Health, Development & Wellbeing In Far Western NSW

Our Children & Youth

MAARI MA HEALTH
ABORIGINAL CORPORATION

Maari Ma means
'coming together/working together'

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Maari Ma acknowledges the traditional custodians of the land of the Maari Ma region and across all of western NSW, and their elders past and present; we acknowledge and respect their continuing culture and the contribution they make to the life of this region.

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Cover artwork: Taya Biggs

Foreword

Maari Ma began our 'Early Years' journey in 2009, publishing a strategic framework document for Aboriginal child development and wellbeing in far west NSW in conjunction with a number of state and local agencies.

The evidence set out in that first strategic framework document for children up to 5 years of age, and the subsequent update that extended the framework to include young people up to 18 years of age, set Maari Ma on a course to do more than just support best practice in primary health care provision for our children and young people, but extend that population-based approach to the other social determinants of health.

In taking that 'bigger picture' approach to the issues affecting Aboriginal children in the far west, we have tried to make sure that our children and young people are the best they can be, and helping them achieve the best possible outcome is a shared responsibility involving the children and young people, their families and the wider community. Our Board's vision:

> **Aboriginal people live longer and close the gap – families, individuals and communities achieve good health, wellbeing and self-determination, supported by Maari Ma**

speaks to this desire to see all Aboriginal people of this region, and specifically our children and young people in terms of this Framework, achieve good health, development and wellbeing.

So this report is the third in a series which charts an array of indicators that describes over time the health and wellbeing of the Aboriginal children and young people, their families, and their communities of the far west of NSW. Maari Ma sees this as an important process that not only holds us to account, but also provides valuable information to other agencies and services that have the potential to interact with, and influence the health and wellbeing outcomes of our children and young people. As the saying goes 'it takes a village to raise a child' and Maari Ma takes our role in this important task very seriously.

Essentially this is an investment in the future of our children and young people, which is an investment in the future of our communities and the region. The small part we play - each book provided, each playgroup convened – can make a small change in a child's life trajectory. We collect this information every 5 years because it takes that long (and longer) to see the changes. We will continue to do this because we are committed to this project and achieving positive outcomes over the long term.

Also importantly, this picture of our children and young people - the good results and the not-so-good results - is not all down to Maari Ma. The health and wellbeing of our children and young people is the broader responsibility of our 'village', and we welcome the role we all can play in seeing improved outcomes for Aboriginal children and young people in the far west of NSW.

Finally, Maari Ma is sincerely grateful for the support of the NSW Ministry of Health's Public Health Officer Training program in the compilation of this report.

Bob Davis

Chief Executive Officer

Maureen O'Donnell

Chairperson

For noting

The data presented in this profile are, where possible, based on children and young people from birth to 24 years old. There is some variation and inconsistency in the age groupings used across indicators in this profile as not all sources report their data using the same groupings.

Further, with data where the annual numbers of cases are small, there may be large fluctuations in rates. This should be considered when interpreting the results.

In this profile, Far West Local Health District (FWLHD) refers to a geographical region that is exactly the same as Maari Ma's boundaries. Due to its smaller size and population, the NSW Ministry of Health (MOH) often combines data for the Far West and the adjacent Western NSW LHDs. For simplicity, this profile refers to this larger geographical region as 'Far Western NSW'.

In this report, all data labelled as 'Aboriginal' or 'Indigenous' include both Aboriginal and Torres Strait Islander people.

Data for many of the key indicators presented in the Australian Institute of Health and Welfare's national child health, development and wellbeing indicators and their Aboriginal and Torres Strait Islander adolescent and youth health and wellbeing framework are not available locally, nor is Aboriginal status regularly available.

There are references to significance testing throughout this report. The statistical significance level defines the degree of certainty that an observation or health event is real and not due to chance. Significance levels can be expressed either as a proportion or 'p' value or as a confidence interval. In this report, we have used p values. Where we calculated the p value to be < 0.05, we have noted that a result is significant. This means there is less than 5% probability that the value is due to chance.

Abbreviations

4vMenCV	Meningococcal conjugate vaccines
ABCD	Audit and Best Practice for Chronic Disease
ABS	Australian Bureau of Statistics
ACECQA	Australian Children's Education and Care Quality Authority
ACIR	Australian Childhood Immunisation Register
AEC	Australian Electoral Commission
AEDC	Australian Early Development Census
AIFS	Australian Institute of Family Studies
AIHW	Australian Institute of Health and Welfare
BOCSAR	NSW Bureau of Crime Statistics and Research
CAPED	Combined Admitted Patient Epidemiology Data
CCOPMM	Consultative Council on Obstetric and Paediatric Mortality and Morbidity
COD URF	Cause of Death Unit Record File
DSS	Department of Social Services
dTpa	Diphtheria-tetanus-acellular pertussis
FACSIAR	Family and Community Services Insights, Analysis and Research
FWLHD	Far West Local Health District
HEADSSSS	Home, Education, Activities/Employment, Drugs, Suicidality and Mental Health, Sexual Health, Safety and Strengths
HPV	Human papillomavirus
ICD	International Statistical Classification of Diseases
LGA	Local Government Area
LHD	Local Health District
MBS	Medicare Benefits Schedule
MOH	Ministry of Health
MMPHCS	Maari Ma Primary Health Care Service
NAPLAN	National Assessment Program – Literacy and Numeracy
NHMRC	National Health and Medical Research Council
NQF	National Quality Framework
NQS	National Quality Standard
NSW	New South Wales
NSW PDC	NSW Perinatal Data Collection
PSS	ABS Personal Safety Survey
SAPHaRI	Secure Analytics for Population Health Research and Intelligence
SEIFA	Socio-economic Indices for Areas
SWIS-H	NSW Statewide Infant Screening – Hearing
WLHD	Western Local Health District
WHO	World Health Organisation

Contents

ONE
Closing the gap

A picture of our children provides the latest information on the health and wellbeing of far western NSW children and young people aged 0-24 years. Many are faring well but there is scope for further improvement.

Closing the gap

Maari Ma has followed a few indicators over time to monitor progress against Closing The Gap targets for Aboriginal children in the Maari Ma region and NSW as a whole. (Since 2008, Australian governments have worked together to deliver better health, education and employment outcomes for Aboriginal and Torres Strait Islander people, and to eliminate the gap between Indigenous and non-Indigenous Australians. The first Closing the Gap framework outlined targets to reduce inequality in Aboriginal and Torres Strait Islander people's life expectancy, children's mortality, education and employment.) The desired outcome is for the 'Gap status' (see the table on the following page) to be equal to or less than one, to show that the result for the Aboriginal population in the Maari Ma region is the same as, or better than, the NSW population as a whole.

If the figure in the 'Gap status' column is equal to or less than 1, it indicates that the Aboriginal population in the Maari Ma region is doing the same or better, respectively, than the NSW population as a whole. Conversely, if the figure in the 'Gap status' column is greater than 1, this indicates that the figure in the Maari Ma region Aboriginal population is worse than the NSW population as a whole and improvement is required.

For this profile we have adapted the Children's Headline Indicators which were endorsed by the Australian Health Ministers' Conference, Community and Disability Services Ministers' Conference and the Australian Education, Early Childhood Development and Youth Affairs Senior Officials Committee in 2008. The indicators are high level, measureable and identify the immediate environments as particularly important to children's health, development and wellbeing. The headline indicators are grouped into 3 broad topic areas—Health, Early learning and care, and Family and community. Where data for the MM region is not currently available[1] we will revisit these indicators when we do the next profile.

While the statistics may show some poorer results compared to NSW, the 'Gap status' has improved for the following indicators:

- Immunisation
- Children attending preschool in year before school
- Average apparent retention rate Year 10-12
- Individual income ≥ $800/week
- Overcrowded households
- Child abuse/neglect - harm/risk of harm - 0-14 years
- Children in non-parental care - 0-14 years
- Youth 10-24 years sentenced to custody

1. Indicators suggested by the AIHW that do not have locally relevant data currently available include dental health, overweight and obesity, social and emotional wellbeing, family social networks and injury deaths.

Children's Headline Indicators: a trend of the rate ratio comparing Maari Ma region Aboriginal results with total NSW results ('Closing the Gap')

	2009 profile	2014 profile	2019 profile	Gap status
Health				
Smoking in pregnancy	5.20	6.25	9.66	Unfavourable increase
Low birth weight	2.70	3.08	3.77	Unfavourable increase
Breastfeeding at discharge	1.12	1.22	1.44	Unfavourable increase
Infant mortality	2.96	1.30	3.94[2]	Unfavourable increase
Immunisation <9 months (<12 months previously)	0.98	1.16	0.96	Gap closed
Immunisation 5 years (4 years previously)	0.97	0.97	0.95	Gap closed
Early learning, care and education				
Children attending preschool in year before school	1.23	1.15	0.93	Gap closed
Children vulnerable in one or more domains on AEDC*	2.89	2.42	2.68	No change
School attendance Year 5			1.09	No change[3]
Numeracy Year 5 (above minimum standard)		3.04	1.98	Favourable decrease
Reading Year 5 (above minimum standard)		1.79	2.03	Unfavourable increase
Average apparent retention rate Year 10-12		2.05	1.91	Favourable decrease
Community and family				
Individual income ≥ $800/week		2.63	2.04	Favourable decrease
Employed - 15 years and older		1.24	1.22	No change
Certificate qualification and above			2.03	No change[3]
Youth unemployment - 15-24 years		2.58	2.74	Unfavourable increase
Overcrowded households		2.89	1.84	Favourable decrease
<19 years accessing homeless services		11.49	11.78	Unfavourable increase
Child abuse/neglect - harm/risk of harm - 0-14 years	11.36	10.08	7.52	Favourable decrease
Children in non-parental care - 0-14 years	7.84	6.62	5.80	Favourable decrease
Youth 10-24 years sentenced to custody	11.67	11.62	7.24	Favourable decrease

* 2009 profile = 2009 AEDC; 2014 profile = 2012 AEDC; 2019 profile = 2018 AEDC

2. Actual number of Aboriginal infant deaths in the Maari Ma region was <5 in 2012-2016.

3. Data previously not presented for MM-R Aboriginal children and young people

Children's Headline Indicators: comparison between 2014 and 2019 profile results for the Maari Ma region Aboriginal population[4]

	2014 profile	2019 profile	Change[4]
Health			
Smoking in pregnancy (%)	64.4	68.6	No change
Low birth weight - <2500gm (%)	15.7	20.2	No change
Breastfeeding at discharge (%)	67.1	65.5	No change
Infant mortality rate (/1,000 live births)	4.6	13.8	No change
Immunisation < 12 months (%)	93.5	97.5	Favourable increase
Immunisation 5 years (%)	98.8	100.0	Favourable increase
Early learning, care and education			
Children attending preschool in year before school (%)	57.4	71.2	No change
Children vulnerable in one or more domains on AEDC (%)	48.1	53.3	Unfavourable increase
School attendance Year 5 (%)		85.3	No change[5]
Numeracy Year 5 (above minimum standard) (%)	25.0	41.0	Favourable increase
Reading Year 5 (above minimum standard) (%)	43.0	39.0	No change
Average apparent retention rate Year 10-12 (%)	35.3	38.7	No change
Community and family			
Individual income ≥ $800/week (%)	12.8	19.0	Favourable increase
Employed - 15 years and older (%)	75.9	77.0	No change
Certificate qualification and above (%)[6]		27.1	No change[5]
Youth unemployment - 15-24 years (%)	33.0	37.2	No change
Overcrowded households (%)	12.7	9.2	Favourable decrease
<19 years accessing homeless services (/1,000 people)	109.2	168.5	Unfavourable increase
Child abuse/neglect - harm/risk of harm - 0-14 years (/1,000 people)	109.9	93.3	No change
Children in non-parental care - 0-14 years (/1,000 people)	60.5	66.7	No change
Youth 10-24 years sentenced to custody (/1,000 people)	131.3	76.0	Favourable decrease

4. The change between 2014 and 2019 profiles are based on significance testing of the two results.

5. Data previously not presented for MM-R Aboriginal children and young people.

6. A comparable statistic for 'certificate qualification' is unable to be calculated for the previous census period.

TWO
What kind of communities do our children live in?

This chapter describes the region's child population to provide a context for exploring children's health, development and wellbeing. Far western NSW's child population is described in terms of its size and composition, as well as its socio-economic profile.

The region's geography

Why monitor this?	What did we find?
Geography, climate, history, growth and development all influence our health status. The climate and vegetation influences what flora and fauna there are, as well as the organisms that act as carriers of disease. They also have an impact on the production and availability of foods. As people increase their capacity to adapt to the environment, the patterns of human settlement, levels of sanitation and the impact on our natural resources can all impact on our health.	The Maari Ma region is in far western NSW and encompasses the 5 local government authorities of Balranald, Broken Hill, Central Darling, Wentworth and the far west part of Unincorporated NSW. The region covers an expanse of 195,000 km^2 and has a population of 30,000 people. While the Maari Ma region is approximately 25% of NSW's total area, its population only accounts for 0.4% of NSW's total population

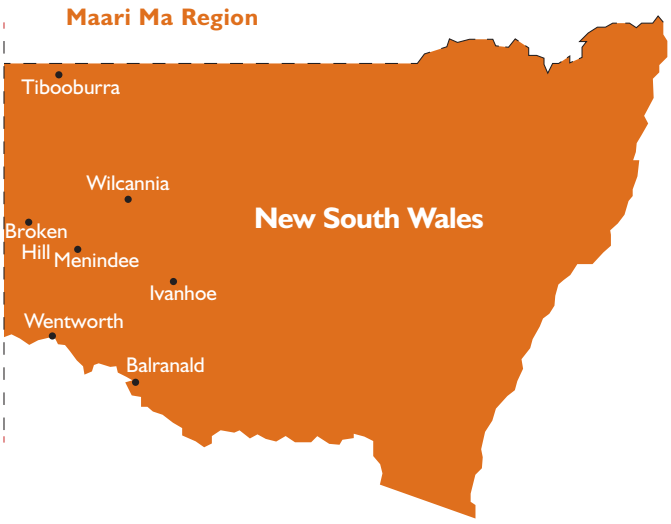
Area and population density, Maari Ma region, NSW and Australia, 2016

Area	Population	Area (sq. km)	Density (persons per sq. km)
Maari Ma region	29,682	194,673	0.2
NSW	7,480,230	801,150	9.3
Australia	23,401,891	7,688,287	3.0

Sources: ABS Census 2016, Geoscience Australia

The Maari Ma region includes the following Local Government Areas (LGAs):

- Balranald
- Broken Hill
- Central Darling (including the towns of Ivanhoe, Menindee and Wilcannia)
- Wentworth
- Unincorporated Far West[7] (including the town of Tibooburra).



The Australian Government uses the Australian Bureau of Statistics Australian Statistical Geography Standard (ASGS) Remoteness Areas to determine funding allocations. Of the five local government areas in the Maari Ma region one is categorised as 'outer regional Australia', two are 'remote' and the remaining two 'very remote'.

Broken Hill is the major service centre for the region, with the surrounding towns using the city for its wide range of facilities and services. There are also close family linkages between the Aboriginal population in Broken Hill and the nearby towns. The majority of Broken Hill's Aboriginal residents have migrated from the neighbouring communities in the Central Darling Shire and Unincorporated NSW in recent years.

7. The ABS now refers to Unincorporated Far West as Unincorporated NSW. Lord Howe Island has been removed from this data.

The region's population

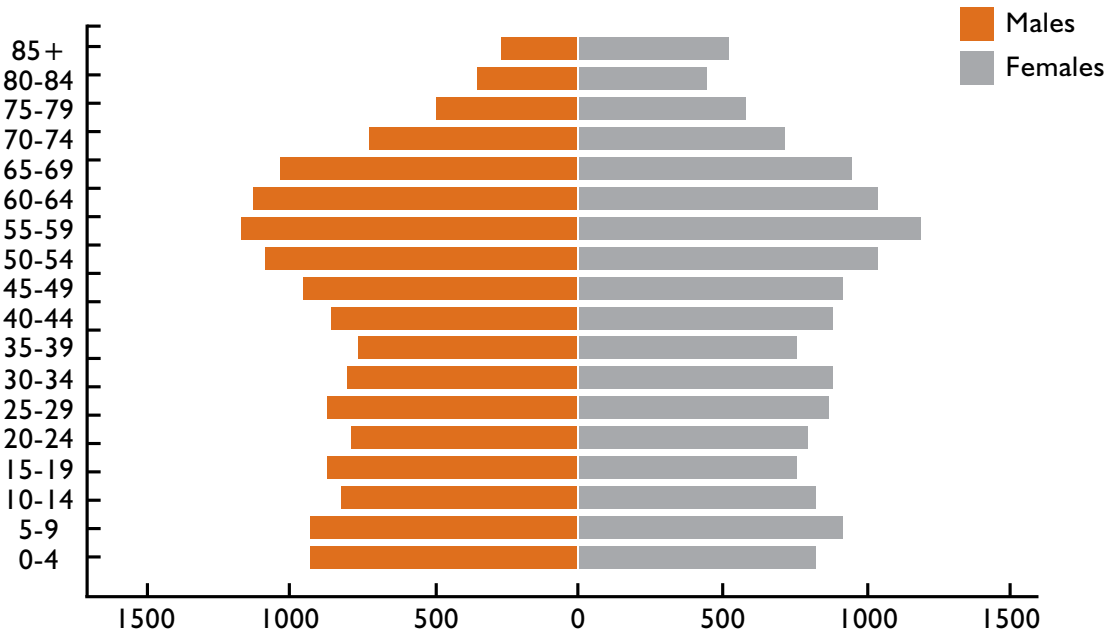
Why monitor this?	What did we find?
Monitoring the population over time helps in understanding the number and characteristics of people, families and other groups in a specific area. The Census is the largest form of information gathering conducted in Australia. It describes our way of life and helps organisations plan for the future. The information assists in determining how services and funds are best distributed to gain the most health benefits.	The population of the Maari Ma region is 29,682 people, of which half are male. Overall the population has decreased by 1.4% since the last census. However, the proportion of people identifying as Aboriginal in the Broken Hill LGA has continued to increase over time. In 2016 Aboriginal people accounted for 10.5% of the total population in the region. By comparison, the population of Aboriginal people in NSW in 2016 was 2.9%.

According to the 2016 Census, the population of the Maari Ma region was 29,682 people, of which 50% were male. In 2016, there were fewer people in the Maari Ma region in the 0-4, 5-9 and 45-49 age brackets compared to 2011. There were much fewer people in the 10-19 age bracket compared to 2011. The number of people in the 65-69 age bracket has increased since 2011.

The population of the Maari Ma region overall has decreased by 1.4%, down from 30,095 in 2011 to 29,682 people in 2016. However, the proportion of people identifying as Aboriginal in Broken Hill has continued to increase over time. In 2016, Aboriginal people accounted for 10.5% of the total population in the Maari Ma region (up from 8.6% in 2006 and 9.9% in 2011).

The following population pyramid is typical of remote and rural populations. It shows a high proportion of aged people living in the region and many young people leaving the region for schooling, university and employment opportunities.

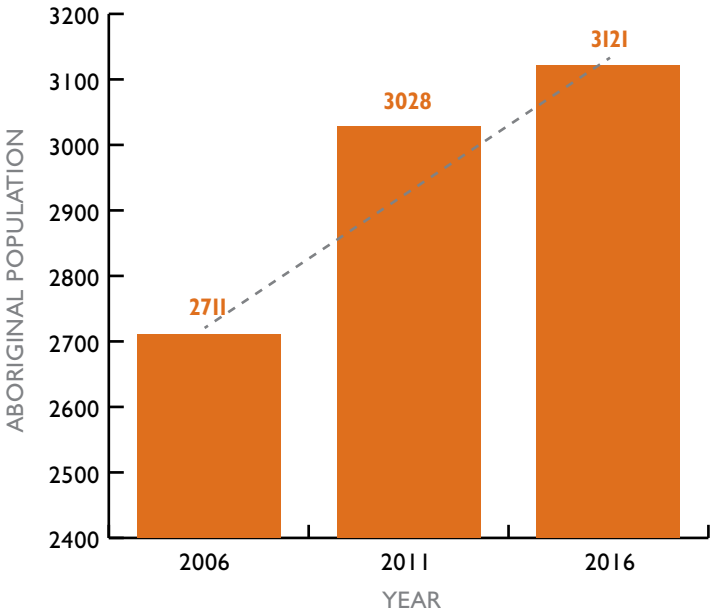
Population pyramid, Maari Ma region, 2016



Source: ABS Census 2016

The number of Aboriginal people living in the Maari Ma region has increased since 2006. In 2016, Aboriginal people accounted for 10.5% of the total population in the Maari Ma region, up from 8.6% in 2006 and 9.9% in 2011. By comparison, the population of Aboriginal people in NSW in 2016 was 2.9%.

Aboriginal population, Maari Ma region, 2006, 2011, 2016



Source: ABS Census 2006, 2011, 2016

Percentage of Aboriginal people in the Maari Ma region and NSW, 2006, 2011 and 2016

Maari Ma region			NSW		
2006	2011	2016	2006	2011	2016
8.6%	9.9%	10.5%	2.1%	2.5%	2.9%

Source: ABS Census 2006, 2011, 2016

The percentage of children and young people aged 0-19 years old in the Maari Ma region who are Aboriginal has been increasing since 1991. In 2016, there were 6,872 children and young people aged 0-19 years in the Maari Ma region, of whom 1,270 were Aboriginal (18.5%) which is nearly four times higher than the percentage of Aboriginal children aged 0-19 years old in NSW (5.3%).

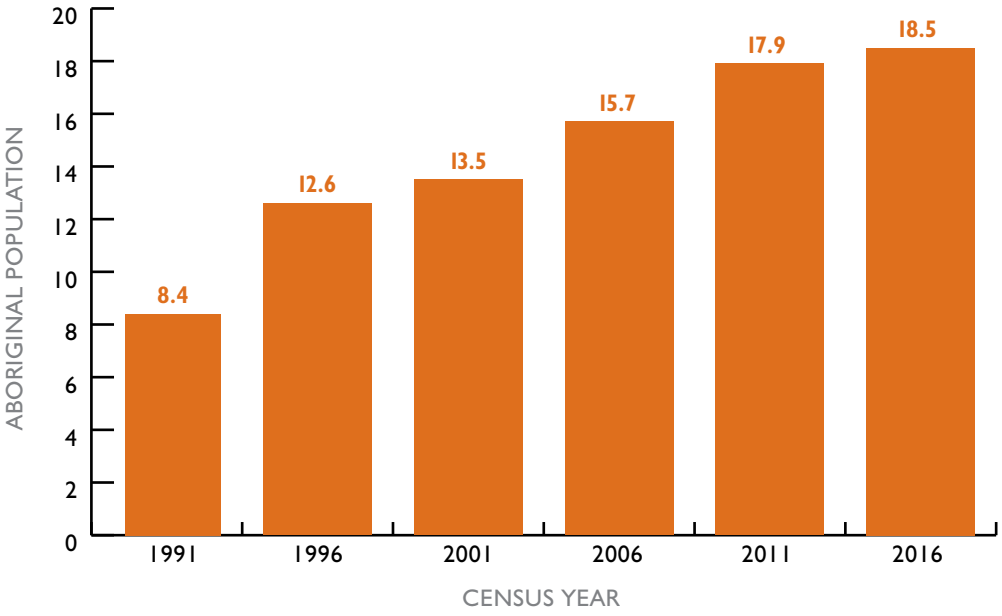
Data for the years 2012-2016 show that there has been, on average, 377 babies born per year to women who live in the Maari Ma region. Of these 19% were Aboriginal babies.

Children and young people aged 0-19, Maari Ma region and NSW, 2006, 2011, 2016

	Year	Maari Ma region		NSW
		Aboriginal		Aboriginal
		n	%	%
0-4 years	2006		16.8%	4.1%
	2011		18.2%	4.7%
	2016	343	19.5%	5.4%
5-9 years	2006		16.0%	4.1%
	2011		17.3%	4.7%
	2016	346	18.8%	5.3%
10-14 years	2006		15.5%	4.1%
	2011		17.6%	4.7%
	2016	291	17.6%	5.4%
15-19 years	2006		14.5%	3.4%
	2011		18.4%	4.4%
	2016	290	17.8%	5.0%
Total 0-19 years	2006		15.7%	3.9%
	2011		17.9%	4.6%
	2016	1,270	18.5%	5.3%

Source: ABS Census 2006, 2011, 2016

Percentage of children and young people aged 0-19 who are Aboriginal, Maari Ma region, 1991-2016 census periods



Source: ABS Census periods 1991-2016

Socio-economic status

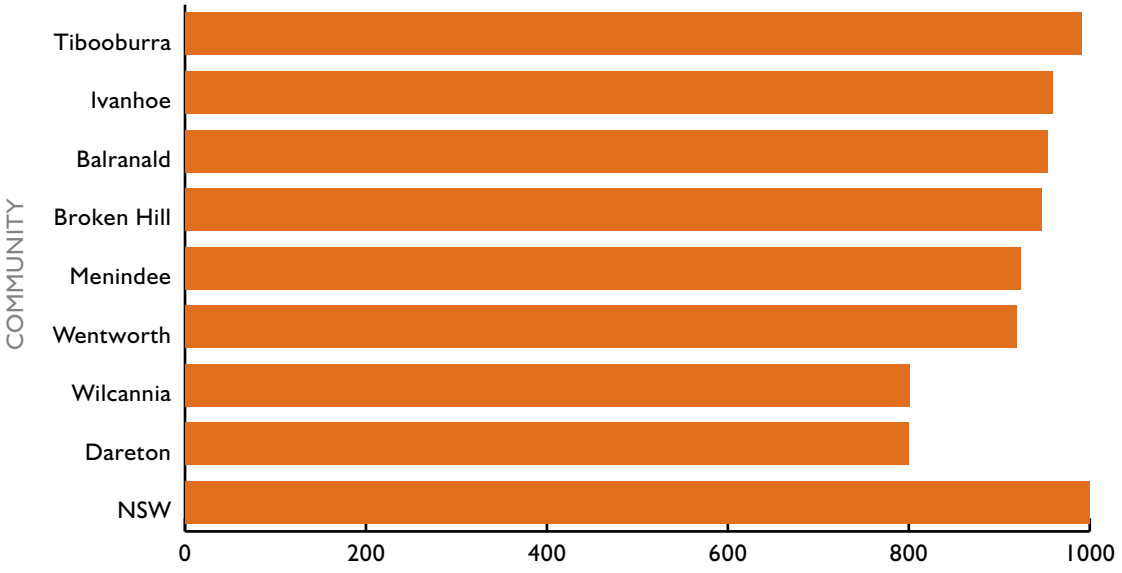
Why monitor this?	What did we find?
Socio-economic status is an important indicator of health in the community. People with the most limited economic resources experience poorer health and higher rates of death, disability, and chronic and/or acute illnesses. Turrell *et al* state that socio-economically disadvantaged groups are also more likely to engage in health damaging behaviours, experience poorer psychosocial health, make less use of the healthcare system for preventative purposes, and engage in riskier behaviours.	Central Darling Shire is ranked as the second, and Broken Hill as the seventh, most disadvantaged local government area (LGA) in NSW out of 128 LGAs. Social statistics on average show the Maari Ma region to be socio economically disadvantaged, with fewer residents completing their secondary education and more people in the social welfare system, compared with the rest of NSW.

The ABS uses Socio-Economic Indexes for Areas (SEIFA) to summarise aspects of socio economic conditions in Australia. The SEIFA includes four indexes, created from social and economic census information. These indexes are assigned to areas, not to individuals, and they indicate the average socio economic characteristics of the households, families and individuals living in the area.

