentation for suicide attempts in the NWMPHN catchment. Wyndham, Hume and Brimbank had the highest number of presentations. Moorabool, Maribyrnong and Wyndham had the highest rates per 100,000 of population.

Table 9: Hospital presentation with a diagnosis of suicide attempt/ideation (VEMD 2008/09-2015/16)

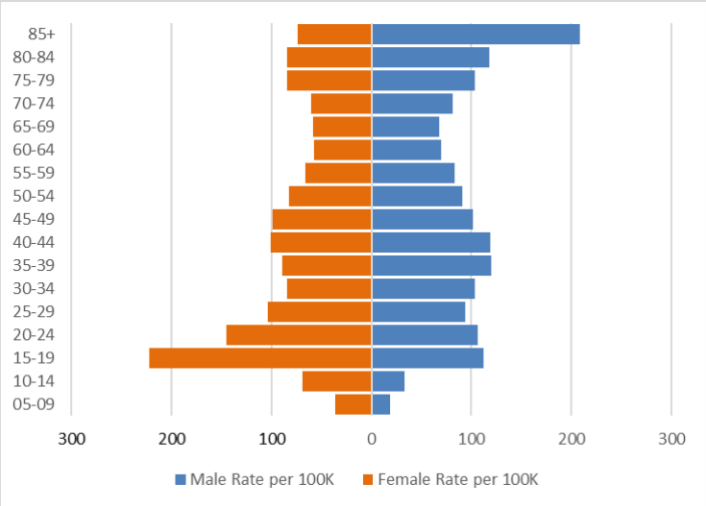
Region	LGA Name	Presentation Count	Rate per 100K
Inner city	Maribyrnong (C)	639	146.8
	Melbourne (C)	380	61.3
	Yarra (C)	399	109.1
Suburban	Brimbank (C)	1034	94.0
	Darebin (C)	860	106.3
	Hobsons Bay (C)	641	130.6
	Moonee Valley (C)	212	54.5
	Moreland (C)	462	57.5
Growth area	Hume (C)	1115	110.1
	Melton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

[30] 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

Figure 9, below, shows people in the NWMPHN catchment discharged from hospital with a diagnosis of a suicide attempt, by age group. Those aged 15 to 19, and 20 to 24, were more likely to be discharged with a diagnosis of 'suicide attempt/ideation harm'. When analysed by gender, females had higher rates than males for age groups spanning five to 29 years. For all other age groups, the male rate was higher. The rate for men 85 and over was almost three times that for women.

Table 12 and Table 13, in the Appendix, shows the distribution of hospitalisation for intentional self-harm and bipolar mood disorders. Most hospitalisations (rates for 100K) for intentional self-harm were in the Brimbank, Melton, Wyndham and Melbourne LGAs. The most hospitalisations for bipolar mood disorders were in Wyndham, Essendon and Yarra LGAs.

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



7.2 Psychosocial and pharmacotherapy treatment

Treatment options for people who have attempted suicide, or people with suicidal thoughts, are psychosocial therapy and pharmacotherapy either used in combination or on their own.

Table 1 shows Medicare data on dispensing of antidepressant medicines in the NWMPHN catchment, and the proportion of people with a lifetime prevalence of self-reported, doctor-diagnosed depression or anxiety.

Moorabool had the highest cases of antidepressant medicine dispensing per 100,000 of population, and the highest proportion of people 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, shows where those who attempted suicide were referred to before being discharged from public hospitals designated to emergency departments. Fourteen per cent of referrals were to local medical officers, and 7.4 per cent were to mental health community services. Seven per cent of people were not referred to any support services. In 61 per cent of cases, data on referrals at discharge was missing or 'not applicable'.

Figure 11, below, shows that 41 per cent of those discharged had medical health community services arranged before being discharged from hospitals and health services. About 20 per cent had a referral to a GP arranged. About 8 per cent had no referral arranged before discharge.

