Australian Government
Department of Health

phn COUNTRY WA
An Australian Government Initiative

Country WA Primary Health Network

Needs Assessment Reporting Template Summary

Version 1.0 - August 2016

The Country WA Primary Health Network (PHN) submitted the following tables to the Commonwealth Department of Health as part of the reporting process following the development of the PHN's Needs Assessment, *Country WA PHN Baseline Population Health Report: 2016 – 2018* (the Needs Assessment*)*. This needs assessment process also included the initial drug and alcohol treatment needs, mental health and suicide prevention.

Section 1 – Narrative

Needs Assessment Overview

The Needs Assessment provides an overview of health care demand patterns and trends and community service needs in the Country WA PHN region.

The Needs Assessment is informed by community consultation, data and market analysis. This contributes to the development and implementation of an annual Activity Work Plan that addresses national and PHN specific priorities in the Country WA PHN region.

Methodology

Curtin University is the WA Primary Health Alliance's academic partner. The population health planning outlined in the Needs Assessment explored significant service gaps and areas of unmet need; emerging trends; supply and costs of health care and service provision; predictions of future health needs; and recommendations for further investigation.

Raftery and Stevens'[1] needs assessment framework informed the needs assessment model. The model includes:

- Demand for services (e.g. incidence and prevalence of disease);
- Supply of services (including availability and access to services), and
- Priority areas and options analysis (current and future provision of service investments and disinvestment).

The findings were verified through ongoing consultation and engagement with key stakeholders and triangulated with expert groups from across the health system. The Needs Assessment findings and the priorities developed from them, drive the PHN's commissioning activities.

Priorities were identified and aligned to the six pillars identified by the Federal Government which are:

- Chronic conditions;
- Aboriginal health;
- Aged care;
- Mental health;
- Digital Health; and
- Health workforce.

The following priorities were agreed to by the PHN's stakeholders.

- Keeping people well in the community.
- People with multiple morbidities especially chronic co-occurring physical conditions, mental health conditions and drug and alcohol treatment needs.
- Services designed to meet the health needs of vulnerable and disadvantaged people, including those of Aboriginal heritage.
- System navigation and integration to help people get the right services, at the right time and in the right place.
- Capable workforce tailored to these priorities.

[1] Stevens A, Raftery J. *Health care needs assessment*. Second series. Oxford: Radcliffe Medical Press; 1997

Country WA PHN Demographics

Country WA PHN is geographically the largest of all Australian PHNs, extending just over 2.5 million square kilometres and representing approximately 32% of Australia's total land area. The vast catchment encompasses 106 Local Government Areas (LGAs) within seven regional health districts. The Country WA PHN has established its regional offices in line with the regional health districts, located in the Goldfields, Kimberley, Pilbara, Midwest, Wheatbelt, Great Southern and the South West.

Country WA PHN encompasses many towns and communities from large local hubs to small remote isolated camps with little or no infrastructure and services. Over 95% of the PHN region is statistically defined as remote or very remote, based on relative accessibility to goods and services as measured by road distance. The northern and eastern regions of the PHN are most sparsely populated (0.1 people per square km) with physical accessibility to, and from, much of land being limited and often subject to seasonal weather conditions.

In 2014, the Estimated Resident Population of the PHN region was 548,839 accounting for 21.5% of the State's population. The number of Aboriginal residents in the region in 2013 was estimated at 55,132, accounting for 10.17% of the Country WA PHN population, a much greater proportion than the Perth Metropolitan PHNs (North: 1.61%, South: 2.13%) and the State as a whole (3.65%). Most significantly, approximately 44% of the total Kimberley regional population and 16% of the Pilbara regional populations are Aboriginal.

Health Outcomes

Health outcomes in the Country WA PHN region are consistently poorer than in the Perth metropolitan PHNs. This includes higher prevalence of chronic conditions, comorbidities related to lifestyle behaviours and higher rates of mortality and hospitalisation. This contributes to a greater burden of disease. Further compounding these issues is the lack of access to appropriate health workforces, both in and out-of-hours.

Many communities in rural and remote areas of the Country WA PHN have multiple unmet needs related to comorbid conditions and lack of access to primary health services. Many remote communities rely on visiting services, digital health technologies or having to travel to major regional centres or the Perth metropolitan area for care. Integrated and coordinated care is difficult due to the limited availability and distances to be travelled, difficulties in delivering to outlying communities and methods of service delivery which may not reflect cultural security. Innovative options will need to be considered when commissioning services to improve health and wellbeing outcomes.

The Country WA PHN, supported by WAPHA, is working in collaboration with key partners both government and non-government, and other stakeholders to collectively address health and social needs and regional priorities and to commission integrated approaches to best practice models of care and evidence-based solutions to improve future health outcomes.

Section 2 – Outcomes of the health needs analysis

Identified Need	Key Issue	Description of Evidence

The health needs identified were across the following Federal Government priority areas:
• Population Health (Chronic Conditions)
• Aboriginal Health
• Mental Health
• Aged Care
• Digital Health
• Health Workforce
	The Needs Assessment identified that some local government areas in the Country WA PHN had the highest number of potentially preventable hospitalisations (PPH) for specific chronic conditions.	• National Health Performance Authority (NHPA) analysis of Admitted Patient Care National Minimum Data Set 2013–14.
		• WA hospitalisation rates and modelled costings.
		
		Localisation of Evidence
		• 16,599 total potentially preventable hospitalisations (PPH) resulting in 57,633 bed days in the Country WA PHN during 2013-14.
		• Aged Standardised Rate (ASR) of 3,084 PPH per 100,000 is highest in the State and the fourth-highest rate across all 31 PHNs nationally. By local area (SA3) the Kimberley, Goldfields and Pilbara had PPH rates of 3.3, 1.6 and 1.5 times higher than the national rate, respectively.
		• By top 5 conditions:
		  ○ PPH rates up to 1.6 times higher than national rates;
		  ○ Kidney and urinary tract infections,
		  ○ Heart failure and chronic obstructive pulmonary disease (COPD) all 1.2 times;
		  ○ Diabetes complications 1.3 times; and
		  ○ Cellulitis 1.6 times.

