

An Australian Government Initiative

Aboriginal and Torres Strait Islander Area Profile

Data as at November 2017



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



T (03) 9347 1188 | F (03) 9347 7433 | E nwmphn@nwmphn.org.au | W nwmphn.org.au Level 1, 369 Royal Parade, Parkville VIC 3052 | PO Box 139, Parkville VIC 3052

NWMPHN Aboriginal and Torres Strait Island Area Profile Data as at November 2017

1 ABORIGINAL AND TORRES STRAIT ISLANDER AREA PROFILE

SUMMARY

- The NWMPHN area is experiencing notable change in the number and location of Aboriginal and Torres strait Islander families. Victoria is projected to be the second fastest growing state in Aboriginal population by 2026.
- Moorabool and Darebin Local Government Areas (LGAs) have the highest proportion of Aboriginal people to non-Aboriginal people, but the largest overall number of Aboriginal people live in Wyndham, Brimbank and Hume.
- Almost half of the Aboriginal population in the NWMPHN region is under 25 years old.
- Admission rates due to mental health issues were 1.5 to 4.3 times higher for Aboriginal people than for all people across NWMPHN.
- Age standardised admission rates due to circulatory and digestive system issues were lower for Aboriginal people compared to all people across NWMPHN.
- Aboriginal mothers in NWMPHN were three times more likely to smoke during pregnancy than all mothers (30.4% vs 10.9%).
- At age 5, Aboriginal children had a higher average percent immunisation rate compared to all children (95.6% vs 93.2%).
- Aboriginal mother and child consultations average participation rates were lower than all mother and child consultations average participation rates.
- The Aboriginal unemployment rate in NWMPHN is 1.7 times higher than that for all people in the NWMPHN.
- Brimbank is the most disadvantaged LGA in NWMPHN for socioeconomic outcomes, for both Aboriginal and non-Aboriginal people. In general, median individual and household weekly income is lower for Aboriginal people than non-Aboriginal people.
- A high proportion of Aboriginal offenders were young (10-19 years), while non-Aboriginal offenders were most likely to be adults (25-39 years).
- Approximately double the number of Aboriginal people smoke compared to non-Aboriginal people across the LGAs in NWMPHN.

2 ACRONYMS

ABS - Australian Bureau of Statistics

ASR - Age Standardised Rates

DALY - Disability-adjusted life years, sum of years of healthy life lost (YLL) due to premature mortality and years of productive life lost due to disability (YLD)

IARE - Indigenous Regions. These are medium sized geographical units created by aggregating one or more ILOCs.

ILOC - Indigenous Locations. These are aggregates of one or more SA1s.

NWMPHN - North Western Melbourne Primary Health Network

PINIRSEO - Pooled Aboriginal and non-Aboriginal Relative Socioeconomic Outcomes

YLD - Years lived with disability measure of productive life lost due to disability.

YLL - Years of life lost, measure in years lost due to premature death before life expectancy

2.1 Analysis notes

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

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

2.2 Note on methodology

Various data sources have been used to compile this report. These data sources do not always use the same boundaries and in some cases assumptions have been made to estimate data for NWMPHN. Data sources include:

- PATCAT data: aggregated data collated in-house by the PHN from a subset of GP clinics that are registered and that are submitting data. These clinics represent 25 per cent of the GPs in the NWMPHN region.
- Victorian Aboriginal Health Services (VAHS) data: aggregated data collected in-house from a subset of VAHS clinics and summarised by Erin Manderson. Thanks to VAHS and Erin Manderson for providing the data to NWMPHN.
- POLAR Explorer tools: an easy-to-use web-based interface that allows health data to be analysed instantly.

NOTE: The boundaries of NWMPHN LGAs and NWMPHN IAREs do not align, and therefore the report compares Aboriginal and total population for the Greater Melbourne area where available, or Aboriginal and total population for Victoria.

3 ABOUT ABORIGINAL AND TORRESS STRAIT ISLANDERS

Currently, the Aboriginal and Torres Strait Islander population makes up 2.8 percent of the total Australian population.¹ Even though the Aboriginal population in NWMPHN and Victoria (0.6 per cent and 0.85 per cent respectively) is substantially smaller, Aboriginal people have a deep and continuous connection to both Victoria and the NWMPHN region, evidenced by the number of state-wide cultural heritage places. Throughout this document the term 'Aboriginal' is respectfully used to refer to both Aboriginal and Torres Strait Islander peoples.

Per the Australian Bureau of Statistics (ABS), the Aboriginal population is projected to increase by over a third by 2026. In Victoria alone, the average annual growth rate of around 2.5% to 2.8% is projected to be the second fastest compared with other states and territories, following ACT (between 2.8% and 3.1%).² Due to future uncertainties, it is preferable to provide a range of possible outcomes.

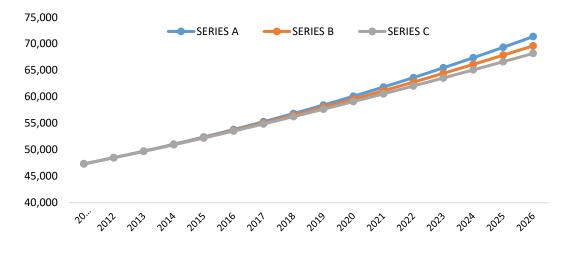


Figure 1: Victoria Aboriginal population projections, 2014, data from ABS

4 **POPULATION (NWMPHN)**

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

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

The LGAs with the highest number of Aboriginal people are Wyndham, Hume and Melton. This profile of location is a meaningful change in 2016, from the longstanding profile of Darebin as the municipality with the highest number of Aboriginal persons. This results in these growth areas being the location of 44 per cent of the regions Aboriginal people (Table 1).³

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%

¹ Statistics, A.B.o., 2076.0 - Census of Population and Housing: Characteristics of Aboriginal and Torres Strait Islander Australians. 2016

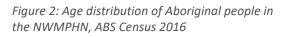
² Statistics, A.B.o., Estimates and Projections, Aboriginal and Torres Strait Islander Australians, 2001 to 2026. 2014, ABS: Australia.
 ³ Statistics, A.B.o., *Census*. 2016.

Region	LGA name	2011 popn.	2016 popn.	% 2016 LGA popn.	% of NWMPHN 2016	Growth 2011-2016	% growth 2011-2016
	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

There has been a high growth rate of people identifying as Aboriginal or Torres Strait Islander in many locations across Australia. This growth is seen to relate largely to factors other than natural increase (births and migration), including the greater propensity to identify this origin⁴.

Around half of the Aboriginal population in NWMPHN are aged under 25 years (45%, Figure 2, p.4). Macedon Ranges and Moorabool are home to a higher proportion of Aboriginal children and youth than the rest of the NWMPHN region (Figure 3).



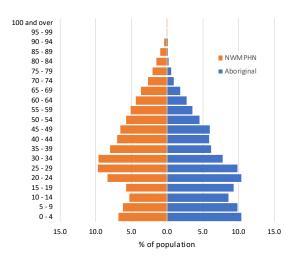
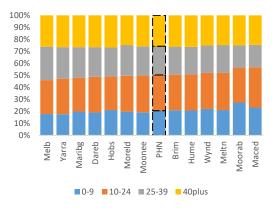


Figure 3: Proportion of Aboriginal children, youth and adults' resident in the NWMPHN by LGA



The median age of an Aboriginal person across the LGAs in NWMPHN is lower than a non-Aboriginal person. Macedon Ranges and Moorabool have the oldest median age for non-Aboriginal people and Yarra and Maribyrnong have the oldest median age for Aboriginal people.

⁴<u>http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/2071.0~2016~Main%20Features~Aboriginal%2</u> <u>0and%20Torres%20Strait%20Islander%20Population%20Data%20Summary~10</u>

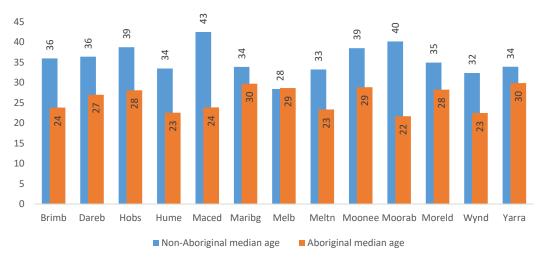


Figure 4: Median age of Aboriginal and non-Aboriginal people in the NWMPHN, ABS 2016

Source: ABS Census 2016

Comparable results are evident in the PATCAT data, where the age distribution shows that Aboriginal people visiting GPs in the region tend to be younger than non-Aboriginal people (Figure 5 and Figure 6 below). The median age of Aboriginal people visiting the Victorian Aboriginal Health Service (VAHS) is age 28⁵.

Figure 5: Age distribution of Aboriginal and Torres Strait Islander people in NWMPHN, PATCAT data, 2015-2017

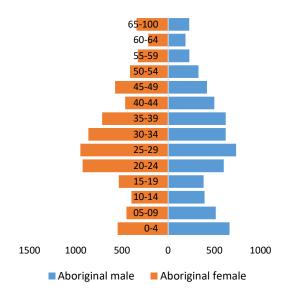
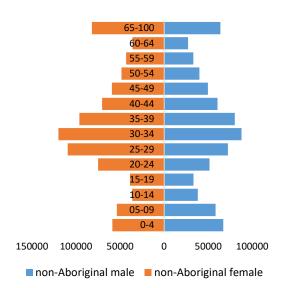


Figure 6: Age distribution of non-Aboriginal people in the NWMPHN, PATCAT data, 2015-2017



Source: NWMPHN analysis of GP visits, PATCAT 2017.

