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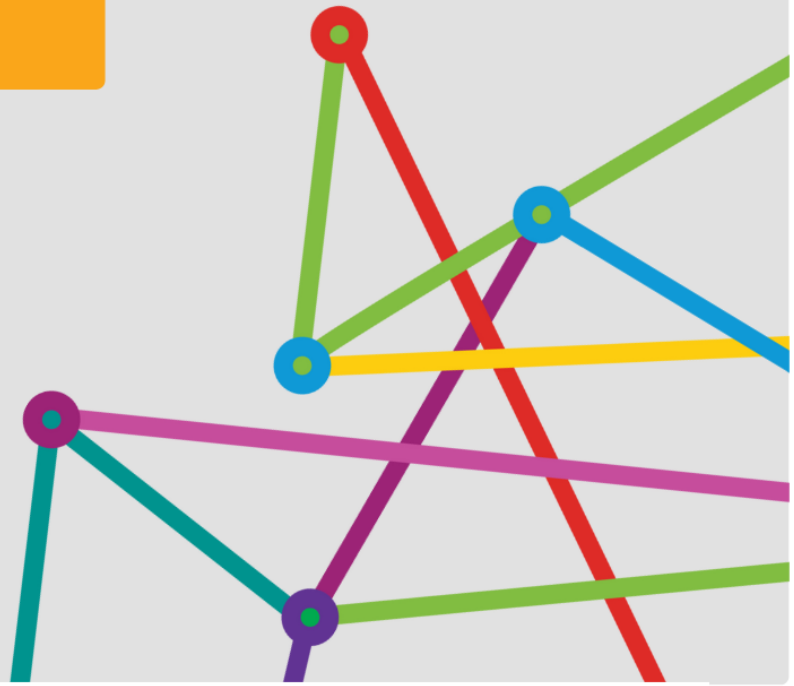
Country WA PHN

Needs Assessment 2025-2027



Contents

Introduction

The Country WA Primary Health Network (PHN) covers approximately 2.5 million square kilometres and encompasses seven regions:

- Goldfields - Esperance
- Great Southern
- Kimberley
- Mid West
- Pilbara
- South West
- Wheatbelt

The purpose of PHNs is to streamline health services and optimise care coordination, particularly for those at risk of poor health outcomes, to ensure they receive the right care, in the right place, at the right time. As the operator of WA's three PHNs, Western Australia (WA), WA Primary Health Alliance (WAPHA) aims to put health equity at the heart of all operations, to ensure everyone has access to the care they need regardless of their income, postcode, ethnicity or other demographic factors. We recognise that everyone has different needs and may require different resources and opportunities to overcome access barriers and reach their optimal health.

With the rising cost of living, health equity continues to pose a challenge. People defer or go without care if they can't afford it or easily access it, many of whom have complex health care needs and chronic health conditions. In Western Australia (WA), and the Country WA PHN, there are several population groups at greater risk of poorer health outcomes, including Aboriginal people, multicultural communities, lesbian, gay, bisexual, transgender, intersex, queer, asexual and other sexually or gender diverse (LGBTIQA+) communities, people experiencing socioeconomic disadvantage, people living with disability, older Australians and those with limited access to health care. While not every person in every group has the same experience, some groups as a whole are more likely to experience inequities in health and wellbeing due to social determinants including place-based disadvantage, stigma, discrimination and the unequal distribution of resources. Evidence also shows that, in general, the lower an individual's socioeconomic position the worse their health, and that these people tend to seek treatment later in the course of an illness, present to hospital emergency departments (EDs) more frequently, face challenges in accessing preventative health care and have poor health literacy. Our under-served communities often face challenges accessing the health care they need, often made more difficult when they experience multiple social determinants of health. Health equity can only be achieved through addressing this wide range of interconnected issues.

The Country WA PHN Needs Assessment seeks to identify the nature and location of unmet health needs for under-served populations at heightened risk of poor health outcomes within the community. Guided by the principles of the PHN Program Needs Assessment Policy Guide[1] and governed by the Needs Assessment Steering Committee, it has been developed based on extensive analysis and triangulation of health and wellbeing-related information, service-related information, and local intelligence from internal and external consultations across WA.

Priority setting

WAPHA identifies primary care priorities by triangulating health care supply and demand in the context of local intelligence. Where there is a high demand and low supply, WAPHA identifies a priority, either for the PHN as a whole, or for a defined geographic location. WAPHA takes a flexible approach to inputs, incorporating measures such as potentially preventable hospitalisations, GP type ED presentations, condition prevalence, burden of disease, avoidable deaths, social determinants of health, measures of socioeconomic disadvantage, health care workforce supply, health care organisation supply, population size and structure, and contextual information from local communities. WAPHA focusses on priority population groups, including people experiencing socioeconomic disadvantage, people experiencing homelessness, Aboriginal people, older people, multicultural communities and the LGBTIQA+ community.

Supply-side considerations are crucial in identifying areas of unmet community need and developing a comprehensive health needs assessment. This involves detailed analyses of the availability, distribution, and capacity of health services relative to the population's needs. Key supply-side indicators, such as the number of health care providers, service utilisation rates, and geographic accessibility, are systematically evaluated to

determine the adequacy of current service provision. By mapping these supply metrics against population health needs, we can identify potential gaps in service delivery and highlight areas where current health services are insufficient to meet demand. This knowledge can be used to guide targeted interventions and resource allocation to address these deficiencies and improve overall health outcomes. Specific inputs for evaluating local supply across the pillars of this Needs Assessment include:

- Medicare Benefits Scheme (MBS) data, which includes mental health services.
- Potentially preventable hospitalisations.
- National Health Services Directory.
- National health workforce data set.
- Data from the Health Demand and Supply Utilisation Patterns Planning (HeaDS UPP) tool.
- Emergency department data.
- Data from the Primary Mental Health Care Minimum Data Set.
- headspace service and utilisation data.
- National mental health service data.
- Insights collected from extensive consultation, including cultural competency consultations, workforce planning and prioritisation consultation.

Factors effecting health workforce supply, including housing availability and affordability.

For the 2025-2027 Needs Assessment, a prioritisation matrix triangulated health care supply and demand information, assigning a rating of low, moderate or high relative to state rates for each input variable in each SA3. This identified areas of unmet need and helped determined if the need is a priority for the PHN. The matrix included an extensive internal review process.

Please note, while this health needs assessment documents a range of community needs, due to resource limitations, WAPHA must focus on prioritising interventions for those needs that will provide the greatest benefit to Western Australians, particularly those at risk of poor health outcomes and avoidable health inequities. We remain committed to using available resources to make the most meaningful impact.

Incorporation of Indigenous Data Sovereignty principles in the Country WA PHN Needs Assessment

With a significant Aboriginal population in WA, Aboriginal health is an important pillar in the health of the community and within the PHN Health Needs Assessment. To robustly assess the health needs of Aboriginal people in WA, a detailed analysis of numerous data has been undertaken, predominantly sourced from the reputable Australian Bureau of Statistics (ABS), the Australian Institute of Health and Welfare (AIHW), and the Public Health Information Development Unit (PHIDU), all of whom are known for their rigorous data collection and reporting standards. These organisations adhere to ethical guidelines that respect Aboriginal rights and cultural practices. Notably, there have been collaborations with Aboriginal communities during data collection and interpretation phases, and efforts made to ensure their perspectives are incorporated into the data collection processes. The data are interpreted within the cultural, social, and historical context of Aboriginal communities, ensuring that findings respect and reflect Aboriginal perspectives and experiences, and were validated by WAPHA's Aboriginal Health Strategic Alignment Group (and Aboriginal Empowerment Group. When undertaking direct consultation, WAPHA has ensured the inclusion of Aboriginal people to justly, respectfully and accurately represent their collective views and interests. Results are reported with the objective of benefiting Aboriginal communities, including to inform policies and commissioning of health care programs that directly benefit these communities. This Needs Assessment strives to align with Indigenous Data Sovereignty principles, demonstrating our commitment to ethical and respectful data practices. We recognise the importance of these principles and are dedicated to ensuring our practices serve Aboriginal health needs.

We acknowledge any limitations or gaps in the data, particularly areas where Indigenous voices might be underrepresented. Future efforts will address these gaps through supplementary qualitative data collection and increased engagement with Indigenous communities.

In this Needs Assessment, community need for Aboriginal people has been assessed with insight

from a wide range of health indicators, using rate-based comparisons (e.g., per 10,000 Aboriginal residents) wherever possible. A rates-based approach allows for fair comparisons across different geographies, as it accounts for differences in population size and avoids potential over or under reporting of local health needs relative to other areas, which can occur when relying solely on raw numbers or proportions. Local rates are further compared to state rates to identify regions with comparatively higher or lower needs relative to Aboriginal people across WA.

*Note, within WA, the term Aboriginal is used in preference to Aboriginal and Torres Strait Islander, in recognition that Aboriginal people are the original inhabitants of WA. In accordance with this, WAPHA uses the term Aboriginal throughout this Needs Assessment.

Priority locations for people at risk of avoidable health inequities

To inform health planning and commissioning decisions, WAPHA has developed a new methodology for identifying key locations in WA for people at risk of avoidable health inequities. Deeply understanding and improving health care access for the people is critical to optimising their health outcomes, and evidence has shown they tend to have poor health literacy, seek treatment later in the course of an illness, present to hospital EDs more frequently and face challenges in accessing preventative health care.

The method triangulates socioeconomic disadvantage and location disadvantage as foundational indicators for those at risk of poor health outcomes and avoidable inequities related to social determinants of health, and has identified thirteen priority SA3s across WA, three of which are within the Perth North PHN: Wanneroo, Swan and Stirling SA3s. Other priority locations include the Armadale, Gosnells, Mandurah, Rockingham and Kwinana SA3s in the Perth South PHN, and the Albany, Bunbury, Kimberely, Mid West, and Wheatbelt-Nort SA3s in the Country WA PHN. Further work is planned to expand the methodology to specific priority population groups for whom there is reliable, robust and geographically granular data available, including Aboriginal people, people born in predominantly non-English speaking countries and older Australians.

Prevalence estimates utilising rich general practice data

WAPHA has developed a new methodology for estimating condition prevalence across WA using data extracted from general practices. This method represents clinician diagnoses recorded in approximately 70% of general practices across WA, giving these estimates improved validity and statistical power to detect differences in rates, compared to survey methods. The major limitation of this method is that patients are assumed to live in the same SA3 as the general practice they attend. Following a review of patient numbers, we suspect that some of the patients attending general practices in the Perth City SA3 may live elsewhere. Therefore, any results for Perth City should be interpreted with caution.

Rates of mental health condition 12-month period prevalence generated are somewhat lower than reported in the WA Health and Wellbeing Surveillance System, collected through telephone and internet-based survey. It is difficult to explain why people may report these conditions at a higher rate on surveys than they are diagnosed in general practice. Possible explanations may relate to respondent biases or interpretation of survey questions, or lower rates of diagnostic recording by GPs.

It is also important to note that people with a diagnosis of mixed Anxiety and Depression are included in estimates of both these conditions.

Emergency department data: Crude rates vs. ASR

In analysing ED data, a comparison was made between crude rates and age-standardised rates. The results were consistent across both approaches with regards to the top SA3s for each of the measures of interest and the order effect. From this, the decision was made to report crude rates in the Needs Assessment, as a more direct indication of need for the local population irrespective of its age structure.

Use of case studies

We recognise that some people and communities do not have the same access to quality health care and experience prolonged poor health outcomes. In WA there are several population groups at greater risk of poorer health outcomes, and while not every person in every group has the same experience,

some groups as a whole are more likely to experience inequities in health and wellbeing due to social determinants including place-based disadvantage, stigma, discrimination and the unequal distribution of resources.
These case studies reflect the lived experience and challenges faced by our under-served communities and help convey the multiple and intersecting facets of disadvantage.

Emerging issues

WAPHA continually assesses community need to inform population health planning and commissioning decisions, including who should receive care, what care, from whom, and in which locations. Two emerging issues for further investigation include environmental factors affecting health (as relevant within the PHN remit) and palliative care for people aged under 65 years.

Additional data needs and gaps
LGBTIQA+

Reliable data on LGBTIQA+ people is severely limited, particularly at geographically granular level. WAPHA is committed to ensuring the health services we fund are safe, and general practices are welcoming and inclusive of the needs of LGBTIQA+ people. To ensure we are directing our efforts and funding in the right direction, data on LGBTIQA+ health trends is needed to ensure the services we fund, and existing primary care services meet the needs of people of diverse sex, sexuality and/or gender. However, the scarcity and inconsistency of data is problematic. Without robust data, we don't have the full picture of health needs and service utilisation required to help our funded service providers and general practice meet the needs of LGBTIQA+ communities. To overcome this, along with our funded service providers, WAPHA has improved the way we capture data on service provision and outcomes for people of diverse sex, sexuality and/ or gender, and have sought to influence external data sets to include sexual orientation and gender identity, lobbying for the collection, analysis and interpretation to be formulated in consultation with LGBTIQA+ communities to avoid inadvertently causing additional stigmatisation. Inclusiveness in data collection represents, at a system level, the first step towards breaking down the barrier to service access for LGBTIQA+ people.

In this Needs Assessment, WAPHA has made the most of the available information by presenting a discussion of relevant national data sets and research literature, noting this does not provide localised insight for LGBTIQA+ people, and as a result in most instances the discussion of the health needs of LGBTIQA+ people are uniform across geographies. Insights relating to LGBTIQA+ people are dispersed across several sections of the documents, including Under-served Population Groups, Family Domestic and Sexual Violence, Mental Health, Alcohol and Other Drug.

Mental health

Issues with accessing current suicide statistics has been a barrier to planning and implementing mental health services in the Perth North PHN. Access to current suicide statistics is delayed by two to three years pending coronial inquest and submission of state suicide statistics to national data repositories.

Prevalence estimates utilising general practice data

Please note that estimates for the Kimberley, East and West Pilbara and the Gascoyne have not been calculated, as the data collected in general practice will not be reflective of the wider population.

Goldfields - Esperance

Priorities

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
Chronic diseases contribute significantly to the burden of disease in the Goldfields - Esperance region. There are high rates of multimorbidity and avoidable deaths due to chronic conditions. Rates of clinician-diagnosed diabetes are above state levels. The region has high rates of risk factors for chronic conditions, particularly in the Goldfields Statistical Area Level Three (SA3). This includes high levels of obesity and smoking, and low levels of physical activity.	There are high rates of Potentially Preventable Hospitalisations (PPHs) related to chronic conditions, particularly chronic congestive failure, diabetes, chronic obstructive pulmonary disease (COPD) and chronic angina. The high prevalence of risk factors related to chronic disease make it a complex population from a clinical perspective.	**Support primary health care providers to manage chronic disease populations and build capacity for patient self-management.** **Support primary care to promote healthy weight and healthy lifestyle changes.**	Goldfields - Esperance	Population health	Chronic conditions
Cardiovascular disease is the leading cause of total disease burden in the Goldfields - Esperance region, and coronary heart disease is the leading cause of death in both the Goldfields and Esperance SA3s.	There is a high and concerning rate of PPHs for congestive heart failure in the Esperance and Goldfields SA3s, and a high rate of PPHs for chronic angina in the Goldfields SA3. Though utilisation of General Practitioner (GP) chronic disease management plans (CDMPs) has increased over time, levels remain below national levels for remote areas.	**Enable access to best-practice management for people with coronary heart disease or chronic heart failure.**	Goldfields - Esperance	Population health	Chronic conditions
The Goldfields - Esperance region has one of the highest rates of avoidable deaths from cancer in Western Australia (WA), and cancer is the	Breast and cervical cancer screening are among the lowest in WA in the Goldfields SA3, and cervical screening is below state levels in the Esperance SA3.	**Improve the rates of cancer screening to reduce avoidable deaths from cancer.**	Goldfields - Esperance	Population health	Chronic conditions

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
second leading cause of disease burden in the region.					
Mental health is the third leading cause of disease burden in the region, and there are high rates of clinician-diagnosed depression and anxiety.	Access to primary mental health services is limited in the Goldfields region with less than 1% of the population accessing a clinical psychologist through Medicare Benefits Schedule (MBS) services.	**Enable access to mental health services and ensure accessibility to FIFO workers.**	Goldfields - Esperance	Mental health	Access
Suicide is a serious issue in the Goldfields SA3. It is the fifth leading cause of death and contributes to 4% of all local deaths.	Access to primary mental health services is limited in the Goldfields - Esperance region with less than 1% of the population accessing a clinical psychologist through MBS services and only one local provider delivering targeted suicide prevention services for the whole region.	**Enable access to mental health and early intervention suicide prevention services and support primary health care providers in identifying people at risk.**	Goldfields - Esperance	Mental health	Access Early intervention and prevention
Residents are at risk short-term and long-term harm from alcohol use, smoking and illicit drug use. Rates of clinician-diagnosed chronic alcohol misuse and chronic drug misuse are significantly higher in Esperance compared to the state rate.	There is a high rate of alcohol and other drug (AOD)-related Emergency Department (ED)presentations in the Goldfields SA3. Despite the high level of community need, there is only one inpatient rehabilitation service in the region. Relative to other areas in the Country WA Primary Health Network (PHN), there is a moderate number of providers offering alcohol and other drug related treatment or support in the region, all located in the Goldfields SA3.	**Enable access to screening and alcohol and other drug treatment services.**	Goldfields - Esperance	Alcohol and other drugs	Access
More people are experiencing homelessness within the Goldfields SA3. Evidence shows that people experiencing homelessness often also experience mental health issues, substance use issues and/or have at least one chronic condition.	Existing homeless health care health care services are under considerable strain and unable to expand their services due to resource constraints.	**Increase the capacity of homeless health care services to respond appropriately to the primary care needs of people experiencing or at risk of experiencing homelessness.**	Goldfields - Esperance	Population health	Access Chronic conditions

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
Aboriginal people in the Goldfields - Esperance region experience some of the highest levels of socioeconomic disadvantage in WA and may be at risk of experiencing poor health outcomes related to social determinants of health.	Aboriginal people in the Goldfields - Esperance region have high rates of avoidable hospitalisation, including PPH presentations and non-urgent ED presentations.	**Enable access to coordinated culturally appropriate primary care for Aboriginal people.**	Goldfields - Esperance	Aboriginal health	Appropriate care (including cultural safety)
Childhood immunisation levels in the Goldfields - Esperance region are below the 95% target for Aboriginal and non-Aboriginal children. Under-immunisation increases the risk of vaccine-preventable illnesses in the whole community, including greater risk of outbreaks, and severe illness or death for those who cannot be immunised (including infants or immunocompromised individuals).	Under-vaccination increases risk of vaccine-preventable illnesses and creates avoidable burden on primary health care and the Aboriginal health workforce.	**Support primary health care providers to increase childhood immunisation rates overall, and deliver culturally appropriate and accessible vaccination programs for Aboriginal children.**	Goldfields - Esperance	Aboriginal health	Immunisation
The Goldfields - Esperance region has a growing older adult population. By 2030, in 7 Goldfields SA3 residents and 1 in 4 Esperance SA3 residents will be aged over 65. Older people are more likely to be living with a chronic condition compared to the general population, and 1 in 10 have three or more long-term conditions.	Despite having a relatively high proportion of older people, there is a low residential aged care homes (RACHs) beds-to-population ratio and limited access to home care services available in the region. Older people need support from their primary health care providers to manage chronic conditions, including multimorbidity, and to live independently for as long as possible. Compared to other parts of WA, Esperance has a low supply of nurses working in aged care compared to state rates. The growing population of older people will place increased pressure on aged care services.	**Support health and aged care providers to effectively manage chronic conditions for older people and help them live independently for as long as possible.** **Enable access to age-appropriate digital health services.** **Enable access to local aged care services, including residential and at-home.**	Goldfields - Esperance	Aged care	Access Chronic conditions

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
Most Australians would prefer to die at home rather than in a hospital or aged care facility. For many Aboriginal people, this includes dying at home connected to country.	There is limited home palliative care available, with many older people dying in hospitals or aged care services.	**Enable access to local at-home palliative care services, and ensure they are culturally appropriate for Aboriginal people.**	Goldfields - Esperance	Aged care	Access Palliative care

Goldfields - Esperance

Overview

The Goldfields - Esperance region includes a diverse Aboriginal community with many distinct language groups and remote communities. The pertinent health concerns in the region are mental health, chronic disease, alcohol and other drugs, and access to workforce and services, including barriers that limit the accessibility and effectiveness of digital health in the region.

Workforce and access to services is a continuing issue for all rural communities and Goldfields - Esperance is similarly impacted. The region has limited access to allied health professionals and a shortage of mental health professionals.

The Goldfields - Esperance region has a high rate of suicide contributing to 5% of all deaths in the region. Mental ill health was the third leading cause of disease burden in the region but less than 1% of the population accessed a clinical psychologist through the Better Access MBS program.

The population in the Goldfields - Esperance region has a high prevalence of chronic, acute and vaccine-preventable potentially preventable hospitalisations (PPHs), particularly for chronic congestive cardiac failure, chronic diabetes complications and chronic obstructive pulmonary disease (COPD), as well as acute cellulitis, acute urinary tract infections and acute gangrene. Moreover, the region has the second highest cardiovascular burden in the state, together with a low utilisation of GP chronic disease management plans (CDMPs).

Esperance has a large and growing ageing population, but has a low residential aged care home (RACH) beds-to-population ratio with only one RACH located in the region.

Residents experiencing long-term harm from alcohol use, smoking and illicit drug use, unintentional drug-induced deaths and ED presentations related to alcohol and other drug (also known as AOD) were concerning, particularly in the Goldfields Statistical Area Level Three (SA3). Aboriginal people in the Goldfields region experience some of the highest levels of socioeconomic disadvantage, non-urgent Emergency Department (ED)presentations, unemployment, poor housing suitability and adolescents not attending secondary school.

Sadly, the median age of death in the Goldfields and Esperance SA3s is below the state median age of 81 years, at 69 and 79 years respectively[2]. The Goldfields has one of the youngest median ages at death in Western Australia (WA)[3].

Population demographics

The Goldfields - Esperance region spans 771,276 square kilometres and consists of two ABS SA3 sub-regions: the Goldfields SA3 and Esperance SA3. The Goldfields SA3 includes the towns of Kalgoorlie – Boulder, Leonora, Leinster, Laverton, Menzies, Coolgardie, Kambalda, Norseman, Ngaanyatjarraku Shire and Wiluna, and borders both South Australia and the Northern Territory. The geographical classification of the Wiluna IARE has changed over time. In 2021, it joined the Goldfields SA3 but previously fell within in the Mid West SA3. For this reason, it will be reported in both the Goldfields and Mid West sections of this report, due to legacy issues of this re-classification on various data sets.

The Esperance SA3 sits between the Goldfields SA3 and the southernmost coastline of WA, and includes the towns of Esperance, Ravensthorpe, and Hopetoun.

The Goldfields SA3's economy is heavily based in mining[4], and is home to 40,259 people[2]. In contrast,

the Esperance SA3 has 16,700 residents and an agricultural economy, as well as an aquaculture economy along the coastal boundary[4]. Together, the Goldfields and Esperance SA3s account for 2% of WA's population[2].

Social determinants of health

Social determinants of health are the conditions in which people are born, grow and live, including factors such as a person's socioeconomic position, education, neighbourhood and physical environment. These factors underpin a wide range of health and quality of life outcomes and can contribute to avoidable inequities in health care access.

The Socio-economic Index for Areas (SEIFA) provides a measure of the relative social and economic disadvantage within a region based on a wide range of indicators reflecting disadvantage, including low income, low educational attainment, high unemployment, and reliance on welfare for income and housing support.

Compared to other parts of WA (Index of Relative Socio-economic Disadvantage, IRSD = 1012), the Goldfields - Esperance region is an area of socioeconomic disadvantage[2]. This is evident in both SA3s, however it is more pronounced in the Goldfields SA3 (IRSD=969) compared to the Esperance SA3 (IRSD=996)[2].

Approximately 1 in 10 Goldfields SA3 residents (9%) live in social housing, which is above the state rate of 3%[2]. A similar proportion (10%) are in low income, welfare-dependent families with children, compared to 5% in WA overall[2]. In contrast, 4% of Esperance SA3 residents live in social housing and 6% are in low income, welfare-dependent families with children[2].

Approximately 1 in 7 (15%) of residents in the Goldfields SA3 identify as Aboriginal and Torres Strait Islander (Aboriginal), compared to 1 in 17 (6%) residents in the Esperance SA3[2].

Under-served population groups

People at risk of avoidable, unjust health inequities are more likely than the general population to experience poor health outcomes due to physical, social, and economic factors, and include people who are multicultural; LGBTIQA+; experiencing homelessness; living with a severe disability or caring for someone with a disability; developmentally vulnerable; and victims of family, domestic or sexual violence.

The Goldfields - Esperance region has a number of under-served people who are at risk of poor health outcomes. Specifically:

- Nearly 4,000 Goldfields SA3 residents were born in a non-English speaking country, equating to 10% of the local population. Further,738 Esperance SA3 residents were born in a non-English speaking country, representing 5% of the local population. These compare to 18% across WA[2].
- 3% of residents in the Goldfields SA3 and 5% in the Esperance SA3 have a profound or severe disability, compared to 5% across the state[2].
- 7% of residents in the Goldfields SA3 and 10% in the Esperance SA3 provide unpaid assistance to people with a disability compared to 11% across WA[2].
- 29% of children in the Goldfields SA3 and 18% in the Esperance SA3 are developmentally vulnerable on one or more domains, compared to 20% across WA[2].
- An estimated 489 people in the Goldfields SA3 and 62 people in the Esperance SA3 are experiencing homelessness. This equates to 98 people per 10,000 residents and 39 per 10,000 respectively; above the state rate of 36 per 10,000. This includes people living in overcrowded dwellings[2].

Multicultural populations

A bespoke review into the needs of multicultural people in WA identified that they face significant challenges accessing primary health care, including difficulties navigating the health care system, financial barriers and linguistic barriers when making appointments, articulating their health concerns and understanding medical terminology. Service providers require more training to effectively and appropriately support multicultural patients, including greater understanding of different cultures and the importance of using plain language or interpreters[5, 6]. Mental health, psychosocial support and vaccinations were identified as key needs for multicultural people[5].
For many multicultural communities, mental health is a significant issue, including comorbidity with alcohol and other drugs, and trauma. Some multicultural patients hesitate in seeking health care

related to psychological concerns for fear of stigma, and difficulties in articulating their concerns[5].

Vaccinations can be difficult for migrants to plan for on arrival, as patient medical records are often inaccessible or need to be translated. This is significant for all migrants, particularly children, whose vaccinations must be aligned to the appropriate vaccine schedule.

Psychosocial strategies to provide a sense of connection and build independence are important for many people within multicultural communities, including support to set up a bank account, access Centrelink, improve English and obtain a driving license. These skills are critical in overcoming some of the barriers multicultural people face in accessing health care. There is a need to provide this connection and support in a safe and culturally appropriate setting and in a targeted manner to aid the transition to life in Australia.

There are two primary health care services specialising in care for the multicultural population in the Country WA region, located in the Goldfields SA3 and East Pilbara SA3[5]. The Goldfields SA3

(Composite Index Score, CIS=0.27) has the fourth highest level of unmet need for multicultural services in WA, driven by a considerable local population of people from multicultural communities (40,259) and one of the highest proportions of people born in a predominantly non-English speaking country (10%) in the Country WA region[5]. In contrast, the Esperance SA3 has the lowest level of unmet need for multicultural services in WA (CIS=-0.74)[5].

LGBTIQA+ populations

Many LGBTIQA+ people face discrimination and disparities connected to their gender identification and/or sexuality that impact their physical and mental health and access to health care and other services[7]. Whilst not all LGBTIQA+ people experience challenges in their lives, many do, and LGBTIQA+ people are known to have a higher risk of certain chronic diseases such as cancers, asthma and cardiovascular disease[7]. Studies indicate that LGBTIQA+ people experience intimate partner violence at similar or higher rates compared to heterosexual people[8].

The Private Lives survey is Australia's largest national survey of the health and wellbeing of LGBTIQA+ people to date[7]. In the latest results, LGBTIQA+ people reported lower self-rated health status than the general Australian population, with fewer than 1 in 3 (31%) rating their health as very good or excellent compared to more than half (56%) of the general Australian population aged over 15 years[7]. Two in five (40%) cisgender men rated their health as very good or excellent compared to only 29% of cisgender women, 26% of trans women, 20% of non-binary participants and 19% of trans men[7].

More than a third (39%) of participants reported living with a disability or long-term health condition[7]. When accessing a health or support service, 30% of those with a severe disability or long-term health condition felt accepted compared to LGBTIQA+ people who did not report a disability or long-term health condition (51%)[7]. More than three quarters (78%) with a severe disability or long-term health condition reported being treated unfairly by others in the past 12 months because of their disability or long-term health condition[7]. This was followed by 56% of people with a moderate disability or long-term health condition and 43% with a mild disability or long-term health condition[7].

More than 4 in 10 (42%) of young Australian trans people have encountered medical services who did not respect, understand or have prior experience with gender diverse people[9]. Please refer to the Mental Health section for further details about mental health and suicide prevention for LGBTIQA+ populations.

Local intelligence has highlighted supply-side challenges, including limited understanding and education within the health sector about trans and intersex people[6]. Significant proportions of LGBTIQA+ people do not feel they can safely disclose their LGBTIQA+ identity to GPs or have been misgendered in practices. It can be difficult to find LGBTIQA+ friendly services due to lack of advertising or promotion; subsequently many rely on word of mouth for this. Improved training and promotion of LGBTIQA+-friendly practices would be welcomed by the LGBTIQA+ community to address these issues.

It is important to note that there is a critical lack of research into the area of health of LGBTIQA+ people at an Australian population level[10]. Furthermore, each sub-group within the LGBTQIA+ population has its own unique health care needs, and it is inaccurate to treat these needs as homogenous across the LGBTIQA+ population. However, the lack of data, especially at a regional level, significantly limits the ability to identify and address the specific needs of each group – something WAPHA will

continue to lobby to improve. Some needs relevant across the LGBTIQA+ population include:

Clinical	
	Access to appropriate: • **Health and medical care** that is inclusive, delivered by health care providers trained to deliver LGBTIQA+ affirming care, such as using correct names and pronouns and understanding gender identity and sexual orientation. • **Preventive care**, such as tailored cancer screenings (e.g., cervical cancer for transgender men, prostate exams for transgender women) and routine health checks that address unique risk factors for different sub-groups. • **Mental health support** delivered by culturally competent mental health providers who understand the unique stressors LGBTQIA+ individuals can experience, including stigma, discrimination, and identity-related challenges.
Cultural	
	• **Respectful, non-judgemental treatment**: health care free from stigma and discrimination, ensuring all LGBTQIA+ patients feel safe and respected. **Relevant and affirming health information**: Resources that reflect and respect LGBTQIA+ identities, such as educational materials on sexual health, mental well-being, and healthy relationships. • **Community support and per networks**: Programs that connect LGBTQIA+ individuals to peer groups, mental health resources, and LGBTQIA+ community organisations that provide culturally relevant support. • **Visibility of LGBTQIA+ friendly signage**: Clear signs, symbols, and inclusive language in health care facilities to signal a safe space for LGBTQIA+ patients.
Organisational	
	• **Inclusive policies and protocols** (e.g. anti-discrimination policies, use of inclusive terms on health care forms). • **Ongoing cultural competency and LGBTQIA+ sensitivity training** for all health care workers. • **Improved data collection** on LGBTQIA+ health needs (e.g., sexual orientation and gender identity data in patient records), helping to inform equitable policy and service delivery. • **Collaboration across LGBTQIA+ organisations** to create referral networks, share resources, and ensure service delivery aligns with community needs. • **Strict adherence to confidentiality policies**, especially regarding sensitive information related to gender identity and sexual orientation, to build trust with LGBTQIA+ patients.

Further information regarding health care standards in Australia that support the LGBTIQA+ community can be found at:

- Australian Charter of Health Care Rights – LGBTQI+
- Rainbow Tick guide to LGBTI-inclusive practice
- Australian Medical Association (AMA) LGBTQIASB+ Position Statement
- Australian Health Practitioner Regulation Agency (AHPRA) LGBTIQA+ Communities guidance for health practitioners
- General Practice Supervision Australia (GPSA) LGBTQIA+ Health and Inclusive Health care.

People experiencing homelessness

State-wide, health care barriers exist for people at-risk of or experiencing homelessness. A bespoke study into the needs of these people identified that many have had poor experiences with GP clinics and feel unheard when accessing primary health services. Experiences of fear, shame, and stigma were reported, often compounded by a clinical environment where some people feel out of place or unwelcome. Other barriers, including difficulty interacting with non-clinical staff (e.g., reception, security), fear of losing possessions to attend mainstream services, and financial barriers can also make it difficult for patients to make an appointment and see a clinician. Long wait times for appointments, transport availability and lack of fixed address mean keeping appointments is difficult.

Dual diagnoses and comorbidity can create complexities in accessing health care services, impacting eligibility for certain services and resulting in individuals feeling like they are being passed between different service providers in search of the right care. People experiencing homelessness

indicated that it can be difficult to find the language to talk to clinicians about their concerns, and that clinicians may try to "fix everything all at once" as opposed to one thing at a time.

In WA, 68% of the homeless population have at least one chronic health condition, 68% are living with mental health challenges, and 62% have a substance use disorder[11]. More than one third (38%) have poor health from all three of these concerns (physical, mental and substance issues)[11].

The areas of greatest need for homelessness support are the Kimberley, East Pilbara, Gascoyne and Goldfields SA3s[12]. The unmet need in the Goldfields SA3 (CIS=0.57) is driven by its high rate of homeless persons and high proportions of people experiencing socioeconomic disadvantage. In contrast, the Esperance SA3 has one of the lowest levels of unmet need for homelessness services in the Country WA region (CIS=-0.69)[12].

People experiencing family, domestic and sexual violence

The Australian National Plan to End Violence against Women and Children 2022 – 2032 aims to end gender-based violence by way of prevention, early intervention, response, and through recovery and healing. Aligning with this, WA's Family and Domestic Violence Prevention Strategy details initiatives to prevent and respond to family, domestic and sexual violence. The key outcomes of this strategy are prevention and early intervention; safety for victims through timely and accessible services; and accountability for perpetrators and support to cease violent behaviour.

One in six Australian women and one in eighteen men (since the age of fifteen) have been subjected to physical and/or sexual violence by a current or previous cohabiting partner[13]. Moreover, one in six women and one in nine men were physically or sexually abused before the age of 15 years[13]. The following groups have been identified as being more at risk to family, domestic and/or sexual violence:[14].

- women
- children
- people living with a disability
- Aboriginal people
- people from multicultural backgrounds
- people in rural and remote Australia
- older people
- LGBTIQA+ people
- people experiencing socioeconomic disadvantage.

In 2018, partner violence was ranked as the fourth leading risk factor contributing to total disease burden for women aged 15-44, with child abuse and neglect during childhood being the leading risk factor[15]. Family and domestic violence is also a leading cause of homelessness. In 2022-2023, approximately 104,000 (38%) of clients assisted by specialist homelessness services (SHS) had experienced family and domestic violence and of these, more than three in four (75%) were female[1515].

WA Police statistics indicated that in the 12 months from July 2023 to June 2024, there were 1,749 reports of family related assault in the Goldfields - Esperance region, equating to an average of 146 reports per month[16].

Chronic disease

Chronic diseases are long-term, non-communicable conditions and play a significant part in mental and physical ill health, disability, and premature death. People with chronic disease often have two or more conditions (multi-morbidity) such as a mental health condition as well as a physical condition, creating complex health needs and presenting challenges for treatment. This section focuses on chronic conditions other than mental and behavioural conditions, which are discussed in the Mental Health section.

Chronic disease contributes significantly to the differences in life expectancy between Aboriginal and non-Aboriginal people. Aboriginal people experience 2.3 times the rate of disease burden, with an age-standardised death rate for chronic disease 3.8 times the rate among non-Aboriginal people[17]. In the 2021 Census, the age-standardised rate (ASR) per 100 of Aboriginal people who reported they had one or more long-term health conditions was 25.7 Aboriginal people[18].

Prevalence of chronic disease

For the first time in 2021, the Census collected information on ten common long-term health conditions in Australia, which included, arthritis, asthma, cancer (including remission), dementia (including Alzheimer's disease), diabetes

(excluding gestational diabetes), heart disease (including heart attack or angina), kidney disease, lung conditions (including COPD or emphysema), stroke, and mental health conditions (including depression and anxiety). In the 2021 Census, 19% of

all West Australians (484,000) reported they had one of the above conditions and 5% reported they have two of the selected conditions[19].

The Goldfields SA3 has a concerning level of chronic disease among its residents, and the highest or second highest rate in the Country WA Primary Health Network (PHN)for six of the ten chronic conditions reported by the Census[2]. Specifically, it has the highest ASR per 100 people for heart disease at 4.0 people per 100, and for lung conditions at 2.0 per 100[2]. It also has the second highest ASR in the Country WA PHN for diabetes (5.8 per 100), kidney disease (1.3 per 100), stroke (0.9 per 100) and dementia (including Alzheimer's Disease) (0.8 per 100). Each of these exceeds the state rate[2]:

	ASR per 100 people	
	Goldfields SA3	WA
Heart disease (including heart attack and angina)	4.0	3.7
Lung conditions (including COPD)	2.0	1.7
Diabetes (excluding gestational diabetes)	5.8	4.5
Kidney disease	1.3	0.8
Stroke	0.9	0.9
Dementia (including Alzheimer's disease)	0.8	0.7

In comparison, chronic disease in the Esperance SA3 is less of relative need overall, however, it does exceed the WA level for people reporting they have asthma,, with 8.1 people per 100 in the SA3, compared to 7.4 per 100 across WA[2].

Using WAPHA's new method of estimating condition prevalence from general practice data, rates of clinician-diagnosed diabetes were significantly higher than the state level of 7.9% in the Esperance and Goldfields SA3 at 9.0% and 8.7% respectively[20].

Local intelligence highlighted concerns that certain chronic conditions with significant community need in the Goldfields SA3 may be under-reported, specifically diabetes, cardiology and respiratory-related illnesses. Specifically, it was noted that there is under-reporting across multiple sources of the high local need for cardiology, and that the lack of a sophisticated data reporting system has contributed to some surprising conclusions about the Goldfields SA3 not being a diabetes hotspot. Local providers challenge this and noted that anecdotally the Goldfields is the bariatric capital of WA. Furthermore, local subject matter experts highlighted the high prevalence of respiratory issues in the Goldfields SA3[21]. There is a shortage of affordable, publicly available cardiology services in the Goldfields and travelling to Perth for cardiology services can be challenging. As a result, people aren't seeking treatment and can end up in the hospital ED for something that could be managed in the primary health care system if the existing local barriers can be addressed. This is less of an issue in the Esperance SA3, which is serviced by outreach cardiology services[21].

Risk factors

Established risk factors for chronic disease include having high blood pressure, being overweight or obese, smoking, doing little or no exercise and having high levels of stress. Psychosocial factors such as social isolation and loneliness also contribute to chronic ill health[22]. Risk factors for chronic disease tend to be more prevalent in areas experiencing socioeconomic disadvantage and in regional and remote areas[23].

Concerningly, the Goldfields - Esperance region has significantly higher rates of risk factors compared to the state levels, particularly in the Goldfields SA3[24]. This includes high levels of residents experiencing obesity, smoking tobacco and not engaging in any physical activity for leisure purposes[24].

The estimated prevalence for people experiencing obesity is significantly higher in both the Goldfields and Esperance SA3s compared to the WA rate of 36%[24]. Concerningly, nearly 1 in 2 (47%) residents in the Goldfields SA3 are experiencing obesity - the highest rate in the Country WA PHN overall and second highest in WA, after Kwinana at 50%[24]. Obesity levels are also of concern in the Esperance SA3, with 2 in 5 (39%) residents living with obesity[24].

The Goldfields SA3 has the highest proportion of residents not engaging in any physical activity for leisure purposes in WA, with this accounting for 25% Goldfields residents compared to 17% of Western Australians overall[24]. The Esperance SA3 is also above the state rate at 21%[24].

Both the Goldfields and Esperance SA3s have prevalence levels above the state rate of 11% for smoking[24]. Approximately 1 in 5 (19%) Goldfields SA3 residents currently smoke, which is the third highest rate in WA overall. In Esperance SA3, approximately 1 in 8 (14%) residents currently smoke[24].

While high blood pressure is not a significant need in the Goldfields - Esperance region relative to other parts of WA, approximately 1 in 5 residents have high blood pressure in both the Goldfields and Esperance SA3s (20% and 19% respectively, compared to 23% across WA)[24].

Reported stress levels in the Goldfields SA3 are above the state rate, with nearly one quarter (22%) of residents reporting stress, compared to 12% across WA[24].

Healthy Weight Action Plan

WAPHA is a steward of the WA Healthy Weight Action Plan 2019-24, which focuses on early intervention of people identified as at-risk of becoming overweight and management of people who currently live with obesity. This involves multi-component, multi-levelled strategies delivered as part of an integrated shared care model. Through the Healthy Weight GP project, WAPHA has committed to supporting GPs to provide options for patients who want to improve their health. Key deliverables include the development of a weight management 'hub' (website) with links to Clinical Referral Pathways and local services for weight management, training for general practice staff, and tools to assist general practices in implementing weight management services as a quality improvement activity.

Local Government Public Health Plan

The City of Kalgoorlie – Boulder Public Health Plan 2023-2027 details six public health priorities for the region and outlines the strategies to support the community in achieving optimal health[25]. The six priorities are Aboriginal wellbeing; reduction of drug misuse, tobacco and e-cigarettes; mental health support; increasing access to affordable housing; increasing access to nutritious, affordable food; and environmental health protection[25]. Actions are underway for each priority[25].

The Shire of Esperance Public Health Plan 2021-2026 aims to inform and empower people to make positive health choices which enhance their physical and mental wellbeing by promoting healthier options and advocating against challenging behaviors[26]. Key actions include making educational material available on the Shire's website; enhancing outdoor public fitness equipment; supporting community markets and other food security and sustainability initiatives; and partnering with local, state, and federal health promotion bodies and campaigns to facilitate and help promote physical exercise and active living[26].

Burden of disease

Burden of disease measures the impact of different diseases or injuries on a population. It combines the years of healthy life lost due to living with ill health (non-fatal burden) with the years of life lost due to dying prematurely (fatal burden) to give a total burden reported using the disability-adjusted life years (DALYs) measure. Chronic disease accounts for two thirds (67%) of the burden of disease in WA[27].

The Western Australian Burden of Disease Study indicated that the Goldfields - Esperance region had a 1.4 times higher rate of fatal burden and a 1.1 times higher rate of non-fatal burden compared to WA's metropolitan regions. The Goldfields - Esperance region had the second highest cardiovascular burden in the state (after Kimberley), accounting for 17% of the total burden in the region[28]. Coronary heart disease, COPD and backpain were also among the five leading causes of disease burden, along with suicide/self-inflicted injuries and lung cancer for males and anxiety disorders and dementia for females[28]:

Leading causes of total disease burden in the Goldfields - Esperance region		
Condition	**%**	**ASR per 1,000**
Cardiovascular	17%	37.6
Cancer	16%	34.2
Mental	15%	27.8
Injury	13%	23.9
Musculoskeletal	9%	18.4

Potentially preventable hospitalisations for chronic conditions

Potentially preventable hospitalisations (PPHs) are certain hospital admissions that could have potentially been prevented by timely and adequate health care in the community. Chronic conditions that are classified as potentially preventable through behaviour modification, lifestyle change and timely care include: angina, asthma, COPD, congestive cardiac failure, diabetes complications, hypertension and iron deficiency anaemia. This report includes insights from public hospital data.

Across the state, the ASR of PPHs for total chronic conditions was 903 per 100,000 and the highest rates were for chronic congestive cardiac failure (196), chronic obstructive pulmonary disease (184) and chronic diabetes (178)[2].

Relative to other parts of WA, the Goldfields SA3 has a higher rate for total chronic conditions (1,632 people per 100,000, compared to 903 per 100,000 across WA)[2]. This is driven by higher rates in the Goldfields SA3 compared to WA for COPD (378 vs. 184), congestive cardiac failure (420 vs. 196) and diabetes (399 vs. 178)[2]. Similarly, the Esperance SA3 exceeds state rates for total chronic conditions (1,037 per 100,000), driven by higher rates for COPD (222 vs. 184), congestive cardiac failure (229 vs. 196) and diabetes (186 vs. 178)[2]. The Esperance SA3 also has a high rate of PPHs due to iron deficiency anaemia compared to the state rate (285 vs. 140)[2].

Management of chronic disease in primary care

Chronic Disease Management Plans (CDMPs) are Medicare-rebated for GPs to manage chronic or terminal medical conditions, including preparing, coordinating, reviewing or contributing to chronic disease management plans. They apply for a patient who suffers from at least one medical condition that has been present (or is likely to be present) for at least six months or is terminal[29].

Across WA, 14% of residents have utilised a GP CDMP[30]. Residents of the Goldfields and Esperance SA3s have comparatively lower utilisation, at 11% and 6% respectively[30].

Childhood immunisation rates

The National Immunisation Program (NIP) aims to increase national immunisation coverage to reduce the number of vaccine-preventable diseases in Australia. A key priority of the program is to work towards achieving immunisation coverage rates of at least 95% for children aged 1, 2 and 5 years. Data from the Australian Immunisation Register (AIR) from 1 January 2023 to 31 December 2023 indicated that in the Country WA PHN, childhood immunisation coverage was comparable to the state average for all ages (1, 2 and 5 years), but was still below the 95% target[31]. Approximately 90% of children were fully immunised at 1 year and 92% at 5 years, compared to only 87% at 2 years[32].

AIR reports that the Esperance SA3 met the 95% immunisation target for children aged 2 years but fell slightly below target for children aged 1 and 5 years at 94% each[32]. In contrast, the Goldfields SA3 were below target across all ages, being 90% for children aged 1 year and 2 years, and 94% for children aged 5 years[32].

Cancer screening

There are three national cancer screening programs in Australia: BreastScreen Australia, National Cervical Cancer Screening Program (NCSP), and National Bowel Cancer Screening Program (NBCSP).

In 2020-21, cancer screening participation rates in the Goldfields SA3 were concerningly low, well under state levels and among the lowest in WA.Only one in four (27%) eligible residents had participated in bowel cancer screening, compared to the state level of 42%, which in itself is low[33]. Approximately 2 in 5 (42%) had partcipated in breast cancer screening (compared to 51% across WA), and one in two (52%) had participated in cervical cancer screening, compared to the state level of 69%[33]. The Esperance SA3 also fell below state levels for cervical cancer screening at 60%, but exceeded state levels for bowel and breast cancer screening of eligible residents at 44% and 60% respectively[33].

These levels are particularly concerning given the rate of avoidable deaths from cancer in both the Goldfields and Esperance SA3s exceed state levels[2]. Please note, participation in the new five-year program for cervical cancer screening cannot be accurately reported until there are 5 years of data available.

Syphilis rates

The number of infectious syphilis notifications in WA has remained stable with 1,037 in 2022-2023[34]. Encouragingly, crude rates of notifications across WA have dropped from 31.8 to 28.8 per 100,000 based on completed enhance surveillance forms from notifying clinicians[34]. Those aged 25-34 years had the highest percent of infectious syphilis notification from 2022-2023, accounting for over a third of the notifications (38%)[34]. At 72.9 per 100,000, the rate of syphilis notifications in the Goldfields – Esperance region was more than double the state rate of 28.8 per 100,000[34]; an increase of 47% when compared to the previous period (2021-2022)[34].

Avoidable mortality

Avoidable mortality refers to deaths of people under 75 years from conditions that are potentially preventable or treatable through primary/hospital care. The rate of avoidable deaths in the Goldfields and Esperance SA3s exceed the state rate of 117.6 per 100,000 at 229.2 and 139.3 per 100,000 respectively[2]. The Goldfields SA3 has the highest rate of avoidable deaths from breast cancer in WA (21.7 vs. 14.0 per 100,000 across WA) and the second highest rate for ischaemic heart disease (58 vs. 21.6 per 100,000 across WA)[2]. The Esperance SA3

has the second highest rate of avoidable deaths from colorectal cancer in WA at 13 per 100,000; above the state rate of 9 per 100,000[2].

The five leading causes of death and their percentage with respect to all death causes within the Goldfields and Esperance SA3s are[3]:

Rank	WA	Esperance	Goldfields
1	Coronary heart disease (11%)	Coronary heart disease (15%)	Coronary heart disease (13%)
2	Dementia including Alzheimer's (9%)	Dementia including Alzheimer's (7%)	Lung cancer (6%)
3	Cerebrovascular disease (5%)	Lung cancer (6%)	COPD (6%)
4	Lung cancer (5%)	Diabetes (5%)	Land transport accidents (5%)
5	COPD (4%)	Cerebrovascular disease (5%)	Suicide (5%)

Utilisation of primary care services

GP utilisation in the Goldfields and Esperance SA3s are below state levels and declined between 2021-2022 and 2022-2023[30]. In 2022-2023, approximately three quarters of residents in the Goldfields (72%) and Esperance (76%) SA3s visited a GP; compared to 84% across WA[30]. This was a reduction from 2021-22 levels, where 80% of Goldfields residents and 81% of Esperance residents had utilised a GP[30].

The PHN After-hours Program aims to improve access to GP services in the after-hours period, being before 8am and after 6pm weekdays; before 8am and after 12pm Saturday; and all-day Sunday and public holidays, particularly for people at risk of or experiencing homelessness.

A targeted analysis on need, unmet demand and supply indicators was undertaken to assess relative local demand for after-hours care. A composite index score (CIS) was calculated based on the after-hours demand and supply indices, with each SA3 in WA ranked by relative demand from highest to lowest score.

In the Country WA region, there are 146 primary health services open after-hours, contributing 17% of all after-hours primary health services in WA[35]. Primary health services collectively operate for 29 hours weekly per 10,000 population; below the state level of 45 hours[35]. There are 11 MBS after-hours GP services (urgent and non-urgent) claimed per 100 people across WA[35]. This was highest in the Goldfields SA3, at 22 per 100 people, and reflects the availability of local after-hours services[35]. For this reason the Goldfields - Esperance region is not a significant area of need for after-hours care relative to other parts of WA. The Goldfields SA3 (CIS=-0.27) is placed ninth out of the thirteen SA3s in the Country WA region for unmet after-hours need, while the Esperance SA3 (CIS=-0.81) is eleventh[35].

Stakeholder consultations further revealed two insights for after-hours primary health care across WA. First, operating after-hours services is not financially viable for most GP practices, with prevalent financial barriers including insufficient MBS incentivisation for after-hours services, financial risk due to unpredictable demand in after-hours patient volume , and workforce constraints due to inability to incentivise staff to work during the after-hours period[35]. Second, the Royal Commission into Aged Care Quality and Safety recommendations have increased demand for after-hours GP care for residential aged care (RAC) providers[35]. The stronger regulation of RACs to ensure older people receive appropriate care relative to their needs has increased the reliance of RACs on GPs, resulting in an increase in the number of calls made by RACs to GPs during the after-hours period due to fear of potential repercussions if the RACs fail to report or respond to medical incidents, irrespective of the severity of the health concern presented.

Residents of the Goldfields SA3 have greater utilisation of GP health assessments compared to the state (7% vs. 5%)[30]. In contrast, the Esperance SA3 has the lowest utilisation in WA, at only 2%[30]. Please note, these data only include Medicare-subsidised services, and it is not currently possible to obtain data by type of health assessment.

The majority of Medicare-subsidised allied health services are for optometry services, and Medicare-subsidised allied health services only account for a portion of allied health service use in Australia. This is because they are only available to patients with a GP or specialist referral, and exclude non-Medicare subsidised services, such as those provided by Aboriginal health services and other non-government organisations[30].

Medicare-subsidised nurse practitioner services are not heavily used in the region. The latest data reports that 3% of Esperance SA3 residents have used a nurse practitioner service, equal to the state rate[30]. Data for the Goldfields SA3 is suppressed, with this occurring when there are fewer than 6 patients, less than 20attendances or where one provider has delivered more than 85% of services[30].

The nursing and Aboriginal health worker service group consists of Medicare-subsidised services delivered by a nurse practitioner, practice nurse, midwife or Aboriginal health worker[30]. Approximately 1 in 14 (7%) residents in the Goldfields SA3 used a Medicare-subsidised practice nurse/Aboriginal health worker, equal to the state rate. There is lower utilisation in the Esperance SA3, at 4%[30].

Access Relative to Need index

The Access Relative to Need (ARN) index measures access to primary health care relative to predicted need and is based on methodology developed by the Australian Institute of Health and Welfare in 2014[36]. The ARN index is based on the following information:

- The location of health services and the populations they serve.
- The number of GP Full Time Equivalent (FTE) working at each location.
- The demographic and socioeconomic characteristics of the population.
- In 2024, WAPHA updated the ARN index to identify areas with a low access to GPs relative to need.

Relative to other areas in WA, there is moderate access to GP services across the Goldfields - Esperance region. Overall, 30% of SA3s across WA have higher access relative to need compared to the Goldfields SA3, while 50% of SA3s across WA have higher access relative to need than Esperance SA3.

Consumer views of accessing GPs

To better understand the experiences of Western Australians experiencing socioeconomic disadvantage accessing primary health care, particularly GPs, when they need it, WAPHA commissioned consumer research in 2021[37].

Most people experiencing socioeconomic disadvantage were able to access a GP when needed[37]. Although 31% of respondents encountered barriers when visiting a GP, 92% had visited a GP within the last year[37]. However, approximately 1 in 10 respondents (11%) had needed a GP on at least one occasion but had not visited one[37]. This was higher among Aboriginal people (22%), people aged 18-39 (20%), those living with disability (16%) and females (15%)[37]. The main reasons these people needed a GP were illness, concerns about mental health, to get a prescription and to help with the management of a long-term health condition[37]. Only 8% of these people sought help from an alternative health care professional, such as a pharmacist[37]. A lack of available appointments was the main reason for not seeing a GP when needed, cited by nearly half (43%) of this group[37]. A further 25% reported a lack of time and other commitments, while 16% felt afraid of being judged[37].

Among the full sample, the most common reason to visit a GP was to get a prescription (53%), followed by managing a chronic condition (28%) and general check-up (25%)[37].

Accessibility factors such as appointment availability were the most cited barrier to accessing a GP, followed by transportation issues and conflicting commitments[37]. Women, people with young children, young people, people from multicultural communities, people living with a disability and Aboriginal people were most likely to experience barriers[37].

Cost did not appear to play a large role in limiting access to a GP, with only 1 in 10 (10%) mentioning it as a barrier[37]. This finding is attributed to over 80% of the survey cohort indicating that their GP service was bulk billed. If the availability of bulk billed appointments decreased this would seriously impact access to a GP for people experiencing social and economic disadvantage.

The impact of having a regular GP on a patient's experience was clear. Respondents with a regular GP reported finding it significantly easier to visit their GP and were significantly more likely to have had a positive experience, even compared to those with a regular GP practice, but not a regular GP.

Nearly 9 in 10 (87%) prefer attending a GP appointment in person but 2 in 3 (67%) would be comfortable with a telehealth appointment under some circumstances, such as for follow up appointments[37].

Workforce

General practitioners

Accurate, up-to-date GP FTE figures are unavailable, so the Department of Health and Aged Care comprised a proxy measure which calculates a GP's workload based on MBS services claimed, with one GP FTE representing a 40-hour week over 46 weeks of the year. For each Medicare provider, the new measure attributes an estimate of the amount of time they have spent on their claims in relation to what would be worked by a full-time GP (billable time, non-billable time, and non-clinical time). It is an estimation of GP workforce service utilisation and not an exact count of GP FTE available. For this report, we will refer to this measure as the GP Claimed Service Equivalent (GPCSE).

Based on the latest data, the Goldfields SA3 has 77 GPCSE per 100,000 residents and the Esperance SA3 has 71 GPCSE per 100,000[38]. Each of these is below the state rate of 102 per 100,000[38].

In addition to their normal remuneration, GPs can access additional financial incentives based on how remote the location in which they work is. Areas are classified from metropolitan through to rural, remote and very remote.

Compared to other areas in WA, Kalgoorlie – Boulder and Warburton GP catchments are noted as

being of particularly high need for GP workforce, largely due to recruitment challenges linked to the financial incentives locally available[39]. Kalgoorlie is an isolated, inland city located 595km east of Perth, anecdotally comparable to Alice Springs. However, it is classified as a large rural town, while Alice Springs is classified as a remote community, thereby offering higher levels of financial incentives and other supports to attract GPs to the region. The current classification of Kalgoorlie – Boulder and Warburton is proving detrimental to attracting GP Registrars to the catchment, and efforts advocating for a change to its classification are underway. The affordability of housing in the area also presents a barrier to GPs choosing to reside in the area, with the average weekly rental cost being $390 (and in some areas up to $564); above the median cost of $355 per week across Country WA GP catchments[39]. There is capacity to locally train GP Registrars if these barriers can be overcome, and financial incentives are made available to support GP Registrars in relocating[39].

Based on its geographic access to health services, the Warburton GP catchment (within the Goldfields SA3) is classified as very remote, and there is currently a low supply of GP workforce[39]. A high proportion of residents are experiencing socioeconomic disadvantage, with 80% in the most disadvantaged quintiles in WA[39]. Approximately three quarters (78%) of residents identify as Aboriginal.[39] There are financial incentives available to support GP Registrars in undertaking training in Warburton, available via remote supervision from one accredited general practice[39]. However, housing availability presents a significant challenge, with the latest data showing no residential vacancies in the mainstream market[39].

Norseman (based in the Goldfields SA3) has relatively high need for GP workforce, with one local general practice and the ability to accept GP Registrars immediately[39]. A high proportion of residents are experiencing socioeconomic disadvantage, with 82% in the most disadvantaged quintiles in WA[39]. Approximately 1 in 5 (22%) residents identify as Aboriginal[39].

Within the Esperance SA3, the GP catchments of Esperance and Hopetoun are classified as having relatively high need for GP workforce[39]. The Esperance GP catchment has four local general practices, all of which are accredited to train GP registrars[39]. More than half of residents fall within WA's most disadvantaged socioeconomic quintiles[39]. The Hopetoun GP catchment has three local general practices, of which two are accredited to accept GP Registrars[39]. It has a relatively high level of socioeconomic disadvantage, with approximately 2 in 3 (67%) residents falling within the most disadvantaged quintiles[39]. To increase GP workforce in Leinster – Leonora (located in the Goldfields SA3), local general practices require support to become accredited training facilities[39].

Primary care nurses

The Goldfields SA3 has a relatively high supply of primary care nurses at 155 primary care FTE or 385 FTE per 100,000 residents compared to 251 FTE per 100,000 across WA[38]. In contrast there is a lower supply of primary care nurses in the Esperance SA3, which has 31 FTE or 187 FTE per 100,000[38].

Aged care

The Goldfields region has a large and growing aged population. In 2022, there were 3,742 people aged 65 years and over in the GoldfieldsSA3 and 3,198 in the EsperanceSA3 representing 9.3% and 19.1% of the population respectively[2]. This is projected to increase to 13% of the population in the Goldfields SA3 and 26% in the Esperance SA3 by 2030 compared to 18% across the state and 20% across the Country PHN[2].

Age is an important determinant of health and people aged 65 years and over are more likely to have complex and/or chronic conditions as well as comorbidities. Moreover, geriatric syndromes later in life (usually after the age of 85 years) including pressure ulcers, incontinence, falls, and delirium have substantial implications for quality of life as well as health care utilisation[40].

The Western Australian Burden of Disease Study 2018 reported that the five leading causes of disease burden for older people aged 65 to 84 years were coronary heart disease, COPD, lung cancer, dementia and type 2 diabetes mellitus[27]. For older people aged 85 years and over, dementia was reported as the leading cause of total burden of disease[27].

The 2021 Census reported that 10% of Western Australians aged 65 years and older have three or more long-term health conditions[41]. This was similar in the Goldfields and Esperance SA3s, with 11% and 9% of residents aged 65 years and older living with three or more long-term health conditions[41].

Approximately 3 in 5 (59%) general practice patients aged 65 years or older were diagnosed with three or more chronic conditions across WA[20]. The Esperance SA3 has the second highest proportion in the Country WA PHN with approximately 2 in 3 (64%) diagnosed with three or more chronic conditions[20]. In contrast, the rate in the Goldfields SA3 is slightly below the state level at 56%[20]. Please note, these data include private general practices only and do not include GP services provided by non-government organisations[20].

Utilisation of health services

Across WA, approximately 2 in 5 (39%) of people aged 80 years and over had a GP Health Assessment in 2022-2023[30].

In residential aged care homes (RACHs) there were 15.5 GP attendances per patient across WA[30]. The rate in the Country WA PHN overall was similar at 15.0 attendances per patient[30].

Medicare items are available for in-depth assessment of a patient 75 years and over. This provides a structured way of identifying health issues and conditions that are potentially preventable or amenable to interventions to improve health and quality of life. General practice data indicate that approximately 1 in 4 (28%) of patients aged 75 years and over across WA have had a GP health assessment[42]. The Goldfields and Esperance SA3s each fall below the state rate at 20% and 14% respectively[42].

The Royal Commission into Aged Care Quality and Safety noted that people receiving aged care, particularly those in residential aged care, do not consistently receive the health care they need. This includes doctor visits, mental health services, oral and dental health care, and preventative and holistic care[43].

Palliative care

The goal of palliative care is to improve the quality of life of patients with an active, progressive disease that has little or no prospect of a cure[44].

Most Australians would prefer to die at home, rather than in hospital or residential aged care[45]. However, many older people use both hospital and aged care services in their final years of life and often die in one of these settings[44].

The Royal Commission into Aged Care Quality and Safety made key recommendations for palliative care, including[43]:

- Compulsory palliative care training for aged care workers.
- Comprehensive sector funding specifically including palliative care and end-of-life care.
- A review of the Aged Care Quality Standards to regulate high-quality palliative care in residential aged care.
- Access to multidisciplinary outreach services; and a new Aged Care Act that includes the right to access palliative care and end-of-life care.

From 1 October 2022, a new funding model, the Australian National Aged Care Classification (AN-ACC) replaced the Aged Care Funding Instrument (ACFI). The AN-ACC provides equitable funding through three components to approved residential aged care providers based on the service type delivered and each residents' care needs.

Primary Health Networks will receive funding from the Greater Choice for At-home palliative care Program to improve palliative care coordination in their local communities.

In 2022, there were 27.7 total FTE Palliative Medicine Physicians and 333.2 FTE Palliative Care Nurses employed in WA[46, 47]. Whilst it is recognised that the palliative care workforce is made up of a broad range of professional groups including other medical specialists and allied health professionals, the existing national data sources cannot accurately capture information on palliative care services provided by these health professionals, hence have not been reported.

Palliative care nurses across WA are working 65.0 total weekly hours per 1,000 patients aged 75 and over. The rate is similar in the Goldfields SA3, and below state levels in Esperance SA3 at 65.6 and 80.2 total weekly hours per 1,000 aged 75 and over respectively[46]. Palliative Medicine Physicians across WA are working 5.7 total weekly hours per 1,000 aged 75 and over[47]. Data was not provided for the Goldfields and Esperance SA3s because there were no palliative medicine physicians working in either region as a primary location[47].

Aged care services

The aged care system in Australia offers three main types of service: the Commonwealth Home Support Programme (CHSP), the Home Care Packages (HCP)

program, and residential care. Across Australia, more than two-thirds of people using aged care services access support from home[48].

Commonwealth Home Support Programme

The CHSP provides entry-level support for older people so that they can continue to live independently at home. For FY 2022-2023 in WA, domestic assistance had the highest number of clients serviced and had the highest expenditure; however, social support groups had the highest amount of services provided by hours[49].

Home Care Packages program

The HCP program provides structured support to older people with complex needs to help them live independently in their own home. Support provided includes help with household tasks, equipment, minor home modifications, personal care, and clinical care such as nursing and allied health services. There are four levels of HCPs from level 1 (basic care needs) to level 4 (high care needs). Across Australia, wait times for approved HCPs range from 3-6 months for level 1 to at least 12 months for level 2 and above[49].

There are currently four home care services in the Goldfields SA3, being Juniper, Amana Living, Lifecare, Coolgardie Community Care[50]. Similarly, there are three home care providers in the Esperance SA3, being Chorus, Brightwater at Home and Esperance Home Care[50]. As at December 2023, there were 201 people in an HCP in the Goldfields Aged Care Planning Region (ACPR), which includes the Esperance SA3[49], and a further 45 people waiting for an HCP at their approved level[49].

WA has 249 residential aged care services with a total of 19,887 residential places[51]. Despite having a relatively high proportion of elderly population, the Esperance SA3 has a low beds-to-population ratio with only one residential aged care home located in the region at 45 beds per 1,000 people aged 70 years and over; below the state rate of 64 per 1,000. In contrast, the Goldfields SA3 has three residential aged care homes and a beds-to-population rate similar to the state rate, at 63 beds per 1,000 people[51].

The Goldfields SA3 has a relatively high supply of nurses working in aged care at 14.4 FTE per 1,000 people aged 70 years and over, while Esperance has a relatively low supply at 7.2 FTE per 1,000 people aged 70 years and over[38]. This compares to 12.2 FTE per 1,000 across WA[38].

Alcohol and other drugs

Alcohol and drug use is a significant issue in the Goldfields SA3. Approximately 1 in 3 (34%) residents are at risk of long-term harm from alcohol, significantly higher than the state rate of 26%[24]. Levels of short-term alcohol harm (18%) and high risk alcohol consumption (52%) are also significantly higher than state rates (10% and 32% respectively)[24]. Furthermore, the Goldfields SA3 has the third greatest proportion of current smokers (20%), nearly double that of the state rate of 11%[24].

Compared to the Goldfields and other parts of WA, risky drinking is less of an issue in the Esperance SA3[24]. It is below state levels for long-term (24%) and short-term (11%) alcohol harm and smoking (14%)[24].

Using WAPHA's new method of estimating condition prevalence from General Practice Data, compared to state rates, patients in Esperance have statistically significantly higher rates of clinician-diagnosed chronic alcohol misuse (2.1%) and chronic drug misuse (2.7%)[20].

Local intelligence highlights significant community need with regards to alcohol and other drug use in the Goldfields. There are considerable gaps in the availability of mental health services for those under the influence of substances, and people who may be experiencing substance-induced psychosis often have contact with the justice system instead of receiving appropriate health care[21].

AOD burden of disease

The WA Burden of Disease Study 2015 has the latest regional recording for risks associated with burden of disease for the Goldfields region. Tobacco use contributed to 23% of cancer burden and 19% of cardiovascular disease with people aged 45-64 years having the highest risk of burden[52]. Men (13%) in the Goldfields region also had a high risk of disease due to tobacco use compared to women (8%)[52].

Alcohol contributed to the burden of 20% of mental and substance use disorders, 16% of injuries, 5% of cancer and 3% of cardiovascular disease[52]. The 15–24-year age group had the greatest risk of alcohol leading to disease[52]. Illicit drug use made the highest contribution to burden of disease for females aged 25-44 years[52]. Illicit drugs contributed to 0.5% of cancer burden, 11% of mental and substance use disorders and 19% of injuries in the Goldfields[52].

Accidental overdose

Australia's Annual Overdose Report, produced by the Penington Institute, reported an increase in unintentional drug-induced (accidental poisoning) deaths in WA from 2004 (2.7 per 100,000) to 2021 (8 per 100,000) suggesting that drug use is a growing health concern[53]. Of this, males account for two thirds (70.5%) of unintentional drug-induced death compared to women[53]. People aged 40-49 had 455 (27.2%) unintentional drug-induced deaths in 2021 and were found to be the most at-risk age bracket[53].

In 2021, opioids continued to be the largest overall drug group identified in unintentional drug-induced deaths in 2021 (45.7%), followed by benzodiazepines (32.5%) and anti-depressants (19.3%)[53].

WA had the second highest rate of heroin death in 2021 with 1.5 deaths per 100,000 people[53]. This corresponds with higher rates of death for other opioids such as fentanyl/pethidine/tramadol in 2021 (0.8 deaths per 100,000)[53]. There has also been an increase in deaths involving benzodiazepines in WA from 2013 to 2021 (1.1 to 3 deaths per 100,000), and stimulants such as methamphetamine and amphetamines (1.3 to 3 deaths per 100,000)[53].

Between 2017- 2021, there were 25 unintentional drug-induced deaths in the Goldfields SA3, equating to a rate of 12.5 per 100,000 people – the fourth highest rate in WA, and above the state average of 8 per 100,000[53]. In contrast, unintentional drug-induced deaths were less of an issue in the Esperance SA3, which was slightly below the state level at 6.1 per 100,000; representing 6 deaths[53].

Hepatitis B and C

Hepatitis B and C are bloodborne viruses. Hepatitis B is spread between people by body fluids while hepatitis C is spread through blood-to-blood contact[54] and is commonly spread through unsafe injecting practices. Untreated Hepatitis B and C can lead to liver disease (including cirrhosis), liver cancer and death[55].

Since 1982, a vaccine has been developed for hepatitis B with the recommendation that babies and adolescents are vaccinated[54]. Currently there is no vaccination available for hepatitis C, although antiviral treatment is available. Treatment is now more than 95% effective at curing hepatitis C and available to most people via prescription from their GP[54, 56].

In WA, notifications of hepatitis B and C have been declining. Between 2017 and 2023, notification rates of hepatitis B have slightly reduced from 21 to 18 notifications per 100,000[56]. Hepatitis C notification rates decreased (from 62 to 47 notifications) between 2004 and 2017 and has continued to decrease with 32 notifications per 100,000 people in WA in 2023[57].

The proportion of people with chronic hepatitis B (CHB) in the Goldfields and Esperance SA3s is similar to the state rate of 0.8%, at 1% and 0.5% respectively[58]. However, at 5%, treatment uptake in the Goldfields is slightly below the state levels of 9%[58]. Treatment uptake is suppressed for the Esperance SA3 due to low numbers.

Chronic hepatitis C (CHC) levels in the Goldfields - Esperance region are also comparable to the state rate of 0.7%, with 1.2% prevalence in the Goldfields SA3 and 1.3% in Esperance[59]. The CHC treatment uptake was 22% in the Goldfields SA3 and 29% in the Esperance SA3; each considerably below that of the state level of 42%[59].

Alcohol and other drug services

Reported statistics on AOD treatment show that across the Country WA PHN, 412.6 per 100,000 people understood treatment during the 2022-2023 period[60]. Alcohol treatment represented more than half (53%) of the drug of concerns, followed by cannabis (23%) and amphetamines (18%)[60]. Men make up nearly two thirds of clients (64% vs. 36%), with 30–39-year-olds (28%) making up the largest age group of clients[60].

AOD services are provided by the WA Country Health Service (WACHS) and non-government organisations in the Goldfields - Esperance regions[61]. The Goldfields Community Alcohol and Drug Service is provided by Hope Community Services and funded by the Mental Health Commission. They have three primary bases in Kalgoorlie – Boulder, Leonora and Esperance, and provide outreach services to surrounding communities through treatment and intervention counselling[62].

The Goldfields Rehabilitation Services Inc, based in Kalgoorlie – Boulder, provides residential services and counselling in a drug and alcohol-free environment to those over 18-years. The Nangganawili Aboriginal Health Service provide drug and alcohol misuse programs, counselling and referral services in Wiluna. Additionally, headspace centres in both the Goldfields and Esperance SA3s supply AOD counselling for youth under 25 years[61].

Mental health

Mental health was the third leading cause of disease burden in the Goldfields - Esperance region, contributing 15% to the total disease burden for the region[62]. Across the Goldfields - Esperance region, 23,649 community mental health occasions of service were recorded, with females accounting for 61% of the total figure[62]. Women in the Goldfields - Esperance region were impacted by depressive disorders (7%) while suicide and self-inflicted injuries contributed to the disease burden for men(5%)[62].

