Australian Government
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Primary Health Network

Needs Assessment Reporting Template

Perth South PHN – Mental Health

Version 2.0, published 28 February 2018

The November 2017 PHN Needs Assessments were constructed using data from a wide range of sources, much of which is in the public domain. WA Primary Health Alliance (on behalf of Country WA PHN, Perth North PHN and Perth South PHN) also enjoys data sharing arrangements with a number of organisations, including WA Health and the Commonwealth Department of Health and Aging. These agencies provide sensitive and confidential data which underpin the Needs Assessments. This document has therefore been amended to remove confidential and sensitive data. The broad content and conclusions remain unchanged from the original document. For any queries relating to the underlying data sources, please contact Dr Christina Read, christina.read@wapha.org.au.

Section 1 – Narrative

Needs Assessment process and issues

Data for Perth South PHN's third round of needs assessments has been split between Core (population health), mental health (MH) and alcohol and other drugs (AOD). All three reports are based on the consideration of the holistic needs of people living in places where demand is high and supply inadequate.

This document is the first time mental health and suicide prevention needs are reported independently, and therefore provides opportunity to focus on specific mental health needs of local communities.

This Template consolidates the following sources of information:

1. baseline needs assessment (2015-2016),
2. refresh of quantitative data sets,
3. observations from ongoing stakeholder engagements, and
4. early findings from the PHN commissioned Richmond Wellbeing Integrated System of Care for AOD and mental health (MH) (Aboriginal and Mainstream residents) place-based consultations.

A constant comparative method was applied to refine and realign section 2 (health needs), section 3 (service needs) and section 4 (priorities). Based on the PHN's subject matter analysis and place-based teams, consolidated options have been determined to address identified needs in priority locations. The locations where there is likely to be high demand for mental health related services have been identified as distinct priorities in section 4.

All datasets were combined to identify locations of highest needs at the finest possible granularity. Datasets listed below were refreshed in this analysis supported by published regional, state, national and international evidence:

1. PHIDU – Social Health Atlas of Australia: Population Health Atlas (Public Health Area – aggregates of SA2)
2. Medicare Benefit Scheme Data – PHN data portal (SA3)
3. Pharmaceutical Benefits Scheme Data - PHN data portal (SA3); NPS MedicineInsight (HSA)
4. Emergency Dataset - WA Department of Health (Postcode)
5. Hospitalisations for mental health conditions and intentional self-harm in 2014-15 - AIHW (SA3)
6. Australian Bureau of Statistics ABS. (SA2)
7. Mental health services in Australia – AIHW (national)
8. WA Mental Health and AOD Atlas – WA Mental Health Commission (September 2017) (suburbs)
9. Primary Mental Health Care Minimum Data Set – Department of Health (Postcode)

Qualitative evidence was collected from consultation reports, notes from community consultations, stakeholder engagement, and meeting records from Clinical Commissioning Committee (CCC), and Community Engagement Committees (CEC).

Alliance Against Depression (AAD) Framing

The WA Primary Health Alliance has endorsed and launched the Alliance Against Depression (AAD) framework, which has been adopted from the European Alliance Against Depression (EAAD) framework, in this needs assessment to structure the consideration of needs and options in place.

The AAD pillars are:

A. Primary care and mental health care
B. General public: awareness campaign
C. Patients, high-risk groups and relatives
D. Community facilitators and stakeholders

The AAD principles to reflect the Western Australia primary health care context are:

i. Integration
ii. Place-based
iii. Community driven
iv. Sustainable
v. Alliance approach

Further Developmental Work

Section 4 identifies priorities of needs to improve mental health and wellbeing outcomes. This section also includes a range of options – or strategies – that can be implemented to change population health outcomes. The PHN will not necessarily lead all the options but intends to be an integral part of the process, working in collaboration with key stakeholders. The PHN will further consolidate these priorities, in conjunction with those identified in the Core and AOD needs assessments, in order to address areas of greatest unmet health needs.

Hotspots or areas of greatest mental health needs have been identified as Fremantle, Kwinana, Mandurah, Gosnells, Armadale, Rockingham and Canning. The Perth South PHN 2018-19 Activity Plan will integrate priorities across these regions. Further work is required to build on current strategies and further implement place-based solutions, in collaboration with primary care providers and local communities.

WAPHA has implemented an Outcomes Framework that includes an outcomes map to capture service measures. This will be applied across all commissioned services with the overarching aim to optimise patient's health and the health system in order to demonstrate increased efficiency and effectiveness.

