

# Outreach

## WHEATBELT – POPULATION AND HEALTH SNAPSHOT



The Wheatbelt region covers around 157,000 square kilometres and includes 44 local government areas (LGA) and four districts – Coastal, Western, Eastern and Southern.

The Wheatbelt region is located adjacent to metropolitan Perth, with 35% of the land area being classified as either outer or inner regional based on the Accessibility/Remoteness Index of Australia (ARIA). The ARIA also states that 57% of the Wheatbelt is considered Remote, and 7% Very Remote<sup>1</sup>.



### Wheatbelt health services

The Wheatbelt has four district hospitals located in Merredin, Moora, Narrogin and Northam. Additionally, there are 18 small hospitals and 15 health centres/nursing posts in the region, with four health centres operated by Silver Chain Nursing Association.

Current health services in the Wheatbelt include emergency care and retrieval, acute and sub-acute inpatient care, aged care, mental health, and population and community health.

### Population

The estimated population of the Wheatbelt in 2016 was just over 76,000, representing 14% of the population of regional Western Australia and 3% of the entire State's population including metropolitan Perth. The population density of the Wheatbelt is 0.5 people per square kilometre, which is higher than the regional average (0.24), but lower than the State average (1.0).

The Wheatbelt has a slightly older age-structure when compared to that of the State, with 42% of the population being over 50 years of age. The proportion of older Wheatbelt residents is expected to double (increase of 4,500 people or 48%) by 2026.

Aboriginal and Torres Strait Islander people represent 6% of the population of the Wheatbelt based on the 2016 Estimated Residential Population (ERP)<sup>2</sup>. This is higher than the proportion across the State (3.6%).

<sup>1</sup> The Hugo Centre, Accessibility/Remoteness Index of Australia, 2016

<sup>2</sup> ABS, 3235.0 Population by Age and Sex, Regions of Australia, 2016



## Measure of disadvantage

The Socio-Economic Indexes for Areas (SEIFA) measures a broad range of determinants of disadvantage. A score of 1,000 is considered a baseline and scores over or below are considered to represent advantage or disadvantage respectively. Research has shown that a lower SEIFA score is correlated with increased factors contributing to poor health.

The 2016 SEIFA scores for the Wheatbelt indicate areas in the Wheatbelt with high levels of disadvantage. The Wheatbelt LGAs with the lowest and greatest SEIFA scores are Wyalkatchem (906) and Chittering (1,025) respectively.

The Wheatbelt LGAs within the lowest 20% of the State with regard to SEIFA are<sup>3</sup>:

Wyalkatchem	906
Pingelly	908
Kellerberrin	910
Trayning	923
Northam	930
Yilgarn	934

### OUTREACH SERVICE CONSIDERATIONS

- Services for Wheatbelt residents living with chronic disease may be required due to the older age structure of the region.
- Consider providing the LGAs with low SEIFA scores with bulk-billed services.

## Hospitalisations

For the period 2006-2015, residents of the Wheatbelt were hospitalised fewer times on average than the whole of Western Australia (standardised rate ratio of 0.92 and 0.95 respectively). Aboriginal people in the Wheatbelt visited hospital significantly less than the Aboriginal State average (standardised rate ratio of 0.54); however, they visited hospital 2.2 times more on average compared to non-Aboriginal Wheatbelt residents.

The main causes of hospitalisation between 2011 and 2015 were digestive diseases, pregnancy and childbirth, musculoskeletal diseases, and injury and poisoning. The Wheatbelt also experienced a large number of hospitalisations due to 'ill-defined conditions', which represented 8% of all hospitalisations.

## Potentially preventable hospitalisations

For the period 2011-2015, potentially preventable hospitalisations (PPH) accounted for 4,949 hospitalisations for adults in the Wheatbelt (6% of all hospitalisations in the 15-64 year age group).

The rate of PPH for acute and chronic preventable conditions was greater in the Wheatbelt compared to the State (1.2 times greater). Table 1 represents a list of leading causes of PPH for the period 2011-2015.

