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Primary Health Network

Needs Assessment Reporting Template

Country WA PHN – AOD Needs Assessment

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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 Country WA PHN's third round of needs assessments have been split between Core (population health), mental health 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 the AOD needs assessment is reported independently of the PHN's Core and Mental Health assessments, and provides opportunity to realign AOD related health needs and service needs pertaining to specialised AOD services.

The PHN's third AOD needs assessment consolidates the following sources:
1. baseline needs assessment,
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 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 are likely to have high demand for AOD related services, and/or gap in specialist AOD services have been identified as distinct priorities in section 4.

The quantitative analysis aims to achieve SA2 level prioritisation; however, most data sets were available at SA3. All datasets were combined to identify location 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. Pharmaceutical Benefits Scheme Data - PHN data portal (SA3)
3. Emergency Dataset - WA Department of Health (Postcode)
4. National Wastewater Drug Monitoring Program Report 1 March 2017 - Australian Criminal Intelligence commission (State)
5. Hospitalisations for mental health conditions and intentional self-harm in 2014-15 - AIHW (SA3)
6. Australian Bureau of Statistics ABS.Stat^{BETA} (SA2)
7. Alcohol and other drug treatment services in Australia – AIHW (national)
8. WA Mental Health and AOD Atlas – WA Mental Health Commission @ September 2017 (suburbs)

Where direct evidence is not available to support identification of priority locations for an issue identified, published evidence in conjunction with a correlation analysis was performed to filter salient determinants of AOD related health issues. A total of 92 indicators were included in the correlation analysis ranging from population characteristics including social determinants, risk factors, chronic disease prevalence, AOD related ED presentations, acute hospitalisations, MBS and PBS utilisations, potentially preventable hospitalisations by conditions.

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 AAD framework and have been adopted in this needs assessment to structure the consideration of needs and options at 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

Community context is critical in understanding specific AOD needs for each WA Country region. Whilst the options described in section 4 have reached data saturation, at the time this document is compiled they have not been prioritised. 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 the priorities, in conjunction with those identified in the core and mental health needs assessments, in order to address areas of greatest unmet health needs.

Further work is required to co-design place-based solutions including whole of system reform in some of the regions, models of care, and workforce developments for AOD services within the broader context of primary health care and the community.

Additional Data Needs and Gaps (approximately 400 words)

There is a lack of direct evidence on illicit, prescription, over the counter drug misuse, blood born virus related to illicit drug use, and AOD related injuries, and interpersonal violence.

This analysis has used indicators based on published evidence and the correlation analysis to identify locations most likely to have high needs. The findings from this analysis are subject to the place-based team's knowledge and understanding of the priority locations identified. Further investigation is required to contextualise place-based findings.

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. A digital solution is required to ensure access to service mapping data in real time.

PHN data sets have been a valuable resource to support the needs assessment; however, SA3 level data is insufficiently granular 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 (approximately 500 words)

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 state-wide 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. We recognise this is an evolutionary process and each PHN has the capacity to adapt as we understand our regions in more depth.

WAPHA has accessed data sharing and collaboration with multiple sources, enabling detailed health analytics to be undertaken and providing a rigorous framework for comprehensive needs assessment and population planning activity. These data sources include:

- WA Department of Health (via Deed of agreement)
- Health Services (WA Country Health Service)
- Local hospitals
- WA Mental Health Commission
- Western Australian Network of Alcohol and Other Drug Agencies
- St John Ambulance
- NPS Medicine Insight
- General Practice organisations via the use of PenCS CAT Plus

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 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. A notable benefit is the access to specialist skills sets (health economists, spatial analysts etc.) as well as the ability to store and manipulate big data sets. Curtin University 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 AOD consumption on a person's health outcomes.	1.1 There is frequently an increase in alcohol and other drug use in the period before attempted suicide, and the Aboriginal population is at double the risk of the non-Aboriginal population.	**Country WA PHN** There is sufficient evidence that alcohol use disorder (AUD) significantly increases the risk of suicidal ideation, suicide attempt and completed suicide. A meta-analysis found a statistically significant association between AUD and suicidal ideation (OR = 1.86, 95% CI: 1.38, 2.35), suicide attempt (OR=3.13; 95% CI: 2.45, 3.81), and completed suicide (OR=2.59; 95% CI: 1.95, 3.23 and RR=1.74; 95% CI: 1.26, 2.21) among participants of 31 published studies with 420,732 participants. The WA Coroner's database indicated that nearly a third of males and a quarter of females had alcohol or other drug use issues noted three months prior to their deaths. According to the Drug and Alcohol Office Surveillance Report, suicide was the second most prevalent alcohol-related death in Australia (the highest being cancer). Suicide rates are consistently higher in the Aboriginal population. In 2012, there were 22.4 suicides per 100,000 Aboriginal Australians - more than double the rate of 11.0 for non-Aboriginal Australians. Aboriginal suicide is associated with alcohol or other drug use and chronic mental illness, so these are appropriate areas for intervention. The association of excessive alcohol consumption with injuries and social determinants is addressed in HN3.1 and HN6.1 respectively. **Place-based** Locations where AOD use is most likely to result in suicide and serious self-harm are Geraldton/Geraldton – East PHA, Brookton in Wheatbelt-South SA3, Broome in Kimberley SA3, South Hedland in Pilbara SA3, Kalgoorlie–North in Goldfields SA3, Albany and Denmark/Plantagenet PHA in Albany SA3, Bunbury/Koombana in Bunbury SA3, Augusta/Margaret River. Suicide data is not available for Leinster-Leonora; however, a high number of completed and attempted suicides have been reported in the past 12 months for this location, with 42.4% being Aboriginal and Torres Strait Islander residents. Augusta-Margaret River-Busselton, Esperance, Gascoyne, Goldfields, and Kimberley SA3s had over 20% higher per capita alcohol consumption by estimated service population than the national and