Figure 10: Proportion of presentation for suicide attempt by discharge referral location (POLAR VEMD, 2008/09-2015/16)

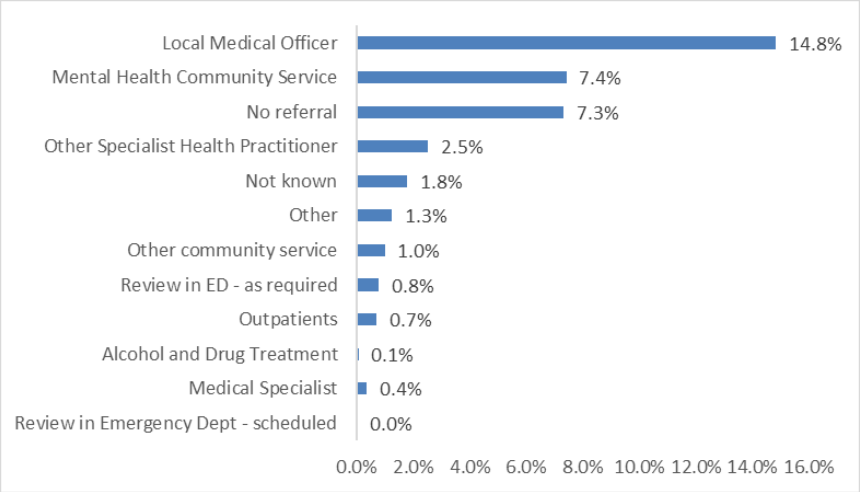
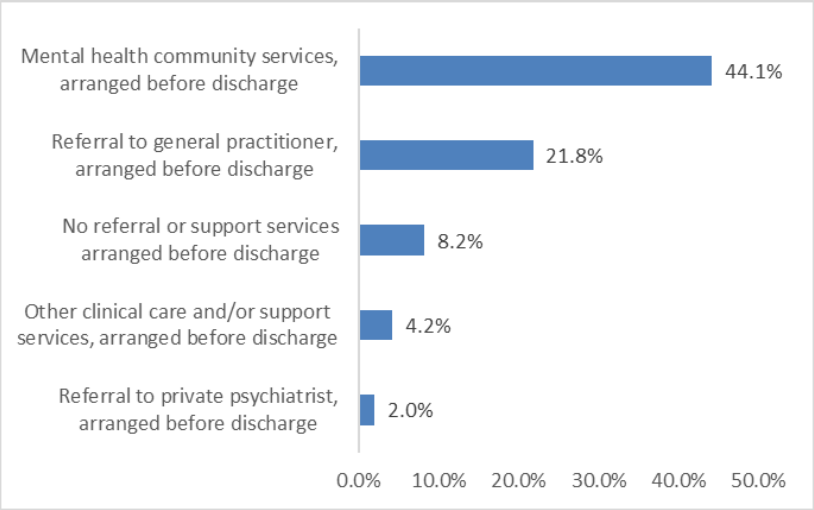


Figure 11: Proportion of separations for suicide attempt by discharge referral location (POLAR VAED, 2012/13-2015/16)



7.3 Community campaigns

There is little evidence to suggest that community campaigns reduce suicidal behaviours. However, suicide awareness campaigns may still help those at risk – especially those who normally avoid seeking help. They also improve general mental health 'literacy' – that is, 'knowledge and beliefs about mental disorders which aid their recognition, management or prevention'.[31]

Any campaigns must be delivered in conjunction with other strategies, such as GP capacity-building.[32]

Since 2017, the 'R U OK?' Conversation Convoy has visited more than 20 communities throughout Australia, providing resources for communities and individuals in an effort to prevent suicide and improve Mental Health.[33]

[31] 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
[32] 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
[33] OK? RU. R U OK? Conversation Convoy 2017 [cited 2017 14/09/2017]. Available from: https://www.ruok.org.au/conversation-convoy.

7.4 GP capacity building and support and gate keeper training

'Gatekeepers' are those most likely to encounter people at risk of suicide, including GPs, nurses, police and teachers. [34]

Studies have shown that effective GP care can significantly decrease suicide deaths and attempts – especially when incorporated with a suicide prevention program. [35] [36] Primary care physician education and capacity-building is an effective intervention to identify suicidal behaviour and reduce suicide rates.[37].

There are 540 GP clinics servicing the NWMPHN region. Figure 10 and Figure 11, above, show referrals to GPs after separation from intentional self-harm (35%), which is higher than other services.