	The Needs Assessment identified that in the Country WA region PPH were seen in a number of local government areas that also have a high prevalence of patients with chronic co-occurring conditions.	• Health outcomes and trends in specific cohort's e.g.
		  ○ Oral health issues for people with mental illness, alcohol and other drug use and chronic conditions;
		  ○ Physical health for people with mental illness; and
		  ○ Mental health of people with high risk alcohol and other drug behaviours.
		• Pattern and relationship of diagnosis.
		• Identified through consultation with clinicians/service providers.
		
		Localisation of Evidence
		• Poor dental hygiene is associated with the progression of rheumatic heart conditions, of which the highest documented rates in the world are Aboriginal people.
		• High rates of alcohol and other drug and mental illness rates – lack of dual diagnosis.

	It has been identified in the Needs Assessment that in some areas in the PHN there is a low proportion of registrants for My Health Record. Increasing registrations will improve the coordination of care and enable people to better manage their personal health information.	• Adoption/uptake rates. • Further research, consultation and analysis is required to identify geographical and population variances. **Localisation of Evidence** • WA had the lowest proportion of registrants compared to all other Australian States and Territories at 9%.

Identified Need	Key Issue	Description of Evidence
The health needs identified were across the following Federal Government priority areas: • Population Health (Chronic Conditions) • Aboriginal Health • Mental Health • Aged Care • Digital Health • Health Workforce	The Needs Assessment identified areas of the PHN region where lifestyle factors lead to a high prevalence of chronic co-occurring conditions.	• Self-reported data related to health status and risk behaviours, as measured in Australia Health Survey (AHS) and WA Health and Wellbeing Surveillance System (HWSS). Spatial analysis demonstrates direct relationship between lifestyle risk factors and chronic conditions prevalence. **Localisation of Evidence** • Proportion of Country WA adults self-rating their health as fair or poor: o 2011-13 AHS: Nearly one in seven (15.1%, compared to Perth North 13.1%; Country WA 14.3%; WA 14.0%). Higher in the Midwest, Goldfields and Wheatbelt where residents rated their health less favorably, all above 17%. o 2014 Health and Wellbeing Surveillance System (HWSS) - Nearly one in ten (9.6%, no significant difference between metropolitan and country respondents). • Significantly high rates of people (58%) with at least one health risk factor (smoking, harmful use of alcohol, physical inactivity or obesity). People in Country WA regions are more likely than the rest of the State and Australia to be: o Smokers (23%); o Obese (32%); and o Drink at risk of harm (8%). (Risk behaviours linked with several chronic conditions).
	The Needs Assessment identified that it is vital that the social and cultural determinants of health are considered when addressing health issues, given the correlation to postcode.	• Influence of health determinants on health outcomes. • Identified through consultation with community/consumers and clinicians/service providers. **Localisation of Evidence** • Poor health outcomes are influenced by an individual's social, economic, cultural and environmental circumstances such as over-crowded housing, low household income, and low education. • Anecdotal evidence suggests communities reporting less good health are in lower socioeconomic areas. Low Social Economic Indexes for Areas (SEIFA) (whole of region) indicate relative disadvantage. The Kimberley and Midwest are most significantly disadvantaged. • Higher than the State (23%) and national (22%) proportion of children developmentally vulnerable on one or more domains (26%). Significant range across and within regions. Highest in the Kimberley (40%), Midwest, Goldfields and Wheatbelt (>25%). • Higher than State and national percentages of single parent families in Kimberley, Midwest and Great Southern. • High unemployment rates in the Kimberley (13%) and Midwest (7%). • Financial, climatic/global economic conditions or relationship conflict or breakdown often pre-empt situational mental health crisis.

Identified Need	Key Issue	Description of Evidence
The health needs identified were across the following Federal Government priority areas: • Population Health (Chronic Conditions) • Aboriginal Health • Mental Health • Aged Care • Digital Health • Health Workforce	In some areas in the PHN, the Needs Assessment identified as an imperative, the development of, and education of, self-management strategies to increase people's ability to take responsibility for managing their health. It was also identified that the lack of these support strategies was a contributing factor to incidences of, and the continuation of chronic conditions.	• Identified through consultation with community/consumers and clinicians/service providers. **Localisation of Evidence** • Low patient knowledge in relation to self-management programs and services.
	A challenge in undertaking the Needs Assessment, at this point in time, was the limited availability of high quality, granular level data relating to general practice, primary and secondary care.	• Limited available data for population health planning at regional and local level.
Chronic Conditions	The Needs Assessment identified areas of the PHN region where lifestyle factors lead to a high prevalence of chronic co-occurring conditions.	• WA hospitalisation rates and modelled costings. • Risk stratification in relation to shared risk factors and chronic conditions prevalence/incidence.
	In some areas in the PHN, the Needs Assessment identified as an imperative, the development of, and education of, self-management strategies to increase people's ability to take responsibility for managing their health. It was also identified that the lack of these support strategies was a contributing factor to incidences of, and the continuation of chronic conditions.	• This is evidenced across the catchment. Further consultations would identify barriers to self-management and health literacy. • Related to patient health literacy levels (granular data on health literacy levels for WA or the PHN was not available).
	The Needs Assessment showed that services and interactions for some people in the PHN region are not always tailored to meet their individual needs.	• Identified through consultation with community/consumers and clinicians/service providers. • This is evidenced across the catchment. Further research, consultation and analysis is required. **Localisation of Evidence** • Reported difficulties in understanding the Australian Health care system and lack of trust in Western treatment methods.

