Australian Government
Department of Health

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An Australian Government Initiative

2017-18 HEALTH NEEDS ASSESSMENT

CENTRAL QUEENSLAND, WIDE BAY, SUNSHINE COAST PHN

Section 1 – Narrative

This report builds on the *2015-16 Baseline Needs Assessment* for the Central Queensland, Wide Bay, Sunshine Coast PHN (the PHN). In undertaking the *2015-16 Baseline Needs Assessment*, a range of quantitative indicators were examined in relation to determinants of health, health status, and health system performance in accordance with the structure set out in the *National Health Performance Framework*.

Where data permitted, indicators were reported at the lowest geographic level possible (e.g. LGA and/or SA2) to enable specific locations and populations within the PHN catchment to be examined, and specific strategies and actions to be identified.

The Executive Leadership Team for the PHN agreed that given the comprehensive nature of our initial needs assessments, updates to the *2017-18 Health Needs Assessment* would be minimal, with content being changes only being made where the evidence of significant change existed. This approach is consistent with advice from the Department of Health, which emphasised that this deliverable is intended as an update to provide the opportunity for PHNs to revisit their *2015-16 Baseline Needs Assessment* and fine-tune and/or add needs where it is considered reasonable to do so.

A key focus of this update has been on identification of unmet health needs and service solutions through ongoing engagement as part of commissioning activities.

Key findings and implications

1. Life expectancy is increasing but people in the PHN catchment are not necessarily healthier

Unpublished data show that from 2011-2015, male life expectancy at birth for the PHN catchment reached 80.4 years, while female life expectancy reached 85.0 years. The male and female combined life expectancy at birth estimate for the PHN catchment was 82.6 years, slightly higher than for Queensland overall (82.4 years).

While people in the PHN catchment are living longer than ever, they are not necessarily in good health in old age. Despite a trend toward healthier lifestyle choices, the chronic disease burden within the PHN catchment is considerable and expected to increase over the coming decades as the population ages, with major sources of burden being cancer, cardiovascular disease, chronic obstructive pulmonary disease, lung cancer and dementia.

Across the PHN catchment, this burden is likely to be greatest in Rockhampton and the coastal strip, with these areas having chronic disease mortality and disability rates significantly above the PHN catchment and state average. The chronic disease burden can be expected to place increasing pressure on health and aged care services within the PHN catchment in the decades to come.

Reducing the chronic disease burden across the PHN catchment will require sustained efforts combining health promotion, early detection, chronic disease management and specialist and acute care to treat the more severe health outcomes.

2. Reducing the growing burden of chronic disease in the PHN catchment is within our control

Only a small proportion of the chronic disease burden affecting people in the PHN catchment is due to factors such as age, sex and family history, which are outside of a person's control and cannot be altered. Most of the chronic disease burden is attributable to factors such as smoking, overweight and obesity, alcohol misuse and inadequate diet, all of which can be reduced or prevented by behavioural changes or through medical intervention.

For example, the smoking rate, a leading cause of ischaemic heart disease, COPD, lung cancer and stroke in the PHN catchment, exceeds the Queensland and national rates, with the proportion being higher for males than females. Smoking rates are particularly high in North Burnett and Gympie.

The rate of overweight and obesity, a major driver of type 2 diabetes and cardiovascular disease among residents in the PHN catchment, is also significantly higher than the Queensland and national rates, with males being much more likely to have this risk factor than females. Rates of overweight and obesity are particularly concerning in North Burnett and Gympie. The disability consequences of increasing obesity will be magnified as fatality rates for people with diabetes continue to decline. This increased survival will mean an increase in the risk of people developing other non-fatal but disabling consequences of diabetes such as renal failure and vision loss.

People across the PHN catchment will benefit from a further expansion of services aimed at improving early detection and management of chronic diseases and from improved service coordination. However, the largest health gains are likely to come from preventive interventions that target the underlying drivers of chronic disease, namely, the high rates of smoking and overweight and obesity.

As chronic disease trajectories start at an early age, preventive interventions targeting school-age children are critical for reducing the health burden in the long-term. While preventive interventions offer the greatest potential for health gain, the returns for these efforts will take time to be realised.

3. Aboriginal and Torres Strait Islander people in the PHN catchment face many health problems, but chronic disease is the most pressing challenge

In this report, measures have not been reported separately for Aboriginal and Torres Strait Islander people living in the PHN catchment. For most of the indicators presented in this analysis, the numbers of Aboriginal and Torres Strait Islander people are too small to provide accurate and reliable estimates.

Nevertheless, there is a large body of evidence showing that on most key measures of health, there are significant disparities between Aboriginal and Torres Strait Islander people and non-Indigenous Australians. The *Aboriginal and Torres Strait Islander Health Performance Framework 2017*, the most comprehensive audit of Aboriginal and Torres Strait Islander health, shows that while there has been a decline in the overall burden of disease following reductions in premature mortality due to circulatory disease, kidney disease and respiratory disease, the burden of chronic disease has continued to increase, with more Aboriginal and Torres Strait Islander people now living with chronic disease than ever before.

Chronic diseases are now responsible for over two-thirds of the total disease burden for Aboriginal and Torres Strait Islander people, and 70% of the gap. While the number of Aboriginal and Torres Strait Islander people across the PHN catchment is relatively small, the limited data available indicates that the burden of disease among this population is much higher than their non-Indigenous counterparts.

There is great potential to improve Aboriginal and Torres Strait Islander health outcomes through preventive interventions that address the underlying risk factors that drive much of

this burden. The much higher disease burden makes it more likely that preventive interventions aimed at addressing the high rates of smoking, overweight and obesity and physical inactivity will achieve large health gains in Aboriginal and Torres Strait Islander people.

4. There are pressure points in the health system which need to be addressed

The health system is a complex network of public health and preventive services, primary health care, emergency health services, hospital-based treatment, and rehabilitation and palliative care for close to one million people. These services are provided by a variety of organisations and health professionals, supported by disease prevention, detection, monitoring, diagnosis, treatment, consumer and advocacy groups; universities and professional bodies; and voluntary and community organisations that run health education and health promotion programs.

While the evidence suggests that the health of people in the PHN catchment continues to improve in some key areas, there are pressure points in the health system that need to be addressed.

5. More effort is needed on the maternal and child health front

Expectant mothers in the PHN catchment attend antenatal care below the recommended schedule of visits for antenatal care. Infant and child mortality in the PHN catchment is in line with state rates, but still much higher than the national rates.

The proportion of low birthweight babies born in the PHN catchment is below the state average, however, rates remain high in areas such as Banana and Woorabinda. Key contributors are the high rates of smoking during pregnancy.

Breastfeeding rates are comparable with the state and national rates, but there are areas within the PHN catchment such as Bundaberg and North Burnett where breastfeeding rates are lower.

The vaccination rate among one year olds in the PHN catchment is slightly below the state and national rates, although still above the 90% threshold considered critical for providing whole-of-population protection from infectious disease via herd immunity. Among two-year olds, vaccination coverage is currently below the critical threshold, with the rate for Sunshine Coast being particularly low at 86.4%.

Actions to address systematic differences in maternal and child health outcomes across the PHN catchment indicate gaps in the provision and/or utilisation of preventive services to improve the health of pregnant women and their babies.

Across the PHN catchment, opportunities to improve maternal and child health may include:

- remove barriers to early and regular access to antenatal care;
- address the underlying drivers of poor health outcomes, namely, overweight and obesity in pregnant women, and smoking and excessive alcohol use during pregnancy;
- improve maternal nutrition, particularly among high risk groups such as Aboriginal and Torres Strait Islander mothers;
- increase the proportion of fully breastfed babies; and
- achieve infant and child immunisation rates at or above 90%.

6. Avoidable hospitalisations need to be reduced

Hospital-based care is currently being provided to large numbers of people with conditions such as COPD and diabetes which can be effectively treated in a low-cost primary care setting.