Outcomes of the health needs analysis		
		state averages in 2011/12. Pilbara and Midwest SA3s were higher than the state and national averages in 2011/12; however, there has been a declining trend since 2004/05.
	1.2 High alcohol-related mortality due to increased risk of chronic conditions such as liver disease, diabetes, kidney disease and cancer.	**Western Australia** From 2007 to 2011 there were 2,690 deaths from all alcohol-related conditions in Western Australia. The leading cause of alcohol-related death was cancer, followed by suicide and 'other alcohol-related diseases'. The age-standardised mortality rate for all alcohol-related conditions was 24.0 per 100,000 person years. **Place-based** In 2007-11, alcohol-related mortality rates for adults from the Wheatbelt (SRR=1.50), Goldfields (SRR=1.7) and Kimberley (SRR=3.0) were significantly higher than the state average. For Aboriginal adults, mortality rates were significantly higher for people from the Midwest (SRR=3.8) and the Pilbara, Goldfields and Kimberley regions (SRR=7.0) than their non-Aboriginal peers.
	1.3 Drug-related overdose and deaths.	**Australia** There were 1808 drug-induced deaths registered in Australia in 2016. This is the highest number of drug-induced deaths in Australia since the late 1990s. Although the number of deaths is the highest on record, the death rate continues to decrease. About 71.3% of drug-induced deaths in 2016 were due to acute accidental overdose, followed by 22.7% due to suicidal overdoses. Young Australians (under 35 years of age) have lower rates of drug-induced death in 2016 when compared with 1999, while older adults (40 years and over) generally have higher rates. This reflects the change in the types of drugs causing death. Deaths from illicit substances like heroin and methamphetamines tend to occur among younger age groups, while deaths from benzodiazepines and prescription opiates tend to occur among older age groups. In 2016, an individual dying from drug-induced death in Australia was most likely to be male, living outside a capital city, misusing prescription drugs such as benzodiazepines or oxycodone in a polypharmacy, and the death was most likely to be an accident.

Outcomes of the health needs analysis		
		Opioids[1] have historically been the leading class of drug identified on toxicology reports in drug-induced death. Depressants (including benzodiazepines and barbiturates) have consistently been the second most common class of drug, with antidepressants the third most common drug present in drug-induced deaths. Age-specific death rates for all common drug classes have shown an upward trend, particularly since 2006. In 2016, one in five drug deaths had a psychostimulant present, with majority of deaths coded to the category of meth/amphetamines. About 93.1% of drug-induced psychostimulant deaths were unintentional. Methamphetamine deaths have the lowest median age of death at 39.4 years, and the average age of initiation for meth/amphetamine use is 22.1 years. **Western Australia** National statistics in 2012 reported that Perth had the highest rate of fatal overdose of any Australian capital city. Drug seizures in Western Australia in 2012-13 showed that heroin in WA had a significantly higher level of purity in comparison to heroin seized in New South Wales, Victoria, South Australia, and Queensland during the same time period. The rate of accidental overdose death was significantly higher in Perth, at 5.4 per 100,000 persons, in comparison to the rest of Western Australia, at 2.65 per 100,000 persons. It is suggested that users of illicit drugs are ageing, and consequently may be more susceptible to overdose due to a number of age-related health concerns, or the concurrent use of prescription opioids for pain relief or the use of other medications. **Place-based** Drug-induced mortality data is at the national and state level only. In this assessment, PBS utilisation of opioids (indicated by ATC2 N02), benzodiazepines, barbiturates, and antidepressants (indicated by ATC2 N05) have been mapped to the estimated prevalence of mental and behavioural problems and high levels of psychological distress. Prescription medication overdoses are arguably more likely to occur in locations with an average prevalence of mental health conditions and higher levels of prescriptions for analgesics and psycholeptics. In the Country WA, Midwest, Wheatbelt-North, Wheatbelt-South, Bunbury, Augusta-Margaret River-Busselton, and Manjimup have been identified as the SA3 locations where drug overdose is more likely to occur. In 2011/12 per capita alcohol consumption by estimated service population in Augusta-Margaret River-Busselton was over 20%

[1] Opioids include both illicit and licit substances including heroin; opiate-based analgesics such as codeine, oxycodone, and morphine; and synthetic opioid prescriptions including tramadol, fentanyl, and methadone. Opioid class drugs work by binding to opioid receptors in the brain to inhibit messages of pain sent to the body (Merrer et al, 2009).