The Victorian 'Doctors in Secondary School' program funds GPs to visit as many as 100 government secondary schools for up to one day a week and NWMPHN is involved in delivery of this project across 21 schools in the region. Schools can incorporate the program with their own programs, and amongst providing a range of health care supports, aim to support Mental Health, prevent suicide and promote continued care of students.

7.5 NWMPHN Interventions

The Victorian Suicide Prevention Framework 2016-25 aims to halve the state's suicide rate over 10 years. In line with this aim, NWMPHN along with PHNs across Victoria, have partnered with the Department of Health and Human Services to trial a new systems-based approach to suicide prevention. NWMPHN are leading two place-based suicide prevention projects in the LGAs of Melton/Brimbank and Macedon Ranges.

NWMPHN is supporting the design and delivery of place-based targeted projects in Brimbank/Melton and Macedon Ranges which are informed by detailed data from various source including: the Victorian Coroners Prevention Unit, the Victorian Injury Surveillance Unit, Ambulance Victoria and Turning Point.

[34] Ridani R et al

[35] 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

[36] 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

[37] Ridani R et al

Although not publicly available in full due to sensitivity, some of the key data findings were:

7.5.1.1 Brimbank

- In Brimbank, the average annual suicide rate was highest for young women aged 20 to 24. In the Greater Melbourne area, the rate was highest for women aged 45 to 54.
- A higher proportion of males in Brimbank were unemployed, and a higher proportion of females in Brimbank were students or retired/pensioners, than in Greater Melbourne.
- The proportion of Brimbank residents who suicided and had been diagnosed with a mental illness was lower than that for Greater Melbourne. A higher proportion of Brimbank residents had suspected mental ill health than in Greater Melbourne.
- A lower proportion of Brimbank people who died by suicide received treatment for mental ill health across all treatment settings within 12 months of suicide than in Greater Melbourne.
- A lower proportion of people who died by suicide in Brimbank had histories of self-harm and/or suicidality (54.2 per cent) than in Greater Melbourne overall (61.1 per cent).
- Compared with Greater Melbourne overall, a higher proportion of males in Brimbank experienced violence involving a partner (as perpetrator or as victim) as an interpersonal stressor, but a lower proportion of females in Brimbank experienced the same. A higher proportion of both males and females in Brimbank experienced conflict with a partner than in Greater Melbourne overall.
- Compared with Greater Melbourne overall, a lower proportion of males in Brimbank experienced financial stressors and a lower proportion of females in Brimbank experienced abuse and substance use and misuse. A lower proportion of both males and females in Brimbank experienced work-related issues, isolation and bullying as stressors.
- Emergency department presentation rates for intentional self-injury and poisoning in the period 2007-2016 generally corresponded with rates for Victoria overall, although rates were higher than the state rates for the period 2010-2014. Hospital admissions rates tended to be lower for Brimbank residents than Victorian residents for most of the period (2007-2016).

7.5.1.2 Melton

- The number of suicides annually in Melton has increased from single to double figures over the past five years.
- The highest average annual suicide rate in Melton was for young women aged 25 to 34. In urban fringe areas overall, the rate was highest for elderly women aged 75 to 84.
- Compared with the broader urban fringe, a higher proportion of females in Melton were responsible for ‘home duties’, and a slightly higher proportion of males and females in Melton were unemployed.
- The proportion of female Melton residents who suicided and were diagnosed with a mental illness (44.4 per cent) was significantly lower than the number diagnosed in the urban fringe overall (69.7 per cent). However, a higher proportion of Melton females had suspected mental ill health.
- A slightly higher proportion of males in Melton were treated as compulsory community patients within 12 months of suicide than males in the urban fringe overall. A significantly

lower proportion of females in Melton received treatment for mental ill health within six weeks of suicide (33.3 per cent) than females in the urban fringe overall (61.8 per cent).

- Compared with the urban fringe overall, a higher proportion of males in Melton experienced family health issues as an interpersonal stressor, and a higher proportion of females in Melton experienced death of, conflict with, and violence involving a partner as stressors.
- Compared with the urban fringe overall, a higher proportion of females in Melton experienced work-related and legal issues, bullying and stressors relating to sexuality and gender, and a higher proportion of both males and females in Melton experienced abuse.
- A higher proportion of females in Melton had contact with the Department of Health and Human Services than females in the urban fringe overall. Contact with the department would relate to child protection or disability services.
- A higher proportion of Melton people who died by suicide had contact with police, courts and corrections within six weeks of suicide than people in the urban fringe more broadly.
- From 2007 to 2016, emergency department presentation and hospital admission rates for intentional self-harm and poisoning for Melton residents were generally very similar to Victorian rates. However, for the period 2010 to 2015, emergency department presentation rates for Melton residents were higher than the overall Victorian.