Additional Data Needs and Gaps

Perth South PHN is a diverse region with differences between resident populations across the catchment. Synthesising data across all regions to determine potential priorities is challenging and currently available data may not fully represent health priorities in each locality.

Most data sets have some quality limitations. The main limitations relating to the data accessed for the Phase 3 Needs Assessment Report include:

- The lack of granular level data available for analysis – having access to this type of data (i.e. de-identified patient level data) would allow sophisticated modelling. The small sample sizes, and consequently large confidence intervals, for the majority of the modelled estimates at SA3 levels created challenges in establishing statistical significance to the comparators (state/national/PHN or comparison among SA3s).
- Incomplete data sets especially in relation to service provision e.g. the Mental Health & Alcohol and Drugs Atlas.
- Manual data set curation instead of programmatic retrieval of publicly accessible information of service providers.

- Potential under-identification of Aboriginal and Torres Strait Islander people in the available data sets.
- Changes in data coding affecting comparability over time, especially in relation to hospitalisation information.
- Time lags: some data sets are not recent thus impacting on the validity of data.
- Inconsistent ways of collecting and interpreting data means there are conflicting interpretations of data; for example, NPS MedicineInsight data is at the health service area and health district level rather than SA3 level.
- Limited data on vulnerable populations e.g. homeless people, prison populations.
- The data used to determine suicide rates is a modelled estimate, so must be interpreted with caution. In the instances where there is no number provided for a location or area, there may have been no suicides, or no data was available to determine a rate. When numbers are very low, or zero, they will not appear on graphs. There is a potential that the data may be skewed, as the coroner does not always release suicide information.
- Poor access to community and stakeholder feedback in some regions.
- Lack of quality primary care and general practice performance and activity data.
- Limited and/or selective release of utilisation data, especially with eHealth uptake and utilization - including unexplained under-reporting or absence of Medicare Benefits Scheme (MBS) claims in certain SA3 regions, making it difficult to provide an accurate reflection of regional utilisation.

Service mapping data for this assessment is based on the WA Mental Health and AOD Atlas updated at September 2017, supplemented by the PHN staff's local knowledge of service offerings. Digital solution is required to ensure access to service mapping data in real time.

PHN data sets have been valuable resource to support the needs assessment; however, SA3 level data is insufficient granularity to support place-based analysis.

The PHN will utilise the National Mental Health Planning Framework planning tool for mental health service planning. The tool will be used to translate findings from this needs assessment in the activity planning process between 15th of November 2017 to March 2018.

Additional comments or feedback

WA Primary Health Alliance (WAPHA) oversees the strategic commissioning functions of the three WA PHNs. This state-wide perspective has created substantial benefits in undertaking the Needs Assessments for all WA PHNs. Our analysis considers the differences between the individual PHNs as well as comparisons to overall state trends. Additionally, options to address needs and commissioning activities can be applied and compared across PHN boundaries.

The whole of state approach provides a platform for data sharing across organisations in a way that has not been possible historically or at least not on the current scale. This approach has been further strengthened as more stakeholders become familiar and engaged in our work, including Local Government Agencies. We recognise this is an evolutionary process and each PHN has the capacity to adapt as we understand our regions in more depth.

In February 2016, a Deed of Agreement was established between WAPHA and WA Department of Health. The Needs Assessment has prompted collaboration and data sharing amongst a range of government and non-government agencies (e.g. Area Health Services, local hospitals, WA Mental Health Commission and the Aboriginal Health Council of Western Australia).

WAPHA have also negotiated data sharing with St John Ambulance, NPS Medicine insights, the Western Australian Network of Alcohol and Other Drug Agencies and a number of General Practice organisations via the use of PenCS CAT Plus. These different data sources allow for further detailed health analytics to be undertaken and provide a rigorous framework for comprehensive needs assessment and population planning activity.

The role of the Clinical Commissioning Committees and Community Engagement Committees has been fundamental in critically reviewing the needs assessment data on an ongoing basis. This further contributes to our evolving understanding of local place-based priority health needs, and effective and efficient solutions ('options') that can be applied in the local context.

WAPHA engaged Curtin University as its academic partner to work on a number of population health, research and evaluation projects. There have been various benefits of working with an academic institution, most notably is the ready access to specialist skills sets (health economists, spatial analysts etc.) as well as the ability to store and manipulate big data sets. This is an area where Curtin will work closely with WAPHA to enable comprehensive understanding of patient profiles and pathways through the health system in WA. Next steps involve predictive risk analysis around key areas, deep dives into specific regions and areas of need, and a focus on evaluating the effectiveness of service provision across the PHN.