Steps may be taken to reduce the number of preventable hospital admissions by removing barriers to GP access, and encouraging people to view primary care as the first treatment option rather than the public hospital system. This will greatly reduce cost pressures on hospital emergency departments across the PHN catchment.

7. Health promotion can play a key role in empowering individuals and communities to better manage their health

Chronic disease is taking a growing toll on the health and quality of life of people across the PHN catchment. A large proportion of this health burden is attributable to modifiable risk factors that can be reduced or prevented altogether by simple changes to behaviour, resulting in long-term, sustainable improvements in health and quality of life.

Australia has an enviable track record of successfully leveraging mass media and social marketing (e.g. smoking; alcohol and drug use; physical activity and diet; sunscreen; safe sex; drink driving and road safety) to educate and empower individuals about their health and strengthen the community's capacity to address the determinants of health.

Health promotion campaigns specifically targeting the modifiable risk factors identified above, represent a cost-effective prevention strategy for achieving sustainable improvements in health, while recognising that the returns for these efforts can take time to be realised.

8. Population ageing and the demand for aged care services

The proportion of people aged 65 and over is increasing due to declining birth rates and increasing longevity. In 2016, one in five people in the PHN catchment were aged 65 years and over, and this is projected to increase to around 262,000 by 2036.

Of these, around 15.0% have a severe or profound disability and likely to need some form of supported accommodation, be that their own home, the community or in residential aged care. This combination of an ageing population together with an increasing burden of chronic disease and disability, will increase the demand for services in the home, community care, residential aged care and palliative care sectors. Currently, there is a shortage of appropriate care options available in the PHN catchment to meet the expected growth in demand.

Section 2 – Outcomes of the health needs analysis

Outcomes of the health needs analysis		
Identified Need	Key Issue	Description of Evidence
Determinants of health		
Tobacco use	Smoking is a leading cause of death and disability from cardiovascular disease, ischaemic heart disease, COPD and lung cancer. Some 18,800 Australians die prematurely from tobacco-related illnesses each year. The smoking rate in the PHN catchment is higher than the corresponding Queensland and national rates.	The smoking rate in the PHN catchment is higher than the Queensland and national rates. In 2014-15, 13.1% 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 12.3% for Queensland and 11.9% for Australia overall. Across the PHN catchment, smoking rates were highest in North Burnett and Gympie and lowest in the Sunshine Coast. While no data are available for Aboriginal and Torres Strait Islander people living in the PHN catchment, smoking rates are known to be unacceptably high. In 2014–15, the rate of current smokers among Aboriginal and Torres Strait Islander adults aged 18 years and over was 45%, making them 3.8 times more likely to be a current smoker as non-Indigenous Australians.
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, pre-term birth and perinatal death. The rate of tobacco smoking during pregnancy in the PHN catchment is significantly higher than the state rate.	Smoking during pregnancy is a major health risk within the PHN catchment. Data from the National Perinatal Data Collection (NPDC) show that in 2014-16, 15.6% of women smoked while pregnant. This rate was significantly higher than the rate for Queensland (12.0%). In other words, women in the PHN catchment were 1.3 times more likely to smoke while pregnant than other Queensland women. Almost half (46.5%) of Aboriginal and Torres Strait Islander women in the PHN catchment smoked during pregnancy, making them 3.5 times more likely to smoke than non-Indigenous women. Across the PHN catchment, smoking rates during pregnancy were highest in Wide Bay (21.7%), with women in this area 1.4 times as likely to smoke while pregnant than women elsewhere. The lowest proportion was in the Sunshine Coast (11.8%).

Outcomes of the health needs analysis		
Risky alcohol consumption	Excessive consumption of alcohol is associated with health and social problems in all populations. Long-term excessive alcohol consumption is a major risk factor for conditions such as liver disease, pancreatitis, heart disease, stroke, diabetes, obesity and cancer. It is also linked to social and emotional wellbeing, mental health and other drug issues (NHMRC, 2009). Where mothers have consumed alcohol during pregnancy, babies may be born with Foetal Alcohol Spectrum Disorders (FASD) (Telethon Institute for Child Health Research, 2009). Binge drinking contributes to injuries and death due to suicide, transport accidents, violence, burns and falls. For the general population, one-third of suicides for men and women and one-third of motor vehicle deaths for men have been linked to alcohol consumption (NHMRC, 2009). Alcohol abuse can also affect families and communities. It has the potential to lead to antisocial behaviour, violence, assault, imprisonment and family breakdown (NHMRC, 2009).	Queensland Health CATI survey 2015-16 reports: - Proportion of people who had lifetime risky alcohol consumption (exceeding guidelines) was higher within the PHN (24.5%) than Queensland (based on 95% confidence intervals non-overlap). Chronic disease health indicators from CATI survey data 2013-14, Queensland Health shows: - The LGAs where the proportion of adults who reported alcohol consumption that was risky (lifetime) was highest in Central Highlands (33.5%), Livingstone (27.0%), Banana (25.2%), and Gladstone (25.0%), compared to Queensland (19.8%).
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. This report finds that a significant proportion of people in the PHN catchment report being in fair or poor health.	In 2014-15, 115,500 people living in the PHN reported being in fair or poor health. This equates to 16.4 per 100, higher than the corresponding Queensland (15.4) and Australian rates (14.8). Across the PHN catchment, the rates fair or poor self-assessed health ranged from as low as 13.6 in Woorabinda to as high as 20.9 in North Burnett and 19.8 in Fraser Coast.
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 the PHN catchment than the rates for Queensland and Australia.	In 2014-15, 67.2% of people aged 18 and over were overweight or obese in the PHN. This rate was significantly higher than the rates for Queensland (63.1%) and Australia (63.0%). Males (72.5%) living in the PHN catchment were much more likely than females (62.2%) to be overweight or obese in 2014-15. This disparity between males and females is evident at both the state and national level. Across the PHN catchment, North Burnett (76.5%) and Gympie (72.2%) had the highest rate of overweight and obesity, while the Sunshine Coast (63.8%) had the lowest.

Outcomes of the health needs analysis		
Diet	There is a strong association between diet and health. A fibre-rich diet, including foods such as fruit and vegetables has been shown to reduce the risk of chronic diseases such as ischaemic heart disease, stroke and some cancers, while a diet high in saturated fats and refined carbohydrates increases the likelihood of developing these diseases. Inadequate nutrition during pregnancy is associated with low birthweight in babies and inadequate infant and childhood growth.	Dietary intake is generally inadequate within the PHN catchment. In 2014-15, 52.2% of people aged 18 and over in the PHN reported eating the recommended daily intake of fruit and vegetables. This compares to 50.8% for Queensland and 49.5% for Australia overall. Across the PHN catchment, adults living in Sunshine Coast (53.9%) and Gympie (53.1%) had the highest proportion of adequate fruit and vegetable intake, while in Central Highlands (47.0%) had the lowest. Rates of recommended levels of daily fruit and vegetable intake are lower for Aboriginal and Torres Strait Islander people than for non-Indigenous Australians.
Vulnerable population groups		
Children		
Life expectancy at birth	Life expectancy at birth is a widely used measure of population health. While people in the PHN catchment are living longer than ever, they are not necessarily in good health in old age.	Official estimates of life expectancy at birth for the PHN catchment are not available. For this report, the PHN has used detailed (unpublished) deaths and population data for the 2011-15 period to produce a consistent set of life expectancy estimates for the PHN catchment which can be compared to the state and national life tables. These estimates show that during 2011-2015, male life expectancy at birth for the PHN catchment reached 80.4 years during in 2015, while female life expectancy reached 85.0 years. The male and female combined life expectancy at birth estimate for the PHN was 82.6 years. This was slightly higher than for Queensland overall (82.4 years), and only marginally below the Australian figure of 82.8 years. While people in the PHN catchment are living longer than ever, they are not necessarily in good health in old age. Despite a trend toward healthier lifestyle choices, the chronic disease burden is increasing due to population growth and ageing. Due to the small numbers of Aboriginal and Torres Strait Islander deaths in the PHN catchment, it was not possible to produce accurate life expectancy estimates for Aboriginal and Torres Strait Islander people in the PHN catchment. 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).