SEIFA scores are 'ordinal': they do not represent the magnitude of advantage or disadvantage but show that one place is 'more' or 'less' advantaged/disadvantaged than another place. In all four indexes for the 1986-2016 census periods far western NSW towns scored below the mean. This shows the region has a relatively low proportion of high-income households and low proportions of people with tertiary qualifications and people employed in skilled occupations.

The following chart shows 2016 results for the communities in the Maari Ma region for the Index of Relative Socio-economic Advantage and Disadvantage. This index summarises economic and social conditions of people and households within an area, including both relative advantage and disadvantage measures. The lower the number, the greater the disadvantage.

Relative index of socio-economic advantage and disadvantage for Maari Ma communities compared to NSW, 2016



Source: ABS Census 2016

Income

Why monitor this?	What did we find?
People on high incomes generally experience better health than people on low incomes. Low incomes have also been linked to greater prevalence of risk factors. Information on income distribution is important in planning public and private sector services such as social welfare and, particularly at the regional level, retail distribution and other commercial services. Information relating to income and its effects provide a basis for understanding the health of the community.	Compared to the last profile there is a marginally smaller proportion of Aboriginal people in the Maari Ma region earning less than $800 per week and a greater proportion earning above $800 per week. Unfortunately, while there has been improvement in the region compared to the last census, the Aboriginal population still earns significantly less than that of all Aboriginal people in NSW and the total NSW population.

The following table provides a breakdown of individual income being earned by Aboriginal people in the Maari Ma region compared to NSW. For noting, individual income reported in the Census includes all income that people receive, including government benefits, pensions and superannuation.

For Aboriginal people in the Maari Ma region, there has been a significant decrease in the proportion earning between $1 and $299 and a significant increase in the proportion earning above $800[8] since 2011. However, the percentage of Aboriginal people in the Maari Ma region earning between $1 and $299 is nearly two times higher than the percentage of all people in NSW earning the same amount. There has been little change in the percentage of people earning negative/nil income and between $300 and $799 both in the Maari Ma region and in NSW between 2011 and 2016.

Individual income (per week), Aboriginal and total population, Maari Ma region and NSW, 2011 and 2016

	Year	Maari Ma region		NSW	
		Aboriginal	Total	Aboriginal	Total
Negative / Nil[9]	2011	8.4%	6.1%	9.0%	8.6%
	2016	10.0%#@	6.6%	10.9%	9.8%
$1-$299	2011	29.8%	21.4%	26.1%	17.9%
	2016	22.0%↓*#	11.9%	16.9%	10.8%
$300-$799	2011	37.2%	38.3%	36.0%	31.8%
	2016	34.0%↓^	37.8%	37.5%	31.6%
$800 or more	2011	12.8%	24.1%	19.1%	33.7%
	2016	19.0%↑#@	29.6%	26.2%	38.8%
Not stated	2011	11.8%	10.1%	9.9%	8.0%
	2016	15.1%↑*^	14.0%	8.4%	8.9%

↑ significantly higher than the previous period MM-R Aboriginal population result
↓ significantly lower than the previous period MM-R Aboriginal population result
* significantly higher than the current NSW Aboriginal population result
# significantly lower than the current NSW Aboriginal population result
^ significantly higher than the current NSW population result
@ significantly lower than the current NSW population result

Source: ABS Census 2011, 2016

8. In the 2016 Census, the median weekly personal income for people aged 15 years and over in Australia was $662. For this report, we have used $800 as the minimum amount for the 'highest income' category. This is because the Census TableBuilder's income categories includes $600-$799 as a category for 2011 but $650-$799 for 2016. However, we found significance test results for the lowest and highest income brackets were the same when either $800+ or $600/$650+ were used as the 'highest income' category.
9. Income from some sources may be negative. In most cases, income is reported as a positive figure (salaries and wages for instance), and you report the amount before taking into account deductions. Sometimes income can be reported as a negative figure where the amount of money earned will include the expenses used to earn that money – if the only earnings are from rental properties or self-employment.

Statistical significance results:

Compared to the previous period the current result for Maari Ma's Aboriginal population shows

- A significantly lower percentage of people earning $1-299 per week, which is a good result
- A significantly lower percentage of people earning $300-799 per week, which is a good result
- A significantly higher percentage of people earning more than $800 per week, which is a good result
- A significantly higher percentage of people choosing not to disclose their weekly income.

Compared to the NSW Aboriginal population the current result for Maari Ma's Aboriginal population shows

- A significantly lower percentage of people had no or a negative income, which is a good result
- A significantly higher percentage of people earning $1-299 per week, which is a poorer result
- A significantly lower percentage of people earning more than $800 per week, which is a poorer result
- A significantly higher percentage of people choosing not to disclose their weekly income.

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly lower percentage of people had no or a negative income, which is a good result
- A significantly higher percentage of people earning $1-299 per week, which is a poorer result
- A significantly higher percentage of people earning $300-799 per week, which is a poorer result
- A significantly lower percentage of people earning more than $800 per week, which is a poorer result
- A significantly higher percentage of people choosing not to disclose their weekly income.

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Employment

Why monitor this?	What did we find?
There is strong evidence showing that 'work' is generally beneficial for physical and mental health and wellbeing. Not working is associated with poorer physical and mental health and wellbeing. Gainful employment can reverse the adverse health effects of unemployment. The Royal Australasian College of Physicians notes that employment is beneficial for many cohorts including healthy people of working age, many people with disability, most people with common health problems, and those on government benefits.	Although no different to the last 2 census periods, Maari Ma's Aboriginal population has an unemployment rate that is almost 4 times higher than the comparative NSW rate. Similarly the rate for Maari Ma's Aboriginal young people is also almost 3 times higher than the rate for the young people in NSW.

The tables below show the percentage of employed and unemployed people in the Maari Ma region and in NSW for all people and young people. The glossary section at the end of this report outlines how 'employment', 'unemployment' and 'labour force' are defined.

Over the last two census periods, there has been little change in the percentages of employed and unemployed people in the Maari Ma region and NSW overall. Aboriginal people in the Maari Ma region experience unemployment at significantly higher rates (3 to 4 times higher) than people in NSW.

Employment, people aged 15 years and over, Maari Ma region and NSW, 2011 and 2016

	Year	Maari Ma region		NSW	
		Aboriginal	Total	Aboriginal	Total
Employed	2011	75.9%	92.8%	83.1%	94.1%
	2016	76.9%#@	92.3%	84.7%	93.7%
Unemployed	2011	24.1%	7.2%	16.9%	5.9%
	2016	23.1%*^	7.7%	15.3%	6.3%
Total labour force	2011	43.2%	53.9%	51.2%	59.7%
	2016	41.2%#@	52.5%	54.4%	59.2%
Not in the labour force	2011	52.0%	39.1%	44.7%	34.6%
	2016	52.1%*^	38.2%	43.0%	34.3%
Not stated	2011	4.9%	7.0%	4.1%	5.7%
	2016	6.6%†*	9.3%	2.7%	6.6%

† significantly higher than the previous period MM-R Aboriginal population result
* significantly higher than the current NSW Aboriginal population result
# significantly lower than the current NSW Aboriginal population result
^ significantly higher than the current NSW population result
@ significantly lower than the current NSW population result

Source: ABS Census 2011, 2016

Statistical significance results:

Compared to the previous period the current result for Maari Ma's Aboriginal population shows

- A significantly higher percentage of people choosing not to disclose their employment status.

Compared to the NSW Aboriginal population the current result for Maari Ma's Aboriginal population shows

- A significantly lower percentage of people employed, which is a poorer result
- A significantly higher percentage of people unemployed, which is a poorer result
- A significantly lower percentage of people in the labour force, which is a poorer result
- A significantly higher percentage of people not in the labour force, which is a poorer result
- A significantly higher percentage of people choosing not to disclose their employment status.

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly lower percentage of people employed, which is a poorer result
- A significantly higher percentage of people unemployed, which is a poorer result
- A significantly lower percentage of people in the labour force, which is a poorer result
- A significantly higher percentage of people not in the labour force, which is a poorer result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Youth employment

Over the last two census periods, there has been little change in the percentages of employed and unemployed young people aged 15-24 years in the Maari Ma region and NSW overall. However, unemployment has increased for Aboriginal young people in the Maari Ma region, and they were experiencing unemployment at significantly higher rates (2-3 times higher) than young people in NSW in 2016.

The Aboriginal youth unemployment rate in the Maari Ma region is around 1.5 times higher than the unemployment rate for Aboriginal people aged 15-24 years in the Maari Ma region and around 6 times higher than the unemployment rate for people aged 15-24 years in NSW.

The following table shows the percentage of employed and unemployed 15-24 year olds in the Maari Ma region compared to NSW.

Employment, people aged 15-24 years, Maari Ma region and NSW, 2011 and 2016

	Year	Maari Ma region		NSW	
		Aboriginal	Total	Aboriginal	Total
Employed	2011	67.0%	84.5%	73.3%	87.2%
	2016	62.8%#@	85.4%	76.2%	86.4%
Unemployed	2011	33.0%	15.5%	26.7%	12.8%
	2016	37.2%*^	14.6%	23.8%	13.6%
Total labour force	2011	37.2%	58.4%	48.1%	58.3%
	2016	37.6%#@	57.7%	53.2%	58.4%
Not in the labour force	2011	58.1%	34.9%	48.4%	36.5%
	2016	58.7%*^	34.3%	44.7%	35.9%
Not stated	2011	4.6%	6.7%	3.5%	5.2%
	2016	3.6%	8.0%	2.1%	5.6%

* significantly higher than the current NSW Aboriginal population result
\# significantly lower than the current NSW Aboriginal population result
^ significantly higher than the current NSW population result
@ significantly lower than the current NSW population result

Source: ABS Census 2011, 2016

Statistical significance results:

Compared to the NSW Aboriginal population the current result for Maari Ma's Aboriginal population shows

- A significantly lower percentage of young people were employed, which is a poorer result
- A significantly higher percentage of young people were unemployed, which is a poorer result
- A significantly lower percentage of young people were in the labour force, which is a poorer result
- A significantly higher percentage of young people were not in the labour force, which is a poorer result

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly lower percentage of young people were employed, which is a poorer result
- A significantly higher percentage of young people were unemployed, which is a poorer result
- A significantly lower percentage of young people were in the labour force, which is a poorer result
- A significantly higher percentage of young people were not in the labour force, which is a poorer result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

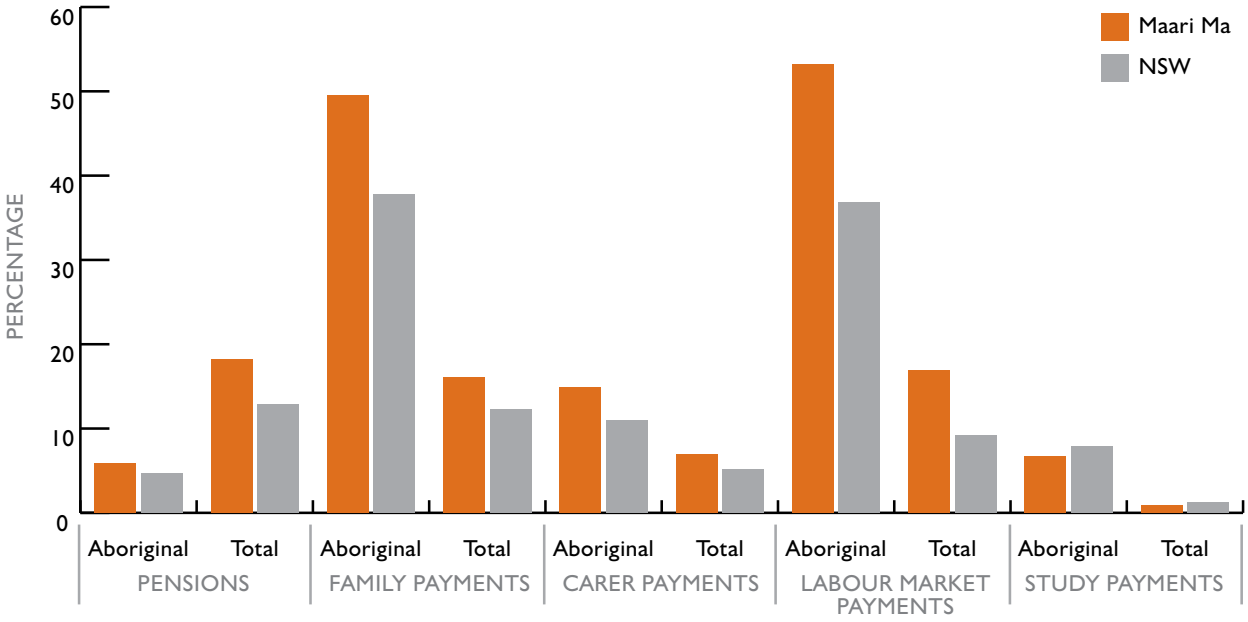
Government benefits

Why monitor this?	What did we find?
Government benefits can be paid to people who are unemployed, people with children, students, people who are sick or with disability, carers, and people who have reached retirement age and choose not to work.	The latest data shows that there was a greater proportion of Aboriginal people in the Maari Ma region receiving government benefits compared to NSW.

In 2018 in the Maari Ma region, people received government benefits at a higher rate (59%) than in NSW (40.9%). The 2018 difference in the rates (18.1%) is slightly lower than in 2013 (22.4%) and in 2008 (19.0%).

The proportion of all Centrelink payments classified as pension payments has decreased in both the Maari Ma region and NSW since the previous Health, Development and Wellbeing in Far Western NSW profile. This may be due in part to a reclassification of payments since 2013, where the disability support pension moved into labour market payments. In the Maari Ma region, the decrease has been significant with only 5.9% of payments in the Maari Ma region attributed to pension payments in 2018 compared to 28.8% in 2013. The proportion of payments attributed to labour market payments for Aboriginal people in the Maari Ma region by contrast has increased from 29.2% in 2013 to 53.2% in 2018.

Government benefits, Maari Ma region and NSW, as at September 2018[10]



Source: Department of Human Services Administrative Data (DSS Extracts) as at September 2018

10. Pensions include Age Pension, Widow B Pension and both Wife pensions; Family payments includes Family Tax Benefit A and Family Tax Benefit B; Carer payments includes Carer Allowance, Carer Allowance (child health care card only) and Carer Payment; Labour market payments includes Disability Support Pension, Mobility allowance, Newstart Allowance, Parenting Payment Single and Partnered, Partner Allowance, Sickness Allowance, Special Benefit, Widow Allowance and Youth Allowance (other); Study payments includes Abstudy (both), Austudy and Youth Allowance (student and apprentice).

Housing overcrowding and stability

Why monitor this?	What did we find?
Overcrowding occurs when the dwelling size is too small for the size and composition of the household living in it. Underuse occurs when the dwelling size is larger than that required to adequately house the household. Overcrowding of dwellings increases the stress on kitchens, bathrooms, laundry facilities and sewerage systems, which in turn increases the risk of spreading infectious diseases between residents, and places unnecessary strain on interpersonal relationships.	There were significantly fewer overcrowded Aboriginal households in the Maari Ma region in 2016 compared to 2011. However, the percentage of overcrowded Aboriginal households in the Maari Ma region continues to be nearly double the percentage of overcrowded households in NSW as a whole. There were also significantly less Aboriginal households that were of a suitable size compared to NSW as a whole in 2016.

The Australian Institute of Health and Welfare (AIHW) uses the internationally accepted measure of housing utilisation developed by the Canadian National Occupancy Standard. The Canadian model is sensitive to both household size and composition and uses the following criteria to assess bedroom requirements:

- There should be no more than 2 persons per bedroom.
- Children less than 5 years of age of different sexes may reasonably share a bedroom.
- Children 5 years of age or older of opposite sex should have separate bedrooms.
- Children less than 18 years of age and of the same sex may reasonably share a bedroom.
- Single household members 18 years or older should have a separate bedroom, as should parents or couples.

Using the above criteria, households that require at least one additional bedroom are considered to experience some degree of overcrowding.

The following table and chart show comparisons of housing overcrowding by household and 'suitable sized' houses for the Maari Ma region and NSW. It should be noted that an 'Aboriginal household' is one where at least one person has identified as being Aboriginal. Not all household occupants need to be Aboriginal.

There were significantly fewer overcrowded Aboriginal households in the Maari Ma region in 2016 compared to 2011. However, the percentage of overcrowded Aboriginal households in the Maari Ma region continues to be nearly double the percentage of overcrowded households in NSW as a whole. There were also significantly less Aboriginal households that were of a suitable size compared to NSW as a whole in 2016.

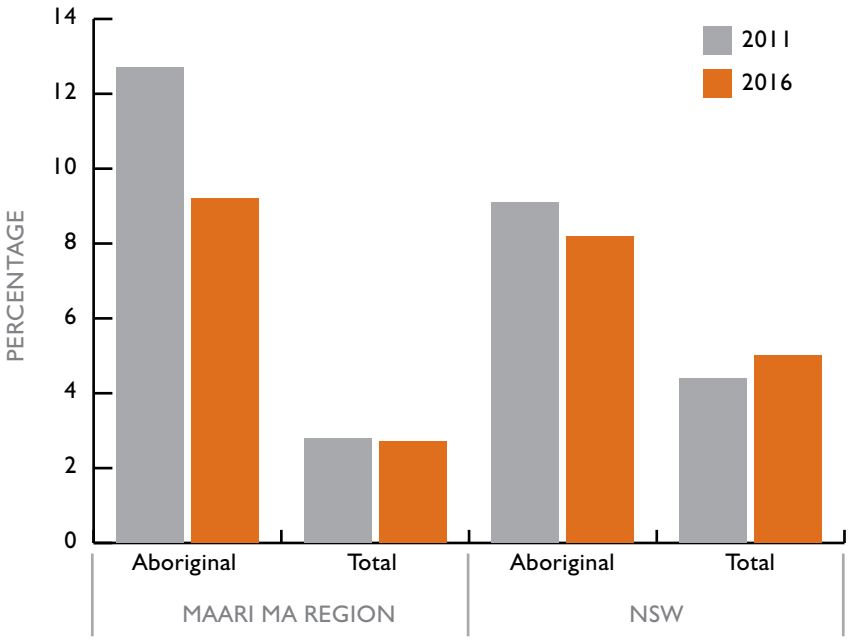
Housing overcrowding, by household, Maari Ma region and NSW, 2011 and 2016

Housing status	Year	Maari Ma region				NSW	
		Aboriginal		Total		Aboriginal	Total
		N	%	N	%	%	%
Overcrowded household[11]	2011	139	12.7%	327	2.8%	9.1%	4.4%
	2016	109	9.2%↓^	299	2.7%	8.2%	5.0%
Suitable size for residents[12]	2011	862	78.9%	10,596	90.4%	82.9%	90.1%
	2016	977	82.6%↑@	10,107	90.1%	84.0%	88.8%
Unable to be classified	2011	43	3.9%	402	3.4%	4.8%	3.6%
	2016	47	4.0%	412	3.7%	4.2%	3.7%
Not stated	2011	62	5.7%	387	3.3%	3.1%	1.9%
	2016	49	4.1%^	404	3.6%	3.5%	2.5%

↑ significantly higher than the previous period MM-R Aboriginal population result
↓ significantly lower than the previous period MM-R Aboriginal population result
^ significantly higher than the current NSW population result
@ significantly lower than the current NSW population result

Source: ABS Census 2011, 2016

Percentage of 'overcrowded households', Maari Ma region and NSW, 2011 and 2016



Source: ABS Census 2011, 2016

11. One or more extra bedrooms required by household.
12. No extra bedrooms required by household, or one or more spare bedrooms available in the dwelling.

Statistical significance results:

Compared to the previous period the current result for Maari Ma's Aboriginal population shows

- A significantly lower percentage of people living in overcrowded houses, which is a good result
- A significantly higher percentage of people living in suitably sized houses, which is a good result

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly higher percentage of people living in overcrowded houses, which is a poorer result
- A significantly lower percentage of people living in suitably sized houses, which is a poorer result
- A significantly higher percentage of people not disclosing their housing size.

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Education

Why monitor this?	What did we find?
Education is an extremely important determinant of health and social outcomes. Level of education is related to most lifestyle behaviours and health outcomes, from low birthweight and child death rates to rates of diabetes, heart disease and cancer. Cutler *et al* note poor health in early life may hinder education and employment opportunities which can in turn adversely impact on future health.	The percentage of the Maari Ma Aboriginal population enrolled in some form of education continues to be slightly higher than the percentage for the NSW Aboriginal population and the whole of NSW. However, Aboriginal students in the Maari Ma region are leaving school earlier than all children in NSW. While the percentage of people with any type of higher educational qualification is significantly lower for people in the Maari Ma region compared to NSW, in 2016 there were 8 Aboriginal people in the Maari Ma region with postgraduate degrees compared to none in the previous two census periods.

An educational institution, as defined by the Australian Bureau of Statistics, is a school (pre-primary, primary, and secondary), TAFE, university or tertiary institution. Institutions that offer courses, such as Associations, are also included.

Enrolled in an educational institution

The following table shows the proportion of people in the Maari Ma region and NSW that were attending educational institutions at the time of the 2006, 2011 and 2016 census periods.

Since the 2006 Census, the proportion of people enrolled in an educational institution in both the Maari Ma region and in NSW have not changed. The percentage of Aboriginal people enrolled in educational institutions in the Maari Ma region continues to be slightly higher than the percentage of all students enrolled in NSW and lower than the percentage of Aboriginal students enrolled in educational institutions in NSW.

The higher proportion of Aboriginal people enrolled in an educational institution, in both the Maari Ma region and NSW, is likely due to the smaller age range of the Aboriginal population compared to the larger age range across the total population.

People enrolled in an educational institution, Maari Ma region and NSW, 2006, 2011, 2016

Year	Maari Ma region		NSW	
	Aboriginal	Total	Aboriginal	Total
2006	28.3%	20.0%	34.0%	23.5%
2011	29.7%	19.4%	34.6%	23.8%
2016	28.4%	18.3%	34.0%	23.5%

Source: ABS Census 2006, 2011, 2016

Year of school completed

The following table shows the year of school completed for people in the Maari Ma region compared to NSW.

Between 2011 and 2016, there has been a significant increase in the percentage of Aboriginal students completing Year 12 in the Maari Ma region. However, this figure is still significantly lower than the percentage of Aboriginal students in NSW and all students in NSW completing Year 12. Aboriginal students in the Maari Ma region are around 1.5 times more likely than Aboriginal students in NSW and 3 times more likely than all students in NSW to leave school before Year 10.

Year of school completed, Maari Ma region and NSW, 2006, 2011, 2016

	Year	Maari Ma region		NSW	
		Aboriginal	Total	Aboriginal	Total
Year 12	2006	9.4%	23.8%	21.2%	47.2%
	2011	13.0%	26.8%	25.0%	52.0%
	2016	17.3%↑#@	30.7%	30.9%	57.0%
Year 11	2006	8.0%	10.2%	9.1%	6.6%
	2011	9.5%	10.5%	9.9%	6.5%
	2016	12.8%↑*^	11.2%	11.0%	6.4%
Year 10	2006	33.4%	35.8%	35.4%	28.8%
	2011	34.4%	35.0%	35.7%	26.4%
	2016	34.8%^	34.3%	34.0%	23.6%
Year 8 / Year 9	2006	39.8%	29.5%	33.2%	16.2%
	2011	42.0%	27.1%	28.5%	14.0%
	2016	34.2%↓*^	23.3%	23.4%	11.9%
Did not go to school	2006	1.6%	0.7%	1.1%	1.2%
	2011	1.2%	0.6%	0.9%	1.1%
	2016	0.9%	0.4%	0.7%	1.1%

↑ significantly higher than the previous period MM-R Aboriginal population result
↓ significantly lower than the previous period MM-R Aboriginal population result
* significantly higher than the current NSW Aboriginal population result
# significantly lower than the current NSW Aboriginal population result
^ significantly higher than the current NSW population result
@ significantly lower than the current NSW population result

Source: ABS Census 2006, 2011, 2016

Statistical significance results:

Compared to the previous period the current result for Maari Ma's Aboriginal population shows

- A significantly higher percentage of people had their final year of school in year 12, which is a good result
- A significantly higher percentage of people had their final year of school in year 11, which is an improvement
- A significantly lower percentage of people had their final year of school in either year 8 or 9, which is a good result

Compared to the NSW Aboriginal population the current result for Maari Ma's Aboriginal population shows

- A significantly lower percentage of people had their final year of school in year 12, which is a poorer result
- A significantly higher percentage of people had their final year of school in year 11, which is an improvement
- A significantly higher percentage of people had their final year of school in either year 8 or 9, which is a poor result

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly lower percentage of people had their final year of school in year 12, which is a poorer result
- A significantly higher percentage of people had their final year of school in year 11, which is an improvement
- A significantly higher percentage of people had their final year of school in year 10, which is an improvement
- A significantly higher percentage of people had their final year of school in either year 8 or 9, which is a poor result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Educational qualifications

The following tables show the proportion of people who have a post-school qualification.

In 2016 about 1 in 4 Aboriginal people aged over 15 had a post-school qualification which is significantly less than the proportion of all NSW Aboriginal people and NSW people of the same age. The comparative data from previous census is not available and so this indicator will be followed in subsequent profiles.

Post school qualifications, Maari Ma region and NSW, 2016

	Year	Maari Ma region		NSW	
		Aboriginal	Total	Aboriginal	Total
Certificate or above	2016	27.1%#@	40.8%	36.6%	55.1%

significantly lower than the current NSW Aboriginal population result

@ significantly lower than the current NSW population result

Source: ABS Census 2016

Statistical significance results:

Compared to the NSW Aboriginal population the current result for Maari Ma's Aboriginal population shows

- A significantly lower percentage of people had a certificate or greater qualification, which is a poorer result

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly lower percentage of people had a certificate or greater qualification, which is a poorer result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Types of qualifications

This following table shows the types of educational qualifications people aged over 15 have achieved.

The percentage of Aboriginal people who reported having a postgraduate degree increased from 0% in previous reports to 1.6% (n=8).

Aboriginal people in the Maari Ma region and in NSW are around 2 times more likely to have a certificate as their highest qualification compared to all people in NSW. People in NSW are around 3 times more likely to have a Bachelor's degree and nearly 7 times more likely to have a postgraduate degree compared to Aboriginal people in the Maari Ma region.

Educational qualifications, Maari Ma region and NSW, 2006, 2011, 2016

	Year	Maari Ma region		NSW	
		Aboriginal	Total	Aboriginal	Total
Postgraduate degree	2006	0.0%	2.2%	2.4%	7.6%
	2011	0.0%	2.4%	2.6%	9.3%
	2016	1.6%↑@	3.3%	3.0%	11.2%
Bachelor degree	2006	12.5%	18.7%	14.7%	29.7%
	2011	10.6%	18.2%	14.2%	30.8%
	2016	11.1%@	17.3%	14.0%	31.8%
Advance diploma / diploma	2006	21.1%	14.2%	15.4%	18.2%
	2011	16.8%	14.7%	15.6%	18.1%
	2016	18.6%	15.8%	17.8%	17.7%
Graduate diploma / Graduate certificate	2006	1.3%	3.1%	2.1%	3.1%
	2011	4.1%	3.2%	1.9%	3.2%
	2016	2.5%	3.0%	2.0%	3.4%
Certificate	2006	65.1%	61.9%	65.5%	41.4%
	2011	70.5%	61.7%	65.7%	38.6%
	2016	66.2%^	60.6%	63.3%	35.9%

↑ significantly higher than the previous period MM-R Aboriginal population result
^ significantly higher than the current NSW population result
@ significantly lower than the current NSW population result

Source: ABS Census 2006, 2011, 2016

Statistical significance results:

Compared to the previous period the current result for Maari Ma's Aboriginal population shows

- A significantly higher percentage of people obtaining a post graduate degree, which is a good result

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly lower percentage of people obtaining a post graduate degree, which is a poorer result
- A significantly lower percentage of people obtaining a Bachelor's degree, which is a poorer result
- A significantly higher percentage of people obtaining a certificate qualification.