7.5.1.3 Macedon Ranges

- The highest average annual suicide rate by age group shifted slightly for females in Macedon Ranges, peaking in the 25 to 34 age group. In large shires more broadly, the rate was highest for females aged 35 to 44.
- A greater proportion of people who died by suicide in Macedon Ranges identified as lesbian, gay, bisexual, trans and gender diverse and/or intersex (LGBTI) (7.3 per cent) than in large shires more broadly (2.2 per cent).
- A higher proportion of people who died by suicide in Macedon Ranges were unemployed (31.7 per cent) compared with large shires more broadly (23.9 per cent).
- A higher proportion of males in Macedon Ranges, but a lower proportion of females in Macedon Ranges, were diagnosed with a mental illness compared with people who died by suicide in large shires more broadly. A higher proportion of females had suspected mental ill health in Macedon Ranges than females in the large shires more broadly.
- Compared to the rate for peri-urban areas overall, a higher proportion of people who died by suicide in Macedon Ranges received treatment from GPs in the community for mental ill health, within both 12 months and six weeks of suicide.
- A lower proportion of people who died by suicide in Macedon Ranges had a history of previous suicide attempts than people who died by suicide in large shires more broadly.
- Compared with large shires more broadly, a slightly lower proportion of males in Macedon Ranges experienced separation from a partner, but a higher proportion of males in Macedon Ranges experienced the death of a family member. A higher proportion of females in Macedon Ranges experienced violence involving a partner and/or family, and conflict with family as interpersonal stressors. A higher proportion of both males and females in Macedon Ranges experienced conflict with an acquaintance.
- Compared with large shires more broadly, a slightly higher proportion of males in Macedon Ranges experienced exposure to suicide of another as a stressor, and a higher proportion of

females in Macedon Ranges experienced legal issues, isolation, education-related issues and bullying as stressors. A significantly higher proportion of both males and females in Macedon Ranges experienced work-related and financial issues, but a significantly lower proportion experienced substance use and misuse.

- Emergency department presentation rates for intentional self-injury and poisoning between 2007 and 2016 for Macedon Ranges residents were generally lower than rates for Victorian residents overall, for all but one year of the period. Hospital admission rates for intentional self-injury and poisoning were also mostly lower among Macedon Ranges residents than Victorian residents overall.

7.5.1.4 National Suicide Prevention Trial

As mentioned in the Suicide Prevention and Treatment section on page 21, NWMPHN is part of the National Suicide Prevention Trial (NSPT).

The program aims to gather evidence in relation to suicide prevention activities in local geographical areas of Australia and to further understand which strategies are most effective in preventing suicide in at-risk populations. The trial has been funded by the Commonwealth Department of Health, from 2016 to 2020, and is being run by 11 primary health networks in 12 sites across Australia.

The NSPT has identified seven priority at-risk populations:

- People who have made a suicide attempt or who are at risk of suicide
- Aboriginal and Torres Strait Islanders
- Men aged 25 to 65
- People 65 and older
- Veterans
- LGBTI people
- Young people

Trial sites are working with communities to assess suicide prevention needs in local areas and in priority populations and to implement a range of evidence-based programs to address those needs. Programs include community-based activities such as training for general practitioners and other health workers, training for community leaders, peer support training, cultural programs for Aboriginal and Torres Strait Islanders, as well as services for individuals such as aftercare programs following a suicide attempt.

The NWMPHN NSPT activity is focussed on the LGBTI community and a taskforce of key agencies, stakeholders and representatives from communities has been established to inform and guide this important work.

