Australian Government
Department of Health

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Primary Health Network

Needs Assessment Reporting Template

This template must be used to submit the Primary Health Network's (PHN's) Needs Assessment report to the Department of Health (the Department) by **15 November 2018** as required under Item E.5 of the PHN Core Funding Schedule under the Standard Funding Agreement with the Commonwealth.

To streamline reporting requirements, the Primary Mental Health Care (including Suicide Prevention) Needs Assessment Report, Drug and Alcohol Treatment Needs Assessment Report and Indigenous Health (including Indigenous chronic disease) Needs Assessment Report are included in this combined template. This template should also include the needs assessment of primary health care after-hours services.

Name of Primary Health Network

Central Queensland, Wide Bay, Sunshine Coast PHN

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

Instructions for using this template

Overview

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

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

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

Reporting

The Needs Assessment report template consists of the following:

Section 1 – Narrative

Section 2 – Outcomes of the health needs analysis

Section 3 – Outcomes of the service needs analysis

Section 4 – Opportunities, priorities and options

Section 5 – Checklist

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

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

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

Submission Process

Lodgement and submission process to be confirmed.

Reporting Period

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

Section 1 – Narrative

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

Needs Assessment process and issues (500-1000 words)

– in this section the PHN can provide a summary of the process undertaken; expand on any issues that may not be fully captured in the reporting tables; and identify areas where further developmental work may be required (expand this field as necessary. Where relevant please also nominate which process your input is relevant to i.e. General population health, Primary Mental health care, Alcohol and other drug treatment or Indigenous health needs assessment.

This Health Needs Assessment (HNA) builds on the previous Needs Assessments for the Central Queensland, Wide Bay, Sunshine Coast Primary Health Network (the PHN) and updates the information that is current for the region. In undertaking the Needs Assessments, a range of quantitative indicators were examined in relation to determinants of health, health status, and health system performance – based on the structure of the National Health Performance Framework. Where data permitted, indicators were reported to the lowest geographic level possible to enable specific locations and populations within the PHN boundaries to be explored, thereby targeting strategies and actions to relevant localities. This approach proved useful in uncovering the diverse nature of communities and service patterns within the PHN catchment.

For previous assessments, qualitative information was captured throughout the commissioning cycle through targeted, informal and opportunistic consultation with Hospital and Health Services (HHSs), primary care service providers and consumers, forums, Mental Health Regional Planning days. This Needs Assessment incorporates this information along with information obtained through internal stakeholder consultation and a 2016 survey of Mental Health and Alcohol and Drug (MHAoD) Services conducted by the PHN to guide key commissioning decisions. Involvement of the PHN in piloting the application of the National Mental Health Service Planning Framework (NMHSPF) has provided insights into the extent of mental health and service needs within the PHN catchment. This tool will be updated during next year's update. Extensive qualitative consultation was undertaken for the previous needs assessments therefore this needs assessment includes internal staff consultations only. The clinical and community councils were engaged during HNA 2017-18 and will be consulted again in 2019-20 update.

Cooperation between Queensland Health (QH) and Queensland PHNs facilitated timely access to emergency and admitted patient data, allowing the latest information to be presented at Local Government Area (LGA) levels. Information obtained through quantitative data analysis was combined with qualitative information to arrive at a set of prioritised needs and issues within the catchment. The needs prioritised in the previous needs assessments within the PHN catchment were reconsidered and resulted in re-confirmation of many of those needs, and the addition of others (notably palliative care, end of life care, eating disorder, suicide prevention and emphasis on alcohol and other drug [AoD] needs and services).

In relation to the shortlisted issues and needs identified, some of these were already identified through previous needs assessments through extensive consultation with the PHN senior staff and subject matter experts. Based on the range of ideas put forward through this process, several ideas were combined into higher level strategies. These suggestions were collated into a consolidated list. The Executive Leadership Team further considered and refined the options for action and endorsement.

It is intended that in future updates, additional community consultation will be undertaken - particularly in relation to individuals from priority population groups such as people experiencing mental health issues, Aboriginal and Torres Strait Islander populations, aged persons, people from refugee backgrounds, culturally and linguistically diverse populations and people with disabilities. Available data allows analysis at LGA or Statistical Area level 3 (SA3). However, to understand the needs of specific communities (Gympie, North Burnett etc.) or population groups (e.g. elderly, Indigenous, LGBTI, CALD, homeless), a specific focus on such groups for quantitative and qualitative information was not possible within the timeframe for this HNA. Within the PHN, service mapping practices need to be enhanced – particularly within the palliative care sector. The PHN has large numbers of elderly population; mental health issues in residential aged care has been a concern. A high proportion of the PHN population lives in rural and remote areas; workforce issues, along with other well-known challenges for commissioning services, means innovative approaches are required to address identified health and service needs in such locations.

Additional Data Needs and Gaps (approximately 400 words)

– in this section the PHN can outline any issues experienced in obtaining and using data for the needs assessment. In particular, the PHN can outline any gaps in the data available on the PHN website, and identify any additional data required. The PHN may also provide comment on data accessibility on the PHN website, including the secure access areas. (Expand field as necessary). Where relevant please also nominate which process your input is relevant to i.e. General population health, Primary Mental health care, Alcohol and other drug treatment or Indigenous health needs assessment.

Localised data for certain population groups is frequently challenging to find. Groups include young people – although there is a National Youth Information Framework and indicators (reported by AIHW), the data is not generally available at lower geographical levels. Data on Aboriginal and Torres Strait Islander people is often available at state and national levels, but not commonly at lower geographic levels across a range of indicators.

Data collected at a general practice level through tools such as aggregated clinical audit tool data is potentially quite valuable for the needs analysis. However, the PHN is currently working on improving the quality of such data so that it can be used for the future needs assessments.

Having access to de-identified federal and state-wide health data linkages – such as emergency department (ED), inpatient, outpatient, Medicare Benefits Schedule (MBS) and Pharmaceutical Benefits Scheme (PBS) data – along with availability of most recent data are two key areas that can help all the PHNs to undertake more effective and timely needs analysis.

In relation to data available on Department of Health's (the Department) PHN website, the availability of the portal is certainly helpful, however the use of SA3s as one of the primary geographic units of reporting makes it challenging to compare that data with other data sets which commonly report by LGA and SA2s. Furthermore, many of the data sets are currently not age-standardised, nor do they generally facilitate easy comparisons (e.g. through ranking mechanisms, or comparative age-standardised rates [ASR]) between local and/or PHN catchments. The data could be made available in the same format overtime to allow further longitudinal analysis to produce time series analysis.

In addition there are some specific data requirements that will help to improve the understanding of health and service needs:

- Reliable workforce data calculated in consistent manner e.g. full time equivalent (FTE) per 1,000 population for each discipline (across all disciplines and portfolios). The National Health Workforce Dataset Tool seems to be open to interpretation as to how to inform reliable estimates.
- General practitioner (GP) attendance rates in residential aged care facilities (RACFs) only available at PHN level, would be better at lower geography such as HHS/SA3.
- Australia Bureau of Statistics (ABS) Patient Experience Survey 2016-17 only available at PHN level, would be better at lower geography such as HHS/SA3 to identify areas where people delay accessing primary health care due to cost
- Practice Incentive Program (PIP) data is currently only available at PHN level - HHS/SA3 would be more appropriate to capture patterns of accreditation and best practice adherence to inform education and training.
- Comprehensive data on patterns of health care utilisation for Aboriginal and Torres Strait Islander people is not currently available.

In summary, if the PHNs are to be ranked by their efficient and effective outcomes then a standardisation of the process of measuring needs, minimal standards and standardisation of all data and better acknowledgement of challenges for rural/remote areas is necessary.

Additional comments or feedback (approximately 500 words)

– in this section the PHN can provide any other comments or feedback on the needs assessment process, including any suggestions that may improve the needs assessment process, outputs, or outcomes in future (expand field as necessary).

Establishing the template for the needs assessment is useful however separation of health and service needs as well as general, mental health, AoD and Indigenous assessments means the information becomes repetitious at times.

The current approach to needs assessment is not 'wellness' based. Wellbeing is a valid population outcome measure beyond morbidity, mortality, and economic status that tells how people perceive their life is going from their own perspective. Self-reports that can allow understanding health and wellness can form important part of wellness-based assessment of needs and healthy community approaches.

The PHN faces many challenges in trying to commission the services to address the needs of its population. Some of these are:

1. Geographical challenges: rural/remote areas, workforce issues
2. Multiple stakeholders creating conflicting forces that must be addressed for effective commissioning
3. Keeping active engagement with areas that are isolated
4. Establishment and continuation of multiple offices across three large areas that support effective and efficient functioning of the PHN

Although this needs analysis includes comprehensive approach to options for action, above challenges means it was important to build necessary infrastructure (including data solutions) and practices that will allow sustainability of services and effective commissioning. This is not clearly reflected in this analysis due to the health and service needs focus that it has.

Section 2 – Outcomes of the health needs analysis

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

Additional rows may be added as required.

General Population Health

Outcomes of the health needs analysis		
Identified Need	Key Issue	Description of Evidence
SOCIAL DETERMINANTS OF HEALTH		
Index of socioeconomic disadvantage	The 2016 Socio-Economic Index for Areas (SEIFA) focuses on income, education attainment, unemployment and dwellings without motor vehicles. Low index values represent areas of most disadvantage and high values represent areas of least disadvantage. Low socioeconomic status is associated with poor health, with people of lower socioeconomic status bearing a significantly higher burden of disease. The SEIFA indicates that some areas within the PHN are more disadvantaged than Queensland overall.	**Data:** In 2016, 8.8% of the population in the PHN catchment were in the least disadvantaged quintile, while 27.1% were in the most disadvantaged quintile (Qld 20%). Within the PHN catchment, Central Highlands LGA had the largest percentage of persons in the least disadvantaged quintile at 26.0%. Queensland Government Statisticians Office (QGSO) reports (2018) the LGAs with high proportions of the population living in the most disadvantaged quintile are **Woorabinda** (100% of population), **Fraser Coast** (59.4%), **North Burnett** (57.1%), **Bundaberg** (49.5%), **Gympie** (46.1%) and **Rockhampton** (39.1%). **Consultation:**

Outcomes of the health needs analysis		
		Due to rent decrease, Gladstone has increasing proportion of families with low socioeconomic background. This has started to put stress on health services, family support services, child support services and shortage of foster carers.
Remoteness	Numerous studies have demonstrated that Australians living in remote or very remote areas have, on average, higher rates of risky health behaviours, such as smoking, poorer access to health services, and worse health than people living in regional or metropolitan areas. The PHN catchment includes a high proportion of people living outside major cities and includes significant numbers of people living in locations classified as rural and remote, predominantly in Central Queensland area.	**Data:** The PHN is home to more than 840,000 people. According to ABS Census 2016, the majority of the PHN population (58% or 476,000 people) live in inner regional areas, 33% live in major cities (273,000 people in Sunshine Coast and Noosa LGAs) and the remaining 9% (73,000 people) live in outer regional, remote or very remote areas. Just over one quarter (25.2%) of the population in **Central Queensland** (CQ) area live in outer regional, remote or very remote areas; Wide Bay (WB) area 7.3%; Sunshine Coast (SC) area 0.5%; Queensland (Qld) 16.8%. Four of the 12 LGAs in the PHN catchment have 100% of their populations living in outer regional or remote/very remote areas: - **Woorabinda** in CQ (of which 100% are remote) - **Central Highlands** in CQ (of which 27% are remote or very remote) - **Banana** in CQ (of which 11% are remote) - **North Burnett** in WB (of which 2% are remote)
Education outcomes	A strong link between health and education has been evident for many decades and the evidence shows an association between low education level, poor health and employment. Health literacy has been shown to have strong associations with individuals' levels of education. Low levels of health literacy are associated with poor health outcomes including increased prevalence of chronic disease and reduced use of health services. The PHN catchment includes specific populations with low education levels.	**Data:** According to ABS Census 2016: - 6.3% of the PHN population did not go to school or completed Year 8 or below, compared to 5.4% of the Queensland population. - Eight out of 12 LGAs reported higher proportions of population that did not attend school or did not complete Year 8 or below. LGAs with highest proportions in the PHN catchment are: - **North Burnett** (12.9%) and **Bundaberg** (9.3%) in WB - **Woorabinda** (10.2%) and **Banana** (9.8%) in CQ

Outcomes of the health needs analysis		
		More than half of residents of Woorabinda reported highest level of schooling as Year 10 or below. Residents of the three Wide Bay LGAs as well as Gympie in SC also had low school completion rates (47.2 – 48.4% Year 10 or below; PHN 39.3%; Qld 31.9%).
Income	Financial housing stress leads to conflict in the household, promoting psychological distress. The PHN catchment includes locations with high mortgage or rent related stress.	**Data:** LGAs with the lowest median family incomes are: - **Woorabinda** ($37k) in CQ - **Fraser Coast** ($57k), **North Burnett** ($60k) and **Bundaberg** ($62k) in WB - **Gympie** ($59k) in SC Torres University's Public Health Information Development Unit (PHIDU) estimates that 26.5% of low-income households in the PHN experience rental or mortgage stress (spending 30% or more of household income on mortgage or rent). - The highest levels of financial housing stress in the PHN region are seen in Sunshine Coast LGA (29.5% or 14,000 households) - Gladstone, Noosa and Rockhampton LGAs also have high proportions (27.3 – 28.7% of households) - Bundaberg and Fraser Coast LGAs have high numbers of households (5,000 - 6,000 households)
HEALTH BEHAVIOURS		
Tobacco use	Smoking is a leading cause of death and disability from cardiovascular disease, ischaemic heart disease, chronic obstructive pulmonary disease (COPD) and lung cancer. Some 18,800 Australians die prematurely from tobacco-related illnesses each year.	**Data:** - The smoking rate in the PHN catchment is higher than the Qld and national rates. In 2015-16, 13.6% of adults aged 18 and over in the PHN catchment were current smokers, with the proportion being slightly higher for males than females. This compares to 12.1% for Qld. - Across the PHN catchment, smoking rates were highest in **Gympie** (19.6%), **Fraser Coast** (19.2%) and **Gladstone** (19.1%) and lowest in Noosa (7.9%).

Outcomes of the health needs analysis		
	The smoking rate in the PHN catchment is higher than the corresponding Qld and national rates for specific locations.	
Smoking during pregnancy	Tobacco smoking increases the risk of pregnancy complications, including miscarriage, placental abruption and premature labour. It is also a leading contributor to adverse perinatal outcomes such as low birthweight, intra-uterine growth restriction, preterm birth and perinatal death. The rate of tobacco smoking during pregnancy in the PHN catchment is significantly higher, especially in Wide Bay.	**Data:** - Smoking during pregnancy is a major problem within the PHN catchment. Data from the Queensland Health's Perinatal Data Collection show that in 2017, 14.7% of women smoked while pregnant. While this rate has decreased (from 15.6% in 2016) it remains significantly higher than the rates for Qld (11.9%). In other words, women in the PHN were 1.24 times more likely to smoke while pregnant than other Queensland women. - Across the PHN catchment, smoking rates during pregnancy were **highest in Wide Bay (20.1%)**, with women in this area 1.4 times as likely to smoke while pregnant than women elsewhere. The lowest proportion was in the SC area (9.8%).
Risky alcohol consumption	Alcohol abuse affects families and communities in multiple ways. It has the potential to lead to anti-social behaviour, violence, assault, imprisonment and family breakdown (NHMRC, 2009). Long-term excessive alcohol consumption is a major risk factor for chronic physical and mental health conditions (NHMRC, 2009). Binge drinking contributes to injuries and death due to external causes such as suicide or transport accidents. Some of the LGAs within the PHN have high proportion of people drinking alcohol at risky levels.	**Data:** Queensland Government's Queensland survey analytics system (QSAS) 2015-16 reports: - Proportion of people who had lifetime risky alcohol consumption (exceeding guidelines) was higher within the PHN (24.5%) than Queensland (21.8%). - The LGAs where the proportion of adults who reported alcohol consumption that was risky (lifetime) was highest in **Gympie** (29.5%), **Gladstone** (27.7%), and **North Burnett** (26.5%) LGAs.
Overweight and obesity	Being overweight or obese increases the risk of developing chronic diseases such as coronary heart disease, type 2 diabetes, some cancers, respiratory and joint problems. Overweight and obesity rates are significantly higher in specific locations than the rates for Qld.	**Data:** - In 2015-16, 58.8% of people aged 18 and over were overweight or obese in the PHN. This rate was slightly higher than the rate for Qld (58.0%). - Males (67.7%) living in the PHN catchment were much more likely than females (49.9%) to be overweight or obese in 2015-16. This disparity between males and females is evident at both the state and national level.

Outcomes of the health needs analysis		
		- Across the PHN catchment, **Central Highlands** (69.4%), **Banana** (67.7%) and **North Burnett** (65.3%) LGAs had the highest rates of overweight and obesity, while the Noosa (45.8%) and Sunshine Coast (54.3%) LGAs had the lowest rates.
Diet	There is a strong association between diet and health. While there are multiple nutritional guidelines developed for healthy living, unhealthy diet with insufficient nutrients impacts negatively on all age groups including during pregnancy. Vegetable intake is generally inadequate within the PHN catchment.	**Data:** - In 2015-16, only 8.3% of people aged 18 and over in the PHN reported eating the recommended daily intake of vegetables. This is slightly above the 7.1% for Queensland. - Across the PHN catchment, adults living in North Burnett (9.9%) and Gympie (9.9%) had the highest proportion of adequate vegetable intake, while **Central Highlands** (5.0%) had the lowest.
Perceived health status	Self-assessed health status is an important measure of the overall level of a population's health and a reliable predictor of morbidity and mortality. A significant proportion of people in the PHN catchment report being in fair or poor health.	**Data:** - In 2016, within the PHN, an estimated 18.4% of the population aged 45 and over (65,000 people) reported being in fair or poor health. This figure was approximately 15.6% for all people aged 15 and over in the 2016-17 Patient Experience Survey. - In 2014-15, PHIDU estimates of the rates of fair or poor self-assessed health ranged from as low as 13.6% in Sunshine Coast LGA to as high as 20.9% in **North Burnett** and 19.8% in **Fraser Coast**.
VULNERABLE POPULATION GROUPS		
Children		
Infant mortality and low birth weight	Infant mortality rate remains an important indicator of health for whole populations. Similarly, low birthweight is closely associated with foetal and neonatal mortality and morbidity, inhibited growth and cognitive development, and chronic diseases later in life.	**Data:** **Infant mortality (0 to <1 years)** - Latest infant mortality data (2013-2015) indicates higher rates across the PHN (4.2 deaths per 1,000 live births) than national rate (3.4). - The highest rates in the PHN are in three WB SA3s: **Burnett** (6.8, double the national rate) followed by **Hervey Bay** (6.4) and **Maryborough** (5.7), and all three have seen an increase in infant mortality since 2012-2014 period.

Outcomes of the health needs analysis		
	Within the PHN, there are high infant and child mortality rates and high percentages of low birth weight (LBW) babies in Wide Bay.	- High rates seen in **Rockhampton** SA3 in CQ (5.6 per 1,000) have been consistently declining since 2010-2012. **Child mortality (0 to <5 years)** - Latest child mortality data (2013-2015) indicates higher rates across the PHN (5.1 deaths per 1,000 live births) than national rate (4.1). - The highest rates in the PHN are again seen in WB area: **Burnett** (7.9), **Hervey Bay** (6.9) **Maryborough** (6.4) SA3s as well as **Noosa** (6.5) in SC area. **Low Birth Weight:** - On average, the percentage of births in 2013-2015 that were low birthweight was lower in the PHN (4.6%) than nationally (4.9%). - The highest proportion of LBW babies was seen in three WB SA3s: **Burnett** (6.4%), **Hervey Bay** (5.8%) and **Maryborough** (5.8%).
Immunisation	Immunisation through vaccination is one of the most effective preventive health measures developed for protecting against the spread of infectious diseases. Immunisation rates above the 90% threshold considered critical for providing whole-of-population protection from infectious disease via herd immunity. In the PHN catchment one in 10 children aged 0-5 years are currently under vaccinated or receive delayed vaccination. Specific postcode analysis identifies several areas in the Sunshine Coast area with rates below 85% across all age groups. Agnes Water area within Wide Bay also has low immunisation rates.	**Children aged 0-5** - Childhood vaccination rates are high in the PHN catchment. In 2016-17, 92.6% of 1, 2 and 5-year-olds in the PHN catchment were fully immunised, slightly below the national (93.8%) rate. - Across the PHN catchment, **Sunshine Coast** area has the lowest rates of immunisation across 1, 2 and 5-year-olds, with some postcodes – particularly **Maleny and surrounds** – with rates consistently below 80%. - SC area SA3s **Nambour** – **Pomona**, **Sunshine Coast Hinterland** and **Noosa** had below 90% coverage across all age groups in 2016-17. - In WB, **Agnes Water and surrounds** less than 80% among 2 and 5-year-olds **Human Papillomavirus (HPV)** - By June 2016, 70.4% of males and 76.6% of females aged 15 years in the PHN catchment were fully vaccinated against HPV – 6th lowest of 30 PHNs reported nationally. The corresponding rates for Qld were 70.8% and 77.6%, while the Australian rates were 74.1% and 80.1%.