Approximately 1 in 8 residents in the Goldfields SA3 report that they have been diagnosed with anxiety (13%), depression (13%) and high or very high psychological distress (16%)[63]. The prevalence of anxiety and depression is similar to state levels at 12% and 11% across WA, while the proportion experiencing psychological distress in the Goldfields SA3 is slightly above the state level (13%)[63]. In contrast, rates of anxiety, depression, and psychological distress in the Esperance SA3 are below the Goldfields SA3 prevalence, but similar to state rates at 11%, 9% and 12% respectively[63].

Using WAPHA's new method of estimating condition prevalence from General Practice Data, rates of clinician-diagnosed depression and anxiety were statistically significantly higher in the Goldfields (11.9%, 7.2%). Diagnoses of mixed depression and anxiety are included in both disease estimates[20].

In recent years, FIFO workers have been the focus of community and political concern in Kalgoorlie – Boulder and the Northern Goldfields with reports in the media related to the impact of FIFO work, mental health and suicide[64]. The mining industry in the Goldfields region, particularly in the more remote regions around Laverton, Leonora and Wiluna, has created a working population that includes a large number of FIFO workers associated with the mining industry[64]. A survey of 3,000 FIFO workers found one third (33%) experienced high or very high levels of psychological distress[64].

Suicide and self-harm

From 2018 to 2022, 1,919 people sadly died from suicide in WA; a rate of 14.1 per 100,000 people and above the national rate of 12.3 per 100,000[3]. In WA, suicide represents 3% of all deaths and is the ninth leading cause of death[65].

At a rate of 21.6 per 100,000, suicide in the Goldfields SA3 is above state levels and an area of considerable concern[3]. Forty-four people died from suicide in the Goldfields SA3 between 2018 to 2022[3]. Suicide is the fifth leading cause of death, representing 5% of all deaths in the region between 2017-2021[65].

Suicide is significantly less of a concern in the Esperance SA3, which has the lowest rate in WA[65]. Eight people died from suicide between 2018 to 2022[3], and it is the nineteenth leading cause of death, representing 1% of all deaths between 2017-2021[24].

The Health and Wellbeing Surveillance Survey collects data on suicidal ideation among adults aged 16 years and over[24]. In the Goldfields SA3, 1 in 10 (10%) indicated that they had thought seriously about ending their own lives – the highest rate across WA, and above the state rate of 7%[24]. In contrast, suicidal ideation in the Esperance SA3 is equal to the state rate at 7%[24].

Self-harm is a strong risk factor for suicide. At a rate of 176.6 per 100,000 residents, hospitalisations for self-harm in the Goldfields is above the state level (97.9 per 100,000)[65]. Self-harm hospitalisations were highest for females and for people aged 25-44 years. The self-harm hospitalisation rate is suppressed for the Esperance SA3 due to low numbers[65].

Youth mental health

Primary mental health care services play an important role in prevention and early intervention efforts reduce the prevalence and impact of mental health problems amongst young people[66, 67]. Approximately one in seven young people aged 4-to-17-years experience mental illness in any given year[68], and 75% of severe mental health problems emerge before the age of 25. Early intervention in childhood and adolescent years can prevent or mitigate potentially lifelong mental illness[69].

A recent survey of WA school children found that mental health was a critical issue with a substantial number of Year 7 to 12 students reporting poor life satisfaction, low self-esteem, high levels of stress and the feeling they can't cope with life's challenges[69]. Approximately 1 in 4 (26%) female year 7 to 12 students rate their life satisfaction as 0 to 4 with '0' being the worst possible life. This was double the proportion of males who felt the same (13%)[67].

Self-harm is approximately twice as high in females compared with males, and in older adolescents

compared with younger adolescents[67]. Females aged 16-17 years have the highest rates of self-harm, with 17% having engaged in an act of self-harm[67].

In WA, mental health services for young people are provided through general practice, the public mental health system (such as the Child and Adolescent Mental Health Service), not-for-profit organisations (headspace) and private providers such as psychologists.

Hospital EDs also play a role in treating mental illness. People seek mental health-related services in EDs for a variety of reasons, often as an initial point of contact or for after-hours care[70]. Between July 2022 and June 2024, 6,780 Western Australians aged 12-17 years presented to hospital EDs for mental-health related reasons; a rate of 370 per 10,000 people aged 12-17 years[71].

Compared to other areas in WA, youth mental health is a significant concern in the Goldfields - Esperance region[71]. Both the Goldfields and Esperance SA3s have Mental Disorder-related ED presentations above state rates, at 606 and 482 per 10,000 12-17-year-olds as compared to 370 per 10,000 across WA[71].

headspace centres and services support young people across Australia to be mentally healthy and engaged in their communities[72]. There are two headspace centres in the Goldfields - Esperance region, based in Kalgoorlie and Esperance[72]. The Esperance SA3 has one of the highest utilisation levels at 6% of residents aged 12-25; above the state level of 2%[73]. Utilisation in the Goldfields SA3 is similar to the state rate at 3%[73]. Each patient's episode of care comprised of an average of 4.3 occasions of service (i.e. interactions with the service or mental health worker) in the Goldfields SA3 and 4.7 in the Esperance SA3; comparable to the WA average of 4.2[73].

The Australian Youth Self-Harm Atlas (AYSHA) reports that while the overall prevalence of suicidality (suicidal thoughts or behaviours, including ideation, plans, and attempts) in both the Goldfields and Esperance SA3s are equal to the state rate of 8%, the specific prevalence rates of self-harm (regardless of intent) and suicidal ideation are above the state rate of 10% and 7% respectively[74].

Major depression and anxiety disorders are risk factors associated with higher self-harm prevalence among 12 to 17-year-olds and are of considerable concern in the Goldfields - Esperance region[75]. The proportion of 12 to 17-year-olds experiencing major depression or anxiety disorders in the Goldfields and Esperance SA3s are both above the state level, at 13% and 11% respectively compared to 9% across WA[75].

Note: AYSHA provides *synthetic estimates*—modelled figures derived from statistical techniques that combine survey and population data—to estimate the prevalence of suicidality, self-harm, and experiences of anxiety and depression among young people aged 12 to 17. These estimates are used instead of direct data to provide meaningful insights at smaller geographic levels where sample sizes are too limited for reliable measurement.

In the Goldfields - Esperance region, suicide and self-inflicted injuries are the leading cause of disease burden for 15-to-24-year-olds, contributing to 21% of the disease burden for this age group[52]. Hospital admissions for self-harm can be an indication of unmet need for accessible mental health services. It is concerning to note self-harm hospitalisations among people aged 0-24 years in the Goldfields SA3 are above state levels (191.1 vs. 139.7 per 100,000)[65]. The rate is suppressed for Esperance due to low numbers[65].

Local intelligence highlights mental health among children below the age of 15 years as a significant need in the Goldfields SA3, including intergenerational trauma and complex post-traumatic stress disorder (PTSD) among children who have experienced prolonged or repeated trauma[21].

Mental health services

Mental health services in the Goldfields - Esperance region are provided by the WA Country Health Service (WACHS) and not-for-profit organisations. There are approximately 15 mental health services in the region, 4 of which have dedicated youth services[61]. The WACHS provides adult community mental health services and inpatient mental health services in Kalgoorlie – Boulder as well as adult community mental health and a child and adolescent mental health services in both Esperance and Kalgoorlie – Boulder. Youth mental health provider, headspace, offers psychological services for youth in Kalgoorlie – Boulder and a headspace satellite in Esperance. Centrecare provides counselling services in Kalgoorlie – Boulder, Coolgardie, Kambalda, Esperance, Norseman,

Ravensthorpe, Leonora, and Wiluna. Suicide Prevention Networks in Kalgoorlie – Boulder and Esperance aim to reduce stigma and prevent suicide through education and conversation. The Goldfields - Esperance region also has access to the National Indigenous Critical Response service that provides support to individuals and families after a traumatic event. Bega Garnbirringu is one of nine Aboriginal Community-controlled organisations across WA to receive a contract to build early suicide identification and intervention skills in the Goldfields. Two community liaison officers based in Kalgoorlie – Boulder work to reduce rates of suicide as part of the WA Suicide Prevention Framework[30].

A GP mental health treatment plan can be used to refer patients to psychiatrists, psychologists, counsellors, social workers and occupational therapists. In the Goldfields and Esperance SA3s, 4% have accessed a GP mental health treatment plan in each area; below the state level of 8%[76].

There are low numbers of mental health professionals such as psychiatrists, mental health nurses and psychologists in regional and remote areas[77]. In both the Goldfields and Esperance SA3s the rate of psychologists per 10,000 people is below the state rate, at 5.5 and 3.8 respectively compared to 13.2 per 10,000 across WA[77]. In each area fewer than 1% of residents accessed a clinical psychologist, compared to 2.2% across WA[77]. Given the high prevalence of mental health concerns in the region, these figures indicate insufficient access to rebated psychology services in the Goldfields and Esperance SA3s and a reliance on services provided by the WA Country Health Service and the not-for-profit sector.

In 2021, there was only one reported clinical psychologist in Kalgoorlie – Boulder[77], and local intelligence has highlighted significant shortages of local mental health services, including after-hours care, support for people under the influence of substances or in need of crisis mental health care. Some services are provided sporadically, such as for two hours every second month, leading to accessibility challenges for residents[78]. Emergency telehealth services are available in cases involving young people, but there is no equivalent for adults. Transport barriers prevent residents from accessing much needed support further afield[21].

Aboriginal health

An estimated 7,231 Aboriginal people reside in the Goldfields - Esperance region[2]. The Goldfields Aboriginal community is diverse with approximately 15 distinct language groups and 19 remote communities[79]. Communities include the Wankatja/Wangkatha people of Kalgoorlie – Boulder, Leonora and Laverton, the Ngadju people of Coolgardie, Norsemen and Esperance, the Martu people of Wiluna, the Tjuntjuntjara Spinifex People of the Great Victoria Desert region and the people of the Ngaanyatjarra lands adjoining the Northern Territory and South Australian borders.

Aboriginal populations are dispersed throughout the nine Local Government Shires that comprise the Goldfields - Esperance region[80]. The 2021 Census reports that in the Ngaanyatjarra Lands, Aboriginal people comprise 80% of the population dispersed across ten communities (Warburton, Warakurna, Jameson, Blackstone, Wingellina, Patjarr, Wanarn, Tjirrkarli, Tjukurla, Kanpa)[80]. In the Shire of Ngaanyatjarraku and Wiluna, Aboriginal people comprise 85% and 26% of the population respectively and in the Northern Goldfields; Laverton, Leonora (10%), Menzies (21%), Kalgoorlie – Boulder (8%), Esperance (4%) Dundas (14%), Ravensthorpe (4%)[80].

The Aboriginal people in the Goldfields region, spanning the Indigenous Areas (IAREs) of Esperance – Ravensthorpe, Kalgoorlie – Dundas – Goldfields, Kalgoorlie – Ningia Mia, Laverton – Ngaanyatjarraku, Menzies – Leonora, Warburton and Wiluna, experience some of the highest levels of socioeconomic disadvantage in WA and are impacted by poor health outcomes[18]. The highest levels of disadvantage have been observed in the Warburton, Laverton – Ngaanyatjarraku, Wiluna and Menzies – Leonora IAREs, which have Indigenous Relative Socioeconomic Outcomes (IRSEO) index scores of 99, 90, 89 and 84 respectively, compared to 51 for WA overall[18]. A higher IRSEO score indicates a greater level of socioeconomic disadvantage for the region[18]. In contrast, Aboriginal people in the Esperance – Ravensthorpe IARE experience a similar level of disadvantage as other Aboriginal people in WA with an IRSEO score of 51[18].

Unemployment is higher in Warburton with an estimated 53% of Aboriginal residents without work[18]. This is followed by the Laverton and Ngaanyatjarraku Shire population outside Warburton, with almost 26% of residents unemployed[18]. Warburton and Wiluna also experience poor housing sustainability, with above 50% of households requiring extra bedrooms to accommodate residents[18].

There is an average participation rate in full-time secondary education at age 16 of 65% across WA[18]. Participation in some areas of the Goldfields - Esperance region are among the lowest in WA and a significant concern[18]. Participation within the Esperance – Ravensthorpe IARE is also concerning at 48% participation[18].

Rheumatic heart disease (RHD) is noted as being a considerable concern in the Goldfields - Esperance region[81]. RHD is a preventable condition that disproportionately affects Aboriginal people, with nearly 9 in 10 (89%) of Western Australians living with RHD being Aboriginal. It is caused by a bacterial infection of the throat and skin, and without treatment, can lead to permanent damage to the heart[81].

Local intelligence highlights the need for trauma-informed, culturally appropriate services for Aboriginal people, particularly in the Goldfields SA3. Intergenerational trauma and complex PTSD are significant issues among Aboriginal people[21]. Furthermore, there is a need for more allied health support in schools, specifically speech pathology and occupational therapy[21].

Please note, in collecting local intelligence, concerns were raised about the accuracy of available data, particularly Census data, regarding the population of Aboriginal people in some areas within the Goldfields - Esperance region. Concerns stated that data available does not provide a complete picture of the needs in the region[21]. This demonstrates the critical importance of gathering and utilising local intelligence when undertaking health needs assessments and planning.

Child immunisation

A key priority of the National Immunisation Program Schedule is to work towards achieving immunisation coverage rates of at least 95% for children aged 1, 2 and 5 years. Immunisation is below target for all age groups in the Goldfields SA3, at 90% for 1 and 2-year-olds and 94% for 5 year olds[18]. The Kalgoorlie – Ningia Mia IARE recorded childhood immunisation rates below target for children aged 1 and 2 years of age (86%), but met the immunisation target for 5 year olds (95%)[18]. This suggests that interventions should be targeted to increase immunisation coverage for the 1 and 2 year age groups[18]. The Laverton – Ngaanyatjarraku IARE met the target for 5 year olds at a 100% rate[18]. Immunisation rates in Esperance – Ravensthorpe IARE were either equal to or above the target rate for 1 and 2 year old[18]. The rate for 5-year-olds was suppressed due to low numbers[18].

Lower urgency emergency department presentations

High rates of lower urgency ED attendances can be indicative of a gap in primary health care services, however in the Goldfields - Esperance region this is not a significant area of need compared to other parts of WA[18]. Lower urgency ED presentations by Aboriginal people in the Goldfields are slightly below state levels, at 5,774, though, they are slightly above in the Esperance SA3s with 6,573 per 10,000 Aboriginal people, compared to 6,167 per 10,000 across WA[18].

Avoidable deaths by selected causes

Avoidable deaths data is suppressed for a number of IAREs due to low numbers. Based on the available data, there were 117.6 avoidable deaths per 100,000 across WA among Aboriginal people aged 0 to 74 years in the 2017-2021 period[18]. When looking at Aboriginal deaths from all avoidable causes in total, all IAREs in the Goldfields SA3 are concerningly above the state level. These are Warburton (678.3 per 100,000), Kalgoorlie – Ningia Mia (476.0), Laverton – Ngaanyatjarraku (457.7), Kalgoorlie – Dundas – Goldfields (341.1) and Menzies – Leonora (325.3)[18]. Data for avoidable deaths related to specific conditions is insufficient for across a number of IAREs in the Goldfields SA3. Of those with sufficient data available, the following IAREs exceed state levels:

- Circulatory system diseases: Kalgoorlie – Ningia Mia (142 per 100,000), Laverton – Ngaanyatjarraku (124) and Kalgoorlie – Dundas – Goldfields (117) compared to 86 per 100,000 across WA[18].
- Ischaemic heart disease: Kalgoorlie – Dundas – Goldfields (116 per 100,000), Kalgoorlie – Ningia Mia (99) and Laverton – Ngaanyatjarraku (87) compared to 57 per 100,000 across WA[18].
- Diabetes: Kalgoorlie – Ningia Mia (51 per 100,000) compared to 35 per 100,000 across WA[18].
- Cancer: Kalgoorlie – Ningia Mia (57 per 100,000) compared to 20 per 100,000 across WA[18].

Avoidable deaths among Aboriginal people in the Esperance SA3 (aligned with the Esperance –

Ravensthorpe IARE) is not as significant a need, with levels below the state rate, at 224.1 per 100,000[18]. Data for avoidable deaths related to specific conditions is insufficient in the Esperance area.

Concerningly, the Goldfields and Esperance SA3s each recorded levels above the state rate for all avoidable causes, at 229.2 and 139.3 per 100,000 respectively[18]. The Goldfields SA3 exceeds state levels on all reported conditions underpinning avoidable deaths, with the most concerning being circulatory system diseases (75.4 per 100,000), ischaemic heart disease (58.2), other external causes (e.g., transport accidents, accidental drowning) (35.9), cancer (35.6), suicide (21.7), breast cancer (21.7) and COPD (21.4)[18]. Ischaemic heart disease and circulatory system diseases were higher than the PHN in Kalgoorlie – Dundas – Goldfields, Laverton – Ngaanyatjarraku and Kalgoorlie – Ningia Mia IAREs[18]. There was limited data available for the IAREs for avoidable deaths from suicide and self-inflicted harm, however Kalgoorlie – Ningia Mia exceeded the state rate (60.5 vs. 32.6 per 100,000)[18].

Avoidable deaths in the Esperance SA3 were not as prevalent as the Goldfields, however still exceeded state rates in several instances. The most significant included deaths related to circulatory system diseases (45.6 per 100,000), ischaemic heart disease (35.1), other external causes (e.g., transport accidents, accidental drowning) (32.1) and cancer (29.4)[18].

Median age at death

Compared to other parts of WA, the median age of death for Aboriginal people in the Goldfields - Esperance region is sadly young. The median age for WA overall is 58 years – significantly below that of non-Aboriginal people at 80 years – however across the Goldfields - Esperance region six of the seven IAREs are below the Aboriginal state median[18]. Kalgoorlie – Dundas – Goldfields has the lowest median age of death at only 50 years, followed by Laverton – Ngaanyatjarraku, Menzies – Leonora, Warburton (each at 51 years) and Kalgoorlie – Ningia Mia (54 years)[18]. Only Wiluna and Esperance – Ravensthorpe IAREs were equal to the state median at 58 years, however, given concerns about the reliability of data for some population of Aboriginal people in the Goldfields - Esperance region[21], alongside high levels of socioeconomic disadvantage[18], high levels of chronic conditions[18] and PPHs[18], this should be interpreted with caution[21].

Potentially preventable hospitalisations

The average annual rate of total PPHs per 100,000 for Aboriginal people is above state levels for all IAREs in the Goldfields region[18]. Across WA, there were 6,264 PPH admissions per 100,000 for Aboriginal people from 2017/18 to 2020/21[18]. In the Goldfields region, the rate ranged from 8,137 to 14,784 per 100,000[18]. Laverton – Ngaanyatjarraku has the highest rate (14,784), followed by Wiluna (14,642), Warburton (11, 415), Menzies – Leonora (10,341), Kalgoorlie – Ningia Mia (9,535) and Kalgoorlie – Dundas – Goldfields (8,137)[18]. The Esperance – Ravensthorpe IARE was below the state level at 3,954 per 100,000[18].

Chronic conditions that are classified as potentially preventable through behaviour modification, lifestyle change and timely care are: angina, asthma, COPD, congestive cardiac failure, diabetes complications, hypertension and iron deficiency anaemia[82]. The following rates for PPHs due to chronic conditions within Goldfields - Esperance region exceeded state rates:

- Chronic asthma: Laverton – Ngaanyatjarraku (669 per 100,000), Warburton (506), Menzies – Leonora (320) and Kalgoorlie – Ningia Mia (237), compared to 192 per 100,000 across WA[18].
- Chronic angina: Kalgoorlie – Dundas – Goldfields (579 per 100,000) and Kalgoorlie – Ningia Mia (299), compared to 206 per 100,000 across WA[18].
- Chronic congestive cardiac failure: Wiluna (1,050 per 100,000), Kalgoorlie – Ningia Mia (820), Laverton – Ngaanyatjarraku (742) and Warburton (604), compared to 405 per 100,000 across WA[18].
- Chronic diabetes complications: Menzies – Leonora (1,441 per 100,000), Wiluna (1,417), Laverton – Ngaanyatjarraku (1,018), Kalgoorlie – Ningia Mia (852), Warburton (719), and Kalgoorlie – Dundas – Goldfields (632), compared to 567 per 100,000 across WA[18].
- Chronic iron deficiency anaemia: Esperance – Ravensthorpe (386) and Kalgoorlie – Ningia Mia (325), compared to 208 per 100,000 across WA[18].
- COPD: Warburton (2,086 per 100,000), Laverton – Ngaanyatjarraku (1,100),

Menzies – Leonora (843), Kalgoorlie – Dundas – Goldfields (768) and Kalgoorlie – Ningia Mia (648), compared to 608 per 100,000 across WA [18].

Acute PPHs relate to conditions that usually come on suddenly, and may not be preventable, but may not have resulted in hospitalisation if timely and adequate care was received in the community.[82].

PPHs for total acute conditions also exceeded state rates across all reported conditions in the Goldfields region, including:

- Acute cellulitis: Wiluna (1,787 per 100,000) Menzies – Leonora (1,535), Laverton – Ngaanyatjarraku (1,332) and Warburton (917), compared to 816 per 100,000 across WA[18].
- Acute convulsions and epilepsy: Laverton – Ngaanyatjarraku (955 per 100,000), Menzies – Leonora (872), Kalgoorlie – Ningia Mia (730), Kalgoorlie – Dundas – Goldfields (537) and Esperance – Ravensthorpe (476), compared to 460 per 100,000 across WA[18].
- Acute dental conditions: Wiluna (723 per 100,000) and Laverton – Ngaanyatjarraku (447), compared to 431 per 100,000 across WA[18].
- Acute ear, nose, and throat infections: Wiluna (1,379 per 100,000), Laverton – Ngaanyatjarraku (1,061 per 100,000), Kalgoorlie – Dundas – Goldfields (892), Kalgoorlie – Ningia Mia (768) and Kalgoorlie – Ningia Mia (742) compared to 393 per 100,000 across WA[18].
- Acute urinary tract infections (including pyelonephritis): Wiluna (1,605 per 100,000), Kalgoorlie – Dundas – Goldfields (717), Laverton – Ngaanyatjarraku (618) and Kalgoorlie – Ningia Mia (561) compared to 516 per 100,000 across WA[18].

Vaccine-preventable PPHs are hospitalisations due to conditions that can be prevented by vaccination[82]. PPHs for total vaccine preventable conditions also exceeded state rates across all IAREs in the Goldfields region, including:

- Total PPHs for vaccine-preventable conditions: Laverton – Ngaanyatjarraku (4,291 per 100,000), Wiluna (3,344), Warburton (3,009), Kalgoorlie – Ningia Mia (2,035), Menzies – Leonora (1,904) and Kalgoorlie – Dundas – Goldfields (1,293), compared to 855 per 100,000 across WA[18].
- PPHs for pneumonia and influenza: Wiluna (1,244 per 100,000), Laverton – Ngaanyatjarraku (756), Menzies – Leonora (549) Kalgoorlie – Ningia Mia (526), Kalgoorlie – Dundas – Goldfields (292), compared to 278 per 100,000 across WA[18].

PPHs are notably less prevalent in the Esperance – Ravensthorpe IARE, which was below the state level for vaccine preventable PPHs, total acute PPHs, and total chronic conditions PPHs[18].

Primary care service access

Aboriginal people can access specific services aimed at Closing the Gap in health outcomes. It is important that General Practices ask all patients if they identify as Aboriginal and/or Torres Strait Islander. This assists with ensuring patients are provided with the option of accessing information and services specifically designed to meet their needs.

Through Medicare, Aboriginal people can receive Aboriginal-specific health checks from their doctor, as well as referrals for Aboriginal-specific follow-up services. In March 2020, telehealth items for Aboriginal Health Checks were introduced in response to COVID-19 and its associatedrestrictions[83].

In 2021-2022, the proportion of the Aboriginal people that received an Aboriginal Health Check was 23% in Country WA PHN compared to 22% across WA[83]. Nationally, face-to-face Aboriginal Health Checks was the preferred method compared to telehealth[83].

Aboriginal people living in the Goldfields - Esperance region can access primary care services through general practice, Aboriginal Community Controlled Health Services, Integrated Team Care (ITC) programs and the hospital sector.

The ITC program supports Aboriginal people living with complex chronic conditions to access health care and funds teams of Aboriginal health project officers, outreach workers and care coordinators. In the Goldfields - Esperance region, the ITC program is serviced by Hope Community Services based in Kalgoorlie.

There are four Aboriginal Community Controlled Health Organisations (ACCHOs) in the Goldfields

region located in Kalgoorlie – Boulder, Wiluna, Ngaanyatjarra Lands and the Tjuntjuntjara – Spinifex Lands community.

The Bega Garnbirringu Health Service (BGHS) is based in the centre of Kalgoorlie – Boulder. Medical services are provided not only to those clients who reside within the limits of the city itself but also to local and outlying communities by means of regular Outreach clinics. BGHS's mobile clinic visits the remote communities of Coolgardie, Esperance, Leonora, Menzies, Mount Margaret and Norseman.

The Nangganawili Aboriginal Community Controlled Health & Medical is based in Wiluna, providing affordable and culturally appropriate health services to the Aboriginal and wider population of Wiluna and surrounding areas. Services offered include general practice, accident and emergency, maternal and child health, chronic disease management and some specialist services. In addition, social and emotional wellbeing, environmental health and community care programs are available[84].

The Ngaanyatjarra Health Service has nine clinics operating and provide care to people living in communities across the vast Ngaanyatjarra Lands in remote WA, near the Northern Territory/South Australian borders. Community based health staff provide primary health care at community health clinics. This is delivered through a multidisciplinary approach incorporating Primary Health Care, Public Health Programs and Health Promotion Activities.

Spinifex Health Service is the name for an Aboriginal Community Controlled Health Service managed by Paupiyala Tjarutja Aboriginal Corporation (PTAC) in the remote community of Tjuntjuntjara on the Spinifex Lands. It focuses on chronic disease management, child and maternal health, disability, aged care, and social and emotional wellbeing. Spinifex Health Service is located 680 km northeast of Kalgoorlie – Boulder, in the Great Victoria Desert region of WA.

Digital health

Digital health includes a broad range of innovative technologies for the purposes of providing care and sharing information to enhance patient outcomes. Services include mobile health applications (Medicare Online, COVID check-in apps), electronic prescribing, electronic health records (My Health Record) and telehealth/telemedicine[85].

Australia-wide, the volume of My Health Record entries containing data had a growth of 520,000 from January 2023 to March 2024[85]. The largest increase in use from 2023 to 2024 has been seen in specialist letters (78% increase), diagnostic imaging reports (34% increase), and pathology reports (25% increase)[85]. In March 2024, WA had 2.6 million My Health Record entries[85].

There has been a decrease in the proportion of people who have had at least one telehealth consultation in the 12-months from 30.8% in 2021-2022 to 27.7% in 2022-2023[86]. Those who had a long-term health condition (37.1%) are more likely to use telehealth compared to those without one (17.3%)[86]. In addition, those aged 65-74 years (31.6%) are more likely to use telehealth than people aged 15-24 (20.9%)[86]. Unfortunately, those living in outer regional, remote or very remote areas (23.4%) are less likely to use telehealth than those living in major cities (28.3%) – there could be several reasons for this including, internet availability/access, telehealth compliant devices such as phones and laptops. Of people who used telehealth services in the past 12 months, 87.7% reported that they would use it again if offered[86].

Given the large geographical size of WA, COVID-19 saw a very rapid adoption of virtual methods of consultation of WA's hospital-based outpatient clinics. Rates that were previously in low 10 to 15% rapidly moved to the 60 to 80% across a range of clinics and hospitals[87]. It appears that the focus on digital health including telehealth consultations during COVID-19 helped fast track the adoption of technology and more providers saw the My Health Record as a valuable repository of health data as it is accessible to all health care providers without the need for fax machines or postal services. As of February 2024, there are now more than 23.5 million My Health Record entries Australia-wide and more than 23 million or 98% of them contain data[85]. It is important to note that the COVID pandemic drove telehealth, but unfortunately, these gains have not been sustained as patients are favouring face to face consultations once again.

Local intelligence highlighted that whilst there are digital health services available in the Goldfields region, there are challenges in accessing them, including limited internet access, low digital literacy, language barriers, and the lack of a consistent approach to whether and how digital health is utilised across different providers, making it more difficult for consumers[21].

Great Southern

Priorities

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
Chronic diseases contribute significantly to the burden of disease in the Great Southern region. There are high rates of multimorbidity and avoidable deaths due to chronic conditions. The region has high rates of risk factors for chronic conditions, particularly obesity and high blood pressure. Rates of clinician-diagnosed diabetes are above state levels.	Residents in the Great Southern region have high rates of PPHs related to chronic conditions, including diabetes, congestive cardiac failure, chronic angina, chronic iron deficiency anaemia and chronic asthma. The rate of general practitioner (GP) workforce per 100,000 people is below state levels. The high prevalence of risk factors and avoidable mortality rate make it a complex population from a clinical perspective.	**Support primary health care providers to manage chronic disease populations and build capacity for patient self-management.** **Support primary health care providers to promote healthy lifestyle changes and improve screening for chronic disease risk factors.**	Great Southern	Population health	Chronic conditions
Mental health is the leading cause of disease burden in the region. Depressive disorders and anxiety disorders contributed to the majority of the disease burden. Rates of clinician-diagnosed depression are significantly higher in the Albany Statistical Area Level 3 (SA3) compared to the state rate.	Access to primary mental health services is limited in the Great Southern region with only 1% of the population accessing a clinical psychologist, other psychologist or psychiatrist through Medicare Benefits Schedule (MBS) services.	**Enable access to mental health services.**	Great Southern	Mental health	Access
Residents are at risk of harm from alcohol and illicit drug use. Harmful alcohol consumption causes multiple chronic diseases resulting in complex care needs. In the Great Southern region, 1 in 4 residents are at high risk of long-term harm from alcohol consumption.	Alcohol and other drugs (AOD)-related ED presentations are above state rates in the Albany SA3, placing burden on hospital EDs. Early screening and intervention are needed to reduce the impact of harmful alcohol use. Evidence has shown GPs to be crucial in the	**Enable access to early screening and treatment for harmful alcohol use and support primary health care providers in managing alcohol-related issues.**	Great Southern	Alcohol and other drugs	Access

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
Rates of clinician-diagnosed chronic alcohol misuse and chronic drug misuse are significantly higher in the Albany SA3 compared to the state rate.	effectiveness of interventions and management of alcohol-related issues.				
Aboriginal people in the Great Southern region experience significant levels of socioeconomic disadvantage compared to Aboriginal people in other parts of Western Australia (WA), and may be at risk of experiencing poor health outcomes related to social determinants of health.	Aboriginal people in the Great Southern region have high rates of avoidable hospitalisation, including potentially preventable hospitalisation (PPH) presentations and non-urgent ED presentations.	**Enable access to coordinated culturally appropriate primary care for Aboriginal people.**	Great Southern	Aboriginal health	Appropriate care (including cultural safety)
Childhood immunisation levels in the Great Southern region are below the 95% target for Aboriginal and non-Aboriginal children. Under-immunisation increases the risk of vaccine-preventable illnesses in the whole community, including greater risk of outbreaks, and severe illness or death for those who cannot be immunised (including infants or immunocompromised individuals).	Under-vaccination increases risk of vaccine-preventable illnesses and creates avoidable burden on hospital care.	**Support primary health care providers to increase childhood immunisation rates overall, and deliver culturally appropriate and accessible vaccination programs for Aboriginal children.**	Great Southern	Population health	Immunisation
The Great Southern region has a large and growing population of older adults. By 2030, 1 in 4 residents will be aged over 65. Older people are more likely to be living with a chronic condition compared to the general population, and 1 in 10 have three or more long-term conditions. In the Great Southern region coronary heart disease, chronic obstructive pulmonary disease (COPD) and dementia are among the leading	Despite having a high proportion of older people, there is a relatively low residential aged care homes (RACHs) beds-to-population ratio and moderate number of home care services available in the region. Older people need support from their primary health care providers to manage chronic conditions, including multimorbidity, and to live independently for as long as possible.	**Support health and aged care providers to effectively manage chronic conditions for older people and help them live independently for as long as possible.** **Enable access to age-appropriate digital health services.**	Great Southern	Aged care	Access Chronic conditions

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
causes of disease burden for people aged 65 and over.	The growing population of older people will place increased pressure on aged care services.				
Most Australians would prefer to die at home rather than in a hospital or aged care facility. For many Aboriginal people, this means dying at home connected to country.	There is limited home palliative care available in the region, with many older people dying in hospitals or aged care services.	**Enable access to local at-home palliative care services, and ensure they are culturally appropriate for Aboriginal people.**	Great Southern	Aged care	Access Palliative care

Great Southern

Overview

The Great Southern region includes a diverse Aboriginal community with many distinct language groups and remote communities. The pertinent health concerns in the region are mental health, chronic disease, alcohol and other drugs, Aboriginal health and aged care.

Workforce and access to services is a continuing issue for all rural communities and the Great Southern is similarly impacted. The region has a relatively moderate workforce need for GPs and shortage of rebated psychology services.

The Great Southern region has a significantly higher prevalence of clinician-diagnosed depression compared to the state. Mental ill health was the leading cause of disease burden in the region but only 1% of the population accessed a clinical psychologist through the Better Access Medicare Benefits Schedule (MBS) program.

The population in the Great Southern region has a high prevalence of total chronic PPHs, particularly for chronic angina, chronic asthma, diabetes and chronic iron deficiency anaemia. Moreover, the region had the highest infant and congenital conditions burden in the state. Although there is a comparatively higher utilisation of chronic disease management plans (CDMPs), the Great Southern region has high rates of chronic disease risk factors, particularly obesity, high blood pressure and high rates of avoidable mortality.

The Great Southern region has an adequate supply of aged care beds and aged care nurses compared to state levels, though the high and growing population of older adults in the region will place increased pressure on the aged care services.

Residents experiencing long-term harm from alcohol use, smoking and illicit drugs, unintentional drug-induced deaths and emergency department (ED) presentations related to AOD were concerning. Furthermore, the prevalence of clinician-diagnosed chronic alcohol misuse was significantly higher in the Albany SA3 compared to the state.

Aboriginal people in the Great Southern region experience moderate levels of socioeconomic disadvantage, acute and chronic potentially-preventable hospitalisations (PPHs), non-urgent ED presentations and higher rates of unemployment.

Population demographics

The Great Southern region is located on the south coast of Western Australia (WA) and is bounded by the South West, Wheatbelt and Goldfields - Esperance regions. The region spans 39,007 square kilometres and consists of one Australian Bureau of Statistics (ABS) Statistical Area Level Three (SA3) region: Albany SA3. The Albany SA3 includes the major towns of Albany, Denmark, Katanning, and Mount Barker. The Albany SA3's economy is reliant on agriculture, retail, tourism and construction and is home to 64,408 people, accounting for about 2% of WA's population[2].

Social determinants of health

Social determinants of health are the conditions in which people are born, grow and live, including factors such as a person's socioeconomic position, education, neighbourhood and physical environment[2]. These factors underpin a wide range of health and quality of life outcomes and can contribute to avoidable inequities in health care access.

The Socio-economic Index for Areas (SEIFA) provides a measure of the relative social and economic disadvantage within a region based on a wide range of indicators reflecting disadvantage, including low income, low educational attainment, high unemployment, and reliance on welfare for income and housing support.

Compared to other parts of WA (Index of Relative Socioeconomic Disadvantage, IRSD = 1012), the Great Southern region is an area of disadvantage, SEIFA score of 981 for Albany SA3[2]. Approximately 1 in 20 Albany SA3 residents (5%) live in social housing, which is above the state rate of 3%[2]. A similar proportion (6%) are in low income, welfare-dependent families with children, compared to 5% in WA overall[2]. Approximately 1 in 20 (5%) of residents in the Albany SA3 identify as Aboriginal and Torres Strait Islander (Aboriginal)[2].

Under-served population groups

People at risk of avoidable, unjust health inequities are more likely than the general population to experience poor health outcomes due to physical, social, and economic factors, and include people who are multicultural; LGBTIQA+; experiencing homelessness; living with a severe disability or caring for someone with a disability; developmentally vulnerable; and victims of family, domestic or sexual violence.

The Great Southern region has a number of under-served people who are at risk of poor health outcomes. Specifically:

- Over 4,500 Albany SA3 residents were born in a non-English speaking country, equating to 7% of the local population, compared to 18% across WA[2].
- 6% of residents in the Albany SA3 have a profound or severe disability, compared to 5% across the state[2].
- 13% of residents in the Albany SA3 provide unpaid assistance to people with a disability compared to 11% across WA[2].
- 24% of children in the Albany SA3 were developmentally vulnerable on one or more domains, compared to 20% across WA[2].
- An estimated 327 people in Albany SA3 experienced homelessness which equates to 58 per 10,000 people. This includes people living in overcrowded dwellings[2].

Multicultural populations

A bespoke review into the needs of multicultural people in WA identified that they face significant challenges accessing primary health care, including difficulties navigating the health care system, financial barriers and linguistic barriers when making appointments, articulating their health concerns and understanding medical terminology. Service providers require more training to effectively and appropriately support multicultural patients, including greater understanding of different cultures and the importance of using plain language or interpreters[5, 6]. Mental health, psychosocial support and vaccinations were identified as key needs for multicultural people[5].

For many multicultural communities, mental health is a significant issue, including comorbidity with alcohol and other drugs, and trauma. Some multicultural patients hesitate in seeking health care related to psychological concerns for fear of stigma, and difficulties in articulating their concerns[5].
Vaccinations can be difficult for migrants to plan for on arrival, as patient medical records are often inaccessible or need to be translated. This is significant for all migrants, particularly children, whose vaccinations must be aligned to the appropriate vaccine schedule.

Psychosocial strategies to provide a sense of connection and build independence are important for many people within multicultural communities, including support to set up a bank account, access Centrelink, improve English and obtain a driving license. These skills are critical in overcoming some of the barriers multicultural people face in accessing health care. There is a need to provide this connection and support in a safe and culturally appropriate setting and in a targeted manner to aid the transition to life in Australia.

There are two primary health care services specialising in care for the multicultural population in the Country WA region, located in the Goldfields SA3 and East Pilbara SA3. The Albany SA3 (CIS=0.09) has a moderate level of unmet need for multicultural services, driven by the rate of General Practitioner (GP)-type ED presentations among multicultural residents that is above the state level (2,286 per 10,000 people born in a non-English speaking country, vs. 1,912 across WA) [5]. However, this rate is below other parts of the Country WA region, and the Albany SA3 has a moderate proportion of residents born in a non-English speaking country compared to other parts of WA, nearly all (99.3%) of whom speak English well[5].

LGBTIQA+ populations

LGBTIQA+ is an acronym commonly used to describe lesbian, gay, bisexual, trans/transgender, intersex, queer/questioning, asexual, and other sexuality, gender, and bodily diverse people and communities. Many LGBTIQA+ people face discrimination and disparities connected to their gender identification and/or sexuality that impact their physical and mental health and access to health care and other services[7]. LGBTIQA+ people are known to have a higher risk of certain chronic diseases such as cancers, asthma and cardiovascular disease[7]. Moreover, some members of LGBTIQA+ communities, particularly gay, lesbian and bisexual people, are 2.0 times as likely to smoke daily compared to heterosexual people which increases their risk of developing a chronic disease[7].

The Private Lives survey is Australia's largest national survey of the health and wellbeing of LGBTIQA+ people to date[7]. In the latest results, LGBTIQA+ people reported lower self-rated health than the general Australian population, with fewer than 3 (31%) rating their health as very good or excellent compared to more than half (56%) of the general Australian population aged over 15 years[7]. Two in five (40%) cisgender men rated their health as very good or excellent compared to only 29% of

cisgender women, 26% of trans women, 20% of non-binary participants and 19% of trans men[7].

More than a third (39%) of participants reported a disability or long-term health condition, with 12% reporting a profound or severe disability, 20% a moderate disability and 6% a mild disability or long-term health condition[7]. When accessing a health or support service, 30% of those with a severe disability or long-term health condition felt accepted compared to LGBTIQA+ people who did not report a disability or long-term health condition (51%)[7]. More than three quarters (78%) with a severe disability or long-term health condition reported being treated unfairly by others in the past 12 months because of their disability or long-term health condition[7]. This was followed by 56% of residents with a moderate disability or long-term health condition and 43% with a mild disability or long-term health condition[7].

More than 4 in 10 (42%) of young Australian trans people have encountered medical services who did not respect, understand or have prior experience with gender diverse people[7]. Please refer to the Mental Health section for further details about mental health and suicide prevention for LGBTIQA+ populations.

Local intelligence has highlighted supply-side challenges, including a lack of LGBTIQA+ friendly services in the region, and many individuals travelling to Perth for services. Furthermore, there is limited understanding and education within the health sector about trans and intersex people. Significant proportions of LGBTIQA+ people have not felt they can safely disclose their LGBTIQA+ identity to GPs or have been misgendered in practices. Improved training and promotion of LGBTIQA+-friendly practices would be welcomed by the LGBTIQA+ community to address these issues[6].

It is important to note that there is a critical lack of research into the area of health of LGBTIQA+ people at an Australian population level[10]. Furthermore, each sub-group within the LGBTQIA+ population has its own unique health care needs, and it is inaccurate to treat these needs as homogenous across the LGBTIQA+ population. However, the lack of data, especially at a regional level, significantly limits the ability to identify and address the specific needs of each group – something WAPHA will continue to lobby to improve. Some needs relevant across the LGBTIQA+ population include:

Clinical	
	Access to appropriate: • **Health and medical care** that is inclusive, delivered by health care providers trained to deliver LGBTIQA+ affirming care, such as using correct names and pronouns and understanding gender identity and sexual orientation. • **Preventive care**, such as tailored cancer screenings (e.g., cervical cancer for transgender men, prostate exams for transgender women) and routine health checks that address unique risk factors for different sub-groups. • **Mental health support** delivered by culturally competent mental health providers who understand the unique stressors LGBTQIA+ individuals can experience, including stigma, discrimination, and identity-related challenges.
Cultural	
	• **Respectful, non-judgemental treatment**: health care free from stigma and discrimination, ensuring all LGBTQIA+ patients feel safe and respected. **Relevant and affirming health information**: Resources that reflect and respect LGBTQIA+ identities, such as educational materials on sexual health, mental well-being, and healthy relationships. • **Community support and per networks**: Programs that connect LGBTQIA+ individuals to peer groups, mental health resources, and LGBTQIA+ community organisations that provide culturally relevant support. • **Visibility of LGBTQIA+ friendly signage**: Clear signs, symbols, and inclusive language in health care facilities to signal a safe space for LGBTQIA+ patients.
Organisational	
	• **Inclusive policies and protocols** (e.g. anti-discrimination policies, use of inclusive terms on health care forms). • **Ongoing cultural competency and LGBTQIA+ sensitivity training** for all health care workers. • **Improved data collection** on LGBTQIA+ health needs (e.g., sexual orientation and gender identity data in patient records),

helping to inform equitable policy and service delivery.

- **Collaboration across LGBTQIA+ organisations** to create referral networks, share resources, and ensure service delivery aligns with community needs.
- **Strict adherence to confidentiality policies**, especially regarding sensitive information related to gender identity and sexual orientation, to build trust with LGBTQIA+ patients.

Further information regarding health care standards in Australia that support the LGBTIQA+ community can be found at:

- Australian Charter of Health Care Rights – LGBTQI+
- Rainbow Tick guide to LGBTI-inclusive practice
- Australian Medical Association (AMA) LGBTQIASB+ Position Statement
- Australian Health Practitioner Regulation Agency (AHPRA) LGBTIQA+ Communities guidance for health practitioners
- General Practice Supervision Australia (GPSA) LGBTQIA+ Health and Inclusive Health care.

People experiencing homelessness

State-wide, health care barriers exist for people at-risk of or experiencing homelessness. A bespoke study into the needs of these people identified that many have had poor experiences with GP clinics and feel unheard when accessing primary health services. Experiences of fear, shame, and stigma were reported, often compounded by a clinical environment where some people feel out of place or unwelcome. Other barriers, including difficulty interacting with non-clinical staff (e.g., reception, security), fear of losing possessions to attend mainstream services, and financial barriers can also make it difficult for patients to make an appointment and see a clinician. Long wait times for appointments, transport availability and lack of fixed address mean keeping appointments is difficult.

Dual diagnoses and comorbidity can create complexities in accessing health care services, impacting eligibility for certain services and resulting in individuals feeling like they are being passed between different service providers in search of the right care. People experiencing homelessness indicated that it can be difficult to find the language to talk to clinicians about their concerns, and that clinicians may try to "fix everything all at once" as opposed to on one thing at a time.

In WA, 68% of the homeless population have at least one chronic health condition, 68% are living with mental health challenges, and 62% have a substance use disorder[11]. More than one third (38%) have poor health from all three (physical, mental and substance issues)[11].

There is only one primary health service specialising in care for people experiencing homelessness in the Country WA Primary Health Network (PHN), located in Albany. However, the areas of greatest need for homelessness support are the Kimberley, East Pilbara, Gascoyne and Goldfields SA3s[12].

There is a moderate level of unmet need for homelessness services in the Albany SA3 (CIS=-0.32)[12]. An estimated 324 residents are at risk of or currently experiencing homelessness; equating to a rate similar to the state (50 people per 10,000 in the Albany SA3 compared to 48 per 10,000 across WA)[12]. However, this rate is markedly below some other areas in the Country WA region.

People experiencing family, domestic and sexual violence

The Australian National Plan to End Violence against Women and Children 2022 – 2032 aims to end gender-based violence through prevention, early intervention, response, and recovery and healing. Aligning with this, WA's Family and Domestic Violence Prevention Strategy details initiatives to prevent and respond to family, domestic and sexual violence, the key outcomes for which are prevention and early intervention; safety for victims through timely and accessible services; and accountability for perpetrators and support to cease violent behaviour.

One in six Australian women and one in eighteen men (since the age of fifteen) have been subjected to physical and/or sexual violence by a current or previous cohabiting partner[13]. Moreover, one in six women and one in nine men were physically or sexually abused before the age of 15 years[13]. The following groups have been identified as being more at risk to family, domestic and/or sexual violence[14]:

- women
- children
- people living with a disability
- Aboriginal people
- people from multicultural backgrounds
- people in rural and remote Australia

- older people
- LGBTIQA+ people
- people experiencing socioeconomic disadvantage.

In 2018, partner violence was ranked as the fourth leading risk factor contributing to total disease burden for women aged 15-44, with child abuse and neglect during childhood being the leading risk factor[15]. Family and domestic violence is also a leading cause of homelessness. In 2022-2023, approximately 104,000 (38%) of clients assisted by specialist homelessness services (SHS) had experienced family and domestic violence and of these, more than three in four (75%) were female[15].

WA Police statistics indicated that in the 12 months from July 2023 to June 2024, there were 827 reports of family related assault in the Great Southern region, equating to an average of 69 reports per month[16].

Chronic disease

Chronic diseases are long-term, non-communicable conditions and play a significant part in mental and physical ill-health, disability, and premature death. People with chronic disease often have two or more conditions (multi-morbidity) such as a mental health condition as well as a physical condition, creating complex health needs and presenting challenges for treatment. This section focuses on chronic conditions other than mental and behavioural conditions, which are discussed in the Mental Health section.

Chronic disease contributes significantly to the differences in life expectancy between Aboriginal and non-Aboriginal people. Aboriginal people experience 2.3 times the rate of disease burden, with an age-standardised death rate for chronic disease 3.8 times the rate among non-Aboriginal people[17]. In the 2021 Census, the age-standardised rate, ASR per 100 of Aboriginal people who reported they had one or more long-term health conditions was 25.7[18].

Prevalence of chronic disease

For the first time in 2021, the Census collected information on ten common long-term health conditions in Australia, which included, arthritis, asthma, cancer (including remission), dementia including Alzheimer's disease, diabetes excluding gestational diabetes, heart disease including heart attack or angina, kidney disease, lung conditions including chronic obstructive pulmonary disease (COPD) or emphysema, stroke, and mental health conditions including depression or anxiety. In the 2021 Census, 19% of all West Australians (484,000) reported they had one of the above conditions and 5% reported they have two of the selected conditions[19].

The Albany SA3 has a concerning level of chronic disease among its residents, and the highest or second highest rate in the Country WA PHN for four of the ten chronic conditions reported by the Census[2]. Specifically, it has the highest age-standardised ASR per 100 people for stroke at 0.9 people per 100[2]. It also has the second highest ASR in the Country WA PHN for asthma (8.4 per 100) and cancer (including remission) (3.0 per 100). Each of these exceeds the state rate[2]:

	ASR per 100 people	
	Albany SA3	WA
Mental health (including depression or anxiety)*	10.1	8.3
Lung conditions including COPD	1.7	1.7
Stroke	0.9	0.9
Arthritis	9.0	7.9
Asthma	8.4	7.4
Cancer (including remission)	3.0	2.9

*This the first time the chronic conditions have been collected in the Census, and there is some evidence that there may be biases in reporting mental health conditions. Therefore, these number should be interpreted with caution.

Using WAPHA's new method of estimating condition prevalence from general practice data, rates of clinician-diagnosed diabetes were significantly higher than the state level of 7.9% in the Albany SA3 at 9.7%[20].

Risk factors

Established risk factors for chronic disease include having high blood pressure, being overweight or obese, smoking, doing little or no exercise and having high levels of stress[22]. Psychosocial factors such as social isolation and loneliness also contribute to chronic ill-health[22]. Risk factors for chronic disease tend to be more prevalent in areas experiencing socioeconomic disadvantage and in regional and remote areas[23].

The Great Southern region has higher rates of risk

factors compared to the state levels, particularly in Albany SA3[24]. This includes high levels of residents experiencing obesity, having high blood pressure, smoking tobacco and not engaging in any physical activity for leisure purposes[24].

The estimated prevalence for people experiencing obesity is higher in Albany SA3 compared to the WA rate of 36%[24]. Nearly 2 in 5 (39%) residents in Albany SA3 are experiencing obesity[24]. About 1 in 5 (20%) residents in Albany SA3 are not engaging in any physical activity for leisure purposes, compared to 17% of Western Australians overall[24].

Albany SA3 has a prevalence level slightly above the state rate of 11% for smoking with approximately 1 in 8 (12%) Albany SA3 residents who currently smoke[24].

High blood pressure is a health need in the Great Southern region, with approximately 1 in 4 residents having high blood pressure in Albany SA3 (23%) similar to the state rate of 23%[24].
Reported stress levels in the Albany SA3 are below the state rate, with around 1 in 9 (12%) of residents reporting stress, compared to 12% of WA[24].

Healthy Weight Action Plan

WA Primary Health Alliance (WAPHA) is a steward of the WA Healthy Weight Action Plan 2019-24, which focuses on early intervention of people identified as at-risk of becoming overweight and management of people who currently live with obesity. This involves multi-component, multi-levelled strategies delivered as part of an integrated shared care model. Through the Healthy Weight GP Project, WAPHA has committed to supporting GPs to provide options for patients who want to improve their health. Key deliverables include the development of a weight management 'hub' (website) with links to Clinical Referral Pathways and local services for weight management, training for general practice staff, and tools to assist general practices in implementing weight management services as a quality improvement activity.

Burden of disease

Burden of disease measures the impact of different diseases or injuries on a population. It combines the years of healthy life lost due to living with ill health (non-fatal burden) with the years of life lost due to dying prematurely (fatal burden) to give a total burden reported using the disability-adjusted life years (DALYs) measure. Chronic disease accounts for two thirds (67%) of the burden of disease in WA[28]. The Western Australian Burden of Disease Study indicated that the Great Southern region had a 1.3 times higher rate of fatal burden and 1.3 times higher non-fatal burden compared to the metropolitan regions[28]. The Great Southern region had the highest infant and congenital conditions burden in the state (3% of the total burden in the region) and third highest injury burden in the state (after Kimberley and Wheatbelt), accounting for 11% of the total burden in the region[28]. Depressive disorders, anxiety disorders, coronary heart disease and COPD (27% of burden for females and 26% for males) were also among the five leading causes of disease burden, along with back pain/problems for females and suicide/self-inflicted injuries for males[28]:

Leading causes of total disease burden in the Great Southern region

Condition	%	ASR per 1,000
Mental	19%	52.9
Cancer	19%	35.0
Cardiovascular	12%	20.1
Injury	11%	29.0
Musculoskeletal	8%	16.7

Potentially preventable hospitalisations for chronic conditions

Potentially preventable hospitalisations (PPHs) are certain hospital admissions that potentially could have been prevented by timely and adequate health care in the community. Chronic conditions that are classified as potentially preventable through behaviour modification, lifestyle change and timely care include: angina, asthma, COPD, congestive cardiac failure, diabetes complications, hypertension and iron deficiency anaemia. This report includes insights from public hospital data.
Across the state, the age-standardised rate of PPHs for total chronic conditions was 903 per 100,000 and the highest rates were for chronic congestive cardiac failure (196), chronic obstructive pulmonary disease (184) and chronic diabetes (178)[2]. Relative to other parts of WA, the Albany SA3 has a higher rate for total chronic conditions (1,178 people per 100,000, compared to 903 per 100,000 across WA)[2]. This is driven by higher rates in the Albany SA3 compared to WA for chronic angina (187 per 100,000 vs. 90), Chronic asthma (88 vs. 57) and diabetes (322 vs. 178)[2]. The Albany SA3 also has a high rate of PPHs due to chronic iron deficiency anaemia compared to the state rate (148 vs. 140)[2].

Management of chronic disease in primary care

Chronic Disease Management Plans (CDMPs) are Medicare-rebated for GPs to manage chronic or terminal medical conditions, including preparing, coordinating, reviewing or contributing to chronic disease management plans. They apply for a patient who suffers from at least one medical condition that has been present (or is likely to be present) for at least six months or is terminal[29].

Across WA, 14% of residents have utilised a GP chronic disease management plan (CDMPs). Residents of Albany SA3 have comparatively higher utilisation at 15%[30].

Childhood immunisation rates

The National Immunisation Program (NIP) aims to increase national immunisation coverage to reduce the number of vaccine-preventable diseases in Australia. A key priority of the program is to work towards achieving immunisation coverage rates of at least 95% for children aged 1, 2 and 5 years. Data from the Australia Immunisation Register from 1st January 2023 to 31st December 2023 indicated that in Country WA PHN, childhood immunisation coverage was comparable to the state average for all ages (1, 2 and 5 years), but was still below the 95% target[31]. About 90% of children were fully immunised at 1 year and 92% at 5 years, compared to only 87% at 2 years[32].

The Australian Immunisation Register (AIR) reports that the Albany SA3 childhood immunisation rates were below the 95% immunisation target across all ages, being 92% for children aged 1 year and 5 years, and 89% for children aged 2 years[32]. The lower rate at 2 years suggests that interventions should be targeted to increase immunisation coverage for this age group.

Cancer screening

There are three national cancer screening programs in Australia: BreastScreen Australia, National Cervical Cancer Screening Program (NCSP), and National Bowel Cancer Screening Program (NBCSP). In 2020-21, the cancer screening participation rates in the Albany SA3 for two of the three cancer screening programs were under state levels[33].

In the Albany SA3, about 2 in 5 (46%) had participated in bowel cancer screening (compared to 42% across WA), about 2 in 5 (46%) had participated in breast cancer screening, below state level of 51% and about 3 in 5 (61%) had participated in cervical cancer screening, below state level of 69%[33].

These levels are particularly concerning given that the prevalence of cancer (including remission) in Albany SA3 exceed state levels and cancer is the 2nd leading cause of total disease burden in the Great Southern region[28]. Please note, participation in the new five-year program for cervical cancer screening cannot be accurately reported until there are 5 years of data available.

Avoidable mortality

The median age of death in the Albany SA3 is 82 years, above the state median age of 80 years[2].

Avoidable mortality refers to deaths of people under 75 years that are potentially avoidable under the current health care system (primary or hospital care). The rate of avoidable deaths in the Albany SA3 exceed the state rate of 117.6 per 100,000 at 121.7 per 100,000[2]. The Albany SA3 has above state levels for all avoidable death causes except for ischaemic heart disease, breast cancer (females) and circulatory system diseases[2].

According to the Mortality Over Regions and Time (MORT) data, the rate of premature deaths (people under 75 years) in the Albany SA3 was similar to the state, both at 195 per 100,000[3]. The five leading causes of death and their percentage with respect to all death causes within the Albany SA3 is[3]:

Rank	WA	Albany SA3
1	Coronary heart disease (11%)	Coronary heart disease (11%)
2	Dementia including Alzheimer's (9%)	Dementia including Alzheimer's (8%)
3	Cerebrovascular disease (5%)	Cerebrovascular disease (5%)
4	Lung cancer (5%)	Lung cancer (5%)
5	COPD (4%)	COPD (5%)

Utilisation of primary care services

GP utilisation in the Albany SA3 was above state levels but declined between 2018-19 and 2022-2023[30]. In 2022-2023, about 4 in 5 residents in Albany SA3 (82%) visited a GP; compared to 84% across WA[30]. This was a reduction from 2021-2022 levels, where 88% of Albany residents had utilised a GP service[30].

The PHN After-Hours Program aims to improve access to GP services in the after-hours period, being before 8am and after 6pm weekdays; before 8am and after 12pm Saturday; and all-day Sunday and public holidays, particularly for people at risk of or experiencing homelessness.

A targeted analysis on need, unmet demand and supply indicators was undertaken to assess relative

local demand for after-hours care. A Composite Index Score (CIS) was calculated based on the after-hours demand and supply indices, and each SA3 in WA ranked by relative demand from highest to lowest score.

In the Country WA region, there are 146 primary health services open after-hours, contributing 17% of all after-hours primary health services in WA[35]. Primary health services collectively operate for 29 hours weekly per 10,000 population; below the state level of 45 hours[35]. There are 11 MBS after-hours GP services (urgent and non-urgent) claimed per 100 people across WA. The Albany SA3 (CIS=1.36) has the second highest level of unmet need for after-hours services in WA[35]. It has the lowest utilisation of MBS-subsidised after-hours services relative to its population size, high volumes of people within the age groups (0-4 and over 65 years) likely to need after hours care, and high levels of residents with multimorbidity[35].

Stakeholder consultations further revealed two insights for after-hours primary health care across WA. First, operating after-hours services is not financially viable for most GP practices, with prevalent financial barriers including insufficient MBS incentivisation for after-hours services, financial risk due to unpredictable demand in after-hours patient volume , and workforce constraints due to inability to incentivise staff to work during the after-hours period[35]. Second, the Royal Commission into Aged Care Quality and Safety recommendations have increased demand for after-hours GP care for residential aged care (RAC) providers[35]. The stronger regulation of RACs to ensure older people receive appropriate care relative to their needs has increased the reliance of RACs on GPs, resulting in an increase in the number of calls made by RACs to GPs during the after-hours period due to fear of potential repercussions if the RACs fail to report or respond to medical incidents, irrespective of the severity of the health concern presented[35].

Residents of the Albany SA3 have similar utilisation of GP health assessments compared to the state (5%)[30]. Please note, these data only include Medicare-subsidised services, and it is not currently possible to obtain data by type of health assessment.

The majority of Medicare-subsidised allied health services are for optometry services, and Medicare-subsidised allied health services only account for a portion of allied health service use in Australia. This is because they are only available to patients with a GP or specialist referral, and exclude non-Medicare subsidised services, such as those provided by Aboriginal health services and other non-government organisations[30].
Medicare-subsidised nurse practitioner services utilised in the region are similar to the state rate. The latest reports that 4% of Albany SA3 residents have used a nurse practitioner service, slightly higher than the state rate of 3%[30].

The nursing and Aboriginal health worker service group consists of Medicare-subsidised services delivered by a nurse practitioner, practice nurse, midwife or Aboriginal health worker[30]. Approximately 1 in 13 (8%) residents in the Albany SA3 used a Medicare-subsidised practice nurse/Aboriginal health worker, slightly higher than the state rate of 7%[30].

Access Relative to Need index

The Access Relative to Need (ARN) index measures access to primary health care relative to predicted need and is based on methodology developed by the Australian Institute of Health and Welfare in 2014[36]. The ARN index is based on the following information:

- The location of health services and the populations they serve.
- The number of GP (FTE) working at each location.
- The demographic and socioeconomic characteristics of the population.
- In 2024, WAPHA updated the ARN index to identify areas with a low access to GPs relative to need.

Relative to other areas in WA, there is moderate access to GP services across the Great Southern region. Overall, 80% of SA3s across WA have higher access relative to need than Albany SA3.

Consumer views of accessing GPs

To better understand the experiences of Western Australians experiencing socioeconomic disadvantage accessing primary health care, particularly general practitioners, when they need it, WAPHA commissioned consumer research in 2021[37].

Most people experiencing socioeconomic disadvantage were able to access a General Practitioner when needed. Although 31% of respondents encountered barriers when visiting a GP, 92% had visited a GP in the last year[37]. However,

approximately 1 in 10 respondents (11%) had needed a GP on at least one occasion but had not visited one[37]. This was higher among Aboriginal people (22%), people aged 18-39 (20%), those living with disability (16%) and females (15%)[37]. The main reasons these people needed a GP were illness, concerns about mental health, to get a prescription and to help with the management of a long-term health condition[37]. Only 8% of these people sought help from an alternative health care professional, such as a pharmacist[37]. A lack of available appointments was the main reason for not seeing a GP when needed, cited by nearly half (43%) of this group[37]. A further 25% reported a lack of time and other commitments, while 16% felt afraid of being judged[37].

Among the full sample, the most common reason to visit a GP was to get a prescription (53%), followed by managing a chronic condition (28%) and general check-up (25%)[37].

Accessibility factors such as appointment availability were the most cited barrier to accessing a GP, followed by transportation issues and conflicting commitments[37]. Women, people with young children, young people, people from multicultural communities, people living with a disability and Aboriginal people were most likely to experience barriers[37].

Cost did not appear to play a large role in limiting access to a GP, with only 1 in 10 (10%) mentioning it as a barrier[37]. This finding is attributed to over 80% of the survey cohort indicating that their GP service was bulk billed. If the availability of bulk billed appointments decreased this would seriously impact access to a GP for people experiencing social and economic disadvantage.

The benefit of having a regular GP to the quality of a patient's experience was clear. Respondents with a regular GP reported finding it significantly easier to visit their GP and were significantly more likely to have had a positive experience, even compared to those with a regular GP practice, but not a regular GP[37].

Nearly 9 in 10 (87%) prefer attending a GP appointment in person but 2 in 3 (67%) would be comfortable with a telehealth appointment under some circumstances, such as for follow-up appointments[37].

Workforce

General practitioners

Accurate, up-to-date general practitioner full-time equivalent (GP FTE) figures are unavailable, so the Department of Health and Aged Care comprised a proxy measure which calculates a GP's workload based on MBS services claimed, with one GP FTE representing a 40-hour week over 46 weeks of the year. For each Medicare provider, the new measure attributes an estimate of the amount of time they have spent on their claims in relation to what would be worked by a full-time GP (billable time, non-billable time, and non-clinical time). It is an estimation of GP workforce service utilisation and not an exact count of GP FTE available. For this report, we will refer to this measure as the GP Claimed Service Equivalent (GPCSE).

Based on the latest data, the Albany SA3 has 91 GPCSE per 100,000 residents below the state rate of 102 per 100,000[38].

In addition to their normal remuneration, GPs can access additional financial incentives based on how remote the location in which they work is. Areas are classified from metropolitan through to rural, remote and very remote. Compared to other areas in WA, Albany, Denmark-Walpole, Katanning, Kojonup and Mount Barker catchments (all within Albany SA3) are noted as having moderate need for GP workforce due to the lack of local general practices and limited housing availability resulting as a significant barrier to workforce recruitment[39].

Albany catchment has a relatively moderate need for GP workforce, with 10 local general practices and the ability to accept GP Registrars immediately[39]. More than half of the residents are experiencing socioeconomic disadvantage, with 57% in the most disadvantaged quintiles in WA[39].

Denmark-Walpole catchment has a relatively moderate need for GP workforce, with three local general practices and the ability to accept GP Registrars immediately[39]. More than half of the residents are experiencing socioeconomic disadvantage, with 51% in the most disadvantaged quintiles in WA[39].

Katanning and Kojonup catchments have a relatively moderate need for GP workforce with three local general practices and a shared workforce between the two towns[39]. The practices in Katanning have the ability to accept GP Registrars immediately. Around 7 in 10 residents (71%) in Katanning are experiencing socioeconomic disadvantage, and nearly one in two residents (46%) in Kojonup are experiencing socioeconomic disadvantage, where

these populations are in the most disadvantaged quintiles in WA[39].

Mount Barker catchment has a relatively moderate need for GP workforce with one local general practice and the ability to accept GP Registrars with individual support[39]. About 3 in 5 of the residents are experiencing socioeconomic disadvantage, with 64% in the most disadvantaged quintiles in WA[39].

Gnowangerup and Jerramungup catchments have no viability to support an increase in workforce due to small population sizes[39].

Primary care nurses

The Albany SA3 had a relatively high supply of primary care nurses at 182 full-time equivalent (FTE) or 283 FTE per 100,000 residents compared to 25 FTE per 1,000 across WA[38].

Aged care

The Albany SA3 has a large and growing aged population. In 2022, there were 14,710 people aged 65 years and over in Albany SA3, representing 23% of the population and this is projected to increase to 26% by 2030 compared to 18% across the state and 20% across Country WA PHN[2].

Age is an important determinant of health and people aged 65 years and over are more likely to have complex and/or chronic conditions as well as comorbidities. Moreover, geriatric syndromes later in life (usually after the age of 85 years) including pressure ulcers, incontinence, falls, and delirium have substantial implications for quality of life as well as health care utilisation[40].

The Western Australian Burden of Disease Study 2018 reported that the five leading causes of disease burden for older people aged 65 to 84 years were coronary heart disease, COPD, lung cancer, dementia and type 2 diabetes mellitus[27]. For older people aged 85 years and over, dementia was reported as the leading cause of total burden of disease[27].

The 2021 Census reported that 10% of Western Australians aged 65 years and older were reported to have three or more long-term health conditions[41]. This was similar in Albany SA3, with 10% of residents aged 65 years and older living with three or more long-term health conditions[41].

Approximately 3 in 5 (59%) general practice patients aged 65 years or older were diagnosed with three or more chronic conditions across WA[20].

About 3 in 5 (60%) of general practice patients in the Albany SA3 aged 65 years and older are diagnosed with three or more chronic conditions[20]. Please note that this data includes private general practices only and do not include GP services provided by non-government organisations[20].

Utilisation of health services

Across WA, approximately 2 in 5 (39%) of people aged 80 years and over had a GP Health Assessment in 2022-2023[30].

In residential aged care homes (RACHs) there were 15.5 GP attendances per patient across WA[30]. The rates in the Country WA PHN overall was similar at 15.0 attendances per patient[30].

Medicare items are available for in-depth assessment of a patient 75 years and over. This provides a structured way of identifying health issues and conditions that are potentially preventable or amenable to interventions to improve health and quality of life. General practice data indicate that approximately 1 in 4 (28%) of patients aged 75 years and over across WA have a GP health assessment[42]. The Albany SA3 is above the state rate at 30%[42].

The Royal Commission into Aged Care Quality and Safety noted that people receiving aged care, particularly those in residential aged care, do not consistently receive the health care they need. This includes doctor visits, mental health services, oral and dental health care, and preventative and holistic care[43].

Palliative care

The goal of palliative care is to improve the quality of life of patients with an active, progressive disease that has little or no prospect of a cure[44].

Most Australians would prefer to die at home, rather than in hospital or residential aged care[45]. However, many older people use both hospital and aged care services in their final years of life and often die in one of these settings[44].

The Royal Commission into Aged Care Quality and Safety made key recommendations for palliative care, including[43]:

- Compulsory palliative care training for aged care workers.

- Comprehensive sector funding specifically including palliative care and end-of-life care.
- A review of the Aged Care Quality Standards to regulate high-quality palliative care in residential aged care.
- Access to multidisciplinary outreach services; and a new Aged Care Act that includes the right to access palliative care and end-of-life care.

From 1 October 2022, a new funding model, the Australian National Aged Care Classification (AN-ACC) has replaced the Aged Care Funding Instrument (ACFI). The AN-ACC provides equitable funding through three components, to approved residential aged care providers based on the service type delivered and each residents' care needs.

Primary Health Networks will receive funding from the Greater Choices for At Home Palliative Care program to improve palliative care coordination in their local communities.

In 2022, there were 27.7 total full-time equivalent (FTE) palliative medicine physicians and 333.2 FTE palliative care nurses employed in WA[46, 47]. Whilst it is recognized that the palliative care workforce is made up of a broad range of professional groups including other medical specialists and allied health professionals, the existing national data sources cannot accurately capture information on palliative care services provided by these health professionals, hence have not been reported in this report.

Palliative care nurses across WA are working 65.0 total weekly hours per 1,000 patients aged 75 and over[46]. The rate is higher in the Albany SA3, at 100.9 total weekly hours per 1,000 patients aged 75 and over[46]. Palliative medicine physicians across WA are working 5.7 total weekly hours per 1,000 aged 75 and over[47]. The rate is higher in the Albany SA3, at 9.1 total weekly hours per 1,000 aged 75 and over[47].

Aged care services

The aged care system in Australia offers three main types of service: the Commonwealth Home Support Programme, Home Care Packages, and residential care. Across Australia, more than two-thirds of people using aged care services access support from home[48].

Commonwealth Home Support Programme

The Commonwealth Home Support Programme (CHSP) provides entry-level support for older people so that they can continue to live independently at home. For FY 2022-2023 in WA, domestic assistance had the highest number of clients serviced and had the highest expenditure; however, social support group had the highest amount of services provided by hours[49].

Home Care Packages program

The Home Care Packages (HCP) program provides structured support to older people with complex needs to help them live independently in their own home. Support provided includes help with household tasks, equipment, minor home modifications, personal care, and clinical care such as nursing and allied health services. There are four levels of HCPs from level 1 (basic care needs) to level 4 (high care needs). Across Australia, wait times for approved HCPs range from 3-6 months for level 1 to at least 12 months for level 2 and above[49].

There are currently five home care services in the Albany SA3 provided being Albany Community Care Centre, Clarence Estate Home Care and Silver Chain Great Southern (HCP levels 2,3 and 4)[50]. As at December 2023, there were 707 people in a HCP in the Great Southern Aged Care Planning Region (ACPR), which includes the Albany SA3 and a further 144 people waiting for a HCP at their approved level[50].

WA has 249 residential aged care services with a total of 19,887 residential places[51]. Despite having a relatively high proportion of elderly population, the Albany SA3 has a low beds-to-population ratio with eight residential aged care homes at 49 beds per 1,000 people aged 70 years and over; below the state rate of 64 per 1,000[51].

The Albany SA3 has a moderate supply of nurses working in aged care at 12.8 FTE per 1,000 people aged 70 years; slightly above the state rate of 12.2 FTE per 1,000 for the cohort[38].

Alcohol and other drugs

About 1 in 4 (25%) residents in the Albany SA3 are at risk of long-term harm from alcohol, similar to the state rate of 26%[24]. Levels of short-term alcohol harm (11%) and high risk alcohol consumption (32%) are similar to the state rate (10% and 32% respectively)[24]. Furthermore, about 1 in 8 (12%) residents in the Albany SA3 are current smokers, similar to the state rate of 11%[24].

Using WAPHA's new method of estimating condition prevalence from General Practice Data, compared to state rates, patients in Albany has statistically

significantly higher rates of clinician-diagnosed chronic alcohol misuse (2.3%) and chronic drug misuse (1.6%)[20].