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Social capital

Why monitor this?	What did we find?
Social capital refers to the aspects of social relationships, such as the connections among individuals or the social networks that facilitate the norms of reciprocity and trustworthiness. Social capital is an important part of the social context in which a child develops, including in enhancing schooling and education, preventing youth delinquency and crime, and encouraging political participation. Klocke *et al* note families with rich social support networks have been found to have increased access to information, material resources, and friends and communities to assist them in managing their daily lives and problems. Researchers such as Ichiro Kawachi are also using the concept of social capital to explain and provide pathways to reduce socio-economic disparities that contribute to poor health.	A small proportion of 16-17 year olds were enrolled to vote in the Divisions of Farrer and Parkes, and in NSW overall. The proportion increased to 68.4% in Farrer, 76.3% in Parkes and 72.3% in NSW among 18 19 year olds. By the age of 20-24 years, the proportions of young people enrolled in the Divisions of Farrer (93.9%) and Parkes (98.6%) were higher than NSW overall (83.7%). In 2016, the proportions of young people volunteering were similar across the entire Maari Ma region and total NSW population, but the proportion of Aboriginal young people volunteering in the Maari Ma region was around half of the total NSW population.

This section focusses on two components of social capital: volunteering and engagement in society (through voting). These are two indicators of social capital that are routinely collected.

Volunteering

According to Walsh and Black's Youth volunteering in Australia: An evidence review, volunteering has been found to be beneficial for young people to build connections with other likeminded people and to make valuable contributions.

The following table shows the proportion of 15-24 year olds volunteering in the Maari Ma region compared to NSW.

In 2016, the proportions of young people volunteering were similar across the entire Maari Ma region and total NSW population, but the proportion of Aboriginal young people in the Maari Ma region was around half of the total NSW population.

Proportion of 15-24 year olds volunteering in the Maari Ma region, NSW, 2006, 2011, 2016

	Year	Maari Ma region		NSW	
		Aboriginal	Total	Aboriginal	Total
15-19 years	2006	11.3%	13.8%	12.5%	17.6%
	2011	10.1%	15.6%	12.1%	18.5%
	2016	9.7%	19.3%	14.8%	21.4%
20-24 years	2006	7.2%	15.1%	11.8%	14.8%
	2011	12.0%	13.5%	12.3%	15.6%
	2016	10.9%	17.3%	13.5%	17.5%

Source: ABS Census 2006, 2011, 2016

Engagement in society

Aboriginal children and young people's ability to have a say on important issues within their community and participate in society impacts on their health and wellbeing. According to AIHW's Aboriginal and Torres Strait Islander adolescent and youth health and wellbeing report, at a national level, 3 in 5 Aboriginal young people aged 15-24 years old felt they had a say on important issues in their communities either little or none of the time.

The current Maari Ma region and NSW enrolments to vote are much higher than those reported in the previous profile. However, these higher enrolment rates are in line with record high youth (88.8%) and overall enrolment (96.8%) rates achieved across Australia in 2019. Many have credited the 2017 marriage equality plebiscite and issues like climate change, unemployment and housing with increasing youth participation. While this is partly true, there was also a significant increase in youth enrolments between 2013 and 2016, after the government enabled the Australian Electoral Commission (AEC) in 2012 to directly enrol citizens. The AEC also introduced entirely online enrolments in the lead-up to the 2013 election, which may have contributed to the increase.

The following table shows the percentage of 16-24 year olds that are registered to vote in the Divisions of Farrer and Parkes (which cover the far western region of NSW) compared to NSW.

Registered voters, Maari Ma region and NSW, 31 March 2019

	Division of Farrer[13]	Division of Parkes[14]	NSW
16-17 years	2.0%	1.4%	2.0%
18-19 years	68.4%	76.3%	72.3%
20-24 years	93.9%	98.6%	83.7%

Source: Australian Electoral Commission 2019

13. The Division of Farrer includes Albury, Balranald, Berrigan, Carrathool, Conargo, Corowa, Deniliquin, Greater Hume, Griffith, Hay, Jerilderie, Leeton, Murray, Murrumbidgee, Narrandera, Urana, Wakool and Wentworth.
14. The Division of Parkes includes Bogan, Bourke, Brewarrina, Broken Hill, Central Darling (Menindee, Ivanhoe and Wilcannia), Cobar, Coonamble, Dubbo, Gilgandra, Gunnedah, Gwydir, Lachlan, Moree Plains, Narrabri, Narromine, Unincorporated Far West (Tibooburra), Walgett, Warren and Warrumbungle.

THREE
What kind of families do our children live in?

Environmental circumstances, such as the wellbeing of families and the strength of communities in which they live, play an important role in determining children's health and wellbeing. This chapter provides information on economic factors affecting children and young people, their living arrangements, and parental and community influences.

Family economic situation

Why monitor this?	What did we find?
For most families, household income is the most important determinant of their economic situation. Families in low-income households are more likely to have insufficient economic resources to support a minimum standard of living and this can affect a child's nutrition, access to medical care, the safety of their environment, housing stability, stress levels in the family and the quality and stability of their care. Household income is linked to parental education and employment. Continuous moving can also have an impact on social connections by distancing families from close social networks that provide emotional and other supports. Some of the most common reasons for young people experiencing homelessness are housing crisis, domestic and family violence, and relationship and family breakdown. However, there are also a number of structural factors that contribute to youth homelessness including poverty, social inequality and youth unemployment, as noted in the AIHW's annual report on specialist homelessness services. Often younger people have less opportunities for further education and work experience which can make it harder for them to access employment. This in turn contributes to difficulties in securing safe and reliable housing.	The proportion of Maari Ma's Aboriginal children whose parents had only completed Year 9 or below has significantly decreased since the last profile. Over the last 2 profiles there has been a steady increase in the proportion of parents of Aboriginal children in both couple and one parent families who are employed. Significantly more Aboriginal children and young people lived in a different house five years ago in 2016 compared to 2011. Maari Ma Aboriginal children aged 5-19 years old were more likely than Aboriginal children in NSW, and all children in NSW, to have moved in the last year but less likely to have moved in the last five years. The proportion of Aboriginal young people accessing specialist homelessness services in the Maari Ma region was significantly higher than all young people in the Maari Ma region and all young people in NSW.

Parental education

Higher education attainment is associated with better health and social outcomes for individuals and families. Conversely, lower education attainment in general is associated with a higher risk for poorer health and social outcomes for families.

The table following shows the percentage of children aged under 15 years whose parents did not complete secondary school (Year 10 or above) did not go to school.

In 2016, the percentage of Aboriginal parents in the Maari Ma region who had only completed Year 9 or below was significantly lower than in 2011. However, the percentage of Aboriginal parents in the Maari Ma region who have only completed Year 9 or below is significantly higher (nearly 7 times higher) than all people in NSW.

Children aged under 15 years whose parents only completed Year 9 or below or did not go to school, Maari Ma region and NSW, 2006, 2011, 2016

	Year	Maari Ma region				NSW	
		Aboriginal		Total		Aboriginal	Total
		N	%	N	%	%	%
Year 9 or below	2006	305	32.1%	730	12.6%	20.1%	4.9%
	2011	284	29.5%	548	10.5%	16.6%	3.8%
	2016	195	21.0%↓*^	380	8.1%	12.7%	3.0%
Did not go to school	2006	13	1.4%	13	0.2%	0.3%	0.6%
	2011	<5	0.4%	11	0.2%	0.2%	0.5%
	2016	<5	0.3%	<5	0.1%	0.2%	0.4%

↓ significantly lower than the previous period MM-R Aboriginal population result
* significantly higher than the current NSW Aboriginal population result
^ significantly higher than the current NSW population result

Source: ABS Census 2006, 2011, 2016

Statistical significance results:

Compared to the previous period the current result for Maari Ma's Aboriginal population shows

- A significantly lower percentage of children with parents who finished school at year 9 or below, which is a good result

Compared to the NSW Aboriginal population the current result for Maari Ma's Aboriginal population shows

- A significantly higher percentage of children with parents who finished school at year 9 or below, which is a poor result

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly higher percentage of children with parents who finished school at year 9 or below, which is a poor result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Parental employment

Secure employment provides financial stability, confidence and social contact for parents, with positive effects flowing on to children. The following table illustrates the labour force status of parents who have children under the age of 15.

There is no significant difference in the labour force status for Aboriginal families in the Maari Ma region in 2016 compared to 2011. However, employment rates for both couple and one parent families have increased since 2006. Aboriginal families in the Maari Ma region continue to experience unemployment at significantly higher rates than all parents in NSW.

Labour force status of parents with children aged under 15 years, Maari Ma region and NSW, 2006, 2011, 2016

		Year	Maari Ma region		NSW	
			Aboriginal	Total	Aboriginal	Total
Couple family	Employed	2006	63.7%	87.6%	76.7%	91.6%
		2011	65.1%	89.4%	80.5%	92.4%
		2016	71.5%#@	90.0%	84.8%	93.2%
	Unemployed	2006	36.3%	12.4%	23.3%	8.4%
		2011	34.9%	10.6%	19.5%	7.6%
		2016	28.5%*^	10.0%	15.2%	6.8%
One parent family	Employed	2006	24.3%	41.0%	28.0%	48.7%
		2011	28.9%	46.1%	31.5%	52.8%
		2016	31.2%@	47.4%	34.4%	55.8%
	Unemployed	2006	75.7%	59.0%	72.0%	51.3%
		2011	71.1%	53.9%	68.5%	47.2%
		2016	68.8%^	52.6%	65.6%	44.2%

* significantly higher than the current NSW Aboriginal population result
\# significantly lower than the current NSW Aboriginal population result
^ significantly higher than the current NSW population result
@ significantly lower than the current NSW population result

Source: ABS Census 2006, 2011, 2016

Statistical significance results:

Compared to the NSW Aboriginal population the current result for Maari Ma's Aboriginal population shows

- A significantly lower percentage of parents in couple families with Aboriginal children under 15 were employed, which is a poorer result
- A significantly higher percentage of parents in couple families with Aboriginal children under 15 were unemployed, which is a poorer result

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly lower percentage of parents in couple families with Aboriginal children under 15 were employed, which is a poorer result
- A significantly higher percentage of parents in couple families with Aboriginal children under 15 were unemployed, which is a poorer result
- A significantly lower percentage of one parent families with Aboriginal children under 15 were employed, which is a poorer result
- A significantly higher percentage of one parent families with Aboriginal children under 15 were unemployed, which is a poorer result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Housing stability

Moving house can be stressful, especially for children as it can disrupt routine and stability. A study by the Strong Foundations collaboration showed that moving two or more times during the first two years of a child's life led to problem behaviours at the age of nine, such as anxiety, sadness and withdrawal. One residential move before age four led to more problem behaviours at age four and each additional move exacerbated the effect. This was even after controlling for demographic, child and family characteristics such as maternal education and income, other changes in the child's life, and types of moves (i.e. from a less affluent to more affluent area).

The following table shows the proportion of children aged 5 to 19 who either have lived at the same address for the last 5 years or more, moved in the last year, or moved in the last 5 years.

The percentage of Aboriginal children aged 5-19 years who reported having lived in a different house five years ago was significantly higher compared to the previous census. Aboriginal children aged 5-19 years old in the Maari Ma region were more likely than Aboriginal children in NSW, and all children in NSW, to have moved in the last year but less likely to have moved in the last five years.

Children 5-19 years who live at the same or different address 1 year or 5 years ago, Maari Ma region and NSW, 2011 and 2016

	Year	Maari Ma region		NSW	
		Aboriginal	Total	Aboriginal	Total
Lived at the same address	2011	61.1%	61.3%	49.5%	56.9%
	2016	55.4%↓*	58.2%	48.3%	53.5%
Moved in the last year	2011	15.0%	12.6%	18.0%	12.9%
	2016	17.8%^	12.3%	17.6%	13.4%
Moved in the last 5 years	2011	17.5%	19.8%	27.3%	25.3%
	2016	23.3%↑#@	21.5%	29.3%	27.5%

↑ significantly higher than the previous period MM-R Aboriginal population result
↓ significantly lower than the previous period MM-R Aboriginal population result
* significantly higher than the current NSW Aboriginal population result
# significantly lower than the current NSW Aboriginal population result
^ significantly higher than the current NSW population result
@ significantly lower than the current NSW population result

Source: ABS Census 2011, 2016

Statistical significance results:

Compared to the previous period the current result for Maari Ma's Aboriginal population shows

- A significantly lower percentage of children lived at the same house they did 5 years ago, which is a poorer result
- A significantly higher percentage of children moved house in the last 5 years, which is a poorer result

Compared to the NSW Aboriginal population the current result for Maari Ma's Aboriginal population shows

- A significantly higher percentage of children lived at the same house they did 5 years ago, which is a good result
- A significantly lower percentage of children moved house in the last 5 years, which is a good result

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly higher percentage of children moved house in the last year, which is a poorer result
- A significantly lower percentage of children moved house in the last 5 years, which is a good result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Homelessness

The following tables show the rates of young people accessing specialist homelessness services in the Maari Ma region and NSW and the mean age at which they access these services.

Aboriginal youth experience homelessness at higher rates than non-Aboriginal youth. In 2017-18, the proportion of Aboriginal young people aged 0-19 years accessing specialist homelessness services in the Maari Ma region was significantly higher than all young people in the Maari Ma region (4 times higher) and all young people in NSW (12 times higher). Homelessness for young people aged 0-19 years has increased significantly in the Maari Ma region since 2014-15, but has also increased in NSW as a whole. The mean age when young people access specialist homelessness services is similar across the Maari Ma region and NSW.

Children as part of families, and children and young people aged under 19 years, who are accessing specialist homelessness services (N), and rate per 1,000 people, 2014-15 and 2017-18

	Year	Maari Ma region				NSW	
		Aboriginal		Total		Aboriginal	Total
		N	Rate	N	Rate	Rate	Rate
0-9 years	2014-15	85	125.6	113	29.7	60.3	8.1
	2017-18	94	136.4*^	125	34.8	83.8	12.3
10-19 years	2014-15	64	93.2	100	26.2	65.9	11.0
	2017-18	120	206.5†*^	163	49.8	98.0	16.3
Total 0-19 years	2014-15	149	109.2	213	27.9	63.0	9.5
	2017-18	214	168.5†*^	288	41.9	90.6	14.3

† significantly higher than the previous period MM-R Aboriginal population result
* significantly higher than the current NSW Aboriginal population result
^ significantly higher than the current NSW population result

Sources: AIHW Specialist Homelessness Services, ABS Census 2011 and 2016

Statistical significance results:

Compared to the previous period the current result for Maari Ma's Aboriginal population shows

- A significantly higher rate of children as part of families, and children and young people aged under 10-19 years are accessing homelessness services, which is a poorer result
- A significantly higher rate of children as part of families, and children and young people aged under 19 years are accessing homelessness services, which is a poorer result

Compared to the NSW Aboriginal population the current result for Maari Ma's Aboriginal population shows

- A significantly higher rate of children as part of families, and children and young people aged under 10 years are accessing homelessness services, which is a poorer result
- A significantly higher rate of children as part of families, and children and young people aged under 10-19 years are accessing homelessness services, which is a poorer result
- A significantly higher rate of children as part of families, and children and young people aged under 19 years are accessing homelessness services, which is a poorer result

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows there were

- A significantly higher rate of children as part of families, and children and young people aged under 10 years are accessing homelessness services, which is a poorer result
- A significantly higher rate of children as part of families, and children and young people aged under 10-19 years are accessing homelessness services, which is a poorer result
- A significantly higher rate of children as part of families, and children and young people aged under 19 years are accessing homelessness services, which is a poorer result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

While the rate of children as part of families and young people accessing homelessness services has increased, the mean age of Aboriginal people of all ages in the Maari Ma region accessing specialist homelessness services has increased since 2014, and the mean age in NSW has not changed.

Mean age of people of all ages accessing specialist homelessness services, 2014-15 to 2017-18

Year	Maari Ma region		NSW	
	Aboriginal	Total	Aboriginal	Total
2014-15	21.3	22.8	22.2	26.4
2015-16	25.2	25.5	22.5	26.8
2016-17	27.2	28.1	23.0	26.9
2017-18	25.2	27.8	22.9	26.9

Source: AIHW Specialist Homelessness Services

Parental health and disability

Why monitor this?	What did we find?
Parents' health and wellbeing impact on the health and wellbeing of their children in a number of ways. Children rely on their primary carer for their physical, emotional and economic needs, and support. When disruption to parenting occurs, as sometimes happens with the onset of a physical or mental illness, the needs of a child may receive less attention or may not be met at all. There are a wide range of issues faced by families in which one or both parents have a disability. When children are very young, the capacity of parents with a disability to fully care for their children, and the adequacy and availability of specialised support services, are important issues. While a range of support services, including for employment and accommodation, is available to people with disability, there is a more limited range of services for parents with disability. As children grow older, the extent to which they take on a caring role for their parents and their access to educational and other opportunities become an issue. Finally, when children reach adulthood, their freedom to leave home and to begin independent lives may be affected by their parent's disability. Warren *et al* note that these issues may be compounded by the socio-economic disadvantage some families face when there are one or more parents living with a disability.	The proportion of Aboriginal children aged under 15 years old who live with a parent with disability in the Maari Ma region is significantly higher than the NSW rate.

The following table shows the rate of children aged under 15 years who live with a parent with disability.

In the Maari Ma region, there was no difference in the rate of Aboriginal children aged under 15 years old who live with a parent with disability between 2011 and 2016. However, the rate of Aboriginal children aged under 15 years old who live with a parent with disability in the Maari Ma region is higher than the NSW rate.

Children aged under 15 years who live with a parent with disability (N), and rates (per 1,000 population), Maari Ma region and NSW, 2006,

	Maari Ma region				NSW			
	Aboriginal		Total		Aboriginal		Total	
	N	Rate	N	Rate	N	Rate	N	Rate
2006	22	23.1	112	19.3	1,950	38.6	21,696	17.8
2011	37	38.5	127	24.2	2,699	45.4	27,494	21.9
2016	35	37.7^	129	27.6	3,657	51.5	32,885	25.3

^ significantly higher than the current NSW population result

Source: ABS Census 2006, 2011, 2016

Statistical significance results:

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows there were

- Significantly more children aged under 15 years living with a parent who has a disability, which is a poorer result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Children in non-parental care

Why monitor this?	What did we find?
Non-parental, or out-of-home, care is provided to children and young people who are unable to live with their own families. Foster carers take on the responsibilities of a parent for a period of time to provide a safe, nurturing and secure family environment for children and young people needing care. Children in non-parental care represent a particularly disadvantaged group. Many have suffered child abuse and neglect and/or family relationship breakdown. Knight *et al* note young people in nonparental care have higher levels of aggressive/violent behaviour, substance use, intellectual disability, and mental health problems. They also have poorer education outcomes compared with other young people.	Aboriginal children aged 0-14 years in the Maari Ma region are experiencing out-of-home (non-parental) care at lower rates than Aboriginal children in NSW as a whole.

NSW Family and Community Services (now Department of Communities and Justice) define five types of foster care: immediate or crisis care, respite care (providing parents and carers a break from caring roles), short to medium term care, long term or permanent care, and relative or kinship care (where a child or young person lives with a relative or someone they know).

Aboriginal children aged 0-14 years in the Maari Ma region are experiencing out-of-home (non-parental) care at lower rates than Aboriginal children in NSW as a whole. However, Aboriginal children in the Maari Ma region are around 4 times more likely to be in non-parental care than all children in the Maari Ma region and 6 times more likely than all children in NSW.

Children (aged 0-14 years) in non-parental care (N), and rates (per 1,000 population), Maari Ma region and NSW, 2008, 2013, 2017[15]

	Year	Maari Ma region				NSW	
		Aboriginal		Total		Aboriginal	Total
		N	Rate	N	Rate	Rate	Rate
0-5 years	2008	24	58.8	36	15.9	69.8	8.4
	2013	19	46.6	26	11.5	75.9	9.2
	2017	16	40.9#^	24	11.5	66.8	8.9
6-10 years	2008	20	59.5	29	14.8	106.5	13.3
	2013	21	62.5	35	17.9	113.9	13.9
	2017	25	71.2^	37	20.2	91.1	12.6
11-14 years	2008	23	86.8	32	20.9	93.8	12.5
	2013	20	75.5	28	18.3	104.8	13.5
	2017	24	103.0^	34	25.6	98.4	14.0
Total 0-14 years	2008	68	67.4	97	16.9	88.0	11.1
	2013	61	60.5	89	15.5	95.9	11.9
	2017	65	66.7^	96	18.3	83.2	11.5

significantly lower than the current NSW Aboriginal population result
^ significantly higher than the current NSW population result

Source: KiDS – CIW annual data (unpublished), ABS Census 2011 and 2016

Statistical significance results:

Compared to the NSW Aboriginal population the current result for Maari Ma's Aboriginal population shows

- A significantly lower rate of children aged 0-5 are in non-parental care, which is a good result

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly higher rate of children aged 0-5 are in non-parental care, which is a poorer result
- A significantly higher rate of children aged 6-10 are in non-parental care, which is a poorer result
- A significantly higher rate of children aged 11-14 are in non-parental care, which is a poorer result
- A significantly higher rate of children aged under 15 are in non-parental care, which is a poorer result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

15. We were unable to obtain 2017-18 data for this 5-year report so we have only included data from 2016-17 (reported as 2017 in the table). The data for 2008 and 2013 have been taken directly from the 5-year Maari Ma child, health and wellbeing profile that was published in 2014.

FOUR
How healthy are our children?

Good health is an important element in a child's quality of life as it can influence participation in many aspects of life, including schooling and recreation. This chapter focuses on general measures of health status, namely the presence or absence of disease, or activity and participation restrictions.

Mortality

Why monitor this?	What did we find?
Mortality data are used to describe severe ill health that results in death. They can be used to identify sections of the community most at risk. A child's risk of death is greatest in the first year of life, and particularly the first month. The AIHW reports that the infant mortality rate reflects the effect of structural factors on population health, such as the prevailing health and hygiene conditions, and accessibility and effectiveness of the health system in maternal and perinatal care.	The Aboriginal perinatal death rate in the Maari Ma region was 3 times higher than the overall NSW rate for the combined years 2012-2016 which is significant. Since 1997, the infant mortality rate has decreased dramatically for Aboriginal children in the Maari Ma region, while the rate has decreased more steadily in NSW

Due to the small number of deaths each year, a number of years of data have been combined below. The numbers used to calculate the rates are small and consequently can result in large fluctuations between time periods. This should be considered when interpreting results.

Perinatal mortality

A perinatal death is a stillbirth or death of a baby in the first month of life. This table shows the number of perinatal deaths and mortality rate for the Maari Ma region and NSW from 1997 to 2016.

Since 1997, the perinatal mortality rate has declined steadily over time in NSW. For Aboriginal perinatal deaths in the Maari Ma region there has been a fluctuation in the rates which is most likely due to small numbers in the region. These data should therefore be interpreted with caution.

The perinatal mortality rate for Aboriginal babies in the Maari Ma region was around 3 times higher than the rate in NSW as a whole in 2012-2016.

Total number of perinatal deaths (N) and mortality rate (per 1,000 births), Maari Ma region and NSW, 1997-2001 to 2012-2016[16]

Year	Maari Ma region				NSW			
	Aboriginal		Total		Aboriginal		Total	
	N	Rate	N	Rate	N	Rate	N	Rate
1997-2001	6	24.3	23	14.4	174	16.9	4,071	9.3
2002-2006	<5	11.5	20	10.3	154	12.9	3,878	8.8
2007-2011	5	14.5	20	10.5	245	16.2	4,167	8.6
2012-2016	9	24.7^	28	14.9	215	11.4	3,873	7.9

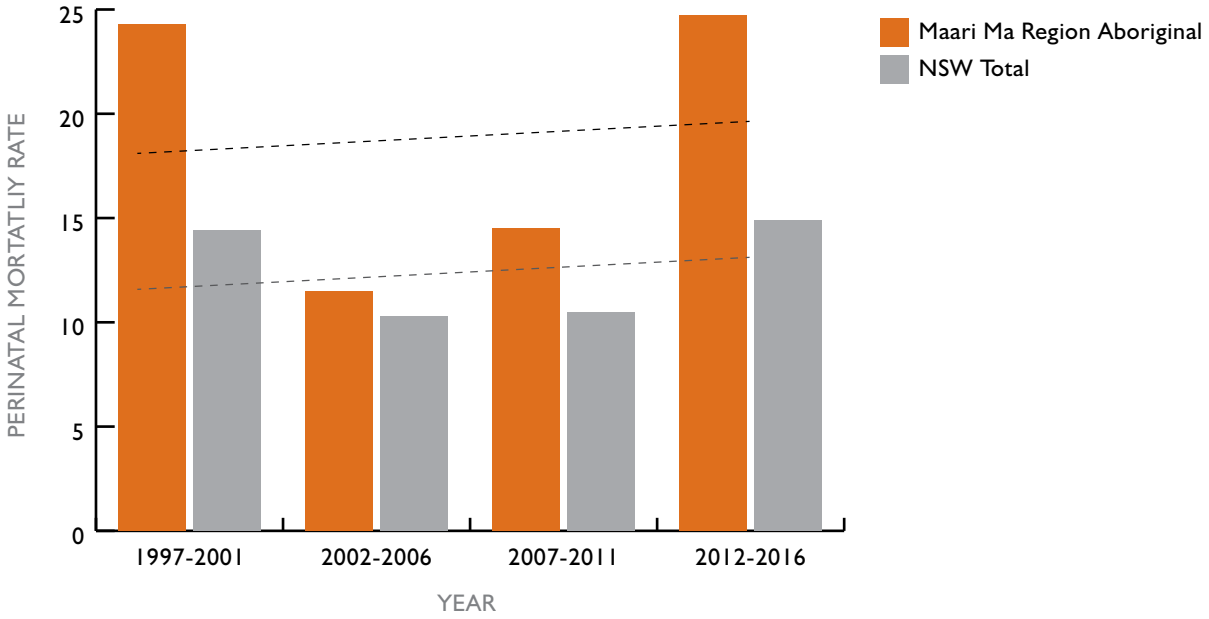
^ significantly higher than the current NSW population result

Source: NSW PDC, SA Perinatal Statistics Collection, CCOPMM

16. The figures in this table include babies born to women who live in the Maari Ma region but may have given birth in South Australian and Victorian hospitals.

17. The data from 1997-2001 and 2002-2006 are taken from the previous Maari Ma child health, development and wellbeing profile published in 2014. The data from 2007-2011 and 2012-2016 are newly extracted data.

Perinatal mortality rates, Maari Ma region and NSW



Source: NSW PDC, SA Perinatal Statistics Collection, CCOPMM

Statistical significance results:

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly higher rate of babies were still born or died in the first month of life, which is a poorer result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Infant mortality

Infant mortality is the death of an infant aged less than 1 year. The infant mortality rate is used internationally as a key measure of population child health.