**Table 1 – 2011-2015 top five leading causes of PPH in the Wheatbelt for persons aged 15-64 years**

Condition	Number	% of total PPH	Rate vs State
Dental conditions	635	13	0.9
Cellulitis	611	12	1.4
Diabetes complications	506	10	1.3
UTIs incl. pyelonephritis	475	10	1.1
COPD	435	9	1.9

Source: DOH, Health Tracks

### OUTREACH SERVICE CONSIDERATIONS

- High rates of PPH due to diabetes complications suggest the need for targeted prevention and primary health services.
- Explore partnerships with existing local and visiting primary and allied health services in the Wheatbelt.

## Mortality

Mortality is an important population health indicator. Knowing the reasons for and causes of death can assist in the planning of health services to prevent and avoid mortality where possible.

There is a demonstrable gap in life expectancy between rural Western Australia and metropolitan Perth. This gap increases the more remotely a person lives.

There is also a discrepancy between the life expectancy of Aboriginal and non-Aboriginal people in Australia. This gap is estimated by the Australian Bureau of Statistics to be 8.6 years for males (71.6 years life expectancy), and 7.8 years for females (75.6 years life expectancy)<sup>4</sup>.

<sup>3</sup> ABS, 2033.0.55.001 - Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia, 2016

<sup>4</sup> ABS, Life Tales for Aboriginal and Torres Strait Islander Australians, 2015-2017

Table 2 shows the leading causes of death in the Wheatbelt in the period 2011-2015 and includes a rate ratio comparison to the State.

**Table 2 – 2011-2015 Wheatbelt leading causes of mortality**

Condition	% of all deaths	Rate ratio
Ischaemic heart disease	13	1.0
Lung cancer	7	1.2
Dementia (incl. Alzheimers)	5	0.8
Cerebrovascular diseases	5	0.9
COPD	4	1.1

Source: DOH, Health Tracks

During the period 2011-2015, 53% of deaths under the age of 75 were classed as avoidable in the Wheatbelt. Avoidable mortality in the Wheatbelt occurred at a rate 1.3 times greater than the State. Table 3 shows the causes and rate ratios of the top five causes of avoidable mortality in the Wheatbelt.

**Table 3 – 2011-2015 Wheatbelt leading causes of avoidable mortality**

Condition	% of all deaths	Rate ratio
Ischaemic heart disease	21	1.3
Transport accidents	16	4.3
Suicide and self-inflicted injuries	10	1.2
COPD	6	1.2
Colorectal cancer	6	1.0

Source: DOH, Health Tracks

## Child and adolescent health

### Low birth weight

Low birth weight is defined by the World Health Organisation as less than 2,500 grams. From 2007-2008 to 2015-2016, the proportion of low birth weight full-term babies born to Wheatbelt mothers was slightly lower than the State average at 1.8% versus 2.0% for the State. The proportion of babies born at low birth weight to Aboriginal mothers in the Wheatbelt was 4.5% compared to the State proportion of 5.1%.

### Australian Early Development Census

The Australian Early Development Census (AEDC) is a measure of how children are developing across five domains upon commencing full-time school. These domains are physical health and wellbeing, social competence, emotional maturity, language and cognitive skills, communication skills and general knowledge. For more information on the AEDC, visit <https://www.aedc.gov.au/about-the-aedc>.

<sup>5</sup> Australian Early Development Census, 2015

One-in-five Australian children were considered developmentally vulnerable in 2015 in one or more domain. AEDC data in the Wheatbelt is available for 21 communities. Ten of these communities had a greater proportion of vulnerable children in at least one domain compared to the Australian population (see Table 4)<sup>5</sup>.