Identified Need	Key Issue	Description of Evidence
Chronic Conditions	The Needs Assessment identified that across the PHN there is a lack of relevant and accessible planned prevention activities and/or early detection strategies and this is linked to an increase in the number of people with chronic conditions.	• NHPA analysis of Admitted Patient Care National Minimum Data Set 2013–14. • This is evidenced by chronic condition mortality rates and bivariate analysis of cancer screening participation rates and outcomes (detection of abnormalities). • Analysis of opportunity for early detection, intervention and treatment by mapping of lifestyle modification programs and services, and timeliness of access to medical practitioners and specialists. • WA hospitalisation rates and modelled costings for chronic conditions. • Identified through consultation with clinicians/service providers. **Localisation of Evidence** • Two in every five PPH are attributed to chronic conditions and their complications that could have been treated at an earlier stage in community or primary care settings. • Significantly higher (at least 1.5 times state and national rates) premature mortality evidenced across region for all causes, except cancer (1.1 times higher). Notably Diabetes mortality significantly high at 4.5 times national and 2 times State rates. • Lowest cervical screening participation rates and higher than average detection of high rate abnormalities.
	The Needs Assessment identified that problems associated with unmonitored chronic conditions are often linked to people in the region not having a regular GP and as such, their medication usage is not monitored and/or reviewed, particularly for disadvantaged groups across the PHN.	• Identified through consultation with clinicians/service providers. • This is evidenced across the catchment. Further research, consultation and analysis is required. **Localisation of Evidence** • Related to patient health literacy levels though granular data on health literacy levels for WA or Country WA PHN not available).
	The Needs Assessment showed that there were a lack of targeted promotional activities, barriers to access, and awareness about relevant and accessible services, for those people in the PHN region who have multiple risk factors associated with chronic conditions.	• Identified through consultation with community/consumers and clinicians/service providers. • This is evidenced across the catchment. Further research, consultation and analysis is required.

Identified Need	Key Issue	Description of Evidence

Aboriginal Health	The Needs Assessment identified that there is a higher mortality rate of children aged under five years of age among the Aboriginal population. It was also identified that in some areas of the PHN, prenatal and postnatal care is not tailored for Aboriginal women and therefore the outcomes for Aboriginal mothers and their children is problematic.	• High mortality rates particularly, in children under 5.
		• Self-reported risk behaviours and exposure in female Aboriginal populations (such as anaemia, poor nutritional status, hypertension, diabetes, genital and urinary tract infections and smoking and alcohol consumption).
		• Prevalence rates of foetal alcohol spectrum disorders (FASD).
		
		Localisation of Evidence
		• Limited access to child and maternal health services in rural and remote areas. More specific data required for analysis.
		• Aboriginal women at higher risk of giving birth to low birth weight babies (14%) due to higher rates of smoking and alcohol consumption during pregnancy compared to non-Aboriginal populations.
		• Proportion of mothers reporting smoking during pregnancy (2013):
		  ○ Kimberley – 56% of Aboriginal, 10% non-Aboriginal;
		  ○ Pilbara – 56% of Aboriginal (significant increase from 45% in 2011) , 10% non-Aboriginal;
		  ○ Wheatbelt– 52% of Aboriginal, 18% non-Aboriginal;
		  ○ Great Southern - 58% of Aboriginal, 13% non-Aboriginal; and
		  ○ Goldfields/Midwest – 40% of Aboriginal, 15% non-Aboriginal.
		• 12% of Kimberley women who gave birth were aged less than 20 years. This was three times higher than the overall State rate. This can be partially explained by the high percentage of Aboriginal teenage women giving birth (19%) in 2011 and 2012.
		• Gaps in clinical support and/or services for otitis media (Goldfields and Midwest) lead to high rates of hearing loss and developmental delay in children.
		• There is a lack of accurate FAS/FASD research data across all population groups and it is known to be under-ascertained. Prevalence rates in regional WA have been reported at 1.8 per 10,000 total non-Aboriginal populations and 27.6 per 10,000 per Aboriginal population. Kimberley has highest rates in Australia.

	The Needs Assessment highlighted that significant health inequities persist for people of Aboriginal heritage, with higher rates of social and environmental factors contributing to poorer health outcomes e.g. poor hygiene, housing overcrowding, access to clean water.	**Localisation of Evidence** • Approximately 66% of Aboriginal Western Australians live in rural, remote and isolated areas and generally experience even higher rates of mortality and hospitalisation. • Low SEIFA indexes, indicating relative disadvantage in remote areas. • Socio-economic factors such as over-crowded housing, low household income and high imprisonment rates put Aboriginal people at higher risk of poor health. • The Kimberley has highest rate of homelessness. • It is estimated that greater than 20% of preventable morbidity in Aboriginal people living in the Kimberley is attributed to environmental health issues in the region. • Premature years if life lost – analysis of Aboriginal and Torres Strait Islander data across WA indicates 30.5% WA total in Kimberley region which holds 19.3 % of the WA Aboriginal population.