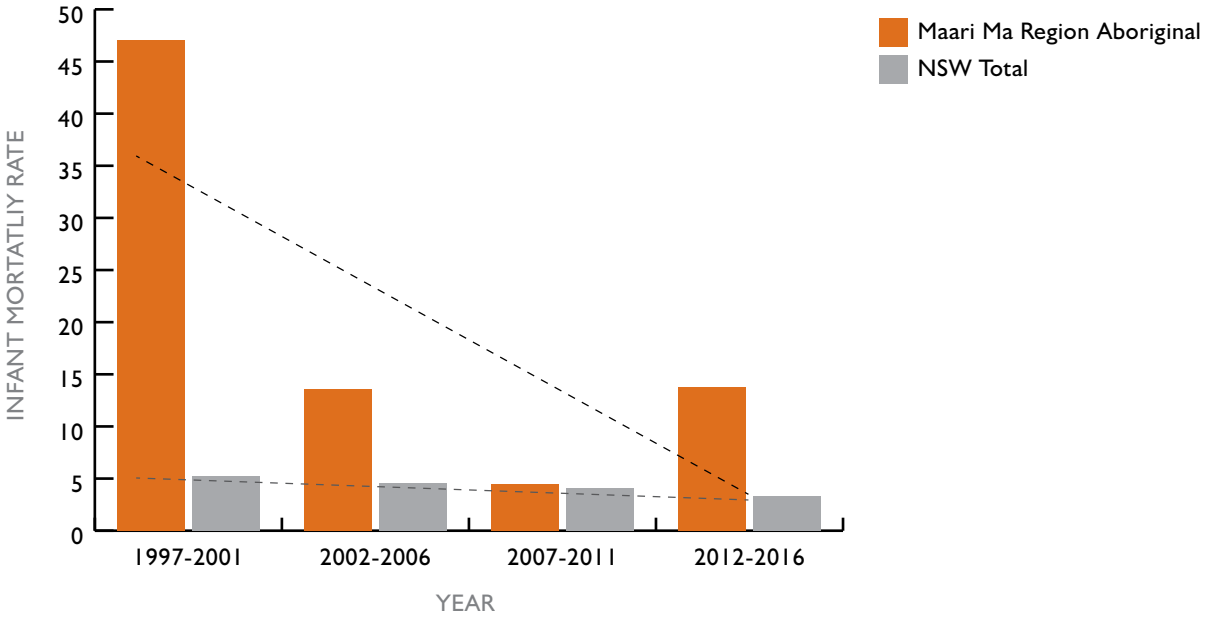
Since 1997, the infant mortality rate has decreased dramatically for Aboriginal children in the Maari Ma region, while the rate has decreased more steadily in NSW. The infant mortality rate for Aboriginal babies in the Maari Ma region is nearly 4 times higher than the rate in NSW as a whole. However, due to small numbers in the Maari Ma region, particularly among Aboriginal babies, these data should be interpreted with caution.

Total number of infant deaths (N) and mortality rate (per 1,000 live births), Maari Ma region and NSW, 1997-2001 to 2012-2016[17]

Year	Maari Ma region				NSW			
	Aboriginal		Total		Aboriginal		Total	
	N	Rate	N	Rate	N	Rate	N	Rate
1997-2001	11	47.0	25	16.7	156	15.5	2,234	5.2
2002-2006	<5	13.6	13	9.9	133	11.4	2,005	4.6
2007-2011	<5	4.6	11	8.8	128	8.9	1,947	4.3
2012-2016	<5	13.8	7	6.1	122	6.7	1,597	3.5

Source: COD URF held by the NSW MOH SAPHaRI, NSW PDC

Infant mortality rates, Maari Ma region and NSW



Source: COD URF held by the NSW MOH SAPHaRI, NSW PDC

Statistical significance results:

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly higher rate of babies were still born or died in the first month of life, which is a poorer result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Chronic conditions

Why monitor this?	What did we find?
Chronic conditions can affect normal growth and physical, social and emotional development processes, and account for a large proportion of the burden of disease among children.	About 2% of all NDSS registrations are for children and young people aged under 25. In the Maari Ma region 7% of all registrations are Aboriginal people. Over an 8 year period there were 12 cases of cancer in the Maari Ma region for all children and young people aged 0-24 years old. There are very few hospitalisations for ear disease and respiratory disease in the Maari Ma region.

Diabetes

Diabetes is a chronic condition in which the body cannot properly use its main energy source, glucose. This occurs due to a deficiency in insulin, or the inability to use the insulin that is available. There are two main types of diabetes, Type 1 and Type 2. Type 1 diabetes usually appears during childhood or adolescence and is marked by a complete lack of insulin, making insulin replacement necessary for survival. Type 2 diabetes is the most common form of diabetes among the Australian adult population and is marked by a reduced level of insulin, or an inability of the cells to use insulin.

At July 2019, for all people currently registered with the National Diabetes Services Scheme (NDSS), around 2% are less than 25 years old in both the Maari Ma region and all of NSW. Of all people of all ages registered with the NDSS in the Maari Ma region, 7.2% identify as Aboriginal or Torres Strait Islander people. By comparison, 1.8% of all people of all ages registered with the NDSS in NSW identify as Aboriginal or Torres Strait Islander people.

Cancer

Cancer is a disease in which cells become abnormal, grow in an uncontrolled manner, and form a mass called a neoplasm or tumour. The AIHW reports brain cancer as the fourth most common cause of death in children and young people aged 1-14 years old in Australia.

There were 12 cases of cancer in the Maari Ma region for all children and young people aged 0-24 years old between 2008 and 2015 which is less than 1 per year.

Ear infections

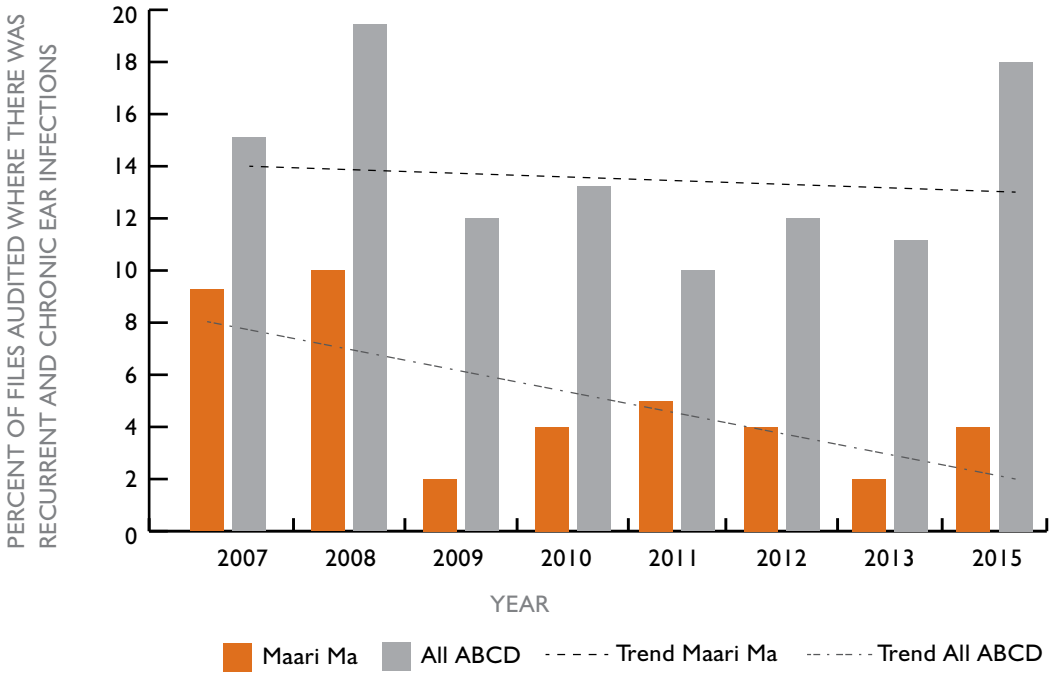
Otitis media (middle ear infection) in children commonly follows an upper respiratory tract infection. In its severest form, perforations of the eardrum can lead to chronic suppurative otitis media, hearing loss, and particularly with infants and younger children, delayed speech development, reduced learning ability and reduced social interaction.

The annual Audit and Best Practice for Chronic Disease (ABCD) for child health, which ran until 2016[18], reviewed abnormal clinical findings for recurrent and chronic ear infections. The following definitions were used:

- Recurrent ear infection: two or more ear infections in the past year;
- Chronic ear infection: an ear infection persisting for two weeks or more.

The following chart shows a falling rate of disease for recurrent and chronic ear infections since 2007 across all ABCD sites (which includes remote Northern Territory and Queensland) and the Maari Ma region.

Recurrent and chronic ear infections, Maari Ma region and all ABCD participating sites, 2007-2015[19]



Source: ABCD 2007-2015

The table following shows the number of hospitalisations for ear diseases each year averaged over two five-year periods (2007/08-2011/12 and 2012/13-2016/17). There are very few hospitalisations for ear disease in the Maari Ma region. Hospitalisations for ear disease tend to decrease as children get older both in the Maari Ma region and in NSW as a whole.

18. Maari Ma only participated in the ABCD until 2015.

19. Maari Ma did not audit in 2014 which is why these data are not included. Fluctuations are likely due to small numbers.

Average number of ear disease hospitalisations per age group per year[20], 0-19 years, Maari Ma region and NSW, 2007/08 to 2016/17[21]

	Year	Maari Ma region		NSW	
		Aboriginal	Total	Aboriginal	Total
0-4 years	2007/08-2011/12	5	19	197	5,160
	2012/13-2016/17	<5	11	291	5,962
5-9 years	2007/08-2011/12	<5	16	164	2,652
	2012/13-2016/17	<5	11	200	2,807
10-14 years	2007/08-2011/12	<5	6	59	695
	2012/13-2016/17	<5	6	68	652
15-19 years	2007/08-2011/12	<5	<5	24	319
	2012/13-2016/17	<5	<5	24	317

Sources: CAPED (SAPHaRI), NSW MOH

Respiratory illness

Chronic lung disease is an important contributor to the high rates of chronic illness in Indigenous communities and recurrent and chronic infections in childhood are recognised contributors to the development of chronic lung disease.

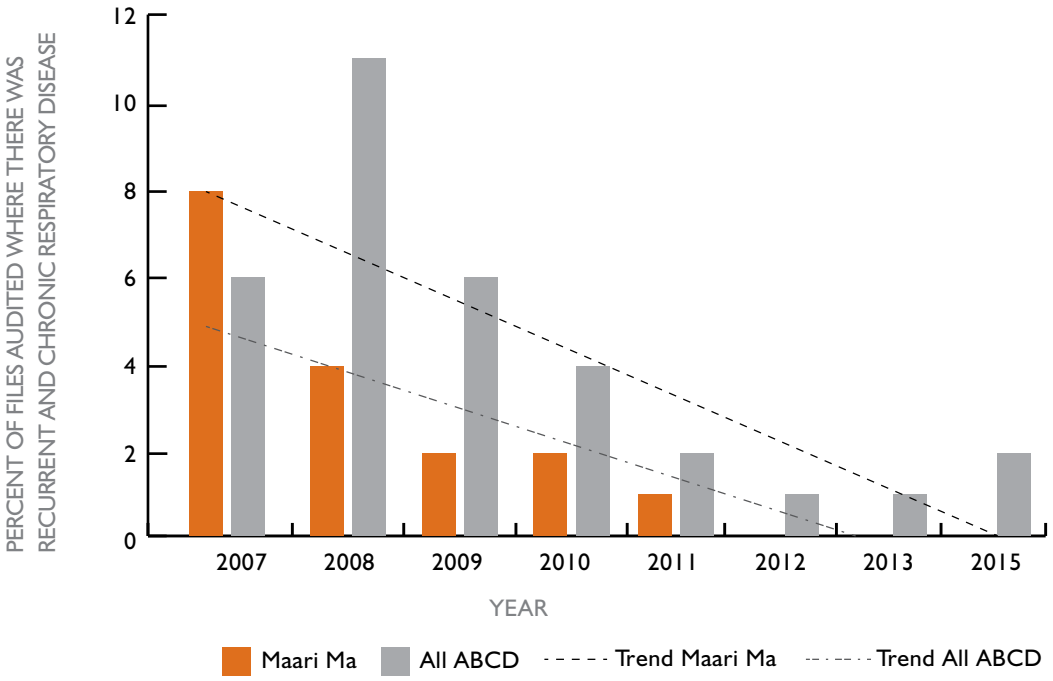
The annual ABCD clinical audits for child health (which ran until 2016[22]) reviewed abnormal clinical findings for chronic respiratory disease. The following definition is used.

- Recurrent or chronic respiratory disease: three or more episodes of chest infection requiring antibiotics in the previous year.

The burden of disease for recurrent and chronic respiratory disease has decreased since 2007 for all ABCD participating sites and the Maari Ma region.

20. We are unable to calculate rates as the NSW MOH does not have an approved estimated Aboriginal population for the Maari Ma region.
21. Numbers for recent years include an estimate of the number of hospitalisations of NSW residents in interstate public hospitals, data for which were unavailable at the time of production.
22. Maari Ma only participated in the ABCD until 2015.

Recurrent and chronic respiratory disease, Maari Ma region and all ABCD participating sites[23]



Source: ABCD 2007-2015

The following table shows the number of hospitalisations for respiratory illness each year averaged over two five-year periods (2007/08- 2011/12 and 2012/13- 2016/17). Hospitalisations for respiratory illness are low in the Maari Ma region. Hospitalisations for respiratory illness tend to decrease as children get older both in the Maari Ma region and in NSW as a whole.

Average number of hospitalisations for respiratory illness per age group per year[24], 0-19 years, Maari Ma region and NSW, 2007/08 to 2016/17[25]

	Year	Maari Ma region		NSW	
		Aboriginal	Total	Aboriginal	Total
0-4 years	2007/08-2011/12	50	125	1,778	25,198
	2012/13-2016/17	44	126	2,059	25,807
5-9 years	2007/08-2011/12	9	47	376	8,355
	2012/13-2016/17	10	38	468	8,924
10-14 years	2007/08-2011/12	5	29	251	3,940
	2012/13-2016/17	<5	16	243	4,041
15-19 years	2007/08-2011/12	<5	27	219	4,709
	2012/13-2016/17	<5	19	282	4,893

Sources: CAPED (SAPHaRI), NSW MOH

23. Maari Ma did not audit in 2014 which is why these data are not included. Fluctuations are likely due to small numbers.
24. We are unable to calculate rates as the NSW MOH does not have an approved estimated Aboriginal population for the Maari Ma region.
25. Numbers for recent years include an estimate of the number of hospitalisations of NSW residents in interstate public hospitals, data for which were unavailable at the time of production.

Disability

Why monitor this?	What did we find?
Children with a disability can have diverse physical, sensory, intellectual and psychiatric impairments that restrict their full involvement in society.	The number of young people aged 15-19 who report having a disability has fluctuated over the last three census counts. These fluctuations are mirrored in the total population count for the same periods.

The 2006 Census was the first census to have the variable Core Activity Need for Assistance. This variable has been developed to measure the number of people with profound or severe disability. As with the ABS Surveys of Disability, Ageing and Carers, the Census of Population and Housing defines the profound or severe disability population as:

- Those people needing help or assistance in one or more of the three core activity areas of self-care, mobility, and communication because of a long-term health condition (lasting six months or more), a disability (lasting six months or more), or 'old age'.

In the Maari Ma region, the number of Aboriginal children and young people with a profound or severe disability aged 0-4 and 5-14 years has remained relatively consistent. There is no statistical difference in these rates compared to NSW total rates. Of note is that for Aboriginal young people aged 15-19 in the Maari Ma region the proportion has fluctuated over time. In 2006, <5 people reported a profound or severe disability compared to 19 people in 2011, and <5 people in 2016. These fluctuations coincide with fluctuations in the number of Aboriginal young people of the same age in the region (302 people in 2006, 341 people in 2011 and 291 people in 2016).

Children and young people (aged 0-19 years) with a profound or severe disability (N), and rates (per 1,000 population), Maari Ma region and NSW, 2011 and 2016

	Year	Maari Ma region				NSW	
		Aboriginal		Total		Aboriginal	Total
		N	Rate	N	Rate	Rate	Rate
0-4 years	2011	<5	8.7	23	12.2	18.9	10.0
	2016	<5	11.7	21	12.0	21.0	11.4
5-14 years	2011	22	32.8	112	29.2	47.9	24.9
	2016	25	39.2#	120	34.4	69.0	31.4
15-19 years	2011	19	54.4	65	34.4	39.1	18.9
	2016	<5	13.8↓#	47	28.9	55.1	25.8
Total 0-19 years	2011	44	32.3	200	26.2	38.3	19.6
	2016	33	26.0#	188	27.4	53.4	25.0

↓ significantly lower than the previous period MM-R Aboriginal population result
significantly lower than the current NSW Aboriginal population result

Source: ABS Census 2011, 2016

Statistical significance results:

Compared to the previous period the current result for Maari Ma's Aboriginal population shows

- A significantly lower rate of young people aged 15-19 with a profound or severe disability, which is a good result

Compared to the NSW Aboriginal population the current result for Maari Ma's Aboriginal population shows

- A significantly lower rate of children aged 5-14 with a profound or severe disability, which is a good result
- A significantly lower rate of children aged 15-19 with a profound or severe disability, which is a good result
- A significantly lower rate of children aged under 20 with a profound or severe disability, which is a good result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Mental / emotional health

Why monitor this?	What did we find?
Children with mental health problems experience suffering, functional impairment, exposure to stigma and discrimination, and increased risk of premature death.	Three in four young people who completed a psychosocial self-assessment said they felt 'good' or 'great' on most days. Only 4 in 10 who completed a psychosocial self-assessment said they were 'excited' for the future. Another 3 in 10 said they were 'hopeful'.

Psychological distress refers to a range of feelings experienced by people who may have identifiable mental health problems such as anxiety or mood disorders, or who may be highly stressed for situational reasons.

Previous versions of the profile had incorporated data on psychological distress from the NSW School Students Health Behaviours Survey. This version of the profile does not include these data, as the sample size in more recent versions of the school students survey are too small to provide meaningful estimates.

However, Maari Ma has collected some psychosocial data since 2017 using a modified electronic form of the 'Home, Education, Activities/Employment, Drugs, Suicidality and Mental Health, Sexual Health, Safety and Strengths' (HEADSSSS) psychosocial assessment called *tickit*. Young people complete the assessment on a tablet when visiting the Maari Ma Youth Health Clinic in Broken Hill. A summary of some findings on mental health and emotional health from *tickit* is provided below.

Young people attending the Maari Ma youth health clinic in Broken Hill: On mental health and emotional health…

When asked to respond to the statement, 'On most days I feel…' 78% of young people who used the *tickit* tool in the Broken Hill youth health clinic said they felt 'good' or 'great'. Of the other responses, 8% felt sad and 3% felt worried (anxious). By comparison, in the second Australian child and adolescent survey of mental health and wellbeing conducted by *Young Minds Matter* in 2007, 7% of adolescents aged 12-17 years old met the DSM-IV diagnostic criteria for anxiety disorders, based on self-report. Five per cent of the 12-17 year olds surveyed met the DSM-IV diagnostic criteria for major depressive disorder in the previous 12 months, based on self-report.

When asked how they feel when they 'think about the future' 40% of young people attending the Maari Ma youth health clinic in Broken Hill using *tickit* responded 'excited' and 30% responded 'hopeful'. 22% responded they were worried / uncertain about the future. By comparison, Mission Australia's 2018 Youth Survey Report found most young people in NSW were feeling positive (45%) or very positive (16%) about the future. Around 10% felt negative or very negative about the future.

FIVE
How well are we promoting healthy child development?

Healthy child development helps to prevent disease both in the short and long term, while positive early learning experiences stimulate brain development and improve learning outcomes for children. This chapter focuses on protective factors which promote healthy child development and early learning.

Breastfeeding

Why monitor this?	What did we find?
Researchers such as Binns *et al* say that infants who have been breastfed have better health outcomes than those who have not, both in early life and beyond, including a reduced risk of Sudden Infant Death Syndrome, gastrointestinal and respiratory infections, asthma, otitis media, learning difficulties and behavioural problems.	About the same proportion of Maari Ma's Aboriginal mothers report breastfeeding at discharge after their birth, compared to all NSW Aboriginal mothers. But the proportion is significantly lower than that for all NSW mothers.

The National Health and Medical Research Council recommends exclusive breastfeeding for infants in the first six months of life, and that breastfeeding continue until at least twelve months of age, even when solid foods are introduced[26]. These guidelines are in accordance with the World Health Organisation's (WHO) policy on breastfeeding.

The following table shows the percentage of women breastfeeding at discharge from hospital in the Maari Ma region and NSW. It is important to note that data on breastfeeding beyond discharge from hospital is currently limited and unreliable.

The proportion of Aboriginal women breastfeeding at discharge from hospital in the Maari Ma region is similar to the proportion of Aboriginal women breastfeeding at discharge from hospital in NSW as a whole. However, the proportion of Aboriginal women in the Maari Ma region breastfeeding at discharge from hospital is significantly lower (1.4 times lower) than all women in NSW.

Percentage of women breastfeeding at discharge from hospital, Maari Ma region and NSW, 2006-2007 to 2012-2016

	Maari Ma region		NSW	
	Aboriginal	Total	Aboriginal	Total
2006-2007	68.2%	78.2%	62.8%	81.2%
2007-2011	61.5%	68.0%	64.8%	82.1%
2012-2016	60.3%@	73.3%	66.8%	83.2%

@ significantly lower than the current NSW population result

Source: Maari Ma internal data (2006-07), NSW PDC, CCOPMM

Statistical significance results:

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly lower percentage of women breastfed at discharge from hospital after the birth, which is a poorer result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

26. Infants who are exclusively breastfed only receive breast milk along with any medications or vitamins that are required. No other food, drink or supplements are consumed by the child.

Oral health

Why monitor this?	What did we find?
The WHO says that good oral health has positive effects on quality of life, social interactions and self-esteem. Conversely, dental disease can cause pain, discomfort, difficulty sleeping and difficulties in eating which can lead to poor nutrition. Poor oral health is also associated with increased risk of chronic disease later in life.	There is no reliable oral health data available for the Maari Ma region and NSW to compare with previous profiles.

At Maari Ma, oral health therapists and child and family nurses regularly review oral and dental health. The Australian Dental Association recommends an initial oral health check when a child's first tooth erupts (and no later than 12 months of age), followed by regular checkups. These regular check-ups offer great opportunities for children to learn from professionals about proper oral hygiene techniques.

For many years there have been ongoing visits to all Maari Ma regional towns by dental therapists and assistants, including clinics and health promotion activities. Recall systems are managed centrally by the oral health team.

Worryingly, there is no reliable oral health data available for the Maari Ma region and NSW to compare with previous profiles. However, an updated data collection system is currently being implemented so we are hopeful data will be available for the next profile.

Overweight and obesity

Why monitor this?	What did we find?
Children who are overweight are at risk of future physical health problems, including diabetes, sleep apnoea, respiratory difficulties, orthopaedic problems, cardiovascular disease and cancer. Social health problems, including schoolyard bullying, are also a concern for overweight children.	There is no reliable childhood overweight and obesity data available for the Maari Ma region to compare with previous profiles.

The NSW Premier's priority target is to reduce childhood overweight and obesity by 5 per cent over 10 years (to 16.5% in 2025). The two previous child profiles for the Maari Ma region included data on the percentage of children who are overweight or obese in the Maari Ma region and in NSW. The data indicated that the Maari Ma region had a higher percentage of children who are overweight or obese compared to NSW. However, recent data on child obesity were not available for this report.

Physical activity

Why monitor this?	What did we find?
The WHO recommends that children and adolescents do at least 60 minutes of moderate to vigorous physical activity every day. Vigorous activities are ones that make you 'huff and puff'. Health organisations in Australia including the Sydney Children's Hospitals Network advise children to not spend more than 2 hours per day engaging in sedentary activity, such as watching television, using the computer or using electronic media (i.e. video game consoles).	One in three young people who completed the *tickit* assessment said they spent many hours watching television and/or playing video games. Only 1 in 4 who used *tickit* said they participated in sport more than twice a week.

A summary of some findings on physical activity from *tickit* is provided below.

Young people attending the Maari Ma youth health clinic in Broken Hill: On physical activity…

When asked how frequently they participate in sport, 26% of 12-18 year olds responding to Maari Ma's *tickit* assessment noted they played sport more than twice a week. When asked how much time they watched television and/or played video games daily 36% said they spent many hours, 48% said they spent a few hours, and 15% said they spent little time on these activities.

The following table shows the percentage of children in the Far West and Western NSW LHDs combined getting adequate physical activity and the average number of days they watched television during the school week. Data for FWLHD (which aligns with the Maari Ma region) have not been included as the numbers were too small to provide meaningful estimates. Therefore, these data may not be entirely representative of the Maari Ma region.

Activity levels, children aged 5-15 years, Far Western NSW region and NSW, 2015-2017

	Far Western	NSW
Percentage of children getting adequate physical activity	26.8%	25.6%
Average number of days children watched television during the school week	4.4	4.4

Source: NSW Population Health Survey, accessed via SAPHaRI

Nutrition

Why monitor this?	What did we find?
Good nutrition is essential for children's growth, development and wellbeing. A healthy pattern of eating and drinking early in life can have far reaching effects on maintaining a healthy weight, reducing the risk of chronic disease and protecting against premature mortality.	There is no reliable childhood nutrition data available for the Maari Ma region to compare with previous profiles.

The *Australian Dietary Guidelines* recommend that younger children aged 5-8 years eat 1.5 serves of fruit daily and older children aged 9-15 years eat 2 serves each day. The Guidelines recommend children eat 4.5 to 5.5 serves of vegetables, and drink between 1.2 and 1.9 litres of water per day depending on their age and sex.

Combined data for the Far Western region from the NSW Population Health Survey (2015-2017) indicate that children aged 2-15 years old were on average eating 2.23 serves of fruit per day - more than the daily average being consumed by children in NSW as a whole (1.97 serves). In both the Far Western region and NSW, children are also consuming more than the recommended daily intake of water (4 cups). However, children in both regions are not consuming enough vegetables (2 serves per day).

Data for FWLHD (which aligns with the Maari Ma region) have not been included as the numbers were too small to provide meaningful estimates. Therefore, the above data are not entirely representative of the Maari Ma region.

SIX
How well are our children learning and developing?

A child's learning and development is integral to their overall health and wellbeing, as well as the future productive capacity of society. This chapter focuses in children's development in the primary school years.

Attending early childhood education programs

Why monitor this?	What did we find?
Engaging in early childhood education programs assists children to prepare for school, leading to improved educational, social and health outcomes that are sustained throughout life.	The percentage of the Maari Ma region's Aboriginal 4 year old children attending pre-school has increased by 17% since the 2006 census. While not significant the result in 2016 is 4-5% higher than the NSW Aboriginal and total population.

Every child in NSW should have the chance to participate in an early childhood education program before starting school. This commitment is expressed in the NSW Government's plan NSW 2021: A Plan to Make NSW Number One and in the 2018-19 National Partnership on Universal Access to Early Childhood Education. Under the Agreement, 95% of children should be enrolled in early childhood education programs delivered by a degree qualified early childhood teacher for 600 hours per year in the year before full-time school.

Ideally all 4 year old children should be enrolled in a pre-school. The consequences of lower enrolment are most significant for children from low-income families, Aboriginal and Torres Strait Islander children, children with disabilities, and children with limited English, including refugee and recently arrived children.

The following table shows the percentage of 4 year old Aboriginal children who were reported in the census as attending pre-school. While not significant the proportion of 4 year old Aboriginal children in the Maari Ma region has increased from 54% in 2006 to more than 70% in 2016. The result in 2016 is also greater than both the NSW Aboriginal and total populations.

Percentage of 4 year old children who attend pre-school, Maari Ma region and NSW, 2006-2016

	Maari Ma region		NSW	
	Aboriginal	Total	Aboriginal	Total
2006	54.2%	65.4%	56.9%	66.9%
2011	57.4%	66.2%	59.7%	65.8%
2016	71.2%	71.3%	67.0%	66.0%

Source: ABS Census 2006, 2011, 2016

Statistical significance results:

All comparisons for the current Maari Ma Aboriginal result were not significantly different.