Outcomes of the health needs analysis		
		- Across the PHN catchment, HPV vaccination rates were lowest in Sunshine Coast SA4 at 65.4% of boys (5th lowest of 87 SA4s reported nationally) and 73.9% of girls (11th lowest of 85 SA4s).
Developmentally vulnerable children	Australian Early Development Census (AEDC) is a nationwide data collection of early childhood development at the time children commence their first year of full-time school. The AEDC domains have been shown to predict later health, wellbeing and academic success. A higher proportion of children in the PHN catchment are developmentally vulnerable compared with the national rate – especially in Woorabinda and Wide Bay areas.	**Data:** - In 2015, 25.6% of children in the PHN catchment were developmentally vulnerable on one or more domains. This proportion was comparable with Qld (26.1%), but significantly higher than the Australian (22.0%) rate. - Across the PHN catchment, **Woorabinda** (51.6%), **Fraser Coast** (31.0%), **Gympie** (30.4%) and **North Burnett** (30.4%) had the highest proportions of developmentally vulnerable children. - In the Indigenous community of Woorabinda, children were twice as likely to be developmentally vulnerable than other children in the PHN catchment. **Consultation:** Stakeholders in Wide Bay have expressed concerns that younger mothers in the area are not sufficiently empowered to identify child development issues (physical, cognitive, social) and so are presenting quite late to services. In Gympie, there is insufficient access to multidisciplinary allied health services for children.
Youth		
Concerns about the health of young people in the PHN catchment	There is evidence that young people in remote and very remote areas of Australia fare worse on a range of health indicators. High proportion of teenage pregnancies in Wide Bay are identified. High proportion of youth experiencing AoD and sexually transmissible infection-related issues in Central Queensland have been identified.	**Data:** The Young Minds Matter Survey (2013-14) indicates that four to 17-year-olds have a higher prevalence of mental health disorders under the following social and demographic circumstances: - Step, blended, and one parent families (18.3-23.7%) compared to original families (10.4%). - Neither parent/carer employed (21.3-29.6%) compared to both parents/carers employed (10.8%).

Outcomes of the health needs analysis		
		The Australian Institute of Health and Welfare's (AIHW) report Young Australians: their health and wellbeing (2011) reports young people in remote and very remote areas compared to their city counterparts: - have higher death rates - are less likely to see a general practitioner and have more dental decay - are less likely to be meeting minimum standards for reading, writing and numeracy and to be studying for a qualification - are more likely to be under youth justice supervision (AIHW report 2016, Remoteness, socioeconomic position and youth justice supervision: 2014-15). The report also found that: - Over one-third of young people were overweight or obese, less than half (46%) meet physical activity guidelines, and nearly all do not eat enough fruit and vegetables. - Considerable proportions of young people drink at risky levels and nearly four in ten (38%) young people are victims of alcohol- and drug-related violence. - There were rising rates of diabetes (41% increase since 2001) and sexually transmitted infections (fourfold increase between 1998 and 2008, mostly due to increases in notifications for chlamydia). - Mental health problems and disorders account for the highest burden of disease among young people (26% aged 16-24 years). - Among young males, road deaths are nearly three times as high as females. National Youth Information Framework Indicators (2015) - With 96,000 young people (aged 15 to 24 years) living in the PHN catchment (2015), the above national statistics suggest that the **PHN has high numbers of youth with health-related needs**. Based on the estimate of over one-third of young people being overweight or obese nationally, it is possible that **approximately 30,000 young people within the PHN are overweight or obese.** - PHIDU Social Health Atlas of Australia Data by Primary Health Network Published 2018, Release data (ABS – June 2016) indicates that **approximately 6,000 young people (6.7%) aged 16 to 24 years were receiving an unemployment benefit** (Qld: 4.7%). The LGAs with the highest proportions of young people receiving an unemployment benefit were **Woorabinda** (33.9%), and **Gympie** (11.1%).

Outcomes of the health needs analysis		
		- **Birth rates among women under 20 was highest in the Wide Bay** area ranging from 26.1 to 46.4 per 1,000 (Aus 12.8) Analysis of state notifiable conditions data identified that **Rockhampton LGA had the highest notification rates in the PHN for five out of six sexually transmitted infections and blood-borne viruses.** In some cases, notification rates were more than double (Hep. B) or triple (syphilis) the PHN regional average. Youth mortality (deaths of persons aged 15 to 24 years) in the PHN (ASR 47.1 per 100,000) is above state (42.8) and national (37.4) figures. **North Burnett** LGA (145.2) has the **highest youth mortality rate in the PHN region,** almost four times the national average (37.4) and the 16th highest of 186 LGAs reported nationally. **North Burnett (38.1)** also has **double the state (16.9) and national (15.8) rates of avoidable deaths from external causes** (transport accidents, drownings) in persons aged 0 to 74 years. **Consultation:** Stakeholder feedback indicated concerns about: - sexually transmitted diseases and teenage pregnancies in Central Queensland and Wide Bay areas, and Gympie LGA - limited alternative housing options for adolescents whose homes were affected by drugs, - alcohol misuse and domestic violence; - lack of employment and hopelessness leading to mental health issues for young people in the Sunshine Coast area. Access to health services for young people is often impeded by their limited access to transport, lack of confidence in attending services and lack of their own Medicare card. Some of these issues were raised specifically in the context of barriers to accessing sexual health screening and education services. Stakeholder feedback from Wide Bay indicates that there are concerns regarding how mental health issues in youth affect engagement in school. There are concerns about intergenerational experiences (e.g. unemployment, disadvantage) impacting the health of young people.

Outcomes of the health needs analysis		
		Young people living in out of home care require information and communication regarding how to look after their health. Strengthening health assessment pathways for young people is required. Stakeholders in Wide Bay and Central Queensland identified risk-taking behaviours among young people as an issue of concern.
Elderly population		
Aged care	Elderly people living independently within their communities live a longer and healthier life. The PHN catchment includes many areas with high proportions of elderly people including many beachside locations which are known retirement destinations. There is a high proportion of elderly people in the PHN currently and projected for the future and an increasing number of support services and systems to support older people to continue to live in their homes will be required. High numbers and proportions of elderly people in Wide Bay and Sunshine Coast areas, however Central Queensland is projected to experience very high growth in the number of elderly people aged 85 years and over.	**Data:** In 2016, the percentage of people aged 65 and over (19.2%) in the PHN was significantly higher than for the state overall (14.7%). Within the PHN, five out of 12 LGAs will have more than 20% of their populations aged 65 and over. **Fraser Coast** (25.5%), **Noosa** (23.3%) **and North Burnett** (23.0%), **Bundaberg** (22.4%) and **Gympie** (21.8%) have the highest proportions of persons aged 65 years and over. Currently there are an estimated 160,000 people aged 65 and over in the PHN – this is predicted to almost double to 300,000 by 2036. Four of the six LGAs in **Central Queensland** are projected to experience almost four-fold increase in the number of people aged 85 years and over by 2036 Population projections show that growth rates in the over 65 age group are greater in the PHN region compared to Queensland. By 2021, the PHN population aged 65 and over will be 20.8% compared to Queensland 16.2%. This will result in 190,000 people aged 65 and over by 2021 (an increase of more than 30,000 elderly in the next three years) and almost 300,000 people aged 65 and over by 2036. Across the PHN, the number of aged care places (community, residential and transition) are relatively low per 1,000 population aged 65 and over (65.7 per 1,000; Qld 71.8 per 1,000). **Gladstone and Livingstone LGAs** have the **lowest number of aged care places** per 1,000 population age 65 and over (38.4 and 47.4 respectively) and are projected to experience some of the highest growth in older population (more than double by 2036). These demographic changes are compounded by limited public transport in many rural areas which makes it difficult for elderly people to attend GPs and other primary health care services. **Consultation:**

Outcomes of the health needs analysis		
		Stakeholders commented on the need for transport for elderly people to and from their appointments with specialist services. Reduced availability of family networks can also place family carers at risk of stress and other health issues as there are often limited respite care options available. In CQ, there is lack of availability and willingness in GPs to take on patients with RACF setting. An insufficient availability of aged care beds has been highlighted for Gympie area especially in Kilkivan / Goomeri area.
Improving health literacy among the elderly	Poor health literacy – including the ability to navigate the health system – commonly leads to reduced access to services and poorer health outcomes. Low levels of health literacy are also associated with undesirable outcomes, such as premature death among older people, lower participation in preventative programs (including influenza vaccination and cervical and breast cancer screening) (Berkman et al., 2011), and poor medication adherence (Diug et al., 2011). There is evidence that aged care reforms are not well understood by the elderly in the PHN catchment.	**Data:** The 2006 ABS Health Literacy Survey identified that only four in 10 adults have a level of health literacy that allows them to meet the complex demands of everyday life. This was just over two in 10 for people aged 60-74. Results for the PHN from the 2016 Survey of Health Care shows (for patients aged 45 and over who had visited a GP in the preceding 12 months): - 90.4% of patients reported usual GP or others in usual place of care usually or always involved them in decisions about their care (Aus 89.1%). - 92.8% felt that their usual GP or others in their usual place of care usually or always explained test results in a way they could understand (Aus 92.9%). **Consultation:** Stakeholders raised several issues concerning aged care, and the health of older people. Concerns were raised about the change from 1 July 2015 to the Commonwealth Home Support Program (CHSP) and the My Aged Care (MAC) portal. Stakeholders indicated increasing anxiety among consumers in relation to these reforms relating to difficulties navigating the system and accessing services. These concerns continue to be expressed within the region, including concern about the ability of very frail, vulnerable aged persons and their inability to access the system. Additionally, RACFs are identifying that few residents present with an existing Advance Care Plan (ACP), suggesting poor awareness and uptake of ACPs in the community.

Outcomes of the health needs analysis		
Dementia	The physical, emotional and economic impact of dementia extends to families and caregivers of the individual suffering from dementia. As the number of people aged 65 years and over in the population increases, a concomitant increase in the number of people with dementia is possible. Sunshine Coast and Wide Bay areas are projected to experience high increases in dementia prevalence.	**Data:** 2016 dementia prevalence in **Sunshine Coast** (18.5 per 1,000) and **Wide Bay** (19.6) areas is significantly greater than Queensland rate (12.6 per 1,000; CQ 9.4) Alzheimer's Australia 2011 report estimates: - The number of people in the PHN living with dementia is projected to almost double from 13,700 in 2016 to 27,000 in 2030. - The number of people living with dementia is projected to more than double in the **Sunshine Coast area** from 7,300 in 2016 to 14,800 in 2030. - Wide Bay area is projected to experience the greatest increase in proportion of people living with dementia between 2016 (19.6 per 1,000 population) and 2030 (31.9). Significantly greater than Queensland estimates (12.6 to 18.4). Additionally: - Most people (93%) living with dementia are aged 65 years or older. - Together, dementia and Alzheimer's disease (ICD codes F01, F03 and G30) were the second leading cause of death in the PHN, responsible for 2,144 or 7.1% of deaths in the 2012-2016 period. - Around half of those (924 or 8.9% of deaths) occurred in **Sunshine Coast LGA**. - **Gladstone LGA** has the highest rate of deaths due to dementia and Alzheimer's disease in the PHN (ASR 48.9 per 100,000; PHN 36.6; Aus 38.9). Livingstone LGA has the lowest (ASR 22.8). **Consultation:** Due to high proportion of elderly population in many LGAs within the PHN, The Dementia Alliance in Fraser Coast is trying to organise stakeholders and the community to become a "dementia friendly community". A police officer attending the WBHHS Community Reference Group meeting said they would appreciate information about dementia and pathways.
Chronic disease among the elderly	The prevalence of chronic conditions increases with increasing age.	**Data:** PHIDU and Census data show that LGAs with high proportions of persons 65 years and over also have higher prevalence of chronic diseases:

Outcomes of the health needs analysis		
	Effective prevention, early detection and management of chronic disease can delay the progression of disease, reduce the need for high-cost hospital-based interventions, and improve quality of life in old age. Population aged 65 and over predicted to increase within the PHN catchment at higher rate compared to Queensland. High proportion of elderly people with chronic conditions indicates low quality of life and high use of health services.	- Fraser Coast (65+ population 25.2%) has significantly higher estimates for asthma, arthritis and mental health related chronic conditions. - Bundaberg (65+ population 22.4%) has significantly higher estimates for asthma, arthritis and mental health related chronic conditions. - Gympie (65+ population 21.8%) has significantly higher estimates for arthritis and mental health related chronic conditions. AIHW's Older Australia at a Glance reports that rate of disease burden in elderly increases with remoteness (1.5 times higher in very remote areas than in major cities) and socioeconomic disadvantage (1.3 times higher for lowest SES than highest SES). Information contained in the National Primary Health Care Strategic Framework, 2013 shows that among older Australians living in the community, almost half aged 65-74 years have five or more long-term conditions, increasing to 80 per cent of those aged 85 years or over.
Injuries due to falls	Injuries resulting from falls are the major cause of death, hospitalisation and emergency department presentations among persons aged 65 years and over in our community. More than half of all injury deaths in this age group due to falls. Although the PHN catchment shows similar rates of falls compared to Queensland, most falls are preventable and greatly contribute towards reducing quality of life for elderly. The PHN catchment has high numbers of persons aged 65 and over who may be at risk of injuries from falls.	**Data:** Falls are a major cause of hip fractures. Australia at a glance: 4th edition (AIHW, 2007) reports that 91% of hip fractures are the result of falls. Chief Health Officer's report, Queensland Health, 2016 (data 2012-13 to 2013-14) shows that hospitalisation rates due to falls in 65 years and over are similar to Queensland (3,159 ASR per 100,000) in all areas: - Wide Bay area 3,043 ASR per 100,000 - Central Queensland area 2,881 ASR per 100,000 - Sunshine Coast area 3,085 ASR per 100,000 Queensland Stay On Your Feet (QH, 2008) suggests that by year 2051: - It is projected that one in four Queenslanders will be aged 65 years or older - The number of hip fractures among older Australians is expected to increase fourfold, based on current incidence rates.
Other vulnerable populations		

Outcomes of the health needs analysis		
Homeless people	Certain areas within the PHN catchment have recorded high numbers of people who are homeless. Homelessness is associated with higher prevalence of chronic conditions including mental health. Rockhampton and Central Highlands in Central Queensland, Bundaberg and Gin Gin in Wide Bay, and Nambour and Gympie in Sunshine Coast area have high numbers of homeless people.	**Data:** Australian Bureau of Statistics, Census of Population Housing Homelessness data (2016) shows that more than 3,000 homeless people live in the PHN. A large number of homeless people are living in Rockhampton SA3 area (n=463). The largest homeless populations in the PHN are **Rockhampton City** (169 people), **Nambour** (162) and **Gympie Region** (128) **SA2s.** The largest rates of homelessness in the PHN are **Rockhampton City (508 per 10,000), Bundaberg (152), Gin Gin (128) and Central Highlands - West (116) SA2s (compares to Australia 50 per 10,000).** According to Census 2016: in Queensland, the number of homeless males is higher than the number of homeless females across every age group, and the total number of homeless persons is greatest in the age 25 to 34 years and those under 12 years. Surveys conducted by the Queensland Council of Social Services in 2014 and 2015 identified that homeless people report having co-existing mental health, chronic health problem and problematic substance use; dental health problems and asthma. Aboriginal and Torres Strait Islander people are almost seven times more likely to be homeless than non-Indigenous Queenslanders (239 per 10,000 population) and represented 21% of all homeless people in Queensland in the 2016 Census. **Consultation:** Homelessness has been raised by stakeholders as a group who are vulnerable to poor health outcomes. Homelessness is associated with higher prevalence of chronic conditions including COPD. Stakeholders in the Gympie region report a lack of appropriate short- and long-term housing solutions for homeless adults and homeless youth.

Outcomes of the health needs analysis		
People with a disability	Chronic disease-related disability increases with increasing age. Although it is difficult to know the proportion of people with disability as an outcome of chronic diseases, the PHN catchment includes an ageing population and is projected to have increasingly higher proportions of elderly. Information contained in the National Primary Health Care Strategic Framework, 2013 shows that the average person with disability has 3.1 long-term health conditions that may not be directly associated with their disability. The proportion of people with profound and severe disabilities in the PHN catchment varies significantly and is high compared to Queensland in some areas, particularly in Wide Bay.	**Data:** AIHW report 2018, Australia's health, based on 2014-15 data indicates: - Australians living with disability were 6.2 times more likely than those without disability to assess their health as 'poor or fair'. - Australians living with severe or profound disability were about times 10 more likely than those without disability to assess their health as 'poor or fair' (61%). - People living with severe or profound disability were more than four times as likely to experience anxiety-related problems and almost six times as likely to experience mood disorders (such as depression) than people without disability. Census 2016 data shows that in the PHN catchment, more than 50,000 people (6.4% of population) were in need of assistance due to a profound or severe disability. This has increased almost 10,000 people since Census 2011. LGAs with high proportions relative to Queensland (5.2%) include **Fraser Coast** (9.7%), **Bundaberg** (8.3%) and **Gympie** (8.0%). Disability in the PHN catchment rises steadily after the age of 40 years in all LGAs, increasing heavily after the age of 69 years. **Consultation:** Stakeholders have raised concerns around difficulty navigating the National Disability Insurance Scheme (NDIS) and highlighted the lack of navigation support available for consumers located in rural and remote areas who may require it.
Lesbian, Gay, Bisexual, Transgender, Intersex (LGBTI)	Higher prevalence of risk taking behaviours among LGBTI community.	**Data:** It is estimated that about one in 10 (11%) Australians identify as LGBTI, equating to approximately 90,000 people in the PHN. Region specific data not available. Australia's Health 2018 reports that gay, lesbian and bisexual people are more likely to experience intimate partner violence and psychological distress, more likely to smoke cigarettes, consume unsafe levels of alcohol, engage in illicit drug use and unsafe sex practices.

Outcomes of the health needs analysis		
CHRONIC DISEASE		
Chronic disease prevalence	Chronic conditions are associated with reduced quality of life and reduced satisfaction with health. Within the PHN, the prevalence of chronic condition vary substantially however is higher compared to the national average in many LGAs.	**Data:** The 2016-17 Patient Experiences Survey shows that 53.9% of people aged 15 years and over reported having a long-term health condition in the PHN (compares to 49.9% nationally) According to PHIDU data (2011-2013) within the PHN catchment: - Higher rates of mental health and behavioural problems, asthma and arthritis were reported for the **Bundaberg** and **Fraser Coast** LGAs. - Higher rates of mental health and behavioural problems and arthritis were reported for the **Gympie** LGA. - Higher rates of asthma were reported for the **Rockhampton** LGA. - Higher rates of respiratory system conditions and asthma were reported for the **Sunshine Coast** LGA. **Consultation:** Stakeholders in the Central Queensland area reported that although travelling to larger centres for specialised treatment will always be the reality for regionally-based patients, many chronic conditions should be addressed locally. Increased health promotion and access to prevention programs are also seen as being advantageous. Many stakeholders felt that people needed to be supported to undertake more self-management of their conditions, including commitments to changing their lifestyles.
Cancer incidence & mortality	The PHN cancer incidence rates are above national rates (for breast, cervical, colorectal, lung, melanoma and prostate). Higher bowel cancer mortality seen in Wide Bay areas, despite highest screening participation rates. Low breast cancer screening and higher breast cancer mortality seen in Maroochy (SC)	**Data:** - Incidence rates for all cancers within the PHN are all above national rates (for breast, cervical, colorectal, lung, melanoma and prostate). - Incidence of melanoma within the PHN is particularly high at almost 1.5 times the national rate (ASR 71 per 100,000; Aus 49; rate ratio 1.44). - Incidence of **all cancers** combined in **Bundaberg** SA3 is the 4th highest of 80 SA3s reported in Queensland

Outcomes of the health needs analysis		
	Incidence and mortality of melanoma is much higher across the whole PHN region.	**Bowel Cancer:** - Bowel cancer screening participation rates (2015-16) were higher in the PHN (44.4%) than nationally (40.9%). The lowest rates were seen in Central Queensland (34.5 – 41.9%). - Colorectal cancer was the 6th leading cause of death (2012-2016) in the PHN, causing 900 deaths (ASR 16.4 per 100,000; Aus 15.7) - Between 2011-2015, the highest rates of colorectal cancer deaths across all ages occurred in **Bundaberg** (ASR 19.4 per 100,000; PHN 15.7; Aus 15.6 – rate ratio 1.24). - In the bowel cancer screening target age group (50-74) the highest mortality was seen in **Hervey Bay** (ASR 33.3, rate ratio 1.19). - Hervey Bay and Bundaberg LGAs had the highest screening rates in the PHN 2015-16. **Breast Cancer:** - Incidence of breast cancers (2009-2013) in the PHN (ASR 121.9 per 100,000) was slightly higher than national (119.8); ranging from 97.3 in Maryborough to 156.8 in Buderim SA3. Incidence of breast cancer in Buderim SA3 is the 2nd highest of 80 SA3s reported in Queensland - Breast cancer was the 11th leading cause of death (2012-2016) among women in the PHN, causing 562 deaths (ASR 20.0 per 100,000; Aus 20.1) - Between 2011-2015, the highest rate ratios of breast cancer deaths occurred in the 50-69 age group in **Maroochy** (ASR 53.9 per 100,000; rate ratio 1.30) and **Rockhampton** (ASR 51.0; rate ratio 1.23) **Cervical cancer:** - Cervical cancer screening participation rates (2015-16) were lower in the PHN (54.2%) than nationally (55.4%). The lowest rates were seen in Central Queensland (48.1 – 50.4%) and highest in Sunshine Coast area (57.4 – 62.0%), except for Gympie-Cooloola (51.2%). **Lung cancer:** - Lung cancer was the 4th leading cause of death (2012-2016) in the PHN, responsible for almost 1,900 deaths (ASR 33.8 per 100,000; Aus 30.7). It was the 2nd leading cause of death in Central Highlands (ASR 42.3), Gympie (37.2) and Banana (32.8). - Lung cancer mortality rates were highest in Central Queensland (33.1-42.3) and Wide Bay (34.3-40.9) and lowest in Sunshine Coast area (23.6-37.2)

Outcomes of the health needs analysis		
		- Between 2011-2015, high incidence of lung cancer was also seen in Central Queensland (ASR 49.8-66.4 per 100,000) and Wide Bay (49.9-58.2; SC 35.7-49.0; PHN 48.5; Aus 43.6) **Melanoma:** - Incidence of melanoma of the skin (2009-2013) in the PHN (ASR 71.0 per 100,000) was much higher than national rates (49.3); the lowest rates were seen in CQ (47.1 – 62.7) and high across WB (67.5 – 76.7) and SC (62.8 – 89.3) areas. - Melanoma was the 13th leading cause of death (2012-2016) in the PHN, responsible for 440 deaths. Of the 31 PHNs in Australia, Central Queensland, Wide Bay, Sunshine Coast PHN has the highest mortality rate associated with melanoma (ASR 8.3 per 100,000; rate ratio 1.5). - The highest melanoma mortality is seen in **Fraser Coast** (ASR 9.7) and **Rockhampton** (9.4) LGAs.
Coronary Heart Disease (CHD)	Higher CHD mortality in Central Queensland	**Data:** Coronary heart disease (CHD) is the leading cause of death nationally and in the PHN. Overall the mortality rate in the PHN (ASR 67.7 per 100,000; 3,880 deaths in 2012-2016) aligns to the national rate (68.3). [The highest age-standardised rates were in CQ (64.4 – 87.2) followed by WB (67.7 – 82.5) then SC area (57.1 – 65.2)] LGAs with the highest age-standardised mortality rates (per 100,000) were all in CQ area: - **Livingstone** LGA (ASR 87.2; rate ratio 1.28) - **Banana** (86.4) - **Central Highlands** (84.8) PHIDU estimates based on 2011-12 data identifies three LGAs in CQ with the highest age-standardised rates (per 100) of circulatory disease in the PHN region: - **Banana** (ASR 19.7) - **Gladstone** (19.2) - **Woorabinda** (19.0) Compares to 18.1 in the PHN and 17.8 in Qld.