Outcomes of the health needs analysis		
		higher than the national and state averages and had stayed around this level since 2004/05. This points to potential alcohol and prescription medication misuse in this location.
HN2. Reduce harmful effects of AOD consumption on the foetus, children and adolescents.	2.1 Alcohol consumption in pregnancy and Foetal Alcohol Syndrome (FASD) have been associated with prevalence of developmental delay in children and increased suicide risk in adolescents.	**Western Australia** The latest published prevalence estimate for FASD in WA is 0.26 per 1000 births. The majority of reported cases were Aboriginal (89.5%), a rate of 4.08 per 1000 compared with 0.03 per 1000 in notified non-Aboriginal cases. There has been a twofold increase in FASD notifications in Western Australia between 1980-1989 and 2000-2010 due to improvements in diagnosis and notification. Children with FASD commonly experience developmental delay, learning and behavioural disorders, and intellectual disability. Previous international reports have suggested that individuals with FASD are at risk for suicide. An individual with a typical clinical profile for FASD will evidence several risk factors for suicide (for example: impulsivity, a comorbid mood disorder, and substance abuse problems). **Place-based** Locations where maternal alcohol and drug use is most likely to result in developmental delay in children are in the PHAs of Geraldton/Geraldton East, Geraldton – South, Broome, Roebourne, South Hedland, Bunbury/Koombana, College Grove – Carey Park/Davenport, Dardanup/Eaton – Pelican Point, Gelorup – Dalyellup – Stratham, Harvey/Waroona, Manjimup/Pemberton. Leinster-Leonora, and Boulder/Kambalda-Coolgardie-Norseman do not have viable statistics for excessive alcohol consumption due to the small population size. However, Leinster-Leonora has the highest percentage of children developmentally delayed in one or more domains in WA (56.8%). Contextual information confirmed strong community concern over FASD and the impact on early childhood development.
HN3. Reduce impact of AOD misuse on short-term physical and mental health morbidity and multi-morbidities.	3.1 The short-term health consequences of using alcohol and other drugs affect cognitive functioning and increase the risk of injury.	**Place-based** Direct evidence of the short-term health consequences of using AOD is not available. Locations where the short-term health consequences of AOD are most likely to be an issue were identified by examining: (i) the prevalence of excessive alcohol consumption; and (ii) ED presentations for injuries, poisoning, and toxic effects of drugs; substance use and substance-induced organic mental disorders; and mental diseases and disorders. Potential priority locations were those where significantly higher prevalence of excessive alcohol consumption is accompanied by higher than the PHN and/or state average prevalence of ED presentations due to at least one of the above listed reasons, or the co-

Outcomes of the health needs analysis		
		existence of at least two of the three categories of ED presentations. In Country WA PHN, Augusta-Margaret River-Busselton, Kimberley, Gascoyne, Esperance, Manjimup, Wheatbelt-North, Wheatbelt-South SA3 are SA3s with the highest likelihood of impact due to short-term health consequences of AOD use. Since the previous needs assessment, WAPHA has funded two after-hour Diversions through the WA Country Health Service. First, an Aboriginal after-hours liaison and second, an after-hours psychology liaison to support individuals presenting to ED for AOD/MH issues. The program is currently being trialled at the Northam Hospital.
	3.2 AOD use is associated with the prevalence of blood-borne viruses.	**Australia** Unsafe injecting drug use is a major route of transmission of blood-borne virus infections like hepatitis B, hepatitis C and HIV. The proportion of Australian Needle and Syringe Program Survey respondents who reported reusing needles and syringes in the last month was stable at between 21% and 24% from 2009 to 2013 (17). Blood-borne virus rates among the prison population who reported injecting drug use in 2010 were 51% for hepatitis C, 1% for hepatitis B, and less than 1% for HIV.
	3.3 Health effects of binge drinking.	**Australia** Almost half of young Australian adults engage in binge drinking on at least a monthly basis. The Australian Institute of Health and Welfare report on trends in alcohol availability, use and treatment indicated that 18 to 24 year-olds were most likely to report risky drinking behaviour. About 47% reported drinking more than four standard drinks on a single occasion on at least a monthly basis, 33% consumed 11 or more standard drinks on a single occasion at least yearly, and 18% at least monthly. Remote and very remote areas were more likely to engage in risky drinking than people living in major cities. The short-term health effects of binge drinking contribute to increased ED attendances and potentially avoidable hospitalisations.
HN4. Reduce the impact of AOD misuse on medium and long-term physical health morbidity and multi-morbidities including	4.1 Illicit drug use and excessive alcohol consumption are linked to the development of chronic diseases and mental disorders.	**Australia** It is estimated that 20% to 50% of people with an alcohol or other drug problem also have a co-occurring mental illness. Alcohol consumption is associated with cardiovascular diseases, mental health, some cancers, injury, osteoporosis, and oral disease . Alcohol interferes with insulin production and worsens conditions associated with diabetes such as advanced neuropathy and liver diseases.