Transition to primary school

Why monitor this?	What did we find?
Children experience greater success at school when they have developed the emotional capability to manage their feelings and behaviour and when they have a base of strong academic and social skills.	Since 2009 the percentage of the Maari Ma region's Aboriginal children who are developmentally 'on track' has increased across many domains of AEDC. The proportion who are developmentally vulnerable across one or more domains has also been trending downwards. The percentage of Aboriginal children in the region who are developmentally vulnerable is significantly higher across all domains of the AEDC compared to Aboriginal children in NSW and all children in NSW.

The Australian Early Development Census (AEDC) is a nationwide data collection of early childhood development at the time children commence their first year of full-time school. Based on the scores from a teacher-completed instrument, the AEDC measures five areas, or domains, of early childhood development:

- physical health and wellbeing
- social competence
- emotional maturity
- language and cognitive skills (school-based), and
- communication skills and knowledge.

The first data set was collected in 2009 and the process has been repeated every three years since then. All children in their first year of schooling are eligible for inclusion in the AEDC.

The following tables provide information, by domain, on vulnerable, at risk and 'on track' children in the Maari Ma region and in NSW, based on the following classification system. The AEDC cut-off scores were set for each domain based on all children who participated in the AEDC in 2009 – the national AEDC population – and apply to all future data collections.

- Developmentally vulnerable – children who score below the 10th percentile (in the lowest 10%) of the national AEDC population are classified as 'developmentally vulnerable'. These children demonstrate a much lower than average ability in the developmental competencies in that domain.
- Developmentally 'at risk' – children who score between the 10th and 25th percentile of the national AEDC population are classified as 'developmentally at risk'.
- Developmentally 'on track' – children who score above the 25th percentile (in the top 75%) of the national AEDC population are classified as 'on track'.

Since 2009, the percentage of Aboriginal children in the Maari Ma region who are developmentally 'on track' has increased across all domains of the AEDC except emotional maturity. The percentage of Aboriginal children in the Maari Ma region who are developmentally vulnerable has also been trending downwards since 2009 across all AEDC domains except physical health and wellbeing. Additionally, there has been a downward trend in the percentage of Aboriginal children in the region who are developmentally vulnerable across one or more domains.

However, the percentage of Aboriginal children in the region who are developmentally vulnerable is significantly higher across all domains of the AEDC compared to Aboriginal children in NSW and all children in NSW. In 2018, the percentage of Aboriginal children in the Maari Ma region who were developmentally vulnerable on one or more domains was around 2.5 times higher compared to all children in NSW.

Children considered developmentally vulnerable, by AEDC domains, Maari Ma region and NSW

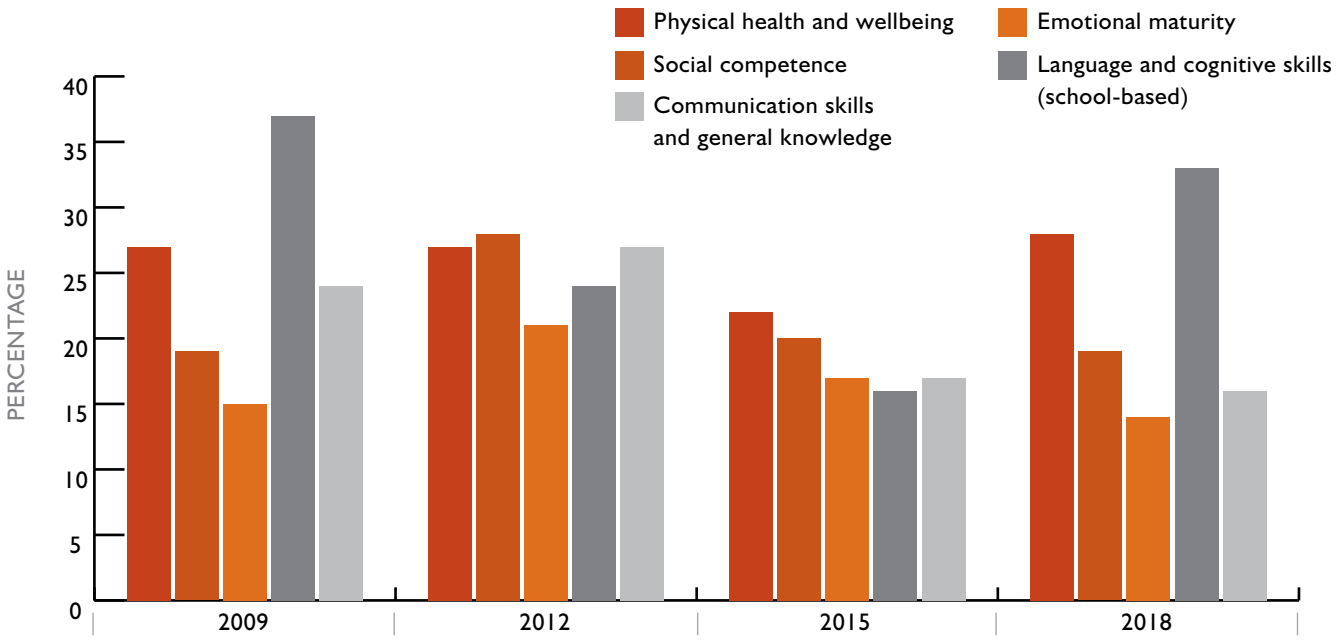
	Year	Maari Ma region		NSW	
		Aboriginal	Total	Aboriginal	Total
Physical health and wellbeing	2009	26.9%	14.2%	18.4%	8.6%
	2012	26.9%	15.2%	17.7%	8.3%
	2015	21.5%	15.0%	17.0%	8.5%
	2018	28.3%* ^	12.1%	17.6%	8.5%
Social competence	2009	19.4%	11.5%	17.1%	8.8%
	2012	28.2%	13.9%	16.9%	8.5%
	2015	20.4%	14.0%	16.7%	9.2%
	2018	18.5%*	8.6%	16.4%	9.2%
Emotional maturity	2009	14.9%	9.9%	12.5%	7.5%
	2012	20.8%	11.0%	12.9%	6.2%
	2015	17.4%	10.2%	13.1%	6.8%
	2018	14.1%*	8.3%	12.5%	6.8%
Language and cognitive skills (school-based)	2009	36.9%	12.3%	16.6%	5.8%
	2012	24.4%	10.9%	14.8%	4.8%
	2015	16.1%	10.4%	12.2%	4.8%
	2018	32.6%* ^	12.9%	13.6%	5.2%
Communication skills and general knowledge	2009	23.9%	11.2%	17.5%	9.2%
	2012	26.9%	15.2%	16.5%	8.5%
	2015	17.2%	10.7%	14.7%	8.1%
	2018	16.3%*	6.4%	14.0%	8.0%

* significantly higher than the current NSW Aboriginal population result

^ significantly higher than the current NSW population result

Source: AEDC 2009, 2012, 2015, 2018

Aboriginal children considered developmentally vulnerable, by AEDC domains, Maari Ma region



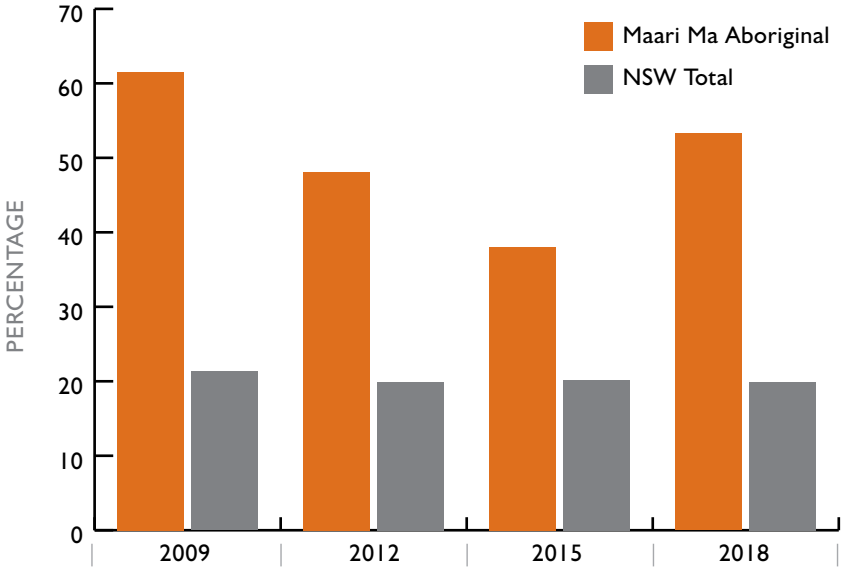
Source: AEDC 2009, 2012, 2015, 2018

Percentage of children considered developmentally vulnerable on one or more AEDC domains, Maari Ma region and NSW, 2009, 2012, 2015 and 2018

Year	Maari Ma region		NSW	
	Aboriginal	Total	Aboriginal	Total
2009	61.5%	28.6%	39.0%	21.3%
2012	48.1%	30.3%	36.7%	19.9%
2015	38.0%	29.4%	34.1%	20.2%
2018	53.3%	25.0%	34.1%	19.9%

Source: AEDC 2009, 2012, 2015, 2018

Percentage of children considered developmentally vulnerable on one or more AEDC domains, Maari Ma region and NSW, 2009, 2012, 2015 and 2018



Source: AEDC 2009, 2012, 2015, 2018

Statistical significance results:

Compared to the NSW Aboriginal population the current result for Maari Ma's Aboriginal population shows

- A significantly higher percentage of children were developmentally vulnerable in the physical health and development domain, which is a poorer result
- A significantly higher percentage of children were developmentally vulnerable in the social competence domain, which is a poorer result
- A significantly higher percentage of children were developmentally vulnerable in the emotional maturity domain, which is a poorer result
- A significantly higher percentage of children were developmentally vulnerable in the language and cognitive skills (school-based), which is a poorer result
- A significantly higher percentage of children were developmentally vulnerable in the communication skills and general knowledge domain, which is a poorer result

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly higher percentage of children were developmentally vulnerable in the physical health and development domain, which is a poorer result
- A significantly higher percentage of children were developmentally vulnerable in the language and cognitive skills (school-based), which is a poorer result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Children considered 'at risk', by AEDC domains, Maari Ma region and NSW

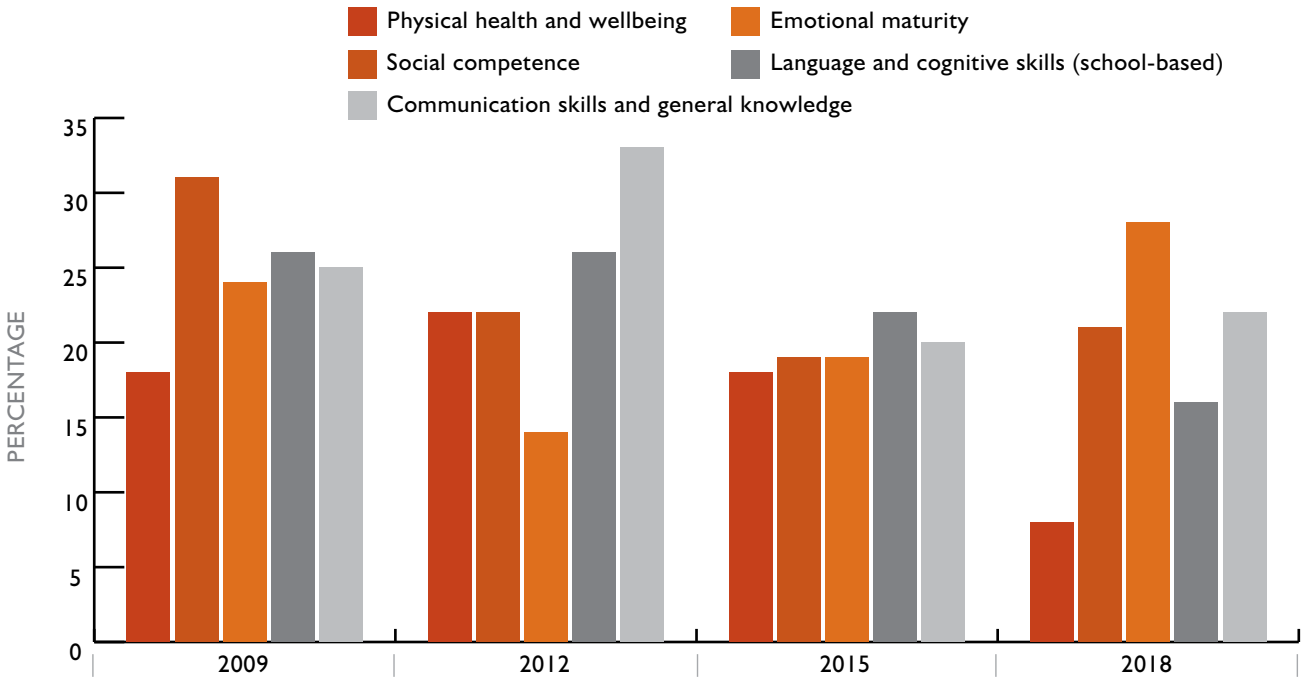
	Year	Maari Ma region		NSW	
		Aboriginal	Total	Aboriginal	Total
Physical health and wellbeing	2009	17.9%	11.7%	17.5%	12.9%
	2012	21.8%	18.5%	17.3%	13.7%
	2015	18.3%	15.3%	16.5%	13.7%
	2018	7.6%	8.6%	15.3%	12.9%
Social competence	2009	31.3%	15.2%	20.2%	14.0%
	2012	21.8%	18.5%	19.3%	13.5%
	2015	19.4%	18.3%	18.3%	14.3%
	2018	20.7%	13.2%	18.4%	13.7%
Emotional maturity	2009	23.9%	15.5%	20.9%	14.3%
	2012	14.3%	19.6%	17.1%	12.6%
	2015	18.5%	19.6%	17.5%	14.0%
	2018	28.3%* ^	20.2%	16.5%	13.0%
Language and cognitive skills (school-based)	2009	26.2%	11.8%	18.8%	9.5%
	2012	25.6%	17.1%	16.6%	8.0%
	2015	21.5%	15.0%	14.2%	7.3%
	2018	16.3%*	9.4%	13.9%	7.6%
Communication skills and general knowledge	2009	25.4%	13.9%	23.2%	15.8%
	2012	33.3%	22.6%	23.2%	16.8%
	2015	20.4%	17.8%	21.0%	16.1%
	2018	21.7%	10.5%	20.1%	15.3%

* significantly higher than the current NSW Aboriginal population result

^ significantly higher than the current NSW population result

Source: AEDC 2009, 2012, 2015, 2018

Aboriginal children 'at risk', by AEDC domains, Maari Ma region



Source: AEDC 2009, 2012, 2015, 2018

Statistical significance results:

Compared to the NSW Aboriginal population the current result for Maari Ma's Aboriginal population shows

- A significantly higher percentage of children were at risk in the emotional maturity domain, which is a poorer result
- A significantly higher percentage of children were at risk in the language and cognitive skills (school-based), which is a poorer result

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly higher percentage of children were at risk in the emotional maturity domain, which is a poorer result

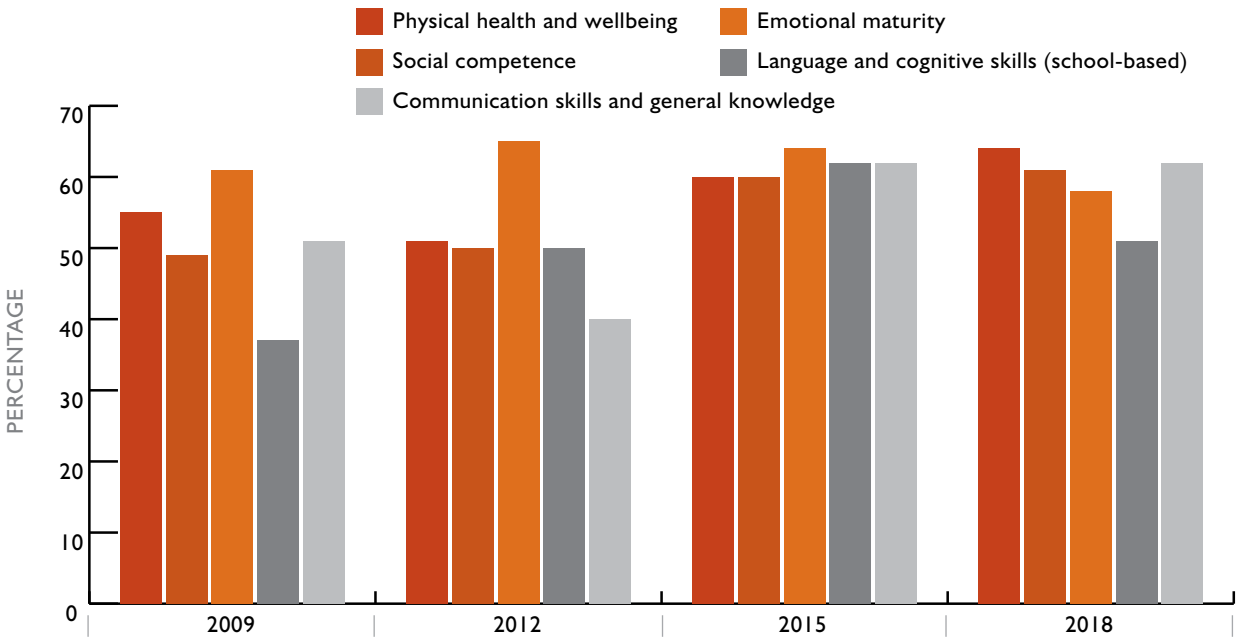
All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Children considered 'on track', by AEDC domains, Maari Ma region and NSW

	Year	Maari Ma region		NSW	
		Aboriginal	Total	Aboriginal	Total
Physical health and wellbeing	2009	55.2%	74.1%	64.1%	78.5%
	2012	51.3%	66.3%	65.0%	78.0%
	2015	60.2%	69.7%	66.5%	77.8%
	2018	64.1%	79.3%	67.1%	78.6%
Social competence	2009	49.3%	73.3%	62.7%	77.2%
	2012	50.0%	67.6%	63.8%	78.0%
	2015	60.2%	67.7%	65.0%	76.5%
	2018	60.8%	78.2%	65.2%	77.1%
Emotional maturity	2009	61.2%	74.6%	66.6%	78.2%
	2012	64.9%	69.4%	70.0%	81.2%
	2015	64.1%	70.2%	69.4%	79.2%
	2018	57.6%	71.5%	71.0%	80.2%
Language and cognitive skills (school-based)	2009	36.9%	75.9%	64.6%	84.7%
	2012	50.0%	72.0%	68.6%	87.2%
	2015	62.4%	74.6%	73.6%	87.9%
	2018	51.1%	77.7%	72.5%	87.2%
Communication skills and general knowledge	2009	50.7%	74.9%	59.3%	75.0%
	2012	39.8%	62.2%	60.3%	74.7%
	2015	62.4%	71.5%	64.3%	75.8%
	2018	62.0%	83.1%	65.9%	76.7%

Source: AEDC 2009, 2012, 2015, 2018

Aboriginal children considered 'on track', by AEDC domains, Maari Ma region



Source: AEDC 2009, 2012, 2015, 2018

Statistical significance results:

All comparisons for the current Maari Ma Aboriginal result were not significantly different.

School participation

Why monitor this?	What did we find?
Education is an extremely important determinant of health. The level of education is associated with most lifestyle behaviours and health outcomes, from low birth weight and child death rates to rates of diabetes, heart disease and cancer.	Fewer Aboriginal children attend primary and secondary school in the Maari Ma region across every year level compared to children in NSW as a whole. School attendance rate in the Maari Ma region decreases in Year 10 but increases in Years 11-12. The average retention rate for all students in NSW is nearly double the rate for Aboriginal students in the Maari Ma region. While lower than the whole Maari Ma region population there has been an increase in the percentage of the Maari Ma region's Aboriginal students enrolling in Year 12 since 1996.

Attendance K-12

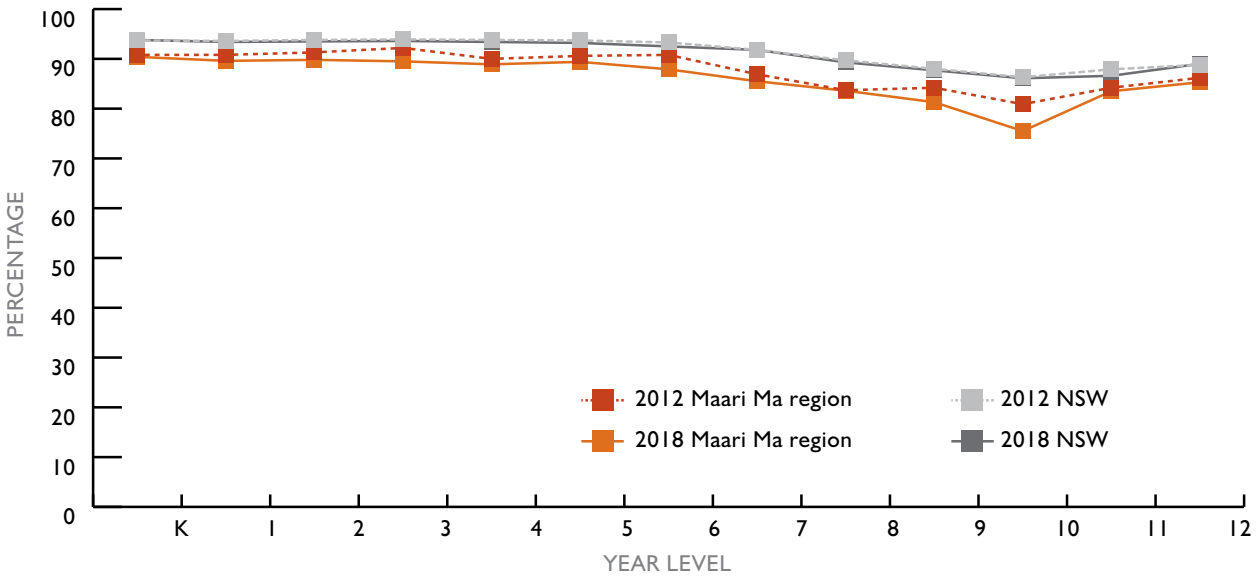
Across the Maari Ma region and NSW, attendance decreases in secondary school. Fewer Aboriginal children are attending primary and secondary school in the Maari Ma region across every year level compared to children in NSW as a whole. School attendance rate in the Maari Ma region decreased in Year 10 compared to NSW as a whole in both 2012 and 2018 (with a bigger decrease in 2018) but increased again in Year 11 and Year 12.

School attendance, K-12, Maari Ma region and NSW, 2012, 2015 and 2018

	Year	Maari Ma region		NSW	
		Aboriginal	Total	Aboriginal	Total
Primary school	2012	85.5%	91.1%	89.2%	93.7%
	2015	86.7%	91.3%	90.3%	93.9%
	2018	83.4%	89.3%	89.0%	93.3%
Secondary school	2012	72.1%	83.8%	78.2%	88.6%
	2015	74.1%	85.6%	79.7%	89.5%
	2018	72.1%	82.1%	77.3%	88.2%

Source: Statistics and Analysis Unit, Centre for Education Statistics and Evaluation, Department of Education

School attendance rates, K-12, Maari Ma region and NSW, 2012 and 2018



Source: Statistics and Analysis Unit, Centre for Education Statistics and Evaluation, Department of Education

Retention Year 10-12

Under the NSW Education Act 1990, young people are required to complete Year 10 (or equivalent). After Year 10, and up until they reach 17 years of age, there are a range of flexible options for students to complete their schooling. These include school, or registered for home schooling; fulltime further education and training (i.e. TAFE, traineeship, apprenticeship); full-time, paid employment of an average of 25 hours per week; or a combination of the above.

The average retention rate for students in Year 10-12 increased in the Maari Ma region between 2009-2013 and 2014-2018. However, the average retention rate for all students in NSW is nearly double the rate for Aboriginal students in the Maari Ma region.

Average apparent retention rate, Year 10-12, Maari Ma region and NSW, 2009-2013, 2014-2018[27]

	Maari Ma region		NSW	
	Aboriginal	Total	Aboriginal	Total
2009-2013	35.3%	54.9%	45.3%	72.3%
2014-2018	38.7%	58.1%	48.4%	74.1%

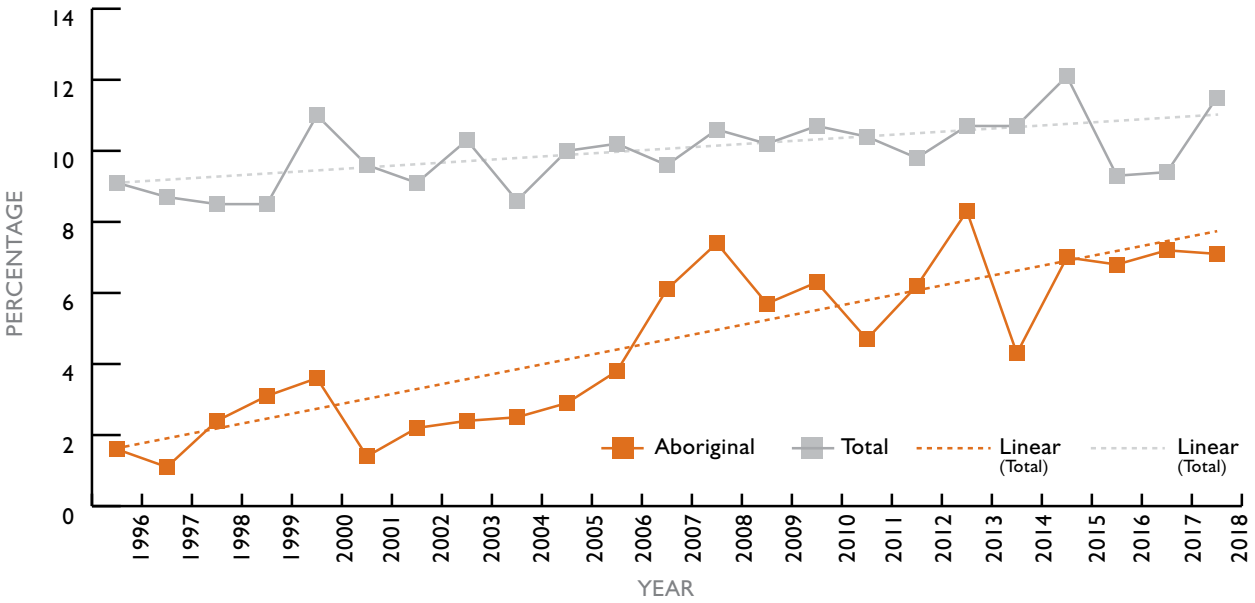
Source: Statistics and Analysis Unit, Centre for Education Statistics and Evaluation, Department of Education

27. Retention rates are 'apparent' as they do not track individual students through their final years of secondary schooling. The apparent retention rate measures the ratio of the total number of full-time equivalent school students in a designated year (i.e. Year 12) divided by the total number of full-time equivalent students in a previous year. These data are about Year 12 enrolments, and do not give an indication of the percentage of students completing Year 12.

Enrolment In Year 12

Since 1996, there has been an increase in the percentage of Aboriginal students enrolling in Year 12 in the Maari Ma region (up from 2 per cent in 1996). The percentage has remained stable (around 7%) since 2014. However, this is still much lower (nearly 12% lower) than the percentage of all students in the Maari Ma region who are enrolled in Year 12.