AOD Burden of Disease

WA Burden of Disease Study 2015 has the latest regional recording for risks associated with burden of disease for the Great Southern region. Tobacco use contributed to 18% of Cancer burden and 8% of cardiovascular disease, with people aged 65+ years having the highest risk of burden[52]. Men (9%) in the Great Southern region also had a high risk of disease due to tobacco use compared to women (7%)[52].

Alcohol contributed to the burden of 17% of injuries, 9% of mental and substance use disorders, 4% of cancer and 3% of cardiovascular disease[52]. The 15-24-year and 25-44-year age groups had the greatest risk of alcohol leading to disease[52].

Illicit drug use did not present as a leading risk factor for any age group by sex. However, illicit drug use contributed to 6% of mental and substance use disorders and 0.1% of cancer in Great Southern[52].

Accidental overdose

Australia's Annual Overdose Report, produced by the Penington Institute, reported an increase in unintentional drug-induced (accidental poisoning) deaths in WA from 2004 (2.7 per 100,000) to 2021 (8 per 100,000) suggesting that drug use is a growing health concern[53]. Of this, males account for two thirds (70.5%) of unintentional drug-induced death compared to women[53]. People age 40-49 had 455 (27.2%) unintentional drug-induced deaths in 2021 and were found to be the most at-risk age bracket[53].

In 2021, opioids continued to be the largest overall drug group identified in unintentional drug-induced deaths in 2021 (45.7%), followed by benzodiazepines (32.5%) and anti-depressants (19.3%)[53].

WA had the second highest rate of heroin death in 2021 with 1.5 deaths per 100,000[53]. This corresponds with higher rates of death for other opioids such as fentanyl/pethidine/tramadol in 2021 (0.8 deaths per 100,000)[53]. There has also been an increase in deaths involving benzodiazepines in WA from 2013 to 2021 (1.1 to 3 deaths per 100,000), and stimulants such as methamphetamine and amphetamines (1.3 to 3 deaths per 100,000)[53].

Between 2017-2021, there were 30 unintentional drug-induced deaths in the Albany SA3, equating to a rate 9.6 per 100,000 people, above the state average of 8 per 100,000[53].

Hepatitis B and C

Hepatitis B and C are bloodborne viruses. Hepatitis B is spread between people by body fluids while hepatitis C is spread through blood-to-blood contact[54] and is commonly spread through unsafe injecting practices. Untreated hepatitis B and C can lead to liver disease (including cirrhosis), liver cancer and death[55].

Since 1982, a vaccine has been developed for hepatitis B with the recommendation that babies and adolescents are vaccinated[54]. Currently there is no vaccination available for hepatitis C, although antiviral treatment is available. Treatment is now more than 95% effective at curing hepatitis C and available to most people via prescription from their GP[54, 56].

In WA, notifications of hepatitis B and C have been declining. Between 2017 and 2023, notification rates of hepatitis B have slightly reduced from 21 to 18 notifications per 100,000[56]. Hepatitis C notification rates decreased (from 62 to 47 notifications) between 2004 and 2017 and has continued to decrease with 32 notifications per 100,000 people in WA in 2023[57].

The proportion of people with chronic hepatitis B (CHB) in the Albany SA3 (0.5%) is below the state rate of 0.8%[59]. Treatment uptake is suppressed for the Albany SA3 due to low numbers.

Chronic hepatitis C (CHC) levels in the Albany SA3 (0.9%) are slightly above the state rate of 0.7%[59]. The CHC treatment uptake was 53% in the Albany SA3; above that of the state level of 42%[59].

Alcohol and other drug services

Reported statistics on AOD treatment show that across the Country WA PHN, 412.57 per 100,000 people understood treatment during the 2022-2023 period[60]. Alcohol treatment represented more than half (53%) of the drug of concerns, followed by cannabis (23%) and amphetamines (18%)[60]. Men make up nearly two thirds of clients (64% vs. 36%), with 30–39-year-olds (28%) making up the largest age group of clients[60].

Drug and Alcohol services are provided by non-government organisations in the Great Southern region[61]. The Community Alcohol and Drug Service (GSCADS) is provided by the Palmerston Association. They have three primary bases in Albany, Denmark, and Katanning, and provides support to surrounding communities, from Walpole to Bremer Bay, and

north to Kojonup, Katanning, and Lake Grace by offering education, counselling and training for individuals and families and have culturally secure services for Aboriginal people. GSCADS also runs a needle and syringe program (NSP) to reduce the harms associated with injecting drug use. Additionally, the WA Primary Health Alliance (WAPHA) also commissioned Continuing Care Program services in Albany, Denmark and Katanning[61].

Mental health

Mental health was the leading cause of disease burden in the Great Southern region contributing 18% to the total disease burden for the region[28]. Across the Great Southern region, 35,870 community mental health occasions of service were recorded, with females accounting for 55% of the total figure[88].

Approximately 1 in 9 residents in the Albany SA3 have been diagnosed with anxiety (11%), depression (11%) and high or very high psychological distress (12%)[63]. The prevalence of anxiety, depression and psychological distress is similar to the state levels at 12%, 11% and 13% across WA[63].

Using WAPHA's new method of estimating condition prevalence from General Practice Data, rates of clinician-diagnosed depression were statistically significantly higher in the Albany SA3 (9.0%), whilst rates of diagnosed Anxiety were statistically significantly lower in the Albany SA3 (4.3%)[20]. Diagnoses of mixed Depression and Anxiety are included in both disease estimates[20].

Suicide and self-harm

From 2018 to 2022, 1,919 people sadly died from suicide in WA; a rate of 14.1 people per 100,000 people and above the national rate of 12.3 per 100,000[3]. In WA, suicide represents 3% of all deaths and is the ninth leading cause of death[65].

At a rate of 14.6 people per 100,000, suicide in the Albany SA3 is similar to state levels[3]. Forty-six people died from suicide in the Albany SA3 between 2018 to 2022[3]. Suicide is the twelfth leading cause of death, representing 2% of all deaths in the region between 2017-2021[65].

The Health and Wellbeing Surveillance Survey collects data on suicidal ideation among adults aged 16 years and over[24]. In the Albany SA3, 1 in 13 (8%) indicated that they had thought seriously about ending their own lives, slightly above the state rate of 7%[24].

Self-harm is a strong risk factor for suicide. At a rate of 103.2 per 100,000 residents, hospitalisations for self-harm in the Albany SA3 is above the state level (97.9 per 100,000)[66]. Self-harm hospitalisations were highest for females and for people aged 0-24 years[65].

Youth mental health

Primary mental health care services play an important role in prevention and early intervention efforts reduce the prevalence and impact of mental health problems amongst young people[66, 67]. Approximately 1 in 7 young people aged 4-to-17-years experience mental illness in any given year[68], and 75% of severe mental health problems emerge before the age of 25. Early intervention in childhood and adolescent years can prevent or mitigate potentially lifelong mental illness[69].

A recent survey of WA school children found that mental health was a critical issue with a substantial number of Year 7 to 12 students reporting poor life satisfaction, low self-esteem, high levels of stress and the feeling they can't cope with life's challenges[69]. Approximately 1 in 4 (26%) female year 7 to 12 students rate their life satisfaction as 0 to 4 with '0' being the worst possible life. This was double the proportion of males who felt the same (13%)[67].

Self-harm is approximately twice as high in females compared with males, and in older adolescents compared with younger adolescents[67]. Females aged 16-17 years have the highest rates of self-harm, with 17% having engaged in an act of self-harm[67].

In WA, mental health services for young people are provided through general practice, the public mental health system (such as the Child and Adolescent Mental Health Service), not-for-profit organisations (headspace) and private providers such as psychologists.

Hospital EDs also play a role in treating mental illness. People seek mental health-related services in EDs for a variety of reasons, often as an initial point of contact or for after-hours care[70]. Between July 2022 and June 2024, 6,780 Western Australians aged 12-17 years presented to hospital EDs for mental-health related reasons; a rate of 370 per 10,000 people aged 12-17 years[71].

Compared to other areas in WA, youth mental

health is a significant concern in the Great Southern region[71]. The Albany SA3 has Mental Disorder-related ED presentations above state rates, at 494 per 10,000 12-17-year-olds compared to 370 per 10,000 across WA[71].

headspace centres and services support young people across Australia to be mentally healthy and engaged in their communities[72]. There is one headspace centre in the Great Southern region, based in Albany[72]. The Albany SA3 has the highest utilisation level in WA at 7% of residents aged 12-25; above the state level of 2%[73]. Each patient's episode of care comprised of an average of 5.5 occasions of service (i.e. interactions with the service or mental health worker) in the Albany SA3; above the WA average of 4.2[73].

The Australian Youth Self-Harm Atlas (AYSHA) reports that while the overall prevalence of suicidality (suicidal thoughts or behaviours, including ideation, plans, and attempts) in the Albany SA3 is below the state rate of 9%, the specific prevalence of self-harm (regardless of intent) (12%) is above the state proportions of 10%[74].

Major depression and anxiety disorders are risk factors associated with higher self-harm prevalence among 12 to 17-year-olds and is less of a considerable concern in the Great Southern region[75]. The proportion of 12 to 17-year-olds experiencing major depression or anxiety disorders in the Albany SA3 (6%) is below the state level at 9% and one of the lowest proportions in WA[75].

Note: AYSHA provides synthetic estimates—modelled figures derived from statistical techniques that combine survey and population data—to estimate the prevalence of suicidality, self-harm, and experiences of anxiety and depression among young people aged 12 to 17. These estimates are used instead of direct data to provide meaningful insights at smaller geographic levels where sample sizes are too limited for reliable measurement.

In the Great Southern region, mental health is the leading cause of total disease burden (19%) in the region[52]. Depressive disorders was the leading cause of disease burden for 15-to-24, 25-to-44 and 45-to-64-year-olds, contributing to 18%, 19% and 9% of disease burden for these age groups respectively[52]. Hospital admissions for self-harm can be an indication of unmet need for accessible mental health services. It is concerning to note self-harm hospitalisations among people aged 0-24 years in the Albany SA3 are above state levels (164.7 vs. 139.7 per 100,000)[2].

Mental health services

Mental health services in the Great Southern region are provided by organisations including the WA Country Health Service (WACHS) and various not-for-profit organisations[61]. There are approximately 15 mental health services in the region, 4 of which have dedicated youth services[61]. The WACHS Great Southern Mental Health Service (GSMHS) provides mental health care for inpatient and community clients in the region. The Community Mental Health clinics are located in Albany and Katanning. The community teams consist of triage, adult, older adult, youth, child and adolescent teams. GSMHS also employs Aboriginal mental health workers to assist in providing culturally appropriate treatment. headspace provides psychological services for youth in Albany and also runs a web counselling service. In addition to headspace, the WA Primary Health Alliance has commissioned two other services, run by Amity Health and Palmerston Association providing suicide prevention and counselling services.

A GP mental health treatment plan can be used to refer patients to psychiatrists, psychologists, counsellors, social workers and occupational therapists. In Albany SA3, 6% have accessed a GP mental health treatment plan in each area; below the state level of 8%[76]. The region had 1.4% of residents who accessed a clinical psychologist, compared to 2.2% across WA[76]. Given the high burden of mental health concerns in the region, these figures indicate insufficient access to rebated psychology services in the Albany SA3 and a reliance on services provided by the WA Country Health Service and the not-for-profit sector.

Aboriginal health

An estimated 3,359 Aboriginal people reside in the Great Southern region[2]. The Great Southern Aboriginal community is diverse with approximately 14 distinct language groups and corresponding remote communities. Communities include the dialectal groups of the Ganeang, Goreng and Menang of the Wagyl Kaip.

Aboriginal people are dispersed throughout the 11 Local Government Shires that comprise the Great Southern region[80]. The 2021 Census reports that in the Shire of Albany, Aboriginal people comprise 4% of the total population; Broomehill-Tambelup (13%), Cranbrook (2%), Denmark (1%), Gnowangerup (8%), Jerramungup (3%), Katanning (9%), Kent (1%),

Kojonup (5%), Plantagenet (3%) and Woodanilling (2%)[80].

The Aboriginal people in the Great Southern region, spanning the Indigenous Areas (IAREs) of Albany, Kojonup – Gnowangerup, Manjimup – Denmark – Plantagenet (area spans across to the South West region) and Narrogin – Wagin – Katanning (area spans across to the Wheatbelt region), experience some levels of socioeconomic disadvantage in WA and are impacted by poor health outcomes[18]. The Indigenous Relative Socioeconomic Outcomes (IRSEO) index reflects the level of socioeconomic disadvantage experienced by Indigenous Australians living in each IARE Australia. A higher IRSEO score indicates a greater level of socioeconomic disadvantage for the region. Higher levels of disadvantage have been observed in Kojonup – Gnowangerup (77), Narrogin – Wagin – Katanning (76) and Albany (68); whilst Manjimup – Denmark – Plantagenet (45) was less disadvantaged, compared to 51 for WA overall[18].

Unemployment is high in Kojonup (19%) and Narrogin – Wagin – Katanning (22%); compared to the state at 16% across WA[18]. Kojonup – Gnowangerup also experiences poor housing sustainability, with 20% of households require extra bedrooms to accommodate residents; compared to the state at 19%[18].

There is an average participation rate in full-time secondary education at age 16 of 65% across WA[18]. Participation within Albany (74%), Manjimup – Denmark – Plantagenet (88%) and Narrogin – Wagin – Katanning (82%) are higher; whilst Kojonup – Gnowangerup is an area of concern at only 21% participation[18].

Child Immunisation

A key priority of the National Immunisation Program Schedule is to work towards achieving immunisation coverage rates of at least 95% for children aged 1, 2 and 5 years[18]. Immunisation is above target for all age groups in the Great Southern region, except Albany IARE for children aged 1 year (94%)[18]. Manjimup – Denmark – Plantagenet IARE only had data for children aged one year, and Kojunup-Gnowangerup IARE only had data for children aged five years, in which both showed an 100% full immunisation rate[18]. The Narrogin – Wagin - Katanning IARE showed an immunisation rate of 96-100% across all age groups[18].

Lower urgency emergency department presentations

High rates of lower urgency ED attendances can be indicative of a gap in primary health care services[18], however in the Great Southern region this is not a significant area of need compared to other parts of WA. Lower urgency ED presentations by Aboriginal people in Albany SA3 are below state levels at 5,350 per 10,000 Aboriginal people, compared to 6,167 per 10,000 across WA[18].

Avoidable deaths by selected causes

Avoidable deaths data is suppressed for a number of IAREs due to low numbers. Based on the available data, there were 117.6 avoidable deaths per 100,000 across WA among Aboriginal people aged 0 to 74 years in the 2017-2021 period[18]. Concerningly, the Albany SA3 recorded levels above the state rate, at 121.7 per 100,000[18]. The Albany SA3 exceeds state levels on all reported conditions underpinning avoidable deaths with the exception of ischaemic heart disease, breast cancer (females) and circulatory system diseases[18]. The most concerning selected causes were other external causes (e.g., transport accidents, accidental drowning and submersion) (27.5 per 100,000), cancer (26.5) and selected external causes of mortality (19.0 per 100,000)[18]. There was limited data available for the IAREs for avoidable deaths from selected causes, however Kojonup – Gnowangerup (368.2) and Narrogin – Wagin – Katanning (400.0) exceeded the state rate for deaths from all avoidable causes[18].

Median age at death

Compared to other parts of WA, the median age of death for Aboriginal people in the Great Southern region are moderately young. The median age for WA overall is 58 years – significantly below that of non-Aboriginal people at 80 years[18]. In the Great Southern region, Kojonup – Gnowangerup IARE has the lowest median age of death at only 54 years. Narrogin – Wagin – Katanning (65), Albany (64) and Manjimup – Denmark – Plantagenet (58) IAREs exceed the state median age of death[18].

Potentially preventable hospitalisations

The average annual rate of total PPHs per 100,000 for Aboriginal people is above state levels for Narrogin – Wagin – Katanning IARE in the Great Southern region[18]. Across WA, there were 6,264 PPH admissions per 100,000 for Aboriginal people from 2017/18 to 2020/21. In the Great Southern region, the rate ranged from 2,974 to 8,666 per 100,000[18]. Narrogin – Wagin – Katanning has the highest rate (8,666); followed by Kojonup – Gnowangerup

(5,775), Albany (4,158) and Manjimup – Denmark – Plantagenet (2,974), all of which were below the state level[18].

Chronic conditions that are classified as potentially preventable through behaviour modification, lifestyle change and timely care: angina, asthma, COPD, congestive cardiac failure, diabetes complications, hypertension and iron deficiency anaemia[82]. The following rates for PPHs due to chronic conditions within the Great southern region exceeded state rates:

- Chronic Angina: Narrogin – Wagin – Katanning (224 per 100,000), compared to 192 per 100,000 across WA[18]
- Chronic asthma: Narrogin – Wagin – Katanning (376 per 100,000) and Albany (226), compared to 206 per 100,000 across WA[18].
- Chronic congestive cardiac failure: Narrogin – Wagin – Katanning (411 per 100,000) compared to 405 per 100,000 across WA[18].
- Chronic diabetes complications: Kojonup – Gnowangerup (1340 per 100,000) and Narrogin – Wagin – Katanning (1042), compared to 567 per 100,000 across WA[18].
- Chronic iron deficiency anaemia: Narrogin – Wagin – Katanning (301 per 100,000), compared to 208 per 100,000 across WA[18].
- COPD: Narrogin – Wagin – Katanning (1586) and Albany (697), compared to 608 per 100,000 across WA[18].

Acute PPHs relate to conditions that usually come on suddenly, and may not be preventable, but may not have resulted in hospitalisation if timely and adequate care was received in the community[82]. PPHs for total acute conditions also exceeded state rates across all reported conditions in the Great Southern region, including:

- Acute cellulitis: Kojonup – Gnowangerup (943 per 100,000), compared to 816 per 100,000 across WA[18].
- Acute convulsions and epilepsy: Narrogin – Wagin – Katanning (1,644 per 100,000) and Manjimup – Denmark – Plantagenet (469), compared to 460 per 100,000 across WA[18].
- Acute dental condition: Albany (739 per 100,000), Narrogin – Wagin – Katanning (683), Kojonup – Gnowangerup (654), compared to 431 per 100,000 across WA[18].
- Acute ear, nose and throat infections (481 per 100,000), compared to 393 per 100,000 across WA[18].
- Acute urinary tract infections (including pyelonephritis): Narrogin – Wagin – Katanning (1,003 per 100,000), compared to 516 per 100,000 across WA[18].

Vaccine-preventable PPHs are hospitalisations due to conditions that can be prevented by vaccination[82]. PPHs for total vaccine preventable conditions for all IAREs in the Great Southern were below state rates[18].

Primary care service access

Aboriginal people can access specific services aimed at Closing the Gap in health outcomes. It is important that general practices ask all patients if they identify as Aboriginal and/or Torres Strait Islander. This assists with ensuring patients are provided with the option of accessing information and services specifically designed to meet their needs.

Through Medicare, Aboriginal people can receive Aboriginal-specific health checks from their doctor, as well as referrals for Aboriginal-specific follow-up services. In March 2020, telehealth items for Aboriginal Health Checks were introduced in response to COVID-19 and associated restrictions[83].

In 2021-2022, the proportion of the Aboriginal people that received an Aboriginal Health Check was 23% in Country WA PHN compared to 22% across WA[83]. Nationally, face-to-face Aboriginal Health Checks was the preferred method compared to telehealth[83].

Aboriginal people living in the Great Southern can access primary care services through general practice, Aboriginal Community Controlled Health Services, integrated team care (ITC) programs and the hospital sector.

The Integrated Team Care (ITC) program supports Aboriginal people living with complex chronic conditions to access health care and funds teams of Aboriginal health project officers, outreach workers and care coordinators. In the Great Southern region, the Country to City service is provided by Amity Health based in Albany.

There are two Aboriginal Community Controlled Health Organisations (ACCHOs) in the Great Southern located in Albany and Katanning.

The Great Southern Aboriginal Health Service has clinics located in Albany and Katanning. Medical services are provided to Aboriginal clients at home, in the community and clinics.

The South West Aboriginal Medical Service (SWAMS) is an Aboriginal Community Controlled Health Organisation and operates a mobile outreach clinic in Katanning.

Digital Health

Digital health includes a broad range of innovative technologies for the purposes of providing care and sharing information to enhance patient outcomes. Services include mobile health applications (Medicare Online, COVID check-in apps), electronic prescribing, electronic health records (My Health Record) and telehealth/telemedicine[85].

Australia-wide, the volume of My Health Record entries containing data had a growth of 520,000 from January 2023 to March 2024[85]. The largest increase in use from 2023 to 2024 has been seen in specialist letters (78% increase), diagnostic imaging reports (34% increase), and pathology reports (25% increase)[85]. In March 2024, WA had 2.6 million My Health Records[85].

There has been a decrease in the proportion of people who have had at least one telehealth consultation in the 12-months from 30.8% in 2021-2022 to 27.7% in 2022-23[86]. Those who had a long-term health condition (37.1%) are more likely to use telehealth compared to those without one (17.3%)[86]. In addition, those aged 65-74 years (31.6%) are more likely to use telehealth than people aged 15-24 (20.9%)[86]. Unfortunately, those living in outer regional, remote or very remote areas (23.4%) are less likely to use telehealth than those living in major cities (28.3%) – there could be several reasons for this including, internet availability/access, telehealth compliant devices such as phones and laptops. Of people who used telehealth services in the past 12 months, 87.7% reported that they would use it again if offered[86].

Given the large geographical size of WA, COVID-19 saw a very rapid adoption of virtual methods of consultation of WA's hospital-based outpatient clinics. Rates that were previously in low 10 to 15% rapidly moved to the 60 to 80% across a range of clinics and hospitals[87]. It appears that the focus on digital health including telehealth consultations during COVID-19 helped fast track the adoption of technology and more providers saw the My Health Record as a valuable repository of health data as it is accessible to all health care providers without the need for fax machines or postal services. As of February 2024, there are now more than 23.5 million My Health Record entries Australia-wide and more than 23 million or 98 % entries contain data[85]. It is important to note that the COVID pandemic drove telehealth, but unfortunately, these gains have not been sustained as patients are favouring face to face consultations once again.

Local intelligence highlighted that telehealth has become an essential part of health care service delivery in the Great Southern region, increasing accessibility to palliative care, specialist support and primary care from residential aged care places.
Palliative care can be delivered to terminally ill patients residing at home via videoconferencing; rural/remote doctors and nurses can receive support from a dedicated team of clinical specialists through The Command Centre (a virtual hub based in the Great Southern and Perth that operates 24/7); and GPs can access live patient readings during a telehealth consult through telehealth devices. It was also noted that Telehealth and My Record will add value to service coordination and care continuity while enhancing clinical governance.

Kimberley

Priorities

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
The median age of death in the Kimberley region is significantly below state rates, and avoidable mortality is the highest in WA. Chronic diseases contribute significantly to the burden of disease in the Kimberley region, particularly cancer, cardiovascular diseases, musculoskeletal diseases and respiratory diseases. The region has high rates of smoking, a known risk factor for chronic disease.	The Kimberley has the highest rate of Potentially Preventable Hospitalisations (PPHs)in Western Australia (WA). There are high rates of PPHs related to chronic conditions, particularly chronic congestive failure, chronic obstructive pulmonary disease,, diabetes, chronic angina and chronic iron deficiency anaemia. General Practitioner (GP) utilisation has decreased in the last five years. The high PPHs rate make it a complex region from a clinical perspective.	**Support primary health care providers to manage chronic disease populations and build capacity for patient self-management.** **Support primary care to promote healthy weight and healthy lifestyle changes, including smoking cessation.**	Kimberley	Population health	Chronic conditions
Mental health is the second leading cause of disease burden in the region. Depression, self-harm, and suicide impact communities in the Kimberley with the region recording the highest rates of self-harm in WA.	Mental health-related Emergency Department (ED)presentations are the second highest in WA, placing burden on the hospital ED. Less than 1% of the population access psychological services through Medicare Benefits Schedule (MBS).	**Enable access to culturally appropriate mental health services for people who experience mental health challenges across the spectrum.**	Kimberley	Mental health	Early intervention and prevention System integration
Suicide is a serious issue for the Kimberley region, being the third leading cause of all deaths and accounting for 6% of deaths; significantly above state rates.	Access to suicide prevention services is limited in the Kimberley region with only one local provider. Fewer than 1% of the population have access a clinical psychologist through MBS services.	**Enable access to culturally appropriate mental health and early intervention suicide prevention services and support primary health care providers in identifying people at risk.**	Kimberley	Mental health	Access Early intervention and prevention
Some residents are at risk of harm from alcohol misuse.	Alcohol and other drug-related ED presentations were the highest in the state, placing burden on the hospital ED.	**Enable access to early screening and treatment for harmful alcohol use and**	Kimberley	Alcohol and other drugs	Access

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
Harmful alcohol consumption causes multiple chronic diseases resulting in complex care needs. In the Kimberley, 2 in 5 residents are at high risk of long-term harm from alcohol consumption.		**support primary health care providers in managing alcohol-related issues.**			
More people are experiencing homelessness within the Kimberley region. Evidence shows that people experiencing homelessness often also experience mental health issues, substance use issues and/or at least one chronic condition.	Existing homeless health care services are under considerable strain and unable to expand their services due to resource constraints.	**Increase the capacity of homeless health care services to respond appropriately to the primary care needs of people experiencing or at risk of experiencing homelessness.**	Kimberley	Population health	Access Chronic conditions
Childhood immunisation levels in the Kimberley region are below the 95% target for Aboriginal and non-Aboriginal children. Under-immunisation increases the risk of vaccine-preventable illnesses in the whole community, including greater risk of outbreaks, and severe illness or death for those who cannot be immunised (including infants or immunocompromised individuals).	Under-vaccination increases risk of vaccine-preventable illnesses and creates avoidable burden on primary health care and the Aboriginal health workforce.	**Support primary health care providers to increase childhood immunisation rates overall, and deliver culturally appropriate and accessible vaccination programs for Aboriginal children.**	Kimberley	Population health	Immunisation
People from multicultural communities face challenges navigating the Australian health care system as well as financial and linguistic barriers to making appointments. Limited access to translator/language services is creating significant difficulties for consumers to articulate their health concerns. Mental health, vaccines and psychosocial support are key areas	The Kimberely has the highest rate in the Country WA region of GP-type ED presentations by people born in predominantly non-English speaking countries relative to the size of its local multicultural population. Whilst there are two primary health care services in the Country WA region specialising in care for multicultural people, neither of these are located in the Kimbereley region.	**Improve access to primary care services, early intervention, cultural safety and health literacy for multicultural communities through a care navigation service.**	Kimberley	Population health	Access Appropriate care (including cultural safety)

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
with unmet need for multicultural people.	Service providers require more training to effectively and appropriately communicate with, and support, multicultural patients.				
Aboriginal people in the Kimberley region experience some of the highest levels of socioeconomic disadvantage in WA and are impacted by poor health outcomes related to social determinants of health.	Aboriginal people in the Kimberley have high rates of avoidable hospitalisation, including PPH presentations and non-urgent ED presentations.	**Enable access to coordinated culturally appropriate primary care for Aboriginal people.**	Kimberley	Aboriginal health	Appropriate care (including cultural safety)
Though the Kimberley has a relatively small proportion of older people compared to state rates, it is projected to increase and will represent 4,000 residents by 2030.	There is a low residential aged care homes (RACHs) beds-to-population ratio and limited access to home care services available in the region. Older people need support from their primary health care providers to manage chronic conditions, including multimorbidity, and to live independently for as long as possible. The growing population of older people will place increased pressure on aged care services.	**Support health and aged care providers in supporting older people live independently for as long as possible. Enable access to age-appropriate digital health services.** **Enable access to local aged care services, including residential and at-home.**	Kimberley	Aged care	Access
The Kimberley has a large Aboriginal population.	Access to aged care may be required at a younger age compared to other regions. Some older Aboriginal people may experience challenges in accessing aged care that meets their needs.	**Support health care and aged care providers in delivering patient-centred culturally appropriate care for older Aboriginal people.** **Enable access to culturally appropriate local aged care services for Aboriginal people aged 50+ years.**	Kimberley	Aged care	Access
Most Australians would prefer to die at home rather than in a hospital or aged care facility. For many Aboriginal	There is limited home palliative care available, with many older people dying in hospitals or aged care services.	**Enable access to local at-home palliative care services, and ensure they are culturally appropriate for Aboriginal people.**	Kimberley	Aged care	Access

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
people, this includes dying at home connected to country.					

Kimberley

Overview

The Kimberley region has the highest Aboriginal population in the state of Western Australia (WA), with over 100 Aboriginal communities of various population sizes, scattered throughout the region. The pertinent health concerns in the region are mental health, suicide and self-harm, chronic disease, alcohol and other drugs (also known as AOD)..

Workforce and access to services is a continuing issue for all rural communities and the Kimberley is similarly impacted. The region has limited access to allied health professionals and a shortage of mental health professionals.

The Kimberley Statistical Area Three (SA3) has the highest rate of suicide in the state contributing to 6% of all deaths in the region. Mental ill health was the second leading cause of disease burden in the region but less than 1% of the population accessed a clinical psychologist through the Better Access Medicare Benefits Schedule (MBS) program.

The population in the Kimberley region has a high prevalence of chronic, acute and vaccine-preventable potentially preventable hospitalisations (PPHs), particularly for chronic congestive cardiac failure, chronic diabetes complications and chronic obstructive pulmonary disease (COPD), as well as acute cellulitis, acute dental conditions and acute urinary tract infections. Moreover, the region has the fourth highest cardiovascular burden in the region, together with a low utilisation of GP chronic disease management plans (CDMPs).

Kimberley has a moderate and growing ageing population expected to increase by 2% in the next 5 years, though it has a high residential aged care (RAC) service) beds-to-population ratio compared to other SA3s in the Country WA Primary Health Network (PHN) with four residential aged care homes located in the region.

Residents experiencing short-term and long-term harm risk from alcohol use and high risk alcohol consumption, smoking, suicide and self-harm (including youth related) and ED presentations related to AOD were concerning. Aboriginal people in the Kimberley region experience some of the highest levels of socioeconomic disadvantage, non-urgent ED presentations, unemployment, poor housing suitability and adolescents not attending secondary school. Non-urgent ED presentations within the Derby – Mowanjum and Broome Indigenous Areas (IARE) are not only the highest in the region, but also the highest in the state.

Population demographics

The Kimberley region is WA's northern most region and spans over 400,000 square kilometres. Kimberley is made up of six major townships and over 200 small remote Aboriginal communities. The three largest towns of the Kimberley are Broome, Derby and Kununurra.

Major industries include mining and resources, tourism, agriculture, and aquaculture. The Kimberley is a major contributor to food production in WA with over 93 pastoral stations farming cattle and extensive crop production in the Ord River Irrigation Area. The aquaculture industry is dominated by pearling and barramundi farms while the mining and resources industry includes Iron Ore, Mineral Sand and Liquefied Natural Gas (LNG). The Kimberley has a sizeable tourism industry which attracts over 400,000 domestic and international visitors per year.

The population of the Kimberley region is 38,925, accounting for 7% of the Country WA PHN population of 563,438 (ERP 2022)[80]. Stakeholders have indicated that the Kimberley population is transient with locals moving frequently between various towns and communities.

Across the state, the Kimberley has the highest levels of socioeconomic disadvantage (Index of

Relative Socio-economic Disadvantage, IRSD=861, compared to 1012 in WA) as well as the largest population of Aboriginal people (14,402 people) representing 41% of the total population (ERP 2021)[89].

Social determinants of health

Social determinants of health are the conditions in which people are born, grow and live, including factors such as a person's socioeconomic position, education, neighbourhood and physical environment [2]. These factors underpin a wide range of health and quality of life outcomes and can contribute to avoidable inequities in health care access.

The Socio-economic Index for Areas (SEIFA) provides a measure of the relative social and economic disadvantage within a region based on a wide range of indicators reflecting disadvantage, including low income, low educational attainment, high unemployment, and reliance on welfare for income and housing support.

Under-served population groups

People at risk of avoidable, unjust health inequities are more likely than the general population to experience poor health outcomes due to physical, social, and economic factors, and include people who are multicultural; LGBTIQA+; experiencing homelessness; living with a severe disability or caring for someone with a disability; developmentally vulnerable; and victims of family, domestic or sexual violence.

The Kimberley region has a number of under-served people who are at risk of poor health outcomes. Specifically:

- Over 2,000 Kimberley Statistical Area Three (SA3) residents were born in a non-English speaking country, equating to 6% of the local population, compared to 18% across the state.
- 3% of residents in the Kimberley SA3 have a profound or severe disability compared to 5% of residents across the state[2].
- 8% of residents in the Kimberley SA3 provide unpaid assistance to people with a disability compared to 11% of residents across WA[90].
- 41% of children in the Kimberley SA3 are developmentally vulnerable on one or more domains, compared to 20% across WA[1].
- The Kimberley has the largest homeless population in WA. In 2021, it was estimated that 1035 people in the KimberleySA3 experienced homelessness. This equates to 202 people per 10,000; above the state rate of 36 per 10,000[1]. This includes 63% of residents experiencing homelessness living in overcrowded dwellings[2].

Multicultural populations

A bespoke review into the needs of multicultural people in WA identified that they face significant challenges accessing primary health care, including difficulties navigating the health care system, financial barriers and linguistic barriers when making appointments, articulating their health concerns and understanding medical terminology. Service providers require more training to effectively and appropriately support multicultural patients, including greater understanding of different cultures and the importance of using plain language or interpreters[5, 6]. Mental health, psychosocial support and vaccinations were identified as key needs for multicultural people[5].

For many multicultural communities, mental health is a significant issue, including comorbidity with alcohol and other drugs, and trauma. Some multicultural patients hesitate in seeking health care related to psychological concerns for fear of stigma, and difficulties in articulating their concerns[5].
Vaccinations can be difficult for migrants to plan for on arrival, as patient medical records are often inaccessible or need to be translated. This is significant for all migrants, particularly children, whose vaccinations must be aligned to the appropriate vaccine schedule.

Psychosocial strategies to provide a sense of connection and build independence are important for many people within multicultural communities, including support to set up a bank account, access Centrelink, improve English and obtain a driving license. These skills are critical in overcoming some of the barriers multicultural people face in accessing health care. There is a need to provide this connection and support in a safe and culturally appropriate setting and in a targeted manner to aid the transition to life in Australia.

There are two primary health care services specialising in care for the multicultural population in the Country WA region, located in the Goldfields SA3 and East Pilbara SA3[5]. The Kimberley SA3

(Composite Index Score, CIS=0.63) has the second highest level of unmet need for multicultural services in WA, driven by a high rate of GP-type ED presentations among people born in a predominantly non-English speaking country (6,794 per 10,000 people born in a predominantly non-English speaking country compared to 1,912 per 10,000 across WA)[5]. The rate in the Kimberley is the highest in the Country WA region[5].

LGBTIQA+ populations

LGBTIQA+ is an acronym commonly used to describe lesbian, gay, bisexual, trans/transgender, intersex, queer/questioning, asexual, and other sexuality, gender, and bodily diverse people and communities. Many LGBTIQA+ people face discrimination and disparities connected to their gender identification and/or sexuality that impact their physical and mental health and access to health care and other services[2]. LGBTIQA+ people are known to have a higher risk of certain chronic diseases such as cancers, asthma and cardiovascular disease[2]. Moreover, some members of LGBTIQA+ communities, particularly gay, lesbian and bisexual people, are 2.0 times as likely to smoke daily compared to heterosexual people which increases their risk of developing a chronic disease[3].

The Private Lives survey is Australia's largest national survey of the health and wellbeing of LGBTIQA+ people to date[2]. In the latest results, LGBTIQA+ people reported lower self-rated health status than the general Australian population, with fewer than one in (31%) rating their health as very good or excellent compared to more than half (56%) of the general Australian population aged over 15 years. Two in five (40%) cisgender men rated their health as very good or excellent compared to only 29% of cisgender women, 26% of trans women, 20% of non-binary participants and 19% of trans men[2].

More than a third (39%) of participants reported a disability or long-term health condition, with 12% reporting a profound or severe disability, 20% a moderate disability and 6% a mild disability or long-term health condition. When accessing a health or support service, 30% of those with a severe disability or long-term health condition felt accepted compared to LGBTIQA+ people who did not report a disability or long-term health condition (51%). More than three quarters (78%) with a severe disability or long-term health condition reported being treated unfairly by others in the past 12 months because of their disability or long-term health condition. This was followed by 56% of residents with a moderate disability or long-term health condition and 43% with a mild disability or long-term health condition[2].

More than 4 in 10 (42%) of young Australian trans people have encountered medical services who did not respect, understand or have prior experience with gender diverse people[8]. Please refer to the Mental Health section for further details about mental health and suicide prevention for LGBTIQA+ populations.

Encouragingly, positive work is being done in the Kimberley, however, local intelligence has highlighted supply-side challenges, including a lack of LGBTIQA+ friendly services in the region, and many individuals travelling to Perth for services. Furthermore, there is limited understanding and education within the health sector about trans and intersex people. Significant proportions of LGBTIQA+ people have not felt they can safely disclose their LGBTIQA+ identity to GPs or have been misgendered in practices. Improved training and promotion of LGBTIQA+-friendly practices would be welcomed by the LGBTIQA+ community to address these issues[6].

It is important to note that there is a critical lack of research into the area of health of LGBTIQA+ people at an Australian population level[10]. Furthermore, each sub-group within the LGBTQIA+ population has its own unique health care needs, and it is inaccurate to treat these needs as homogenous across the LGBTIQA+ population. However, the lack of data, especially at a regional level, significantly limits the ability to identify and address the specific needs of each group – something WAPHA will continue to lobby to improve. Some needs relevant across the LGBTIQA+ population include:

Clinical	
	Access to appropriate: • **Health and medical care** that is inclusive, delivered by health care providers trained to deliver LGBTIQA+ affirming care, such as using correct names and pronouns and understanding gender identity and sexual orientation. • **Preventive care**, such as tailored cancer screenings (e.g., cervical cancer for transgender men, prostate exams for transgender women) and routine health checks that address unique risk factors for different sub-groups.

	• **Mental health support** delivered by culturally competent mental health providers who understand the unique stressors LGBTQIA+ individuals can experience, including stigma, discrimination, and identity-related challenges.
Cultural	
	• **Respectful, non-judgemental treatment**: health care free from stigma and discrimination, ensuring all LGBTQIA+ patients feel safe and respected. **Relevant and affirming health information**: Resources that reflect and respect LGBTQIA+ identities, such as educational materials on sexual health, mental well-being, and healthy relationships. • **Community support and per networks**: Programs that connect LGBTQIA+ individuals to peer groups, mental health resources, and LGBTQIA+ community organisations that provide culturally relevant support. • **Visibility of LGBTQIA+ friendly signage**: Clear signs, symbols, and inclusive language in health care facilities to signal a safe space for LGBTQIA+ patients.
Organisational	
	• **Inclusive policies and protocols** (e.g. anti-discrimination policies, use of inclusive terms on health care forms). • **Ongoing cultural competency and LGBTQIA+ sensitivity training** for all health care workers. • **Improved data collection** on LGBTQIA+ health needs (e.g., sexual orientation and gender identity data in patient records), helping to inform equitable policy and service delivery. • **Collaboration across LGBTQIA+ organisations** to create referral networks, share resources, and ensure service delivery aligns with community needs. • **Strict adherence to confidentiality policies**, especially regarding sensitive information related to gender identity and sexual orientation, to build trust with LGBTQIA+ patients.

Further information regarding health care standards in Australia that support the LGBTIQA+ community can be found at:

- Australian Charter of Health Care Rights – LGBTQI+
- Rainbow Tick guide to LGBTI-inclusive practice
- Australian Medical Association (AMA) LGBTQIASB+ Position Statement
- Australian Health Practitioner Regulation Agency (AHPRA) LGBTIQA+ Communities guidance for health practitioners

General Practice Supervision Australia (GPSA) LGBTQIA+ Health and Inclusive Health care.

People experiencing homelessness

State-wide, health care barriers exist for people at-risk of or experiencing homelessness. A bespoke study into the needs of these people identified that many have had poor experiences with GP clinics and feel unheard when accessing primary health services. Experiences of fear, shame, and stigma were reported, often compounded by a clinical environment where some people feel out of place or unwelcome. Other barriers, including difficulty interacting with non-clinical staff (e.g., reception, security), fear of losing possessions to attend mainstream services, and financial barriers can also make it difficult for patients to make an appointment and see a clinician. Long wait times for appointments, transport availability and lack of fixed address mean keeping appointments is difficult.

Dual diagnoses and comorbidity can create complexities in accessing health care services, impacting eligibility for certain services and resulting in individuals feeling like they are being passed between different service providers in search of the right care. People experiencing homelessness indicated that it can be difficult to find the language to talk to clinicians about their concerns, and that clinicians may try to "fix everything all at once" as opposed to one thing at a time.

In WA, 68% of the homeless population have at least one chronic health condition, 68% are living with mental health challenges, and 62% have a substance use disorder. More than one third (38%) have poor health from all three of these concerns (physical, mental and substance issues)[89].

The areas of greatest need for homelessness support are the Kimberley, East Pilbara, Gascoyne and Goldfields SA3s[12].

The unmet need in the Kimberley SA3 (CIS=2.55) is

driven by its high rate of homeless persons and high level of socioeconomic disadvantage relative to other areas of WA. An estimated 1,032 residents are at risk of or currently experiencing homelessness; equating to the highest rate in WA, well above the state level (265 people per 10,000 compared to 48 per 10,000 across WA). The proportion of people staying in severely overcrowded dwellings is more prevalent in the Kimberley[12].

There are a limited number of local services supporting people experiencing homelessness, which include Men's Outreach Broome, Derby Aboriginal Short Stay Accommodation (DASSA) operated by Mercy Care, and services delivered by the WA Country Health Service (WACHS) Kimberely division[12].

People experiencing family, domestic and sexual violence

The Australian National Plan to End Violence against Women and Children 2022 – 2032 aims to end gender-based violence by way of prevention, early intervention, response, and through recovery and healing. Aligning with this, WA's Family and Domestic Violence Prevention Strategy details initiatives to prevent and respond to family, domestic and sexual violence. The key outcomes of this strategy are prevention and early intervention; safety for victims through timely and accessible services; and accountability for perpetrators and support to cease violent behaviour.

One in six Australian women and one in eighteen men (since the age of fifteen) have been subjected to physical and/or sexual violence by a current or previous cohabiting partner[12]. Moreover, one in six women and one in nine men were physically or sexually abused before the age of 15 years[12]. The following groups have been identified as being more at risk to family, domestic and/or sexual violence[13].

- women
- children
- people living with a disability
- Aboriginal people
- people from multicultural backgrounds
- people in rural and remote Australia
- older people
- LGBTIQA+ people
- people experiencing socioeconomic disadvantage.

In 2018, partner violence was ranked as the fourth leading risk factor contributing to total disease burden for women aged 15-44, with child abuse and neglect during childhood being the leading risk factor[14]. Family and domestic violence is also a leading cause of homelessness. In 2022-2023, approximately 104,000 (38%) of clients assisted by specialist homelessness services (SHS) had experienced family and domestic violence and of these, more than three in four (75%) were female[14].

WA Police statistics indicated that in the 12 months from July 2023 to June 2024, there were 4,692 reports of family related assault in the Kimberley district, equating to an average of 391 reports per month [9115].

Chronic disease

Chronic diseases are long-term, non-communicable conditions and play a significant part in mental and physical ill health, disability, and premature death. People with chronic disease often have two or more conditions (multi-morbidity) such as a mental health condition as well as a physical condition, creating complex health needs and presenting challenges for treatment. This section focuses on chronic conditions other than mental and behavioural conditions, which are discussed in the Mental Health section.

Chronic disease contributes significantly to the differences in life expectancy between Aboriginal and non-Aboriginal people. Aboriginal people experience 2.3 times the rate of disease burden, with an age-standardised death rate for chronic disease 3.8 times the rate among non-Aboriginal people[9]. In the 2021 Census, the age-standardised rate (ASR) per 100 of Aboriginal people who reported they had one or more long-term health conditions was 25.7[10].

Prevalence of chronic disease

For the first time in 2021, the Census collected information on ten common long-term health conditions in Australia, which included, arthritis, asthma, cancer (including remission), dementia (including Alzheimer's disease), diabetes (excluding gestational diabetes), heart (including heart attack or angina), kidney disease, lung conditions (including COPD or emphysema), stroke, and mental health conditions (including depression and anxiety). In the 2021 Census, 19% of all West Australians (484,000) reported they have one of the above conditions and 5% reported they have two of the selected conditions[11].

The Kimberley SA3 has a concerning level of chronic disease among its residents, and the highest or second highest rate in the Country WA PHN for four of the ten chronic conditions reported by the Census[11]. Specifically, it has the highest ASR per 100 people for diabetes at 5.9 per 100, kidney disease at 1.5 people per 100, and for dementia (including Alzheimer's Disease) at 1.0 people per 100. It also has the second highest ASR in the Country WA PHN for heart disease (3.9 per 100). Each of these exceeds the state rate[11]:

	ASR per 100 people	
	Kimberley SA3	WA
Heart disease (including heart attack and angina)	3.9	3.7
Lung conditions (including COPD)	1.6	1.7
Diabetes (excluding gestational diabetes)	5.9	4.5
Kidney disease	1.5	0.8
Stroke	0.8	0.9
Dementia (including Alzheimer's disease)	1.0	0.7

Rates of clinician-diagnosed diabetes using WAPHA's new method of estimating condition prevalence from general practice Data was not calculated for the Kimberley, as the data collected in general practice will not be reflective of the wider population[28].

Risk factors

Established risk factors for chronic disease include having high blood pressure, being overweight or obese, smoking, doing little or no exercise and having high levels of stress. Psychosocial factors such as social isolation and loneliness also contribute to chronic ill health[14]. Risk factors for chronic disease tend to be more prevalent in areas experiencing socioeconomic disadvantage and in regional and remote areas[15].

The Kimberley region has a significantly higher rate for the risk factor of residents smoking tobacco when compared to the state level. Concerningly, one in five (20%) residents are current smokers, the second highest rate in the County WA PHN and in WA, after East Pilbara at 22% [13].

The prevalence of diabetes within the Kimberley SA3 is among the top 5 SA3s (with the highest being Mid West at 8%) in the Country WA PHN, with the rate for the SA3 being on par with that of the state at 7%[13].

Reported stress levels in the Kimberley region are not only above the state rate, they are also the highest in WA, with nearly one quarter (22%) of residents reporting stress, compared to of 12% across WA[13].

A positive indicator in the Kimberley region is that the prevalence of residents who are not overweight or obese is significantly higher than WA, with 2 in 5 (36%) in the region being reported as such.

Healthy Weight Action Plan

WAPHA is a steward of the WA Healthy Weight Action Plan 2019-24, which focuses on early intervention of people identified as at-risk of becoming overweight and management of people who currently live with obesity. This involves multi-component, multi-levelled strategies delivered as part of an integrated shared care model. Through the Healthy Weight GP project, WAPHA has committed to supporting GPs to provide options for patients who want to improve their health. Key deliverables include the development of a weight management 'hub' (website) with links to Clinical Referral Pathways and local services for weight management, training for general practice staff, and tools to assist general practices in implementing weight management services as a quality improvement activity.

Burden of disease

Burden of disease measures the impact of different diseases or injuries on a population. It combines the years of healthy life lost due to living with ill health (non-fatal burden) with the years of life lost due to dying prematurely (fatal burden) to give a total burden reported using the disability-adjusted life years (DALYs) measure. Chronic disease accounts for two thirds (67%) of the burden of disease in WA[18].

The Western Australian Burden of Disease Study indicated that the Kimberley region had a 1.9 times higher rate of fatal burden and 1.4 times higher rate of non-fatal burden compared to the metropolitan regions. Chronic disease accounts for a substantial proportion of the burden of disease, with cancer, and cardiovascular burden in the state, accounting for 14, and 13% of the total burden in the region respectively, the highest in the state for each condition. Further, the region also had the equal

third highest musculoskeletal disease burden in the state (equal to East Metro), accounting for 7% of the total burden in the region[28].

Coronary heart disease, chronic kidney disease and suicide were also among the five leading causes of disease burden, this was along with alcohol use disorders and COPD for males and road traffic incidents and Type 2 diabetes for females[2].

Leading causes of total disease burden in the Kimberley region		
Condition	**%**	**ASR per 1,000**
Injury	**18%**	**39.2**
Mental	**15%**	**34.9**
Cancer	**14%**	**43.5**
Cardiovascular	**13%**	**37.9**
Musculoskeletal	**7%**	**22.5**

Potentially preventable hospitalisations for chronic conditions

Potentially preventable hospitalisations (PPHs) are certain hospital admissions (both public and private) that could have potentially been prevented by timely and adequate health care in the community. However, only public hospitals data are reported in this document. Chronic conditions that are classified as potentially preventable through behaviour modification, lifestyle change and timely care: angina, asthma, COPD, congestive cardiac failure, diabetes complications, hypertension and iron deficiency anaemia.

Across the state as reported for 2020/21, the age-standardised rate of PPHs per 100,000 for total chronic conditions was 903 and the highest admission rates for WA were for Chronic congestive cardiac failure (196), chronic obstructive pulmonary disease (184), and chronic diabetes (178)[34].

Relative to other parts of WA, the Kimberley SA3 has the highest rate for total chronic conditions (4,009 people per 100,000, compared to 903 per 100,000 across WA)[1]. This is driven by having the highest rates for WA for chronic angina, chronic asthma, congestive cardiac failure, diabetes, chronic iron deficiency and COPD.

Management of chronic disease in primary care

Chronic Disease Management Plans (CDMPs) are Medicare-rebated for GPs to manage chronic or terminal medical conditions, including preparing, coordinating, reviewing or contributing to chronic disease management plans. They apply for a patient who suffers from at least one medical condition that has been present (or is likely to be present) for at least six months or is terminal[29].

Across WA, 14% of residents have utilised a GP CDMP. Residents of the Kimberley SA3 have comparatively lower utilisation, at 12%[20].

Childhood immunisation rates

The National Immunisation Program (NIP) aims to increase national immunisation coverage to reduce the number of vaccine-preventable diseases in Australia. A key priority of the program is to work towards achieving immunisation coverage rates of at least 95% for children aged 1, 2 and 5 years. Data from the Australian Immunisation Register (AIR) from 1 January 2023 to 31 December 2023 indicated that in the Country WA PHN, childhood immunisation coverage was comparable to the state average for all ages (1, 2 and 5 years), but was still below the 95% target[31]. Approximately 93% of children were fully immunised at 1 year and 92% at 5 years, compared to only 90% at 2 years[32].

AIR reports that the Kimberley SA3 met the 95% immunisation target for children aged 5 years and though slightly lower for 1 (92%) and 2 years (90%), these figures were still above target[32].

Cancer screening

There are three national cancer screening programs in Australia: BreastScreen Australia, National Cervical Cancer Screening Program (NCSP), and National Bowel Cancer Screening Program (NBCSP).

In 2020-21, cancer screening participation rates in the Kimberley SA3 were concerningly low, well under state levels and among the lowest in WA[33]. Slightly over one in five (22%) eligible residents had participated in bowel cancer screening, compared to the state level of 42%, which in itself is low[33]. Approximately 2 in 5 (43%) had participated in breast cancer screening (compared to 51% across WA), and one in two (57%) had participated in cervical cancer screening, compared to the state level of 69%[33].

These levels are particularly concerning given the rate of avoidable deaths from cancer in the Kimberley SA3s is near to the state level[2]. Please note, participation in the new five-year program for cervical cancer screening cannot be accurately

reported until there are 5 years of data available.

Syphilis rates

The number of infectious syphilis notifications in WA has remained stable with 1,037 in 2022-2023[34]. Additionally, WA State crude rates of notifications have dropped from 31.8 to 28.8 per 100,000, however only 56% of notifications had a completed enhance surveillance form from notifying clinicians[34]. Those aged 25-34 years had the highest percent of infectious syphilis notification from 2022-2023, accounting for over a third of the notifications (38%)[34]. At 235.3 per 100,000, the rate of syphilis notifications in the Kimberley SA3 was more than eight times the state rate of 28.8 per 100,000[34]. Though this has decreased by 39% compared to the 2021-2022 period, the Kimberley region has the highest syphilis notification rates among all regions in WA[34].

Avoidable mortality

The median age of death in the Kimberley SA3 is below the state median age of 81 years, at 62 years[2]. Sadly, the Kimberley has the second youngest median age at death in WA, above the East Pilbara SA3 (59 years)[2].

Avoidable mortality refers to deaths of people under 75 years from conditions that are potentially preventable or treatable through primary/hospital care. The rate of avoidable deaths in the Kimberley SA3 exceeds the state rate of 117.6 per 100,000 at 307.1 per 100,000 and it is the highest in the state[2]. The Kimberley SA3 has the highest rate of avoidable deaths in eight causes[2]. These causes are diabetes, cerebrovascular diseases, ischaemic heart disease, suicide and self-inflicted injuries (both in 0 to 44 and 0 to 74 years), circulatory system diseases, other external causes of mortality (Transport accidents; Accidental drowning and submersion; etc.) and selected external causes of mortality (Falls; Fires, burns; Suicide and self-inflicted injuries; etc.).

According to the Mortality Over Regions and Time (MORT) data, the rate of premature deaths (people under 75 years) in the Kimberley SA3 is more than double the state rate of (489 vs. 195 per 100,000)[3]. This rate was the highest rate of premature deaths within WA.

The five leading causes of death and their percentage with respect to all death causes within the Kimberley SA3 are[3]:

Rank	WA	Kimberley
1	Coronary heart disease (11%)	Coronary heart disease (11%)
2	Dementia (including Alzheimer's) (9%)	Diabetes (8%)
3	Cerebrovascular disease (5%)	Suicide (6%)
4	Lung cancer (5%)	Lung cancer (5%)
5	COPD (4%)	Land transport accidents (5%)

Utilisation of primary care services

GP utilisation in the Kimberley SA3s is below state levels and declined between 2021-2022 and 2022-2023[30]. In 2022-2023, approximately 7 in 10 (68%) residents in the Kimberley SA3 visited a GP; compared to 84% across WA. This was a reduction from 2021-2022 levels, where 73% of Kimberley residents had utilised a GP[30].

The PHN After-Hours Program aims to improve access to GP services in the after-hours period, being before 8am and after 6pm weekdays; before 8am and after 12pm Saturday; and all-day Sunday and public holidays, particularly for people at risk of or experiencing homelessness.

A targeted analysis on need, unmet demand and supply indicators was undertaken to assess relative local demand for after-hours care. A Composite Index Score (CIS) was calculated based on the after-hours demand and supply indices, with each SA3 in WA ranked by relative demand from highest to lowest score.

In the Country WA region, there are 146 primary health services open after-hours, contributing 17% of all after-hours primary health services in WA[35]. Primary health services collectively operate for 29 hours weekly per 10,000 population; below the state level of 45 hours. There are 11 MBS after-hours GP services (urgent and non-urgent) claimed per 100 people across WA[35]. The Kimberely SA3 (CIS=0.96) has the third highest level of unmet need for after-hours services in WA[35]. It has the second lowest supply of after-hours primary care services relative to its population, as well as the highest rate of after-hours GP-type ED presentations, high level of socioeconomic disadvantage and high level of homelessness[35].

Stakeholder consultations further revealed two insights for after-hours primary health care across WA. First, operating after-hours services is not

financially viable for most GP practices, with prevalent financial barriers including insufficient MBS incentivisation for after-hours services, financial risk due to unpredictable demand in after-hours patient volume , and workforce constraints due to inability to incentivise staff to work during the after-hours period[35]. Second, the Royal Commission into Aged Care Quality and Safety recommendations have increased demand for after-hours GP care for residential aged care (RAC) providers[35]. The stronger regulation of RACs to ensure older people receive appropriate care relative to their needs has increased the reliance of RACs on GPs, resulting in an increase in the number of calls made by RACs to GPs during the after-hours period due to fear of potential repercussions if the RACs fail to report or respond to medical incidents, irrespective of the severity of the health concern presented[35].

Residents of the Kimberley SA3 have greater utilisation of GP health assessments compared to the state (11% vs. 5%)[30]. Not only is the rate higher than WA, it is also the highest in the state. Please note, these data only include Medicare-subsidised services, and it is not currently possible to obtain data by type of health assessment.

The majority of Medicare-subsidised allied health services are for optometry services, and Medicare-subsidised allied health services only account for a portion of allied health service use in Australia. This is because they are only available to patients with a GP or specialist referral, and exclude non-Medicare subsidised services, such as those provided by Aboriginal health services and other non-government organisations[30].

Medicare-subsidised nurse practitioner services and Allied Health services are not heavily used in the region with the rates being some of the lowest in the Country WA PHN[30]. The latest data reports that 2% of Kimberley SA3 residents have used a nurse practitioner service, lower than the state rate[30]. 16% of the population in Kimberley SA3 utilised Medicare-subsidised allied health services, which is well below utilisation rates of 36% for the state[30], however, stakeholders have indicated that Boab Health provide primary care allied health services across the region.

The nursing and Aboriginal health worker service group consists of Medicare-subsidised services delivered by a nurse practitioner, practice nurse, midwife or an Aboriginal health worker[30]. Approximately 1 in 5 (17%) residents in the Kimberley SA3 used a Medicare-subsidised practice nurse/Aboriginal health worker, two and a half times greater than the state rate, along with being the highest rate in WA[30].

Visiting specialist services

The Kimberley relies on visiting specialists to provide care, often through monthly or quarterly visits (with some visits only occurring in larger town sites) and in some cases require patient trips to Perth. Feedback from local stakeholders has identified issues such as multiple referrals for clients being received and placed on the waiting list, remote clients booked in the following day for a specialist service (without awareness of the distance required to travel), and lack of financial support for families to travel if the care giver requires specialist appointments. Many clients living in remote areas require assistance from the Patient Assisted Travel Scheme (PATS) and Aboriginal clients may require top-up funds from Integrated Team Care (ITC) in order to access specialist services. Stakeholders also highlighted issues with communication from specialists back to the referring agency due to various health management systems in place. These coordination and communication issues represent barriers to accessing timely health care and may adversely impact patient experience of care.

Access Relative to Need index

The Access Relative to Need (ARN) index measures access to primary health care relative to predicted need and is based on methodology developed by the Australian Institute of Health and Welfare in 2014[36]. The ARN index is based on the following information:

- The location of health services and the populations they serve.
- The number of GP Full Time Equivalent (FTE) working at each location.
- The demographic and socioeconomic characteristics of the population.
- In 2024, WAPHA updated the ARN index to identify areas with a low access to GPs relative to need.

. Relative to other areas in WA, there is low access to GP services across the Kimberley region. Overall, 70% of SA3s across WA have higher access relative to need compared to the Kimberley SA3.

Consumer views of accessing GPs

To better understand the experiences of Western Australians experiencing socioeconomic

disadvantage accessing primary health care, particularly GPs, when they need it, WAPHA commissioned consumer research in 2021[37].

Most people experiencing socioeconomic disadvantage were able to access a GP when needed. Although 31% of respondents encountered barriers when visiting a GP, 92% had visited a GP within the last year[37]. However, approximately one in 10 respondents (11%) had needed a GP on at least one occasion but had not visited one[37]. This was higher among Aboriginal people (22%), people aged 18-39 (20%), those living with disability (16%) and females (15%)[37]. The main reasons these people needed a GP were illness, concerns about mental health, to get a prescription and to help with the management of a long-term health condition[37]. Only 8% of these people sought help from an alternative health care professional, such as a pharmacist[37]. A lack of available appointments was the main reason for not seeing a GP when needed, cited by nearly half (43%) of this group[37]. A further 25% reported a lack of time and other commitments, while 16% felt afraid of being judged[37].

Among the full sample, the most common reason to visit a GP was to get a prescription (53%), followed by managing a chronic condition (28%) and general check-up (25%)[37].

Accessibility factors such as appointment availability were the most cited barrier to accessing a GP, followed by transportation issues and conflicting commitments[37]. Women, people with young children, young people, people from multicultural communities, people living with a disability and Aboriginal people were most likely to experience barriers[37].

Cost did not appear to play a large role in limiting access to a GP, with only one in 10 (10%) mentioning it as a barrier[37]. This finding is attributed to over 80% of the survey cohort indicating that their GP service was bulk billed[37]. If the availability of bulk billed appointments decreased this would seriously impact access to a GP for people experiencing social and economic disadvantage.

The benefit of having a regular GP to the quality of a patient's experience was clear. Respondents with a regular GP reported finding it significantly easier to visit their GP and were significantly more likely to have had a positive experience, even compared to those with a regular GP practice, but not a regular GP[37].

Nearly 9 in 10 (87%) prefer attending a GP appointment in person but 2 in 3 (67%) would be comfortable with a telehealth appointment under some circumstances, such as for follow-up appointments[37].

Workforce

General practitioners

Accurate, up-to-date GP FTE figures are unavailable, so the Department of Health and Aged Care comprised a proxy measure which calculates a GP's workload based on MBS services claimed, with one GP FTE representing a 40-hour week over 46 weeks of the year. For each Medicare provider, the new measure attributes an estimate of the amount of time they have spent on their claims in relation to what would be worked by a full-time GP (billable time, non-billable time, and non-clinical time). It is an estimation of GP workforce service utilisation and not an exact count of GP FTE available. For this report, we will refer to this measure as the GP Claimed Service Equivalent (GPCSE).

Based on the latest data, The Kimberley SA3 has 75 GPCSE per 100,000 residents[38]. This is below the state rate of 102 per 100,000[38].

In addition to their normal remuneration, GPs can access additional financial incentives based on how remote the location in which they work is. Areas are classified from metropolitan through to rural, remote and very remote.

Compared to other areas in WA, Broome, Derby and Kununurra GP catchments are noted as being of particularly high need for GP workforce, largely due to recruitment challenges linked to housing and childcare[39]. Accredited training organisations continue to remain concerned at the lack of GP Registrars applying and choosing Broome as a placement location[39]. The high cost of living, housing affordability and lack of childcare places are proving detrimental to attracting GP Registrars to the catchment[39]. The affordability of housing is a barrier to GPs choosing to reside in the area, with the average weekly rental cost being $799, above the WA state median cost ($526 per week) and more than double the median cost of Country WA GP catchments ($355 per week)[39]. Further, shorter contracts do not work due to lack of rentals and childcare placement, thus, recommendations have been made to extend six month contracts in Broome to 12-18 months to incentivise GP Registrars to remain in the GP catchment[39]. There is capacity available at all accredited training locations in

Broome to locally train GP Registrars if these barriers can be overcome[39].

Based on its geographic access to health services, the Derby GP catchment (within the Kimberley SA3) is classified as very remote, and there is currently a low supply of GP workforce[39]. A high proportion of residents are experiencing socioeconomic disadvantage, with 93% in the most disadvantaged quintile in WA[39]. Approximately three fifths (63%) of residents identify as Aboriginal[39]. There are potential financial incentives available with the ability for GP Registrars to request a 12-month placement, and access GP college flexible funds to assist with relocation and ongoing cost of living which may improve attraction to the GP catchment. Unfortunately, housing availability (reflected by the low residential vacancy rates that are below state rate), along with the 12-month waitlist for childcare placements, present a significant challenge[39].

The GP catchment of Kununurra is classified as having relatively high need for GP workforce. Both childcare and housing availability are noted as a significant barrier to recruitment[39]. The catchment has three local general practices, two of which are accredited to train GP registrars[39]. More than half of residents fall within WA's most disadvantaged socioeconomic quintile. 2 in 5 (44%) residents identify as Aboriginal[39].

Due to both Fitzroy Crossing and Halls Creek having no general practice, the shared recommended approach by GP colleges is that broader workforce strategies are required[39].

Primary care nurses

The Kimberley SA3 has the third highest supply of primary care nurses in the state at 254 primary care nurse FTE or 6.5 FTE per 1,000 residents compared to 2.5 FTE per 1,000 across WA[38].

Aged care

The Kimberley has a smaller proportion of people aged 65 years and over as compared to other Country WA PHN regions. In 2022, there were 2998 representing 8% of the population[2]. This is projected to increase to 10% of the population or almost 4000 people by 2030 compared to 18% across the state and 20% across Country WA PHN[2].

Age is an important determinant of health and people aged 65 years and over are more likely to have complex and/or chronic conditions as well as comorbidities. Moreover, geriatric syndromes later in life (usually after the age of 85 years) including pressure ulcers, incontinence, falls, and delirium have substantial implications for quality of life as well as health care utilisation[40].

The Western Australian Burden of Disease Study 2018 reported that the five leading causes of disease burden for older people aged 65 to 84 years were coronary heart disease, COPD, lung cancer, dementia and type 2 diabetes mellitus[27]. For older people aged 85 years and over, dementia was reported as the leading cause of total burden of disease[27].

The 2021 Census reported that 10% of Western Australians aged 65 years and older have three or more long-term health conditions[41]. This was lower in the Kimberley SA3, with 7 of residents aged 65 years and older living with three or more long-term health conditions[41].

Approximately three in five (59%) general practise patients aged 65 years or older were diagnosed with three or more chronic conditions across WA[20]. Data for Kimberley SA3 is not provided due to poor representation of the population who accesses a primary health service in the region. Please note, these data include private general practices only and do not include GP services provided by non-government organisations[20].

Utilisation of health services

Across WA, approximately 2 in 5 (39%) of people aged 80 years and over had a GP Health Assessment in 2022-2023[30].

In residential aged care homes (RACHs) there were 15.5 GP attendances per patient across WA[30]. The rate in the Country WA PHN overall was similar at 15.0 attendances per patient[30].

Medicare items are available for in-depth assessment of a patient 75 years and over. This provides a structured way of identifying health issues and conditions that are potentially preventable or amenable to interventions to improve health and quality of life. General practice data indicate that approximately 1 in 4 (28%) of patients aged 75 years and over across WA have had a GP health assessment[42]. Data for Kimberley SA3 is not provided due to poor representation of the population who accesses a primary health service in the region[42].

Palliative care

The goal of palliative care is to improve the quality of life of patients with an active, progressive disease

that has little or no prospect of a cure[44].

Most Australians would prefer to die at home, rather than in hospital or residential aged care[45]. However, many older people use both hospital and aged care services in their final years of life and often die in one of these settings[44].

The Royal Commission into Aged Care Quality and Safety made key recommendations for palliative care, including[43]:

- Compulsory palliative care training for aged care workers.
- Comprehensive sector funding specifically including palliative care and end-of-life care.
- A review of the Aged Care Quality Standards to regulate high-quality palliative care in residential aged care.
- Access to multidisciplinary outreach services; and A new Aged Care Act that includes the right to access palliative care and end-of-life care.

From 1 October 2022, a new funding model, the Australian National Aged Care Classification (AN-ACC) replaced the Aged Care Funding Instrument (ACFI). The AN-ACC provides equitable funding through three components to approved residential aged care providers based on the service type delivered and each residents' care needs.

Primary Health Networks will receive funding from the Greater Choice for At-home palliative care Program to improve palliative care coordination in their local communities.

In 2022, there were 27.7 total FTE Palliative Medicine Physicians and 333.2 FTE Palliative Care Nurses employed in WA[46, 47]. Whilst it is recognised that the palliative care workforce is made up of a broad range of professional groups including other medical specialists and allied health professionals, the existing national data sources cannot accurately capture information on palliative care services provided by these health professionals, hence have not been reported.

Palliative care nurses across WA are working 65.0 total weekly hours per 1,000 patients aged 75 and over[46]. The rate is above state levels in Kimberley SA3 at 129.5 total weekly hours per 1,000 patients aged 75 and over[46]. Palliative Medicine Physicians across WA are working 5.7 total weekly hours per 1,000 aged 75 and over[47]. Data was not provided for the Kimberley SA3s because there were no palliative medicine physicians working in either region as a primary location[47].

Aged care services

The aged care system in Australia offers three main types of service: the Commonwealth Home Support Programme (CHSP), the Home Care Packages (HCP) program, and residential care. Across Australia, more than two-thirds of people using aged care services access support from home[48].

Commonwealth Home Support Programme

The CHSP provides entry-level support for older people so they can continue to live independently at home. For FY 2022-2023 in WA, domestic assistance had the highest number of clients serviced and had the highest expenditure; however, social support groups had the highest amount of services provided by hours[49]. **Home Care Packages program**

The HCP program provides structured support to older people with complex needs to help them live independently in their own home. Support provided includes help with household tasks, equipment, minor home modifications, personal care, and clinical care such as nursing and allied health services. There are four levels of HCPs from level 1 (basic care needs) to level 4 (high care needs). Across Australia, wait times for approved HCPs range from 3-6 months for level 1 to at least 12 months for level 2 and above[49].

Home care in the Kimberley is provided by community-based organizations, the WA Country Health Service and religious organisations. In 2023, there were nine aged care services in Kimberley SA3[50]. As at December 2023, there were 151 people in a HCP in the Kimberley Aged Care Planning Region (ACPR)[49]. An additional 32 people were waiting for a HCP with one person requiring the highest level of care (level 4)[49].

WA has 249 residential aged care services with a total of 19,887 residential places[51]. With one of the lower proportions of elderly population among the SA3s in the Country WA PHN, the Kimberley SA3 has a beds-to-population ratio that is above the state with 103 beds per 1,000 people aged 70 years and over (vs 64 per 1,000 in WA)[51]. Within the Kimberley SA3 there were four residential aged care homes totalling to 166 residential places; these include multipurpose facilities managed by the WA Country Health Service and specific Aboriginal aged care services[51]. Although, the Kimberley has a relatively high ratio of beds to population, it does not take into

account the large population of Aboriginal people, who are likely to require residential aged care services at a younger age[51].

The Kimberley SA3 has a relatively high supply of nurses working in aged care at 18.3 FTE per 1,000 people aged 70 years and over which compares to 12.2 FTE per 1,000 across WA[38]. The relatively high ratio reflects the low number of people aged 70 years and over in the region[38].

Alcohol and other drugs

Alcohol and drug use is a significant issue in the Kimberley SA3. 2 in 5 (41%) residents are at risk of long-term harm from alcohol, significantly higher than the state rate of 26%[24]. Levels of short-term alcohol harm (17%) and high risk alcohol consumption (60%) are also significantly higher than state rates (10% and 32% respectively)[24]. Furthermore, the Kimberley SA3 has the second greatest proportion of current smokers (20%), nearly double that of the state rate of 11%[24].

Rates of clinician-diagnosed chronic alcohol misuse and chronic drug misuse using WAPHA's new method of estimating condition prevalence from general practice Data was not calculated for the Kimberley, as the data collected in General Practice will not be reflective of the wider population[20].

In 2020-21 Injuries, Poisonings and Toxic Effects of Drugs were in the top five major diagnostics categories for ED attendances in the Kimberly region making up 9% of total ED attendances[89].

Stakeholders in the Kimberley region have concerns about Fetal Alcohol Spectrum Disorder (FASD) in their communities. Fitzroy Crossing in the West Kimberley region of WA has the highest reported prevalence in Australia with rates of FASD or partial FASD in 12 per 100 children. This is on par with the highest rates internationally[52].

AOD Burden of Disease

The WA Burden of Disease Study 2015 has the latest regional recording for risks associated with burden of disease for the Kimberley region. Tobacco use contributed to 23% of cancer burden and 26% of cardiovascular disease, with men aged 45-64 years and 65+ years having the highest risk of burden[52]. Men in the Kimberley region also had a higher risk of disease due to alcohol use (17%), tobacco use (11%) and illicit drug use (7%) compared to women (8%, 7% and 4%)[52].

Alcohol contributed to the burden of 40% of mental and substance use disorders, 27% of injuries, 10% of cancer and 2% of cardiovascular disease[52]. The 15-24 year age group had the most risk of alcohol use leading to disease[52].

Illicit drugs also had a high contribution to burden with 12% of mental and substance use disorders, 17% of injuries and 2% of cancer burden being attributed to illicit drug use in the Kimberley in 2015[52]. Out of all the regions in WA, Kimberley had the highest rates of burden of disease from risk factors compared to State rates[52].