Outcomes of the health needs analysis		
Diabetes	Increasing obesity is associated with increased diabetes prevalence worldwide. The risk of most diabetes-related complications can be reduced by providing appropriate care, at the right time. Within the PHN catchment incidence and prevalence of diabetes is high and is varied across the areas. It is high in Wide Bay area and Woorabinda.	**Data:** Data gathered by Diabetes Queensland (March 2018) for the PHN, based on the National Diabetes Services Scheme (NDSS) shows: - 46,685 people (5.6% of the population) have diabetes, of these 88.2% have Type 2 diabetes, 9.2% have Type 1 diabetes, 2.1% have gestational diabetes and 0.5% have some other form of diabetes. - **Woorabinda** LGA has the highest number of NDSS registrations per 100 population in the PHN (11.5 per 1,000; PHN 5.6; Qld 5.0). - Followed by the three Wide Bay LGAs: **Fraser Coast** (7.6 per 1,000), **Bundaberg** (7.5) and **North Burnett** (6.9). - An average of 12.2 people are diagnosed with diabetes each day (12 in 2015). - A total of 41,363 people have type 2 diabetes in the PHN. - A further 20,000 people are estimated to have undiagnosed type 2 diabetes (19,000 in 2015). - In addition, nearly 90,000 people are at high risk of developing type 2 diabetes (82,000 in 2015).
Chronic disease related mortality and preventable hospitalisations	Inefficiencies in a health system are highlighted when there are high rates of premature deaths and potentially preventable hospitalisations. Higher diabetes-related premature deaths and potentially preventable hospitalisations in the PHN catchment suggest an urgent need for improved diabetes management.	**Data:** AIHW analysis of 2015-16 hospital morbidity data indicates an ASR of 234 per 100,000 for potentially preventable hospitalisations (PPHs) due to diabetes complications in the PHN catchment, the 4th highest rate of 31 PHNs (Aus 183; lowest PHN 97). The highest rate in the PHN was in **Maryborough** SA3 (372). AIHW 2012-2016 mortality data indicates an ASR of 14.0 per 100,000 deaths (789 people) due to diabetes in the PHN catchment. (Aus 15.9; lowest PHN 8.0). LGAs within the PHN region with the highest age-standardised rates (available) of deaths due to diabetes are: - **Gladstone** (ASR 24.8 per 100,000) - **Rockhampton** (ASR 18.3 per 100,000) - **Bundaberg** (ASR 17.9 per 100,000)

Outcomes of the health needs analysis		
		AIHW PPH data indicates high rates of potentially preventable hospitalisations due to chronic conditions in Wide Bay and Central Queensland HHSs compared with national rates, much of which is attributable to COPD, Diabetes and Coronary Heart Disease.
COPD	Estimated rates of COPD vary within the PHN catchment and are higher in specific locations – mostly Wide Bay and Central Queensland show higher prevalence.	**Data:** Data (2011-2013 PHIDU data) on the estimated population with COPD in the PHN region indicates: - 24,971 people are estimated to have COPD (2.9 ASR per 100; Australia – 2.4 ASR per 100). - Wide Bay area ranked 1st, Central Queensland area ranked 10th and Sunshine Coast area ranked 13th among all 61 former Medicare Local regions. Local Government Areas within the PHN region with the highest age-standardised rates (estimated) with COPD in the PHN region (2011-2013 PHIDU data): - **Woorabinda** (ASR 3.3 per 100) - **Fraser Coast** (ASR 3.2 per 100) - **Bundaberg** (ASR 3.1 per 100) - **Gympie** and **North Burnett** (ASR 3.0 per 100) - Qld comparison – ASR 2.7 per 100
COPD hospitalisations	There is good evidence to show that interventions for managing COPD patients involving multiple chronic care models can reduce the rate of hospitalisations and ED visits. There is also good evidence to show that self-management support for COPD and asthma patients can reduce rates of hospital admissions. High potentially preventable hospitalisations associated with COPD are evident in the PHN, particularly in Wide Bay and Central Queensland SA3s.	**Data:** The latest PPH data from AIHW (2015-16) indicates an ASR of 327 per 100,000 for PPHs due to COPD complications in the PHN catchment, well above the national rate (260). The highest rates in the PHN are in Wide Bay and Central Queensland SA3s: - **Maryborough** in WB (ASR 552 per 100,000) - **Central Highlands** in CQ (410) - **Rockhampton** in CQ (408) - **Burnett** in WB (388)

Outcomes of the health needs analysis		
COPD mortality	Higher premature deaths associated with COPD in certain LGAs within the PHN catchment were reported. These areas also continue to experience high smoking rates.	**Data:** The highest COPD mortality rates in the PHN occurred in **Central Highlands** (ASR 36.4 per 100,000), **Rockhampton** (34.3) and **Fraser Coast** (32.9) LGAs – much higher than PHN (26.1) and national (24.14) rates. 2011-2015 PHIDU data estimates there were nearly 500 premature deaths in the PHN associated with COPD (age 0-74). Almost half of those occurred in Sunshine Coast (130) and Fraser Coast (106) LGAs. The rates of premature deaths from COPD are significantly higher in **Rockhampton** (ASR 15.3 per 100,000), **Fraser Coast** (14.4), and **Gympie** (13.1) compared to Queensland (10.0) and national (8.8) rates.
Arthritis	Chronic complex conditions like arthritis are associated with increasing disability, increased cost of living and sometimes inability to travel. The PHN catchment includes some areas with significantly higher rates of arthritis.	**Data:** Data (2011-12 PHIDU data) pertaining to the estimated population with arthritis in the PHN region indicates: - 133,724 people are estimated to have arthritis (ASR 15.1 per 100; Aus 14.8). - Wide Bay ranked 6th, Central Queensland ranked 37th and Sunshine Coast ranked 39th among all 61 former Medicare Local regions. Local Government Areas within the PHN region with the highest age-standardised rates of arthritis in the PHN region (2011-12 PHIDU data) are: - **Bundaberg** (ASR 17.0 per 100) - **Fraser Coast** (ASR 16.9 per 100) - **Gympie** (ASR 16.3 per 100) - **North Burnett** (ASR 16.3 per 100) - Compared to Queensland ASR 14.1 per 100
Asthma	The PHN catchment includes areas with higher rates of asthma and these rates vary across the region. There is evidence to show that people with asthma have a higher prevalence of risk factors than those without asthma.	**Data:** Around 11% of people nationally report having long-term asthma

Outcomes of the health needs analysis		
	Caloundra, Gympie and Nambour SA3s in the Sunshine Coast area have age-standardised rates for asthma higher than national rate.	AIHW national level data (2014-15), asthma, associated comorbidities and risk factors, indicates that people with asthma aged 18 years and over, have a higher prevalence of selected risk factors including: - Current daily smoker (15.4% compared to 14.4% of people without asthma) - Physically inactive (61.7% compared to 53.6% of people without asthma) - Overweight or obese (69.1% compared to 62.6% of people without asthma) Asthma-related PPH rates vary across the PHN from as low as ASR 92 per 100,000 in **Gladstone-Biloela** to 245 in **Burnett** and 221 in **Hervey Bay**, compared to 154 across the PHN and 133 nationally. **Caloundra, Gympie and Nambour** SA3s in the Sunshine Coast area also have ASRs over 200. Data (2011-12 PHIDU data) pertaining to the estimated population with asthma in the PHN region indicates: - 91,263 people are estimated to have asthma (ASR 11.5 per 100; Aus 10.2) - Wide Bay ranked 11th among all 61 former Medicare Local regions. MBS data (Asthma Cycle of Care items 2546-2559 and 2664-2677) indicates that in the PHN catchment increasing numbers of asthma patients are accessing and completing annual cycles of care in general practice: steadily increasing from 1,816 patients in 2012-13 to 2,744 patients in 2016-17.

Primary Mental Health Care (including Suicide Prevention)

Outcomes of the health needs analysis		
Identified Need	Key Issue	Description of Evidence
Address prevalence in populations with socio-economic disadvantage	The National Mental Health Service Planning Framework (NMHSPF) estimates mental health needs and demand for services based on the average prevalence of mental illness within the Australian population. Selected socioeconomic indicators associated with mental illness help us identify those locations within the PHN where relative need of mental services is likely to be higher than predicted by the NMHSPF.	**Data:** The latest Burden of Disease (BoD) study shows a steep socioeconomic gradient for mental health. The burden of disease of mental health for the bottom quintile is two times the burden in the highest quintile. When compared to Queensland, the PHN shows higher levels of socioeconomic disadvantage (i.e. 27.1% in the bottom SEIFA quintile, vs. 20% in Queensland and annual family income of $73k vs. $86k in Queensland (2016). In the PHN, the population living in all the LGAs in WB as well as **Gympie (SC)** and **Woorabinda (CQ)** show high levels of socioeconomic disadvantage as measured by annual family median income and the SEIFA quintile. Similarly, unemployment rates (as per March 2018) are highest in Wide Bay (9.4%) vs. 6.7% in the PHN and 6.0% in Queensland. However, **Gympie (SC), Gladstone (CQ), Rockhampton (CQ) and Woorabinda (CQ)** also have unemployment rates over 8%. Geographical location: Populations in rural and remote areas suffer from low access to health services as well as socioeconomic disadvantage and high levels of risk factors and chronic diseases. Across the PHN half of all the LGAs in CQ (Banana, Central Highlands and Woorabinda) and one LGA in WB (North Burnett) have all of their populations living in outer-regional/remote areas Indigenous: For the Indigenous population, the burden of disease related to mental health is 2.4 times the burden of non-Indigenous. The PHN is home to one discrete Aboriginal community, **Woorabinda**, while over 5% of the population in **Rockhampton** (7.4%) and **North Burnett** (6.5%) are identified as Indigenous. **Consultation:**

Outcomes of the health needs analysis		
		Stakeholders commented about socioeconomic disadvantage due to multiple factors, not just one.
Address morbidity associated with mental health	The relatively higher burden of mental health disorders observed across the PHN also helps identifying locations with higher-than-average mental health needs.	**Data:** In line with the above socioeconomic disadvantage, two of the three LGAs in WB (**Bundaberg** 16.5 ASR per 100 and **Fraser Coast** ASR 17.2 per 100), as well as **Gympie** in the SC (ASR 17.3 per 100) show the highest rates of mental/behavioural problems (2011-12). Similarly, two of the three LGAs in WB (Bundaberg ASR 14.3 per 100 and Fraser Coast ASR 15.1 per 100), two LGAs in CQ (**Livingstone** and **Rockhampton**) as well as Gympie in the SC (all three LGAs are 13.9 ASR per 100) show the highest rates of high/very high psychological distress (2014-15) across the PHN. **Consultation:** Mental health of the PHN population has been a concern.
Use evidence-based approach to address mental health in overall PHN population	Drawing on the prevalence of mental illness within the Australian population, the NMHSPF estimated the numbers of people in the PHN catchment that need mental health treatment services. NMHSPF estimates along with other available information serve to gauge the broad patterns of need for mental health treatment across different age groups and severity. Understanding these patterns is crucial for planning the delivery of services across the stepped care model. This information along with the relative differences in need noted above help us prioritise those areas, population groups and services with the highest unmet need.	**Data:** NMHSPF estimates along with other available information suggests that across the PHN catchment, 16.7% of the population (approximately 152,116 people as per 2021 data) will need mental health treatment of different levels of severity. Of these, approximately: - 50,000 (5.4% of the PHN population) will require early intervention and relapse prevention. They represent people who do not yet meet the criteria for a mental disorder and those that previously experienced a mental disorder, but no longer have a diagnosable disorder. - 41,000 (4.5% of the total PHN population) will need a variety of services to treat mild mental illness/disorders, - 33,000 (3.6% of the PHN population) will need services for moderate mental illness/disorders, - 28,372 (3.1%) will need services for severe mental illness. Culturally and linguistically diverse (CALD) population – 15.2% of the PHN (124,713 people) were born overseas. Almost 45,000 people were born in non-English speaking (NES)

Outcomes of the health needs analysis		
		countries. The highest numbers of people of NES background are found in Sunshine Coast (17,823), Fraser Coast (4,838) and Bundaberg (4,798) LGAs. According to the Australian Human Rights Commission, up to 11% of Australians may have a diverse sexual orientation or gender identity, and more than a third of those hide their LGBTI status when accessing services. **Consultation:** Taking into account the above patterns of disadvantage, and stakeholder feedback, these estimates represent a low case scenario, with higher numbers expected in rural and remote areas -as those in CQ- and socioeconomic disadvantaged areas such as LGAs in WB and Gympie in SC.
Use evidence-based approach in prevention and treatment for young people	Approximately half of all lifetime mental health disorders emerge by age 14 and three quarters by age 24. The negative effects of untreated mental health disorders may have persistent effects later in life.	**Data:** National data shows that one in four young Australians aged 16-24 lives with a mental illness and one in three experiences moderate to high levels of psychological distress. The PHN is home to a large number of young people with an estimated number of 146,799 people aged 12-24 in the year 2021. Mental health problems and disorders account for the highest burden of disease among young people (AIHW report 2011 Young Australians). Preliminary estimates for youth populations based on prevalence data and the NMHSPF suggest that approximately 26,558 young people (12 to 24-year-olds) will need mental health treatment across the PHN. Of these: - 8,502 will need early intervention/relapse prevention - 6,628 will need services for mild disorders - 5,386 will need services for moderate disorders and - 4,500 will need services for severe disorders These estimates are also likely to be a lower than actual numbers, particularly for young people living in remote and disadvantaged areas. **Consultation:**

Outcomes of the health needs analysis		
		Stakeholders have also identified young people from rural and remote areas as a key priority population group.
Need for Psychosocial support by those with severe and complex mental illness/ disability/high risk groups	People living with mental illness can experience functional limitations that impact activities of daily life in one or more functional domains such as communication, social interaction, learning and employment, mobility, self-care and self-management. High proportion of people within the PHN live with severe mental illness.	**Data:** In our PHN: - Approximately 490,000 adults are aged between 18-64. Of these, 16,900 adults (18-64) in the PHN live with severe mental illness (NMHSPF). - Within that we estimate 2,200 (0.45% population) have very high needs, 4,900 (1%) live with severe persistent and 9,800 (2%) live with severe episodic mental illness. **Consultation:** Stakeholder feedback has identified that: - With the transition to NDIS, many services that may have previously serviced the psychosocial support needs of this cohort have scaled back or closed entirely. - Those experiencing moderate mental illness and those not known to services are at risk of falling through service gaps. - High risk groups could be overlooked (e.g. refugees/migrants/Indigenous)
Eating disorders	High prevalence of acute presentations of eating disorders, specifically in the Sunshine Coast area	**Data:** Episodes of admitted patient care for eating disorder diagnoses in the Sunshine Coast HHS (SCHHS) (2017 preliminary data): - Average age for eating disorder admitted patient episodes for SCHHS is older (70% episodes aged <29 years) than Queensland average (80% episodes aged <29 years) - Highest number of episodes in the 0-19 age group (92 episodes) - Higher number of episodes in the 0-19 age group (93.5 per 100,000 population) than Queensland average (78.0) - Much higher number of episodes in the 30-39 age group (82.2 per 100,000 population) than Queensland average (30.2) - Higher proportion of males (10.4%) in 2017 than Queensland average (6.0%) - Eating disorder admissions more than doubled (x2.32) in **SCHHS** between 2015 and 2017 (Qld x1.85)

Outcomes of the health needs analysis		
		Consultation: - Stakeholders expressed concern about high prevalence of acute presentations of eating disorders on the Sunshine Coast. - An Eating Disorders Clinic was opened at SCHHS in October 2018. - In collaboration with Butterfly Foundation and SCHHS the PHN is participating in a trial to deliver evidence-based first-line treatments for eating disorders in primary care.
Address mental health issues in Older Adults (65+ years)	Due to high proportion of elderly in many of the areas within the PHN, along with young people leaving the region to look for work, many older adults from rural/remote areas are not only isolated geographically but also lack social supports.	**Data:** Currently there are an estimated 160,000 people aged 65 and over in the PHN – this is predicted to almost double to 300,000 by 2036. According to the AIHW report 'Australians welfare 2015', research has shown that certain sub-groups of the older population are at higher risk of experiencing poor mental health - 52% of all permanent aged care residents at 30 June 2012 (86,736 people nationally) had mild, moderate or major symptoms of depression when they were last appraised. Other sub-groups who have been found to have a higher prevalence of poor mental health include people in hospital and/or with physical comorbidities, people with dementia, and older people who are carers. This report also highlights the high levels of psychological distress in older Australians. More recent AIHW figures (2017) on residents of residential aged care facilities, outline that: - The majority of residents (85%) have at least one diagnosed mental or behavioural condition - Depression was the most commonly diagnosed mental health condition (47%) - Dementia was diagnosed in over half the residents (52%) - The largest proportion of "high needs" was in the cognitive and behavioural assessment area Aged Care and Community Service report (2015) also noted that older Australians often suffer from social isolation and loneliness. This rate is higher in rural and remote, migrant and refugee, and LGBTI communities. Higher levels of social isolation are often correlated with other comorbidities such as high blood pressure, high cholesterol, dementia and Alzheimer's, sleep disorders, alcoholism and other social factors such as loss of

Outcomes of the health needs analysis		
		independent living and the death of a life partner. In addition, "co-presence" such as shared areas in residential care facilities without true interaction can often increase the sense of loneliness. **Consultation:** Stakeholders have raised concerns about the burden of mental health issues for residents of RACFs.
SUICIDE		
Mortality due to suicide and self-inflicted injuries – Measuring the burden of suicide across the PHN & understanding differences in regional patterns	Deaths by suicide and self-inflicted injuries are unacceptably high in Queensland and the PHN. There are different patterns across the three areas, suggesting different target groups. Largest rates of suicide are seen in disadvantaged locations across the two periods for which data are available. Over half of deaths by suicide took place in two LGAs.	**Data:** **Overall patterns of suicide across the PHN** The Australian Institute for Suicide Research and Prevention - Griffith University 2016 Report noted that across the PHN for 2011-2013, the suicide ASR (per 100,000) was 15.3 in WB, 14.0 in CQ and 13.0 in SC area (Qld ASR 14.0 per 100,000). Similar to Queensland and Australia, males show a much higher suicide mortality rate than females across the three areas. However, different age patterns are observed across the regions. - Older cohorts in SC and WB. These two areas show the largest proportions of over 55 year-olds and the lowest proportions of young people who died by suicide in Queensland. - Younger cohorts in CQ, which has the highest proportion of 35 to 54-year-olds who died by suicide in the state. **Trends and more localised estimates** Suicide is the 10th leading cause of death in the PHN – accounting for 2.1% of all death in 2012-2016, compared to the national average of 1.8% (13th highest).

Outcomes of the health needs analysis		
		2012-2016 data shows an average ASR of 15.4 per 100,000 for the PHN, with a total of 625 deaths by suicide over this period. The largest population centre of the **Sunshine Coast** LGA accounts for 30.2% of all suicide deaths in the PHN (189 deaths). This is followed by **Fraser Coast** (91) and **Bundaberg** (74) which accounts for 14.6% and 11.8% respectively, of all suicide deaths. Comparable data for 2008-2012 show similar numbers and ASR for the PHN and similar contributions from Sunshine Coast LGA and Rockhampton, though raw numbers continue to increase. Regional data from 2011-2015 indicates the largest ASRs are observed in **North Burnett** (ASR 23.7 per 100,000) and **Gympie** (ASR 18.2 per 100,000), which almost double the rate in Sunshine Coast LGA. However, we should note that rates for Gympie and North Burnett are based on relatively small numbers. Among males, suicide is the 8th leading cause of death in the PHN – accounting for 2.9% of all male deaths in 2012-2016 (ASR 23.9 per 100,000). This is much higher than national rate of 17.9 (9th highest COD) and is 7th highest rate among the 31 PHNs. The six LGAs with male rates reported are all above the national average (ASR 17.9 per 100,000): - SC area: **Gympie** (27.3) and **Noosa** (26.4) - CQ area: **Rockhampton** (27.0) and **Gladstone** (23.0) - WB area: **Bundaberg** (25.8) and **Fraser Coast** (24.6) According to ABS data, suicide is the leading cause of death for young people aged 5-17 years of age. Nationally there was a 10.1% increase in suicide deaths this age group. In addition, 78.8% of deaths in those aged 15-17 were suicide related.
Suicide attempts and suicide ideation	Actual data on suicide attempts and suicide ideation at local level is hard to come by, but often quoted estimates can be used to gauge the burden across the PHN.	**Data:** Available studies suggest that for each person who dies by suicide, an estimated 20-30 people attempt suicide. In a given year, suicidality prevalence (ideation, plans and attempts) might stand at 2.4% of the population. Our estimates drawing on available suicide rates for 2011-2015 and the above, would suggest that in a year approximately 3,199 people would attempt suicide across the PHN (1,437 in SC, 831 in WB and 931 in CQ). With a 2.4% suicidality prevalence in a given year, we expect that a much higher number, closer to 20,200 across the PHN, would be affected by suicide including other issues such as suicide ideation and planning.