Identified Need	Key Issue	Description of Evidence
Aboriginal Health	The Needs Assessment identified that imprisonment and disability rates for Aboriginal people were significantly higher than for other Australians and this requires a targeted and differentiated approach for Aboriginal people.	• Demographics of at risk and disadvantaged populations. **Localisation of Evidence** • WA has the highest imprisonment rate of all Australian states and territories, with Aboriginal adults making up 40% of the WA prison population. • Higher disability rates in Aboriginal population as a result of chronic conditions e.g. foot amputations, blindness.
	The Needs Assessment identified that there is not a targeted and differentiated approach for Aboriginal people with mental illness, despite some areas of the PHN having high populations of Aboriginal people.	• WA hospitalisation rates and modelled costings, by conditions and Aboriginality. • Mortality and morbidity rates. • Identified through consultation with community/consumers and clinicians/service providers. • This is evidenced across the catchment. Further research, consultation and analysis is required. **Localisation of Evidence** • Hospitalisation rates and costs for mental health conditions higher amongst Aboriginal people. Increasing 5 year trend in contrast to stable rates in non-Aboriginal people. • Pilbara Aboriginal people had avoidable death rates that were significantly higher (around 6 times) than non-Aboriginal people, including alcohol and tobacco-related deaths (3-4 times higher). • Regional stakeholder feedback indicates that all regions feel demand for mental health services far outweighs service capacity.
	The Needs Assessment highlighted Aboriginal people are more likely to have a shorter life expectancy, and an earlier onset of multiple chronic conditions, due to a range of contributing factors relating to health and lifestyle.	• WA hospitalisation rates and modelled costings by Aboriginality status. • Significant gaps in mortality rates and life expectancy. • Prevalence of behavioural risk factors in Aboriginal populations. • Identified through consultation with community/consumers and clinicians/service providers. **Localisation of Evidence** • Over one third of the Goldfields and Midwest adults are obese and a further two in five adults are overweight. • Aboriginal life expectancy rates are significantly lower. The difference is largely due to the higher incidence of chronic conditions including kidney Conditions and diabetes. Potentially avoidable chronic conditions account for approx. 80% of the mortality gap for people aged 35-74. • Earlier onset of multiple chronic conditions (20 years). • Lack of Aboriginal people accessing cancer and palliative care services (anecdotal).

Identified Need	Key Issue	Description of Evidence
Aboriginal Health	The Needs Assessment showed that Aboriginal people had a higher rate of injury, with a higher number of injury related deaths.	• WA hospitalisation rates and modelled costings due to injury by Aboriginality status. **Localisation of Evidence** • Rates of hospitalisation due to injury are 2.7 times higher amongst Aboriginal people, consistent with the trend of the last 5 years. • From the period 2001-2005, injury was the second most common cause of death for Aboriginal males and the fourth most common cause of death for Aboriginal females. • Aboriginal male rates of death as a result of injury were three times that of non-Aboriginal males. Aboriginal female death rates were six times those of non-Aboriginal females.
Ageing and Aged Care	The Needs Assessment identified that older people in the region are living longer with chronic disease. However, there is a lack of appropriate models of care and/or the existing models of care are underutilised.	• Life expectancy trends and morbidity rates. **Localisation of Evidence** • This is evidenced across the catchment. Further research, consultation and analysis is required. • Existing models of care underutilised or under-evaluated. • Limited or no palliative care services and prohibitive cost of treatment.

Alcohol and Other Drugs	The Needs Assessment identified in some areas in the PHN region that there is a high rate of people consuming alcohol and other drugs at harmful levels, which results in some people displaying risky behaviours that may lead to emergency department presentations. Alternative options to stop people presenting at emergency departments have not been explored fully.	• Incidence of alcohol and other drug (AOD) emergency department presentations.
		• Identified through consultation with community/consumers and clinicians/service providers.
		
		Localisation of Evidence
		• Overall significantly high rates of drinking at risk of harm (higher than State and national rates).
		• Can be influenced and compounded by 'country town' cultural acceptance/normalisation of high-risk behaviours.
		• Region population demographics (e.g. weighted to younger males) can result in higher risk taking behaviours (evident in Goldfields).
		• AOD related harm is disproportionately high in some regions with:
		  ○ Midwest and Kimberley mortality rates due to tobacco consumption significantly higher than the State rate;
		  ○ Kimberley mortality rates due to alcohol consumption significantly higher than the State; and
		  ○ Kimberley, Goldfields, Wheatbelt and Midwest residents had significantly higher hospitalisation rates due to alcohol and tobacco consumption compared with the State.
		• Alcohol related hospitalisations are higher for both genders in the Gascoyne, Geraldton, Murchison, Northern Goldfields and South East Coastal health districts compared with State males and females.

	The Needs Assessment identified that the use of methamphetamines (ICE) by Aboriginal people in the region is impacting on families, friends and the broader community.	• There is strong and consistent anecdotal evidence from stakeholders working with Aboriginal groups that methamphetamine (ICE) usage is increasing in regional WA. Stakeholders report a 'ripple effect' which starts with users and extends to families, friends and communities.

Identified Need	Key Issue	Description of Evidence
Alcohol and Other Drugs	The Needs Assessment identified the correlation of suicide and self-harm with excessive alcohol drug use, particularly in Aboriginal communities, and the service response across the PHN is inconsistent.	• Identified through consultation with community/consumers and clinicians/service providers. **Localisation of Evidence** • Community consultation in the Kimberley and Goldfields has highlighted increasing incidence of suicide and self-harm associated with excessive alcohol use, especially in remote communities.
	The Needs Assessment identified in some areas in the PHN region that there is a high rate of Aboriginal people consuming alcohol and other drugs at harmful levels, which results in some people displaying risky behaviours that may lead to emergency department presentations. Alternative options to stop people presenting at emergency departments have not been explored fully.	• Identified through consultation with community/consumers and clinicians/service providers. **Localisation of Evidence** • Pilbara Aboriginal people had avoidable death rates that were significantly higher (around 6 times) than non-Aboriginal people, including alcohol and tobacco-related deaths (3-4 times higher). • Wheatbelt Aboriginal adult rates were significantly higher (alcohol 6.4 times and tobacco 3.3 times respectively) than Wheatbelt non-Aboriginal adult rates. • Aboriginal South West residents had significantly higher rates than non-Aboriginal residents for both alcohol and tobacco hospitalisations in 15-64 year olds (alcohol 4.8 times and tobacco 3.5 times higher).
	The evidence from the Needs Assessment shows, in some areas in the PHN region, links between high harmful alcohol consumption levels and severe and persistent mental illness.	• Identified through consultation with community/consumers and clinicians/service providers. • Community consultation in all regions identified concerns about the lack of connectivity between AOD and mental health services and the difficulties experienced by people with comorbid conditions accessing coordinated care and support. • Reported lack of awareness of GPs in treatments for co-occurring mental health conditions and AOD use.
Mental Health and Suicide Prevention	The Needs Assessment highlighted that sustained engagement with a GP, for people with a severe mental illness, is associated with better health outcomes. Evidence shows that those people who do not have this, are at risk in relation to their health and social outcomes.	• This is evidenced across the region, more targeted discriminatory analyses required. **Localisation of Evidence** • Goldfields: 13% adults with diagnosed mental health problem yet only 5.3% reported having used a mental health care service in last year.

