phn
NORTH WESTERN
MELBOURNE

An Australian Government Initiative

Mental health profile

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1 MENTAL HEALTH PROFILE

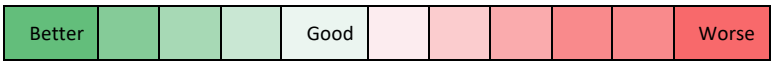
SUMMARY

- Mental illness in the North Western Melbourne Primary Health Network (NWMPHN) catchment is growing rapidly, particularly among adolescents and young adults. This growth is expected to continue.
- Population forecasts suggest that the need for mental health services in the catchment will increase significantly – particularly services for young people living in growth areas. The number of people aged 10 to 24 in the NWMPHN catchment is expected to grow at more than double the rate for Victoria.
- Affordability, access and cultural issues are significant, ongoing challenges include:
  - People in NWMPHN's lower socio-economic areas exhibit much lower 'health-seeking behaviours'. That is, they are less likely to seek help or access services, perhaps for financial or cultural reasons, and are less likely to identify that they or someone they know needs help.
  - English literacy is a key factor in a person's capacity to seek mental health treatment and gain sufficient social support. Two out of five people in NWMPHN were born overseas, and the proportion of people with limited or no English proficiency is higher than the Victorian average in 10 of the 13 local government areas (LGAs) in the NWMPHN catchment.
  - There is a high proportion of refugees in some locations. These communities often have additional mental health needs, with the prevalence often higher relative to the general population.
- Lower health-seeking behaviour in lower socio-economic areas means the prevalence of mental health disorders and conditions may be *underestimated*. This can explain observations that contradict national trends. For example, depression and anxiety is generally more prevalent in parts of Australia with lower median incomes, lower education levels and greater unemployment. Yet areas with similar qualities in the NWMPHN catchment show a lower prevalence of depression and anxiety than the median for Greater Melbourne.
- People in lower socio-economic areas in the catchment also access specialist clinical psychology and psychiatry services at a lower rate, despite indications of need. Affordability and workforce supply of specialists in these areas are likely factors.

2 ANALYSIS NOTES

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

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. 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.

For some analyses, LGAs in the NWMPHN catchment were compared with the median for Greater Melbourne, comprising 31 LGAs. To develop a distribution scale for Greater Melbourne, the 31 Greater Melbourne LGAs were ranked by performance for each indicator. They were then divided into approximately 10 groups – with about three LGAs in each.

3 ABBREVIATIONS

AIHW – Australian Institute of Health and Welfare

ABS – Australian Bureau of Statistics

CALD - Culturally and Linguistically Diverse

LGA – Local Government Area

MBS – Medicare Benefits Schedule

MHSOC – Mental Health System of Care

NMHSPF – National Mental Health Service Planning Framework

NWMPHN – North Western Melbourne Primary Health Network

PBS – Pharmaceutical Benefits Scheme (PBS)

SA2 – Statistical Area 2. Geographical areas built from whole Statistical Areas Level 1, with populations between 3,000 and 25,000 persons

SA3 – Statistical Area 3. Geographical areas built from whole Statistical Areas Level 2, with populations between 30,000 and 130,000 persons

SA4 – Statistical Area 4. Geographical areas built from whole Statistical Areas Level 3, with a minimum of 100,000 persons

SES – Socio-Economic Status

VIF – Victoria in Future

VIFSA – Victorian in Future Small Areas

VPHS – Victorian Population Health Survey

WHO – World Health Organization

4 ABOUT MENTAL HEALTH

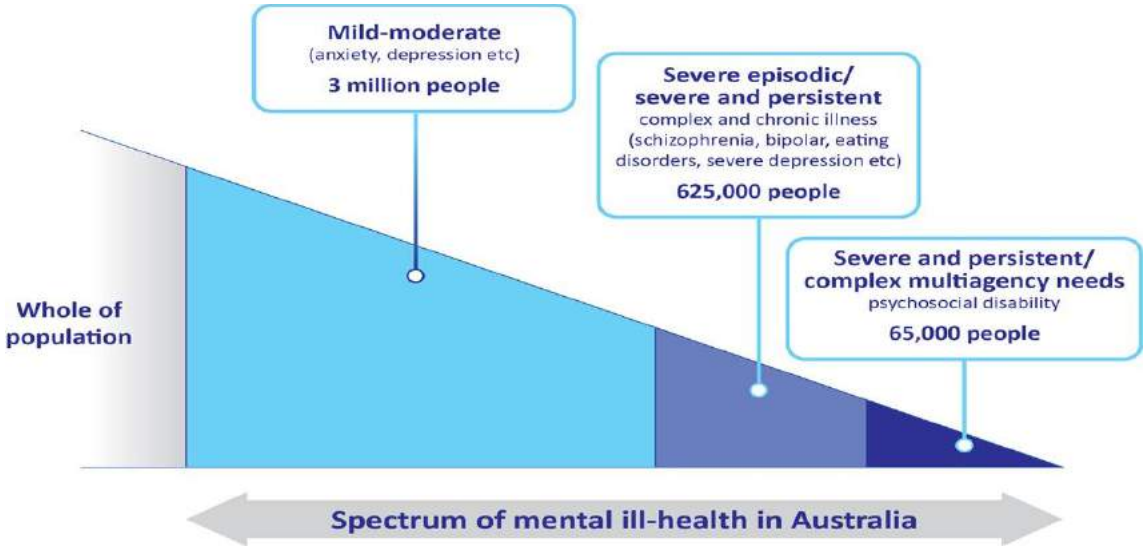
A complex interaction of biological, psychological and social factors contributes to a person's 'mental health'. The World Health Organization defines mental health as a 'state of wellbeing', rather than simply an absence of illness, in which a person 'can cope with the normal stresses of life, can work productively and fruitfully, and is able to contribute to her or his community'.[1]

Mental health can be conceived as a spectrum: at one end, people function well and feel good, at the other, they experience severe mental illness. In the middle are people at risk of developing a mental health condition or experiencing mild or moderate mental illnesses.

Experiences of mental health conditions vary. They can be mild or severe, episodic or chronic. They can affect your ability to function in everyday situations and attract stigma and discrimination.

Figure 1, based on an official 2014 report, illustrates the relative burden of mental illness in Australia. The prevalence of mental illness was greatest in the 'mild to moderate' categories, and lower for severe mental illness.

Figure 1: Spectrum of mental illness in Australia



Source: From 'Contributing lives, thriving communities': Report of the National Review of Mental Health Programmes and Services, National Mental Health Commission Nov. 2014

This data has been used in the National Mental Health Service Planning Framework (NMHSPF) to estimate the prevalence of mental illness and the demand for care according to population categories, as shown in Table 1. The data helps to inform a structured, logical approach to care planning.

[1] World Health Organization, 2014
http://www.who.int/features/factfiles/mental_health/en/

Table 1: Population prevalence of mental illness by severity and age group (NMHSPF)

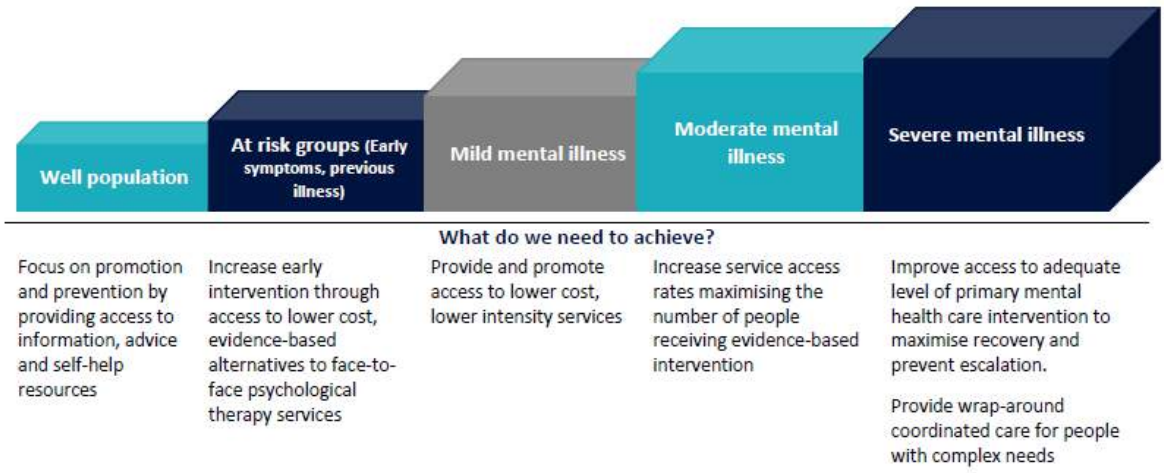
Age	Mild %	Moderate %	Severe %
0-4 years	8.8	4.4	2.2
5-11 years	8.9	4.4	2.2
12-17 years	8.5	4.4	2.3
18-64 years	9.4	4.8	3.3
65+ years	5.8	2.9	2.4
65+ years (behavioural and psychological symptoms of dementia)	2.0	1.2	0.9
All ages	9.0	4.6	3.1
Estimated proportion of people in a standard population who are diagnosed as mentally ill **and** will seek treatment.	50	80	100

Many people with a mental illness can be successfully treated with a range of interventions, and often recover well if not fully. However, it is estimated that two out of three Australians with a mental health condition do not seek help, in particular young people and males.[2]

To better support Australians' mental health, the Commonwealth Government has funded Primary Health Networks to deliver mental health services, and to commission services across the continuum of care, according to need.

Services are delivered and commissioned according to a 'stepped care' model, illustrated in Figure 2, which categorises mental health conditions according to severity, impact on a person's life, and interventional pathways.

Figure 2: Mental health stepped care model



Source: PHN Primary Mental Health and Suicide Prevention Implementation Guidance – Stepped Care, Department of Health

Primary health care services play a central role in identifying people showing signs of mental illness. Appropriate intervention at this crucial stage in the development of mental illness can have significant short and long-term benefits.

[2] Saxena, S., Thornicroft, G., Knapp, M. and Whiteford, H., 2007. 'Resources for mental health: scarcity, inequity, and inefficiency', *The Lancet*, 370(9590), pp.878-889

4.1.1 Population analysis

From 2011 to 2016, the population in NWMPHN catchment increased from 1.38 million to 1.61 million – an increase of 17 per cent, or 234,000. These numbers, if applied to the stepped model's relevant prevalence values, mean an extra 93,000 people in the catchment at risk, or who may develop a mental health condition.

The Victorian Government's population projections indicate that growth will continue at this rate. Victoria in Future (VIF) 2016[3] projects an extra 300,000 residents in the NWMPHN catchment by 2021. Table 2 uses VIF projections, Census data and population prevalence percentages to estimate the number of people in the catchment who may be at risk of, or develop, mental health conditions.

Table 2: Estimated number of people with mental health conditions, by severity, in NWMPHN catchment in 2011, 2016 and 2021.

Stepped model classification		Population prevalence	2011 population estimate ('000s)	2016 population estimate ('000s)	2021 projected estimates ('000s)
At-risk		23.1%	318.6	372.8	445.6
Mild		9.0%	124.1	145.2	173.6
Moderate		4.6%	63.4	74.2	88.7
Severe					
	Overall	3.1%	42.8	50.0	59.8
	Episodic/persistent	2.8%	38.8	45.3	54.0
	Persistent/complex	0.3%	4.0	4.7	5.8
Total		39.8%	548.9	642.2	767.8

Source: NWMPHN analysis of Australian Bureau of Statistics (ABS) Census 2011, ABS Census 2016, and VIF 2016

Individual and societal factors can affect a person's health, including their mental health. Factors can include economic disadvantage; poor housing; lack of social support; and access to, and use of, health services.

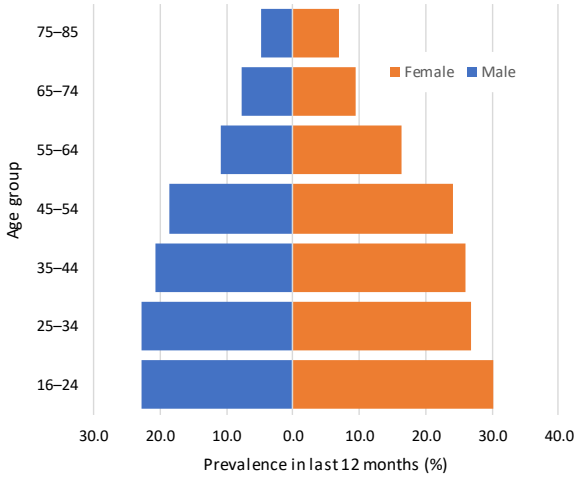
Socio-economic circumstances, such as unemployment, can affect your likelihood of developing a mental health disorder. Studies have shown that people of lower socio-economic status (SES) have a higher prevalence of mental health disorder – particularly depression, and certain anxiety disorders.

Mental illness may also affect your employment, housing quality, and social supports.[4]

In addition, young people experience mental health issues at a higher rate, as shown in Figure 3, below.