Outcomes of the health needs analysis		
certain types of cancers and diabetes complications.		It has been estimated that 18.1% of the burden of injury and 9.7% of the burden of mental disorders are attributable to alcohol. Although only 3.1% of the total burden of cancer is attributable to alcohol, studies have shown that alcohol directly causes cancers of the liver, bowel, mouth, pharynx and larynx, oesophagus, and breast, and indirectly increases the risk of developing numerous cancers by contributing to the risk of overweight and obesity. Illicit drug use accounts for 8.0% of the burden of mental disorders, but only 3.6% of the burden of injury. Methamphetamine use is associated with malnutrition, weight loss, reduced resistance to infection, dental problems/poor oral health, emotional disturbances, paranoia, periods of psychosis with delusional thoughts and behaviour, brain scarring and memory loss, seizure, stroke or heart attack. Binge drinking and continued alcohol use in large amounts have also been associated with the many health problems including: unintentional injuries such as car crash, falls, burns, drowning, alcohol poisoning, high blood pressure, stroke, and other heart-related diseases, liver diseases, ulcers, gastritis (inflammation of stomach walls), cancer of the mouth and throat, psychosocial problems. These problems frequently lead to ED attendances and potentially preventable hospitalisations. **Western Australia** The population prevalence of excessive alcohol consumption is strongly associated with the prevalence of smoking (r=0.7513) and moderately associated with fair or poor self-assessed health status (r=0.6750), high or very high level of psychological distress (r=0.6148) and obesity prevalence (r=0.6507). Moreover, excessive alcohol consumption is associated with potentially preventable hospitalisations due to cellulitis (r=0.5534), COPD (r=0.5416), diabetes complications (r=0.5691), iron deficiency anaemia (r=0.5014), and kidney and urinary tract infections (r=0.5179) (analysis from WAPHA 2016/17 Needs Assessment by Curtin University). **Place-based** Midwest SA3, Wheatbelt-North SA3, Katanning SA2, Bunbury SA3 particularly College Grove-Carey Park/Davenport, Collie, and Harvey/Waroona SA2s within it, Manjimup SA3s are locations where excessive alcohol consumption is likely to show stronger links to the development of physical and mental conditions.

Outcomes of the health needs analysis		
	4.2 Excessive alcohol consumption is linked to severe and persistent mental illness.	**Western Australia** AOD-related hospitalisation is strongly associated with hospitalisations for schizophrenia and delusion (r=0.8106), bipolar and mood disorders (r=0.8365), depressive disorders (r=0.8069) (analysis from WAPHA 2016/17 Needs Assessment by Curtin University). **Place-based** Kimberley and Albany are the SA3s where the hospitalization rates are concurrently higher than the PHN or national averages for AOD-related conditions and at least two of the condition groups associated with severe mental illness.
	4.3 People who routinely use excessive amounts of alcohol, OTC and prescription medicines are likely to present to primary care for other reasons.	**Western Australia** The increase in the proportion of people using illicit drugs in their 60s is mostly accounted for by the use of pharmaceuticals for non-medical purposes. Careful monitoring of pharmaceutical prescriptions and over-the-counter medicines is part of a harm reduction solution. In 2013, the NDSHS reported that the population in WA was more likely than the rest of Australia to misuse pharmaceuticals (5.7% in WA compared to the national average of 4.7%) . In 2014, participants in the WA PWID survey reported a lifetime history of using pharmaceutical stimulants (licit or illicit) at 61% and recent use at 24% . An average of 13 days of use was reported by this sample, which was significantly higher than the mean of four days reported in 2012. The main form was dexamphetamine. No data is available for over-the-counter medications; however, correlation analysis suggested a moderate association between AOD related hospitalisation and supply of general practitioners (r=0.5559) and pharmacists (r=0.5085) (analysis from WAPHA 2016/17 Needs Assessment by Curtin University). An upward trend in psychoanaleptic prescriptions was observed between 2011-12 and 2015-16. This is an ATC2 category containing dexamphetamine (N06BA02), amphetamine (N06BA01), methamphetamine (N06BA03), and methylphenidate (N06BA04). At the time of writing, itemised data was unavailable. **Place-based**