Accidental overdose

Australia's Annual Overdose Report, produced by the Penington Institute, reported an increase in unintentional drug-induced (accidental poisoning) deaths in WA from 2004 (2.7 per 100,000) to 2021 (8 per 100,000) suggesting that drug use is a growing health concern[53]. Of this, males account for two thirds (70.5%) of unintentional drug-induced death compared to women[53]. People age 40-49 had 455 (27.2%) unintentional drug-induced deaths in 2021 and were found to be the most at-risk age bracket[53].

In 2021, opioids continued to be the largest overall drug group identified in unintentional drug-induced deaths in 2021 (45.7%), followed by benzodiazepines (32.5%) and anti-depressants (19.3%)[53].

WA had the second highest rate of heroin death in 2021 with 1.5 deaths per 100,000 people[53]. This corresponds with higher rates of death for other opioids such as fentanyl/pethidine/tramadol in 2021 (0.8 deaths per 100,000) [53]. There has also been an increase in deaths involving benzodiazepines in WA from 2013 to 2021 (1.1 to 3 deaths per 100,000), and stimulants such as methamphetamine and amphetamines (1.3 to 3 deaths per 100,000) [53].

Between 2017- 2021, there were 7 unintentional drug-induced deaths in the Kimberley SA3, equating to a rate of 3.7 per 100,000 people – the third lowest rate in WA, and below the state average of 8 per 100,000[53].

Hepatitis B and C

Hepatitis B and C are bloodborne viruses. Hepatitis B is spread between people by body fluids while hepatitis C is spread through blood-to-blood contact[54] and is commonly spread through unsafe injecting practices. Untreated hepatitis B and C can lead to liver disease (including cirrhosis), liver cancer and death[55].

Since 1982, a vaccine has been developed for

hepatitis B with the recommendation that babies and adolescents are vaccinated[54]. Currently there is no vaccination available for hepatitis C, although antiviral treatment is available. Treatment is now more than 95% effective at curing hepatitis C and available to most people via prescription from their GP[54, 56].

In WA, notifications of hepatitis B and C have been declining. Between 2017 and 2023, notification rates of hepatitis B have slightly reduced from 21 to 18 notifications per 100,000[56]. hepatitis C notification rates decreased (from 62 to 47 notifications) between 2004 and 2017 and has continued to decrease with 32 notifications per 100,000 people in WA in 2023[84].

The proportion of people with chronic hepatitis B (CHB) in the Kimberley SA3 is above the state rate of 0.8%, at 3.3%[58]. However, at 3%, treatment uptake in the Kimberley is slightly below the state levels of 9%[58].

Chronic hepatitis C (CHC) levels in the Kimberley region are comparable to the state rate of 0.7%, with 1.4%[59]. The CHC treatment uptake of 25% in the Kimberley SA3 is considerably below that of the state level at 42%[59].

Alcohol and other drug services

Reported statistics on AOD treatment show that across the Country WA PHN 412.6 per 100,000 people understood treatment during the 2022-2023 period[60]. Alcohol treatment represented more than half (53%) of the drug of concerns, followed by cannabis (23%) and amphetamines (18%)[60]. Men make up nearly two thirds of clients (64% vs. 36%), with 30–39-year-olds (28%) making up the largest age group of clients[60].

AOD services are provided by the WA Country Health Service, not-for-profit organisations and Aboriginal organisations[61]. The WA Country Health Service provides the Kimberley Community Alcohol and Drug Service in Kununurra, Halls Creek, Derby, Fitzroy Crossing and Broome. This service provides assessment, counselling and referral and support for people experiencing alcohol and other drug issues to help reduce alcohol and other drug related harm in the region.

Cyrenian House – Milliya Rumurra Aboriginal Corporation provides individuals and their families with improved access to alcohol and other drug services on an outreach basis, servicing the communities north of Broome along the Dampier Peninsula and south to Bidyadanga[92]. This service also provides residential treatment and rehabilitation services to Aboriginal people. Alcohol and other drug services are also provided by Aboriginal organisations in Wyndham, Fitzroy Crossing, Kununurra and Derby[93].

Mental health

Mental health was the second leading cause of disease burden in the Kimberley region contributing 15% to the total disease burden for the region. Suicide and self–inflicted injuries were the leading cause of burden of disease for males in the Kimberley contributing to 11% of the disease burden[28].

Approximately 1 in 10 residents in the Kimberley SA3 have been diagnosed with anxiety (13%), depression (11%) and high or very high psychological distress (10%)[63]. The prevalence of anxiety and depression is similar to state levels at 12% and 11% across WA, while the proportion experiencing psychological distress in the Kimberley SA3 is slightly below the state level (13%)[63].

Rates of clinician-diagnosed depression and Anxiety using WAPHA's new method of estimating condition prevalence from general practice data was not calculated for the Kimberley, as the data collected in general practice will not be reflective of the wider population[20].

Suicide and self-harm

From 2018 to 2022 1,919 people sadly died from suicide in WA; a rate of 14.1 per 100,000 people and above the national rate of 12.3 per 100,000[3]. In WA, suicide represents 3 of all deaths and is the ninth leading cause of death[65].

Suicide is a serious issue for the communities in the Kimberley. At a rate of 32.9 per 100,000 people, suicide in the Kimberley SA3 is above state levels and an area of great concern[3]. Fifty-eight people died from suicide in the Kimberley SA3 between 2018 to 2022[3]. Suicide ranks as the third leading cause of death in the Kimberley accounting for 6% of all deaths between 2017-2021[65].

The Health and Wellbeing Surveillance Survey collects data on suicidal ideation among adults aged 16 years and over[24]. In the Kimberley SA3, 6% of the population indicated that they thought seriously about ending their own lives, slightly below the state rate of 7%[24].

Self-harm is a strong risk factor for suicide. At a rate of 255.7 per 100,000 residents, hospitalisations for self-harm in the Kimberley SA3 is two and a half times above the state level (97.9 per 100,000) and the highest rate in WA[65]. Self-harm hospitalisations were highest for females and for people aged 25 – 44 years[65].

The State Coroner's Inquest into the deaths of thirteen children and young persons in the Kimberley noted the impact of intergenerational trauma in Aboriginal communities and recommended increased coordination and accountability between service providers and agencies[94]. The Kimberley was identified as one of twelve locations across Australia to participate in the National Suicide Prevention Trial. The trial was aimed to develop a model of suicide prevention that meets the unique and culturally sensitive needs of the region's Aboriginal communities[71].

Youth mental health

Primary mental health care services play an important role in prevention and early intervention efforts reduce the prevalence and impact of mental health problems amongst young people[66, 67]. Approximately one in seven young people aged 4-to-17-years experience mental illness in any given year[68], and 75 of severe mental health problems emerge before the age of 25. Early intervention in childhood and adolescent years can prevent or mitigate potentially lifelong mental illness[69].

A recent survey of WA school children found that mental health was a critical issue with a substantial number of Year 7 to 12 students reporting poor life satisfaction, low self-esteem, high levels of stress and the feeling they can't cope with life's challenges[69]. Approximately 1 in 4 (26%) female year 7 to 12 students rate their life satisfaction as 0 to 4 with '0' being the worst possible life. This was double the proportion of males who felt the same (13%)[67].

Self-harm is approximately twice as high in females compared with males, and in older adolescents compared with younger adolescents[67]. Females aged 16-17 years have the highest rates of self-harm, with 17% having engaged in an act of self-harm[67].

In WA, mental health services for young people are provided through general practice, the public mental health system (such as the Child and Adolescent Mental Health Service), not-for-profit organisations (headspace) and private providers such as psychologists.

Hospital EDs also play a role in treating mental illness. People seek mental health-related services in EDs for a variety of reasons, often as an initial point of contact or for after-hours care[70]. Between July 2022 and June 2024, 6,780 Western Australians aged 12-17 years presented to hospital EDs for mental-health related reasons; a rate of 370 per 10,000 people aged 12-17 years[71].

Compared to other areas in WA, youth mental health is a significant concern in the Kimberley region[71]. The Kimberley SA3 has Mental Disorder-related ED presentations well above state rate, at 1,139 per 10,000 12-17-year-olds, it is three times the state rate when compared to the 370 per 10,000 across WA[71].

headspace centres and services support young people across Australia to be mentally healthy and engaged in their communities[72]. There are two headspace centres in the Kimberley region, based in Broome and Kununurra[72]. The Kimberley SA3 has the second highest utilisation levels at 7% of residents aged 12-25; above the state level of 2%[73]. Each patient's episode of care comprised of an average of 5.2 occasions of service (i.e. interactions with the service or mental health worker) in the Kimberley SA3; slightly more interactions when compared to the WA average of 4.2[73].

The Australian Youth Self-Harm Atlas (AYSHA) reports that the overall prevalence of suicidality (suicidal thoughts or behaviours, including ideation, plans, and attempts) in both the Kimberley SA3s are above the state rate of 9%, this is bolstered specifically by prevalence rates of self-harm (regardless of intent), non-suicidal self-harm and suicidal ideation, which are above the state rate of 10% and 7% respectively[74].

Major depression and anxiety disorders are risk factors associated with higher self-harm prevalence among 12 to 17-year-olds and are of much concern in the Kimberley region[75]. The proportion of 12 to 17-year-olds experiencing major depression or anxiety disorders in the Kimberley SA3s is well both above the state level, at 32% compared to 9% across WA[75].

Note: AYSHA provides synthetic estimates—modelled figures derived from statistical techniques that combine survey and population data—to estimate the prevalence of suicidality, self-harm, and experiences of anxiety and depression among

young people aged 12 to 17. These estimates are used instead of direct data to provide meaningful insights at smaller geographic levels where sample sizes are too limited for reliable measurement.

Suicide and self-inflicted injuries were the leading course of disease burden for 15 to 24-year-olds contributing to 34% of the disease burden for this age group[52]. Hospital admissions for self-harm can be an indication of unmet need for accessible mental health services. It is greatly concerning to note self-harm hospitalisations among people aged 0-24 years in the Kimberley SA3 are above state levels (202.8 vs. 139.7 per 100,000)[43].

Mental health services

Mental health services in the Kimberley are provided by the WA Country Health Service, not-for-profit organisations and Aboriginal Community Controlled Organisations. There are approximately 19 mental health services in the region, 8 of which have dedicated youth services[61]. The WA Country Health Service provides adult community mental health services, child and adolescent mental health services and the Statewide Aboriginal Mental Health Service. Aboriginal Mental Health Workers play key roles in multidisciplinary teams, strengthening the cultural competence of the mental health services and improving access to services for Aboriginal people and Aboriginal communities. The headspace service provides psychological services to youth in Broome. Anglicare offers counselling services in Kununurra, Halls Creek, Broome and Derby. Boab Health Services provide psychological intervention for mild to moderate mental health issues across the Kimberley region and provide a mental health service for children and youth.

Stakeholders have indicated staff retention and the cost of travelling vast distances to provide clinical services as challenges to service provision in the Kimberley. Services are located in the major townships and outreach is hampered by travel barriers and costs particularly in the wet season as it can be prone to flooding.

A GP mental health treatment plan can be used to refer patients to psychiatrists, psychologists, counsellors, social workers and occupational therapists. In the Kimberley SA3, 4% have accessed a GP mental health treatment plan; below the state level of 8%[76].

There are low numbers of mental health professionals such as psychiatrists, mental health nurses and psychologists in regional and remote areas[77]. The Kimberley itself has the greatest supply of psychologists in the Country WA PHN and is near the state rate, with 11 psychologists per 10,000 people in the region[77]. Less than 1% of the population access a clinical psychologist, compared to 2.2% across WA[76]. This could indicate that there is a reliance for mental health care in the Kimberley on services provided by the WA Country Health Service, the not-for-profit sectors or at EDs

Aboriginal health

The Kimberley region has the largest population of Aboriginal people in WA, with an estimated 19,856 Aboriginal people representing over half of the region's population[2]. There are over 30 different language groups in the Kimberley and over 200 remote Aboriginal communities. English is often a second or third language for Aboriginal people in the Kimberley with the most common languages being Kriol, Jaru, Kukatja, Walmajarra and Kija[95].

Aboriginal people are dispersed throughout the four Local Government Shires that make up the Kimberley region[80]. The 2021 Census reports that the WA Local Government Area (LGA) with the second and third most Aboriginal people were Broome (4,847) and Derby-West Kimberley (4,267)[80]. Further, Halls Creek (78%) and Derby-West Kimberley (60%) are in the top three LGAs with the greatest proportion of Aboriginal people[80].

The Aboriginal people in the Kimberley region, spanning the Indigenous Areas (IAREs) of Broome, Broome – Surrounds, Derby – Mowanjum, Fitzroy Crossing, Outer Derby – West Kimberley, Fitzroy River, Great Sandy Desert, Halls Creek, Halls Creek – Surrounds, Argyle – Warmun, North Kimberley, Kununurra, Wyndham and Kalumburu, are some of the most disadvantaged in the state[18]. The Indigenous Relative Socio-economic Outcome Index (IRSEO) represents the Indigenous Areas (IAREs) of social and economic disadvantage among Aboriginal people. Indicators reflecting disadvantage include low income, low educational attainment, high unemployment, and reliance on housing support[18]. A lower value represents a lower level of disadvantage, with a high value representing highly disadvantaged populations. The IRSEO score indicates that IAREs in the Kimberly region had a higher disadvantage compared to the score of 51 for WA overall, with all IAREs except Broome (Note: Data for Outer Derby – West Kimberley are not published) having an IRSEO of 80 or more[18]. Kalumburu and Great Sandy Desert had the highest

levels of disadvantage for Aboriginal people living in the Kimberley with IRSEOs of 97 and 94 respectively[18].

Unemployment is higher in the Great Sandy Desert IARE with an estimated 56% of Aboriginal residents without work[18]. This is followed by the Halls Creek – Surrounds IARE, with approximately 39% of residents unemployed[18]. Aboriginal households in the region had a low income, drastically greater than the state average of 54%[18], notably, 95% of households in IAREs of Fitzroy River, Great Sandy Desert, Halls Creek – Surrounds and Kalumburu have a low income[18].

Housing is an issue in the region, with approximately 43% of Aboriginal people living in social housing in the Kimberley SA3 compared to 33% of Aboriginal people across WA[18]. In the Kimberley SA3, higher proportions of Aboriginal people are living in social housing in Kalumburu (99%), Fitzroy River (98%), Great Sandy Desert (95%), Broome – Surrounds (93%) and Outer Derby – West Kimberley (90%)[18] .

All IAREs in the Kimberley region experience poor housing sustainability, in particular Argyle – Warmun, Kalumburu, Great Sandy Desert and Fitzroy Crossing have above 50% of households requiring extra bedrooms to accommodate residents[18].

There is an average participation rate in full-time secondary education at age 16 of 65% across WA[18]. Participation in the Derby – Mowanjum, Halls Creek – Surrounds,, Fitzroy River, Great Sandy Desert and Broome – Surrounds are concerningly low with less than 40% of Aboriginal people aged 16 participating in full-time secondary school education[18].

Aboriginal children in the Kimberley are also impacted by disadvantage[18]. About 76% of Aboriginal children in the Halls Creek IARE, 72% in Fitzroy Crossing and 65% in Kununurra were developmentally vulnerable in one or more domains[18]. In the Derby – Mowanjum, Outer Derby – West Kimberley, Fitzroy River and Fitzroy Crossing IARE, 63% of Aboriginal mothers smoked during pregnancy, though the Kimberley as a whole, is of great concern as each IARE that falls within the region is above the state rate of 44%[18]. Further to this, the percentage of Aboriginal babies born with a low birthweight in Great Sandy Desert , Halls Creek and Halls Creek – Surrounds IAREs was higher than the WA (22% respectively compared to 13%)[18].

Rheumatic heart disease (RHD) is noted as being a significant concern in the Kimberley SA3[81]. RHD is a preventable condition that disproportionately affects Aboriginal people, with nearly 9 in 10 (89%) of Western Australians living with RHD being Aboriginal. It is caused by a bacterial infection of the throat and skin, and without treatment, can lead to permanent damage to the heart[81].

Childhood immunisation

A key priority of the National Immunisation Program Schedule is to work towards achieving immunisation coverage rates of at least 95% for children aged 1, 2 and 5 years. Immunisation is on par with the target for 5-year-olds in the Kimberley SA3, however, it is below target for age groups for 1 (92%) and 2-year-olds (90%)[18]. In the Kimberley region, only IAREs Halls Creek and Derby – Mowanjum are above the target rate for all ages of children[18] (where figures were not suppressed due to low numbers). Fitzroy Crossing had the lowest rates in the region for both 1 (84%) and 2 year olds (83%) and Broome – Surrounds had the lowest for 5-year-olds (70%)[18]. This suggests that interventions should be targeted to increase immunisation coverage for this age group[18].

Lower urgency emergency department presentations

High rates of lower urgency ED attendances can be indicative of a gap in primary health care services. In the Kimberley, the rate of total non-urgent ED presentations for Aboriginal people (13,091 per 10,000 Aboriginal people) is over double the rate when compared to WA (6,167 per 10,000)[18]. Within the whole of WA, the Kimberley SA3 had the second highest rate of non-urgent ED presentations after the Gascoyne SA3 (13,091 per 10,000 Aboriginal people vs 14,586)[18].

Avoidable deaths by selected causes

Avoidable deaths data is suppressed for a number of IAREs due to low numbers. Based on the available data, there were 117.6 avoidable deaths per 100,000 across WA among Aboriginal people aged 0 to 74 years in the 2017-2021 period[18]. Concerningly, the Kimberley SA3 recorded the highest level, nearly three times the state rate, at 307.1 per 100,000[18]. The Kimberley SA3 exceeds state levels on a majority of reported conditions underpinning avoidable deaths, with the most concerning being circulatory system diseases (100.1 per 100,000), ischaemic heart disease (58.9), diabetes (45.3) and other external causes (e.g., transport accidents, accidental drowning) (44.4)[18]. Circulatory system diseases were higher than the Country WA PHN rate (101.1 per

100,000) in the Great Sandy Desert, Broome – Surrounds, Argyle – Warmun, Fitzroy River, Halls Creek, Outer Derby – West Kimberley, Kununurra and Fitzroy Crossing IAREs[18]. Broome – Surrounds had the highest rate of diabetes and other external causes (e.g., transport accidents, accidental drowning) among all the IAREs in the Kimberley region[18]. There was limited data available for the IAREs for avoidable deaths from suicide and self-inflicted harm with only the rate for the Broome IARE available, at 36.1 per 100,000 (above the state rate of 32.6 per 100,000)[18].

Potentially preventable hospitalisations

The average annual rate of total PPHs per 100,000 for Aboriginal people is above the state level for seven of the fourteen IAREs[18]. In the Kimberley region, the rates above state ranged from 7,416 to 23,010 per 100,000[18]. Fitzroy Crossing has the highest rate, followed by Derby – Mowanjum (17,229), Halls Creek (16,978), Kununurra (15,393), Wyndham (12,153) Broome (10,931) and Kalumburu.

Chronic conditions that are classified as potentially preventable through behaviour modification, lifestyle change and timely care are: angina, asthma, COPD, congestive cardiac failure, diabetes complications, hypertension and iron deficiency anaemia[82]. The following rates for PPHs due to chronic conditions within Kimberley region exceeded state rates:

- Chronic angina: Fitzroy Crossing (590 per 100,000), Derby – Mowanjum (344), Broome (290) and Kununurra (266), compared to 206 per 100,000 across WA[18].
- Chronic asthma: Kununurra (507 per 100,000), Halls Creek (462), Fitzroy Crossing (419), Derby – Mowanjum (362), Broome (206), Argyle – Warmun (205) and Wyndham (200), compared to 192 across WA[18].
- Chronic congestive cardiac failure: Fitzroy Crossing (1,455 per 100,000), Derby – Mowanjum (1041), Halls Creek (987), Kununurra (906), Broome (557), Wyndham (532) and Kalumburu (473), compared to 405 per 100,000 across WA[18].
- Chronic diabetes complications: Fitzroy Crossing (2,358 per 100,000), Halls Creek (1,537), Kununurra (1,454), Derby – Mowanjum (1,296), Wyndham (985), Broome (723) and Kalumburu (684), compared to 567 per 100,000 across WA[18].
- Chronic iron deficiency anaemia: Broome (697 per 100,000), Wyndham (390), Derby – Mowanjum (282), Halls Creek (281) and Fitzroy Crossing (257), compared to 208 per 100,000 across WA[18].
- COPD: Kununurra (2,177 per 100,000), Fitzroy Crossing (1,327), Derby – Mowanjum (1,099), Wyndham (1,070), Halls Creek (968), Kalumburu (943) and Broome (745), compared to 608 per 100,000 across WA[18].

Acute PPHs relate to conditions that usually come on suddenly, and may not be preventable, but may not have resulted in hospitalisation if timely and adequate care was received in the community.[82].

PPHs for total acute conditions also exceeded state rates across all reported conditions in the Kimberley region, including:

- Acute cellulitis: Fitzroy Crossing (4,283 per 100,000), Derby – Mowanjum (3,624), Kununurra (2,523), Halls Creek (2,336), Wyndham (2,095), Broome (1,763), Kalumburu (1,462), North Kimberley (1,155), Argyle – Wamun (1,041) and Outer Derby – West Kimberley (1,035) compared to 816 per 100,000 across WA[18].
- Acute convulsions and epilepsy: Fitzroy Crossing (1,412 per 100,000), Halls Creek (1,207), Derby – Mowanjum (728), Broome (658), Kununurra (517) and Kalumburu (470), compared to 460 per 100,000 across WA[18].
- Acute dental condition: Fitzroy Crossing (965 per 100,000), Broome (806), Wyndham (791), Halls Creek (763), Derby – Mowanjum (737) and Kununurra (655), compared to 431 per 100,000 across WA[18].
- Acute ear, nose, and throat infections: Fitzroy Crossing (2,371 per 100,000), Derby – Mowanjum (1,732), Halls Creek (1,564), Wyndham (1,026), Kununurra (843), Kalumburu (782), North Kimberley (558), Halls Creek – Surrounds (544), Broome (475), Argyle – Warmun (468) and Outer Derby – West Kimberley (450) and Fitzroy River (440), compared to 393 per 100,000 across WA[18].
- Acute urinary tract infections (including pyelonephritis): Fitzroy Crossing (2,201 per

100,000), Halls Creek (1,419), Kununurra (1318), Derby – Mowanjum (1,230), Wyndham (903), Broome (813), Kalumburu (563), Outer Derby – West Kimberley (549) and North Kimberley (529), and compared to 516 per 100,000 across WA[18].

Vaccine-preventable PPHs are hospitalisations due to conditions that can be prevented by vaccination[82]. PPHs for total vaccine preventable conditions also exceeded state rates in the Kimberley region, including:

- Total PPHs for vaccine-preventable conditions: Halls Creek (3,132 per 100,000), Fitzroy Crossing (2,829), Derby – Mowanjum (2,594), Kununurra (2,082), Broome (1,897), Wyndham (1,718) and North Kimberley (862), compared to 278 per 100,000 across WA[18].
- PPHs for pneumonia and influenza: Kununurra (872 per 100,000), Derby – Mowanjum (719), Wyndham (682), Halls Creek (679), Fitzroy Crossing (642), Broome (592), Argyle – Warmun (398) and North Kimberley (320), compared to 855 per 100,000 across WA[18].

Primary care service access

Aboriginal people can access specific services aimed at Closing the Gap in health outcomes. It is important that General Practices ask all patients if they identify as Aboriginal and/or Torres Strait Islander. This assists with ensuring patients are provided with the option of accessing information and services specifically designed to meet their needs.

Through Medicare, Aboriginal people can receive Aboriginal-specific health checks from their doctor, as well as referrals for Aboriginal-specific follow-up services. In March 2020, telehealth items for Aboriginal Health Checks were introduced in response to COVID-19 and its associated restrictions[83].

In 2021-2022, the proportion of Aboriginal people that received an Aboriginal Health Check was 23% in Country WA PHN compared to 22% across WA[83]. Nationally, face-to-face Aboriginal Health Checks was the preferred method compared to telehealth[83].

Aboriginal people living in the Kimberley region can access primary care services through general practice, Aboriginal Community Controlled Health Services, Integrated Team Care (ITC) programs and the hospital sector.

The ITC program supports Aboriginal people living with complex chronic conditions to access health care and funds teams of Aboriginal and Torres Strait Islander health project officers, outreach workers and care coordinators. In the Kimberley region, the Country to City ITC service is provided by BOAB Health service.

Kimberley Aboriginal Community Controlled Health Organisations (ACCHOs). Kimberley Aboriginal Medical Services (KAMS) is a member based, regional ACCHO supporting and representing the interests of eight independent Kimberley ACCHOs, and Kimberley Renal Services. There are eight ACCHOs in the Kimberley region located in the Broome, Broome – Surrounds, Derby – Mowanjum, Kununurra, Halls Creek, Fitzroy Crossing and Great Sandy Desert IAREs.

The Broome Regional Aboriginal Medical Service (BRAMS) is based in Broome. BRAMS provides comprehensive, holistic and culturally responsive primary health care, social and emotional wellbeing services, and NDIS support to Aboriginal people living in Broome, delivering more than 40,000 of occasions of service each year.

Derby Aboriginal Health Services (DAHS) is an ACCHO providing culturally appropriate health education, promotion, and clinical services to the Derby community in WA. It provides primary health care services, regular allied health and medical specialist services as well as a range of programs via its main clinic in Derby. Further, it also delivers health services to seven remote Aboriginal communities in the Kimberley region.

Ord Valley Aboriginal Health Service (OVAHS) provides a comprehensive primary health care service to Aboriginal people in the East Kimberley region. Preventative and public health programs include maternal and child health, women's health, chronic disease, sexual health and along with the OVAHS Social Support Unit. The Social Support Unit offers alcohol and other drug services, mental health services, health promotion and education programs in the areas of FASD prevention, smoking cessation, chronic disease prevention, childhood health promotion and sexual health.

Nindilingarri Cultural Health Services (NCHS) is an ACCHO that provides a range of health promotion, health and environmental health services, and

community services to people in the Fitzroy Valley.

Digital health

Digital health includes a broad range of innovative technologies for the purposes of providing care and sharing information to enhance patient outcomes. Services include mobile health applications (Medicare Online, COVID check-in apps), electronic prescribing, electronic health records (My Health Record) and telehealth/telemedicine[85].

Australia-wide, the volume of My Health Record entries containing data had a growth of 520,000 from January 2023 to March 2024[85]. The largest increase in use from 2023 to 2024 has been seen in specialist letters (78% increase), diagnostic imaging reports (34% increase), and pathology reports (25% increase)[85]. In March 2024, WA had 2.6 million My Health Record entries[85].

There has been a decrease in the proportion of people who have had at least one telehealth consultation in the 12-months from 30.8% in 2021-2022 to 27.7% in 2022-2023[86]. Those who had a long-term health condition (37.1%) are more likely to use telehealth compared to those without one (17.3%)[86]. In addition, those aged 65-74 years (31.6%) are more likely to use telehealth than people aged 15-24 (20.9%)[86]. Unfortunately, those living in outer regional, remote or very remote areas (23.4%) are less likely to use telehealth than those living in major cities (28.3%) – there could be several reasons for this including, internet availability/access, telehealth compliant devices such as phones and laptops. Of people who used telehealth services in the past 12 months, 87.7% reported that they would use it again if offered[86].

Given the large geographical size of WA, COVID-19 saw a very rapid adoption of virtual methods of consultation of WA's hospital-based outpatient clinics. Rates that were previously in low 10 to 15% rapidly moved to the 60 to 80% across a range of clinics and hospitals[87]. It appears that the focus on digital health including telehealth consultations during COVID-19 helped fast track the adoption of technology and more providers saw the My Health Record as a valuable repository of health data as it is accessible to all health care providers without the need for fax machines or postal services. As of February 2024, there are now more than 23.5 million My Health Record entries Australia-wide and more than 23 million or 98 % of them contain data[85]. It is important to note that the COVID pandemic drove telehealth, but unfortunately, these gains have not been sustained as patients are favouring face to face consultations once again.

Whilst there are digital health initiatives to assist health providers ensure that primary health care services are delivered locally to the communities across the Kimberley, such as the 2021 initiative in 2021 by KAMS deploying a telehealth system across the region, there are challenges in accessing digital health services in some remote regions in WA. These challenges, which include limited internet access, low digital literacy, language barriers, and the lack of a consistent approach to whether and how digital health is utilised across different providers, make it more difficult for consumers.

Mid West
Priorities

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
Chronic disease is a significant issue in the Mid West region. It contributes substantially to the burden of disease, and there are high rates of avoidable deaths due to chronic conditions Rates of clinician-diagnosed diabetes are significantly higher in the Mid West Statistical Area Level 3 (SA3) compared to the state rate. The region has high rates of risk factors for chronic conditions, particularly in the Mid West SA3. This includes high blood pressure, obesity and low levels of physical activity.	The Mid West region has high rates of Potentially Preventable Hospitalisations (PPHs) related to chronic conditions, including Chronic Obstructive Pulmonary Disease (COPD), diabetes, congestive heart failure and chronic hypertension. General Practitioner (GP) utilisation has decreased in the last five years. The high risk rates, PPHs and avoidable mortality rate make it a complex region from a clinical perspective.	**Support primary health care providers to manage chronic disease populations and build capacity for patient self-management.**	Mid West	Population health	Chronic conditions
Mental health is the second leading cause of disease burden in the region, and suicide is a serious issue, particularly in the Mid West SA3. It is the eighth leading cause of death and accounts for 3% of all local deaths. Self harm and suicidal ideation are high among 12-17-year-olds compared to other parts of Western Australia (WA).	Access to primary mental health services is limited in the Mid West region with a relatively low rate of psychologists per 10,000 people and only 1% of the population accessing a clinical psychologist or psychiatrist through Medicare Benefits Schedule (MBS) services. Two local providers deliver suicide prevention services for the region.	**Support general practices in identifying people at risk of suicide and referring to appropriate services, including telehealth mental health providers.** **Enable access to culturally appropriate mental health care and early intervention suicide prevention services, including for young people.**	Mid West	Mental health	Access Early intervention and prevention
Residents are at risk of long- and short-term harm from alcohol use illicit drug use.	Alcohol and Other Drugs (AOD)-related Emergency Department (ED)	**Enable access to screening and AOD treatment services.**	Mid West	Alcohol and other drugs	Access

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
Rates of clinician-diagnosed chronic alcohol misuse and chronic drug misuse are significantly higher in the Mid West SA3 compared to the state rate.	presentations are above state levels, placing burden on hospital EDs.				
More people are experiencing homelessness within the Gascoyne SA3 region. Evidence shows that people experiencing homelessness often also experience mental health issues, substance use issues and/or at least one chronic condition.	Existing homeless health care services are under considerable strain and unable to expand their services due to resource constraints.	**Increase the capacity of homeless health care services to respond appropriately to the primary care needs of people experiencing or at risk of experiencing homelessness.**	Mid West	Population health	Access Chronic conditions
The Gascoyne SA3 has the highest rate of people born overseas with low English proficiency in the Country WA region. People from multicultural communities face challenges navigating the Australian health care system as well as financial and linguistic barriers to making appointments. Limited access to translator/language services is creating significant difficulties for consumers to articulate their health concerns. Mental health, vaccines and psychosocial support are key areas with unmet need for multicultural people.	The Gascoyne SA3 has the second highest rate in the Country WA region of GP-type ED presentations by people born in predominantly non-English speaking countries relative to the size of its local multicultural population. Whist there are two primary health care services in the Country WA region specialising in care for multicultural people, neither of these are located in the Mid West region. Service providers require more training to effectively and appropriately communicate with, and support, multicultural patients.	**Improve access to primary care services, early intervention, cultural safety and health literacy for multicultural communities through a care navigation service.**	Mid West	Population health	Access Appropriate care (including cultural safety)
Some Aboriginal people in the Mid West region experience significant levels of socioeconomic disadvantage and may be at risk of experiencing poor	Aboriginal people in the Mid West region have high rates of avoidable hospitalisation, including PPH	**Enable access to coordinated culturally appropriate primary care for Aboriginal people.**	Mid West	Aboriginal health	Appropriate care (including cultural safety)

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
health outcomes related to social determinants of health.	presentations and non-urgent ED presentations.				
Childhood immunisation levels in the Mid West region are below the 95% target for Aboriginal and non-Aboriginal children. Under-immunisation increases the risk of vaccine-preventable illnesses in the whole community, including greater risk of outbreaks, and severe illness or death for those who cannot be immunised (including infants or immunocompromised individuals).	Under-vaccination increases risk of vaccine-preventable illnesses and creates avoidable burden on primary health care and the Aboriginal health workforce.	**Support primary health care providers to increase childhood immunisation rates overall, and deliver culturally appropriate and accessible vaccination programs for Aboriginal children.**	Mid West	Aboriginal health Population health	Immunisation
The Mid West region has a large and growing older adult population. By 2030, nearly one quarter of the Mid West SA3 and one fifth of the Gascoyne SA3 residents will be aged over 65. Older people are more likely to be living with a chronic condition compared to the general population. In the Mid West region Coronary heart disease, COPD and dementia are among the leading causes of disease burden for people aged 65 and over.	Despite having a relatively high proportion of older people, there are no local home care services in the Gascoyne SA3, and only two residential aged care homes. Older people need support from their primary health care providers to manage chronic conditions, including multimorbidity, and to live independently for as long as possible.	**Support health and aged care providers to effectively manage chronic conditions for older people and help them live independently for as long as possible.** **Enable access to age-appropriate digital health services.** **Enable access to local aged care services, including residential and at-home.**	Mid West	Aged care	Access Chronic conditions
Most Australians would prefer to die at home rather than in a hospital or aged care facility. For many Aboriginal people, this means dying at home connected to country.	There are no at-home palliative care providers in the Mid West region, with many older people dying in hospitals or aged care services.	**Enable access to local at-home palliative care services, and ensure they are culturally appropriate for Aboriginal people.**	Mid West	Aged care	Palliative care Access

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
The Mid West has a relatively large Aboriginal population compared to state rates.	Some older Aboriginal people may experience challenges in accessing aged care that meets their needs. Access to aged care may be required at a younger age compared to other regions.	**Support health care and aged care providers in delivering patient-centred culturally appropriate care for older Aboriginal people.** **Enable access to culturally appropriate local aged care services for Aboriginal people aged 50+ years.**	Mid West	Aged care Aboriginal health	Access

Mid West

Overview

The Mid West region includes a diverse Aboriginal community with many distinct language groups and remote communities. The pertinent health concerns in the region are mental health (including youth mental health), chronic disease, alcohol and other drugs.

Workforce and access to services is a continuing issue for all rural communities and the Mid West region is similarly impacted. It has limited access to General Practitioners (GPs), allied health professionals and mental health professionals relative to other areas in Western Australia (WA).

The Mid West region has a high rate of suicide contributing to 3% of all deaths in the both the Mid West and Gascoyne Statistical Area Level 3 (SA3). Mental ill health was the second leading cause of disease burden in the Mid West health region but only 1% of the population in the Mid West and Gascoyne SA3s accessed a clinical psychologist through the Better Access MBS program.

The population in the Mid West region has a high prevalence of chronic, acute and vaccine-preventable PPHs, particularly for chronic congestive cardiac failure, chronic diabetes complications and Chronic Obstructive Pulmonary Disease (COPD), as well as acute cellulitis, acute convulsions and epilepsy, acute ear nose and throat infections and acute dental conditions. Moreover, cardiovascular burden is the fourth leading cause of disease burden in the region, following cancer, mental ill health and injury. However, there is a low utilisation of GP Chronic Disease Management Plans (CDMPs) in the Gascoyne SA3[96].

The Mid West SA3 has a large ageing population but a relatively low Residential Aged Care Homes (RACHs) beds-to-population ratio with only three residential aged care homes located in the region.

There is a concerning proportion of residents at risk of short and long-term harm from alcohol use, illicit drugs, unintentional drug-induced deaths and ED presentations related to AOD. In the Mid West SA3, proportions at risk from alcohol-related harms are above state levels, while in the Gascoyne there is a high rate of unintentional drug-induced deaths. Both SA3s have rates of clinician-diagnosed chronic alcohol and drug misuse that are above state levels. Aboriginal people in the Mid West region experience high levels of socioeconomic disadvantage, unemployment, poor housing suitability and adolescents who were not attending secondary school. Non-urgent ED presentations are high in the Carnarvon – Mungullah Indigenous Areas (IARE) within the Gascoyne SA3.

Population demographics

The Mid West region of WA services a population of approximately 68,000 people and is located in the northern central area of WA. It covers more than 605,000 square kilometres, approximately one quarter of the state's total land mass. It encompasses two Australian Bureau of Statistics (ABS) SA3 sub regions: the Mid West SA3, and the Gascoyne SA3. The Mid West SA3 includes the towns of Dongara, Exmouth, Geraldton, Kalbarri, Meekatharra, Morawa and Mullewa. The geographical classification of the Wiluna IARE has changed over time. In 2021, it joined the Goldfields SA3, but previously fell within in the Mid West SA3. For this reason, it will be reported in both the Goldfields and Mid West sections of this report, due to legacy issues of this re-classification on various data sets. The main towns in the Gascoyne SA3 include Carnarvon, Exmouth and Shark Bay[89].

Social determinants of health

Social determinants of health are the conditions in which people are born, grow and live, including factors such as a person's socioeconomic position, education, neighbourhood and physical environment [2]. These factors underpin a wide range of health and quality of life outcomes and can contribute to avoidable inequities in health care access.

The Socio-economic Index for Areas (SEIFA) provides a measure of the relative social and economic disadvantage within a region based on a wide range of indicators reflecting disadvantage including low income, low educational attainment, high unemployment, and reliance on welfare for income and housing support.

Compared to other parts of WA (Index of Relative Socio-economic Disadvantage, IRSD = 1012), the Mid West region is an area of socioeconomic disadvantage[2]. This is evident in both the Mid West and Gascoyne SA3s at similar levels (IRSD=962 and 967 respectively)[89]. Approximately one in eight Gascoyne SA3 residents (13%) live in social housing; considerably higher than the state rate of 3%. A similar proportion (12%) are in low income, welfare-dependent families with children, compared to 5% in WA overall. In contrast, 5% of Mid West SA3

residents live in social housing and 10% are in low income, welfare-dependent families with children[2].

Approximately 1 in 6 (17%) of residents in the Gascoyne SA3 identify as Aboriginal, compared to 1 in 8 (13%) residents in the Mid West SA3[96]. Across the state, 4% of Western Australians identify as Aboriginal[2].

Under-served population groups

People at risk of avoidable, unjust health inequities are more likely than the general population to experience poor health outcomes due to physical, social, and economic factors, and include people who are multicultural; Lesbian, Gay, Bisexual, Transgender, Intersex, Queer, Asexual, and other identities (LGBTIQA+); experiencing homelessness; living with a severe disability or caring for someone with a disability; developmentally vulnerable; and victims of family, domestic or sexual violence.

The Mid West region has a number of under-served populations who are at risk of poor health outcomes. Specifically:

- Approximately 3,000 Mid West SA3 residents were born in a non-English speaking country, equating to 6% of the local population. A further 1,000 Gascoyne SA3 residents were born in a non-English speaking country, representing 11% of the local population. These compare to 18% across WA[2].
- 6% of residents in the Mid West SA3 and 4% of in the Gascoyne SA3 have a profound or severe disability, similar to the state rate of 5% [2].
- 11% of residents in the Mid West SA3 and 8% in the Gascoyne SA3 provide unpaid assistance to people with a disability compared to 11% across the state[2].
- Approximately 1 in 4 children in the Mid West and Gascoyne SA3s (24% and 26% respectively) are developmentally vulnerable on one or more domains compared to 20% across WA[11].
- An estimated 380 people in the Mid West SA3 and 184 people in the Gascoyne SA3 are experiencing homelessness. This equates to 65 people per 10,000 and 113 per 10,000 people respectively and included people living in overcrowded dwellings[2].

Multicultural populations

A bespoke review into the needs of multicultural people in WA identified that they face significant challenges accessing primary health care, including difficulties navigating the health care system, financial barriers and linguistic barriers when making appointments, articulating their health concerns and understanding medical terminology. Service providers require more training to effectively and appropriately support multicultural patients, including greater understanding of different cultures and the importance of using plain language or interpreters[5, 6]. Mental health, psychosocial support and vaccinations were identified as key needs for multicultural people[5].

For many multicultural communities, mental health is a significant issue, including comorbidity with alcohol and other drugs, and trauma. Some multicultural patients hesitate in seeking health care related to psychological concerns for fear of stigma, and difficulties in articulating their concerns[5].
Vaccinations can be difficult for migrants to plan for on arrival, as patient medical records are often inaccessible or need to be translated. This is significant for all migrants, particularly children, whose vaccinations must be aligned to the appropriate vaccine schedule.

Psychosocial strategies to provide a sense of connection and build independence are important for many people within multicultural communities, including support to set up a bank account, access Centrelink, improve English and obtain a driving license. These skills are critical in overcoming some of the barriers multicultural people face in accessing health care. There is a need to provide this connection and support in a safe and culturally appropriate setting and in a targeted manner to aid the transition to life in Australia.

There are two primary health care services specialising in care for the multicultural population in the Country WA region, located in the Goldfields SA3 and East Pilbara SA3[5]. The Gascoyne SA3 (Composite Index Score, CIS=0.95) has the highest level of unmet need for multicultural services in WA. It has the highest rate of people born in a predominantly non-English speaking country who don't speak English well, and the second highest rate of GP-type ED presentations among people born in a predominantly non-English speaking country (6,485 per 10,000 people born in a predominantly non-English speaking country compared to 1,912 per 10,000 across WA)[5].

In contrast, the Mid West SA3 (CIS=-0.15) has a moderate level of unmet need for multicultural services, driven by rate of GP-type ED presentations among multicultural residents that is above the state level (3,205 per 10,000 people born in a non-English speaking country, vs. 1,912 across WA)[5]. However, this rate is below other parts of the Country WA region, and the Mid West SA3 has a relatively low proportion of residents born in a non-English speaking country compared to other parts of WA, with nearly all (99.7%) residents speaking English well[5].

LGBTIQA+ populations

LGBTIQA+ is an acronym commonly used to describe lesbian, gay, bisexual, trans/transgender, intersex, queer/questioning, asexual, and other sexuality, gender, and bodily diverse people and communities. Many LGBTIQA+ people face discrimination and disparities connected to their gender identification and/or sexuality that impact their physical and mental health and access to health care and other services[2]. LGBTIQA+ people are known to have a higher risk of certain chronic diseases such as cancers, asthma and cardiovascular disease[2]. Moreover, some members of LGBTIQA+ communities, particularly gay, lesbian and bisexual people, are 2.0 times as likely to smoke daily compared to heterosexual people which increases their risk of developing a chronic disease[3].

The Private Lives survey is Australia's largest national survey of the health and wellbeing of LGBTIQA+ people to date[2]. In the latest results, LGBTIQA+ people reported lower self-rated health than the general Australian population, with fewer than 1 in 3 (31%) rating their health as very good or excellent compared to more than half (56%) of the general Australian population aged over 15 years. Two in five (40%) cisgender men rated their health as very good or excellent compared to only 29% of cisgender women, 26% of trans women, 20% of non-binary participants and 19% of trans men[2].

More than a third (39%) of participants reported a disability or long-term health condition, with 12% reporting a profound or severe disability, 20% a moderate disability and 6% a mild disability or long-term health condition. When accessing a health or support service, 30% of those with a severe disability or long-term health condition felt accepted compared to LGBTIQA+ people who did not report a disability or long-term health condition (51%). More than three quarters (78%) with a severe disability or long-term health condition reported being treated unfairly by others in the past 12 months because of their disability or long-term health condition. This was followed by 56% of residents with a moderate disability or long-term health condition and 43% with a mild disability or long-term health condition[2].

More than 4 in 10 (42%) of young Australian trans people have encountered medical services who did not respect, understand or have prior experience with gender diverse people[8]. Please refer to the Mental Health section for further details about mental health and suicide prevention for LGBTIQA+ populations.

Local intelligence has highlighted supply-side challenges, including a lack of LGBTIQA+ friendly services in the region, and many individuals travelling to Perth for services. Furthermore, there is limited understanding and education within the health sector about trans and intersex people. Significant proportions of LGBTIQA+ people have not felt they can safely disclose their LGBTIQA+ identity to GPs or have been misgendered in practices. Improved training and promotion of LGBTIQA+-friendly practices would be welcomed by the LGBTIQA+ community to address these issues[6].

It is important to note that there is a critical lack of research into the area of health of LGBTIQA+ people at an Australian population level[10]. Furthermore, each sub-group within the LGBTQIA+ population has its own unique health care needs, and it is inaccurate to treat these needs as homogenous across the LGBTIQA+ population. However, the lack of data, especially at a regional level, significantly limits the ability to identify and address the specific needs of each group – something WAPHA will continue to lobby to improve. Some needs relevant across the LGBTIQA+ population include:

Clinical	
	Access to appropriate: • **Health and medical care** that is inclusive, delivered by health care providers trained to deliver LGBTIQA+ affirming care, such as using correct names and pronouns and understanding gender identity and sexual orientation. • **Preventive care**, such as tailored cancer screenings (e.g., cervical cancer for transgender men, prostate exams for transgender women) and routine health checks that address unique risk factors for different sub-groups.

	• **Mental health support** delivered by culturally competent mental health providers who understand the unique stressors LGBTQIA+ individuals can experience, including stigma, discrimination, and identity-related challenges.
Cultural	
	• **Respectful, non-judgemental treatment**: health care free from stigma and discrimination, ensuring all LGBTQIA+ patients feel safe and respected. **Relevant and affirming health information**: Resources that reflect and respect LGBTQIA+ identities, such as educational materials on sexual health, mental well-being, and healthy relationships. • **Community support and per networks**: Programs that connect LGBTQIA+ individuals to peer groups, mental health resources, and LGBTQIA+ community organisations that provide culturally relevant support. • **Visibility of LGBTQIA+ friendly signage**: Clear signs, symbols, and inclusive language in health care facilities to signal a safe space for LGBTQIA+ patients.
Organisational	
	• **Inclusive policies and protocols** (e.g. anti-discrimination policies, use of inclusive terms on health care forms).
	• **Ongoing cultural competency and LGBTQIA+ sensitivity training** for all health care workers. • **Improved data collection** on LGBTQIA+ health needs (e.g., sexual orientation and gender identity data in patient records), helping to inform equitable policy and service delivery. • **Collaboration across LGBTQIA+ organisations** to create referral networks, share resources, and ensure service delivery aligns with community needs. • **Strict adherence to confidentiality policies**, especially regarding sensitive information related to gender identity and sexual orientation, to build trust with LGBTQIA+ patients.

Further information regarding health care standards in Australia that support the LGBTIQA+ community can be found at:

- Australian Charter of Health Care Rights – LGBTQI+
- Rainbow Tick guide to LGBTI-inclusive practice
- Australian Medical Association (AMA) LGBTQIASB+ Position Statement
- Australian Health Practitioner Regulation Agency (AHPRA) LGBTIQA+ Communities guidance for health practitioners
- General Practice Supervision Australia (GPSA) LGBTQIA+ Health and Inclusive Health care.

People experiencing homelessness

State-wide, health care barriers exist for people at-risk of or experiencing homelessness. A bespoke study into the needs of these people identified that many have had poor experiences with GP clinics and feel unheard when accessing primary health services. Experiences of fear, shame, and stigma were reported, often compounded by a clinical environment where some people feel out of place or unwelcome. Other barriers, including difficulty interacting with non-clinical staff (e.g., reception, security), fear of losing possessions to attend mainstream services, and financial barriers can also make it difficult for patients to make an appointment and see a clinician. Long wait times for appointments, transport availability and lack of fixed address mean keeping appointments is difficult.

Dual diagnoses and comorbidity can create complexities in accessing health care services, impacting eligibility for certain services and resulting in individuals feeling like they are being passed between different service providers in search of the right care. People experiencing homelessness indicated that it can be difficult to find the language to talk to clinicians about their concerns, and that clinicians may try to "fix everything all at once" as opposed to on one thing at a time.

In WA, 68% of the homeless population have at least one chronic health condition, 68% are living with mental health challenges, and 62% have a substance use disorder. More than one third (38%) have poor health from all three (physical, mental and substance issues)[13].

The areas of greatest need for homelessness support are the Kimberley, East Pilbara, Gascoyne

and Goldfields SA3s[12].

The Gascoyne SA3 (CIS=0.62) has the third highest rate of homelessness in WA, and latest data shows an increase over the preceding 5 years. An estimated 186 residents are at risk of or currently experiencing homelessness; equating to a rate well above the state average (184 people per 10,000 compared to 48 per 10,000 across WA)[12].

There is a moderate level of unmet need for homelessness services in the Mid West SA3 (CIS=-0.03). An estimated 371 residents are at risk of or currently experiencing homelessness; equating to a rate above the state (64 people per 10,000 compared to 48 per 10,000 across WA). However, this rate is below some other areas in the Country WA region. There are limited local services supporting people experiencing homelessness. Within the healthcare sector, the WA Country Health Service (WACHS) Mid West division[12] provides support for people at risk of homelessness in the Mid West and Gascoyne SA3s.

People experiencing family, domestic and sexual violence

The Australian National Plan to End Violence against Women and Children 2022 – 2032 aims to end gender-based violence through prevention, early intervention, response, and recovery and healing. Aligning with this, WA's Family and Domestic Violence Prevention Strategy details initiatives to prevent and respond to family, domestic and sexual violence, the key outcomes for which are prevention and early intervention; safety for victims through timely and accessible services; and accountability for perpetrators and support to cease violent behaviour.

One in six Australian women and one in eighteen men (since the age of fifteen) have been subjected to physical and/or sexual violence by a current or previous cohabiting partner[13]. Moreover, one in six women and one in nine men were physically or sexually abused before the age of 15 years[14]. The following groups have been identified as being more at risk to family, domestic and/or sexual violence[15]:

- women
- children
- people living with a disability
- Aboriginal people
- people from multicultural backgrounds
- people in rural and remote Australia
- older people
- LGBTIQA+ people
- people experiencing socioeconomic disadvantage.

In 2018, partner violence was ranked as the fourth leading risk factor contributing to total disease burden for women aged 15-44, with child abuse and neglect during childhood being the leading risk factor[15]. Family and domestic violence is also a leading cause of homelessness. In 2022-2023, approximately 104,000 (38%) of clients assisted by Specialist Homelessness Services (SHS) had experienced family and domestic violence and of these, more than three in four (75%) were female[89].

WA Police statistics indicated that in the 12 months from July 2023 to June 2024, there were 2,361 reports of family related assault in the Mid West-Gascoyne police region, equating to an average of 197 reports per month [19].

Chronic disease

Chronic disease

Chronic diseases are long-term, non-communicable conditions and play a significant part in mental and physical ill health, disability, and premature death. People with chronic disease often have two or more conditions (multi-morbidity) such as a mental health condition as well as a physical condition, creating complex health needs and presenting challenges for treatment. This section focuses on chronic conditions other than mental and behavioural conditions, which are discussed in the Mental Health section.

Chronic disease contributes significantly to the differences in life expectancy between Aboriginal and non-Aboriginal people. Aboriginal people experience 2.3 times the rate of disease burden, with an age-standardised death rate for chronic disease 3.8 times the rate among non-Aboriginal people[9]. In the 2021 Census, the age-standardised rate (ASR) per 100 of Aboriginal people who reported they had one or more long-term health conditions was 25.7[10].

Prevalence of chronic disease

For the first time in 2021, the Census collected information on ten common long-term health conditions in Australia, which included, arthritis, asthma, cancer (including remission), dementia including Alzheimer's disease, diabetes excluding gestational diabetes, heart disease including heart

attack or angina, kidney disease, lung conditions including COPD or emphysema, stroke, and mental health conditions including depression or anxiety. In the 2021 Census, 19% of all West Australians (484,000) reported they had one of the above conditions and 5% reported they have two of the selected conditions[11].

The Mid West SA3 has a concerning level of chronic disease among its residents, and is above state levels on a number of the ten chronic conditions reported by the Census[19]. These include high ASRs per 100 people for mental health conditions including depression and anxiety (8.5 per 100 people), asthma (8.1), diabetes (5.2), heart disease (3.4), lung conditions including COPD and emphysema (1.9), and kidney disease (1.2)[19].

	ASR per 100 people	
	Mid West SA3	WA
Mental health including anxiety and depression*	8.5	8.3
Asthma	8.1	7.4
Diabetes excluding gestational diabetes	5.2	4.5
Heart disease including heart attack or angina	3.9	3.7
Lung conditions including COPD and emphysema	1.9	1.7
Kidney disease	1.2	0.8

*This is the first time the chronic conditions have been collected in the Census, and there is some evidence that there may be biases in reporting mental health conditions. Therefore, these number should be interpreted with caution.

In comparison, chronic disease in the Gascoyne SA3 has less of a relative need. It only exceeds state levels for kidney disease, with 1.0 people per 100 reporting they have kidney disease, compared to 0.8 per 100 across WA[91].

Using WA Primary Health Alliance's (WAHPHA's) new method of estimating condition prevalence from general practice data, rates of clinician-diagnosed diabetes were statistically significantly higher in the Mid West SA3 (10.6%) compared to the state rate of 7.9%. Rates for the Gascoyne were not calculated, as the data collected in general practice will not be reflective of the wider population[2].

Risk factors

Established risk factors for chronic disease include having high blood pressure, being overweight or obese, smoking, doing little or no exercise and having high levels of stress. Psychosocial factors such as social isolation and loneliness also contribute to chronic ill health[14]. Risk factors for chronic disease tend to be more prevalent in areas experiencing socioeconomic disadvantage and in regional and remote areas[15].

Concerningly, the Mid West region has significantly higher rates of risk factors compared to state levels, particularly in the Mid West SA3[2]. This includes high levels of residents experiencing obesity, smoking tobacco and not engaging in any physical activity for leisure purposes[2].

The estimated prevalence for people experiencing obesity is significantly higher in both the Mid West and Gascoyne SA3s compared to the WA rate of 36%[24]. Concerningly, 2 in 5 (40%) residents in the Mid West SA3 are experiencing obesity[24]. In the Gascoyne SA3, 1 in 3 (37%) are living with obesity[24].

Nearly 1 in 4 (23%) residents in the Mid West and Gascoyne SA3s are not engaging in any physical activity for leisure purposes; above the state rate of 17%[24].

The Mid West SA3 has a slightly higher prevalence of smoking compared to the state, at 14% vs. 11% across WA. In contrast, 12% of Gascoyne residents currently smoke[24].

While high blood pressure is not a significant need in the Mid West region relative to other parts of WA, approximately 1 in 4 residents have high blood pressure in both the Mid West and Gascoyne SA3s (25% and 22% respectively, compared to 23% across WA)[27].

Healthy Weight Action Plan

WAPHA is a steward of the WA Healthy Weight Action Plan 2019-24, which focuses on early intervention of people identified as at-risk of becoming overweight and management of people who currently live with obesity. This involves multi-component, multi-levelled strategies delivered as part of an integrated shared care model. Through the Healthy Weight GP Project, WAPHA has committed to supporting GPs to provide options for patients who want to improve their health. Key deliverables include the development of a weight management 'hub' (website) with links to Clinical Referral Pathways and local services for weight management, training for general practice staff, and tools to assist general practices in implementing

weight management services as a quality improvement activity.

Burden of disease

Burden of disease measures the impact of different diseases or injuries on a population. It combines the years of healthy life lost due to living with ill health (non-fatal burden) with the years of life lost due to dying prematurely (fatal burden) to give a total burden reported using the Disability-Adjusted Life Years (DALYs) measure. Chronic disease accounts for two thirds (67%) of the burden of disease in WA[18].

The Western Australian Burden of Disease Study 2015[2] indicated that the Mid West health region had a 1.3 times higher rate of fatal burden, but the same rate of non-fatal burden compared to WA's metropolitan regions. Chronic disease accounts for a substantial proportion of the burden of disease, with cancer, cardiovascular disease and musculoskeletal disease among the leading five causes of burden. For females specifically, COPD (9.4 people per 1,000), back pain (8.7), coronary heart disease (7.5) and lung cancer (7.5) were among the leading causes of disease burden. In contrast, the leading causes for males were coronary heart disease (13.6 per 1,000), COPD (12.6), lung cancer (9.9), road traffic injuries (11.2) and suicide/self-inflicted injuries (11.3)[2].

Leading causes of total disease burden in the Mid West health region		
Condition	**%**	**ASR per 1,000**
Cancer	19%	34.2
Mental	13%	29.3
Injury	13%	27.7
Cardiovascular	12%	22.1
Musculoskeletal	9%	18.4

Potentially preventable hospitalisations for chronic conditions

PPHs are certain hospital admissions that potentially could have been prevented by timely and adequate health care in the community. Chronic conditions that are classified as potentially preventable through behaviour modification, lifestyle change and timely care include: angina, asthma, COPD, congestive cardiac failure, diabetes complications, hypertension and iron deficiency anaemia. This report includes insights from public hospital data.

Across the state, the age-standardised rate of PPHs per 100,000 for total chronic conditions was 903 per 100,000 and the highest rates were for chronic congestive cardiac failure (196), COPD (184) and chronic diabetes (178)[1].

Relative to other parts of WA, the Mid West SA3 has a higher rate for total chronic conditions (1,365 people per 100,000, compared to 903 per 100,000 across WA)[2]. This is driven by higher rates in the Mid West SA3 compared to WA for COPD (361 per 100,000 vs. 184), congestive cardiac failure (269 vs. 196), diabetes (255 vs. 178), chronic angina (185 per 100,000 vs. 90), chronic asthma (99 vs. 57) and chronic hypertension (69 vs. 28)[2]. Similarly, the Gascoyne SA3 exceeds state rates for total chronic conditions (1,424 per 100,000), driven by higher rates for COPD (482 vs. 184), diabetes (255 vs. 178), congestive cardiac failure (241 vs. 196) and chronic hypertension (91 vs. 28)[30].

Management of chronic disease in primary care

CDMPs are Medicare-rebated for GPs to manage chronic or terminal medical conditions, including preparing, coordinating, reviewing or contributing to chronic disease management plans. They apply for a patient who suffers from at least one medical condition that has been present (or is likely to be present) for at least six months or is terminal[29].

Across WA, 14% of residents have utilised a GP CDMP. The utilisation rate in the Mid West SA3 is equal to the state rate, while the Gascoyne SA3 has slightly lower utilisation at 10%[32].

Childhood immunisation rates

The National Immunisation Program (NIP) aims to increase national immunisation coverage to reduce the number of vaccine-preventable diseases in Australia. A key priority of the program is to work towards achieving immunisation coverage rates of at least 95% for children aged 1, 2 and 5 years. Data from the Australian Immunisation Register from 1 January 2023 to 31 December 2023 indicated that in the Country WA Primary Health Network (PHN), childhood immunisation coverage was comparable to the state average for all ages (1, 2 and 5 years), but was still below the 95% target[31]. Approximately 93% of children were fully immunised at 1 year and 92% at 5 years, compared to only 90% at 2 years[32].

The Australian Immunisation Register (AIR) reports that the Mid West and Gascoyne SA3s both fell below the 95% immunisation target for children aged 1, 2 and 5 years[32]. Specifically, 90% of 1 year olds in the Mid West SA3 were fully immunised, compared to 88% in the Gascoyne SA3 and 93% across WA[32]. Among children aged 2 years, 87% in the Mid West SA3 and 83% in the Gascoyne SA3

were immunised, compared to the state rate of 91%[32]. Of children aged 5 years, 93% in both the Mid West and Gascoyne SA3s were immunised, similar to the state rate of 94%[32].

Cancer screening

There are three national cancer screening programs in Australia: BreastScreen Australia, National Cervical Cancer Screening Program (NCSP), and National Bowel Cancer Screening Program (NBCSP).

In 2020-21, cancer screening participation rates in the Mid West SA3 were concerningly low; under state levels for bowel and cervical[33].

Only 2 in 5 (39%) eligible residents had participated in bowel cancer screening, compared to the state level of 42%, which in itself is low[33]. Approximately 1 in 2 (52%) had partcipated in breast cancer screening (compared to 51% across WA), and 3 in 5 (61%) had participated in cervical cancer screening, compared to the state level of 69%[33]. The Gascoyne SA3 fell concerningly below state levels for bowel, breast and cervical cancer screening. Only 1 in 3 (34%) eligible residents had participated in bowel cancer screening, 2 in 5 (45%) in breast cancer screening and 1 in 2 (53%) in cervical cancer screening[33].

These levels are particularly concerning given the rate of avoidable deaths from cancer in both the Mid West and Gascoyne SA3s exceed state levels[2].

Please note, participation in the new five-year program for cervical cancer screening cannot be accurately reported until there are 5 years of data available (2018-21).

Syphilis rates

The number of infectious syphilis notifications in WA has remained stable with 1,037 in 2022-2023[25]. Encouragingly, crude rates of notifications across WA have dropped from 31.8 to 28.8 per 100,000 based on completed enhance surveillance forms from notifying clinicians[34]. Those aged 25-34 years had the highest percent of infectious syphilis notification from 2022-2023, accounting for over a third of the notifications (38%)[34]. At 47.9 per 100,000, the rate of syphilis notifications in the Mid West region is above the state rate of 28.8 per 100,000[34].

Avoidable mortality

The median age of death in the Mid West and Gascoyne SA3s is below the state median age of 81 years, at 77 and 71 years respectively[2]. The Gascoyne SA3 is sadly within the top five locations with the youngest median ages at death in WA[2].
Avoidable mortality refers to deaths of people under 75 years from conditions that are potentially preventable or treatable through primary/hospital care. The rate of avoidable deaths in the Mid West and Gascoyne SA3s are among the highest in WA and exceed the state rate of 117.6 per 100,000 at 173.4 and 186.6 per 100,000 respectively[2]. The Mid West SA3 has the highest rate of avoidable deaths from colorectal cancer in WA (14.4 vs. 8.7 per 100,000 across WA) and second highest rate for suicide and self inflicted injuries (29.3 vs. 14.9 per 100,000 across WA)[2]. The Gascoyne SA3 has the second highest rate of avoidable deaths from diabetes in WA at 22.7 per 100,000; above the state rate of 6.5 per 100,000[2].

According to the Mortality Over Regions and Time (MORT) data, the rate of premature deaths (people under 75 years) in the Mid West and Gascoyne SA3s are well above the state rate of 195 per 100,000, at 259 and 302 respectively[3].

The five leading causes of death and their percentage with respect to all death causes within the Mid West and Gascoyne SA3s are[3]:

Rank	WA	Mid West	Gascoyne
1	Coronary heart disease (11)	Coronary heart disease (10%)	Coronary heart disease (12%)
2	Dementia including Alzheimer's (9%)	Dementia including Alzheimer's (7%)	Lung cancer (8%)
3	Cerebrovascular disease (5%)	Lung cancer (7%)	COPD (7%)
4	Lung cancer (5%)	COPD (6%)	Diabetes (5%)
5	COPD (4%)	Cerebrovascular disease (5%)	Colorectal cancer (4%)

Women's health: hysterectomy and endometrial ablation

In Australia, heavy menstrual bleeding affects one in four women of reproductive age with many also experiencing pain, fatigue and anxiety. Of women experiencing heavy menstrual bleeding, less than half seek medical treatment and more than 60% are iron deficient[97]. A range of treatment options are available, from oral medication (non-hormonal and hormonal) to the more invasive treatments of endometrial ablation and hysterectomy.

The Australian Commission on Safety and Quality in Health Care recently published a revised Heavy Menstrual Bleeding Clinical Care Standard (2024 June) with an emphasis on informing patients about her treatment options and potential benefits and risks, and participation in shared decision making based on their preferences, priorities and clinical situation[98]. It notes that hysterectomies for management of heavy menstrual bleeding should only be considered when alternative treatment options are ineffective or unsuitable, or at the patient's request. It also notes that the patient be fully informed of the potential risks and benefits before deciding. Separately, the Women's Health Focus Report maps geographic variation in hysterectomy and endometrial ablation hospitalisation rates, to investigate whether appropriate care is being delivered and improve the range of treatment options available to women experiencing heavy menstrual bleeding.

Hysterectomy is mostly performed for benign gynecological conditions of which heavy menstrual bleeding is one of the most common[97]. Between 2014-2015 to 2021-2022, there was a 24% decrease in WA (312 to 236) in hysterectomy hospitalisation ASR (non-cancer diagnoses) per 100,000 women aged 15 years and older. However, the Gascoyne SA3 has a high rate of hysterectomy, at 300 per 100,000 compared to 239 per 100,000 across WA[97].

Whilst not usually as effective in managing heavy menstrual bleeding as a hysterectomy, endometrial ablation has a shorter recovery period and lower risk of short-term effects[97]. Between 2013-16 and 2019-22, there was a 10% increase in endometrial ablation hospitalisation ASR (non-cancer diagnoses) per 100,000 women aged 15 years and older in WA (from 164 to 181)[97]. Relative to other parts of WA, the Mid West SA3 has a high rate of endometrial ablation, at 198 per 100,000 (vs. 181 per 100,000 across the state). Data was suppressed for the Gascoyne SA3 due to insufficient data[97].

Utilisation of primary care services

At 79% and 69% respectively, GP utilisation in the Mid West and Gascoyne SA3s is below the state level of 84%[30].

The PHN After-Hours Program aims to improve access to GP services in the after-hours period, being before 8am and after 6pm weekdays; before 8am and after 12pm Saturday; and all-day Sunday and public holidays, particularly for people at risk of or experiencing homelessness. A targeted analysis on need, unmet demand and supply indicators was undertaken to assess relative local demand for after-hours care. CIS was calculated based on the after-hours demand and supply indices, and each SA3 in WA ranked by relative demand from highest to lowest score.

In the Country WA region, there are 146 primary health services open after-hours, contributing 17% of all after-hours primary health services in WA[35]. Primary health services collectively operate for 29 hours weekly per 10,000 population; below the state level of 45 hours[35]. There are 11 MBS after-hours GP services (urgent and non-urgent) claimed per 100 people across WA. The Mid West SA3 (CIS=0.62) has a moderate level of unmet need for after-hours services in WA, driven by a relatively high rate of GP-type ED presentations (1,604 per 10,000 compared to 1,048 across WA)[35].

Stakeholder consultations further revealed two insights for after-hours primary health care across WA. First, operating after-hours services is not financially viable for most GP practices, with prevalent financial barriers including insufficient MBS incentivisation for after-hours services, financial risk due to unpredictable demand in after-hours patient volume, , and workforce constraints due to inability to incentivise staff to work during the after-hours period[35]. Second, the Royal Commission into Aged Care Quality and Safety recommendations have increased demand for after-hours GP care for Residential Aged Care (RAC) providers[35]. The stronger regulation of RACs to ensure older people receive appropriate care relative to their needs has increased the reliance of RACs on GPs, resulting in an increase in the number of calls made by RACs to GPs during the after-hours period due to fear of potential repercussions if the RACs fail to report or respond to medical incidents, irrespective of the severity of the health concern presented[35].

Residents of the Mid West and Gascoyne SA3s have slightly higher utilisation of GP health assessments compared to the state rate, at 8% each vs. 5%[30]. Please note, these data only include Medicare-subsidised services, and it is not currently possible to obtain data by type of health assessment.

The majority of Medicare-subsidised allied health services are for optometry services, and Medicare-subsidised allied health services only account for a portion of allied health service use in Australia. This is because they are only available to patients with a GP or specialist referral, and exclude non-Medicare subsidised services, such as those provided by

Aboriginal health services and other non-government organisations[30].

Medicare-subsidised nurse practitioner services are not heavily used in the region[30]. The latest data reports that 2% of residents each the Mid West and Gascoyne SA3s have used a nurse practitioner service, similar to the state rate of 3%[30].

The nursing and Aboriginal health worker service group consists of Medicare-subsidised services delivered by a nurse practitioner, practice nurse, midwife or Aboriginal health worker[30]. Approximately 1 in 10 (10%) residents in the Mid West SA3 used a Medicare-subsidised practice nurse/Aboriginal health worker, slightly above the state rate of 7%[30]. Utilisation in the Gascoyne SA3 was similar to the state rate at 8%[30].

Utilisation of Medicare-subsidised allied health services was low compared to state rates in both the Mid West and Gascoyne SA3s, at 30% and 20% respectively, compared to 36% across WA[30].

Access Relative to Need index

The Access Relative to Need (ARN) index measures access to primary health care relative to predicted need and is based on methodology developed by the Australian Institute of Health and Welfare in 2014[36]. The ARN index is based on the following information:

- The location of health services and the populations they serve.
- The number of GP (Full-Time Equivalent, FTE) working at each location.
- The demographic and socioeconomic characteristics of the population.
- In 2024, WAPHA updated the ARN index to identify areas with a low access to GPs relative to need.

Relative to other areas in WA, there is moderate access to GP services in the Mid West SA3 and high access in the Gascoyne SA3. Overall, 60% of SA3s across WA have higher ARN compared to the Mid West SA3, while 40% of SA3s across WA have higher ARN than the Gascoyne SA3.

Consumer views of accessing GPs

To better understand the experiences of Western Australians experiencing socioeconomic disadvantage accessing primary health care, particularly GPs, when they need it, WAPHA commissioned consumer research in 2021[37].

Most people experiencing socioeconomic disadvantage were able to access a GP when needed. Although 31% of respondents encountered barriers when visiting a GP, 92% had visited a GP in the last year[37]. However, approximately 1 in 10 respondents (11%) had needed a GP on at least one occasion but had not visited one[37]. This was higher among Aboriginal people (22%), people aged 18-39 (20%), those living with disability (16%) and females (15%). The main reasons these people needed a GP were illness, concerns about mental health, to get a prescription and to help with the management of a long-term health condition[37]. Only 8% of these people sought help from an alternative health care professional, such as a pharmacist[37]. A lack of available appointments was the main reason for not seeing a GP when needed, cited by nearly half (43%) of this group[37]. A further 25% reported a lack of time and other commitments, while 16% felt afraid of being judged[37].

Among the full sample, the most common reason to visit a GP was to get a prescription (53%), followed by managing a chronic condition (28%) and general check-up (25%)[37].

Accessibility factors such as appointment availability were the most cited barrier to accessing a GP, followed by transportation issues and conflicting commitments[37]. Women, people with young children, young people, people from multicultural communities, people living with a disability and Aboriginal people were most likely to experience barriers[37].

Cost did not appear to play a large role in limiting access to a GP, with only 1 in 10 (10%) mentioning it as a barrier[37]. This finding is attributed to over 80% of the survey cohort indicating that their GP service was bulk billed[37]. If the availability of bulk billed appointments decreased this would seriously impact access to a GP for people experiencing social and economic disadvantage.

The benefit of having a regular GP to the quality of a patient's experience was clear. Respondents with a regular GP reported finding it significantly easier to visit their GP and were significantly more likely to have had a positive experience, even compared to those with a regular GP practice, but not a regular GP[37].

Nearly 9 in 10 (87%) prefer attending a GP

appointment in person but 2 in 3 (67%) would be comfortable with a telehealth appointment under some circumstances, such as for follow-up appointments[37].

Workforce

General practitioners

Accurate, up-to-date GP FTE figures are unavailable, so the Department of Health and Aged Care comprised a proxy measure which calculates a GP's workload based on MBS services claimed, with one GP FTE representing a 40-hour week over 46 weeks of the year. For each Medicare provider, the new measure attributes an estimate of the amount of time they have spent on their claims in relation to what would be worked by a full-time GP (billable time, non-billable time, and non-clinical time). It is an estimation of GP workforce service utilisation and not an exact count of GP FTE available. For this report, we will refer to this measure as the GP Claimed Service Equivalent (GPCSE).

Based on the latest data, the Mid West SA3 has 89.9 GPCSE per 100,000 residents and the Gascoyne SA3 has 87.6 GPCSE per 100,000[38]. Each of these is below the state rate of 102 per 100,000[38].

