



Australian Government
Department of Health



An Australian Government Initiative

Primary Health Network Needs Assessment Reporting Template

This template must be used to submit the Primary Health Network's (PHN's) Needs Assessment report to the Department of Health (the Department) by **15th November 2019** as required under Item E.5 of the PHN Core Funding Schedule under the Standard Funding Agreement with the Commonwealth.

Name of Primary Health Network

Country WA PHN

When submitting this Needs Assessment Report to the Department of Health, the PHN must ensure that all internal clearances have been obtained and the Report has been endorsed by the CEO.

V1.0

INSTRUCTIONS FOR USING THIS TEMPLATE

Overview

This template is provided to assist Primary Health Networks (PHNs) to fulfil their reporting requirements for Needs Assessment.

Further information for PHNs on the development of Needs Assessments is provided on the Department's website (www.health.gov.au/PHN), including the *PHN Needs Assessment Guide*, the Mental Health and Drug and Alcohol PHN Circulars, and the Drug and Alcohol Needs Assessment Tool and Checklist (via PHN secure site).

The information provided by PHNs in this report may be used by the Department to inform programme and policy development.

Reporting

The Needs Assessment report template consists of the following:

- Section 1 – Narrative
- Section 2 – Outcomes of the health needs analysis
- Section 3 – Outcomes of the service needs analysis
- Section 4 – Opportunities, priorities and options
- Section 5 – Checklist

PHN reports must be in a Word document and provide the information as specified in Sections 1-5.

Limited supplementary information may be provided in separate attachments if necessary. Attachments should not be used as a substitute for completing the necessary information as required in Sections 1-5.

While the PHN may include a range of material on their website, for the purposes of public reporting the PHN is required to make the tables in Section 2 and Section 3 publicly available on their website.

Submission Process

The Needs Assessment report must be submitted to the Department, via a mechanism specified by the Department, **on or before 15 November 2019**.

Reporting Period

This Needs Assessment report will be for a three-year period and cover 1 July 2019 to 30 June 2022. It can be reviewed and updated as needed during this period.

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Section 1 – Narrative

This section provides PHNs with the opportunity to provide brief narratives on the process and key issues relating to the Needs Assessment.

Needs Assessment Process and Issues

The Country WA Primary Health Needs Assessment consolidated the key themes and issues of Western Australian's population health and service provision needs. A consultation plan was developed and included internal and external consultation processes to source qualitative data. This included the development of a digital portal for the collection of qualitative information from consumers and service providers. A wide range of data sources, available publicly or on request from data custodians informed the Needs Assessment. Access to improved data sets in the 2018 Needs Assessment included improved sources for health workforce data, admitted and emergency department hospital admissions and alcohol and other drug prevalence and service utilisation. Please note that for confidentiality reasons, some data sources have been removed from the public-facing version of the Needs Assessment.

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

- Goldfields
- Great Southern
- Kimberley
- Midwest
- Pilbara
- South West
- Wheatbelt

Each region is uniquely characterised and, consequently, experiences different health needs and service availability. When compared to the metropolitan PHNs, Perth North and Perth South, Country WA PHN's rurality is largely responsible for poor health and service characteristics, with four of the seven regions being classified 'very remote' in the Modified Monash Model (MMM). The MMM is a seven-point scale that classifies areas based on their rurality, with one being the least remote and seven being the most remote. The majority of the PHN is classified as being seven to five (highest remoteness), with small pockets of two to four (moderate remoteness) around larger townships.

With such a large geographical spread, and unique and diverse populations, collecting datasets large enough for statistical analyses and that capture all population characteristics is challenging. To overcome this, the WA Primary Health Alliance consulted with stakeholders within the regions to gather local qualitative data. These consultations have highlighted regional issues that are not currently included in WA Primary Health Alliance's scope but nonetheless influence the health and wellbeing of individuals, such as poor access to affordable dental health care and rising rates of sexually transmitted infections.

Selection of Topics

Identified Health Needs (HN) and Service Needs (SN) align with the Primary Health Network Pillars.

Health Needs for each Pillar include:

- General population health: HN1.1 to HN1.10.
- Aged care: HN1.3 including mental health HN2.9.
- Mental health: HN2.1 to HN2.9.
- Alcohol and other drugs: HN3.1 to HN3.12.
- Aboriginal health needs HN4.1 and HN4.7

The Health Workforce Pillar included service needs for:

- General population health: SN1.1 to SN1.11.
- Aged care: SN1.3 including mental health SN2.9.
- Mental health: SN2.1 to SN2.10.
- Alcohol and other drugs: SN3.1 to SN3.8.
- Aboriginal health: SN4.1 to SN4.8.

The Digital Health Pillar is an enabler of improved service access, service needs for this Pillar include SN1.11.

Data Sources

All topics covered were informed by a broad review of publicly available data sets, data obtained from selected Western Australian government agencies, a review of the research literature, as well as internal and external consultation. The following are additional considerations of the data for each topic.

Note: Information in red text is sourced from confidential data sources and is in-confidence. This data cannot be released to external agencies. Please visit www.wapha.org.au to obtain a public version of this document.

General population health

A digital survey “A snapshot view of primary care” collected qualitative data regarding the barriers to accessing health services by community members. The information collected from the survey was used in Section 3 – Outcomes of the service needs analysis. Localised qualitative information was sourced through a Country WA PHN Working Group, Regional Clinical Commissioning Committees and the collation of other reports and consultations undertaken by the PHN as part of normal business.

The development of the Needs Assessment was guided by an internal Steering Committee and included an extensive internal review process. As part of this process, a decision was made to remove specific reference to humanitarian migrants. Instead, the health and service needs of humanitarian migrants have been included within the broader discussions of Culturally and Linguistically Diverse populations and other vulnerable groups in HN 1.2.

Mental health

The Mental Health Needs Assessment supports priorities from the Fifth National Mental Health and Suicide Prevention Plan such as integrated planning and service delivery, suicide prevention, treatment coordination for severe and complex mental illnesses, and reduction of stigma and discrimination. Data were obtained from a range of sources including Medicare Benefits Scheme, mental health-related hospitalisations (AIHW), suicide data (ABS), and the Public Health Information Development Unit (PHIDU) as well as qualitative data provided in stakeholder consultations. In addition, the Integrated Atlas of Mental Health and Alcohol and Other Drugs and the (redacted) tool were used to help identify gaps in service provision across Country WA PHN.

Alcohol and other drugs

The alcohol and other drug section of the Needs Assessment has made use of national reports and studies on alcohol and other drug use in Australia and the impact of alcohol and other drugs on health. This general information has been complemented where possible with more detailed place-based hospital, emergency and alcohol and other drug treatment data. Stakeholder feedback was also used to guide the investigation into alcohol and other drug related health and service needs.

Aboriginal Health

The gap in health outcomes between Aboriginal and non-Aboriginal Australians is well documented, particularly around life expectancy, chronic disease prevalence and potentially preventable hospitalisations. Where data was available this Needs Assessment has described the specific health and

service needs of Aboriginal West Australians. Specific priorities have been developed to address the need for a culturally appropriate, holistic and integrated approaches to Aboriginal health and wellbeing. Where Aboriginal specific data has not been available, Aboriginal populations have been included in the analysis of total populations. All identified priorities in this Needs Assessment will also apply to the Aboriginal populations within the identified priority locations.

Additional Data Needs and Gaps

Where possible, health and service needs analysis has been undertaken at Statistical Area Level 3 (SA3s). SA3s are designed to provide a regional breakdown of Australia. They generally have a population of between 30,000 and 130,000 people. In regional areas, SA3s represent the area serviced by regional cities that have a population over 20,000 people. In outer regional and remote areas, SA3s represent areas which are widely recognised as having a distinct identity and similar social and economic characteristics. Throughout the Needs Assessment, comparisons have been made between state and national rates and Perth North and Perth South PHNs administered by the WA Primary Health Alliance. Where possible data has been tested for statistical significance ($p < 0.05$).

It should be noted that despite consolidating data from a range of sources, there are still data gaps relating to health and service needs within the Country WA PHN. Importantly, an absence of data does not reflect an absence of a need and, through consultation with local stakeholders, the WA Primary Health Alliance has aimed to capture all health needs as accurately as possible. The WA Primary Health Alliance will continue to collect further evidence to identify areas and populations of need within the Country WA PHN.

General population health

The prison population is known to have poorer physical and mental health when compared to the general population. Within population datasets that are used throughout this Needs Assessment, people who are incarcerated are included in the population in which the prison is located. It is not possible to exclude prisoners from population datasets, so it is likely that areas with prisons will show high rates of prison health needs. In Country WA PHN, there are prisons located in the:

- Great Southern (Albany and Pardelup)
- Goldfields (Eastern Goldfields)
- Kimberley (Broome and West Kimberley)
- Midwest (Greenough)
- Pilbara (Roebourne)
- South West (Bunbury)

Comorbid chronic conditions have been highlighted as an area of health and service need throughout discussions with stakeholders. Populations living with multiple, long-term conditions have poorer overall health outcomes and higher rates of engagement with health services and health care costs, including potentially preventable hospitalisations (PPHs). Data collections linking comorbid chronic conditions are limited and the only available sources identified were health surveys and literature reviews. Additionally, stakeholders highlighted an observed relationship between mental health conditions and chronic conditions, again limited data sources were available to explore this observation.

Adequate levels of health literacy within the community was highlighted as a mechanism to improve self-management of a health condition and improve health outcomes. Data for health literacy levels in WA and across Country WA PHN is not available. This has meant that specific sub-regions where low levels of health literacy may be contributing to poor chronic disease self-management are not identified.

Stakeholders in the Kimberley have expressed concern regarding the lack of data and health services available for the non-Aboriginal population living in the region. Issues relating to on-going

fragmentation of services continue to be raised, despite efforts to reduce the health burden within the area.

Mental health

We note that there are limitations in using Medicare Benefits Scheme (MBS) data to capture mental health-specific service utilisation, particularly for non-government organisations that do not use MBS billing and for general practitioners, who may bill against general MBS items.

Alcohol and other drug

There is limited access to place-based information about alcohol and other drug use, health needs and service utilisation. WA Primary Health Alliance staff consistently note the need for finer grained place-based information for each PHN (e.g. to a SA3 or even SA2 level), but this is rarely available. For example, the alcohol and other drug treatment service data is released by the Australian Institute of Health and Welfare (AIHW) at a PHN level, but WA Primary Health Alliance's staff consistently note the need for finer grained information.

Aboriginal Health

The interpretation of Aboriginal health data was limited by the small population sizes within Statistical Areas. Aboriginal data is commonly presented in different Statistical Areas, known as Indigenous Areas (IARE), or as the general Greater Perth (Perth North and South PHNs) and Rest of WA (Country WA PHN). Small population sizes can produce unstable rates that can greatly fluctuate on an annual basis. Additionally, there are limitations in the accuracy of total number of Aboriginal people due to non-compliant participation in the census, lack of self-identification, plus the highly mobile nature of Aboriginal populations.

To ensure accurate statistical analysis of Aboriginal health and service need the following data sets were excluded: avoidable mortality by cause and palliative care public hospitalisations. The under-identification of Aboriginal people within health data collections remains a limitation for data analysis. Several available data sets within this Needs Assessment did not include specific Aboriginal statistics for analysis, this included: cancer screening, childhood obesity, homelessness, potentially preventable hospitalisations and chronic disease risk factors.

Section 2 – Outcomes of the health needs analysis

This section summarises the findings of the health needs analysis in the table below. For more information refer to Table 1 in '5. Summarising the Findings' in the Needs Assessment Guide on www.health.gov.au/PHN.

Additional rows may be added as required.

General Population Health

Outcomes of the health needs analysis		
Identified Need	Key Issue	Description of Evidence
HN1.1 Poor health outcomes in disadvantaged areas.	<i>Socio-economic factors such as over-crowded and sub-standard housing, low household income, long-term unemployment and lower educational attainment can lead to long-term physical and mental health conditions.</i>	<p>Socio-economic Index for Areas (SEIFA) defines the relative social and economic disadvantage within a region. Indicators reflecting disadvantage include low income, low educational attainment, high unemployment, and reliance on welfare for income and housing support.</p> <p>Whole of PHN</p> <p><i>Socio-economic Index for Areas (SEIFA)</i></p> <p>The SEIFA score of a region is determined by the level of disadvantage experienced in comparison to the Australian average of 1,000. In 2016, Country WA PHN had the lowest average SEIFA score of the three PHNs in WA (976), with large areas of high disadvantage within the region.</p> <p><i>Socio-economic disadvantage</i></p> <p>Country WA PHN experienced socio-economic disadvantage when compared to the state rate for a number of factors, including a significantly higher proportion of single parent (22% vs 19%) and welfare-dependent families (13% vs 9%), children in welfare-dependent families (26% vs 19%), people living in government housing (6.5% vs 3.6%), Internet not accessed from dwellings (18% vs 13%) and adults relying on government assistance for income (28 ASR per 100 vs 23).¹ The Country WA PHN also experiences lower rates than the state of full-time secondary school participation (74% vs 82%).¹</p>

Outcomes of the health needs analysis

		<p>Place-based</p> <p><i>Socio-economic Index for Areas (SEIFA)</i></p> <p>Country WA PHN has significant pockets of socio-economic disadvantage (people living in the lowest quintile for socio-economic disadvantage in WA). In 2016, the Kimberley SA3 was the most disadvantaged area in the PHN, with a SEIFA score of 863, followed by the East Pilbara (937), Midwest (963), Gascoyne (963) and Goldfields (964).¹</p> <p><i>Socio-economic disadvantage</i></p> <p>The Kimberley, Gascoyne and Midwest SA3s have consistent indicators of socio-economic disadvantage for education and family welfare factors, likely to result in poor health outcomes.¹ There are significant indicators of disadvantage in Country WA PHN SA3s, when compared to the PHN, state and national averages including¹:</p> <ul style="list-style-type: none"> • Secondary school participation in the Kimberley (62%), Goldfields (66%) and East Pilbara (67%). • Single parent families with children in the Kimberley (32%), Midwest (26%), Gascoyne (24%) and Bunbury (23%). • Welfare-dependent families in the Kimberley (31%), Gascoyne (16%) and Midwest (14%). • Children in welfare-dependent families in the Kimberley (46%), Gascoyne (32%) and Midwest (31%). <p>Stakeholder feedback from the South West region has identified that, in addition to single parent families, there is a large population of young mothers and young families.²</p> <p>The Kimberley, Gascoyne and Midwest SA3s also have consistent socio-economic indicators of disadvantage for employment, income and barriers to healthcare.¹ There were significantly high indicators in Country WA PHN SA3s, when compared to the PHN, state and national averages¹:</p> <ul style="list-style-type: none"> • Unemployment rates in Kimberley (15%), Gascoyne (8.5%), Midwest (7.3%) and Goldfields (6.5%). • Households receiving rent assistance from the government in Augusta-Margaret River-Busselton (19%). • Households rented from the Government Housing Authority in Kimberley (28%), Gascoyne (13%), East Pilbara (12%) and West Pilbara (8.6%). • Dwellings with no motor vehicles in Kimberley (17%).
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Outcomes of the health needs analysis

		<ul style="list-style-type: none"> • Internet not accessed from dwellings in Kimberley (25%), Wheatbelt-South (22%), Gascoyne (21%), Manjimup (20%), Albany (19%), Wheatbelt-North (19%) and Midwest (19%). • Government support as the main source of income for adults in the last two years in Manjimup (32%), Albany (31%), Midwest (30%), Bunbury (30%) and Wheatbelt-North (30%). <p>Stakeholders in the Great Southern have noted that Albany’s high cost of living, limited access to education and poor resources, including aged care facilities and recreational resources, also contribute to poor health outcomes in the region.³ Housing vulnerability in the Midwest, particularly in Gascoyne, was highlighted by stakeholders as an issue for families, leading to homelessness and food insecurity being experienced by children as young as three years old.⁴ Lastly, the Pilbara and South West identified a highly transient workforce with a large concentration of mining, and oil and gas industries.^{2,5}</p>
<p>HN1.2 Vulnerable population groups need targeted support.</p>	<p><i>People from minority groups can be more vulnerable to poorer physical and mental health.</i></p>	<p>People in vulnerable groups are more likely than the general population to experience poor health outcomes due to physical, social and economic factors. Vulnerable groups include:</p> <ul style="list-style-type: none"> • People with low English proficiency who come from a culturally and linguistically diverse (CALD) background. • People living with a severe disability. • People who care for someone with a disability. • People who are developmentally vulnerable. • People who are homeless. • People who are victims of domestic violence. <p>Whole of PHN</p> <p><i>People born overseas or in a non-English speaking country</i></p> <p>In 2016, the largest groups of Country WA PHN residents who were born overseas were born in the Philippines (1.2% of the PHN population), India (0.5%) and Germany (0.4%).¹</p> <p>In 2016, 6.7% of the Country WA PHN population were born in a predominantly non-English speaking country, with 1.6% of the PHN population born in a non-English speaking country and had been an Australian resident for less than five years. Overall, 0.5% of the Country WA PHN population (2,455 people) reported poor English proficiency.¹</p>

Outcomes of the health needs analysis

		<p><i>Disability and carers</i></p> <p>The proportion of people with a profound or severe disability living in the community is 3.8%, while the proportion of carers (aged fifteen years and over) who provide unpaid assistance to those with a disability is 9.5%.¹ Carers may experience a decline in their physical, mental and emotional health, and adverse financial and social impacts as a result of their care-giving responsibilities.⁶ Carers frequently experience physical pain, chronic conditions and use more prescription medications than the general population. Physical pain may be more prevalent in carers due to the physically demanding nature of some caring roles and a lack of time to seek treatment for themselves.⁷</p> <p><i>Developmentally vulnerable children</i></p> <p>The Australian Early Development Census (AEDC) measures the development of children across the nation during their first year of full-time school. The factors measured are:</p> <ul style="list-style-type: none"> • Physical health. • Social competence. • Emotional maturity. • Language and cognitive skills. • Communication and general knowledge. <p>Country WA PHN experiences a significantly higher proportion (25%) of children who are developmentally vulnerable on one or more domains, than the state (21%) and nation (22%).¹</p> <p><i>Homelessness</i></p> <p>The 2016 census found that there were 9,022 people experiencing homelessness in the state and 3,714 in the Country WA PHN. In this instance, 'homeless' includes⁸:</p> <ul style="list-style-type: none"> • Persons living in improvised dwellings, tents, or sleeping out. • Persons in supported accommodation for the homeless. • Persons staying temporarily with other households. • Persons living in boarding houses. • Persons in other temporary lodgings. • Persons living in 'severely' crowded dwellings.
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Outcomes of the health needs analysis

The 2016 census also reported that in the state, 3,871 people were living in severely crowded dwellings; 1,856 of these were in the Country WA PHN. 'Severely' crowded dwellings require four or more extra bedrooms to accommodate the number of people who usually live there.⁸

The Registry Week data collections asks this cohort about their health on an annual basis. In WA, collections between 2010 and 2017 indicated that asthma, heat exhaustion and hepatitis C were the health conditions impacting most on people who were experiencing homelessness.⁹

Victims of domestic violence

One in six Australian women and one in sixteen men (since the age of fifteen) have been subjected to physical and/or sexual violence by a current or previous cohabiting partner.¹⁰ Identified as being most at risk are¹¹:

- Aboriginal women.
- Young women.
- Pregnant women.
- Women experiencing disabilities.
- Women experiencing financial hardships .
- Women and men who experienced or witnessed abuse or domestic violence as children.

Domestic violence is one of the greatest health risk factors for women aged 25 to 44. In 2011, it contributed to more burden of disease (the impact of illness, disability and premature death) than any other risk factor.¹⁰ Domestic violence is a leading cause of homelessness for women with children. In Australia during 2016 to 2017, approximately 72,000 women, 34,000 children and 9,000 men seeking homelessness services reported that domestic violence caused or contributed to their homelessness.¹¹

Place-based

People born overseas or in a non-English speaking country

The proportion of migrants from non-English speaking countries is significantly higher than the PHN rate in the SA3s of West Pilbara (9.8%), Gascoyne (9.2%), East Pilbara (9.1%) Goldfields (8.9%) and Bunbury (6.8%), while the greatest numbers were in Bunbury (7,018 people), Albany (4,007 people) and Wheatbelt-North (3,515 people). The greatest number of recent migrants (less than five years) from non-English speaking countries reside in Bunbury (1,690, 1.6% of population), followed by West Pilbara (1,003, 2.9% of population)

Outcomes of the health needs analysis

		<p>and Goldfields (952, 2.4% of population).</p> <p>The proportion of people born overseas with low English proficiency is significantly higher than the PHN rate in Gascoyne (1.6%), Albany (0.9%) and Bunbury (0.6%), while the greatest numbers were in Bunbury (567), Albany (483) and Wheatbelt-North (263).¹ Stakeholder feedback from the Great Southern has highlighted the large migrant population in Katanning, which is likely to influence the general low socio-economic status and poor health outcomes experienced in the area.³</p> <p><i>Disability and carers</i></p> <p>The Albany region has the highest proportion of people with a profound or severe disability living in the community (5.5%) and carers (aged fifteen years and over) who provide unpaid assistance to those with a disability (11%), with both significantly higher than the PHN and state rates. Rates that are significantly higher than the PHN and state for people living with a profound or severe disability and unpaid carers are also observed in Bunbury (4.9% and 11% respectively), Manjimup (5.1% and 11%), Midwest (4.5% and 10%), Wheatbelt-North (4.7% and 10%) and Wheatbelt-South (4.5% and 11%).¹</p> <p><i>Developmentally vulnerable children</i></p> <p>The highest proportion of children who are developmentally vulnerable on one or more domains is in the Kimberley (43%), which is significantly higher than the PHN, state and national rate. The Midwest (28%), Bunbury (27%) and West Pilbara (26%) also experience proportions that are significantly higher than the state and national rates.¹</p> <p><i>Homelessness</i></p> <p>In Country WA PHN, the highest number of recorded people who were experiencing homelessness was in the Kimberley (1,205), Goldfields (479) and East Pilbara (465) regions. This includes those living in severely crowded dwellings: 737 in the Kimberley, 319 in the East Pilbara and 301 in the Goldfields regions.⁸</p> <p><i>Other vulnerable populations</i></p> <p>The Kimberley's stakeholders have identified the health and wellbeing of the non-Aboriginal population in the region as being compromised due to a lack of data and planning for that demographic. Stakeholder feedback</p>
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		<p>also noted that WACHS has long waitlists and a high utilisation of ED services that are inefficient and costly to the health system.¹²</p> <p>In the South West region, stakeholders identified additional vulnerable populations such as people released from prison without Centrelink or Medicare assistance, fly-in-fly-out workers who are now facing unemployment due to a decrease in the industrial sector, and children whose parents harmfully use alcohol and other drugs.²</p>
HN1.3 Older people need targeted support.	<p><i>Generally, older populations have higher prevalence rates of chronic conditions and exacerbations of their conditions leading to ED presentations, potentially preventable hospitalisations and acute care.</i></p>	<p>Older adults are typically higher users of health services as many health conditions and associated disabilities become more common with age.¹³ Health differences between people with disabilities and the general population are likely to be socially determined, leaving people who live with a disability more vulnerable to poor health outcomes.¹³ People over the age of 65 years have the highest potentially preventable hospitalisation (PPH) rates in each of the five key conditions reviewed by the National Health Performance Authority in 2015.¹⁴ PPHs are hospital admissions that may have been prevented through the provision of appropriate preventative health interventions and early disease management (see HN1.10). Palliative and end of life care will be an increasing burden on services as the population of older people continues to increase.</p> <p>Whole of PHN</p> <p><i>Ageing population</i></p> <p>At the 2016 census, Country WA PHN had 15% of their population aged 65 years and over, equating to 75,397 people. This is similar to the state proportion of 14%.¹ Between 2016 and 2025, the proportion of people aged 65 years and older is projected to increase from 15% of the population to 16% (111,342 people).¹⁵ Stakeholder consultation identified the physical and mental health of the ageing population as an issue, particularly in Country WA PHN.¹²</p> <p><i>Palliative care</i></p> <p>More people are living longer with chronic life-limiting conditions; an estimated 30% of Australians aged 65 years and over live with three or more chronic conditions.¹⁶ More serious life-limiting chronic conditions such as dementia, cardiovascular and respiratory diseases, and cancers are also increasing and have changed the pattern of death. When asked where they would prefer to die, most healthy Australians nominate their home as their preference. However, the statistics on place-of death indicate that this is relatively uncommon; only</p>

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16% of people die at home, 20% of people die in hospices and 10% in nursing homes. The rest die in hospitals. This results in a high cost burden for the health system and potentially a poorer quality of death.¹⁷ In Australia, WA reported the lowest proportion of palliative care hospitalisations in public hospitals between 2015 to 2016.¹⁸ This low rate may be attributed to the higher proportion of palliative care services provided by the private sector and the availability of affordable non-government services.