Outcomes of the health needs analysis		
Antenatal care	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. Expectant mothers in the PHN catchment attend antenatal care below the recommended schedule of visits for antenatal care.	Expectant mothers in the PHN catchment attend antenatal care below the recommended schedule of visits for antenatal care. Perinatal data for 2012 show that 64.8% of expectant mothers in Queensland attended their first antenatal visit within their first trimester (less than 14 weeks). A further one-third (32.2%) had their first antenatal visit during their second trimester (32.2%). In 2014, 13% of expectant mothers in the PHN catchment had fewer than five antenatal visits during their pregnancy.
Immunisation	Immunisation through vaccination is one of the most effective preventive health measures ever developed for protecting against the spread of infectious diseases. While vaccination rates in the PHN catchment are above the 90% threshold considered critical for providing whole-of-population protection, one in 10 children aged 0-5 years are currently under-vaccinated or receive delayed vaccination.	**Children aged 0-5** Childhood vaccination rates are high in the PHN catchment. In 2015, 91.4% of children in the PHN catchment were fully immunised by age one, slightly below the state (92.4%) and national (92.3%) rates. These rates are above the 90% threshold considered critical for providing whole-of-population protection from infectious disease via herd immunity. Across the PHN catchment, the highest rates of immunisation among one year olds were in Central Highlands (94.3%) and Bundaberg (94.0%). Gympie had the lowest rate at 89.1%. Among two year olds, vaccination coverage in the PHN was estimated at 89.3%, slightly below the state rate of 90.2%. Sunshine Coast (86.4%) had the lowest vaccination rate among this age group. Vaccination coverage for five year olds was 91.3%, slightly below the state rate of 92.4%. Gympie (89.0%) had the lowest vaccination rate among 0-5 year olds. **HPV** By 2016, 67.8% of males and 73.9% of females aged 12-13 years in the PHN catchment were fully vaccinated against HPV. The corresponding rates for Queensland were 70.1% and 76.9%, while the Australian rates were 79.2% and 70.4%. Across the PHN catchment, HPV vaccination rates were highest in North Burnett (males 89.8% and females 89.0%) and lowest in Rockhampton (males 59.8% and females 68.7%). **Immunisation coverage for Aboriginal and Torres Strait Islander children:** - The PHN ranks 14th lowest for children aged 12-<15 months (90.28%) compared to the PHN with highest coverage (95.65%).

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		- The PHN ranks 9th lowest for children aged 24-<27 months (87.02%) compared to the PHN with highest coverage (96.15%). - For Aboriginal and/or Torres Strait Islander children aged 60-<63 months, the PHN ranks within top 10 PHNs nationally that have high coverage (95.68%).
Australian Early Development Census (AEDC	Early education experiences and school readiness have a strong influence on future academic performance. A higher proportion of children in the PHN catchment are developmentally vulnerable compared with the national rate.	In 2015, 26.5% of children in the PHN catchment were developmentally vulnerable on one more domains. This proportion was comparable with Queensland (26.1%), but significantly higher than the Australian (22.0%) rate. Across the PHN catchment, Fraser Coast (31.0%), Gympie (30.4%) and North Burnett (30.4%) had the highest proportions of developmentally vulnerable children, while Sunshine Coast (21.3%) had the lowest. In the Aboriginal and Torres Strait Islander community of Woorabinda, children were twice as likely to be developmentally vulnerable than other children in the PHN catchment.
Youth		
Concerns about the health of young people in the PHN catchment	Data on many indicators of health behaviours, health status and health service utilisation are often not available separately for young people. There is evidence that young people in remote and very remote areas of Australia fare worse on a range of health indicators. Previous Medicare Local Needs Assessments in Wide Bay and Central Queensland identified risk-taking behaviours among young people as an issue of concern and recently many stakeholders in the PHN catchment raised concerns about potential increases in STIs, the impact of unemployment and limited opportunities for socialisation on mental health, and difficulties that young people experience in accessing primary health care services. Further data is required to explore this issue in greater detail.	The Australian Institute of Health and Welfare (AIHW) report, *Young Minds Matter, the Mental Health of Children and Adolescents Survey* (2013-14 data) indicates that 4-17 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%). - Lowest income bracket ($52,000 or less; 20.5%) compared to highest income bracket ($130,000+; 10.5%). - Neither parent/carer employed (21.3-29.6%) compared to both parents/carers employed (10.8%). - Living outside of the greater capital city areas (16.2%) compared to living in those areas (12.6%). The 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

		- have more dental decay - are less likely to see a general practitioner - 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 in jobless families and live in overcrowded housing - are more likely to be under youth justice supervision (*Remoteness, socioeconomic position, and youth justice supervision: 2014-15* AIHW) 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 risks 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 transmissible 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. With 97,364 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. Public Health Information Development Unit (PHIDU) data indicates that approximately 6,000 young people (7.2%) aged 16 to 24 years were receiving an unemployment benefit (Queensland: 5.2%). The LGAs with the highest proportions of young people receiving an unemployment benefit were Woorabinda (35.8%), Fraser Coast (11.7%) and Gympie

Outcomes of the health needs analysis		
		(11.4%) and Bundaberg (10.7%). (*Social Health Atlas of Australia Data by Primary Health Network*, published 2016, Release data (ABS – June 2014) A key theme from stakeholder feedback in the Wide Bay area was that young adolescent, and Aboriginal and Torres Strait Islander women are not necessarily presenting for antenatal care until late in their pregnancy (past the first or second trimester) or not at all, which may contribute to poor health outcomes associated with late and low antenatal attendance rates. Stakeholder feedback indicated concerns about sexually transmitted diseases and teenage pregnancies in Central Queensland, Wide Bay and Gympie LGA areas; 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 the 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.
Older population		
Aged care	Older people living independently within their communities live a longer and healthier life. Increasingly, older people prefer to age within their communities. The PHN catchment includes many regions with high proportions of older people including many beachside locations which are retirement destinations. There is a high proportion of people 65 years and over in the PHN catchment currently and projected for the future. An increasing number of support services and systems to support older people to continue to live in their homes will be required.	In 2015, the percentage of people aged 65 years and over (18.6 percent) in the PHN was significantly higher than for the state overall (14.4 percent). Across the PHN, Fraser Coast (24.2%), North Burnett (22.8%), Noosa (22.1%), Bundaberg (21.8%) and Gympie (20.8%) had the highest proportions of persons aged 65 years and over. 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 years and over will be 18.4% compared to Queensland 15.9%. This will result in 195,423 people aged 65 and over by 2021 (an increase of more than 46,000 in the next five years) and 308,738 people aged 65 and over by 2036.

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		Within the PHN, seven out of 12 LGAs will have more than 20% of their populations aged 65 and over. These demographic changes are compounded by limited public transport in many rural areas which makes it difficult for older people to attend GPs and other primary health care services. Stakeholders commented on the need for transport for older 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.
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. There is evidence that aged care reforms are not well understood by older people in the PHN catchment.	Stakeholders raised a number of 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 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 more than one year after the introduction of the My Aged Care Portal, with particular concern about the ability of frail, vulnerable aged persons to access the system.
Dementia	The physical, emotional and economic impact of dementia extends to families and care givers of the individual with dementia. As the number of people aged 65 years and over in the population increases, there will be a concomitant increase in the number of people with dementia.	*Dementia Estimates and Projections: Queensland and its Regions,* Access Economics 2003 estimates: - An increase in the number of people in the population expected to have dementia from 1.1% of the population (3,142 people in 2002) to 3.3% (20,630 in 2050) within the Sunshine Coast and Cooloola region, representing approximately a 6.6-fold increase over the 48-year period (compared to the Queensland estimate of a 5.1-fold increase over the period). - Estimates of the number of people likely to be affected by dementia in 2020 from this study suggest 2,513 for Central Queensland, 2,053 for Fraser Coast; 3,932 for Wide Bay and 7,946 for the Sunshine Coast and Cooloola region.
Chronic disease among the elderly	Ageing is a determinant of health mainly due to increasing chronic disease in older age, and socio-economic factors related to older age. Formal and informal care of older people with chronic conditions is important for better quality of life after a diagnosis of chronic disease.	PHIDU data and QGSO data show that LGAs with high proportions of persons 65 years and over also have higher prevalence of chronic diseases: - Fraser Coast (65+ population 24.2%) has significantly higher estimates for asthma, arthritis and mental health related chronic conditions.