⁵ VAHS, Victorian Aboriginal Health Service. 2017.

5 HEALTH

5.1 Mental Health

In 2011, mental health and substance use disorders were the leading burden of disease for Australian Aboriginal people; accountable for 19% (36,223 DALY) of the total burden and 39% of the non-fatal burden (34,968 YLD).⁶ Anxiety disorders (23%), depressive disorders (19%) and schizophrenia (8%) were the major cause of mental health disorders.⁷

In the Victorian Population Health Survey of 2014, 12.6% of all Victorians reported a high to a very high level of psychological distress. The average of in NWMPHN was slightly higher at 13.2%, with Darebin having the highest proportion of people with high levels of distress living in Darebin (20.4%).⁸

The Australia Aboriginal and Torres Strait Islander Health Survey of 2012-13 showed that the proportion of psychological distress was 2.5 times higher for Aboriginal persons than non-Aboriginal persons (32.3% v 12.6%) in Victoria. The health survey reported on Aboriginal Victorians in Melbourne and the rest of Victoria. When looking at gender across Victoria, greater levels of high to very high psychological distress were reported in both Aboriginal (35.3% vs 29.1%) and non-Aboriginal (15.1% vs 10.3%) women relative to men.

A Vic Health funded survey in 2016 indicated that experiencing racism in a health setting had a greater negative impact on the mental health of Aboriginal people than experiencing racism anywhere else.⁹ Of the 755 participants, 97% experienced at least one racist incident in the previous 12 months and nearly a third of these incidents were in hospitals and healthcare.¹⁰

While Victoria generally has lower mental health hospital admission rates than other states due to structural differences in the mental health systems¹¹, Table 2 (below) illustrates that the Greater Metropolitan area has admission rates 1.4 times higher for Aboriginal people than for the total population.

Within this, Darebin (Northcote - Preston – Whittlesea) reported higher age standardised rates (ASR) of hospital admission for mental health in Aboriginal persons (4,012.3 per 100,000) than the rest of the region.

Institute: Melbourne.

NWMPHN Aboriginal and Torres Strait Island Area Profile

⁶ Welfare, A.I.o.H.a., Australian Burden of Disease Study: Impact and causes of illness and death in Aboriginal and Torres Strait Islander people 2011, in Australian Burden of Disease Study. 2016, AIHW: Canberra.

⁷ Welfare, A.I.o.H.a., Australian Burden of Disease Study: Impact and causes of illness and death in Aboriginal and Torres Strait Islander people 2011, in Australian Burden of Disease Study. 2016, AIHW: Canberra.

⁸ Department of Health, S.G.o.V., Melbourne, Australia, *Victorian Population Health Survey 2014. Modifiable risk factors contributing to chronic disease in Victoria. A snapshot by local government area.* 2016.

 ⁹ 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.
 ¹⁰ 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

¹¹ https://mhsa.aihw.gov.au/services/admitted_overnight/



Table 2: Age standardised rates of admissions with a mental health diagnosis per 100,000 population by Indigenous Area, (2012-13)

Indigenous Area	Aboriginal	Total Population
Brimbank	1,252.36	
Craigieburn - Sunbury	1,815.04	
Maribyrnong - Moonee Valley	1,049.53	
Melbourne - Port Phillip	2,498.17	
Melton		
Moreland - Broadmeadows	2,378.73	
Northcote - Preston - Whittlesea	4,017.23	
Wyndham - Altona	778.44	
Macedon Ranges - Moorabool		
Greater Melbourne	1,911.25	682.01
Victoria	1,607.57	715.80
AUSTRALIA	2,371.33	852.01
Greater Melbourne Ratio		1.40

Source: NWMPHN analysis of ABS ERP, PHIDU 2017. Note: No data reported for Melton and Macedon Ranges-Moorabool because potentially identifiable.

PATCAT data has also been analysed to identify trends (Table 3 below). These data identify that:

- Visits to GPs in Yarra were consistently high for both Aboriginal and non-Aboriginal persons
- The highest percentage rate of GP presentations for bipolar disorder for Aboriginal people was in Maribyrnong and for non-Aboriginal people in Moonee Valley (2.85% vs 0.78%).
- Depression was highest in visits to GPs in Maribyrnong for Aboriginal persons and Moorabool for non-Aboriginal persons.
- Darebin had the highest percentage of people with schizophrenia visiting their GPs for both Aboriginal and non-Aboriginal people.
- VAHS data showed a high proportion of Aboriginal people diagnosed with depression visiting the GPs (19.94%) .

Region	LGA Name	Aı	nxiety	Bi	polar	Dep	ression	Schizophrenia	
		Other	Aboriginal	Other	Aboriginal	Other	Aboriginal	Other	Aboriginal
Growth area	Hume (C)	5.98	9.09	0.38	1.08	6.7	11.22	0.31	0.52
	Melton (S)	8.03	13.82	0.55	1.02	7.98	13.10	0.33	0.92
	Wyndham (C)	4.58	9.64	0.77	2.07	5.13	10.4	0.21	0.51
Inner city	Maribyrnong (C)	7.43	10.76	0.76	2.85	8.79	15.35	0.67	2.06
	Melbourne (C)	5.76	11.51	0.32	2.06	6.02	10.14	0.25	2.75
	Yarra (C)	9.87	13.09	0.35	1.36	10.69	15.08	0.73	3.17
Peri-urban	Macedon Ranges (S)	7.5	9.18	0.47	1.22	7.4	8.78	0.19	1.22
	Moorabool (S)	9.48	12.22	0.53	1.97	11.84	14.79	0.51	1.29
Suburban	Brimbank (C)	5.99	13.89	0.44	2.46	6.92	13.55	0.50	1.57
	Darebin (C)	9.67	12.24	0.69	1.92	9.57	13.35	0.78	3.40
	Hobsons Bay (C)	7.31	8.82	0.60	1.94	8.48	13.58	0.44	1.23
	Moonee Valley (C)	5.94	11.65	0.78	0.96	6.36	11.11	0.40	1.90
	Moreland (C)	7.08	12.19	0.32	0.72	7.85	12.45	0.51	2.40
	VAHS		12.86	0.44	2.46		19.94		2.57

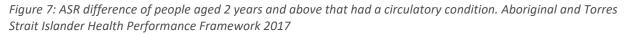
Table 3: Proportion (%) of GP visits due to specified mental health conditions by LGA, PATCAT data (2015-17)

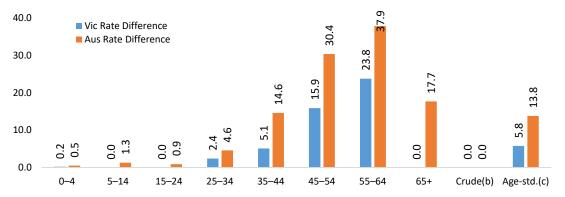
Source: NWMPHN analysis of GP visits, PATCAT 2017.

5.2 **Other Health Conditions**

In 2011, cardiovascular diseases were the third greatest contributors to the burden of disease for Aboriginal people, accounting for 12% (23,771 DALY) of the total burden.¹²

In the period of 2008-12, circulatory disease was the leading cause of death for both Aboriginal and non-Aboriginal people (26% and 32% of the total deaths)¹³. The Aboriginal and Torres Strait Islander health performance framework report of 2014, reported that there were over 22,500 hospitalisations of Aboriginal people for circulatory disease, a rate of 17 per 1000 in the two years of 2011-12 and 2012-13.¹⁴ The age standardised rate difference between Aboriginal and non-Aboriginal people aged two and over for circulatory conditions was 5.8 (23.4 vs 17.6) in Victoria compared to 13.8 (31.7 vs 17.9) in Australia (Figure 7, below).¹⁵





The Moreland - Broadmeadows region had the highest ASR of circulatory system admissions per 100,000 in Aboriginal people. The Greater Melbourne ASR of circulatory admissions was 58 per cent lower for Aboriginal population than the total population (937 vs 2251 per 100,000). Age standardised admission rates for other conditions among the Aboriginal population were also generally lower than for non-Aboriginal people.

Table 4: Age standardised rates of admissions with other conditions diagnosis per 100,000 population by Indigenous Area, (2012-13)

Indigenous Area name	Circulatory	Circulatory System		Respiratory System		Digestive System		injury, poisoning and other external causes	
	Aboriginal	Other	Aboriginal	Other	Aboriginal	Other	Aboriginal	Other	
Brimbank					1510		1384		
Craigieburn - Sunbury			1284		2070		1703		
Maribyrnong - Moonee Valley	1286				1753		2302		
Melbourne - Port Phillip	851		1346		2297		1888		
Melton					1554		1112		
Moreland - Broadmeadows	1549		1715		2087		2128		
Northcote - Preston - Whittlesea	1185		1800		2173		2156		
Wyndham - Altona	781		974		1655		1356		
Macedon Ranges - Moorabool									
Greater Melbourne	937	2251	1163	1490	1990	4503	1841	2245	
Victoria	1153	2256	1609	1593	2524	4438	2077	2279	

¹² Welfare, A.I.o.H.a., Australian Burden of Disease Study: Impact and causes of illness and death in Aboriginal and Torres Strait Islander people 2011, in Australian Burden of Disease Study. 2016, AIHW: Canberra.

¹³ Council, A.H.M.A., Aboriginal and Torres Strait Islander Health Performance Framework. 2015, AHMAC: Canberra.

¹⁴ Council, A.H.M.A., Aboriginal and Torres Strait Islander Health Performance Framework. 2015, AHMAC: Canberra.