In Australia, WA is reported to have among the lowest rate of permanent residential aged care residents (11 per 100,000 vs national rate of 19) and palliative care-related prescriptions (1,547 per 100,000 vs national rate of 3,069). Despite this, the cost per patient in WA is among the highest in the nation, with high government cost per patient for palliative care-related medications (\$71 per patient on average vs national average cost of \$54 per patient) and average Medicare benefit paid on palliative medicine services per patient (\$632 vs national average of \$410). Alongside these high patient costs, WA has the highest rate of palliative medicine attendances including hospitals or home visits (605 per 100,000 vs national rate of 293) and palliative medicine case conferences (73 per 100,000 vs national rate of 37). Consistent with patterns observed in other medical fields, the rate of FTE specialist palliative medicine physicians is lowest in WA (0.8 per 100,000).¹⁸

The Country WA PHN has a similar proportion of residents aged 65 to 69 years (5.2%) and 70 to 74 years (3.6%) than the Perth North and Perth South. These proportions decrease with advanced age, with proportions of residents in the PHN decreasing from the aged groups of 75 to 79 years (2.5%), 80 to 84 years (1.6%) and 85 years and over (1.5%).¹ This younger population structure is likely due to the higher risk of injury and poorer health outcomes experienced by people living in Country WA PHN, as well as a lower number of aged care facilities compared to metropolitan areas.

Place-based

Ageing population

Manjimup and Albany SA3s have the greatest proportion of residents aged 65 years and over, at 22% (4,929) and 20% (11,996 people) respectively. The region with the greatest number of residents aged over 65 years is the South West (30,369) followed by the Wheatbelt (14,932).¹

In 2025, it is projected that Manjimup will have the greatest proportion of those aged 65 years and over (32%, 8,424 people), followed by Augusta-Margaret River-Busselton (26%, 14,629 people). The greatest numbers of people are projected to be in Bunbury (19,553) and Albany (18,269). Conversely, less than one in ten people

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		<p>from the Pilbara (5.5%), Goldfields (6.0%) and Kimberley (8.8%) regions are projected to be over 65 years.¹</p> <p>Stakeholders in the Great Southern have expressed concern for the increasing ageing population in the region, particularly in Albany, and the consequent rise in chronic conditions that will create a higher demand for specific health and aged care services in the near future.³</p> <p>[This section has been redacted for data confidentiality reasons]</p>
<p>HN1.4 There is a need to modify lifestyle risk behaviours.</p>	<p><i>Targeting improvements in lifestyle behaviours has the ability to reduce modifiable risk factors to prevent and manage chronic disease, in addition to improving overall mental and physical wellbeing among children and adults.</i></p>	<p>Whole of PHN</p> <p><i>Adults</i></p> <p>Country WA PHN consistently has higher rates of risk factors when compared to the state. Nearly four in every five adults (males: 80 ASR per 100; females: 77) have at least one of four risk factors (obese, current smoker, low rates of physical activity, or high-risk alcohol consumption) putting them at a higher risk of chronic disease than the state overall (75 for males and females). Compared to state rates for individual risk factors, Country WA PHN has significantly higher rates (ASR per 100) of¹:</p> <ul style="list-style-type: none"> • Smokers in both males (23 vs state rate of 19) and females (16 vs 13) • Obesity in both males (29 vs 24) and females (29 vs 24). • Consuming alcohol at levels considered to be a high risk to health (22 vs 20). <p>Place-based</p> <p><i>Adults</i></p> <p>Risk factor data is not available in some regions, including Esperance, Goldfields, Gascoyne, Kimberley and Pilbara. Of those places where data is available for risk factors, obesity is significantly higher than the state rate for all SA3s in Country WA PHN, for both males and females. Wheatbelt-North was the only SA3 that experienced obesity at a rate significantly higher than the PHN, state and national rates for males (31 ASR per 100) and females (32). Rates of adults having one in four risk factors are also significantly higher than the PHN, state and national rates in Wheatbelt-North for males (82) and females (81) and in Manjimup for males (83).¹ These figures indicate an increased risk of developing chronic disease, if not already diagnosed.</p>

Outcomes of the health needs analysis

		<p>Rates that are significantly higher than both the state and national rates have been reported in SA3s across Country WA PHN (ASR per 100), with the highest below¹:</p> <ul style="list-style-type: none"> • Great Southern: high alcohol intake in Albany (22). • South West: smokers in Manjimup (males: 23 and females: 15); high alcohol intake in Augusta-Margaret River-Busselton (24) and Manjimup (24); obesity in Bunbury (males: 30 and females: 30); one in four risk factors in Bunbury (males: 82) and Manjimup (males: 83); high blood pressure in Bunbury (21); and low exercise levels in Manjimup (71). • Midwest: smokers in Midwest (males: 25 and females: 17) and obesity in Midwest (males: 30 and females: 31). • Wheatbelt: smokers in Wheatbelt-North (males: 24 and females: 17) and Wheatbelt-South (males: 23); obesity in Wheatbelt-North (males: 31 and females: 32); one in four risk factors in Wheatbelt-North (males: 82); high blood pressure in Wheatbelt-South (26); and low exercise levels in Wheatbelt-North (70) and Wheatbelt-South (73).
<p>HN1.5 There is a need to reduce preventable accidental injury.</p>	<p><i>Injury is preventable and is caused by circumstantial, hazardous environments and unnecessary risk-taking behaviours.</i></p>	<p>Remote, very remote or socio-economically disadvantaged areas have been consistently shown to have a significantly higher risk of injury than their counterparts for most causes of injury, including domestic violence and road traffic accidents.¹⁹</p> <p>Whole of PHN</p> <p><i>Injury</i></p> <p>Injury is the fifth leading cause of all illness and death in Australia at 9%.²⁰ Across the PHN, the rate of hospital admissions due to injury, poisoning and other external causes (3,364 per 100,000) was significantly higher than the national average. Among the Aboriginal population, the Rest of WA reported a rate of 6,892.¹</p> <p>Country WA PHN’s rate of avoidable mortality from transport accidents was 15 ASR per 100,000, significantly higher than the state (8) and national rates (6)¹. From 2012 to 2016, 4,102 people were killed or seriously injured in road crashes.²¹ Evidence shows that males have a significantly higher risk of injury, accounting for 61% of deaths as a result of rural road traffic accidents.^{19,21}</p> <p>Feedback from stakeholders has highlighted the issue of injury resulting from domestic violence that is present throughout the Country WA PHN, particularly in the Pilbara and Midwest regions.^{4,5} Carnarvon was specifically</p>

Outcomes of the health needs analysis

		<p>identified as being a ‘hotspot’ for concern, with no safe-house or after-hours services available for children who are exposed to domestic violence.⁴</p> <p>Place-based</p> <p><i>Injury</i></p> <p>The highest rate of hospitalisations due to injury, poisoning and other external causes was in the Kimberley (8,224 per 100,000), followed by the Gascoyne (5,244) and Midwest (3,546) SA3s. Rates of avoidable deaths due to transport accidents were significantly higher than the PHN, state and national rates in Wheatbelt-North (29 per 100,000). Wheatbelt-South (27), Kimberley (23), Midwest (18) and Goldfields (16) SA3s all experienced rates of transport-accident-avoidable-mortality that were significantly higher than both the state and national averages.¹</p>
<p>HN1.6 People living with chronic conditions need accessible primary care.</p>	<p><i>Chronic conditions vary in severity and can impact on a person’s functional capacity and quality of life. People with chronic conditions are at risk of developing secondary conditions (co- and multi-morbidities).</i></p>	<p>Chronic conditions vary in severity and can impact on a person’s functional capacity and quality of life. Half of all Australians are living with a chronic condition (arthritis, asthma, back pain and problems, cancer, cardiovascular disease, chronic obstructive pulmonary disease, diabetes and mental health conditions). Nearly a quarter of Australians suffering from two or more of these chronic conditions.²² Those living with at least one chronic condition are more likely to die prematurely, and those living with multiple long-term conditions have poorer overall health outcomes and higher utilisation of health services and healthcare costs, including potentially preventable hospitalisations (PPHs).^{22,23}</p> <p>Whole of PHN</p> <p><i>Chronic conditions</i></p> <p>For 2011 to 2012, chronic conditions significantly higher than either the state or national rates include¹:</p> <ul style="list-style-type: none"> • High blood cholesterol (35 ASR per 100 vs. national 33). • Circulatory system diseases (17 ASR per 100 vs. state 16). • Respiratory system diseases (32 vs state 30.2 and national 29) . • Asthma (12 vs state 9.7 and national 10). • Musculoskeletal conditions (30 vs. national 28). • Arthritis (16 vs. national 15).

Outcomes of the health needs analysis

		<p><i>Median age of death and avoidable deaths</i></p> <p>The median age of death in Country WA PHN is 76 years, lower than the state average of 80 and the national average of 81. Avoidable mortality includes deaths from conditions that are considered avoidable, given timely and effective health care. The Country WA PHN experiences significantly higher rates than the state and national rates of avoidable mortality causes for¹:</p> <ul style="list-style-type: none"> • Diabetes. • Circulatory system diseases. • Ischemic heart disease. • Cerebrovascular disease (state only). • Respiratory system diseases (state only). • COPD (state only). • Suicide and self-inflicted injuries. • Transport accidents. <p>Place-based</p> <p><i>Chronic conditions</i></p> <p>The prevalence of chronic conditions is not available for all SA3s. Of the areas in Country WA PHN where data is available, several experience chronic conditions at a rate (ASR per 100) that is significantly higher than either the state or national rates, with the highest being¹:</p> <ul style="list-style-type: none"> • Great Southern: mental behavioural problems in Albany (15), respiratory system diseases in Albany (34) and high blood cholesterol in Esperance (38). • Midwest: mental and behavioural problems in Midwest SA3 (15), circulatory system diseases in Midwest SA3 (17), arthritis in Midwest SA3 (16) and COPD in Midwest SA3 (2.7). • Pilbara: asthma in East Pilbara (12) and West Pilbara (12). • South West: high blood cholesterol in Augusta-Margaret River-Busselton (38), respiratory system diseases in Manjimup (36) and Augusta-Margaret River-Busselton (35), asthma in Augusta-Margaret River-Busselton (13) and Bunbury (12), arthritis in Bunbury (16), and musculoskeletal conditions in Manjimup (31) and Bunbury (31).
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Outcomes of the health needs analysis

		<ul style="list-style-type: none"> • Wheatbelt: mental and behavioural problems in Wheatbelt-North (14), circulatory system diseases in Wheatbelt-North (17), musculoskeletal conditions in Wheatbelt-North (30), arthritis in Wheatbelt-North (16) and high blood cholesterol in Wheatbelt-South (37). <p>Of these, SA3s that had rates significantly higher than the PHN, state and national rates include Albany (respiratory system diseases and asthma), Augusta-Margaret River-Busselton (high blood cholesterol and respiratory system diseases) and Manjimup (respiratory system diseases).¹</p> <p>Although the Wheatbelt did not present significantly high rates for diabetes, stakeholder feedback recognises that it is a serious issue, especially for Aboriginal communities in the area, with many residents remaining undiagnosed.²⁴ This is similar that is seen in the Pilbara, with a high prevalence of chronic disease, especially diabetes, among the Aboriginal population.²⁵ Stakeholder consultation in the Pilbara further highlights the prevailing health need for chronic conditions, particularly mental health-related needs.</p> <p><i>Median age of death and avoidable deaths</i></p> <p>The Pilbara (57 years) and Kimberley (59 years) have the lowest median age of death, both with significantly higher rates of avoidable death from diabetes than the PHN, state and national rates. Prevalence rates of diabetes are unavailable for these areas, but this gives an indication of a potential issue.¹</p> <p>In Country WA PHN, rates (ASR per 100,000) of avoidable mortality that were significantly higher than the PHN, state and national rates were reported for¹:</p> <ul style="list-style-type: none"> • Cerebrovascular diseases (Kimberley 22). • COPD (Kimberley 37). • Circulatory system diseases (Kimberley 123, East Pilbara 83 and Goldfields 74). • Diabetes (Kimberley 43 and East Pilbara 27). • Ischemic heart disease (Kimberley 75, East Pilbara 55 and Goldfields 54). • Respiratory system diseases (Kimberley 36). • Suicide and self-inflicted injuries (Kimberley 48). • Traffic accidents (Kimberley 29). <p>Although not significantly higher than the national rate, rates of avoidable mortality in Country WA PHN was highest in Gascoyne (34), Bunbury (33) and Esperance (32).¹</p>
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Outcomes of the health needs analysis

HN1.7 People with chronic conditions need to be able to effectively self-manage.

Chronic conditions require effective management, including medication management, to prevent progression, and to avoid potentially preventable hospitalisations and unnecessary ED attendances.

Poorly managed chronic conditions can lead to potentially preventable hospitalisations (PPHs), preventable ED presentations and higher readmission rates. PPHs are described and further discussed in [HN1.10](#).

Whole of PHN

Lower levels of individual health literacy are also associated with higher rates of hospitalisation and use of emergency care, poorer ability to take medications appropriately and interpret health labels and messages, and poor knowledge of their condition for self-management.²⁶

It has been estimated that people with low levels of individual health literacy are between one and a half to three times more likely to experience an adverse outcome. An adequate level of health-literacy is required for those with chronic conditions to understand care plans, medication, lifestyle changes, and possible long-term health outcomes of the condition to reduce acute phases and disability.^{26,27} Data for health literacy levels in WA and across Country WA PHN are not available and further research is needed to identify specific sub-regions where low levels of health literacy in Country WA PHN may be contributing to poor chronic disease self-management and medication compliance.²⁶

PPHs for chronic conditions

In 2017, the Department of Health and the WA Primary Health Alliance co-authored the *Potentially Preventable Hospitalisation Hotspots in Western Australia*. A hotspot is an area that shows a rate of hospitalisation of at least 1.5 times over the state average for a three-year period to 2015/16. During the 2013/14 to 2015/16 period, around 70% of hotspots recorded in WA occurred in Country WA PHN. Within Country WA PHN, there were particularly high rates of PPHs for chronic conditions including COPD, angina and congestive heart failure. The PHN also reported hotspots for each of the other chronic conditions: diabetes complications and iron deficiency anaemia.²³

Place-based

PPHs for chronic conditions

Regions within the Country WA PHN experienced a high rate of PPHs for chronic conditions²³:

- Albany SA3: diabetes complications, angina, congestive heart failure and iron deficiency anaemia.
- Bunbury SA3: diabetes complications, COPD, angina, congestive heart failure and iron deficiency anaemia.

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		<ul style="list-style-type: none"> • Goldfields SA3: diabetes complications, COPD, angina, congestive heart failure and iron deficiency anaemia. • Kimberley SA3: diabetes complications, COPD, angina, congestive heart failure and iron deficiency anaemia. • Midwest SA3: diabetes complications, COPD, angina and congestive heart failure. • Pilbara SA3: diabetes complications, COPD, angina and congestive heart failure. • Wheatbelt-North SA3: diabetes complications and COPD. • Wheatbelt-South SA3: COPD. <p>Stakeholder feedback in the Pilbara indicated that the high rate of PPHs could be attributed to the State hospital sector providing primary care services in the region and a large, transient Aboriginal population with limited access to culturally appropriate services and poor health outcomes.</p>
<p>HN1.8 There is a need to prevent the development of comorbid chronic conditions.</p>	<p><i>People with chronic conditions are at higher risk of developing comorbid health issues (physical, mental and alcohol and other drug-related) that could exacerbate their existing condition.</i></p>	<p><i>Comorbidities</i></p> <p>Chronic conditions have a substantial impact on the health system, broader population and individuals. A self-report survey in 2014 to 2015 revealed that 50% of Australians has at least one of eight selected common chronic conditions^{28,29}:</p> <ul style="list-style-type: none"> • Arthritis. • Asthma. • Back pain and problems. • Cancer. • Cardiovascular disease. • Chronic obstructive pulmonary disease (COPD). • Diabetes. • Mental health conditions. <p>Comorbidity refers to the occurrence of two or more diseases in a person at one time. While the existence of these multiple health conditions may be unrelated, in many instances - and particularly in relation to chronic diseases - there is some association between them. Further, a range of chronic diseases share common risk factors. Understanding more about comorbidities can provide vital information for prevention, management and treatment of chronic diseases.²²</p>

Outcomes of the health needs analysis

		<p>The rate of comorbidity and the number of chronic disease increases with age. Almost one in three people aged 65 and over reported having three or more chronic diseases, compared with just 2.4% of those under 45.³⁰</p> <p>Some chronic conditions are a risk factor for developing further chronic conditions. For example, having diabetes is known to be a risk factor for developing cardiovascular disease. The Australian Bureau of Statistics' (ABS) 2014 to 2015 National Health Survey (NHS) collected information on the most frequent comorbid conditions of respondents. People with cardiovascular disease reported high rates of comorbid diabetes (63%), cancer (51%) and COPD (49%), and those with arthritis reported high rates of COPD (52%), diabetes (41%) and heart cardiovascular disease (41%).³¹</p> <p><i>Comorbid mental health and chronic conditions</i></p> <p>The prevalence of depression is shown to increase as the number of chronic conditions increases, for example close to one third of people with two (27%), three (30%) or four (31%) chronic conditions were also depressed.³² In the National Health Survey 2014 to 2015 38% of people with COPD, 38% of people with back pain and 29% of people with asthma also reported experiencing a mental health condition.³¹</p> <p>People with a severe mental health condition and physical comorbidity have shorter life expectancy relative to the general population. Medication use, psychosocial and lifestyle factors contribute to the reduced physical health of mental health consumers.³³ The most prevalent health issues found in those with severe mental health conditions are cardiovascular disease and type 2 diabetes.</p> <p>Data for comorbidities in Western Australia and across Country WA PHN is not available and further research is needed to identify specific sub-regions with high instances of comorbidities, including mental health.</p>
<p>HN1.9 There is a need to reduce after-hours and non-urgent ED attendances.</p>	<p><i>People presenting to ED with non-urgent conditions could potentially be treated in primary care.</i></p>	<p>High rates of lower urgency emergency department (ED) attendances indicate that there may be a gap in primary care services.</p> <p>Whole of PHN</p> <p>Lower urgency emergency department presentations are defined as:</p> <ul style="list-style-type: none"> • had an emergency presentation type of visit • had a triage category of 4 (semi-urgent) or 5 (non-urgent)

Outcomes of the health needs analysis

		<ul style="list-style-type: none"> • did not arrive by ambulance, or police or correctional vehicle, and • was not admitted to the hospital, not referred to another hospital, or did not die. • After Hours presentations are defined as those outside of 8am-8pm Weekdays (excluding public holidays) and outside 8am-1pm Saturdays.
<p>HN1.10 Earlier intervention in a range of conditions to prevent higher than state rates for specific potentially preventable conditions (acute, chronic and vaccine preventable).</p>	<p><i>Potentially preventable hospitalisations may be treatable, or treated at an earlier stage, in primary care. This is better for the patient and the system.</i></p>	<p>Potentially preventable hospitalisations (PPHs) are admissions to hospital for a condition where the hospitalisation could have been prevented through the provision of appropriate, individualised preventative health interventions and early disease management, usually delivered in primary and community-based care.²³ In 2017, the Department of Health and the WA Primary Health Alliance co-authored the <i>Potentially Preventable Hospitalisation Hotspots in Western Australia</i>. A hotspot is an area that shows a rate of hospitalisation of at least 1.5 times over the state average for a three-year period from 2010/11 to 2015/16.²³ There is an observed association between hotspots and greater socio-economic disadvantage and higher proportions of Aboriginal people in the population.²³</p> <p>Whole of PHN</p> <p><i>PPH hotspots for acute, chronic and vaccine preventable conditions</i></p> <p>The Country WA PHN experiences more PPH hotspots for acute, chronic and vaccine preventable conditions than both the Perth North and Perth South PHNs, with 51 hotspots for acute conditions (sixteen in Perth North and eight in Perth South), 83 for chronic conditions (fifteen in Perth North and eighteen in Perth South) and sixteen for vaccine preventable conditions (three in Perth North and two in Perth South). The highest volume of PPH hotspots in Country WA PHN for acute conditions were observed for cellulitis (fifteen hotspot locations) and convulsions and epilepsy (nineteen locations); chronic conditions were for COPD (25 locations) and diabetes complications (nineteen locations).²³</p> <p>Place-based</p> <p><i>PPH hotspots for acute, chronic and vaccine preventable conditions</i></p> <p>Within the Country WA PHN, the Kimberley was identified as the area of greatest need, with a hotspot location featured for all conditions. Particularly high rates of PPHs were for ear, nose and throat infections and vaccine preventable conditions. Among other regions in the PHN, PPH hotspots were identified in:</p>

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		<ul style="list-style-type: none"> • Goldfields: Goldfields (vaccine preventable conditions). • Great Southern: Albany (ear, nose and throat infections). • Midwest: Midwest (cellulitis). • Pilbara: East Pilbara (cellulitis, COPD and vaccine preventable). • South West: Bunbury (iron deficiency anaemia) and Manjimup (convulsions and epilepsy). • Wheatbelt: Wheatbelt-North (COPD) and Wheatbelt-South (COPD).²³ <p>See HN1.7 for chronic PPHs.</p>
<p>HN1.11 There is a need to reduce overweight and obesity rates.</p>	<p>Health interventions are essential for treating those already living with obesity.</p>	<p>Obesity represents a major health and societal issue for Australia. The most recent Australian Health Survey (2011-2012), highlights that 63% of adults are now overweight or obese, with 28% classified as obese. Projections suggest that by 2025, the prevalence of overweight and obesity will increase to over 70%, with approximately one third of the adult Australian population classified as obese.³⁴</p> <p>Health interventions are essential for treating those already living with obesity. Health practitioners play a significant role in identifying, supporting and treating people who are overweight and obese. However, issues around access, availability, appropriateness and affordability of treatments are impeding the delivery of effective health interventions.³⁵</p> <p>Whole of PHN</p> <p>A greater disparity in weight can be seen when comparing urban Australia and remote and rural Australia: 60% of Australians in major cities are overweight or obese, compared to 69% in inner regional Australia and 70% in outer regional and remote Australia.³⁴</p> <p>Anecdotally, higher percentages of overweight and obesity in rural and remote areas is attributed to food insecurity and a lack of affordable fresh produce.</p> <p>The 2013 Food Access and Cost Survey Report found food costs significantly increased with distance from Perth. The food price differential between Perth and very remote areas increased 5.3%, with food costing 20.8% more in 2010 to 26.1% more in 2013. The largest differences in food cost between Perth and remote areas were for fruit (37.9% more), non-core foods (31.0% more) and dairy (30.6% more).³⁶</p> <p><i>Adults</i></p>