Identified Need	Key Issue	Description of Evidence
Mental Health and Suicide Prevention	The Needs Assessment identified mental illness as a serious concern in communities, and one which community members are insisting be addressed. .	• Identified through consultation clinicians/service providers. • This is evidenced across the region, more targeted discriminatory analyses required. **Localisation of Evidence** • Great Southern residents aged 15-64 years, accessed community mental health services the most for serious psychiatric disorders with the female rate being significantly higher than the State female rate (1.1 times) and the Great Southern male rate (1.3 times). • The rate for occasions of service for anxiety disorders in Great Southern residents aged 15-64 years was significantly higher (1.3 times) than the State rate. • One in eight (13%) Goldfields adults aged 16 years and over reported having a current diagnosed mental health problem, with the prevalence twice as high among females than males. However, only 5.3 per cent reported having used a mental health care service in the last year.
	The evidence from the Needs Assessment shows, in some areas in the PHN region, links between high harmful alcohol consumption levels and severe and persistent mental illness.	• Identified through consultation with community/consumers and clinicians/service providers. • This is evidenced across the region, more targeted discriminatory analyses required. **Localisation of Evidence** • Community consultation in all regions identified concerns about the lack of connectivity between AOD and mental health services and the difficulties experienced by people with comorbid conditions accessing coordinated care and support. • Reported lack of awareness of GPs in treatments for co-occurring mental health conditions and AOD use.
	The Needs Assessment identified that suicide rates for Aboriginal people were significantly higher than for other Australians and requires a targeted and differentiated approach for Aboriginal people.	• Identified through consultation with community/consumers and clinicians/service providers. • This is evidenced across the region, more targeted discriminatory analyses required. **Localisation of Evidence** • This is evidenced across the regions. Significantly higher (2.3 times national, 1.6 times State) suicide and self-inflicted mortality rates. • Stakeholders in regional areas indicate that there are large gaps in health professionals offering suicide prevention services. • Distances are prohibitive to accessing services and 24 hours access requirements makes engaging suicidal clients difficult for private practitioners. • Suicide rates in the Kimberley and Goldfields are the highest in Australia. • Unique to regional and rural areas contribute to high suicide rates including; economic and financial hardship, easier access to means that lead to immediate death such as firearms, social isolation, a strong sense of self sufficiency leading to les help seeking, decreased access to support services or a combination of several factors combining to increase the risk of suicidal behaviour.

Identified Need	Key Issue	Description of Evidence
Mental Health and Suicide Prevention	The Needs Assessment identified that suicide rates among people with severe and persistent mental illness were significantly higher than for other Australians, and requires a targeted and differentiated approach.	• Identified through consultation with community/consumers and clinicians/service providers. • This is evidenced across the region, more targeted discriminatory analyses required. **Localisation of Evidence** • Consultations and recent reports on suicides in particular communities highlighted community concern about lack of ongoing support and treatment options.
	The Needs Assessment identified that services which take account of the complexity, and episodic nature of mental illness, are inconsistently available to people across the PHN region.	• Identified through consultation with clinicians/service providers. • This is evidenced across the region, more targeted discriminatory analyses required. **Localisation of Evidence** • Need for timely and highly responsive coordination of care in consideration of complex geographical, economic and environmental Country determinants.
	The Needs Assessment identified the correlation of suicide and self-harm with excessive alcohol and drug use, particularly in Aboriginal communities, and the service response across the PHN is inconsistent.	• Identified through consultation with community/consumers and clinicians/service providers. • This is evidenced across the region, more targeted discriminatory analyses required. **Localisation of Evidence** • Community consultation in Kimberley and Goldfields has highlighted increasing incidence of suicide and self-harm associated with excessive alcohol use, especially in remote communities.
	The Needs Assessment identified the community are concerned about the lack of early intervention options for children with mental health issues and it was identified that the service system across the PHN was inconsistent.	• Identified through consultation with community/consumers and clinicians/service providers. **Localisation of Evidence** • Limited services available in rural and remote areas.
	The Needs Assessment identified that people who have a mental illness are much more likely to have poor physical health and reduced life expectancy.	• Identified through consultation with community/consumers and clinicians/service providers. • National Mental Health Plan.
	The Needs Assessment identified that problems associated with unmonitored chronic conditions are often linked to people in the region not having a regular GP and as a consequence their medication usage is not monitored and/or reviewed, particularly with disadvantaged groups across the PHN.	• Identified through consultation with clinicians.