Students enrolled in Year 12 at a public school in the Maari Ma region as a proportion of the total secondary school population in the Maari Ma region, 1996-2018



Source: Statistics and Analysis Unit, Centre for Education Statistics and Evaluation, Department of Education

Literacy and numeracy

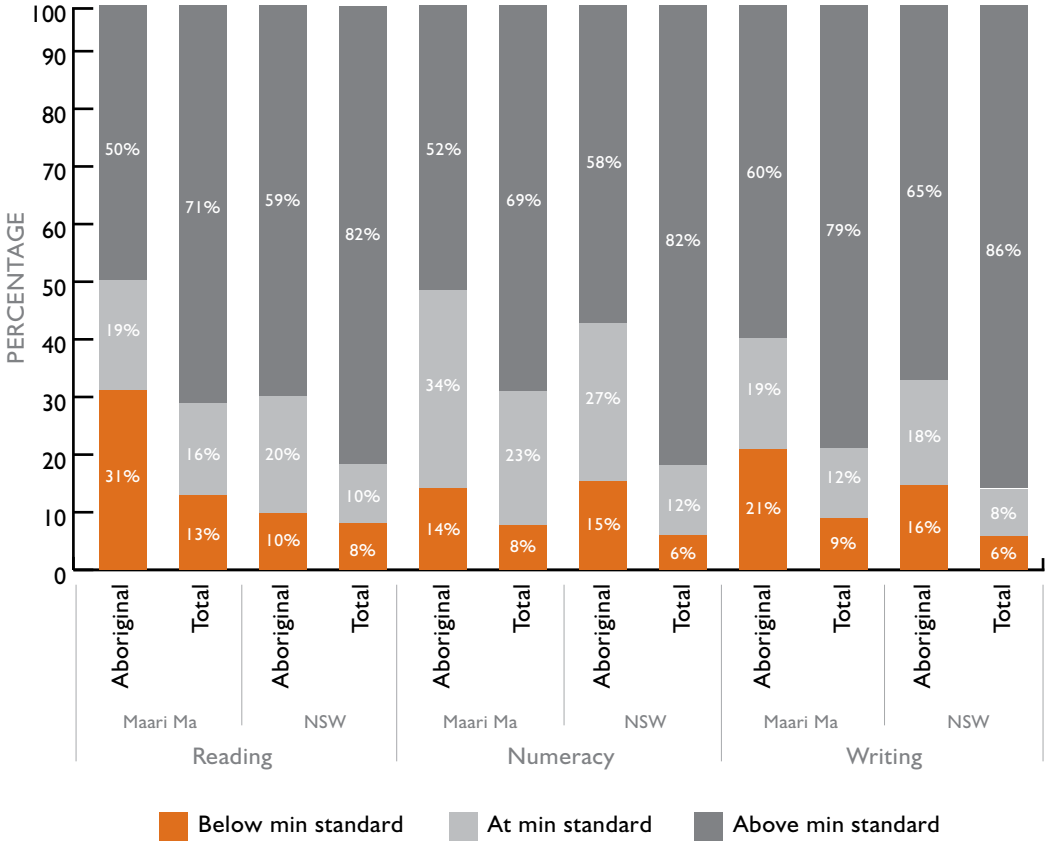
Why monitor this?	What did we find?
The National Assessment Program – Literacy and Numeracy (NAPLAN) tests have been developed collaboratively by the states, territories, Australian Government and non-government school sectors. Students across the nation were tested in the same year level, on the same items in reading, writing, language conventions (spelling, grammar and punctuation) and numeracy. The NAPLAN scores provide useful information for teachers, parents and children. Teachers and schools are able to identify areas of strength and where further assistance may be required.	Compared to the average of the previous 5 years results the percentage of the Maari Ma region's Aboriginal children in Year 3 who performed above the minimum standard in 2018 stayed the same for reading, decreased for writing and decreased for numeracy. Compared to the average of the previous 5 years results the percentage of the Maari Ma region's Aboriginal children in Year 5 who performed above the minimum standard in 2018 increased for reading, decreased for writing and increased for numeracy. Compared to the average of the previous 5 years results the percentage of the Maari Ma region's Aboriginal children in Year 7 who performed above the minimum standard in 2018 increased for reading, decreased for writing and increased for numeracy. Compared to the average of the previous 5 years results the percentage of the Maari Ma region's Aboriginal children in Year 9 who performed above the minimum standard in 2018 decreased for reading, writing and numeracy.

This section shows NAPLAN scores for Years 3, 5, 7 and 9 in the Maari Ma region compared to NSW in 2018.

Year 3 NAPLAN performance

Compared to the average of the last five years of Year 3 NAPLAN scores (2013-2017), the percentage of Aboriginal children performing above the minimum standard in 2018 in the Maari Ma region stayed the same for reading, decreased by 5% for writing, and decreased by 8% for numeracy. The percentage of Year 3 students in NSW who were performing above the minimum standard in 2018 was nearly twice as high as Aboriginal children in the Maari Ma region across all three components: reading, writing and numeracy.

Performance on NAPLAN tests, reading, writing and numeracy, Maari Ma region and NSW, 2018

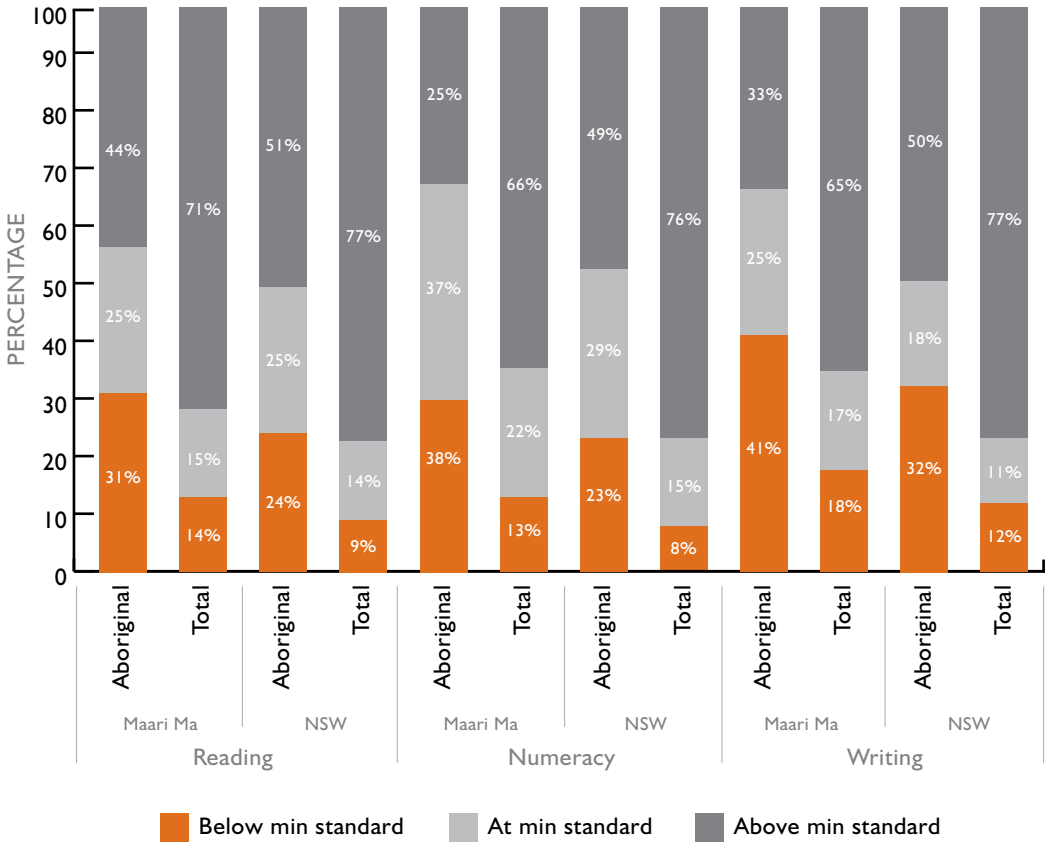


Source: Statistics and Analysis Unit, Centre for Education Statistics and Evaluation, Department of Education

Year 5 NAPLAN performance

Compared to the average of the last five years of Year 5 NAPLAN scores (2013-2017), the percentage of Aboriginal children performing above the minimum standard in 2018 in the Maari Ma region increased by 6% for reading, decreased by 1% for writing, and increased by 4% for numeracy. The percentage of Year 5 students in NSW who were performing above the minimum standard was nearly twice as high as Aboriginal children in the Maari Ma region across all three components: reading, writing and numeracy.

Performance on NAPLAN tests, reading, writing and numeracy, Maari Ma region and NSW, 2018

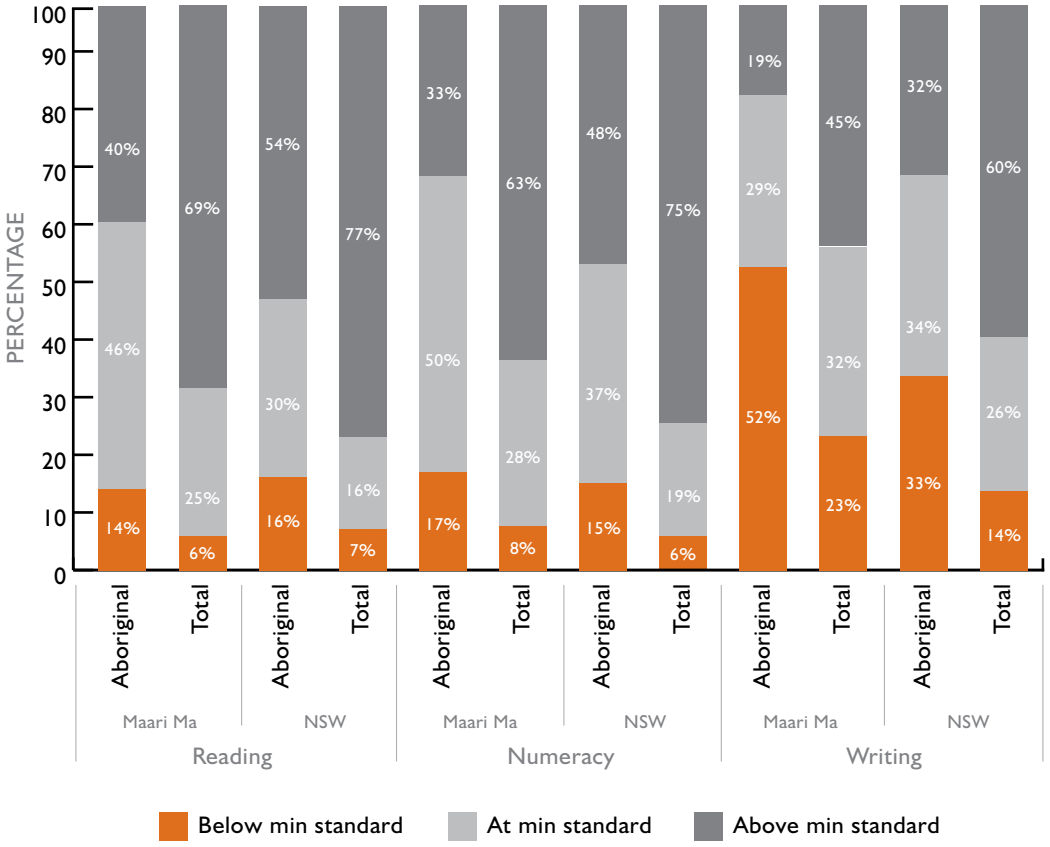


Source: Statistics and Analysis Unit, Centre for Education Statistics and Evaluation, Department of Education

Year 7 NAPLAN performance

Compared to the average of the last five years of Year 7 NAPLAN scores (2013-2017), the percentage of Aboriginal children performing above the minimum standard in 2018 in the Maari Ma region increased by 10% for reading, decreased by 6% for writing, and increased by 3% for numeracy. The percentage of Year 7 students in NSW who were performing above the minimum standard was nearly 1.5 times higher than Aboriginal children in the Maari Ma region for reading, twice as much for numeracy, and nearly three times more for writing.

Performance on NAPLAN tests, reading, writing and numeracy, Maari Ma region and NSW, 2018

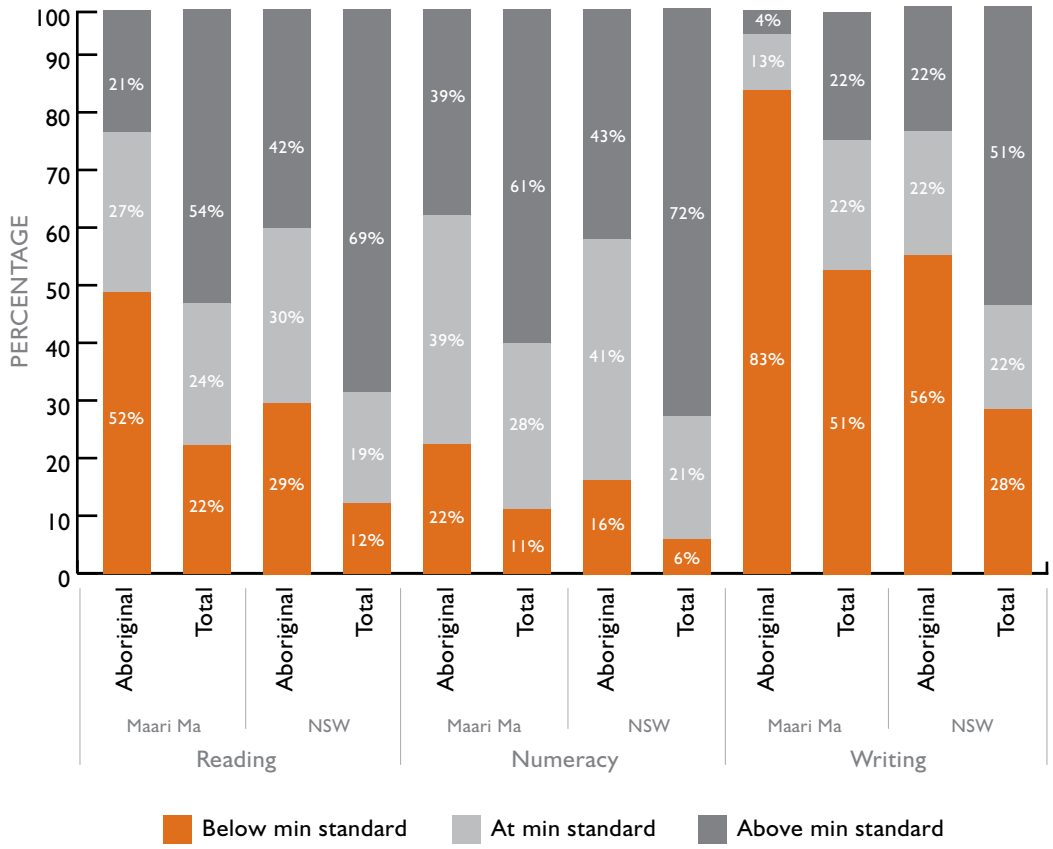


Source: Statistics and Analysis Unit, Centre for Education Statistics and Evaluation, Department of Education

Year 9 NAPLAN performance

Compared to the average of the last five years of Year 9 NAPLAN scores (2013-2017), the percentage of Aboriginal children performing above the minimum standard in 2018 in the Maari Ma region decreased by 8% for reading, decreased by 7% for writing, and decreased by 4% for numeracy. The percentage of Year 9 students in NSW who were performing above the minimum standard was nearly three times higher than Aboriginal children in the Maari Ma region for reading and numeracy, and nearly seven times more for writing.

Performance on NAPLAN tests, reading, writing and numeracy, Maari Ma region and NSW, 2018



Source: Statistics and Analysis Unit, Centre for Education Statistics and Evaluation, Department of Education

SEVEN
What factors can affect children adversely?

Because childhood, including the perinatal period, is a time of rapid development, it is critical to reduce the factors that adversely affect the health of children. This chapter focuses on the factors that can increase the risk of poor outcomes in children.

During the antenatal period

Why monitor this?	What did we find?
Various factors can impact on the health and development of infants and young children, including being born to a teenage mother or having a mother who smoked cigarettes, drank alcohol or used other drugs during pregnancy. Babies born prematurely or with a low birth weight also have a greater risk of poorer health and social outcomes than other babies.	Aboriginal women in the Maari Ma region are more likely to have their first antenatal visit prior to 14 weeks compared to all NSW pregnant women. More than 80% of Maari Ma Aboriginal women presented before 20 weeks. The proportion of Aboriginal women in the Maari Ma region having a baby when they are teenagers has decreased since the last report. However, teenage mothers, having a low birthweight baby, having a baby prematurely or smoking during pregnancy are all significantly higher than the comparative proportion for all NSW women. The percentage of Aboriginal women in the Maari Ma region who reported drinking alcohol during their first trimester has decreased since the last report. There are significantly more Aboriginal women aged 15-19 and 20-24 years having babies in the Maari Ma region compared to NSW. Comparatively there are significantly fewer women aged 25-44 years in the Maari Ma region having babies compared to NSW.

First antenatal visit

Antenatal care is important, as it can help improve health outcomes for both the mother and baby, including reducing the risk of premature and low birthweight babies. These risks and the factors that contribute to them can be reduced through early and effective antenatal care.

Previous editions of this Child profile had looked at the percentage of women attending their first antenatal visit prior to 20 weeks gestation. This report also includes the percentages prior to 14 weeks gestation, as this is now the national key performance indicator for first antenatal visit.

The following table shows the percentage of women who had their first antenatal visit prior to 14 weeks and prior to 20 weeks in the Maari Ma region and NSW.

Aboriginal women in the Maari Ma region are more likely to have their first antenatal visit prior to 14 weeks compared to all NSW pregnant women.

First antenatal visit prior to 14 and 20 weeks gestation, Maari Ma region and NSW, 2002-2006 to 2012-2016[28]

	Year	Maari Ma region		NSW	
		Aboriginal	Total	Aboriginal	Total
Visit prior to 14 weeks	2002-2006	48.0%	54.4%	57.2%	64.1%
	2007-2011	60.1%	69.7%	68.6%	76.3%
	2012-2016	66.4%*	58.6%	56.3%	60.4%
Visit prior to 20 weeks	2002-2006	74.2%	78.9%	75.1%	84.6%
	2007-2011	78.5%	88.7%	83.1%	88.6%
	2012-2016	82.5%	88.6%	76.5%	82.4%

* significantly higher than the current NSW Aboriginal population result

Source: NSW PDC

Statistical significance results:

Compared to the NSW Aboriginal population the current result for Maari Ma's Aboriginal population shows

- A significantly higher percentage of women having their first antenatal visit before 14 weeks, which is a good result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Factors that influence pregnancy and birth

The following table shows a number of indicators that can affect the development of babies in utero.

Teenage motherhood, particularly at younger ages, can pose significant long-term risks to both mother and child. Teenage mothers, particularly from disadvantaged communities, are more likely to delay having their pregnancy confirmed and/or seeking antenatal care, and are more likely to engage in risky behaviour, including smoking, drinking alcohol or taking drugs during pregnancy. Consequently teenage mothers face increased risk of miscarriage, preterm delivery, low birth weight and other complications, including higher rates of perinatal mortality.

Parenthood during the teenage years often results in interrupted schooling, a higher risk of single parenthood, greater dependence on government assistance, increased problems in engaging with the labour market, and poverty. All of these factors can affect the health, education and economic futures of children born to teenage parents.

Birth weight is an important indicator of the baby's chance of survival and good health. Low birth weight increases the probability of lengthy hospitalisation after birth, the need for resuscitation, or death, and is a risk factor for neurological and physical disabilities.

Smoking during pregnancy not only impacts on the health of the mother, but also increases the risk of ill health for her unborn baby, including pre-term birth, SIDS, otitis media, asthma, behavioural problems and reduced intelligence. The use of alcohol during pregnancy can cause serious health effects for the unborn baby, the most serious being Foetal Alcohol Syndrome (includes poorer growth, delayed development, behaviour problems and reduced intelligence).

The results for the latest period across all indicators show no improvement since the last profile. The latest results

28. Up until 2010, the NSW PDC captured 'duration of pregnancy' at first antenatal visit. From 2011 onwards, the NSW PDC captures 'duration of pregnancy' at first comprehensive booking or assessment by clinician. Therefore, antenatal care trends for the 2007-2011 and 2012-2016 periods should be interpreted with caution.

also show that the proportion of Aboriginal women in the Maari Ma region having a baby when they are a teenager, having a low birthweight baby, having a baby prematurely and smoking during pregnancy are all significantly higher than the proportion of all women in NSW comparatively.

Aboriginal mothers in the Maari Ma region are nearly 8 times more likely than all women in NSW to have a baby when they are 10-19 years of age, around 4 times more likely to have low birthweight babies and around 3 times more likely to have premature babies. They are also around 10 times more likely to smoke during pregnancy than women in NSW.

Factors that affect children adversely, Maari Ma region and NSW, 2002-2006 to 2012-2016[29]

	Year	Maari Ma region		NSW	
		Aboriginal	Total	Aboriginal	Total
Proportion of births to women aged 10-19 years old	2002-2006	21.3%	9.8%	21.1%	3.4%
	2007-2011	20.6%	9.7%	19.1%	2.8%
	2012-2016	15.9%^	8.0%	15.9%	2.1%
Low birth weight (<2500 grams)	2002-2006	14.1%	7.0%	12.1%	5.3%
	2007-2011	15.7%	8.0%	11.2%	5.1%
	2012-2016	20.0%^	9.5%	10.4%	5.3%
Prematurity (<37 weeks gestation)	2002-2006	13.0%	8.8%	11.2%	6.2%
	2007-2011	16.0%	9.9%	11.4%	6.4%
	2012-2016	18.6%^	9.7%	11.8%	6.5%
Smoking during pregnancy[30]	2002-2006	68.6%	36.8%	55.9%	13.2%
	2007-2011	64.4%	32.4%	49.4%	10.3%
	2012-2016	68.6%^	33.2%	42.7%	7.1%

^ significantly higher than the current NSW population result

Source: NSW PDC, SA Perinatal Statistics Collection, CCOPMM

Statistical significance results:

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly higher percentage of women aged 10-19 having a baby, which is a poorer result
- A significantly higher percentage of babies born with a low birthweight, which is a poorer result
- A significantly higher percentage of babies born prematurely, which is a poorer result
- A significantly higher percentage of women smoking during pregnancy, which is a poorer result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

29. The figures for births to women aged 10-19 years old, low birth weight and prematurity include babies born to women who reside in the Maari Ma region but gave birth across the NSW border in South Australian and Victorian hospitals.
30. Data for the years 2011 to 2016 is for women smoking in the 1st half of pregnancy only, not at any stage during the pregnancy. The NSW PDC only collected smoking at any stage during pregnancy up until 2010.

Drinking alcohol while pregnant can cause serious health effects for the unborn baby, the most serious being Foetal Alcohol Syndrome, which can be manifest as poor growth, delayed development, behavioural problems and reduced intelligence.

The table following shows ABCD data on the proportion of women in the Maari Ma region who have documentation in their maternal health files of drinking alcohol during pregnancy compared to other national ABCD sites. The ABCD collection ended in 2016 and Maari Ma participated until 2015. Comparison data for NSW were not available.

The percentage of women who reported drinking alcohol during pregnancy has decreased in the Maari Ma region and nationally since 2008. In 2015, the percentage of women in the Maari Ma region who reported drinking alcohol in their first trimester was not significantly different from other national sites. However, in 2015, the percentage of Aboriginal women in the Maari Ma region who reported drinking alcohol during their third trimester was twice that of women in other national sites.

Alcohol use during pregnancy, Maari Ma region and all ABCD sites, 2008, 2013 and 2015

	Year	Maari Ma region	National
Alcohol use during the first trimester	2008	18.9%	18.8%
	2013	17.0%	14.1%
	2015	13.2%	11.1%
Alcohol use during the third trimester	2008	18.9%	13.8%
	2013	12.8%	7.0%
	2015	13.2%	7.0%

Source: ABCD 2008, 2013 and 2015

Fertility rate

Fertility rate refers to the number of children born per 1,000 women aged 15-44. Although most teenage births occur between 15-19 years of age, a small proportion do occur between 10-14 years of age, and these data are included below. The fertility rate is influenced by the mother's age.

There are very few girls aged 10-14 years old having babies in NSW, and this figure has decreased to 0% for Aboriginal girls in the Maari Ma region over time. The fertility rate for Aboriginal women in the Maari Ma region aged 15-19 is almost 8 times higher than the rate for all NSW women and this is statistically significant. There are also significantly more women aged 20-24 having babies in the Maari Ma region compared to NSW. Overall the fertility rate in the Maari Ma region was significantly higher than for NSW Aboriginal women and all NSW women.

Fertility rates (number of live births per 1,000 women, by mother's age), Maari Ma region and NSW

	Year	Maari Ma region		NSW	
		Aboriginal	Total	Aboriginal	Total
10-14 years	2002-2006	3.3	0.7	0.8	0.1
	2007-2011	0.0	0.2	0.7	0.1
	2012-2016	0.0	0.0	0.5	0.1
15-19 years	2002-2006	93.3	39.2	67.4	15.9
	2007-2011	75.0	39.9	58.0	14.8
	2012-2016	86.6*^	39.8	52.8	11.8
20-24 years	2002-2006	233.0	123.2	134.2	58.2
	2007-2011	173.4	111.1	138.7	56.7
	2012-2016	186.8*^	112.7	132.1	48.2
25-44 years	2002-2006	88.1	67.1	60.0	75.2
	2007-2011	75.7	73.9	65.0	80.4
	2012-2016	79.8	74.7	71.9	77.3
Total	2002-2006	87.1	58.2	58.0	54.6
	2007-2011	77.6	63.0	60.6	57.9
	2012-2016	84.0*^	64.7	63.6	55.3

* significantly higher than the current NSW Aboriginal population result

^ significantly higher than the current NSW population result

Source: NSW PDC, SA Perinatal Statistics Collection, CCOPMM

Statistical significance results:

Compared to the NSW Aboriginal population the current result for Maari Ma's Aboriginal population shows

- A significantly higher rate of women aged 15-19 had a baby
- A significantly higher rate of women aged 20-24 had a baby
- A significantly higher rate of women overall had a baby

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly higher rate of women aged 15-19 had a baby
- A significantly higher rate of women aged 20-24 had a baby
- A significantly higher rate of women overall had a baby

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Environmental tobacco smoke

Why monitor this?	What did we find?
Unborn and young children who are exposed to tobacco smoke are at risk of serious health problems including increased risk and severity of asthma, infections of the lower respiratory tract, low birth weight, middle ear infections, and SIDS.	Data for our region is not available. However data for the wider geography of 'western NSW' shows that almost all families with children aged 15 years and under live in smoke free homes and have smoke-free cars.

The combined data for Far West and Western NSW LHDs from the NSW Population Health Survey (2015-2017) show that 98.4% of families in these regions with children aged 0-15 years have smoke-free homes and 95.3% have smokefree cars. By comparison, 98.6% of families with children aged 0-15 years in all of NSW have smoke-free homes and 97.5% have smoke-free cars. However the data for Far West and Western NSW LHDs are unlikely to accurately represent the Maari Ma region. Data for the Far West LHD (which aligns with the Maari Ma region) have not been provided on their own as the numbers were too small to provide meaningful estimates.

Blood lead levels in Broken Hill

Why monitor this?	What did we find?
Lead and lead compounds can be harmful to the human body. Research has shown that there is no safe level of lead and that levels even below 10μg/dL can have harmful effects on many organs and bodily functions. According to the WHO blood lead levels around 10μg/dL are known to cause damage to the developing brain and nervous system of children. Higher levels can also adversely affect immune, reproductive, renal, haematological and cardiovascular systems. The possibility of lead effects for children (including unborn babies) are greater than for adults because their bodies are smaller and their brains are developing rapidly. Young children are more likely than adults to ingest lead because of normal hand-to-mouth behaviour by frequently putting objects and their fingers in their mouths after touching surfaces that contain lead.	The average blood lead level for Aboriginal children in 2018 was 7.9μg/dL which was 0.8μg/dL lower than the previous year. This result for Aboriginal children was higher than the average for all children in Broken Hill (4.7μg/dL). Blood lead levels for Aboriginal children have been decreasing since testing began in 1991. Averages above 20μg/dL were common in the early years.