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	The prevalence of chronic conditions increases with age. With a population aged 65 and over predicted to increase within the PHN catchment at higher rate compared to Queensland. Effective prevention, early detection and management of chronic disease can delay the progression of disease, reduce the need for high-cost hospital-based interventions, improve quality of life in older people.	- Bundaberg (65+ population 21.8%) has significantly higher estimates for asthma, arthritis and mental health related chronic conditions. - Gympie (65+ population 20.8%) has significantly higher estimates for arthritis and mental health related chronic conditions. Queensland Government Statistician's Office (QGSO) data, 2011 also suggest that these areas are socio-economically disadvantaged and have highest rates of unemployment in the PHN catchment (2015 data). Information contained in the *National Primary Health Care Strategic Framework*, 2013 shows that among older Australians living in the community, almost half of those aged 65-74 years have five or more long-term conditions, increasing to 80% 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 is due to falls. Although the PHN catchment shows similar rates of falls compared to Queensland, most falls are preventable and falls greatly contribute towards reducing quality of life for elderly. The PHN catchment has high numbers of persons aged 65 and above who may be at risk of injuries from falls.	Falls are a major cause of hip fractures. The AIHW report, *Older Australia at a glance (fourth edition)* 2007, reports that 91% of hip fractures are the result of falls. *Chief Health Officer report,* Queensland Health, 2014 (data 2009-10 to 2011-12) shows that hospitalisation rates due to falls in people 65 years and over are similar to Queensland (2,720 ASR per 100,000) in all areas: - Wide Bay 2,761 ASR per 100,000 - Central Queensland 2,785 ASR per 100,000 - Sunshine Coast 2,683 ASR per 100,000 *Queensland Stay On Your Feet*, Queensland Health, 2008 shows 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.
Aboriginal and Torres Strait Islander peoples		
High proportion of disability among	High proportions of Aboriginal and Torres Strait Islander people in the catchment have a disability.	According to the *2014-15 Aboriginal and Torres Strait Islander Health Survey*, Aboriginal and Torres Strait Islander people were 1.7 times as likely to have some form of disability compared to non-Indigenous Australians, and twice as likely to have a severe or profound

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Aboriginal and Torres Strait Islander peoples		disability. The high rate of disability among Aboriginal and Torres Strait Islander people is also evident at the PHN level. The *Aboriginal and Torres Strait Islander Health Performance Framework (2017)* on *2014-15 Aboriginal and Torres Strait Islander Health Survey* data, reports that 42% of Aboriginal and Torres Strait Islander people aged 15 and over in Queensland reported having a disability or long-term restrictive condition.
Risk behaviours among Aboriginal and Torres Strait Islander people	Aboriginal and Torres Strait Islander people have high rates of behavioural and biomedical risk factors that are associated with chronic illness.	According to the *2014-15 Aboriginal and Torres Strait Islander Health Survey*, 40.5% of Aboriginal and Torres Strait Islander people in Queensland were current daily smokers compared to 16.0% of the non-Indigenous population. However, the Queensland rate has decreased from 43.0% in 2012-13 to the current rate of 40.5%. The *Aboriginal and Torres Strait Islander Health Performance Framework 2017* reports that in 2014-15, Aboriginal and Torres Strait Islander people: - 2.7 times more likely to be a current smoker than non-Indigenous Australians. - binge drink at 1.1 times the rate of non-Aboriginal and/or Torres Strait Australians, and report a stressor related to alcohol or drug-related problems 3.6 times the rate of non-Indigenous Australians. - are less likely to have met sufficient weekly activity levels compared to non-Indigenous Australians (rate of 0.8). - report inadequate daily fruit intake and daily vegetable intake at 1.4 times and 1.9 times, respectively, the rate of non-Indigenous Australians.
High rates of morbidity and mortality among Aboriginal and Torres Strait Islander peoples	Aboriginal and Torres Strait Islander people have poorer health outcomes and higher prevalence of chronic conditions compared to non- Indigenous Australians. 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.	The AIHW report, *Australia's health 2016*, reports that: - In 2012-13, two-thirds (67%) of Aboriginal and Torres Strait people 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 people were mental health conditions (29.3%), back pain or back problems (22.4%), problems with eyes or eyesight (19.3%) and asthma (19.2%). - From 2009-12, the mortality rate for Aboriginal and Torres Strait Australians who died from potentially avoidable causes (could have been avoided with timely and effective

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		health care) was more than three times the rate for non-Indigenous Australians (351 and 110 deaths per 100,000, respectively). According to the *Aboriginal and Torres Strait Islander Health Performance Framework* 2017: - Circulatory disease was the leading cause of death among Aboriginal and Torres Strait Islander people (24% of deaths) from 2011-15, 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 Aboriginal and Torres Strait Islander Australians from 2011-15, 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 Aboriginal and Torres Strait Islander people than non-Indigenous Australians. - Between 2013-15, the Aboriginal and Torres Strait Islander hospitalisation rate in Queensland was 1.2 times higher than non-Indigenous Queenslanders. - The life expectancy of Aboriginal and Torres Strait Islander people is 10.6 years lower for males and 9.5 years lower for females than non-Indigenous Australians. The AIHW 2016 report, *Incidence of end-stage kidney disease in Australia,* indicates that: - In 2009-13, the incidence of kidney disease among Aboriginal and Torres Strait Islander people was five times higher than for non-Indigenous Australians. - For Aboriginal and Torres Strait Islander Queenslanders, death rates associated with diabetes for 2009-2010 was 5.9 times the non-Indigenous rate. Diabetes caused 55 Aboriginal and Torres Strait Islander deaths per year in Queensland. - 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. Stakeholders in the catchment consistently acknowledged the poorer health status of Aboriginal and Torres Strait Islander people.
Maternal and child health – Aboriginal and	High smoking in pregnancy rates among Aboriginal and Torres Strait Islander people in the PHN catchment.	The AIHW report, *Australia's health 2016*, on the National Mortality Database shows that Aboriginal and Torres Strait Islander child mortality rates have declined by 33% between 1998 and 2014, narrowing the gap by 34% with non-Indigenous child mortality.

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Torres Strait Islander people		According to the *Aboriginal and Torres Strait Islander Health Performance Framework* (2017): - The mortality rate for Aboriginal and Torres Strait Islander children aged 0-4 years was 2.0 times the non-Indigenous rate between 2011-15. - Queensland reported the highest number of Aboriginal and Torres Strait Islander infant deaths between 2011-15 (175 deaths), followed by NSW with 118 deaths. - The perinatal mortality rate for Aboriginal and Torres Strait Islander Queenslanders was 9.9 compared to 9.7 for non-Indigenous Queenslanders, between 2011-15. - The rate of Aboriginal and Torres Strait Islander infants aged 0-2 years in Queensland who were breastfed between 2014-15 was slightly higher than the non-Indigenous rate (86% compared to 84%). - In 2014, Aboriginal and Torres Strait Islander mothers were 3.6 times as likely to smoke during pregnancy compared to non- Aboriginal and Torres Strait Islander mothers. - Based on 2009-11 data, 51% of low birthweight births to Aboriginal and Torres Strait Islander mothers can be attributed to smoking during pregnancy. Earlier data from the Queensland Health, *Chief Health Officers' Report 2014* indicates that across Queensland: - 12% of infants were low birth weight (less than 2500g) and 8.9% were high birth weight (4000g or more), compared to 6.6% and 13% respectively for all Queensland infants. - Aboriginal and Torres Strait Islander Queenslander infants were 1.7 times more likely to be born preterm than non-Indigenous infants, leading to greater risk of perinatal death. - About 13% of preterm births were associated with smoking after 20 weeks gestation and not completing the recommended antenatal care visits. Within the PHN catchment: - Central Queensland HHS reported significantly lower proportions of infants breastfed (discharged home and were exclusively breastfed in 24hrs prior to discharge), compared to Queensland (64% compared to 72%).