¹⁵ Council, A.H.M.A., Aboriginal and Torres Strait Islander Health Performance Framework. 2015, AHMAC: Canberra. Data as at November 2017

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Indigenous Area name	Circulatory		Circulatory System Respiratory System		Digestive System		injury, poisoning and other external causes	
	Aboriginal	Other	Aboriginal	Other	Aboriginal	Other	Aboriginal	Other
Australia	1676	2279	3030	1761	2794	4045	4000	2644
Greater Melbourne Ratio		0.42		2.03		0.44		0.82

Source: NWMPHN analysis of ABS ERP, PHIDU 2017.

In 2011, endocrine disorders contributed 4.1% (7,863 DALY) of total burden among Aboriginal Australians.¹⁶ Most of this burden was due to diabetes, which was one of the five leading causes of total disease burden among Aboriginal Australians (7,725 DALY).¹⁷

As per PATCAT data, Type 1 diabetes rate are highest in Aboriginal people visiting GPs in Moonee Valley, and for non-Aboriginal people visiting GPs in Darebin. GP visits from patients with Type 2 diabetes were highest for Aboriginal persons in Hobsons Bay and non-Aboriginal persons in Darebin (Table 5 below).

Region	LGA Name	Diabetes Type I (%)		Diabe	etes Type II (%)	Undefi	ned Diabetes (%)
		Non- Aboriginal	Aboriginal	Non- Aboriginal	Aboriginal	Non- Aboriginal	Aboriginal
Growth area	Hume (C)	0.35	0.48	3.4	4.3	0.62	0.74
	Melton (S)	0.32	0.51	3.35	3.38	1.1	1.64
	Wyndham (C)	0.27	0.24	2.66	3.08	0.65	0.89
Inner city	Maribyrnong (C)	0.33	0.47	2.84	4.11	0.85	1.27
	Melbourne (C)	0.34	0.52	0.93	1.2	0.24	1.03
	Yarra (C)	0.36	0.34	1.81	2.75	0.33	0.62
Peri-urban	Macedon Ranges (S)	0.42	0.82	2.46	2.65	0.37	0.2
	Moorabool (S)	0.38	0.32	3.57	3.86	0.45	0.64
Suburban	Brimbank (C)	0.38	0.34	4.11	3.81	0.85	1.34
	Darebin (C)	0.43	0.68	4.13	4.14	0.35	0.43
	Hobsons Bay (C)	0.39	0.53	3.43	4.41	0.34	0.88
	Moonee Valley (C)	0.37	1.08	2.6	2.71	0.53	0.81
	Moreland (C)	0.38	0.09	2.83	2.58	0.45	0.69
	VAHS		0.8		8.77		

Table 5: Proportion (%) of GP visits due to diabetes types by LGA, PATCAT data (2015-17)

Source: NWMPHN analysis of GP visits, PATCAT 2017.

In 2011, the fifth most demanding disease group was respiratory disease, contributing to 7.9% (15,058 DALY) of total burden in Aboriginal Australians.¹⁸ Asthma and Chronic Obstructive Pulmonary Disease (COPD) accounted for highest proportion of the burden from respiratory diseases (41% and 38% respectively).¹⁹

Chronic respiratory presentations to GPs in NWMPHN are shown in the Table 6 below. The highest proportion of presentations were seen in Moorabool for both asthma and COPD among non-Aboriginal people, while for Aboriginal people, the highest rates of presentations for asthma were in Macedon Ranges and COPD in Moorabool. VAHS had the highest percentage rate of Aboriginal patients visiting GPs for chronic respiratory conditions.²⁰

²⁰ VAHS, Victorian Aboriginal Health Service. 2017.

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¹⁶ Welfare, A.I.o.H.a., Australian Burden of Disease Study: Impact and causes of illness and death in Aboriginal and Torres Strait Islander people 2011, in Australian Burden of Disease Study. 2016, AIHW: Canberra.

¹⁷ Welfare, A.I.o.H.a., Australian Burden of Disease Study: Impact and causes of illness and death in Aboriginal and Torres Strait Islander people 2011, in Australian Burden of Disease Study. 2016, AIHW: Canberra.

¹⁸ Welfare, A.I.o.H.a., Australian Burden of Disease Study: Impact and causes of illness and death in Aboriginal and Torres Strait Islander people 2011, in Australian Burden of Disease Study. 2016, AIHW: Canberra.

¹⁹ Welfare, A.I.o.H.a., Australian Burden of Disease Study: Impact and causes of illness and death in Aboriginal and Torres Strait Islander people 2011, in Australian Burden of Disease Study. 2016, AIHW: Canberra.

Region	LGA Name	Asthm	na (%)	COPD (%)		
		Non-Aboriginal	Aboriginal	Non-Aboriginal	Aboriginal	
Growth area	Hume (C)	6.82	9.70	1.02	1.78	
	Melton (S)	8.29	12.69	1.03	2.46	
	Wyndham (C)	6.66	9.44	0.63	0.96	
Inner city	Maribyrnong (C)	8.27	15.98	1.07	3.48	
	Melbourne (C)	5.28	12.20	0.31	1.37	
	Yarra (C)	7.65	11.64	0.79	2.07	
Peri-urban	Macedon Ranges (S)	9.48	14.49	1.10	0.82	
	Moorabool (S)	13.48	13.83	2.00	2.57	
Suburban	Brimbank (C)	7.96	13.21	1.22	2.91	
	Darebin (C)	7.44	9.46	1.59	2.66	
	Hobsons Bay (C)	7.52	9.70	1.10	1.06	
	Moonee Valley (C)	6.08	7.86	0.84	0.81	
	Moreland (C)	7.06	8.93	0.85	1.63	
	VAHS		19.40		1.91	

Table 6: Proportion (%) of GP visits due to chronic respiratory conditions by LGA, PATCAT data (2015-17)

Source: NWMPHN analysis of GP visits, PATCAT 2017.

The cardiovascular diseases group burden was dominated by coronary heart disease (CHD) (58% of cardiovascular disease DALY) and stroke (14% of cardiovascular diseases DALY).²¹ Chronic cardiovascular conditions are shown in Table 7 below. Darebin had a high proportion of patient visits due to cardiovascular condition for both Aboriginal and non-Aboriginal persons in the NWMPHN region. VAHS had the highest percentage rate of Aboriginal patients visiting GPs for chronic cardiovascular conditions.²²

Table 7: Proportion (%) of GP visits due to cardiovascular conditions by LGA, PATCAT data (2015-17)	

Region	LGA Name	CHD		Heart Fa	ilure	Hyperte	nsion	Strok	æ
		Non- Aboriginal	Other	Non- Aboriginal	Other	Non- Aboriginal	Other	Non- Aboriginal	Other
Growth area	Hume (C)	1.51	2.35	0.30	0.30	8.15	6.83	0.51	0.74
	Melton (S)	1.64	2.46	0.33	0.51	9.37	5.73	0.59	0.82
	Wyndham (C)	1.10	0.79	0.27	0.38	6.77	6.02	0.40	0.44
Inner city	Maribyrnong (C)	1.42	1.74	0.39	1.11	8.32	8.23	0.74	0.79
	Melbourne (C)	0.54	1.37	0.10	0.17	4.10	4.30	0.28	0.86
	Yarra (C)	1.13	1.65	0.42	0.48	6.4	3.99	0.56	0.96
Peri-urban	Macedon Ranges (S)	1.95	1.22	0.40	0.61	10.82	7.55	1.01	1.02
	Moorabool (S)	2.42	2.89	0.57	0.00	12.78	6.75	1.17	0.00
Suburban	Brimbank (C)	1.73	1.68	0.48	0.45	10.47	5.94	0.70	0.78
	Darebin (C)	2.34	2.16	0.89	0.56	10.27	6.67	1.04	1.55
	Hobsons Bay (C)	2.15	1.94	0.72	0.88	10.00	5.29	0.93	0.88
	Moonee Valley (C)	2.02	0.81	0.42	0.00	9.13	6.50	0.68	0.81
	Moreland (C)	1.43	1.63	0.39	0.43	7.84	4.89	0.60	0.52
	VAHS		4.46		0.71		10.29		1.06

Source: NWMPHN analysis of GP visits, PATCAT 2017.

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²¹ Welfare, A.I.o.H.a., Australian Burden of Disease Study: Impact and causes of illness and death in Aboriginal and Torres Strait Islander people 2011, in Australian Burden of Disease Study. 2016, AIHW: Canberra.

²² VAHS, Victorian Aboriginal Health Service. 2017.

5.3 Disability

The Australian Aboriginal and Torres Strait Islander Health Survey of 2012-13 describes the level of disability experienced. Aboriginal people have higher rates of disability than non-Aboriginal people across all age groups.²³

Table 8 below shows the percentage of Aboriginal people assisting persons with a disability. Macedon Ranges - Moorabool have the highest proportion of Aboriginal people providing aid in the region. Brimbank and Macedon Ranges - Moorabool have the highest percentage of Aboriginal persons living with a profound disability.

The proportion of Aboriginal persons with a profound disability is 1.53 times higher than the total population in the Greater Melbourne region. Similarly, the proportion of Aboriginal people aiding persons with a disability is 1.13 times higher than the general population in the Greater Melbourne region (Table 8 below).