**Table 4 – 2015 Wheatbelt communities with greater proportions of vulnerable children compared to Australia in one or more domains**

Local community	% vulnerable on one or more domains
Beverley	23.5
Cunderdin	23.8
Dalwallinu	25.9
Gingin	25.8
Kondinin	26.7
Moora	25.8
Narrogin	30.0
Northam	23.6
Wagin	26.1
York	24.3

Source: DOH, Health Tracks

### OUTREACH SERVICE CONSIDERATIONS

- There is a high need for child development services including access to multidisciplinary teams made up of medical services, child health nurses, speech pathologists, physiotherapists and occupational therapists in the Wheatbelt.

### Immunisation

The Australian target for immunisation is a rate of greater than 90% of children with a complete vaccination schedule at two years of age, with the recommendation that 100% of children are vaccinated at the age of school entry.

In the Wheatbelt in 2017, the proportion of all children vaccinated exceeded the target of 90%. Table 5 shows rates of vaccination by age and Aboriginality.

**Table 5 – 2017 Wheatbelt immunisation rates by age and Aboriginality**

Age group	Aboriginal	Non-Aboriginal	All persons
12 to < 15 months	93%	95%	95%
24 to < 27 months	96%	94%	95%
60 to < 63 months	100%	94%	95%

Source: DOH, Health Tracks

## Adult health

### Chronic disease

Chronic diseases are long lasting conditions with persistent effects<sup>6</sup>. The self-reported, doctor-diagnosed prevalence of chronic disease in regional Western Australia is collected via the WA Health and Wellbeing Surveillance System (HWSS) survey. In 2013-2016, the HWSS found:

- 22% of adults reported requiring medical treatment for an injury in the previous year;
- 19.8% reported having arthritis; and
- 11.8% reported a current mental health problem.

### Chronic diseases in Aboriginal people

In 2018-2019, 46% of Aboriginal people reported having at least one chronic disease that posed a significant health problem. This represents an increase of 6% since 2012-2013<sup>7</sup>.

National evidence reports a greater burden and prevalence of chronic disease among Aboriginal people when compared to non-Aboriginal people. The demographic factors of remoteness (isolation) and socio-economic disadvantage of the Aboriginal population contribute to this burden of disease.

When compared to non-Aboriginal people, Aboriginal people in Western Australia are:

- 9.4 times more likely to have chronic kidney and/or urinary disease;
- 8.7 times more likely to have diseases of the endocrine system including diabetes;
- 4.1 times to have gastrointestinal disease; and
- 4 times more likely to have a long term injury.

#### OUTREACH SERVICE CONSIDERATIONS

- Culturally appropriate services are crucial in addressing the disparity in health between Aboriginal and non-Aboriginal people. WA Country Health Service delivers culturally appropriate health services through the Wheatbelt Aboriginal Health Service.
- Consider connecting with the Regional Aboriginal Health Planning Forum in the Wheatbelt to see how your service can best serve the Aboriginal people of the region.

## Ear health

Hearing problems and ear diseases such as otitis media occur at greater rates in Aboriginal children than non-Aboriginal children (7% and 3.6% respectively). Chronic otitis media is a key concern in the Wheatbelt because of the consequences of the condition in relation to language, social development and education.

Between 2011-2015, ear, nose and throat (ENT) infections were the highest cause of PPH in children aged 0-14 accounting for 30% of all PPH for that age group and occurring at a rate 1.2 times greater than the State.

#### OUTREACH SERVICE CONSIDERATIONS

- Familiarise yourself with the WA Child Ear Health Strategy and ensure that your proposed service aligns with the objectives.
- Focus on early identification and treatment of ENT infections especially in Aboriginal children.

## Eye health

Eye health conditions are common in Australia and can contribute to disadvantage due to childhood learning delays, lower participation in education and employment, and social isolation.

Based on national data, 13 million Australians (or 55%) have one or more long-term eye condition<sup>8</sup>.

Aboriginal people experience greater rates of visual impairment and blindness than non-Aboriginal people. Nationally, an estimated 18,300 Aboriginal people aged 40 and over experience vision impairment and blindness.