Identified Need	Key Issue	Description of Evidence
Injury	The Needs Assessment highlighted that in some areas in the PHN region a higher proportion of people aged over 65 years, are injured due to falls.	**Localisation of Evidence** • Falls are the leading cause of injury death and hospitalisation in over 65 years of age. • People lover 65 years of age are most at risk of death due to injuries as a result of fires, burns and scalds. • Qualitative feedback from stakeholders indicated a universal concern in regard to injuries in the ageing population. • Stakeholder feedback indicates there could be more services to support in home falls risk assessments.
	The Needs Assessment showed that across the PHN region there was a higher rate of injury in some areas and in some groups including Aboriginal people; those who are socio-economically disadvantaged; those who are living in rural and remote areas; and males. There are more injury related deaths, especially related to road traffic accidents.	**Localisation of Evidence** • Highest rate of death due to injury was in the Kimberly region. • The region with the highest rate of hospitalisations as a result of injury was the Kimberley, this was followed by the Pilbara. • Pilbara, Goldfields, Wheatbelt and Midwest regions all have recorded higher than State average rates of mortality as a result of injury. • Remote/very remote or socioeconomically disadvantaged areas have been consistently shown to have a significantly higher risk of injury when compared with their comparison groups. • Low SEIFA indexes, indicating relative disadvantage in remote areas. • Approximately 66% of Aboriginal Western Australians live in rural, remote and isolated areas. • Males are evidenced as having a significantly higher risk of injury. 72.4% of deaths as a result of rural road traffic accidents were males. • Second leading cause of injury death and hospitalisation was land transport accidents. • 54% of deaths from road traffic accidents were in regional areas. • 49% of the 170 people critically injured on Western Australian roads were on regional roads. • Highest rates of indicative fatality in the Kimberley, Wheatbelt and Mid-west Gascoyne. • At least one of the behavioural factors of alcohol, inattention, fatigue or speed suspected in 60% of all road traffic accidents.
	The Needs Assessment highlighted that in some areas with high Aboriginal populations, there are high numbers of children (0-19 years) hospitalised because of injury.	**Localisation of Evidence** • Unintentionally injury in children aged 0-14 is the leading cause of death, accounting for approximately half of all deaths. • The rate of hospitalisation is approximately twice that of non-Aboriginal children. • Deaths rates of Aboriginal children aged 0-19 is up to four times higher than non-Aboriginal. • The Kimberley region has the highest child injury death rate (54.3 per 100,000) when compared to all regions across WA. This was followed by the Wheatbelt and then the Pilbara. • Qualitative data from Goldfields stakeholders indicated a need for increased community awareness programs on child safety. • Stakeholders from Midwest regions indicated particular concern for children as a result of injury.

Identified Need	Key Issue	Description of Evidence
Injury	The Needs Assessment identified that there were limited programs tailored to address risk factors associated with injuries.	**Localisation of Evidence** • Stakeholders in several regions have indicated that there is a lack either programs or coordinated programs and physical resources to address risk factors associated with injury such as alcohol and drug use, in particular ICE methamphetamine.
Maternal Health	The Needs Assessment highlighted that in some regions in the PHN there is limited access to obstetricians.	• High birth rates especially in Goldfields.
Child and Adolescent Health	The Needs Assessment highlighted that in some regions in the PHN there is limited access to paediatricians.	• Developmental vulnerability - Great Southern.
Notifiable Diseases Aboriginal Health	The Needs Assessment identified that Aboriginal people had a higher rate of sexually transmitted infections and blood-borne viruses.	• Notifiable disease registry. **Localisation of Evidence** • In the Aboriginal population for Western Australia generally, the rate of notification was four times (1,382 vs. 361/100,000 population) higher for chlamydia and almost 18 times (894 vs. 51/100,000 population) higher for gonorrhoea when compared to the non-Aboriginal population. • Notifications are higher in Aboriginal populations who are reported to have an almost four times higher (12.0 vs. 3.3/100,000 population) and 10-times higher (18.2 vs. 1.9/100,000 population) for infectious and non-infectious syphilis.

Section 3 – Outcomes of the service needs analysis

Identified Need	Key Issue	Description of Evidence

The health needs identified were across the following Federal Government priority areas:
• Population Health (Chronic Conditions)
• Aboriginal Health
• Mental Health
• Aged Care
• Digital Health
• Health Workforce
	The Needs Assessment identified that there was limited and intermittent information available for consumers and clinicians to enable them to effectively navigate the health system.	• Strongly identified through consultation with community/consumers and clinicians/service providers.
		
		Localisation of Evidence
		• Particular areas of concern raised by stakeholder feedback include:
		  ○ Mental health access points.
		  ○ Diabetes services and education linkages for Aboriginal population.

	The Needs Assessment identified that access to, and accessibility of, services is difficult for some disadvantaged groups across the region.	• Classification by remoteness status. • Consumer self-reported experience of affordability, timeliness and preference (NHPA analysis of Australian Bureau of Statistics (ABS), Patient Experience Survey 2013–14). • Identified through consultation with community/consumers. **Localisation of Evidence** • 89% of region classified as very remote and 6% classified as remote. Great distance by road to services and very limited and/or non-existent public transport. • 8% adults who did not see or delayed seeing a GP and 4% adults delayed or avoided filling a prescription due to cost in the preceding 12 months. 30% adults felt they waited longer than acceptable to get an appointment with a GP. • 73% had a preferred GP yet 34% could not then access their preferred GP.
	Inequitable primary health care access and accessibility for some disadvantaged groups e.g. Aboriginal people, ageing, people living in rural and remote areas, people who are homeless, migrants and refugees.	• Percentage of GP attendances that were bulk-billed - National Health Performance Authority analysis of Department of Human Services, Medicare Benefits statistics 2013–14. • Identified through consultation with community/consumers and clinicians/service providers. • More feedback required. **Localisation of Evidence** • Few bulk billings practices in regional areas due to financial viability. • 75.5% GP attendances in 2013-14 in region were bulk-billed (overall 4th lowest PHN nationally, within Country WA range from 65.4% in Pilbara to 89.5% Gascoyne).
	A lack of coordination and integration between, and across, the health services in some areas of the PHN region were identified as issues in the Needs Assessment.	• Identified through consultation with community/consumers and clinicians/service providers. **Localisation of Evidence** • Evidenced across the region, further research would identify specific need/s. • Goldfields- need for child development services including access to multidisciplinary teams made up of medical services, child health nurses, speech pathology, physiotherapy and occupational therapy. Goldfields- 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 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.