Indigenous Area name	% Aboriginal persons with a profound or severe disability	% persons with a profound or severe disability	% Aboriginal aiding persons with a disability	% aiding persons with a disability
Brimbank	7.02		10.26	
Craigieburn - Sunbury	4.76		10.54	
Maribyrnong - Moonee Valley	4.48		12.55	
Melbourne - Port Phillip	4.83		12.30	
Melton	5.24		11.57	
Moreland - Broadmeadows	6.58		10.48	
Northcote - Preston - Whittlesea	5.71		11.66	
Wyndham - Altona	5.33		10.34	
Macedon Ranges - Moorabool	6.88		18.60	
Greater Melbourne	5.82	3.80	12.29	10.89
Victoria	5.97	3.95	12.89	11.25
AUSTRALIA+	4.91	3.90	12.90	10.92
Greater Melbourne Ratio		1.53		1.13

Table 8: Proportion (%) of persons with a disability or profound disability by Indigenous Area (2011).

Source: NWMPHN analysis of ABS ERP, PHIDU 2017.

²³ Statistics, A.B.o., *Australian Aboriginal and Torres Strait Islander Health Survey: First Results*. 2012-13, ABS: Australia

6 **FAMILIES**

6.1 Mothers, babies and Children

The National Key Performance Indicators report provides data on a number of key measures of maternal and child health. The key measures are the proportion of low birth weight babies and the proportion of mothers smoking during pregnancy. As of December 2014, 13% of Aboriginal children born in the previous year had low birth weight²⁴. This is twice the rate of the total population (13% vs 6%).

Aboriginal mothers in Australia were approximately four times more likely to smoke through pregnancy than all mothers (47.4% vs 12.3%). Brimbank, Craigieburn - Sunbury and Macedon Ranges - Moorabool IAREs had the highest rates of smoking during pregnancy among Aboriginal mothers (Table 9 below), though all rates were substantially below the overall Australian rate.

Indigenous Area name	% Aboriginal smoking during pregnancy	% smoking during pregnancy
Brimbank	35.9	
Craigieburn - Sunbury	35.9	
Maribyrnong - Moonee Valley	30.8	
Melbourne - Port Phillip	29.2	
Melton	29.9	
Moreland - Broadmeadows	28.3	
Northcote - Preston - Whittlesea	27.8	
Wyndham - Altona	24.9	
Macedon Ranges - Moorabool	33.9	
Greater Melbourne	n.a.	11.2
Victoria	n.a.	15.0
AUSTRALIA+	47.4	12.3
Australia ratio		3.9

Table 9: Percentage of mothers smoking during pregnancy (2011)

Source: NWMPHN analysis of ABS ERP, PHIDU 2017.

Additionally, PATCAT data illustrates a higher GP presentation rate for post-natal depression for non-Aboriginal mothers in Hobsons Bay and for Aboriginal mothers in Moonee Valley (0.36% and 0.54% respectively).

Region	LGA Name	Non-Aboriginal Postnatal Depression (%)	Aboriginal Postnatal Depression (%)
Growth area	Hume (C)	0.29	0.35
	Melton (S)	0.26	0.20
	Wyndham (C)	0.17	0.34
Inner city	Maribyrnong (C)	0.25	0.47
	Melbourne (C)	0.15	0.52
	Yarra (C)	0.19	0.21
Peri-urban	Macedon Ranges (S)	0.24	0
	Moorabool (S)	0.24	0.32
Suburban	Brimbank (C)	0.21	0.34
	Darebin (C)	0.28	0.25
	Hobsons Bay (C)	0.36	0.18

Table 10: Proportion (%) of GP visits due to postnatal depression by LGA, PATCAT data (2015-17)

²⁴ Welfare, A.I.o.H.a., The health and welfare of Australia's Aboriginal and Torres Strait Islander peoples 2015. 2015: Canberra: AIHW.

Region LGA	A Name	Non-Aboriginal Postnatal Depression (%)	Aboriginal Postnatal Depression (%)
Mo	onee Valley (C)	0.16	0.54
Mor	reland (C)	0.11	0.43

Source: NWMPHN analysis of GP visits, PATCAT 2017.

6.2 Immunisation

As shown in the *My Healthy Communities'* report of June 2017, immunisation rates for children continued to improve nationally and in most local areas in 2015-2016²⁵. Figure 8 below shows data for Aboriginal children and all children immunised from 2012-13 to 2015-16 for children aged 1, 2 and 5 years old. The proportion of Aboriginal children fully immunised increases with age, but is mostly lower than the general population.

One-year old Aboriginal children had the highest percentage improvement in annual growth rate from 2012-13 to 2015-16 of children immunised compared with all children immunised (2.4% vs 0.6%), with a significant reverse of immunisation rates at two years of age (-3.2% vs -0.8%). In children age 5 years, Aboriginal children had a similar substantial improved growth rate compared to all children (1.96% vs 0.29%) (Figure 8 below).

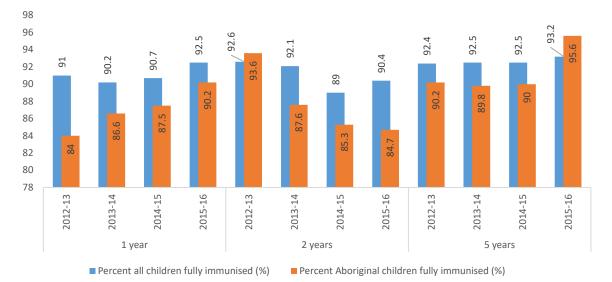


Figure 8: Proportion (%) of children fully immunised age groups 1, 2 and 5 years old in NWMPHN (2016)

Source: MyHealthyCommunities, Australian Institute of Health and Welfare 2017

NWMPHN immunisation rates of 5-year-old children were higher than national rates (93.2% vs 92.9%) and improved from 92.4% to 93.2% from the years of 2012-13 to 2015-16. Immunisation rates for 5-year-old Aboriginal children in the NWMPHN region were higher than all children in the region (95.6% vs 93.2%), but lower for 1-year-olds (90.2% vs 92.5%) and 2-year-olds (84.7% vs 90.4%). National 5-year-old Aboriginal immunisation rates were higher than all children nationally (94.6% vs 92.9%).

6.3 Maternal and Child Consultations

The maternal and child health program provides developmental health assessments for all children at key milestone ages until 3.5 years of age. Data from the program identifies two key trends:

- A declining participation rate as children age. This is apparent in both Aboriginal children and for the total population.
- Participation rates are generally lower for Aboriginal children than for the total population (Figure 9, below).

Appendix 2 provides a breakdown by LGA. These data illustrate some alternative trends in some subgroups.

Aboriginal participation rates are higher in Maribyrnong than the general population (120% vs 103.5%) with this declining through the timeseries to be lower than the total population (22.2% vs 53.6%). The opposite was experienced in Moonee Valley where the first Aboriginal mothers and children participation rate was approximately two times lower than all mothers and children participation rates (50% vs 99.6%) and the last consultation participation rate for Aboriginal mothers and children was higher than all mothers and children participation rates (83.3% vs 76%).

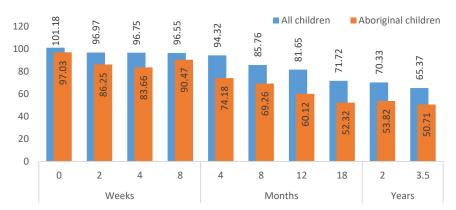


Figure 9: Average % of consultation for Aboriginal and all mothers and children (2014-15)

Source: NWMPHN Maternal & Child Health Services Annual Report 2014-15, DET 2017

Table 11 illustrates the hospitalisation rate to provide some indication of the ill-health of children aged 0-14 years. Northcote-Preston-Whittlesea has the highest ASR of children hospitalised in NWMPHN, followed by Moreland-Broadmeadows. Remaining areas are statistically significantly lower than the Australian rate.

Indigenous Area name	ASR per 100,000	Statistical significance
Brimbank	9,008.7	**
Craigieburn - Sunbury	10,592.7	*
Maribyrnong - Moonee Valley	8,256.6	**
Melbourne - Port Phillip	7,351.4	**
Melton	7,285.1	**
Moreland - Broadmeadows	13,194.0	
Northcote - Preston - Whittlesea	19,435.0	
Wyndham - Altona	6,644.0	**
Macedon Ranges - Moorabool	5,322.7	**
Greater Melbourne	10,947.7	**
Victoria	11,484.3	**
AUSTRALIA+	16,872.3	



Table 11: Total hospitalisation of Aboriginal children, 0-14 years, aged standardised rate (ASR)

Indigenous Area name	ASR per 100,000	Statistical significance
Brimbank	9,008.7	**
Craigieburn - Sunbury	10,592.7	*
Maribyrnong - Moonee Valley	8,256.6	**
Melbourne - Port Phillip	7,351.4	**
Melton	7,285.1	**
Moreland - Broadmeadows	13,194.0	
Northcote - Preston - Whittlesea	19,435.0	
Wyndham - Altona	6,644.0	**
Macedon Ranges - Moorabool	5,322.7	**
Greater Melbourne	10,947.7	**
Victoria	11,484.3	**
AUSTRALIA+	16,872.3	

Source: NWMPHN analysis of ABS ERP, PHIDU 2017. Note: *=significantly lower than the Australian rate at 95% confidence; **=significantly lower than the Australian rate at 99% confidence

7 SOCIOECONOMIC DETERMINANTS

7.1 IRSEO and PINIRSEO Scores

The Centre for Aboriginal and Economic Policy Research has described the use of different socioeconomic indices for Aboriginal and non-Aboriginal populations.²⁶ The main reasons for developing a difference suite of Aboriginal outcomes indices were the relative size of the Aboriginal population, irrelevance of some variables in the SEIFA indices to Aboriginal communities and that the geographical boundaries have varied over time.²⁷

Within NWMPHN, the 2011 Indigenous Relative Socioeconomic Outcomes (IRSEO) score was low relative to the Victorian and Australian averages (12 vs 29 and 46). However, further development of the IRSEO was undertaken to include the non-Aboriginal population. Table 12 shows the adjusted IRSEO, PIRSEO with the two indices for the Aboriginal and all population.