Glossary – Needs Assessment

After-hours	The after-hours period refers to the time: before 8am and after 6pm weekdays; before 8am and after 12pm Saturdays; and all-day Sundays and public holidays.
ASR	Age standardised rate: a method of adjusting a crude rate to eliminate the effect of differences in population age structures.
Allied health workforce	Includes: Aboriginal Health Practitioners; Dental Practitioners; Nurses & Midwives (total and Aboriginal Health Services); Occupational Therapists; Pharmacists; Physiotherapists.
Ambulatory-sensitive hospitalisations	Certain conditions for which hospitalisation is considered potentially avoidable through preventive care and early disease management, usually delivered in a primary care setting. Also called Potentially Preventable Hospitalisations (PPHs).
Avoidable mortality	Potentially avoidable deaths comprise potentially preventable deaths and potentially treatable deaths. Potentially preventable deaths are those which are amenable to screening and primary prevention, such as immunisation, and reflect the effectiveness of the current preventive health activities of the health sector. Deaths from potentially treatable conditions are those which are amenable to therapeutic interventions, and reflect the safety and quality of the current treatment system.
CALD	Those who come from a culturally and linguistically diverse background, defined as people born in predominantly non-English speaking countries.
DRG	Diagnostic Related Group: an Australian admitted patient classification system which provides a clinically meaningful way of relating the number and type of patients treated in a hospital to the resources required by the hospital.
Factors influencing health status	Defined as a person who may or may not be sick encounters the health services for some specific purpose, such as to receive limited care or service for a current condition, to donate an organ or tissue, to receive prophylactic vaccination or to discuss a problem which is in itself not a disease or injury, or when some circumstance or problem is present which influences the person's health status but is not in itself a current illness or injury.
FASD	Fetal alcohol spectrum disorders are a spectrum of lifelong physical and neurocognitive disorders, caused by alcohol use in pregnancy.
Frequent flyers	Defined as having four or more visits per year. These patients have been shown to have more psychiatric, psychosocial, and substance abuse issues than the general population and tend to be complex to manage.
HealthPathways	A web-based information portal supporting primary care clinicians to plan patient care through primary, community and secondary health care systems within Western Australia.
IARE	Indigenous Area. Medium sized geographical units designed to facilitate the release of more detailed statistics, with names based on area/community which the boundary encompasses. There is 429 IAREs across Australia.
Ill-defined conditions	No classifiable diagnosis.
IRSEO	Indigenous Relative Socio-economic Outcome Index. Reflects relative advantage or disadvantage at the Indigenous Area level, where a score of 1 represents the most advantaged area and a score of 100 represents the most disadvantaged area.

ITC	Integrated Team Care. Program commissioned by WAPHA to contribute to improving health outcomes for Aboriginal and Torres Strait Islander people with chronic health conditions through better access to coordinated and multidisciplinary care.
LGBTQI	Those who identify as lesbian, gay, bisexual, transgender, queer, intersex
MBS	Medicare Benefits Schedule: a listing of the Medicare services subsidised by the Australian government.
Multimorbid	The occurrence of two or more chronic conditions in an individual.
Non-urgent ED attendances	Emergency Department visits which are classified as triage category 4 (semi-urgent) and category 5 (non-urgent). These categories could potentially be seen in a primary care setting.
PBS	Pharmaceutical Benefits Scheme: information on medicines subsidised by the Australian Government.
Person-centred care	Holistic care involving GPs and support services in partnership with the people they care for.
PHA	Population Health Area. Comprised of a combination of whole SA2s and multiple (aggregates of) SA2s, where the SA2 is an area in the ABS structure.
Place-based	WAPHA commissions services at a place-based level, responding to local need.
Primary health care	Primary health care is the entry level to the health system and, as such, is usually a person's first encounter with the health system.
PHN	Primary Health Network
PPH	Potentially preventable hospitalisations. An admission to hospital which may be prevented through the provision of appropriate individualised preventative health interventions and early disease management usually delivered in primary care and community settings by general practitioners (GPs), medical specialists, dentists, nurses or allied health professionals.
SA2 / SA3	Statistical Areas Level 3 (SA3s) are geographical areas that will be used for the output of regional data, including 2016 Census Data. There is no equivalent unit in the Australian Standard Geographical Classification (ASGC). The aim of SA3s is to create a standard framework for the analysis of ABS data at the regional level through clustering groups of SA2s that have similar regional characteristics. There are 351 SA3s covering the whole of Australia without gaps or overlaps. They are built up of whole SA2s. Whole SA3s aggregate directly to SA4s.
Secondary health care	'Secondary care' is medical care provided by a specialist or facility upon referral by a primary care physician.
SEIFA	Socio-economic Index for Areas (SEIFA) defines the relative social and economic disadvantage of the whole of population within a region.
Tertiary health care	Hospital services provided by both public and private hospitals.