Outcomes of the health needs analysis		
Identifying high-risk populations in need of suicide prevention services	In addition to gender and age considerations, other vulnerable population groups in the PHN include those living in remote areas, young people, and LGBTI communities	**Data:** Although disaggregated local data is not available, 2011-2015 data for Queensland suggest suicide rates (ASR per 100,000) are substantially higher in remote areas (remote 23.3; very remote 20.3), compared to regional (inner 14.9; outer 17.2) metropolitan (12.6). Disaggregated data for young people (under 25 years of age) at local level is not available. National data suggests that one in thirteen 12 to 17-year-olds had seriously considered attempting suicide in the previous 12 months. These rates are significantly higher among young people with major depressive disorders (between 35% to 49%). Local ED data has also demonstrated a shift in over-65 suicide related presentations from 85 in 2014-15 to 132 in 2017-18 Nationally, ABS data (2016) showed that 80% of suicides had a comorbid health condition: - 43% mood disorder including depression - 29.5% drug and alcohol use disorders - 17.5% anxiety - 14.9% alcohol and other drugs in the blood Australia's Health 2018 notes that while national suicide data by diverse sex, gender and sexual orientation is not currently available, evidence does suggest LGBTI people are at a high risk of suicidal behaviours (Skerrett et al., 2015) and have higher rates of suicidality compared to other Australians (Rosenstreich, 2013).

Alcohol and Other Drug Treatment Needs

Outcomes of the health needs analysis		
Identified Need	Key Issue	Description of Evidence

Outcomes of the health needs analysis		
Risk of AoD dependence and social determinants of health	Social determinants of health, including geographic and social isolation and higher rates of socioeconomic disadvantage are linked to higher AoD use. The PHN is home to socioeconomically disadvantaged communities and rural and remote areas where prevalence of AoD use is likely to be higher.	**Data:** The 2013 National Drug Strategy Household Survey detailed report indicates that people living in remote and very remote areas were twice as likely as people in major cities to drink alcohol in risky quantities and use meth/amphetamines in the previous 12 months. According to the Australian Institute of Health and Welfare report on Australia's health (2016), in 2013 the disparity in illicit drug use compared with the general population was greatest amongst populations with socioeconomic disadvantages, including Aboriginal and Torres Strait Islander people, people who were unemployed, single people with dependent children and people with a mental illness. For example, compared to the general population, methamphetamine use was 2.7 times as high among unemployed people, 6.1 times as high among people with a mental illness, and 2.4 times as high among single people with dependent children. The same report indicates that amphetamine-related treatment episodes had increased from 24% to 26% in regional and remote areas between 2003-04 and 2012-13. As discussed previously, the populations of WB, remote and rural areas in CQ, and Gympie in SC are affected by socioeconomic disadvantage and higher prevalence of mental illness. Populations with higher prevalence of mental illness also tend to suffer from high AoD misuse prevalence. Indeed, our Partners in Recovery (PIR) data suggests that a large number of PIR clients (33% in SC and 40% in CQ) reported alcohol and drug misuse. **Consultation:** Stakeholders in the region have identified people in rural and remote areas, youth, and Aboriginal and Torres Strait Islander people as the populations in most need of AoD services.
Risky alcohol consumption across the PHN catchment	The PHN has higher rates of risky alcohol consumption than Queensland, particularly for young people. While risky alcohol consumption lifetime rates for young people have decreased nationally and, in the	**Data:** The Queensland Government's Queensland Survey Analytics System (QSAS), Regional detailed data, (2015-16) shows: The PHN catchment had a higher prevalence of alcohol life-time risk (25%) than Queensland (22%). Regional rates were slightly higher in CQ and SC than WB.

Outcomes of the health needs analysis		
	state, they have remained at previously recorded high levels across the PHN.	Male rates are three times those of females (37 vs. 12) across the PHN, with similar disparities across the three areas. In regard to demographics, people under 29 show the highest rates (30%) of all groups in the PHN. The observed 2015-16 PHN rate of 30% for young people is substantially higher than the Queensland rate of 23%. - Of note, this rate has remained stagnant since 2011-12. This in contrast to declining national trends as reported in the latest National Drug Strategy Household Survey data 2016 and a decrease of 7 percentage points in Queensland during the same period (30% in 2011-12 to 223% in 2015-16). **Consultation:** Concerns about alcohol consumption of young people in the PHN have been raised by stakeholders.
Prevalence of drug use – Drugs of Concern	Although commissioned service data is obviously affected by service access, it helps to gauge some patterns of drug use in the region when examined in the context of other available information. Principle drug of concern is cannabinoids, followed by alcohol, then amphetamines within the PHN.	**Data:** The 2016 National Drug Strategy Household Survey showed declines in recent use of some illegal drugs, including meth/amphetamines (from 2.1% to 1.4%), hallucinogens (1.3% to 1.0%) and synthetic cannabinoids (1.2% to 0.3%). In contrast, Australians who had misused a pharmaceutical increased to 4.8% in 2016 (vs. 4.2% in 2010). The Queensland Network of Alcohol and Other Drug Agencies (QNADA) report shows that alcohol and other drug related services were provided to 1,308 clients (1,403 episodes) across the PHN region in 2016-17. Of these episodes, males represented 62%, with females representing 38%. This is in line with statewide averages (males 64%; females 33%). Those accessing services in the PHN region are slightly younger, with the highest represented group being 20-29 years (30%), followed by 30-39 years (25%) and 10-19 years (18%), compared to statewide figures (30-39 years 31%, 20-29 years 26%, 40-49 years 22%). For those aged 10-19 across the PHN there has been a shift in access from 51% in 2014-15, down to 18% in 2016-17.

Outcomes of the health needs analysis		
		The most common method was smoking, with a high percentage of treatment episodes reporting that they had never injected. AIHW data (2016-17) notes that across the PHN: - 42% of episodes of care have cannabinoids as the principal drug of concern in 2016-17. This is higher than Queensland average of 33% in 2016-17. - Amphetamines currently represent 22% of closed episodes. However, they show the fastest growth. Amphetamines are the principal drug of concern for those attending non-government organisations (NGO)/private providers (34% - QNADA report). From 2013-14 to 2016-17, amphetamines as principal drug of concern has shown a 3.5-fold increase. - Alcohol remains the second principal drug of concern for the PHN. AIHW tabulations provided to the PHN in mid-October 2017 show: The rapid growth in amphetamine services seems at odds with decreasing national prevalence and it is unknown the extent to which it reflects higher severity or heightened concerns and improved services. Prescription pharmaceuticals have low representation on episodes of care across the PHN in the Queensland health data. Similar low shares are observed for AoD counselling and therapy services as reported by HHSs in our catchment. However same HHS data for opioid treatment programs show that in **Fraser Coast, Bundaberg and Sunshine Coast LGAs** pharmaceutical drugs such as morphine, codeine and oxycodone represent over 40% of the principal drug of concern, while cannabis is almost negligible. In contrast for **Central Queensland area,** cannabis is the principal drug of concern in 71% of reported opioid pharmacotherapy services, with the remaining 29% of services scattered across 12 different categories. Queensland police data on crime offences indicate that AoD, domestic violence and assault and rape offences have increased from 23,054 in 2014-15 to 25,631 in 2016-17. This represents an average annual growth of 5.4%. A sharp decrease observed in alcohol-related offences was offset by increases in drug related offences, domestic violence and assault and rape.

Outcomes of the health needs analysis		
		Specifically, when looking at alcohol related offences, each LGA in the PHN experienced a decrease in rates over the two years. In 2016-17, the highest rates were observed in **Woorabinda** and **Banana**, both in CQ, while the lowest rates were recorded in Bundaberg WB. The highest rates for drug related offences are also observed in CQ (**Woorabinda** and **Rockhampton** LGAs), while the lowest rate was in Noosa (SC). As above, Woorabinda also shows a substantial decrease in these crime rates.
Increasing AoD related deaths	For the PHN, total rates of drug related deaths have been higher with increase in accidental drug related death rate.	**Data:** Australia's annual overdose report 2016 has highlighted a shift in those who are dying of overdose in Australia with: A rise in overdose death in rural and regional Australia – 5.7 per 100,000 in 2014 compared to 3.1 per 100,000 in 2008, and higher than metropolitan area (4.4 per 100,000 in 2014). 78% of all overdose deaths in Australia (2014) are those aged 30-59, with those aged 40-49 nearly doubling from 174 in 2004, to 342 in 2014. - Continuing trend of men dying of accidental overdose at higher numbers than women (762 men to 375 women in 2014) - Continuing trend of higher AoD related deaths rates for Aboriginal and Torres Strait Islander peoples - Accidental: Non-Indigenous (6.4 per 100,000) and Indigenous (20.7 per 100,000); - All drug related deaths: Non-Indigenous (8.2 per 100,000) and Indigenous (22.7 per 100,000) For the PHN, total rates of drug related deaths have increased to 11 per 100,000 (2012-2016), from 7.8 per 100,000 (2007-2011), with the accidental drug related death rate increasing to 8.1 per 100,000 (2012-2016), from 6.1 per 100,000 (2007-2011), PHN includes five SA3s with **high drug-related deaths** (2012-16) per 100,000: - >=10: **Rockhampton, Gladstone, Burnett, Bundaberg, Gympie-Cooloola** - 7.5 to 9.9= nil

Outcomes of the health needs analysis		
		- 5.0-7.4=Maryborough, Noosa Hinterland, Nambour, Buderim, Maroochy, SC Hinterland, Caloundra Data not available for Central Highlands and Biloela.
High rates of ED presentations associated with AoD	In the absence of direct data, emergency department (ED) presentations related to AoD are used to capture relative differences in prevalence of AoD related harm in the community. There is marked regional variation with higher rates in Central Queensland and Wide Bay. The PHN and particularly CQ show very high rates for young people 15-19, many of which are under the legal drinking age. (Note: rates are lower than those presented last year as fewer ICD codes used in align with AIHW reporting)	**Data:** In 2017-18, there were over 2,500 AoD-related ED presentations in the PHN (ASR 338 per 100,000) - Highest in CQ (417) followed by WB (359) then SC (286). - The highest rates were seen from patients living in **Woorabinda*** (ASR 7,134 per 100,000), **Banana** (428) and **Livingstone** (350) in CQ, and **Fraser** Coast (465) in WB. The highest age specific rates were observed in the 15-19 (715) and 20-24 (754) year age groups. There was some variability in the age profile of presentations across the region. The age groups with the highest age specific rates of AoD-related episodes per 100,000 population were: - CQ area: ages 15-19 years (950) and 20-24 (952) - WB area: ages 20-24 years (760) and 30-34 (714) - SC area: ages 15-19 years (638) and 30-34 (668) Those aged 15-19 across the PHN, present to the ED due to AoD issues at a rate of 715 per 100,000 population. The highest rate is observed in CQ (950), followed by WB (638) and SC (593). Four of the top five **highest rates for those aged 15-19** were in CQ area: **Woorabinda** (1,010* per 100,000), **Gympie** in SC (1,005), **Livingstone** (956), **Central Highlands** (879) and **Banana** (874) Those aged 20-24 across the PHN, present to the ED due to AoD issues at a rate of 754 per 100,000 population. The highest rate is observed in CQ (952), followed by WB (760) and SC (616). Three of the top five highest rates for those aged 20-24 were in CQ area: **Banana** (959 per 100,000), **Livingstone** (872) and **Rockhampton** (811) in CQ, **Fraser Coast** (887) and **North Burnett** (626) in WB. *Woorabinda estimates based on small numbers, treat with caution

Indigenous Health (including Indigenous chronic disease)

Outcomes of the health needs analysis		
Identified Need	Key Issue	Description of Evidence
The population distribution	Large Aboriginal and Torres Strait Islander populations in the PHN	The PHN is home to nearly 30,000 Aboriginal and Torres Strait Islander people, representing 3.6% of the total population (Qld 4.0%). The largest Indigenous populations are found in Rockhampton (5,900 people) and Gladstone (2,500) in CQ, Fraser Coast (4,200) and Bundaberg (3,700) in WB, and Sunshine Coast LGA (5,700) and Gympie (1,800) in SC. The largest proportions of Aboriginal and Torres Strait Islander populations are seen in **Woorabinda** (94.4%), **Rockhampton** (7.4%) and **North Burnett** (6.5%) LGAs. The most recent Aboriginal and Torres Strait Islander Health Survey (2012-13) identified that 27.8% of Indigenous people in the PHN rated their health as 'fair' or 'poor' (Aus 24.2%).
Disability among Aboriginal and Torres Strait Islander peoples	High proportions of Indigenous people in the catchment indicates that there might be high proportion of people with a disability.	**Data:** In 2014–15, an estimated 45% of Indigenous Australians (almost 200,000 people) had disability or a long-term health condition that restricted their everyday activities, at 1.7 times the rate of non-Indigenous Australians (ABS, 2016). Physical disability was the type most often reported in 2014–15, followed by sight/hearing/speech disability (AIHW, 2018). The Aboriginal and Torres Strait Islander Health Performance Framework (ATSIHPF, 2017) on 2014-15 Aboriginal and Torres Strait Islander Health Survey data, reports that 42% of Indigenous people aged 15 and over in Queensland reported having a disability or long-term restrictive condition. Nationally in 2015-16, Aboriginal and Torres Strait Islander people accounted for 6% of disability service users. Of those, 84% were under the age of 50.
Chronic disease risks among Aboriginal and	Aboriginal and Torres Strait Islander peoples have high rates of behavioural and biomedical risk factors that are associated with chronic illness.	**Data:** The 2011 Australian study included an analysis for Indigenous Australians with limited data currently available for Queensland stating that Risk factors accounted for 37% of the total

Outcomes of the health needs analysis		
Torres Strait Islander peoples	Key issue pertaining to the PHN regarding the Indigenous populations is high rates of smoking in >15-year-old population (42% nationally). There are total of 28,659 people of Aboriginal and/or Torres Strait Islander origin within the PHN which means approximately 12,000 current smokers who are Indigenous. High proportion of Indigenous population is obese (>40%) indicating approximately 12,000 Indigenous people within the PHN are obese.	burden of disease for Indigenous Australians with tobacco, alcohol and high body mass the largest causes (CHO, 2016). In 2012–13, one in five (20%) Indigenous adults had measured high blood pressure. Indigenous adults had 1.2 times the rate of measured high blood pressure as non-Indigenous adults (based on age-standardised rates). And one in four (25%) Indigenous adults had abnormal total cholesterol levels. (AIHW, 2017) According to the 2014-15 Aboriginal and Torres Strait Islander Health Survey, 40.5% of Indigenous Queenslanders were current daily smokers compared to 16.0% of non-Aboriginal and/or Torres Strait Queenslanders. However, the Queensland rate has decreased from 43.0% in 2012-13 to the current rate of 40.5%. In 2014-15 nationally the rate for Indigenous Australians for tobacco smoking was 2.8 times that for non-Indigenous Australians. (AIHW, 2018). The ATSIHPF 2017, reports that in 2014-15, Indigenous Australians: - Are 2.7 times more likely to be current smokers than non-Indigenous Australians - Report a stressor related to alcohol or drug-related problems 3.6 times the rate of non-Indigenous Australians. - Report inadequate daily fruit intake and daily vegetable intake at 1.4 times and 1.9 times, respectively, the rate of non-Indigenous Australians. Although positive changes are slowly noticed in smoking and alcohol related behaviours, the large gap between Indigenous and non-Indigenous populations still exists (AIHW, 2018). The report also indicates that Indigenous females are 1.7 times as likely to be obese as non-Indigenous females, while Indigenous males are 1.4 times as likely to be obese as non-Indigenous males. **Consultation:** Stakeholders within the PHN have confirmed the need to address risk behaviours.

Outcomes of the health needs analysis		
HIGH RATES OF MORBIDITY AND MORTALITY		
Social and emotional wellbeing	Higher social and emotional wellbeing is associated with better mental and physical health outcomes. A gap still exists between Indigenous and non-Indigenous populations.	**Data:** In 2014–15, more than two-thirds (68%) of Indigenous Australians had experienced one or more stressors in the last 12 months; the stressors reported most often were the death of a family member or close friend (28%), inability to get a job (18%), serious illness (12%) and mental illness (10%) (ABS, 2016). While the majority of Indigenous Australians report low or very low levels of psychological distress (67%), one-third (30%) experience high or very high levels of psychological distress (2014–15). These levels are 2.7 times as high as those for non-Indigenous Australians (11%, 2012–13 data). Indigenous Australians who had experienced at least one stressor were 1.9 times as likely to report high/very high levels of psychological distress as Indigenous Australians who had not experienced a stressor (36% compared with 19%) (ABS, 2016) **Consultation:** Conventional therapies rarely take the holistic approach that is required to meet the social, emotional and spiritual needs of many Aboriginal and Torres Strait Islander people.
Chronic Disease	Chronic diseases are main contributors to the mortality gap between Indigenous and non-Indigenous Australians. While there were improvements in mortality from cancer in the non-Indigenous population between 2001 and 2012, this did not occur in the Indigenous population, leading to a significant increase in the mortality gap due to cancer for both males and females. Indigenous Australians have poorer health outcomes and higher prevalence of chronic conditions compared to non-Indigenous Australians.	**Data:** Australian Indigenous HealthInfoNet 2018 indicates that for Aboriginal and Torres Strait Islander people: - Cardiovascular disease was the leading cause of death in 2016 (24% of deaths 2011-2015). - Hospitalisations for cardiovascular disease is 1.7 times the age adjusted rate for non-Indigenous people. - Age adjusted incidence of end stage renal disease in 2011-2015 was 6.8 times higher than for non-Indigenous people. - Prevalence of self-reported diabetes was 13% in 2012-13, 3.5 times greater than that of non-Indigenous people.

Outcomes of the health needs analysis		
	The PHN includes locations with high proportions of Aboriginal and Torres Strait Islander people. The varied distribution of population within the PHN means management of chronic disease requires a focus on equitable distribution of resources. Consistently higher rates of chronic diseases and mortality associated with these among Aboriginal and Torres Strait Islander populations is a key issue of concern within the PHN catchment.	- Aboriginal and Torres Strait Islander people are 5.6 times more likely to die from diabetes than non-Indigenous people. - 2014-15 age adjusted hospitalisation rates were five times higher for COPD and 3.1 times higher for influenza than for non-Indigenous people. AIHW report, Australia's health 2016, reports: - In 2012-13, two-thirds (67%) of Aboriginal and Torres Strait Australians aged 15 years and over reported at least one chronic health condition and 33% reported three or more. - In 2013-14, the most common chronic health conditions amongst Aboriginal and Torres Strait Australians were mental health conditions (29.3%), back pain or back problems (22.4%), problems with eyes or eyesight (19.3%) and asthma (19.2%). AIHW 2016 report, Incidence of end-stage kidney disease in Australia, indicates: - In 2009-2013, the incidence of kidney disease among Indigenous Australians was five times higher than for non-Indigenous Australians. - One-third (36%) of the total disease burden was due to the joint effect of 11 modifiable risk factors with high body mass the largest cause followed by tobacco use and physical inactivity. **Consultation:** Stakeholders in the catchment consistently acknowledged the poorer health status of Indigenous people.
Psychological distress	Indigenous adults with high levels of psychological distress are significantly more likely than those with lower levels of psychological distress to assess their health as fair or poor, smoke daily or use illicit substances. Psychological distress is associated with risk taking behaviors and poor health outcomes.	**Data:** In 2012–13, almost one-third (30%) of Indigenous adults were assessed as having high or very high levels of psychological distress. They were 2.7 times as likely as non-Indigenous adults to have these levels of psychological distress (based on age-standardised rates). In 2012–13, almost half (48%) of Indigenous adults reported that either they or their relatives had been removed from their natural family. Levels of high or very high psychological distress were significantly more common among Indigenous adults who had been removed from their family (35% compared with 29% for those who had not been

Outcomes of the health needs analysis		
		removed), and among those who had relatives removed (34% compared with 26% of those who had not had relatives removed). In 2012–13, Indigenous adults were significantly more likely to have high or very high levels of psychological distress than non-Indigenous adults (2.7 times as likely, based on age-standardised rates) (ABS, 2013a).
Mortality	Indigenous Australians have a life expectancy of around 10 years less than non-Indigenous Australians and Indigenous Australians die at younger ages and at higher rates than non-Indigenous Australians.	**Data:** Due to the small numbers of Indigenous deaths in the PHN catchment, it was not possible to produce accurate life expectancy estimates for Indigenous people in the PHN catchment. Nationally in 2010–12, life expectancy for Aboriginal and Torres Strait Islander males was estimated to be 10.6 years lower than that for non-Indigenous males (69.1 years compared with 79.7 years) and 9.5 years lower for females (73.7 compared with 83.1 years). In the 5-year period 2008–2012 (AIHW, 2015): - two-thirds (65%) of deaths among Indigenous people occurred before the age of 65, compared with 19% of deaths among non-Indigenous people - the mortality rate for Indigenous people was 1.6 times that of non-Indigenous people (ASRs of 981 and 596 deaths per 100,000 population, respectively) - the largest difference between Indigenous and non-Indigenous mortality rates was for people aged 35–44, with male and female Indigenous death rates 3.9 and 4.5 times the non-Indigenous rates, respectively. Based on 2018 Causes of Death data report, in 2016, nearly three in four (71 per cent) Indigenous deaths were from chronic diseases (including circulatory disease, cancer, diabetes and respiratory disease). These diseases accounted for 79 per cent of the gap in mortality between Indigenous and non-Indigenous Australians. Diabetes was the second leading cause of death in Aboriginal and Torres Strait Islander people in 2016. The standardised death rate was 5.0 times the rate in non-Indigenous people (81.2 and 16.4 deaths per 100,000 people, respectively). Overview of health status report, 2017 indicates that nationally in 2016, the leading causes of death among Aboriginal and Torres Strait Islander people were coronary heart disease, diabetes and chronic lower respiratory diseases.