Indigenous Area name	PIRSEO Non-Aboriginal	PIRSEO Aboriginal
Brimbank	46	64
Craigieburn - Sunbury	27	54
Macedon Ranges - Moorabool	20	51
Maribyrnong - Moonee Valley	14	43
Melbourne - Port Phillip	3	33
Melton	23	61
Moreland - Broadmeadows	33	58
Northcote - Preston - Whittlesea	25	57
Wyndham - Altona	19	58

Table 12: PINIRSEO scores. *the higher the PINIRSEO number the worse the level of disadvantage.

Source: NWMPHN analysis of ABS ERP, PHIDU 2017.

Brimbank and Northcote- Preston- Whittlesea had high rates for Aboriginal people living in single parent (57.9% and 55.9%) and low-income (13% and 13.6%) families, compared to other areas in NWMPHN. Aboriginal people in the Greater Melbourne region were 2.5 times more likely to live in a single parent family compared to the total population (Table 13, below).

 ²⁶ Biddle, D.N., CAEPR Indigenous Population Project 2011 Census Papers: Socioeconomic Outcomes. 2013.
 ²⁷ Biddle, D.N., CAEPR Indigenous Population Project 2011 Census Papers: Socioeconomic Outcomes. 2013 NWMPHN Aboriginal and Torres Strait Island Area Profile
 Data as at November 2017



Table 13: Socioeconomic indicators, single parents and children in jobless families (2011)

Indigenous Area name	% Aboriginal single parent families	% single parent families	% Aboriginal low- income families	% low income, welfare- dependent families (with children)
Brimbank	57.93		13.00	
Craigieburn - Sunbury	35.98		7.90	
Maribyrnong - Moonee Valley	48.28		12.20	
Melbourne - Port Phillip	52.44		6.00	
Melton	44.79		10.00	
Moreland - Broadmeadows	51.60		12.30	
Northcote - Preston - Whittlesea	55.85		13.60	
Wyndham - Altona	45.03		9.70	
Macedon Ranges - Moorabool	35.34		7.80	
Greater Melbourne	46.50	18.00	9.83	8.90
Victoria	49.39	19.59	11.48	9.53
AUSTRALIA+	47.22	21.34	12.86	10.11
Greater Melbourne Ratio		2.58		1.10

Source: NWMPHN analysis of ABS ERP, PHIDU 2017.

7.2 Labour force

When looking at the unemployment rate, Melton had the highest Aboriginal unemployment rate in the NWMPHN region, being 1.5 times that of Greater Melbourne (17% vs 11.14%) (Table 14, below). The Aboriginal Greater Melbourne percentage rate was 1.8 times that of the total population percentage rate (11.14% vs 5.92%).

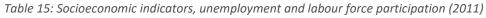
The percentage of female participation in the labour force in Brimbank was the lowest for Aboriginal people in the NWMPHN region. Female participation in the Greater Melbourne region was nearly 20% lower for Aboriginal women than for non-Aboriginal women (46.3% vs 56.1%).

Table 14: Socioeconomic indicators, unemployment and labour force participation (2016/2011)

Indigenous Area name	% Aboriginal unemployed	% unemployed	% Aboriginal female labour force participation	% female labour force participation
Brimbank	13.10		48.37	
Craigieburn - Sunbury	9.90		62.25	
Maribyrnong - Moonee Valley	8.90		58.09	
Melbourne - Port Phillip	12.40		62.69	
Melton	17.00		50.60	
Moreland - Broadmeadows	12.60		48.97	
Northcote - Preston - Whittlesea	10.50		53.62	
Wyndham - Altona	11.20		55.60	
Macedon Ranges - Moorabool	10.90		52.21	
Greater Melbourne	11.14	5.92	46.30	56.13
Victoria	14.10	5.92	48.93	55.83
AUSTRALIA+	17.10	5.88	54.22	56.81
Greater Melbourne Ratio		1.88		0.82

Source: NWMPHN analysis of ABS ERP, PHIDU 2017.

Brimbank had the highest rate of Aboriginal children (<16 years) and adults living in jobless families (49.8% and 50.3%) (Table 15, below). The Aboriginal Greater Melbourne region population rate is approximately three times higher than the total population for both groups (34.3% and 33.5% vs 11.8% and 11.4% respectively).



Indigenous Area name	% children in Aboriginal jobless families	% children in jobless families	% Aboriginal jobless families	% jobless families
Brimbank	49.8		50.3	
Craigieburn - Sunbury	28.2		26.8	
Maribyrnong - Moonee Valley	27.3		31.9	
Melbourne - Port Phillip	25.5		39.0	
Melton	37.4		39.1	
Moreland - Broadmeadows	49.0		45.7	
Northcote - Preston - Whittlesea	38.8		39.4	
Wyndham - Altona	33.3		33.2	
Macedon Ranges - Moorabool	34.6		28.5	
Greater Melbourne	34.3	11.8	33.5	11.4
Victoria	40.0	12.7	39.4	12.3
AUSTRALIA+	40.2	13.9	39.8	13.3
Greater Melbourne Ratio		2.9		2.9

Source: NWMPHN analysis of ABS ERP, PHIDU 2017.

7.3 Income and housing

Aboriginal people have on average a lower individual and household weekly income than non-Aboriginal people. Brimbank has the lowest individual and household median incomes in non-Aboriginal population and second lowest in Aboriginal population in NWMPHN.

Region	LGA Name	Individual Weekly I	ncome (\$median)	Household Weekly Income (\$median)				
		Non-Aboriginal	Aboriginal	Non-Aboriginal	Aboriginal			
Growth area	Hume (C)	531	517	1594	1464			
	Melton (S)	661	519	1784	1471			
	Wyndham (C)	688	507	1824	1566			
Inner city	Maribyrnong (C)	byrnong (C) 707 531		1885	1369			
	Melbourne (C)	643	601	1593	1342			
	Yarra (C)	1043	628	2338	1616			
Peri-urban	Macedon Ranges (S)	706	568	2008	1636			
	Moorabool (S)	639	643	1739	1569			
Suburban	Brimbank (C)	489	496	1529	1381			
	Darebin (C)	653	477	1793	1390			
	Hobsons Bay (C)	707	529	1946	1701			
	Moonee Valley (C)	746	708	2107	1901			
	Moreland (C)	683	563	1848	1435			

Table 16. Median weekly income (2016)

Source: Statistical data for Victorian Communities, City of Dandenong 2017.

Looking at housing, a higher percentage of non-Aboriginal people owned or are paying mortgages compared to Aboriginal people. Table 17 shows Macedon Ranges as having the highest percentage of home ownership or mortgage payment for Aboriginal and non-Aboriginal people (68% vs 82%) and Melbourne having highest percentage of tenants for both Aboriginal and non-Aboriginal people (78% vs 66%). The percentage of dwellings rented from the government or housing co-ops is highest in Darebin (28%) for Aboriginal people and Yarra (10%) for non-Aboriginal people.



Table 17: Housing (2011 – 2016)

Region	LGA Name	Owned or beir	ng purchased	Rented dv	wellings	•	nted from the housing co-ops.
		Non- Aboriginal	Aboriginal	Non- Aboriginal	Aboriginal	Non- Aboriginal	Aboriginal
Growth area	Hume (C)	72	49	24	49	3	16
	Melton (S)	75	51	21	46	1	6
	Wyndham (C)	69	44	28	53	1	8
Inner city	Maribyrnong (C)	52	29	44	68	6	18
	Melbourne (C)	30	14	66	78	5	12
	Yarra (C)	42	21	54	75	10	25
Peri-urban	Macedon Ranges (S)	82	68	15	21	2	5
	Moorabool (S)	78	64	18	31	3	7
Suburban	Brimbank (C)	70	35	26	57	2	14
	Darebin (C)	58	26	38	69	4	28
	Hobsons Bay (C)	67	42	29	55	3	13
	Moonee Valley (C)	64	33	32	61	5	11
	Moreland (C)	59	32	38	62	3	11

Source: Statistical data for Victorian Communities, City of Dandenong 2017.

7.4 Education

The 2014-15 Aboriginal and Torres Strait Islander social survey indicated that there was significant improvement in the number of Aboriginal people aged 15 years and over who had completed Year 12 or equivalent compared to previous years. However, when looking at the ASR of participation in vocational education and training in the NWMPHN region, the rate of Aboriginal children in Macedon Ranges was very low, at 9.5 per 100 persons. The rate in non-Aboriginal people was very low in Melbourne, at 8.6 per 100 persons (Table 18 below).

Table 18: Participation rate in vocational education and training ASR per 100 people (2015)

Region	LGA Name	Non-Aboriginal population ASR per 100	Aboriginal population ASR per 100
Growth area	Hume (C)	19.4	18.2
	Melton (S)	18.1	17.6
	Wyndham (C)	18.8	16.2
Inner city	Maribyrnong (C)	14.0	14.9
	Melbourne (C)	8.6	18.0
	Yarra (C)	10.1	11.6
Peri-urban	Macedon Ranges (S)	16.1	9.5
	Moorabool (S)	19.1	16.3
Suburban	Brimbank (C)	18.5	18.7
	Darebin (C)	11.9	14.5
	Hobsons Bay (C)	14.9	12.8
	Moonee Valley (C)	16.7	111.8
	Moreland (C)	12.6	10.8

Source: NWMPHN analysis of ABS ERP, PHIDU 2017.