Section 2 – Outcomes of the health needs analysis

Outcomes of the health needs analysis		
Identified Need	Key Issue	Description of Evidence
HN1 Reduce harmful effects of mental health conditions on a person's health outcomes	1.1 Mental illness and disorders are widely recognised as being a significant risk factor for suicide and self-harm.	Globally, for every suicide, there are approximately 20 suicide attempts. Since the mid-1980s, the number of Australians who died by suicide has averaged around 2,000 annually, while for over a decade, more than 20,000 Australians have been admitted to hospital annually as a result of intentionally self-inflicted injuries. Mental disorders such as major depression, psychotic illnesses and eating disorders are associated with an increased risk of suicide especially after discharge from hospital or when treatment has been reduced, and people with alcohol or drug abuse problems have a higher risk of dying by suicide than the general population. **Across PHN** *Suicide* Suicide was among the top 10 leading causes of death in Perth South PHN (ASR=13.0 per 100,000). The rate ratio relative to all of Australia was 1.2. The suicide rate was much higher for males (ASR=19.9 per 100,000) compared to females (ASR=6.2 per 100,000). *Intentional self-harm* Perth South PHN had a lower hospitalisation rate for intentional self-harm (ASR=141 per 100,000) than the National average (ASR=161 per 100,000). However, the bed day rate for Perth South (ASR=1175 per 100,000) was higher than the National average (ASR=838 per 100,000).. Compared to the National average, Perth South PHN had a higher proportion of intentional self-harm hospitalisations in specialised care (41.3% versus 26.4%) as well as a higher proportion of bed days in specialised care (72.8% versus 57.4%). *Youth suicide* In Western Australia, suicide is the main cause of preventable deaths for 15-24 year olds. The 2014 State Ombudsman's investigation into 36 suicide deaths by youth aged 13-17 years found that the majority had experienced trauma from abuse and/or neglect. Aboriginal youth made

Outcomes of the health needs analysis		
		up 36% of suicide deaths but accounted for only 6% of the youth population in Western Australia. Suicide accounted for 21.9% of deaths among 15-19 year old males and 28.7% of deaths among 20-24 year old males in 2012. For females, these rates are 32.6% and 25.2% respectively.
		Place-based *Suicide* Mandurah SA3 had the top suicide rate in Perth South PHN (ASR=18.7 per 100,000 for all persons). The rate ratio relative to all of Australia was 1.7. Canning SA3 had the highest suicide rate for females (ASR=8.5 per 100,000), with a rate ratio of 1.6. *Intentional self-harm* Fremantle SA3 had the highest hospitalisation rate for intentional self-harm (ASR=270 per 100,000) in the Perth South PHN. Notably, the bed day rate for Fremantle SA3 (ASR=2329 per 100,000) was 2.8 times the National average (ASR=838 per 100,000).
HN2 Perinatal care for the mother and baby to act as a protective factor to prevent future mental health problems	2.1 Pregnant women and women who have just given birth are more likely to experience depression	Data from the 2010 Australian National Infant Feeding Survey showed that 1 in 5 mothers of children aged 24 months or less had been diagnosed with depression. 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 who: • were younger (aged under 25); • were smokers; • came from lower income households; • spoke English at home; • were overweight or obese; and/or • had an emergency caesarean section.
	2.2 Affected mothers may negatively impact children's development	**Across PHN** The percentage of children who were developmentally vulnerable on one or more domains was lower in Perth South PHN (20.9%) compared with Western Australia (21.3%) and Australia overall (22.0%). However, there were sub-regions with relatively high rates (refer to discussion below).