Outcomes of the health needs analysis		
		The SA3s of Albany, Manjimup, Wheatbelt – North, Midwest, and Augusta-Margaret River-Busselton had average prescriptions per person that were over 10% higher than the PHN and national average, a statistically significant difference. Albany, Midwest, and Augusta-Margaret River-Busselton have a higher supply of GPs than the Australian average. There is high community concern in the Pilbara around methamphetamine use and the lack of after-hours support for staff working in the ED.
HN5. Harm reduction for excessive AOD use in young people.	5.1 Young adults are more likely to consume alcohol at risky levels than any other age groups, and over a quarter of young adults in WA engage in recreational drug use.	**Australia** The National Drug Strategy Household Survey 2016 indicated a shift in patterns of drug usage in the community. The age of initiation of drug use increased from 18.6 in 2001 to 19.7 years in 2016. Young adults aged between 18-24 years were more likely than any other age group to consume alcohol in quantities that placed them at risk of an alcohol-related injury and of alcohol-related harm over their lifetime. However, the survey found that young adults were drinking less—a significantly lower proportion of 18–24 year olds consumed five or more standard drinks on a monthly basis (from 47% in 2013 to 42% in 2016). Also, fewer 12–17 year olds were drinking alcohol and the proportion abstaining from alcohol significantly increased between 2013 and 2016 (from 72% to 82%). **Western Australia** The proportion of young people reporting having drunk alcohol in the past 12 months decreased from 79.7% in 1984 to 44.3% in 2014. In 2013, it was reported that 26% of adults aged 18-30 years in WA had used a pharmaceutical for recreational or non-medicinal purposes at least once in their lifetime. About 17.7% had reported doing so in the previous 12 months. In 2014, Western Australian students in years 7 to 12 reported that cannabis was the most commonly used illicit drug (16.4%), an increase from 14.9% in 2008. Individuals aged 14 years or over who reported using cannabis in the last year increased from 10.8% in 2007 to 13.4% in 2010 and remained higher than the national figure (10.3%). **Place-based** Place-based data on the proportion of young people consuming alcohol is not available. Locations where harmful AOD use in young adults is likely to be an issue were identified by: (i) significantly higher population prevalence of excessive alcohol consumption; and (ii) evidence of non-medicinal use of pharmaceuticals, coupled with the proportion of residents aged 20-29 years being over 20% higher than the PHN and Australian average. Pilbara has a high proportion of young adult populations, particularly the female population, coupled with higher than national and state average per capita

Outcomes of the health needs analysis		
		alcohol consumption. This points to the Pilbara region as a likely hotspot for risky alcohol consumption in young adults. Qualitative information provided by the PHN identified that the key MH/suicide/AOD issues in the Pilbara are that the social and emotional wellbeing of young people and their family are in crisis, particularly in relation to AOD-related mental health presentations and suicides. Due to population scarcity in most Country WA locations, it is not possible to ascertain whether risky AOD use is likely to be an issue in young adult populations. PHN averages across all measures used in the HN5.1 analysis is not significantly higher than the state or national averages.
HN6. Harm reduction for excessive AOD use in older adults and explore factors associated with this emerging issue.	6.1 Harm reduction messages have primarily targeted young people, but since 1999 there has been an increased likelihood of older adults using illicit drugs and abusing prescription medications.	**Australia** The age profile of drug-induced deaths has changed since 1999 and there is a clear shift from peak rates of drug deaths in younger age groups to middle-aged groups. In 2016, the highest rates of drug-induced deaths were for 35-39 year-old males and 45-49 year-old females. This is reflected in the large shift in average age of initiation for the misuse of pharmaceutical drugs, increasing from 20.1 in 2001 to 25.1 in 2016. Compared with 2001, there was a statistically significant increase in drug use among 35-54 year-olds. The National Drug Strategy identified older adults as a priority population, with unique health circumstances such as pain, co-morbidities, and social circumstances such as isolation being highlighted as important factors in the context of drug use. **Place-based** Place-based data on the use of illicit drugs and abuse of prescription medication by older adults is not available. Priority locations were determined by identifying areas where there was evidence of medication misuse and where the proportion of residents aged 50-69 years was more than 20% higher than the PHN and Australian average. Possible priority locations in Country WA are Wheatbelt – North and Wheatbelt – South. Prescription medication misuse among palliative care clients and/or the general older adult residents in the Wheatbelt requires further exploration.
HN7. Future demand for services related to vulnerable persons who are not accessing services.	7.1 Vulnerable groups at risk of harm from AOD use are not being identified or are not currently accessing services.	**Australia** Australia's Health Report 2016 reported that unemployment, living in a lower socioeconomic area and suffering high emotional distress are all associated with high levels of illicit drug use. **Western Australia**