8 OTHER DATA

Table 10: 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(6.9-13.2)	
	Melbourne (C)	9.5(7.1-11.8)	*
	Yarra (C)	8.2(5.6-10.9)	*
Suburban	Brimbank (C)	9.1(7.2-11.0)	*
	Darebin (C)	8(5.9-10.1)	**
	Hobsons Bay (C)	10.1(7.1-13.1)	
	Moonee Valley (C)	7.3(5.0-9.5)	**
	Moreland (C)	7.3(5.4-9.2)	**
Growth area	Hume (C)	6.9(5.2-8.7)	**
	Melton (C)	9.2(6.7-11.7)	*
	Wyndham (C)	7.5(5.7-9.3)	**
Peri-urban	Macedon Ranges (S)	17(11.4-22.7)	*
	Moorabool (S)	11.3(5.8-16.9)	
Victoria		**9.8(9.4-10.1)**	**
Australia		**11.5(11.3-11.7)**	

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

Table 11: 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)	18.4(7.0-29.8)	*
	Melbourne (C)	14.5(8.7-20.4)	**
	Yarra (C)	28.2(13.9-42.6)	
Suburban	Brimbank (C)	32.5(23.1-41.9)	
	Darebin (C)	12.7(5.5-20.0)	**
	Hobsons Bay (C)	36.6(20.4-52.8)	
	Moonee Valley (C)	30.4(18.0-42.8)	
	Moreland (C)	25.7(16.0-35.3)	*
Growth area	Hume (C)	26.3(17.8-34.8)	*
	Melton (S)	35.5(22.6-48.3)	
	Wyndham (C)	24.7(15.9-33.5)	
Peri-urban	Macedon Ranges (S)	42.1(17.2-66.9)	
	Moorabool (S)	39.1(10.4-67.7)	
Victoria		31.1(29.3-32.8)	**
Australia		37.4(36.4-38.3)	

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

Table 12: NWMPHN SA3, national and metropolitan/regional hospitalisations for intentional self-harm (same day and overnight), 2015-16

SA4 (Intentional self-harm)	SA3	Number of hospitalisations	Hospitalisations per 10,000 people (age-standardised)	Bed days per 10,000 people (age-standardised)
Melbourne – Inner	Brunswick – Coburg	109	13	55
	Darebin – South	51	10	31
	Essendon	85	12	57
	Melbourne City	150	11	42
	Yarra	94	11	110
Melbourne – NE	Darebin – North	101	11	41
Melbourne – NW	Keilor	51	8	26
	Macedon Ranges	17	.	.
	Moreland – North	66	9	37
	Sunbury	46	12	33
	Tullamarine – Broadmeadows	137	9	30
Melbourne – West	Brimbank	167	9	52
	Hobsons Bay	70	9	46
	Maribyrnong	102	12	32
	Melton – Bacchus Marsh	164	11	36
	Wyndham	166	8	39
North Western Melbourne		1576	10	43
Australian – Metropolitan			15	76
Australian – Regional			21	85
National			17	81

Sources: Healthy Communities: Hospitalisations for mental health conditions and intentional self-harm in 2015-16 (2018) https://www.myhealthycommunities.gov.au/our-reports/mental-health-and-intentional-self-harm/february-2017/web-update Accessed 10 October 2018

Note: Np= data is not provided as it could lead to the identification of individuals.

Table 13: NWMPHN SA3, national and metropolitan/regional hospitalisations for bipolar and mood disorders (same day and overnight), 2015-16

SA4 (Bipolar and mood disorders)	SA3	Number of hospitalisations	Hospitalisations per 10,000 people (age-standardised)	Bed days per 10,000 people (age-standardised)
Melbourne – Inner	Brunswick – Coburg	123	13	231
	Darebin – South	103	19	273
	Essendon	145	21	247
	Melbourne City	98	9	114
	Yarra	142	16	292
Melbourne – NE	Darebin – North	124	13	238
Melbourne – NW	Keilor	94	14	138
	Macedon Ranges	17	.	.
	Moreland – North	79	10	206
	Sunbury	41	10	173
	Tullamarine – Broadmeadows	121	8	154
Melbourne – West	Brimbank	115	6	100
	Hobsons Bay	102	11	203
	Maribyrnong	78	9	184
	Melton – Bacchus Marsh	114	9	117
	Wyndham	177	9	166
North Western Melbourne		1673	10	170
Australian – Metropolitan			11	190
Australian – Regional			11	193
National			11	181

Sources: Healthy Communities: Hospitalisations for mental health conditions and bipolar mood disorders in 2015-16 (2018) https://www.myhealthycommunities.gov.au/our-reports/mental-health-and-intentional-self-harm/february-2017/web-update Accessed 10 October 2018