Outcomes of the health needs analysis		
		Place-based Within Perth South PHN, Canning SA3 had the highest percentage of children who were developmentally vulnerable (25.0%), followed by Kwinana and Gosnells (24.6%).
HN3 Reduce impact of mental health conditions on medium and long-term physical health morbidity and multi-morbidities	3.1 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 disorder, or one mental disorder and one or more physical conditions. Mental health problems are known to have high rates of comorbidity with chronic physical conditions. Around one in nine Australians aged 16-85 had a mental disorder and physical condition at the same time. 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.
HN 4 People with persistent mental illness need to be able to access appropriate and timely primary care to avoid hospitalisations	4.1 People living with severe and complex mental illness are more likely to present to hospitals when primary health care is not accessible	**Across PHN** *Schizophrenia and delusional disorders* Overall, Perth South PHN had a lower rate of hospitalisations (ASR=134 per 100,000) for schizophrenia and delusional disorders compared to the National average (ASR=164 per 100,000). However, the data indicates that there are areas of high need within the PHN (discussed below). . *Bipolar and mood disorders* Overall, Perth South PHN had a higher hospitalisation rate (ASR=108 per 100,000) for bipolar and mood disorders compared to the National average (ASR=101 per 100,000). *Children and Youth* The prevalence rates of severe mental disorders among children and youth in Perth South PHN are similar to national averages.
		Place-based *Schizophrenia and delusional disorders* Fremantle SA3 had the highest hospitalisation rate for schizophrenia and delusional disorders (ASR=345 per 100,000) in the Perth South PHN. Moreover, the bed day rate (ASR=10,063 per 100,000) was 2.8 times the National average and 3.1 times the PHN average. *Bipolar and mood disorders* Fremantle SA3 had the highest hospitalisation rates for bipolar and mood disorders in Perth South PHN (ASR=188 per 100,000). The bed day rate (ASR=4460 per 100,000) was 2.3 times the PHN average and 2.5 times the National average.

<table>
<tr><th colspan="3">Outcomes of the health needs analysis</th></tr>
<tr><td></td><td></td><td>Children and Youth
The Kwinana and Armadale SA3s respectively have the highest estimated prevalence of severe mental disorders in 4-11 year olds and 12-17 year olds .</td></tr>
<tr><td rowspan="2">HN5 Children and youth are a priority area of focus, along with the early intervention to increase access and improve outcomes</td><td rowspan="2">5.1 There are sub-regions in Perth South PHN with a relatively high prevalence of mental disorders among youth.</td><td>Across PHN
Children and youth are a priority area of focus, along with the early intervention to increase access and improve outcomes.

The estimated prevalence of mild, moderate and severe mental disorders among 4-17 year olds in Perth South overall was similar to National estimates. However, there were areas within the PHN with relatively high prevalence rates (refer to discussion below).

Child abuse is a significant factor affecting youth mental health, with far-reaching consequences throughout life. Recent child protection data indicated that between July 2016 and June 2017, Armadale received the highest number of mandatory reports in the Perth South PHN.</td></tr>
<tr><td>Place-based
The table below highlights the SA3s with the highest prevalence by age group and severity of mental disorder.

<table><tr><th></th><th>Mild</th><th>Moderate</th><th>Severe</th></tr><tr><td>4 - 11 years</td><td>Kwinana, Mandurah, Rockingham</td><td>Kwinana</td><td>Kwinana</td></tr><tr><td>12 - 17 years</td><td>Belmont – Victoria Park</td><td>Kwinana</td><td>Armadale</td></tr></table></td></tr>
<tr><td>HN6 Demand and future demand for service related to vulnerable individuals who are not accessing services</td><td>6.1 Socio-economic factors such as over-crowding and sub-standard housing, low household income, long-term unemployment and lower educational attainment can</td><td>There is a strong association between socioeconomic disadvantage and the prevalence of mental problems and illness. The Socio-Economic Index for Areas (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.

Across PHN
• Perth South PHN has a SEIFA index of 1020 (Australia is the baseline at 1000).</td></tr>
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Outcomes of the health needs analysis		
	lead to long-term physical and mental health problems.	• Between one third and one half of the differences in life expectancy are considered to be explained by differences in the social determinants of health. • Socio-economic factors such as over-crowded housing, low household income, and high imprisonment rates put Aboriginal people at higher risk of poor physical and mental health. In addition, access to mainstream health services is more difficult for this population group due to socioeconomic disadvantage, relatively high mobility, poor record keeping and a lack of culturally appropriate mainstream health services. • Mental disorders have a range of risk and protective factors that are related to socioeconomic and environmental determinants, such as poverty, war and inequity, but also individual and family-related determinants.
		Place-based • The most disadvantaged areas based on the Socio-Economic Index for Areas (SEIFA) scores in the PHN are Kwinana (970), Mandurah (978) and Armadale (996) SA3s. • In terms of educational disadvantage, Serpentine – Jarrahdale, Mandurah and Kwinana SA3s have the highest percentage of residents who left school at Year 10 or below (ASR>36 per 100). • Mandurah SA3 has the highest percentage of single parent families (26.3%).
	6.2 People from minority groups can be more vulnerable to poorer physical and mental health problems.	Individuals in vulnerable or disadvantaged groups are more likely to experiences adverse health outcomes. As such, they can be frequent users of the healthcare system and other social system supports, if accessible. **Across PHN** • The proportion of Aboriginal people in the Perth South PHN is about 1.8% of the population (17,240 people).