Identified Need	Key Issue	Description of Evidence
The health needs identified were across the following Federal Government priority areas: • Population Health (Chronic Conditions) • Aboriginal Health • Mental Health • Aged Care • Digital Health • Health Workforce	Evidence in the Needs Assessment showed in some key health areas/services in the PHN region there is a shortage of specifically skilled workers e.g. Aboriginal health workers.	• Identified through consultation with community/consumers and clinicians/service providers. • Further research, consultation and analysis required. **Localisation of Evidence** • Great Southern- results indicate the need for child development services including access to multidisciplinary teams made up of medical services, child health nurses, speech pathology, physiotherapy and occupational therapy. • Evidenced across the region, further research would identify specific need/s. • Lack of early child health service providers – immunisations, eye/ear health, vaccinations note high Early childhood developmental delays.
	Evidence in the Needs Assessment shows a higher workforce turnover in rural/remote regions, made more difficult due to recruiting appropriately qualified staff. As a consequence the continuity of care for patients may be compromised.	• Turnover of the general practice workforce and vacancy rates (excluding WAGPET GP registrars). **Localisation of Evidence** • Turnover of Country WA workforce from 30 November 2013 to 30 November 2014 was 13%, a decrease of 1.4% from the period prior. • The 31.9% turnover rate in Aboriginal Medical Service (AMS) practices between November 2013 and November 2014 was lower than for 2013 (42.6%) but consistently higher than for the overall general practice workforce at 13% in 2014.
Chronic Conditions	The Needs Assessment identified that there were limited services and/or services are not always tailored to meet the individual needs of people in the PHN region with multiple risk factors and/or chronic conditions.	• Identified through consultation with community/consumers and clinicians/service providers. **Localisation of Evidence** • Health effects of chronic conditions risk factors are compounded by poorer access to services and communications. • Limited community services offering multi-services in one location. Condition specific services often not available in regional areas (e.g. diabetes educator support services). • Lifestyle modification programs focusing of prevention and early intervention (e.g.: healthy lifestyle, obesity, nutrition) often limited or unavailable in rural and remote areas.
	The Needs Assessment identified that there is not a strong focus on transition programs to support people moving from one health service to another.	• Identified through consultation with community/consumers and clinicians/service providers. **Localisation of Evidence** • Fragmented services in rural and remote areas often leave the patient feeling disconnected.
	The Needs Assessment identified there is a lack of service coordination for people with co-occurring chronic conditions, and that these people are not managed in a coordinated way.	• Identified through consultation with community/consumers and clinicians/service providers. **Localisation of Evidence** • Greater utilisation of effective Country workforce models (care coordination by a practice nurse or registered Aboriginal Health Worker on behalf of a GP). • Low use of GP Management Plans and Team Care Arrangements by transitional GPs (Anecdotal).

Identified Need	Key Issue	Description of Evidence
Chronic Conditions	The Needs Assessment identified that problems associated with unmonitored chronic conditions are often linked to people in the region not having a regular GP and as such their medication usage is not monitored and/or reviewed, particularly with disadvantaged groups across the PHN.	• Identified through consultation with clinicians/service providers. **Localisation of Evidence** • Anecdotal evidence suggests visiting rural and remote GPs may be reluctant to prescribe some medications due to poor patient relationship and inadequate health records.
	The Needs Assessment identified the lack of multidisciplinary community based services in some areas of the PHN region, which may impact on the support available to people to assist them to manage their social, cultural and economic circumstances.	• Service mapping shows reduced service diversity/number in areas of increasing remoteness. • Identified through consultation with clinicians/service providers. **Localisation of Evidence** • Workforce limitations in regional and remote areas. • Health professionals travel to Perth or other major centre to access continuing professional development. • Health professionals often servicing vast catchments, and in geographic isolation from peers.
	The Needs Assessment identified that the coordination and integration of primary, secondary and tertiary care across the PHN region is not always patient centred and as a consequence there is an impact on waiting times, numbers of referrals, discharge processes and the use of resources.	• Identified through consultation with community/consumers and clinicians/service providers. **Localisation of Evidence** • Poor communication between primary care providers and specialists in relation to care coordination. Need for improved utilisation of the eHealth record and telehealth services.
Aboriginal Health	The Needs Assessment showed that there was a lack of knowledge and awareness regarding after hours services available across the PHN region, which results in some Aboriginal people presenting to emergency departments for treatment.	• Emergency department presentations by Aboriginality status. • WA hospitalisation rates and modelled costings by Aboriginality status.

Identified Need	Key Issue	Description of Evidence
Aboriginal Health	The Needs Assessment identified that there is limited numbers of services tailored to meet the health, social and cultural needs of Aboriginal people living in the PHN region.	• This is evidenced by underutilisation of non-Aboriginal Health Workers in some regions. • Service population ratios. • Mapping of Aboriginal Health Services. • Identified through consultation with community/consumers and clinicians/service providers. **Localisation of Evidence** • High GP, nurse, psychologist service ratio in Kimberley, yet low uptake. • No/limited Aboriginal Health Workers presence in some regions (Coastal Wheatbelt, Mullewa in the Midwest and inland Pilbara). • 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 in partnership with the Aboriginal Community Controlled Health Organisations (ACCHOs) and other providers. • There is a strong need to support established programs to adopt a more outcomes based focus, rather than develop new programs. Service continuity and trust relationships can be supported throughout this process to ensure that Aboriginal communities do not lose services. Organisations should be supported to reorient to outcomes based methodology such as what has occurred with the Footprints for Better Health Programs. • Access and language barriers to visiting GP and specialist services within communities.
Ageing and Aged Care	Evidence in the Needs Assessment showed that in some community aged care services in the PHN region, the workforce is not always appropriately trained to work with, and support, Aboriginal people to continue living in the community.	Demographic profiles of Aboriginal and non-Aboriginal populations. Projected growth rates of older populations. **Localisation of Evidence** • Rapidly ageing population more prominent in regional than metro WA. By 2026 number of 70+ persons in Country WA will increase by 100 and 85+ persons to increase by over 124%. While smaller by number, the growth rate of the rural 85+ population is nearly twice that of metro areas. • Aboriginal population structure younger than non-Aboriginal population, though competitively 'older' Aboriginal population in compared with Perth North and South Aboriginal populations. 'Older' Aboriginal cohort considered 50+ years.
	Evidence in the Needs Assessment showed that in some aged care services in the PHN region the workforce is not always appropriately trained, or available, to work with, and support, older people to remain living longer in the community and/or in residential aged care facilities.	• Identified through consultation with community/consumers and clinicians/service providers. Analysis of available aged care workforce Providers report impacted by low levels and reimbursement. **Localisation of Evidence** • Results in flow on effect of increased after demand as a consequence of broader systemic failure of in-hours primary care and support. • Patient's largely reliant on visiting services or must travel significant distances to receive care. • Rapidly ageing population more prominent in regional than metro WA. By 2026 number of 70+ persons in Country WA will increase by 100 and 85+ persons to increase by over 124%. While smaller by number, the growth rate of the rural 85+ population is nearly twice that of metro areas.