[3] Victoria in Future 2016, Department of Environment, Land, Water and Planning, Victorian Government
[4] ABS (2008) 4326.0 – National Survey of Mental Health and Wellbeing: Summary of Results, 2007

Figure 3: Prevalence of any mental health disorder in the past 12 months, by age group – Australia



Source: ABS (2008) 4326.0 – National Survey of Mental Health and Wellbeing: Summary of Results, 2007

Given the social factors that contribute to mental health, certain populations in the NWMPHN catchment are likely to have above-average levels of mental illness. However, assessing the actual prevalence of mental health conditions can be difficult, due to factors including low 'health-seeking' behaviours. These can include people's inability or unwillingness to access services, perhaps for financial or cultural reasons. People may also be less likely to identify that they or someone they know needs help – and be less likely to seek help.

A 2012 report showed that among priority populations, Aboriginal and Torres Strait Islanders were at higher risk of serious mental health issues (see the NWMPHN Aboriginal and Torres Strait Islander population area profile)[5].

4.1.2 NWMPHN response

North Western Melbourne PHN has developed a system of care aimed at ensuring access to quality services and supports across mental health, suicide prevention, and alcohol and other drug treatment services.

The system of care is underpinned by eight principles developed through extensive consultation with consumer, carers and clinicians. The principles guide NWMPHN's commissioning of services with a focus on person centred care; accessibility; cultural appropriateness; integration; outcomes focus; quality and safety; innovation; and flexible and responsive services.

The CAREinMIND™ suite of services commissioned through NWMPHN offers a suite of services from low intensity to more intensive support for people with severe mental illness and complex needs. This approach enables an individual to be matched to the intervention that best suits their current need.

[5] Ferdinand, A., Paradies, Y. & Kelaher, M., *Mental Health Impacts of Racial Discrimination in Victorian Aboriginal Communities: The Localities Embracing and Accepting Diversity (LEAD) Experiences of Racism Survey*. 2012, The Lowitja Institute: Melbourne.

5 TARGET POPULATIONS

5.1 Adolescents and young adults

Adolescence and young adulthood are critical periods of development. They are characterised by significant neurological and behavioural changes that increase a person's vulnerability to particular types of mental illness.[6]

Figure 3 illustrates the higher overall prevalence of mental illness in younger age groups in the NWMPHN catchment. Data from the Australian Institute of Health and Welfare (AIHW) reinforces the need for prevention and early intervention efforts targeted at these cohorts. A July 2018 report by AIHW showed that across Australia:

- The onset of 75 per cent of mental health disorders occurred before age 25.
- Twenty-three per cent of males and 30 per cent of females aged 16 to 24 reported a mental illness in the past 12 months.
- Mental health disorders are the leading contributor (49%) to the burden of disease and injury among those aged 15 to 24, and one in four young people have a mental disorder. [7] [8]
- Suicide was the leading cause of death among people aged 25 to 44 (20 per cent of deaths) and people aged 15 to 24 (31 per cent of deaths). [9]

The NWMPHN catchment has seen significant population growth between 2011 and 2016 in the 10 to 24-year-old age group, with more than half of all Victorian growth in this age group taking place in the NWMPHN catchment.

Seven out of 13 LGAs in the NWMPHN catchment reported growth rates for this age group above the Victorian rate of 6 per cent, as shown in Table 3, below. Wyndham and Melton each grew at nearly four times the Victorian rate. The Melbourne LGA grew nearly nine times as fast as the Victorian rate.

Table 3 also uses the VIF 2016 population projections to estimate that almost 30,000 more 10 to 24-year-olds may live in the catchment by 2021.

Table 3: NWMPHN population and growth of 10 to 24-year-olds, by LGA, from 2011 to 2016, and estimated additional persons in 2021

	LGA	Popn 2011	Popn 2016	Growth 2011-16	% Growth 2011-16	Est. growth 2016-21
Victoria		**1,048,385**	**1,111,195**	**62,810**	**6.0%**	
NWMPHN		**276,209**	**313,766**	**37,557**	**13.6%**	
Inner City	Maribyrnong (C)	12,729	14,104	1,375	10.8%	2,482
	Melbourne (C)	27,601	42,225	14,624	53.0%	5,162
	Yarra (C)	10,951	12,307	1,356	12.4%	1,666
Suburban	Brimbank (C)	38,582	38,563	-19	-0.1%	-1,129
	Darebin (C)	23,326	25,005	1,679	7.2%	1,939
	Hobsons Bay (C)	14,852	14,452	-400	-2.7%	90
	Moonee Valley (C)	19,472	20,635	1,163	6.0%	1,067
	Moreland (C)	25,636	27,129	1,493	5.8%	1,485
Growth Area	Hume (C)	38,718	42,200	3,482	9.0%	1,399

[6] Giedd JN, Keshavan M, Paus T. Why do many psychiatric disorders emerge during adolescence? Nature reviews Neuroscience. 2008;9(12):947-957. doi:10.1038/nrn2513.
[7] Institute Mission Australia and Black Dog. Youth Mental Health Report. Youth Survey 2012-1016. 2016.
[8] The mental health of Australians 2: report on the 2007 National Survey of Mental Health and Wellbeing. 2009.
[9] http://www.aihw.gov.au/deaths/leading-causes-of-death/

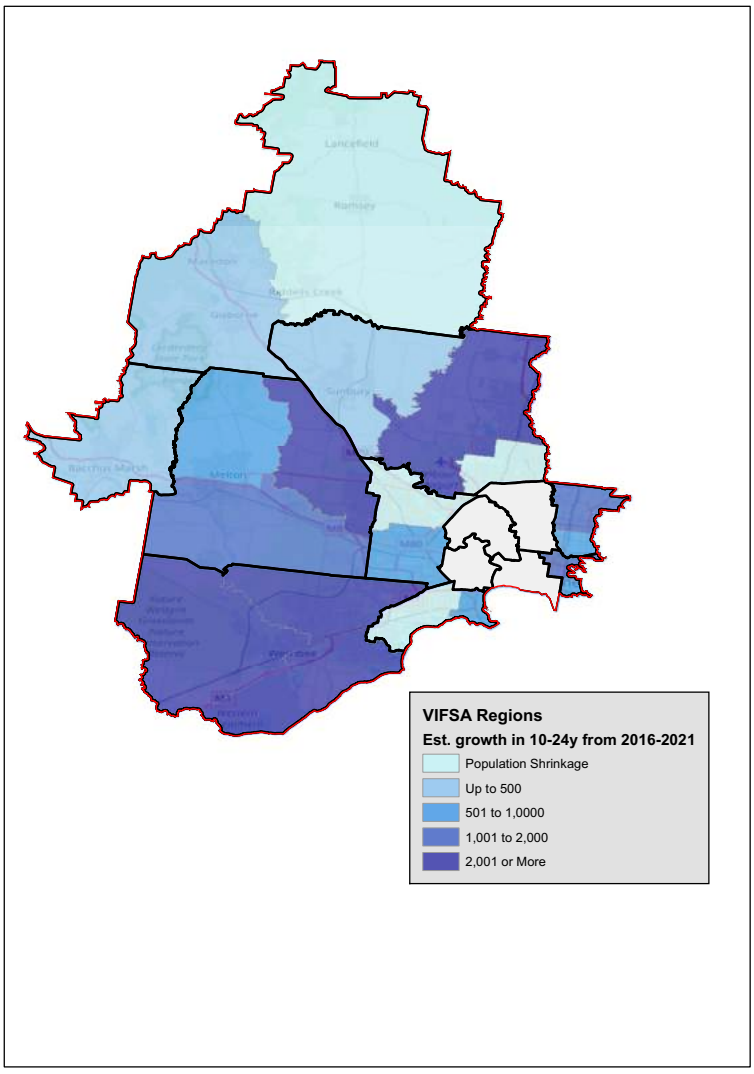
	LGA	Popn 2011	Popn 2016	Growth 2011-16	% Growth 2011-16	Est. growth 2016-21
	Melton (C)	22,537	27,548	5,011	22.2%	6,128
	Wyndham (C)	32,824	40,140	7,316	22.3%	8,859
Peri-Urban	Macedon Ranges (S)	8,093	8,305	212	2.6%	227
	Moorabool (S)	5,742	5,922	180	3.1%	426

Source: ABS Census 2011, ABS Census 2016, and VIF 2016

The Victorian Government has also delineated expected high growth areas, using Victorian in Future Small Areas (VIFSA) geography, illustrated in Figure 4. More than a third of the estimated growth is expected to be in the VIFSA regions of Point Cook-Werribee South and Hoppers Crossing-Truganina in Wyndham LGA, and Caroline Springs-Hillside in Melton LGA.

The population aged 10 to 24 of Keilor-Sydenham in Brimbank LGA, Broadmeadows in Hume LGA, and Altona-Seabrook in Hobsons Bays LGA, is forecast to decline by between 5 to 11 per cent by 2021, compared with 2016 levels.

Figure 4: Projected population growth of people aged 10-24, from 2016-2021 (VIF 2016)



5.2 Culturally and linguistically diverse (CALD) population

NWMPHN catchment has a highly diverse CALD population including significant numbers of refugees and asylum seekers. Migration from around the world continues.

Most CALD groups are present in NWMPHN, many in significantly higher proportions than Greater Melbourne overall.

CALD Australians may have trouble accessing mental health services due to language barriers, different cultural understanding of mental health, cultural stigma and difficulty navigating the Australian health system. These needs can be addressed through culturally appropriate services, which can improve quality of life.[10]

Additionally, refugees may have unique mental health needs. Many have experienced great adversity, and are often recovering from the effects of torture, trauma, grief and anger.

5.3 Country of birth

NWMPHN contains a greater proportion of people born overseas (39.5%) than Victoria (30.4%) and Greater Melbourne (36.2%) overall.[11]

In seven out of the 13 LGAs in the NWMPHN catchment, there is a high proportion (decile 7 and above) of people born overseas. More than half the population in the Melbourne LGA and Moreland LGA were born overseas.

Figure 5 illustrates the variation across the NWMPHN catchment by country of birth, according to the smaller ABS 'statistical area 2' categories (SA2). Brimbank and Melbourne SA2 regions are largely in the 5th Quintile (decile 9 and 10). Most LGAs include suburbs or areas with very high proportions of people born overseas, including:

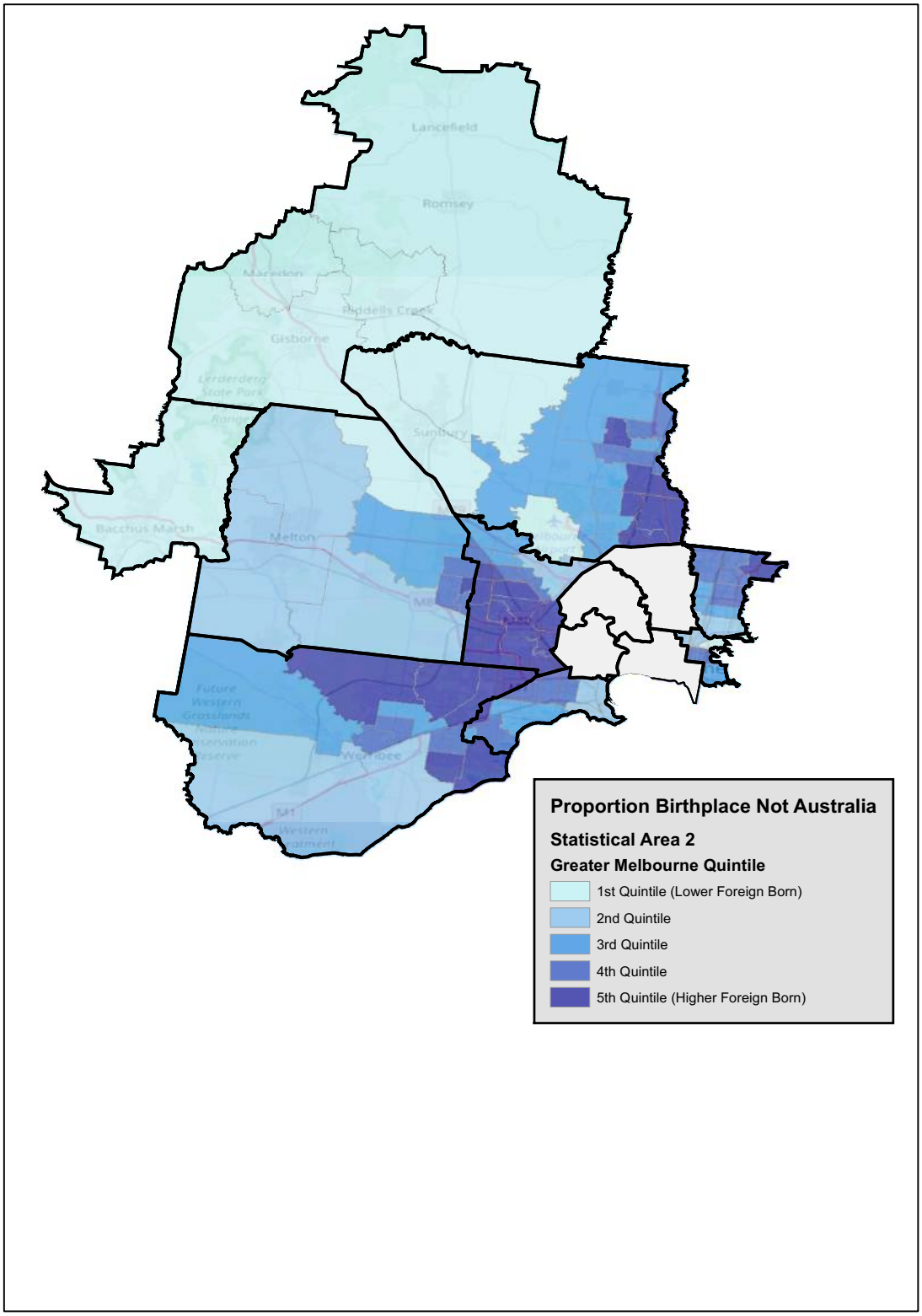
- Maribyrnong (Braybrook and Footscray)
- Darebin (Kingsbury)
- Hobsons Bay (Laverton)
- Moreland (Fawkner)
- Hume (Broadmeadows, Campbellfield-Coolaroo, Meadow Heights, Roxburgh Park-Somerton and Craigieburn West)
- Melton (Burnside Heights)
- Wyndham (Truganina, Point Cook-South, Point Cook-East, Tarneit)