Since 1991 all children under the age of five living in Broken Hill have been offered blood lead testing through the Broken Hill Child and Family Health Service and Maari Ma Primary Health Care Service. Screening of umbilical cord blood lead levels of newborns born to mothers residing in Broken Hill began in 1996.

In February 2016, the NSW MOH endorsed the revised National Health and Medical Research Council (NHMRC) guidelines for the notification of blood lead levels from 10μg/dL to 5μg/dL. Between 2017 and 2018, the geometric mean lead level for all children in Broken Hill (1 to < 5 years old) decreased from 5.7μg/dL to 4.7μg/dL. While the mean result for Aboriginal children also decreased between 2017 and 2018 (from 8.7μg/dL to 7.9μg/dL), this is higher than all children in the region and higher than the revised NHMRC notification level.

Safety

Why monitor this?	What did we find?
Feeling and being safe is important for a child's mental health and overall wellbeing. This includes growing up in a safe home environment and also a neighbourhood that feels safe and provides a sense of belonging and support. Feeling safe is just as important in the physical world and the online world. While the internet can be a great resource for children, being online also comes with risks, such an inappropriate content, cyberbullying and online predators which can all put young people's safety and wellbeing at risk. Exposure to domestic and family violence affects children's physical and mental health, development and schooling, and is the leading cause of children's homelessness in Australia. It can also contribute to intergenerational transmission of violence. For Aboriginal children, the trauma of living with domestic and family violence may be just one of the many traumas they face. School connectedness and supportive social relationships have been associated with lower levels of absenteeism, delinquency, aggression, substance use and higher levels of academic achievement and self-esteem among children.	Over time the rates of offending (assaults, robberies and thefts) have decreased. There were still, however, significantly more assaults and thefts compared to NSW as a whole. Local adolescent psychosocial assessment data from Maari Ma reveal that almost all young people aged 12-18 feel safe when they are at home and 4 in 5 said they felt safe in their neighbourhood. Broken Hill LGA and Wentworth LGA were ranked 6th and 8th highest respectively for recorded domestic violence related assault incidents of all 128 local government areas in NSW.

Neighbourhood safety

Quality of life in neighbourhoods and the safety of the physical environment can shape a child's development and future outcomes. Good quality neighbourhoods are associated with positive outcomes for children, including lower levels of child maltreatment and youth delinquency and higher levels of children's physical and mental health, educational attainment and collective efficacy. One of the most common indicators of neighbourhood quality is the rate of assaults, robbery and theft in the local area.

The rates of assault, robbery and theft have decreased in the Maari Ma region and NSW over time. While the rate of robbery in the Maari Ma region is lower than NSW, the rate of assault and theft are nearly 2 times and 1.5 times higher, respectively, in the Maari Ma region compared to NSW.

Average number of assaults, robbery and theft per year (number [n] averaged over 5 years) and five year average rate (per 100,000 total population), Maari Ma region and NSW

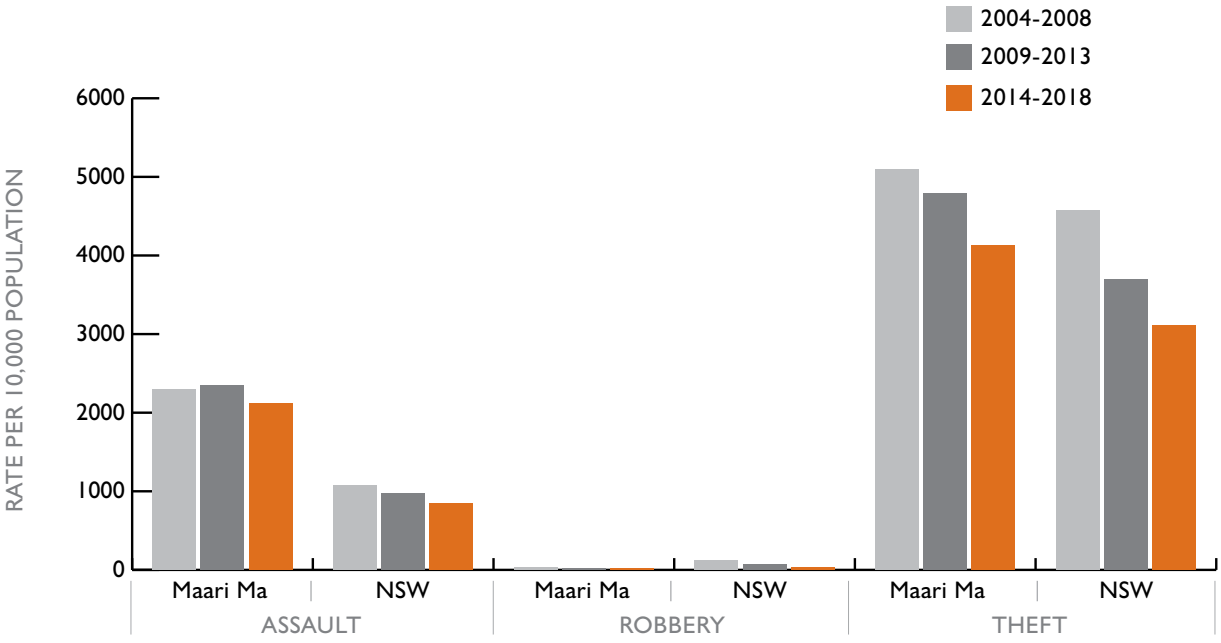
	Year	Maari Ma region		NSW	
		n	Rate	n	Rate
Assault	2004-2008	727	2,300	70,035	1,069
	2009-2013	715	2,344	67,057	969
	2014-2018	627	2,112^	63,178	845
Robbery	2004-2008	9	29	7,530	115
	2009-2013	7	24	4,994	72
	2014-2018	7	24	2,681	36
Theft	2004-2008	1,611	5,096	299,860	4,579
	2009-2013	1,462	4,795	255,416	3,692
	2014-2018	1,226	4,134↓^	232,327	3,106

↓ significantly lower than the previous period MM-R Aboriginal population result

^ significantly higher than the current NSW population result

Sources: NSW BOCSAR; ABS Census 2006, 2011, 2016

Rates of assault, robbery and theft (per 100,000 total population), Maari Ma region and NSW, 2004-2018



Sources: NSW BOCSAR; ABS Census 2006, 2011, 2016

Ninety four percent of young people aged 12-18 who completed *tickit* said they felt safe in their home and an additional 5% said they sometimes felt safe in their home. Of the same cohort 79% said they felt safe in their neighbourhood, 3% said they did not, and 17% said they felt safe 'sometimes'. Eighty-four percent of young people said they felt safe on social media.

Statistical significance results:

Compared to the previous period the current result for Maari Ma's Aboriginal population shows

- A significantly lower rate of thefts, which is a good result

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly higher rate of assaults, which is a poorer result
- A significantly higher rate of thefts, which is a poorer result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Domestic and family violence

Domestic and family violence is a serious issue that impacts many families in Australia. According to the 2017 ABS Personal Safety Survey (PSS), 2 in 5 Australian people 18 years and over had experienced physical or sexual violence since the age of 15. In NSW, 4.2% of females and 6.9% of males indicated they had experienced violence in the last 12 months.

In 2018, Bureau of Crime Statistics and Research (BOCSAR) mapped out the rate of reported incidents of domestic violence related assault by statistical area and the Far Western region was within the highest bracket (517 to 1290 incidents per 100,000 population). These rates are low compared to statistics reported in the PSS. However, this discrepancy is likely due to the PSS being based on self-report, while BOCSAR data only includes incidents that have been reported, or detected, by the NSW Police Force.

BOCSAR found that Broken Hill LGA and Wentworth LGA were ranked sixth and eighth highest respectively for recorded domestic violence related assault incidents compared to all 128 local government areas in NSW between April 2018 and March 2019. Broken Hill LGA experienced 1,135.8 incidents, and Wentworth LGA experienced 932.3 incidents, per 100,000 population.

Racism

Analysis of the 2014-15 National Aboriginal and Torres Strait Islander Social Survey found that more than 1 in 5 Indigenous people aged 15-24 had experienced various types of unfair treatment in the previous 12 months. A cross-sectional study by Priest *et al* of 345 Aboriginal young people aged 16-20 found that those who had experienced racism were twice as likely to report anxiety, twice as likely to report depression, twice as likely to be at risk of suicide and 3 times as likely to have overall poor mental health.

There is limited data available on the type of unfair treatment that Aboriginal young people experience, and forms of racism experienced may not be fully captured.

Bullying

School connectedness and supportive social relationships have been associated with lower levels of absenteeism, delinquency, aggression, substance use and higher levels of academic achievement and self-esteem among children. Wolke *et al* note bullying is associated with feeling 'unsafe' at school, depression and lower educational qualifications. It can contribute to maladjustment of children at school.

National organisations and researchers have identified that collection of bullying data is important and some have collected this data through surveys at a national level. However, there are limited data available for the Maari Ma region through these surveys.

There are few studies on the prevalence of bullying in NSW that are current. The Australian Covert Bullying Prevalence Study (2009) found 28.9% of children in Year 4 to Year 9 had been bullied in NSW. The figure in non-metropolitan NSW was slightly higher (31.7%) compared to metropolitan NSW (28.1%). A more recent national study on bullying conducted by ReachOut Australia found 23% of young people aged 14-25 years had experienced bullying behaviour in the past 12 months.

By comparison, data collected through *tickit* on 'bullying' found 69% of respondents had 'never' been bullied, but 19% were 'sometimes' bullied, 5% were 'often' bullied, and 5% were 'always' bullied. These results are similar to those found in the prevalence study above.

Children as victims of crime

Why monitor this?	What did we find?
Being a victim of crime can be detrimental to a child's physical and mental health, wellbeing, sense of security, safety and feelings about the future. For some children being victimised may lead to diminished education attainment and social participation in early adulthood, or result in physical injury, disability and even death. Experience of crime is central to issues of community safety in general and even more so for children as the most vulnerable members of society.	Since the first profile the number of Aboriginal children and young people in the Maari Ma region who are victims of violent offences has decreased by almost a third. The rate though, is still significantly higher than the rate for all Aboriginal and NSW children and young people.

In the Maari Ma region, the rate of children who are victims of violent offences has decreased more dramatically than NSW overall since 2004. This decrease will have a positive impact on the future development of these children and their communities. However, the rate in the Maari Ma region continues to be nearly 4 times higher than the NSW rate and nearly double the rate experienced by Aboriginal children in NSW.

Victims of violent offences, aged under 18 years old, recorded by NSW Police, five year average (n) and five year average rates (per 1,000 children), Maari Ma region and NSW

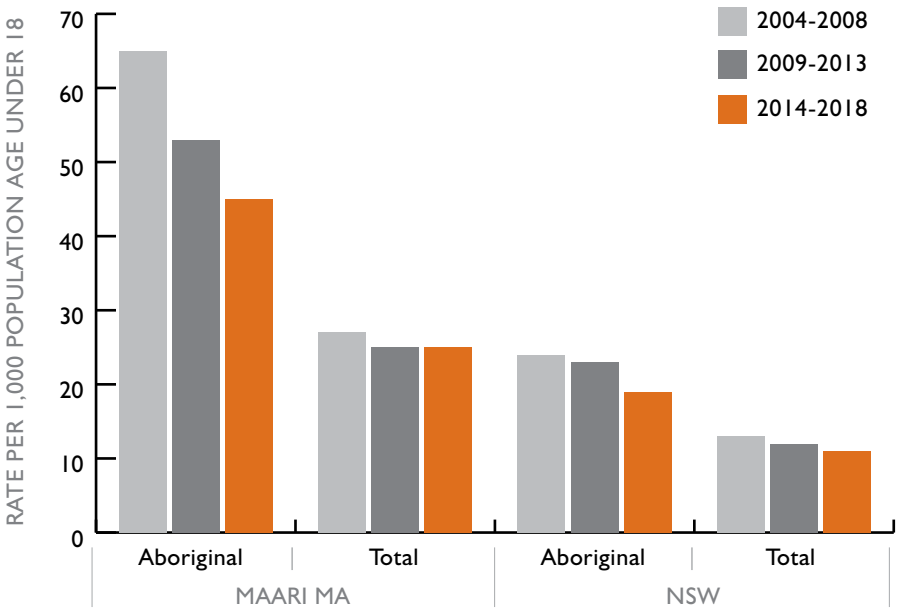
	Maari Ma region				NSW	
	Aboriginal		Total		Aboriginal	Total
	n	Rate	n	Rate	Rate	Rate
2004-2008	78	65.2	208	27.3	24.0	12.7
2009-2013	65	53.5	173	25.0	22.7	12.3
2014-2018	53	45.2*^	156	25.0	17.5	11.1

* significantly higher than the current NSW Aboriginal population result

^ significantly higher than the current NSW population result

Sources: NSW BOCSAR; ABS Census 2006, 2011, 2016

Rate of children under 18 years old as victims of violent offences (per 1,000 children), Maari Ma region and NSW



Sources: NSW BOCSAR; ABS Census 2006, 2011, 2016

Statistical significance results:

Compared to the NSW Aboriginal population the current result for Maari Ma's Aboriginal population shows

- A significantly higher rate of young people aged under 18 who were victims of violent offences, which is a poorer result

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly higher rate of young people aged under 18 who were victims of violent offences, which is a poorer result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Child abuse and neglect

Why monitor this?	What did we find?
There is a demonstrated relationship between the health and wellbeing of children and the environment in which they grow up. Children who are raised in supportive, nurturing environments are more likely to have better social, behavioural and health outcomes. Abuse and neglect victims may experience lower social competence, poor school performance, impaired language ability, and are at increased risk of criminal offending and mental health problems.	The rate of reports for risk, or actual harm, of Aboriginal children aged 0-5 in the Maari Ma region has decreased significantly since the last report. However, Aboriginal children in the Maari Ma region were more likely to be involved in a report where actual harm or risk of harm had been assessed compared to both Aboriginal and all children in NSW.

In Australia, statutory child protection systems are the responsibility of the state and territory governments. Child protection substantiation refers to the determination, after investigation, that a child has been, is being or likely to be, abused or neglected or otherwise harmed. Child abuse may include physical, sexual or emotional abuse or neglect.

In 2017 Aboriginal children in the Maari Ma region (aged 10-14 years) were involved in reports where secondary assessment determined actual harm and risk of harm at rates around 7 times higher than NSW overall. In comparison, Aboriginal children in NSW were around 5 to 6 times more likely than all children in NSW to be involved in these reports. Aboriginal children in the Maari Ma region were around 3 times more likely than all children in the Maari Ma region to be reported as harmed or at risk of harm.

Children (aged 0-14 years) involved in reports where secondary assessment determined actual harm and risk of harm, (N) and rates (per 1,000 children), Maari Ma region and NSW, 2008, 2013 and 2017

	Year	Maari Ma region				NSW	
		Aboriginal		Total		Aboriginal	Total
		N	Rate	N	Rate	Rate	Rate
0-5 years	2008	42	107.4	66	33.0	-	12.6
	2013	55	133.5	112	51.1	96.8	14.0
	2017	34	87.0↓^	66	31.7	87.3	14.2
6-10 years	2008	38	108.9	51	28.5	-	8.4
	2013	35	81.4	65	31.7	62.5	9.6
	2017	30	85.5*^	53	29.0	56.6	11.0
11-14 years	2008	29	103.2	44	28.8	-	5.9
	2013	32	114.7	57	37.4	52.0	9.1
	2017	27	115.9*^	37	27.9	53.3	11.4
Total 0-14 years	2008	109	106.8	161	30.3	-	9.4
	2013	122	109.9	234	40.1	70.4	10.9
	2017	91	93.3*^	156	29.8	68.1	12.4

↓ significantly lower than the previous period MM-R Aboriginal population result

* significantly higher than the current NSW Aboriginal population result

^ significantly higher than the current NSW population result

Source: KiDS – CIW annual data (unpublished); ABS Census 2011, 2016

Statistical significance results:

Compared to the previous period the current result for Maari Ma's Aboriginal population shows

- A significantly lower rate of children aged 0-5 involved in reports where secondary assessment determined actual harm and risk of harm, which is a good result

Compared to the NSW Aboriginal population the current result for Maari Ma's Aboriginal population shows

- A significantly higher rate of children aged 6-10 involved in reports where secondary assessment determined actual harm and risk of harm, which is a poorer result
- A significantly higher rate of children aged 11-14 involved in reports where secondary assessment determined actual harm and risk of harm, which is a poorer result
- A significantly higher rate of children aged under 15 involved in reports where secondary assessment determined actual harm and risk of harm, which is a poorer result

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly higher rate of children aged 0-5 involved in reports where secondary assessment determined actual harm and risk of harm, which is a poorer result
- A significantly higher rate of children aged 6-10 involved in reports where secondary assessment determined actual harm and risk of harm, which is a poorer result
- A significantly higher rate of children aged 11-14 involved in reports where secondary assessment determined actual harm and risk of harm, which is a poorer result
- A significantly higher rate of children aged under 15 involved in reports where secondary assessment determined actual harm and risk of harm, which is a poorer result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Children and crime

Why monitor this?	What did we find?
Young people in the criminal justice system represent a particularly disadvantaged population, characterised by high levels of socio-economic stress, significant physical and mental health needs, and history of physical abuse and childhood neglect. Childhood neglect is one of the strongest predictors of later youth offending.	Compared to the previous period the number of Aboriginal young people in the Maari Ma region who have been given a custodial sentence has halved. The rate of custodial sentencing for Aboriginal young people in the Maari Ma region is significantly less compared to all NSW Aboriginal young people. However, the rate is still 7 times higher than that for all young people in NSW.

The AIHW reports that children who have been victimised are at greater risk of later offending. For most children engaged in criminal activities, the nature of the offence is relatively minor and the behaviour is short lived. However, for a small number of children this behaviour becomes more serious or persistent and results in contact with the juvenile justice system.

Sentenced to custody

In NSW, the rate of 10-24 year olds sentenced to custody has remained stable, while the rate has nearly halved for Aboriginal young people in the Maari Ma region since 2009 which is a significant result. Compared to the sentencing rate of Aboriginal young people aged 10-24 years in NSW, the sentencing rate for Aboriginal young people in the Maari Ma region is lower. However, the sentencing rate for Aboriginal young people in the Maari Ma region is around 7 times higher than the sentencing rate for all young people in NSW.

Young people aged 10-24 sentenced to custody (N) and rate (per 1000 population), Maari Ma region and NSW, 2004-2018

Year	Maari Ma region				NSW	
	Aboriginal		Total		Aboriginal	Total
	N	Rate	N	Rate	Rate	Rate
2004-2008	109	129.5	133	22.9	156.9	11.1
2009-2013	125	131.3	145	26.8	140.3	11.3
2014-2018	64	76.0↓#^	79	16.3	111.6	10.5

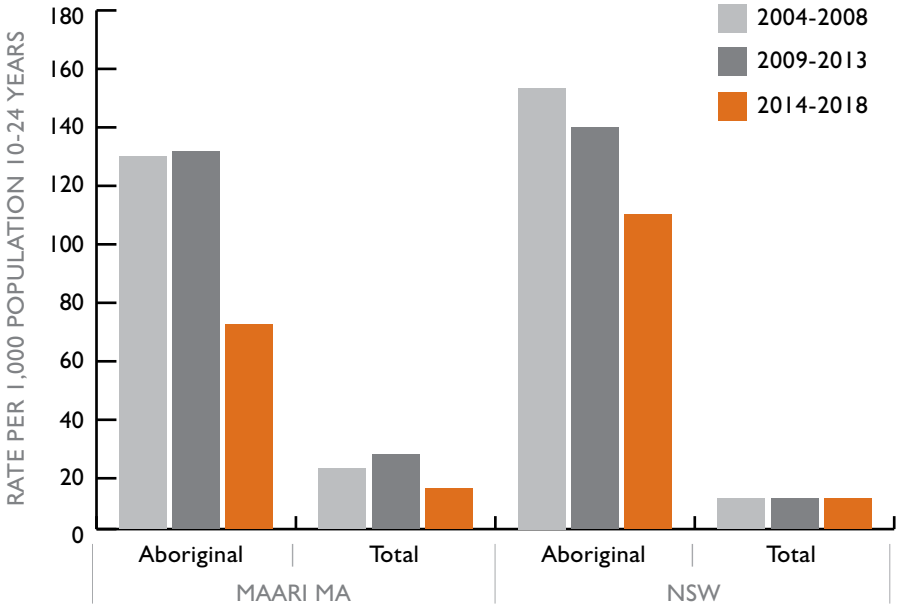
↓ significantly lower than the previous period MM-R Aboriginal population result

\# significantly lower than the current NSW Aboriginal population result

^ significantly higher than the current NSW population result

Sources: NSW BOCSAR; ABS Census 2006, 2011, 2016

Rate (per 1,000 population) aged 10-24 years sentenced to custody, Maari Ma region and NSW, 2004-2018



Source: NSW BOCSAR; ABS Census 2006, 2011, 2016

Statistical significance results:

Compared to the previous period the current result for Maari Ma's Aboriginal population shows

- A significantly lower rate of young people aged 10-24 sentenced to custody, which is a good result

Compared to the NSW Aboriginal population the current result for Maari Ma's Aboriginal population shows

- A significantly lower rate of young people aged 10-24 sentenced to custody, which is a good result

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly higher rate of young people aged 10-24 sentenced to custody, which is a poorer result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Court outcomes

The rate of guilty court outcomes for Aboriginal young people in the Maari Ma region has declined significantly since 2004. The rate of custodial sentences for Aboriginal young people in the Maari Ma region was 15 times higher than the rate for all young people in NSW in 2009-2013. By comparison, in 2014-2018, the rate of custodial sentences for Aboriginal young people in the Maari Ma region was only 8 times higher than for all young people in NSW. However, this change may in part be due to recent reforms of the categories used to classify court outcomes.

Court outcome types (where there is a guilty finding) for young people aged 10-17 (N) and rate (per 1,000 children), Maari Ma region and NSW

Outcome	Year	Maari Ma region				NSW	
		Aboriginal		Total		Aboriginal	Total
		N	Rate	N	Rate	Rate	Rate
Community based orders	2004-2008	154	290.0	194	54.8	200.3	19.2
	2009-2013	147	270.2	178	57.5	217.2	23.1
	2014-2018	56	115.5↓#^	71	26.9	151.1	17.9
Custodial sentences	2004-2008	64	120.5	68	19.2	83.8	5.4
	2009-2013	51	93.8	53	17.1	82.2	6.2
	2014-2018	18	37.1↓^	18	6.8	50.3	4.2
Other	2004-2008	131	246.7	187	52.8	152.1	20.1
	2009-2013	71	130.5	116	37.5	137.6	18.6
	2014-2018	53	109.3^	74	28.0	109.1	14.4

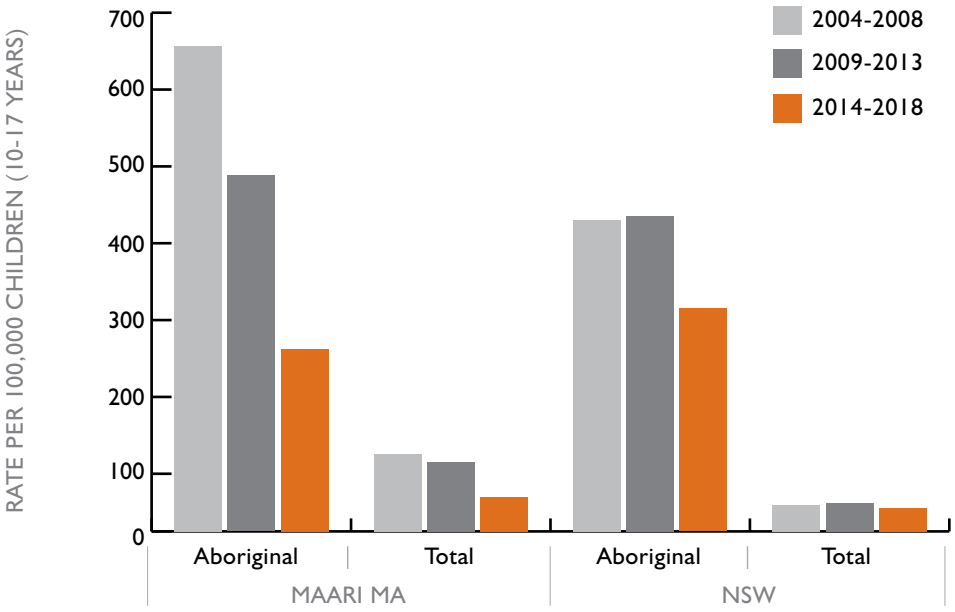
↓ significantly lower than the previous period MM-R Aboriginal population result

significantly lower than the current NSW Aboriginal population result

^ significantly higher than the current NSW population result

Sources: NSW BOCSAR; ABS Census 2006, 2011, 2016

All guilty findings for children aged 10-17 (rate per 1,000 children), Maari Ma region and NSW, 2004-2008, 2009-2013, 2014-2018



Sources: NSW BOCSAR; ABS Census 2006, 2011, 2016

Statistical significance results:

Compared to the previous period the current result for Maari Ma's Aboriginal population shows

- A significantly lower rate of young people aged 10-17 receiving a community based order, which is a good result
- A significantly lower rate of young people aged 10-17 receiving a custodial sentence, which is a good result

Compared to the NSW Aboriginal population the current result for Maari Ma's Aboriginal population shows

- A significantly lower rate of young people aged 10-17 receiving a community based order, which is a good result

Compared to the NSW total population the current result for Maari Ma's Aboriginal population shows

- A significantly higher rate of young people aged 10-17 receiving a community based order, which is a poorer result
- A significantly higher rate of young people aged 10-17 receiving a custodial sentence, which is a poorer result
- A significantly higher rate of young people aged 10-17 receiving some other type of sentence, which is a poorer result

All other comparisons for the current Maari Ma Aboriginal result were not significantly different.

Substance use

Why monitor this?	What did we find?
Misuse of alcohol and use of other drugs (including tobacco) by young people can cause immediate and long-term health and social problems. In the short term, it may result in hospitalisations due to acute intoxication and related injuries, dependence and withdrawal symptoms. In the long-term, alcohol and other drug use can lead to depression, infections with blood-borne diseases, damage to the liver, heart and brain, and increased risk of cancers and other serious health conditions. The maturing adolescent brain is particularly sensitive to alcohol and other drugs. Most people who go on to become long-term smokers started smoking during their secondary school years and early uptake is associated with heavier smoking patterns and greater difficulty in quitting.	Data from Maari Ma Health's *tickit* tool show that, compared to national survey data, a smaller proportion of Aboriginal young people in Broken Hill report trying alcohol, tobacco and other illicit drugs.

Previous versions of this profile had incorporated data on alcohol and tobacco use from the NSW School Students Health Behaviours Survey. This time, however, we have been unable to use the data as sample sizes in more recent versions of the School Students Survey are too small to provide meaningful estimates.

Young people attending the Maari Ma youth health clinic in Broken Hill: On substance use…

When asked about drugs they had tried:

- 50% of young clients of the Maari Ma Youth Health Clinic in Broken Hill who completed the *tickit* assessment responded they had not tried any drugs.
- 40% responded they had tried alcohol,
- 30% had tried smoking,
- 20% had used cannabis and
- 4% said they had used other drugs.

By comparison, the Australian Secondary Students' Alcohol and Drug Survey (2017) found around 80% of 15-17 year olds in Australia had consumed alcohol at some stage.

The survey also found the most commonly used illicit drug was cannabis (around 30%), and around 30% of respondents had tried smoking.