Outcomes of the health needs analysis		

		• The proportion of culturally and linguistically diverse (CALD[1]) populations in the Perth South PHN (20.1%) is higher than the WA (16.6%) and Australian (17.9%) averages. This equates to 188,416 people.
		  o About 5.0% of the Perth South PHN population was born in a predominantly non-English speaking country and had been a resident in Australia for less than five years, which is higher than for WA (3.9%) and Australia (3.8%).
		  o An estimated 2.2% of the PHN residents have low English proficiency in 2016, which is lower than the Australian average (2.9%).
		• During 2010-15, 3126 humanitarian migrants were settled into Perth South PHN.
		• About 4.4% of the PHN population is living with a profound or severe disability. 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.
		• In the Perth South PHN, 10.0% of residents aged 15 years and over are providing unpaid assistance to persons with a disability.

		Place-based • The Kwinana SA3 has the highest proportion (3.6%) and Gosnells SA3 has the highest number (2753) of Aboriginal people in the Perth South PHN. • Canning SA3 has the highest proportion (38.9%) and number (36,418) of CALD residents. • In the Perth South PHN, the highest number of recorded homeless people in 2011 was in Gosnells SA3 (417). • Fremantle SA3 has the highest proportion of residents aged 15 years and over providing unpaid assistance to persons with a disability (11.4%).
HN7 Consumer capacity to respond to mental health conditions through effective communications and awareness raising through a stepped care approach	7.1 Patients have limited understanding how to access the right care at the right time in the right place	**Across PHN** Stakeholder feedback indicates that mental health patients often have difficulty navigating the health system due to the complexity of the system. 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

[1] CALD is defined as People born in predominantly non-English speaking countries

Outcomes of the health needs analysis		
		readmission to hospital within 28 days and more serious adverse outcomes for patients and their families.
		Place-based Interviews with stakeholders indicated a number of challenges in the Rockingham area including a high number of transient and homeless people, increased unemployment due to the down turn in the mining sector, and poor retention of GPs in the community. The increased volume of admissions magnifies issues surrounding discharge and highlights the need for adequate coordination of mental health care in the community. The stakeholder forum reported that in some circumstances, patients were sent home with no plan for follow up and no referrals to appropriate services. In many cases, patients felt they were unable to independently manage their own care. A Richmond Wellbeing co-design workshop in the Shire of Waroona (Mandurah SA3) indicated a need for greater patient knowledge of available mental health services and how to access them. Community members and service providers reported that stigma contributed to a lack of awareness/communication around mental health issues and impacted on help-seeking behaviour.

Section 3 – Outcomes of the service needs analysis

Outcomes of the service needs analysis		
Identified Need	Key Issue	Description of Evidence
SN1 Model of care focus on early intervention to enable effective self-management and prevent exacerbation of existing mental health conditions, or development of suicidal ideation	1.1 There are sub-regions in Perth South PHN with a relatively high level of psychological distress and/or mental and behavioural disorders.	**Across PHN** *Psychological distress* Overall, Perth South PHN had a lower estimated rate of people living with a high level of psychological distress (ASR=10.4%) compared to the National (ASR=11.7%) and State (ASR=9.8%) averages. However, there were areas within the PHN with relatively high rates (refer to discussion below). *Mental and behavioural disorders* Perth South PHN had a significantly higher rate of people with mental and behavioural disorders (ASR=14.4%) compared to the National average (ASR=13.6%).
		Place-based *Psychological distress* Kwinana SA3 had the highest estimated rate of people living with psychological distress (ASR=14.4%) in the Perth South PHN. This rate was significantly higher than the PHN and State averages. Also, the estimated rate in Armadale SA3 (ASR=12.6%) was significantly higher than the State average.