[10] Advocacy brief: Culturally and Linguistically Diverse Mental Health. National Mental Health Consumer & Carer Forum 2014. https://nmhccf.org.au/sites/default/files/docs/nmhccf_-_advocacy_brief_-_cald_-_may_2014.pdf
[11] ABS Census 2016

Table 4: Proportion of LGA population with country of origin not Australia (ABS Census 2016)

LGA		Total population	Proportion with country of origin not Australia	Highest frequency country of origin
Victoria		**1,680,256**	**30.4%**	
Greater Melbourne (LGA median)		**1,520,253**	**36.2% (32.5%)**	
NWMPHN		**601,409**	**39.5%**	
Inner city	Maribyrnong (C)	32,989	43.3%	**Vietnam**
	Melbourne (C)	75,797	63.0%	**China**
	Yarra (C)	25,136	32.1%	**United Kingdom**
Suburban	Brimbank (C)	93,001	51.6%	**Vietnam**
	Darebin (C)	48,845	36.0%	**Italy**
	Hobsons Bay (C)	27,099	32.5%	**United Kingdom**
	Moonee Valley (C)	32,265	29.6%	**Italy**
	Moreland (C)	55,227	36.4%	**Italy**
Growth area	Hume (C)	70,535	38.3%	**Iraq**
	Melton (S)	40,613	32.1%	**India**
	Wyndham (C)	90,246	44.1%	**India**
Peri-urban	Macedon Ranges (S)	5,735	12.9%	**United Kingdom**
	Moorabool (S)	3,921	13.6%	**United Kingdom**

Figure 5: Deciles of proportion of population not born in Australia, SA2, LGA 2016



5.4 English proficiency

English proficiency is related to factors including country of birth, level of education and ethnicity. Lower English proficiency can make it harder to access mental health services and is associated with a greater risk of mental illness.

CALD populations have higher rates of involuntary admissions and emergency department presentations. Misdiagnoses due to language barriers can also jeopardise quality of care and safety. [12]

Census data, in Table 5 and Figure 6, shows that:

- Ten of the 13 LGAs in the NWMPHN catchment had higher proportions of people with low English proficiency than Victoria (4.5%) and Greater Melbourne (5.6%) overall.
- Almost one in seven people in Brimbank, and one in 11 in Maribyrnong, had low levels of English proficiency. This places these LGAs in the highest proportion decile in Greater Melbourne for low English proficiency. The Hume LGA had a high proportion of low English proficiency compared to Greater Melbourne overall.
- Most SA2 populations in Brimbank had very high proportions of 'little or no English proficiency'. This is the case for more than one in five people in these SA2 areas.
- Sunshine North (22.5%) and St Albans – South (21.3%), had among the highest proportions of people with low English proficiency in Victoria.

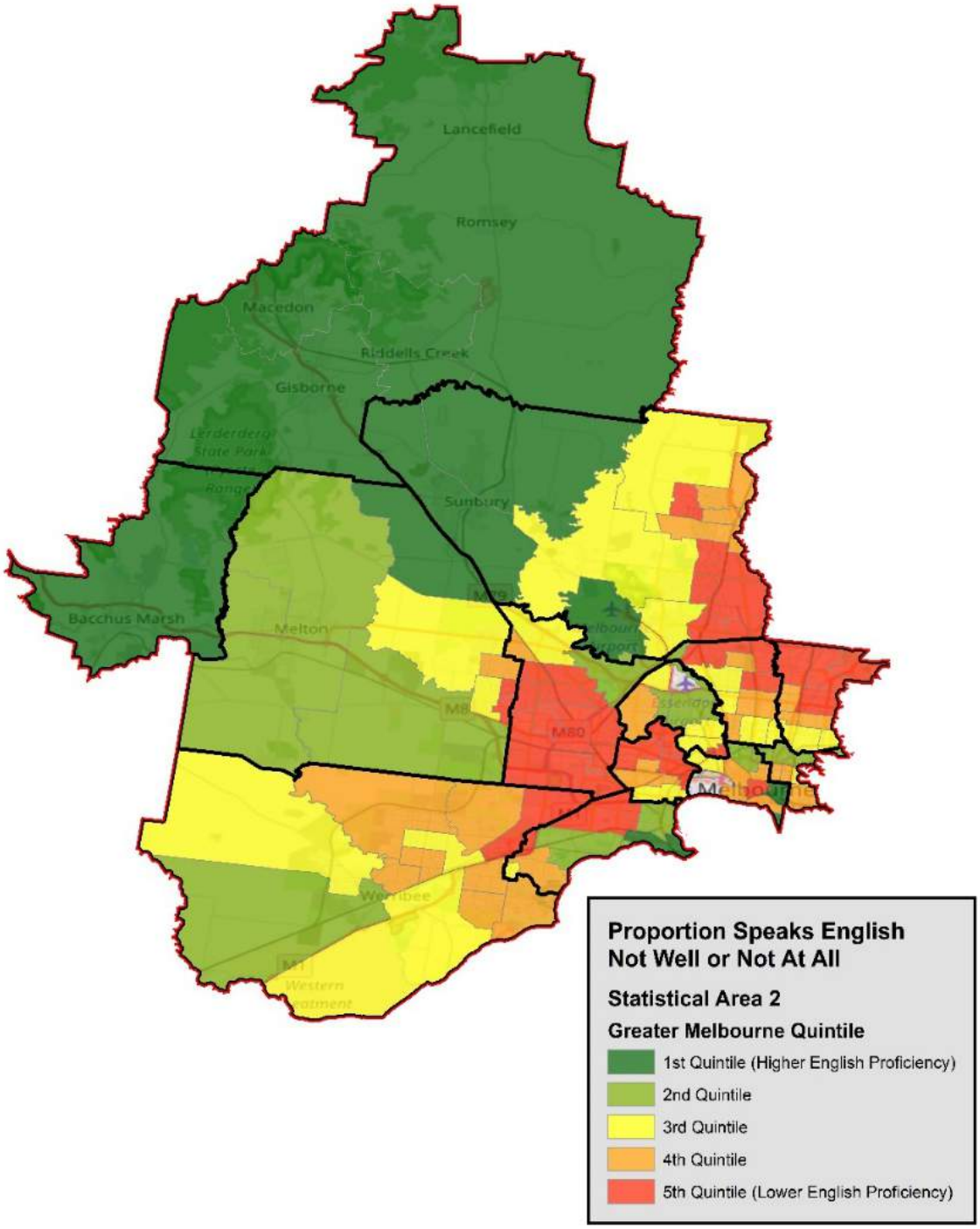
Differences between country of origin and English proficiency data may be at least partially explained by differences in when populations arrived in Australia. Newer waves of migrants have populated Brimbank, Maribyrnong and Hume, compared with those who arrived decades earlier in Moreland. Meanwhile, the Melbourne LGA reflects a younger, more educated intake.

Table 5: Proportion of LGA population who speak English not well or not at all (ABS Census 2016). Colours are relative to Greater Melbourne LGA median

LGA Name		Total	Proportion
Victoria		**266,080**	**4.5%**
Greater Melbourne (LGA Median)		**251,543**	**5.6% (4.2%)**
NWMPHN		**112,237**	**6.8%**
Inner city	Maribyrnong (C)	7,570	9.2%
	Melbourne (C)	9,320	6.9%
	Yarra (C)	4,450	5.1%
Suburban	Brimbank (C)	25,990	13.4%
	Darebin (C)	10,768	7.3%
	Hobsons Bay (C)	4,332	4.9%
`	Moonee Valley (C)	5,464	4.7%
	Moreland (C)	10,334	6.4%
Growth area	Hume (C)	15,974	8.1%
	Melton (S)	5,339	3.9%
	Wyndham (C)	12,437	5.7%
Peri-urban	Macedon Ranges (S)	236	0.5%
	Moorabool (S)	156	0.5%

[12] Johnstone, M., & Kanitsaki, O. (2006). Culture, language, and patient safety: Making the link. International Journal for Quality in Health Care, 18(5), 383-388.

Figure 6: Deciles of proportion of population that speaks English not well or not at all, SA2, LGA 2016 (ABS Census 2016)



6 MENTAL HEALTH IN NWMPHN

6.1 Other determinants of mental health

Certain groups in the NWMPHN catchment have a higher risk of mental illness due to greater vulnerability to social, economic and environmental inequalities.

These disadvantages can accumulate and can affect mental health throughout life. Improving mental health inequalities requires an understanding of the social determinants of health – such as where a person is born, their educational attainment, employment and income.[13]

In addition to the varied distribution of low English proficiency and country of birth presented earlier, there is diversity in personal income, homelessness, employment levels and educational attainment, as shown in Table 6, below. (Maps that illustrate the geographical distribution and variation across the region are provided in the Appendix: Figure 11, Figure 12 Figure 13.)

Table 6: NWMPHN LGA median personal income, education level and unemployment rate (ABS Census 2016) for persons 15 years and over, coloured by Greater Melbourne LGA median

LGA name		Median personal gross weekly income ($)	% Completed Year 12 equivalent	% Completed Year 9 or below	March 2017 unemployment rate (%)
Victoria		**644**	**56.6%**	**11.3%**	**4.9**
Greater Melbourne		**673**	**61.5%**	**11.6%**	
NWMPHN			**61.6%**	**11.6%**	
Inner City	Maribyrnong (C)	703	67.9%	10.3%	7.5
	Melbourne (C)	642	77.8%	2.9%	3.8
	Yarra (C)	1,039	74.8%	6.0%	5.4
Suburban	Brimbank (C)	487	54.3%	17.9%	10.7
	Darebin (C)	650	64.4%	13.0%	6.3
	Hobsons Bay (C)	704	58.4%	12.5%	5.9
	Moonee Valley (C)	744	63.3%	11.1%	4.8
	Moreland (C)	680	65.2%	12.7%	6.4
Growth Area	Hume (C)	529	52.2%	16.1%	10.2
	Melton (C)	658	53.1%	11.9%	8.6
	Wyndham (C)	685	60.6%	9.9%	7.3
Peri-Urban	Macedon Ranges (S)	702	52.3%	9.5%	2.5
	Moorabool (S)	635	43.0%	12.9%	6

[13] *World Health Organization and Calouste Gulbenkian Foundation. Social determinants of mental health. Geneva, World Health Organization, 2014.* http://apps.who.int/iris/bitstream/10665/112828/1/9789241506809_eng.pdf

6.2 Prevalence of mental health conditions

This section shows the estimated prevalence of mental health conditions across the diverse NWMPHN population.

Prevalence of mental health conditions, such as depression and anxiety, would be expected to be related to social determinants, such as employment, income and education, outlined in the previous section.

However, access to services, an ability to recognise the need for help, and willingness to seek assistance also contribute – and potentially complicate – prevalence estimates.

6.2.1 Lifetime prevalence of depression and anxiety

The Victorian Population Health Survey (VPHS)[14] reported the estimated prevalence of anxiety and depression in LGAs. It found a greater prevalence in females (Figure 15 and Figure 16 in the Appendix), consistent with the results of the National Health Survey 2014-15.[15]

Inner City LGAs (Melbourne, Yarra and Maribyrnong) and Suburban LGAs in Melbourne's 'inner north' (Moreland and Darebin) were estimated to have a higher prevalence in total, and across genders, in most cases. Higher prevalence was also observed in the Peri-Urban LGAs (Table 7).

These prevalence estimates are contrary to what is expected, based on national trends relating to socio-economic determinants. Again, it is difficult to accurately assess the prevalence of mental health disorders in a diverse population, including communities and groups less likely to seek help or visit or be aware of health services.