Outcomes of the health needs analysis

		<p>Country WA PHN has a significantly higher proportion people living with obesity (35%) compared to the state rate (28%).³⁷</p> <p><i>Children</i></p> <p>Boys in Country WA PHN are overweight at rates that are significantly higher than the national rate (21.0 ASR per 100 vs 20.3).¹</p> <p>Place-based</p> <p><i>Adults</i></p> <p>Albany (33%), Bunbury (38%), East Pilbara (37%), Gascoyne (39%), Goldfields (43%), Mid West (34%) and Wheat Belt–North (39%) all had a significantly higher proportion of people living with obesity. Goldfields had the highest proportion with 43% of the population estimated to be obese.³⁷</p> <p><i>Children</i></p> <p>Rates among children were significantly higher than the state rate in the Midwest SA3 for obese females (7 ASR per 100), and significantly higher than the national rate for overweight males in Bunbury (22) and Wheatbelt-North (22).¹</p>
<p>HN1.12 There is a need to better manage heart failure a high-cost, complex chronic condition.</p>	<p><i>Best-practice management of people with chronic heart failure involves evidence-based, multidisciplinary care.</i></p>	<p>The most common cause of chronic heart failure is coronary heart disease and prior myocardial infarction, hypertension and diabetes³⁸</p> <p>Better management of heart failure can prevent readmissions, decrease costs and improve the overall quality of care being delivered to patients.³⁹ The evidence supporting multidisciplinary heart failure disease management programs is well-established.⁴⁰ A multidisciplinary model of care for people with heart failure significantly reduces readmissions, deaths and improves patients’ quality of life.⁴¹</p> <p>Placed-Based</p> <p><i>Risk Factors</i></p> <p>Risk factors for heart failure include age, family history, smoking, poor diet, obesity, diabetes, high cholesterol, excessive alcohol consumption and inadequate physical activity.⁴¹ Risk factor data is not available in some regions, including Esperance, Goldfields, Gascoyne, Kimberley and Pilbara.</p>

Outcomes of the health needs analysis

		<p>Statistical areas with residents with significant risk factors for heart failure were Wheatbelt, Midwest and Bunbury. Bunbury and the Midwest had a significant proportion of males and females with one of four risk factors i.e. current smoker, high alcohol intake, obesity and low exercise levels. Additionally, the Midwest had a high rate of residents with diagnosed diabetes. Populations residing in the Wheatbelt have been identified as an at-risk population with significant proportion of males and females with one of four risk factors, high blood pressure, and high blood cholesterol.</p> <p><i>Prevalence</i></p> <p>In 2014, it was estimated that there were 480,000 people aged 18 years or more with heart failure, representing 2.1% of the adult population.⁴⁰ The prevalence of heart failure rises steeply with age and is rare in people younger than 50 years. Two-thirds of Australian adults with heart failure are aged 65 years or over.⁴¹ Worldwide the prevalence of heart failure is increasing, this is likely associated with the ageing demographic and improved survival of patients with heart failure, due to the availability of diagnostic technology and more efficacious therapy.⁴⁰</p> <p>The prevalence of circulatory system diseases including heart failure in Country WA was significant when compared to state rates.</p> <p>Esperance (17.6), Midwest (17.4), Manjimup (17) and Wheatbelt-North (17.1) had significantly higher rates of heart failure when compared to the State (15.7).</p> <p><i>Avoidable Mortality</i></p> <p>When compared to PHN (45.9), State (35) and National (36.4) rate, Country WA had a significantly higher rate of avoidable death for Circulatory System Diseases including heart failure. Statistical areas within Country WA with significantly higher rates of avoidable deaths for circulatory disease were East Pilbara (83), Esperance (56.2), Goldfields (74), Kimberley (123.2) and the Midwest (52.4). Avoidable mortality includes deaths from conditions that are considered avoidable, given timely and effective health care.</p> <p><i>Chronic Heart Failure Potentially Preventable Hospitalisation (PPH) Hotspot</i></p> <p>Potentially preventable hospitalisations (PPHs) are admissions to hospital for a condition where the hospitalisation could have been prevented through the provision of appropriate primary and community-</p>
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Outcomes of the health needs analysis

		based care. The 2017, <i>Potentially Preventable Hospitalisation Hotspots in Western Australia</i> report identified Kimberley, Pilbara, Midwest, Goldfields, Albany and Bunbury.
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Primary Mental Health Care (including Suicide Prevention)

Outcomes of the health needs analysis

Identified Need	Key Issue	Description of Evidence
HN2.1 Reduce the harmful effects of mental health conditions on a person’s health outcomes.	<i>Mental health conditions, including depression, are widely recognised as being a significant risk factor for suicide and self-harm.</i>	<p>Globally, for every suicide, there are approximately 20 suicide attempts.⁴² Since 2014, the number of Australians who died by suicide has averaged around 3,000 annually⁴³; while for over a decade, more than 20,000 Australians have been admitted to hospital annually as a result of intentionally self-inflicted injuries.⁴²</p> <p>Mental health conditions such as major depression, psychotic illnesses and eating disorders are associated with an increased risk of suicide⁴⁴ especially after discharge from hospital or when treatment has been reduced,⁴⁵ and people with harmful alcohol or drug use have a higher risk of dying by suicide than the general population.⁴⁶</p> <p>In 2018, the rate of suicide in Western Australia was 14.7 per 100,000 compared to 12.1 per 100,000 in Australia overall.⁴³ Across Australia, mood disorders, including depression, were the most common co-morbidity (43.9% of suicide deaths) followed by problems related to substance use (29.4%).⁴³ It is also widely recognised that there are a range of factors related to suicide deaths that are not diagnosable health conditions and that are not systematically recorded on death certificates in Australia. A pilot study by the Australian Bureau of Statistics (ABS) based on coroner-referred deaths in 2017 highlighted psychosocial factors such as past history of self-harm, relationship issues, legal and financial concerns, and disability as being most commonly associated with suicide deaths.⁴⁷</p> <p>Across PHN</p> <p><i>Suicide</i></p>

Outcomes of the health needs analysis

Suicide was the seventh leading cause of death in Country WA PHN, accounting for 3.1% of deaths from all causes (19.0 ASR per 100,000).⁴⁸ The rate ratio relative to all of Australia was 1.57 meaning there were 57% more deaths by suicide in Country WA compared to the rest of Australia. When compared with other PHNs across Australia, Country WA PHN had the second highest suicide rate after Western Queensland PHN (ASR=25.7 per 100,000).

Depression and intentional self-harm

Country WA PHN had a higher hospitalisation rate for depression (ASR=16 per 10,000) and intentional self-harm (ASR=24 per 10,000) compared to national rates (ASR=12 per 10,000 and 17 per 10,000 respectively).⁴⁹

Youth suicide

In 2018, suicide remained the leading cause of death for children between 5 and 17 years of age in Australia, accounting for 22.3% of deaths from all causes in this age group.⁴³ The rate for male children (3.0 per 100,000) was substantially higher than for females (2.0 per 100,000). In 2014-18, Western Australia had the third highest rate of suicide among 5-17-year-olds, with a rate of 3.1 per 100,000 compared to the national rate of 2.4 per 100,000.⁴³

The 2014 State Ombudsman’s investigation into 36 suicide deaths by youth aged 13-17 years discussed several factors associated with suicide, these include demographic characteristics (i.e. being male and homeless), mental health conditions, suicidal ideation and behaviour, harmful alcohol and drug use, experiencing child maltreatment and adverse family experiences. One or more of these factors was prevalent in the suicide deaths of the 36 young people.⁴³

Place-based

Suicide

Kimberley SA3 had the highest suicide rate in Country WA PHN (40.5 ASR per 100,000 for all persons). The rate ratio relative to all of Australia was 3.36. Suicide rates in Goldfields and Wheatbelt-North SA3s were also very high, with rate ratios of 1.86 and 1.90 respectively for all persons.⁴⁸ Based on data from the WA Health and Wellbeing Surveillance System (HWSS)⁵⁰, the prevalence of adults aged 16 years and over in Kimberley SA3 who have had a friend attempt suicide in the past 12 months (15.1%) was significantly higher than the state rate (7.9%) as well as the rate for Country WA PHN (8.6%).

Outcomes of the health needs analysis		
		<p><i>Depression and intentional self-harm</i></p> <p>The highest hospitalisation rates for depression were in Wheatbelt-South, Esperance and Gascoyne SA3s (32 ASR per 10,000). Kimberley, Wheatbelt-South and Albany SA3s had the highest hospitalisation rates for intentional self-harm (ASR>30 per 10,000).⁴⁹</p>
<p>HN2.2 Perinatal care for the mother and baby to act as a protective factor to prevent future mental health problems.</p>	<p><i>Pregnant women and women who have just given birth are more likely to experience depression.</i></p>	<p>Data from the 2010 Australian National Infant Feeding Survey showed that one in five mothers of children aged 24 months or less had been diagnosed with depression.⁵¹ More than half of these mothers reported that their diagnosed depression was perinatal (that is, the depression was diagnosed from pregnancy until the child's first birthday). Perinatal depression was most commonly reported among mothers who⁵¹:</p> <ul style="list-style-type: none"> • Were younger (aged under 25). • Were smokers. • Came from lower income households. • Spoke English at home. • Were overweight or obese. • Had an emergency caesarean section. <p>Across PHN</p> <p><i>Fertility and births</i></p> <p>Between 2013 to 2015, the total fertility rate across Country WA PHN (2.3) was higher than for the state (1.9).¹ Many regional hospitals in Country WA PHN only cater for low-to-medium-risk pregnancies and births; women with higher-risk pregnancies are generally transferred to Perth for maternity care.⁵² A difficult or complex pregnancy and lack of support from family and friends leading up to the birth and immediately afterwards may also increase the risk of developing perinatal depression.⁵³</p> <p>Place-based</p> <p><i>Fertility and births</i></p> <p>Sub-regions with a relatively high number of births will have a higher demand for perinatal mental health services. Within Country WA PHN, the highest number of births between 2013 and 2015 were in Bunbury SA3 (4,221) and Wheatbelt-South SA3 had the highest fertility rate (2.7).¹</p>

Outcomes of the health needs analysis		
HN2.3 Reduce impact of mental health conditions on medium and long-term physical health morbidity and multi-morbidities.	People with chronic conditions are at higher risk of developing co-occurring physical and mental health conditions or exacerbation of pre-existing conditions.	Comorbidity can involve more than one mental health condition, or one mental health condition and one or more physical conditions. Mental health problems are known to have high rates of comorbidity with chronic physical conditions. ⁵⁴ Around one in nine Australians aged between sixteen and 85 years had a mental health condition and physical condition at the same time. ⁵⁵ People living in the most disadvantaged areas of Australia were 65% more likely to have a comorbidity than those living in the least disadvantaged areas. ⁵⁵
HN2.4 People with persistent mental health conditions need to be able to access appropriate and timely primary care to avoid hospitalisations.	<i>People living with severe and complex mental health conditions are more likely to present to hospitals when primary health care is not accessible.</i>	<p>Across PHN</p> <p><i>Schizophrenia and delusional disorders</i></p> <p>Overall, Country WA PHN had a lower rate of hospitalisations (17 ASR per 10,000) for schizophrenia and delusional disorders compared to the national average.⁴⁹</p> <p><i>Bipolar and mood disorders, excluding depressive episodes (refer to Table 36 and Table 37)</i></p> <p>Overall, Country WA PHN had a lower hospitalisation rate (9 ASR per 10,000) for bipolar and mood disorders compared to the national average.⁴⁹</p> <p>Place-based</p> <p><i>Schizophrenia and delusional disorders</i></p> <p>The Wheatbelt-South and Kimberley SA3s had the highest hospitalisation rates for schizophrenia and delusional disorders in Country WA PHN.⁴⁹ These regions had a hospitalisation rate that was around 1.5 times the national average.</p> <p><i>Bipolar and mood disorders, excluding depressive episodes</i></p> <p>Wheatbelt-South and Albany SA3s had the highest hospitalisation rates for bipolar and mood disorders in Country WA PHN.⁴⁹</p>
HN2.5 Children and youth are a priority, along with early intervention to improve access and	<i>Children aged 4-17 years in Country WA are more likely to live with a mild mental</i>	[This section has been redacted for data confidentiality reasons]

Outcomes of the health needs analysis		
outcomes.	health condition compared to the national average.	
HN2.6 Vulnerable groups have a high demand for mental health services.	Minority groups, including people who are CALD or LGBTI, are more vulnerable to poor mental health.	<p>Please refer to the general population health section for a full discussion of the social determinants of health and the health needs of culturally and linguistically diverse (CALD) populations.</p> <p><i>Migrants and people born in non-English speaking countries</i></p> <p>The prevalence of mental health conditions is lower for people born in non-English speaking countries (8.4% for males and 16% for females) compared to people born in Australia (20% for males and 24% for females).⁵⁶ However, research shows that the mental health of migrants tends to deteriorate after the first year in Australia due to stress caused by acculturation, language and social difficulties and difficulties in finding employment.⁵⁷ Moreover, many CALD residents may have difficulty accessing mental health services because of these barriers. Within Country WA PHN, West Pilbara SA3 had the highest proportion (9.8%) and Bunbury SA3 had the highest number (7,018) of residents born in non-English speaking countries.¹</p> <p><i>Lesbian, Gay, Bisexual, Transgender, and Intersex (LGBTI) populations</i></p> <p>The term LGBTI includes all people whose sexual orientation, gender identity or sex differ from heterosexual or male/female sex and gender norms.⁵⁸ As a minority group, LGBTI people are particularly vulnerable to poor mental health due to discrimination and exclusion as key determinants of health.⁵⁹ Studies indicate a high prevalence of mental health conditions among LGBTI people, with at least 36% of transgender and 24% of gay, lesbian and bisexual Australians meeting the criteria for experiencing a major depressive episode in 2005, compared with 6.8% of the general population.⁶⁰ Rates of depression, anxiety and poor mental health are highest among transgender and bisexual people, especially bisexual women.⁶¹</p> <p>In the South West region, a WA Primary Health Alliance-funded project conducted by South West Counselling Inc. (SWCI) liaised with local services to determine if additional support was required for LGBTI youth in the region. The results of the survey indicated that LGBTI youth in the South West are not adequately supported within their schools, family or community, placing them at increased risk of poor mental health and suicide.⁶² Based on the feedback received, SWCI is planning the facilitation of a peer-led LGBTI youth support group to create a safe and supportive environment where youth can take pride in their identity.</p>

Outcomes of the health needs analysis

		<p>To achieve Rainbow Tick accreditation, WA Primary Health Alliance (WAPHA) is required to meet six standards. As part of Standard 3 - Consumer Participation, WAPHA conducted a qualitative Community Engagement survey to help inform health service planning and ensure that health services are safe, welcoming and inclusive of the needs of lesbian, gay, bisexual, transgender, and intersex (LGBTI) people. The survey commenced on 3rd November 2018 at Fair Day (the launch of WA’s Pride Month) and was available throughout the month online.</p> <p>There were 212 respondents. Almost half of respondents were aged in their twenties or thirties and 92% resided in the Perth metropolitan area. Of the 212 respondents, there were 172 (81%) that were lesbian, gay, bisexual, transgender or intersex (LGBTI), 33 (16%) that were not LGBTI, and 7 (3%) that preferred not to answer. About 56% of respondents were female (n=118) and 37% were male (n=78). There were 16 respondents (8%) who identified as gender diverse, indeterminate, intersex or preferred not to disclose their gender.</p> <p>The survey asked respondents questions regarding their utilisation of health services and what changes or improvements would make healthcare services more accessible for LGBTI people.</p> <p>The survey responses indicated that LGBTI consumers want to be treated as ‘substantively equal’ to their heterosexual counterparts and that they seek health providers who are inclusive, non-judgmental and well-informed about issues related to LGBTI health. It highlighted the importance of explicitly stating support for the LGBTI community by displaying a Rainbow flag, ally sticker or inclusive posters of same sex families. A recurring theme in the survey was education and training: mandatory LGBTI awareness training for all medical practitioners would help providers to be better informed and make health services more inclusive.</p>
<p>HN2.7 Consumer capacity to respond to mental health conditions by raising awareness of mental illness and treatment options.</p>	<p><i>Patients have limited understanding how to access the right care at the right time in the right place.</i></p>	<p>Stakeholder feedback indicates that mental health patients often have difficulty navigating the health system due to its complexity. It is important that patients and/or carers know how to access the right care early on, to prevent the need for hospitalisation. It is also important that coordinated care is provided for patients in the community, after they have been discharged from hospital. Poor discharge practices have been shown to result in readmission to hospital within 28 days and more serious adverse outcomes for patients and their families.⁶³</p> <p>There is a wide range of mental health awareness campaigns across Australia including RUOK Day, Suicide Prevention Day, and Mental Health Week. However, information in these campaigns is generally limited to</p>

Outcomes of the health needs analysis		
		<p>telephone helplines and there is little or no information about accessing services in a primary care setting. Moreover, information about primary mental health care such as PORTS and Better Access is not readily available in preliminary Google searches for mental health care in WA. This means that many patients may be unaware of how to access services and navigate the mental health system. Stronger online messaging regarding primary care services (for example “talk to your GP”) is needed to supplement existing mental health awareness campaigns.</p>
<p>HN2.8 Psychosocial support. Community based non-clinical mental health services, known as psychosocial supports, to assist people with severe mental health conditions that result in psychosocial disability through reduced functional capacity.</p>	<p><i>Demand for mental health community support services by those with a psychosocial disability and non-NDIS populations.</i></p>	<p>New psychosocial supports will reduce the service gap between mainstream mental health services and the National Disability Insurance Scheme (NDIS), as well as continuing the supports provided to existing clients of Commonwealth-funded psychosocial services, improving mental health outcomes and reducing inequity in service availability.</p> <p>[This section has been redacted for data confidentiality reasons]</p>
<p>HN2.9 Mental health in residential aged care facilities.</p>	<p><i>Older adults in residential aged care facilities require access to targeted mental health support services.</i></p>	<p>In the 2018 to 2019 budget, it was announced that the federal government will provide funding to support the mental health of older adults. In the first initiative, PHNs will be funded to deliver mental health services for patients with a diagnosed mental disorder who are in residential aged care facilities (RACFs). Services commenced in January 2019 in each PHN and it is intended that all RACFs will have access to psychological therapies by 2022. In the second initiative, the Australian College of Mental Health Nurses will lead the development of a mental health nurse-led service focused on reducing the detrimental health and mental health impacts of social isolation.</p>
<p>HN2.10 The ‘missing middle’.</p>	<p><i>There is a demand for services to address the needs of the ‘missing middle’ – clients with</i></p>	<p>The ‘missing middle’ is a term used to describe clients who are too unwell to be effectively treated in the primary mental health system but are not unwell enough to be treated in the state-based mental health system. Orygen and headspace⁶⁴ indicated that, of the 26% of young people in any given year with a mental health condition, around 12% are likely to be experiencing a more moderate-to-severe and complex mental health issue and may be missing out on care. The increasing level of complexity and severity of presentations</p>

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	complex and/or co-occurring mental health conditions.	has placed existing primary care services under strain, with about 90% of headspace centres nationally reporting that wait times are a major concern. ⁶⁵ A report by headspace ⁶⁵ identified six key actions to meet the growing demand for services including “augmenting the existing headspace platform to provide better care for young people with more severe and complex conditions (the missing middle)” (p.11).

Alcohol and Other Drug Treatment Needs

Outcomes of the health needs analysis		
Identified Need	Key Issue	Description of Evidence
HN3.1 For many people, alcohol consumption needs to be reduced to lower their risk of disease and injury.	Drinking more than recommended is common and increases the risk of disease and injury.	<p>Alcohol was reported as the third highest risk factor (behind tobacco use and high body mass) contributing to disease burden in Australia, accounting for 5.1% of the overall burden of disease and injury.⁶⁶</p> <p>Limiting daily alcohol consumption (no more than two standard drinks per day) and avoiding single occasion heavy drinking (no more than four standard drinks on a single occasion) is recommended to reduce harm.⁶⁷</p> <p>The National Drug Strategy Household Survey (NDSHS) found that 17% of Australians consumed more than two standard drinks per day.⁶⁸ An estimated 26% of Australians (fourteen years or older) drink more than four standard drinks at least once per month (risky single occasion drinking).⁶⁸ This indicates that a high percentage of the population are vulnerable to disease and injury caused by alcohol use.</p> <p>Place-based</p> <p><i>Alcohol consumption</i></p> <p>Social health atlases published by the PHIDU give place-based estimates of at-risk drinking based on the NHSDS. Place-based estimates of at-risk drinking is not available for the Kimberley, Pilbara, Goldfields, Gascoyne or Esperance, which includes the regions with typically high health needs. Of the remaining SA3s in the Country WA PHN, Albany, Augusta-Margaret River-Busselton, Bunbury, Manjimup, Midwest and Wheatbelt-South all have significantly higher estimated rates of high alcohol intake compared to the state rate.¹</p> <p><i>Alcohol consumption - National Alcohol Sales Data Project</i></p>

Outcomes of the health needs analysis		
		Per capita estimates of consumption from the National Alcohol Sales Data Project were higher in the Kimberley, Gascoyne, Goldfields, Esperance, and Augusta-Margaret River-Busselton SA3s. ⁶⁹ The Margaret River region has a strong wine industry and per capita estimates of consumption may reflect tourist consumption.
HN3.2 Harmful drug use needs to be reduced to promote better health.	<i>Drug use is common and can have harmful health consequences.</i>	<p>For the purposes of this document, we have used the term ‘drug use’ to include illegal drugs and the misuse of pharmaceuticals. Drug use was estimated to have accounted for 2.3% of Australia’s burden of disease and injury, making it an important health issue (this excludes tobacco, see HN3.11). The 2016 National Drug Strategy Household Survey (NDSHS) estimated that 43% of Australians aged fourteen and over had used drugs at some point in their life and 8.6% had used drugs in the past month. These estimates have not changed significantly from the 2013 survey. The most common recently (past month) used drug was cannabis (5.8% of people), followed by cocaine (0.8%), ecstasy (0.7%), and meth/amphetamines (0.6%).⁶⁸</p> <p>There are growing concerns about the use of performance and image enhancing drugs (PIEDs), including anabolic steroids, peptides and hormones, taken to improve body image and/or enhance sporting performance. The 2016 NDSHS found that 0.6% of people had misused steroids at some point in their life, up from 0.3% in 2001, but not significantly than the higher rate of use recorded in 2013. The average initiation (first use) age of steroids recorded in the NDSHS has been getting and is now around 30 years of age, up from nineteen years of age in 2001. Due to the frequent intravenous use of steroids, the health risks associated with intravenous drug use are an important consideration (see HN3.8) There is evidence that usage is particularly high among gay and bisexual men (see HN3.12).⁶⁸</p>
HN3.3 People living with, or at risk of, alcohol and/or other drug dependence have considerable health needs.	<i>Alcohol and/or other drug dependence is a major component of the total burden of disease due to alcohol and other drug use.</i>	<p>Of the diseases linked to alcohol use, alcohol dependence is the greatest single cause of the disability-adjusted life year (DALY) burden, accounting for 31% of Australia’s burden of disease due to alcohol. Overall, alcohol dependence accounts for 1.5% of Australia’s burden of disease.⁷⁰ Alcohol dependence was the leading cause of alcohol-attributed hospitalisations (2015 data) for men (17% of alcohol-attributed hospitalisations) and women (26%).⁷¹</p> <p>Similarly, illicit drug dependence accounts for 31% of the total burden of disease and injury due to illicit drugs. According to the report, most of the non-fatal burden of illicit drug dependence is due to opioids (38%) and amphetamines (20%), with cocaine and cannabis accounting for smaller components (8.6% and 7.5% respectively).⁷²</p>

Outcomes of the health needs analysis

		<p>Most of the burden of illicit drug dependence is also experienced by men (72%) and 25-44 year-olds experienced 61% of the total burden.⁷²</p> <p>While the overall burden of disease due to illicit drug use is generally higher in remote or very remote areas, major cities carry the highest age standardised rate of disease burden due to illicit drug dependence, which is more than 1.5 times the rate in remote and very remote regions. The age standardised rate of burden due to alcohol dependence is highest in very remote regions, and higher among more socio-economically disadvantaged groups.⁷²</p> <p>Place-based</p> <p>While we do not have place-based estimates of the burden of disease due to drug dependence, data on disease burden by remoteness suggest that greater health needs associated with alcohol dependence are likely in remote and very remote regions of Country WA PHN.</p> <p>[This section has been redacted for data confidentiality reasons]</p> <p><i>Alcohol and Other Drug Treatment Services National Minimum Data Set</i></p> <p>In Country WA PHN, 39% of treatment episodes at publicly funded alcohol and other drug treatment providers were for alcohol problems.⁷³ This was higher than the 27% in Perth North and 28% in Perth South.⁷³ In line with our expectations from burden of disease reports, 71% were in the 10-39 age bracket and most people seeking treatment were men (65%).⁷³</p> <p><i>Drug consumption estimates from the National Wastewater Drug Monitoring Program (NWDMP)</i></p> <p>Given that nation-wide reports highlighted the high contribution of opioids and amphetamines to the burden of illicit drug dependence, place-based consumption information may highlight areas with higher needs. The NWDMP reported the estimated consumption of two pharmaceutical opioid with abuse potential (oxycodone and fentanyl) as well as Heroin. Lower consumption of oxycodone was estimated at most WA test sites compared to the average across all sites (national).⁷⁴</p> <p>We do not currently have access to MBS data on prescription opioids, which would add another layer of place-based information.</p>
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Outcomes of the health needs analysis

HN3.4 There is a need for increased awareness about drug overdose. People at risk of overdose need targeted support.