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		- Sunshine Coast HHS reported significantly lower proportions of Aboriginal and Torres Strait Islander mothers quitting before 20 weeks of pregnancy, compared to Queensland (4% compared to 11%).
Health of children and youth - Aboriginal and Torres Strait Islander peoples	The population age structure of Aboriginal and Torres Strait Islander people is younger than that of non-Indigenous Australians. High levels of socio-economic disadvantage mean that many Aboriginal and Torres Strait Islander children and young people are growing up in disadvantaged environments which are known to have negative impacts on health.	According to *the Aboriginal and Torres Strait Islander Health Performance Framework* 2017, 2014-15 data from the *Aboriginal and Torres Strait Islander Health Survey indicates:* - 43% of youth justice supervision orders involved Aboriginal and Torres Strait Islander youth, indicating that they were significantly over-represented in the youth justice system. - Aboriginal and Torres Strait Islander children were in child protection at 6.7 times the rate of non-Indigenous children. - 21% of Aboriginal and Torres Strait Islander Australians lived in overcrowded housing, compared to 6% of non-Indigenous Australians. AIHW report, *Young Australians: their health and wellbeing 2011*, shows that Aboriginal and Torres Strait Islander young people (12 to 24 years) are far more likely to be disadvantaged across a broad range of health, community and socio-economic indicators compared with non-Indigenous young people. They are: - twice as likely to die from all causes (six times as likely from assault and four times from suicide) - six times as likely to have notifications for sexually transmissible infections and hepatitis - 6-7 times as likely to be in the child protection system - five times as likely to be in juvenile justice supervision or in prison - twice as likely to be unemployed or on income support - three times as likely to live in overcrowded housing, and - 2–3 times as likely to be daily smokers. PHIDU report, *Aboriginal and Torres Strait Islander Social Health Atlas of Australia* (2011) data shows:

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		- 39.1% of Aboriginal and Torres Strait Islander children in the PHN (42.5% for Wide Bay area) were developmentally vulnerable on one or two domains of early childhood development - 39.0% of dependent children live in jobless families, and - Only 90% of children are fully immunised at one year. QGSO data, 2011, also indicates that 16.2% of Aboriginal and Torres Strait Islander households in the PHN catchment were overcrowded compared to 4.7% of non-Indigenous households.
Homeless people	Certain regions 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.	The Australian Bureau of Statistics, *2011 Census of Population and Housing* homelessness data, shows that a large number of homeless people are living in Rockhampton (n=227). 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. Surveys conducted by the Queensland Council of Social Services in 2014 and 2015 identified: - Out of 184 homeless people surveyed in the Sunshine Coast, 42% of individual adults reported having a co-existing mental health, chronic health problem and problematic substance use; 55% reported dental problems as a serious health issue and 45% of adult families reported that family members experienced asthma. - Out of 110 homeless people surveyed in the Gympie area, 42% of individual adults reported having a co-existing mental health, chronic health problem and problematic substance use; dental health problems and asthma were the most commonly reported health conditions. - Out of 188 homeless people surveyed in Rockhampton, 46% of adults reporting having a co-existing mental health, chronic health problem and problematic substance use; dental problems and asthma were the most commonly reporting health conditions among adults and young people (dental - 46% adults and 40% young people; asthma – 25% adults, 46% young people). - Homeless persons identifying as Aboriginal or Torres Strait Islander were significantly over-represented in all surveys.

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People with a disability	Chronic disease-related disability increases with 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 older people. The proportion of people with disabilities in the PHN catchment varies significantly and is high compared to Queensland in some areas.	AIHW report, *Australia's health 2016*, based on 2011-12 data indicates: - Approximately half of Australians aged 15-64 (51%) with severe or profound disability reported their health as 'poor or fair'. - Half of Australians aged under 65 with severe or profound disability had mental health conditions, and one in five (21%) had arthritis. QGSO, 2011 data shows that in the PHN catchment, 5.5% of people (n=41,409) were in need of assistance due to a profound or severe disability. Local Government Areas with high proportions relative to Queensland (4.4%) include Fraser Coast (8.2%) and Bundaberg (7.2%). Disability in the PHN catchment rises steadily after the age of 40 years in all LGAs, increasing heavily after the age of 69 years. 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.
Care planning for chronic disease		
High potentially preventable hospitalisations associated with chronic diseases	Potentially preventable hospitalisations (PPH) are hospitalisations that can be prevented by screening, primary prevention or treatments. A high PPH rate can indicates 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.	National Health Performance Authority (NHPA) data 2013-14 reports that 55% of people in the catchment reported having a long-term health condition. NHPA data 2013-14 reports: - Higher rates of potentially preventable hospitalisations due to chronic disease for the PHN (1273 ASR per 100,000) compared to Australia (1122 ASR per 100,000). - Higher rates of potentially preventable hospitalisations due to heart failure for the PHN (199 ASR per 100,000) compared to Australia (195 ASR per 100,000). - Higher rates of potentially preventable hospitalisations due to COPD for the PHN (272 ASR per 100,000) compared to Australia (239 ASR per 100,000) - Higher rates of potentially preventable hospitalisations due to diabetes for the PHN (184 ASR per 100,000) compared to Australia (166 ASR per 100,000). Based on two years of hospital separation data (2012/13 and 2013/14) from the Heart Foundation, the LGAs with the highest rate of hospital admissions for all heart conditions

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		are Bundaberg (89.2 ASR per 10,000), North Burnett (88.8 ASR per 10,000), and Banana (79.5 ASR per 10,000).
Chronic disease prevalence	Health services required to provide care for each chronic condition differ and prevalence for various chronic conditions differs across the PHN catchment.	According to PHIDU data (2011-13) 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. Stakeholders in the Central Queensland region 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.
Diabetes	Primary prevention of diabetes as well as prevention of diabetes-related complications are important parts of providing diabetes care. 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 regions.	Data gathered by Diabetes Queensland (September 2016) for the PHN, based on the National Diabetes Services Scheme shows: - 45,054 people (5.1% of the population) have diabetes, of these 88.0% have type 2 diabetes, 9.3% have type 1 diabetes, 2.2% have gestational diabetes and 0.5% have some other form of diabetes. Data gathered by Diabetes Queensland (June 2015) for the PHN shows: - 12 people are diagnosed with type 2 diabetes each day. - 18,958 people have undiagnosed type 2 diabetes. - 81,521 people are at high risk of developing type 2 diabetes.