Outcomes of the health needs analysis		
		According to the ATSIHPF (2017): - Between 2011-2015, the mortality rate for Aboriginal and Torres Strait Australians who died from potentially avoidable causes (could have been avoided with timely and effective health care) was more than 3.3 times the rate for non-Indigenous Australians. - "The conditions contributing the most to the avoidable mortality gap between Indigenous and non-Indigenous Australians were ischaemic heart disease (26% of the gap), diabetes (19% of the gap) and COPD (11% of the gap)" - Circulatory disease was the leading cause of death among Indigenous Australians (24% of deaths) between 2011-2015, at 1.6 times the rate of non- Indigenous Australians. Of these, 55% were attributed to ischaemic heart disease. - Respiratory disease caused 888 deaths among Indigenous Australians between 2011-2015, twice the rate than non-Indigenous Australians. Of these, 63% were attributed to COPD. The hospitalisation rate for respiratory disease was 2.8 times higher for Indigenous Australians than non-Indigenous Australians. - Between 2013-2015, the Indigenous hospitalisation rate in Queensland was 1.2 times higher than non-Indigenous Queenslanders. - The life expectancy of Indigenous people is 10.6 years lower for males and 9.5 years lower for females than non-Indigenous Australians.
# MATERNAL AND CHILD HEALTH		
## General	Infants from socioeconomically disadvantaged backgrounds and those born to teenagers and Indigenous Queenslander mothers; often do not have healthy start to life. The family and community environment into which a child is born has an effect on that child's physical, social, and psychological growth and their future outcomes.	**Data:** A multivariate analysis of perinatal data for 2012–2014 indicates that (excluding preterm and multiple births) 51% of low birthweight births to Indigenous mothers were attributable to smoking, compared with 16% for non-Indigenous mothers. Another 21% were attributable to the socioeconomic context of the areas in which Indigenous mothers live (as measured by the Socio-Economic Indexes for Areas)

Outcomes of the health needs analysis		
Perinatal mortality/child mortality:	There are significant disparities for child mortality and life-expectancy measures between Indigenous and non-Indigenous people.	**Data:** In Qld, Indigenous infants were 1.3 times more likely to be born preterm than non-Indigenous infants, leading to greater risk of perinatal death. (CHO, 2016) AIHW's report Australia's health 2016 identifies that Indigenous child mortality rates have declined by 33% between 1998 and 2014, narrowing the gap by 34% with non-Indigenous child mortality. According to the ATSIHPF (2017): - The mortality rate for Indigenous children aged 0-4 years was 2.1 times the non-Indigenous rate between 2011-2015. - Queensland reported the highest number of Indigenous infant deaths between 2011-2015 (175 deaths), followed by NSW with 118 deaths. - The perinatal mortality rate for Indigenous Queenslanders was 9.9 compared to 9.7 for non-Indigenous Queenslanders, between 2011-2015.
Smoking during pregnancy	High rates of smoking in pregnancy particularly in Wide Bay and Central Queensland.	**Data:** Child and Maternal Health Indicators (AIHW, 2018) indicates that between 2013-2015, 47.3% of Aboriginal and Torres Strait Islander mothers in the PHN smoked during pregnancy (Indigenous mothers Aus 46.5%). This rate was particularly high in Wide Bay (53.8%) and Central Queensland (51.2%). About 9% of preterm births were associated with smoking after 20 weeks gestation, social disadvantage or not attending the recommended antenatal care visits (CHO, 2016) In 2014, Indigenous mothers were 3.6 times as likely to smoke during pregnancy compared to non- Aboriginal and Torres Strait Islander mothers Based on 2012–2014 data, 51% of low birthweight births to Indigenous mothers can be attributed to smoking during pregnancy.
Low birth weight babies	Low birthweight among Indigenous mothers in the PHN catchment.	**Data:** Child and Maternal Health Indicators (AIHW, 2018) indicates that between 2013-2015:

Outcomes of the health needs analysis		
		- 8.5% of births to Aboriginal and Torres Strait Islander mothers in the PHN were of low birthweight (less than 2500g; Aus 10.6%). The rate was particularly high in Central Queensland (9.5% of births). Preliminary data for 2017 (QH, 2018) indicates that: - One in seven births to Indigenous mothers in the PHN were of low birthweight (14.2% compared to 6.5% of births to non-Indigenous mothers) - Wide Bay HHS has highest proportion of LBW babies among Aboriginal and Torres Strait Islander mothers of all Queensland HHSs in 2017 (18.4%; PHN 14.2%; Qld 13.0%)
Immunisation	Although around 90% coverage, the PHN still has some room to improve towards reaching herd immunity for various vaccine preventable conditions.	**Data:** Immunisation coverage for Indigenous children in 2016-17 (AIHW, 2018) - The PHN ranks 5th lowest of 31 PHNs for 1-year-olds (91.1%) compared to the PHN with highest coverage (95.5%). - The PHN ranks 16th of 31 for 2-year-olds (88.8%) compared to the PHN with highest coverage (94.0%). Aligns to national rate 88.6% - For Aboriginal and Torres Strait Islander children aged 5 years, the PHN ranks 12th lowest of 31 PHNs, though coverage is high at 95.2%.

CHILDREN AND YOUTH

Outcomes of the health needs analysis		
Promote understanding of how living environments impact health	The population age structure of Aboriginal and Torres Strait Islander peoples is younger than that of non-Indigenous Australians. High levels of socioeconomic disadvantage mean that many Indigenous children and young people are growing up in disadvantaged environments which are known to negatively impact health outcomes.	**Data:** Census 2016 (from QGSO), also indicates that 8.1% of Indigenous households (over 1,000 people) in the PHN catchment were overcrowded compared to 2.0% of non-Indigenous households. PHIDU 2018's Aboriginal and Torres Strait Islander Social Health Atlas of Australia (2015 data) shows: - 41.6% of Indigenous children in the PHN (45.5% for Wide Bay area) were developmentally vulnerable on one or two domains of early childhood development, and - 39.6% of dependent children live in jobless families - 21% of Indigenous Australians lived in overcrowded housing, compared to 6% of non-Indigenous Australians (ATSIHPF, 2017).
Higher proportions of risk behaviors		**Data:** According to the ATSIHPF (2017), 2014-15 data from the Aboriginal and Torres Strait Islander Health Survey indicates: - 43% of youth justice supervision orders involved Indigenous youth, indicating that they were significantly over-represented in the youth justice system. - Indigenous children were in child protection at 6.7 times the rate of non-Indigenous children.
Weight related issues		**Data:** In 2012-13, Indigenous girls aged 2-14 were 2.0 times as likely to be underweight (7.9% versus 3.9%) and 1.6 times as likely to be obese (9.8% versus 6.1%) as non-Indigenous girls of the same age (AIHW, 2018)
Morbidity/Mortality		**Data:** Australian Institute of Health and Welfare report, Young Australians: their health and wellbeing 2011, shows that Indigenous young people (12 to 24 years) are far more likely to

Outcomes of the health needs analysis		
		be disadvantaged across a broad range of health, community and socioeconomic indicators compared with non-Indigenous young people. They are: - twice as likely to die from all causes (6 times as likely from assault and four times from suicide) - 6 times as likely to have notifications for sexually transmitted infections and hepatitis - 6 to 7 times as likely to be in the child protection system - 5 times as likely to be in juvenile justice supervision or in prison - twice as likely to be unemployed or on income support - 3 times as likely to live in overcrowded housing, and - 2 to 3 times as likely to be daily smokers.
MENTAL HEALTH AND SUICIDE PREVENTION		
Aboriginal and Torres Strait Islander people in need of mental health and suicide prevention services	The PHN is home to nearly 20% of Queensland's Aboriginal and Torres Strait Islander population. Stakeholders have identified Aboriginal and Torres Strait Islander people as a key priority group for mental health and suicide prevention services, but there is no local available data to quantify the numbers that would require appropriate and effective mental health interventions.	**Data:** The Burden of Disease study shows that the disease group causing the most burden among Aboriginal and/or Torres Strait Islander Australians was mental and substance use disorders (19% of their total disease burden). Nationally, high or very high levels of psychological distress among Aboriginal and Torres Strait Islander adults are nearly three times the rate of non-Indigenous adults. Drawing on available population data, key assumptions of the NMHSPF and the most recent Burden of Disease Study for the Aboriginal and Torres Strait Islander population, we have estimated that based on 2011 data, between 7,259 to 9,678 Aboriginal and Torres Strait Islander people are in need of mental health interventions across the PHN catchment area.
Young Aboriginal and Torres Strait Islander people in need of	Their relatively higher needs are due to a younger demographic structure of Aboriginal and Torres Strait Islander populations along with disproportionately high prevalence of risk factors and mental disorders.	**Data:** ABS demographic data for the PHN indicates that children and youth (0-24 years of age) represent 56% of the population who identify as Aboriginal and Torres Strait Islander peoples. This equates to 16,457 children and young who identify as Aboriginal and/or Torres Strait Islander descent.

Outcomes of the health needs analysis		
effective strategies to strengthen their mental health and well-being		No available data exists at local level; however, ABS data suggests that suicide is responsible for 40% of all death in Aboriginal and Torres Strait Islander youth. The ATSIHPF (2017) highlights that although some gains have been made in areas like education, the relative disadvantage of Indigenous young people persists: - Indigenous children experience higher rates of high/very high levels of psychological stress, higher levels of concern about suicide and discrimination and one in five reported bullying and emotional abuse as a concern. In 2011-2015 for those aged 15 to 24 years, the Indigenous suicide rate was 3.9 times the non-Indigenous rate.
High rates of suicide	The ATSIHPF (2017) noted that, nationally, there has been a significant increase (32%) in Indigenous suicide rate between 1998 and 2015. Queensland data suggest a higher burden for both males and females (vs. non-Indigenous) and younger cohorts.	**Data:** At state level, latest ABS data notes that in Queensland: Suicide is the 5th leading annual cause of death (2016) for Aboriginal and Torres Strait Islander peoples (statewide 4th for 2012-2016) compared to 10th leading cause for non-Indigenous Australians. Suicide rates (2012-2016) for Aboriginal and Torres Strait Islander people (22.3 per 100,000) were considerably higher than non-Indigenous people (13.6 per 100,000). Furthermore, the Suicide in Queensland Report noted for Indigenous males, the highest rates were observed in the 35-44 years age group (72.14 per 100,000) while in females, the highest rates were in the 25-34 years (25.2). Those under 35 represent 65.9% of Indigenous suicides, while only 5.6% were 55 years or older. **Consultation:** We do not have comparable data to examine levels and trends at local level, but stakeholders across the PHN have identified suicide prevention as a priority issue for the Indigenous population.
Aboriginal and Torres Strait Islander people in	The PHN is home to approximately 15% of Queensland's Aboriginal and Torres Strait Islander population.	**Data:** The Burden of Disease study shows that the disease group causing the most burden among Aboriginal and Torres Strait Islander Australians was mental and substance use disorders (19% of their total disease burden).

Outcomes of the health needs analysis		
need of mental health and suicide prevention services	Stakeholders have identified Aboriginal and Torres Strait Islander people as a key priority group for mental health and suicide prevention services, but there is no local available data to quantify the numbers that would require appropriate and effective mental health interventions.	Nationally, high or very high levels of psychological distress among Aboriginal and Torres Strait Islander adults are nearly three times the rate of non-Indigenous adults. Drawing on available population data, key assumptions of the NMHSPF and the most recent Burden of Disease Study for the Aboriginal and Torres Strait Islander population, we have estimated that based on 2011 data, between 7,259 to 9,678 Aboriginal and Torres Strait Islander people are in need of mental health interventions across the PHN catchment area.
ALCOHOL AND OTHER DRUGS		
Higher burden of substance use disorders	Aboriginal and/or Torres Strait Islander people experience disproportionate harm from drug and alcohol use and drug-related problems, which contribute significantly to disparities in health and life expectancy. Very limited available evidence at local level, so we draw on available national evidence.	**Data:** The Burden of Disease study shows that: - Mental and substance use disorders account for 19% of total disease burden for the Aboriginal and Torres Strait Islander population. - The top two risk factors causing the most burden in Aboriginal and Torres Strait Islander Australians were tobacco use and alcohol use. - Alcohol use is the leading contributor to the burden in Aboriginal and Torres Strait Islander males aged 15-44 years and Aboriginal and Torres Strait Islander women aged 15-24 years. The National Aboriginal and Torres Strait Islander People's Drug Strategy 2014-2019 indicates that: - Aboriginal and Torres Strait Islander males are hospitalised for conditions to which alcohol makes a significant contribution at rates between 1.2 and 6.2 times those of non-Indigenous males. - Aboriginal and/or Torres Strait Islander females are hospitalised for conditions to which alcohol makes a significant contribution at rates between 1.3 and 33.0 times greater compared to non-Indigenous females (including injuries related to assault).

Outcomes of the health needs analysis		
		- Deaths from various alcohol-related causes are five to 19 times greater than among non-Indigenous people. In Queensland, from 1998 to 2006, two-thirds of Aboriginal and Torres Strait Islander people who died by suicide had consumed alcohol, and more than one-third had used drugs such as cannabis, amphetamines, inhalants or opiates at the time of their deaths.
Dual Diagnosis: Substance use and mental illness	Dual diagnosis is likely to be high amongst Aboriginal and Torres Strait Islander people, with prognosis poorer for both conditions together than for either condition alone.	**Data:** There is evidence of high prevalence of comorbid harmful substance use and mental illness amongst the Australian population, with some estimates suggesting that among those with alcohol-dependence disorder, 20% have an anxiety disorder and 24% an affective disorder. Indirect evidence suggests substantially higher prevalence of dual diagnosis amongst the Aboriginal and Torres Strait Islander population. For example, Aboriginal and Torres Strait Islander men are over four times more likely than non-Indigenous men to be hospitalised due to mental disorders attributable to psychoactive substance use. For Aboriginal and Torres Strait Islander women the rates are three times higher than for non-Indigenous women.

Section 3 – Outcomes of the service needs analysis

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

Additional rows may be added as required.

General Population Health

Outcomes of the service needs analysis		
Identified Need	Key Issue	Description of Evidence
Access to services for vulnerable groups	The PHN catchment includes diverse population groups such as Aboriginal and Torres Strait Islander peoples, homeless people and people with disability in high proportions in specific areas.	**Data:** Emergency data collection (2017-18) indicates that: - Nearly one quarter (23.6%) of all episodes are for people aged 65 years and over (CQ 16.2%; WB 27.7%; SC 26.1%). - Highest proportions of 65 and over age group were seen in SC (**Noosa** 33.7%; **Sunshine Coast** LGA 26.7%; **Gympie** 23.1%) and Wide Bay (**North Burnett** 29.7%; **Fraser Coast** 29.4%; **Bundaberg** 24.7%) areas. - Over-representation of Indigenous people is explored later in the Aboriginal and Torres Strait Islander services needs table. **Consultation:** Affordable transport for vulnerable groups has been raised by stakeholders throughout outer regional and remote areas in the PHN in terms of accessing health services and activities for social wellbeing. Particularly in Gympie and surrounds. Stakeholders have also identified: - gaps in service access, coordination and availability for children and youth in out-of-home or foster care in Wide Bay

Outcomes of the service needs analysis		
		- large gaps in availability of Commonwealth Home Support Programme (CHSP) funded services particularly in outer regional / remote areas (Gympie and surrounds in SC) - Limited or complete lack of availability of public specialist disciplines in Wide Bay requiring patients who cannot afford to attend privately to travel to Sunshine Coast or Brisbane. - Lack of emergency accommodation for men experiencing homelessness from Brisbane to Maryborough, and housing solutions for homeless youth in Gympie. - Barriers to accessing services including social isolation and lack of support for people who are homeless. - Lack of health promotion and chronic disease screening/prevention that reaches at risk groups. - Access to youth services for Cooloola Coast area, and difficulties in accessing female doctors for young women in Gympie and surrounds. - Lack of child safe transport options in Gympie means parents are taking their children to Lady Cilento Children's Hospital in Brisbane (as on the train line) rather than trying to commute to Sunshine Coast University Hospital (SCUH). - Some regional areas such as Kilkivan / Goomeri / Widgee in SC face very limited service availability in general.
Support practices to improve immunisation rates	Immunisation remains the safest and most effective way to stop the spread of many of the world's most infectious diseases. Rates of immunisation coverage in the PHN catchment varies however many locations have low immunisation coverage This is reflected in higher PPHs due to vaccine-preventable disease in these areas.	**Data:** Australian Immunisation Register data for 2016-17 indicates that childhood immunisation rates within the PHN overall are aligned to national rates. The lowest rates in the PHN (below 85%) occur largely around the **Sunshine Coast** (Eumundi – Yandina and Caloundra/Maroochy/Noosa Hinterlands) and Agnes Water in **Wide Bay**. Overall, vaccine-preventable PPHs are lower in the PHN (ASR 181 per 100,000) than nationally (199). However, SA3s in the **SC area** experience high rates: - **Sunshine Coast Hinterland** (ASR 250 per 100,000) - **Nambour-Pomona** (ASR 249 per 100,000)

Outcomes of the service needs analysis		
Quality of life for older adults and end of life care for patients with life-limiting illness	The PHN catchment includes high proportions of elderly populations. Due to the ageing population and enhancements in medical treatments that increase lifespan means individuals live longer even with life-threatening illness. Support systems to help patients to live as actively as possible and to help the family cope during the patient's illness and in their own bereavement will be required. Ensuring sufficient aged care staff, retention of aged care workforce and access to primary care services in the residential care facilities are key issues in the region.	**Data:** The number of palliative care related hospital admissions in the PHN is expected to double from 2013-14 to 2026-27. **Consultation:** Stakeholders expressed concerns about limited availability of Level 3 and 4 Aged Care packages (which support people to stay at home) and requirements for palliative care, geriatric specialists and dementia services in the area. Stakeholders have longstanding concerns about long waits for the MyAgedCare Contact Centre causing poor access to aged care services. In the Central Queensland area, stakeholders pointed to the need for additional aged care beds and staff. They noted difficulties in attracting and retaining staff in residential aged care facilities which is compounded by difficulties that people face in this area in obtaining access to training that is required to work in these services. The need for improved access to primary health care and allied health services in residential aged care facilities was mentioned often. In many rural areas, younger generations are having to move out of the area for work, leading to greater social isolation for their older relatives. At the same time, a number of older people are moving to coastal areas to retire, with limited family support nearby. These demographic changes are compounded by limited low cost or public transport in many rural areas which makes it difficult for elderly people to attend GP and other primary health care services. Reduced availability of family networks can also place family carers at risk for mental health and other health issues as there are often limited respite care options. Stakeholders in Wide Bay highlighted that gerontology and palliative care services are limited due to a shortage of available workforce and ongoing challenges in recruitment. Overall current palliative care staff arrangements do not meet current demands in CQ and with steady increase in elderly population within the region (CQ and SC) there is increasing demand on services. - Not sufficient workforce to do home visits for palliative care - In Gympie there is no local paediatric palliative care service, and limited support for people caring for loved ones at home resulting in caregiver stress and burnout.

Outcomes of the service needs analysis		
		- In Gympie, there is gap in accessing in-home CHSP services or accessing support services from NGOs - Stakeholders in Gympie have identified long wait time for MAC assessments and approvals for home care packages.
Gaps in antenatal care and early childhood services	Timely and regular antenatal care is essential for identifying individual needs; screening for a range of infections and abnormalities; providing support and advice; and providing first-line management and referral if necessary. Although rates are improving, expectant mothers in the PHN catchment attend antenatal care below the recommended schedule of visits for antenatal care – **particularly in Wide Bay.**	**Data:** Expectant mothers in the PHN catchment attend antenatal care below the recommended schedule of visits for antenatal care. Perinatal data for 2013-2015 show that 63.6% of expectant mothers in the PHN attended their first antenatal visit within their first trimester (less than 14 weeks) (Regional PHNs 65.0%; Aus 62.7%). This rate has improved from 61.1% in 2012-2014, however there is much variation within the PHN – **particularly in Wide Bay** where less than half of women are accessing antenatal care in the first trimester. In 2014, 13% of expectant mothers in the PHN catchment had fewer than five antenatal visits during their pregnancy. **Consultation:** Regarding antenatal services, stakeholders raised the following concerns: - Central Queensland: multiple closures of maternity/birthing services (Theodore/Banana and Gladstone) - Wide Bay: there are no specific antenatal clinics tailoring to the needs of pregnant adolescent women and adolescent mothers, and no private maternity unit in Bundaberg. Although there are QH Community Family Health Centres in Hervey Bay and Bundaberg that provide postnatal care including home visiting services up to four weeks post birth, issues around the accessibility of these services exist for those living in remote locations. Stakeholders from both centres acknowledged that service provision relies mostly on women accessing the services themselves. Stakeholders raised the following issues in relation to services for young children: Central Queensland: - A number of stakeholders commented on the need for more services – esp. allied health/referral pathways for children with behavioural issues and their families.

Outcomes of the service needs analysis		
		- Opportunity to educate and intervene early to prevent chronic disease. - Stakeholders raised concern regarding the closure of the maternity ward in Gladstone. Wide Bay: - Similarly, stakeholders in Wide Bay raised allied health services for children as a concern – particularly the need for speech pathology in Hervey Bay. - There are limited pediatric-specific allied health services in the community and hospital system and engaging with 'hard to reach' or 'priority populations' is difficult. There are other concerns such as limited capacity for screening, assessment and referrals for developmental delay. Sunshine Coast: - Ear health for Aboriginal and Torres Strait Islander children was raised as a major issue resulting in childhood deafness – incorrectly diagnosed as behavioural issues and learning difficulties.
Low oral health services	Lower availability of dental health services in some areas the PHN catchment and varied distribution of dental health workforce in the PHN region.	**Data:** AIHW National Health workforce dataset: Australia's registered health workforce by location, 2014 indicates that for dentists the FTE rate based on the weekly hours worked per 100,000 population for 2014 for the PHN was 50 compared to 55.5 for Queensland. Rates were lowest for the following SA3 areas: **Burnett** (29.9 per 100,000), **Sunshine Coast Hinterland** (34.5 per 100,000) and **Gympie-Cooloola** (34.2 per 100,000). Highest for Maroochydore (80.8), Caloundra (76.3) and Bundaberg (49.6). **Consultation:** Significant demand for dental services was raised by multiple stakeholders and across the Wide Bay area. Stakeholders have raised the issue of oral health in vulnerable groups such as homeless people.