Table 7: NWMPHN LGA prevalence of depression and anxiety (Victorian Population Health Survey 2015)

LGA		Male prevalence % of population	Female prevalence % of population	All persons prevalence % of population
Victoria		**14.6**	**25.0**	**19.9**
NWMPHN		**14.1**	**24.2**	**19.2**
Inner City	Maribyrnong (C)	18.2	23.3	20.7
	Melbourne (C)	15.0	25.1	19.7
	Yarra (C)	24.1	19.0	21.3
Suburban	Brimbank (C)	11.5	22.8	17.4
	Darebin (C)	16.8	24.4	20.5
	Hobsons Bay (C)	12.4	24.2	18.6
	Moonee Valley (C)	12.1	20.5	16.4
	Moreland (C)	14.7	29.4	21.8
Growth Area	Hume (C)	14.4	24.1	18.9
	Melton (C)	11.4	28.0	19.6
	Wyndham (C)	17.3	20.4	18.9
Peri-Urban	Macedon Ranges (S)	13.9	26.0	20.3
	Moorabool (S)	16.9	28.9	22.8

[14] https://www2.health.vic.gov.au/public-health/population-health-systems/health-status-of-victorians/survey-data-and-reports/victorian-population-health-survey/victorian-population-health-survey-2015
[15] National Health Survey: First Results 2014-15, ABS

6.2.2 Psychological distress, social isolation and help-seeking

The Victorian Population Health Survey captured data on self-reported levels of psychological distress, social isolation and help-seeking. Table 8..

High proportions of people experienced high or very high levels of psychological stress, coupled with high or very high levels of social isolation, in the Growth Area LGAs of Melton and Hume, as well as the Suburban LGA of Moreland.

The proportion of the population with high or very high levels of psychological distress was also above the NWMPHN median in Brimbank. Relatively high or very high levels of social isolation are seen in Yarra, Maribyrnong and Wyndham.

Importantly, these higher rates do not correlate with an elevated proportion of people who sought professional help for mental health issues. While the pattern of high levels of psychological distress and social isolation largely overlap the lower socio-economic status (SES) areas – where an elevated prevalence of mental health conditions is expected to occur – lower levels of help-seeking behaviour is observed in these regions.

In these low SES regions, an inability or unwillingness to seek help could contribute to the discrepancy between the expected prevalence, due to socio-economic factors, and the observed prevalence.

Table 8: NWMPHN LGA proportion of population – high/very high levels of psychological distress, and high/very high levels of social isolation and *sought professional help for mental health issues (Victorian Population Health Survey 2015)*

LGA		%High/very high level of psychological distress	%High/very high level of social isolation	% Sought professional help in past 12 months
Victoria		**11.1**	**17.3**	**12.4**
NWMPHN		**11.1**	**17.5**	**12.2**
Inner City	Maribyrnong (C)	10.8	21.0	11.2
	Melbourne (C)	8.8	16.2	13.7
	Yarra (C)	7.8	22.0	16.4
Suburban	Brimbank (C)	14.4	18.2	9.7
	Darebin (C)	11.7	18.1	13.7
	Hobsons Bay (C)	12.1	15.1	13.3
	Moonee Valley (C)	10.1	18.4	10.4
	Moreland (C)	14.4	19.6	10.9
Growth Area	Hume (C)	15.9	20.5	11.2
	Melton (S)	20.7	20.2	10.2
	Wyndham (C)	11.2	20.3	12.0
Peri-Urban	Macedon Ranges (S)	6.9	18.0	11.6
	Moorabool (S)	11.9	9.9	9.2

6.2.3 Adolescent mental health condition – 12-month prevalence

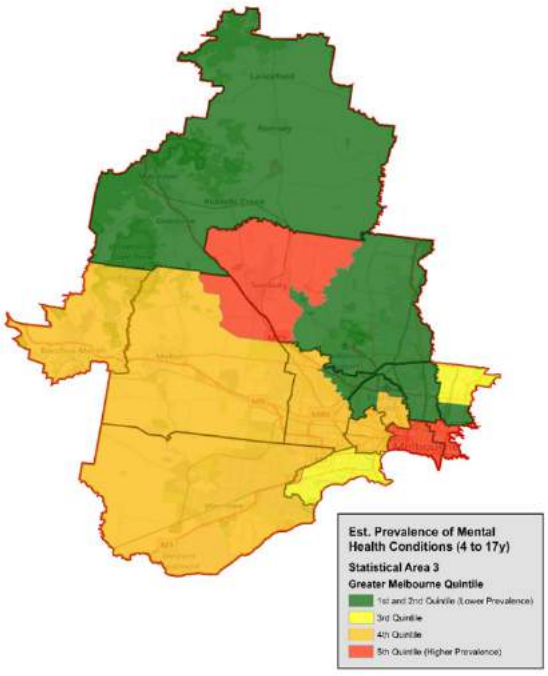
The Second Australian Child and Adolescent Survey of Mental Health and Wellbeing 2015 (the 'Young Minds Matter' survey) was conducted by the University of Western Australia for the Department of Health to provide national estimates of the extent of mental disorders in children and adolescents aged 4 to 17.

Based on interviews with 6310 families, the survey generated important information on the prevalence and severity of mental disorders. It identified several socio-demographic characteristics associated with prevalence of mental disorders.

The survey did not allow direct, reliable estimates to be made for specific areas. However, Census data shows how socio-demographic characteristics vary across Australia. NWMPHN was therefore able to develop estimates of prevalence and severity of mental disorders, by combining statistical modelling of socio-demographic factors associated with mental disorder status from Young Minds Matter with information on the geographic distribution of those factors in each statistical area, using 2011 Census data.[16, 17]

The results of this synthetic modelling show an elevated 12-month prevalence of mental illness in the Inner City LGAs of Melbourne and Yarra. The statistical area of Sunbury also had an elevated prevalence, to a lesser extent (Table 9 and Figure 7, below). **Note this data has limitations and results are indicative only.** Estimates are not based on actual counts but are statistically modelled and therefore subject to imprecision.

Figure 7: Synthetic (modelled) estimates of prevalence of mental disorders within children and adolescents by age bracket across the NWMPHN catchment (The Second Australian Child and Adolescent Survey of Mental Health and Wellbeing 2015)



[16] PHN Secure website
[17] The Second Australian Child and Adolescent Survey of Mental Health and Wellbeing 2015, https://youngmindsmatter.telethonkids.org.au/our-research/

Table 9: Synthetic (modelled) estimates of prevalence of mental disorders within children and adolescents by age bracket across NWMPHN catchment (The Second Australian Child and Adolescent Survey of Mental Health and Wellbeing 2015)

SA4	SA3	Est. number – 4-11yr	Est. prevalence – 4-11yr	Est. number – 12-17yr	Est. prevalence – 12-17yr	Est. number – 4-17yr	Est. prevalence – 4-17yr
Melbourne – Inner	Brunswick – Coburg	640	10.5	410	11.1	1,060	10.7
	Darebin – South	450	10.3	280	11.7	740	10.8
	Essendon	770	13.7	510	12.5	1,280	13.2
	Melbourne city	610	18.8	480	16	1,090	17.5
	Yarra	860	18.2	520	19.3	1,380	18.6
Melbourne – N East	Darebin – North	840	11	680	13.9	1,520	12.2
Melbourne – N West	Keilor	500	9.7	460	11.7	960	10.6
	Macedon Ranges	360	10.9	250	10	610	10.5
	Moreland – North	710	10.7	600	12.6	1,310	11.5
	Sunbury	550	13.3	470	14.4	1,020	13.8
	Tulla. – B'meadow	1,790	10.5	1,640	12.2	3,430	11.2
Melbourne – West	Brimbank	2,040	11.3	1,970	14.1	4,010	12.5
	Hobsons Bay	840	11.3	700	12.4	1,540	11.8
	Maribyrnong	720	11.7	570	15	1,290	13
	Melton – B. Marsh	2,130	12.2`	1,650	13.9	3,770	12.9
	Wyndham	2,880	12.8	2,020	13.2	4,910	13
Greater capital city statistical area			**12.1 (10.6,13.6)**		**13.2 (11.3,15.1)**		**12.6 (11.4,13.8)**
NWMPHN		**16,700**	**12**	**13,230**	**13.3**	**29,930**	**12.5**

6.2.4 Homelessness

The ABS General Social Survey found that people who reported having a mental health condition were more than twice as likely to have experienced homelessness in their lifetime, compared with people who did not (25 per cent compared with 10 per cent). People who reported a mental health condition were also more than twice as likely to have experienced homelessness in the past 10 years, compared with people who did not (15 per cent compared with 6.1 per cent).[18] [19]

Given this prevalence data, and the ABS estimate that more than one-third of Victorian homeless persons are in the NWMPHN catchment, homeless persons are a key target group for mental health service planning.

[18] ABS (2016) 4329.0.00.005 Mental Health and Experiences of Homelessness, Australia, 2014
[19] http://www.aihw.gov.au/homelessness/specialist-homelessness-services-2015-16/mental-health/

6.3 Demand estimates

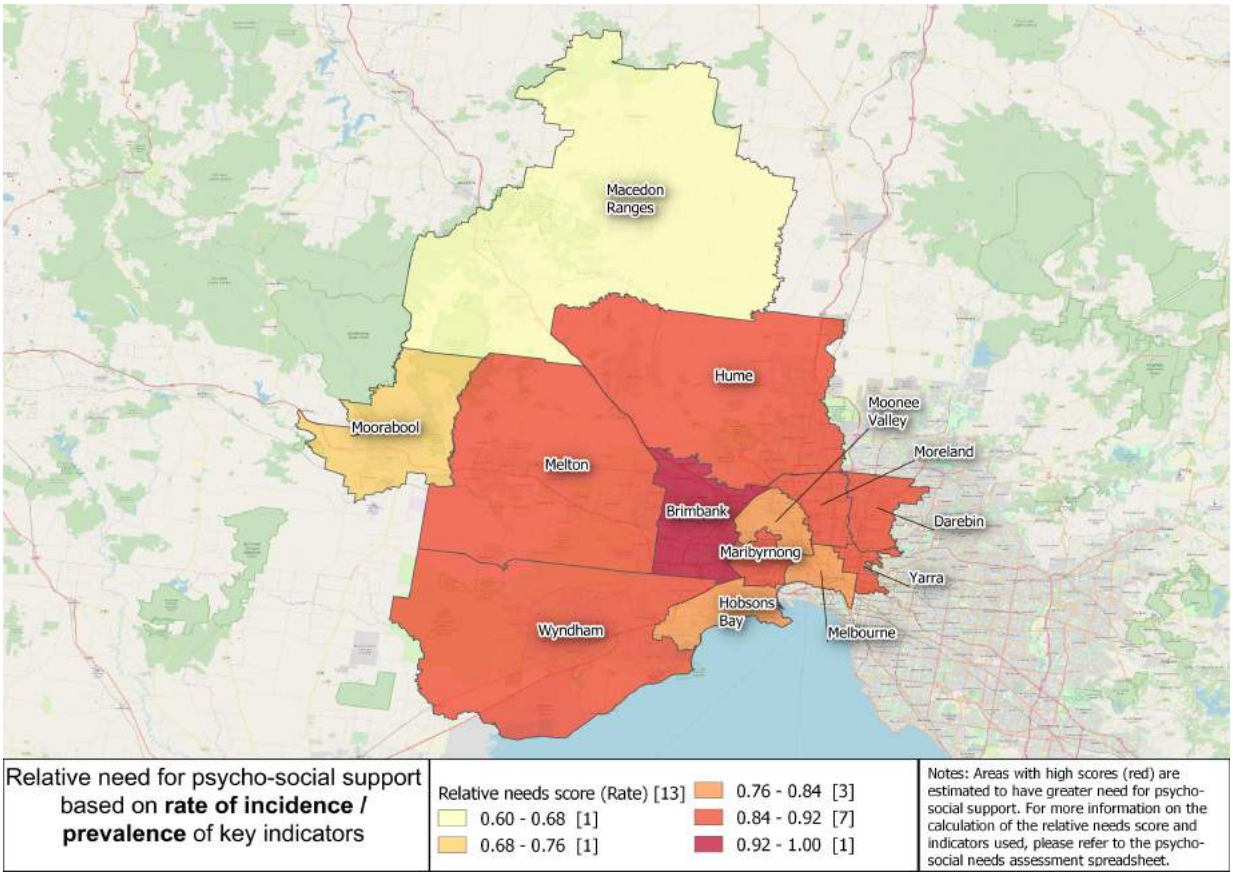
Table 10 shows National Mental Health Service Planning Framework (NMHSPF) estimates of demand for mental health services, based on the standard population profile with regards to age distribution and socio-economic status. It shows that most of the demand for mental health services is likely to be from adults, consistent with the epidemiological prevalence of disease.