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		Data (2011-2013 PHIDU data) pertaining to prevalence of diabetes among persons aged 18 years and over in the PHN region indicates: - 34,181 people aged 18 years and over are estimated to have diabetes mellitus (4.9 ASR per 100; Australia – 5.4 ASR per 100). - Wide Bay area ranked 23rd, Central Queensland area ranked 32nd, and Sunshine Coast area ranked 44th among all 61 former Medicare Local regions. Local Government Areas within the PHN region with the highest age-standardised rates of diabetes in the PHN region (2011-13 PHIDU data): - Gympie (6.7 ASR per 100) - Woorabinda (5.6 ASR per 100) - Central Highlands (5.6 ASR per 100) - Queensland comparison (5.1 ASR per 100)
Chronic disease management	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 a need for improved diabetes management.	NHPA 2013-14 data indicates a rate of 184 ASR per 100,000 potentially preventable hospitalisations due to diabetes complications in the PHN catchment (Australia 166 ASR per 100,000 and lowest PHN (North Sydney) 83 per 100,000). AIHW 2009-13 data indicates a rate of 14 ASR per 100,000 deaths due to diabetes in the PHN catchment. (Australia 16.2 ASR per 100,000 and lowest PHN (North Sydney) 8.2 ASR per 100,000). Local Government Areas within the PHN region with the highest age-standardised rates (estimated) of deaths due to diabetes are: - North Burnett (28.0 ASR per 100,000) - Central Highlands (24.0 ASR per 100,000) - Banana (23.8 ASR per 100,000) According to the *2014 Chief Health Officer report,* premature death rates associated with diabetes are overall higher in the Wide Bay area (20 ASR per 100,000) compared to Queensland (17 ASR per 100,000). Data from the *2014 Chief Health Officer report* indicates high rates of potentially preventable hospitalisations due to chronic conditions in Wide Bay and Central

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		Queensland HHSs (2009-10 to 2011-12) compared with Queensland 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.	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 (2011-13 PHIDU data): - Woorabinda (3.3 ASR per 100) - Fraser Coast (3.2 ASR per 100) - Bundaberg (3.1 ASR per 100) - Gympie and North Burnett (3.0 ASR per 100) - Queensland comparison – 2.7 ASR per 100
	COPD mortality trends in Australia are strongly related to smoking trends. A range of interventions have influenced smoking rates in Australia and thereby premature death due to COPD. Premature mortality due to COPD also increases with age. Higher premature deaths associated with COPD in certain LGAs within the PHN catchment were reported.	Premature deaths associated with COPD (2010-2014 PHIDU data) are significantly higher in Rockhampton (13.8 ASR per 100,000), Fraser Coast (13.8 ASR per 100,000), and Gympie (13.1 ASR per 100,000) compared to Queensland (9.8 ASR per 100,000) and the Australian rate (8.5 ASR per 100,000).
	Potentially preventable hospitalisations associated with COPD indicate inefficiencies in management of the condition and low self-management support. 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	National Health Performance Authority, 2013-14 data indicates a rate of 272 ASR per 100,000 potentially preventable hospitalisations due to COPD complications in the PHN catchment, well above the national rate (Australia 239 ASR per 100,000). Data from the *2014 Chief Health Officer report* indicates high rates of potentially preventable hospitalisations due to chronic conditions in Wide Bay and Central Queensland HHSs (2009-10 to 2011-12) compared with Queensland rates, much of which is attributable to COPD, diabetes and coronary heart disease.

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	of hospital admissions. In the PHN catchment, high potentially preventable hospitalisations associated with COPD are evident.	
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 (2011-2013 PHIDU data) pertaining to the estimated population with arthritis in the PHN region indicates: - 133,724 people are estimated to have arthritis (15.1 ASR per 100; Australia – 14.8 ASR per 100). - 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 (2011-13 PHIDU data) are: - Bundaberg (17.0 ASR per 100) - Fraser Coast (16.9 ASR per 100) - Gympie (16.3 ASR per 100) - North Burnett (16.3 ASR per 100) - Compared to Queensland 14.1 ASR 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.	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) Analysis of PBS prescriptions for asthma (aged 20 to 44 years) published by NHPA (2013-14) shows that within the PHN region, the ASR for nine out of 14 SA3 areas is higher than 20,000 per 100,000 indicating high proportion of adults with asthma related disorders requiring medications. Three SA3 areas with the highest ASR within the PHN are: Gympie-Cooloola (31,782 ASR per 100,000), Maryborough (30,688 ASR per 100,000) and Hervey Bay (29,590 ASR per 100,000). This is compared to Far North Queensland (7,490 ASR per 100,000) having one of lowest ASR of asthma related prescriptions in Queensland.

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		Asthma related hospital admissions (2010-11 to 2012-13) for people aged 20 to 44 years in the PHN catchment were highest in the SA3 areas of Burnett (224 ASR per 100,000), Central Highlands (150 ASR per 100,000), and Bundaberg (142 ASR per 100,000). These rates are significantly higher than Sherwood-Indooroopilly which has the lowest ASR of asthma related hospital conditions in Queensland (18 ASR per 100,000). Data (2011-2013 PHIDU data) pertaining to the estimated population with asthma in the PHN region indicates: - 91,263 people are estimated to have asthma (11.5 ASR per 100; Australia – 10.2 ASR per 100) - Wide Bay ranked 11th among all 61 former Medicare Local regions. NHPA data reporting MBS items (item number 721, GP management plans), 2012 to 2015 indicates that in the PHN catchment increasing numbers of asthma plans were developed for patients: - 2012-13 (70,273 patients, 70,693 services) - 2013-14 (78,987 patients, 79,371 services) - 2014-15 (91,739 patients, 92,059 services) This rise from 70,273 to 91,739 (21,466 patients) needs to be put into perspective by undertaking further analysis of the prevalence of asthma, specific age groups with diagnoses of asthma, and asthma management plans.
Index of disadvantage	Low socio-economic status is associated with poor health, with people of lower socio-economic status bearing a significantly higher burden of disease. The Socio-Economic Indexes for Areas (SEIFA) indicates that the population of the PHN is more disadvantaged than the state overall.	The 2011 Index of Relative Socio-Economic Disadvantage focuses on low-income earners, relatively lower education attainment, high unemployment and dwellings without motor vehicles. Low index values represent areas of most disadvantage and high values represent areas of least disadvantage. The SEIFA indicates that the population of the PHN is more disadvantaged than the state overall. In 2011, 8.6% of the population in the PHN catchment were in the least disadvantaged quintile, while 28.7% were in the most disadvantaged quintile. The corresponding proportions for Queensland were 20.0% in the least disadvantaged quintile and 20.0% in the most disadvantaged quintile. Within the PHN catchment, Central Highlands had the largest percentage of persons in the least disadvantaged quintile at 31.3%.

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		QGSO reports (2014) the LGAs within the PHN which are the most disadvantaged are Woorabinda (99.3%), North Burnett (65.6%), Fraser Coast (60.9%), and Gympie (51.8%).
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.	QGSO reports (2014) more than 60% of the population lives in inner regional areas and the PHN region includes approximately 10% of the population (n=72,576) living in outer regional or remote areas. LGAs with the highest proportion of people living in remote regions are Woorabinda (100%) and Central Highlands (30.8%).
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 populations with low education levels.	QGSO regional profile (Data 2011) shows: - 7.8% of the PHN population didn't go to school (or didn't complete year 8 or below) compared to 6.6% of the Queensland population. - Eight out of 12 LGAs reported higher proportion of population that didn't attend school or didn't complete year 8 or below. LGAs with highest proportions in the PHN catchment are: - North Burnett (16.0%) - Woorabinda (13.7%) - Banana (11.4%) - Bundaberg (11.0%) - Gympie (10.4%) - Fraser Coast (10.0%)
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 (2011-13 PHIDU) reports high levels of mortgage or rent related stress in Gympie (16.9%) and Fraser Coast (15.2%) LGAs compared to Queensland (9.8%).

Section 3 – Outcomes of the service needs analysis

Outcomes of the service needs analysis		
Identified Need	Key Issue	Description of Evidence
Access to services compared to need	The PHN region includes locations with high prevalence of risk behaviours, high rates of health conditions and high rates of premature deaths. Many of these locations experience high rates of social disadvantage. Health care provision should reflect an equitable distribution of service based on need.	Increasing population within the PHN catchment and some LGAs with higher growth rates compared to Queensland (QGSO 2011). The PHN catchment is a diverse geographical area, with diversity across social determinants of health, health risk behaviours (QH CATI data), health conditions (PHIDU; Queensland Health), health service utilisation (NHPA) and health outcomes (Queensland Health, NHPA).
Oral health	Lower availability of dental health services in some areas the PHN catchment and varied distribution of dental health workforce in the PHN region.	Significant demand for dental services was raised by multiple stakeholders and across the Wide Bay region. Healthmap, using data from Health Workforce Australia, 2011, shows low availability of dental services in the PHN catchment except for the Sunshine Coast LGA. AIHW National Health Workforce Data Set: 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).
Early childhood services	Investing in delivering early childhood services as a long-term strategy to improve health and wellbeing of a society is an approach that is promoted by the World Health Organization. The PHN region includes areas that have high proportions of children living in disadvantaged families.	Regarding antenatal services, stakeholders from Wide Bay raised the following concerns: - Within the Wide Bay, there are no specific antenatal clinics tailoring to the needs of pregnant adolescent women and adolescent mothers. - Although there are Queensland Health Community Family Health Centres in Hervey Bay and Bundaberg that provide postnatal care (including home visiting services) up to 4 weeks post birth; stakeholders from both centres acknowledged that service provision relies mostly on women accessing the