In addition to their normal remuneration, GPs can access additional financial incentives based on how remote the location in which they work is. Areas are classified from metropolitan through to rural, remote and very remote.

Compared to other areas in WA, the Dongara GP catchment in the Mid West SA3 is noted as being of particularly high need for GP workforce, largely due to a low supply of GP workforce and high community need[39]. There is only one accredited private general practice with a sole GP, and an increasing population of Aboriginal people[39]. There are significant GP recruitment challenges linked to housing affordability and the availability of childcare[39]. The average weekly rental cost is $469; above the median cost of $355 per week across Country WA GP catchments[39]. Additional GP workforce is required in the area to meet community demand and ensure viability of the local general practice[39].

Other GP catchments in the Mid West region with relatively high need for GP workforce include Geraldton, Kalbarri, Northampton and Three Springs in the Mid West SA3, and Carnarvon in the Gascoyne SA3.

Though the Geraldton GP catchment has a moderate GP workforce with 15 local general practices, and three IAHP funded Aboriginal Community Controlled Health Organisations (ACCHOs), this has decreased in recent years[39]. The town has significant lack of housing and limited available childcare. Local practices struggle to attract nursing or competent administrative staff as they need to compete with state government pay rates available through other employers[39]. GP Registrars can also work at Geraldton Hospital, making many available to local general practices in a part time capacity only[39]. There is considerable socioeconomic disadvantage, with nearly 3 in 5 (59%) of residents within WA's most disadvantaged quintile[39]. Approximately 1 in 8 residents identify as Aboriginal[39].

The Kalbarri GP catchment has one local general practice, which is accredited, and no AMSs[39]. It has a high level of socioeconomic disadvantage, with 97% of residents falling within the most disadvantaged quintile[39]. Approximately 1 in 20 (5%) residents identify as Aboriginal[39].

The Northampton GP catchment currently has no local general practice, and no AMSs[39]. Primary healthcare is currently provided by practices located in Kalbarri[39]. Northampton has a considerable level of socioeconomic disadvantage, with 61% of residents falling within WA's most disadvantaged quintile[39]. Approximately 1 in 10 (10%) residents identify as Aboriginal[39].

The Three Springs GP catchment currently has three local general practices, and no AMSs[39]. The GP workforce also supports the surrounding towns of Carnamah, Eneabba and Coorow[39]. Housing and isolation are barriers impacting GP recruitment[39]. Three Springs has a considerable level of socioeconomic disadvantage, with approximately 2 in 3 (66%) residents falling within WA's most disadvantaged quintile[39]. Nearly 1 in 10 (9%) residents identify as Aboriginal[39].

The Carnarvon GP catchment has one local general practice and two IAHP funded ACCHOs[39]. The general practice is accredited to train GP registrars. Approximately 8 in 10 (80%) of residents fall within WA's most disadvantaged socioeconomic quintile[39].

Primary care nurses

The Mid West SA3 has a relatively high supply of primary care nurses at 200 primary care nurse FTE or 3.5 FTE per 1,000 residents compared to 2.5 FTE per 1,000 across WA[38]. The Gascoyne SA3 was also slightly above the state rate at 3.1 FTE per 1,000,

equating to 31 local primary care nurses[38].

Aged care

The Mid West SA3 has a large and growing aged population. In 2022, there were 11,084 people aged 65 years and over, representing 1 in 5 (19%) residents[2]. This is projected to grow to 23% by 2023 and is above the current state rate of 16% of Western Australians being aged 65 or over[2]. In contrast, there are 1,533 people aged 65 years and over in the Gascoyne SA3, representing 15% of residents, and projected to grow to 19% by 2023[2].

Age is an important determinant of health and people aged 65 years and over are more likely to have complex and/or chronic conditions as well as comorbidities. Moreover, geriatric syndromes later in life (usually after the age of 85 years) including pressure ulcers, incontinence, falls, and delirium have substantial implications for quality of life as well as health care utilisation[40].

The Western Australian Burden of Disease Study 2018 reported that the five leading causes of disease burden for older people aged 65 to 84 years were coronary heart disease, COPD, lung cancer, dementia and type 2 diabetes mellitus[27]. For older people aged 85 years and over, dementia was reported as the leading cause of total burden of disease[27].

The 2021 Census reported that 10% of Western Australians aged 65 years and older have three or more long-term health conditions[41]. This was similar in the Mid West and Gascoyne SA3s, with 11% and 8% of residents respectively aged 65 years and older living with three or more long-term health conditions[41].

Approximately 3 in 5 (59%) general practice patients aged 65 years or older were diagnosed with three or more chronic conditions across WA[20]. The Mid West SA3 has the third highest proportion in the state with approximately 7 in 10 (71%) diagnosed with three or more chronic conditions[20]. Data for the Gascoyne SA3 is suppressed as the data collected in general practice in the Gascoyne is not reflective of the wider population[20].

Please note that these data include private general practices only and do not include GP services provided by non-government organisations[20].

Utilisation of health services

Across WA, approximately 2 in 5 (39%) of people aged 80 years and over had a GP Health Assessment in 2022-2023[30].

In RACHs there were 15.5 GP attendances per patient across WA[30]. The rate in the Country WA PHN overall was similar at 15.0 attendances per patient[30].

Medicare items are available for in-depth assessment of a patient 75 years and over. This provides a structured way of identifying health issues and conditions that are potentially preventable or amenable to interventions to improve health and quality of life. General practice data indicate that approximately 1 in 4 (28%) of patients aged 75 years and over across WA have had a GP health assessment[42]. The rate in the Mid West SA3 is similar to the state rate at 31%, while data for the Gascoyne SA3 has been excluded because the data collected in general practice is not reflective of the wider Gascoyne population[42].

The Royal Commission into Aged Care Quality and Safety noted that people receiving aged care, particularly those in RAC, do not consistently receive the health care they need. This includes doctor visits, mental health services, oral and dental health care, and preventative and holistic care[43].

Palliative care

The goal of palliative care is to improve the quality of life of patients with an active, progressive disease that has little or no prospect of a cure[44].

Most Australians would prefer to die at home, rather than in hospital or RAC[45]. However, many older people use both hospital and aged care services in their final years of life and often die in one of these settings[44].

The Royal Commission into Aged Care Quality and Safety made key recommendations for palliative care, including[43]:

- Compulsory palliative care training for aged care workers.
- Comprehensive sector funding specifically including palliative care and end-of-life care.
- A review of the Aged Care Quality Standards to regulate high-quality palliative care in RAC.
- Access to multidisciplinary outreach services; and a new Aged Care Act that includes the right to access palliative care and end-of-life care.

From 1 October 2022, a new funding model, the Australian National Aged Care Classification (AN-ACC), has replaced the Aged Care Funding Instrument (ACFI). The AN-ACC provides equitable funding through three components to approved RAC providers based on the service type delivered and each residents' care needs.

PHNs will receive funding from the Greater Choices for At Home Palliative Care Program to improve palliative care coordination in their local communities.

In 2022, there were 27.7 total FTE palliative medicine physicians and 333.2 FTE palliative care nurses employed in WA[46, 47]. Whilst it is recognised that the palliative care workforce is made up of a broad range of professional groups including other medical specialists and allied health professionals, the existing national data sources cannot accurately capture information on palliative care services provided by these health professionals, hence have not been reported.

Palliative care nurses across WA are working 65.0 total weekly hours per 1,000 patients aged 75 and over[46]. The rate is considerably higher in the Mid West SA3 at 133.5 hours per 1,000 people aged 75 and above[46]. Data were suppressed for the Gascoyne SA3. Palliative medicine physicians across WA are working 5.7 total weekly hours per 1,000 aged 75 and over[47]. Data was not provided for the Mid West and Gascoyne SA3s because there were no palliative medicine physicians working in either region as a primary location[47]. Local intelligence notes that the Mid West Palliative Care team provide in-home support across the Mid West region.

Aged care services

The aged care system in Australia offers three main types of service: the Commonwealth Home Support Programme (CHSP), Home Care Packages (HCP), and residential care. Across Australia, more than two-thirds of people using aged care services access support from home[48].

Commonwealth Home Support Programme

The CHSP provides entry-level support for older people so that they can continue to live independently at home. For FY 2022-2023 in WA, domestic assistance had the highest number of clients serviced and had the highest expenditure; however, social support groups had the highest number of services provided by hours[49].

Home Care Packages program

The HCP program provides structured support to older people with complex needs to help them live independently in their own home. Support provided includes help with household tasks, equipment, minor home modifications, personal care, and clinical care such as nursing and allied health services. There are four levels of HCPs from level 1 (basic care needs) to level 4 (high care needs). Across Australia, wait times for approved HCPs range from 3-6 months for level 1 to at least 12 months for level 2 and above[49].

There are currently nine home care services in the Mid West SA3 and three RACHs offering a total of 281 beds[50]. The Gascoyne SA3 has considerably fewer aged care services. Silver Chain and Geraldton Regional Aboriginal Medical Service (GRAMS) provide services in Carnarvon, while WACHs provides services in Exmouth. There are 38 residential beds and no home care places available in Carnarvon, while in Exmouth there are 4 residential beds and 6 home care places available[50]. As of December 2023, there were 277 people in an HCP in the Mid West Aged Care Planning Region (ACPR), which includes the Mid West and Esperance SA3[49], and a further 75 people waiting for an HCP at their approved level[49].

WA has 249 residential aged care services with a total of 19,887 residential places[51]. Despite having a relatively high proportion of elderly population, the Mid West SA3 has a low beds-to-population ratio, with three RACHs located in the region equating to 37.3 beds per 1,000 people aged 70 years and over; (below the state rate of 63.8 per 1,000)[51]. Data for the Gascoyne SA3 is unavailable[51].

Across WA, there are 12.2 FTE of nurses working in aged care per 1,000 people aged 70 years and over[38]. The Mid West SA3 has a slightly higher rate at 13.2 FTE per 1,000 people aged 70 years and over, while the Gascoyne SA3 is below the state rate at 7.2 FTE per 1,000 people aged 70 years and over[38].

Alcohol and other drugs

Alcohol and drug use is a significant issue in the Mid West SA3. Approximately 1 in 3 (35%) residents are at risk of long-term harm from alcohol, significantly higher than the state rate of 26% and the fourth highest in WA[24]. Levels of short-term alcohol harm (15%) are also significantly higher than state rate of 10% and the fourth highest in WA[24]. Alcohol-related risk is similar in the Gascoyne SA3, with 36% at risk of long-term harm and 12% at risk of short-term

harm[24].

Using WAPHA's new method of estimating condition prevalence from general practice data, rates of clinician-diagnosed chronic alcohol misuse were statistically significantly higher than the state rate of 1.5% in Mid West SA3 (2.2%)[20]. In addition, rates of clinician-diagnosed chronic drug misuse were also statistically significantly higher than the state rate of 1.4% in Mid West SA3 (2.0%)[20]. Rates for Gascoyne were not calculated, as the data collected in General Practice will not be reflective of the wider population[20].

AOD burden of disease

WA Burden of Disease Study 2015 has the latest regional recording for risks associated with burden of disease for the Mid West region. Tobacco use contributed to 31% of cancer burden and 14% of cardiovascular disease, with the population aged 45-64 years and 65+ years having the highest rate of burden of disease due to tobacco[52]. Men in the Mid West region had a higher risk of disease due to alcohol use (9%) and Illicit drug use (6%) compared to women (4% each)[52].

Alcohol contributed to the burden of 20% of mental and substance use disorders, 20% of injuries, 6% of cancer and 3% of cardiovascular disease burden, with the 15-24 year age group having the most risk of alcohol use leading to disease[52].

Illicit drug use also made a high contribution to burden with 12% of mental and substance use disorders and 24% of injuries being attributed

to illicit drug use in the Mid West region[52].

Accidental overdose

Australia's Annual Overdose Report, produced by the Penington Institute, reported an increase in unintentional drug-induced (accidental poisoning) deaths in WA from 2004 (2.7 per 100,000) to 2021 (8 per 100,000) suggesting that drug use is a growing health concern[53]. Of this, males account for two thirds (70.5%) of unintentional drug-induced deaths compared to women[53]. People aged 40-49 had 455 (27.2%) unintentional drug-induced deaths in 2021 and were found to be the most at-risk age bracket[53].

In 2021, opioids continued to be the largest overall drug group identified in unintentional drug-induced deaths in 2021 (45.7%), followed by benzodiazepines (32.5%) and anti-depressants (19.3%)[53].

WA had the second highest rate of unintentional heroin-induced deaths in 2021 with 1.5 deaths per 100,000[53]. This corresponds with higher rates of deaths for other opioids such as fentanyl/pethidine/tramadol in 2021 (0.8 deaths per 100,000)[53]. There has also been an increase in deaths involving benzodiazepines in WA from 2013 to 2021 (1.1 to 3 deaths per 100,000), and stimulants such as methamphetamine and amphetamines (1.3 to 3 deaths per 100,000)[53].

Between 2017-2021, there were 25 unintentional drug-induced deaths in the Mid West SA3, equating to a rate of 8.9 per 100,000 people; similar to the state rate of 8 per 100,000[53]. Unintentional drug-induced deaths were less of an issue in the Mid West SA3, which was slightly below the state level at 6.1 per 100,000; representing 6 deaths[53]. Data is suppressed for the Gascoyne SA3[53].

Hepatitis B and C

Hepatitis B and C are bloodborne viruses. Hepatitis B is spread between people by body fluids while hepatitis C is spread through blood-to-blood contact[54] and is commonly spread through unsafe injecting practices. Untreated hepatitis B and C can lead to liver disease (including cirrhosis), liver cancer and death[55].

Since 1982, a vaccine has been developed for hepatitis B with the recommendation that babies and adolescents are vaccinated[54]. Currently there is no vaccination available for hepatitis C, although antiviral treatment is available. Treatment is now more than 95% effective at curing hepatitis C and available to most people via prescription from their GP[54, 56].

In WA, notifications of hepatitis B and C have been declining. Between 2017 and 2023, notification rates of hepatitis B have slightly reduced from 21 to 18 notifications per 100,000[56]. hepatitis C notification rates decreased (from 62 to 47 notifications) between 2004 and 2017 and has continued to decrease with 32 notifications per 100,000 people in WA in 2023[84].

The proportion of people with Chronic Hepatitis B (CHB) in the Mid West SA3 (0.7%) is similar to the state rate of 0.8%, while the Gascoyne SA3 has a notably higher rate at 1.4%[58]. However, at 4%, treatment uptake in the Goldfields is slightly below the state levels of 9%[58]. Treatment uptake is suppressed for the Gascoyne SA3 due to low numbers.

Chronic Hepatitis C (CHC) prevalence in the Mid West region is higher than the state rate of 0.7%, with 1.1% in the Mid West SA3 and 1.5% in the

Gascoyne SA3[59]. The CHC treatment uptake was 42% in the Mid West SA3; equal to the state rate. CHC treatment uptake in the Gascoyne SA3 was lower in comparison, at 33%[59].

Alcohol and other drug services

Reported statistics on AOD treatment show that across the Country WA PHN 412.57 per 100,000 people understood treatment during the 2022-2023 period[60]. Alcohol treatment represented more than half (53%) of the drug of concerns, followed by cannabis (23%) and amphetamines (18%)[60]. Men make up nearly two thirds of clients (64% vs. 36%), with 30–39-year-olds (28%) making up the largest age group of clients[60].

Drug and alcohol services are provided by the WACHS and not-for-profit organisations in the Mid West region[61]. The WACHS manages the Mid West Community Alcohol and Drug Service, which is based in Geraldton, Carnarvon and Meekatharra. The service provides counselling, support, education and resources for the community to help reduce the harmful effect of alcohol and other drugs. They treat all substance abuse issues, accept all referral pathways and offer walk-in options for people 14-years and over.

Other services consist of the not-for-profit service provider Hope Community Services who provides residential drug and alcohol services and transitional housing in Geraldton. Aboriginal Community Controlled Health Services also provide alcohol and other drug counselling services in Geraldton and Wiluna.

Mental health

Mental health was the second leading cause of disease burden in the Mid West region, contributing 17% to the total disease burden for the region[99]. Across the Mid West region, 22,488 community mental health occasions of service were recorded, with males accounting for 52% of the total figure[100].

Approximately 1 in 10 (11%) residents in the Mid West SA3 report that they have been diagnosed with anxiety; similar to the state rate of 12%[63]. Anxiety is relatively lower in the Gascoyne SA3, with 6% reporting an anxiety diagnosis[63].

In both the Mid West and Gascoyne SA3s, 1 in 10 (10%) of residents report having been diagnosed with depression, similar to the state rate of 11%[63].

Approximately 1 in 8 residents in the Mid West SA3 (12%) and 1 in 9 residents in the Gascoyne SA3 (11%) report diagnoses of high or very high psychological distress; similar to the state rate of 13%[63].

Suicide and self-harm

From 2018 to 2022 1,919 people sadly died from suicide in WA; a rate of 14.1 people per 100,000 and above the national rate of 12.3 per 100,000. In WA, suicide represents 3% of all deaths and is the ninth leading cause of death[65].

At a rate of 25.9 people per 100,000, suicide in the Mid West SA3 is above state levels and an area of considerable concern[3]. Sixty-seven people died from suicide in the Mid West SA3 between 2018 to 2022[3]. Suicide is the eighth leading cause of death, representing 3% of all deaths in the region between 2017-2021[65].

Though always concerning, suicide is less prevalent in the Gascoyne SA3, which has the lowest rate in WA, along with the Esperance SA3[65]. Eight people died from suicide between 2018 to 2022[3], and it is the tenth leading cause of death, representing 3% of all deaths between 2017-2021[3].

The Health and Wellbeing Surveillance Survey collects data on suicidal ideation among adults aged 16 years and over[24]. In the Mid West SA3, 6% of residents indicated that they had thought seriously about ending their own lives; similar to the state rate of 7%[24]. Suicidal ideation in the Gascoyne SA3 is the lowest in WA, and below the state rate at 3%[24].

Self-harm is a strong risk factor for suicide. At a rate of 80.3 per 100,000 residents, self-harm hospitalisations in the Mid West SA3 is below the state level of 97.7 per 100,000[65]. However, self harm is concerningly more prevalent in the Gascoyne SA3, with 100.2 per 100,000 hospitalisations[65]. Self-harm hospitalisations were highest for females and for people aged 25-44 years[65].

Youth mental health

Primary mental health care services play an important role in prevention and early intervention efforts reduce the prevalence and impact of mental health problems amongst young people[66, 67]. Approximately 1 in 7 young people aged 4-to-17-years experience mental illness in any given year[68], and 75% of severe mental health problems emerge before the age of 25. Early intervention in childhood and adolescent years can prevent or mitigate potentially lifelong mental illness[69].

A recent survey of WA school children found that

mental health was a critical issue with a substantial number of Year 7 to 12 students reporting poor life satisfaction, low self-esteem, high levels of stress and the feeling they can't cope with life's challenges[69]. Approximately 1 in 4 (26%) female year 7 to 12 students rate their life satisfaction as 0 to 4 with '0' being the worst possible life. This was double the proportion of males who felt the same (13%)[67].

Self-harm is approximately twice as high in females compared with males, and in older adolescents compared with younger adolescents[67]. Females aged 16-17 years have the highest rates of self-harm, with 17% having engaged in an act of self-harm[67].

In WA, mental health services for young people are provided through general practice, the public mental health system (such as the Child and Adolescent Mental Health Service), not-for-profit organisations (headspace) and private providers such as psychologists.

Hospital EDs also play a role in treating mental illness. People seek mental health-related services in EDs for a variety of reasons, often as an initial point of contact or for after-hours care[70]. Between July 2022 and June 2024, 6,780 Western Australians aged 12-17 years presented to hospital EDs for mental-health related reasons; a rate of 370 per 10,000 people aged 12-17 years[71].

Compared to other areas in WA, youth mental health is a significant concern in the Mid West region[71]. Both the Mid West and Gascoyne SA3s have mental-disorder-related ED presentations above state rates, at 563 and 1368 per 10,000 12-17-year-olds compared to 370 per 10,000 across WA[71].

headspace centres and services support young people across Australia to be mentally healthy and engaged in their communities[72]. There is one headspace centre in the Mid West region, based in Geraldton[72]. The Mid West SA3 has a moderate utilisation rate at 4% of residents aged 12-25; above the state level of 2%[73]. Utilisation in the Gascoyne SA3 is equal to the state rate at 2%[73]. Each patient's episode of care comprised of an average of 4.6 occasions of service (i.e. interactions with the service or mental health worker) in the Mid West SA3 and 4.3 in the Gascoyne SA3; comparable to the WA average of 4.2[73].

The Australian Youth Self-Harm Atlas (AYSHA) reports that the overall prevalence of suicidality (suicidal thoughts or behaviours, including ideation, plans, and attempts) in the Mid West SA3 is equal to the state rate of 8%, and similar to the prevalence in the Gascoyne SA3 at 9%[74]. However, the specific prevalence rates of self-harm (regardless of intent) and suicidal ideation in each SA3 are above state rates[74]. In the Mid West SA3, 13% of residents aged 12-17 years have engaged in self harm compared to 12% in the Gascoyne SA3 and 10% across WA[74]. In both the Mid West and Gascoyne SA3s, 9% of residents reported suicidal ideation compared to 7% across WA[74].

Major depression and anxiety disorders are risk factors associated with higher self-harm prevalence among 12 to 17-year-olds and are a concern in the Mid West region[75]. The proportion of 12 to 17-year-olds experiencing major depression or anxiety disorders in the Mid West and Gascoyne SA3s are above the state level, at 10.1% and 13.1% respectively compared to 8.8% across WA[75].

Note: AYSHA provides synthetic estimates—modelled figures derived from statistical techniques that combine survey and population data—to estimate the prevalence of suicidality, self-harm, and experiences of anxiety and depression among young people aged 12 to 17. These estimates are used instead of direct data to provide meaningful insights at smaller geographic levels where sample sizes are too limited for reliable measurement.

In the Mid West region, suicide and self-inflicted injuries are the second leading cause of disease burden for 15-to-24-year-olds, contributing to 14% of the disease burden for this age group[52].

Hospital admissions for self-harm can be an indication of unmet need for accessible mental health services. Self-harm hospitalisations among people aged 0-24 years in the Mid West SA3 occurred at a rate of 116.6 per 100,000; below the WA rate of 139.7 per 100,000[65]. The rate is suppressed for Gascoyne SA3 due to low numbers[101].

Mental health services

Mental health services in the Mid West region are provided by the WACHS and not-for-profit organisations. There are approximately 20 mental health services in the region, 5 of which have dedicated youth services[61]. All are based within the Mid West SA3, and the care locally available includes suicide prevention, counselling and youth-specific mental health care. The WACHS provides adult

community mental health services and child and adolescent mental health services in Geraldton, Carnarvon and Meekatharra with the option of outreach visits by appointment. headspace provides psychological services for youth in Geraldton. Beyond WACHs, other local mental health services include Helping Minds, 360 Health & Community, Neami National, Ruah Community Services, Mid West Yellow Ribbon for Life and Youth Focus. Private psychology services are available in both the Mid West and Gascoyne SA3s, however this is limited.

A GP mental health treatment plan can be used to refer patients to psychiatrists, psychologists, counsellors, social workers and occupational therapists. In the Mid West and Gascoyne SA3s, 6% and 3% of residents have accessed a GP mental health treatment plan respectively; slightly below the state level of 8%[76].

There are low numbers of mental health professionals such as psychiatrists, mental health nurses and psychologists in regional and remote areas[77]. In both the Mid West and Gascoyne SA3s the rate of psychologists per 10,000 people is below the state rate, at 6.9 and 3.2 respectively compared to 13.2 per 10,000 across WA[77]. Utilisation of Medicare-subsidised clinical psychologists was below state rates at 1% in the Mid West SA3 and 0.6% in the Gascoyne SA3, compared to 2.2% across WA[76]. Given the degree of mental health disease burden and high prevalence of suicide ideation, suicide deaths and self-harm hospitalisations in the region, these figures indicate insufficient access to rebated psychology services in the Mid West and Gascoyne SA3s and a reliance on services provided by the WACHS and the not-for-profit sector. There are only three reported clinical psychologists in the Gascoyne SA3[77].

Local intelligence has highlighted that demand for mental health services for locals in Geraldton is high with private providers and the not-for-profit sector reporting large client waitlists and lengthy wait times.

Aboriginal health

An estimated 9,205 Aboriginal people reside in the Mid West region[2]. The Mid West Aboriginal community is diverse, with various localised Aboriginal language groups, collectively known as Yamatji. These include the Amangu people, Naaguja people, Wadjarri people, Nanda people, Badimia people and Martu people[95]. There are approximately 15-20 remote communities within the region[95].

Aboriginal people are dispersed throughout the seventeen Local Government Areas that comprise the Mid West region. Approximately 10% of the total population are Yamatji people who live mostly in Geraldton and Carnarvon[80]. Many Yamatji people also live in the smaller towns of Mt Magnet, Shark Bay, Mullewa, Cue and Gascoyne Junction, as well as in remote communities such as Meekatharra, Burringurrah, Yulga Jinna, Barrell Well, Wandanooka, Mungullah, Buttah Windee and Pia Wadjarri[80].

The Aboriginal people in the Mid West SA3 region, spanning the IAREs of Wiluna, Meekatharra – Karalundi, Irwin – Morawa, Geraldton, Central West Coast and Carnegie South – Mount Magnet, experience high levels of socioeconomic disadvantage in WA and are impacted by poor health outcomes[18]. The highest levels of disadvantage have been observed in the Wiluna, Meekatharra – Karalundi and Carnegie South – Mount Magnet IAREs, which have Indigenous Relative Socioeconomic Outcomes (IRSEO) index scores of 89, 85 and 80 respectively, compared to 51 for WA overall[18]. A higher IRSEO score indicates a greater level of socioeconomic disadvantage for the region[18]. High levels of disadvantage are also noted in some areas within the Gascoyne SA3, specifically the IAREs of Carnarvon – Mungullah (82) and Shark Bay – Coral Bay – Upper Gascoyne (78)[18]. The Exmouth – Ashburton IARE, which ranges across the Gascoyne and Pilbara regions, has a low IRSEO index score of 26[18].

Unemployment is a significant issue among Aboriginal people in the Mid West SA3, with rates above the state level in five of the six IAREs[18]. It is highest in Wiluna and Meekatharra – Karalundi, where 1 in 4 (25%) Aboriginal people in each area are unemployed, compared to 16% of Aboriginal people across WA[18]. Approximately 1 in 5 Aboriginal people are unemployed in Central West Coast (22%), Geraldton (18%) and Irwin – Morawa (17%)[18]. Of the three IAREs within the Gascoyne SA3, Carnarvon – Mungullah has unemployment levels above state rates, at 26%[18].

Housing is an issue within the Gascoyne SA3, with approximately 1 in 2 Aboriginal people living in social housing in the Carnarvon – Mungullah (55%) and Shark Bay – Coral Bay – Upper Gascoyne (50%) IAREs compared to 33% of Aboriginal people across WA[18]. In the Mid West SA3, higher proportions of Aboriginal people are living in social housing in

Wiluna (76%), Meekatharra – Karalundi (48%) and Carnegie South – Mount Magnet (44%)[18].

With the exception of Exmouth – Ashburton, all IAREs within the Mid West and Gascoyne SA3s have higher rates of Aboriginal low-income households compared to the state level of 54%[18]. This includes Meekatharra – Karalundi (78%), Wiluna (75%), Central West Coast (67%), Irwin – Morawa (63%), Geraldton (60%) and Carnegie South – Mount Magnet (57%) in the Mid West SA3, and Carnarvon – Mungullah (70%) and Shark Bay – Coral Bay – Upper Gascoyne (61%) in the Gascoyne SA3[18].

There is an average participation rate in full-time secondary education at age 16 of 65% across WA[18]. Participation in some areas of the Mid West and Gascoyne SA3s are among the lowest in WA and a significant concern[18].

Child immunisation

A key priority of the National Immunisation Program Schedule is to work towards achieving immunisation coverage rates of at least 95% for children aged 1, 2 and 5 years. In the Mid West region, data for nearly all IAREs are insufficient due to low numbers, and only the Geraldton IARE has sufficient data available[18]. In Geraldton, immunisation levels are slightly below target for all age groups, with 93% of 1-year-olds, 87% of 2-year-olds and 93% of 5-year-olds fully immunised[18].

Lower urgency emergency department presentations

High rates of lower urgency ED attendances can be indicative of a gap in primary health care services and this is evident in the Mid West region, where lower urgency ED attendance levels are a significant concern compared to other parts of WA. Lower urgency ED presentations by Aboriginal people in both Mid West and Gascoyne SA3s are above state levels, at 6,689 and 14,586 per 10,000 Aboriginal people compared to 6,167 per 10,000 across WA[18].

Avoidable deaths by selected causes

Avoidable deaths data is suppressed for a number of IAREs due to low numbers. Based on the available data, there were 292.3 avoidable deaths per 100,000 across WA among Aboriginal people aged 0 to 74 years in the 2017-2021 period[18]. When looking at Aboriginal deaths from all avoidable causes in total, two of the six IAREs in the Mid West SA3 are concerningly above the state level[18]. These are Meekatharra – Karalundi (410.9 per 100,000) and Geraldton (332.3)[18]. Data for avoidable deaths related to specific conditions is insufficient for all IAREs in the Mid West SA3 except Geraldton[18]. In Geraldton IARE, the rate of avoidable deaths exceeds state levels for circulatory system diseases (148.3 per 100,000 vs. 86.2 across WA), ischaemic heart disease (66.7 vs. 57.2 across WA), diabetes (38.0 vs. 35.4 across WA) and cancer (24.2 vs. 19.8 across WA)[18].

Avoidable deaths among Aboriginal people is also concerning in the Gascoyne SA3, with rates above state levels for two of the three IAREs reported, being Carnarvon – Mungullah (435.9 per 100,000) and Exmouth – Ashburton (332.3)[18]. In the Carnarvon – Mungullah IARE, avoidable deaths were above state rates for diabetes (77.1 per 100,000 vs. 35.4 across WA), ischaemic heart disease (73.0 vs. 57.2 across WA), other external causes including transport accidents and accidental drowning (85.2 vs. 37.5 across WA) and cancer (58.2 vs. 19.8 across WA)[18]. The Exmouth – Ashburton had rates above the state for circulatory system diseases (148.3 vs 86.2 across WA) and ischaemic heart disease (88.3 vs. 57.2 across WA)[18].

Median age at death

The median age at death for Aboriginal people across WA is 58 years – significantly below that of non-Aboriginal people at 80 years[18]. Sadly, Aboriginal people in the Gascoyne SA3 have a similar, though slightly higher, median age at death, being 60 years in the Carnarvon – Mungullah IARE and 59 years in Exmouth – Ashburton IARE[18]. In contrast, Aboriginal people in the Mid West SA3 have an older median age at death, being 71 years in the Central West Coast IARE, 64 years in the Irwin – Morawa IARE, 61 in the Geraldton IARE and 58 years in the Meekatharra – Karalundi, Wiluna and Carnegie South – Mount Magnet IAREs[18].

Potentially preventable hospitalisations

The average annual rate of total PPHs per 100,000 for Aboriginal people is above state levels for all IAREs in the Mid West SA3, except Irwin – Morawa[18]. Across WA, there were 6,264 PPH admissions per 100,000 for Aboriginal people from 2017/18 to 2020/21. In the Mid West SA3 region, the rate ranged from 5,429 to 14,642 per 100,000[18]. Wiluna has the highest rate (14,642), followed by Carnegie South – Mount Magnet (11,040), Meekatharra – Karalundi (8,929), Geraldton (6,872) and Central West Coast (6,285)[18]. PPHs are less prevalent in the Gascoyne SA3, where Carnarvon – Mungullah is the

sole IARE that exceeds the state rate, at 7,928 per 100,000[18].

Chronic conditions that are classified as potentially preventable through behaviour modification, lifestyle change and timely care are angina, asthma, COPD, congestive cardiac failure, diabetes complications, hypertension and iron deficiency anaemia[82]. PPHs due to chronic conditions are particularly high in the Mid West region. All IAREs in the Mid West SA3 and two of the three IAREs in the Gascoyne SA3 exceed state rates for total PPHs due to chronic conditions and chronic diabetes complications[18]. The rates for PPHs due to specific chronic conditions that exceed state levels are detailed below:

- Chronic diabetes complications: Meekatharra – Karalundi (1,569 per 100,000), Wiluna (1,417), Carnegie South – Mount Magnet (1,246), Irwin – Morawa (993), Central West Coast (957), and Geraldton (627) in the Mid West SA3 and Exmouth – Ashburton (723) and Carnarvon – Mungullah (612) in the Gascoyne SA3, compared to 547 per 100,000 across WA[18].
- Chronic asthma: Meekatharra – Karalundi (451 per 100,000), Irwin – Morawa (298), Central West Coast (248) in the Mid West SA3, and Carnarvon – Mungullah (431) and Exmouth – Ashburton (325) in the Gascoyne SA3, compared to 192 per 100,000 across WA[18].
- Chronic angina: Meekatharra – Karalundi (437 per 100,000), Geraldton (353) and Carnegie South – Mount Magnet (283) in the Mid West SA3, and Exmouth – Ashburton (345) in the Gascoyne SA3, compared to 206 across WA)[18].
- Chronic congestive cardiac failure: Wiluna (1,050 per 100,000), Irwin – Morawa (419), Geraldton (409) in the Mid West SA3 and Exmouth – Ashburton (547) and Carnarvon – Mungullah (475) in the Gascoyne SA3, compared to 405 per 100,000 across WA[18].
- Iron deficiency anaemia: Meekatharra – Karalundi (288 per 100,000) in the Mid West SA3 compared to 208 per 100,000 across WA[18].
- COPD: Geraldton (782 per 100,000), Carnegie South – Mount Magnet (727), Irwin – Morawa (661) in the Mid West SA3 and Carnarvon – Mungullah (619) in the Gascoyne SA3, compared to 608 per 100,000 across WA[18].

Acute PPHs relate to conditions that usually come on suddenly, and may not be preventable, but may not have resulted in hospitalisation if timely and adequate care was received in the community)[82]. PPHs for total acute conditions also exceed state rates across all IAREs except Irwin – Morawa in the Mid West SA3 and in two of the three IAREs in the Gascoyne SA3[18]. Specifically:

- Acute cellulitis: Wiluna (1,787 per 100,000), Meekatharra – Karalundi (1,597), Carnegie South – Mount Magnet (1,208) and Geraldton (988) in the Mid West SA3 and Carnarvon – Mungullah (1,788) and Exmouth – Ashburton (1,357) in the Gascoyne SA3, compared to 816 per 100,000 across WA[18].
- Acute convulsions and epilepsy: Central West Coast (540 per 100,000) and Geraldton (526) in the Mid West SA3, and Carnarvon – Mungullah (705) in the Gascoyne SA3, compared to 460 per 100,000 across WA[18].
- Acute dental conditions: Carnegie South – Mount Magnet (1,286 per 100,000), Central West Coast (825), Wiluna (723), Geraldton (524), Irwin – Morawa (488) and Meekatharra – Karalundi (432) in the Mid West SA3, and Carnarvon – Mungullah (676) and Shark Bay – Coral Bay – Upper Gascoyne (536) in the Gascoyne SA3, compared to 431 across WA[18].
- Acute ear, nose, and throat infections: Wiluna (1,379 per 100,000), Carnegie South – Mount Magnet (909), Meekatharra – Karalundi (815) and Geraldton (440) in the Mid West SA3, and Exmouth – Ashburton (419) and Carnarvon – Mungullah (402) in the Gascoyne SA3, compared to 393 per 100,000 across WA[18].
- Acute urinary tract infections (including pyelonephritis): Wiluna (1,605 per 100,000), Carnegie South – Mount Magnet (862), Meekatharra – Karalundi (854), Central West Coast (579) and Geraldton (548) in the Mid West SA3 and Exmouth – Ashburton (555) in the Gascoyne SA3, compared to 516 per 100,000 across WA[18].

Vaccine-preventable PPHs are hospitalisations due to conditions that can be prevented by vaccination[82]. PPHs for total vaccine preventable conditions also exceed state rates across three of the five IAREs in the Mid West SA3[18]. In contrast, vaccine preventable PPHs are not a significant issue in the Gascoyne SA3, with no IAREs above state level based on the latest available data:

- Total PPHs for vaccine-preventable conditions: Wiluna (3,344 per 100,000), Carnegie South – Mount Magnet (2,863) and Geraldton (870) in the Mid West SA3, compared to 855 per 100,000 across WA[18].
- PPHs for pneumonia and influenza: Wiluna (1,244 per 100,000), Geraldton (563), Meekatharra – Karalundi (542) and Carnegie South- Mount Magnet (399) in the Mid West SA3, compared to 278 per 100,000 across WA[18].

Primary care service access

Aboriginal people can access specific services aimed at Closing the Gap in health outcomes. It is important that General Practices ask all patients if they identify as Aboriginal and/or Torres Strait Islander. This assists with ensuring patients are provided with the option of accessing information and services specifically designed to meet their needs.

Through Medicare, Aboriginal people can receive Aboriginal-specific health checks from their doctor, as well as referrals for Aboriginal-specific follow-up services. In March 2020, telehealth items for Aboriginal Health Checks were introduced in response to Coronavirus Disease 2019 (COVID-19) and associated restrictions[83].

In 2021-2022, the proportion of the Aboriginal people that received an Aboriginal Health Check was 23% in Country WA PHN compared to 22% across WA[83]. Nationally, face-to-face Aboriginal Health Checks was the preferred method compared to telehealth[83].

Aboriginal people living in the Mid West region can access primary care services through general practice, Aboriginal Community Controlled Health Services, Integrated Team Care (ITC) programs and the hospital sector.

ITC program supports Aboriginal people living with complex chronic conditions to access health care and funds teams of Aboriginal and Torres Strait Islander health project officers, outreach workers and care coordinators. In the Mid West region, the two Country to City ITC services are both based in the Mid West SA3 and are provided by Carnarvon Medical Service Aboriginal Corporation (CMSAC) and Geraldton Regional Aboriginal Medical Service (GRAMS) respectively.

There are three ACCHOs in the Mid West region, located in Geraldton, Carnarvon and Wiluna[61].

The Geraldton Regional Aboriginal Medical Service (GRAMS) operates in both Geraldton and Carnarvon. It provides medical services not only to those clients who reside within the limits of the city itself but also to remote areas in the Mid West and Murchison region by means of mobile outreach clinics[102]. These outreach services extend to Mt Magnet, Yalgoo, Pia Wadjarri, Kardaloo Farm, Sandstone, Meekatharra, Yulga Jinna and Cue, offering medical services, chronic disease clinics, health promotion and medication dispensing. In their main clinics, a wide range of services are offered, including child health, dental health, diabetes management, general consultation, hearing and eye health, physiotherapy, psychology, respiratory support and sexual health services. They further offer programs targeted to smoking, social and emotional wellbeing, integrated care, counselling, youth wellbeing, exercise physiology, pharmacy services, telehealth services and patient transport[103].

The Ngangganawili Aboriginal Community Controlled Health & Medical is based in Wiluna, providing affordable and culturally appropriate health services to the Aboriginal and wider population of Wiluna and surrounding areas. Services offered include general practice, accident and emergency, maternal and child health, chronic disease management and some specialist services. In addition, social and emotional wellbeing, environmental health and community care programs are available[84].

Digital health

Digital health includes a broad range of innovative technologies for the purposes of providing care and sharing information to enhance patient outcomes. Services include mobile health applications (Medicare Online, COVID check-in apps), electronic prescribing, electronic health records (My Health Record) and telehealth/telemedicine[85].

Australia-wide, the volume of My Health Record entries containing data had a growth of 520,000

from January 2023 to March 2024[85]. The largest increase in use from 2023 to 2024 has been seen in specialist letters (78% increase), diagnostic imaging reports (34% increase), and pathology reports (25% increase)[85]. In March 2024, WA had 2.6 million My Health Records[85].

There has been a decrease in the proportion of people who have had at least one telehealth consultation in the 12-months from 30.8% in 2021-2022 to 27.7% in 2022-23[86]. Those who had a long-term health condition (37.1%) are more likely to use telehealth compared to those without one (17.3%)[86]. In addition, those aged 65-74 years (31.6%) are more likely to use telehealth than people aged 15-24 (20.9%)[86]. Unfortunately, those living in outer regional, remote or very remote areas (23.4%) are less likely to use telehealth than those living in major cities (28.3%) – there could be several reasons for this including, internet availability/access and telehealth compliant devices such as phones and laptops. Of people who used telehealth services in the past 12 months, 87.7% reported that they would use it again if offered[86].

Given the large geographical size of WA, COVID-19 saw a very rapid adoption of virtual methods of consultation of WA's hospital-based outpatient clinics. Rates that were previously in low 10 to 15% rapidly moved to the 60 to 80% across a range of clinics and hospitals[87]. It appears that the focus on digital health including telehealth consultations during COVID-19 helped fast track the adoption of technology and more providers saw the My Health Record as a valuable repository of health data as it is accessible to all health care providers without the need for fax machines or postal services.

As of February 2024, there are now more than 23.5 million My Health Record entries Australia-wide and more than 23 million or 98% of them contain data[85]. It is important to note that the COVID pandemic drove telehealth, but unfortunately, these gains have not been sustained as patients are favouring face to face consultations once again.

Pilbara
Priorities

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
Chronic diseases contribute significantly to the burden of disease in the Pilbara region. There are high rates of avoidable deaths due to chronic conditions, including cardiovascular, musculoskeletal and cancer. The region has high rates of smoking, a known risk factor for chronic disease.	There are high rates of PPHs related to chronic conditions, including chronic congestive failure, chronic obstructive pulmonary disease (COPD), chronic angina, diabetes and chronic iron deficiency anaemia. General Practitioner (GP) utilisation is well below state levels and the lowest in the Country WA region. Access to general practice is limited, with the lowest supply of GPs in Western Australia (WA).	**Support primary health care providers to manage chronic disease populations and build capacity for patient self-management.** **Support primary care to promote healthy lifestyle changes, particularly smoking cessation.** **Work with partner organisations to increase GP workforce.**	Pilbara	Population health	Chronic conditions
Mental health is the second leading cause of disease burden in the Pilbara, influenced by high levels of depressive disorders and suicide.	Relative to other areas in WA, there is a low supply of mental health services in the West Pilbara Statistical Area Level Three (SA3), including youth mental health services.	**Enable access to culturally appropriate mental health services for people who experience mental health across the spectrum.**	Pilbara	Mental health	Early intervention and prevention System integration
Suicide is a serious issue in the Pilbara region. It is the second leading cause of death in the West Pilbara SA3, accounting for 11% of all deaths. In the East Pilbara SA3 it is the third leading cause of death and contributes to 7% of all deaths. Each of these is above state levels. Suicide and self-inflicted injuries are the leading cause of disease burden for 15- to 24-year-olds.	There are high rates of hospitalisations in both the East and West Pilbara SA3s, and high rates among those aged 0-24 in the East Pilbara SA3. Access to primary mental health services is limited in the Goldfields - Esperance region with only one local provider delivering targeted suicide prevention services, and fewer than 1% of the population accessing a	**Enable access to culturally appropriate mental health and early intervention suicide prevention services and support primary health care providers in identifying people at risk.**	Pilbara	Mental health	Access Early intervention and prevention

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
	clinical psychologist through Medicare Benefits Schedule (MBS) services.				
Residents are at risk of short-term and long-term harm from alcohol use, particularly in the West Pilbara SA3. Harmful alcohol consumption causes multiple chronic diseases resulting in complex care needs. In the West Pilbara SA3, 2 in 5 residents are at high risk of long-term harm from alcohol consumption. In the East Pilbara SA3, 1 in 4 are at long-term risk.	There is a high rate of alcohol and other drug (AOD)-related Emergency Department (ED) presentations in both the East Pilbara and West Pilbara SA3s, with the East Pilbara SA3 having the second highest rate in WA. Early screening and intervention are needed to reduce the impact of harmful alcohol use. Evidence has shown GPs to be crucial in the effectiveness of interventions and management of alcohol-related issues.	**Enable access to early screening and treatment for harmful alcohol use and support primary health care providers in managing alcohol-related issues.**	Pilbara	Alcohol and other Drugs	Access
More people are experiencing homelessness within the East Pilbara SA3 region. Evidence shows that people experiencing homelessness often also experience mental health issues, substance use issues and/or at least one chronic condition.	Existing homeless health care services are under considerable strain and unable to expand their services due to resource constraints.	**Increase the capacity of homeless health care services to respond appropriately to the primary care needs of people experiencing or at risk of experiencing homelessness.**	Pilbara	Population health	Access Chronic conditions
Childhood immunisation levels in the Pilbara region are below the 95% target for Aboriginal and non-Aboriginal children. Under-immunisation increases the risk of vaccine-preventable illnesses in the whole community, including greater risk of outbreaks, and severe illness or death for those who cannot be immunised (including infants or immunocompromised individuals).	Under-vaccination increases risk of vaccine-preventable illnesses and creates avoidable burden on primary health care and the Aboriginal health workforce.	**Support primary health care providers to increase childhood immunisation rates overall, and deliver culturally appropriate and accessible vaccination programs for Aboriginal children.**	Pilbara	Population health	Immunisation Aboriginal health

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
The Pilbara region has the second largest Aboriginal population in WA. There are pockets of significant disadvantage compared to Aboriginal people in other parts of WA, and Aboriginal people living in the Pilbara. may be at risk of experiencing poor health outcomes related to social determinants of health. Some Aboriginal people in the Pilbara are impacted by vaccine preventable diseases (e.g. influenza) at a higher rate than non-Aboriginal people.	Aboriginal people in the Pilbara region have high rates of avoidable hospitalisation, including high rates of Potentially Preventable Hospitalisation (PPH) presentations and non-urgent ED presentations. There is a high rate of vaccine-preventable PPHs compared to Aboriginal people in other parts of WA.	**Enable access to coordinated culturally appropriate primary care for Aboriginal people.**	Pilbara	Aboriginal health	Appropriate care (including cultural safety)
Though the Pilbara has a small proportion of older people compared to state rates, it is projected to nearly double by 2030.	There is a low supply of residential aged care with only two Residential Aged Care Homes (RACHs) in the region, offering 56 beds in East Pilbara SA3 and 20 beds in West Pilbara SA3 (one of the lowest bed counts in the state). Older people need support from their primary health care providers to manage chronic conditions, including multimorbidity, and to live independently for as long as possible. The growing population of older people will place increased pressure on aged care services.	**Support health and aged care providers in supporting older people live independently for as long as possible.** **Enable access to age-appropriate digital health services.** **Enable access to local aged care services, including residential and at-home.**	Pilbara	Aged care	Access Chronic conditions
The Pilbara has a relatively large Aboriginal population compared to state rates.	Some older Aboriginal people may experience challenges in accessing aged care that meets their needs. Access to aged care may be required at a younger age compared to other regions.	**Support health care and aged care providers in delivering patient-centred culturally appropriate care for older Aboriginal people.** **Enable access to culturally appropriate local aged care**	Pilbara	Aged care Aboriginal health	Access

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
		services for Aboriginal people aged 50+ years.			
Most Australians would prefer to die at home rather than in a hospital or aged care home. For many Aboriginal people, this means dying at home connected to country.	There is limited home palliative care available in the region, with many older people dying in hospitals or aged care services.	**Enable access to local at-home palliative care services, and ensure they are culturally appropriate for Aboriginal people.**	Pilbara	Aged care	Access Palliative care

Pilbara

Overview

The Pilbara region is a remote region with a younger population, as well as a prominent fly-in-fly-out (FIFO) workforce, due to the Pilbara representing more than 70% of mineral and energy production in the Western Australia (WA). There is a high proportion of Aboriginal people made up of diverse communities with many distinct language groups and remote communities. The pertinent health concerns in the region are mental health (including youth mental health), suicide and self-harm, chronic disease, alcohol and other drugs.

Workforce and access to services is a continuing issue for all rural communities and the Pilbara is similarly impacted. The region has limited access to allied health professionals and a shortage of mental health professionals.

The Pilbara region has the third highest rate of suicide in the state contributing to 9% of all deaths in the region. Mental ill health was the second leading cause of disease burden in the region but less than 1% of the population accessed a clinical psychologist through the Better Access MBS program.

The population in the Pilbara region has a high prevalence of chronic, acute and vaccine-preventable potentially preventable hospitalisations (PPHs), particularly for chronic congestive cardiac failure, chronic angina, chronic asthma, chronic diabetes complications and chronic obstructive pulmonary disease (COPD), as well as acute cellulitis, acute ear, nose and throat infections and acute urinary tract infections. Moreover, the region has the third highest cardiovascular burden in the state together with a low utilisation of General Practitioner (GP) chronic disease management plans (CDMPs).

The Pilbara has a smaller ageing population when compared to other regions in the Country WA Primary Health Network (PHN), and an adequate supply of aged care beds and aged care nurses compared to state levels with two residential aged care homes located in the region.

There is a concerning proportion of residents (particularly in Aboriginal people) at risk of short-term and long-term harm from alcohol use, illicit drugs, smoking, unintentional drug-induced deaths and Emergency Department (ED) presentations related to alcohol and other drugs (also know as AOD).

Aboriginal people in the Pilbara region experience high levels of socioeconomic disadvantage, unemployment, poor housing suitability, low immunisation rates in children and adolescents not attending secondary school.

Population demographics

The Pilbara covers around 506,000 square kilometres and is WA's second most northern region. It consists of two Australian Bureau of Statistics (ABS) Statistical Area Level Three (SA3) sub-regions: West Pilbara and SA3 and East Pilbara SA3. West Pilbara includes the towns of Karratha, Dampier, Wickham, Onslow, Roebourne, Tom Price, and Paraburdoo. East Pilbara includes the towns of Port Hedland, Newman, Jigalong, Nullagine, and Marble Bar.

The Pilbara region is one of Australia's top mining regions, with the west SA3 being the home to 58,940 people and the east accounting for 31,621. Together, both of the region's SA3s account for 3% of WA's population[2].

Social determinants of health

Social determinants of health are the conditions in which people are born, grow and live, including factors such as a person's socioeconomic position, education, neighbourhood and physical environment 96. These factors underpin a wide range of health and quality of life outcomes, and can contribute to avoidable inequities in health care access .

The Socio-economic Index for Areas (SEIFA) provides a measure of the relative social and economic disadvantage within a region based on a wide range of indicators reflecting disadvantage, including low income, low educational attainment, high unemployment, and reliance on welfare for income and housing support.

Compared to other parts of WA (Index of Relative Socio-economic Disadvantage, IRSD = 1012), the East Pilbara SA3 (IRSD=993) is an area of socioeconomic disadvantage, however, the West Pilbara SA3 (IRSD=1045) is not considered as having a socioeconomic disadvantage with its IRSD index being above the state figure[2].

Approximately 4 in 25 East Pilbara SA3 residents (16%) live in social housing, which is above the state rate of 3%. A similar proportion (11%) are in low income, welfare-dependent families with children,

compared to 5% in WA overall. In contrast, 9% of West Pilbara SA3 residents live in social housing and 8% are in low income, welfare-dependent families with children[2].

Approximately 18% of residents in the East Pilbara SA3 identify as Aboriginal and Torres Strait Islander (Aboriginal), compared to 11% of residents in the West Pilbara SA3[11].

Under-served population groups

People at risk of avoidable, unjust health inequities are more likely than the general population to experience poor health outcomes due to physical, social, and economic factors, and include people who are multicultural; LGBTIQA+; experiencing homelessness; living with a severe disability or caring for someone with a disability; developmentally vulnerable; and victims of family, domestic or sexual violence.

The Pilbara region has a number of under-served people who are at risk of poor health outcomes. Specifically:

- 2,750 East Pilbara SA3 residents were born in a non-English speaking country, equating to 11% of the local population. Further, 2,748 West Pilbara SA3 residents were born in a non-English speaking country, representing 9% of the local population. These compare to 18% across WA[2].
- 2% of residents in the East Pilbara SA3 and the West Pilbara SA3 respectively have a profound or severe disability, compared to 5% across the state[2].
- 6% of residents in the East Pilbara SA3 and the West Pilbara SA3 respectively provide unpaid assistance to people with a disability compared to 11% across WA[2].
- 31% of children in the East Pilbara SA3 and 19% in the West Pilbara SA3 are developmentally vulnerable on one or more domains, compared to 20% across WA[2].
- An estimated 465 people in the East Pilbara SA3 and 117 people in the West Pilbara SA3 are experiencing homelessness. This equates to 107 per 10,000 people in the east, above the state rate of 36 per 10,000 and 25 per 10,000 in the west, below the state rate. This includes people living in overcrowded dwellings[2].

Multicultural populations

A bespoke review into the needs of multicultural people in WA identified that they face significant challenges accessing primary health care, including difficulties navigating the health care system, financial barriers and linguistic barriers when making appointments, articulating their health concerns and understanding medical terminology. Service providers require more training to effectively and appropriately support multicultural patients, including greater understanding of different cultures and the importance of using plain language or interpreters[5, 6]. Mental health, psychosocial support and vaccinations were identified as key needs for multicultural people[5].

For many multicultural communities, mental health is a significant issue, including comorbidity with alcohol and other drugs, and trauma. Some multicultural patients hesitate in seeking health care related to psychological concerns for fear of stigma, and difficulties in articulating their concerns[5].

Vaccinations can be difficult for migrants to plan for on arrival, as patient medical records are often inaccessible or need to be translated. This is significant for all migrants, particularly children, whose vaccinations must be aligned to the appropriate vaccine schedule.

Psychosocial strategies to provide a sense of connection and build independence are important for many people within multicultural communities, including support to set up a bank account, access Centrelink, improve English and obtain a driving license. These skills are critical in overcoming some of the barriers multicultural people face in accessing health care. There is a need to provide this connection and support in a safe and culturally appropriate setting and in a targeted manner to aid the transition to life in Australia.

There are two primary health care services specialising in care for the multicultural population in the Country WA region, located in the Goldfields SA3 and East Pilbara SA3[5]. The East Pilbara SA3 (Composite Index Score, CIS=0.55) has the third highest level of unmet need for multicultural services in WA[5]. It has the highest number of residents born in a predominantly non-English speaking country (2,747, representing 11% of residents) in the Country WA region, and the third highest rate of GP-type ED presentations among people born in a predominantly non-English speaking country (5,985 per 10,000 of the

aforementioned population compared to 1,912 per 10,000 across WA)[5].

In contrast, the West Pilbara SA3 (CIS=-0.14) has a moderate level of unmet demand for multicultural services[5]. It has a relatively large local population and high rate of people born in predominantly non-English speaking countries (2,744 residents, representing 9% of residents) and a high rate of GP-type ED presentations for this population group (4,128 per 10,000 people born in a predominantly non-English speaking country compared to 1,912 per 10,000 across WA)[5]. However, compared to other parts of WA, it is relatively socioeconomically advantaged, and nearly all residents (99.6%) speak English well[5].

LGBTIQA+ populations

LGBTIQA+ is an acronym commonly used to describe lesbian, gay, bisexual, trans/transgender, intersex, queer/questioning, asexual, and other sexuality, gender, and bodily diverse people and communities. Many LGBTIQA+ people face discrimination and disparities connected to their gender identification and/or sexuality that impact their physical and mental health and access to health care and other services2. LGBTIQA+ people are known to have a higher risk of certain chronic diseases such as cancers, asthma and cardiovascular disease2. Moreover, some members of LGBTIQA+ communities, particularly gay, lesbian and bisexual people, are 2.0 times as likely to smoke daily compared to heterosexual people which increases their risk of developing a chronic disease3.

The Private Lives survey is Australia's largest national survey of the health and wellbeing of LGBTIQA+ people to date[2]. In the latest results, LGBTIQA+ people reported lower self-rated health status than the general Australian population, with fewer than 1 in 3 (31%) rating their health as very good or excellent compared to more than half (56%) of the general Australian population aged over 15 years. Two in five (40%) cisgender men rated their health as very good or excellent compared to only 29% of cisgender women, 26% of trans women, 20% of non-binary participants and 19% of trans men[2].

More than a third (39%) of participants reported a disability or long-term health condition, with 12% reporting a profound or severe disability, 20% a moderate disability and 6% a mild disability or long-term health condition. When accessing a health or support service, 30% of those with a severe disability or long-term health condition felt accepted compared to LGBTIQA+ people who did not report a disability or long-term health condition (51%). More than three quarters (78%) with a severe disability or long-term health condition reported being treated unfairly by others in the past 12 months because of their disability or long-term health condition. This was followed by 56% of residents with a moderate disability or long-term health condition and 43% with a mild disability or long-term health condition[2].

More than 4 in 10 (42%) of young Australian trans people have encountered medical services who did not respect, understand or have prior experience with gender diverse people[7]. Please refer to the Mental Health section for further details about mental health and suicide prevention for LGBTIQA+ populations.

Local intelligence has highlighted supply-side challenges, including a lack of LGBTIQA+ friendly services in the region, and many individuals travelling to Perth for services. Furthermore, there is limited understanding and education within the health sector about trans and intersex people. Significant proportions of LGBTIQA+ people have not felt they can safely disclose their LGBTIQA+ identity to GPs or have been misgendered in practices. Improved training and promotion of LGBTIQA+-friendly practices would be welcomed by the LGBTIQA+ community to address these issues[6].

It is important to note that there is a critical lack of research into the area of health of LGBTIQA+ people at an Australian population level[10]. Furthermore, each sub-group within the LGBTQIA+ population has its own unique health care needs, and it is inaccurate to treat these needs as homogenous across the LGBTIQA+ population. However, the lack of data, especially at a regional level, significantly limits the ability to identify and address the specific needs of each group – something WAPHA will continue to lobby to improve. Some needs relevant across the LGBTIQA+ population include:

Clinical	
	Access to appropriate: • **Health and medical care** that is inclusive, delivered by health care providers trained to deliver LGBTIQA+ affirming care, such as using correct names and pronouns and understanding gender identity and sexual orientation. • **Preventive care**, such as tailored cancer screenings (e.g., cervical cancer for transgender men, prostate exams for

	transgender women) and routine health checks that address unique risk factors for different sub-groups. • **Mental health support** delivered by culturally competent mental health providers who understand the unique stressors LGBTQIA+ individuals can experience, including stigma, discrimination, and identity-related challenges.
Cultural	
	• **Respectful, non-judgemental treatment**: health care free from stigma and discrimination, ensuring all LGBTQIA+ patients feel safe and respected. **Relevant and affirming health information**: Resources that reflect and respect LGBTQIA+ identities, such as educational materials on sexual health, mental well-being, and healthy relationships. • **Community support and per networks**: Programs that connect LGBTQIA+ individuals to peer groups, mental health resources, and LGBTQIA+ community organisations that provide culturally relevant support. • **Visibility of LGBTQIA+ friendly signage**: Clear signs, symbols, and inclusive language in health care facilities to signal a safe space for LGBTQIA+ patients.
Organisational	
	• **Inclusive policies and protocols** (e.g. anti-discrimination policies, use of inclusive terms on health care forms). • **Ongoing cultural competency and LGBTQIA+ sensitivity training** for all health care workers. • **Improved data collection** on LGBTQIA+ health needs (e.g., sexual orientation and gender identity data in patient records), helping to inform equitable policy and service delivery. • **Collaboration across LGBTQIA+ organisations** to create referral networks, share resources, and ensure service delivery aligns with community needs. • **Strict adherence to confidentiality policies**, especially regarding sensitive information related to gender identity and sexual orientation, to build trust with LGBTQIA+ patients.

Further information regarding health care standards in Australia that support the LGBTIQA+ community can be found at:

- Australian Charter of Health Care Rights – LGBTQI+
- Rainbow Tick guide to LGBTI-inclusive practice
- Australian Medical Association (AMA) LGBTQIASB+ Position Statement
- Australian Health Practitioner Regulation Agency (AHPRA) LGBTIQA+ Communities guidance for health practitioners

General Practice Supervision Australia (GPSA) LGBTQIA+ Health and Inclusive Health care.

People experiencing homelessness

State-wide, health care barriers exist for people at-risk of or experiencing homelessness. A bespoke study into the needs of these people identified that many have had poor experiences with GP clinics and feel unheard when accessing primary health services. Experiences of fear, shame, and stigma were reported, often compounded by a clinical environment where some people feel out of place or unwelcome. Other barriers, including difficulty interacting with non-clinical staff (e.g., reception, security), fear of losing possessions to attend mainstream services, and financial barriers can also make it difficult for patients to make an appointment and see a clinician. Long wait times for appointments, transport availability and lack of fixed address mean keeping appointments is difficult.

Dual diagnoses and comorbidity can create complexities in accessing health care services, impacting eligibility for certain services and resulting in individuals feeling like they are being passed between different service providers in search of the right care. People experiencing homelessness indicated that it can be difficult to find the language to talk to clinicians about their concerns, and that clinicians may try to "fix everything all at once" as opposed to one thing at a time.

In WA, 68% of the homeless population have at least one chronic health condition, 68% are living with mental health challenges, and 62% have a substance use disorder. More than one third (38%) have poor health from all three of these concerns (physical, mental and substance issues)[91].

The areas of greatest need for homelessness

support are the Kimberley, East Pilbara, Gascoyne and Goldfields SA3s[12].

The East Pilbara SA3 (CIS=0.84) has the second highest rate of homelessness in WA. An estimated 468 residents are at risk of or currently experiencing homelessness; equating to a rate well above the state (171 people per 10,000 compared to 48 per 10,000 across WA)12. In contrast, the West Pilbara SA3 (CIS=-0.88) has one of the lowest levels of unmet need for homelessness services in WA[12].

There are limited local services supporting people experiencing homelessness. The Pilbara Community Legal Service located in Newman offers no-cost tenancy and housing support, public housing support and community migrant settlement[104].

People experiencing family, domestic and sexual violence

The Australian National Plan to End Violence against Women and Children 2022 – 2032 aims to end gender-based violence by way of prevention, early intervention, response, and through recovery and healing. Aligning with this, WA's Family and Domestic Violence Prevention Strategy details initiatives to prevent and respond to family, domestic and sexual violence. The key outcomes of this strategy are prevention and early intervention; safety for victims through timely and accessible services; and accountability for perpetrators and support to cease violent behaviour.

One in six Australian women and one in eighteen men (since the age of fifteen) have been subjected to physical and/or sexual violence by a current or previous cohabiting partner[12]. Moreover, one in six women and one in nine men were physically or sexually abused before the age of 15 years[12]. The following groups have been identified as being more at risk to family, domestic and/or sexual violence[13].

- women
- children
- people living with a disability
- Aboriginal people
- people from multicultural backgrounds
- people in rural and remote Australia
- older people
- LGBTIQA+ people
- people experiencing socioeconomic disadvantage.

In 2018, partner violence was ranked as the fourth leading risk factor contributing to total disease burden for women aged 15-44, with child abuse and neglect during childhood being the leading risk factor[14]. Family and domestic violence is also a leading cause of homelessness. In 2022-2023, approximately 104,000 (38%) of clients assisted by specialist homelessness services (SHS) had experienced family and domestic violence and of these, more than three in four (75%) were female[14].

WA Police statistics indicated that in the 12 months from July 2023 to June 2024, there were 2,282 reports of family related assault in the Pilbara WA Police district, equating to an average of 190 reports per month[2, 9].

Chronic disease

Chronic diseases are long-term, non-communicable conditions and play a significant part in mental and physical ill health, disability, and premature death. People with chronic disease often have two or more conditions (multi-morbidity) such as a mental health condition as well as a physical condition, creating complex health needs and presenting challenges for treatment. This section focuses on chronic conditions other than mental and behavioural conditions, which are discussed in the Mental Health section.

Chronic disease contributes significantly to the differences in life expectancy between Aboriginal and non-Aboriginal people. Aboriginal people experience 2.3 times the rate of disease burden, with an age-standardised death rate for chronic disease 3.8 times the rate among non-Aboriginal people[9]. In the 2021 Census, the age-standardised rate (ASR) per 100 of Aboriginal people who reported they had one or more long-term health conditions was 25.7[10].

Prevalence of chronic disease

For the first time in 2021, the Census collected information on ten common long-term health conditions in Australia, which included, arthritis, asthma, cancer (including remission), dementia (including Alzheimer's disease), diabetes (excluding gestational diabetes), heart disease (including heart attack and angina), kidney disease, lung conditions (including COPD or emphysema), stroke, and mental health conditions (including depression and anxiety). In the 2021 Census, 19% of all West Australians (484,000) reported they have one of the above conditions and 5% reported they have two of the selected conditions[11].

The level of concern for chronic disease in the East Pilbara SA3 among its residents is not considered

substantially high, only exceeding states rates for of ten chronic conditions reported by the Census[12]. Of note, it has does have the third highest ASR per 100 people for diabetes at 5.2 people per 100, and for kidney disease at 1.0 per 100[12]. Each of these exceeds the state rate[12].

	ASR per 100 people	
	East Pilbara SA3	WA
Diabetes (excluding gestational diabetes)	5.2	4.5
Kidney disease	1.0	0.8

In comparison, chronic disease in the West Pilbara SA3 is less of relative need overall, however, for the conditions it does exceed the WA level for diabetes, with 4.7 people per 100 reporting they have diabetes, compared to 4.5 per 100 across WA[12].

Rates of clinician-diagnosed diabetes using WAPHA's new method of estimating condition prevalence from general practice Data were not calculated for East and West Pilbara, as the data collected in general practice will not be reflective of the wider population[28].

Risk factors

Established risk factors for chronic disease include having high blood pressure, being overweight or obese, smoking, doing little or no exercise and having high levels of stress. Psychosocial factors such as social isolation and loneliness also contribute to chronic ill health[14]. Risk factors for chronic disease tend to be more prevalent in areas experiencing socioeconomic disadvantage and in regional and remote areas[15].

Concerningly, the Pilbara region has significantly higher rates of risk factor smoking tobacco compared to state levels, particularly in both the East and West SA3s[1]. Approximately 1 in 5 in each of the Pilbara regions SA3 residents (22% in East Pilbara and 18% in West Pilbara) currently smoke. The current smoker rate in the East Pilbara SA3 is the highest rate in WA overall[15]. The West Pilbara SA3 has a 30% prevalence of ex-smokers, which is near the state rate of 29%.

The estimated prevalence for people experiencing obesity in the East Pilbara SA3 and West Pilbara SA3 is higher in both compared to the WA rate of 36%[1]. Concerningly, approximately 2 in 5 (44%) residents in both the East Pilbara SA3 (44%) and West Pilbara SA3 (38%) are living with obesity[15].

17% of residents in the West Pilbara SA3s are not engaging in any physical activity for leisure purposes; on par with the state rate of 17%. In contrast, the East Pilbara is below the state rate at 13%[15].

Healthy Weight Action Plan

WAPHA is a steward of the WA Healthy Weight Action Plan 2019-24, which focuses on early intervention of people identified as at-risk of becoming overweight and management of people who currently live with obesity. This involves multi-component, multi-levelled strategies delivered as part of an integrated shared care model. Through the Healthy Weight GP project, WAPHA has committed to supporting GPs to provide options for patients who want to improve their health. Key deliverables include the development of a weight management 'hub' (website) with links to Clinical Referral Pathways and local services for weight management, training for general practice staff, and tools to assist general practices in implementing weight management services as a quality improvement activity.

Burden of disease

Burden of disease measures the impact of different diseases or injuries on a population. It combines the years of healthy life lost due to living with ill health (non-fatal burden) with the years of life lost due to dying prematurely (fatal burden) to give a total burden reported using the disability-adjusted life years (DALYs) measure. Chronic disease accounts for two thirds (67%) of the burden of disease in WA[18].

The Western Australian Burden of Disease Study indicated that the Pilbara region had same rate of fatal burden (noting the number of deaths in Pilbara is relatively small, thus, comparisons to other regions should be used with caution) and a 1.4 times higher rate non-fatal burden compared to the metropolitan regions. The Pilbara region experienced more non-fatal burden than fatal burden whereas other country regions (excluding the South West) experienced more fatal burden than non-fatal burden. Chronic disease accounts for a substantial proportion of the burden of disease. The Pilbara region had the third highest cardiovascular burden in the state, accounting for 13% of the total burden in the region[91].

Coronary heart disease (7% of burden for females and 8% for males), backpain were among the five leading five causes of disease burden in male and female residents in the Pilbara region. In addition, depressive disorders, anxiety disorders and asthma were specific to females and suicide/self-inflicted injuries, poisoning and alcohol use disorders were specific to males
.

Leading causes of total disease burden in the Pilbara health region		
Condition	**%**	**ASR per 1,000**
Injury	17%	22.1
Mental	17%	24.8
Cardiovascular	13%	31.2
Musculoskeletal	12%	28.2
Cancer	8%	19.8

Potentially preventable hospitalisations for chronic conditions

Potentially preventable hospitalisations (PPHs) are certain hospital admissions (both public and private) that could have potentially been prevented by timely and adequate health care in the community. However, only public hospitals data are reported in this document. Chronic conditions that are classified as potentially preventable through behaviour modification, lifestyle change and timely care: angina, asthma, COPD, congestive cardiac failure, diabetes complications, hypertension and iron deficiency anaemia.

Across the state as reported for 2020/21, the ASR of PPHs per 100,000 for total chronic conditions was 903 and the highest admission rates for WA were for Chronic congestive cardiac failure (196), chronic obstructive pulmonary disease (184), and chronic diabetes (178)[1].

Relative to other parts of WA, the East Pilbara SA3 has a higher rate for total chronic conditions in the state and at 2,082 per 100,000 people (compared to 903 per 100,000 across WA), it has the second highest rate in WA[1]. This is driven by higher rates in the East Pilbara SA3 compared to WA for congestive cardiac failure (846 vs. 196), COPD (623 vs. 184), chronic asthma (142 per 100,000 vs. 57) and chronic hypertension (131 vs. 28)[1].

Similarly, the West Pilbara SA3 exceeds state rates for total chronic conditions (1,191 per 100,000), driven by higher rates for Chronic congestive cardiac failure (344 vs. 196), chronic angina (184 vs. 90) and Chronic asthma (86 vs. 57)[1].

Management of chronic disease in primary care

CDMPs are Medicare-rebated for GPs to manage chronic or terminal medical conditions, including preparing, coordinating, reviewing or contributing to chronic disease management plans. They apply for a patient who suffers from at least one medical condition that has been present (or is likely to be present) for at least six months or is terminal[29].

Across WA, 14% of residents have utilised a GP CDMP. Residents of the East Pilbara and West Pilbara SA3s have comparatively lower utilisation, at 4% and 6% respectively[20]. Feedback from local stakeholders suggests that this may be an indication of a lack of allied health services in the region.

Childhood Immunisation

The National Immunisation Program (NIP) aims to increase national immunisation coverage to reduce the number of vaccine-preventable diseases in Australia. A key priority of the program is to work towards achieving immunisation coverage rates of at least 95% for children aged 1, 2 and 5 years. Data from the Australian Immunisation Register (AIR) from 1 January 2023 to 31 December 2023 indicated that in the Country WA PHN, childhood immunisation coverage was comparable to the state average for all ages (1, 2 and 5 years), but was still below the 95% target[31]. Approximately 93% of children were fully immunised at 1 year and 92% at 5 years, compared to only 90% at 2 years[32].

AIR reports that the Pilbara region fell below the 95% immunisation target for children aged 1, 2 and 5 years, being 89% for children aged 1 year, 82% aged 2 years and 92% for children aged 5 years[32]. Feedback from local stakeholders suggests that this may reflect capacity shortages among child health nurses in the Pilbara.

Cancer screening

There are three national cancer screening programs in Australia: BreastScreen Australia, National Cervical Cancer Screening Program (NCSP), and National Bowel Cancer Screening Program (NBCSP).

In 2020-21, cancer screening participation rates in the Pilbara region were concerningly low, well under state levels and among the lowest in WA[33].