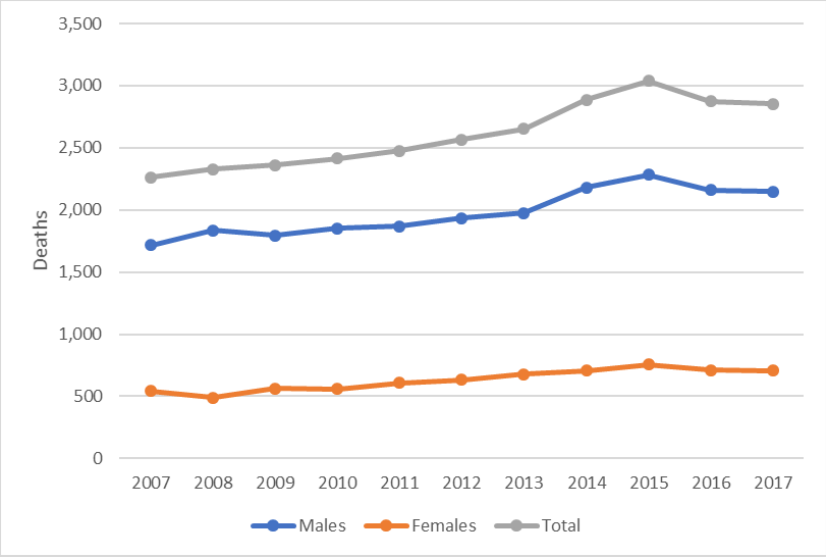
Table 14: Intentional self-harm top 10 multiple causes, proportion of total suicides, by age group, 2017

Cause of death and ICD code	5-24 years	25-44 years	45-64 years	65-84 years	85 years +	All ages
Mood disorders (F30-F39)	34.3	43	49	40.3	26	43
Mental and behavioural disorders due to psychoactive substance use (F10-F19)	25.9	41.6	26.7	10.1	2.6	29.5
Other symptoms and signs involving emotional state (R458) (c)	20.6	16.9	19.5	16.4	11.7	18.1
Anxiety and stress-related disorders (F40-49)	15.2	19.7	17.9	13.6	9.1	17.5
Findings of alcohol, drugs and other substances in blood (R78)	18.5	17	13.7	9.6	7.8	14.9
Schizophrenia, schizotypal and delusional disorders (F20-F29)	3.5	7.9	5.2	2.3	—	5.5
Unspecified mental disorder (F99)	7.2	5	4.3	1.8	—	4.5
Malignant neoplasms (C00-C97, D45-D46, D47.1, D47.3-D47.5)	0.5	0.9	1.9	16.1	24.7	3.7
Diseases of the musculoskeletal system (M00-M99)	0.2	1.7	3.3	11.1	15.6	3.6
Personality disorders (F60-F69)	5.4	5	2	1.3	—	3.5
Chronic pain (R522)	0.5	1.3	3.7	5.3	5.2	2.6
Ischaemic heart diseases (I20-I25)	0.2	0.7	1.8	7.8	16.9	2.3
Chronic lower respiratory diseases (J40-J47)	0.2	0.5	2	6	9.1	1.9
Diabetes (E10-E14)	0.5	0.6	2	5	9.1	1.8
Heart failure (I50-I51)	0.2	0.2	1	5	7.8	1.2
Behavioural disorders usually occurring in childhood and adolescence (F90-F98)	3.7	1.1	0.6	—	—	1.1
Disorders of psychological development (F80-F89)	2.1	0.5	0.1	—	—	0.5

Source: ABS: Causes of Death, Australia, 2017, Intentional self-harm key characteristics

http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/3303.0~2017~Main%20Features~Intentional%20self-harm,%20key%20characteristics~3 Accessed 10 October 2018

Figure 12: Intentional self-harm, Victoria, Number of deaths, Sex, 2007-2017 (ABS, 3303.0 Causes of Death, Australia, 2017)



Source: ABS: Underlying cause of death, all causes, year of occurrence, Australia, 2007-2017, intentional self-harm

http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/3303.0~2017~Main%20Features~Intentional%20self-harm,%20key%20characteristics~3 Accessed 10 October 2018