Outcomes of the health needs analysis		
		The population prevalence of excessive alcohol consumption is moderately associated with the percentage of Aboriginal population (r=0.5100), socioeconomic disadvantage (r=-0.6577 with IRSD), no internet connection (r=0.5633), unemployment rate (r=0.5319), estimated prevalence of children in low income, welfare dependent families (r=0.6331), and prevalence of people who leave school at year 10 or below (r=0.63772). However, the AOD-related hospitalisation rate is either weakly or moderately negatively associated with the above factors, indicating that vulnerable groups may not be accessing the right services for their AOD-related issues. **Place-based** Bunbury SA3, particularly Capel SA2 within it, and Augusta-Margaret River-Busselton SA3 are locations within Country WA PHN where vulnerable individuals may not be accessing appropriate treatment services, particularly among those who leave school early or live with socioeconomic disadvantage.
	7.2 Licit and illicit drug use is more common among LGBTI individuals. The risk of harm from AOD use can be increased by stigma, discrimination, and lack of support.	**Australia** Those who identify as lesbian, gay, bisexual, transgender or intersex (LGBTI) are at an increased risk of alcohol, tobacco and other drug use and harm from use. In 2013, use of licit and illicit drugs was more common in people who identified as homosexual or bisexual in Australia than for those identifying as heterosexual. These risks can be increased by stigma and discrimination, familial issues, marginalisation within their own community as a result of sexually transmitted infections (STIs) and blood borne viruses (BBVs), fear of identification or visibility of LGBTI status, and a lack of support. On 15th November 2017, the Australian Bureau of Statistics released the results of the Australian Marriage Law Postal Survey. Of the eligible Australians who expressed a view, 61.6% supported changing the law to allow same-sex couples to marry. All states and territories recorded a majority Yes response.
HN8. Community capacity to respond to AOD use.	8.1 Local communities' capacity to respond to high rates of AOD use, and engagement, coordination and collaboration between stakeholders with an interest in harm reduction, including health consumers, can be improved.	**Western Australia** "AOD issues can be deemed psychosocial rather than a formal mental health issue…." (consultant psychiatrist in Perth, 2016). Throughout the community consultation in the Baseline AOD Needs Assessment, participants emphasised the social determinants of the harms raised for people living with AOD issues, whether themselves or those around them. The need for safe, affordable and appropriate housing headed the list.

Outcomes of the health needs analysis		
		Community stakeholders observed that inadequate investment in prevention and mental health promotion programs, primary care services and community-based mental health/AOD services puts pressure on other parts of the system, and other social care systems. **Place-based** The Gascoyne Regional Clinical Commissioning Committee has pointed to difficulties in overcoming the normalisation of poor health outcomes in the Aboriginal community, and that youth health was of particular concern.
	8.2 Problematic AOD use has been linked to family, domestic and sexual violence, and to other crimes.	**Western Australia** The presence of substance abuse has also been linked to family, domestic and sexual violence and to other crimes. In WA, more than half of all domestic and over a third of all non-domestic assaults are alcohol-related. In 2014 in WA, there were 14,603 victims of family and domestic violence recorded by police, equating to a rate of 568 victims per 100,000 people. An additional 544 people were victims of family and domestic violence-related sexual assault, equating to 21 victims per 100,000 people. The majority of domestic violence victims were female. In WA, there were three times as many female victims of domestic violence (n=10,648) as male victims (n=3,860) and seven times as many female victims of family and domestic violence-related sexual assault (n=471) as male victims (n=70). Victims were more likely to be aged 20-34 years (46% of all victims).

Section 3 – Outcomes of the service needs analysis

Outcomes of the service needs analysis		
Identified Need	**Key Issue**	**Description of Evidence**
SN1. Models of care focused on early intervention.	**1.1 Locations with high AOD-related hospitalisations and AOD treatment services indicate a need for early intervention.**	**Australia** **The volume of AOD treatment service episodes has shown a continued upward trend across all age groups, and in particular for counselling, rehabilitation, and information and education since 2008-9. In 2015-16, about 19% of all treatment episodes were delivered in Western Australia, an over-representation considering that WA accounts for only 10% of Australia's population. Place-based** **Alcohol and Other Drugs Treatment Services (AODTS) data is only available at the state and national level. Age-standardised rates of mental health overnight hospitalisations for AOD use were used to determine locations likely to have the highest demand for services. AOD-related hospitalisations in the SA3s of Esperance, Kimberley and Albany are significantly higher than the PHN average. The Midwest Mental Health Portal: Integrated Primary Mental Health Care Consultation reported a high proportion of acute MH and AOD ED presentations to the Geraldton Regional Hospital and the high caseload has made it difficult to make timely, accurate mental health assessments. In Carnarvon, residents view the ED as their general practitioner to manage their chronic conditions and co-occurring mental health conditions. This is reflected by the Regional Clinical Commissioning Committee's observation that the Midwest region has a high use (and cost) of hospital services rather than effective use of primary/community care services.**
	1.2 Demand for AOD treatment services is likely to be higher in the 18-30 year age group indicating a need for prevention earlier in the lifespan.	**Australian and Western Australia** Young people aged 18-29 years were more likely than any other age group to consume alcohol in quantities that placed them at risk of an alcohol-related injury, and of alcohol-related harm over their lifetime. In 2013, it was reported that 26% of adults aged 18-30 years in WA had used a pharmaceutical for recreational or non-medicinal purposes at least once in their lifetime. About 17.7% had reported doing so in the previous 12 months. **Place-based**