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		services themselves (i.e. not proactive) and probably does not engage well with 'hard to reach' populations. 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. - Opportunity to educate and intervene early to prevent chronic disease. **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 development. **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.
Quality of life and end of life care for patients with life-threatening illness	The PHN catchment includes high proportions of older 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. The PHN is home to high proportions of people aged 65 and over and this proportion is projected to rise. 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.	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 skilled aged care workforce. 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

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		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 regions 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.
Immunisation	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.	Australian Childhood Immunisation Register data for 2015 indicate that childhood immunisation rates within the PHN are at or above the state and national rates.
Recruitment and retention of staff	Primary care workforce numbers and full time equivalent rates vary across the PHN catchment, some areas showing very 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.	Many locations within the PHN catchment as classified as Districts of Workforce Shortage. The FTE rate per 100,000 population for primary care workforce varies across the PHN catchment (AIHW National Health Workforce Data Set). **Central Queensland** 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 therapists 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. **Wide Bay** 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 region were voiced by many

Outcomes of the service needs analysis		
		stakeholders. Short-term funding of community-based services is also a current concern. **Sunshine Coast** Stakeholders in the Sunshine Coast area were concerned about Gympie LGA regarding workforce shortage leading to possible closure of services/insufficient services, limited bulk billing and limited drug and alcohol rehabilitation services for adults, veterans and youth. 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 - especially allied health (Emerald), GPs in Gladstone (mentioned multiple times) and a general issue with distribution of workforce which impedes access to services in the region.
Health services affordability	Socio-economic disadvantage is well known to be a major adverse influence on health and wellbeing. In addition to higher burden of disease among disadvantaged populations, socio-economic 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.	NHPA data 2013-14 shows that in the PHN: - 5% (95% CI 4–7) of adults did not see or delayed seeing a GP due to cost in the preceding 12 months in the PHN was in the middle of the range (range 1 to 9%). - 9% of adults delayed or avoided filling a prescription due to cost in the preceding 12 months. Cost was repeatedly mentioned by the stakeholders as an important limitation on accessing services. Recent consultations with Clinical and Community Advisory Councils and other stakeholders in the PHN region have confirmed findings from the previous

Outcomes of the service needs analysis		
		Medicare Local Needs Assessments that indicated that a range of issues make access to primary health care services in the region challenging. 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. According to PHIDU data, 2010 Although the PHN showed variability in the access to transport; regions like Bundaberg and Hervey Bay reported highest ASR per 100 (5.4 to 9.6 per 100) for often having difficulty to get to places needed due to transport issues. 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 services compared to need	The PHN catchment includes diverse population groups such as Aboriginal and/or Torres Strait Islander peoples, homeless people and people with disability in high proportions in specific regions.	In Central Queensland, stakeholders suggested that barriers to accessing services include social isolation and lack of support for people who are homeless. QGSO, Regional Profiles, 2016 data LGAs with high proportions of Aboriginal and Torres Strait Islander peoples are: Woorabinda (92.8%), North Burnett (7.5%) and Rockhampton (7.0%), compared to Queensland (4.4%). Stakeholders identified poor access to culturally appropriate health services, dislocation from cultural support systems, exposure to racism, poor communication with health care professionals and economic hardship. Stakeholders acknowledged the poorer health status of Aboriginal and Torres Strait Islander people 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.
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.	After hours related service mapping in the PHN catchment indicates availability of bulk billing after hours services in most of the locations. Some rural and remote locations, areas with high proportion of young people and areas with high proportion of older people have insufficient after hours services. For example, in the Central Highlands area there are no dedicated after hours services and few general practices in Emerald offer extended consultation hours.

Outcomes of the service needs analysis		

		Central Queensland stakeholders commented on the lack of availability of counselling and drug and alcohol services after hours.
		
		National Health Performance Authority analysis of Australian Bureau of Statistics, *Patient Experience Survey 2013–14*, shows:
		
		- 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)
		- Percentage of adults who 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%)
		
		High numbers of possibly avoidable emergency department presentations:
		
		- After hours presentations, especially category 4 and 5 presentations at the emergency department are indicators of lack of after hours primary care services in the area.
		- In 2014-15 for the Central Queensland HHS this was 30,074, for Sunshine Coast HHS it was 31,094 and for Wide Bay HHS it was 30,277.
		
		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 in receipt of Centrelink benefits.

Outcomes of the service needs analysis		
Continuity of care	Continuity 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 coordination.	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 Hospital and Health Service 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. 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. 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.
Diabetes management planning	Inefficiencies in a health system are highlighted when there are high proportions of premature deaths and potentially preventable hospitalisations.	NHPA 2013-14 potentially preventable hospitalisations (PPH), due to diabetes complications shows that the PHN catchment reported 184 ASR per 100,000 potentially preventable hospitalisations associated with diabetes complications, well above the national rate (166 ASR per 100,000).

Outcomes of the service needs analysis		
	Higher diabetes-related premature deaths and potentially preventable hospitalisations in the PHN catchment require attention to diabetes care.	According to the *2014 Chief Health Officer report* premature death rates (ASR per 100,000) associated with diabetes are higher in Wide Bay area (20 ASR per 100,000) compared to Queensland (17 ASR per 100,000). Data from the *2014 Chief Health Officer report* indicates high rates of potentially preventable hospitalisations due to chronic conditions in Wide Bay and Central Queensland HHSs (2009-10 to 2011-12), compared with Queensland rates, much of which is attributable to COPD, diabetes and coronary heart disease.
COPD prevention and management	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. Within the PHN catchment some areas have high potentially preventable hospitalisations associated with COPD.	NHPA, 2013-14 data on potentially preventable hospitalisations associated with COPD reports 272 ASR per 100,000 for the PHN catchment, well above the national rate of 239 ASR per 100,000. Data from the *2014 Chief Health Officer report* indicates high rates of potentially preventable hospitalisations due to chronic conditions in Wide Bay and Central Queensland HHSs (2009-10 to 2011-12), compared with Queensland rates, much of which is attributable to COPD, diabetes and coronary heart disease.
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.	Stakeholders in the Central Queensland region 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.
Cervical Cancer screening	Low rates among various age groups within the PHN catchment.	AIHW analysis of state and territory cervical screening register data. Data published for the PHNs 2013-14 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). However, this proportion was higher compared to Australia for younger age groups (0 to 29 years), but lower for women aged 30 years and above.

Outcomes of the service needs analysis		
		A barrier to cervical screening faced by women in the Gympie region was the difficulty in accessing female GPs who bulk bill.

Section 4 – Opportunities, priorities and options

Opportunities, priorities and options				
Priority	**Possible Options**	**Expected Outcome**	**Possible Performance Measurement**	**Potential Lead**
Chronic Disease Prevention and Management				
Enhance integration and continuity of care for people with chronic disease	Work with care providers to develop and implement strategies to improve integration and continuity of chronic disease prevention, early detection and management and promote multidisciplinary care planning, coordination and review. Strategies may include establishing integrated models of chronic disease care between primary, secondary and tertiary health service providers, working effectively with Queensland Health's Nurse Navigator Program, supporting the establishment of chronic care co-ordinators within general practice, supporting nurse-led chronic disease management clinics, methods for enhancing quality and timely clinical handover from hospital to primary care and promoting the use of	Improved care pathways for chronic disease patients leading to better patient outcomes Reduced potentially preventable hospitalisations and premature death from chronic diseases. Improved communication between primary and secondary health providers. More effective and efficient service delivery and patient-centred care.	Number of general practices with recall systems Hospitalisation rates for chronic conditions. Patient waiting times Reduction in prevalence of premature mortality for specific conditions but not limited to: - Cancer: Fraser Coast, Gympie, Rockhampton - Lung cancer: Bundaberg, Fraser Coast, Gladstone, Rockhampton - Breast cancer: Rockhampton - COPD: Fraser Coast, Rockhampton - Suicide and self-inflicted injury: Gympie	PHN jointly with HHSs, private providers and general practitioners.