Drug overdose and accidental poisoning is a growing problem. Increasingly, overdose victims do not fit the traditional profile of heroin addicts.

Australia-wide, accidental poisoning was the leading cause of burden from illicit drug use, accounting for 33% of the total burden.⁷² This is mainly attributed to opioid use, which accounts for 51% of accidental poisonings due to illicit drugs.⁷² Amphetamines, cannabis, and cocaine account for smaller components of the burden of accidental poisonings, at 7.3%, 5.4% and 1.1% respectively.⁷² Alcohol related suicides are discussed separately in health need [HN3.5](#).

Australia’s Annual Overdose Report (2018), produced by the Penington Institute, reported 2,177 drug-related deaths in 2016.⁷⁵ Most deaths were due to opioids and often involved multiple alcohol and other drug use. Accidental deaths due to drug use increased from 904 deaths in 2002 to 1,704 in 2016.⁷⁵ According to a 2016 report by the Australian Bureau of Statistics, 70% of opioid overdoses are from pharmaceutical opioids. The Penington report found WA experienced a 2.7-fold increase in accidental drug-related deaths involving pharmaceutical opioids between the 2002 to 2006 and 2012 to 2016 periods. Middle-aged people were found to be most at risk of overdose, with around 70% of overdose victims in the 30 to 59-year-old age bracket. Increasing rates of overdose deaths in regional Australia were also noted.

Place-based

From 2012 to 2016, there were 212 accidental drug-related deaths in Country WA PHN. Rates of drug related deaths were greater than ten per 100,000 population (2012 to 2016) across most of Country WA PHN (Kimberley, Gascoyne, Midwest, Goldfields, Esperance, Manjimup, Augusta-Margaret River-Busselton and Wheatbelt-North).

Drug consumption estimates from the National Wastewater Drug Monitoring Program (NWDMP)

Given that opioids are largely responsible for overdoses, place-based information about opioid consumption may indicate populations at higher risk of overdose. The NWDMP reported the estimated consumption of two pharmaceutical opioids with potential for harmful use (oxycodone and fentanyl) as well as heroin. Lower consumption of oxycodone was estimated at most WA test sites compared to the average across all sites (national).⁷⁴

We do not currently have access to MBS data on prescription opioids, which could add another layer of place-based information.

Outcomes of the health needs analysis

		<p>The Penington report notes increasing rates of overdose deaths in regional Australia, but we do not have specific information on overdose rates in the Country WA PHN.⁷⁵</p>
<p>HN3.5 Reducing suicides and self-inflicted injuries will involve addressing those that are due to alcohol and other drug use.</p>	<p><i>A significant portion of the burden of suicide and self-harm is due to alcohol and other drug use.</i></p>	<p>Suicide and self-inflicted injuries were explored as linked diseases in the Australian Institute of Health and Welfare’s report on the impact of alcohol and illicit drug use on the burden of disease and injury in Australia. This reported that 7.8% of the total burden of disease and injury attributed to alcohol use was due to suicides and self-inflicted injuries. Alcohol use accounted for 14% of the total burden of disease due to suicide and self-inflicted injuries. Eleven percent of the burden of disease due to illicit drugs was found to be due to suicide and self-inflicted injury. Broken down by drug type, opioids accounted for 2.9% of the burden of suicide and self-harm, amphetamines accounted for 2.7% and cocaine accounted for 3.9%. Illicit drug use was attributed to 11.5% of the burden of suicides and self-inflicted injuries for men compared to 4.0% for women.</p> <p>Australia-wide, there were 3,128 suicide deaths in Australia in 2017.⁴³ In its most recent release, the ABS reported on the proportion of suicides with co-morbidities mentioned as factors contributing to death.⁴³ Findings of alcohol and other drugs in the blood were noted in 14% of suicides and 30% noted mental and behavioural problems due to alcohol and drugs (F10-F19, which includes dependence).⁴³ Mental and behavioural problems due to alcohol and drugs were noted in 42% of suicides for people aged 25 to 44, making alcohol and other drug-related suicides particularly concerning for this cohort.⁴³ Suicide and self-inflicted injuries is discussed in HN2.1.</p> <p>Place-based</p> <p>Place-based information on suicides and self-inflicted injuries is discussed in the mental health section of this Needs Assessment (HN2.1).</p> <p>We do not have place-based information on suicides and self-inflicted injuries caused by alcohol and other drug use; however, remoteness can give some indication of areas that may be higher need. The burden of suicide and self-inflicted injuries due to alcohol and other drug use is highest in very remote regions, followed by remote regions.⁷² This would suggest a higher burden of disease due to alcohol in the Country WA PHN compared to the Perth PHNs. Populations within the Gascoyne, East Pilbara, West Pilbara and Esperance SA3s are all remote or very remote and may therefore have a higher burden of suicide and self-inflicted injury due to alcohol use. Lower socio-economic populations are also at higher risk of suicides and self-inflicted injuries due to alcohol and other drug use.</p>

Outcomes of the health needs analysis

		<p>Given the high rate of mental and behavioural problems due to alcohol and drugs co-morbid with suicide, ED presentations and hospitalisations with these diagnoses may give an indication of areas with higher risk of alcohol and other drug related suicide.</p> <p>[This section has been redacted for data confidentiality reasons]</p>				
<p>HN3.6 Alcohol consumption causes multiple chronic diseases resulting in complex health needs.</p>	<p><i>Alcohol use is the cause of multiple chronic diseases.</i></p>	<p>The Australian Institute of Health and Welfare has reported that 18% of the burden of disease for cancers can be attributed to alcohol. By cancer type, the percentage of disease burden due to alcohol use ranged from 40% for liver, 37% for mouth and pharyngeal, 22% for laryngeal, 21% for oesophageal, 10% for breast and 5.4% for bowel.⁷² In 2015, cancers were the overall leading cause of alcohol attributed deaths (36% of the 5,785 alcohol-attributed deaths in 2015).⁷¹ Breast cancer was the leading cause of alcohol attributed deaths for women (18% of alcohol attributed deaths) and liver disease were the leading cause for men (18% of alcohol attributed deaths).⁷¹</p> <p>Illicit drug use accounts for 21% of the total burden of disease due to liver cancer and is a long-term consequence of contracting hepatitis C (see HN3.8 for information on unsafe injecting practices). The other reported chronic conditions linked to alcohol use were chronic liver disease (6.4%), cardiovascular diseases (5.6% of total burden due to alcohol), epilepsy (3.5%), and pancreatitis (0.2%). This highlights the potential to improve health through reduced drinking, but also the complex comorbidities that some alcohol users face.</p> <p>While injury and alcohol dependence dominate the burden of disease due to alcohol in the 15 to 24 and 25 to 44 age brackets, cancers account for a much higher share of the burden of disease in the 45 to 64, 65 to 84, and 85 years and over age brackets.⁷² Cancers account for the highest share of the burden of disease due to alcohol in the 65 to 84 age bracket, accounting for 41% of the total burden due to alcohol in men and 48% in women.⁷² The burden of cardiovascular diseases due to alcohol increases with age.⁷²</p> <p>Within the WA Primary Health Alliance’s health snapshot survey, six respondents listed alcohol and other drug use as one of their health issues. While this is a small cohort, these six respondents all listed other health issues, highlighting the comorbidities associated with alcohol and other drug use. Additional health issues included:</p> <table border="1" data-bbox="1115 1230 1765 1323"> <thead> <tr> <th>Comorbidity</th> <th>Number of respondents</th> </tr> </thead> <tbody> <tr> <td>Mental health conditions</td> <td>5</td> </tr> </tbody> </table>	Comorbidity	Number of respondents	Mental health conditions	5
Comorbidity	Number of respondents					
Mental health conditions	5					

Outcomes of the health needs analysis

		<table border="0" style="width: 100%;"> <tr> <td style="width: 80%;">Cardiovascular disease</td> <td style="text-align: right;">2</td> </tr> <tr> <td>Musculoskeletal conditions</td> <td style="text-align: right;">2</td> </tr> <tr> <td>Cancer</td> <td style="text-align: right;">2</td> </tr> <tr> <td>Diabetes</td> <td style="text-align: right;">2</td> </tr> </table> <hr/> <p>Place-based</p> <p><i>Alcohol and chronic conditions</i></p> <p>Areas with higher rates of alcohol consumption are likely to have greater health needs due to chronic diseases caused by alcohol. Areas with evidence of higher alcohol consumption are discussed in HN3.1. Areas with an older population are also likely to have more health needs associated with chronic diseases caused by alcohol use and have a lower need for alcohol and other drug services targeting dependence.</p> <p>Of the cancers linked to alcohol use, breast and bowel cancer have screening programs. Screening rates are discussed in the General Population Health Section 3 of the Needs Assessment (see SN1.5).</p>	Cardiovascular disease	2	Musculoskeletal conditions	2	Cancer	2	Diabetes	2
Cardiovascular disease	2									
Musculoskeletal conditions	2									
Cancer	2									
Diabetes	2									
<p>HN3.7 The co-occurrence of mental health conditions and alcohol and other drug use disorders creates complex health needs.</p>	<p><i>Drug and alcohol use and mental health conditions often co-occur.</i></p>	<p>Harmful use of alcohol and other drugs may also co-occur with mental health conditions without necessarily playing a causal role in the mental health conditions. People with mental health conditions can ‘self-medicate’ leading to a co-occurring harmful alcohol and other drug use, there can be indirect causal relationships between alcohol and other drug use, and mental health and/or there can be shared risk factors (i.e. biological, psychological, social or environmental) that make co-occurrence more likely.⁷⁶ In fact, estimates based on the National Survey of Mental Health and Wellbeing indicate more than one-third of people (31% of men, 44% of women) with harmful use of alcohol and other drugs have a co-occurring affective or anxiety disorder.</p> <p>The 2010 report on the Australian National Survey of Psychotic Illness found 58% of men and 39% of women with a psychotic illness had a lifetime history of harmful alcohol use or dependence, which is higher than the 35% and 14% in the general population.⁷⁷ Sixty-three percent of males and 42% of females surveyed reported a lifetime history of illicit drug use or dependence, compared to 12% of males and 5% of females in the general population.⁷⁷ The survey also found higher rates (58% of men and 39% of women) of harmful alcohol use or dependence among people with a psychotic mental health conditions compared to the general population.⁷⁷</p>								

Outcomes of the health needs analysis

		<p>There were six respondents to the WA Primary Health Alliance’s health snapshot survey who listed alcohol and other drug use as one of their health issues, five of whom also listed mental health conditions.</p> <p>Mental health conditions can be caused by alcohol and other drug use, but this is reported to contribute only a small component to the burden of disease due to alcohol and other drug use.⁷² Illicit drug use is linked to schizophrenia, anxiety disorders and depressive disorders; however, these contributed small percentages (0.5, 0.3 and 0.3% respectively) to the total burden of disease due to illicit drugs.⁷² Furthermore, 0.3% of the burden of schizophrenia, 0.1% of depressive disorders, and 0.1% of anxiety disorders were attributed to illicit drug use.⁷²</p>
<p>HN3.8 The risk of contracting blood-borne viruses can be mitigated by using safe injecting practices.</p>	<p><i>Blood borne-viruses due to intravenous drug use are preventable yet continue to occur.</i></p>	<p>Unsafe injecting practices accounted for 18% of the burden of disease due to illicit drugs, and 0.4% of Australia’s total burden of disease.⁷⁰ Using shared needles/syringes increases the risk of contracting HIV and hepatitis B and C. Most of the burden of disease due to unsafe injecting practices was attributed to chronic liver disease (65%) followed by liver cancer (34%), both of which are long-term consequences of hepatitis B and hepatitis C infection.⁷⁰ HIV/AIDS accounts for a comparably small 1.4% share of the burden of disease due to unsafe injecting practices.⁷⁰ A large proportion of the burden of disease due to hepatitis B and hepatitis C is due to unsafe injecting practices (43% and 83% respectively).⁷⁰</p> <p>A vaccine for hepatitis B has been available since 1982. It is currently recommended that all babies and adolescents are vaccinated, and since 2001 babies have received their first hepatitis B vaccine soon after birth.⁷⁸ No vaccination is available for hepatitis C, although antiviral treatment is available (the uptake of antiviral treatment is discussed in SN3.5).</p> <p>The prison population is at high risk of contracting hepatitis B and C. In a national health survey of prisoners conducted by the Kirby Institute in 2013, 31% tested positive for the hepatitis C antibody and 18% for the hepatitis B core-antibody.⁷⁹ Western Australia had the highest rate of prison entrants with a history of injecting drug use.⁷⁹ While providing health care to prisoners is not part of the WA Primary Health Alliance’s remit, many are released to re-join society and resume use of the public health system.</p> <p>Place-based</p> <p>Overall, hospitalisation rates for hepatitis B and C are low across WA⁸⁰ and more detailed place-based reporting is therefore not appropriate. Place-based estimates of the rates of intravenous drug use are not available.</p>

Outcomes of the health needs analysis		
<p>HN3.9 Prevention of fetal alcohol syndrome (FASD) and meeting the health needs of those affected by FASD.</p>	<p><i>There is increasing recognition about the health consequences of drinking during pregnancy; however, there are indications of high rates of FASD in some communities.</i></p>	<p>Current Australian guidelines to reduce health risks from drinking state: <i>'For women who are pregnant or planning a pregnancy, or are breastfeeding, not drinking is the safest option. Maternal alcohol consumption can harm the developing foetus or breastfeeding baby'.</i>⁶⁷</p> <p>Place-based</p> <p><i>Fetal Alcohol Syndrome (FASD)</i></p> <p>Feedback from WA Primary Health Alliance regional offices cited concerns about FASD in their communities, a lack of evidence about rates of FASD, and the health needs of children and young people suffering from FASD.¹²</p> <p>FASD has been identified as a community priority in the Fitzroy Valley in the Kimberley region where it is estimated one in eight children born in 2002/2003 have FASD, one of the highest rates worldwide. This led to the Lililwan Project which aims to provide accurate prevalence data for the area.⁸¹ FASD is also a priority in the Goldfields, and stakeholder consultation has identified FASD as a concern within the Pilbara region.^{5,12}</p> <p>In a study of 99 young Western Australians in detention, 36 (36%) were diagnosed with FASD.⁸² This speaks to the lifelong consequences of FASD for individuals and the effect on communities.</p>
<p>HN3.10 Respond to the alcohol and other drug related health needs of children and adolescents.</p>	<p><i>While there is evidence that drug and alcohol use among children and adolescents has reduced, it is important to ensure the health needs of those that do choose to use alcohol and other drugs are met.</i></p>	<p>During our Needs Assessment consultation with regional WA Primary Health Alliance offices, there were concerns about a lack of alcohol and other drug services for children and adolescents and a growing need for these services in some areas was raised.</p> <p>Current Australian guidelines to reduce health risks from drinking state: <i>'For children and young people aged under eighteen, not drinking alcohol is the safest option. Alcohol may adversely affect brain function and lead to alcohol-related problems later in life'.</i>⁶⁷</p> <p>The National Drug and Alcohol Strategy Survey included Australians in the fourteen to nineteen-year-old age bracket. Twenty-three percent of this age group reported having tried drugs and 9.1% reported having recently (in the past year) used drugs.</p> <p>Western Australia</p> <p><i>Australian School Students Alcohol and Drug Survey (ASSADS)</i></p>

Outcomes of the health needs analysis

		<p>The ASSADS has surveyed Western Australian school students aged twelve to seventeen at three-yearly intervals since 1984 on their drug and alcohol use. There has been a trend of lowering rates, particularly in the last few decades, of students who drink. In 1999 around 36% of students surveyed reported having used alcohol in the past week, in comparison to 14% in the 2014 survey.⁸³ Over this time period the number of students reporting never having consumed alcohol increased from 10% to 32%.⁸³ Of the students who reported consuming alcohol in the last week, there has been a general trend of increasing single occasion risk drinking (more than four standard drinks on a single occasion) over the lifetime of the survey.⁸³ In 2014, 6% of students report using an illicit drug in the past week, down from 17% in 1984.⁸³</p> <p><i>Young Australians Alcohol Reporting System (YAARS)</i></p> <p>The National Drug Research Institute (NDRI) conducts the YAARS, a survey of drinking habits of 14 to 19-year-olds focusing on the most recent risky drinking session of the heaviest 25% of drinkers by age and gender. Most of those surveyed in WA (87%) were in the Perth metropolitan area.⁸⁴ When asked about their most recent risky drinking, 16% reported having been injured (including cuts and bruises).⁸⁴ Most had not engaged in safety strategies to stop or limit their drinking (e.g. alternating between alcoholic and non-alcoholic beverages) or drink in a less risky manner (e.g. avoid drinking games).⁸⁴</p>
<p>HN3.11 Reduce smoking rates, particularly among vulnerable populations.</p>	<p><i>Smoking is the leading risk factor contributing to Australia’s burden of disease. Although smoking rates have declined overall, they remain high among people with alcohol and other drug problems, mental health conditions and for Aboriginal people.</i></p>	<p>A reported 9% of the total burden of disease in Australia can be attributed to tobacco use, the greatest single risk factor contributing to disease burden.⁶⁶ Twenty-two percent of the burden of cancer, 12% of the burden of cardiovascular disease, 36% of respiratory disease, 3.5% of endocrine disease and 0.5% of infections were attributed to tobacco use. Smoking rates in Australia have been steadily reducing and in 2016 12% of Australians smoked daily compared to 24% in 1991.⁸⁵</p> <p>Smoking rates among people receiving alcohol and other drug treatment are very high, estimated between 74% and 98%.⁷⁶ Tobacco accounts for the highest rate of mortality among people with alcohol and other drug, and mental health conditions.⁷⁶</p> <p>The 2010 report on the Australian National Survey of Psychotic Illness found that two-thirds of people with psychosis are smokers. This proportion had not reduced since the 1997 to 1998 survey, despite smoking rates reducing among the general population over this period.</p> <p>At publicly funded alcohol and other drug treatment services, nicotine is rarely the principle drug of concern, accounting for just 0.4% of clients in Country WA PHN from 2016 to 2017. Some PHNs have a much higher</p>

Outcomes of the health needs analysis

		<p>proportion of clients at alcohol and other drug services, primarily for nicotine addiction, such as Country SA (7.9%), Adelaide (5.5%), and Western Queensland (5.1%). At the state level, the AIHW has also released the additional drug of concern. Although nicotine was the principal drug of concern in 0.3% of episodes, it is listed as an additional drug of concern in 20% of episodes.⁷³</p> <p>Whole of PHN</p> <p><i>Smoking</i></p> <p>Social health atlases published by the Public Health Information Development Unit (PHIDU) give place-based estimates of smoking based on the NHSDS. The rate of smoking in Country WA PHN (19 ASR per 100 population) is significantly higher than the Perth North and South PHNs.</p> <p>Place-based</p> <p><i>Smoking</i></p> <p>Estimates of smoking rates are not available for the Kimberley, Pilbara, Goldfields, Gascoyne or Esperance, which includes the regions with typically high health needs. All other Country WA PHN SA3s have significantly higher smoking rates for men and women relative to state rates (for each gender).¹</p>
<p>HN3.12 Higher levels of harmful alcohol and drug use among the LGBTQI community may increase their health risks.</p>	<p><i>Higher levels of drug use among the LGBTI community.</i></p>	<p>The National Drug and Alcohol Strategy Survey reported that 42% of homosexual/bisexual people had recently used drugs, compared to 15% of heterosexual people. This was the highest percentage of any of the social characteristics explored, which included:</p> <ul style="list-style-type: none"> • Education. • Labour force status. • Spoken language. • Remoteness. • Marital status. • Indigenous status. • Household composition. • Sexual orientation. <p>A study of 2,733 gay and bisexual men in Australia found that 4.4% used anabolic androgenic steroids,⁸⁶ consistent with international studies finding higher use among gay and bisexual men in comparison to</p>

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		<p>heterosexual men. Given that gay and bisexual men are already at a higher risk of blood borne viruses, safe-injecting practices among anabolic steroid users is particularly important. The health risks associated with intravenous drug use are discussed in HN3.8.</p>																						
<p>HN3.13 Injuries and assault resulting from alcohol and other drug use.</p>	<p><i>Injuries and assaults can be reduced by reducing harmful alcohol and other drug use.</i></p>	<p>Twenty-six percent of the burden of disease due to alcohol was estimated to have been due to accidental injuries and assault (suicide and self-inflicted injuries are discussed in HN3.5).⁷² Large percentages of the burden of disease due to injuries such as road traffic accidents and drowning were due to alcohol (see summary below).⁷² Results of the National Drug Strategy Household Survey found that single occasion risky drinkers (more than 4 standard drinks at least once per month) were 8.1 times more likely to have injured themselves or someone else in the last 12 month than low-risk drinkers.⁶⁸ These reports both highlight the short-term health risks associated with drinking.</p> <table border="1" data-bbox="846 624 1624 1070"> <thead> <tr> <th data-bbox="853 660 981 687">Injury type</th> <th data-bbox="1429 632 1617 687">% of burden due to alcohol use</th> </tr> </thead> <tbody> <tr> <td data-bbox="853 699 1167 726">Other land transport injuries</td> <td data-bbox="1563 699 1617 726">34.9</td> </tr> <tr> <td data-bbox="853 735 1234 762">Road traffic injuries - motorcyclists</td> <td data-bbox="1585 735 1617 762">33</td> </tr> <tr> <td data-bbox="853 772 1137 799">Other road traffic injuries</td> <td data-bbox="1563 772 1617 799">30.2</td> </tr> <tr> <td data-bbox="853 809 1361 836">Road traffic injuries - motor vehicle occupants</td> <td data-bbox="1563 809 1617 836">29.7</td> </tr> <tr> <td data-bbox="853 845 1106 873">Homicide and violence</td> <td data-bbox="1563 845 1617 873">22.5</td> </tr> <tr> <td data-bbox="853 882 965 909">Drowning</td> <td data-bbox="1563 882 1617 909">20.6</td> </tr> <tr> <td data-bbox="853 919 1160 946">Other unintentional injuries</td> <td data-bbox="1563 919 1617 946">19.3</td> </tr> <tr> <td data-bbox="853 956 1093 983">Fire, burns and scalds</td> <td data-bbox="1563 956 1617 983">17.8</td> </tr> <tr> <td data-bbox="853 992 1084 1019">Accidental poisoning</td> <td data-bbox="1563 992 1617 1019">17.3</td> </tr> <tr> <td data-bbox="853 1029 909 1056">Falls</td> <td data-bbox="1563 1029 1617 1056">11.9</td> </tr> </tbody> </table> <p>Accidental injuries accounted for 39% of the burden of disease due to illicit drugs, but this was mainly due to accidental poisoning (discussed in detail in HN3.4). The remaining injuries linked to illicit drug use were road traffic injuries, accounting for 5.6% of the burden of disease due to illicit drug use. 5.2% of the burden of road traffic injuries were due to illicit drug use. Overall, alcohol use is responsible for a larger share of the burden of injury than illicit drug use.</p>	Injury type	% of burden due to alcohol use	Other land transport injuries	34.9	Road traffic injuries - motorcyclists	33	Other road traffic injuries	30.2	Road traffic injuries - motor vehicle occupants	29.7	Homicide and violence	22.5	Drowning	20.6	Other unintentional injuries	19.3	Fire, burns and scalds	17.8	Accidental poisoning	17.3	Falls	11.9
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Aboriginal Health (including Aboriginal chronic disease)