The East Pilbara SA3 screening participation rates

were the least in the state for all three cancer types[33]. Near 1 in 5 (19%) eligible residents had participated in bowel cancer screening, compared to the state level of 42%[24], which in itself is low[33]. Approximately 1 in 4 (28%) had participated in breast cancer screening (compared to 51% across WA), and roughly 1 in 2 (47%) had participated in cervical cancer screening, compared to the state level of 69%[33].

The West Pilbara SA3 also fell below state levels for bowel, breast and cervical cancer screening[33]. Only 1 in 4 (26%) eligible residents had participated in bowel cancer screening, 1 in 3 (34%) in breast cancer screening and 1 in 2 (54%) in cervical cancer screening[33].

Feedback from local stakeholders suggested that low rates of cancer screening may be an indication of difficulties accessing services due to long distances and remote geographical locations.

Please note, participation in the new five-year program for cervical cancer screening cannot be accurately reported until there are 5 years of data available.

Syphilis rates

The number of infectious syphilis notifications in WA has remained stable with 1,037 in 2022-2023[34]. Encouragingly, crude rates of notifications across WA have dropped from 31.8 to 28.8 per 100,000 based on completed enhance surveillance forms from notifying clinicians[34]. Those aged 25-34 years had the highest percent of infectious syphilis notification from 2022-2023, accounting for over a third of the notifications (38%)[34]. At 188.1 per 100,000, the rate of syphilis notifications in the Pilbara region is six and a half times the state rate of 28.8 per 100,000[34].

Avoidable mortality

The median age of death in the East and West Pilbara SA3s is well below the state median age of 81 years, at 58 and 57 years respectively[1]. Sadly, these figures are the two youngest median ages of death in the WA[19].

Avoidable mortality refers to deaths of people under 75 years from conditions that are potentially preventable or treatable through primary/hospital care. The rate of avoidable deaths in the East Pilbara and West Pilbara SA3s exceed the state rate of 117.6 per 100,000 at 199 and 124 respectively[2]. The East Pilbara SA3 has the highest rate of avoidable deaths from COPD in WA (22.4 vs. 7.1 per 100,000 across WA) and the second highest rate for cerebrovascular disease (13.3 vs. 6.7)[2]. The West Pilbara SA3 has the third highest rate of avoidable deaths from cerebrovascular in WA at 11.1 per 100,000; above the state rate of 6.7 per 100,000[2].

Local stakeholders flagged that this may be related to a lack of services providing chronic disease management and follow-up as well as difficulty accessing culturally appropriate services.

According to the Mortality Over Regions and Time (MORT) data, the rate of premature deaths (people under 75 years) in the East Pilbara SA3s is well above the state rate of 195 per 100,000, at 383. Data for West Pilbara is suppressed for the SA3 due to low numbers[3].

The five leading causes of death and their percentage with respect to all death causes within the East Pilbara and West Pilbara SA3s are[3]:

Rank	WA	East Pilbara	West Pilbara
1	Coronary heart disease (11%)	Coronary heart disease (13%)	Coronary heart disease (13%)
2	Dementia (including Alzheimer's) (9.3%)	Diabetes (8%)	Suicide (11%)
3	Cerebrovascular disease (5.3%)	Suicide (7%)	Diabetes (6%)
4	Lung cancer (5.1%)	Cerebrovascular disease (5%)	Lung cancer (6%)
5	COPD (4%)	Land transport accidents (5%)	Cerebrovascular disease (5%)

Utilisation of primary care services

Local stakeholders identified issues with access to primary care in the region including workforce shortages, lack of access to bulk billing, appointment wait times and lack of psychosocial support for frequent presenters to ED.

At 50% and 63% respectively, GP utilisation in the East Pilbara and West Pilbara SA3s is below the well state level of 84%[30].

The PHN After-Hours Program aims to improve access to GP services in the after-hours period, being before 8am and after 6pm weekdays; before 8am and after 12pm Saturday; and all-day Sunday and

public holidays, particularly for people at risk of or experiencing homelessness.

A targeted analysis on need, unmet demand and supply indicators was undertaken to assess relative local demand for after-hours care. A Composite Index Score (CIS) was calculated based on the after-hours demand and supply indices, with each SA3 in WA ranked by relative demand from highest to lowest score.

In the Country WA region, there are 146 primary health services open after-hours, contributing 17% of all after-hours primary health services in WA[35]. Primary health services collectively operate for 29 hours weekly per 10,000 population; below the state level of 45 hours. There are 11 MBS after-hours GP services (urgent and non-urgent) claimed per 100 people across WA[35]. The East Pilbara SA3 has a relatively low level of unmet need (CIS=-0.64) for after-hours services, while the West Pilbara SA3 has the lowest need in the Country WA region (CIS=-2.06)[35].

Stakeholder consultations further revealed two insights for after-hours primary health care across WA. First, operating after-hours services is not financially viable for most GP practices, with prevalent financial barriers including insufficient MBS incentivisation for after-hours services, financial risk due to unpredictable demand in after-hours patient volume , and workforce constraints due to inability to incentivise staff to work during the after-hours period[35]. Second, the Royal Commission into Aged Care Quality and Safety recommendations have increased demand for after-hours GP care for residential aged care (RAC) providers[35]. The stronger regulation of RACs to ensure older people receive appropriate care relative to their needs has increased the reliance of RACs on GPs, resulting in an increase in the number of calls made by RACs to GPs during the after-hours period due to fear of potential repercussions if the RACs fail to report or respond to medical incidents, irrespective of the severity of the health concern presented[35].

Residents of the East Pilbara and West Pilbara SA3s have a similar utilisation of GP health assessments compared to the state (at approximately 5%)[30]. Please note, these data only include Medicare-subsidised services, and it is not currently possible to obtain data by type of health assessment.

The majority of Medicare-subsidised allied health services are for optometry services, and Medicare-subsidised allied health services only account for a portion of allied health service use in Australia. This is because they are only available to patients with a GP or specialist referral, and exclude non-Medicare subsidised services, such as those provided by Aboriginal health services and other non-government organisations[30].

Local stakeholders have noted that most general practices in the region are private billing (with the exception of appointments fort health care card holders and children under 16 years) and this may affect uptake of GP services.

Medicare-subsidised nurse practitioner services are not heavily used in the region[30]. The latest data reports that respectively at 3% and 2% of residents in the East Pilbara and West Pilbara SA3s have used a nurse practitioner service, similar to the state rate of 3%[30].

The nursing and Aboriginal health worker service group consists of Medicare-subsidised services delivered by a nurse practitioner, practice nurse, midwife or Aboriginal health worker[30]. Approximately 1 in 20 (5%) residents in the East Pilbara SA3 and 1 in 50 (2%) in the West Pilbara SA3 used a Medicare-subsidised practice nurse/Aboriginal health worker, both below the state rate of 7%[30].

Utilisation of Medicare-subsidised allied health services was low compared to state rates in both the East Pilbara and West Pilbara SA3s, at 15% and 22% respectively, compared to 36% across WA

Access Relative to Need index

The Access Relative to Need (ARN) index measures access to primary health care relative to predicted need and is based on methodology developed by the Australian Institute of Health and Welfare in 2014[36]. The ARN index is based on the following information:

- The location of health services and the populations they serve.
- The number of GP Full Time Equivalent (FTE) working at each location.
- The demographic and socioeconomic characteristics of the population.
- In 2024, WAPHA updated the ARN index to identify areas with a low access to GPs relative to need.

Relative to other areas in WA, the East Pilbara SA3

has the lowest access to GP services across WA and the West Pilbara has moderate access. Overall, 40% of SA3s across WA have higher access relative to need compared to the East Pilbara SA3, while the West Pilbara SA3 is among four other SA3s with the highest access relative to need in the state.

Consumer views of accessing GPs

To better understand the experiences of Western Australians experiencing socioeconomic disadvantage accessing primary health care, particularly GPs, when they need it, WAPHA commissioned consumer research in 2021[37].

Most people experiencing socioeconomic disadvantage were able to access a GP when needed. Although 31% of respondents encountered barriers when visiting a GP, 92% had visited a GP in the last year[37]. However, approximately 1 in 10 respondents (11%) had needed a GP on at least one occasion but had not visited one[37]. This was higher among Aboriginal people (22%), people aged 18-39 (20%), those living with disability (16%) and females (15%)[37]. The main reasons these people needed a GP were illness, concerns about mental health, to get a prescription and to help with the management of a long-term health condition[37]. Only 8% of these people sought help from an alternative healthcare professional, such as a pharmacist[37]. A lack of available appointments was the main reason for not seeing a GP when needed, cited by nearly half (43%) of this group[37]. A further 25% reported a lack of time and other commitments, while 16% felt afraid of being judged[37].

Among the full sample, the most common reason to visit a GP was to get a prescription (53%), followed by managing a chronic condition (28%) and general check-up (25%)[37].

Accessibility factors such as appointment availability were the most cited barrier to accessing a GP, followed by transportation issues and conflicting commitments[37]. Women, people with young children, young people, people from multicultural communities, people living with a disability and Aboriginal people were most likely to experience barriers[37].

Cost did not appear to play a large role in limiting access to a GP, with only one in 10 (10%) mentioning it as a barrier[37]. This finding is attributed to over 80% of the survey cohort indicating that their GP service was bulk billed[37]. If the availability of bulk billed appointments decreased this would seriously impact access to a GP for people experiencing social and economic disadvantage.

The benefit of having a regular GP to the quality of a patient's experience was clear. Respondents with a regular GP reported finding it significantly easier to visit their GP and were significantly more likely to have had a positive experience, even compared to those with a regular GP practice, but not a regular GP[37].

Nearly 9 in 10 (87%) prefer attending a GP appointment in person but two in three (67%) would be comfortable with a telehealth appointment under some circumstances, such as for follow-up appointments[37].

Workforce

General practitioners

Accurate, up-to-date GP FTE figures are unavailable, so the Department of Health and Aged Care comprised a proxy measure which calculates a GP's workload based on MBS services claimed, with one GP FTE representing a 40-hour week over 46 weeks of the year. For each Medicare provider, the new measure attributes an estimate of the amount of time they have spent on their claims in relation to what would be worked by a full-time GP (billable time, non-billable time, and non-clinical time). It is an estimation of GP workforce service utilisation and not an exact count of GP FTE available. For this report, we will refer to this measure as the GP Claimed Service Equivalent (GPCSE).

Based on the latest data, the East Pilbara SA3 has 33.3 GPCSE per 100,000 residents and the West Pilbara SA3 has 47.5. Each of these is well below the state rate of 102[38].

In addition to their normal remuneration, GPs can access additional financial incentives based on how remote the location in which they work is. Areas are classified from metropolitan through to rural, remote and very remote.

Compared to other areas in WA, the Karratha and Port Hedland GP catchments in the Pilbara region are noted as being of particularly high need for GP workforce, that have accredited training general practices with no training capacity[39]. To remedy this issue, it has been recommended that GP colleges consider these catchments a high focus for remote supervision[39].

Within the Karratha catchment, there are four general practices and though this GP catchment was moved to no training capacity in May 2024, supervision is a major challenge to having GP

Registrars in this GP catchment with remote supervision potentially being the best option[39]. Karratha, and surrounding towns of Dampier, Wickham and Roebourne, are mining towns for the iron ore industry[39]. These impact living costs for those who do not work in the mining sector such as health professionals. The affordability of housing in the area also presents a barrier to GPs choosing to reside in the area, with the average weekly rental cost being $696 (and up to $991 in some areas)); above the median cost of $355 per week across Country WA GP catchments[39]. The City of Karratha offers a weekly rental assistance payment of $200 to GPs who reside in Karratha[39]. Approximately one in 10 (11%) of residents fall within WA's most disadvantaged socioeconomic quintile[39].

Although, the Port Hedland GP catchment has three local general practices and three IAHP funded Aboriginal Community Controlled Health Organisations (ACCHOs), this GP catchment was moved to no training capacity in February 2024 and the lack of supervisors for GP Registrars and consultation room capacity in the town further impacts the ability to train[39]. Many of the GP workforce undertake a fly-in-fly-out service due to having a family being based in Perth[39]. There are ongoing issues in recruiting both nursing and in particular, due to the competitive salaries in the mining sector, administration/reception staff[39]. This is further impacted by the inability to secure housing for health professionals, with the exception of GPs[39]. Further, the ongoing lack of childcare continues to be a concern. 1 in 10 (25%) residents identify as Aboriginal[39].

The Tom Price catchment have no training capacity/viability and the East Pilbara and Onslow-Pannawonica GP catchments have no general practice[39]. The shared recommended approach by GP colleges is that broader workforce strategies are required[39].

Primary care nurses

The East Pilbara SA3 has a relatively high supply of primary care nurses at 174 primary care nurse FTE or 6.4 FTE per 1,000 residents compared to 2.5 FTE per 1,000 across WA[38]. The West Pilbara SA3 was also above the state rate at 4.2 FTE per 1,000 with 133 primary care nurse FTE[38].

Housing issues

Feedback from local stakeholders identified housing-related issues that impact health service provision in the Pilbara. There has been a housing crisis in the region, with very high rents and difficulty obtaining short-term leases. Moreover, government funding towards subsidised housing had resulted in reduced services, programs, and capacities for critical services in the region. There was a need for stakeholders to work in partnership to ensure that vacant housing was filled and that measures were undertaken to increase investment in housing supply in the medium and long-term.

Stakeholders indicated that environmental health issues related to remote housing have been a significant concern in the Pilbara. In particular, the Kunawarritji Community experienced issues related to sewerage and sanitation that have affected the health of residents, particularly Aboriginal people.

Aged care

The SA3s in the Pilbara region have a very low proportion of people aged 65 years and over compared to other Country regions. In 2022, there were 991 people aged 65 years and over in East Pilbara SA3 and a further 1,035 in West Pilbara SA3[2]. This represents only 3.6% and 3.3% of the population respectively and it is projected to increase to 6.5% of the population in East Pilbara SA3 and 5.3% in West Pilbara SA3 by 2030. This is far lower than the projected increase of 18% across the state[2].

Age is an important determinant of health and people aged 65 years and over are more likely to have complex and/or chronic conditions as well as comorbidities. Moreover, geriatric syndromes later in life (usually after the age of 85 years) including pressure ulcers, incontinence, falls, and delirium have substantial implications for quality of life as well as health care utilisation[40].

The Western Australian Burden of Disease Study 2018 reported that the five leading causes of disease burden for older people aged 65 to 84 years were coronary heart disease, COPD, lung cancer, dementia and type 2 diabetes mellitus[27]. For older people aged 85 years and over, dementia was reported as the leading cause of total burden of disease[27].

The 2021 Census reported that 10% of Western Australians aged 65 years and older have three or more long-term health conditions[41]. This was lower in the East Pilbara and West Pilbara SA3s, with 8% of residents in both SA3s aged 65 years and older living with three or more long-term health conditions[41].

Approximately 3 in 5 (59%) general practise patients aged 65 years or older were diagnosed with three or more chronic conditions across WA[20]. Data for the East Pilbara and West Pilbara SA3s is not provided due to poor representation of the population who accesses a primary health service in the region[20]. We note that these data include private general practices only and do not include GP services provided by non-government organisations[20].

Utilisation of health services

Across WA, approximately 2 in 5 (39%) of people aged 80 years and over had a GP Health Assessment in 2022-2023[30].

In residential aged care homes (RACHs) there were 15.5 GP attendances per patient across WA[30]. The rate in the Country WA PHN overall was similar at 15.0 attendances per patient[30].

Medicare items are available for in-depth assessment of a patient 75 years and over. This provides a structured way of identifying health issues and conditions that are potentially preventable or amenable to interventions to improve health and quality of life. General practice data indicate that approximately 1 in 4 (28%) of patients aged 75 years and over across WA have had a GP health assessment[42]. Data for East Pilbara and West Pilbara SA3s is not provided due to poor representation of the population who accesses a primary health service in the region[42].

Local stakeholders have previously flagged a lack of GPs providing services in aged care facilities as well as a lack of allied health services as a major concern for aged care in the Pilbara.

Palliative care

The goal of palliative care is to improve the quality of life of patients with an active, progressive disease that has little or no prospect of a cure[44].

Most Australians would prefer to die at home, rather than in hospital or residential aged care[45]. However, many older people use both hospital and aged care services in their final years of life and often die in one of these settings[44].

The Royal Commission into Aged Care Quality and Safety made key recommendations for palliative care, including[43]:

- Compulsory palliative care training for aged care workers.
- Comprehensive sector funding specifically including palliative care and end-of-life care.
- A review of the Aged Care Quality Standards to regulate high-quality palliative care in residential aged care.
- Access to multidisciplinary outreach services; and A new Aged Care Act that includes the right to access palliative care and end-of-life care.

From 1 October 2022, a new funding model, the Australian National Aged Care Classification (AN-ACC) has replaced the Aged Care Funding Instrument (ACFI). The AN-ACC provides equitable funding through three components, to approved residential aged care providers based on the service type delivered and each residents' care needs.

Primary Health Networks will receive funding from the Greater Choice for At-home palliative care Program to improve palliative care coordination in their local communities.

In 2022, there were 27.7 total FTE Palliative Medicine Physicians and 333.2 FTE Palliative Care Nurses employed in WA[46, 47]. Whilst it is recognised that the palliative care workforce is made up of a broad range of professional groups including other medical specialists and allied health professionals, the existing national data sources cannot accurately capture information on palliative care services provided by these health professionals, hence have not been reported.

Palliative care nurses across WA are working 65.0 total weekly hours per 1,000 patients aged 75 and over[46]. The rate is much higher in the West Pilbara SA3, and well above state levels in Esperance SA3 at 688.1 total weekly hours per 1,000 aged 75 and over respectively[46]. Data was not provided for the East Pilbara SA3s due to low figures to employ confidentiality measures to help prevent the identification of practitioners. Palliative Medicine Physicians across WA are working 5.7 total weekly hours per 1,000 aged 75 and over[47]. Data was not provided for the East Pilbara and West Pilbara SA3s because there were no palliative medicine physicians working in either region as a primary location[47].

Aged care services

The aged care system in Australia offers three main types of service: the Commonwealth Home Support Programme (CHSP), the Home Care Packages (HCP) program, and residential care. Across Australia, more than two-thirds of people using aged care services access support from home[48].

Commonwealth Home Support Programme

The CHSP provides entry-level support for older people so that they can continue to live independently at home. For FY 2022-2023 in WA, domestic assistance had the highest number of clients serviced and had the highest expenditure; however, social support group had the highest amount of services provided by hours[49].

Home Care Packages program

The HCP program provides structured support to older people with complex needs to help them live independently in their own home. Support provided includes help with household tasks, equipment, minor home modifications, personal care, and clinical care such as nursing and allied health services. There are four levels of HCPs from level 1 (basic care needs) to level 4 (high care needs). Across Australia, wait times for approved HCPs range from 3-6 months for level 1 to at least 12 months for level 2 and above[49].

There are currently three home care services in the East Pilbara SA3 and one residential aged care home (RACH) offering a total of 56 beds[50]. The West Pilbara SA3 has lower aged care services, with only one provider offering services in Roebourne[50]. There are 30 residential beds and 15 home care places available[50]. As at December 2023, there were 73 people in an HCP in the Pilbara Aged Care Planning Region (ACPR), which includes the East and West Pilbara SA3s, and a further 14 people waiting for an HCP at their approved level[49].

WA has 249 residential aged care services with a total of 19,887 residential places[51]. Considering its relatively low proportion of elderly population, the East Pilbara SA3 has the highest beds-to-population ratio in the Country WA PHN with one RACH located in the SA3 at 124 beds per 1,000 people aged 70 years and over; (near double the state rate of 64 per 1,000)[51]. The West Pilbara SA3 also has one residential aged care home, however, the beds-to-population rate is similar to the state rate, with 65 beds per 1,000 people[51].

Across WA, there are 12.2 FTE (per 1,000 people aged 70 and over) nurses working in aged care[38]. The East Pilbara SA3 has a much higher rate at 52.7 FTE, while the West Pilbara SA3, though closer to the rate in WA, is still above the state rate at 15.7 FTE[38].

Stakeholders have noted that aged care facilities place caps on beds and do not operate at full capacity when faced with a lack of GPs visiting aged care facilities.

Alcohol and other drugs

Alcohol and drug use is a significant issue in the West Pilbara SA3. Approximately 2 in 5 (40%) residents are at risk of long-term harm from alcohol, significantly higher than the state rate of 26% and the second highest in WA[24]. Levels of short-term alcohol harm (18%) are also significantly higher than the state rate of 10% and the highest in WA[24]. Furthermore, the West Pilbara SA3 has the fifth greatest proportion of current smokers (18%), above that of the state rate of 11%[24].

Compared to the West Pilbara and other parts of the Country WA PHN, risky drinking is less of an issue in the East Pilbara SA3[24]. Though above state levels for short-term (13%) and long-term (29%) alcohol harm, these rates are not significantly higher than WA[24]. For smoking (current) however, East Pilbara does have the highest prevalence in the state of 22%, which is significantly higher than WA[24].

Rates of clinician-diagnosed chronic alcohol misuse and chronic drug misuse using WAPHA's new method of estimating condition prevalence from General Practice Data was not calculated for East and West Pilbara, as the data collected in General Practice will not be reflective of the wider population[20].

AOD burden of disease

WA Burden of Disease Study 2015 has the latest regional recording for risks associated with burden of disease for the Pilbara region.

Tobacco use contributed to 29% of cardiovascular disease and 3% of musculoskeletal conditions, with the male population aged 65+ years having the highest rate of burden of disease due to tobacco[52]. Men in the Pilbara region also had a higher risk of disease due to alcohol use (11%) and illicit drug use (7%) compared to women (5% and 4% respectively)[52].

Alcohol contributed to the burden of 23% of mental and substance use disorders, 17% of injuries and 3% of cardiovascular disease burden, with males in the 15-24 and 25-44 year age groups having the most risk of alcohol use leading to disease[52].

Illicit drug use also made a high contribution to burden with 24% of injuries and 11% of mental and substance use disorders in the Pilbara region[52].

Accidental overdose

Australia's Annual Overdose Report, produced by the Penington Institute, reported an increase in unintentional drug-induced (accidental poisoning) deaths in WA from 2004 (2.7 per 100,000) to 2021 (8 per 100,000) suggesting that drug use is a growing health concern[53]. Of this, males account for two thirds (70.5%) of unintentional drug-induced death compared to women[53]. People aged 40-49 had 455 (27.2%) unintentional drug-induced deaths in 2021 and were found to be the most at-risk age bracket[53].

In 2021, opioids continued to be the largest overall drug group identified in unintentional drug-induced deaths in 2021 (45.7%), followed by benzodiazepines (32.5%) and anti-depressants (19.3%)[53].

WA had the second highest rate of heroin death in 2021 with 1.5 deaths per 100,000 people[53]. This corresponds with higher rates of death for other opioids such as fentanyl/pethidine/tramadol in 2021 (0.8 deaths per 100,000) [53]. There has also been an increase in deaths involving benzodiazepines in WA from 2013 to 2021 (1.1 to 3 deaths per 100,000), and stimulants such as methamphetamine and amphetamines (1.3 to 3 deaths per 100,000)[53].

Between 2017- 2021, there were 10 unintentional drug-induced deaths in the East Pilbara SA3, equating to a rate of 7.6 per 100,000 people, above the state average of 8 per 100,000[53]. In contrast, unintentional drug-induced deaths were less of an issue in the West Pilbara SA3, which was below the state level at 5.5 per 100,000; representing 9 deaths[53].

Hepatitis B and C

Hepatitis B and C are bloodborne viruses. Hepatitis B is spread between people by body fluids while hepatitis C is spread through blood-to-blood contact[54] and is commonly spread through unsafe injecting practices. Untreated hepatitis B and C can lead to liver disease (including cirrhosis), liver cancer and death[55].

Since 1982, a vaccine has been developed for hepatitis B with the recommendation that babies and adolescents are vaccinated[54]. Currently there is no vaccination available for hepatitis C, although antiviral treatment is available. Treatment is now more than 95% effective at curing hepatitis C and available to most people via prescription from their GP[54, 56].

In WA, notifications of hepatitis B and C have been declining. Between 2017 and 2023, notification rates of hepatitis B have slightly reduced from 21 to 18 notifications per 100,000[56]. Hepatitis C notification rates decreased (from 62 to 47 notifications) between 2004 and 2017 and has continued to decrease with 32 notifications per 100,000 people in WA in 2023[47].

The proportion of people with chronic hepatitis B (CHB) in the East Pilbara SA3 and West Pilbara SA3 are above the state rate of 0.8%, at 1.7% and 1.2% respectively[58]. However, at 3%, treatment uptake in the West Pilbara SA3 is below the state level of 9%[48.] Treatment uptake is suppressed for the East Pilbara SA3 due to low numbers[58].

Chronic hepatitis C (CHC) levels in the Pilbara are also comparable to the state rate of 0.7%, with 0.8% prevalence in the region[59]. The CHC treatment uptake was 26% in the Pilbara region; considerably below that of the state level of 42%[59].

Alcohol and other drug services

Reported statistics on AOD treatment show that across the Country WA PHN, 412.6 per 100,000 people understood treatment during the 2022-2023 period[60]. Alcohol treatment represented more than half (53%) of the drug of concerns, followed by cannabis (23%) and amphetamines (18%)[60]. Men make up nearly two thirds of clients (64% vs. 36%), with 30–39-year-olds (28%) making up the largest age group of clients[60].

AOD services are provided by Bloodwood Tree Association as well as Yaandina Community Services who offer a residential Rehabilitation facility, Turner River, which is a low medical detox service. Both these services are funded by the Mental Health Commission. Mission Australia offers Drug and Alcohol Treatment Service – Pilbara for young people aged 8-14 years old. These services are available in the main population centres of Port Hedland, Karratha, Newman, Onslow, Tom Price and Roebourne. Hope Community Services also offer the Pilbara Community Alcohol and Drug Service (PCADS) with a base location in Karratha and a new location in Tom Price expected to be opening up in 2025.

There are limited drug and alcohol services provided in Aboriginal communities across the Pilbara region and stakeholders have identified a need for culturally safe and appropriate alcohol and drug services to the communities of Jigalong, Punmu, Kunawarritji and Parrngurr.

The Pilbara No Wrong Door Report identified major

gaps in the provision of timely and consistent drug and alcohol services to smaller geographically isolated towns and the remote Western Desert communities. These gaps constrain access to care for clients. In addition to the service delivery gaps the report also highlighted the need for funding guidelines to allow employment of peer and family peer workers within services[105].

Bloodwood Tree Association and Mission Australia are funded by the Mental Health Commission to implement a place based interagency alcohol and other drug management plans. These plans have been developed and are implemented in Port and South Hedland, Newman and West Pilbara. These plans aim to reduce the harms associated with alcohol and drug use through harm reduction and supply and demand reduction strategies.

Mental health

Mental health was the second leading cause of disease burden in the Pilbara region contributing 16.5% to the total disease burden for the region. Depressive disorders were the leading cause of mental health burden for females in the Pilbara while suicide and self-inflicted injuries were the second leading cause of mental health burden in males[105]. Across the Pilbara region, 29,020 community mental health occasions of service were recorded, with males accounting for 54% of the total figure[105].

Approximately 1 in 10 (11%) residents in the West Pilbara SA3 report that they have been diagnosed with anxiety; similar to the state rate of 12%[63]. Anxiety is lower in the East Pilbara SA3, with 8% reporting an anxiety diagnosis[63].

In both the East Pilbara and West Pilbara SA3s, the proportion of residents reported to have been diagnosed with depression were below the state rate of 11%, at 9% and 6% (significantly lower than WA) respectively[63].

13% of residents in the West Pilbara SA3 report diagnoses of high or very high psychological distress; the same as the state rate[63]. In contrast, this is approximately 1 in 10 (11%) for residents in the East Pilbara SA3[63].

Rates of clinician-diagnosed depression and anxiety using WAPHA's new method of estimating condition prevalence from general practice data were not calculated for East and West Pilbara, as the data collected in general practice will not be reflective of the wider population[20].

Suicide and self-harm

From 2018 to 2022 1,919 people sadly died from suicide in WA; a rate of 14.1 per 100,000 people and above the national rate of 12.3 per 100,000[65]. In WA, suicide represents 3% of all deaths and is the ninth leading cause of death[65].

Suicide heavily impacts the community in the Pilbara. In 2018-2022, it ranks as the 2nd leading cause of death in the West Pilbara SA3 and 3rd leading cause in the East Pilbara SA3 respectively[3].

At a rate of 17.1 people per 100,000, suicide in the East Pilbara SA3 is above state levels and an area of concern[65]. Twenty-six people died from suicide in the East Pilbara SA3 between 2018 to 2022[3]. Suicide is the third leading cause of death in the East Pilbara SA3, representing 3% of all deaths between 2017-2021, the second highest percentage among all SA3s in the state[3].

Just as concerning, at a rate of 16.5 people per 100,000, suicide in the West Pilbara SA3 is also above state levels[65]. Twenty-nine people died from suicide between 2018 to 2022[3]. As the second leading cause of death in the West Pilbara SA3, it represented 1 in 10 (11%) deaths (by all causes) between 2017-2021[3], the highest percentage out of all SA3s in WA.

There is suggestion that these figures are likely an underestimate of the impact of suicide in the Pilbara. Access to current suicide statistics is delayed by two to three years pending coronial inquest and submission of state suicide statistics to national data repositories. Issues with accessing current suicide statistics has been a barrier to planning and implementing mental health services in the region.

The Health and Wellbeing Surveillance Survey collects data on suicidal ideation among adults aged 16 years and over[24]. In each of the SA3s in the Pilbara, 6% indicated that they had thought seriously about ending their own lives, slightly below the state rate of 7%[24].

Self-harm is a strong risk factor for suicide. At a rate of 99.3 per 100,000 residents, hospitalisations for self-harm in the West Pilbara SA3 are similar to state level (97.9 per 100,000)[65]. However, self-harm is concerningly more prevalent in the East Pilbara SA3, with 155.3 per 100,000 residents, being the third highest in the state[65]. Self-harm hospitalisations were higher for females in the Pilbara[65].

Stakeholders identified service gaps in the provision of care to individuals at risk of suicide and self-harm

and their communities and families. These service gaps were identified as appropriate care coordination services for at-risk individuals and as postvention support services for families and communities when a suicide had occurred.

Youth mental health

Primary mental health care services play an important role in prevention and early intervention efforts reduce the prevalence and impact of mental health problems amongst young people[66, 67]. Approximately 1 in 7 young people aged 4-to-17-years experience mental illness in any given year[68], and 75% of severe mental health problems emerge before the age of 25. Early intervention in childhood and adolescent years can prevent or mitigate potentially lifelong mental illness[69].

A recent survey of WA school children found that mental health was a critical issue with a substantial number of Year 7 to 12 students reporting poor life satisfaction, low self-esteem, high levels of stress and the feeling they can't cope with life's challenges[69]. Approximately 1 in 4 (26%) female year 7 to 12 students rate their life satisfaction as 0 to 4 with '0' being the worst possible life. This was double the proportion of males who felt the same (13%)[67].

Self-harm is approximately twice as high in females compared with males, and in older adolescents compared with younger adolescents[67]. Females aged 16-17 years have the highest rates of self-harm, with 17% having engaged in an act of self-harm[67].

In WA, mental health services for young people are provided through general practice, the public mental health system (such as the Child and Adolescent Mental Health Service), not-for-profit organisations (headspace) and private providers such as psychologists.

Hospital EDs also play a role in treating mental illness. People seek mental health-related services in EDs for a variety of reasons, often as an initial point of contact or for after-hours care[70]. Between July 2022 and June 2024, 6,780 Western Australians aged 12-17 years presented to hospital EDs for mental-health related reasons; a rate of 370 per 10,000 people aged 12-17 years[71].

Compared to other areas in WA, youth mental health is a significant concern in the Pilbara region[71]. Both the East Pilbara and West Pilbara SA3s have Mental Disorder-related ED presentations above the state rate, at 858 and 661 per 10,000 12-17-year-olds compared to 370 across WA[71].

headspace centres and services support young people across Australia to be mentally healthy and engaged in their communities[72]. There are three headspace services in the Pilbara region, in South Hedland, Karratha and in addition, Pilbara Outreach, with Youth Wellbeing Workers based in Newman, Karratha and Hedland with regular in-reach to Tom Price, Roebourne, Wickham, Onslow plus Pannawonica[72]. The East Pilbara and West Pilbara SA3s both have utilisation levels at 4% of residents aged 12-25; above the state level of 2%[73]. Each patient's episode of care comprised of an average of 3.1 occasions of service (i.e. interactions with the service or a mental health worker) in the West Pilbara SA3 and 2.3 in the East Pilbara SA3; lower than the WA average of 4.2[73].

The Australian Youth Self-Harm Atlas (AYSHA) reports that the overall prevalence of suicidality (suicidal thoughts or behaviours, including ideation, plans, and attempts) in both the East Pilbara and West Pilbara SA3s are 11% respectively and above to the state rate of 9%[74]. The specific prevalence rates of self-harm (regardless of intent) and suicidal ideation are above the state proportions of 10% and 7% respectively[74].

Major depression and anxiety disorders are risk factors associated with higher self-harm prevalence among 12 to 17-year-olds and are of great concern in the Pilbara region[75]. The proportion of 12 to 17-year-olds experiencing major depression or anxiety disorders in the East Pilbara and West Pilbara SA3s are both above and more than double the state level, at 24% and 18% respectively (WA 9%)[75].

Note: AYSHA provides synthetic estimates—modelled figures derived from statistical techniques that combine survey and population data—to estimate the prevalence of suicidality, self-harm, and experiences of anxiety and depression among young people aged 12 to 17. These estimates are used instead of direct data to provide meaningful insights at smaller geographic levels where sample sizes are too limited for reliable measurement.

In the Pilbara region, suicide and self-inflicted injuries are the leading cause of disease burden for 15-to-24-year-olds, contributing to 13% of the disease burden for this age group[52]. Hospital admissions for self-harm can be an indication of unmet need for accessible mental health services. With the third highest of

hospitalisation for self-harm among those aged 0-24 years in the state[77], it is concerning to note self-harm hospitalisations in the East Pilbara SA3 are above state levels (216.0 vs. 139.7 per 100,000)[43]. Self-harm hospitalisations among people aged 0-24 years in the West Pilbara SA3 occurred at a rate of 135.5 per 100,000; below the WA rate.

Stakeholders have previously highlighted a shortage of mental health and suicide prevention services targeted to children/youth in the Pilbara region, particularly children less than twelve years of age who are not eligible for headspace outreach services. Stakeholders had also noted a need to embed trauma informed care in the management and treatment of mental health issues for the youth cohort.

Mental health services

Mental health services in the Pilbara are provided by the WA Country Health Service, the not-for-profit sector and via a small number of private providers. There are approximately 18 mental health services within the region, 9 of which have dedicated youth services[61]. The WACHS provides child and adolescent mental health services and youth mental health services in Hedland, Karratha and Newman. Operated by Anglicare WA, headspace provides psychological services for young people aged 12-25 years in Hedland, Karratha and the Pilbara Outreach with regular in-reach to Tom Price, Roebourne, Wickham, Onslow plus Pannawonica. Private psychology services are available, however limited, within the Pilbara region in locations such as Karratha and Port Hedland. Practitioners also offer telehealth options which can be beneficial to those in more remote areas within the Pilbara.

A GP mental health treatment plan can be used to refer patients to psychiatrists, psychologists, counsellors, social workers and occupational therapists. In the East Pilbara and West Pilbara SA3s, 2% and 4% have accessed a GP mental health treatment plan in each area; similar to the state level of 8%[76]. The East Pilbara SA3 has the lowest utilisation in the state[76].

There are low numbers of mental health professionals such as psychiatrists, mental health nurses and psychologists in regional and remote areas[77]. In both the East Pilbara and West Pilbara SA3s the rate of psychologists per 10,000 people is below the state rate, at 2.8 and 6.1 respectively compared to 13.2 per 10,000 across WA[77]. In each area less than 1% of residents accessed a clinical psychologist, compared to 2.2% across WA[76].

There is a shortage of mental health professionals in the Pilbara, particularly psychiatrists, with region itself having a supply 5 psychologists per 10,000 people in the region[77].

High turnover and lack of a permanent, locally trained medical workforce are common issues across Country WA PHN. The Pilbara had one of the lowest rates of MBS mental health-related services[106]. This may be indicative of the low numbers of private mental health practitioners and a reliance on publicly funded primary mental health services in providing services for mild to moderate mental health conditions. Additionally, stakeholders have noted limited psychosocial support in the Pilbara for people with a mental health condition and issues accessing NDIS services. Further, it was highlighted that a lack of culturally secure primary mental health services for Aboriginal people and noted that telehealth services are not always the most culturally accessible modalities.

Aboriginal health

An estimated 11,928 Aboriginal people reside in the Pilbara region[2], the second largest population of Aboriginal people in WA. Across the region, there are 23 remote Aboriginal communities[107], with the Jigalong communities being the largest. There are more than 31 Aboriginal cultural groups and 31 Aboriginal languages, with many of these languages having between two and five dialects[108]. Other prominent communities include the Kiwirrkurra people of the Gibson Desert, the Warralong people - north of Marble Bar, the Punmu people - east of Port Hedland and the Parnngurr people of Newman[108]. Aboriginal people are dispersed throughout the four Local Government Shires that comprise the Pilbara region[80].

The Aboriginal people in the Pilbara region, spanning the Indigenous Areas (IAREs) of Port Hedland, East Pilbara, Karratha, Roebourne – Wickham and Exmouth – Ashburton (an area spans across to the Mid West region), experience high of socioeconomic disadvantage and are impacted by poor health outcomes[18]. The highest levels of disadvantage are experienced in the Roebourne – Wickham, East Pilbara and Port Hedland IAREs, which have Indigenous Relative Socioeconomic Outcomes (IRSEO) index scores of 82, 80 and 51 respectively, compared to 51 for WA overall[18]. A higher IRSEO score indicates a greater level of socioeconomic disadvantage for the region[18]. In

contrast, Aboriginal people in the Exmouth – Ashburton and Karratha IAREs are relatively more advantaged than other Aboriginal people in WA , with IRSEO scores of 26 and 25[18].

Unemployment is above state rates in the East Pilbara IARE, with an almost 2 in 5 Aboriginal residents without work (18%)[18]. Roebourne – Wickham was near the state rate at 15%. East Pilbara IARE, also experiences poor housing sustainability, with above 46% of households requiring extra bedrooms to accommodate residents[18].

There is an average participation rate in full-time secondary education at age 16 of 65% across WA[18]. Participation in the Exmouth – Ashburton IARE (located across in the West Pilbara and Gascoyne SA3) is concerningly low at 29%; however, for IAREs that fall entirely within the Pilbara region, East Pilbara and Karratha both have low participation at 56% and 60% respectively[18].

The gap in health outcomes between Aboriginal and non-Aboriginal Australians is well documented, particularly around life expectancy, chronic disease, mental health, trauma, alcohol and other drug and potentially preventable hospitalisations.

Rheumatic heart disease (RHD) is noted as being a considerable concern in the Pilbara region[81]. RHD is a preventable condition that disproportionately affects Aboriginal people, with nearly 9 in 10 (89%) of Western Australians living with RHD being Aboriginal. It is caused by a bacterial infection of the throat and skin, and without treatment, can lead to permanent damage to the heart[81].

Childhood immunisation

A key priority of the National Immunisation Program Schedule is to work towards achieving immunisation coverage rates of at least 95% for children aged 1, 2 and 5 years. Immunisation is below target for all age groups in the Pilbara region at 89% for 1-year-olds, 82% for 2-year-olds and 92% for 5-year-olds[18]. The Roebourne – Wickham IARE recorded the lowest immunisation rates for children aged 1 year old (75%), however, exceeded the immunisation target for 5 year olds (100%)[18]. The East Pilbara and Port Hedland IAREs were below the target for the 1, 2 and 5 year age groups (East Pilbara - 83%, 84% and 93%; Port Hedland - 90%, 79% and 90%)[18]. This suggests that interventions should be targeted to increase immunisation coverage within the Pilbara region overall for all age groups. Feedback from local stakeholders suggests that this may reflect capacity shortages among child health nurses in areas of the Pilbara.

Lower urgency emergency department presentations

High rates of lower urgency ED attendances can be indicative of a gap in primary health care services, and this is evident in the Pilbara region, where lower urgency ED attendance levels are a significant concern compared to other parts of WA. Lower urgency ED presentations by Aboriginal people in the both West Pilbara and East Pilbara SA3s are above state levels, at 10,526 and 9,948 (the third and fourth highest in the state) per 10,000 Aboriginal people compared to 6,167 per 10,000 across WA[18].

Avoidable deaths by selected causes

Avoidable deaths data is suppressed for a number of IAREs due to low numbers. Based on the available data, there were 117.6 avoidable deaths per 100,000 across WA among Aboriginal people aged 0 to 74 years in the 2017-2021 period[18]. When looking at Aboriginal deaths from all avoidable causes in total, four IAREs in the Pilbara region are concerningly above the state level[18]. These are East Pilbara (438.8 per 100,000, the third highest rate in the state), Port Hedland (365.8), Exmouth – Ashburton (332.3) and Karratha (279.7)[18]. Data for avoidable deaths related to specific conditions is insufficient across a number of IAREs in the Pilbara region. Of those with sufficient data available, the following IAREs exceed state levels:

- Circulatory system diseases: East Pilbara (168 per 100,000), Exmouth – Ashburton (148), Port Hedland (134), Karratha (122) and Roebourne – Wickham (96), compared to 94 per 100,000 across WA[18].
- Diabetes: Port Hedland (55 per 100,000) compared to 35 per 100,000 across WA[11].
- Ischaemic heart disease: East Pilbara (109 per 100,000), Exmouth – Ashburton (88), Port Hedland (70), Karratha (67) and Roebourne – Wickham (64), compared to 94 per 100,000 across WA[18].
- Suicide and self-inflicted injuries: Karratha (56 per 100,000) and Port Hedland (43) compared to 33 per 100,000 across WA[18].

Potentially preventable hospitalisations

The average annual rate of total PPHs per 100,000 for Aboriginal people is above state levels for all

IAREs in the Pilbara region, except for Exmouth – Ashburton. Across WA, there were 6,264 PPH admissions per 100,000 for Aboriginal people from 2017/18 to 2020/21[18]. In the Pilbara region, the rate ranged from 6,799 to 9,331 per 100,000[18]. Port Hedland has the highest rate, followed by East Pilbara (8,852), Karratha (8120) and Roebourne – Wickham. The Exmouth – Ashburton IARE was below the state level at 6,212 per 100,000[18].

Chronic conditions that are classified as potentially preventable through behaviour modification, lifestyle change and timely care are: angina, asthma, COPD, congestive cardiac failure, diabetes complications, hypertension and iron deficiency anaemia[82]. The following rates for PPHs due to chronic conditions within Pilbara region exceeded state rates:

- Chronic angina: Exmouth – Ashburton (345 per 100,000), Port Hedland (326) and Karratha (208), compared to 206 per 100,000 across WA[18].
- Chronic asthma: Port Hedland (462 per 100,000), Exmouth – Ashburton (325), compared to 192 per 100,000 across WA[18].
- Congestive cardiac failure: Port Hedland (710 per 100,000), Karratha (687), East Pilbara (608), Exmouth – Ashburton (547) and Roebourne – Wickham (536), compared to 405 per 100,000 across WA[18].
- Diabetes: Karratha (1,007 per 100,000), Exmouth - Ashburton (732) and Port Hedland (661), compared to 547 per 100,000 across WA[18].
- Iron deficiency anaemia: Port Hedland (237 per 100,000) and Karratha (211), compared to 208 per 100,000 across WA[18].
- COPD: East Pilbara (1,451 per 100,000) and Port Hedland (1,058), compared to 608 per 100,000 across WA[18].

Acute PPHs relate to conditions that usually come on suddenly, and may not be preventable, but may not have resulted in hospitalisation if timely and adequate care was received in the community. [82]. PPHs for total acute conditions exceeded state rates across all reported conditions in the Pilbara region, including:

- Acute cellulitis: Karratha (1,610 per 100,000), East Pilbara (1434), Roebourne – Wickham (1359), Exmouth – Ashburton (1357) and Port Hedland (1235), compared to 816 per 100,000 across WA[18].
- Acute convulsions and epilepsy: Roebourne – Wickham (659 per 100,000), Port Hedland (531) and East Pilbara (500), compared to 460 per 100,000 across WA[18].
- Acute dental conditions: Port Hedland (535 per 100,000), Roebourne – Wickham (533) and Karratha (494), compared to 431 per 100,000 across WA[18].
- Acute ear, nose, and throat infections: Karratha (668 per 100,000), Port Hedland (595), East Pilbara (590), Roebourne – Wickham (449) and Exmouth – Ashburton (419), compared to 393 per 100,000 across WA[18].
- Acute urinary tract infections (including pyelonephritis): Port Hedland (842 per 100,000), East Pilbara (697) and Exmouth – Ashburton (555), compared to 516 per 100,000 across WA[18].

Vaccine-preventable PPHs are hospitalisations due to conditions that can be prevented by vaccination[82]. PPHs for total vaccine preventable conditions also exceeded state rates across four IAREs in the Pilbara region, including:

- Total PPHs for vaccine-preventable conditions: East Pilbara (1,101 per 100,000), Port Hedland (1,004), Roebourne – Wickham (912), and Karratha (894), compared to 855 per 100,000 across WA[18].
- PPHs for pneumonia and influenza: Port Hedland (476 per 100,000), East Pilbara (350) and Karratha (318), compared to 278 per 100,000 across WA[18].

Vaccine preventable PPHs are notably less prevalent in the Exmouth – Ashburton IARE, which was below the state level for PPHs.

Primary care service access

Aboriginal people can access specific services aimed at Closing the Gap in health outcomes. It is important that general practices ask all patients if they identify as Aboriginal and/or Torres Strait Islander. This assists with ensuring patients are provided with the option of accessing information and services specifically designed to meet their needs.

Through Medicare, Aboriginal people can receive

Aboriginal-specific health checks from their doctor, as well as referrals for Aboriginal-specific follow-up services. In March 2020, telehealth items for Aboriginal Health Checks were introduced in response to COVID-19 and its associated restrictions[83].

In 2021-2022, the proportion of Aboriginal people that received an Aboriginal Health Check was 23% in Country WA PHN compared to 22% across WA[83]. Nationally, face-to-face Aboriginal Health Checks was the preferred method compared to telehealth[83].

The Pilbara has a large and to some extent transient population of Aboriginal people. Aboriginal people in the Pilbara experience poor health outcomes and have limited access to culturally secure and appropriate primary care services. Travel distances from these communities to access services can be between 140 kilometres to over 500 kilometres.

In the Pilbara, primary care services are provided by general practice, the WA Country Health Service, Integrated Team Care (ITC) programs and non-government organisations. Further services are provided by the Pilbara Aboriginal Health Alliance (PAHA) partnership between the three Aboriginal Community Controlled Health Organisations (ACCHOs), namely, Mawarnkarra Health Service; Wirraka Maya Health Service; and Puntukurnu Aboriginal Medical Service Aboriginal Community Controlled Health Organisations.

The ITC program supports Aboriginal people living with complex chronic conditions to access health care and funds teams of Aboriginal and Torres Strait Islander health project officers, outreach workers and care coordinators. In the Pilbara region, the Country to City ITC service is provided by Mawarnkarra Health Service based in the West Pilbara SA3.

The Royal Flying Doctor Service provide a comprehensive range of health care services from General Practice Health Care (PHC) clinics from Nullagine, Marble Bar and Yandeyarra, where fly-in, fly-out clinics provide a much needed service to locations that do not see a medical practitioner on a regular basis. Furthermore, the Royal Flying Doctor Service provided a fortnightly visiting GP service at Punmu and Parnngurr, and an additional Female GP program in Jigalong, Parnngurr and Punmu. Nursing Posts operated by the WA Country Health Service is available in Marble Bar Nullagine.

Digital health

Digital health includes a broad range of innovative technologies for the purposes of providing care and sharing information to enhance patient outcomes. Services include mobile health applications (Medicare Online, COVID check-in apps), electronic prescribing, electronic health records (My Health Record) and telehealth/telemedicine[85].

Australia-wide, the volume of My Health Record entries containing data in them had a growth of 520,000 from January 2023 to March 2024[85]. The largest increase in use from 2023 to 2024 has been seen in specialist letters (78% increase), diagnostic imaging reports (34% increase), and pathology reports (25% increase)[85]. In March 2024, WA had 2.6 million My Health Record entries [85].

There has been a decrease in the proportion of people who have had at least one telehealth consultation in the 12-months from 30.8% in 2021-2022 to 27.7% in 2022-2023[86]. Those who had a long-term health condition (37.1) are more likely to use telehealth compared to those without one (17.3%)[86]. In addition, those aged 65-74 years (31.6%) are more likely to use telehealth than people aged 15-24 (20.9%)[86]. Unfortunately, those living in outer regional, remote or very remote areas (23.4%) are less likely to use telehealth than those living in major cities (28.3%) – there could be several reasons for this including, internet availability/access, telehealth compliant devices such as phones and laptops. Of people who used telehealth services in the past 12 months, 87.7% reported that they would use it again if offered[86].

Given the large geographical size of WA, COVID-19 saw a very rapid adoption of virtual methods of consultation of WA's hospital-based outpatient clinics. Rates that were previously in low 10 to 15%, rapidly moved to 60 to 80% across a range of clinics and hospitals[87]. It appears that the focus on digital health including telehealth consultations during COVID-19 helped fast track the adoption of technology and more providers saw My Health Record as a valuable repository of health data as it is accessible to all health care providers without the need for fax machines or postal services. As of February 2024, there are now more than 23.5 million My Health Record entries Australia-wide and more than 23 million or 98 % of them contain data [85]. It is important to note that the COVID pandemic drove telehealth, but unfortunately, these gains have not been sustained as patients are favouring face to face consultations once again.

Local intelligence highlighted that whilst there are digital health services available in the Pilbara, people in the region do not prefer utilising such services, for example, telehealth services. Language barriers and the lack of culturally and/or age-appropriate digital health services make it difficult to engage consumers to increase access

South West

Priorities

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
Chronic disease accounts for a substantial proportion of the burden of disease, particularly musculoskeletal disease and cancer. Bunbury Statistical Area Level 3 (SA3) has one of the highest cancer rates in Country WA. Chronic diseases contribute significantly to the burden of disease in the South West region, particularly cancer and musculoskeletal disease. There are high rates of multimorbidity in Bunbury SA3, and high rates of avoidable deaths due to chronic conditions in Bunbury and Manjimup SA3s. Rates of clinician-diagnosed diabetes are above state levels in Bunbury and Manjimup SA3s. Bunbury and Manjimup SA3s have high rates of risk factors for chronic conditions, particularly obesity and smoking, and low levels of physical activity.	There are high rates of potentially preventable hospitalisations (PPHs) related to chronic conditions, particularly chronic obstructive pulmonary disease (COPD) and diabetes. The high prevalence of risk factors related to chronic disease make it a complex population from a clinical perspective.	**Support primary health care providers to manage chronic disease populations and build capacity for patient self-management.** **Support primary care to promote healthy weight and healthy lifestyle changes.**	South West	Population health	Chronic conditions
Mental health is the fourth leading cause of disease burden in the region. Rates of clinician-diagnosed depression are significantly higher than state rates in the Manjimup and Augusta – Margaret River – Busselton SA3s. Manjimup SA3 also has high rates of clinician-diagnosed depression.	Self-harm hospitalisations among residents under 25 years are above state levels in all three SA3s in the region. There is a low rate of psychologists per 10,000 people practicing in the Bunbury and Manjimup SA3s and only 1% of residents have accessed a clinical psychologist through Medicare Benefits	**Support General Practices in identifying people at risk of suicide and referring to appropriate services, including telehealth mental health providers.** **Enable access to culturally appropriate mental health care and early intervention suicide prevention services, including for young people.**	South West	Mental health	Access Early intervention and prevention

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
Suicide is a serious issue and exceeds the state rate in all three SA3s within the South West region, accounting for 2% of all deaths in Bunbury, and 3% each in Manjimup and Augusta – Margaret River – Busselton SA3s. Youth mental health is a critical issue, with high levels of self-harm and suicidal ideation amongst young people across the region.	Schedule (MBS) services in the Bunbury and Manjimup SA3s. Access to youth-focused mental health care is required to offset the concerning levels of need in this group, however Western Australia (WA) youth mental health providers face challenges meeting demand.				
Childhood immunisation levels in the South West region are below the 95% target for Aboriginal and non-Aboriginal children. Under-immunisation increases the risk of vaccine-preventable illnesses in the whole community, including greater risk of outbreaks, and severe illness or death for those who cannot be immunised (including infants or immunocompromised individuals).	Under-vaccination increases risk of vaccine-preventable illnesses and creates avoidable burden on primary health care and the Aboriginal health workforce.	**Support primary health care providers to increase childhood immunisation rates overall, and deliver culturally appropriate and accessible vaccination programs for Aboriginal children.**	South West	Population health	Immunisation Aboriginal health
Residents are at risk of harm from alcohol and illicit drug use. Rates of clinician-diagnosed chronic alcohol misuse and chronic drug misuse were significantly higher than the state rate Augusta – Margaret River – Busselton and Manjimup SA3s.	Alcohol and other drugs (AOD)-related emergency department (ED) presentations are above state levels in the Augusta – Margaret River – Busselton SA3.	**Enable access to screening and alcohol and other drugs (AOD) treatment services.**	South West	Alcohol and other drugs	Access
Aboriginal people in the Bunbury SA3 experience significant levels of socioeconomic disadvantage compared to Aboriginal people in other parts of WA, and may be at risk of experiencing	Aboriginal people in the Bunbury SA3 have high rates of PPHs.	**Enable access to coordinated culturally appropriate primary care for Aboriginal people.**	South West	Aboriginal health	Appropriate care including cultural safety

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
poor health outcomes related to social determinants of health.					
The South West region has a large and growing proportion of older adults, particularly in Manjimup, where one third of the local population is projected to be over 65 years by 2030. Older people are more likely to be living with a chronic condition compared to the general population, and one in 10 have three or more long-term conditions. In the Great Southern region, coronary heart disease, COPD and dementia are among the leading causes of disease burden for people aged 65 and over.	Despite having a high proportion of older people, there is a relatively low ratio of residential aged care beds to population compared to state levels, particularly in Manjimup and Bunbury SA3s. Older people need support from their primary health care providers to manage chronic conditions, including multimorbidity, and to live independently for as long as possible. The growing population of older people in the region will place increased pressure on aged care services.	**Support health and aged care providers to effectively manage chronic conditions for older people and help them live independently for as long as possible.** **Enable access to age-appropriate digital health services.**	South West	Aged care	Access Chronic conditions
Most Australians would prefer to die at home rather than in a hospital or aged care facility. For many Aboriginal people, this means dying at home connected to country.	There is limited home palliative care available in the region, with many older people dying in hospitals or aged care services.	**Enable access to local at-home palliative care services, and ensure they are culturally appropriate for Aboriginal people.**	South West	Aged care	Access Palliative care

South West

Overview

The South West is the most populous region outside of the metropolitan area. The dominant health concerns in the region are chronic disease, an increasing ageing population, mental health, and access to services.

The populations of Bunbury and Manjimup SA3s have high prevalence of risk factors for chronic disease including obesity and smoking. Chronic disease accounts for a substantial proportion of the burden of disease and the region has the highest musculoskeletal burden in Western Australia (WA). The Manjimup SA3 has high rates of PPHs due to chronic conditions compared to other parts of WA.

Despite having the largest population in regional WA, service accessibility is an issue in some parts of the South West. GP catchments within the Bunbury and Manjimup SA3s (specifically, Bridgetown, Collie, Manjimup and Nannup GP catchments) are in need of additional GPs. The Bunbury SA3 has the highest level of unmet need for after-hours services, while there is moderate unmet need in the Manjimup and Augusta – Margaret River – Busselton SA3s. There is also a relatively high level of unmet need for services supporting people born in predominantly non-English speaking countries in the Bunbury SA3.

A growing ageing population in the South West will impact primary care services into the future. The region has a relatively low ratio of residential aged care beds to population compared to the state, particularly in the Manjimup SA3.

Mental health impacts youth in the South West, with anxiety the leading cause of burden of disease for youth in the region. The Manjimup SA3 has the highest rate of self-harm hospitalisations in the state for people aged under 25 years.

The median age of death in the Manjimup SA3 is 79 years, below the state median age of 81 years[109]. The Augusta – Margaret River – Busselton and Bunbury SA3s are both above the state median age of death at 83 and 82 years respectively[2].

Population demographics

The South West region spans 24,000 square kilometres and is the most populous country region in WA. It consists of three Australian Bureau of Statistics (ABS) Statistical Area Level Three (SA3) sub-regions: the Augusta – Margaret River – Busselton SA3, Bunbury SA3 and Manjimup SA3. The Augusta – Margaret River – Busselton SA3 includes the towns of Busselton and Margaret River. The Bunbury SA3 includes the major regional centre, Bunbury and the town of Collie. The Manjimup SA3 includes the town of Manjimup.

The South West region's economy is based on agriculture and food with innovative and advanced manufacturing, and supports interstate and international tourism. The Augusta – Margaret River – Busselton SA3 is home to 57,332 residents, the Bunbury SA3 is home to 107,549 residents and the Manjimup SA3 is home to 23,863 residents. Together, the three SA3s of the South West region accounts for 7% of WA's population.

Social determinants of health

Social determinants of health are the conditions in which people are born, grow and live, including factors such as a person's socioeconomic position, education, neighbourhood and physical environment [2]. These factors underpin a wide range of health and quality of life outcomes and can contribute to avoidable inequities in health care access.

The Socio-economic Index for Areas (SEIFA) provides a measure of the relative social and economic disadvantage within a region based on a wide range of indicators reflecting disadvantage, including low income, low educational attainment, high unemployment, and reliance on welfare for income and housing support.

Compared to other parts of WA (Index Relative to Socioeconomic Disadvantage, IRSD = 1012), the South West region is an area of socioeconomic disadvantage[2]. This is evident in the Bunbury SA3 (IRSD=976) and Manjimup SA3 (IRSD=980). In contrast, the Augusta – Margaret River – Busselton SA3 is socioeconomically advantaged relative to the state (IRSD=1022)[2].

Across WA, 3% of residents live in social housing and 5% live in low income, welfare-dependent families with children[2]. These levels are similar across the South West region, with 3% of residents in each SA3 living in social housing. In the Bunbury SA3, 6% of residents live in low income, welfare-dependent families with children, compared to 4% in the Augusta – Margaret River – Busselton SA3 and 3% in the Manjimup SA3[2].

Approximately 1 in 50 (2%) of residents in the Augusta – Margaret River – Busselton SA3 identify

as Aboriginal and Torres Strait Islander (Aboriginal), compared to 1 in 25 (4%) residents in the Bunbury SA3 and 3 in 100 (3%) residents in the Manjimup SA3[2].

Under-served population groups

People at risk of avoidable, unjust health inequities are more likely than the general population to experience poor health outcomes due to physical, social, and economic factors, and include people who are multicultural; LGBTIQA+; experiencing homelessness; living with a severe disability or caring for someone with a disability; developmentally vulnerable; and victims of family, domestic or sexual violence.

The South West region has a number of under-served people who are at risk of poor health outcomes. Specifically:

- Approximately 3,800 Augusta – Margaret River – Busselton SA3 residents were born in a non-English speaking country, equating to about 7% of local population. Around 8,000 Bunbury SA3 residents were born in a non-English speaking country, representing 7% of the local population. A further 1,465 Manjimup SA3 residents were born in a non-English speaking country, representing 6% of the local population. These compare to 18% across WA[2].
- 5% of residents in the Augusta – Margaret River – Busselton SA3 and 6% each in the Bunbury and Manjimup SA3s have a profound or severe disability compared to 5% across the state[2].
- 11% of residents in the Augusta – Margaret River – Busselton SA3 and 12% each in the Bunbury and Manjimup SA3s provide unpaid assistance to people with a disability, similar to the state rate of 11%[2].
- 17% of children in the Augusta – Margaret River – Busselton SA3, 23% in the Bunbury SA3, and 18% in the Manjimup SA3 were developmentally vulnerable on one or more domains compared to 20% across the state[2].
- An estimated 218 residents in the Augusta – Margaret River – Busselton SA3, 371 residents in the Bunbury SA3, and 90 residents in the Manjimup SA3 experienced homelessness. This equates to 42 residents per 10,000, 37 per 10,000 and 43 per 10,000 respectively, above the state rate of 36 per 10,000. This includes people living in overcrowded dwellings[2].

Multicultural populations

A bespoke review into the needs of multicultural people in WA identified that they face significant challenges accessing primary health care, including difficulties navigating the health care system, financial barriers and linguistic barriers when making appointments, articulating their health concerns and understanding medical terminology. Service providers require more training to effectively and appropriately support multicultural patients, including greater understanding of different cultures and the importance of using plain language or interpreters[5, 6]. Mental health, psychosocial support and vaccinations were identified as key needs for multicultural people[5].
For many multicultural communities, mental health is a significant issue, including comorbidity with alcohol and other drugs, and trauma. Some multicultural patients hesitate in seeking health care related to psychological concerns for fear of stigma, and difficulties in articulating their concerns[5].

Vaccinations can be difficult for migrants to plan for on arrival, as patient medical records are often inaccessible or need to be translated. This is significant for all migrants, particularly children, whose vaccinations must be aligned to the appropriate vaccine schedule.

Psychosocial strategies to provide a sense of connection and build independence are important for many people within multicultural communities, including support to set up a bank account, access Centrelink, improve English and obtain a driving license. These skills are critical in overcoming some of the barriers multicultural people face in accessing health care. There is a need to provide this connection and support in a safe and culturally appropriate setting and in a targeted manner to aid the transition to life in Australia.

There are two primary health care services specialising in care for the multicultural population in the Country WA region, located in the Goldfields SA3 and East Pilbara SA3[5]. The Bunbury SA3 (CIS=0.24) has a moderately high level of unmet need for multicultural services in WA, being the fifth highest in the Country WA region. It has the highest number of residents (7,997) born in a predominantly non-English speaking country, and the highest

number of residents (535) who are developing their English skills[5]. However, the Bunbury SA3 is the only area in the Country WA region with a rate below the state level for General Practitioner (GP)-type emergency department (ED) presentations among this population group, at 1,363 per 10,000 compared to 1,912 across WA[5].

In contrast, the Augusta – Margaret River – Busselton and Manjimup SA3s have some of the lowest levels of unmet demand for multicultural services in the Country WA region (CIS=-0.36 and -0.40 respectively)[5].

LGBTIQA+ populations

LGBTIQA+ is an acronym commonly used to describe lesbian, gay, bisexual, trans/transgender, intersex, queer/questioning, asexual, and other sexuality, gender, and bodily diverse people and communities. Many LGBTIQA+ people face discrimination and disparities connected to their gender identification and/or sexuality that impact their physical and mental health and access to health care and other services[3]. LGBTIQA+ people are known to have a higher risk of certain chronic diseases such as cancers, asthma and cardiovascular disease[3]. Moreover, some members of LGBTIQA+ communities, particularly gay, lesbian and bisexual people, are 2.0 times as likely to smoke daily compared to heterosexual people which increases their risk of developing a chronic disease[4].

The Private Lives survey is Australia's largest national survey of the health and wellbeing of LGBTIQA+ people to date[2]. In the latest results, LGBTIQA+ people reported lower self-rated health than the general Australian population, with fewer than 1 in 3 (31%) rating their health as very good or excellent compared to more than half (56%) of the general Australian population aged over 15 years. Two in five (40%) cisgender men rated their health as very good or excellent compared to only 29% of cisgender women, 26% of trans women, 20% of non-binary participants and 19% of trans men[2].

More than a third (39%) of participants reported a disability or long-term health condition, with 12% reporting a profound or severe disability, 20% a moderate disability and 6% a mild disability or long-term health condition. When accessing a health or support service, 30% of those with a severe disability or long-term health condition felt accepted compared to LGBTIQA+ people who did not report a disability or long-term health condition (51%). More than three quarters (78%) with a severe disability or long-term health condition reported being treated unfairly by others in the past 12 months because of their disability or long-term health condition. This was followed by 56% of residents with a moderate disability or long-term health condition and 43% with a mild disability or long-term health condition[2].

More than 4 in 10 (42%) of young Australian trans people have encountered medical services who did not respect, understand or have prior experience with gender diverse people[5]. Please refer to the Mental Health section for further details about mental health and suicide prevention for LGBTIQA+ populations.

Local intelligence has highlighted supply-side challenges, including a lack of LGBTIQA+ friendly services in the region, and many individuals travelling to Perth for services. Furthermore, there is limited understanding and education within the health sector about trans and intersex people. Significant proportions of LGBTIQA+ people have not felt they can safely disclose their LGBTIQA+ identity to GPs or have been misgendered in practices. Improved training and promotion of LGBTIQA+-friendly practices would be welcomed by the LGBTIQA+ community to address these issues[6].

It is important to note that there is a critical lack of research into the area of health of LGBTIQA+ people at an Australian population level[10]. Furthermore, each sub-group within the LGBTQIA+ population has its own unique health care needs, and it is inaccurate to treat these needs as homogenous across the LGBTIQA+ population. However, the lack of data, especially at a regional level, significantly limits the ability to identify and address the specific needs of each group – something WAPHA will continue to lobby to improve. Some needs relevant across the LGBTIQA+ population include:

Clinical	
	Access to appropriate: • **Health and medical care** that is inclusive, delivered by health care providers trained to deliver LGBTIQA+ affirming care, such as using correct names and pronouns and understanding gender identity and sexual orientation. • **Preventive care**, such as tailored cancer screenings (e.g., cervical cancer for transgender men, prostate exams for transgender women) and routine health checks that address unique risk factors for different sub-groups.

	• **Mental health support** delivered by culturally competent mental health providers who understand the unique stressors LGBTQIA+ individuals can experience, including stigma, discrimination, and identity-related challenges.
Cultural	
	• **Respectful, non-judgemental treatment**: health care free from stigma and discrimination, ensuring all LGBTQIA+ patients feel safe and respected. **Relevant and affirming health information**: Resources that reflect and respect LGBTQIA+ identities, such as educational materials on sexual health, mental well-being, and healthy relationships. • **Community support and per networks**: Programs that connect LGBTQIA+ individuals to peer groups, mental health resources, and LGBTQIA+ community organisations that provide culturally relevant support. • **Visibility of LGBTQIA+ friendly signage**: Clear signs, symbols, and inclusive language in health care facilities to signal a safe space for LGBTQIA+ patients.
Organisational	
	• **Inclusive policies and protocols** (e.g. anti-discrimination policies, use of inclusive terms on health care forms). • **Ongoing cultural competency and LGBTQIA+ sensitivity training** for all health care workers. • **Improved data collection** on LGBTQIA+ health needs (e.g., sexual orientation and gender identity data in patient records), helping to inform equitable policy and service delivery. • **Collaboration across LGBTQIA+ organisations** to create referral networks, share resources, and ensure service delivery aligns with community needs. • **Strict adherence to confidentiality policies**, especially regarding sensitive information related to gender identity and sexual orientation, to build trust with LGBTQIA+ patients.

Further information regarding health care standards in Australia that support the LGBTIQA+ community can be found at:

- Australian Charter of Health Care Rights – LGBTQI+
- Rainbow Tick guide to LGBTI-inclusive practice
- Australian Medical Association (AMA) LGBTQIASB+ Position Statement
- Australian Health Practitioner Regulation Agency (AHPRA) LGBTIQA+ Communities guidance for health practitioners
- General Practice Supervision Australia (GPSA) LGBTQIA+ Health and Inclusive Health care.

People experiencing homelessness

State-wide, health care barriers exist for people at-risk of or experiencing homelessness. A bespoke study into the needs of these people identified that many have had poor experiences with GP clinics and feel unheard when accessing primary health services. Experiences of fear, shame, and stigma were reported, often compounded by a clinical environment where some people feel out of place or unwelcome. Other barriers, including difficulty interacting with non-clinical staff (e.g., reception, security), fear of losing possessions to attend mainstream services, and financial barriers can also make it difficult for patients to make an appointment and see a clinician. Long wait times for appointments, transport availability and lack of fixed address mean keeping appointments is difficult.

Dual diagnoses and comorbidity can create complexities in accessing health care services, impacting eligibility for certain services and resulting in individuals feeling like they are being passed between different service providers in search of the right care. People experiencing homelessness indicated that it can be difficult to find the language to talk to clinicians about their concerns, and that clinicians may try to “fix everything all at once” as opposed to on one thing at a time.

In WA, 68% of the homeless population have at least one chronic health condition, 68% are living with mental health challenges, and 62% have a substance use disorder. More than one third (38%) have poor health from all three (physical, mental and substance issues)[17].

The areas of greatest need for homelessness support are the Kimberley, East Pilbara, Gascoyne and Goldfields SA3s[12].

There is a moderate level of unmet need for homelessness services in the Bunbury and Manjimup SA3s (CIS=-0.36 and -0.41 respectively). An estimated 364 Bunbury and 100 Manjimup residents are at risk of or currently experiencing homelessness; equating to 32 people per 10,000 in each area; below the state rate of 48 per 10,000[12].

In contrast, the Augusta – Margaret River – Busselton SA3 (CIS=-0.93) has the lowest level of unmet need for homelessness services in WA[12]. There are limited services supporting people experiencing homelessness in the South West region. Local services include the Health Hub at Eaton Fair and Salvation Army, both located in the Bunbury SA3[12].

People experiencing family, domestic and sexual violence

The Australian National Plan to End Violence against Women and Children 2022 – 2032 aims to end gender-based violence through prevention, early intervention, response, and recovery and healing. Aligning with this, WA's Family and Domestic Violence Prevention Strategy details initiatives to prevent and respond to family, domestic and sexual violence, the key outcomes for which are prevention and early intervention; safety for victims through timely and accessible services; and accountability for perpetrators and support to cease violent behaviour.

One in six Australian women and one in eighteen men (since the age of fifteen) have been subjected to physical and/or sexual violence by a current or previous cohabiting partner[6]. Moreover, one in six women and one in nine men were physically or sexually abused before the age of 15 years[6]. The following groups have been identified as being more at risk to family, domestic and/or sexual violence[7].

- women
- children
- people living with a disability
- Aboriginal people
- people from multicultural backgrounds
- people in rural and remote Australia
- older people
- LGBTIQA+ people
- people experiencing socioeconomic disadvantage.

In 2018, partner violence was ranked as the fourth leading risk factor contributing to total disease burden for women aged 15-44, with child abuse and neglect during childhood being the leading risk factor[8]. Family and domestic violence is also a leading cause of homelessness. In 2022-2023, approximately 104,000 (38%) of clients assisted by specialist homelessness services (SHS) had experienced family and domestic violence and of these, more than three in four (75%) were female[8].

WA Police statistics indicated that in the 12 months from July 2023 to June 2024, there were 1,545 reports of family related assault in the South West region, equating to an average of 129 reports per month[16].

Chronic Disease

Chronic diseases are long-term, non-communicable conditions and play a significant part in mental and physical ill-health, disability, and premature death. People with chronic disease often have two or more conditions (multi-morbidity) such as a mental health condition as well as a physical condition, creating complex health needs and presenting challenges for treatment. This section focuses on chronic conditions other than mental and behavioural conditions, which are discussed in the Mental Health section.

Chronic disease contributes significantly to the differences in life expectancy between Aboriginal and non-Aboriginal people. Aboriginal people experience 2.3 times the rate of disease burden, with an age-standardised death rate for chronic disease 3.8 times the rate among non-Aboriginal people[18]. In the 2021 Census, the age-standardised rate, ASR per 100 of Aboriginal people who reported they had one or more long-term health conditions was 25.7[19].