In the Wheatbelt, amongst non-Aboriginal people, diseases of the eye and ocular adnexa were amongst the leading causes of hospitalisation for the period 2011-2015. In all Wheatbelt residents aged 65 or over for the same period, eye diseases caused the most hospitalisations of any condition.

<sup>6</sup> AIHW 2020. <https://www.aihw.gov.au/reports-data/health-conditions-disability-deaths/chronic-disease/overview>

<sup>7</sup> ABS 2019. National Aboriginal and Torres Strait Islander Health Survey, 2018-2019

<sup>8</sup> AIHW 2019. Web report – eye health

# Maternal health

## Overview of rural maternity services

Community based pregnancy and maternity care services are provided by WA Country Health Service, regional hospitals, private general practitioners, ACCHSs and a range of community-based and non-government organisations.

## Birth rates

The following trends were observed in the Wheatbelt region between 2012 and 2016:

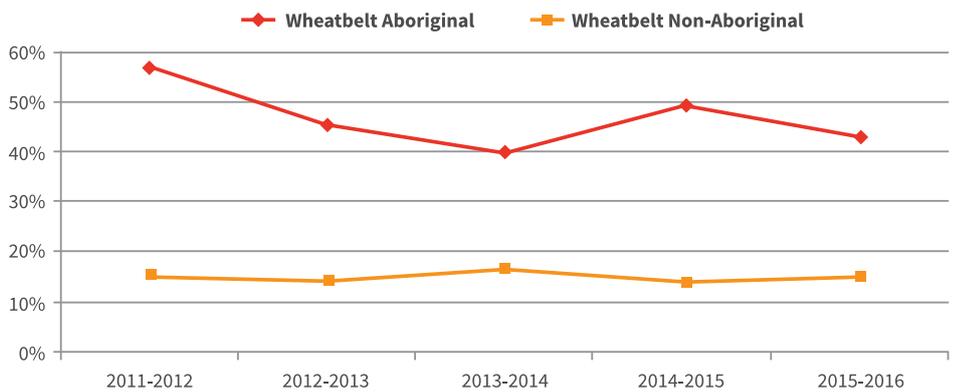
- The number of births to Wheatbelt residents decreased by 10% between 2012 and 2016.
- The number of births to Aboriginal women increased by 10% annually in the same time period.
- During the same period, there was a 38% decrease in births occurring in Wheatbelt hospitals.
- In 2015, the age-specific birth rate was greater in the Wheatbelt when compared to metropolitan Perth at 78 and 62 per 1,000 women respectively. For Aboriginal women, the age-specific birth rate was 91 per 1,000 women, which was 1.2 times higher than the State.

## Smoking in pregnancy

The risks associated with smoking in pregnancy include low birth weight, premature birth, placental complications and stillbirths.

Figure 1 shows the proportion of women smoking during pregnancy from 2011-2012 to 2015-2016. Rates of smoking during pregnancy are similar in the Wheatbelt when compared to other WACHS catchments. Rates of smoking during pregnancy have decreased slightly in non-Aboriginal mothers since 2012-2013.