Outcomes of the service needs analysis		
General Practice and Allied Health access	There are areas within PHN that are identified as areas with high proportion of elderly or people with chronic conditions. Many areas are rural and remote and do not have transport. There are category 4 and 5 presentations at the ED which indicate possible avoidable presentations that could be treated within general practice.	**Data:** In 2016-17: - 83.5% of adults aged 15 years and over saw a GP in the preceding 12 months (Aus 82.5%). Significant rise from last year (78.1% in 2015-16). - One in eight (12.5%) reportedly needed to see a GP but did not in the preceding 12 months (Aus 14.1%); this has been steadily declining in the PHN from 19.8% in 2013-14. In 2013-14, one in five (21.4%) adults felt they waited longer than acceptable to get an appointment with a GP: - Wide Bay area 23% (95% CI 13%-33%) - Central Queensland area 17% (95% CI 12%-22%) - Sunshine Coast area 16% (95% CI 12%-20%) Of those that did attend a GP, they had an average of 6.1 attendances per person (age-standardised; Aus 5.9). This ranges from 5.1 in Burnett and 5.3 in Gympie-Cooloola to 6.8 in Hervey Bay and 7.0 in Maryborough), areas that have all been identified as having relatively high burdens of chronic disease. In 2016-17: - 11.2% of adults saw a GP more than 12 times in the preceding 12 months (Aus 12.1%) - 8.9% of adults in the PHN saw a GP for urgent medical care in the preceding 12 months (Aus 11.2%; 3rd lowest of 30 PHNs reported). Available GP attendance rates from AIHW (for 2016-17) indicate an average of 15.1 attendances per person in a residential aged care facility. This compares to a national rate of 16.6 and ranks 13th lowest of the 31 PHNs. In 2016-17 there were 175,000 non-urgent (triage category 4 or 5) ED presentations in the PHN, accounting for 47.6% of all presentations in 2016-17: - CQ 46.9%; WB 48.9%; SC 47.2%; Qld 49.9% - The rate was highest in WB (ASR 26.7 per 100; CQ 23.9; SC 17.8; PHN 21.6)

Outcomes of the service needs analysis		
		- The highest rates were seen from patients living in Banana (ASR 42.4 per 100) in CQ, almost double the PHN average, as well as Gympie (32.1) in SC and Fraser Coast (28.2) in WB **Consultation:** Stakeholder feedback describes ongoing difficulty accessing and retaining GPs and other health professionals in Gympie, Wide Bay, North Burnett and Central Queensland areas, and issues created by that workforce shortage, like prolonged waiting hours. There are particular concerns around RACF attendance in Bundaberg with RACFs in CQ requesting support from the PHN to find GPs to service residents. Community stakeholders in Gympie report not being advised of or aware of Telehealth availability until well into their journey.
Challenges with recruitment and retention of staff	Primary care workforce numbers and full-time equivalent rates vary across the PHN catchment, some areas showing low rates compared to Queensland Many inner regional, rural and remote locations in the PHN catchment are indicated as District of Workforce Shortage for general practice.	**Data:** Many locations within the PHN catchment are classified as Districts of Workforce Shortage (DWS). **Consultation:** Stakeholders in the Central Queensland area commented on lower availability of specialists in the areas, which often makes the management of complex medical issues difficult to address. Service gaps especially for preventive health, mental health (bulk-billed), dental (bulk-billed), allied health, nursing, drug and alcohol services were identified along with need for speech and occupational therapist in Banana Shire. HHS stakeholders have indicated difficulties in filling staffing positions in rural and regional facilities, resulting in inconsistent availability of visiting primary care services. Stakeholders in the Wide Bay area showed concerns regarding women's health and domestic violence related assistance and services. Concerns regarding access to and distribution of services in the Discovery Coast area were voiced by many stakeholders. Short-term funding of community-based services is also a current concern.

Outcomes of the service needs analysis		
		Stakeholders in the Sunshine Coast area were concerned about Gympie LGA regarding workforce shortage. Service providers identified various challenges that they experience in the provision of primary health care services: - A lack of knowledge about what services are available within an area. - Lack of consistency of service and/or irregularity of visiting services (e.g. due to funding cuts, workforce shortages) which can lead to confusion about which services are available. - Difficulties recruiting local, qualified staff. - Lack of clear pathways for care. Significant issues with workforce retention were identified – particularly in regional and remote areas: allied health in Emerald (CQ) and Kilkivan/Goomeri (WB), GPs in across WB, Gympie (SC) and Gladstone (CQ) and a general issue with distribution of workforce which impedes access to services in the region. Lack of specialist availability in WB area across multiple disciplines: haematology, urology, neurology, rheumatology, ophthalmology, ear/nose/throat, infectious disease, gastroenterology, and psychiatry.
Health services affordability	Socioeconomic disadvantage is well known to be a major adverse influence on health and wellbeing. In addition to higher burden of disease among disadvantaged populations, socioeconomic disadvantage often affects the ability of people to access primary health care (and other health) services through lack of affordability, including costs associated with the need to travel.	**Data:** Overall, GP bulk-billing rates in the PHN are slightly above national rates at (86.1% in 2016-17; Aus 85.7%). Central Highlands has continued to have the lowest bulk-billing rate in the PHN for several years (69.8% in 2016-17), followed by Gladstone-Biloela and Gympie SA3s. While the proportion of patients in the PHN who face out-of-pocket costs when visiting the GP (36.3%) is higher than the national figure 33.8%, the median out-of-pocket cost is lower at $17 per attendance (Aus $20). Central Highlands SA3 has the highest percent of patients with out-of-pocket GP costs (55.3%), and the highest median cost ($28 per attendance) in the PHN region. This is the highest median cost of 44 outer regional SA3s reported. This is followed by Biloela (47.4% out-of-pocket costs) and Gympie-Cooloola (46.9% out-of-pocket costs).

Outcomes of the service needs analysis		
		ABS Patient Experience Survey 2016-17 shows that in the PHN: - 4.0% (95% CI 2.4-5.5) of adults did not see or delayed seeing a GP due to cost in the preceding 12 months; aligns to national rate (4.1%). - 7.8% (95% CI 5.2-10.4) of adults delayed or avoided filling a prescription due to cost in the preceding 12 months (Aus 7.3%). - 19.6% (95% CI 15.6-23.6) of adults did not see or delayed seeing a dentist, hygienist or dental specialist due to cost in the preceding 12 months (Aus 18.4%) PHIDU estimates that nearly 18,000 adults in the PHN experienced a barrier to accessing healthcare when needed it in the last 12 months, with main reason being cost of service. The highest number and rate were seen in Fraser Coast LGA (ASR 5.0 per 100) followed by Bundaberg (3.9; PHN 3.0: Qld 2.7) According to PHIDU estimates, the PHN showed variability in the access to transport; Bundaberg, Fraser Coast and Gympie reported highest ASR per 100 (4.1 to 4.4) for often having difficulty to get to places needed due to transport issues (PHN 3.7; Qld 3.8). **Consultation:** Cost was repeatedly mentioned by the stakeholders as an important limitation on accessing services. Stakeholders in the Central Queensland area commented that the cost of often having to travel away from home to access specialist services (e.g. Brisbane) compounds issues of accessibility. In Central Queensland, accessibility impeded by need to travel/transport issues and lack of associated support services was reported as a very common issue. Similarly, in the Gympie region stakeholders consistently raise the cost of transport and lack of availability of transport as a barrier to primary health care access.
Access to after-hours primary health care	There are some areas in the PHN catchment that do not have readily available access to primary health care after-hours services.	**Data:** Available GP attendance rates from AIHW (for 2016-17) indicate an ASR of 0.27 after-hours GP attendances per person. This compares to a national rate of 0.49 and ranks 8th lowest of

Outcomes of the service needs analysis		
	Relatively low after-hours attendance rates across the region, but particularly in Gympie – Cooloola SA3.	the 31 PHNs. Again Gympie-Cooloola (ASR 0.12) and Burnett (0.19) SA3s rank the lowest and Hervey Bay (0.46) ranks the highest. Review of 2016-17 MBS data identifies 162 GP after hours/emergency attendances per 1,000 population in the PHN; around one third of the Queensland rate (469 per 1,000). The highest service rates in the PHN were seen in Buderim (302), Hervey Bay (285) and Caloundra (278) SA3s while the lowest was seen in Gympie-Cooloola (21.5) and Bundaberg (39.2). In 2016-17, only 4.5% of the PHN population saw a GP after hours in the preceding 12 months (Aus 8.4%; ranks 3rd lowest of 30 PHNs reported). A total of 226 GP practices received some sort of PIP payment in the Nov 2017. Of those, 50% (113 practices) received a level 1 After Hours Incentive payment for the quarter. Sub-regional data is not available. National Health Performance Authority analysis of ABS, Patient Experience Survey 2013–14, shows the percentage of adults who thought their care could have been provided by a GP instead of a hospital emergency department was: - Wide Bay area 38% (95% CI 24%-53%) - Sunshine Coast area 24% (95% CI 11%-36%) - Central Queensland area (data not available) **Consultation:** - In Central Queensland, only three HHS facilities offer 24-hour access to emergency treatment, so for many residents outside of these towns who lack transport, the Queensland Ambulance Service is their only option for after-hours treatment. - Furthermore, the downturn in the mining industry has had considerable impact on incomes in some areas creating a financial barrier to access where many general practices only bulk bill people with a health care card. - Central Queensland stakeholders also commented on the lack of availability of counselling and drug and alcohol services after hours. - Stakeholders in regional areas like Gympie report that after hours home visiting GP services do not service their area.

Outcomes of the service needs analysis		
Continuity of care	Continuity of care is the degree to which a series of discrete healthcare events are experienced as coherent and connected and consistent with the patient's medical needs and personal context. Many stakeholders in the region identified that uninterrupted care is often not provided due to insufficient care co-ordination.	**Data:** Results for the PHN from the 2016 Survey of Health Care shows (for patients aged 45 and over who had visited a GP in the preceding 12 months): - 88.9% had a usual GP (Aus 87.4%) and 96.3% had a usual GP or usual place of care (Aus 97.5%). This increased with age and fell with remoteness and socioeconomic disadvantage. - Most people (84.2%) rated the quality of care from their usual GP as excellent or very good. **Consultation:** Stakeholders across the PHN identified continuity of care (in terms of discharge summary or preferred language, clinical handover) to be a priority issue. It was noted that it is not uncommon for a discharge summary to be sent to the GP 3-5 weeks after discharge. This is a significant concern to GPs, aged care and pharmacy providers, who often aren't aware of medication changes, treatment or management plans, or any ongoing care plans or investigations that may be prescribed or required. In Central Queensland, stakeholders expressed a desire for greater collaboration and non-duplication of services. The need for better coordination of visiting services to rural communities was a specific suggestion, as was the need to improve communication between hospitals and GPs. More clarity around agreed referral pathways, knowledge about who to refer to locally and available services were suggested as unmet needs towards improving continuity of care. In the Wide Bay area, stakeholders also pointed to the need for increased coordination and communication among services providers. It was noted that this was required across the broader region, not just in Bundaberg. A closer working relationship between the HHS and the PHN was also needed to reduce duplication, increase efficiency and develop effective referral pathways between the HHS and GPs. Other areas requiring attention included the need to improve information flows between the HHS and GPs e.g. timely discharge summaries, timely specialist letters from the outpatient department to GPs, and agreements on hospital referral requirements.

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		Similarly, stakeholders in the Sunshine Coast area pointed to the need to avoid duplicating services funded by the PHN and the HHS and for health services in the region to improve communication and coordination. - No continuity of care in Banana due to transitioning health workforce. - Long wait times for GP appointments in Gladstone - Lack of integrated care, continuity of care in Banana and Gladstone PHN stakeholders commented on the need for better coordination of visiting services to rural communities, especially allied health; the need for integration between primary and secondary services as well as more effective referral pathways between the HHS and GPs. In Gympie region a lack of transitional care post discharge doesn't allow continuity of care. For services such as palliative care in rural and remote areas there are no arrangements for backfilling services. Some low performing practices are reluctant to implement quality improvement processes, have low staff members and are overworked.
High potentially preventable hospitalisations associated with chronic diseases	A high potentially preventable hospitalisation (PPH) rate can indicate shortcomings in the system in terms of its efficiency and effectiveness. Rates for potentially preventable hospitalisations due to chronic conditions are higher in the PHN catchment compared to Australian rates, particularly in Wide Bay: Maryborough SA3. Higher diabetes related premature deaths and potentially preventable hospitalisations in the PHN catchment require attention to diabetes care.	**Data:** Hospitalisation data for the period 2015-16 identifies: - Higher rates of PPHs due to chronic disease for the PHN (ASR 1,457 per 100,000) compared to Australia (1,205). The highest rate in the PHN was in Maryborough SA3 (1,928). - Higher rates of PPHs due to heart failure for the PHN (ASR 232 per 100,000) compared to Australia (211). The highest rates were seen in WB (229 – 334) and the lowest rates were seen in SC (155 – 289). The highest rate in the PHN was in Maryborough SA3 (334). - Higher rates of PPHs due to COPD for the PHN (ASR 327 per 100,000) compared to Australia (260). The highest rates were seen in WB (324 – 554) and CQ (329 – 410) and the lowest rates were seen in SC (165 – 343). The highest rate in the PHN was in Maryborough SA3 (554). - Higher rates of PPHs due to diabetes complications for the PHN (ASR 234 per 100,000) compared to Australia (183). There was a lot of variability across the PHN. The highest

Outcomes of the service needs analysis		
		rates in the PHN were in Maryborough (372) and Rockhampton (277) SA3s and the lowest were in SC. Age-standardised specialist attendance rates in the PHN (ASR 0.66 per person in 2016-17)) were consistently (range 0.47 – 0.77 across SA3s) and significantly (0.66) lower than national average (0.89) and ranks 6th lowest of 31 PHNs. Lowest rates were seen in WB (0.47 – 0.74), CQ (0.51 – 0.65) and Gympie-Cooloola SA3 (0.53). **Consultation:** Specialist attendance rates fell with increasing remoteness, reflective of stakeholder feedback that identified: - limited or complete lack of availability of public specialist disciplines in Wide Bay, Central Queensland and Gympie requiring patients who cannot afford to attend privately to travel to Sunshine Coast or Brisbane.
Chronic disease management	Individuals with chronic, complex conditions are frequent users of primary care services as well as hospitals. This issue is further complicated for disadvantaged and/or vulnerable populations and people living in rural and remote communities. Chronic complex conditions are associated with increasing disability, increased cost of living and sometimes inability to travel. Low GP Chronic Disease MBS service rates in Central Queensland High rates of emergency department presentations for chronic diseases in Central Queensland, Wide Bay and Gympie. NB: PHN and HHS level rates are based on all presentations to hospitals within the PHN, LGA rates are based on presenting patient's usual	**Data:** MBS data from 2016-17 indicates that: - Nearly 150,000 people in the PHN received at least one GP Chronic Disease (MBS Group A15) service (approx. 18% of PHN population). - Around 380,000 services were delivered, equating to around 451 Chronic Disease MBS services per 1,000 population, much higher than Qld (353). These service rates were lowest in Central Highlands (237) and Gladstone-Biloela (246) SA3s and highest in Noosa (697) and Nambour-Pomona (562) - Nearly 115,000 Chronic Disease Management Plans (MBS Item 721) and 96,400 Team Care Arrangements (MBS Item 723) were billed in the PHN (approx. 136 and 115 per 1,000 population). A similar geographical pattern is seen for 721s and 723s as the broader MBS Chronic Disease item group, however 729 (GP contribution to TCA) was only utilised consistently in Wide Bay. Emergency department data from 2017-18 shows: **CHD:** there were nearly 13,000 CHD-related ED presentations in the PHN (ASR 1,220 per 100,000):

Outcomes of the service needs analysis		
	residence (PHN residents only, therefore rates are lower).	- CQ 1580; WB 1346; SC 991 - The highest rates were seen from patients living in Woorabinda (1,980), Livingstone (1,640) and Rockhampton (1,510) in CQ, and in Fraser Coast (1,410) in WB. **Diabetes:** there were 690 ED presentations with diabetes as principal diagnosis (ASR 83 per 100,000): - CQ 114; WB 93; SC 62 - The highest rates were seen from patients living in Banana (188) in CQ and Gympie (166) in SC **COPD:** there were nearly 3,000 ED presentations with COPD as principal diagnosis (ASR 243 per 100,000): - CQ 317; WB 324; SC 170 - The highest rates were seen from patients living in Fraser Coast (377) in WB, Livingstone (272) in CQ and Gympie (206) in SC **Asthma:** there were nearly 3,000 ED presentations with asthma as principal diagnosis (ASR 358 per 100,000): - CQ 441; WB 449; SC 263 - The highest rates were seen from patients living in Banana (ASR 655 per 100,000) and Livingstone (562) in CQ, Fraser Coast (475) in WB and Gympie (411) in SC **Consultation:** Stakeholders in the Central Queensland area felt that many chronic conditions should be treated locally, rather than requiring patients to travel long distances for treatment. Increased health promotion and access to prevention programs are also seen as being beneficial. Many stakeholders spoke about the need for people to be supported to undertake more self-management of their conditions, including commitments to changing their lifestyles. Similarly, stakeholders in the Gympie region pointed to the limited availability of chronic disease prevention activities/community support. Stakeholders in WB and CQ identified challenges related to lack of persistent pain management service availability in outer regional / remote areas.

Outcomes of the service needs analysis		
Cancer screening	Low rates of cervical cancer screening among various age groups within the PHN catchment. Overall, bowel and breast cancer screening participation in the PHN are above national rates. Patterns of cancer screening varied greatly throughout the PHN. Central Queensland has some of the lowest bowel and cervical cancer screening rates in the PHN - Bowel cancer screening participation was lowest in CQ and highest in WB. - Breast cancer screening participation was highest in CQ and lowest in SC. - Cervical cancer screening participation was lowest in CQ and highest in SC.	**Data:** Cancer screening participation in 2015-16: - Bowel (44.4%) and breast (57.0%) cancer screening participation in the PHN is higher than the national rates (40.9% and 55.1% respectively); participation in cervical screening (54.2%) is slightly below national rate (55.4%) - In CQ area: **Central Highlands** (34.5%; 6th lowest of 80 in Qld), **Gladstone-Biloela** (38.7%) and **Rockhampton** (41.9%) SA3s had the lowest bowel cancer screening participation in the PHN. Rates of breast cancer screening in these areas were all above PHN and national averages. - In WB area: **Hervey Bay** (47.6%) and **Bundaberg** (47.5%) SA3s have the highest bowel cancer screening participation rates of 80 Queensland SA3s. - In SC area: Cervical cancer screening participation in was above PHN and national averages in all areas except for **Gympie-Cooloola** (51.2%). Data published for the PHNs 2013-14 (AIHW analysis of state and territory cervical screening register data) shows that the percentage of women (20-69 years) who completed cervical cancer screening was lower for the PHN catchment compared to Australia (55.8% compared to 57.5% respectively). **Consultation:** A barrier to cervical screening identified by women in the Gympie region was the difficulty in accessing female GPs who bulk bill.
Specific service needs within the region	Specific areas within the PHN consistently show the need for general practice and allied health services	**Data:** Information from Health Workforce Queensland supports the PHN analysis of service needs. Following areas (SA2) are listed as priorities by HWQ in 2018: **Kilkivan, Maryborough Region-South, Cooloola, Agnes Water-Miriam Vale, Gympie Region, Burrum-Fraser, Mount Morgan, Gin, Central Highlands-East, Gayndah-Mundubbera** The workforce gap ratings from the region (0=Strongly disagree and 100= Strongly agree) indicate the following (top three regions for worst gaps only): **Workforce Gap:**

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		Areas with high workforce gap (score>=50) for specific disciplines were: -General practice: Gympie, Gladstone and Bundaberg including surroundings -Aboriginal and Torres Strait Islander Health Worker: Rockhampton and surrounds -Dentistry: Gympie and surrounds, Maryborough and Gladstone and surrounds -Diabetes education: Hervey Bay and Gympie both including surrounds -Palliative Care: Gladstone and surrounds -Radiology: Inland Communities -Nursing, audiology, speech pathology, social work and occupational therapy: Gympie and surrounds **Service Gap:** -Aged care: Gympie, Gladstone and Bundaberg including surroundings -Alcohol, tobacco and other drugs: all identified regions however top three regions with service gaps are Gympie and surrounds, Hervey Bay and surrounds and Maryborough -Child health: Hervey Bay, Gladstone and Gympie all including surroundings Large gaps for specialty services such as disability and CALD were seen across many regions identified here.