Table 10: Estimated NWMPHN treated population by age group and severity – 2018 (NMHSPF)

Severity	0-4	5-11	12-17	18-64	65+	65+ BPSD	Total
Mild	5,223	6,132	4,275	53,378	5,517	1,906	76,431
Moderate	4,178	4,911	3,492	43,202	4,414	1,775	61,971
Severe	2,612	3,080	2,349	37,738	4,637	1,721	52,136

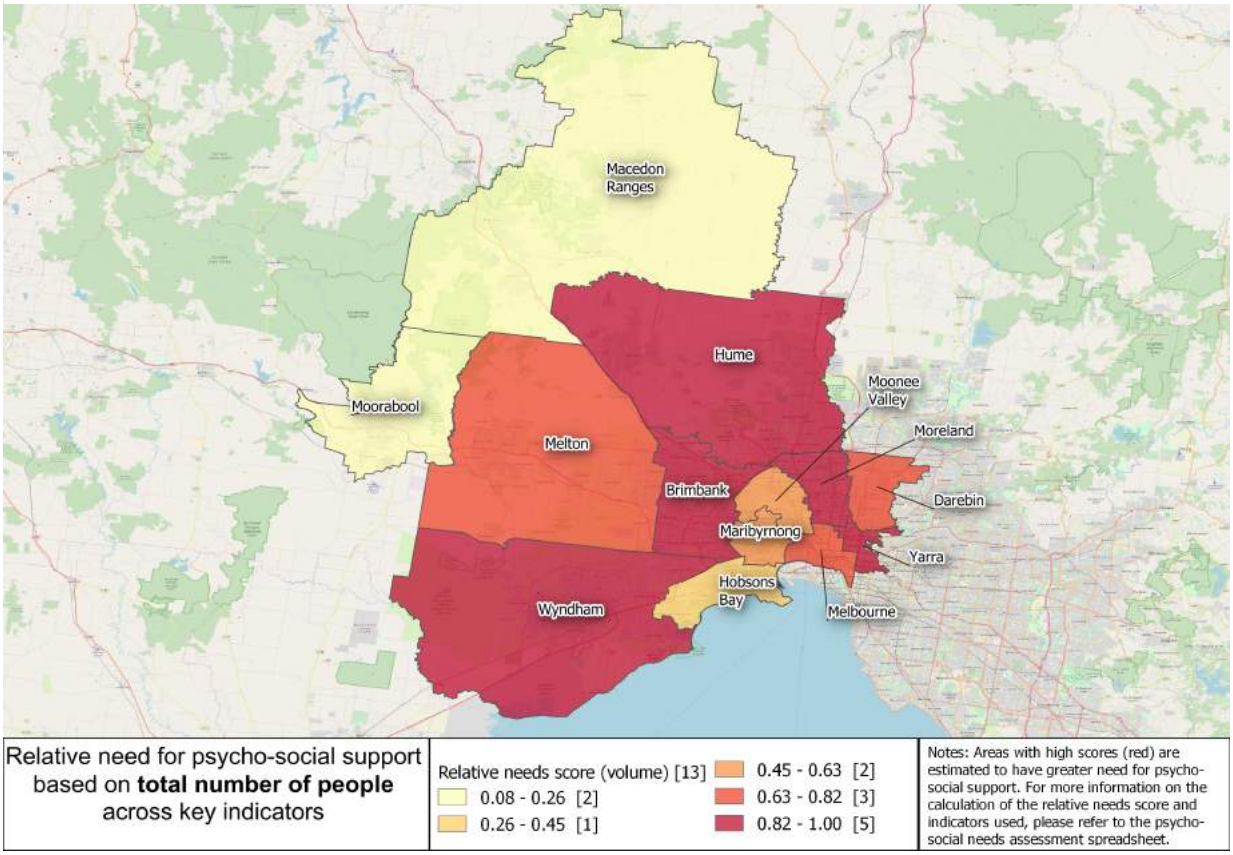
In addition to these estimates, Primary Health Network modelling has identified the target communities for the National Psychosocial Services program. Analysis of population characteristics has been used to develop indices for high-need and high-volume areas. Figure 8 and Figure 9 illustrate the relative need for services based on the number of people in the target populations, and the relative prevalence of the factors related to poor mental health.

Figure 8: Relative need for psychosocial support services based on the rate of key indicators. 1= high need



Source: SEMPHN

Figure 9: Relative need for psychosocial support services based on the number of people across key indicators. 1= high need



Source: SEMPHN

7 SERVICE RESPONSE

7.1 Use of services

Primary health services such as GPs are often the first point of contact for people experiencing mental illness and are critical in providing continuity of care and connection with specialist providers. GPs provided mental health related services to approximately 152,000 Victorians in 2017.[20]

The number of Victorians accessing Medicare-subsidised GP mental health services has increased by an average rate of 8.8 per cent annually between 2014 and 2017. Table 11 and Table 12, below, show the estimated per capita rates of use of the specialist mental health Medicare 'items', for GPs and clinical psychologists.

Use of all the items, in all areas, has grown since 2014. However, use varies across the NWMPHN catchment. In particular, use of clinical psychology services in the west and north-west is much lower. This is unlikely to be related to lower prevalence of mental illness, but more likely because of reduced demand for services because of low affordability or poor workforce supply.

Table 11: Patients and services per 1000 people for GP mental Health items under Medicare, by provider location as SA3 area

		Patients per 1000 people				Services per 1000 people			
SA4	SA3	2014	2015	2016	2017	2014	2015	2016	2017
Melbourne – Inner	Brunswick – Coburg	84	89	97	103	153	161	184	189
	Darebin – South	88	97	103	108	156	172	188	194
	Essendon	68	73	80	81	116	129	141	141
	Melbourne city	57	57	60	61	106	110	116	118
	Yarra	79	86	91	95	141	151	160	166
Melbourne - N East	Darebin – North	69	74	78	82	129	136	146	148
Melbourne - N West	Keilor	62	69	74	78	105	118	125	128
	Macedon Ranges	79	86	96	97	151	166	188	174
	Moreland – North	69	73	76	79	121	129	136	136
	Sunbury	94	103	111	111	175	207	217	220
	Tulla. – B'meadows	83	86	92	92	151	156	168	165
Melbourne - West	Brimbank	64	68	72	76	119	126	130	136
	Hobsons Bay	72	77	84	89	127	136	146	154
	Maribyrnong	68	74	80	84	119	134	145	147
	Melton – B. Marsh	84	89	98	100	183	196	215	209
	Wyndham	66	69	77	84	119	120	140	157
NWMPHN		**72**	**77**	**83**	**86**	**134**	**142**	**155**	**158**
Victoria		**72**	**77**	**84**	**87**	**129**	**140**	**152**	**155**

Note: SA3 values are coloured on a scale relative to the overall Victorian population – red is higher, green is lower. Source: PHN MBS data[21], Department of Health

[20] http://www.health.gov.au/internet/main/publishing.nsf/Content/PHN-Mental_Health_Data#MBSDATA Medicare Benefits Schedule – mental health specific items

[21] Item numbers: 170, 171, 172, 2574, 2575, 2577, 2578, 2700, 2701,2702, 2704, 2705, 2707, 2708, 2710, 2712, 2713, 2715, 2717, 2719, 2721, 2723, 2725, 2727, 20104

Table 12: Patients and services per 1000 people for clinical psychologist's mental health items under Medicare, by provider location as SA3 area

SA4	SA3	Patients per 1000 people				Services per 1000 people			
		2014	2015	2016	2017	2014	2015	2016	2017
Melbourne – Inner	Brunswick – Coburg	29	31	36	38	149	161	183	199
	Darebin – South	31	34	36	40	167	182	182	201
	Essendon	22	23	25	26	112	111	120	126
	Melbourne city	16	16	17	17	79	81	82	85
	Yarra	29	31	34	36	152	160	173	182
Melbourne – N East	Darebin – North	17	19	21	22	80	93	102	107
Melbourne - N West	Keilor	21	21	22	24	96	103	105	108
	Macedon Ranges	12	14	15	18	55	62	67	79
	Moreland – North	16	18	20	21	75	84	94	101
	Sunbury	15	17	22	27	70	81	101	126
	Tulla. – B'meadows	15	16	18	18	65	70	79	79
Melbourne - West	Brimbank	12	13	14	15	53	59	61	64
	Hobsons Bay	16	19	21	21	78	88	97	98
	Maribyrnong	20	21	23	26	98	107	112	127
	Melton – B. Marsh	15	16	17	18	70	71	77	77
	Wyndham	11	12	12	13	51	53	55	55
NWMPHN		**17**	**19**	**20**	**21**	**83**	**89**	**96**	**100**
Victoria		**17**	**18**	**19**	**20**	**79**	**85**	**90**	**94**

Note: SA3 values are coloured on a scale relative to the overall Victorian population – red is higher, green is lower. Source: PHN MBS data, Department of Health [22]

Table 13: Patients and services per 1000 people for psychiatrist mental health items under Medicare by provider location as SA3 area

SA4	SA3	Patients per 1000 people				Services per 1000 people			
		2014	2015	2016	2017	2014	2015	2016	2017
Melbourne – Inner	Brunswick – Coburg	23	22	23	23	189	185	193	191
	Darebin – South	25	25	25	26	249	258	252	256
	Essendon	19	18	19	19	159	150	152	151
	Melbourne city	20	19	20	19	152	144	145	140
	Yarra	25	24	25	24	246	257	255	229
Melbourne - N East	Darebin – North	18	18	18	18	136	133	137	131
Melbourne - N West	Keilor	18	18	18	20	134	132	126	147
	Macedon Ranges	17	17	17	19	133	121	108	112
	Moreland – North	17	16	16	16	115	111	107	106
	Sunbury	20	20	21	20	139	142	131	121
	Tulla. – B'meadows	16	15	15	15	73	73	71	68
Melbourne - West	Brimbank	14	14	14	14	72	72	71	74
	Hobsons Bay	15	15	15	16	114	112	122	120
	Maribyrnong	16	15	16	16	113	102	109	107
	Melton – B. Marsh	13	13	14	14	66	66	66	67
	Wyndham	12	12	12	12	66	67	66	61
NWMPHN		**17**	**16**	**17**	**17**	**118**	**117**	**116**	**114**
Victoria		**16**	**16**	**17**	**17**	**114**	**114**	**112**	**111**

[22] Item numbers 80000, 80005, 80010, 80015, 80020

Note: SA3 values are coloured on a scale relative to the overall Victorian population – red is higher, green is lower. Source: PHN MBS data Department of Health

7.2 Hospitalisations for mental health conditions and intentional self-harm

The rates of hospitalisation for different mental health conditions in different locations can provide some insight to the prevalence of severe mental illness in communities. They can also provide an indication of a community's capacity and effectiveness in supporting people with certain conditions to avoid hospitalisation.

The Australian Institute of Health and Welfare (AIHW) reports on hospitalisation by SA3, type of mental health condition and hospital type. Analysis of data in its 2015-16 report shows that (Table 14):

- The NWMPHN hospitalisation rate was largely at or below the Australian Metropolitan average for all conditions except dementia.[23]
- At SA3 level, compared with the Australian Metropolitan average hospitalisation rate:
  - All Inner Melbourne SA3s had high overall rates.
  - In other parts of the NWMPHN catchment, high rates were observed for:
    i. Schizophrenia in Darebin – North, and Yarra
    ii. Anxiety in Darebin – South
    iii. Bipolar disorder in Essendon, and Darebin – South
    iv. Dementia in Tullamarine – Broadmeadows, Brunswick – Coburg and Melbourne city.

Table 14: Hospitalisation for mental health condition by SA3 – age-standardised Rate per 100,000 people

SA3		All mental health	Anxiety + stress episodes	Bipolar + mood disorders	Dementia	Depressive episodes	Drug and alcohol episodes	Intentional self-harm	Schizophrenia and delusional disorders
Melb. – Inner	Brunswick – Coburg	100	11	13	10	9	12	13	22
	Darebin – South	106	14	19	8	12	11	10	21
	Essendon	120	10	21	8	14	14	12	24
	Melbourne city	108	10	9	10	10	20	11	23
	Yarra	106	10	16	6	11	16	11	27
Melb. – N. East	Darebin – North	102	12	13	5	11	10	11	28
Melb. – N. West	Keilor	83	10	14	8	9	9	8	10
	Macedon Ranges	52	7	0	0	8	0	0	11
	Moreland – North	94	9	10	9	10	12	9	22
	Sunbury	86	12	10	8	15	8	12	7
	Tulla. – B'meadows	83	9	8	12	9	7	9	19
Melb. - West	Brimbank	79	7	6	8	8	11	9	19
	Hobsons Bay	86	8	11	5	16	11	9	16
	Maribyrnong	93	7	9	9	10	11	12	22
	Melton – B. Marsh	79	10	9	6	10	10	11	14

[23] https://www.myhealthycommunities.gov.au/our-reports/mental-health-and-intentional-self-harm

Wyndham	66	7	9	7	9	7	8	13
NWMPHN	86	9	10	8	10	10	10	18
Australian metro	96	13	11	6	12	18	15	18
Australia	102	14	11	6	12	20	17	19

Note: SA3 values are coloured on a scale relative to the overall Australian population – red is higher, green is lower. Source: AIHW Admitted Patient Mental Health Related Care, 2015-16

7.3 MBS service usage

Medicare Benefits Schedule (MBS) usage data provides important information on the affordability and distribution of non-hospital services.

Table 15, below, shows the average number of mental health services per patient, and the average fee excess for mental health services provided in 2016-17. (The fee excess, also known as the 'out-of-pocket' expense, is the amount patients are expected to pay above the MBS scheduled fee.)

The table shows a pattern consistent with income distribution data, shown earlier in Figure 11, with services per patient and mean excess fees per service higher in areas with higher income levels.

By contrast, Brimbank, Tullamarine – Broadmeadows, and Wyndham are in the lowest 20 per cent for mean excess fees, and the lowest 20 per cent for services per patient. Service affordability and specialist access is likely to be a major contributing factor.