Prevalence of chronic disease

For the first time in 2021, the Census collected information on ten common long-term health conditions in Australia, which included, arthritis, asthma, cancer (including remission), dementia including Alzheimer's disease, diabetes excluding gestational diabetes, heart disease including heart attack or angina, kidney disease, lung conditions including chronic obstructive pulmonary disease (COPD) or emphysema, stroke, and mental health conditions including depression or anxiety. In the 2021 Census, 19% of all West Australians (484,000)

reported they had one of the above conditions and 5% reported they have two of the selected conditions[2].

The Augusta – Margaret River – Busselton SA3 has a moderate level of chronic disease among its residents with above state rates for three of the ten chronic conditions reported by the Census[2]. Specifically, the third highest age-standardised rate (ASR) for cancer (including remission) in Country WA Primary Health Network (PHN) at 2.9 people per 100[2]. Each of these exceeds the state rate[2]:

	ASR per 100 people	
	Augusta – Margaret River – Busselton SA3	WA
Mental health condition (including depression or anxiety)*	10.1	8.3
Arthritis	8.0	7.9
Cancer (including remission)	2.9	2.9

*This the first time the chronic conditions have been collected in the Census, and there is some evidence that there may be biases in reporting mental health conditions. Therefore, these number should be interpreted with caution.

Similarly, the Manjimup SA3 also has a moderate level of chronic disease among its residents with above state rates for three of the ten chronic conditions reported by the Census[2]. In Country WA PHN, it has the third highest rate for mental health condition (including depression and anxiety) at 9.7 people per 100[2]. Each exceeds the state rate[2]:

	ASR per 100 people	
	Manjimup SA3	WA
Mental health condition (including depression or anxiety)	9.7	8.3
Arthritis	8.6	7.9
Asthma	7.5	2.9

In contrast, the Bunbury SA3 has a more concerning level of chronic disease among its residents, and the highest or second highest rate in the Country WA PHN for four of the ten chronic conditions reported by the Census[2]. Specifically, it has the ASR rate per 100 people for arthritis at 9.6 people per 100, for asthma at 8.6 people per 100, and for cancer (including remission) at 3.0 people per 100[2]. It also has the second highest ASR in the Country WA PHN for mental health conditions (including depression or anxiety) at 10.0 people per 100[91]. Each of these exceeds the state rate:

	ASR per 100 people	
	Bunbury SA3	WA
Lung condition (including COPD or emphysema)	1.9	1.7
Mental health condition (including depression or anxiety)	10.1	8.3
Stroke	0.9	0.9
Arthritis	9.6	7.9
Asthma	8.6	7.4
Cancer (including remission)	3.0	2.9
Diabetes (excluding gestational diabetes)	4.9	4.5
Kidney disease	0.8	0.8

Using WAPHA's new method of estimating condition prevalence from general practice Data, rates of clinician-diagnosed diabetes were statistically significantly higher in the Manjimup SA3 (9.3%) and the Bunbury SA3 (8.7%) compared to the state rate of 7.9%[22].

This section focuses on chronic conditions other than mental and behavioural conditions, which are discussed in the Mental Health section.

Risk factors

Established risk factors for chronic disease include having high blood pressure, being overweight or obese, smoking, doing little or no exercise and having high levels of stress. Psychosocial factors such as social isolation and loneliness also contribute to chronic ill health[23]. Risk factors for chronic disease tend to be more prevalent in areas experiencing socioeconomic disadvantage and in regional and remote areas[24].

The South West region has significantly higher rates of risk factors compared to the state levels, particularly in the Bunbury SA3 and the Manjimup SA3[24]. This includes high levels of residents experiencing obesity and not engaging in any physical activity for leisure purposes[24].

The estimated prevalence for people experiencing obesity is significantly higher in both the Bunbury

and Manjimup SA3s compared to the WA rate of 36%. Concerningly, about 2 in 5 (42%) residents in the Bunbury SA3 are experiencing obesity[24]. Similarly, about 2 in 5 (43%) residents in the Manjimup SA3 are living with obesity[24]. In comparison, about 3 in 10 residents (30%) in the Augusta – Margaret River – Busselton SA3 are experiencing obesity, significantly lower than the state rate[24].

Both the Bunbury and Manjimup SA3s have significantly higher proportions of residents not engaging in any physical activity for leisure purposes at 20% and 23% respectively, compared to the state (17%)[24]. In contrast, the Augusta – Margaret River – Busselton SA3 has a significantly lower proportion of residents not engaging in any physical activity for leisure purposes at 12%[24].

All three SA3s in the South West region have prevalence levels above the state rate of 11% for smoking[24]. Approximately 1 in 7 Manjimup and Augusta – Margaret River – Busselton SA3 residents currently smoke (15% and 13% respectively) and about 1 in 8 (12%) Bunbury SA3 residents currently smoke[24].

While high blood pressure is not a significant need in the South West region relative to other parts of WA, approximately 1 in 5 residents have high blood pressure in Manjimup, Bunbury and Augusta – Margaret River – Busselton SA3s (22%, 21% and 21% respectively, compared to 23% across WA)[24].

Reported stress levels in the Bunbury and Manjimup SA3s are similar to the state with 12% of residents reporting stress in both areas[27].

Healthy Weight Action Plan

WA Primary Health Alliance (WAPHA) is a steward of the WA Healthy Weight Action Plan 2019-24, which focuses on early intervention of people identified as at-risk of becoming overweight and management of people who currently live with obesity. This involves multi-component, multi-levelled strategies delivered as part of an integrated shared care model. Through the Healthy Weight GP Project, WAPHA has committed to supporting GPs to provide options for patients who want to improve their health. Key deliverables include the development of a weight management 'hub' (website) with links to Clinical Referral Pathways and local services for weight management, training for general practice staff, and tools to assist general practices in implementing weight management services as a quality improvement activity.

Burden of disease

Burden of disease measures the impact of different diseases or injuries on a population. It combines the years of healthy life lost due to living with ill health (non-fatal burden) with the years of life lost due to dying prematurely (fatal burden) to give a total burden reported using the disability-adjusted life years (DALYs) measure[28].

The Western Australian Burden of Disease Study 2015 indicated that the South West region had a rate 1.1 times higher rate of fatal burden and 1.2 times higher rate for non-fatal burden compared to WA's metropolitan regions. The South West region experienced more non-fatal burden than fatal burden whereas other country regions (excluding the Pilbara) experienced more fatal burden than non-fatal burden. The South West has the highest musculoskeletal burden in the state, accounting for 17% of the total burden in the region[28].

Coronary heart disease, COPD and back pain were also among the five leading causes of disease burden, along with suicide/self-inflicted injuries and lung cancer for males[2]:

Leading causes of total disease burden in the South West region		
Condition	**%**	**ASR per 1,000**
Cancer	19%	33.4
Musculoskeletal	17%	32.5
Cardiovascular	12%	22.7
Mental	12%	27.0
Injury	10%	23.0

Potentially preventable hospitalisations for chronic conditions

Potentially preventable hospitalisations (PPHs) are certain hospital admissions (both public and private) that potentially could have been prevented by timely and adequate health care in the community. However, only public hospitals data are reported in this document. Chronic conditions that are classified as potentially preventable through behaviour modification, lifestyle change and timely care: angina, asthma, COPD, congestive cardiac failure, diabetes complications, hypertension and iron deficiency anaemia.

Across the state as reported for 2020/21, the age-standardised rate of PPHs per 100,000 for total chronic conditions was (903) and the highest admission rates for WA were for chronic congestive

cardiac failure (196), chronic obstructive pulmonary disease (184), and chronic diabetes (178)[2]. Relative to other parts of WA, the Manjimup SA3 has a higher rate of total chronic conditions (911 people per 100,000 compared to 903 per 100,000 across WA)[2]. This is driven by higher rates in the Manjimup SA3 compared to WA for chronic asthma (68 vs 57), congestive cardiac failure (207 vs 196), diabetes complications (192 vs 178), chronic hypertension (33 vs 28) and COPD (212 vs 184)[2]. In comparison, the Augusta – Margaret River – Busselton and Bunbury SA3s have lower rates of total chronic conditions relative to the state at 879 and 873 per 100,000, respectively[2]. However, compared to WA, the Augusta – Margaret River – Busselton SA3 has higher rates for chronic asthma (67 vs 57), congestive cardiac failure (232 vs 196) and COPD (213 vs 184)[2]. Similarly, the Bunbury SA3 also has higher rates for Chronic asthma (64 vs 57), chronic hypertension (31 vs 28), chronic iron deficiency anaemia (152 vs 140) and COPD (198 vs 184)[110].

Management of chronic disease in primary care

Across WA, 14% of residents have utilised a GP chronic disease management plan (CDMPs). Residents of the Augusta – Margaret River – Busselton, Manjimup and Bunbury SA3s have comparatively higher utilisation, at 17%, 15% and 14% respectively.

Childhood immunisation rates

The National Immunisation Program (NIP) aims to increase national immunisation coverage to reduce the number of vaccine-preventable diseases in Australia. A key priority of the program is to work towards achieving immunisation coverage rates of at least 95% for children aged 1, 2 and 5 years. Data from the Australian Immunisation Register (AIR) from 1 January 2023 to 31 December 2023 indicated that in the Country WA PHN, childhood immunisation coverage was comparable to the state average for all ages (1, 2 and 5 years), but was still below the 95% target[31]. Approximately 90% of children were fully immunised at 1 year and 92% at 5 years, compared to only 87% at 2 years[32].

The AIR reports that the childhood immunisation rates were below target for all SA3s and all three age groups, with the lowest rates for children aged 2 years[32]. In the South West region, the Augusta – Margaret River – Busselton SA3 had the lowest rates for all age groups, being 84% for children aged 1 year, 83% for children aged 2 years and 88% for children aged 5 years[32]. Although the Bunbury SA3 had the highest rates in the South West region, they were below target at 92% for children aged 1 year, 87% for children aged 2 years and 92% for children aged 5 years[32]. Similarly, the Manjimup SA3 was below target for all age groups, being 88% for children aged 1 year, 87% for children aged 2 years and 91% for children aged 5 years[32]. The lower rate at 2 years overall suggests that interventions should be targeted to increase immunisation coverage for this age group.

Cancer screening

There are three national cancer screening programs in Australia: BreastScreen Australia, National Cervical Cancer Screening Program (NCSP), and National Bowel Cancer Screening Program (NBCSP).

In 2020-21, cancer screening participation rates in the Augusta – Margaret River – Busselton SA3 were above state levels except for cervical cancer screening[33].

About 1 in 2 (48%) eligible residents had participated in bowel cancer screening, above the state level of 42%[33]. Approximately 1 in 2 (52%) had participated in breast cancer screening (compared to 51% across WA), and 2 in 3 (67%) had participated in cervical cancer screening, similar to the state level of 69%[33]. The Bunbury SA3 fell below state levels for cervical cancer screening at 58%, but exceeded state levels for bowel and breast cancer screening at 43% and 52% of eligible residents respectively[33]. Similarly, the Manjimup SA3 also fell below state levels for cervical cancer screening at 57%, but was above state levels for bowel and breast cancer screening at 47% and 55% of eligible residents respectively[33]. These low levels are concerning given that cancer is more prevalent in the Augusta – Margaret River – Busselton and Bunbury SA3s compared to the state and cancer is the leading cause of disease burden in the South West region[28]. Please note, participation in the new five-year program for cervical cancer screening cannot be accurately reported until there are 5 years of data available.

Avoidable mortality

Avoidable mortality refers to deaths of people under 75 years from conditions that are potentially preventable or treatable through primary/hospital care. The rate of avoidable deaths in the Bunbury and Manjimup SA3s exceed the state rate of 117.6 per 100,000 at 135.6 and 129.3 per 100,000 respectively[2]. In comparison, the Augusta –

Margaret River – Busselton SA3 is below state rate at 107.8 per 100,000[2]. The Bunbury SA3 has above state rates for avoidable deaths for all selected causes except cerebrovascular diseases[2]. The Manjimup SA3 has the third highest rate of avoidable deaths from suicide and self-inflicted injuries for people aged 45 to 74 years at 24.9 per 100,000 compared to the state at 16.9 per 100,000[2].

The five leading causes of death and their percentage with respect to all death causes within the South West region are[3]:

Rank	WA	Augusta – Margaret River – Busselton SA3	Bunbury SA3	Manjimup SA3
1	Coronary heart disease (11%)	Coronary heart disease (12%)	Coronary heart disease (10%)	Coronary heart disease (12%)
2	Dementia including Alzheimer's (9%)	Dementia including Alzheimer's (9%)	Dementia including Alzheimer's (8%)	Cerebrovascular disease (5%)
3	Cerebrovascular disease (5%)	Cerebrovascular disease (7%)	Lung cancer (5%)	Dementia including Alzheimer's (5%)
4	Lung cancer (5%)	Lung cancer (4%)	Cerebrovascular disease (5%)	Lung cancer (5%)
5	COPD (4%)	COPD (4%)	COPD (5%)	Land transport accidents (4%)

Women's health: hysterectomy and endometrial ablation

In Australia, heavy menstrual bleeding affects one in four women of reproductive age with many also experiencing pain, fatigue and anxiety. Of women experiencing heavy menstrual bleeding, less than half seek medical treatment and more than 60% are iron deficient[97]. A range of treatment options are available, from oral medication (non-hormonal and hormonal) to the more invasive treatments of endometrial ablation and hysterectomy.

The Australian Commission on Safety and Quality in Health Care recently published a revised Heavy Menstrual Bleeding Clinical Care Standard (2024 June) with an emphasis on informing the patient about her treatment options and potential benefits and risks, and participation in shared decision making based on their preferences, priorities and clinical situation[98]. It notes that hysterectomies for management of heavy menstrual bleeding should only be considered when alternative treatment options are ineffective or unsuitable, or at the patient's request. It also notes that the patient be fully informed of the potential risks and benefits before deciding. Separately, the Women's Health Focus Report maps geographic variation in hysterectomy and endometrial ablation hospitalisation rates, to investigate whether appropriate care is being delivered and improve the range of treatment options available to women experiencing heavy menstrual bleeding.

Hysterectomy is mostly performed for benign gynecological conditions of which heavy menstrual bleeding is one of the most common[97]. Relative to other areas in WA, there are high rates of hysterectomies in the South West region. The Bunbury SA3 has one of the highest rate reported in WA at 358 per 100,000, compared to the state average of 239 per 100,000. The Manjimup SA3 also exceeded the state rate, at 242 per 100,000[97].

Whilst not usually as effective in managing heavy menstrual bleeding as a hysterectomy, endometrial ablation has a shorter recovery period and lower risk of short-term effects[97]. Between 2013-16 to 2019-22, there was a 10% increase in endometrial ablation hospitalisation ASR (non-cancer diagnoses) per 100,000 women aged 15 years and older in WA (164 to 181)[97]. Relative to other parts of WA, the South West has a high rates of endometrial ablation rates per 100,000, with all three SA3s in the region above the state rate[97]. The Bunbury SA3 reported the highest rate in the Country WA region at 393 per 100,000, and has been consistently high over the last ten years[97]. The Manjimup and Augusta – Margaret River – Busselton and SA3s have recorded rates of 308 and 227 per 100,000 respectively[97].

Utilisation of primary care services

GP utilisation in the Augusta – Margaret River – Busselton, Bunbury and Manjimup SA3s are all above state levels, though declined between 2021-22 and 2022-2023[30]. In 2022-23, nearly 9 in 10 residents in the Augusta – Margaret River – Busselton (86%), Bunbury (89%) and Manjimup (86%) SA3s visited a GP; compared to 84% across WA30. This was a reduction from 2021-22 levels, where 92% of Augusta – Margaret River – Busselton and Manjimup residents, and 93% of Bunbury residents had utilised a GP30.

The PHN after-hours program aims to improve access to GP services in the after-hours period, being before 8am and after 6pm weekdays; before 8am and after 12pm Saturday; and all-day Sunday and public holidays, particularly for people at risk of or experiencing homelessness.

A targeted analysis on need, unmet demand and supply indicators was undertaken to assess relative local demand for after-hours care. A Composite Index Score (CIS) was calculated based on the after-hours demand and supply indices, and each SA3 in WA ranked by relative demand from highest to lowest score.

In the Country WA region, there are 146 primary health services open after-hours, contributing 17% of all after-hours primary health services in WA[35]. Primary health services collectively operate for 29 hours weekly per 10,000 population; below the state level of 45 hours. There are 11 Medicare Benefits Schedule after-hours GP services (urgent and non-urgent) claimed per 100 people across WA[35]. The Bunbury SA3 has the highest level of unmet need (CIS=1.36) for after-hours services in WA[35]. It has the highest rate of PPHs for acute and chronic conditions, and the largest population in the Country WA region[35]. In contrast, the Manjimup and Augusta – Margaret River – Busselton SA3s each have a moderate level of unmet need for after-hours services in WA (CIS=-0.01 and -0.23 respectively[35].

Stakeholder consultations further revealed two insights for after-hours primary health care across WA. First, operating after-hours services is not financially viable for most GP practices, with prevalent financial barriers including insufficient MBS incentivisation for after-hours services, financial risk due to unpredictable demand in after-hours patient volume , and workforce constraints due to inability to incentivise staff to work during the after-hours period[35]. Second, the Royal Commission into Aged Care Quality and Safety recommendations have increased demand for after-hours GP care for residential aged care (RAC) providers[35]. The stronger regulation of RACs to ensure older people receive appropriate care relative to their needs has increased the reliance of RACs on GPs, resulting in an increase in the number of calls made by RACs to GPs during the after-hours period due to fear of potential repercussions if the RACs fail to report or respond to medical incidents, irrespective of the severity of the health concern presented[35].

Residents of the Manjimup (7%), Bunbury (6%) and Augusta – Margaret River – Busselton (5%) have greater or similar utilisation of GP health assessments compared to the state (5%)[30]. Please note, these data only include Medicare-subsidised services, and it is not currently possible to obtain data by type of health assessment.

The majority of Medicare-subsidised allied health services are for optometry services, and Medicare-subsidised allied health services only account for a portion of allied health service use in Australia. This is because they are only available to patients with a GP or specialist referral, and exclude non-Medicare subsidised services, such as those provided by Aboriginal health services and other non-government organisations[30].

Medicare-subsidised nurse practitioner services are not heavily used in the region[30]. The latest data reports that 1% of the Bunbury SA3 and Augusta – Margaret River – Busselton SA3 residents have used a nurse practitioner service, below the state rate (3%)[30]. In contrast, the Manjimup SA3 had a higher utilisation rate above the state level at 5%[30].

The nursing and Aboriginal health worker service group consists of Medicare-subsidised services delivered by a nurse practitioner, practice nurse, midwife or Aboriginal health worker[30]. Approximately 1 in 10 (10%) residents in the Manjimup SA3 used a Medicare-subsidised practice nurse/Aboriginal health worker, above the state rate of 7%[30]. There is lower utilisation in the Augusta – Margaret River – Busselton and Bunbury SA3s both at 7%, similar to the state[30].

Access Relative to Need index

The Access Relative to Need (ARN) index measures access to primary health care relative to predicted need and is based on methodology developed by the Australian Institute of Health and Welfare in 2014[36]. The ARN index is based on the following information:

- The location of health services and the populations they serve.
- The number of GP (FTE) working at each location.
- The demographic and socioeconomic characteristics of the population.
- In 2024, WAPHA updated the ARN index to identify areas with a low access to GPs relative to need.

Relative to other areas in WA, there is high access to

GP services across the Great Southern region. Overall, 20% of SA3s across WA have higher access relative to need (ARN) compared to the Augusta – Margaret River – Busselton SA3, 40% of SA3s across WA have higher ARN compared to Bunbury SA3 and 70% of SA3s across WA have higher ARN compared to Manjimup SA3.

Consumer views of accessing GPs

To better understand the experiences of Western Australians experiencing socioeconomic disadvantage accessing primary health care, particularly GPs, when they need it, WAPHA commissioned consumer research in 2021[37].

Most people experiencing socioeconomic disadvantage were able to access a GP when needed. Although 31% of respondents encountered barriers when visiting a GP, 92% had visited a GP in the last year[37]. However, approximately 1 in 10 respondents (11%) had needed a GP on at least one occasion but had not visited one[37]. This was higher among Aboriginal people (22%), people aged 18-39 (20%), those living with disability (16%) and females (15%)[37]. The main reasons these people needed a GP were illness, concerns about mental health, to get a prescription and to help with the management of a long-term health condition[37]. Only 8% of these people sought help from an alternative healthcare professional, such as a pharmacist[37]. A lack of available appointments was the main reason for not seeing a GP when needed, cited by nearly half (43%) of this group[37]. A further 25% reported a lack of time and other commitments, while 16% felt afraid of being judged[37].

Among the full sample, the most common reason to visit a GP was to get a prescription (53%), followed by managing a chronic condition (28%) and general check-up (25%)[37].

Accessibility factors such as appointment availability were the most cited barrier to accessing a GP, followed by transportation issues and conflicting commitments[37]. Women, people with young children, young people, people from multicultural communities, people living with a disability and Aboriginal people were most likely to experience barriers[37].

Cost did not appear to play a large role in limiting access to a GP, with only 1 in 10 (10%) mentioning it as a barrier[37]. This finding is attributed to over 80% of the survey cohort indicating that their GP service was bulk billed. If the availability of bulk billed appointments decreased this would seriously impact access to a GP for people experiencing social and economic disadvantage.

The benefit of having a regular GP to the quality of a patient's experience was clear. Respondents with a regular GP reported finding it significantly easier to visit their GP and were significantly more likely to have had a positive experience, even compared to those with a regular GP practice, but not a regular GP[37].

Nearly 9 in 10 (87%) prefer attending a GP appointment in person but 2 in 3 (67%) would be comfortable with a telehealth appointment under some circumstances, such as for follow-up appointments[37].

Workforce

General practitioners

Accurate, up-to-date general practitioner full-time equivalent (GP FTE) figures are unavailable, so the Department of Health and Aged Care comprised a proxy measure which calculates a GP's workload based on MBS services claimed, with one GP FTE representing a 40-hour week over 46 weeks of the year. For each Medicare provider, the new measure attributes an estimate of the amount of time they have spent on their claims in relation to what would be worked by a full-time GP (billable time, non-billable time, and non-clinical time). It is an estimation of GP workforce service utilisation and not an exact count of GP FTE available. For this report, we will refer to this measure as the GP Claimed Service Equivalent (GPCSE).

Based on the latest data, the Augusta – Margaret River – Busselton SA3 has 113 GPCSE per 100,000 residents, the Bunbury SA3 has 118 GPCSE per 100,000 and the Manjimup SA3 has 103 GPCSE per 100,000[38]. Each of these are above the state rate of 102 per 100,000[38].

In addition to their normal remuneration, GPs can access additional financial incentives based on how remote the location in which they work is. Areas are classified from metropolitan through to rural, remote and very remote. Compared to other areas in WA, Collie (within the Bunbury SA3), Bridgetown and Manjimup catchments (both within the Manjimup SA3) are noted as having moderate need for GP workforce[39]. The lack of housing availability in Bridgetown has been reported as a significant barrier to workforce recruitment[39].

Collie catchment has a relatively moderate need for GP workforce, with two local general practices and

the ability to accept GP registrars immediately[39]. Nearly 9 in 10 residents are experiencing socioeconomic disadvantage, with 87% in the most disadvantaged quintiles in WA[39].

Bridgetown catchment has a relatively moderate need for GP workforce, with three local general practices and the ability to accept GP registrars immediately[39]. About 2 in 3 residents are experiencing socioeconomic disadvantage, with 64% in the most disadvantaged quintiles in WA[39].

Manjimup catchment has a relatively moderate need for GP workforce, with three local general practices and the ability to accept GP registrars immediately[39]. Nearly 9 in 10 residents are experiencing socioeconomic disadvantage, with 87% in the most disadvantaged quintiles in WA[39].

Boyup Brook and Pemberton catchments have no viability to support an increase in workforce due to small population sizes[39].

Primary care nurses

The Manjimup and Augusta – Margaret River – Busselton SA3s both have a relatively low supply of primary care nurses at 129 and 181 full-time equivalent (FTE) per 100,000 residents respectively[38]. Each of these are below the state rate of 251 FTE per 100,000[38]. In comparison, the Bunbury SA3 has a higher supply at 262 FTE per 100,000[38].

Aged care

The South West region has a large and growing aged population, especially in the Manjimup SA3[2]. In 2022, there were 13,191 people aged 65 years and over in the Augusta – Margaret River – Busselton SA3, 21,101 in the Bunbury SA3 and 6,209 in the Manjimup SA3, representing 22%, 19% and 25% of the population respectively[2]. This is projected to increase to 23% in the Augusta – Margaret River – Busselton SA3, 22% in the Bunbury SA3 and 30% in the Manjimup SA3 by 2030 compared to 18% across the state and 20% across Country WA PHN[2].

Age is an important determinant of health and people aged 65 years and over are more likely to have complex and/or chronic conditions as well as comorbidities. Moreover, geriatric syndromes later in life (usually after the age of 85 years) including pressure ulcers, incontinence, falls, and delirium have substantial implications for quality of life as well as health care utilisation[40].

The Western Australian Burden of Disease Study 2018 reported that the five leading causes of disease burden for older people aged 65 to 84 years were coronary heart disease, COPD, lung cancer, dementia and type 2 diabetes mellitus[27]. For older people aged 85 years and over, dementia was reported as the leading cause of total burden of disease[27].

The 2021 Census reported that 10% of Western Australians aged 65 years and older have three or more long-term health conditions[41]. This was similar in the Bunbury, Manjimup and Augusta – Margaret River – Busselton SA3s, with 11%, 9% and 8% of residents aged 65 years and older living with three or more long-term health conditions[41].

Approximately 3 in 5 (59%) general practice patients aged 65 years or older were diagnosed with three or more chronic conditions across WA[20]. The Augusta – Margaret River – Busselton SA3 has the third highest proportion in the Country WA PHN with nearly 2 in 3 (63%) diagnosed with three or more chronic conditions[20]. Similarly, about 3 in 5 patients aged 65 years or older are diagnosed with three or more chronic conditions in Manjimup (62%) and Bunbury (58%) SA3s[20]. Please note that these data include private general practices only and do not include GP services provided by non-government organisations[20].

Utilisation of health services

Across WA, approximately 2 in 5 (39%) of people aged 80 years and over had a GP Health Assessment in 2022-2023[30].

In residential aged care homes (RACHs) there were 15.5 GP attendances per patient across WA[30]. The rate in the Country WA PHN overall was similar at 15.0 attendances per patient[30].

Medicare items are available for in-depth assessment of a patient 75 years and over. This provides a structured way of identifying health issues and conditions that are potentially preventable or amenable to interventions to improve health and quality of life. General practice data indicate that approximately 1 in 4 (28%) of patients aged 75 years and over across WA have had a GP health assessment[42]. The Augusta – Margaret River – Busselton, Bunbury and Manjimup SA3s each have above state rates at 32%, 36% and 32% respectively[42].

The Royal Commission into Aged Care Quality and Safety noted that people receiving aged care, particularly those in residential aged care, do not

consistently receive the health care they need. This includes doctor visits, mental health services, oral and dental health care, and preventative and holistic care[43].

Palliative care

The goal of palliative care is to improve the quality of life of patients with an active, progressive disease that has little or no prospect of a cure[44].

Most Australians would prefer to die at home, rather than in hospital or residential aged care[45]. However, many older people use both hospital and aged care services in their final years of life and often die in one of these settings[44].

The Royal Commission into Aged Care Quality and Safety made key recommendations for palliative care, including[43]:

- Compulsory palliative care training for aged care workers.
- Comprehensive sector funding specifically including palliative care and end-of-life care.
- A review of the Aged Care Quality Standards to regulate high-quality palliative care in residential aged care.
- Access to multidisciplinary outreach services; and A new Aged Care Act that includes the right to access palliative care and end-of-life care.

From 1 October 2022, a new funding model, the Australian National Aged Care Classification (AN-ACC) has replaced the Aged Care Funding Instrument (ACFI). The AN-ACC provides equitable funding through three components, to approved residential aged care providers based on the service type delivered and each residents' care needs.

Primary Health Networks will receive funding from the Greater Choices for At Home Palliative Care program to improve palliative care coordination in their local communities.

In 2022, there were 27.7 total full-time equivalent (FTE) palliative medicine physicians and 333.2 FTE palliative care nurses employed in WA[46, 47]. Whilst it is recognised that the palliative care workforce is made up of a broad range of professional groups including other medical specialists and allied health professionals, the existing national data sources cannot accurately capture information on palliative care services provided by these health professionals, hence have not been reported.

Palliative care nurses across WA are working 65.0 total weekly hours per 1,000 patients aged 75 and over[46]. The rate is similar in the Augusta – Margaret River – Busselton SA3, and below state levels in the Manjimup SA3 at 63.7 and 49.7 total weekly hours per 1,000 aged 75 and over respectively[46]. In contrast, the Bunbury SA3 has above state rates at 113.7 weekly hours per 1,000[46]. Palliative medicine physicians across WA are working 5.7 total weekly hours per 1,000 aged 75 and over[47]. The Bunbury SA3 has above state levels at 9.3 total weekly hours per 1,000 aged 75 and over[47]. Data was not provided for the Augusta – Margaret River – Busselton and Manjimup SA3s because there were no palliative medicine physicians working in either region as a primary location[47].

Aged care services

The aged care system in Australia offers three main types of service: the Commonwealth Home Support Programme, Home Care Packages, and residential care. Across Australia, more than two-thirds of people using aged care services access support from home[48].

Commonwealth Home Support Programme

The Commonwealth Home Support Programme (CHSP) provides entry-level support for older people so that they can continue to live independently at home. For FY 2022-2023 in WA, domestic assistance had the highest number of clients serviced and had the highest expenditure; however, social support group had the highest amount of services provided by hours[49].

Home Care Packages program

The Home Care Packages (HCP) program provides structured support to older people with complex needs to help them live independently in their own home. Support provided includes help with household tasks, equipment, minor home modifications, personal care, and clinical care such as nursing and allied health services. There are four levels of HCPs from level 1 (basic care needs) to level 4 (high care needs). Across Australia, wait times for approved HCPs range from 3-6 months for level 1 to at least 12 months for level 2 and above[49].

There are currently five home care services in the Augusta – Margaret River – Busselton SA3 provided by Capecare, Life Without Barriers and Southern Cross Care (three services)[50]. In the Bunbury SA3, there are 18 home care services provided by Acacia Living Group, BaptistCare, Bethanie, Community

Home Care, Country Mile Home Care, Life Without Barriers, Morrisey Homestead, Pam Corker House, Riverview Residence, Silver Chain, South West Community Care and SWAMS. In comparison, there are only two services in the Manjimup SA3 provided by Life Without Barriers and the Shire of Manjimup[50]. As at December 2023, there were 1,321 people in an HCP in the South West Aged Care Planning Region (ACPR) and a further 303 people waiting for an HCP at their approved level[49].

WA has 249 residential aged care services with a total of 19,887 residential places[51]. Despite there being a high proportion of elderly population, there is a low beds-to-population ratio in the South West region[51]. The Augusta – Margaret River – Busselton SA3 has a low beds-to-population ratio with five residential aged care (RAC) services at 50 beds per 1,000 people aged 70 years and over; below the state rate of 64 per 1,000[51]. Similarly, the Bunbury (10 RAC services) and Manjimup (four RAC services) SA3s also have below state rate at 56 and 33 beds per 1,000 people aged 70 years and over[51].

The Augusta – Margaret River – Busselton SA3 has a relatively low supply of nurses working in aged care at 11.9 FTE per 1,000 people aged 70 years and over, similarly Bunbury and Manjimup SA3s also have a relatively low supply at 10.6 FTE and 10.5 FTE per 1,000 people aged 70 years and over[38]. This compares to 12.2 FTE per 1,000 across WA[38].

Alcohol and other drugs

Alcohol and drug use is a significant issue in the Augusta – Margaret River – Busselton and Bunbury SA3s. Nearly 1 in 3 residents (32% in both areas) are at risk of long-term harm from alcohol, significantly higher than the state rate of 26%[24]. In the Bunbury SA3, levels of short-term alcohol harm (14%) and high risk alcohol consumption (47%) are also significantly higher than state rates (10% and 33% respectively)[24]. The proportion of smokers in the Augusta – Margaret River – Busselton (13%) and Bunbury (12%) SA3s are not significantly higher than the state (11%)[24].

In comparison, risky drinking is less of an issue in the Manjimup SA3[24]. It is below or similar to state levels for long-term (25%) and short-term (11%) alcohol harm and smoking (15%)[24].

Using WAPHA's new method of estimating condition prevalence from general practice data, compared to state rates, patients in Augusta – Margaret River – Busselton and Manjimup SA3s have statistically significantly higher rates of clinician-diagnosed chronic alcohol misuse (2.1% and 2.5%)[20]. Clinician-diagnosed rates of chronic drug misuse is significantly higher in the Augusta – Margaret River – Busselton (1.6%), Bunbury (1.5%) and Manjimup (1.8%) SA3s[20].

AOD burden of disease

WA Burden of Disease Study 2015 has the latest regional recording for risks associated with burden of disease for the Southwest region.

Tobacco use contributed to 23% of cancer burden and 9% of cardiovascular disease with people aged 45-64 years having the highest risk of burden[52]. Men (10%) in the South West region also had a high risk of disease due to tobacco use compared to women (9%)[52].

Alcohol contributed to the burden of 15% of mental and substance use disorders, 4% of cancer and 3% of cardiovascular disease[52]. The 15–24-year age group had the greatest risk of alcohol leading to disease[52].

Illicit drug use made the highest contribution to burden of disease for males and females aged 25-44 years[52]. Illicit drugs contributed to 12% of mental and substance use disorders and 0.2% of cancer in the South West region[52].

Accidental overdose

Australia's Annual Overdose Report, produced by the Penington Institute, reported an increase in unintentional drug-induced (accidental poisoning) deaths in WA from 2004 (2.7 per 100,000) to 2021 (8 per 100,000) suggesting that drug use is a growing health concern[53]. Of this, males account for two thirds (70.5%) of unintentional drug-induced death compared to women[53]. People aged 40-49 had 455 (27.2%) unintentional drug-induced deaths in 2021 and were found to be the most at-risk age bracket[53].

In 2021, opioids continued to be the largest overall drug group identified in unintentional drug-induced deaths in 2021 (45.7%), followed by benzodiazepines (32.5%) and anti-depressants (19.3%)[53].

WA had the second highest rate of heroin death in 2021 with 1.5 deaths per 100,000. This corresponds with higher rates of death for other opioids such as fentanyl/pethidine/tramadol in 2021 (0.8 deaths per 100,000)[53]. There has also been an increase in deaths involving benzodiazepines in WA from 2013 to 2021 (1.1 to 3 deaths per 100,000), and

stimulants such as methamphetamine and amphetamines (1.3 to 3 deaths per 100,000)[53].

Between 2017 – 2021, there were 21 unintentional drug-induced deaths in the Augusta – Margaret River – Busselton SA3 and 54 in the Bunbury SA3, equating to rates of 7.4 and 10.0 per 100,000 people respectively; these compare to the state average of 8.0 per 100,000[53]. In contrast, unintentional drug-induced deaths were less of an issue in the Manjimup SA3, which was below the state rate at 2.10 per 100,000; representing 2 deaths[53].

Hepatitis B and C

Hepatitis B and C are bloodborne viruses. Hepatitis B is spread between people by body fluids while hepatitis C is spread through blood-to-blood contact [54] and is commonly spread through unsafe injecting practices. Untreated hepatitis B and C can lead to liver disease (including cirrhosis), liver cancer and death[55].

Since 1982, a vaccine has been developed for hepatitis B with the recommendation that babies and adolescents are vaccinated[54]. Currently there is no vaccination available for hepatitis C, although antiviral treatment is available. Treatment is now more than 95% effective at curing hepatitis C and available to most people via prescription from their GP[54, 56].

In WA, notifications of hepatitis B and C have been declining. Between 2017 and 2023, notification rates of hepatitis B have slightly reduced from 21 to 18 notifications per 100,000[56]. Hepatitis C notification rates decreased (from 62 to 47 notifications) between 2004 and 2017 and has continued to decrease with 32 notifications per 100,000 people in WA in 2023[57].

The proportion of people with chronic hepatitis B (CHB) in the Augusta – Margaret River – Busselton, Bunbury and Manjimup SA3s is below the state rate of 0.8%, at 0.3%, 0.4% and 0.4% respectively[58]. However, the treatment uptake in the Augusta – Margaret River – Busselton (5%) and Bunbury (5%) SA3s are below the state levels of 9%[58]. Treatment uptake is suppressed for the Manjimup SA3 due to low numbers[58].

Chronic hepatitis C (CHC) levels in the South West region are similar to the state rate of 0.7%, with 0.8% in all three SA3s[59]. The CHC treatment uptake was 39% in the Bunbury SA3, below that of the state level of 42%[59]. In comparison, the treatment uptake was above state level at 46% in the Augusta – Margaret River – Busselton SA3 and 55% in the Manjimup SA3[59].

Alcohol and other drug services

Reported statistics on alcohol and other drugs (AOD) treatment show that across the Country WA PHN, 412.57 per 100,000 people understood treatment during the 2022-2023 period[60]. Alcohol treatment represented more than half (53%) of the drug of concerns, followed by cannabis (23%) and amphetamines (18%)[60]. Men make up nearly two thirds of clients (64% vs. 36%), with 30–39-year-olds (28%) making up the largest age group of clients[60].

Drug and Alcohol services are provided by not-for-profit organisations including services funded by the Mental Health Commission in the South West region[61]. The South West Community Alcohol and Drug Service in Bunbury (St John of God Health care) provides outreach services to Manjimup, Bridgetown, Collie, Busselton and Margaret River.

The South West Substance Service delivers services to marginalised young people in Bunbury. Peer Based Harm Reduction WA, based in Bunbury, provides the Needle and Syringe Exchange Program (NSEP) and operates a mobile exchange van in Margaret River, Busselton, and Manjimup. Doors Wide Open, also based in Bunbury, provides access to resources and services to help people recover from addiction. Cyrenian House operates the Nannup Therapeutic Community, a residential program with an emphasis on social learning and mutual self-help to address addiction issues in a holistic way. Palmerston provides the Beela Valley Therapeutic Community which is a residential rehabilitation centre for AOD issues in Bunbury and Hope Community Services offers the Alcohol and other Drug Counselling in Dunsborough. WAPHA commissions the South West Aboriginal Medical Service Mental Health and AOD Service to address needs of Aboriginal people in the South West. It should be noted that there is a lack of services based in Augusta and the surrounding suburbs.

Mental health

Mental health was the fourth leading cause of disease burden in the South West region contributing 12% to the total disease burden for the region[24]. Across the South West region, 51,578 community mental health occasions of service were recorded, with females accounting for 54% of the total figure[52]. Women in the South West region were impacted by anxiety (5%) while suicide and self-

inflicted injuries contributed to the disease burden for men (5%)[28].

Approximately 1 in 9 residents in the Augusta – Margaret River – Busselton SA3 report that they have been diagnosed with anxiety (11%), depression (10%) and high or very high psychological distress (12%)[63]. The prevalence of anxiety, depression and proportion experiencing psychological distress is similar to state levels at 12%, 11% and 13% across WA[24]. In comparison, the prevalence of anxiety and depression is above state levels in Bunbury (14% and 12%) and Manjimup (12% and 11%) SA3s[63]. The proportion of population experiencing psychological distress is above state levels in the Bunbury SA3 (14%); and below state level in the Manjimup SA3 (10%)[63].

Using WAPHA's new method of estimating condition prevalence from General Practice Data, rates of clinician-diagnosed depression were statistically significantly higher in Augusta – Margaret River – Busselton (7.9%) and Manjimup (9.2%) SA3s, and Anxiety was statistically significantly higher in the Manjimup SA3 (5.6%)[20]. Diagnoses of mixed Depression and Anxiety are included in both disease estimates[20].

Suicide and self-harm

From 2018 to 2022, 1,919 people sadly died from suicide in WA; a rate of 14.1 people per 100,000 people and above the national rate of 12.3 per 100,000. In WA, suicide represents 3% of all deaths and is the ninth leading cause of death[65].

Suicide in all three SA3s in the South West region are above state levels at 17.2 people per 100,000 in Augusta – Margaret River – Busselton SA3, 16.1 per 100,000 in the Bunbury SA3 and 18.9 per 100,000 in the Manjimup SA3[3]. In Augusta – Margaret River – Busselton SA3, suicide is the 8th leading cause of death, representing 3% of all deaths between 2017-2021[65]. In the Bunbury SA3, suicide is the 10th leading cause of death, representing 2% of all deaths between 2017-2021[65]. In the Manjimup SA3, suicide is the 13th leading cause of death, representing 3% of all deaths between 2017-2021[65].

The Health and Wellbeing Surveillance Survey collects data on suicidal ideation among adults aged 16 years and over[24]. In the Augusta – Margaret River – Busselton SA3, 1 in 20 (5%) indicated that they had thought seriously about ending their own lives, below the state rate of 7%[24]. Similarly, suicidal ideation in the Bunbury (7%) and Manjimup (6%) SA3s are also below or equal to the state rate[24].

Self-harm is a strong risk factor for suicide. At a rate of 134.8 per 100,000 residents, hospitalisations for self-harm in the Manjimup SA3 is above the state level (97.9 per 100,000) [65]. Self-harm is less of a concern in Augusta – Margaret River – Busselton and Bunbury SA3s, both below state rates at 79.4 and 94.3 per 100,000 residents[65].

Youth mental health

Primary mental health care services play an important role in prevention and early intervention efforts reduce the prevalence and impact of mental health problems amongst young people[66, 67]. Approximately 1 in 7 young people aged 4-to-17-years experience mental illness in any given year[68], and 75% of severe mental health problems emerge before the age of 25. Early intervention in childhood and adolescent years can prevent or mitigate potentially lifelong mental illness[69].

A recent survey of WA school children found that mental health was a critical issue with a substantial number of Year 7 to 12 students reporting poor life satisfaction, low self-esteem, high levels of stress and the feeling they can't cope with life's challenges[69]. Approximately 1 in 4 (26%) female year 7 to 12 students rate their life satisfaction as 0 to 4 with '0' being the worst possible life. This was double the proportion of males who felt the same (13%)[67].

Self-harm is approximately twice as high in females compared with males, and in older adolescents compared with younger adolescents[67]. Females aged 16-17 years have the highest rates of self-harm, with 17% having engaged in an act of self-harm[67].

In WA, mental health services for young people are provided through general practice, the public mental health system (such as the Child and Adolescent Mental Health Service), not-for-profit organisations (headspace) and private providers such as psychologists.

Hospital EDs also play a role in treating mental illness. People seek mental health-related services in EDs for a variety of reasons, often as an initial point of contact or for after-hours care[70]. Between July 2022 and June 2024, 6,780 Western Australians aged 12-17 years presented to hospital EDs for mental-health related reasons; a rate of 370 per 10,000 people aged 12-17 years[71].

Compared to other areas in WA, youth mental health is a significant concern in the South West region[71]. All three sub-regions, Augusta – Margaret River – Busselton, Bunbury and Manjimup SA3s have Mental Disorder-related ED presentations above state rates, at 517, 421 and 452 per 10,000 12-17 year-olds compared to 370 per 10,000 across WA[71].

headspace centres and services support young people across Australia to be mentally health and engaged in their communities[72]. There are three headspace centres in the South West region, based in Bunbury, Busselton and Margaret River[72]. The Augusta – Margaret River – Busselton SA3 has one of the highest utilisation levels at 6% of residents aged 12-25; above the state level of 2%[73]. Similarly, utilisation in the Bunbury SA3 is above the state level at 5%[73]. In comparison, Manjimup SA3 is similar to the state level at 2%[73]. Each patient's episode of care comprised of an average of 4.2 occasions of service (i.e. interactions with the service or a mental health worker) in the Augusta – Margaret River – Busselton SA3, 3.7 in the Bunbury SA3 and 3.2 in the Manjimup SA3; comparable to the WA average of 4.2[73].

The Australian Youth Self-Harm Atlas (AYSHA) reports that while the overall prevalence of suicidality (suicidal thoughts or behaviours, including ideation, plans, and attempts) in Augusta – Margaret River – Busselton (7%), Bunbury (7%) and Manjimup (6%) SA3s are below the state rate of 8%, the specific prevalence rates of self-harm (regardless of intent) for all three SA3s are above the state proportion of 10%[74]. Furthermore, the prevalence of suicidal ideation in both Augusta – Margaret River – Busselton and Bunbury SA3s are 8% respectively, above the state proportion of 7%[74].

Note: AYSHA provides synthetic estimates—modelled figures derived from statistical techniques that combine survey and population data—to estimate the prevalence of suicidality, self-harm, and experiences of anxiety and depression among young people aged 12 to 17. These estimates are used instead of direct data to provide meaningful insights at smaller geographic levels where sample sizes are too limited for reliable measurement.

In the South West region, anxiety disorders are the 2nd leading cause of disease burden for 15 to 24-year-olds, contributing to 7% of the disease burden for this age group[52]. Major depression and anxiety disorders are risk factors associated with higher self-harm prevalence among 12 to 17-year-olds[52]. The proportion of 12 to 17-year-olds experiencing major depression or anxiety disorders in Augusta – Margaret River – Busselton (8%), Bunbury (9%) and Manjimup (6%) SA3s are below or similar to the state proportion at 9% across WA[52].

Hospital admissions for self-harm can be an indication of unmet need for accessible mental health services It is concerning to note that self-harm hospitalisations among people aged 0-24 years in the Manjimup SA3 is the highest in the state at 253.0 per 100,000[111]. The Augusta – Margaret River – Busselton and Bunbury SA3s are also above the state rates at 167.8 and 146.0 per 100,000 compared to 139.7 per 100,000 across WA.

Mental health services

Mental health services in the South West region are provided by organisations including the WA Country Health Service (WACHS) and not-for-profit organisations. There are approximately 32 mental health services in the region, 12 of which have dedicated youth services[61]. The WACHS operates:

- The Child and Adolescent Mental Health Service (CAMHS) based in Bunbury and Busselton with outreach services provided at Bridgetown and Margaret River.
- The Youth Mental Health Service in Bunbury and Busselton with outreach services provided at Bridgetown, Harvey, Collie and Margaret River.
- The Adult Community Mental Health Services based in Bunbury and Busselton with outreach services provided at Bridgetown, Harvey and Collie.
- The Bunbury Step Up Step Down (SUSD) short-term residential mental health recovery support service (in partnership with Richmond Wellbeing).
- The Older Adult Mental Health Service based in Bunbury with outreach services provided at Bridgetown, Busselton, Collie and Margaret River.
- Specialised Aboriginal mental health services based in Bunbury, Busselton, Bridgetown, and Margaret River.

The South West Aboriginal Medical Service (SWAMS) also provides mental health programs for Aboriginal patients. There are currently three headspace centres located in Bunbury, Busselton and Margaret River.

A GP mental health treatment plan can be used to refer patients to psychiatrists, psychologists, counsellors, social workers and occupational therapists. In the Augusta – Margaret River – Busselton , Bunbury and Manjimup SA3s, 9%, 7% and 8% have accessed a GP mental health treatment plan in each area respectively; similar to the state level of 8%[76].

There are low numbers of mental health professionals such as psychiatrists, mental health nurses and psychologists in regional and remote areas[77]. The rate of psychologists per 10,000 people in both the Bunbury and Manjimup SA3s, is below the state rate, at 6.2 and 3.8 respectively, compared to 13.2 per 10,000 across WA[77]. In both areas, around 1% of residents accessed a clinical psychologist, compared to 2.2% across WA[76]. In comparison, the Augusta – Margaret River – Busselton SA3 is similar to the state at 13.8 psychologists per 10,000 residents[77] and 2.3% of the residents accessed a clinical psychologist[76].

Aboriginal health

An estimated 7,027 Aboriginal people reside in the South West region[2]. The South West Aboriginal community is one of the largest Aboriginal cultural blocks in Australia with approximately 14 distinct language groups including the Wardandi and Bibulmun/Piblemen Noongar language or dialectical groups[95].

Aboriginal people are dispersed throughout the 12 Local Government Shires that comprise the South West region[80]. The 2021 Census reports that Aboriginal people comprise 4% of the population in the City of Bunbury, 2% in the City of Busselton, 1% in the Shire of Augusta — Margaret River, 2% in the Shire of Boyup Brook, 2% in the Shire of Bridgetown-Greenbushes, 3% in the Shire of Capel, 4% in the Shire of Collie, 3% in the Shire of Dardanup, 3% in the Shire of Donnybrook-Balingup, 3% in the Shire of Harvey, 3% in the Shire of Manjimup and 3% in the Shire of Nannup[80].

The Aboriginal people in the South West region, spanning the Indigenous Areas (IAREs) of Bunbury, Busselton, Harvey and Surrounds, Manjimup – Denmark – Plantagenet, Murray – Waroona – Boddington and South-West, experience moderate levels of socioeconomic disadvantage in WA and are impacted by poor health outcomes[18]. The Indigenous Relative Socioeconomic Outcomes (IRSEO) index reflects the level of socioeconomic disadvantage experienced by Indigenous Australians living in each IARE in Australia. Aboriginal people in Bunbury IARE experience the highest level of disadvantage in the South West region with an IRSEO score of 72, compared to 51 for WA overall[18]. A higher IRSEO score indicates a greater level of socioeconomic disadvantage for the region. In contrast, Aboriginal people in the Manjimup – Denmark – Plantagenet (45), South-West (35), Harvey and Surrounds (32), Murray – Waroona – Boddington (30) and Busselton (29) IAREs experience less disadvantage compared to other Aboriginal people in WA[18].

Unemployment is higher in Bunbury and Murray – Waroona – Boddington IAREs with an estimated 17% of Aboriginal residents without work in both areas respectively, this compares to 16% across WA[18]. The other four IAREs have proportions below the state level[18]. Compared to other areas in WA, the IAREs in the South West region experience better housing sustainability, with a lower proportion of households requiring extra bedrooms to accommodate residents[18]. However, there is a high proportion of low income households in the Manjimup – Denmark – Plantagenet (64%), Bunbury (60%) and Busselton (55%) compared to the state proportion of 54%[18].

There is an average participation rate in full-time secondary education at age 16 of 65% across WA[18]. Participation rates in the Harvey and Surrounds, South-West and Murray – Waroona – Boddington IAREs are below state levels at 63%, 56% and 53% of Aboriginal people aged 16 participating in full-time secondary school education[18].

Aboriginal children in the South West region are also impacted by disadvantage[18]. About 68% of Aboriginal children in Bunbury and 61% in Harvey and Surrounds IAREs were developmentally vulnerable in one or more domains, this compares to 41% of Aboriginal children across WA[18]. In Manjimup – Denmark – Plantagenet IARE, 43% of Aboriginal mothers smoked during pregnancy and 17% of Aboriginal babies were born with a low birthweight. These rates are higher than WA rates at 41% and 13% respectively[18].

Child immunisation

A key priority of the National Immunisation Program Schedule is to work towards achieving immunisation coverage rates of at least 95% for children aged 1, 2 and 5 years. The Bunbury IARE met immunisation rate targets for 1- and 2-year-olds at 97% and 98% respectively, but recorded rates below target for 5-year-olds (88%)[18]. The Busselton IARE recorded

below target for 2-year-olds at 54% but met the target for 5-year-olds at 100%[18]. Similarly, both the Harvey and Surrounds and Manjimup – Denmark – Plantagenet IAREs recorded 100% immunisation rate for 1-year-olds[18]. The South-West IARE recorded rates below target for 1- and 2-year-olds at 83% for both but met target rates for 5-year-olds at 100%[18]. Rates for Murray – Waroona – Boddington IARE and some age groups for other IAREs were suppressed due to low numbers[18].

Lower urgency emergency department presentations

High rates of lower urgency emergency department (ED) attendances can be indicative of a gap in primary healthcare services, however in the South West region this is not a significant area of need compared to other parts of WA. Lower urgency ED presentations by Aboriginal people in the Augusta – Margaret River – Busselton, Bunbury and Manjimup SA3s are all below state levels, at 4,032, 2,688 and 3,865 per 10,000 Aboriginal people respectively, compared to 6,167 per 10,000 across WA[18].

Avoidable deaths by selected causes

Avoidable deaths data is suppressed for a number of IAREs due to low numbers. Based on the available data, there were 292.3 avoidable deaths per 100,000 across WA among Aboriginal people aged 0 to 74 years in the 2017-2021 period[18]. When looking at Aboriginal deaths from all avoidable causes in total, all IAREs in the South West region had rates below the state level[18]. Data for avoidable deaths related to specific conditions is insufficient for all six IAREs[18].

Median age at death

Compared to other parts of WA, the median age of death for Aboriginal people in the South West region is young. The median age for WA overall is 58 years – significantly below that of non-Aboriginal people at 80 years – however across the South West region three of six IAREs are below or equal to the Aboriginal state median[18]. Harvey and Surrounds has the lowest median age of death at only 56 years, followed by South-West and Murray – Waroona – Boddington (each at 57 years)[18]. Manjimup – Denmark – Plantagenet IARE was equal to the state median at 58 years and both Bunbury (62 years) and Busselton (71 years) IAREs exceed the state median[18].

Potentially preventable hospitalisations

The average annual rate of total PPHs per 100,000 for Aboriginal people are below state levels for all IAREs in the South West region. Across WA, there were 6,264 PPH admissions per 100,000 for Aboriginal people from 2017/18 to 2020/21[18]. In the South West region, the rate ranged from 2,281 to 4,631 per 100,000[18]. Bunbury (4,631) has the highest rate followed by Harvey and Surrounds (3,266), South-West (3,035), Manjimup – Denmark – Plantagenet (2,974), Busselton (2,375) and Murray – Waroona – Boddington (2,282)[18]. It is encouraging to note that none of the IAREs in the South West region had higher rates of PPHs due to total chronic conditions above the state.

Chronic conditions that are classified as potentially preventable through behaviour modification, lifestyle change and timely care: angina, asthma, COPD, congestive cardiac failure, diabetes complications, hypertension and iron deficiency anaemia[82].

The following rates for PPHs due to specific chronic conditions within South West region exceeded state rates:

- Chronic asthma: Bunbury (219 per 100,000) compared to 192 per 100,000 across WA[18].
- Chronic congestive cardiac failure: Bunbury (466 per 100,000) compared to 405 per 100,000 across WA[18].

Chronic diabetes complications: Harvey and Surrounds (602 per 100,000) compared to 547 per 100,000 across WA[18].

Chronic iron deficiency anaemia: South-West (419 per 100,000) compared to 208 per 100,000 across WA[18].

Chronic COPD: Bunbury (703 per 100,000) compared to 608 per 100,000 across WA[18]

Acute PPHs relate to conditions that usually come on suddenly, and may not be preventable, but may not have resulted in hospitalisation if timely and adequate care was received in the community)[82]. PPHs for total acute conditions did not exceed state rate for any IAREs in the South West region except for the following specific acute conditions:

- Acute convulsions and epilepsy: Harvey and Surrounds (530 per 100,000) and Manjimup – Denmark – Plantagenet (469), compared to 460 per 100,000 across WA[18]
- Acute dental conditions: Bunbury (499 per

100,000) compared to 431 per 100,000 across WA[18]

Vaccine-preventable PPHs are hospitalisations due to conditions that can be prevented by vaccination[82]. PPHs for total vaccine preventable conditions also did not exceed state rate for any IAREs in the South West region[18]. Data was suppressed for Manjimup – Denmark – Plantagenet and Murray – Waroona – Boddington IAREs.

Primary Care Service Access

Aboriginal and Torres Strait Islander people can access specific services aimed at Closing the Gap in health outcomes. It is important that General Practices ask all patients if they identify as Aboriginal and/or Torres Strait Islander. This assists with ensuring patients are provided with the option of accessing information and services specifically designed to meet their needs.

Through Medicare, Aboriginal and Torres Strait Islander people can receive Aboriginal-specific health checks from their doctor, as well as referrals for Aboriginal-specific follow-up services. In March 2020, telehealth items for Aboriginal Health Checks were introduced in response to COVID-19 and associated restrictions[83].

In 2021-22, the proportion of the Aboriginal people that received an Aboriginal Health Check was 23% in Country WA PHN compared to 22% across WA[83]. Nationally, face-to-face Aboriginal Health Checks was the preferred method compared to telehealth[83].

Aboriginal people living in the South West region can access primary care services through general practice, Aboriginal Community Controlled Health Services, integrated team care (ITC) programs and the hospital sector.

The Integrated Team Care (ITC) program supports Aboriginal people living with complex chronic conditions to access healthcare and funds teams of Aboriginal and Torres Strait Islander health project officers, outreach workers and care coordinators. In the South West region, the two ITC service providers are the South West Aboriginal Medical Service (SWAMS) and GP Down South by Down South Aboriginal Health (DSAH).

The SWAMS is an Aboriginal Community Controlled Health Organisation that provides community health services to Aboriginal people across the South West region. The SWAMS is based in Bunbury with outreach clinics providing services at Brunswick, Busselton, Collie, Eaton, Harvey and Manjimup.

GP Down South provides ITC services in Manjimup and Collie.

Digital Health

Digital health includes a broad range of innovative technologies for the purposes of providing care and sharing information to enhance patient outcomes. Services include mobile health applications (Medicare Online, COVID check-in apps), electronic prescribing, electronic health records (My Health Record) and telehealth/telemedicine[85].

Australia-wide, the volume of My Health Record entries containing data had a growth of 520,000 from January 2023 to March 2024[85]. The largest increase in use from 2023 to 2024 has been seen in specialist letters (78% increase), diagnostic imaging reports (34% increase), and pathology reports (25% increase)85. In March 2024, WA had 2.6 million My Health Records[85.]

There has been a decrease in the proportion of people who have had at least one telehealth consultation in the 12-months from 30.8% in 2021-2022 to 27.7% in 2022-2023[86]. Those who had a long-term health condition (37.1%) are more likely to use telehealth compared to those without one (17.3%)[86]. In addition, those aged 65-74 years (31.6%) are more likely to use telehealth than people aged 15-24 (20.9%)[86]. Unfortunately, those living in outer regional, remote or very remote areas (23.4%) are less likely to use telehealth than those living in major cities (28.3%) – there could be several reasons for this including, internet availability/access, telehealth compliant devices such as phones and laptops. Of people who used telehealth services in the past 12 months, 87.7% reported that they would use it again if offered[86].

Given the large geographical size of WA, COVID-19 saw a very rapid adoption of virtual methods of consultation of WA's hospital-based outpatient clinics. Rates that were previously in low 10 to 15% rapidly moved to the 60 to 80% across a range of clinics and hospitals[87]. It appears that the focus on digital health including telehealth consultations during COVID-19 helped fast track the adoption of technology and more providers saw the My Health Record as a valuable repository of health data as it is accessible to all health care providers without the need for fax machines or postal services. As of

February 2024, there are now more than 23.5 million My Health Record entries Australia-wide and more than 23 million or 98 % My Health Record entries containing data[85]. It is important to note that the COVID pandemic drove telehealth, but unfortunately, these gains have not been sustained as patients are favouring face to face consultations once again.

Wheatbelt

Priorities

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
Chronic diseases contribute significantly to the burden of disease in the Wheatbelt region. There are high rates of multimorbidity and avoidable deaths due to chronic conditions. Rates of clinician-diagnosed diabetes are above state levels. The region has high rates of risk factors for chronic conditions, including high levels of obesity and smoking, and low levels of physical activity.	There are high rates of Potentially Preventable Hospitalisations (PPHs) related to chronic conditions, particularly diabetes, chronic arthritis and chronic asthma.	**Support primary health care providers to manage chronic disease populations and build capacity for patient self-management.** **Support primary care to promote healthy weight and healthy lifestyle changes.**	Wheatbelt	Population health	Chronic conditions
Mental health is the second leading cause of disease burden in the Wheatbelt region. Suicide is a serious issue, accounting for 3% of all local deaths. Youth mental health is a significant issue, with mental health being the leading cause of disease burden for youth in the Wheatbelt, with high levels of self-harm and suicidal ideation among residents aged 12 to 17 years.	There are high rates of mental health-related Emergency Department (ED) presentations, and high rates of self-harm hospitalisations, including among young people under 25. Access to primary mental health services is limited in the Wheatbelt region with a relatively low rate of psychologists per 10,000 people and only 1% of the population accessing a clinical psychologist or psychiatrist through Medicare Benefits Schedule (MBS) services. Two local providers deliver suicide prevention services for the region. Access to youth-focused mental health care is required to offset the concerning levels of need in this group, however Western Australia (WA) youth mental	**Support general practices in identifying people at risk of suicide and referring to appropriate services, including telehealth mental health providers.** **Enable access to culturally appropriate mental health care and early intervention suicide prevention services, including for young people.**	Wheatbelt	Mental health	Access Early intervention and prevention

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
	health providers face challenges meeting demand.				
Residents are at risk of harm from alcohol use, smoking and illicit drug use. Rates of clinician-diagnosed chronic alcohol misuse and chronic drug misused are significantly higher in the Wheatbelt - North Statistical Area Level 3 (SA3) compared to the state rate.	Alcohol and Other Drugs (AOD)-related ED presentations are relatively high in the Wheatbelt - North SA3 compared to other areas in Country WA.	**Enable access to screening and AOD treatment services.**	Wheatbelt	Alcohol and other drugs	Access
Childhood immunisation levels in the Wheatbelt region are below the 95% target for Aboriginal and non-Aboriginal children. Under-immunisation increases the risk of vaccine-preventable illnesses in the whole community, including greater risk of outbreaks, and severe illness or death for those who cannot be immunised (including infants or immunocompromised individuals).	Under-vaccination increases risk of vaccine-preventable illnesses and creates avoidable burden on primary health care and the Aboriginal health workforce.	**Support primary health care providers to increase childhood immunisation rates overall, and deliver culturally appropriate and accessible vaccination programs for Aboriginal children.**	Wheatbelt	Population health	Immunisation
Aboriginal people in the Wheatbelt region experience significant levels of socioeconomic disadvantage compared to Aboriginal people in other parts of WA, and may be at risk of experiencing poor health outcomes related to social determinants of health.	Aboriginal people in the Wheatbelt - North have high rates of avoidable hospitalisation, including PPH presentations and non-urgent ED presentations.	**Enable access to coordinated culturally appropriate primary care for Aboriginal people.**	Wheatbelt	Aboriginal health	Appropriate care (including cultural safety)

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
The Wheatbelt region has a large and growing older adult population. By 2030, 1 in 4 residents will be aged over 65. Older people are more likely to be living with a chronic condition compared to the general population, and 1 in 10 have three or more long-term conditions.	Despite having a relatively high number of aged care services in the region, there is a considerable wait list for at-home support and the Wheatbelt - North SA3 has a low aged care beds-to-population ratio. The growing population of older people in the region will place increased pressure on aged care services.	**Support health and aged care providers to effectively manage chronic conditions for older people and help them live independently for as long as possible.** **Enable access to age-appropriate digital health services.** **Enable access to local aged care services, including residential and at-home.**	Wheatbelt	Aged care	Access Chronic conditions
Most Australians would prefer to die at home rather than in a hospital or aged care facility. For many Aboriginal people, this includes dying at home connected to country.	There is limited home palliative care available, with many older people dying in hospitals or aged care services and only one locally-based palliative care service.	**Enable access to local at-home palliative care services, and ensure they are culturally appropriate for Aboriginal people.**	Wheatbelt	Aged care	Access Palliative care

Wheatbelt

Overview

The Wheatbelt is unique in its population distribution across the region. People in the Wheatbelt live in small communities and towns with no single central town to locate essential services. The dominant health concerns in the region are the increasing ageing population, chronic disease, mental health and access to workforce and services. The Wheatbelt has a large ageing population. Chronic disease is of increasing concern particularly as the population ages. The population in the Wheatbelt had significantly high prevalence rates of risk factors for chronic disease, particularly high blood pressure, low levels of physical activity, obesity and high levels of smoking. Cancer, mental health and cardiovascular disease are among the leading causes of disease burden in the region.

Self-harm and suicide impact communities in the Wheatbelt. The Wheatbelt has high rates of emergency department presentations for mental health issues. As with many rural and remote locations across Western Australia (WA), there is limited access to psychologists and mental health services in the Wheatbelt. Mental health is a continuing priority for the region, along with alcohol and other drugs.

Workforce and access to services is a continuing issue for all rural communities and the Wheatbelt is similarly impacted. Many towns have limited access to General Practitioners (GPs) in the community. Local intelligence has highlighted that some areas struggle to attract workforce due to low housing availability.

Population demographics

The Wheatbelt region covers approximately 158,000 square kilometres in the south-west of WA. It partially surrounds the Perth metropolitan area, extending north from Perth to the Mid West region, and east to the Goldfields region. It is bordered to the south by the South West and Great Southern regions, and to the west by the Indian Ocean, Perth metropolitan area and the Peel region.

The Wheatbelt region is divided into two main statistical areas:

- The Wheatbelt - North Statistical Area Level 3 (SA3) has a population of 58,397 residents and includes the towns of Chittering, Cunderdin, Dowerin, Gingin, Dandaragan, Merredin, Moora, Mukinbudin, Northam, Toodyay, York and Beverley.
- The Wheatbelt - South SA3 has a population of 19,926 and includes Brookton, Kulin, Murray, Narrogin and Wagin.

The Wheatbelt region includes a rich and diverse Aboriginal community with a number of distinct language groups, including Nyunar, Walmajarri, Kriol, Wangkatha and Bardi. Approximately 1 in 16 (6%) of residents in both the Wheatbelt - North SA3 and Wheatbelt - South SA3s identify as Aboriginal, equating to nearly 5,000 individuals across the Wheatbelt region[2].

Social determinants of health

Social determinants of health are the conditions in which people are born, grow and live, including factors such as a person's socioeconomic position, education, neighbourhood and physical environment [2]. These factors underpin a wide range of health and quality of life outcomes and can contribute to avoidable inequities in health care access.

The Socio-economic Index for Areas (SEIFA) provides a measure of the relative social and economic disadvantage within a region based on a wide range of indicators reflecting disadvantage, including low income, low educational attainment, high unemployment, reliance on welfare for income and housing support.

Compared to other parts of WA (Index of Relative Socio-economic Disadvantage, IRSD = 1012), the Wheatbelt region is an area of socioeconomic disadvantage[89]. This is evident in both SA3s, however is more pronounced in the Wheatbelt - North SA3 (IRSD=977) compared to the Wheatbelt - South SA3 (IRSD=983)[89]. Approximately 1 in 2 households in the Wheatbelt - North (51%) and Wheatbelt - South (50%) SA3s are classified as low-income households; above the state rate of 40%. The proportion of low income, welfare dependent families with children id slightly above the state rate of 5%, with 7% each in the Wheatbelt - North and Wheatbelt - South SA3s [2].

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Under-served population groups

People at risk of avoidable, unjust health inequities are more likely than the general population to experience poor health outcomes due to physical, social, and economic factors, and include people who are multicultural; Lesbian, Gay, Bisexual,

Transgender, Intersex, Queer, Asexual, and other identities (LGBTIQA+); experiencing homelessness; living with a severe disability or caring for someone with a disability; developmentally vulnerable; and victims of family, domestic or sexual violence.

The Wheatbelt region includes several under-served populations who are at risk of poor health outcomes. Specifically:

- Approximately 3,500 Wheatbelt - North SA3 residents were born in a non-English speaking country, equating to 6% of the local population. A further 912 Wheatbelt - South residents were born in a non-English speaking country, representing 5% of the local population. These compare to 18% across WA[2].
- 6% of residents in the Wheatbelt - North SA3 and Wheatbelt - South SA3s have a profound or severe disability compared to 5% across WA[2].
- 11% of residents in the Wheatbelt - North and Wheatbelt - South SA3s provide unpaid assistance to people with a disability; equal to the state rate[2].
- Approximately 1 in 4 children in the Wheatbelt - North SA3 (24%) and Wheatbelt - South SA3 (28%) were developmentally vulnerable on one or more domains; above the state rate of 20%[2].
- An estimated 184 people in the Wheatbelt - North SA3 are experiencing homelessness. This equates to 36 people per 10,000; equal to the state rate of 36 per 10,000. Though homelessness is always concerning, it is less prevalent the Wheatbelt - South SA3, where approximately 41 people are experiencing homelessness, equating to 23 people per 10,000 and this is below the state rate. Homelessness figures include people living in overcrowded dwellings[2].

Multicultural populations

A bespoke review into the needs of multicultural people in WA identified that they face significant challenges accessing primary health care, including difficulties navigating the health care system, financial barriers and linguistic barriers when making appointments, articulating their health concerns and understanding medical terminology. Service providers require more training to effectively and appropriately support multicultural patients, including greater understanding of different cultures and the importance of using plain language or interpreters[5, 6]. Mental health, psychosocial support and vaccinations were identified as key needs for multicultural people[5].
For many multicultural communities, mental health is a significant issue, including comorbidity with alcohol and other drugs, and trauma. Some multicultural patients hesitate in seeking health care related to psychological concerns for fear of stigma, and difficulties in articulating their concerns[5].

Vaccinations can be difficult for migrants to plan for on arrival, as patient medical records are often inaccessible or need to be translated. This is significant for all migrants, particularly children, whose vaccinations must be aligned to the appropriate vaccine schedule.

Psychosocial strategies to provide a sense of connection and build independence are important for many people within multicultural communities, including support to set up a bank account, access Centrelink, improve English and obtain a driving license. These skills are critical in overcoming some of the barriers multicultural people face in accessing health care. There is a need to provide this connection and support in a safe and culturally appropriate setting and in a targeted manner to aid the transition to life in Australia.

There are two primary health care services specialising in care for the multicultural population in the Country WA region, located in the Goldfields SA3 and East Pilbara SA3[5]. The Wheatbelt - North SA3 (Composite Index Score, CIS=-0.30) has a low-moderate level of unmet need for multicultural services in WA. Although 3,551 residents born in a predominantly non-English speaking country, nearly all residents (99,7%) speak English well[5]. While the rate of GP-type Emergency Department (ED) presentations for this population group is slightly above state level (2,096 vs. 1,912 per 10,000 across WA), it is considerably below the rates of other areas in the Country WA[5].

In contrast, the Wheatbelt - South SA3 has the second lowest level of unmet demand for multicultural services in the Country WA region (CIS=-0.65)[5].

LGBTIQA+ populations

LGBTIQA+ is an acronym commonly used to describe lesbian, gay, bisexual, trans/transgender, intersex,

queer/questioning, asexual, and other sexuality, gender, and bodily diverse people and communities. Many LGBTIQA+ people face discrimination and disparities connected to their gender identification and/or sexuality that impact their physical and mental health and access to health care and other services[3]. LGBTIQA+ people are known to have a higher risk of certain chronic diseases such as cancers, asthma and cardiovascular disease[3]. Moreover, some members of LGBTIQA+ communities, particularly gay, lesbian and bisexual people, are 2.0 times as likely to smoke daily compared to heterosexual people which increases their risk of developing a chronic disease[4].

The Private Lives survey is Australia's largest national survey of the health and wellbeing of LGBTIQA+ people to date[2]. In the latest results, LGBTIQA+ people reported lower self-rated health than the general Australian population, with fewer than 1 in 3 (31%) rating their health as very good or excellent compared to more than half (56%) of the general Australian population aged over 15 years. Two in five (40%) cisgender men rated their health as very good or excellent compared to only 29% of cisgender women, 26% of trans women, 20% of non-binary participants and 19% of trans men[2].

More than a third (39%) of participants reported a disability or long-term health condition, with 12% reporting a profound or severe disability, 20% a moderate disability and 6% a mild disability or long-term health condition. When accessing a health or support service, 30% of those with a severe disability or long-term health condition felt accepted, compared to 51% of LGBTIQA+ people who did not report a disability or long-term health condition . More than three quarters (78%) with a severe disability or long-term health condition reported being treated unfairly by others in the past 12 months because of their disability or long-term health condition. This was followed by 56% of residents with a moderate disability or long-term health condition and 43% with a mild disability or long-term health condition[2].