Outcomes of the service needs analysis		
		The key MH/suicide/AOD issues identified in the Pilbara have been that the social and emotional wellbeing of young people and their family are in crisis, particularly in relation to AOD-related mental health presentations and suicides. The Midwest Mental Health, and Community Alcohol Drug Services are experiencing high demand with limited resources, while people have been unwilling to engage with the services because of past negative experiences, cultural barriers or fear of stigmatisation. Targeted professional development and up-skilling to more effectively engage with young people have been recommended.
	1.3 Current interventions focus predominantly on persons aged 20-49 years; however, the pattern of drug usage has shifted.	**Australia** In 2015-16, 76% of alcohol and other drug treatment episodes were delivered to people aged between 20 and 49 years. Despite the shift in age and pattern of drug usage in Australia described in HN5, the age distribution of AODTS episodes has not changed since 2006/07. **Country WA PHN** [Content suppressed due to confidentiality]**Place-based** The key AOD service provider in the Wheatbelt has reported an increasing trend of children under 16 years of age being referred to the AOD services and there are currently no specialist AOD services for very young children.
	1.4 Support for self-management and peer support can be strengthened for those with mild-to-moderate problems and multi-morbidities.	**Country WA PHN** Stakeholders participating in the Baseline Needs Assessment identified key system-wide supports critical to an efficient and effective prevention, treatment and support system. These include: addressing stigma/social inclusion, consumer engagement and family involvement, workforce development, monitoring, evaluation and research as well as building healthy public policy. Enhanced coordination and capacity building focuses on supporting closer working relationships across sectors (including justice, housing, education and social care) as well as across the primary, secondary and tertiary interfaces of the health sector, including physical and mental health. AOD treatment providers need to provide evidence that services are supporting clients on a recovery pathway and that they have appropriate self-management skills to manage relapses.

Outcomes of the service needs analysis		
SN2. Capacity of GPs to recognise and respond to AOD-related presentations.	2.1 GP awareness of signs and symptoms of problematic AOD use and provision of appropriate treatment and support, including harm reduction, could be improved.	**Country WA PHN** Stakeholder consultation indicated that GPs may not always be aware of possible options for patients living with anxiety/depression, suicidal ideation, and harmful levels of AOD use. Workforce capacity building will ensure that people who come into contact with those on the pathway of problematic AOD use have the necessary skills and knowledge to refer appropriately and to support the treatment needs of relevant cohorts including individuals, their families, and the wider community. This includes improved management of those with more complex problems such as co-occurring mental health, alcohol and other drug issues, or other physical health conditions. **Place-based** The GPs, WACHS service staff, clinicians, community mental health service providers interviewed as part of the Midwest Mental Health Portal: Integrated Primary Mental Health Care consultation reported that GPs have limited skills, require specialist input for pharmacology, diagnostics, psychiatric reassessment, and ability to refer patients to community service providers in order to alleviate demand on inpatient services. GPs who refer to specialist MH and AOD services were dissatisfied with the lack of, or delayed response to, written referrals for specialist advice, support or reassessment from community mental health services. The main barrier to facilitating integrated primary mental health care is the lack of timely access to specialist advice and guidance from mental health specialists and psychiatrists.
SN3. Build capacity of the primary care and generalist health workforce to respond to AOD issues in a coordinated/integrated way.	3.1 Lack of connectivity between AOD and MH services.	**Western Australia** 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. With respect to linkages needed for consumers moving into, through and beyond AOD treatment, there was generally awareness across all stakeholder consultations forums that the whole range of medical, non-medical and support service providers need to be able to foresee the risk and to act appropriately in order to prevent AOD-related harms.

Outcomes of the service needs analysis		
	3.2 Care coordination and patient pathways between AOD, MH, health and social support services could be improved to better support people living with multi-morbidities.	For multi-morbidity information, please refer to the Mental Health Needs Assessment HN3. **Western Australia** Community consultations across WA have consistently found that the inadequacy of community and service responses to be the main AOD-related service issue. The lack of cohesion among services was the common theme across metropolitan and regional areas, with regional areas facing the particular challenge of distance and widely-dispersed populations. The Western Australian Mental Health, Alcohol and Other Drug Service Plan 2015-25 intends to build the capacity of the system to improve coordination and ensure services are personalised, individuals will be supported to stay at lower risk of harm and to obtain recovery focused support earlier in an environment best suited to their needs.
	3.3 Build capability of generalist service providers to recognise and respond to AOD issues to reduce inappropriate referrals and improve person-centred care.	**Place-based** Since the previous Needs Assessment, WAPHA has funded Holyoake to build on its existing capacity to develop an intensive GP-centred multidisciplinary team care for complex drug users and their families in Northam with the prospect of expanding a successful model region-wide.