The percentage of Aboriginal students that passed in vocational education and training subjects is seen in Table 19 below. Several LGAs had similar outcomes for Aboriginal and non-Aboriginal students. In Macedon Ranges, the Aboriginal student percentage surpassed that of the non-Aboriginal students (92.8% vs 81.8%). Darebin had the lowest percentage pass rate of vocational and training subjects for both Aboriginal and non-Aboriginal children in the NWMPHN region (59.2% and 74.8% respectively).

 Table 19: Socioeconomic indicators, Load Pass Rate of vocational education and training subjects (2015)

Region	LGA Name	% passed subject	% Aboriginal passed subject
Growth area	Hume (C)	76.4	73.2
	Melton (S)	79.5	65.4
	Wyndham (C)	79.5	76.6
Inner city	Maribyrnong (C)	74.7	72.4
	Melbourne (C)	78.5	72.6
	Yarra (C)	75.5	68.0
Peri-urban	Macedon Ranges (S)	82.1	92.8
	Moorabool (S)	82.9	61.9
Suburban	Brimbank (C)	76.5	68.7
	Darebin (C)	74.8	59.2
	Hobsons Bay (C)	80.1	60.3
	Moonee Valley (C)	78.3	60.2
	Moreland (C)	79.7	73.1

Source: NWMPHN analysis of ABS ERP, PHIDU 2017.

The percentage of people that left school before completing year 11 is seen in Table 20 below. A higher percentage is seen in Aboriginal people compared to non-Aboriginal people in both groups. Melbourne especially, has 75% Aboriginal people that left school before completing year 11 compared to 7% of non-Aboriginal people. However only 13% of Aboriginal people aged 20-24 in the same areas left school before completing year 11. Overall, the percentages are showing that Aboriginal people are now far more likely to complete year 11 than in previous years.

Table 20: Percentage of population (%) that left school before completing year 11 (ABS, 2016)

Region	LGA Name	Left befo	re year 11	Aged 20-24 lef	t before year 11
		Non-Aboriginal	Aboriginal	Non-Aboriginal	Aboriginal
Growth area	Hume (C)	33	51	14	37
	Melton (S)	31	51	16	25
	Wyndham (C)	26	56	13	30
Inner city	Maribyrnong (C)	20	68	6	22
	Melbourne (C)	7	75	2	13
	Yarra (C)	12	73	4	16
Peri-urban	Macedon Ranges (S)	29	53	13	29
	Moorabool (S)	36	51	18	39
Suburban	Brimbank (C)	33	55	9	28
	Darebin (C)	23	60	5	18
	Hobsons Bay (C)	27	61	9	26
	Moonee Valley (C)	23	69	5	17
	Moreland (C)	23	73	6	13

Source: Statistical data for Victorian Communities, City of Dandenong 2017.

7.5 Offender Incidents

As per the recorded crime statistics based on data extracted by Victoria Police, a high proportion of Aboriginal offenders are young (aged 10-19 years, 27%), while non-Aboriginal offenders are more likely to be older (aged 25-39, 60%). When split by gender, Aboriginal female offenders have a higher proportion representation to non-Aboriginal female offenders (27% vs 18%), while the Aboriginal male offenders have a lower proportion representation compared to non-Aboriginal male offenders (73% vs 82%).

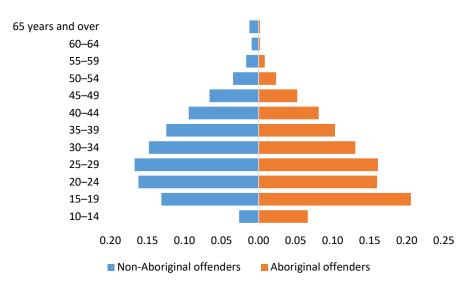
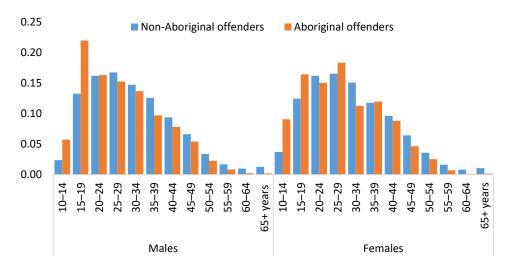


Figure 10: Proportion (%) of Aboriginal and non-Aboriginal offenders by age-groups (2016-17)

Source: Crime Statistics Data, Crime Statistics Agency Victoria Police 2017

Figure 11: % Aboriginal and non-Aboriginal offenders by gender and age-groups (2016-17)



Source: Crime Statistics Data, Crime Statistics Agency Victoria Police 2017

Below is the distribution by LGA of overall offences for Aboriginal (4.5%) and non-Aboriginal Australians (76.3%) in NWMPHN (the reaming 19.2 per cent, the offender was unknown). The NWMPHN region Aboriginal offenders rate is lower than the Victorian overall rate (4.5% vs 6.3%), while the non-Aboriginal offenders rate is similar to the Victorian overall percentage rate (76.3% vs 76.6). The highest rates of reported Aboriginal offenders are in Yarra and Darebin, and for non-Aboriginal offenders in Brimbank, Maribyrnong and Moonee Valley.

Region	LGA Name	Non-Aboriginal offences	Aboriginal offences	Unknown offences
Growth area	Hume (C)	76.7	3.0	20.3
	Melton (S)	73.6	2.8	23.6
	Wyndham (C)	74.1	2.5	23.4
Inner city	Maribyrnong (C)	81.3	2.8	15.8
	Melbourne (C)	74.8	5.0	20.2
	Yarra (C)	73.7	10.0	16.3
Peri-urban	Macedon Ranges (S)	74.7	4.0	21.3
	Moorabool (S)	75.1	3.1	21.8
Suburban	Brimbank (C)	81.6	1.6	16.8
	Darebin (C)	75.0	9.7	15.3
	Hobsons Bay (C)	77.0	3.8	19.2
	Moonee Valley (C)	79.7	2.7	17.6
	Moreland (C)	76.5	5.6	17.9

Table 21: Percentage of population (%) Aboriginal and non-Aboriginal offenders by LGA (2016-17)

Source: Crime Statistics Data, Crime Statistics Agency Victoria Police 2017

8 HEALTH SERVICES

In 2012-13, more than 1 in 5 Aboriginal people (22%) accessed a GP or specialist, 19% had visited a health professional other than a GP or specialist and 5% had visited a dental professional in Australia in the last 2 weeks. The likelihood of the above increased with age²⁸. One in three Aboriginal people living in the NWMPHN region are a current client of VAHS²⁹.

As per the AIHW Aboriginal primary health check, the usage rate of GP services by Aboriginal people in the NWMPHN region in 2015-16 was 15.8% compared to 16% in 2014-15 and 12.1% in 2013-14³⁰. In 2016-2017, 17% of VAHS clients had an Aboriginal Health Check (MBS Item 715)³¹.

Table 24 (p.26) shows the frequency of people visiting GPs in NWMPHN. We can see that overall, most Aboriginal and non-Aboriginal people have visited the GP within the last 12 months from the date of the data extract (53.6% vs 49.1%), with the next most common frequency being 36 months plus for non-Aboriginal (16.2%) and 6 to 12 months for Aboriginal people (14.3%).

In 2015, there were 451 registered and employed Aboriginal health practitioners in Australia, 11 (2%) of whom were registered and employed in Victoria. There was no Aboriginal health practitioners registered and employed in the NWMPHN region. As of 2017, VAHS has employed a registered female Aboriginal Health Practitioner³².

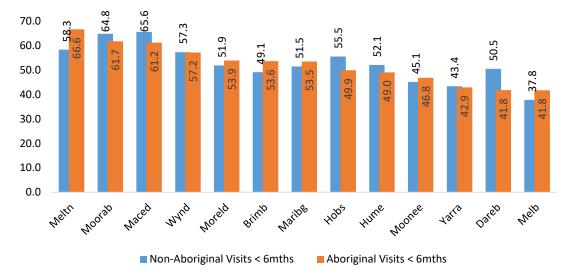


Figure 12: % Aboriginal and non-Aboriginal frequency of GP visits in less than 6 months, PATCAT data (2015-17)

Source: NWMPHN analysis of GP visits, PATCAT 2017.

When we look at visits to the GPs by LGAs in the NWMPHN, the highest percentage rate of GP visits within 6 months and less for Aboriginal people was in Melton (66.6%) and for non-Aboriginal people was in Macedon Ranges (65.6%) (Figure 12 above).

 ²⁸ Statistics, A.B.o., Australian Aboriginal and Torres Strait Islander Health Survey: First Results. 2012-13, ABS: Australia.
 ²⁹ VAHS, Victorian Aboriginal Health Service. 2017

³⁰ Welfare, A.I.o.H.a., AIHW Indigenous health check (MBS 715) source data, by Primary Health Network, in Table 4: Indigenous health checks, by Primary Health Network, 2011–12 to 2013–14 AIHW, Editor. 2014

³¹ VAHS, Victorian Aboriginal Health Service. 2017

³² VAHS, Victorian Aboriginal Health Service. 2017 NWMPHN Aboriginal and Torres Strait Island Area Profile



Table 22: % Aboriginal and non-Aboriginal frequency of GP visits by LGA, PATCAT data (2015-17)

Source: NWMPHN analysis of GP visits, PATCAT 2017.

8.1 Alcohol and Other Drugs

The consumption of alcohol is widespread within Australia and associated with many social and cultural activities. However, excessive alcohol consumption is a major cause of ill health and social harms, not limited to individual drinkers but also affecting families, bystanders and the broader community³³.