Outcomes of the health needs analysis		
Identified Need	Key Issue	Description of Evidence
HN4.1 Poor health outcomes in disadvantaged areas.	<p><i>Socio-economic factors including poor rates of educational attainment, financial and housing instability, and low rates of employment are associated with long-term physical and mental health problems.</i></p>	<p>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 welfare for income and housing support. A score of 1 represents the most advantaged area and a score of 100 represents the most disadvantaged area.¹</p> <p>In the Kimberley, many Aboriginal people speak Kriol (2,400 speakers) from birth, an Aboriginal English which is a fusion of traditional Aboriginal languages and English (also spoken in the Northern Territory and with many different versions).^{87,88} Children usually do not encounter Australian English until they get to school, and are often dismissed as having poor English proficiency, rather than needing to learn a second language.^{89,90}</p> <p>Rest of WA</p> <p><i>Socio-economic disadvantage for Aboriginal population</i></p> <p>The Rest of WA has a score of 70, indicating considerable disadvantage when compared to the Greater Perth (37), state (56) and national (43) scores.¹</p> <p>When comparing indicators of socio-economic disadvantage, the Rest of WA experienced similar rates to the Greater Perth region and state and national rates.¹</p> <p>Place-based</p> <p><i>Socio-economic disadvantage for Aboriginal population (IARE)</i></p> <p>The areas of greatest disadvantage based on the IRSEO are in the Kimberley (Kalumburu and Argyle-Warmun) and Goldfields (Wiluna, Warburton and Laverton-Ngaanyatjarraku), all with an IRSEO score of 90 or above. These areas (among others) are also characterised by high levels of unemployment, welfare dependence, family dysfunction, lower levels of education and poorer housing suitability.¹</p>

Outcomes of the health needs analysis

		<p>Throughout Country WA PHN, there are a number of IAREs that experience disadvantage when compared to the state and national rates. The highest statistically significant rates are^{1, a}:</p> <ul style="list-style-type: none"> • Unemployment in Kalumburu (52%), Warburton (50%) and Wiluna (50%). • Aboriginal single-parent families with children in Northam (63%), Bunbury (62%) and Kununurra (61%). • Aboriginal low-income families in Outer Derby-West Kimberley (38%), Great Sandy Desert (37%) and Argyle-Warmun (36%). • Aboriginal jobless families with children in Kalumburu (88%), Fitzroy River (69%) and Outer Derby-West Kimberley (69%). • Government housing in Fitzroy River (91%), Outer Derby-West Kimberley (89%) and Broome-Surrounds (85%). • Poor housing suitability in Warburton (40%), Wiluna (39%) and Outer Derby-West Kimberley (39%). • Dwellings with no internet connection in Kalumburu (93%), Fitzroy Crossing (70%) and Great Sandy Desert (68%). <p>Lower rates of secondary school participation and female labour force participation may indicate higher disadvantage. Within Country WA PHN, the lowest statistically significant rates for these indicators are¹:</p> <ul style="list-style-type: none"> • Secondary school participation in Kununurra (29%) and Halls Creek (36%) • Female labour force participation in Great Sandy Desert (21%), Halls Creek-Surrounds (23%) and Outer Derby-West Kimberley (23%).
<p>HN4.2 There is a need for accessible culturally secure primary care for Aboriginal people.</p>	<p><i>Aboriginal people have poorer health outcomes, including early onset and poor management of long-term health conditions, high mortality and morbidity, and poorer</i></p>	<p>The gap in health outcomes between Aboriginal and non-Aboriginal Australians is well documented, particularly around life expectancy, infant mortality, child mortality, chronic disease prevalence, potentially preventable hospitalisations and the burden of disease.⁹¹ 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. In WA, 60.2% of Aboriginal people have been diagnosed with at least one</p>

^a Excluding IAREs where the count was indicated to be less than five

Outcomes of the health needs analysis

	<p>maternal and child health outcomes.</p>	<p>chronic condition.⁹² Stakeholder consultation consistently highlighted Aboriginal health as being a concern within regions of Country WA PHN, particularly for health in Aboriginal children.³</p> <p>Rest of WA</p> <p><i>Aboriginal population</i></p> <p>As at the 2016 census, Aboriginal people represented 8.5% (44,058 people) of the total Country WA PHN population, which was notably higher than the rates in Perth North PHN (1.4%), Perth South PHN (1.8%), the state (3.1%) and the nation (2.8%).^{1,88}</p> <p><i>Aboriginal mortality</i></p> <p>In the five-year period between 2008 to 2012, 65% of deaths among Aboriginal people occurred before the age of 65, compared with 19% of deaths among non-Aboriginal people. The mortality rate for Aboriginal people was 1.6 times that of non-Aboriginal people (age-standardised rates of 981 and 596 deaths per 100,000 population, respectively). The largest difference between Aboriginal and non-Aboriginal mortality rates was for people aged 35 to 44, with male and female Aboriginal death rates 3.9 and 4.5 times the non-Aboriginal rates, respectively.⁹³</p> <p>From 2011-2015, cardiovascular disease was the leading cause of death for Aboriginal people, being responsible for 24% of the deaths of those living in WA. The next most common causes of death were neoplasms (mainly cancers) which were responsible for 21% of deaths, followed by external causes (injury) (15%).⁹⁴</p> <p>Aboriginal people born between 2010 to 2012 have a life expectancy of 65 years for males and 70 years for females. These expectancies are 10.6 years and 9.5 years less than non-Aboriginal males and females, respectively.⁹⁵</p> <p><i>Aboriginal hospital admissions</i></p> <p>Rates of total hospital admissions for Aboriginal people in the Rest of WA was 45,168 per 100,000 Aboriginal population in 2012/13 to 2014/15.¹ Aboriginal hospital admissions for chronic conditions were significantly higher in WA (2,575 per 100,00 ASR) compared to Australia (2,034 per 100,000 ASR).¹</p> <p><i>Aboriginal child and maternal health</i></p>
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Outcomes of the health needs analysis

		<p>For the years 2012 to 2014, the Rest of WA by IARE had a rate of 14% for low birth weight babies, similar to the state and national rates. In the general population, the rate of low birth weight babies in the Rest of WA was 6%, which was also similar to the PHN, state and national rates.¹</p> <p>The rate of mothers smoking during pregnancy (2012 to 2014) was 50% for Rest of WA, which was similar to the state and national rates. The rate of mothers who smoked during pregnancy for the general population was in 13% in the Rest of WA, 9% in the state, and 12% in the nation.¹</p> <p>Of the Aboriginal children in the Rest of WA, 54% were estimated to be developmentally vulnerable on one or more domains in 2015, similar to the state and national rates. In the general population, 25% of children in Country WA PHN are estimated to be developmentally vulnerable on one or more domains - half the rate within the Aboriginal population. The state and national rates in the general population are 21% and 22% respectively.¹</p> <p><i>Domestic violence in the Aboriginal population</i></p> <p>One in six Australian women and one in 16 men have been subjected, since the age of 15, to physical and/or sexual violence by a current or previous cohabiting partner.¹⁰ Domestic violence occurs at higher rates for Aboriginal Australians and is known to have negative mental, emotional and physical implications on victims, including increasing the risk of homelessness. In 2014 to 2015, Aboriginal women were 32 times more likely to be hospitalised due to domestic violence than non-Aboriginal women, while Aboriginal men were 23 times more likely to be hospitalised than non-Aboriginal men.¹¹</p> <p>Place-based</p> <p><i>Aboriginal population</i></p> <p>In Country WA PHN, the proportion of Aboriginal people ranges from 2.3% of the population in the South West (4,132 people) to 42% of the population in the Kimberley (14,299 people). Some sub-regional areas are much higher in proportion, including the IAREs of: Fitzroy River (91%); Kalumburu (91%); Halls Creek-surrounds (84%); Broome-surrounds (79%); Great Sandy Desert (78%) and Outer Derby-West Kimberley (77%), all in the Kimberley; and Warburton (85%) in the Goldfields. The IAREs with the largest Aboriginal population are Geraldton (3,585 people); Broome (3,042) and Port Hedland (2,415).¹</p>
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Outcomes of the health needs analysis

		<p>Additional areas with large Aboriginal populations have been identified by Midwest stakeholders in Gascoyne and Murchison districts.⁴</p> <p><i>Risk factors</i></p> <p>Aboriginal people in Australia experience considerably high rates of smoking (42%), risky alcohol consumption (31%), obesity (66%), and psychological distress (30%) when compared to non-Aboriginal people.¹ In WA specifically, Aboriginal people experience risk factors at rates higher than their non-Aboriginal WA counterparts for smoking (three times higher) and psychological distress (two times higher).⁹²</p> <p><i>Aboriginal hospital admissions</i></p> <p>The highest rate of total hospital admissions for Aboriginal people was in the IAREs of Fitzroy Crossing (71,333 ASR per 100,000) and Broome (70,103), which are both statistically significantly higher than the national rate. The highest statistically significantly high place-based admissions for each region were¹:</p> <ul style="list-style-type: none"> • Goldfields: circulatory system diseases in Kalgoorlie-Ningia Mia (3,566) and mental health in Esperance-Ravensthorpe (4,645). • Kimberley: mental health in Kalumburu (4,590); respiratory system diseases in Derby-Mowanjum (9,998), Fitzroy Crossing (9,739) and Kununurra (9,509); digestive system diseases in Broome (5,915) Fitzroy Crossing (5,512) and Wyndham (5,564); circulatory system diseases in Fitzroy Crossing (3,541); injury, poisoning and other external causes in Argyle-Warmun (9,898) and Halls Creek (9,579). • Wheatbelt: mental health in Narrogin-Wagin-Katanning (8,656). • Midwest: injury, poisoning and other external causes in Carnegie South-Mount Magnet (9,248). <p><i>Aboriginal child and maternal health</i></p> <p>The rate of mothers who smoked during pregnancy in 2016 was highest in the Fitzroy River, Outer Derby-West Kimberley, Derby-Mowanjum and Fitzroy Crossing IAREs, all significantly higher than the state and national rates at 65%. The Esperance (18%), Wheatbelt-South (18%) and Wheatbelt-North (16%) SA3s had the highest rate in the general population.¹</p>
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Outcomes of the health needs analysis		
		<p>Within Country WA PHN, the highest rates are in the IAREs of Great Sandy Desert (89%), Broome and surrounds (76%) and Fitzroy River (71%), all of which are significantly higher than the state and national rates.¹</p> <p>Stakeholder feedback has indicated a need for maternal and child health services in the Shire of Leonora in the Goldfields region, following a recent reduction in service provision.⁹⁶ There is no data available for children who are developmentally vulnerable or of low birth weight in this area, prompting the need for further investigation.</p>
HN4.3 There is a need for increased patient awareness to prevent high ED attendances for non-urgent conditions.	<i>People presenting to ED with non-urgent conditions may lack access, availability, or awareness of appropriate and affordable primary care services.</i>	<p>High rates of non-urgent ED attendances indicate there may be a gap in primary care services.</p> <p>Place-based</p> <p>[This section has been redacted for data confidentiality reasons]</p>
HN4.4 Reduce harmful effects of mental health conditions on a person's health outcomes.	<i>Mental illness and disorders are widely recognised as being a significant risk factor for suicide and self-harm.</i>	<p>Mental disorders such as major depression, psychotic illnesses and eating disorders are associated with an increased risk of suicide⁴⁴ especially after discharge from hospital or when treatment has been reduced,⁴⁵ and people with alcohol or drug abuse problems have a higher risk of dying by suicide than the general population.⁴⁶</p> <p><i>Youth suicide</i></p> <p>In WA, suicide is the main cause of preventable deaths for fifteen to 24-year-olds.⁴³ The 2014 State Ombudsman's investigation into 36 suicide deaths by youth aged thirteen to seventeen years discussed several factors associated with suicide, these include demographic characteristics (i.e. being male and homeless), mental health conditions, suicidal ideation and behaviour, substance use, experiencing child maltreatment and adverse family experiences. One or more of these factors was prevalent in the suicide deaths of the 36 young people.⁹⁷ Aboriginal youth made up 36% of suicide deaths, despite accounting for only 6% of the youth population in the state.</p>
HN4.5 Demand and future demand for service related	<i>Minority groups, including people who are</i>	The 2014 to 2015 National Aboriginal and Torres Strait Islander Social Survey reported that nearly 33% of Aboriginal people aged over 15 years had high or very high levels of psychological distress - more than twice

Outcomes of the health needs analysis		
to vulnerable individuals who are not accessing services.	Aboriginal, are more vulnerable to poor mental health.	the rate of non-Aboriginal Australians. ⁹⁸ Moreover, mental ill health represents a significant barrier to accessing health services. Approximately 23% of Aboriginal people with a diagnosed long-term mental health condition indicated having difficulty accessing health services, compared to 10% of Aboriginal people with no long-term health conditions and 13% with other long-term health conditions. ⁹⁸
HN4.6 Reduce harmful effects of alcohol and other drug consumption on health outcomes.	Drinking more than the recommended is common and increases the risk of disease and injury.	Limiting daily alcohol consumption and avoiding single occasion heavy drinking is recommended to reduce harm. Current Australian guidelines published by the National Health and Medical Research Council to reduce health risks from drinking recommend: drinking no more than 2 standard drinks on any day reduces the lifetime risk of harm from alcohol-related disease or injury, and drinking no more than 4 standard drinks on a single occasion reduces the risk of alcohol-related injury arising from that occasion. ⁶⁷ The disease burden due to alcohol experienced by Aboriginal people is 3.1 times that of non-Aboriginal people, accounting for 8.1 percent of the health gap. ⁹⁹ For Aboriginal men, alcohol use disorders account for 5.8% of the total burden of disease and injury, second only to coronary heart disease. ¹⁰⁰ For men aged 25 to 44, alcohol use disorders were the leading contributor to disease burden. ¹⁰⁰ Alcohol use disorders account for 2.3% of the disease burden experienced by Aboriginal women. ¹⁰⁰
HN4.7 Reduce the harmful effects of smoking on health.	Smoking remains a major health concern, particularly for Aboriginal people.	A reported nine percent of the total burden of disease in Australia can be attributed to tobacco use – the greatest single risk factor contribution to disease burden. ⁶⁶ Twenty-two percent of the burden of cancer, 12% of the burden of cardiovascular disease, 36% of respiratory disease, 3.5% of endocrine disease and 0.5% of infections were attributed to tobacco use. Smoking rates in Australia have been steadily reducing and in 2016, 12% of Australians smoked daily compared to 24% in 1991. ⁸⁵ The disease burden due to tobacco use experienced by Aboriginal people is 4.6 times that of non-Aboriginal people, and accounts for 23% of the health gap. ⁹⁹

Section 3 – Outcomes of the service needs analysis

This section summarises the findings of the service needs analysis in the table below. For more information refer to Table 2 in '5. Summarising the Findings' in the Needs Assessment Guide on www.health.gov.au/PHN.

Additional rows may be added as required.

General Population Health

Outcomes of the service needs analysis		
Identified Need	Key Issue	Description of Evidence
SN1.1 More health professionals and primary care services are needed in some economically disadvantaged areas.	<i>Inadequate supply of primary care services mean people with health care needs are not able to access the right care at the right time in order to manage their health effectively.</i>	<p>Western Australia utilised primary care at lower than national rates with the second lowest level of Australian Government expenditure on general practitioners per person in 2015 to 2016. An ageing GP workforce and a move by younger Australian-trained GPs toward part-time employment will have significant impacts on access to primary care.¹⁰¹</p> <p>A recent GP workforce study estimated that 21% of the GP workforce will retire by the end of 2021. With a move away from full time employment and greater work/life balance for many younger GPs there is a need to train 2.1 Australian-trained GPs to gain one full time clinician.¹⁰¹</p> <p>A 2018 survey of WA health care consumers asked about consumer access to general practice and the barriers to accessing primary health care; 75% of respondents always visit the same practice and try to see the same GP each time while 17% of respondents would be happy to visit any GP within their regular practice and only 5% would visit any general practice to access a convenient appointment. When asked what would improve their access to primary health care the main themes were affordability, flexible appointment times and an increase in clinician availability and FTE.¹⁰²</p> <p>Note: Information regarding the FTE of health professionals is sourced from the National Health Workforce Data Set which does not specify if the workforce is employed in the primary care or tertiary care sector.</p>

Outcomes of the service needs analysis

		<p>Whole of PHN</p> <p><i>General practitioner workforce supply</i></p> <p>Country WA PHN has 779 registered GPs, with the majority (451) identifying as male. In Country WA PHN, 19% (146 GPs) of GPs are aged 55 to 64 years and 8.9% (69 GPs) were aged 65 years or over, highlighting that a large proportion of the medical workforce is nearing retirement age.¹⁰³</p> <p><i>General practitioner characteristics</i></p> <p>There are 79 GPs (approximately 10% of GPs who are included in RHW's annual workforce update) in Country WA PHN who indicate working fly-in-fly-out (FIFO), including those who drive-in-drive-out (DIDO).¹⁰³ With these GPs not living in the local communities, it is unlikely that they will be able to provide continuity of care to patients.</p> <p>Of general practices in Country WA, 24% are solo-operated in some way including: Aboriginal Community Controlled Health Organisation (ACCHO)-solo operated, solo co-located and solo-operated. This has the potential to be problematic if the solo-operating GP ceases business or takes leave. Additionally, only half of the GPs practising in Country WA PHN indicate working at full-time, highlighting a potential gap in continuity and availability of care from consistent GPs.¹⁰³</p> <p>More than half (53%) of the GPs in Country WA PHN are international medical graduates (IMGs).¹⁰³ Stakeholders across Country WA PHN have highlighted the significant reliance on IMGs and overseas-trained doctors who are predominately working in solo-operated general practices.¹⁰⁴ Dependence on IMG recruitment is not a long-term, sustainable solution to fill supply gaps in rural and remote regions.¹⁰¹ To access the MBS, IMGs need to practice outside major metropolitan areas; however, once this term is completed IMGs can choose to return to major metropolitan areas, where access to employment, schools and other services are more readily available. Additionally, IMGs will need to gain Fellowship to the Royal Australian College of General Practitioners within four years of commencement of practice in Australia.¹⁰⁴</p> <p><i>Allied health workforce supply</i></p> <p>In 2017, Country WA PHN had a lower supply of full-time equivalent (FTE) health practitioners per 10,000 population compared to WA overall except for GPs, midwives and Aboriginal health practitioners.¹⁰⁵</p> <p>Place-based</p>
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Outcomes of the service needs analysis

		<p><i>General practitioner (GP) workforce supply</i></p> <p>The supply of GPs per 10,000 population is lowest in Wheatbelt – North (10.6), Manjimup (11.7), and West Pilbara (13.5) SA3s.¹⁰⁵ Stakeholders have also identified that the Wheatbelt has a concerning low number of FTE GPs in the region.¹²</p> <p>The highest supply of GPs is in the Kimberley (33.5 per 10,000) and Gascoyne (26.0 per 10,000).¹⁰⁵ Despite this, stakeholders have expressed concern regarding workforce shortages in the remote areas of the Kimberley (including Derby) as well as in the Pilbara and Goldfields (including Kalgoorlie and Boulder). They have also highlighted the cluster of GPs situated in Broome that increases the region-wide rate of GPs in the Kimberley region that does not reflect the need in locations outside of the Broome area and the maldistribution of practices throughout the region.¹²</p> <p>Stakeholder feedback has noted that although there are sufficient services in the Great Southern, the region has pockets that experience limited services, particularly in Gnowangerup and Jerramungup. This means that people must travel to larger towns to access GPs and allied health professionals such as dietitians and diabetes educators.³ Additional gaps have been identified in the South West in inland townships such as Collie and Manjimup.²</p> <p>The highest proportion of GPs nearing retirement age (55 to 64 years) in Country WA PHN is in the Wheatbelt (24%), Pilbara (24%) and South West (22%) regions. The highest proportion of GPs aged 65 years and older and, would be likely to retire in the near future, is in the Goldfields (15%), Great Southern (11%) and South West (9%) regions.¹⁰³ These areas have the most aged GP workforce and are likely to experience shortages if retiring GPs are not replaced.</p> <p>The highest proportion of GPs who are IMGs are in the Wheatbelt (70%), Pilbara (70%) and Midwest (63%) regions.¹⁰³</p> <p>The Wheatbelt region has the highest proportion of FIFO GPs, with 30% of all GPs in the dataset indicating that they work in the region on a FIFO or DIDO basis. High proportions are also indicated in the Pilbara (19%), Kimberley (16%) and Goldfields (15%) regions. There are no FIFO or DIDO GPs documented in the Great Southern region.¹⁰³</p> <p>The highest proportion of GPs who indicate working full-time is in the Pilbara (91%), Goldfields (75%) and Midwest (55%) regions. The lowest is indicated in the Wheatbelt (40%), Kimberley (41%) and Great Southern (42%), potentially impacting continuity of care and availability of services.¹⁰³</p> <p><i>General practice supply</i></p> <p>Within Country WA PHN, the highest proportion of general practices that are solo-operated (ACCHO-solo, solo or solo co-located) are identified in the Wheatbelt (42%), Midwest (30%) and Goldfields (29%). The Wheatbelt also has</p>
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Outcomes of the service needs analysis

		<p>one of the highest number of solo-operated practices (38), after the South West (79). Areas that only have solo-operating general practices are¹⁰³:</p> <ul style="list-style-type: none"> • Esperance region. • Gnowangerup. • Carnamah. • Geraldton-South. • Morawa. • East Pilbara. • College Grove-Carey Park. • Pemberton. • Chittering. • Dowerin. • Kulin. • Mukinbudin. • Toodyay. • Wagin. <p><i>Allied health workforce supply</i></p> <p>Low rates (per 10,000) of full-time health professionals within SA3s have been noted for¹⁰⁵:</p> <ul style="list-style-type: none"> • Dental practitioners: East Pilbara (2.3), Wheatbelt – North (3.4), and West Pilbara (3.6). • Midwives: Wheatbelt – North (1.8), Gascoyne (3.1), and Manjimup (3.5). • Nurses: Augusta – Margaret River – Busselton (57.9), West Pilbara (72.4), and Manjimup (77.6) • Aboriginal health workers: all sub-regions except Kimberley, Goldfields, East Pilbara, and Midwest. • Occupational therapists: Gascoyne (NA), Goldfields (1.5), and Manjimup (2.2). • Pharmacists: West Pilbara (5.1), Esperance (5.6), and Goldfields (6.0). • Physiotherapists: Manjimup (3.5), Wheatbelt – North (4.2), and Wheatbelt – South (4.4). <p>Wheatbelt-North has low rates of allied health workforce across nearly all categories. The coastal Wheatbelt (Shires of Dandaragan, Gingin and Chittering) is situated on the immediate outskirts of the metropolitan region, with most residents accessing services in the northern metropolitan area due to limited local facilities and service delivery. Projected population increases in both areas are predicted to impact this service capacity further.¹⁰⁶ The Pilbara has</p>
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Outcomes of the service needs analysis

		<p>low rates of nurses and midwives, pharmacists and dental practitioners, Esperance has the lowest rate of pharmacists and Manjimup has low rates of occupational therapists and physiotherapists.¹⁰⁵</p> <p>Stakeholder feedback has highlighted poor access to specialists and allied health providers, particularly paediatricians, as being common in the Country WA PHN.¹² Specifically, the Great Southern has indicated a lack of, and need for, child development services, including access to multidisciplinary teams comprising medical services (paediatrician), child health nurses, speech pathology, physiotherapy and occupational therapy.¹⁰⁷ This has increased waiting list times and the need to travel to Bunbury or Perth to access these services, despite Albany becoming a hub for specialist professionals and visiting specialists, with the recent opening of Great Southern Specialists Centre.³ In regions with higher numbers of private specialists, such as the South West, high costs of services decrease the accessibility for residents.²</p> <p>Stakeholders in the Midwest have identified the large utilisation of hospital services as opposed to effective use of primary care services.⁴</p>
<p>SN1.2 There are challenges in recruiting suitably skilled workforce and high workforce turnover in rural/remote regions</p>	<p><i>High turnover compromises continuity of care with recruitment difficulties and delays also resulting in service gaps.</i></p>	<p>Covering such a large geographical area, health professionals in Country WA PHN are often servicing vast catchments and are geographically isolated from their peers. The challenge of recruiting and retaining a suitably qualified workforce is ongoing, with small staff numbers and high turnover rates. Residents in Country WA PHN are often left with poor access to medical professionals and limited continuity of care, which may negatively affect the care they receive.</p> <p>Whole of PHN</p> <p>Attracting permanent staff to rural and remote locations remains a challenge, with a high turnover rate across all workforce areas. From 30 November 2016 to 30 November 2017 the turnover rate of the rural workforce was 12%. The turnover rate of the GP workforce in rural AMS practices between November 2016 and November 2017 decreased from 22% in 2015 to 19% in 2016, a further decrease from 27% during the 2015 to 2016 period. The medical workforce in rural and remote areas who had received their basic medical qualification overseas was 57%, with the largest proportion coming from the United Kingdom, India, Pakistan and Myanmar.¹⁰⁸</p> <p>Stakeholder feedback in the Country WA PHN indicates “workforce continuity is a problem; being employed for six months at a time does not allow you to bite your teeth into long term projects ... [we can] support chronic clients only and this affects community relationships and integration.”¹⁰⁷</p>

Outcomes of the service needs analysis

		<p><i>“My GP has left, it’s hard for this town to attract and keep doctors. I really hate having to find a new doctor and then explain all my conditions to them because they don’t understand my disease” (45 to 54 year-old woman in Country WA PHN).¹⁰²</i></p> <p>Place-based</p> <p>The Kimberley region experienced the greatest proportional movements out (22% of all departures), with the majority of these GPs going interstate or to Perth.¹⁰⁸ Stakeholders in the region have also identified the poor retention of health professionals as being detrimental to the delivery of quality health services, particularly for mental health professionals in the Pilbara region.⁵ Conversely, the South West region experienced the least movement out, with only 10% of GPs departing. The South West region also experienced the greatest movement inward (23%), reflecting the influx of GPs moving into the greater Bunbury area. IMGs made up 73% of arrivals into the South West and Peel ^b regions.¹⁰⁸</p> <p>Stakeholders in the Great Southern have identified that although GP services are at capacity, they need to continually recruit more practitioners due to the ageing workforce and the part-time working preference, particularly in Albany.³</p>
<p>SN1.3 There is a need for appropriately targeted services for specific cohorts, including ageing populations, people living in remote communities and culturally and linguistically diverse populations.</p>	<p><i>Services should be targeted to specific high-risk groups, to increase accessibility and acceptability for vulnerable people.</i></p>	<p>The use of primary health resources by older adults has increased considerably in the past 15 years, with rates higher than expected from population growth. This is largely due to people living longer, more people acquiring and being diagnosed with more conditions, and each condition being managed for a longer period of time. Older adults (aged 65 years and over) are significantly more likely to have used a primary, hospital-based or allied health service than younger adults (16 to 64 years), but significantly less likely to have used mental or alternative health services.¹⁰⁹</p> <p>In particular, GPs play a significant role in the lives of many older adults as primary health care providers and as a point of referral to other health services. In 2012-13, older adults in Australia visited their GP 10.4 times on average, with people over 60 accounting for 57% of those who attended a GP more than 20 times, and 45% of those who attended between 12 and 19 times.³⁰</p> <p>Aged care services in Australia are funded and delivered in regions called Aged Care Planning Regions. In Country WA PHN, these regions are called Goldfields, Great Southern, Kimberley, Mid West, Pilbara, South West and Wheatbelt.¹¹⁰</p>

^b Although the Peel region is in the Perth South PHN, this data is only available with the South West and Peel regions combined.