Outcomes of the service needs analysis		
SN4. Refocus investment in the AOD sector to reduce duplication and over-reliance on the acute sector.	4.1 Prioritise investment to address gaps in service provision and avoid duplication of services.	**Western Australia** An AOD non-government organization representative who attended the WA PHN AOD Needs Assessment consultation suggested that "any fragmentation in the WA AOD sector is between Commonwealth and the state – not the sector itself. Therefore, co-commissioning with the Mental Health Commission is imperative". **Place-based** AOD services are predominantly outpatient and residential services across all MH&AOD Atlas regions in WA. AOD-specific services in Goldfields, Great Southern, South West and Wheatbelt are exclusively delivered by non-government organisation (NGO) service providers, while the Kimberley and Pilbara have both hospital and NGO services. Four out of the seven services in the Pilbara are brief intervention services. Since the last Needs Assessment, WAPHA has commissioned ED diversion program MH nurses at Port Hedland and Karratha to complement existing hospital-based AOD services. There are eight AOD or MH/AOD services in the Kimberley, the SA2s of Derby-West, Halls Creek, Karratha, and Newman have two OPD services dedicated to AOD. Since the previous Needs Assessment, a region-wide post-rehabilitation recovery service has been commissioned to build capacity into existing rehabilitation services in the 38 weeks post discharge. This service uses cocktail funding to provide support across MH, suicide and AOD presentations. Three out of the four specialist AOD services in the Midwest are high intensity, low volume rehabilitation services. However, the evidence points to a need for more low-cost, high-volume options for AOD-related presentations. Since the previous Needs Assessment, AOD worker positions have been commissioned to add capacity to existing AOD services. These positions are designed to work together with the social and emotional wellbeing programs, and the Midwest MH portal currently rolling out in the Midwest.
	4.2 Rebalance investment from high cost, low volume acute care to higher volume community-based services earlier in the care continuum.	**Australia** Over half of the alcohol and other drug treatment services delivered in 2015-16 were high cost, low volume including counselling (37%), withdrawal management (11%), rehabilitation (6%), and pharmacotherapy (3%). Only 8% of treatment services involved information and education, which are generally low cost, high volume. **Country WA PHN**

Outcomes of the service needs analysis		
		There are 24 medium intensity services in the Country WA PHN, while only six services provide information to enhance the accessibility of care.
	4.3 Lack of local or after-hours services can result in unnecessary presentations to emergency departments.	**Country WA PHN** [Content suppressed due to confidentiality].
SN5. Continuity of care post treatment.	5.1 Disruptions to care upon exit from treatment services hinder recovery and contribute to early relapse or unfavourable outcomes.	**Western Australia** "…. patients [with AOD issues] are often discharged back to their GP (if they have one) or the Community Mental Health Unit, if deemed appropriate. They may have to wait days to weeks to be seen. A patient recently attempted suicide six weeks post discharge from the ED (for alcohol and relationship issues) with no formal psychiatric diagnosis. There are limited community resources for these patients - waiting time for Next Step etc. can be months. I see these patients fall between the cracks." (consultant psychiatrist in Perth, 2016). **Country WA PHN** Only 30% of treatment for AOD resolves the issues completely, therefore transitional support is required to minimise the chance of relapse post-treatment. Given the restricted number of residential services available in Country WA, it is important any positive treatment outcomes are sustained when returning to the community. A need to improve the patient journey for individuals accessing specialist AOD services has been identified across Country WA locations. Post-discharge follow-up, streamlining of adults (18-65 years), aged (65+), child and adolescent services, and referral from acute to GP services are the points of disruption. In light of the 10 different referral points within the Country WA MH and AOD service delivery landscape, WAPHA intends to create a 'no wrong door policy' which has underpinned the current discussion around an electronic referral system accompanied by a central telephone referral point to consolidate referral points currently in operation. **Place-based**

Outcomes of the service needs analysis		
		There is no local AOD service in the Augusta-Margaret River-Busselton and Manjimup SA3s. The need for relapse prevention in these areas should be explored as a matter of priority. In locations where there are AOD rehabilitation services, Country WA PHN has funded additional capacity for post-rehabilitation interventions: region-wide in the Kimberley, Kalgoorlie in the Goldfields, Bunbury in the South West, and South Hedland in the Pilbara.
	5.2 Disruptions to care when being transferred to metropolitan facilities for treatment.	**Country WA PHN** Refer to SN5.1 above on central referral discussion. **Place-based** General practices in the Midwest and Gascoyne have experienced difficulties managing patients discharged from Graylands or Bentley hospitals without a summary or management plan. Lack of transport for vulnerable and Aboriginal patients has also been reported to be a barrier to accessing assessment, intensive treatment and medication from Perth. Data was requested from WA Health Epidemiology Branch to identify locations of highest need in relation to country-metropolitan transfers. At the time of writing, WAPHA was still awaiting receipt of this data set.

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