Table 15: MBS mental health services 2016-17 – mean excess fees and services provided per patient [24]

SA4	SA3	Mean excess fees per service ($)	Mean services per patient
Melbourne – Inner	Brunswick – Coburg	32.5	6.1
	Darebin – South	38.4	6.5
	Essendon	34.5	5.6
	Melbourne City	35.4	5.6
	Yarra	42.0	6.2
Melbourne – N. East	Darebin – North	23.6	5.2
Melbourne – N. West	Keilor	30.5	5.3
	Macedon Ranges	25.8	5.0
	Moreland – North	21.7	5.1
	Sunbury	16.8	5.2
	Tulla. – B'meadows	10.2	4.2
Melbourne – West	Brimbank	14.1	4.4
	Hobsons Bay	28.8	5.2
	Maribyrnong	29.6	5.2
	Melton – B. Marsh	11.0	4.5
	Wyndham	16.2	4.4
NWMPHN		**24.5**	**5.1**
Victoria		**25.9**	**4.9**

Note: SA3 values are coloured on a scale relative to the overall Victorian population – red is higher, green is lower.

Table 16, below, shows the proportion of services provided by type. Each region has a gradient the same or similar to that in Table 15.

Significant differences between inner and outer areas remain: psychiatrists and clinical psychologists generally provide the bulk of mental health services in the inner areas, compared to outer SA3s.

The data is unsurprising, given that much of the area is classified by the Commonwealth Department of Health as a District of Workforce Shortage for specialist psychiatry services. This program provides incentives for psychiatrists to establish practice in these areas. [25]

[24] http://www.health.gov.au/internet/main/publishing.nsf/Content/PHN-Mental_Health_Data#MBSDATA
[25] http://www.doctorconnect.gov.au/internet/otd/publishing.nsf/Content/dwsFactsheet

Table 16: Proportion of MBS mental health services by provider type 2016-17

SA4	SA3	% Total mental health services			
		Psychiatrists	Clinical psychologists	GP	Other allied health
Melbourne – Inner	Brunswick – Coburg	25%	26%	24%	26%
	Darebin – South	29%	23%	22%	26%
	Essendon	27%	22%	25%	26%
	Melbourne City	31%	19%	26%	23%
	Yarra	30%	24%	22%	23%
Melbourne – N East	Darebin – North	25%	20%	28%	27%
Melbourne – N West	Keilor	28%	21%	24%	27%
	Macedon Ranges	19%	13%	30%	38%
	Moreland – North	21%	20%	27%	31%
	Sunbury	18%	18%	32%	33%
	Tulla. – B'meadow	15%	17%	37%	31%
Melbourne – West	Brimbank	18%	16%	34%	32%
	Hobsons Bay	22%	18%	28%	33%
	Maribyrnong	20%	24%	28%	28%
	Melton – B. Marsh	13%	15%	41%	31%
	Wyndham	15%	13%	38%	35%
NWMPHN		22%	19%	30%	29%
Victoria		21%	18%	30%	31%
Australia		21%	19%	31%	28%

Note: SA3 values are coloured on a scale relative to the overall Victorian population – red is higher, green is lower.

7.4 PBS service usage

The Pharmaceutical Benefits Scheme (PBS) provides funding for subsidised medicines to all Australians and other eligible people. As with analysis of MBS data, analysis of PBS data can help with understanding the distribution of mental health services delivered.

The data presented below were developed by the National Health Performance Authority to provide a better understanding of the variation in practice across Australia in some prescribing patterns and other medical treatments.[26] These studies have been undertaken to understand quality, equity and efficiency in health care service delivery. Much of the variation is accounted for by the willingness and ability of doctors to offer treatment, rather than differences in illness or patient preference.

[26] https://www.safetyandquality.gov.au/wp-content/uploads/2014/05/Exploring-Healthcare-Variation-in-Australia-Analyses-Resulting-from-an-OECD-Study.pdf

7.4.1 Anti-depressant prescriptions

Anti-depressant prescription rates in the NWMPHN catchment are predominantly at, or below, the Greater Melbourne median rates across all ages (Table 17).

Very low rates are observed in Melbourne City for all age groups, while very low rates are also observed among people aged 17 and under in Tullamarine-Broadmeadows and Brimbank.

High rates were observed for all age groups in Sunbury, particularly the 18 to 64-year-old and 65-plus groups. Melton – Bacchus Marsh also had high or very high rates in the two older age groups.

Table 17: PBS prescriptions dispensed for antidepressant medicines per 100,000 people, age standardised, by SA3, 2013-14

		Age-standardised rate per 100,000 people		
SA4	SA3	17 and under	18-64 years	65 and older
Melbourne – Inner	Brunswick – Coburg	5,389	85,855	199,186
	Darebin – South	7,816	89,115	183,475
	Essendon	5,345	83,522	176,533
	Melbourne City	2,679	64,188	150,572
	Yarra	6,191	88,414	174,144
Melbourne - N East	Darebin – North	4,400	83,782	192,085
Melbourne - N West	Keilor	4,706	87,144	175,017
	Macedon Ranges	8,097	96,307	178,070
	Moreland – North	4,425	84,961	183,787
	Sunbury	8,930	120,866	232,836
	Tulla. – B'meadow	3,807	84,455	194,029
Melbourne - West	Brimbank	3,609	73,896	162,730
	Hobsons Bay	5,311	94,601	185,406
	Maribyrnong	5,294	79,564	171,740
	Melton – B Marsh	5,983	101,895	227,323
	Wyndham	6,714	83,950	192,342
Greater Melbourne median		**7,122**	**86,250**	**182,997**
Victoria		**7,789**	**99,774**	**194,225**

7.4.2 Anti-anxiolytic prescriptions

The NWMPHN catchment displays mostly elevated anti-anxiolytic prescription rates across age groups and SA3 regions compared to the Greater Melbourne SA3 rate (Table 18).

Very high rates are seen in Darebin – North in the 18 to 64-year-old age group, as well as in the over-65 group in Melton – Bacchus Marsh. Yarra has high rates for both age groups. By contrast, very low rates are seen in Macedon Ranges.

Table 18: PBS prescriptions dispensed for anti-anxiolytic medicines per 100,000 people, age-standardised, by SA3, 2013-14

SA4	SA3	Age-standardised rate per 100,000	
		18 to 64 years	65 and above
Melbourne – Inner	Brunswick – Coburg	18,353	47,923
	Darebin – South	18,578	44,866
	Essendon	18,242	47,625
	Melbourne City	19,312	40,196
	Yarra	23,247	49,069
Melbourne – N. East	Darebin – North	27,666	46,746
Melbourne – N. West	Keilor	19,008	41,825
	Macedon Ranges	15,393	31,833
	Moreland – North	23,231	46,095
	Sunbury	21,555	48,885
	Tulla. – B'meadow	21,797	47,806
Melbourne – West	Brimbank	19,384	45,981
	Hobsons Bay	22,437	45,591
	Maribyrnong	21,895	52,362
	Melton - B Marsh	20,031	56,031
	Wyndham	16,014	47,671
Greater Melbourne SA3 median		**19,348**	**45,574**
Victoria		**20,689**	**42,664**

7.4.3 Anti-psychotic prescriptions

A similar, but more distributed, pattern is observed with anti-psychotic prescription rates when compared to anti-anxiolytic prescription rates, with elevated rates compared to the Greater Melbourne median SA3 value (Table 19).

Yarra has very high rates relative to the median across the older two age groups. Very high rates are also seen in Darebin – North for the 18 to 64-year-old age group, and in Brunswick – Coburg, Melbourne City and Maribyrnong for the 65-and-older group.

Very low rates are observed in the older two age groups for Macedon Ranges, in the 18 to 64-year-old age group for Wyndham, and the 17-and-under group in Keilor. However, the 17-and-under age group has very high rates of prescriptions in Wyndham.

Table 19: PBS prescriptions dispensed for antipsychotic medicines per 100,000 people, age-standardised, by SA3, 2013-14

SA4	SA3	Age-standardised rate per 100,000 people		
		17 and under	18 to 64 years	65 and older
Melbourne – Inner	Brunswick – Coburg	1,316	20,585	45,117
	Darebin – South	2,071	18,308	38,887
	Essendon	876	17,642	34,991
	Melbourne City	1,358	19,234	44,030
	Yarra	1,278	26,440	57,130
Melbourne – N East	Darebin – North	1,786	24,942	37,986
Melbourne – N West	Keilor	799	16,790	29,983
	Macedon Ranges	1,327	12,038	25,158
	Moreland – North	1,270	20,070	33,907
	Sunbury	1,949	14,168	33,800
	Tulla. – B'meadow	1,060	17,734	34,700
Melbourne – West	Brimbank	1,403	19,267	33,403
	Hobsons Bay	1,428	19,909	33,809
	Maribyrnong	1,632	22,357	43,047
	Melton – B. Marsh	1,771	16,072	37,216
	Wyndham	2,077	13,328	30,663
Greater Melbourne SA3 median		**1,356**	**16,779**	**30,771**
Victoria		**1,774**	**19,663**	**31,763**

To summarise prescription rates across the three main mental health pharmaceutical groups:

- Sunbury, and Melton – Bacchus Marsh, have elevated prescription rates across all drug types and age groups, except for the 18 to 64-year-old age group for anti-psychotics, and the 17-and-under age group for anti-depressants for Melton – Bacchus Marsh.
- Opportunities exist to develop programs that target areas of very low prescription rates, as these are unlikely to be related to low prevalence and more likely to relate to availability of specialist psychiatric services and GP practice quality.

7.5 Commissioned services

7.5.1 CAREinMIND™

CAREinMIND™ provides access to a suite of free mental health services organised through a central intake and navigation service.

The services are targeted at specific population groups, including vulnerable populations, and those likely to miss out on care or unable to pay gap fees for other service types. CAREinMIND enables a stepped care approach to mental health service provision, matching the type and intensity of service most suited to an individual and their specific needs but then enabling this to be adjusted as care needs change (either less or more intensive services).. Services are delivered by contracted organisations across the catchment.

Table 20 and Figure 10 give an overview of the location and volume of referrals to CAREinMIND.

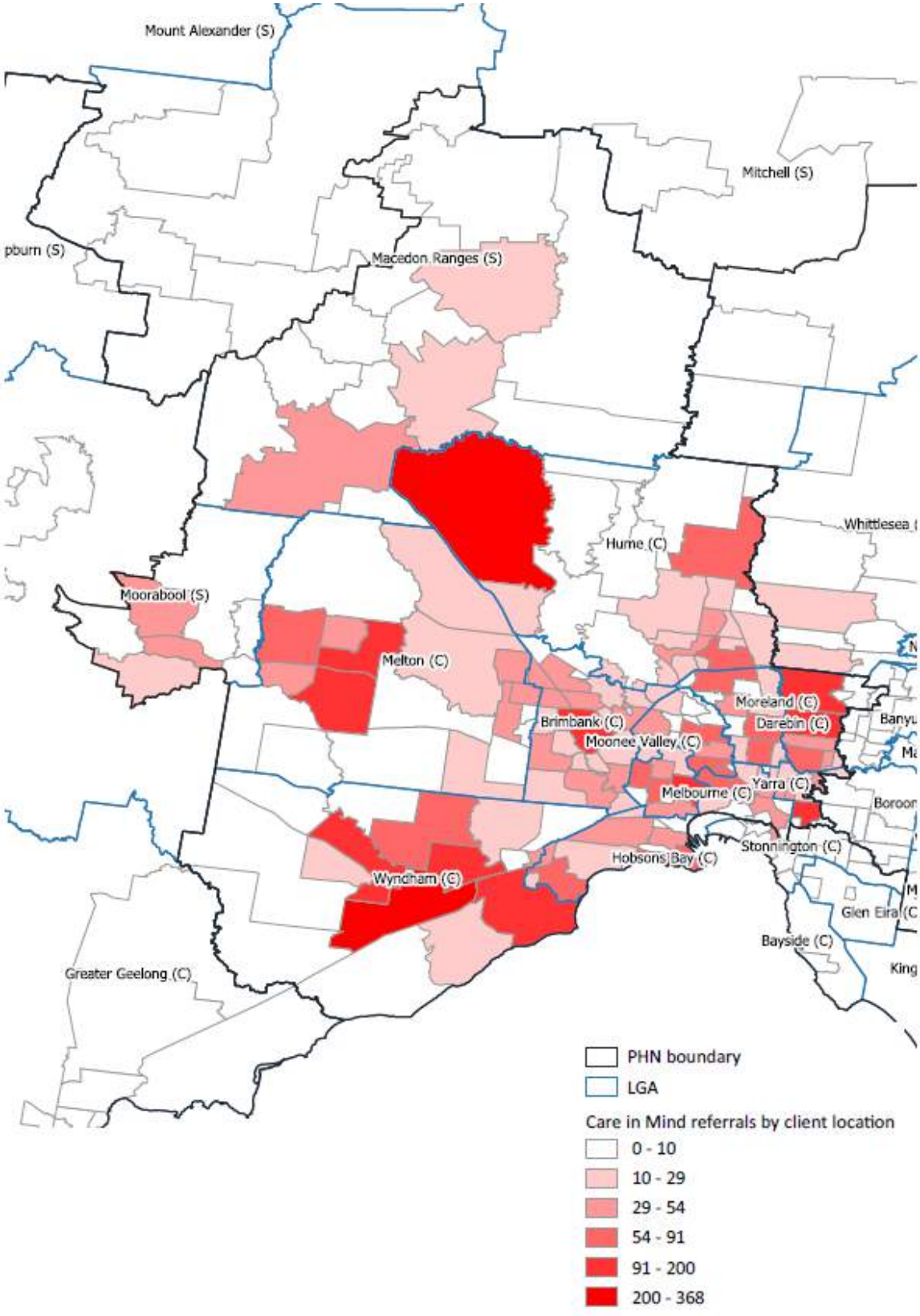
Note that in the 'provider:client rate ratio' column, values greater than 1 indicate a greater number of referrals made to CAREinMIND per provider than local clients. This translates to clients accessing services from other areas and is an indication that surrounding areas do not have sufficient services.