**Figure 1 Proportion of women who smoked during pregnancy 2011-2012 to 2015-2016**



Source: DOH, Health Tracks

## Alcohol in pregnancy

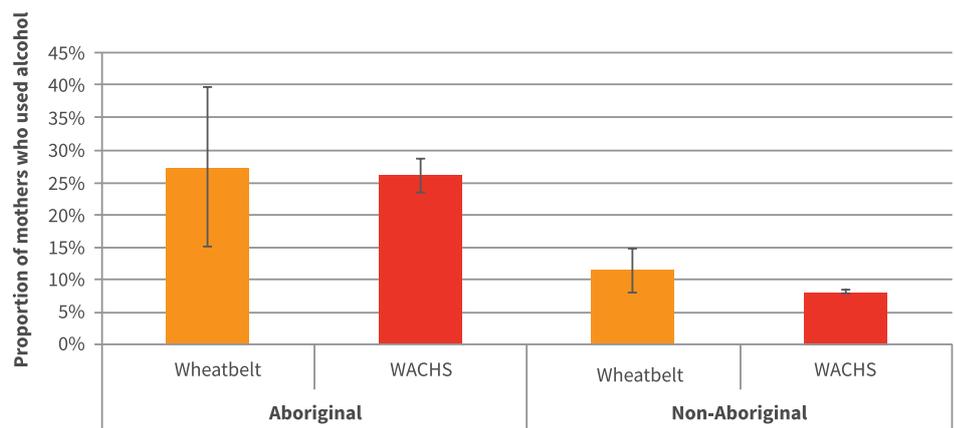
The effects of alcohol consumption during pregnancy are well documented. The prevalence of Fetal Alcohol Spectrum Disorder (FASD) in Western Australia has been estimated at 0.26 per 1,000 births with a disproportionate amount being observed in Aboriginal children (89%). It has been estimated that the prevalence rate has doubled over the past 30 years.

In some remote Aboriginal communities where high rates of

prenatal alcohol have been recorded, FASD and partial FASD rates of 120.4 per 1,000 children have been observed.

Figure 2 shows an indication of alcohol use in pregnancy in the Wheatbelt. Eighty-seven per cent of mothers in the Wheatbelt reported not consuming alcohol while pregnant, while 73% (n=24) of Aboriginal mothers reported not consuming alcohol while pregnant. Of the nine respondents who reported drinking during pregnancy, five reported consuming more than one standard drink per week.

**Figure 2 2014-2015 proportion of mothers\* who used alcohol during pregnancy**



Source: DOH, Health Tracks

\* Proportion of mothers who responded to the question. Response rate in the Wheatbelt was 81%.

I Indicates 95% confidence interval.

<sup>4</sup> AIHW 2019. Web report – eye health

<sup>5</sup> 2019 Australian HealthInfoNet. Overview of Aboriginal and Torres Strait Islander health status in Western Australia

### Teenage mothers

During 2015-2016, the Wheatbelt average maternal age was 24.1 years for Aboriginal women and 28.5 years for non-Aboriginal women. For the Wheatbelt, 1% of births were to teenage women in the non-Aboriginal population (3% in country WA) compared to 13% of births in the Aboriginal population (16% in country WA).

### Gestational Diabetes Mellitus

In the period 2011-2012 to 2015-2016, it was reported that 7.9% of Wheatbelt Aboriginal women who gave birth had a diagnosis of GDM. This is compared to 5.5% in non-Aboriginal women. Aboriginal women in the Wheatbelt experienced GDM at a lower rate than the State Aboriginal rate of 5.9%, while the inverse is true for non-Aboriginal women where the State rate was 7.1%.

## Mental health

Between 2013-2016, 13% of Wheatbelt adults aged 15-64 years reported having a current diagnosis of a mental health problem. Females experienced a greater prevalence of mental health conditions than males (16% and 11% respectively). While these rates are lower than the State (17% for females and 10% for males), only 7% of those surveyed in the Wheatbelt reported using a mental health care service in the past 12 months.

In the 15-64 year age group, suicide was the leading cause of mortality after transport accidents in the Wheatbelt causing 11 deaths in the Wheatbelt at a rate two times greater than the State.

Rates of youth male suicides was disproportionately high when compared to rates of females, and the State rate. Table 6 shows the rate of youth suicides by gender for the period 2006-2015.

Table 6 – 2006-2015 youth suicides per 100,000 persons by gender

Gender	Wheatbelt	Metropolitan	State
Males (15-24 years)	43.5	15.1	19.6
Females (15-24 years)	11.3	6.4	7.7

Source: DOH, Health Tracks

### OUTREACH SERVICE CONSIDERATIONS

- Increase access to child and adolescent mental health services in the Wheatbelt, particularly for young men.
- Mental health interventions for Aboriginal people need to be targeted and culturally appropriate.