The 2016 National Drug Strategy Survey shows fewer Australians are drinking alcohol at levels that put them at risk of an alcohol related disease in 2016 (17%) compared to 2013 (18%). Fewer teenagers are drinking alcohol (18%, 2016 vs 28%, 2013), and if they do drink, they are older when they first try it (16 years, 2016 vs 15 years, 2007)³⁴.

According to the 2014-15 National Aboriginal and Torres Strait Islander Social survey, the proportion of Aboriginal people engaging in risky single occasion drinking (four or more standard drinks at a time according to 2009 NHMRC guidelines) has declined from 38% in 2008 to 30% in 2014³⁵. The burden of disease attributed to alcohol use were 100% of alcohol use disorders (8,037 DALY), 24% of the burden of Road Traffic Injuries (motor vehicle occupants and other RTI, 1,119 DALY), 24% of the burden due to chronic liver disease ((1,001 DALY), and 20% of the burden due to suicide and self-inflicted injuries (1,701)³⁶.

Of the small proportion (3.5%) of burden of mental and substance use disorders that was fatal, a substantial proportion was due to alcohol use disorders (73%) and drug use disorder (15%)³⁷. Table 23 below shows the percentage of drinkers visiting GPs in the NWMPHN Region per the PATCAT data for 2015 - 2017. We can see a high percentage rate of drinkers visiting GPs in Melbourne for Aboriginal people and Yarra for non-Aboriginal people (68.8% vs 75.8%).

Region	LGA Name	Non-Aboriginal Drinker (%)	Aboriginal Drinker (%)
Growth area	Hume (C)	35.9	34.6
	Melton (S)	45.4	48.8
	Wyndham (C)	39.6	44.3
Inner city	Maribyrnong (C)	51.4	48.9
	Melbourne (C)	67.5	68.8
	Yarra (C)	75.8	66.9
Peri-urban	Macedon Ranges (S)	71.7	63.1
	Moorabool (S)	59.7	47.8
Suburban	Brimbank (C)	42.2	39.6
	Darebin (C)	65.4	61.7
	Hobsons Bay (C)	66.4	63.3
	Moonee Valley (C)	58.5	60.5
	Moreland (C)	54.5	55.2

Table 23: % Aboriginal and non-Aboriginal patients that drink, PATCAT data (2015-17)

Source: NWMPHN analysis of GP visits, PATCAT 2017.

³³ Council, N.H.M.R., *Australian guidelines to reduce health risks from drinking alcohol*. 2009, Commonwealth of Australia Canberra

³⁴ AIHW, National Drug Strategy Household Survey 2016: Key Findings. 2016

³⁵ Statistics, A.B.o., *National Aboriginal and Torres Strait Islander Social Survey, 2014–15.* 2015, ABS: Canberra

³⁶ Welfare, A.I.o.H.a., Australian Burden of Disease Study: Impact and causes of illness and death in Aboriginal and Torres Strait Islander people 2011, in Australian Burden of Disease Study. 2016, AIHW: Canberra

³⁷ Welfare, A.I.o.H.a., Australian Burden of Disease Study: Impact and causes of illness and death in Aboriginal and Torres Strait Islander people 2011, in Australian Burden of Disease Study. 2016, AIHW: Canberra

NWMPHN Aboriginal and Torres Strait Island Area Profile Data as at November 2017

The 2014-15 National Aboriginal and Torres Strait Islander Social survey, the proportion of Aboriginal and Torres Strait Islander people who are current daily smokers has declined from 45% in 2008 to 39% in 2014³⁸. The burden of disease attributed to tobacco use was 49% of the burden of coronary heart disease (6,747 DALY), 86.8% of the burden of COPD (4,993 DALY), 93.3% of the burden of lung cancer (3,970 DALY) and 44.1% of the burden of stroke (1,456 DALY)³⁹.

People visiting GPs in NWMPHN who smoke, have smoked and have never smoked is shown in Table 24 below. Overall roughly double the number of Aboriginal people smoke compared to non-Aboriginal people across the LGAs, apart from Moorabool, which has a 1.26 times higher rate of smoking for Aboriginal people. Yarra GPs have recorded the highest percentage of Aboriginal and non-aboriginal smokers (49.6% vs 20.6). VAHS recorded 57.48% of Aboriginal clients as current smokers⁴⁰.

Region	LGA Name	Smoker	(%)	Ex-Smoke	r (%)	Never Smok	ed (%)
		Non-Aboriginal	Aboriginal	Non-Aboriginal	Aboriginal	Non-Aboriginal	Aboriginal
Growth	Hume (C)	18.9	32.8	11.56	10.8	69.56	56.37
area	Melton (S)	18.3	36.1	13.4	9.74	68.29	54.2
	Wyndham (C)	14.6	33.1	10.62	10.13	74.79	56.73
Inner city	Maribyrnong (C)	19.1	45.1	13.17	13.33	67.69	41.62
	Melbourne (C)	12.1	36.4	12.3	8.96	75.57	54.91
	Yarra (C)	20.6	49.6	17.93	12.68	61.51	37.63
Peri-urban	Macedon Ranges (S)	13.3	19.4	20.67	15.97	66.07	64.93
	Moorabool (S)	18.6	26.3	17.65	12.76	63.7	61.32
Suburban	Brimbank (C)	17.9	37	12.84	12.11	69.27	51
	Darebin (C)	17	44.6	16.44	14.49	66.55	40.87
	Hobsons Bay (C)	15.7	38.8	17.38	13.16	66.95	48.09
	Moonee Valley (C)	14.6	38.6	13.4	9.12	72	52.28
	Moreland (C)	18.2	38.6	13.92	11.26	67.89	50.06

Table 24: % Aboriginal and non-Aboriginal people visiting GPs smoking status, PATCAT data (2015-17)

Source: NWMPHN analysis of GP visits, PATCAT 2017.

Per the POLAR Alcohol and Other Drug Treatment Service National Minimum Dataset (AODTS NMDS) 57.4% of NWMPHN Aboriginal patients were male and 42.6% were female. For non-Aboriginal patients, 68.6% were male and 31.4% were female. Figure 13 below shows the age-group distribution of AODTS episodes of treatment. A larger proportion of younger Aboriginal patients compared to non-Aboriginal patients in NWMPHN had episodes of treatment. Counts that are less than 50 are not included, which is why age groups greater than 59 are not shown for Aboriginal patients.

Other than alcohol, the principal drugs of concern for Aboriginal and non-Aboriginal patients were sedatives and hypnotics (32.1% and 35.6%), followed by cannabinoids and related drugs for Aboriginal patients (29.7%) and stimulants and hallucinogens (20.5%) for non-Aboriginal patients (Figure 14 below). Figure 15 shows the method of use for the principal drug of concern. Most Aboriginal patients smoked (33%) their principal drug of concern and most non-Aboriginal patients ingested (31%).

³⁸ Statistics, A.B.o., National Aboriginal and Torres Strait Islander Social Survey, 2014–15. 2015, ABS: Canberra

³⁹ Welfare, A.I.o.H.a., Australian Burden of Disease Study: Impact and causes of illness and death in Aboriginal and Torres Strait Islander people 2011, in Australian Burden of Disease Study. 2016, AIHW: Canberra

⁴⁰ VAHS, *Victorian Aboriginal Health Service*. 2017.

NWMPHN Aboriginal and Torres Strait Island Area Profile

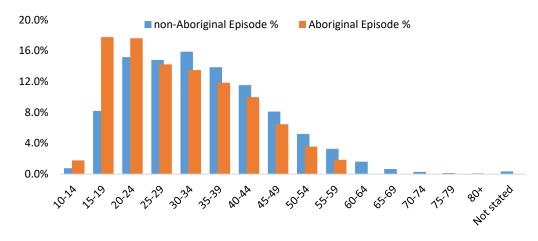


Figure 13: % Aboriginal and non-Aboriginal treatment episodes by age group, POLAR AODTS (2012/13-2014/15)

Source: Alcohol and Drug Treatment, POLAR 2017

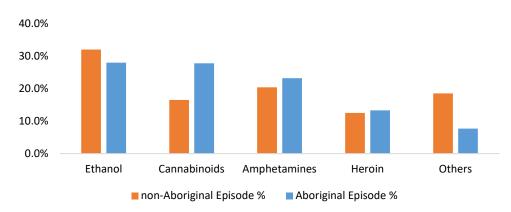
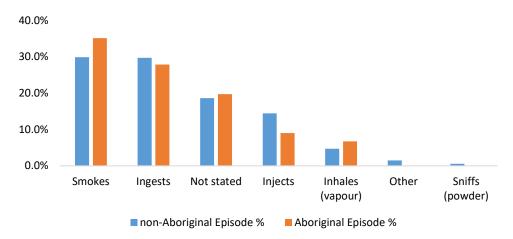