Outcomes of the service needs analysis

		<p>Whole of PHN</p> <p><i>Residential Aged Care Places</i></p> <p>Country WA PHN has 68.5 residential aged care places per 1,000 population aged over 70 years, compared to the state rate of 76.0.¹¹¹ Operational aged care places include transitional, community and residential places which are delivered by government, for profit and not-for-profit providers. In Country WA PHN, palliative care services are limited and the cost can be a barrier to services.¹¹²</p> <p>Home Care Packages are available for older Australians to access affordable care services at home. There are four levels of home care packages depending on the level of care need, which is determined by an aged care assessment. The levels range from level 1 (basic care needs) to level 4 (high-level care needs). As at 31st December 2018, there were a total of 8183 home care packages in Western Australia and about 41% of these were at Level4.¹¹⁰</p> <p>In WA, the Home and Community Care (HACC) program has commenced transition to the Commonwealth Home Care Support Program (CHSP). CHSP is an entry level home help program for people requiring temporary or short-term care including; community and home support, meals and food services, and respite care. Applications and eligibility assessments for CHSP are sought through the My Aged Care website. In the Midwest, stakeholders have identified system navigation as a barrier to accessing these services, particularly for Aboriginal residents requiring support services.⁴ Additionally, a growing ageing population in Country WA PHN will continue to increase demand for all aged care services.</p> <p>The target population for CHSP people aged 65 years and over and Aboriginal people aged 50-64 years. The following information relates to CHSP clients in Western Australia in 2017-18.¹¹³</p> <ul style="list-style-type: none"> • 91.9% of clients were in the target population. • 63.2% of clients were female. • The highest proportion of CALD clients was in the 90-94 years age group (20.7%) and the lowest was in the 0-49 years age group (4.5%). • The proportion of Indigenous clients decreased with age: the highest proportion was in the 0-49 years age group (60.2%). • 27.2% of clients lived alone • 8.1% of clients had one or more dependents.
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Outcomes of the service needs analysis

		<ul style="list-style-type: none"> • The five most common services utilised were: allied health and therapy, flexible respite, centre-based respite, cottage respite, and assistance with care and housing. • The highest expenditure was for flexible respite. • The highest number of hours were for cottage respite (Cottage respite is available overnight or over a weekend. Takes place in the community or in the home of a host family. It can be taken for two to three days at a time). <p>Place-based</p> <p><i>Residential Aged Care Places</i></p> <p>The areas with the lowest residential aged care places per 1,000 population aged over 70 years are Gascoyne (25), Manjimup (47) and West Pilbara (49).¹¹¹ These areas are also projected to have an increasingly ageing population by 2025, placing pressure on these services.¹⁵</p> <p><i>Home Care Packages</i></p> <p>In Country WA PHN, South West and Pilbara respectively had the highest (617) and lowest (45) number of home care packages.¹¹⁰ In the Great Southern, nearly half of all packages were for the highest level of care (Level 4), indicating this cohort of older people have support needs.</p> <p>The South West had the highest number of providers (13) in contrast to Great Southern and Mid West, which each had only six providers.</p> <p>The number of people waiting for a home care package was highest for South West especially Level 4 packages, which made up over 40% of the wait list in this region (refer to Table 33).¹¹⁰</p> <p>Stakeholders in the Great Southern and South West have expressed concern regarding the older demographic within the region, particularly in Albany, and the consequent need for more aged care services to assist in healthy ageing in the home or in residential aged care places rather than the hospital.³</p> <p>There is a gap in palliative care in the Great Southern region, with one quarter of all palliative care patients in Country WA PHN living in this region (2015 to 2016).¹¹²</p> <p>In Country WA PHN, the Great Southern region has been working closely with Local Government to create an Aged Friendly Charter across an alliance of three Local Government Areas led by community. This public health approach is also complemented by the Compassionate Communities approach and the Cities Charter that can be seen lodged</p>
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Outcomes of the service needs analysis

		<p>on the City of Albany Webpage.</p> <p>There has been interest across the other six country regions within the Country WA PHN to look at this approach with conversations underway with the South West and Wheatbelt.</p> <p>Stakeholder feedback from the Goldfields region indicates high levels of hospitalisations for various cancers, respiratory conditions and preventable chronic conditions in the older age groups and dialysis in the Aboriginal older female community. This may indicate increased frailty, disability and functional decline at a younger than expected age. A need for local services to prevent, manage and treat these conditions in the community would assist in avoiding hospitalisation.¹⁰⁷</p> <p><i>After-Hours GP Attendance Residential Aged Care Facilities</i></p> <p>In Country WA PHN, there were five SA3s (Esperance, Gascoyne, Manjimup, Pilbara, and Wheatbelt – South) with no after-hours GP attendances in residential aged care facilities between 2014-15 and 2016-17.¹¹⁴ The region with the highest after-hour GP attendance in residential aged care facilities was Bunbury and the South West region followed by the Goldfields.</p> <p>The Albany GP after-hours collaborative has improved access to residential and community aged care after hours.</p> <p><i>Culturally and linguistically diverse (CALD) populations</i></p> <p>The CALD population in the Great Southern have a good awareness of their local GP services, indicating in a local survey that the main reasons they would go to the ED was if: there were long waiting times at the GP, there was a time conflict with work, or cost barriers. There are indications from this survey that allied health (including mental health) is not being utilised if needed due to: language barriers, not needing the service, lack of knowledge of the service, and cost. The majority of respondents would like information about services available to them, interpreter services and cost information.¹¹⁵ Further investigation is needed to examine if this is comparable in other regions.</p>
<p>SN1.4 There is a need for transition programs to support people moving from one service to another, particularly people travelling from</p>	<p><i>Services need to be integrated and collaborative in order to provide person-centred care that meets individual needs.</i></p>	<p>Whole of PHN</p> <p>Qualitative feedback has identified that Western Australia has current inefficiencies in the co-ordination and integration of primary and secondary care services, leading to system-based problems including:¹¹⁶</p> <ul style="list-style-type: none"> • Increased waiting times for treatment in secondary care. • High number of inappropriate referrals to secondary care.

Outcomes of the service needs analysis

<p>country regions</p>		<ul style="list-style-type: none"> • Inefficient use of resources. • Poor discharge from secondary to primary care/general practice. • Lack of system integration. <p>There is also a high level of population flow in relation to Country WA PHN residents travelling to health services and specialist appointments in metropolitan areas. There is often a lack of integration and collaboration between services in the country and metropolitan regions, and communication back to the patient. This can create isolation, a lack of understanding and inconsistent care.¹¹⁷</p> <p>System navigation and care coordination is an issue for all primary health clinicians. Awareness of other service providers and programs are limited and care coordination between multiple clinicians is challenging in time-poor environments.¹¹⁸</p> <p>The development of Health Pathways enables GPs to manage and refer their patients to the most appropriate local care, working to improve the integration of care across services. As of August 2018, over 423 localised Health Pathways have been developed in a variety of diagnostic categories across Western Australia, and page views by GPs have increased considerably in two years (9,388 in November 2015 to 354,193 in August 2018).¹¹⁹</p> <p>Place-based</p> <p>Some examples of difficulties which arise due to the lack of integration and collaboration of services, especially for those travelling from Country WA PHN to access metropolitan services, include^{117,120,121}:</p> <ul style="list-style-type: none"> • A lack of communication between service providers, transport providers and accommodation providers. • Culture shock, isolation, lack of understanding, and often English as a second language. Best practice programs have a liaison officer/escort to assist. • A lack of communication between the tertiary and primary care sector across Country WA PHN. Discharge summaries need to be improved in order to enhance person-centred care and the quality of transfer. • A lack of social services to assist with social issues, which would also improve health outcomes. <p>Midwest stakeholders have expressed their concern over a lack of coordination of primary healthcare services in the region.⁴ Significant work has been done to ensure there are strong links between WACHS and specific programs, which has helped clients to receive the required care through a GP care plan.</p>
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Outcomes of the service needs analysis

<p>SN1.5 Uptake of targeted early intervention primary care could be improved.</p>	<p><i>Targeted early intervention and/or secondary prevention in primary care could prevent the development of chronic conditions, comorbidities and avoidable death.</i></p>	<p>Early intervention can produce significant long-term health care savings and improve overall quality of life. Cancer screening has been shown to reduce morbidity and mortality by cancer, and childhood immunisation is recommended as a safe and effective way of protecting against harmful diseases and reducing the overall spread of disease. Jurisdictions are mandated to ensure childhood immunisation rates are at least 90%, with a national ‘Strive for 95%’ target. This informed the ‘Western Australian Immunisation Strategy 2013-2015’ which outlined a framework for enhancing all aspects of immunisation program service delivery.¹²²</p> <p>Whole of PHN</p> <p><i>Cancer screening</i></p> <p>In 2015 to 2016, Country WA PHN had lower participation in the national breast cancer and cervical cancer screening programs, 53% and 52% respectively, compared to the state rates of 57% and 56%. Country WA PHN bowel cancer screening rates were comparable to state rates at 43%.¹²³</p> <p><i>Avoidable cancer mortality (</i></p> <p>Rates of avoidable mortality for all cancers for Country WA PHN (28 per 100,000) are similar to state rates (27).¹</p> <p><i>Immunisation</i></p> <p>From 2017 to 2018, Country WA PHN had similar immunisation rates for children at five years of age (94%) when compared to the state (93%) and national rate (94%). The target for immunisation in the five year age group is 95%.¹²⁴</p> <p><i>Potentially preventable hospitalisations (PPHs) for vaccine preventable conditions (refer to Table 16)</i></p> <p>Vaccine preventable potentially preventable hospitalisations (PPHs) include instances of pneumonia and influenza and other diseases that could have been prevented through childhood vaccinations such as diphtheria, whooping cough and measles. Country WA PHN had the highest number of vaccine-preventable PPH hotspots in the state, with sixteen out of the 24 hotspots.²³</p> <p>Place-based</p> <p><i>Cancer screening</i></p> <p>The Pilbara and Goldfields have low cancer screening participation rates for all three national programs. The Kimberley has the lowest rates for bowel screening and the Pilbara has lowest rates for breast and cervical screening.</p>
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Outcomes of the service needs analysis

		<ul style="list-style-type: none"> • By SA3, the lowest rates of bowel screening in Country WA PHN are: Kimberley (23%), Pilbara (25%), Goldfields (30%). • By SA3, the lowest rates of breast screening ^c in Country WA PHN are: Pilbara (37%), Goldfields (46%) and Gascoyne (47%). <p>Cancer screening rates do not include cancer screening undertaken in the State hospital sector and may explain the low rates in some areas particularly the Pilbara where the State hospital sector provides primary care services.</p> <p><i>Immunisation</i></p> <p>From 1 April 2017 to 31 March 2018, the Augusta-Margaret River-Busselton region had the lowest rates of immunisation at five years of age (90%), along with Gascoyne (92%) and Albany (93%). With the exception of Augusta-Margaret River-Busselton, all regions within the Country WA PHN have childhood vaccination rates above the herd immunity target (92% to 94%) and national target (95%).¹²⁴</p> <p><i>Potentially preventable hospitalisations (PPHs) for vaccine preventable conditions</i></p> <p>The Kimberley had by far the highest rates of vaccine preventable PPHs by place, specifically in Derby-West Kimberley and Halls Creek with a rate (ASR) considerably higher than the state average by more than ten and eight times respectively. The Goldfields and the Pilbara also experienced high rates of PPHs for vaccine preventable conditions.²³</p>
<p>SN1.6 Lack of access to and awareness of appropriate primary care services across Country WA PHN.</p>	<p><i>A lack of access to and awareness of appropriate primary care services, both during and after-hours, further compounds issues of service demand and timely and appropriate care, often resulting in increased reliance on unnecessary ED services.</i></p>	<p>Approximately 80% of non-urgent ED presentations in WA occur during the week day business hours of 8am and 4pm, indicating a large proportion of non-urgent ED presentations could be prevented by accessing primary care services. After-hours primary medical care provided by GPs, community health centres, and co-located general practice (AHGP) clinics and telephone helplines can help meet demand for those seeking medical attention outside of these hours to reduce demand on ED services. However, residents need to have adequate access to and awareness of during and after-hours primary care services to maximise primary care utilisation and alleviate pressure on secondary and tertiary systems.</p> <p>A 2018 survey of 137 WA health care consumers were asked about consumer experiences accessing after-hours primary care. Half of the respondents had accessed an after-hour primary care service while 46% had not. Of those who accessed a service, 48% of consumers described accessing after-hours primary care as easy because they were</p>

^c For the 24-month period, July 2014 to June 2016

Outcomes of the service needs analysis

aware of specific services. Of the 46% who did not access an after-hour primary care service, 16% of consumers did attend an emergency department to access after-hours primary care while 13% booked a home visiting GP.¹⁰²

Whole of PHN

Utilisation of GP after-hours services

The utilisation of GP after-hours and emergency GP attendance MBS items is also much lower for Country WA PHN (15 per 100 resident population), compared to state (36) and national rates (49).¹¹⁴

Consumer consultation has highlighted the need for more GPs to be available after-hours across the PHN.¹⁰²

“Not having to travel a two-hour round trip to seek medical help. This is for all members of the family. Same goes for using the local hospital. Have to go late at night when local doctor won't attend” (55-64 year-old woman in Country WA PHN).¹⁰²

Provision of after-hour services in General Practice

After-hours primary care refers to periods during the week and on the weekend when GP Clinics are typically closed. After-hours primary care is defined as the hours between:

- After 6pm Monday to Friday
- After 12pm Saturday
- All hours Sunday and public holidays.¹²⁵

Data sourced from the National Health Service Directory indicates that 48 General Practices provide some level of after-hours primary care in Country WA PHN, either opening after 6pm on weekdays or providing weekend appointments.

Utilisation of Healthdirect after-hours GP helpline

Healthdirect Australia is contracted to provide an after-hours telephone-based GP service which complements existing after-hours health services. The after-hours GP helpline is a national service funded by the Australian Government. In 2018, there were 3,213 episodes recorded for the after-hours GP Helpline in Country WA PHN. Only 8.2% of callers were advised to go to the Emergency Department immediately while 64.2% were advised to administer self-care and visit a GP. There were more female (60%) patients calling the helpline than male (40%) patients.¹²⁶

Outcomes of the service needs analysis

		<p><i>GP Urgent Care Network Pilot</i></p> <p>The General Practice Urgent Care Network Pilot is a partnership between the WA Department of Health and the WA Primary Health Alliance. The Pilot offers urgent care appointments at General Practices using an online booking service through Healthdirect’s National Health Services Directory. General Practices in Bunbury and Busselton have been invited to apply for the Pilot.</p> <p>Place-based</p> <p><i>Utilisation of GP after-hours services</i></p> <p>MBS items for GP after-hours services by place had a wide range, from 1.3 (per 100 population) in Wheatbelt-South to 53 in the Goldfields. Other areas of low utilisation were Albany (1.4) and Esperance (1.4).¹¹⁴</p> <p>The WA Primary Health Alliance has implemented an after-hours program in the Albany SA3 to increase access to primary care services. This service will not be reflected in increased GP after-hour MBS.</p> <p><i>Utilisation of Healthdirect after-hours GP helpline</i></p> <p>Bunbury (680), Albany (451) and Midwest (417) had the highest number of episodes in 2018 while Esperance (59) and the Gascoyne (112) had the lowest.¹²⁶</p> <p>The Pilbara region is seeing higher utilisation of ED rather than primary care due to a range of factors including: ‘frequent flyers’, corporate practices with higher fees and out-of-pocket expenses, a lack of after-hours services, and difficulties experienced when attracting and retaining staff.²⁵</p> <p>Stakeholder feedback has highlighted the lack of access and awareness of primary care services within the Country WA PHN. It has been noted that patients commonly rely on visiting services or must travel significant distances to receive care, particularly in the Great Southern, Pilbara and South West regions.^{2,3,5} The Great Southern and South West regions have a particularly poor public transport system, with stakeholder feedback reporting that patients’ ability to access health services is being affected, particularly Aboriginal patients who live outside of larger townships. Residents in these regions may also have to be transported to metropolitan regions to receive care that cannot be provided locally, causing dislocation of families and increasing costs to the health system.^{2,3}</p> <p>Also identified was^{2,3,5}:</p> <ul style="list-style-type: none"> • The need for more education on MBS items and billings, which should increase utilisation.
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Outcomes of the service needs analysis

		<ul style="list-style-type: none"> • The need for an improved access to a GP in the after-hours period, particularly for phone orders for medicines, to assist staff to manage residents within the facility and avoid transfer and admission to ED and hospital. • The private hospital model making access to public health services an issue, particularly for inland areas in the South West.
<p>SN1.7 Services could be better tailored to meet individual needs of people with multiple risk factors/chronic conditions</p>	<p><i>Lack of person-centred care coordination for those with composite risk factors and comorbid chronic conditions</i></p>	<p>An estimated 20% of primary care users require service coordination for chronic and complex conditions. Coordinated, team-based care is central to improving services for people with complex needs.¹²⁷ Primary care services are expected to coordinate with one another and with specialist services. This is difficult for small organisations funded largely on a fee-for-service basis.¹²⁷ General practices do not always have the organisational capacity to develop, coordinate and manage integrated service delivery across a network of providers for people with complex care needs.¹²⁷</p> <p>A 2018 survey of WA health care consumers indicated that GPs provided the majority of care coordination for patients. Of 137 respondents 71 consumers had a health professional help coordinate their care or the care of a person they supported. The care coordination for the majority of patients was provided by their GP (68%). Fifty consumers reported that the care coordination helped them manage their chronic condition or the chronic condition of the person they supported.¹⁰²</p> <p>Place-based</p> <p>Feedback from the Kimberley region has highlighted the number of people who are experience complex comorbid chronic conditions and suggest that harmful use of alcohol and other drugs may be influential to comorbidities in the region.¹²⁸ Similar issues have been noted in the Goldfields, with an introduction of a welfare card trial in the areas of Laverton, Leonora, Coolgardie and Kalgoorlie from early 2018 in an effort to minimise alcohol-related harm. Primary care support services are essential to deliver a holistic approach.¹²⁹ Further investigation is needed.</p> <p>Stakeholders have highlighted the growing concern of chronic disease due to the ageing population, particularly within the Great Southern region. People with cardiac conditions have been identified to participate in a six-week program at the Albany health campus, and not receive an ongoing referral into community services for continuation of exercise and a healthy lifestyle.³ The extended waiting time that currently exists for home care packages has been noted by stakeholders in the South West, who say that patients are dying during the twelve-month wait.¹³⁰</p>

Outcomes of the service needs analysis

SN1.8 There is a need to promote best-practice management of chronic conditions in primary care across Country WA PHN.

Poor management of patients with chronic conditions can lead to serious complications, loss of quality of life, and increased burden on tertiary care through potentially preventable hospitalisations

Appropriate and best-practice management of chronic conditions in primary care is important. GP chronic disease management plans provide the structure for multidisciplinary, effective care. However, it is estimated only one third of patients with chronic disease in Australia receive a GP management plan, with less than 20% of plans reviewed regularly.¹³¹

Barriers to the delivery of best practice chronic disease management include^{117,131}:

- Complexity of communication within the care team.
- Time spent putting together management plans which are up-to-date, evidence-based and personalised for the patient.
- Keeping track of the responsibilities of everyone on the care team and ensuring that duty of care and responsibilities are properly discharged.
- Lack of time and resources required to provide patient self-management support.

Administrative overheads and red tape are associated with meeting documentation and paperwork requirements.

Whole of PHN

Utilisation of MBS GP health assessments and GP chronic disease services (refer to Table 24)

Country WA PHN had a similar rate of GP chronic disease service utilisation (28 per 100 population) when compared to Perth North PHN (28), Perth South PHN (29), state (28) and national (34) rates.¹¹⁴

Country WA PHN had similar rates for GP health assessments (5.7 per 100 population) when compared to Perth North PHN (3.4), Perth South PHN (4.2), state (4.2) and national (4.1) rates.¹¹⁴ Alongside the high rate of chronic conditions experienced by people living in Country WA PHN, these utilisation rates suggest that people living in Country WA PHN may not be receiving adequate care and management for their chronic conditions, despite accessing GPs for standard health assessments.