Outcomes of the service needs analysis		
		Mental and behavioural disorders Mandurah SA3 had the highest estimated rate of people with mental and behavioural disorders in the Perth South PHN (ASR=16.1%). This rate was significantly higher than the State and National averages. Also, Armadale SA3 (ASR=14.8%) had a significantly higher rate than the National average.
	1.2 Limited early intervention services available across the PHN for people with mental and behavioural issues, and suicide risk	**Across PHN** Interviews with stakeholders indicated a lack of prevention and early intervention services in the community leading to patients being treated at a later stage and in a more acute setting.
		Place-based The perception from a stakeholder forum reported that several youth mental health services in the Rockingham area have been discontinued or cut back. This shortage has resulted in increased pressure on headspace services. Moreover, the lack of services to support acute mental illness in youth has led to an increase in ED presentations and hospital admissions.
SN2 Capacity of the health workforce to recognise and respond to mental health presentations	2.1 Inadequate supply of primary care services mean people with health care needs are not able	**Across PHN** *Workforce supply*

Outcomes of the service needs analysis		
	to access the right care at the right time in order to effectively manage their health	Perth South PHN had a lower number of psychologists, psychiatrists and GPs per 10,000 residents compared to WA in 2015. The shortage of psychiatrists in Perth South PHN is particularly pronounced compared to WA and Australia. *MBS utilisation* Overall, mental health MBS service utilisation in Perth South PHN was slightly higher than for Western Australia but lower than for Australia overall.
		Place-based *Workforce supply* In the Perth South PHN, Serpentine – Jarrahdale SA3 had the lowest supply of psychologists and GPs per 10,000 residents. In contrast, Fremantle SA3 had the highest supply of psychologists, GPs and psychiatrists. *MBS utilisation* Fremantle SA3 had the highest overall mental health MBS service utilisation in Perth South PHN and the highest utilisation of clinical psychologists and other allied health services. In contrast, Mandurah SA3 had the lowest overall mental health service utilisation due to a very low utilisation of clinical psychologists.
	2.2 Current mental health interventions have high reliance on pharmaceutical interventions	**Across PHN** *PBS utilisation*

Outcomes of the service needs analysis		
		The rate of mental health-related prescriptions in Perth South PHN was similar to rates observed in WA and Australia overall, with antidepressants being the most commonly prescribed medication.
		Place-based *PBS utilisation* Mandurah SA3 had the highest prescription rates for antidepressants, anxiolytics and psychotropic medications overall. Canning SA3 had the highest prescription rates for antipsychotics. The lowest prescription rates in Perth South PHN overall were in Gosnells SA3. Serpentine – Jarrahdale SA3 had the lowest prescription rates for antipsychotics.
SN3 Reduce over-reliance on the acute sector	3.1 Current investment focus more on high cost low volume acute care rather than the high volume community based services earlier in the care continuum	**Across PHN** Perth South PHN had a lower number of public hospital separations per 1000 residents for mild, moderate and severe mental disorders compared to Western Australia overall.
		Place-based *Acute admissions by severity of mental disorder* Fremantle SA3 had the highest number of public hospital separations per 1000 residents for mild, moderate and severe mental disorders.

Outcomes of the service needs analysis		
		Acute admissions by diagnosis-related group (DRG) Fremantle SA3 had the highest number of public hospital separations per 1000 residents for five out of eight diagnosis-related groups (DRGs). Kwinana SA3 had the highest rate for anxiety and childhood mental disorders, while Mandurah SA3 had the highest rate for acute psychosis.
	3.2 Non-urgent mental health-related ED presentations are a reflection of poor management of mental health condition in primary health care	**Across PHN** There is evidence across the PHN that people with mental illness are being treated in the acute care setting when their care may be managed in primary / community care. In the Perth South PHN, there were 5880 ED presentations that were non-urgent[2] and categorised as primarily mental health-related in the two year period between 1st July 2013 and 30th June 2015. This equates to around 2940 ED presentations per year in Perth South that are potentially treatable in primary care. The most common diagnoses overall were stress-related mental disorders (19.3%) and alcohol-related mental disorders (17.8%). About 9.0% of presentations were diagnosed as depressive episodes. On further analysis,

[2] Triage category 4 or 5.