Primary Mental Health Care (including Suicide Prevention)

Outcomes of the service needs analysis		
Identified Need	Key Issue	Description of Evidence
Service gaps in public sector ambulatory mental health service	Access to these services is highly variable across the PHN. Those with mild and moderate problems are accessing these services, displacing clients with severe and complex needs.	**Data:** Variable access to services. Drawing on various modelling assumptions, it was estimated that current public ambulatory services are sufficient to meet approximately 61% of expected needs of the population for Queensland, vs. 69% for SC, 62% for CQ and 54% in WB. **Consultation:** Services used by clients with mild/moderate needs crowding out those with severe and complex needs. Limited access to primary care in rural areas discussed below has led to clients with mild/moderate needs accessing these services. This issue has been consistently raised by stakeholders across Central Queensland
Service gaps in available mental health beds	There is sufficient capacity to provide adult acute inpatient services. However, their utilisation will be compromised by the need for access to: - sub-acute and non-acute services - acute services for older people, children and young adults Rates of admission to general hospital non-specialist beds are very high for some populations within the PHN.	**Data:** Shortages in some specialised services will compromise availability to meet expected mental health bed needs. Across the PHN, current levels of acute adult beds stand at 90% of NMHSPF targets for 2021, which indicates that under the specific assumptions of the NMHSPF, they are sufficient to meet the expected need of bed services. In contrast, only 15% of sub-acute older adult, 44% of non-acute older adult, 45% of community care unit and acute older-adult bed needs will be met. Some of these services need to be provided locally, particularly community based sub-acute and non-acute services. Separation rates per 100,000 were 153 in CQ vs. 112 in WB and 88 in SC. Highest rates were observed in **Banana, Central Highlands and Woorabinda** (all in CQ) and **North Burnett** in WB. According to AIHW, hospitalisations across the PHN for all mental health conditions (2015-16) include: - 1,188 hospitalisations per 10,000 (age standardised)

Outcomes of the service needs analysis		
		- 16,821 bed days per 10,000 (age standardised) - 7,305 hospitalisations - 101,828 bed days **Consultation:** High rates of admission to general hospitals reflect the desire to provide local support and the challenges to provide safe transport to major service centers. Specifically, stakeholders in CQ commented that the cost of often having to travel away from home to access specialist services compounds issues of accessibility. Other stakeholders also commented on the need for transport for elderly people to and from their appointments with specialist services No mental health beds are available in Gympie resulting in patients being transferred to SCUH or Buderim Private hospital, which makes it difficult for family to provide support.
Service gaps in GP MBS mental health services	Notwithstanding the importance of GP's role in mental health, access to their services is low across the PHN and shows extremely large disparities between rural and urban areas.	**Data:** MBS data 2016-17 denotes 122,592 mental health services (74,535 consumers) provided by GPs, with a further 188,541 mental health services (43,531 consumers) provided by allied health professionals, across the PHN region. According to Mindspot data only 40.3% of respondents (116/288) from the PHN who received an assessment in 2017 have a GP who they would speak to about mental health. For GP Mental Health MBS Items (Group A20): - PHN rates 146 per 1,000 based on provider location (aligns to Qld 146), are around half of modelled estimates of required services (380 per 1,000 population) - There is also large variation across the PHN. Lowest services rates were seen in Central Highlands (65 per 1,000), Burnett (71) and Gympie-Cooloola (98) SA3s. - Regional service rates were lowest in CQ (65 – 118 per 1,000) and highest in SC (98 – 245) - Of note, barriers to access these services and, in particular, mental health plans have been identified by stakeholders in CQ as a priority issue to be addressed Trends in MBS GP mental health service data for 2015-16 showed similar growth trends in the PHN to those in Australia. Reassuringly, the fastest annual growth from 2012-13 to 2015-16

Outcomes of the service needs analysis		
		was observed for the area with the highest unmet need, CQ (16%), followed by WB and SC areas. **Consultation:** Stakeholders have expressed concerns around the lack of specialised mental health support for older people living both in the community and residential facilities. Current funding tends to finish at 65 years, with very few aged care services having the expertise to support people beyond domestic assistance and social support.
Service gaps in Structured Psychological Therapy Services – Allied Health Services	Standard Structured Psychological Therapy (SPT) services show relatively low coverage across the PHN. Large disparities across localities, partly due to limited availability of a suitable workforce in rural and remote areas. Low-cost alternatives with greater capacity to scale up coverage include low intensity services and clinician moderated web-based interventions. However, their coverage is almost negligible for the PHN population	**Data:** Overall current services including MBS and PHN commissioned services, discussed below are delivering approximately 45% of projected standard SPT required across the PHN. However, if we add the requirements of web-based and low-intensity services, current services meet only 24% of estimated need. Specifically looking at MBS data for 2014-15 based on patient location show that while service rates per 1,000 are below 60 for Central Highlands and Woorabinda in CQ and below 120 in Banana (CQ) and North Burnett (WB), they are over 255 in the Sunshine Coast LGA. The almost negligible availability of web-based and low-intensity services was also shown by our service mapping. Only seven (out of 50 providers delivering SPT) offer on-line services (approximately 30 occasions of service per month), while only one delivers computerised therapy (two occasions of service per month). Mindspot data for July to December 2017 indicates 288 assessments were carried out for clients in the PHN (down from 540 previous year. In regard to trends, the most recently available MBS dataset for 2016-17 uses provider location and might be less reliable for allied health services. However, it provides some encouraging signs of accelerating growth across the PHN, particularly for areas in need like Central Highlands and Woorabinda in CQ and North Burnett and Fraser Coast in WB. While Central Highlands has experienced the highest growth in service rates (doubling from 2012-13 to 2016-17) they still have the lowest rate in the PHN (32.7 per 1,000 population). **Consultation:**

Outcomes of the service needs analysis		
		The overall unavailability of mental health services in CQ has also been noted by stakeholders. Stakeholders commented that referrals are often received for psychologists who usually have a wait list or clients can't afford to access. They have also noted other access barriers such as lack of information about services and support available, and stigma and fear around mental illness.
Service gaps in Structured Psychological Therapies - service data	The PHN has increased coverage of structured psychological therapies with focus on disadvantaged areas, but large gaps remain.	**Data:** MBS data 2016-17 denotes 61,478 mental health services (11,132 consumers) provided by psychiatrists, with a further 59,764 mental health services (14,404 consumers) provided by clinical psychologists, across the PHN region. Current PHN commissioned services (2017-18) have provided 19,030 service contacts of structured psychological therapies to 4736 people being 30.28% of the target population (15,643); 0.6% of the regional population (852,878), which is similar levels to 2016-17. In addition, 930 people being 15.54% of the target population (5,984); 0.1% of regional population (852,878) are receiving clinical care coordination for severe and complex mental illness, totalling 3,529 service contacts. As expected, the largest volume of services were concentrated in the most populated areas, such as the Sunshine Coast LGA. However, when looking at LGA service rates per population for 2016-17 and 2017-18, the largest rates were in areas of high need such as Gympie (SC), Central Highlands (CQ) and Fraser Coast (WB). **Consultation:** Lack of affordable ongoing access to mental health care beyond the Medicare reimbursable items available with a GP Mental Health Treatment Plan was highlighted in Gympie and surrounds, and is likely to reflect the wider region.
Service gaps in Structured Psychological Therapies for Young People – service data	Low access to specialised youth mental health services across the PHN, particularly in rural and remote areas. Increasing efforts across the PHN to expand coverage during the last year have seen larger	**Data:** Preliminary modelled estimates show that approximately $76 million will be required by 2021 to fund staff requirements for delivering services to approximately 26,558 young people in need of mental health services across the PHN. The vast majority of this funding (approx. 70%) will be required to address the needs of the 17% of young clients (i.e. 4,500) with complex and severe mental disorders.

Outcomes of the service needs analysis		
	numbers of young people accessing youth specific services.	Over 22,000 of young clients across the PHN in need of early intervention, relapse prevention and treatment services for mild and moderate mental illness will require approximately $14 million funding. Unfortunately, only partial data on services are available for this cohort. However, it is expected that similar gaps as those noted earlier for SPT are observed. For example, in 2016-17, 4,491 clients (22% of the target population) have received youth specific mental health services across the PHN. This includes both headspace and ATAPS youth services, for which Central Queensland has the highest rate of services (6.25 per 1,000 population) followed by Wide Bay (5.25) and Sunshine Coast (4.42). When looking specifically at headspace data, occasions of service delivered increased from 8,250 in 2015 to 11,305 in 2016 to 15,062 in 2017. This is partly due to the new two centres opened in Gladstone in late 2015 FY; and Bundaberg in late 2016 FY. The currently available service rates per 1,000 people by sub-regional population aged 0-24 indicate that Sunshine Coast LGA has the highest service rate (52.23) followed by Gladstone (40.93), Fraser Coast/Hervey Bay (40.73), Bundaberg (30.06) and Rockhampton (18.61).
Service gaps - Severe & Complex Needs – mental health nurses in primary care service data	Large gaps in primary care services delivered by mental health nurses to those with severe mental illness/disorders across the PHN	Services delivered by mental health nurses for supporting people with complex and severe needs complement those provided by GPs and psychiatrists. The period 2017-18 saw the transition from the MHNIP program to a stepped care model in which severe and complex consumers have their care provided using this approach. Stepped care services began in January 2018; however, care transition took place up into March 2018. Commissioned services delivered 3,529 service contacts for 930 clients across the PHN in 2017-18. These nurses will be expected to deliver 32,907 occasions of service across the PHN. In contrast, commissioned services delivered 4,392 occasions of service in 2015. This represents 13% of relative levels of services. Rockhampton, Bundaberg and North Burnett all showed rates of coverage below 5% of that required. This was partly explained due to loss of the workforce in some locations. For 2016-17, MHNIP data indicates that 3763 occasions of services were delivered to 1347 clients, the largest proportion of which were delivered in the Fraser Coast LGA (WB). Consistent with the observed declining trend, the volume of services and clients for 2016-17 is slightly lower than the one reported in the previous year. As a result, we expect that current levels of services meet less than 13% of the required. Of note, various locations across the

Outcomes of the service needs analysis		
		PHN, including Rockhampton, Livingstone and Woorabinda in CQ, as well as Bundaberg (WB) and Noosa (SC) did not have any records of MHNIP services delivered.
Service gaps - community support services	Totally available funding for community support services seem to be adequate. However, key priority services such as individual support and rehabilitation show substantial funding gaps. Services for complex clients particularly in areas with low access to other primary care mental health services, might not be targeting clients with complex and severe needs.	**Data:** Modelled estimates show that across the PHN the demand for community support services would require an estimated total funding of approximately $70 million. This will cover 742 FTE staff numbers required to deliver specialised mental health support targeting individuals with severe and complex needs (i.e. approximately 28,372). The vast majority of this funding (i.e. 75%) is expected to cover demand for individual support and rehabilitation. Data on the community support sector is not readily available, which makes it difficult to assess current service gaps. Estimates suggest that approximately $42.6 million are currently funding community support services across the PHN. This shows a relatively well funded sector equivalent to 64% of the estimated required for 2021 and over 80% of that required in 2015. However, important gaps are observed for specific programs such as individual support and rehabilitation, which is currently receiving only 33% of the estimated required funding. On the other hand, these services might not be targeting clients with severe needs, particularly in rural areas with low access to other services. For example, PIR data suggests that in the SC the largest proportion of clients has indeed a diagnostic profile consistent with markers of severity such as schizophrenia and/or delusional disorders. However, in CQ, the majority of clients have been diagnosed with mood affective disorders. Recently, funding for psychosocial support has become available to address a service need gap for those who require this support for their severe/complex mental illness but are ineligible for the National Disability Insurance Scheme and the PHN is undertaking a commissioning process.
Psychosocial support service gap between NDIS and community mental health services for people	The mental health services landscape is changing. Psychosocial support needs of people living with severe mental illness and psychosocial functional impairment who are not eligible for the NDIS and who are not known to other	**Data:** Nationally: - AIHW estimates that around 730,000 people live with a severe mental illness. - Around 8.8% (64,000) will be eligible to access the NDIS under the psychosocial disability stream. In the PHN:

Outcomes of the service needs analysis		
living with severe mental illness	services will be unsupported and at high risk of escalation/exacerbation. Not all people living with severe mental illness access services or ongoing clinical intervention. Those experiencing moderate/severe mental illness and those not known to services are at risk of falling through service gaps.	- Approximately 490,000 adults are aged between 18-64. Of these, 16,900 adults (18-64) in the PHN live with severe mental illness (NMHSPF). - Within that we estimate 2,200 (0.45% population) have very high needs, 4,900 (1%) live with severe persistent and 9,800 (2%) live with severe episodic mental illness. - Based on national rate we can estimate that 8.8% (1,500) will be eligible for NDIS and are likely to come from the severe and complex cohort. Of the remaining 15,400 we estimate: - The severe persistent population (4,900) are likely to be service by the hospital and health service COS program - The remaining 9,800 severe episodic would need psychosocial support at some time - The new national psychosocial support measure will provide funding for people with severe mental illness and psychosocial functional impairment who are not more appropriately supported through the NDIS or services provided through the HHS. The NDIS is due to be rolled out in the PHN region by June 2019. Personal Helpers and Mentors (PHaMs) program provides functional supports to people living with severe mental illness; this program ceases as of June 2019. **Consultation:** Strategic meeting between the PHN, HHS and NGOs indicated some concerns such as: - many services providing support were closing or scaling back their services during the uncertain transition to NDIS - Services are currently operating at full if not over capacity - Market failure/viability is of significant concern - Lack of linearity between the tertiary and primary health interface may cause people to go 'unserviced' - People becoming 'stuck' in acute service settings (hospital) with no discharge point due to lack of referral fluidity and service options

Outcomes of the service needs analysis		
		- Many services are currently providing support outside their funding parameters and it is feared this type of support will not be accounted for in the new service model - It is an imperative we undertake a service mapping task and gain a situational analysis
Service gaps - suicide prevention and support services Primary Care Service data	Limited coverage of suicide prevention services across the PHN.	**Data:** Previous service mapping identified 35 community organisations delivering suicide related services to approximately 1,160 clients per month. However, it also highlighted that only a third of providers offering SPT – including those related to suicide prevention and treatment – operate outside standard business hours. This is in line with the high number of ED presentations discussed below. Also, of note was the lack of a coordinated approach and service integration across existing services, which further stretches existing capacity. The PHN is part of the National Suicide Prevention Trial, and specific areas identified in the trial include Gympie, Maryborough and North Burnett. While whole of community responses to suicide prevention have been rolled out, two distinct target groups have been further identified within that region: Aboriginal and Torres Strait Islander peoples in North Burnett, and men living in Maryborough and Gympie. **Consultation:** Stakeholders have noted that overall there are limited suicide prevention programs available across the PHN, so existing counselling and acute care services provide much of the available care.
Suicide/Self-harm hospitalisations – primary target population for after-care services	High and increasing rates of self-harm hospitalisations across the PHN, though large variability across LGAs. Low access in rural areas and disadvantaged populations, including those with high suicide prevalence.	**Data:** In 2015-16 there were 2,018 self-harm hospitalisations across the PHN, with an ASR of 270 per 100,000. This was the second highest ASR across all PHNs in the country. Similar increases were observed nationally, with the ASR increasing from 161 to 170 per 100,000 during the same period. There were variations across SA3s. Estimates for hospitalisation rates (ASR per 100,000) indicate they are highest in Burnett and Buderim (285 and 284 respectively), Bundaberg (272),

<table>
<tr><th colspan="3">Outcomes of the service needs analysis</th></tr>
<tr><td></td><td>Similar to suicide numbers, the largest contributor to self-harm hospitalisations is the Sunshine Coast LGA, reflecting its large population base and higher access to services.</td><td>followed by Hervey Bay (269), Nambour-Pomona (268), Gympie-Cooloola (259), and Gladstone-Biloela (258) and with the lowest in Maryborough (190) – but this is still above the national average.

The implementation of the stepped care model for mental health includes a suicide aftercare service for those who have been admitted to hospital after a suicide attempt and is provided on discharge.

Those who present to the ED after an attempt or with suicide ideation but are not admitted are a group whose needs have not yet been fully addressed.</td></tr>
<tr><td>Suicide/Self-harm -related Emergency Department presentations</td><td>Very high ED presentation rates amongst disadvantaged areas and young people, possibly reflecting their relatively higher rates of suicide and limited access to services. Important for future targeting of services.</td><td>Data:

There were 4,300 suicide-related (suicidal ideation or intentional self-harm) ED presentations across the PHN in 2017-18 (ASR 585 per 100,000).

- Rates were highest in CQ (853) and WB (646) areas; compared to SC area (398)
- The highest rates were seen from patients living in Rockhampton (872) and Livingstone (553) in CQ, Fraser Coast (759) in WB, and Gympie (516) in SC.

The 15 to 24-year age group consistently had the highest age specific rates of suicide-related episodes per 100,000 population across the PHN:

<table><tr><th>Area</th><th>Rate of suicide-related emergency presentations (age 15-19 years)</th><th>Rate of suicide-related emergency presentations (age 20-24 years)</th></tr><tr><td>PHN</td><td>1975 per 100,000</td><td>1520 per 100,000</td></tr><tr><td>CQ</td><td>3252 per 100,000</td><td>2093 per 100,000</td></tr><tr><td>WB</td><td>1870 per 100,000</td><td>1842 per 100,000</td></tr><tr><td>SC</td><td>1276 per 100,000</td><td>976 per 100,000</td></tr></table>
Age specific rates for young people were very high in CQ area:

- 730 per 100,000 age 10-14 years in CQ (WB 391; SC 392; PHN 487); highest rates seen in Rockhampton LGA (720), Fraser Coast (526) and Livingstone (510).</td></tr>
</table>

Outcomes of the service needs analysis		
		- 3,252 per 100,000 age **15-19** in CQ (WB 1,870; SC 1,276; PHN 1,975); highest rates seen in Rockhampton (3,376), Central Highlands (2,637), Fraser Coast (2,246) and Gympie (1,976) LGAs.
Lack of integration and coordination of services	People with mental illness often experience that their problems are dealt with in isolation, with poorly integrated and coordinated care.	**Data:** In 2014, the Report of the National Review of mental health programs and services stressed that across Australia services are poorly coordinated, delivered in isolation and characterised by dramatic funding inefficiencies. **Consultation:** Stakeholders and consumers across the PHN have noted the lack of integration and coordination of services. For example, some GPs have noted that after referring patients for SPT services, they do not receive further information on client's progress. Other treating clinicians have also stressed that information on their clients' physical health such as chronic disease prevalence and GP management plans is usually absent. Client journey mapping participants called for a holistic approach, with clinical and non-clinical interventions delivered in an integrated manner. Across the three areas, clients noted the lack of continuity care and follow-up services in ED and the community support sectors. They have also stressed that notwithstanding the high levels of comorbidity, AoD and mental health services were not integrated, and dual diagnosis was often lacking.
Workforce development has been identified as a critical gap for effective scale-up of services	One of the most important constraints to effectively scale-up services in the PHN relate to workforce.	**Data:** Current best-practice in workforce development strategies emphasises a multi-faceted approach with a strong system focus targeting individual, organisational and structural factors impacting workforce in general. There is limited information available on the profile of our mental health workforce, how they are addressing current challenges and what has been working/not working across various locations in the PHN. **Consultation:** The PHN is working with The National Centre for Education and Training on Addiction to undertake stakeholder consultations to inform a future workforce development needs assessment.

Alcohol and Other Drug Treatment Needs

Outcomes of the service needs analysis		
Identified Need	Key Issue	Description of Evidence
AoD hospitalisations – low access to specialized care	High need across the PHN, there are low rates of overnight hospitalisations due to AoD misuse. A very low proportion of hospitalised clients receive care in specialised psychiatric units with many being treated in general hospitals. Local variations in hospitalisation rates across the LGA.	**Data:** For 2015-16, the ASR per 10,000 people of overnight hospitalisations due to AoD misuse across the PHN was 14 (vs. 20 nationally). This is lower than the 21 ASR observed across regional areas. The ASR across the PHN has remained similar to the previous year (2014-15), in contrast with an increasing national trend over the same period (18 vs. 20). Of note, across the PHN around a third (32.2%) of all these hospitalisations take place in specialised care. This is lower than the national average (42.7%) and the regional rate of 39.2%. This is in line with earlier findings in regard to the relatively large numbers of mental health hospitalisations taking place in general hospitals, particularly in rural areas. When looking at LGA level (population rates per 100,000), we find that areas with high need like Gympie and Gladstone show some of the lowest AoD hospitalisation rates in the region.
AoD community services delivered by NGO and public providers – low access particularly in rural areas notwithstanding recent growth	Lower population rates of AoD services delivery than those observed in Queensland. Lower rates in 2015-16 are observed despite a rapid growth over the last three years. The NGO sector has expanded rapidly over the last three years; however, services are still insufficient to meet current demand. Rural and remote areas are notably underserved.	**Data:** **Volume of services** In 2016-17, according to AIHW, AoD services were delivered at a rate of 727 per 100,000 population across the PHN, lower than the Queensland rate (916). This is despite the rapid growth in recent years observed across the PHN as noted below. The Wide Bay population is served at a rate of 801 per 100,000 people vs. 779 in CQ and 679 in SC. AIHW data shows there were 6,044 closed treatment episodes of care in 2016-17. Counselling and information and education formed 78% of all closed sessions (44.5% and

Outcomes of the service needs analysis		
	As detailed below, there are considerable variations in regional availability of services that need to be further explored with local stakeholders.	33.5% respectively). With withdrawal management, rehabilitation, and case management having low numbers of treatment episodes (3.9%, 3.5% and 2.2% respectively). According to QNADA, approximately 45% of treatment episodes for AoD related services were provided in non-residential setting, followed by 33% in an outreach setting. This is in contrast to the statewide figures, with 66% of episodes being delivered in a residential treatment facility followed by 20% in outreach setting and 14% in non-residential settings. Also, as noted below, the AIHW data shows marked differences across each regional area for specific services. Some services such as withdrawal management, rehabilitation and case management are delivered at much higher rates in one area vs. the others. Since this dataset was only received in mid-October we have focused mostly on cross-validating the estimates with other data sources, but future work will involve local stakeholders to unpack the drivers of such differences. **Trends based on Queensland Health data** In 2016-17 there were 5,797 closed episodes of care for AoD services in the PHN. This represents approximately 1.6 times the volume of episodes of care delivered in 2013-14. During 2016-17 services remained consistent with 2015-16 (6,078 vs. 6,044). **Who delivers services?** Similar to Queensland, 40% of services across the PHN are delivered by private/NGOs and 60% are public. However, there are substantial differences in the areas. In WB around half of services are delivered by NGOs, falling to 40% in SC and 30% in CQ. Of note has been the rapid growth of services delivered by NGOs. They quadrupled from 806 episodes of care in 2013-14 to 3,402 in 2016-17. Taking into consideration the differences in salaries, working conditions, recruitment, retention issues and organisational culture across both sectors, the growing share of the NGO sector has important implications for future workforce development in the region. **Consultation:**

Outcomes of the service needs analysis		
		Notwithstanding this rapid expansion, there is still limited availability of services to address population treatment needs, particularly in rural areas. This has been noted by stakeholders and supported by the service mapping undertook in 2016. This identified 14 AoD organisations delivering services across the PHN. However, the majority are small providers with fewer than 10 AoD treatment staff and operating from large population centres. Regarding future expansion of primary care services, direct stakeholder engagement within the region indicated: - more could be done to encourage GP-led ambulatory withdrawal - upskilling of mental health nurses to provide alcohol and other drug services, and - promotion of digital and telephone-based alcohol and other drug services for low intensity interventions.
Service gaps in brief intervention and screening services	Brief intervention and screening rates are consistently below those observed in Queensland.	**Data:** Service mapping indicates there are 11 (out of 14) AoD providers delivering screening/brief interventions across the PHN. According to AIHW data, these providers delivered a total of 612 episodes of care during 2016-17. These services were delivered at a rate of 72 episodes per 100,000 population, which is substantially lower than the rate observed in Queensland (159). **Consultation:** In the general practice setting, stakeholders identified that few GPs are willing to take on the care of patients with substance use disorders.
Service gaps in drug and alcohol counselling services	Service rates for counselling treatment are similar to those observed in Queensland.	**Data:** AIHW data for 2016-17 shows that approximately, 2,693 episodes of care were delivered across the PHN for counselling services. They were delivered at a rate of 304 episodes of care per 100,000 population across the PHN vs. 300 in Queensland. According to Alcohol and other Drug Treatment Services (AODTS) National Minimum Data Set, rates are larger in CQ (424) and WB (363) than SC (208).