PPHs for chronic conditions (refer to Table 16)

Of the eighteen hotspots for chronic condition PPHs, fourteen occurred in Country WA PHN.²³

Place-based

Utilisation of MBS GP health assessments and GP chronic disease services (refer to Table 24)

Outcomes of the service needs analysis

		<p>GP health assessments varied greatly within the PHN, with the highest rate in the Kimberley (13 per 100 population) and the lowest rates in Esperance (1.7), Augusta-Margaret River-Busselton (2.6) and Gascoyne (3.5). GP chronic disease service utilisation was also wide-ranging, with the highest rate in Midwest (47 per 100 population) and the lowest in Esperance (10), Gascoyne (10) and Pilbara (12).¹¹⁴</p> <p>Stakeholder feedback from the South West has identified the need for better integration between chronic condition services and mental health services.² Within the Wheatbelt, stakeholders have noted that clients with multiple chronic conditions and who are overweight or obese experience barriers in the referral process, despite being at a high risk of experiencing more chronic conditions in the future.¹³⁰ Long waitlists for both integrated team care programs and specialist services is also noted by stakeholders as being a universal issue across Country WA PHN.¹²</p> <p><i>PPHs for chronic conditions</i></p> <p>The whole Kimberley region was a hotspot for PPHs due to chronic conditions, particularly Halls Creek and Derby-West Kimberley with rates more than four times higher than the state average.²³</p>
<p>SN1.9. There are several sub-regions with higher proportion of adults facing healthcare barriers related to cost, transport and connectivity.</p>	<p><i>Inaccessibility and affordability of primary care services mean people with health care needs are not able to access the right care at the right time in the right place in order to effectively manage their health.</i></p>	<p>Vulnerable and disadvantaged groups have poorer health outcomes and higher needs for primary care services. However, these groups typically experience increased challenges in accessing care as appropriate and affordable services may not be readily available or accessible. The diversity in rurality, not only across Country WA PHN but within regions, presents a challenge for health planning and services.</p> <p>A 2018 survey of WA health care consumers asked what the major barriers are to accessing primary health services. The main barriers reported were cost, being too busy and not giving health enough priority and waiting weeks or months for available appointments.¹⁰²</p> <p>Whole of PHN</p> <p>In 2016 to 2017, the rate of adults who reported that they needed to see a GP but did not in the preceding twelve months, in the Country WA PHN (12%) was similar to the national rate (14%). During the same time period, there was a similar rate of adults who did not see, or delayed seeing, a GP due to the cost, in Country WA PHN (3.1%) to the national rate (4.1%). In 2013 to 2014, the rate of those who delayed or avoided filling a prescription due to cost in Country WA PHN was 4.1% (national rate 7.6%) and adults that felt they waited longer than acceptable to get an appointment with a GP was 30% (national rate 23%).¹³² Feedback throughout the region indicates a lack of bulk-billing general practices, causing an increase in hospital presentations due to cost.¹³³</p>

Outcomes of the service needs analysis

		<p><i>Barriers to accessing healthcare</i></p> <p>In Country WA PHN, the rate of adults who often have difficulty or cannot get to places needed with transport, including those who are housebound (4.3 ASR per 100) is slightly higher than the state (4.0). Adults who experienced a barrier to accessing healthcare due to the cost of the service (1.7) is also slightly higher than the state (1.5).¹³² These rates are not available for much of the region, including Goldfields, Kimberley, Gascoyne and the Pilbara, so it is estimated to be a large under representation. Further investigation in this area is needed.</p> <p>Consumer feedback has confirmed that costs is a barrier to receiving healthcare, “<i>specialist consulting fees are sometimes prohibitive</i>” and “<i>[the] ability to get a prescription without paying the consult fee [to improve accessibility of healthcare]</i>”.¹⁰²</p> <p>The ITC evaluation states the inclusion of transport is critical to service and health outcomes;¹¹⁷ 5.1% of dwellings in Country WA PHN do not have a motor vehicle, which would limit access to services.¹</p> <p><i>Internet access</i></p> <p>At 18%, Country WA PHN has a higher rate of dwellings who do not access the Internet, compared to the state rate of 13%.¹ This impairs access to any web-based services.</p> <p>Place-based</p> <p><i>Barriers to accessing healthcare</i></p> <p>Of the data available, the highest rate of residents who have difficulty getting, or cannot get, to places with transport is in Albany or Bunbury (both 4.4 ASR per 100). The highest rate of residents who experience a barrier to accessing healthcare due to the cost of the service is Albany and Midwest (both 1.9).¹³² Kimberley has the highest proportion of dwellings with no motor vehicle (11%).¹</p> <p>Transport barriers to services remain an issue throughout Country WA, also heightened by a lack of outreach services in some areas. Insufficient or no public transport has been identified by stakeholder feedback in the Gascoyne, Wheatbelt, South West (outer Bunbury and Busselton) and Great Southern. Many of these areas with little or no public transport are also ineligible for the Patient Assisted Travel Scheme (PATS).^{106,134}</p> <p><i>Internet access</i></p>
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Outcomes of the service needs analysis		
		The Kimberley (25%) and Wheatbelt-South (22%) have the highest rates of dwellings who do not access the Internet. ¹
SN1.10 Patients experience difficulty navigating the complex health care system, impacting engagement in appropriate and timely care.	<i>Patients need to understand how to access the right care at the right place at the right time through effective communications and relationships with primary care providers.</i>	<p>A 2018 survey of 137 WA health care consumers asked what the major barriers are to accessing primary health services. When asked if anything else had made it difficult to get the right care in the past twelve months, navigating the healthcare system was highlighted. Consumers also identified the use of technology in their care and how in most cases it positively influences their experiences with navigating the system.¹⁰²</p> <p>Whole of PHN</p> <p>82% of Country WA PHN adults reported seeing a GP within the last twelve months, which is similar to the national rate of 83%.¹³²</p>
SN1.11 Low uptake and availability of digital health technologies including My Health Record.	<i>Digital technologies support the efficiency and effectiveness of the health system and can increase patient access to more primary care services.</i>	<p>Digital health includes a broad range of innovative technologies for the purposes of providing care and sharing information to enhance patient outcomes. Telehealth can deliver health services and facilitate communication between specialists and patients, whilst electronic medical records such as the national 'My Health Record' can facilitate communication and coordinated care across multiple practitioners. Every Australian will get a 'My Health Record' unless they choose to opt out. Information available through My Health Record can include a patient's health summary, medication prescribing and dispensing history, pathology reports, diagnostic imaging reports and discharge summaries. Health providers associated with organisations already registered for My Health Record can access a patient's My Health Record.</p> <p>The uptake of digital health technologies has been inconsistent across WA and has yet to be normalised as part of primary care practice. Qualitative feedback indicated that readily accessible and affordable clinical software for primary care clinicians would significantly improve interactions with My Health Record and other digital technologies.¹³⁰</p> <p>A 2018 survey of WA health care consumers responded to questions on accessing healthcare and healthcare providers through technology. Only 37 respondents were comfortable using technology for an initial consultation, 73 respondents were comfortable using technology for follow up appointments, 82 respondents were comfortable using technology to monitor ongoing conditions but only eleven respondents currently used technology to engage remotely with a health service on a regular basis.¹⁰²</p> <p>Whole of PHN</p> <p><i>Telehealth</i></p>

Outcomes of the service needs analysis

		<p>In Country WA PHN, 34% (262) of GPs indicated that they use telehealth. Frequency of use is low, with 21 GPs using telehealth for one session per week, and only 20 using it two or more times per week.¹⁰³</p> <p>MBS use of telehealth services was higher in Country WA PHN (0.5 per 100 population) than the Perth North PHN (0.3), Perth South PHN (0.3) and state (0.3) rates, and slightly less than the national rate (0.7).¹¹⁴ Many appointments made which require Country WA PHN patients to travel are unnecessary and could be performed via telehealth.¹²⁰</p> <p>Place-based</p> <p><i>Telehealth</i></p> <p>The lowest proportion of GPs who indicate using telehealth is in the Pilbara region (21% of GPs), followed by the Wheatbelt (24%) and South West (29%).¹⁰³</p> <p>MBS use of telehealth services was highest in the Midwest (1.4 per 100 population) and lowest in Pilbara (0.1), Goldfields (0.2), Augusta-Margaret River-Busselton (0.3) and Wheatbelt-North (0.3).¹¹⁴ Qualitative feedback indicates a lack of telehealth use in the Goldfields due to long wait times for specialists.¹²⁹ Stakeholders in the Pilbara suggest that telehealth utilisation is higher than indicated above as most telehealth services are provided by State hospital services and not captured by the MBS.</p> <p>Stakeholders in the Great Southern have identified an opportunity for telehealth in the region for selected professionals to overcome barriers associated with gaps in health services in areas outside of large towns; but a utilisation rate of 0.9 per 100 population suggests that the uptake is not as high as it could be.³</p> <p>Stakeholders have noted the absence of a billing code for telehealth physiotherapy services.³</p>
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Primary Mental Health Care (including Suicide Prevention)

Outcomes of the service needs analysis		
Identified Need	Key Issue	Description of Evidence
SN2.1 Models of care focus on early intervention to enable effective self-management and prevent exacerbation of existing mental health conditions, or development of suicidal ideation.	<i>There are sub-regions in Country WA PHN with relatively high levels of psychological distress and/or mental and behavioural disorders.</i>	<p>As part of National Mental Health Week 2018, headspace released the following data on the prevalence of psychological distress among young Australians.¹³⁵</p> <ul style="list-style-type: none"> • About 32% of youth (12-25-year-olds) in Australia reported high or very high levels of psychological distress—more than three times the rate in 2007 (9%). • Western Australia had the second highest rate (33%), after Victoria (35%). • Rates of psychological distress were significantly higher for young women (38%) compared to young men (26%). • The highest rates were reported for 18-21-year-olds (38%). <p>Young people are particularly vulnerable to mental health issues during transitional periods including leaving school and entering the workforce, moving out of home and relationship breakups.¹³⁵</p> <p><i>Psychological distress</i></p> <p>The Kessler 10 (K10) scale is a 10-item questionnaire that provides a global measure of psychological distress based on questions about anxiety and depressive symptoms over a 30-day period. Based on data from the WA Health and Wellbeing Surveillance System (HWSS)⁵⁰, the prevalence of high and very high psychological distress among adults aged 16 years and over in Country WA PHN (7.2%) was not significantly higher than the state rate (8.2%). There were no sub-regions in Country WA PHN with significantly high rates compared to either PHN or state rates.</p> <p><i>Mental and behavioural disorders</i></p> <p>Based on data from the WA Health and Wellbeing Surveillance System (HWSS)⁵⁰, the prevalence of anxiety (7.9%) and depression (7.9%) among adults aged 16 years and over in Country WA PHN was not significantly higher than state rates (8.6% and 8.4%, respectively). There were no sub-regions in Country WA PHN with significantly high rates compared to either PHN or state rates.</p>
SN2.2 Shortage of early intervention services.	<i>Limited early intervention services available across the PHN for people</i>	Suicide prevention

Outcomes of the service needs analysis

	<p><i>with mental health conditions, and suicide risk.</i></p>	<p>In Country WA PHN, there are two regions participating in the National Suicide Prevention Trial: Kimberley (Broome, Derby, Fitzroy Crossing, Halls Creek, Kununurra, Wyndham), and Midwest (Geraldton, Carnarvon, Meekatharra, Mullewa, Mt Magnet and Morawa). Aboriginal people are a target group in both trial regions. In addition, the Midwest region targets men, farmers and fishermen.</p> <p>Early intervention</p> <p>WAPHA funds headspace centres in Bunbury, Kalgoorlie, Albany, Geraldton, Broome, and outreach services in the Pilbara. The service is designed to provide early access for young people and their families to receive the help they need for problems affecting their wellbeing.</p> <p>The Integrated Primary Mental Health Care (IPMHC) program is a stepped-care model that comprises three core components: (1) integrated care management; (2) low intensity telephone and eHealth services; and (3) place-based community support services. Services are delivered in each of the seven regions in Country WA PHN. For youth aged 12-25 years, the Mental Health – Youth Severe program provides services to those with, or at risk of, severe mental illness, in the following regions: South West, Goldfields, Pilbara, Great Southern, and Midwest.</p> <p>Additional region-specific service information is provided below.</p> <p><i>Pilbara</i></p> <p>The headspace Pilbara evaluation identified stressors across the continuum of stepped care for children and youth (refer also to HN2.10 The ‘missing middle’. Stakeholder feedback has 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.^{12,136}</p> <p><i>Wheatbelt</i></p> <p>The data indicates that the Wheatbelt region requires early intervention services due to a high rate of suicide⁴⁸ as well as high rates of mental health-related hospitalisations.⁴⁹ In early 2019, it was announced that a new headspace satellite service will be established in Northam by 2021.</p> <p><i>Kimberley</i></p> <p>The following programs are currently operating across the Kimberley region. The Kimberley Continuing Care Program (KCCP) provides a holistic and culturally-secure program for clients exiting from alcohol and other</p>
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Outcomes of the service needs analysis		
		<p>drugs residential rehabilitation programs. The 39-week program provides clients with one year of active support and follow up to give them the best chance of a sustained recovery. The Kimberley Sexual Abuse Prevention and Support Service (KSAPSS) provides community education about sexual assault as well as therapeutic services for victims, their families and remote communities. The Youth Severe Early Psychosis program provides a range of psychological, medical and social interventions to youth aged 12-18 years enrolled at Kununurra District High School with, or at risk of, severe mental health issues.</p> <p><i>Goldfields</i></p> <p>Stakeholders have highlighted difficulties in recruiting registered psychologists for the IPMHC program. There are currently no registered psychologists either sub-contracted or employed under IPMHC in the Goldfields region.</p>
SN2.3 Capacity of the health workforce to recognise and respond to mental health presentations.	<p><i>Inadequate supply of primary care services mean people with health care needs are not able to access the right care at the right time in order to effectively manage their health.</i></p>	<p>There is a shortage of mental health professionals in Country WA PHN, particularly psychiatrists, and this is accompanied by lower than national average rate of mental health MBS service utilisation.</p> <p>High turnover and lack of a permanent, locally-trained medical workforce are common issues across Country WA PHN. Data from Rural Health West indicates that fly-in-fly-out (including drive-in-drive-out) practitioners make up the fastest growing group of general practitioners in Country WA. Moreover, about 57% of general practitioners in Country WA PHN are international medical graduates (IMGs).¹⁰⁸</p> <p>Whole of PHN</p> <p><i>Workforce supply</i></p> <p>Country WA PHN had a lower number of full-time equivalent psychologists and psychiatrists per 10,000 residents compared to WA overall in 2017.¹⁰⁵ The shortage of psychiatrists in Country WA PHN is particularly pronounced (only 0.6 per 10,000 residents) compared to the state (1.2) and national rates (1.4). As at 2017, Country WA PHN had a relatively high supply of full-time equivalent GPs (16.4) compared to the state (13.4). It should be noted, that although this is a positive statistic, it is likely that there are large distances between services and towns without reasonable access.</p> <p><i>MBS utilisation</i></p> <p>MBS mental health-related service utilisation rates in Country WA PHN were substantially lower than regional PHN and national rates for all service types. In 2017-18, only 5.8% of the population in Country WA PHN utilised</p>

Outcomes of the service needs analysis

		<p>GP mental health treatment plans compared to 8.5% of the population across Australia.¹³⁷ Utilisation of clinical psychologists (1.1%) was lower than other types of psychologists (1.6%) across the PHN.</p> <p>Place-based</p> <p><i>Workforce supply</i></p> <p>The supply of psychologists was low in every sub-region of Country WA PHN, particularly Gascoyne SA3, Wheatbelt-South SA3, and East Pilbara SA3 (< 3 FTE per 10,000 residents). All sub-regions except Albany, Bunbury and Kimberley SA3 had a very low or no supply of psychiatrists.¹⁰⁵</p> <p>Although Country WA PHN had a relatively high number of full-time equivalent GPs on a per resident basis (particularly in Gascoyne and Kimberley SA3s), there was a relatively low supply in Wheatbelt – North and Manjimup SA3s. Goldfields SA3 had the highest percentage of non-vocationally registered (non-VR) GPs (38%). Data from Rural Health West indicated that from 2016 to 2017, the Kimberley region experienced the highest outbound movement of general practitioners, with the majority of these moving to Perth or interstate. In contrast, the South West region had the highest inbound movement, with the majority moving to the greater Bunbury area. About 73% of arrivals into the South West and Peel ^d regions were IMGs.¹⁰⁸</p> <p><i>MBS utilisation</i></p> <p>In 2017-18, all SA3s in Country WA PHN had low utilisation rates of GP mental health treatment plans, with the lowest rates in Gascoyne (1.8%), East Pilbara (2.8%) and West Pilbara (3.4%).¹³⁷ Utilisation of psychologists and psychiatrists was also low except for Augusta – Margaret River – Busselton SA3, which had a relatively high utilisation of clinical psychologists (2.7%) compared to regional PHN (1.7%) and national (2.1%) rates.</p>
<p>SN2.4 Prescription rates are an indicator of mental health service utilisation.</p>	<p><i>Current mental health interventions have a high reliance on pharmaceutical interventions.</i></p>	<p>Lower mental health MBS utilisation and a similar rate of mental health-related prescribing is an indication that current mental health interventions may have a high reliance on pharmaceutical interventions.</p>
<p>SN2.5 Reduce over-reliance on the acute care sector.</p>	<p><i>Non-urgent mental health-related ED presentations may be a reflection of</i></p>	<p>Whole of PHN</p>

^d Although the Peel region is in the Perth South PHN, this data is only available with the South West and Peel regions combined.

Outcomes of the service needs analysis		
	<p><i>poor management of mental health conditions in primary health care.</i></p>	<p>Stakeholder feedback from the South West has noted that people had been discharged from emergency departments without clear plans for continuity of care, because the mental health services do not have the correct resources or referral pathways to navigate the system.²</p> <p>A report by the UWA Collaborative for Healthcare Analysis and Statistical Modelling to the CHASM Governance Committee and the Aboriginal Health Research Translation Group¹³⁸ determined that increased proximity to mental health units was strongly associated with lower rates of mental health-related ED presentations among young non-Aboriginal adults (25 to 34 years) residing in regional towns. Therefore, measures that improve access to community mental health services are likely to be effective in reducing rates of ED presentations. Refer to the Aboriginal Health section below for a discussion of this population’s utilisation of the acute care sector.</p> <p>Place-based</p> <p>The report to CHASM identified Bunbury, Busselton, and Geraldton SA2s as potential priority areas for community mental health-based interventions in Country WA PHN based on a relatively large population of non-Aboriginal adults aged fifteen to 34 years and a relatively high population-weighted mean distance to the nearest mental health unit.¹³⁸ Please note that these are preliminary results only. At the time of writing, the report to CHASM was being updated with additional data and will undergo further methodological review.</p>
<p>SN2.6 General practitioners should be the “first port of call” for patients experiencing mental ill health.</p>	<p><i>People with mental health conditions are not linked in with GPs or primary mental health services, including after-hours care.</i></p>	<p>Across PHN</p> <p><i>Mental health-related services</i></p> <p>In 2012, the Stokes Review identified that in WA, delays in access to treatment were causing mental health, alcohol and drug problems to worsen, leading to the need for higher cost treatment.¹³⁹ Across Country WA PHN, there are very low utilisation rates of GP mental health-related services. All sub-regions had utilisation rates below the national average and all except one sub-region (Augusta-Margaret River-Busselton SA3) had rates below the state average.</p> <p><i>After-hours care</i></p> <p>Across Country WA PHN, mental health services generally operate during business hours only and there are limited after-hours GP services available. This means that people who have difficulty accessing services during business hours due to work, study or other responsibilities will have limited access to primary mental health care. In Country WA PHN, Rurallink is a specialist after-hours mental health service providing telephone access to experienced mental health staff as well as information, advice, assessment and referrals to mental health</p>

Outcomes of the service needs analysis		
		<p>services.¹⁴⁰ For youth aged 12-25 years, headspace offers a free online counselling service called 'ehespace', which operates after-hours.</p> <p>Place-based</p> <p><i>Mental health-related services</i></p> <p>In Country WA PHN, there are areas where mental health services, if available, may be more difficult to access, for reasons including lack of access to the internet and/or transport. Results from the 2016 Census indicated that in the Kimberley SA3 region, about 30% of households did not have access to the internet.¹ Also, in Albany SA3, where 20.3% of the population is aged 65 years and over, about 4.4% of adults regularly had difficulty accessing the places they needed to visit, or were housebound.</p> <p>In the Shire of Collie in the South West region, transport is one of the biggest barriers to accessing mental health services.¹⁴¹ Most services in the region are located in Bunbury; however, the current public transport system from Collie to Bunbury is limited and often cost-prohibitive.</p>
SN2.7 Culturally-secure mental health services.	<i>Services should be accessible by Aboriginal people and people from culturally and linguistically diverse backgrounds - cultural security of service delivery could be improved.</i>	[This section has been redacted for data confidentiality reasons]
SN2.8 Services meeting the needs of, and accessible for, socio-economically disadvantaged groups.	Lack of appropriately targeted, affordable services for socio-economically disadvantaged groups.	<p><i>Mild to moderate mental health conditions</i></p> <p>The Practitioner Online Referral Treatment Service (PORTS) provides free, GP-referred mental health services via telephone and/or online to financially disadvantaged people aged at least sixteen years who have symptoms of anxiety, depression or harmful use of alcohol and other drugs. Services are delivered over two to eight weeks.</p> <p>PORTS services are suitable for patients with mild to moderate mental health conditions that respond to short term, low intensity interventions. We note that PORTS do not cater to those who require longer term or ongoing interventions (> 8 weeks).</p>

Outcomes of the service needs analysis		
		<p>Child and Adolescent Brief Interventions and psychological therapies are provided through the Portals, which provide a range of mental health interventions (including low intensity, psychological therapies, severe and persistent, suicide prevention and child and adolescent).</p> <p><i>Severe and complex mental health conditions</i></p> <p>State-based care services are generally the main provider of care for patients with severe and/or complex mental health needs. The Portal providers in each region are commissioned to provide care management support for people with severe mental illness who are under the care of a GP. Integration with the state-based services is encouraged and is improving but remains a significant gap across Country WA PHN.</p>
SN2.9 Services meeting the needs of, and accessible for, the aged population.	<i>Lack of appropriately targeted services for the aged.</i>	<p>To date, there have been few studies examining the mental health of older adults. A report by SANE Australia found that most studies focused on dementia and physical health problems and that there was a lack of attention given to mental health conditions in the elderly. There is also a shortage of mental health services for older adults, especially those living in supported accommodation.¹⁴² The report indicated that there is a need for targeted mental health services for the elderly and for easily accessible information about these services for both patients and carers.</p> <p>In WA, older adults (aged 65 years and over) were significantly more likely to have used a primary, hospital based or allied health service than younger adults (sixteen to 64 years), but were significantly less likely to have used mental health services.¹⁴³</p> <p>For details about psychological therapies for older adults living in residential aged care facilities (RACFs), please refer to HN2.9 Mental health in residential aged care facilities.</p> <p>Whole of PHN</p> <p>In the Country WA PHN, about 14.5% of the population is aged 65 years or older and this is expected to increase to 16.4% by 2026.¹⁵</p> <p>Place-based</p> <p>Bunbury, Albany and Wheatbelt-North SA3s have the largest population aged 65 years or older and Manjimup SA3 has the highest proportion (21.6%).¹ The approach and type of service provision varies considerably across Country WA PHN regions and sub-regions. The following is a summary of outpatient services targeted to older adults, including information from the Integrated Atlas of Mental Health¹⁴⁰:</p>

Outcomes of the service needs analysis		
		<ul style="list-style-type: none"> • Bunbury and Manjimup: Acute, mobile outpatient care is provided by Older Adult Mental Health. There are no non-acute services targeted specifically to older adults within this sub-region. • Albany: For older adults, the emergency department in Albany provides a psychiatric liaison nurse. WACHS Great Southern Mental Health provides non-acute care to older adults in Albany SA3. • Wheatbelt-North: WACHS Wheatbelt Mental Health Service provides non-acute mobile outpatient care to older adults in Northam, Merredin and Gingin. There are no acute outpatient services for older adults across the sub-region.
SN2.10 Reduce stigma and discrimination.	<i>Stigma and discrimination affect mental health service utilisation and increase the likelihood of adverse health and social outcomes.</i>	<p>Reducing the stigma of a mental health condition is one of the key priorities in the Fifth National Mental Health and Suicide Prevention Plan.¹⁴⁴ Stigma and discrimination, including that from health service providers, discourages people from disclosing a mental health condition and accessing services in a timely way. This in turn may exacerbate psychological distress and increase the likelihood of adverse outcomes, particularly for groups that are already at risk such as Aboriginal people and people who identify as LGBTI.</p> <p>Qualitative feedback from consumer surveys conducted by the WA Primary Health Alliance indicated that stigma was a significant barrier to seeking help. Respondents noted that fear of judgement and shame about their mental health condition made it difficult for them to access treatment in the past twelve months. One respondent suggested that “better training in communicating in a non-judgmental manner for all allied health professionals regarding sensitive issues” would improve access to health care. Fear of consequences such as medication side effects, involuntary admission and losing or not gaining employment prevented some respondents from fully disclosing their mental health condition to their GP.¹⁰²</p> <p>As part of the Fifth National Mental Health and Suicide Prevention Plan, people with lived experience, including peer support workers, will play an important role in reducing stigma and discrimination through grassroots-based advocacy in their community.¹⁴⁴</p>