Outcomes of the service needs analysis		
		the largest group was males aged between 26 and 45 years (19.8%).
		Place-based Fremantle SA3 had the highest rate of non-urgent mental health-related ED presentations (per 1000 persons per year) in the Perth South PHN. South Perth SA3 had the highest percentage of presentations for stress-related mental disorders (25.3%) and Fremantle SA3 had the highest percentage for alcohol-related mental disorders (26.9%).
	3.3 People with mental illness are not linked in with GPs or primary mental health services, including after-hours care	**Across PHN** In 2012, the Stokes Review identified that in Western Australia, delays in access to treatment were causing mental health, alcohol and drug problems to worsen, leading to the need for higher cost treatment. MindSpot is a digital mental health service providing a free service for Australian adults experiencing difficulties with anxiety, stress, depression and low mood through online screening assessments and treatment courses. This service can be used as an early intervention service, and can indicate the need for such services at a place-based level. No referral is necessary, and it gives an

Outcomes of the service needs analysis		
		indication of those who are linked in with a GP. The data indicated that in Perth South PHN, the majority of patients would not discuss their mental health with their GP. *After-hours care* Perth South PHN had a high proportion of after-hours emergency department presentations for non-urgent mental health-related conditions (63.1%). This may indicate a shortage of after-hours mental health services.
		Place-based In the Perth South PHN, there are areas with low utilisation of GP mental health plans. The lowest utilisation was in South Perth SA3, followed by Belmont – Victoria Park SA3. In contrast, Gosnells SA3 had the highest utilisation of GP mental health plans . *After-hours care* Within Perth South PHN, Cockburn SA3 had the highest proportion of after-hours emergency department presentations for non-urgent mental health-related conditions (69.3%). *Accessibility*

Outcomes of the service needs analysis		
		In the Perth South PHN, there are areas where mental health services may be more difficult to access, for reasons including lack of access to the internet and/or transport or the cost of services. Results from the 2016 Census indicated that in the Mandurah SA3 region, about 17.5% of households did not have access to the internet. Also, about 1.9% of adults in Mandurah SA3 experienced a barrier to accessing healthcare due to the cost of the service. In Fremantle SA3, about 5.0% of adults regularly had difficulty accessing the places they needed to visit or were housebound.
SN4 Culturally secure mental health services for Aboriginal people, and CALD population (i.e. use of appropriate communication tools such as language, culture, print-size etc.)	4.1 Poor access of existing services by Aboriginal people, and people from culturally and linguistically diverse backgrounds, culture security of service delivery can be improved	**Across PHN** Interviews with stakeholders indicated restricted access to culturally secure services for Aboriginal people living with chronic conditions, including mental health conditions. Some of the issues identified include: • 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, and • lack of awareness of services by the community and providers.

Outcomes of the service needs analysis		
		Place-based The headspace youth mental health centres in the Perth South PHN have a relatively low utilisation by CALD youth, particularly in Armadale. A Richmond Wellbeing co-design workshop in Pinjarra (Mandurah SA3) indicated a need for culturally secure mental health/AOD services for Aboriginal people in the area. In particular, the workshop highlighted the importance of training local Aboriginal people to provide these services to the local community. Community members reported that Aboriginal people in Pinjarra often did not access mental health services because the nearest services (in Mandurah) were too far from where they lived. Improved support and transport options were needed to improve access to services.
	4.2 Lack of Aboriginal mental health services in sub-regions with higher density of Aboriginal population	There are no services specifically targeted to Aboriginal people.
SN5 Services meeting the needs of, and accessible for socioeconomically disadvantaged, and aged population groups	5.1 Lack of appropriately targeted services for the socioeconomically disadvantaged groups	**Across PHN** There are sub-regions within Perth South PHN with relatively high levels of socioeconomic

Outcomes of the service needs analysis		
		disadvantage (refer to place-based discussion below).
		Place-based Within Perth South PHN, the areas with the highest levels of socioeconomic disadvantage are Kwinana, Mandurah and Armadale SA3s . All three areas have relatively high rates of psychological distress ; however, MBS mental health-related utilisation rates are relatively low . This indicates that there is a need for appropriately targeted mental health services in these areas. A Richmond Wellbeing co-design workshop in the Shire of Waroona (SEIFA=948) in the Mandurah SA3 indicated that the cost of mental health services was a significant barrier – many people in the area simply could not afford to access services – and that low cost or free services were needed.
	5.2 Lack of appropriately targeted services for the aged group	**Across PHN** 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 illness in the elderly. There is also a shortage of mental health services for older adults, especially those living

Outcomes of the service needs analysis		
		in supported accommodation. 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. In Western Australia, 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 (16-64 years), but were significantly less likely to have used mental or alternative health services. In the Perth South PHN, about 14.1% of the population is aged 65 years or older. However, there is a shortage of mental health services targeted to the aged group.
		Place-based Within Perth South PHN, the Mandurah SA3 has the highest number (n=21,790) and percentage of people aged 65 years or older (22.5%). However, there is a shortage of targeted mental health services in this area.

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