Identified Need	Key Issue	Description of Evidence
After Hours	The Needs Assessment identified in the PHN region that an increasing number of people are accessing emergency departments after hours. Alternative options to stop people presenting at emergency departments have not been explored fully.	• This is evidenced by emergency department presentations in after hours time period and St John Ambulance data. Supported by residential aged care facilities consultation. **Localisation of Evidence** • Improved access to a GP in the after hours period, particularly for phone orders for medicines, would assist staff to manage residents within the facility and avoid transfer and admission to ED and hospital.
	The Needs Assessment showed that there was a lack of knowledge and awareness regarding after hours services available across the PHN region, which results in some people presenting to emergency departments for treatment.	• ED after hours attendance rates, by triage category, by primary conditions. • Number and proportion of primary care services available in after hours time period. Corroborated by consultations with local consumers and health professionals. **Localisation of Evidence** • Effective metropolitan models are unsuitable in Country. (e.g. Cooperative GP after hours model). • Potential for telehealth support and/or co-location of mental health trained professional and social workers in hospital ED after hours. • Opportunities to utilise telemedicine options in Southern Inland Health Initiative regions – in consultation with WACHS and GPs.
Alcohol and Other Drugs	The Needs Assessment identified that access to, and/or the number of, relevant drug and alcohol services and facilities in the PHN region is not meeting the demand of people seeking help and support.	• Identified through consultation with community/consumers and clinicians/service providers. • Data supplied by the WA Mental Health Commission. **Localisation of Evidence** • Consultations in Esperance, Goldfields and Pilbara highlighted a significant undersupply of non-residential AOD services. • There is a significant gap in staffing required (estimated at meeting 30% of the current need) at a State-wide and regional level to assist communities who wish to prevent and reduce AOD harm. • Current access to the continuum of withdrawal services is extremely limited in all regional areas. Currently, 63% of the need for residential rehabilitation services is being met within the regional areas and all of these services are located within the northern part of the State. • Non-residential FTE in non-metropolitan regions is estimated at meeting 45% of the demand (70% within Northern and Remote and 27% in Southern Country), there are no Addiction Medicine Specialists located within regional areas and services provided by GPs and nurses is limited. • Expert opinion estimates that only 30% of the current need for post residential rehabilitation supported accommodation is currently being met. • Currently there is limited information relating to appropriate community supports for AOD problems.

Identified Need	Key Issue	Description of Evidence
Alcohol and Other Drugs	The Needs Assessment identified the lack of drug and alcohol treatment options in some areas of the PHN region. This results in people having to travel long distances and/ or to the Perth metropolitan area for treatment. The Needs Assessment identified the disruptions this places on the patient and their family.	• Identified through consultation with community/consumers and clinicians/service providers.
Mental Health and Suicide Prevention	The Needs Assessment identified that services that take account of the complexity, and episodic nature, of mental illness are inconsistently available to people across the PHN region.	• Identified through consultation with community/consumers and clinicians/service providers. **Localisation of Evidence** • Lack of psychologists offering suicide prevention services – anecdotal evidence suggests lack of willingness to undertake such work, particularly in isolation or after hours due to inherit risk associated with these clients. • Crisis situations have high impact on local mental health workforce due to interconnected nature of small communities.
	The Needs Assessment recognised the importance of early intervention when treating people with mental illness and/or alcohol and drug problems, as the acuity of the illness increases with delays in treatment, which can result in hospital admissions. However it was recognised that in some areas of the PHN there are limited early intervention services available for people with mental illness and behavioural issues.	• Stakeholder feedback indicates long waiting lists in regions where services are available. **Localisation of Evidence** • Access to psychological services in rural and remote areas 25% less than major cities. • Limited community support for patients following acute episodes and discharge from tertiary services.
Mental Health and Suicide Prevention	The Needs Assessment identified that across the PHN there is a lack of relevant, and accessible, pre and post-vention services to support people and families affected by suicide.	• Identified through consultation with community/consumers and clinicians/service providers.

Identified Need	Key Issue	Description of Evidence
Mental Health and Suicide Prevention	Evidence in the Needs Assessment identified that in some key health and social services in the PHN region there is a lack of culturally relevant pre and post-vention services for Aboriginal people and their community affected by suicide.	• Identified through consultation with community/consumers and clinicians/service providers. **Localisation of Evidence** • Aboriginal and Torres Strait Islander Suicide Prevention Evaluation Project consultation in Kimberley and the associated report. • Stakeholder consultations in Goldfields. • Community response to recent suicides in Goldfields and Kimberley regions.
	The Needs Assessment identified in the PHN region that there is an increasing number of people with mental illness presenting to emergency departments. Alternative options to stop people presenting to emergency departments have not been explored fully.	• WA hospitalisation rates and modelled costings.
	The Needs Assessment recognised that in some areas of the PHN there are limited local early intervention services available to prevent escalation of mental illness.	• Identified through consultation with mental health clinicians. WA hospitalisation rates and modelled costings. **Localisation of Evidence** • Access to services are compromised by the following barriers, exacerbated in regional and remote environments, including distance to services, lack of transport, cost, appropriate service availability (Aboriginal, CALD services, appropriate psychological services), lack of follow-up services and patient support.