Injuries

Why monitor this?	What did we find?
Injuries are the leading cause of death and hospitalisations among children but can be reduced by controlling hazards in a child's environment. Injuries resulting in a disability and/or disfigurement can impair a child's development and affect their future wellbeing. Many injuries are preventable and therefore amenable to intervention. Injury prevention and control is a National Health Priority Area. Suicide is an extremely distressing event that can have profoundly disruptive effects on the family, friends and communities of those who take their own lives.	Injury hospitalisations occur the most among Aboriginal children aged 0-4 years and adolescents aged 15-19. There have only been a small number of deaths due to injury (including suicide), on average, each year between 2007 and 2016.

The following tables show the number of hospitalisations and deaths due to injuries, accidents and poisoning in the Maari Ma region and NSW each year, averaged over two five-year periods.

In the Maari Ma region, hospitalisations attributed to injuries, accidents and poisoning occur the most among Aboriginal children aged 0-4 years and adolescents aged 15-19. In NSW, the most number of hospitalisations due to injuries, accidents and poisoning are among 15-19 year olds.

There have been less than 5 deaths attributed to injuries, accidents and poisoning in the Maari Ma region (Aboriginal and total population) on average each year between 2007 and 2016.

Average number of hospitalisations, per age group, attributed to injuries, accidents and poisoning per year[32], Maari Ma region and NSW, 2007/08 to 2016/17[33]

Age	Year	Maari Ma region		NSW	
		Aboriginal	Total	Aboriginal	Total
0-4 years	2007/08-2011/12	14	48	514	7,049
	2012/13-2016/17	12	36	575	7,586
5-9 years	2007/08-2011/12	9	33	409	6,334
	2012/13-2016/17	9	32	501	7,025
10-14 years	2007/08-2011/12	8	46	512	7,811
	2012/13-2016/17	9	32	590	8,033
15-19 years	2007/08-2011/12	18	79	777	11,992
	2012/13-2016/17	13	51	980	12,148

Sources: CAPED (SAPHaRI), NSW MOH

32. We are unable to calculate rates as the NSW MOH does not have an approved estimated Aboriginal population for the Maari Ma region.
33. Numbers for recent years include an estimate of the number of hospitalisations of NSW resident in interstate public hospitals, data for which were unavailable at the time of production.

Average number of deaths attributed to injuries, accidents and poisoning (averaged over 5 years), 0-19 years, Maari Ma region and NSW, 2007-2011 and 2012-2016

	Maari Ma region		NSW	
Year	Aboriginal	Total	Aboriginal	Total
2007-2011	<5	<5	13	144
2012-2016	<5	<5	14	133

Sources: COD URF (SAPHaRI), NSW MOH

Suicide

Suicide is an extremely distressing event that can have profoundly disruptive effects on the family, friends and communities of those who take their own lives. Risk factors for youth suicide such as antisocial behaviour, poor family cohesion and parental mental health issues are evident from early childhood. Other risk factors including academic failure, dropping out of school, depressive symptoms and substance abuse can manifest in later childhood and adolescence. BeyondBlue notes that in addition to the above risk factors, colonisation and intergenerational trauma, loss of culture and identity, discrimination and racism, and the persistent cycle of grief and 'bereavement overload' due to high number of deaths in communities are also risk factors for Aboriginal young people.

Analysis of the AIHW Burden of Disease Database (2011) found that for Aboriginal young people aged 10-24 years in Australia, the leading contributors to the disease burden were suicide and self-inflicted injuries (13%).

In the Maari Ma region in the years 2012-2016 there were less than 5 deaths due to suicide of Aboriginal and non-Aboriginal young people aged under 25. In the same period in NSW the suicide death rate was 8.3 per 100,000 Aboriginal young people aged under 25 years and 4.3 per 100,000 total population aged under 25.

EIGHT
How well is the system performing in delivering quality health, development and wellbeing actions to our children

The capacity of systems to deliver high quality services plays a major role in influencing the health and wellbeing of children. This chapter looks at indicators that reflect the performance of systems in delivering quality health, development and wellbeing actions to our region's children.

Screening and early detection

Why monitor this?	What did we find?
Congenital anomalies are a major cause of hospitalisation in infancy and childhood and a leading cause of infant mortality in Australia. Hearing impairment at birth often has major, lasting effects on language and communication. However, early diagnosis and intervention can improve language acquisition and, subsequently, educational outcomes and social development. A regular health check-up will provide Aboriginal people with primary health care matched to their needs by supporting early detection, diagnosis and intervention for common and treatable conditions.	Cases of congenital anomalies are sporadic and so we are unable to report rates. Almost all babies have a newborn hearing screening either before discharge from hospital or within the first month. More than 8 in 10 Aboriginal children aged 0-14 who went to the MMPHCS had a health check in the past two years. Almost 7 in 10 Aboriginal young people aged 15-24 accessing MMPHCS had a health check in the last two years.

Congenital anomalies

Congenital neural tube defects and rubella are two conditions amenable to prevention: through folate supplementation before and immediately after conception, and improved population immunisation against rubella, respectively. However, cases have been very sporadic in the Maari Ma region and we have therefore not reported rates.

Neonatal hearing screening

Newborn hearing testing has been done routinely in NSW since 2003. The NSW Statewide Infant Screening – Hearing (SWIS-H) aims to identify babies with significant permanent hearing loss by three months of age, and for those children to be able to access appropriate intervention by 6 months of age. On average, between 2013 and 2018, 99% of all babies born in the Maari Ma region had a hearing screening done at birth which is the same proportion for all babies born in NSW. No hearing loss has been detected in these babies.

Child and youth health checks

All Aboriginal people are eligible for an annual Aboriginal specific health check (Medicare item 715).

Between 2017 and 2019 84% of Aboriginal children aged 0-14 years accessing the Maari Ma Primary Health Care Service (MMPHCS) in the Broken Hill and Central Darling local government areas had completed an annual health assessment. By comparison, NSW MOH reported that 34% of Aboriginal children aged 0-14 years have completed a health assessment in the same time period.[34]

In addition, during the same period, 68% of 15-24 year olds accessing MMPHCS in the Broken Hill and Central Darling local government areas completed an annual health assessment.

34. The NSW level data have been sourced from the NSW MOH's Centre for Aboriginal Health's (CAH) quarterly performance targets. All Aboriginal Medical Services that are funded by the CAH are required to supply Medicare item 715 health assessment data to the MOH quarterly.

Childhood immunisation

Why monitor this?	What did we find?
Immunisation is a proven method for controlling and eliminating life-threatening infectious disease. The WHO estimates immunisation can avert between 2 and 3 million deaths each year, and it is one of the most cost-effective health investments.	Latest data indicate that 100% of the Maari Ma region's Aboriginal children aged 5 years were up to date with their immunisations, compared to 94.6% across NSW. Rates for adolescents in the Maari Ma region are comparable to NSW.

The following tables show immunisation coverage and timeliness data for the Maari Ma region compared to NSW. These data should be interpreted with caution due to small numbers. It is also important to note that the definition for completeness for 2 year olds has changed over time.

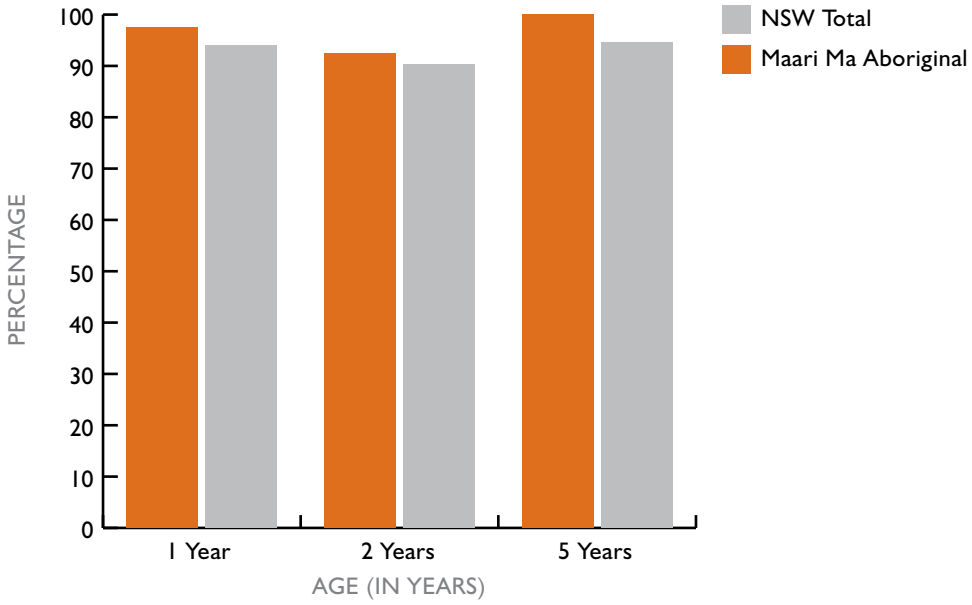
In 2018, 100% of Aboriginal children aged 5 years in the Maari Ma region were up to date with their immunisations, compared to 94.6% of all children in NSW. Coverage was also higher for Aboriginal children at 1 and 2 years in the Maari Ma region compared to all children of the same age in NSW. In 2017, immunisation coverage for all adolescents in the Maari Ma region was comparable to all adolescents in NSW. In 2017, timeliness of immunisation was better for Maari Ma Aboriginal children compared to all children in NSW, especially at <15 months and <51 months.

Immunisation coverage, fully immunised at 1, 2 and 5 years, Maari Ma region and NSW, 2012, 2015, 2018

	Year	Maari Ma region		NSW	
		Aboriginal	Total	Aboriginal	Total
1 years	2012	78.5%	88.3%	85.9%	91.4%
	2015	93.5%	96.5%	91.2%	92.2%
	2018	97.5%	97.7%	94.3%	93.9%
2 years	2012	86.6%	91.3%	92.0%	92.4%
	2015	92.5%	91.5%	88.5%	89.1%
	2018	92.5%	91.7%	91.0%	90.2%
5 years	2012	87.1%	89.5%	90.1%	90.8%
	2015	98.8%	96.2%	95.3%	93.0%
	2018	100.0%	97.8%	97.3%	94.6%

Source: Australian Immunisation Register

Immunisation coverage rates, fully immunised at 1, 2 and 5 years, Maari Ma region and NSW, 2018



Source: Australian Immunisation Register

Adolescent immunisation coverage by vaccine type, Maari Ma region and NSW, 2012 and 2017

Vaccine type	Year	Maari Ma region	NSW
HPV (Year 7) females, Dose 1	2012	92.0%	86.0%
	2017	81.0%	86.0%
HPV (Year 7) females, Dose 2	2012	87.0%	84.0%
	2017	77.0%	82.0%
HPV (Year 7) females, Dose 3	2012	74.0%	78.0%
	2017	-	-
HPV (Year 7) males, Dose 1	2012	-	-
	2017	79.0%	84.0%
HPV (Year 7) males, Dose 2	2012	-	-
	2017	74.0%	79.0%
HPV (Year 7) males, Dose 3	2012	-	-
	2017	-	-
dTpa (Year 7), Dose 1	2012	82.0%	81.0%
	2017	77.0%	85.0%
4vMenCV (Year 10), Dose 1	2012	-	-
	2017	-	-
4vMenCV (Year 11), Dose 1	2012	-	-
	2017	78.0%	73.0%
4vMenCV (Year 12), Dose 1	2012	-	-
	2017	81.0%	76.0%
Varicella, Dose 1	2012	65.0%	50.0%
	2017	61.0%	66.0%

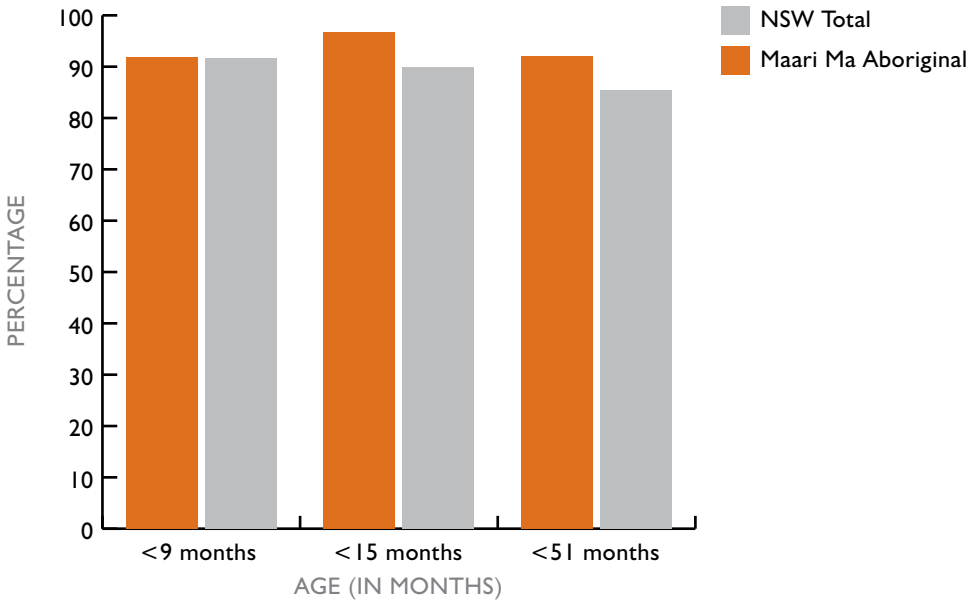
Source: NSW School Vaccination Program, Health Protection NSW

Timeliness audit for immunisation, <9months, <15 months, <51 months, Maari Ma region and NSW, 2012 and 2017

	Year	Maari Ma region		NSW	
		Aboriginal	Total	Aboriginal	Total
<9 months	2012	77.3%	78.5%	89.2%	87.7%
	2017	91.8%	88.7%	92.1%	91.7%
<15 months	2012	76.5%	77.7%	88.0%	85.6%
	2017	96.7%	89.3%	91.7%	89.9%
<51 months	2012	81.5%	75.6%	80.0%	80.8%
	2017	92.0%	87.0%	90.8%	85.5%

Source: National Centre for Immunisation Research and Surveillance

Timeliness audit for immunisation, <9months, <15 months, <51 months, Maari Ma region and NSW, 2017



Source: National Centre for Immunisation Research and Surveillance

Quality childcare

Why monitor this?	What did we find?
The Productivity Commission notes that higher quality childcare is associated with improved academic and cognitive outcomes but that poor quality childcare can have negative impacts (i.e. behavioural problems); the quality of childcare is more important than the number of hours spent in childcare. However, children facing disadvantage, or who are at risk of poor care in their home environment, will particularly benefit from exposure to high quality childcare.	There are 13 ACECQA approved childcare providers in the Maari Ma region: 7 in Broken Hill, 1 in Menindee, 1 in Balranald, 1 in Dareton, 1 in Wentworth, 1 in Euston and 1 in Buronga. There are 17 approved education and care services (9 in Broken Hill, 1 in Menindee, 1 in Wilcannia, 1 in Balranald, 1 in Dareton, 1 in Wentworth, 1 in Euston and 2 in Buronga).

In 2012, the National Quality Framework (NQF) introduced a new quality standard to improve education and care across long day care, family day care, preschool/kindergarten, and outside school hours care services. Underpinning this framework are consistent standards to ensure:

- improved educator to child ratios, so children have greater individual care and attention
- educators with increased skills and qualifications
- better support for children's learning and development through approved learning frameworks
- consistent and transparent information on educators, providers and services in national registers.

To ensure the NQF is delivered consistently and reliably, the Australian Children's Education and Care Quality Authority (ACECQA) is working with regulatory authorities and state and territory governments as they implement the new regulations. The National Quality Standard (NQS) promotes continuous quality improvement under the NQF. There are thirteen ACECQA approved childcare providers in the Maari Ma region (seven in Broken Hill, one in Menindee, one in Balranald, one in Dareton, one in Wentworth, one in Euston and one in Buronga). There are seventeen approved education and care services (nine in Broken Hill, one in Menindee, one in Wilcannia, one in Balranald, one in Dareton, one in Wentworth, one in Euston and two in Buronga).

NINE
Appendices

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Data sources

ABCD (Audit and Best Practice for Chronic Disease)

ABCD was an action research program that supported health services to develop continuous improvement approaches to strengthen systems for prevention and management of chronic disease. It ran until 2016.

We obtained data through clinical audits of medical records. Medical records of women who had a baby and young children were audited against a selection of key criteria. These data were reported back to the services and services set goals to improve the results in the next year.

Maari Ma participated in the ABCD until 2015.

Acute illness

The NSW MOH provided morbidity data (respiratory, ear and injury hospital admissions) through the CAPED. The CAPED includes information on patients admitted to all public, private and psychiatric hospitals. Data from the financial years 2007/08 to 2012/13 and 2012/13 to 2016/17 were aggregated.

Important issues affecting the reliability and interpretation of CAPED data include:

- Hospitalisations are based on an episode of care. The same person may have multiple episodes in any one year.
- ED-only episodes were included in CAPED until 2016/17.
- The numbers for recent years include an estimate of the number of hospitalisations of NSW residents in interstate public hospitals, data for which were unavailable at the time of production.

Australian Bureau of Statistics

Data were sourced from the 2006, 2011 and 2016 census periods through the ABS Census TableBuilder and through the ABS Information Consultancy Service. The Census provides a wide range of demographic information on age, sex, housing, Aboriginality, income, employment and more. This information can then be used to identify specific populations or areas of need.

Australian Early Development Census

Data were sourced from the 2009, 2012, 2015 and 2018 AEDC to measure progress across five domains of child development: physical health and wellbeing, social competence, emotional maturity, language and cognitive skills (school-based) and communication skills and knowledge.

Australian Electoral Commission

Data on the percentage of young people enrolled to vote were sourced online through the AEC's website.

Australian Institute of Health and Welfare

The AIHW provided data on the number of people and mean age of people accessing Specialist Homelessness Services in the Maari Ma region and NSW by Aboriginality between 2014-2015 and 2017-2018.

Cancer Institute NSW

The Cancer Institute NSW provided the number of cases diagnosed with cancer between 2008 and 2015 in the Maari Ma region, aggregated for patients aged 0-24 years old.

Deaths

The NSW MOH provided mortality data for deaths that occurred between 1997 and 2016. The data file contains information on the principal cause of death, age, sex and place of usual residence and was obtained from the Cause of Death Unit Record File (COD URF), held by the NSW MOH SAPHaRI. The COD URF is provided by the Australian Coordinating Registry for COD URF on behalf of Australian Registries of Births, Deaths and Marriages, Australian Coroners and the National Coronial Information System.

Important issues affecting the reliability and interpretation of mortality data include:

- The accuracy of the diagnosis recorded on the death certificate. If multiple conditions are present at the time of death, the decision about which was the underlying cause of death may be ambiguous.
- Misinterpretation of the guidelines for determining the underlying causes of death by the attending physician completing the death certificate.
- Errors in transcription and coding of death certificates.

Department of Communities and Justice (previously FACS)

The Family and Communities Insights, Analysis and Research (previously under FACS, now the Department of Communities and Justice) provided data on the number of children and young people involved in reports of actual harm and risk, and number of children in out-of-home care.

We were unable to obtain 2017-2018 data for this 5-year report so we have only included data from 2016-2017 (reported as 2017 in the table). The data for 2008 and 2013 have been taken directly from the 5-year Maari Ma child, health and wellbeing profile that was published in 2014.

Education data

NSW Department of Education supplied data on education enrolment and attendance and results of the NAPLAN scores from 2014-2018.

Human Services

The Commonwealth Department of Human Services provided data on government benefits in the Maari Ma region and NSW.

Immunisation data

This report includes immunisation data from the Australian Immunisation Register (immunisation coverage at 1, 2 and 5 years of age by Aboriginality) and timeliness analyses from the National Centre for Immunisation Research and Surveillance. The report also includes adolescent vaccination figures by vaccination type by LHD (provided through the NSW School Vaccination Program, Health Protection NSW). These data were not available by Aboriginality.

Juvenile Justice data

BOCSAR supply data to describe the Juvenile Justice system. BOCSAR is a department of the NSW Attorney General.

BOCSAR has two databases – one of crimes reported to police, the second of criminal court appearances. The information in the police crimes database includes the type of offence and when and where it was committed. The information in the database of criminal court appearances includes age, gender, type of offence(s), plea, outcome of court appearance and penalty, for people who appear before the courts charged with criminal offences.

Maternal data

The NSW Perinatal Data Collection (PDC) was used to provide information on mothers and babies in the Region. The PDC monitors pregnancies resulting in live or stillbirth, as well as perinatal outcomes. It covers all births in NSW public and private hospitals as well as home births. Major limitations of the PDC are inconsistent recording of Aboriginality and notifications of births to NSW women that happen outside the state. Perinatal mortality may also be underestimated.

Data from the South Australian Perinatal Statistics Unit and Consultative Council on Obstetric and Paediatric Mortality and Morbidity have been sourced to complement the NSW data where possible. South Australian and Victoria's Consultative Council data are included in statistics relating to low birth weight, prematurity, age specific fertility and perinatal outcomes. Data reported in this document are for the years 2002 to 2016.

We are grateful to CCOPMM for providing access to the de-identified data used for this project, and for the assistance of the staff at the Consultative Councils Unit, Safer Care Victoria. The conclusions, findings, opinions and views or recommendations expressed in this paper are strictly those of the author(s). They do not necessarily reflect those of CCOPMM.

National Diabetes Services Scheme

The NDSS provided data on the number of people registered with the Scheme as at April 2019 by Aboriginality in the Maari Ma region and NSW. These data were provided using postcodes in the Maari Ma region: 2879, 2880, 2878, 2836, 2715, 2717, 2648, 2739 and 2737.

Population Health Survey

The NSW MOH provided combined data on physical activity, nutrition and environmental smoking for the FWLHD and WLHD. These data were sourced through the NSW Population Health Survey, which collects self-reported data collected through Computer Assisted Telephone Interviewing.

tickit

tickit is a modified self-completed tablet-based electronic form of the psychosocial assessment, HEADSSS (Home, Education, Activities/Employment, Drugs, Suicidality and Mental Health, Sexual Health, Safety and Strengths) for ages 12 – 18 years. Between June 2017 and September 2019 *tickit* collected data for 228 young people aged 12-18, of whom 212 (93%) said they were Aboriginal. Maari Ma's *tickit* only includes data for young people in Broken Hill who attend a health check at the Maari Ma Youth Health Clinic.

Glossary

Admission

A patient who is admitted to hospital for treatment as an inpatient (including day-only admission). Admissions do not include:

- Staff receiving care in their quarters
- Patients in the Emergency Department who are not transferred to another ward
- Newly born children whose mothers are inpatients except if the child is admitted to an Intensive Care Unit or receives extensive medical treatment (>9 days)

Crime data

Criminal court outcome data sourced from BOCSAR have been categorised using the following table.

Category	Inclusions
Community based orders	• Community Correction Order with supervision • Community Correction Order without supervision • Pre-reform or Children's Community Service Order • Juvenile probation order • Bond with supervision • Bond without supervision • Bond without conviction with supervision • Bond with conviction without supervision • Conditional Release Order with conviction, with supervision • Conditional Release Order with conviction, without supervision • Conditional Release Order without conviction, with supervision • Conditional Release Order without conviction, without supervision • Non-custodial community based orders / conditional release without conviction
Custody / custodial sentences	• Imprisonment • Juvenile control order • Periodic detention • Home detention • Intensive Correction Order • Pre-reform Intensive Correction Order • Suspended sentence with supervision • Suspended sentence without supervision • Custody / custodial alternatives
Other	• Fine • Conviction only • No conviction recorded • Other penalties • Penalty unknown • Other

BOCSAR also supplies crime data. They advise that the difference between 'robbery' and 'theft', in broad terms, is that 'robbery' has an element of violence and threat involved whereas 'theft' does not. In both robbery and theft incidents however, something is intended on being stolen.

Demography
The scientific and statistical study of population, and in particular the size of populations.

Ear health
Admissions for diseases of the ear and mastoid process are grouped using the International Statistical Classification of Diseases [ICD10 H60 – H95]. Diseases in this classification include otitis externa, otitis media, perforation of the tympanic membrane (ear drum), otosclerosis, and conductive and sensorineural hearing loss.

Fertility rate
The number of live births to mothers aged 15 – 44 per 1,000 females in this age group.

Incidence
The number of new cases of a particular health problem within a specified time period. This is usually expressed as a rate per head of population per unit of time.

Infant mortality rate
The infant mortality rate is the number of deaths among children aged less than one year per 1,000 live births.

Injury
Admissions for injury, poisoning and certain other consequences of external causes are grouped using the International Statistical Classification of Diseases [ICD10 S00-T98]. Admission in this classification include fractures, wounds, strains and sprains, burns, poisonings and complications of surgical or medical care.

Labour force
In the 2016 Census Dictionary, people are classified as being in or not in the labour force as follows:

The labour force includes people aged 15 and over who:		Not in the labour force:
EMPLOYED • Work for payment or profit, or as an unpaid helper in a family business, during the week prior to census night • Have a job from which they are on leave or otherwise temporarily absent • Are on strike or stood down temporarily	**UNEMPLOYED** • Do not have a job but are actively looking for work and available to start work.	• People aged 15 years or over who are not employed or unemployed (and not actively looking for work) • Includes people who are retired, pensioners, and people engaged solely in home duties

Live birth
A live birth is the delivery, irrespective of the duration of pregnancy, of a child who, after being born, breathes or shows any other evidence of life such as a heartbeat.

Low birth weight
The birth of a baby weighing less than 2500g.

Morbidity
Illness.

Mortality
Death.

NAPLAN test results

The National Assessment Program – Literacy and Numeracy tests have been developed collaboratively by the states, territories, Australian government and non-government schools sectors. Results are reported as 'bands' and have been collapsed into categories using the following table.

Category	Bands			
	Year 3	Year 5	Year 7	Year 9
Below minimum standard	1	3	4	5
At minimum standard	2	4	5	6
Above minimum standard	3, 4, 5, 6	5, 6, 7, 8	6, 7, 8, 9	7, 8, 9, 10

Perinatal mortality rate

The number of perinatal deaths (stillbirths and neonatal deaths) per 1,000 total births (live, still and neonatal births) in the first 28 days of life during a calendar year.

Prevalence

The extent of a particular health problem within a specified population at one point in time. This is usually expressed as a rate per head of population.

Rate ratio

Comparison of two statistics to see if a particular event happened in one group more or less often than the other group. If the rate ratio (or gap in this context) is equal to or less than 1, it indicates that the Aboriginal population in the Maari Ma region is doing the same or better, respectively, than the NSW population as a whole. Conversely, if the rate ratio is greater than 1, this means that the statistic for the Maari Ma region Aboriginal population is worse than the one for the NSW population as a whole and improvement is required.

Respiratory illness

Admissions for diseases of the respiratory system are grouped using the International Statistical Classification of Diseases [ICD10 J00 – J99]. Diseases in this classification include acute upper respiratory infections (sinusitis and tonsillitis), influenza and pneumonia, bronchitis and asthma.

SEIFA indices

The ABS has developed socio-economic indices for areas (SEIFA) as scores that are combined measures of individual socio-economic indicators. These indices summarise different aspects of socio-economic conditions by geographical areas.

There are five indices. Each index is constructed with a mean 'score' of 1000 and a standard deviation of 100 for Australia. All geographical areas are described relative to the Australian estimates. However, SEIFA indices are ordinal measures only. An index of 1100 does not infer than the particular area is 10% better than the Australian average, only that it is better.

Significance level

The statistical significance level defines the degree of certainty that an observation or health event is real and not due to chance. Significance levels can be expressed either as a proportion or 'p' value or as a confidence interval. A standard level of significance is $p < 0.05$, that is, there is less than 5% probability that the value is due to chance. An alternative way of expressing this p value is to quote the 95% confidence interval in which there is a 95% certainty that the real value lies within the given range.

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