Table 20: CAREinMIND referrals by client, referrer and provider location (2017-18)

Zone	LGA	No. referrals by client location	No. referrals by provider location	No. referrals by referrer location	Referrals by client location per 10k people 18+	Provider: client rate ratio
Inner	Maribyrnong (C)	411	489	532	58.2	1.2
	Melbourne (C)	315	714	427	24.3	2.3
	Yarra (C)	302	508	569	37.5	1.7
	Sub-total	**1,028**	**1,711**	**1,528**	**36.6**	**1.7**
Suburban	Brimbank (C)	552	502	565	34.8	0.9
	Darebin (C)	500	399	409	39.8	0.8
	Hobsons Bay (C)	307	202	258	42.0	0.7
	Moonee Valley (C)	359	347	387	36.6	1.0
	Moreland (C)	384	379	356	27.4	1.0
	Sub-total	**2,102**	**1,829**	**1,975**	**35.3**	**0.9**
Growth	Hume (C)	757	518	678	49.8	0.7
	Melton (C)	569	476	441	56.4	0.8
	Wyndham (C)	849	654	828	52.2	0.8
	Sub-total	**2,175**	**1,648**	**1,947**	**52.3**	**0.8**
Peri-urban	Macedon Ranges (S)	123	78	126	34.4	0.6
	Moorabool (S)	100	84	74	40.6	0.8
	Sub-total	**223**	**162**	**200**	**36.9**	**0.7**
NWMPHN total		**5,528**	**5,350**	**5,650**	**40.9**	**1.0**
Other Victoria		195	235	86		
Interstate		14	21	1		
Total		**5,737**	**5,606**	**5,737**		

Source: NWMPHN data collection

Figure 10: CAREinMind referrals by client location (2017-18)



8 APPENDIX

Figure 11: Median household income by SA2 and LGA. Deciles of the Victorian level, 2016 (ABS Census 2016)

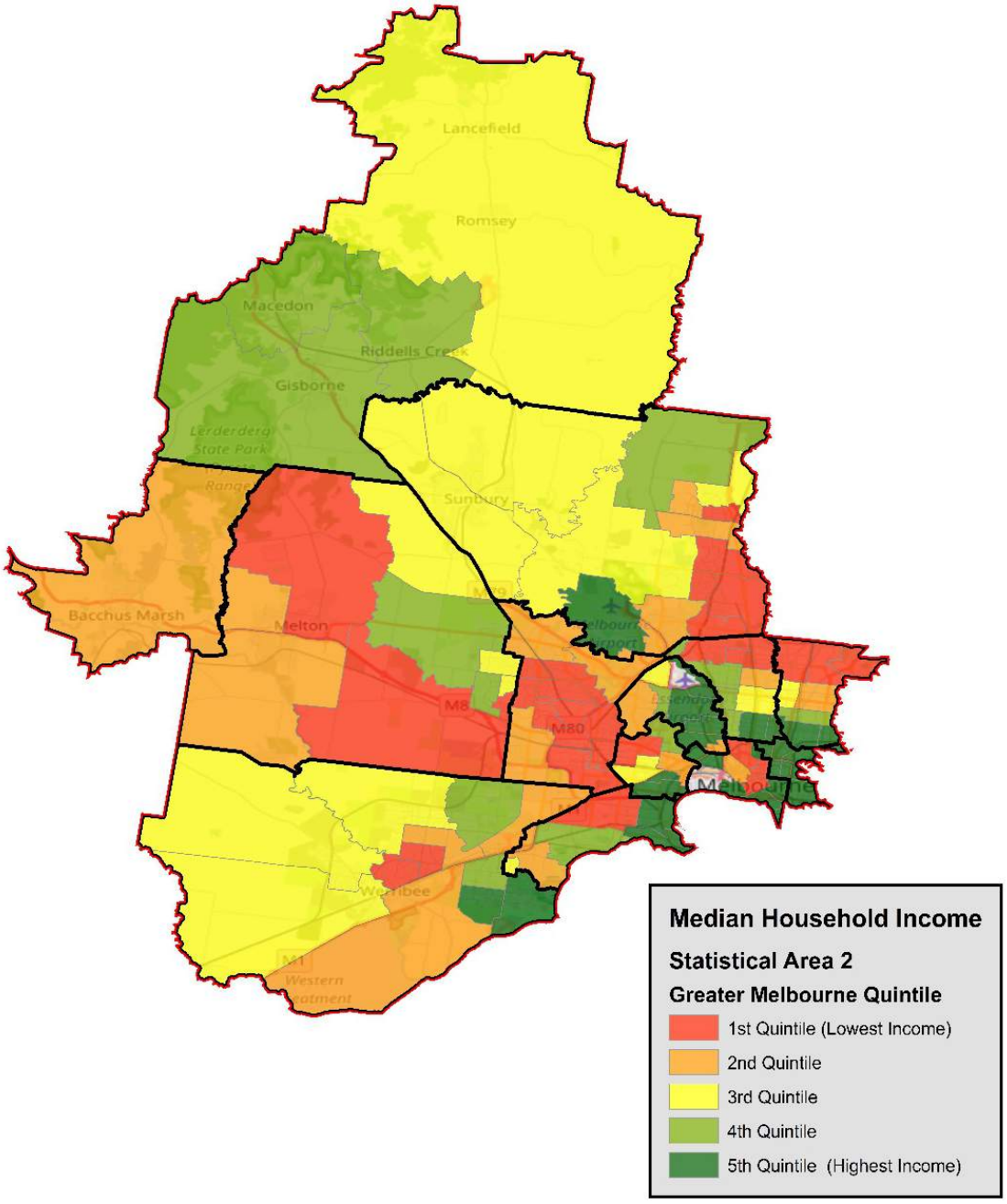


Figure 12: Proportion of the population that has completed Year 9 or lower by SA2 and LGA. Deciles of the Victorian level, 2016 (ABS Census 2016)

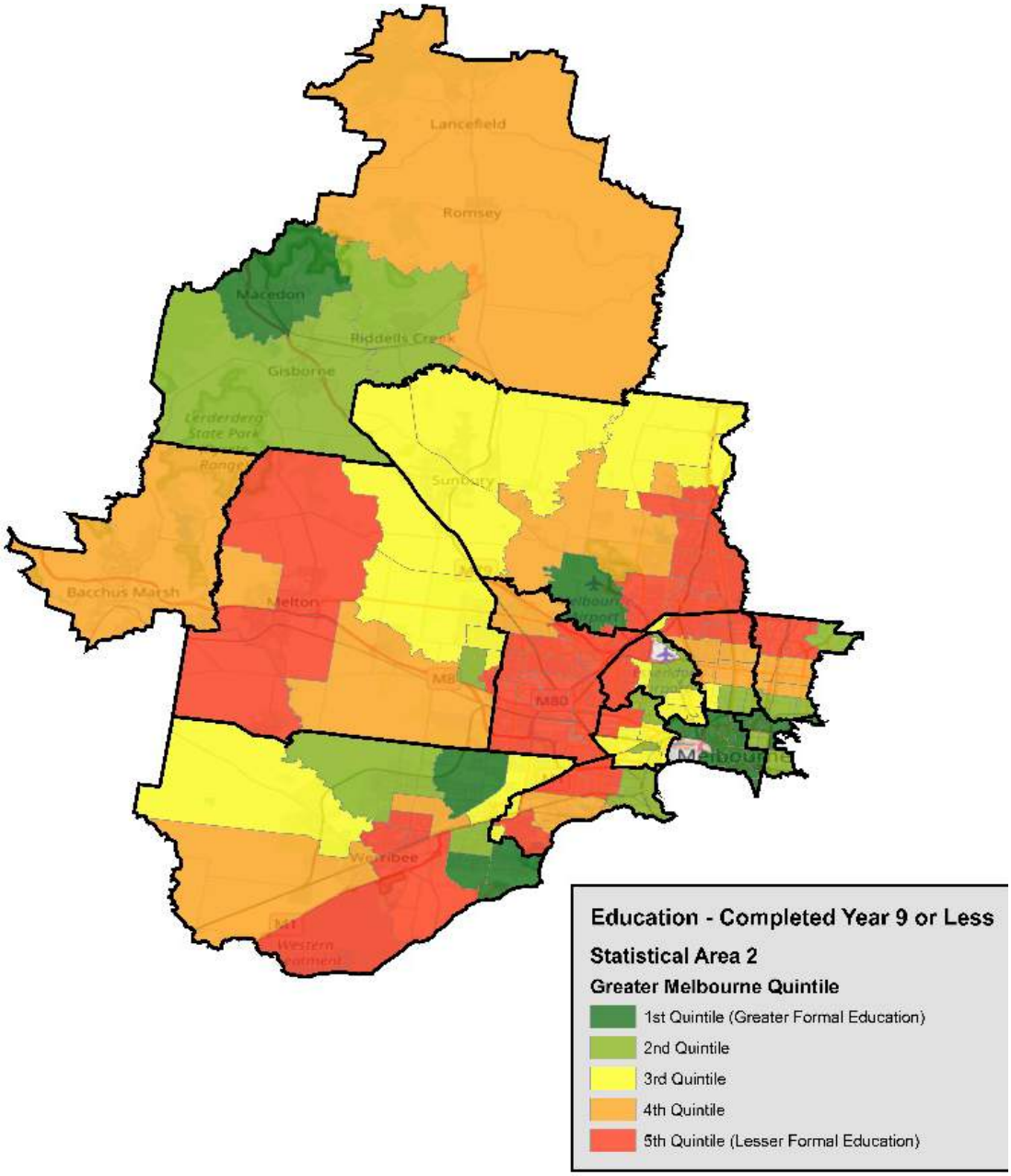


Figure 13: Proportion of the population that has completed Year 12 or equivalent by SA2 and LGA. Deciles of the Victorian level, 2016 (ABS Census 2016)

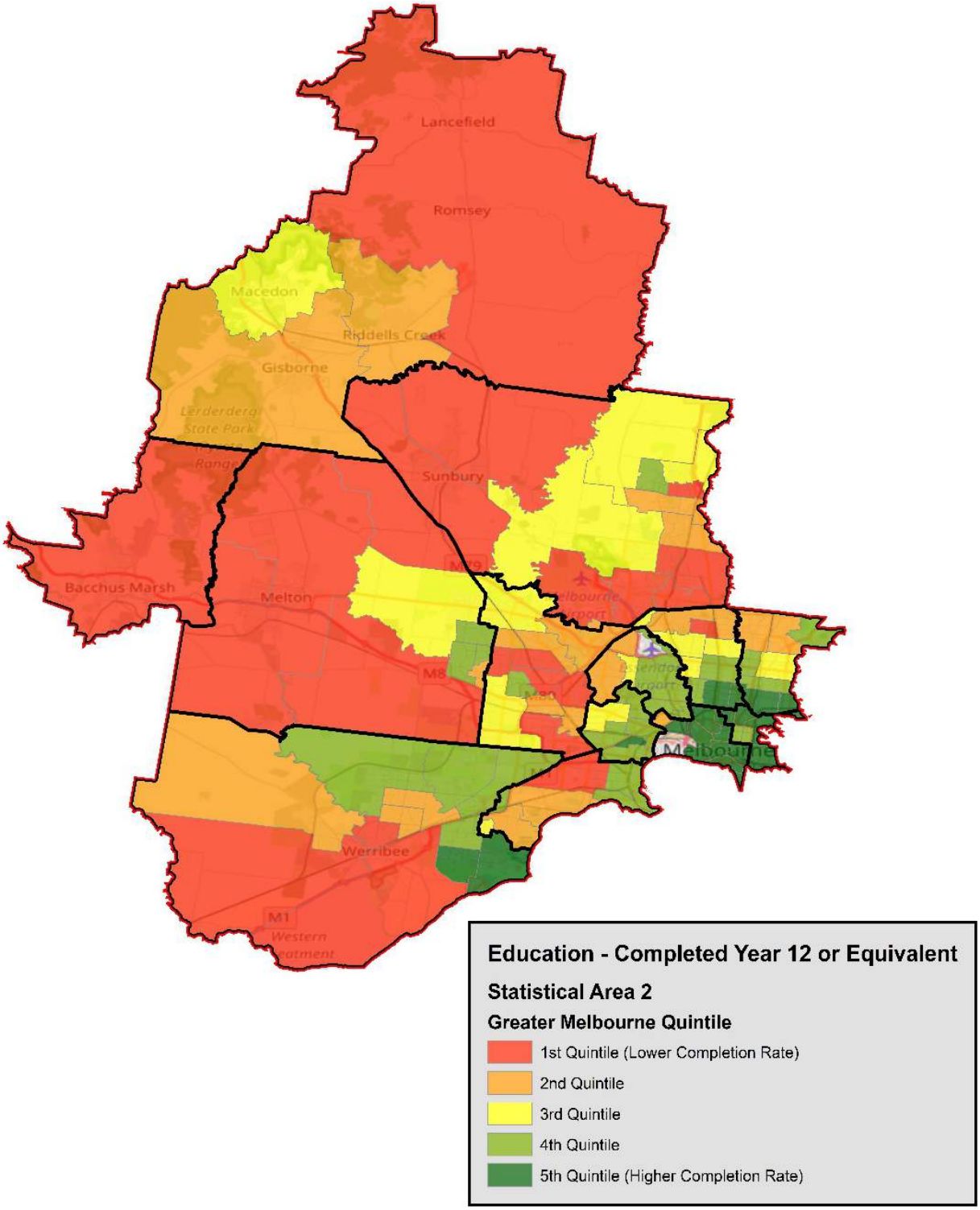


Figure 14: Estimated population aged 4-17 that has a mental health condition. SA3 Quartiles of the Victorian level, 2016 (PHIDU, 2017)