Outcomes of the service needs analysis		
		However, it is important to note that limited services are recorded for rural and remote areas.
Service gaps in withdrawal management services	In line with stakeholder's feedback and our service mapping, the AIHW data shows substantial gaps in withdrawal management services across the PHN. Available data also suggests large regional variabilities that need to be explored in more detail with local stakeholders.	**Data:** In 2016-17, only 226 episodes of care for withdrawal management were delivered across the PHN. Our rate of 26.8 episodes of care per 100,000 population is almost a quarter of the observed Queensland rate of 89.6 per 100,000 population (AODTS data). **Consultation:** Preliminary survey inputs from local stakeholders indicated there is a potential gap in withdrawal management services. Our service mapping indicates that out of the 14 AoD providers in the PHN catchment, only six deliver withdrawal management services. Four of them offer these services integrated with rehabilitation and other services and the remaining two deliver them as stand-alone. The two providers of stand-alone withdrawal management services reported that on average every month they attended 20 clients in Wide Bay and five in Central Queensland. Inputs from local experts also indicate there are barriers to accessing withdrawal management (detox) services beyond GP services, with no 'day detox program' available in the catchment, and no withdrawal or rehabilitation facility available in Gympie.
Service gaps in AoD rehabilitation services	Important gaps in rehabilitation services are observed across the PHN. Although some data suggests that the vast majority of services are concentrated in the Sunshine Coast area, other data sources suggest that services are also available in Central Queensland.	**Consultation:** Stakeholder inputs identified geographic barriers to accessing AoD treatment services for those in need, who may benefit from access to more localised options. Residential rehabilitation services were identified as a need by local experts, with one or two stakeholders also noting a need for short, medium and long stay options. We Help Ourselves (WHOS) is a state-wide service based in the PHN catchment (at Nambour) providing residential rehabilitation and The Gumbi Aboriginal and Torres Strait Islander Corporation is a second statewide residential rehabilitation service based in the PHN catchment area (Rockhampton), providing Aboriginal and Torres Strait Islander-specific AoD services. The 2016-17 AODTS data shows that a total of 199 episodes of care for rehabilitation services were delivered across the PHN. Most of these services were concentrated in the

Outcomes of the service needs analysis		
		SC, which shows a service population rate lower than that observed in the state (32 vs. 44 per 100,000 population). This is in line with the above findings. Similarly, the AODTS data support the noted lack of rehabilitation services in WB and CQ with rates per 100,000 at 17 and 15 respectively.
Service gaps – support and case management	The PHN is served at a rate substantially lower than the Queensland population, with marked differences across regional areas.	**Data:** In 2016-17, 132 episodes of care for support and case management services were delivered across the PHN (AIHW data). This represents a rate of 16 per 100,000 population vs. 32 across the state. The AODTS data suggests that most of these services are delivered in CQ (55 out of 115 episodes of care). Whilst CQ shows a rate much closer to Queensland (24 vs. 32), services are low in SC (7 per 100,000). Unfortunately, no other available data exists to validate these findings. As noted earlier, we will need to assess these findings with our stakeholders. This will help us examine the validity of these estimates and understand the potential drivers of such variability.
Service gaps - after-hours and outreach services	Limited availability of services, that need to be taken in the context of the overall lack of services across the PHN.	**Data:** Only two organisations – one in Wide Bay and one in Central Queensland – were delivering AoD services 24/7 in 2016. Although there are eight AoD providers offering outreach AoD services in the PHN catchment, the capacity to deliver services is rather constrained.
Youth and young adult AoD education, prevention and treatment services	Given the high prevalence of AoD misuse across young people, important gaps in services have been noted.	**Data:** Within the PHN, in 2017-18, a total of 3,600 young people used the headspace youth mental services (15,000 episodes of care). In Central Queensland, stakeholders indicated concerns about insufficient services for young people whose homes were affected by drugs, alcohol misuse and domestic violence. In the Sunshine Coast area, lack of employment for young people was raised as an issue affecting mental health and wellbeing among young people. **Consultation:** In previous consultations with Clinical and Community Advisory Councils in the PHN catchment identified similar concerns as stakeholders in the catchment.

Outcomes of the service needs analysis		
		QH data for 2016-17 suggests that approximately half (48.7%) of AoD services across the PHN were delivered to people under 30 years of age. Slightly higher than the 45.2% observed in Queensland. However, in line with the high prevalence of AoD misuse amongst very young people, the PHN shows a large share of clients under 20 years of age (19.1%) than in Queensland (16.9%).
Workforce development has been identified as a critical gap for effective scale-up of services.	One of the most important constraints to effectively scale-up services in the PHN relate to workforce. However, limited evidence exists on current levels, gaps and best strategies to address those gaps.	**Data:** There is limited information available on the profile of our specialist AoD workforce and the implications of local issues such as the relative share of NGO vs. government sectors and changing patterns in AoD use. Current best-practice in workforce development strategies emphasises a multi-faceted approach with a strong system focus targeting individual, organisational and structural factors impacting workforce in general. **Consultation:** The PHN has commissioned NCETA to undertake workforce development needs assessment consultations that will be used to inform our regional strategy and determine priority areas for future action, including assembling the required data.
Fragmented and poorly coordinated services	Fragmentation and poor coordination of the various services receiving AoD clients prevents achieving better outcomes for clients in an efficient way.	**Consultation:** Feedback to QNADA from statewide NGO AoD service providers identified the need to: - Improve coordination of AoD and related services between sectors. - Coordinate with existing services to avoid overlap and expand capacity to accommodate all individuals in need of treatment. - Co-locate mental health and AoD services as a strategy to improve coordination. As noted under the mental health section, participants at the consumer journey exercise also stressed barriers and challenges imposed by current fragmentation of services, including the lack of dual diagnosis for those clients affected by both mental health and AoD misuse.

Indigenous Health (including Indigenous chronic disease)

Outcomes of the service needs analysis		
Identified Need	Key Issue	Description of Evidence
Uptake of preventative health checks	Uptake of preventative health checks has been increasing in recent years, however there is marked variation in the region.	**Data:** MBS data from 2015-16 shows approximately one third of the Aboriginal and Torres Strait Islander population had an Indigenous Health Check (MBS item 715) in the PHN (0.34 checks per Indigenous person). This ranks 4th highest rate of the 31 PHNs and compares to 0.27 nationally. This rate has increased steadily from 0.20 in 2012-13. In 2016-17 these rates were lowest in SC area (0.08 to 0.22 checks per Indigenous person) and highest in CQ (0.40 to 0.65; WB 0.28 to 0.40). **Consultation:** Stakeholders identified health promotion and prevention activities as a priority for Indigenous populations.
Access to health services	Lower access to specialist services Higher rates of PPHs Cultural appropriate service availability	**Data:** Australia's health 2018 reports that nationally, the rate of GP attendances were 10% higher for Indigenous than non-Indigenous Australians, however specialist services were 43% lower. Additionally, the rate of potentially preventable hospitalisations (PPHs) was 3 times higher for Indigenous than non-Indigenous Australians (69 and 23 per 1,000 respectively). **Consultation:** Stakeholders identified poor access to culturally appropriate health services, dislocation from cultural support systems, exposure to racism. Service providers have identified gaps in the pathways to patients accessing NDIS or Integrated Team Care (ITC) programs.

Outcomes of the service needs analysis		
Maternal & child health services	Persistent disparities are evident in pregnancy and birth outcomes between Aboriginal and Torres Strait Islander and non-Indigenous Australians. Fewer Indigenous mothers are accessing antenatal care than non-Indigenous mothers.	**Data:** Reported rates of smoking during pregnancy are much higher in Aboriginal and Torres Strait Islander mothers than non-Indigenous mothers. As presented earlier, rates (2013-2015) were greater than 50% in both Central Queensland and Wide Bay (AIHW 2018). Child and Maternal Health Indicators (AIHW, 2018) show in 2013-2015: - Fewer Aboriginal and Torres Strait Islander mothers had at least one antenatal visit in the first trimester (48.9%; Indigenous mothers Aus 54.2%; all mothers PHN 63.6%). - Antenatal attendance rates were very low in Wide Bay (45.8%) and Central Queensland (47.7%) compared to Sunshine Coast area (69.7%) and the highest PHNs (83.7%). Preliminary data for 2017 (QH, 2018) indicates that: - One in seven births to Indigenous mothers in the PHN were of low birthweight (14.2% compared to 6.5% of births to non-Indigenous mothers) - Wide Bay HHS has highest proportion of LBW babies among Aboriginal and Torres Strait islander mothers of all Queensland HHSs in 2017 (18.4%; PHN 14.2%; Qld 13.0%) **Consultation:** The above is likely to reflect multiple barriers such as insufficient culturally competent services, lack of service availability, or lack of knowledge regarding available services.
Workforce	Aboriginal and Torres Strait Islander people are more likely to live in remote and very remote areas than non-Indigenous Australians. These areas are known to experiences difficulties recruiting and retaining a skilled, culturally proficient workforce.	**Data:** Aboriginal and Torres Strait Islander people are more likely to live in remote areas. In the PHN, 10% of the Indigenous population in CQ lives in remote areas compared to 4.6% of non-Indigenous (Census, 2016). The AIHW developed a metric to estimate relative workforce supply (FTE rates) adjusted for land size, population density/dispersion and proximity to services (percent of population more than an hour's drive away). The Geographically-adjusted Index of Relative Supply (GIRS) is presented at SA2 level and within the PHN there are 25 (of 94 reported) with low GIRS scores for GPs, indicating high workforce supply challenge. Among these some areas have high Aboriginal and Torres Strait Islander populations:

Outcomes of the service needs analysis		
		Central Queensland area: - Central Highlands – East SA2, 1,350 Indigenous people (18.6% of population) - Mount Morgan SA2, 387 (13.2%) - Gracemere SA2, 982 (8.4%) - Bouldercombe SA2, 133 (7.1%) **Wide Bay area:** - Monto – Eidsvold SA2, 278 (7.3%) - Gayndah – Mundubbera SA2, 404 (6.1%) - Burrum – Fraser SA2, 413 (4.3%) **Sunshine Coast area:** - Gympie Region SA2, 538 (2.9%) An additional metric is available to summarise workforce supply GIRS scores across multiple disciplines (GPs, nurses, midwives, pharmacists, dentists, psychologists and optometrists). Central Highlands East and West SA2s had the highest values where four of the seven disciplines had high workforce supply challenge (the lowest possible GIRS score). **Consultation:** Feedback from CQ area highlighted insufficient opportunities for workforce development pertaining to cultural safety due to lack of training providers. Difficulty in finding culturally aware workforce in areas of both high and low workforce supply.
Over-representation in emergency department presentations	Aboriginal and Torres Strait Islander people are presenting to EDs at much higher rates than non-Indigenous people – particularly in CQ and WB.	**Data:** Aboriginal and Torres Strait Islander people were over-represented in ED presentations (2017-18), identified in almost 20,000 episodes (6.6% of all presentations in the PHN vs 3.6% of PHN population). This was particularly evident in CQ (10.3% vs 5.7%) and WB (7.1% vs 4.2%). Across the PHN, Indigenous emergency episodes occurred at an ASR of almost 70,000 per 100,000 Indigenous population (all episodes ASR 37,000 per 100,000 total population).

Outcomes of the service needs analysis		
		- In the three PHN sub-regions, WB area saw the highest ASR (77,100 episodes per 100,000 Indigenous population) followed by CQ (69,000) and SC (62,100). - Within the areas, the highest emergency presentation rates were seen in Banana (130,000), Fraser Coast (107,000), and Gympie (84,000) LGAs. - The highest proportions of Indigenous patients were seen for AoD (16.2%), suicide (12.2%), diabetes (8.9%) and asthma (8.6%) related emergency presentations. - CQ area had the highest proportions in the PHN of Indigenous episodes for every diagnostic group explored except for asthma. **Consultation:** Stakeholders acknowledged the poorer health status of Aboriginal and Torres Strait Islander peoples in the catchment and noted the need for culturally appropriate services, employment of local Aboriginal and Torres Strait Islander staff and the need for support services – such as transport to medical appointments for clients.
MENTAL HEALTH AND SUICIDE PREVENTION		
Insufficient culturally appropriate services with a holistic approach to strengthen the mental health and wellbeing	Aboriginal and Torres Strait Islander culture takes a holistic view of health. Their traditions, values and health belief systems need to be considered in designing and delivering mental health programs and services.	**Data:** The PHN service mapping identified 17 mental health community providers that received funding for delivering services targeting Aboriginal and Torres Strait Islander populations. The survey was not able to capture the extent to which these services are culturally appropriate and adopt a holistic approach. **Consultation:** Previous stakeholder consultations noted the need for culturally appropriate services, employment of local Aboriginal and Torres Strait Islander staff and the need for adequate support services. They also stressed that there appears to be limited understanding of what holistic health is for Aboriginal and Torres Strait Islander people and acceptance of the importance of such a holistic approach in delivering services. Stakeholders also stressed the need for more Aboriginal and Torres Strait Islander specific mental health services which are embedded within the communities they serve. They also

Outcomes of the service needs analysis		
		noted that Aboriginal and Torres Strait Islander people face barriers in mainstream hospital systems. Stakeholders in Gympie and surrounds identified additional barriers to accessing culturally sensitive care included limited information on how to navigate service landscape and limited bulk-billing opportunities.
Insufficient models of suicide prevention services	Culturally appropriate suicide risk prevention models targeting the Aboriginal and Torres Strait Islander population are currently lacking.	**Consultation:** Stakeholder feedback suggests there are important gaps in suicide prevention services targeted at the Aboriginal and Torres Strait Islander population. This is particularly important for Central Queensland, the PHN regional area with the highest proportion of Aboriginal and Torres Strait Islander people (5.7% vs. 3.6% across the PHN).
Suicide-related Emergency Department presentations.	Over-representation of Indigenous populations in suicide-related ED presentations across the PHN NB: PHN and HHS level rates are based on all presentations to hospitals within the PHN, LGA rates are based on presenting patient's usual residence (PHN residents only).	**Data:** Of the 4,300 suicide-related ED presentations in 2017-18, 12.1% were Aboriginal and/or Torres Strait Islander peoples (vs 3.6% of PHN population). This was evident across all three sub-regional areas: - CQ area (15.4% vs 5.7%) - WB area (13.2% vs 4.2%) - SC area (6.9% vs 2.1%) Suicide-related ED presentations occurred at an average rate of 1,760 episodes per 100,000 Indigenous population in the PHN. This rate was highest in CQ (2,180 episodes per 100,000 Indigenous population; WB 1,700; SC 1,170). The highest rates per 100,000 Indigenous population were seen in Rockhampton (1,840) and Banana (1,740) in CQ, Fraser Coast (1650) in WB and Gympie (1,690) in SC. The highest proportions for Indigenous patients were seen in Woorabinda (75% of suicide-related ED presentations), Banana (25.0%) and Rockhampton (15.7%) in CQ, North Burnett (26.7%) and Bundaberg (14.2%) in WB, and Gympie (14.4%) in SC.
Service gaps – commissioned services	Currently low levels of services will need to be expanded in a sustainable manner.	**Data:** Unfortunately, a limited number of clients disclose their ethnicity. There were 255 Indigenous clients receiving commissioned mental health services in 2017-18 (vs. 345 in

Outcomes of the service needs analysis		
		2016-17). Of these, 36.5% (92 out of 255) received culturally appropriate services. This is a drop from the previous year (61% in 2016-17), which might be partially accounted for by the change to a new service provision model across mental health services and difficulty in recruiting and retaining a culturally appropriate workforce across the region.
Indigenous workforce – workforce development needs, including of culturally safe strategies	A more effective sector requires higher numbers of Aboriginal and Torres Strait Islander staff underpinned by culturally safe workforce development strategies.	**Consultation:** The mental health, alcohol and other drug (MHAOD) workforce consultations currently underway will provide the foundations for the PHN to undertake a comprehensive needs assessment and workforce development strategy that targets key issues facing Indigenous workers in the PHN and which is aligned with the state framework (Queensland Aboriginal and Torres Strait Islander Health Workforce Strategy Framework 2016-2026).
ALCOHOL AND OTHER DRUGS		
Service gaps AoD - community services delivered by NGO and public providers to the Indigenous population	In line with their higher need, Indigenous clients receive 12.6% of episodes of care (vs. over 3% of the population). AoD services delivered to Indigenous clients have grown at a fast pace across the PHN, but given their low starting base, a large unmet need is expected.	**Data:** **Volume of services** Reflecting their higher need, 12.6% of episodes of care were provide to Indigenous clients in 2016-17 (vs. 10% in 2013-14). This is four times their population share (3.1%). A similar over-representation of Indigenous clients was observed across the three regional areas. **Trends** 728 AoD episodes of care for Indigenous clients were delivered in 2016-17. This is 1.8 times the volume in 2013-14 (401 AoD episodes of care received by Indigenous clients), but consistent with 2015-16 (732 AoD episodes of care) **Principal drug of concern** In 2016-17, within the PHN, 269 closed episodes of care delivered to Indigenous clients (43.5%) had cannabinoids as the principal drug of concern. This is a slightly lower than two years earlier (47%).

Outcomes of the service needs analysis		
		Amphetamines now accounts for second most common drug of concern (22.2% of all episodes of care, n=137) and increased 9% from 2015-16. Alcohol was the third most common drug of concern, accounting for 21.2% of episodes of care in 2016-17 (vs. 20.4% in 2015-16). **Who delivers services** In 2015-16, 56% of all AoD services are delivered by public providers vs. 44% by NGOs. It is important to note the growing importance of the NGO sector, which accounted for only 17% of all episode of care to Indigenous clients two years earlier. As noted earlier, given workforce development differences across public and community sectors, this has important implications for future workforce development in the region. Unfortunately, discrepancies between the AIHW data and the Queensland Health data prevented us from undertaking a more detailed analysis of the AIHW data in regard to the type of services received to the Indigenous population across the PHN.
AoD related ED presentations	Over-representation of Indigenous populations across the PHN and in each regional area in ED presentations due to AoD misuse. Particularly seen in CQ and WB areas.	**Data:** In 2017-18, 15.9% of AoD-related ED presentations identified as Aboriginal and/or Torres Strait Islander people (3.6% of population). This higher proportion of Indigenous presentations was evident across all 3 sub-regional areas. The majority of these episodes occurred at emergency departments in CQ, followed by WB with the remainder in SC area. The average rate of AoD-related ED presentations was 1,360 episodes per 100,000 Indigenous population in the PHN. - CQ area (1,930 per 100,000) - WB area (1,120 per 100,000) - SC area (750 per 100,000) The highest rates per 100,000 Indigenous population were seen in Woorabinda (3,940) and Banana (3,830) LGAs in CQ.

Outcomes of the service needs analysis		
		The highest proportions for Indigenous patients were seen in Banana (37.9% of AoD-related presentations) and Rockhampton (31.8%) in CQ, and North Burnett (22.2%) and Fraser Coast (13.7%) in WB.
Lack of culturally appropriate services	Culturally competent services are required to ensure the engagement of Aboriginal and Torres Strait Islander people and successful reductions in alcohol and other drug related harm. The resource implications of providing culturally competent and effective AoD services for Indigenous populations should be given due consideration.	**Data:** The PHN provides face to face cultural awareness training and RACGP online accredited cultural awareness training is a requirement for practice accreditation – Criterion C2.1. Although local evidence is not available to examine the cost implications of delivering culturally competent and effective AoD services to Indigenous clients, previous work on the Drug and Alcohol Service Planning Model adaptation suggested that the additional costs of delivering the required care to Indigenous clients are about two to three times as much as for non-Indigenous clients. They are greater because of the need to include additional elements such as specific care components (i.e. return to country/community), as well as other elements such as better engagement with families and more intensive assertive follow up. **Consultation:** Similar to mental health services, AoD services need to be grounded on a holistic concept of health and wellbeing, reinforce Aboriginal family systems of care, support and responsibility, place culture as a central core component of the service. Stakeholders in the PHN identified a lack of culturally responsive service provision, including lack of support services for Aboriginal and Torres Strait Islander families experiencing drug and alcohol misuse within their family.
Indigenous workforce – workforce development needs, including of culturally safe strategies	Insufficient Aboriginal and Torres Strait Islander AoD workers has been identified as a critical gap to be addressed. This is in addition to the above issue of overall constraints in AoD workforce across the PHN and the lack of a sound evidence base to inform effective strategy development.	**Data:** Service mapping shows that only two out of 14 AoD providers that participated in the service mapping reported Aboriginal and Torres Strait Islander health workers amongst their AoD treatment staff. **Consultation:** A comprehensive MHAOD workforce development needs assessment will be needed to provide the evidence required for a workforce development strategy aligned with the state

Outcomes of the service needs analysis		
		framework and which targets key issues facing Indigenous workers in the PHN, including the need for higher numbers.