Alcohol and Other Drug Treatment Needs

Outcomes of the service needs analysis		
Identified Need	Key Issue	Description of Evidence
SN3.1 Alcohol and other drug treatment focused on early intervention.	<i>Locations with high alcohol and other drug-related hospitalisations and ED presentations may indicate a need for early intervention.</i>	Emergency Department presentations and public hospitalisations directly related to alcohol and other drug use may indicate that services to manage alcohol and other drug misuse and dependence were not available or accessible at an earlier stage. [This section has been redacted for data confidentiality reasons]
SN3.2 Services that meet the needs of children and adolescents with alcohol and other drug problems.	<i>Most current services do not cater for children/adolescents.</i>	Whole of PHN <i>Child alcohol and other drug-related services</i> The Integrated Atlas of Mental Health and Alcohol and Other Drugs indicates that, of the 87 alcohol and other drug-specific services identified across Country WA PHN, 97% (84 services) are targeted towards adults. There are only three services for children/adolescents and none for older adults. ¹⁴⁰ Stakeholder feedback has indicated a need for youth-specific services in the Pilbara region due to alcohol and other drug use among children as young as eight years of age. ^{12,136,145,146}
SN3.3 Services that help people earlier in the care continuum, before the health effects of alcohol and other drug use escalate in severity.	<i>Rebalance investment from high cost, low volume care to higher volume care earlier in the care continuum.</i>	Whole of PHN <i>Alcohol and other drug-related services</i> Most of the alcohol and other drug treatment episodes delivered in 2016 to 2017 in the Country WA PHN were high cost, low volume including counselling (82%), withdrawal management (3.8%), and rehabilitation (4.4%). Only 1% of treatment episodes involved information and education, which are generally low cost, high volume. This was a lower than the percentages in Perth North PHN (8.2%) and Perth South PHN (3.3%). ⁷³
SN3.4 Recognise and respond to harmful alcohol and other drug use in general practice.	<i>GP screening and brief intervention for harmful use of alcohol and other drugs could be improved.</i>	Alcohol screening and brief interventions (ASBIs), which include opportunistic screening and assessment of patients about alcohol and other drug use, assist general practitioners to identify patients at risk of alcohol and other drug-related harm. Recommended approaches include quantity-frequency estimates (how much how often) and structured questionnaires such as AUDIT-C. ¹⁴⁷ Where indicated, these are followed up with a brief intervention or comprehensive assessment, depending on severity. Although ASBIs are a relatively low cost and effective intervention, they are rarely

Outcomes of the service needs analysis

		<p>successfully implemented in general practice.¹⁴⁸ GPs also have a role to play in encouraging pregnant women to follow the NHMRC guidelines and not drink alcohol during pregnancy.</p> <p>There are no current MBS items that relate specifically to assessing or treating alcohol and other drug misuse within general practice. This makes it difficult to assess how often GPs are currently treating patients for these issues.</p> <p>Whole of PHN</p> <p><i>Alcohol and other drug treatment episodes</i></p> <p>In Country WA PHN, 34% of treatment episodes (2016 to 2017) at publicly funded alcohol and other drug services were referred by another health service. This was a higher percentage of health service referrals than were seen in the Perth North and South PHNs and nationally (21%, 26% and 24% percent respectively).⁷³ Health service referrals may be as viewed as evidence that other health services are recognising alcohol and other drug issues in patients and are aware of alcohol and other drug services.</p>
<p>SN 3.5 Minimise the health risks associated with intravenous drug use.</p>	<p><i>Clean syringe programs mitigate the risk of contracting a blood borne virus. Hepatitis C can be cured but uptake of treatment could be improved.</i></p>	<p>Intravenous drug users are at a higher risk of contracting hepatitis C, which has serious health consequences (see HN3.8). Direct-acting antivirals (DAAs) have been available on the PBS since March 2016 and, in contrast to earlier treatments, have few or no side-effects.¹⁴⁹ Between March 2016 and June 2017, an estimated 16% of people living with a chronic hepatitis C infection accessed DAA treatment in WA.¹⁵⁰ This was lower than the national rate at 19%.¹⁵⁰ A paper looking at the uptake of hepatitis DAA treatment in Australia found that treatment uptake was variable, and lower in socio-economically disadvantaged areas and areas with a higher proportion of people born overseas.¹⁵¹</p>
<p>SN3.6 Services that meet the needs of people with alcohol and other drug problems comorbid with mental illness.</p>	<p><i>Lack of connectivity between alcohol and other drug and mental health services.</i></p>	<p>Harmful alcohol and other drug use and mental health conditions often co-occur and around one-third of people with an alcohol and other drug use disorder also have a mental illness.⁷⁶ There is also evidence that a co-occurring mental health condition makes a person more likely to seek treatment, meaning that co-morbidities are even more common in an alcohol and other drug treatment setting.^{76,152-154} The National Health and Medical Research Council (NHMRC) has produced comprehensive guidelines for managing co-occurring alcohol and other drug and mental health conditions in an alcohol and other drug setting.⁷⁶</p> <p>In the WA Primary Health Alliance’s baseline Needs Assessment (2016) community consultation in all regions identified concerns about the lack of connectivity between alcohol and other drug and mental health services. Also noted were the difficulties experienced by people with comorbid conditions accessing coordinated care and support.¹⁰⁷ This has also been a consistent theme in the latest Needs Assessment consultation with the WA Primary Health Alliance’s regional and metropolitan staff.</p>

Outcomes of the service needs analysis		
		<p>Place-based</p> <p>[This section has been redacted for data confidentiality reasons]</p>
<p>SN3.7 Access and uptake of services to help people with alcohol and other drug dependency.</p>	<p><i>There is a shortage of addiction medicine workforce with a critical shortfall forecast for 2021, as well as low utilisation of addiction medicine services.</i></p>	<p>The WA Medical Workforce 2013 to 2021 report indicated that addiction medicine consultants are currently in low supply (less than or equal to 80% of demand) and that there are critical shortfalls forecast for 2021 (less than 70% of demand) due to low trainee throughput and expected retirements.¹⁵⁵ There is an undersupply in metropolitan and rural locations, with substantial demand unmet in rural locations.¹⁵⁵</p> <p>MBS data for 2017 to 2018 indicates that WA has a low utilisation of addiction medicine MBS items, with only 928 services compared to 7,597 services in NSW, 2,939 in Victoria and 1,964 in South Australia (a state with a smaller population than WA).</p> <p>In WA, the largest group of patients utilising addiction medicine specialists in 2017 to 2018 was 35 to 44-year-olds (30.2%), followed by 45 to 54-year-olds (25.1%). Males outnumbered females in every age group except 55 to 64 years.</p> <p>As at 2016, there were no addiction medicine specialists practicing in Country WA PHN.</p>
<p>SN3.8 Services that recognise the need to treat alcohol and other drug problems and co-morbidities.</p>	<p><i>Care coordination and patient pathways between alcohol and other drug, mental health and other health services could be improved to better support people living with multi-morbidities.</i></p>	<p>The Australian Government Department of Health and Ageing has published a guide on the comorbidity of mental health conditions and harmful use of alcohol and other drugs for primary care clinicians. This guide discusses each mental illness and lists the clinical issues associated with comorbidity with harmful use of alcohol and other drugs (broken down into the major drug types).¹⁵⁶</p> <p>In the WA Primary Health Alliance’s baseline Needs Assessment, the lack of cohesion among services was the common theme across metropolitan and regional areas.¹⁵⁷ Regional areas face the additional challenge of distance and widely-dispersed populations.¹⁵⁷</p>

Aboriginal Health (including Aboriginal chronic disease)

Outcomes of the service needs analysis		
Identified Need	Key Issue	Description of Evidence
SN4.1 Lack of appropriately targeted services for specific cohorts, including ageing populations, people living in remote communities and culturally and linguistically diverse populations.	<i>Services should be targeted to specific high-risk groups, to increase accessibility and acceptability for vulnerable people.</i>	Access to mainstream health services can be difficult for the Aboriginal population due to socio-economic disadvantage, geographical distance and relatively high mobility and a lack of culturally appropriate mainstream health services. ¹⁵⁸ A holistic and integrated approach to Aboriginal health is required to address social determinants and better health outcomes. Culturally appropriate services and programs are necessary and partnerships between the Aboriginal Community Controlled Health Organisations (ACCHOs) and other providers should be encouraged to facilitate improved access.
SN4.2 There is a need for targeted early intervention in primary care.	<i>Targeted early intervention and/or secondary prevention in primary care could prevent the development of chronic conditions and disease.</i>	<p>Early treatment is the most effective way to reduce the impact of chronic and comorbid conditions. Early intervention can produce significant long-term health care savings and improve overall quality of life. Cancer screening has been shown to reduce morbidity and mortality of cancer through early detection and treatment. Childhood immunisation is recommended as a safe and effective way of protecting against harmful diseases and reducing overall spread of disease. Jurisdictions are mandated to ensure childhood immunisation rates are at least 90%, with a national 'Strive for 95%' target, and this informed the <i>Western Australian Immunisation Strategy 2013-2015</i> which outlined a framework for enhancing all aspects of immunisation program service delivery.¹²²</p> <p>Rest of WA</p> <p><i>Aboriginal Health Assessment</i></p> <p>The rate of Aboriginal Health Assessments in Country WA PHN from 2016 to 2017 was 375 per 1,000 Aboriginal resident population. This was higher than the Perth South PHN (265), state (357) and national (335) rates. Perth North PHN experienced a rate that was higher than the Country WA PHN, at 426.</p> <p><i>Immunisation</i></p> <p>For Aboriginal children in the PHN, 96.3% of the five-year age group were fully immunised, higher than the state rate (96%) and similar to the national rate (97%). The target for immunisation in the five year age group is 95%.¹²⁴</p> <p><i>Hospital admissions for chronic conditions</i></p>

Outcomes of the service needs analysis

		<p>From 2012/13 to 2014/15, the rate of Aboriginal hospital admissions for chronic conditions in the Rest of WA (2997 ASR per 100,000) was significantly higher than the national rate (2,034). This rate was also higher than in Greater Perth (1,810) and the state (2,576).</p> <p>Place-based</p> <p><i>Aboriginal Health Assessment</i></p> <p>In the Country WA PHN, the highest rate of Aboriginal Health Assessments during 2016 to 2017 was in Bunbury (617 per 1,000 Aboriginal resident population), Goldfields (497) and Midwest (471). The lowest rate in the PHN was in Augusta-Margaret River-Busselton (60).¹¹</p> <p><i>Hospital admissions for chronic conditions</i></p> <p>In the Country WA PHN from 2012/13 to 2014/15, the highest rate of Aboriginal hospital admissions for chronic conditions was in the Indigenous areas (IAREs) of Fitzroy River (5,103 ASR per 100,000), Narrogin-Wagin-Katanning (4,628) and Outer Derby-West Kimberley (4,409). All IAREs in the Kimberley region experienced rates that were significantly higher than the national rate, with the exception of Broome-Surrounds which did not have any data reported. The majority of IAREs (five out of seven) in the Goldfields region also had rates that were significantly higher than the national rate.</p>
<p>SN4.3 There is a need to improve access to and awareness of appropriate primary care services.</p>	<p><i>A lack of access to and awareness of appropriate primary care services, both in- and out- of hours, further compounds issues of service demand and timely and appropriate care, often resulting in increased reliance on unnecessary ED services.</i></p>	<p>Whole of PHN</p> <p><i>Utilisation of Healthdirect after-hours GP helpline</i></p> <p>Healthdirect Australia is contracted to provide an after-hours telephone-based GP service which complements existing after-hours health services. The after-hours GP helpline is a national service funded by the Australian Government. In 2018, there were 3,291 episodes recorded for the after-hours GP Helpline in Perth North PHN with 4.1% of patients identifying as Aboriginal and/or Torres Strait Islander.</p> <p>Place-based</p> <p>[This section has been redacted for data confidentiality reasons]</p>
<p>SN4.4 Poor access to existing services by Aboriginal people,</p>	<p><i>Culturally secure mental health services for</i></p>	<p>Interviews with stakeholders indicated restricted access to culturally secure services for Aboriginal people living with chronic conditions, including mental health conditions.¹¹⁷ Some of the issues identified include:</p>

Outcomes of the service needs analysis		
and people from culturally and linguistically diverse backgrounds, culture security of service delivery can be improved.	Aboriginal people, and CALD population (i.e. use of appropriate communication tools such as language, culture, etc.).	<ul style="list-style-type: none"> • Lack of referral by GPs to culturally-appropriate allied health providers. • Cultural and language barriers. • The need to travel to Perth for some types of treatment. • Lack of access to transport . • Lack of awareness of services by the community and providers.
SN4.5 Lack of Aboriginal mental health services in sub-regions with higher density of Aboriginal population.	Culturally secure mental health services for Aboriginal people, and CALD population (i.e. use of appropriate communication tools such as language, culture, etc.).	<p>The SA3s with the highest proportion of Aboriginal people are the Kimberley, Pilbara and Gascoyne.¹ A summary of outpatient Aboriginal mental health services in these areas is given below, based on information provided in the Integrated Atlas of Mental Health.¹⁴⁰</p> <p><i>Kimberley SA3</i></p> <p>The Kimberley is generally well-resourced in terms of Aboriginal mental health services. The WACHS Kimberley Mental Health and Drug Service has five locations providing mobile and non-mobile outpatient services to both Aboriginal and adult populations in Broome, Derby, Fitzroy Crossing, Halls Creek and Kununurra. Children and adolescents also receive services at these locations through CAMHS teams. The following service gaps were identified:</p> <ul style="list-style-type: none"> • There are no specific acute outpatient services for children, adolescents or older adults. • Services are generally focused on younger populations and there is a lack of services targeted to older adults across the Kimberley region. <p><i>Pilbara SA3</i></p> <p>The WACHS Pilbara Mental Health and Drug Service runs mobile adult and Aboriginal outpatient mental health services in South Hedland, Karratha and Newman. CAMHS deliver child and adolescent non-acute, non-mobile mental health services at these locations. The following service gaps were identified:</p> <ul style="list-style-type: none"> • There are no acute non-mobile child, adolescent or older adult specific services. This was noted as a significant gap in stakeholder interviews. • Only a small number of adult-specific services in the non-acute mobile category. <p><i>Gascoyne SA3</i></p> <p>The Carnarvon Medical Service Aboriginal Corporation (CMSAC) provides Aboriginal medical services (including mental health support) in the Carnarvon area. There are currently no specialist mental health services targeted to Aboriginal people in Gascoyne SA3.</p>

Outcomes of the service needs analysis		
SN4.6 Lack of appropriately targeted services for the socio-economically disadvantaged groups.	<i>Services meeting the needs of, and accessible for socio-economically disadvantaged, and aged population groups.</i>	Please refer to SN2.8 for a discussion of mental health services for socio-economically disadvantaged groups, including Aboriginal people.
SN4.7 Lack of culturally secure services across the WA Country PHN for Aboriginal people, particularly in sub-regions with higher density Aboriginal populations.	<i>All services should be accessible and culturally secure for Aboriginal people</i>	<p>Aboriginal patients often feel services and health providers do not provide cultural security, which includes limited understanding of the individual’s personal circumstances and their ability to navigate the system. There are consistent access and language barriers to visiting GP and specialist services within communities and across the state, as well as suggestions of widespread racism and discrimination, often covert in nature.¹¹⁷</p> <p>Whole of PHN</p> <p><i>Accessibility and cultural security of services</i></p> <p>Stakeholder consultation suggests there is a fear around accessing health services for many Aboriginal people, including the fear of judgement and the fear that there is something wrong. In addition, the language and terminology used by some services is too technical and reduces understanding of what is being told.²⁴ Aboriginal Health Workers are integral in supporting Aboriginal people to navigate the Western health care system, and ensuring it is culturally appropriate.¹²⁸ Within Country WA PHN, there are 14.3 FTE Aboriginal Health Practitioners per 10,000 Aboriginal population. This rate is similar to the rates in Perth North PHN (13) and the state (12) despite the significantly higher Aboriginal population within the Country WA PHN.¹⁰⁵ See SN1.1 for more workforce information.</p> <p>Aboriginal people in Country WA PHN are likely to have to travel away from their home to regional or metropolitan areas to access specialised or tertiary health care.¹⁵⁹ Being away from country can cause stress for Aboriginal people, increasing their vulnerability to poor mental and spiritual health. Stakeholders in the South West have suggested that practitioners across the PHN can utilise Telehealth to allow Aboriginal patients to reconnect to their family and country may positively influence their healthcare experience.¹⁶⁰</p> <p>Place-based</p> <p><i>Accessibility and cultural security of services</i></p> <p>Stakeholder feedback has identified a disconnect between some services and Aboriginal communities. This includes not only the awareness of the service itself, but also a lack of trust and confidentiality being of major concern. This was highlighted in the Gascoyne region but may resonate throughout many Aboriginal communities.¹³⁴</p>

Outcomes of the service needs analysis

Some evidence of service areas which may not be accessible or culturally secure for Aboriginal people^{1,105,129,161}:

- High GP, nurse, psychologist service ratio in Kimberley, yet low uptake and poor health outcomes.
- No Aboriginal Health Practitioners in the South West, Great Southern or Wheatbelt regions (*refer to Table 21*). *See data note below.*
- Need to build capacity of the Aboriginal workforce in and around Kalgoorlie. Insufficient workforce numbers for AHWs and the need for GP surgeries to offer positions for local Aboriginal staff was raised.
- The ACCHO maternal health service in Kalgoorlie closed, removing a culturally appropriate service.

Stakeholders in the Great Southern have identified that poor access to transport is likely to affect the health of Aboriginal people in the region, particularly for those living outside of the Albany region where the Aboriginal populations are larger, such as Katanning, Tambellup and Gnowangerup. In some instances, St John have provided transportation to patients multiple times a week.³

Despite an absence of documented evidence, stakeholders in the Midwest have identified that the current service delivery model for Aboriginal health is effective and likely to be positively influencing the health of Aboriginal communities within their region.⁴

Note: The National Health Workforce Data Set only includes people who are required by their employer to use the title Aboriginal and Torres Strait Islander health practitioner, Aboriginal health practitioner or Torres Strait Islander health practitioner. Those practitioners who are not required by their employer to use the title do not have to register and will not be included in the data collection, this includes Aboriginal Health Workers. Stakeholder feedback from the Wheatbelt and Pilbara noted that Aboriginal Health Workers employed by the Western Australian Country Health Service would not be included in this data collection. Access to Aboriginal Health Workforce may be greater than suggested by available data collections.

Section 5 - Checklist

This checklist confirms that the key elements of the Needs Assessment process have been undertaken. PHNs must be prepared, if required by the Department, to provide further details regarding any of the requirements listed below.

Requirement	✓
Governance structures have been put in place to oversee and lead the Needs Assessment process.	✓
Opportunities for collaboration and partnership in the development of the Needs Assessment have been identified.	✓
The availability of key information has been verified.	✓
Stakeholders have been defined and identified (including other PHNs, service providers and stakeholders that may fall outside the PHN region); Community Advisory Committees and Clinical Councils have been involved; and Consultation processes are effective.	✓
The PHN has the human and physical resources and skills required to undertake the Needs Assessment. Where there are deficits, steps have been taken to address these.	✓
Formal processes and timeframes (such as a Project Plan) are in place for undertaking the Needs Assessment.	✓
All parties are clear about the purpose of the Needs Assessment, its use in informing the development of the PHN Activity Work Plan and for the department to use for program planning and policy development.	✓
The PHN is able to provide further evidence to the Department if requested to demonstrate how it has addressed each of the steps in the Needs Assessment.	✓
Geographical regions within the PHN used in the Needs Assessment are clearly defined and consistent with established and commonly accepted boundaries.	✓
Quality assurance of data to be used and statistical methods has been undertaken.	✓
Identification of service types is consistent with broader use – for example, definition of allied health professions.	✓
Techniques for service mapping, triangulation and prioritisation are fit for purpose.	✓
The results of the Needs Assessment have been communicated to participants and key stakeholders throughout the process, and there is a process for seeking confirmation or registering and acknowledging dissenting views.	✓

Requirement	✓
There are mechanisms for evaluation (for example, methodology, governance, replicability, experience of participants, and approach to prioritisation).	✓

Glossary

Aboriginal

The term Indigenous is used to refer to Australian Aboriginal and Torres Strait Islander people. According to the most widely adopted definition of Aboriginal or Torres Strait Islander (the 'Commonwealth working definition'): "An Aboriginal or Torres Strait Islander is

- a person of Aboriginal or Torres Strait Islander descent;
- who identifies as being of Aboriginal or Torres Strait Islander origin; and
- who is accepted as such by the community with which the person associates".

This definition was developed during the period 1967 to 1978 and is now widely accepted by Commonwealth and other government agencies. To acknowledge the separate Indigenous peoples of Australia, the term 'Aboriginal and Torres Strait Islander people' is preferred in WAPHA publications. However, the terms 'Indigenous' or 'Aboriginal' are used interchangeably when referring to Indigenous status or when it assists readability.

After hours

This refers to the period outside 8am to 8pm on weekdays (excluding public holidays) and 8am to 1pm on Saturdays.

Age-standardised rate

A method of adjusting the 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). Adjustments are usually undertaken for each of the comparison populations against a standard population (rather than adjusting one comparison population to resemble another).

Avoidable mortality

Refers to deaths from certain conditions that are considered avoidable given timely and effective health care. Avoidable mortality measures premature deaths (for those aged 0–74 years) for specific conditions defined internationally and nationally as potentially avoidable given access to effective health care.

Chronic diseases

A diverse group of diseases, such as cardiovascular disease, asthma, diabetes and arthritis, which tend to be long-lasting and persistent in their symptoms or development.

Co-morbidities/multi-morbidities

The presence of one or more illnesses (or diseases) in a person, in addition to a primary disease or disorder. For example, chronic lung disease and diabetes.

Lower urgency emergency department presentations

An emergency department presentation where the patient: (1) had a triage category of 4 (semi-urgent) or 5 (non-urgent); (2) did not arrive by ambulance, or police or correctional vehicle; and (3) was not admitted to the hospital, not referred to another hospital, or did not die.

Potentially preventable hospitalisations (PPH)

A set of conditions for which hospitalisation could have been prevented by timely and appropriate provision of primary or community-based healthcare.

Prevalence

The proportion of people in a population found to have a condition at a certain point in time. It is arrived at by comparing the number of people found with a condition to the number of people studied. Prevalence is usually expressed as a fraction or percentage.

Primary care

A component of primary healthcare. Primary care provides front-line personal health services to individuals and is the first point of contact with healthcare provided in the community, most commonly with a general practitioner. It generally does not require an external referral at the point of entry. Within the context of WAPHA, primary care includes pharmacy and other allied health professionals. Primary care has only a limited influence on broader social, economic and environmental factors. Note that while a referral is not needed to access a specialist alcohol and drug service, they are considered to be secondary care providers.

SEIFA

The SEIFA Index of Disadvantage can be used to determine the relative level of disadvantage of different areas based on a range of statistics gathered through census surveys. The indicators reflecting social disadvantage include low income, low educational attainment, high unemployment, and jobs in relatively unskilled occupations. A higher SEIFA score indicates an area with a lower relative level of disadvantage, while a lower score signifies an area with a higher level of disadvantage.

Social determinants of health

Many of the key drivers of poor health reside in our everyday living and working conditions—the circumstances in which people grow, live, work and age. These social determinants include factors such as income, education, employment and social support. Social determinants can strengthen or undermine the health of individuals and communities. For example, in general, people from poorer social or economic circumstances are at greater risk of poor health than people who are more advantaged.

Statistically significant

An indication from a statistical test that an observed difference or association may be significant or 'real' because it is unlikely to be due just to chance.

Vocationally-registered (VR) general practitioner

These are general practitioners (GPs) who are registered as Fellows of the Royal Australian College of General Practitioners (RACGP) or the Australian College of Rural and Remote Medicine (ACRRM) or who are on the General Practice Vocational Register. Vocationally-registered (VR) GPs have access to special Medicare item numbers and higher Medicare rebates.

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