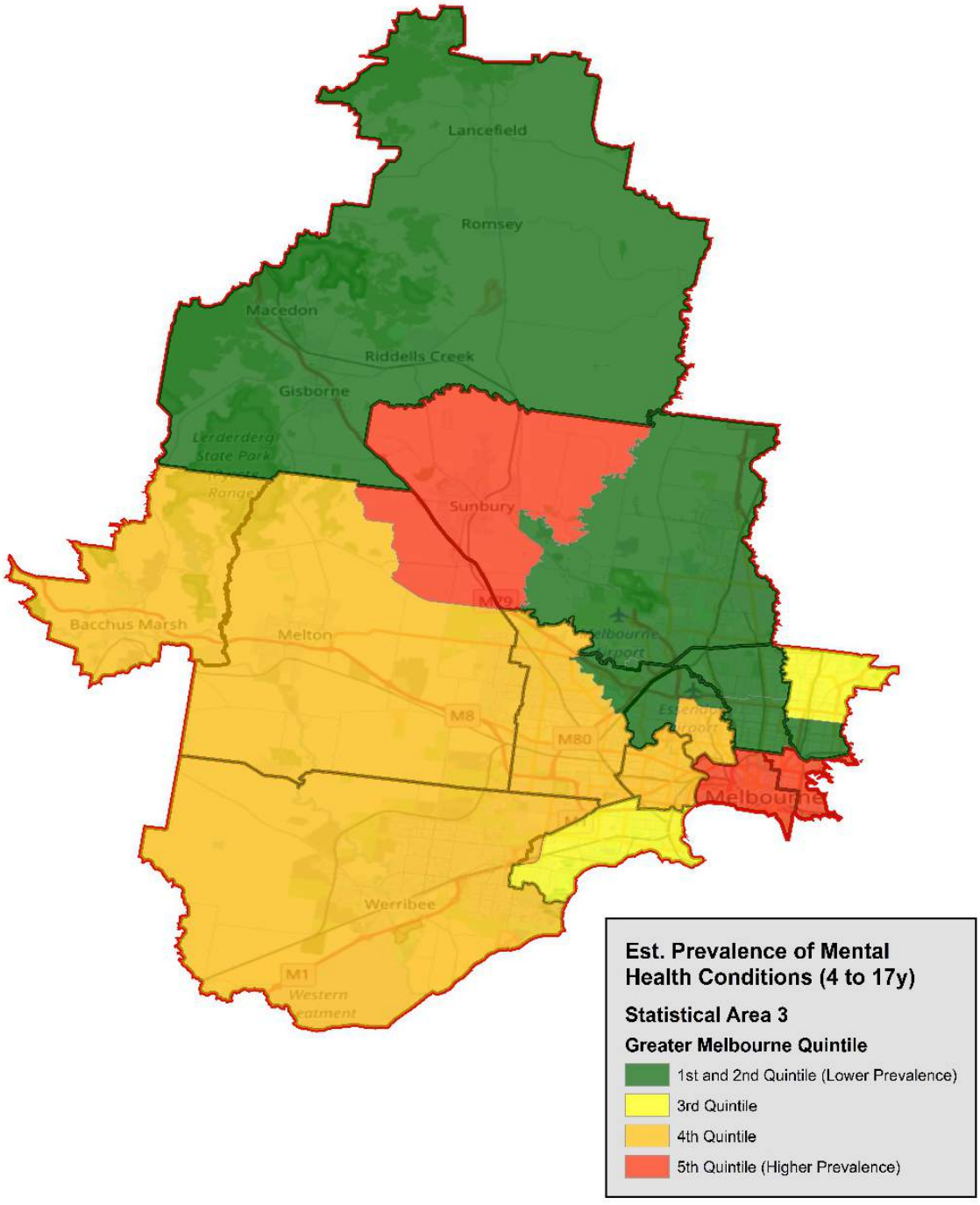


Table 21: Psychiatrist Medicare Benefit Scheme Services 2017, selected characteristics by SA3 (MBS)

SA4	SA3	Mean fees per service ($)	Mean services per patient	% Total mental health services
Melbourne – Inner	Brunswick – C'burg	$212	8.3	24.6%
	Darebin – South	$216	9.7	29.1%
	Essendon	$200	8.0	26.6%
	Melbourne City	$205	7.4	31.5%
	Yarra	$223	9.6	30.4%
Melbourne - N East	Darebin – North	$177	7.1	24.6%
Melbourne - N West	Keilor	$183	7.5	27.9%
	Macedon Ranges	$187	6.0	19.1%
	Moreland – North	$183	6.7	21.3%
	Sunbury	$160	6.0	17.5%
	Tulla. – B'meadow	$166	4.5	15.1%
Melbourne - West	Brimbank	$163	5.2	18.3%
	Hobsons Bay	$199	7.4	21.5%
	Maribyrnong	$206	6.7	20.2%
	Melton – B. Marsh	$165	4.9	13.0%
	Wyndham	$170	5.3	14.6%
NWMPHN		**$192**	**6.8**	**21.6%**
Victoria		**$197**	**6.7**	**21.3%**

Table 22: Clinical psychologist MBS services 2017, selected characteristics by SA3 (MBS)

SA4	SA3	Mean fees per service ($)	Mean services per patient	% Total mental health services
Melbourne – Inner	Brunswick – C'burg	$163	5.2	25.5%
	Darebin – South	$167	5.1	22.8%
	Essendon	$163	4.8	22.2%
	Melbourne City	$168	4.8	19.0%
	Yarra	$169	5.0	24.2%
Melbourne - N East	Darebin – North	$154	4.9	20.1%
Melbourne - N West	Keilor	$159	4.5	20.5%
	Macedon Ranges	$159	4.4	13.4%
	Moreland – North	$149	4.8	20.3%
	Sunbury	$146	4.7	18.1%
	Tulla. – B'meadow	$136	4.3	17.5%
Melbourne - West	Brimbank	$141	4.4	16.0%
	Hobsons Bay	$160	4.6	17.7%
	Maribyrnong	$159	4.8	24.0%
	Melton – B. Marsh	$134	4.4	15.1%
	Wyndham	$144	4.3	13.3%
NWMPHN		**$155**	**4.7**	**19.1%**
Victoria		**$157**	**4.6**	**18.2%**

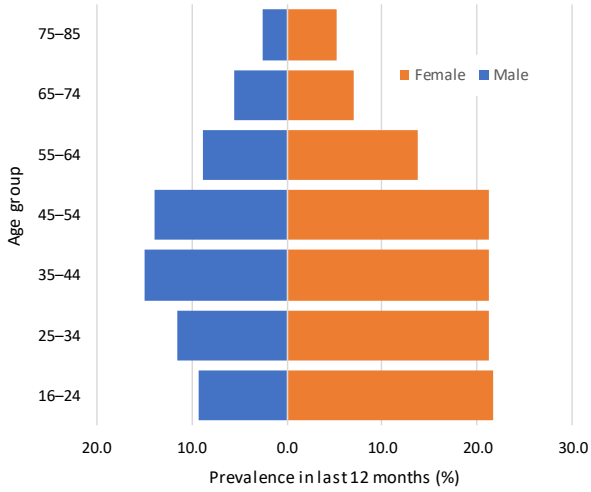
Table 23: GP mental health MBS services 2017, selected characteristics by SA3 (MBS)

SA4	SA3	Mean fees per service ($)	Mean services per patient	% Total mental health services
Melb. – Inner	Brunswick – C'burg	$91	1.8	24.3%
	Darebin – South	$94	1.8	22.0%
	Essendon	$90	1.7	24.9%
	Melbourne City	$91	1.9	26.5%
	Yarra	$96	1.7	22.1%
Melb. – N. East	Darebin – North	$87	1.8	27.8%
Melb. – N. West	Keilor	$89	1.6	24.4%
	Macedon Ranges	$90	1.8	29.6%
	Moreland – North	$88	1.7	27.4%
	Sunbury	$83	2.0	31.8%
	Tulla. – B'meadow	$83	1.8	36.7%
Melb. – West	Brimbank	$84	1.8	34.0%
	Hobsons Bay	$87	1.7	27.7%
	Maribyrnong	$90	1.7	27.8%
	Melton – B. Marsh	$80	2.1	40.6%
	Wyndham	$81	1.9	37.6%
NWMPHN		**$86**	**1.8**	**30.12%**
Victoria		**$87**	**1.8**	**29.80%**

Table 24: Other allied health mental health MBS services 2017, selected characteristics by SA3 (MBS)

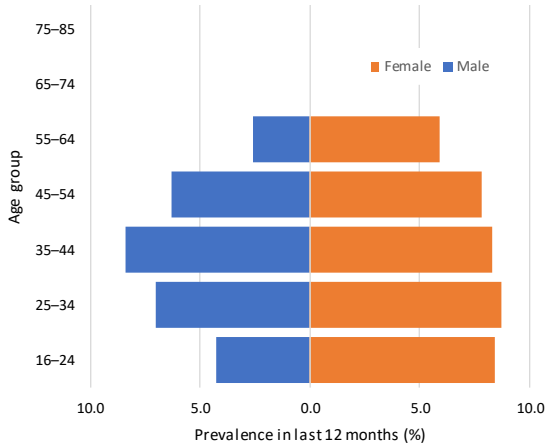
SA4	SA3	Mean fees per service ($)	Mean services per patient	% Total mental health services
Melb. – Inner	Brunswick – C'burg	$127	4.7	25.6%
	Darebin – South	$135	4.8	26.1%
	Essendon	$132	4.6	26.3%
	Melbourne City	$131	4.6	23.1%
	Yarra	$139	4.7	23.3%
Melb. – N. East	Darebin – North	$117	4.5	27.4%
Melb. – N. West	Keilor	$128	4.5	27.2%
	Macedon Ranges	$118	4.3	37.9%
	Moreland – North	$114	4.6	31.0%
	Sunbury	$112	4.8	32.5%
	Tulla. – B'meadow	$98	4.2	30.7%
Melb. – West	Brimbank	$106	4.3	31.7%
	Hobsons Bay	$123	4.5	33.1%
	Maribyrnong	$123	4.5	28.0%
	Melton – B. Marsh	$106	4.3	31.4%
	Wyndham	$112	4.4	34.5%
NWMPHN		**$118**	**4.5**	**29.16%**
Victoria		**$118**	**4.4**	**30.74%**

Figure 15: Prevalence of anxiety mental health disorder in the previous 12 months, by age group – Australia



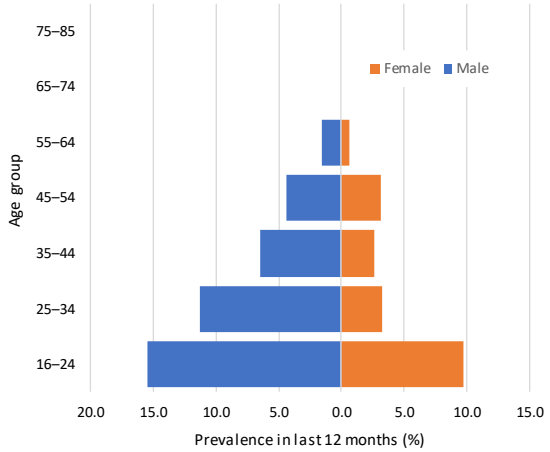
Source: ABS (2008) 4326.0 – National Survey of Mental Health and Wellbeing: Summary of Results, 2007

Figure 16: Prevalence of affective disorders in the previous 12 months, by age group – Australia



Source: ABS (2008) 4326.0 – National Survey of Mental Health and Wellbeing: Summary of Results, 2007

Figure 17: Prevalence of substance use disorders in the previous 12 months, by age group – Australia



Source: ABS (2008) 4326.0 – National Survey of Mental Health and Wellbeing: Summary of Results, 2007