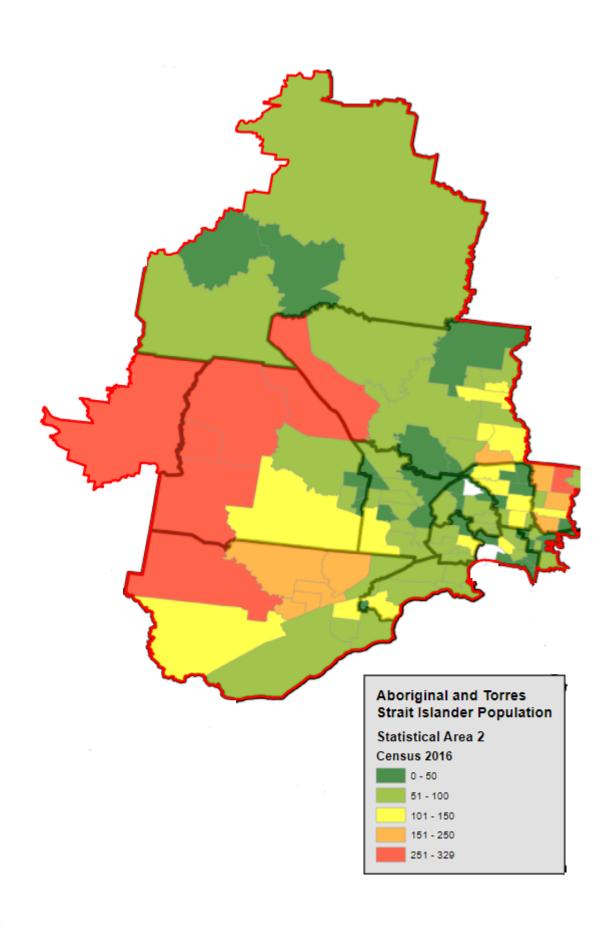
Figure 14: % Aboriginal and non-Aboriginal principal drugs of concern, POLAR AODTS (2012/13-2014/15)

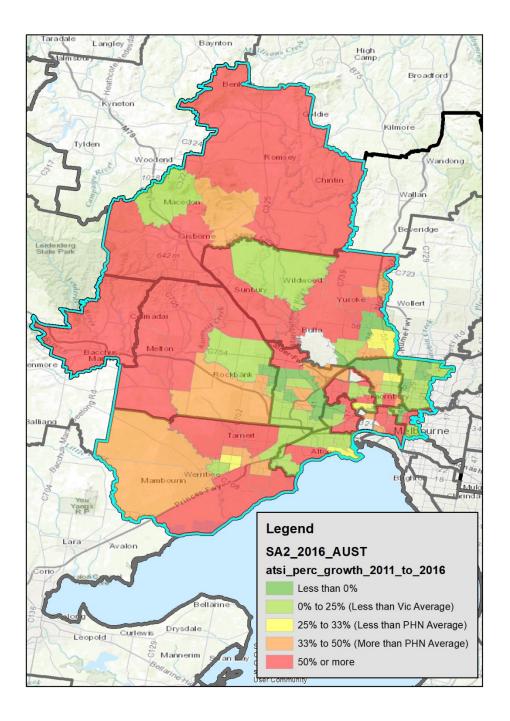
Source: Alcohol and Drug Treatment, POLAR 2017

Figure 15: % Aboriginal and non-Aboriginal principal drugs of concern method of use, POLAR AODTS (2012/13-2014/15)



Source: Alcohol and Drug Treatment, POLAR 2017





Appendix 2

Percentage Growth from 2011 Census to 2016 Census

-	LGA name	0-4 years 5	-9 vears	10-14 years	15-19 years	0-24 years	25-29 vears	30-34 vears	35-39 vears	10-44 vears	45-49 vea 9	50-54 years	55-59 vears	60-64 vears f	55 years and over	Total
Inner city	Maribyrnong (C)	33.3%	47.6%		20.0%	37.1%	76.9%	83.3%	,	20.0%	22.7%	61.1%	-11.1%	225.0%	-5.9%	32.4
Inner city	Melbourne (C)	-12.5%	175.0%	3	69.7%	122.5%	62.2%	92.3%	185.7%	44.0%	172.7%	200.0%	38.5%	0.0%	200.0%	79.4
Inner city	Yarra (C)	13.0%	50.0%	2	22.7%	56.1%	69.7%		-10.3%	3.6%	64.3%	-9.1%	18.8%	111.1%	10.0%	20.1
Suburban	Brimbank (C)	25.0%	11.9%	1	-12.2%	16.4%	38.5%	39.5%	4.8%	0.0%	15.9%	142.1%	-20.0%	80.0%	83.3%	16.4
Suburban	Darebin (C)	1.6%	-9.6%	-10.8%	8.6%	-5.1%	33.0%	0.0%	-4.3%	-21.5%	-9.4%	18.5%	42.9%	-11.1%	26.0%	0.5
Suburban	Hobsons Bay (C)	5.0%	33.3%	40.0%	13.9%	23.5%	51.6%	9.1%	-16.7%	33.3%	10.7%	4.3%	-16.7%	91.7%	9.5%	24.2
Suburban	Moonee Valley (C)	-25.0%	46.2%	76.2%	23.3%	35.3%	55.2%	70.0%	0.0%	18.2%	72.2%	4.8%	283.3%	0.0%	-4.2%	36.5
Suburban	Moreland (C)	-5.6%	-9.4%	-12.7%	25.6%	27.6%	15.6%	69.6%	0.0%	-23.5%	61.3%	90.5%	-17.9%	143.8%	-2.4%	16.1
Growth area	Hume (C)	32.3%	35.5%	27.2%	21.1%	76.1%	43.6%	16.5%	50.0%	4.2%	122.7%	39.6%	63.0%	62.5%	100.0%	39.7
Growth area	Melton (S)	38.7%	80.2%	36.2%	52.3%	26.9%	149.1%	38.8%	84.6%	40.0%	66.7%	72.4%	221.4%	100.0%	120.0%	63.0
Growth area	Wyndham (C)	42.5%	54.9%	17.1%	54.0%	42.2%	120.0%	89.7%	39.2%	32.9%	50.0%	24.1%	40.5%	143.8%	88.0%	51.7
Peri_urban	Macedon Ranges (S)	12 <mark>5.0%</mark>	30.4%	7.4%	8.3%	111.1%	100.0%	11.1%	40.0%	-20.0%	12 <mark>5.0%</mark>	66.7%	-27.3%	133.3%	200.0%	53.1
Peri_urban	Moorabool (S)	37.8%	77.8%	64.3%	42.3%	55.6%	1 <mark>86.4%</mark>	0.0%	17.6%	-14.3%	15.8%	109.1%	-15.4%	120.0%	71.4%	42.1
	-															
	-	19.3%	26.0%	13.9%	21.2%	26.9%	38.8%	27.4%	18.9%	6.4%	31.0%	30.8%	22.4%	42.2%	31.9%	25.0

Maternal and Child Health Service 10 Key Ages and Stages consultations.

LGA	Brimbank	Brimbank	Darebin	Darebin	Hobsons Bay	Hobsons Bay	Hume	Hume	Macedon Ranges	Macedon Ranges	Maribyrnong	Maribyrnong	Melbourne	Melbourne
Status	All	Aboriginal	All	Aboriginal	All	Aboriginal	All	Aboriginal	All	Aboriginal	All	Aboriginal	All	Aboriginal
Home Consultation	102.3	96.7	102.9	96.9	101	100	103.7	106.5	95.9	100	103.5	120	101.6	100
2 Weeks	96.4	86.7	100	68.8	97.3	72.7	98.5	89.1	92.3	100	96.4	120	98.5	100
4 Weeks	95.6	70	96.5	68.8	98.9	81.8	96.6	93.5	93.9	80	97.6	80	95.6	50
8 Weeks	93.2	76.7	94.8	56.3	99.1	81.8	97.2	89.1	98.6	140	95	80	96.5	75
4 Months	92.2	70	92.1	40.6	95.7	72.7	95.2	80.4	101.4	120	90.6	60	89.6	50
8 Months	79.6	50	91.6	62.5	87.2	69.6	83.5	49.4	94.3	111.1	83.8	57.1	81.9	33.3
12 Months	74.5	61.5	82.1	56.3	83.3	87	79.1	. 44.2	92.6	88.9	82	71.4	81.1	33.3
18 Months	62.2	20.5	73.9	61.5	73.3	70	63.8	41.2	79.4	76.9	71.5	22.2	74.7	0
2 Years	63.2	64.7	72.4	39.4	75.6	75	60.1	. 54.1	79.9	66.7	65	44.4	70.7	0
3_5 Years	65	32	62.5	26.4	62.1	47.1	60.4	45.5	82	133.3	53.6	22.2	54.9	28.6

LGA	Melton	Melton	Moonee Valley	Moonee Valley	Moorabool	Moorabool	Moreland	Moreland	Wyndham	Wyndham	Yarra	Yarra	Total for Victoria	Total for Victoria
Status	All	Aboriginal	All	Aboriginal	All	Aboriginal	All	Aboriginal	All	Aboriginal	All	Aboriginal	All	Aboriginal
Home Consultation	101.7	98	99.6	50	98.6	90.9	102.2	100	98.1	102.4	104.2	100	100.9	96.1
2 Weeks	96.9	83.7	98.3	50	96.7	72.7	96.2	82.4	92.8	95.1	100.3	100	97.4	85.6
4 Weeks	95.5	81.6	97.6	75	97	90.9	97.9	105.9	94.4	97.6	100.7	112.5	97.2	84.4
8 Weeks	94.5	73.5	97.4	125	100.8	100	96.3	88.2	91.9	78	99.9	112.5	96.2	82.3
4 Months	91.7	53.1	96.8	75	101.1	90.9	93.1	105.9	89.3	70.7	97.4	75	94.4	78.8
8 Months	79.5	42.5	92.8	100	92.8	80	85	77.4	74.9	67.5	88	100	86.4	68.4
12 Months	75.3	40	92	80	89.1	80	75.4	64.5	68.6	54.5	86.3	20	83.4	66.4
18 Months	66.8	36.4	87.6	72.7	74.7	80	67.6	48	61.9	50.7	75	100	75	57.4
2 Years	62.4	42.9	82.4	80	81.5	81.8	66.2	54.5	55.3	46.2	79.6	50	72.8	55.5
3_5 Years	59.8	59.6	76	83.3	84.8	63.2	61.1	32.3	57	57.1	70.6	28.6	66.1	51.2