More than 4 in 10 (42%) of young Australian trans people have encountered medical services who did not respect, understand or have prior experience with gender diverse people[5]. Please refer to the Mental Health section for further details about mental health and suicide prevention for LGBTIQA+ populations. Local intelligence has highlighted supply-side challenges, including a lack of LGBTIQA+-friendly services in the region, and many individuals travelling to Perth for services. Furthermore, there is limited understanding and education within the health sector about trans and intersex people. Significant proportions of LGBTIQA+ people have not felt they can safely disclose their LGBTIQA+ identity to GPs or have been misgendered in practices. Improved training and promotion of LGBTIQA+-friendly practices would be welcomed by the LGBTIQA+ community to address these issues[6].

It is important to note that there is a critical lack of research into the area of health of LGBTIQA+ people at an Australian population level[10]. Furthermore, each sub-group within the LGBTQIA+ population has its own unique health care needs, and it is inaccurate to treat these needs as homogenous across the LGBTIQA+ population. However, the lack of data, especially at a regional level, significantly limits the ability to identify and address the specific needs of each group – something WAPHA will continue to lobby to improve. Some needs relevant across the LGBTIQA+ population include:

Clinical	
	Access to appropriate: • **Health and medical care** that is inclusive, delivered by health care providers trained to deliver LGBTIQA+ affirming care, such as using correct names and pronouns and understanding gender identity and sexual orientation. • **Preventive care**, such as tailored cancer screenings (e.g., cervical cancer for transgender men, prostate exams for transgender women) and routine health checks that address unique risk factors for different sub-groups. • **Mental health support** delivered by culturally competent mental health providers who understand the unique stressors LGBTQIA+ individuals can experience, including stigma, discrimination, and identity-related challenges.
Cultural	
	• **Respectful, non-judgemental treatment**: health care free from stigma and discrimination, ensuring all LGBTQIA+ patients feel safe and respected. **Relevant and affirming health information**: Resources that reflect and respect LGBTQIA+ identities, such as educational materials on sexual health,

	mental well-being, and healthy relationships. • **Community support and per networks**: Programs that connect LGBTQIA+ individuals to peer groups, mental health resources, and LGBTQIA+ community organisations that provide culturally relevant support. • **Visibility of LGBTQIA+ friendly signage**: Clear signs, symbols, and inclusive language in health care facilities to signal a safe space for LGBTQIA+ patients.
Organisational	
	• **Inclusive policies and protocols** (e.g. anti-discrimination policies, use of inclusive terms on health care forms). • **Ongoing cultural competency and LGBTQIA+ sensitivity training** for all health care workers. • **Improved data collection** on LGBTQIA+ health needs (e.g., sexual orientation and gender identity data in patient records), helping to inform equitable policy and service delivery. • **Collaboration across LGBTQIA+ organisations** to create referral networks, share resources, and ensure service delivery aligns with community needs. • **Strict adherence to confidentiality policies**, especially regarding sensitive information related to gender identity and sexual orientation, to build trust with LGBTQIA+ patients.

Further information regarding health care standards in Australia that support the LGBTIQA+ community can be found at:

- Australian Charter of Health Care Rights – LGBTQI+
- Rainbow Tick guide to LGBTI-inclusive practice
- Australian Medical Association (AMA) LGBTQIASB+ Position Statement
- Australian Health Practitioner Regulation Agency (AHPRA) LGBTIQA+ Communities guidance for health practitioners
- General Practice Supervision Australia (GPSA) LGBTQIA+ Health and Inclusive Health care.

People experiencing homelessness

State-wide, health care barriers exist for people at-risk of or experiencing homelessness. A bespoke study into the needs of these people identified that many have had poor experiences with GP clinics and feel unheard when accessing primary health services. Experiences of fear, shame, and stigma were reported, often compounded by a clinical environment where some people feel out of place or unwelcome. Other barriers, including difficulty interacting with non-clinical staff (e.g., reception, security), fear of losing possessions to attend mainstream services, and financial barriers can also make it difficult for patients to make an appointment and see a clinician. Long wait times for appointments, limited transport availability and lack of a fixed address mean keeping appointments is difficult.

Dual diagnoses and comorbidity can create complexities in accessing health care services, impacting eligibility for certain services and resulting in individuals feeling like they are being passed between different service providers in search of the right care. People experiencing homelessness indicated that it can be difficult to find the language to talk to clinicians about their concerns, and that clinicians may try to "fix everything all at once" as opposed to on one thing at a time.

In WA, 68% of the homeless population have at least one chronic health condition, 68% are living with mental health challenges, and 62% have a substance use disorder. More than one third (38%) have poor health from all three (physical, mental and substance issues)[16].

The areas of greatest need for homelessness support are the Kimberley, East Pilbara, Gascoyne and Goldfields SA3s[12].

There is a relatively low level of unmet need for homelessness services in the Wheatbelt - North and Wheatbelt - South SA3s (CIS=-0.46 and -0.49 respectively). An estimated 187 Wheatbelt - North and 43 Wheatbelt - South residents are at risk of or currently experiencing homelessness; equating to 32 people per 10,000 in the Wheatbelt - North SA3 and 22 per 10,000 in the Wheatbelt - South SA3. Each of these is below the state rate of 48 per 10,000[12].

The WA Country Health Service (WACHS) Wheatbelt division provides services to support people experiencing homelessness in the Wheatbelt region.

People experiencing family, domestic and sexual violence

The Australian National Plan to End Violence against

Women and Children 2022 – 2032 aims to end gender-based violence through prevention, early intervention, response, and recovery and healing. Aligning with this, WA's Family and Domestic Violence Prevention Strategy details initiatives to prevent and respond to family, domestic and sexual violence, the key outcomes for which are prevention and early intervention; safety for victims through timely and accessible services; and accountability for perpetrators along with support to cease violent behaviour.

One in six Australian women and one in eighteen men (since the age of fifteen) have been subjected to physical and/or sexual violence by a current or previous cohabiting partner[6]. Moreover, one in six women and one in nine men were physically or sexually abused before the age of 15 years[6]. The following groups have been identified as being more at risk to family, domestic and/or sexual violence[7]:

- women
- children
- people living with a disability
- Aboriginal people
- people from multicultural backgrounds
- people in rural and remote Australia
- older people
- LGBTIQA+ people
- people experiencing socioeconomic disadvantage.

In 2018, partner violence was ranked as the fourth leading risk factor contributing to total disease burden for women aged 15-44, with child abuse and neglect during childhood being the leading risk factor[8]. Family and domestic violence is also a leading cause of homelessness. In 2022-2023, approximately 104,000 (38%) of clients assisted by Specialist Homelessness Services (SHS) had experienced family and domestic violence and of these, three in four (75%) were female[8].

WA Police statistics indicated that in the 12 months from July 2023 to June 2024, there were 651 reports of family related assault in the Wheatbelt region, equating to an average of 54 reports per month [2, 19].

Chronic disease

Chronic diseases are long-term, non-communicable conditions and play a significant part in mental and physical ill health, disability, and premature death. People with chronic disease often have two or more conditions (multi-morbidity) such as a mental health condition as well as a physical condition, creating complex health needs and presenting challenges for treatment. This section focuses on chronic conditions other than mental and behavioural conditions, which are discussed in the Mental Health section.

Chronic disease contributes significantly to the differences in life expectancy between Aboriginal and non-Aboriginal people. Aboriginal people experience 2.3 times the rate of disease burden, with an age-standardised death rate for chronic disease 3.8 times the rate among non-Aboriginal people[9]. In the 2021 Census, the age-standardised rate (ASR) per 100 of Aboriginal people who reported they had one or more long-term health conditions was 25.7[10].

Prevalence of chronic disease

For the first time in 2021, the Census collected information on ten common long-term health conditions in Australia, which included, arthritis, asthma, cancer (including remission), dementia including Alzheimer's disease, diabetes excluding gestational diabetes, heart disease including heart attack or angina, kidney disease, lung conditions including Chronic Obstructive Pulmonary Disease (COPD) or emphysema, stroke, and mental health conditions including depression or anxiety. In the 2021 Census, 19% of all West Australians (484,000) reported they had one of the above conditions and 5% reported they have two of the selected conditions[11].

The Wheatbelt region has a concerning level of chronic disease among its residents, particularly in the Wheatbelt - North SA3, which has high reported rates of chronic asthma, arthritis, heart disease, kidney disease and lung conditions:

	ASR per 100 people	
	Wheatbelt - North SA3	WA
Arthritis	8.3	7.9
Asthma	8.1	7.4
Heart disease including heart attack or angina	3.9	3.7
Lung conditions including COPD	1.9	1.7
Kidney disease	0.9	0.8

Using WAPHA's new method of estimating condition prevalence from general practice data, rates of clinician-diagnosed diabetes were significantly

higher in the Wheatbelt - North SA3 at 11.8%, compared to the state level of 7.9%[20].

In the Wheatbelt - South SA3, high rates are reported for asthma, arthritis and lung conditions:

	ASR per 100 people	
	Wheatbelt - South SA3	WA
Arthritis	9.0	7.9
Asthma	7.9	7.4
Lung conditions including COPD	1.8	1.7

WAPHA's new method of estimating condition prevalence from general practice data also identified significantly higher rates of clinician-diagnosed diabetes in the Wheatbelt - South SA3 at 11.5%, compared to the state level of 7.9%[20].

Risk factors

Established risk factors for chronic disease include having high blood pressure, being overweight or obese, smoking, doing little or no exercise and having high levels of stress. Psychosocial factors such as social isolation and loneliness also contribute to chronic ill health[14]. Risk factors for chronic disease tend to be more prevalent in areas experiencing socioeconomic disadvantage and in regional and remote areas[15].

Concerningly, the Wheatbelt region has significantly higher rates of risk factors compared to state levels, particularly in the Wheatbelt - North SA3[24]. This includes high levels of residents experiencing obesity, smoking tobacco and not engaging in any physical activity for leisure purposes[24].

Concerningly, 2 in 5 residents in the Wheatbelt - North (43%) and Wheatbelt - South (44%) SA3s are experiencing obesity; above the state rate of 36%[24].

Approximately 1 in 5 residents in the Wheatbelt - North (21%) and Wheatbelt - South (23%) SA3s are not engaging in any physical activity for leisure purposes; significantly higher than the WA level of 17%[24].

Smoking is a concern in the Wheatbelt - South SA3, with nearly 1 in 5 residents reporting they currently smoke, compared to 11% across WA[24].

While high blood pressure is not a significant need in the Wheatbelt region relative to other parts of WA, approximately 1 in 4 residents have high blood pressure in both the Wheatbelt - North and Wheatbelt - South SA3s (25% and 23% respectively). This is comparable to the state rate of 23%[2].

Reported stress levels in the Wheatbelt - South SA3 are slightly above the state rate, with 15% of residents reporting stress, compared to of 12% across WA[2].

Healthy Weight Action Plan

WA Primary Health Alliance (WAPHA) is a steward of the WA Healthy Weight Action Plan 2019-24, which focuses on early intervention of people identified as at-risk of becoming overweight and management of people who currently live with obesity. This involves multi-component, multi-levelled strategies delivered as part of an integrated shared care model. Through the Healthy Weight GP Project, WAPHA has committed to supporting GPs to provide options for patients who want to improve their health. Key deliverables include the development of a weight management 'hub' (website) with links to Health Pathways and local services for weight management, training for general practice staff, and tools to assist general practices in implementing weight management services as a quality improvement activity.

Potentially preventable hospitalisations for chronic conditions

Potentially Preventable Hospitalisations (PPHs) are certain hospital admissions that potentially could have been prevented by timely and adequate health care in the community. Chronic conditions that are classified as potentially preventable through behaviour modification, lifestyle change and timely care include: angina, asthma, COPD, congestive cardiac failure, diabetes complications, hypertension and iron deficiency anaemia. This report includes insights from public hospital data.

Across the state, the age-standardised rate of PPHs per 100,000 for total chronic conditions was 903 people per 100,000 and the highest rates were for chronic congestive cardiac failure (196), COPD (184) and chronic diabetes (178)[2]. Relative to other parts of WA, the Wheatbelt - North SA3 has a higher rate for total chronic conditions (1,233 per 100,000)[2]. This is driven by higher rates in the Wheatbelt - North SA3 for all conditions except chronic angina compared to WA[30]. Similarly, the Wheatbelt - South SA3 exceeds state rates for total chronic conditions (1,331 per 100,000), driven by higher rates than WA for all conditions except asthma and chronic

anaemia[110].

Management of chronic disease in primary care

Chronic Disease Management Plans (CDMPs) are Medicare-rebated for GPs to manage chronic or terminal medical conditions, including preparing, coordinating, reviewing or contributing to chronic disease management plans. They apply for a patient who suffers from at least one medical condition that has been present (or is likely to be present) for at least six months or is terminal[29].

Across WA, 14% of residents have utilised a GP CDMP. Residents of the Wheatbelt - South and Wheatbelt - North SA3s have the second highest utilisation in WA, at 19% each. Only Mandurah, located in the Perth South Primary Health Network (PHN), exceeds these levels SA3[31].**Childhood immunisation rates**

The National Immunisation Program (NIP) aims to increase national immunisation coverage to reduce the number of vaccine-preventable diseases in Australia. A key priority of the program is to work towards achieving immunisation coverage rates of at least 95% for children aged 1, 2 and 5 years. Data from the Australian Immunisation Register from 1 January 2023 to 31 December 2023 indicated that in the Country WA PHN, childhood immunisation coverage was comparable to the state average for all ages (1, 2 and 5 years), but was still below the 95% target[31]. Approximately 90% of children were fully immunised at 1 year and 92% at 5 years, compared to only 87% at 2 years[32].

The Australian Immunisation Register (AIR) reports that the Wheatbelt - North SA3 fell slightly below target of 95% for children aged 1, 2, and 5 years at 92%, 89%, and 92% respectively[32]. In contrast, the Wheatbelt - South SA3 met the benchmark for children aged 5 years at 96% but was below target for children aged 1 and 2, being 93% for children aged 1 year and 91% for children aged 2 years[32].

Cancer screening

There are three national cancer screening programs in Australia: BreastScreen Australia, National Cervical Cancer Screening Program (NCSP), and National Bowel Cancer Screening Program (NBCSP).

Though not the lowest in the state, cancer screening participation rates in the Wheatbelt region are concerningly low, especially in context of the high disease burden due to cancer in the Wheatbelt region[28], and high rates of avoidable deaths due to cancer in the Wheatbelt - North SA3[2].

Only 2 in 5 eligible residents in the Wheatbelt - North (40%) and Wheatbelt - South (41%) have participated in bowel cancer screening, compared to the state level of 42%, which in itself is low[33]. A similar proportion (43%) in the Wheatbelt - South SA3 have participated in breast cancer screening; below the rate for the Wheatbelt - North SA3 (50%) and overall state rate of 51%[33].

While still low, rates of cervical cancer screening were slightly more encouraging, with 54% of residents in the Wheatbelt - North SA3 and 58% in the Wheatbelt - South SA3, compared to 69% across WA[33].

Please note, participation in the new five-year program for cervical cancer screening cannot be accurately reported until there are 5 years of data available (2018-21).

Avoidable mortality

The median age of death in the Wheatbelt - North and Wheatbelt - South SA3s is slightly below the state median age of 81 years, at 78 and 80 years respectively[2].

Avoidable mortality refers to deaths of people under 75 years from conditions that are potentially preventable or treatable through primary/hospital care. The rate of avoidable deaths in the Wheatbelt - North and Wheatbelt - South SA3s exceed the state rate of 117.6 per 100,000 at 156.2 and 149.1 per 100,000 respectively[2]. Transport accidents are a leading cause of avoidable deaths in the region: the Wheatbelt - South SA3 has the highest rate in WA at 26.6 per 100,000, and the Wheatbelt - North SA3 has the third highest rate at 24.1 per 100,000; well above the state rate of 6.6 per 100,000[2].

Sadly, at 22.2 per 100,000, the Wheatbelt - South SA3 has the third highest rate in WA for avoidable deaths due to suicide and self-inflicted injuries. The rate in the Wheatbelt - North SA3 (21.6) is also above the state rate of 14.9 per 100,000[2].

There is a high rate of avoidable deaths from colorectal cancer in the Wheatbelt - North (11 per 100,000) and Wheatbelt - South (9.4) SA3s, compared to 8.7 per 100,000 across WA[2].

According to the Mortality Over Regions and Time (MORT) data, the rate of premature deaths (people under 75 years) in the Wheatbelt - North and Wheatbelt - South SA3s is above the state level of 195 per 100,000[112], at 252 and 287 per 100,000 respectively[3].

The five leading causes of death and their percentages with respect to all death causes within the Wheatbelt - North and Wheatbelt - South SA3s are[3]:

Rank	WA	Wheatbelt - North	Wheatbelt - South
1	Coronary heart disease (11%)	Coronary heart disease (12%)	Coronary heart disease (11%)
2	Dementia including Alzheimer's (9%)	Lung cancer (7%)	Dementia including Alzheimer's disease (8%)
3	Cerebrovascular disease (5%)	COPD (5%)	Lung cancer (6%)
4	Lung cancer (5%)	Dementia including Alzheimer's disease (5%)	COPD (6%)
5	COPD (4%)	Diabetes (3.9%)	Cerebrovascular disease (4%)

Women's health: hysterectomy and endometrial ablation

In Australia, heavy menstrual bleeding affects one in four women of reproductive age with many also experiencing pain, fatigue and anxiety. Of women experiencing heavy menstrual bleeding, less than half seek medical treatment and more than 60% are iron deficient[97]. A range of treatment options are available, from oral medication (non-hormonal and hormonal) to the more invasive treatments of endometrial ablation and hysterectomy.

The Australian Commission on Safety and Quality in Health Care recently published a revised Heavy Menstrual Bleeding Clinical Care Standard (2024 June) with an emphasis on informing patients about her treatment options and potential benefits and risks, and participation in shared decision making based on their preferences, priorities and clinical situation[98]. It notes that hysterectomies for management of heavy menstrual bleeding should only be considered when alternative treatment options are ineffective or unsuitable, or at the patient's request. It also notes that the patient be fully informed of the potential risks and benefits before deciding. Separately, the Women's Health Focus Report maps geographic variation in hysterectomy and endometrial ablation hospitalisation rates, to investigate whether appropriate care is being delivered and improve the range of treatment options available to women experiencing heavy menstrual bleeding.

Hysterectomy is mostly performed for benign gynaecological conditions of which heavy menstrual bleeding is one of the most common[97]. Between 2014-15 to 2021-2022, there was a 24% decrease in WA (312 to 236) in hysterectomy hospitalisation ASR (non-cancer diagnoses) per 100,000 women aged 15 years and older[97]. However, the Wheatbelt - South SA3 has a high rate of hysterectomy, at 339 per 100,000 compared to 239 per 100,000 across WA[97].

Whilst not usually as effective in managing heavy menstrual bleeding as a hysterectomy, endometrial ablation has a shorter recovery period and lower risk of short-term effects[97]. Between 2013-16 and 2019-22, there was a 10% increase in endometrial ablation hospitalisation ASR (non-cancer diagnoses) per 100,000 women aged 15 years and older in WA (from 164 to 181)[97]. Relative to other parts of WA, the Wheatbelt - South SA3 has a high rate of endometrial ablation, at 230 per 100,000 (vs. 181 per 100,000 across the state)[97].

Relative to other parts of WA, the Country WA PHN has higher endometrial ablation rates per 100,000 than the state, with higher rates reported in regional and remote areas consistently over time. In the Wheatbelt region, Wheatbelt - North SA3 reported below state rate at 181 per 100,000, whilst Wheatbelt - South SA3 reported above state rate at 230 per 100,000[97]. At 97 per 100,000, Aboriginal women in WA have a lower endometrial ablation hospitalisation rate than the overall state rate[97].

Utilisation of primary care services

Based on the latest data, GP utilisation in the region is similar to the state rate, with approximately 4 in 5 residents in the Wheatbelt - North (84%) and Wheatbelt - South (83%) SA3s having visited a GP; compared to 84% across WA[30]. This is slightly below levels from the year prior, when 85% of Wheatbelt - North residents and 86% of Wheatbelt - South residents had engaged a GP[30].

The PHN after-hours program aims to improve access to GP services in the after-hours period, being before 8am and after 6pm weekdays; before 8am and after 12pm Saturday; and all-day Sunday and public holidays, particularly for people at risk of or experiencing homelessness.

A targeted analysis on need, unmet demand and supply indicators was undertaken to assess relative local demand for after-hours care. A CIS was calculated based on the after-hours demand and

supply indices, and each SA3 in WA ranked by relative demand from highest to lowest score.

In the Country WA region, there are 146 primary health services open after-hours, contributing 17% of all after-hours primary health services in WA[35]. Primary health services collectively operate for 29 hours weekly per 10,000 population; below the state level of 45 hours. There are 11 Medicare Benefits Schedule (MBS) after-hours GP services (urgent and non-urgent) claimed per 100 people across WA[35]. The Wheatbelt - North and Wheatbelt - South SA3s have a relatively high level of unmet need (CIS=0.71 and 0.87 respectively) for after-hours services in WA; ranked fourth and fifth within the Country WA region overall[35]. The need in the Wheatbelt - North SA3 is driven by its high proportion of residents within the age groups most likely to require after hours care, being 0-4 and over 65 years, while in the Wheatbelt - South, the need is driven by a limited supply of primary health services[35].

Stakeholder consultations further revealed two insights for after-hours primary health care across WA. First, operating after-hours services is not financially viable for most GP practices, with prevalent financial barriers including insufficient MBS incentivisation for after-hours services, financial risk due to unpredictable demand in after-hours patient volume , and workforce constraints due to inability to incentivise staff to work during the after-hours period[35]. Second, the Royal Commission into Aged Care Quality and Safety recommendations have increased demand for after-hours GP care for Residential Aged Care (RAC) providers[35]. The stronger regulation of RACs to ensure older people receive appropriate care relative to their needs has increased the reliance of RACs on GPs, resulting in an increase in the number of calls made by RACs to GPs during the after-hours period due to fear of potential repercussions if the RACs fail to report or respond to medical incidents, irrespective of the severity of the health concern presented[35].

Residents of the Wheatbelt - North (7%) and Wheatbelt - South (8%) SA3s have higher utilisation of GP health assessments compared to the state rate(5%)[30]. Please note, these data only include Medicare-subsidised services, and it is not currently possible to obtain data by type of health assessment.

The majority of Medicare-subsidised allied health services are for optometry services, and Medicare-subsidised allied health services only account for a portion of allied health service use in Australia. This is because they are only available to patients with a GP or specialist referral, and exclude non-Medicare subsidised services, such as those provided by Aboriginal health services and other non-government organisations[30].

Medicare-subsidised nurse practitioner services are not heavily used in the region[30]. The latest data reports that 3% of Wheatbelt - North and 4% of Wheatbelt - South SA3 residents have used a nurse practitioner service, similar to the state rate of 3%[30].

The nursing and Aboriginal health worker service group consists of Medicare-subsidised services delivered by a nurse practitioner, practice nurse, midwife or Aboriginal health worker[30]. Utilisation of Medicare-subsidised practice nurse/Aboriginal health workers in the Wheatbelt - North (6%) and Wheatbelt - South (8%) SA3s is similar to the state rate of 7%[30].

Access Relative to Need index

The Access Relative to Need (ARN) index measures access to primary health care relative to predicted need and is based on methodology developed by the Australian Institute of Health and Welfare in 2014[36]. The ARN index is based on the following information:

- The location of health services and the populations they serve.
- The number of GP (Full Time Equivalent, FTE) working at each location.
- The demographic and socioeconomic characteristics of the population.
- In 2024, WAPHA updated the ARN index to identify areas with a low access to GPs relative to need.

Compared to other areas in WA, there is relatively low access to GP services across the Wheatbelt region. Overall, 60% of SA3s across WA have higher ARN compared to the Wheatbelt - North SA3, while 70% of SA3s across WA have higher ARN than the Wheatbelt - South SA3.

Consumer views of accessing GPs

To better understand the experiences of Western Australians experiencing socioeconomic disadvantage accessing primary health care, particularly GPs, when they need it, WAPHA

commissioned consumer research in 2021.

Most people experiencing socioeconomic disadvantage were able to access a GP when needed. Although 31% of respondents encountered barriers when visiting a GP, 92% had visited a GP in the last year[37]. However, approximately 1 in 10 respondents (11%) had needed a GP on at least one occasion but had not visited one[37]. This was higher among Aboriginal people (22%), people aged 18-39 (20%), those living with disability (16%) and females (15%)[37]. The main reasons these people needed a GP were illness, concerns about mental health, to get a prescription and to help with the management of a long-term health condition[37]. Only 8% of these people sought help from an alternative healthcare professional, such as a pharmacist[37]. A lack of available appointments was the main reason for not seeing a GP when needed, cited by nearly half (43%) of this group[37]. A further 25% reported a lack of time and other commitments, while 16% felt afraid of being judged[37].

Among the full sample, the most common reason to visit a GP was to get a prescription (53%), followed by managing a chronic condition (28%) and general check-up (25%)[37].

Accessibility factors such as appointment availability were the most cited barrier to accessing a GP, followed by transportation issues and conflicting commitments[37]. Women, people with young children, young people, people from multicultural communities, people living with a disability and Aboriginal people were most likely to experience barriers[37].

Cost did not appear to play a large role in limiting access to a GP, with only 1 in 10 (10%) mentioning it as a barrier[37]. This finding is attributed to over 80% of the survey cohort indicating that their GP service was bulk billed. If the availability of bulk billed appointments decreased this would seriously impact access to a GP for people experiencing social and economic disadvantage.

The benefit of having a regular GP to the quality of a patient's experience was clear. Respondents with a regular GP reported finding it significantly easier to visit their GP and were significantly more likely to have had a positive experience, even compared to those with a regular GP practice, but not a regular GP[37].

Nearly 9 in 10 (87%) prefer attending a GP appointment in person but 2 in 3 (67%) would be comfortable with a telehealth appointment under some circumstances, such as for follow-up appointments[37].

Workforce

General practitioners

Accurate, up-to-date GP FTE figures are unavailable, so the Department of Health and Aged Care comprised a proxy measure which calculates a GP's workload based on MBS services claimed, with one GP FTE representing a 40-hour week over 46 weeks of the year. For each Medicare provider, the new measure attributes an estimate of the amount of time they have spent on their claims in relation to what would be worked by a full-time GP (billable time, non-billable time, and non-clinical time). It is an estimation of GP workforce service utilisation and not an exact count of GP FTE available. For this report, we will refer to this measure as the GP Claimed Service Equivalent (GPCSE).

Based on the latest data, the Wheatbelt - North SA3 has 77 GPCSE per 100,000 residents and the Wheatbelt - South SA3 has 73 GPCSE per 100,000[38]. Each of these is below the state rate of 102 per 100,000[38].

In addition to their normal remuneration, GPs can access additional financial incentives based on how remote the location in which they work is. Areas are classified from metropolitan through to rural, remote and very remote.

Compared to other areas in WA, some areas within the Wheatbelt region are noted as having relatively high need for additional GP workforce include the GP catchments of Dalwallinu, Gingin – Lancelin, Moora, Narrogin, Wongan Hills and York[39].

Dalwallinu (located in the Wheatbelt - North SA3) has one general practice, which is accredited for training GP Registrars and has capacity to accept a registrar immediately[39]. The practice supports the local hospital for in-patient services and for emergencies[39]. There is no Indigenous Australians' Health Program (IAHP) funded Aboriginal Community Controlled Health Organisation (ACCHO) within the catchment, despite nearly 1 in 10 (9%) residents identifying as Aboriginal[39].

Gingin – Lancelin (located in the Wheatbelt - North SA3) has two local general practices. One practice is accredited to train GP Registrars, while the other is operated by a sole GP[39]. A high proportion of residents are experiencing socioeconomic disadvantage, with 83% in the most disadvantaged

quintile in WA[39]. The area does not have a large population of Aboriginal people, with 3% of residents identifying as Aboriginal, compared to 4% across WA[39]. There is no local IAHP funded Aboriginal Medical Service (AMS)[39].

Moora (located in the Wheatbelt - North SA3) has three local general practices, two of which are accredited to train GP Registrars[39]. Its need for additional GP workforce is largely due to recruitment challenges linked to the financial incentives locally available relative to other areas in WA[39]. Approximately 3 in 5 (59%) residents are experiencing socioeconomic disadvantage[39]. There is no local IAHP funded AMS, despite the proportion of Aboriginal residents being twice as high as the state proportion, at 8%[39].

Narrogin (located in the Wheatbelt - South SA3) has three local general practices, two of which are accredited to train GP Registrars[39]. Approximately 3 in 5 (61%) residents are experiencing socioeconomic disadvantage[39]. There is one local IAHP funded AMS, and 6% of residents identify as Aboriginal[39]. Similar to Moora, the need for additional GP workforce in Narrogin is largely due to recruitment challenges linked to the financial incentives locally available relative to other areas in WA[39].

Wongan Hills (located in the Wheatbelt - North SA3) has one local general practice, which is accredited to train GP Registrars and can accept Registrars immediately. Nearly half (46%) of residents are experiencing socioeconomic disadvantage[39]. There is no local IAHP funded AMS, though 7% of residents identify as Aboriginal[39]. Housing availability is a barrier to attracting additional GP workforce to the area, with residential vacancy rates below state and Country WA levels[39].

York (located in the Wheatbelt - North SA3) has one local general practice, which is accredited to train GP Registrars[39]. Approximately 7 in 10 (70%) residents are experiencing socioeconomic disadvantage[39]. There is no local IAHP funded AMS, and 5% of residents identify as Aboriginal[39].

Boddington (located in the Wheatbelt - South SA3) and Northam (located in the Wheatbelt - North SA3) also have relatively high need for additional GP workforce, but no ability to fulfil this through training GP Registrars[39].

To increase GP workforce in Mukinbudin and Toodyay (both located in the Wheatbelt - North SA3), local general practices require support to become accredited training facilities and enable them to bolster their local workforce by being able to train GP Registrars[39].

Primary care nurses

Relative to the rest of WA, the Wheatbelt - North SA3 has a slightly lower supply of primary care nurses, with 2.1 primary care nurse FTE per 1,000 residents[38]. This compares to 2.8 FTE per 1,000 in the Wheatbelt - South SA3, and 2.5 FTE per 1,000 across WA[38].

Aged care

The Wheatbelt region has a large and growing aged population. In 2022, there were 13,647 people aged 65 years and over in the Wheatbelt - North SA3 and a further 4,453 in the Wheatbelt - South SA3[2]. This represents nearly in 1 in 4 residents in each SA3 at 23% and 22% respectively, and is projected to increase to 27% of the population in the Wheatbelt - North SA3 and 26% in the Wheatbelt - South SA3 by 2030 – above the projected state proportion of 18% in the same time frame[2].

Age is an important determinant of health and people aged 65 years and over are more likely to have complex and/or chronic conditions as well as comorbidities. Moreover, geriatric syndromes later in life (usually after the age of 85 years) including pressure ulcers, incontinence, falls, and delirium have substantial implications for quality of life as well as health care utilisation[40].

The Western Australian Burden of Disease Study 2018 reported that the five leading causes of disease burden for older people aged 65 to 84 years were coronary heart disease, COPD, lung cancer, dementia and type 2 diabetes mellitus[27]. For older people aged 85 years and over, dementia was reported as the leading cause of total burden of disease[27].

The 2021 Census reported that 10% of residents aged 65 years and older in the Wheatbelt - North and Wheatbelt - South SA3s have three or more long-term health conditions, equal to the state rate[41].

Approximately 3 in 5 (59%) general practice patients aged 65 years or older were diagnosed with three or more chronic conditions across WA, and within the Wheatbelt - South SA3[20]. This proportion is slightly higher in Wheatbelt - North SA3, where nearly 2 in 3 (62%) have been diagnosed with three or more chronic conditions[20]. Please note that these data

include private general practices only and do not include GP services provided by non-government organisations[20].

Utilisation of health services

Across WA, approximately 2 in 5 (39%) of people aged 80 years and over had a GP Health Assessment in 2022-2023[30].

In Residential Aged Care Homes (RACHs) there were 15.5 GP attendances per patient across WA[30]. The rate in the Country WA PHN overall was similar at 15.0 attendances per patient[30].

Medicare items are available for in-depth assessment of a patient 75 years and over. This provides a structured way of identifying health issues and conditions that are potentially preventable or amenable to interventions to improve health and quality of life. Medicare data indicate that approximately 1 in 4 (28%) of patients aged 75 years and over across WA have had a GP health assessment[42]. The rate in the Wheatbelt - North SA3 is slightly higher than the state level at 32%, while the rate in the Wheatbelt - South SA3 is considerably higher at 59%[42].

The Royal Commission into into Aged Care Quality and Safety noted that people receiving aged care, particularly those in RAC, do not consistently receive the health care they need. This includes doctor visits, mental health services, oral and dental health care, and preventative and holistic care[45].

Palliative care

The goal of palliative care is to improve the quality of life of patients with an active, progressive disease that has little or no prospect of a cure[44].

Most Australians would prefer to die at home, rather than in hospital or RAC[45]. However, many older people use both hospital and aged care services in their final years of life and often die in one of these settings[44].

The Royal Commission into Aged Care Quality and Safety made key recommendations for palliative care, including[43]:

- Compulsory palliative care training for aged care workers.
- Comprehensive sector funding specifically including palliative care and end-of-life care.
- A review of the Aged Care Quality Standards to regulate high-quality palliative care in residential aged care.
- Access to multidisciplinary outreach services; and A new Aged Care Act that includes the right to access palliative care and end-of-life care.

From 1 October 2022, a new funding model, the Australian National Aged Care Classification (AN-ACC), has replaced the Aged Care Funding Instrument (ACFI). The AN-ACC provides equitable funding through three components to approved RAC providers based on the service type delivered and each residents' care needs.

PHNs will receive funding from the Greater Choices for At Home Palliative Care Program to improve palliative care coordination in their local communities.

In 2022, there were 27.7 total full-time equivalent (FTE) palliative medicine physicians and 333.2 FTE palliative care nurses employed in WA[46, 47]. Whilst it is recognised that the palliative care workforce is made up of a broad range of professional groups including other medical specialists and allied health professionals, the existing national data sources cannot accurately capture information on palliative care services provided by these health professionals, hence have not been reported.

Palliative care nurses across WA are working 65.0 total weekly hours per 1,000 patients aged 75 and over[46]. The rate in the Wheatbelt region is below the state level, with 38.6 total weekly hours per 1,000 residents aged 75 and over in the Wheatbelt - North SA3, and 21.8 in the Wheatbelt - South[46]. Palliative medicine physicians across WA are working 5.7 total weekly hours per 1,000 aged 75 and over[47]. Data was not provided for the Wheatbelt - North and Wheatbelt - South SA3s because there were no palliative medicine physicians working in either region as a primary location[47].

Aged care services

The aged care system in Australia offers three main types of service: the Commonwealth Home Support Programme (CHSP), Home Care Packages (HCP), and residential care. Across Australia, more than two-thirds of people using aged care services access support from home[48].

Commonwealth Home Support Programme

The CHSP provides entry-level support for older people so that they can continue to live independently at home. For FY 2022-2023 in WA, domestic assistance had the highest number of clients serviced and had the highest expenditure; however, social support groups had the highest amount of services provided by hours[49].

Home Care Packages program

The HCP program provides structured support to older people with complex needs to help them live independently in their own home. Support provided includes help with household tasks, equipment, minor home modifications, personal care, and clinical care such as nursing and allied health services. There are four levels of HCPs from level 1 (basic care needs) to level 4 (high care needs). Across Australia, wait times for approved HCPs range from 3-6 months for level 1 to at least 12 months for level 2 and above[49].

There are currently eleven home care services in the Wheatbelt - North SA3[50], including Bolton Clarke (formerly Acacia Living Group), Avivo: Live Life, Baptistcare WA, Catholic Homes Inc Home Care, Dowerin Home and Community Care, Home Caring WA, Juniper, Let's Get Care, Right at Home, Share and Care Community Services Group, Shire of Westonia, Silver Chain and Trilogy Care. A further two services operate in the Wheatbelt - South SA3, being Narrogin Regional Homecare and Wagin Homecare[50]. As of December 2023, there were 1,317 people in a HCP in the Wheatbelt Aged Care Planning Region (ACPR), which includes both the Wheatbelt - North and Wheatbelt - South SA3s[51], and a further 163 people waiting for an HCP at their approved level[49].

WA has 249 residential aged care services with a total of 19,887 residential places, with a beds-to-population ratio of 64 per 1,000[51]. Despite having a relatively high proportion of elderly population, both the Wheatbelt - North and Wheatbelt - South SA3s have a low beds-to-population ratio compared to the state rate[51]. The Wheatbelt - North SA3 is the lowest in WA, at 17 beds per 1,000 people aged 70 years and over; offered by four local RACHs[51]. While still below the state rate, the Wheatbelt - South SA3 is better serviced, at a rate of 53 beds per 1,000, dispersed across four RACHs[51].

Across WA, there are 12.2 FTE of nurses working in aged care per 1,000 people aged 70 years and over[38]. In comparison, the Wheatbelt - North SA3 has slightly lower supply at 11.0 FTE per 1,000 people aged 70 years and over, while the Wheatbelt - South SA3 is slightly higher at 15.0 FTE per 1,000 people aged 70 years and over[38].

Alcohol and other drugs

Alcohol and Other Drug (AOD) use is an issue in the Wheatbelt- North SA3, particularly with regards to short-term alcohol-related harm. Approximately 1 in 7 (15%) of residents are at risk of short-term harm from alcohol; above the state rate of 10%[24]. Levels of long-term alcohol harm (31%) are higher than the state rate of 26%[24]. Smoking prevalence is also similar to the state rate, at 13% in the Wheatbelt - North SA3, compared to 11% across WA[24].

In the Wheatbelt - South SA3, the risk of short-term and long-term harm from alcohol is slightly increased, compared to state rates, at 12% for short-term harm and 30% for long-term harm, compared to 10% and 26% across WA[24]. However, smoking is significantly more of an issue, with approximately 1 in 5 (19%) residents currently smoking, comparing to 11% across the state[24].

Using WAPHA's new method of estimating condition prevalence from general practice data, compared to state rates, patients in the Wheatbelt - North SA3 have statistically significantly higher rates of clinician-diagnosed chronic alcohol misuse (2.2%) and chronic drug misuse (2.2%) than the state rate of 1.5% and 1.4% respectively[20].

AOD burden of disease

WA Burden of Disease Study 2015 has the latest regional recording for risks associated with burden of disease for the Wheatbelt region. Tobacco use contributed to 30% of cancer burden and 14% of cardiovascular disease, with the population aged 45-64 and 65+ years having the highest risk of burden[52]. Men in the Wheatbelt region had a higher risk of disease due to alcohol use (8%) and illicit drug use (6%) compared to women (3% and <1%)[52].

Alcohol contributed to the burden of 15% of mental and substance use disorders, 19% of injuries, 3% of cancer burden and 3% of cardiovascular disease burden, with males in the 15-24 year age group having the most risk of alcohol use leading to disease[52].

Illicit drugs also had a high contribution to burden with 8% of mental and substance use disorders and 21% of injuries burden being attributed to illicit drug use in the Wheatbelt region in 2015[52].

Accidental overdose

Australia's Annual Overdose Report, produced by the Penington Institute, reported an increase in unintentional drug-induced (accidental poisoning) deaths in WA from 2004 (2.7 per 100,000) to 2021 (8 per 100,000) suggesting that drug use is a growing health concern[53]. Of this, males account for two thirds (70.5%) of unintentional drug-induced deaths compared to women[53]. People aged 40-49 had 455 (27.2%) unintentional drug-induced deaths in 2021 and were found to be the most at-risk age bracket[53].

In 2021, opioids continued to be the largest overall drug group identified in unintentional drug-induced deaths in 2021 (45.7%), followed by benzodiazepines (32.5%) and anti-depressants (19.3%)[53].

WA had the second highest rate of unintentional heroin-induced deaths in 2021 with 1.5 deaths per 100,000[53]. This corresponds with higher rates of deaths for other opioids such as fentanyl/pethidine/tramadol in 2021 (0.8 deaths per 100,000)[53]. There has also been an increase in deaths involving benzodiazepines in WA from 2013 to 2021 (1.1 to 3 deaths per 100,000), and stimulants such as methamphetamine and amphetamines (1.3 to 3 deaths per 100,000)[53].

Between 2017- 2021, there were 25 unintentional drug-induced deaths in the Wheatbelt - North SA3, equating to a rate of 8.8 per 100,000 people; similar to the state rate of 8 per 100,000[53]. In contrast, unintentional drug-induced deaths were less of an issue in the Wheatbelt - South SA3, which was below the state level at 2.5 per 100,000; representing 2 deaths[53].

Hepatitis B and C

Hepatitis B and C are bloodborne viruses. Hepatitis B is spread between people by body fluids while Hepatitis C is spread through blood-to-blood contact [54] and is commonly spread through unsafe injecting practices. Untreated hepatitis B and C can lead to liver disease (including cirrhosis), liver cancer and death[55].

Since 1982, a vaccine has been developed for hepatitis B with the recommendation that babies and adolescents are vaccinated[54]. Currently there is no vaccination available for hepatitis C, although antiviral treatment is available. Treatment is now more than 95% effective at curing hepatitis C and available to most people via prescription from their GP[54, 56].

In WA, notifications of hepatitis B and C have been declining. Between 2017 and 2023, notification rates of hepatitis B have slightly reduced from 21 to 18 notifications per 100,000[56]. Hepatitis C notification rates decreased (from 62 to 47 notifications) between 2004 and 2017 and has continued to decrease with 32 notifications per 100,000 people in WA in 2023[58].

The proportion of people with Chronic Hepatitis B (CHB) in the Wheatbelt - North SA3 is similar to the state rate of 0.8%, at 0.5%[58]. However, at 4%, treatment uptake is below the state level of 9%[58]. Treatment uptake is suppressed for the Wheatbelt - South SA3 due to low numbers[58].

Chronic hepatitis C (CHC) levels in the Wheatbelt - North and Wheatbelt - South SA3s are equal at 0.87% each, similar to the state rate of 0.7%[59]. The CHC treatment uptake was 37% in the Wheatbelt - North SA3 and 40% in the Wheatbelt - South SA3; each similar to the state level of 42%[59].

Alcohol and other drug services

Reported statistics on AOD treatment show that across the Country WA PHN, 412.57 per 100,000 people understood treatment during the 2022-2023 period[60]. Alcohol treatment represented more than half (53%) of the drug of concerns, followed by cannabis (23%) and amphetamines (18%)[60]. Men make up nearly two thirds of clients (64% vs. 36%), with 30–39-year-olds (28%) making up the largest age group of clients[60].

AOD services are provided by the WACHS and Holyoake, a not-for-profit organisation in the Wheatbelt region[61]. Funded by the Mental Health Commission, Holyoake operates the Wheatbelt Community Alcohol and Drug Service (WCADS). It provides assessment, referral and counselling services in Northam, Narrogin, and Merredin with outreach services in Moora, Gingin, Wyalkatchem, York, Goomalling, Wongan Hills, Brookton, Kellerberrin, Wagin and surrounding areas[3].

Mental health

Mental health was the second leading cause of disease burden in the Wheatbelt region, contributing 13% of the total disease burden for the region.

Depressive disorders were the greatest contributor to the disease burden for women in the Wheatbelt (6%), whilst for men suicide and self-inflicted injuries were the greatest contributor to the disease burden (5%)[65].

Rates of reported anxiety, depression and psychological distress in the Wheatbelt region were comparable to state levels. In the Wheatbelt - North SA3, approximately 1 in 10 residents report that they have been diagnosed with anxiety (10%) or depression (10%), and 1 in 8 (13%) report being diagnosed with high or very high psychological distress. Each of these proportions aligns with state levels, with 12% of Western Australians reporting anxiety diagnoses, 11% depression, and 13% psychological distress [24]. Similarly, reported rates in the Wheatbelt - South SA3 are comparable to state levels, with 13% of residents reporting an anxiety diagnoses, 9% depression diagnoses, and 12% psychological distress diagnoses[3].

Suicide and self-harm

From 2018 to 2022, 1,919 people sadly died from suicide in WA; a rate of 14.1 people per 100,000 and above the national rate of 12.3 per 100,000[3]. In WA, suicide represents 3% of all deaths and is the ninth leading cause of death[65].

At a rate of 22.1 people per 100,000 in the Wheatbelt - North SA3 and 22.5 in the Wheatbelt - South SA3, suicide in the Wheatbelt region is above the state rate of 14.1 and an area of considerable concern[3]. Sixty-one people died from suicide in the Wheatbelt - North SA3 between 2018 to 2022, and a further 22 people died in the Wheatbelt - South SA3[3]. Suicide is the ninth leading cause of death, representing 3% of all deaths in the Wheatbelt - North SA3 2017-2021[65]. In the Wheatbelt - South SA3, it is the eleventh leading cause of death and represents 3% of all deaths[65].

The Health and Wellbeing Surveillance Survey collects data on suicidal ideation among adults aged 16 years and over[24]. In the Wheatbelt - North SA3, 1 in 12 (8%) indicated that they had thought seriously about ending their own lives, similar to the state rate of 7%, and the rate in the Wheatbelt - South SA3 (7%)[24].

Self-harm is a strong risk factor for suicide. At a rate of 110.3 per 100,000 residents, hospitalisations for self-harm in the Wheatbelt - South SA3 is above the state level (97.7 per 100,000)[65]. Self-harm hospitalisations in the Wheatbelt - North SA3 are slightly below the state rate, at 91.8 per 100,000, yet it is nevertheless a concern, as the Wheatbelt - North SA3 accounts for the fifth highest number of self-harm hospitalisations (53) in Country WA[65]. Self-harm hospitalisations were higher for females than males in both Wheatbelt- South and Wheatbelt - North[65].

Youth mental health

Primary mental health care services play an important role in prevention and early intervention efforts reduce the prevalence and impact of mental health problems amongst young people[66, 67]. Approximately 1 in 7 young people aged 4-to-17-years experience mental illness in any given year[68], and 75% of severe mental health problems emerge before the age of 25. Early intervention in childhood and adolescent years can prevent or mitigate potentially lifelong mental illness[69].

A recent survey of WA school children found that mental health was a critical issue with a substantial number of Year 7 to 12 students reporting poor life satisfaction, low self-esteem, high levels of stress and the feeling they can't cope with life's challenges[69]. Approximately 1 in 4 (26%) female year 7 to 12 students rate their life satisfaction as 0 to 4 with '0' being the worst possible life. This was double the proportion of males who felt the same (13%)[67].

Self-harm is approximately twice as high in females compared with males, and in older adolescents compared with younger adolescents[67]. Females aged 16-17 years have the highest rates of self-harm, with 17% having engaged in an act of self-harm[67].

In WA, mental health services for young people are provided through General Practice, the public mental health system (such as the Child and Adolescent Mental Health Service), not-for-profit organisations (headspace) and private providers such as psychologists.

Hospital EDs also play a role in treating mental illness. People seek mental health-related services in EDs for a variety of reasons, often as an initial point of contact or for after-hours care[70]. Between July 2022 and June 2024, 6,780 Western Australians aged 12-17 years presented to hospital EDs for mental-health related reasons; a rate of 370 per 10,000 people aged 12-17 years[71].

Compared to other areas in WA, youth mental health is a concern in the Wheatbelt - North SA3, which has high rates of mental disorder-related ED presentations, at 372 per 10,000 12-17-year-olds compared to 370 per 10,000 across WA[71]. In contrast, the Wheatbelt - South SA3 is slightly below the state, at 306 per 10,000[71].

headspace centres and services support young people across Australia to be mentally healthy and engaged in their communities[72]. There is one headspace centre in the Wheatbelt region, based in Northam[72]. Despite this, the Wheatbelt - North and Wheatbelt - South SA3s have relatively low utilisation levels by people aged 12-25; at 2% and 1% respectively[73]. Utilisation across WA is also low at 2%, though higher utilisation has been achieved in some areas[73]. Each patient's episode of care comprised of an average of 3.8 occasions of service (i.e. interactions with the service or mental health worker) in the Wheatbelt - North SA3 and 3.7 in the Wheatbelt - South SA3; similar to the WA average of 4.2[73].

The Australian Youth Self-Harm Atlas (AYSHA) reports that the overall prevalence of suicidality (suicidal thoughts or behaviours, including ideation, plans, and attempts) in both the Wheatbelt - North and Wheatbelt - South SA3s are slightly below the state rate of 9%, at 7% each[74]. However, the proportions who have engaged in self-harm (regardless of intent) are slightly higher than state levels, with 12.4% of 12-17-year-olds in the Wheatbelt - North SA3 and 13.3% in the Wheatbelt - South SA3, compared to 9.9% across WA[74].

Major depression and anxiety disorders are risk factors associated with higher self-harm prevalence among 12 to 17-year-olds[75]. Approximately 1 in 12 12 to 17-year-olds in the Wheatbelt - North and Wheatbelt - South SA3s (8% each) are experiencing major depression or anxiety disorders; similar to the state rate of 9% across WA[75]. Depressive disorders and anxiety disorders are the second and third leading causes of disease burden for 15-24-year-olds in the Wheatbelt - North and Wheatbelt - South SA3, contributing 10% and 8% respectively[75].

Note: AYSHA provides synthetic estimates—modelled figures derived from statistical techniques that combine survey and population data—to estimate the prevalence of suicidality, self-harm, and experiences of anxiety and depression among young people aged 12 to 17. These estimates are used instead of direct data to provide meaningful insights at smaller geographic levels where sample sizes are too limited for reliable measurement.

Suicide and self-inflicted injuries are the leading cause of disease burden for 15-to-24-year-olds, in the Wheatbelt region, contributing to 20% of the disease burden for this age group[52]. Hospital admissions for self-harm can be an indication of unmet need for accessible mental health services. It is concerning to note self-harm hospitalisations among people aged 0-24 years in the Wheatbelt - North SA3 are above state levels (172.4 vs. 139.7 per 100,000)[77]. The rate is suppressed for the Wheatbelt - South SA3 due to low numbers[30].

Mental health services

Mental health services in the Wheatbelt region are provided by the WACHS and not-for-profit organisations. There are approximately 22 mental health services in the region, 9 of which have dedicated youth services. WACHS operates the Wheatbelt Mental Health Service, with teams located in Northam, Gingin, Merredin and Narrogin[61]. Regular visits are made to outlying areas and outreach is supported by telephone consultation and videoconferencing. Clinical liaison is also provided to hospitals within the region. Services include mental health programs for Aboriginal people (all ages), adults (18-65 years), children and adolescents (0-18 years), youth (15-24 years) and seniors (65+ years).

Holyoake operates the Northam Medicare Mental Health Centre (previously the Northam Head to Health Centre). It provides immediate, short-term and medium-term care, and connects patients to ongoing services when required. Patients can attend without an appointment or referral, and available services include initial assessment, one-to-one counselling, access to therapy groups, peer support, and care coordination with other services or agencies such as National Disability Insurance Scheme (NDIS)[113]. Holyoake also employs Suicide Prevention Coordinators for the Wheatbelt region, with offices in Northam and Narrogin and outreach capacity to all communities across the Wheatbelt[114].

The Integrated Primary Mental Health Care Program, operated by Amity Health, offers counselling services to people experiencing mental health challenges. The service is available at no cost to the patient, with eligible people being those aged 7 years or over, experiencing financial hardship, living in the Wheatbelt region, and not accessing other mental health services[115].

The Northam headspace centre is operated by Youth Focus, and provides free face-to-face and telehealth psychological services for young people aged 12-25 years[116].

Culturally appropriate psychosocial support services are offered to Aboriginal people by the Keedac Wheatbelt Aboriginal Corporation[117].

A GP mental health treatment plan can be used to refer patients to psychiatrists, psychologists, counsellors, social workers and occupational therapists. In the Wheatbelt - North and Wheatbelt - South SA3s, 6% have accessed a GP mental health treatment plan in each area; similar to the state level of 8%[76].

In both the Wheatbelt - North and Wheatbelt - South SA3s the rate of psychologists per 10,000 people is below the state rate, at 3.9 and 4.7 respectively compared to 13.2 per 10,000 across WA[77]. In each area 1.3% of residents accessed a clinical psychologist, compared to 2.2% across WA[76]. Given the high burden of disease due to mental health concerns in the region, these figures indicate insufficient access to rebated psychology services in the Wheatbelt - North and Wheatbelt - South SA3s, and a reliance on services provided by the WACHS and the not-for-profit sector.

There are low numbers of mental health professionals such as psychiatrists, mental health nurses and psychologists in regional and remote areas[77].

The unique population distribution of the Wheatbelt, with no single central town, together with its proximity to Perth makes it difficult to attract a stable workforce. No single place has the critical population size required to make business viable for service providers. As a result, residents often attend services in Perth.

Aboriginal health

An estimated 4,772 Aboriginal people reside in the Wheatbelt region, representing 6% of the population in both the Wheatbelt - North and Wheatbelt - South SA3s[2]. The Wheatbelt is home to three distinct Aboriginal groups, being the Njaki Njaki Nyoongar, the Ballardong Nyoongar and the Gubrun[118]. The main languages spoken locally include Nyunar, Walmajarri, Kriol, Wangkatha and Bardi[118]. Aboriginal people are dispersed throughout the 28 Local Government Areas that comprise the Wheatbelt region[80].

The Aboriginal people in the Wheatbelt region, spanning the Indigenous Areas (IAREs) of Avon, Campion, Hotham – Kulin, Moora – Chittering, Murray – Waroona – Boddington and Narrogin – Wagin – Katanning, experience high levels of socioeconomic disadvantage and are impacted by poor health outcomes[18]. The highest levels of disadvantage are experienced in the Northam, Hotham – Kulin, Narrogin – Wagin – Katanning, Campion, Moora – Chittering and Avon IAREs, which have Indigenous Relative Socioeconomic Outcomes (IRSEO) index scores of 83, 80, 76, 66, 62 and 59 respectively, compared to 51 for WA overall[18]. A higher IRSEO score indicates a greater level of socioeconomic disadvantage for the region[18]. In contrast, Aboriginal people in the Murray – Waroona – Boddington IARE are relatively more advantaged than other Aboriginal people in WA , with an IRSEO score of 30[18].

Unemployment is above state rates in all IAREs within the Wheatbelt region, except for Moora – Chittering[18]. The Narrogin – Wagin – Katanning and Hotham – Kulin IAREs had an estimated 1 in 4 of Aboriginal residents without work (22% and 27% respectively), followed by approximately, 1 in 5 within Northam and then 17% in Campion, Murray – Waroona – Boddington and Avon[18].

The Hotham – Kulin IARE also has the highest proportion of Aboriginal people living in low-income households at 79%; above the state rate of 54%[18]. Other IAREs with high rates of low-income households include Northam (72%), Narrogin – Wagin – Katanning (69%), Campion (65%), Avon (63%) and Moora – Chittering (58%)[18].

There is an average participation rate in full-time secondary education at age 16 of 65% across WA[18]. Participation in the Murray – Waroona – Boddington IARE (located in the Wheatbelt - South SA3) is concerningly low at 53% attendance; the lowest in the Wheatbelt region[18].

Of the IAREs with sufficient data, there is a high proportion of low-birth-weight babies in the Campion (35%) and Narrogin – Wagin – Katanning (18%) IAREs; above the 13% of Aboriginal babies who are classified as being of low-birth-weight across WA[18]. Approximately 1 in 2 Aboriginal children in the Avon (56%), Narrogin – Wagin – Katanning (55%) and Northam (54%) IAREs are classified as developmentally vulnerable on one or more domains[18].

Child immunisation

A key priority of the National Immunisation Program Schedule is to work towards achieving immunisation coverage rates of at least 95% for children aged 1, 2 and 5 years. Across WA, immunisation is below the 95% target for all age groups, with 89% of 1-year olds, 84% of 2-year-olds and 94% of 5-year-olds fully immunised. There is insufficient data for all IAREs

within the Wheatbelt region, suggesting that effort is needed to increase childhood immunisation across the region[18].

Lower urgency emergency department presentations

High rates of lower urgency ED attendances can be indicative of a gap in primary health care services[18]. In the Wheatbelt - South SA3 this need is evident, with a slightly higher rate of these ED presentations at 6,867 per 10,000 compared to the WA rate of 6,167 per 10,000[18]. It is not a significant need in the Wheatbelt - North SA3 compared to other parts of WA, with lower-urgency ED presentations below the state rate at 5,089 per 10,000[18].

Avoidable deaths by selected causes

Avoidable deaths data is suppressed for a number of IAREs due to low numbers. Based on the available data, there were 266.7 avoidable deaths per 100,000 across WA among Aboriginal people aged 0 to 74 years in the 2017-2021 period[18]. When looking at Aboriginal deaths from all avoidable causes in total, four of the seven IAREs in the Wheatbelt region are concerningly above the state level[18]. The IAREs of greatest concern are Narrogin – Wagin – Katanning (400.4 per 100,000), Northam (343.9) and Hotham – Kulin (321.1) [18]. Though not as high, the Avon IARE also exceeds the state level at 279.0[18]. Data for avoidable deaths related to specific conditions is insufficient for many conditions, however based on the available data, Narrogin – Wagin – Katanning is an area of particular concern, with avoidable deaths above state levels for circulatory system diseases (129.7 per 100,000 vs. 86.2 across WA) and ischaemic heart disease (111.2 per 100,000, vs. 57.2 across WA)[18]. The Avon IARE also has high rates of ischaemic heart disease at 86.6 per 100,000, as well as high rates of circulatory system diseases (97.1 per 100,000) and diabetes (56.5 per 100,000 vs. 35.4 across WA)[18].

Median age at death

Across WA, the median age of death is sadly 58 years – significantly below that of non-Aboriginal people at 80 years[18]. The median age of death for Aboriginal people in the Wheatbelt region varies considerably across IAREs, but is older than the median age for Aboriginal people across WA in all IAREs except Murray – Waroona – Boddington, which is sadly only 57 years[18]. Following this, the Hotham – Kulin and Avon IAREs have the lowest median age at death in the Wheatbelt region at 62 years each, then Northam at 63 and Narrogin – Wagin – Katanning at 65 years[18]. The Moora – Chittering and Campion IAREs have the highest median age at death at 67 years and 68 years respectively[18].

Potentially preventable hospitalisations

The average annual rate of total PPHs per 100,000 for Aboriginal people is considerably below state levels for all IAREs except Narrogin – Wagin – Katanning and Northam in the Wheatbelt region. Across WA, there were 6,264 PPH admissions per 100,000 for Aboriginal people from 2017/18 to 2020/21[18]. In the Wheatbelt region, the rate ranged from 2,282 to 8,666 per 100,000[18]. The Narrogin – Wagin – Katanning IARE has the highest rate (8,666), followed by Northam (7,608), Hotham – Kulin (4,649), Moora – Chittering (4,405), Avon (4,127), Campion (3,858) and Murray – Waroona – Boddington (2,282) [18].

Chronic conditions that are classified as potentially preventable through behaviour modification, lifestyle change and timely care are angina, asthma, COPD, congestive cardiac failure, diabetes complications, hypertension and iron deficiency anaemia[82]. The following rates for PPHs due to chronic conditions within the Wheatbelt region exceeded state rates:

- Chronic asthma: Narrogin – Wagin – Katanning (376 per 100,000), Moora – Chittering (322), Hotham – Kulin (283) and Avon (200), compared to 192 per 100,000 across WA[18].
- Chronic angina: Northam (561 per 100,000), Campion (269) and Narrogin – Wagin – Katanning (224), compared to 206 across WA)[18].
- Chronic congestive cardiac failure: Northam (639 per 100,000), Moora (462) and Narrogin – Wagin – Katanning (411), compared to 405 per 100,000 across WA[18].
- Chronic diabetes complications: Narrogin – Wagin – Katanning (1,042 per 100,000), Hotham – Kulin (780) and Northam (671), compared to 547 per 100,000 across WA[18].
- Iron deficiency anaemia: Northam (685 per 100,000), Moora – Chittering (528), Narrogin – Wagin – Katanning (301) and Avon (266) compared to 208 per 100,000 across WA[18].
- COPD: Narrogin – Wagin – Katanning (1,586 per 100,000), Northam (1,261) and Moora – Chittering (704) compared to 608 per

100,000 across WA[18].

Acute PPHs relate to conditions that usually come on suddenly, and may not be preventable, but may not have resulted in hospitalisation if timely and adequate care was received in the community)[82]. PPHs for total acute conditions for all IAREs except Narrogin – Wagin – Katanning and Northam were also below state rates in the Wheatbelt region. The rate of PPHs due to acute conditions in Narrogin – Wagin – Katanning is 4,355 per 100,000 and in Northam 3,010 per 100,000, compared to across 2,905 per 100,000 WA[18]. However, although all other IAREs are below state levels overall, there are pockets of need across different acute conditions, with the following IAREs exceeding state rates:

- Acute convulsions and epilepsy: Narrogin – Wagin – Katanning (1,644 per 100,000), Northam (1004) and Hotha-Kulin (581) compared to 460 per 100,000 across WA[18].
- Acute dental conditions: Hotham – Kulin (704 per 100,000), Narrogin – Wagin – Katanning (683), Campion (629) and Northam (472), compared to 431 per 100,000 across WA[18].
- Acute ear, nose, and throat infections: Hotha-Kulin (806 per 100,000) compared to 393 per 100,000 across WA[18].
- Acute urinary tract infections (including pyelonephritis): Narrogin – Wagin – Katanning (1,003 per 100,000) compared to 516 per 100,000 across WA[18].

Vaccine-preventable PPHs are hospitalisations due to conditions that can be prevented by vaccination[82]. Data regarding PPHs for total vaccine preventable conditions is suppressed for three of the seven IAREs in the Wheatbelt region due to small numbers[18]. For those IAREs with sufficient data, all are well below state levels for vaccine-preventable PPHs, indicating that this is not a significant need in the Wheatbelt region compared to other part of WA[18], aside from Northam on PPHs for pneumonia and influenza (300 per 100,000, compared to 278 per 100,000 across WA)[18].

Primary care service access

Aboriginal people can access specific services aimed at Closing the Gap in health outcomes. It is important that general practices ask all patients if they identify as Aboriginal and/or Torres Strait Islander. This assists with ensuring patients are provided with the option of accessing information and services specifically designed to meet their needs.

Through Medicare, Aboriginal people can receive Aboriginal-specific health checks from their doctor, as well as referrals for Aboriginal-specific follow-up services. In March 2020, telehealth items for Aboriginal Health Checks were introduced in response to Coronavirus Disease 2019 (COVID-19) and associated restrictions[83].

In 2021-2022, the proportion of the Aboriginal people that received an Aboriginal Health Check was 23% in Country WA PHN compared to 22% across WA[83]. Nationally, face-to-face Aboriginal Health Checks was the preferred method compared to telehealth[83].

Aboriginal people living in the Wheatbelt region can access primary care services through general practice, Aboriginal Community Controlled Health Services, Integrated Team Care (ITC) programs and the hospital sector.

The ITC program supports Aboriginal people living with complex chronic conditions to access health care and funds teams of Aboriginal and Torres Strait Islander health project officers, outreach workers and care coordinators. In the Wheatbelt region, the two Country to City ITC service providers are the Wheatbelt Health Network and Amity Health.

The Amity Health is a not-for-profit organisation which provides health service access to people living in country WA. They operate Mental Health Wellbeing & Resiliency programs in Merredin, Moora and Narrogin supporting the physical and psychological health of Aboriginal communities in the region.

The South West Aboriginal Medical Service (SWAMS) is an Aboriginal Community Controlled Health Organisation and operates a mobile outreach clinic in Narrogin.

The Wheatbelt Aboriginal Health Service is based in Narrogin and provides culturally appropriate services in chronic disease management and multidisciplinary care.

Digital Health

Digital health includes a broad range of innovative technologies for the purposes of providing care and sharing information to enhance patient outcomes. Services include mobile health applications (Medicare Online, COVID check-in apps), electronic prescribing, electronic health records (My Health

Record) and telehealth/telemedicine[85].

Australia-wide, the volume of my health record entries containing data had a growth of 520,000 from January 2023 to March 2024[85]. The largest increase in use from 2023 to 2024 has been seen in specialist letters (78% increase), diagnostic imaging reports (34% increase), and pathology reports (25% increase)[85]. In March 2024, WA had 2.6 million My Health Records[85].

There has been a decrease in the proportion of people who have had at least one telehealth consultation in the 12-months from 30.8% in 2021-2022 to 27.7% in 2022-2023[86]. Those who had a long-term health condition (37.1%) are more likely to use telehealth compared to those without one (17.3%)[86]. In addition, those aged 65-74 years (31.6%) are more likely to use telehealth than people aged 15-24 (20.9%)[86]. Unfortunately, those living in outer regional, remote or very remote areas (23.4%) are less likely to use telehealth than those living in major cities (28.3%) – there could be several reasons for this including, internet availability/access, telehealth compliant devices such as phones and laptops. Of people who used telehealth services in the past 12 months, 87.7% reported that they would use it again if offered[86].

Given the large geographical size of WA, COVID-19 saw a very rapid adoption of virtual methods of consultation of WA's hospital-based outpatient clinics. Rates that were previously in low 10 to 15% rapidly moved to the 60 to 80% across a range of clinics and hospitals[87]. It appears that the focus on digital health including telehealth consultations during COVID-19 helped fast track the adoption of technology and more providers saw the My Health Record as a valuable repository of health data as it is accessible to all health care providers without the need for fax machines or postal services.

As of February 2024, there are now more than 23.5 million My Health Record entries Australia-wide and more than 23 million or 98 % of them contain data[85]. It is important to note that the COVID pandemic drove telehealth, but unfortunately, these gains have not been sustained as patients are favouring face to face consultations once again.

Appendices

How to read the Priorities table

The Country WA PHN Needs Assessment 2025-2027 identifies priorities by each of the PHN Pillars (population health, mental health, alcohol and other drugs, Aboriginal health and aged care).

The Priority outlines the actions the PHNs could take to address the health and service needs.

Priority sub-categories have been established by the DoHAC. A list of sub-categories can be found here.

Health need	Service need	Priority	Priority location	Priority area	Priority sub-category
Harmful alcohol consumption causes multiple chronic diseases resulting in complex care needs.	Early screening and intervention are needed to reduce the impact of harmful alcohol use.	Increase access to early screening and treatment for harmful alcohol use.	Kimberley, South West	Alcohol and other drugs	Early intervention and prevention

The health and service needs are identified through the Needs Assessment analysis.

The priority location provides an indication of where this issue is most prevalent in the PHN.

The priority area corresponds to the PHN Pillars.

Definitions

Term	Definition
Aged Care Planning Region (ACPR)	The current WA Aged Care Planning Regions became effective in April 2018. Aged Care Planning Regions are based on Statistical Area Level 2 (SA2) boundaries.
Age-standardised Rate (ASR)	Age-standardisation is a method of adjusting a crude rate to eliminate the effect of differences in population age structures when comparing crude rates for different periods of time, different geographic areas and/or different population sub-groups (e.g., between one year and the next and/or States and Territories, Indigenous and non-Indigenous populations).
Avoidable Deaths	The number of deaths each year of people under 75 from conditions that are potentially preventable through individualized care and/or treatable through existing primary or hospital care.
Australian Statistical Geography Standard (ASGS)	ASGS provides a framework of statistical areas used by the Australian Bureau of Statistics (ABS) and other organisations to enable the publication of statistics that are comparable and spatially integrated. Include: ABS Structures e.g., Statistical areas and non-ABS Structures e.g., Local government areas (LGA)
Burden of Disease	Burden of disease studies provide a comprehensive assessment of the impact of diseases, injuries and risk factors on a population. This impact is measured as 'disability-adjusted life years' (DALY); that is, the sum of 'years of life lost prematurely' (YLL) and 'years lived with disability' (YLD).
Indigenous Areas (IAREs)	IAREs are medium sized geographical areas designed to facilitate the release of more detailed statistics for Aboriginal People. IAREs are medium sized geographical units designed to facilitate the release and analysis of more detailed statistics for Aboriginal People
Indigenous Relative Socioeconomic Outcomes index (IRSEO)	The IRSEO reflects relative advantage or disadvantage at the Indigenous Area level, where a score of 1 represents the most advantaged area and a score of 100 represents the most disadvantaged area.
Lower urgency presentations	Lower urgency presentations are those where the person: had a visit type classified as an emergency presentation; was assessed as requiring semi-urgent or non-urgent care (triage category 4 or 5); did not arrive by ambulance, police or correctional vehicle; was not admitted to hospital, not referred to another hospital, and did not die.
Potentially Preventable Hospitalisations (PPHs)	The potentially preventable hospitalisations (PPH) indicator is a proxy measure of primary care effectiveness. PPH are certain hospital admissions (both public and private) that potentially could have been prevented by timely and adequate health care in the community. There are 22 conditions for which hospitalisation is considered potentially preventable, across 3 broad categories: chronic, acute, and vaccine-preventable conditions.
Primary Health Networks (PHNs)	PHNs comprise 31 primary health care organisations across Australia. In WA there are three PHNs: Perth North, Perth South and Country WA.
Population Health Areas (PHA)	Population Health Areas were developed by the Public Health Information Development Unit at Torrens University in South Australia. Population Health Areas (PHA) are comprised of a combination of whole SA2s and multiple (aggregates of) SA2s. These were developed to address the potential for data not to be available from data custodians at an SA2 level, because of their need to maintain confidentiality of the data.

Remoteness Areas	The Australian Bureau of Statistics' (ABS) Australian Statistical Geography Standard (ASGS): Volume 5 - Remoteness Structure is a framework for statistical geography, which defines locations in terms of remoteness. Geographic remoteness is essentially a measure of a physical location's level of access to goods and services[3]. Large population centres tend to have a greater range of goods and services available than small centres.
Statistical Areas (SAs)	• **Statistical Areas Level 1 (SA1s)** are designed to maximise the spatial detail available for Census data. Most SA1s have a population of between 200 to 800 persons with an average population of approximately 400 persons. SA1s aim to separate out areas with different geographic characteristics within Suburb and Locality boundaries. In rural areas they often combine related Locality boundaries. • **Statistical Areas Level 2 (SA2s)** are designed to reflect functional areas that represent a community that interacts together socially and economically. The SA2 include the Estimated Resident Population (ERP), Health & Vitals and Building Approvals data. SA2s generally have a population range of 3,000 to 25,000 persons and have an average population of about 10,000 persons. SA2s are aggregations of whole SA1s. • **Statistical Areas Level 3 (SA3s)** generally have populations between 30,000 and 130,000 persons. They are often the functional areas of regional towns and cities with a population in excess of 20,000, or clusters of related suburbs around urban commercial and transport hubs within the major urban areas. SA3s are aggregations of whole SA2s. • **Statistical Areas Level 4 (SA4s)** have a population above 100,000 persons to provide sufficient sample size for Labour Force estimates. In regional areas, SA4s tend to have lower populations (100,000 to 300,000). In metropolitan areas, the SA4s tend to have larger populations (300,000 to 500,000). SA4s are aggregations of whole SA3s.
Statistical significance	Statistical significance is the likelihood that the difference in conversion rates between a given variation and the baseline is not due to random chance.
The Index of Relative Socio-economic Disadvantage (IRSD)	IRSD index has a base of 1000 for Australia: scores above 1000 indicate relative lack of disadvantage and those below indicate relatively greater disadvantage.
The Kessler psychological distress scale (K10)	The Kessler psychological distress scale (K10) is a widely used, simple self-report measure of psychological distress which can be used to identify those in need of further assessment for anxiety and depression. This measure was designed for use in the general population; however, it may also serve as a useful clinical tool. The K10 comprises 10 questions that are answered using a five-point scale (where 5 = all of the time, and 1 = none of the time).

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