Opportunities, priorities and options				
Priority	**Possible Options**	**Expected Outcome**	**Possible Performance Measurement**	**Potential Lead**
	patient registers and recall systems within general practice.			
Improve access to Allied Health Services	Improve access to no-cost allied health services for communities with limited access and high need for those services. Encourage a broader spectrum of health care worker, including pharmacists, patient navigators, and community health workers to help people manage their own health. Use health promotion, education and outreach to improve health literacy and improve the capacity of individuals and communities to better manage their own health.	Improve health outcomes for vulnerable groups e.g. people of social disadvantage, people living with disability, Aboriginal and Torres Strait Islander peoples and homeless people. Improved quality of life for people with chronic conditions. Reduced comorbidity among people with chronic diseases.	Service activity measures – commissioned services. - Service utilisation by vulnerable populations - Geographical distribution/ availability of services. - Increased allied health service utilisation - Increased referrals to primary health care services and lifestyle programs	PHN
Strengthen health workforce	Work with training organisations and professional bodies such as universities, the VET sector and the Royal Australian College of General Practitioners to strengthen workforce capacity to deliver person-centred early detection, treatment and management of chronic disease. Support actions to develop and retain health professionals with expertise in chronic disease care.	Enhanced capacity to prevent, detect and manage chronic disease across the local region. Reduced incidence of chronic disease over the long term.	Increased full time equivalent (FTE) workforce providing services within the PHN catchment. Attendance at continuing professional education focused on chronic disease management.	PHN in collaboration with universities, workforce peak bodies and professional colleges/organisations.

Opportunities, priorities and options				
Priority	**Possible Options**	**Expected Outcome**	**Possible Performance Measurement**	**Potential Lead**
Enhance access to chronic disease rehabilitation services.	Work and plan collaboratively to increase access to cardiac, stroke and pulmonary rehabilitation services.	Improved access to rehabilitation services. Improved health outcomes for people with chronic diseases.	Number of people accessing rehabilitation services Rehabilitation service – client outcome measures.	HHSs in collaboration with the PHN
Prevent chronic disease	Work with local organisations to develop effective health promotion campaigns targeting chronic disease and their underlying behavioural and environmental drivers, e.g. tobacco smoking, physical activity, poor diet and nutrition, and risky and high-risk alcohol use. Partner with local organisations to develop and implement preventive strategies for high-risk groups across the region. Support health services to identify opportunities to promote healthy living and reduce the risk of chronic disease through the use of the SNAP [+] Framework to identify and address the risk factors for chronic disease, and support for self-management.	Reduction in proportion of people with chronic disease related risk factors. Patients feel supported and empowered to improve their own health. Improved uptake of 45-49 year old health checks. Increase in knowledge and awareness of risk factors among target groups for chronic diseases. Increased availability within the region of interventions designed to prevent chronic disease. Increased early identification of elevated risk for chronic disease.	Measures of self-reported health Prevalence of risk behaviours and biomedical risk factors Utilisation of MBS items for health checks Reduction in chronic disease-related hospitalisations Reduction in potentially preventable hospitalisations due to chronic conditions.	PHN in collaboration with relevant peak bodies and universities.

Opportunities, priorities and options				
Priority	**Possible Options**	**Expected Outcome**	**Possible Performance Measurement**	**Potential Lead**
Access to Primary Health Care				
Enhance workforce capacity to meet the needs of vulnerable population groups	Work collaboratively with Aboriginal and Torres Strait Islander communities, organisations and service providers to raise awareness and encourage uptake of annual 715 health checks and follow-up appointments Strengthen the capacity of primary health care providers to meet the health needs of people with disabilities through the provision and promotion of information, resources and education.	Improved uptake of 715 health checks among Aboriginal and Torres Strait Islander populations. Improved confidence and competency among health service providers to deliver health services to Aboriginal and Torres Strait Islander people. More responsive health care services to meet the needs of vulnerable populations. Increased capacity of service providers to meet the health needs of people with disabilities. Improved health outcomes for people with disabilities and Aboriginal and Torres Strait Islander peoples.	Utilisation of MBS item 715 for health checks. Health status indicators – Aboriginal and Torres Strait Islander people and people with disabilities. Accessibility of primary healthcare services for vulnerable groups.	PHN
Enhance workforce planning	Encourage health service providers, health workforce planners and support agencies to develop and implement local strategies to enhance workforce capacity and retention within the region.	Sufficient number of primary care workforce in the PHN catchment. Strong and productive relationships between professional workforce bodies and the PHN. Equitable distribution of primary healthcare providers across the catchment.	Available primary health care FTE within the catchment. Utilisation of MBS and Better Access services.	PHN

Opportunities, priorities and options				
Priority	**Possible Options**	**Expected Outcome**	**Possible Performance Measurement**	**Potential Lead**
Create locally based solutions to improve access to primary health care.	Develop and implement strategies to improve access to health services, including increasing after hours primary health care services and oral health services where the level of need far exceeds the availability of services. Foster and develop local service hubs and integrated service models that maximise the use of available community resources. Work with communities to identify options for improving community transport options as a way of improving access to health services.	Improved access to after hours care in areas of need. Reduction in Category 5 emergency department presentations. Improved efficiency of primary care service delivery models. Reduced non-financial barriers to accessing primary care (e.g. improved transport)	Emergency department presentations. Availability and utilisation of after hours services across the region. Accessibility of primary health care services.	PHN in collaboration with relevant service providers and community organisations.
Increase the use of eHealth.	Work with primary health care providers to identify opportunities to improve uptake of telehealth capabilities as a way of optimising access to health care, especially in the primary care and aged care services sectors. Encourage and support primary health care providers to use the MyHealth Record as a way of improving accessibility of patient information.	Improved uptake of telehealth by primary care providers Improved knowledge regarding available telehealth services. Increased uptake and use of MyHealth Records.	Use of telehealth Number of practitioners registered for access to MyHealth Records. Rates of patient records uploaded in the MyHealth Record system.	PHN

Opportunities, priorities and options				
Priority	**Possible Options**	**Expected Outcome**	**Possible Performance Measurement**	**Potential Lead**
Improve health literacy	Work with health care providers and health consumer organisations to improve health literacy and increase access to information and resources on the range and use of health services available across the region, e.g. Emergency Departments, after hours services - within the PHN region.	Improved health literacy among consumers. Improved knowledge among service providers and consumers about available primary health care services in their area.	Emergency department presentations. Service utilisation of primary healthcare services.	PHN
System Coordination, integration and collaboration				
Improve service coordination and integration	Develop, implement and evaluate current models of care, such as health pathways and GP Liaison positions as a way of improving the coordination and integration of primary and secondary health services in the region.	Innovative models implemented and evaluated. Improved patient experience.	Measures of health status among consumers in integrated care models.	PHN in partnership with HHSs and other relevant service providers.
Strengthen engagement with consumers	Work with consumer groups and primary health care providers to identify ways to improve health literacy and encourage individuals and the community to become more actively involved in managing their health and well-being. This may include the development, dissemination and promotion of resources to encourage consumers	Improved rates of self-management among consumers. Improved awareness and knowledge regarding health and wellbeing. Improved collaborations with universities and other non-government organisations that have established themselves as	Reduction in biomedical risk factors Utilisation of MBS health check items	PHN

Opportunities, priorities and options				
Priority	**Possible Options**	**Expected Outcome**	**Possible Performance Measurement**	**Potential Lead**
	to take steps to address the underlying behavioural and environmental drivers of ill-health.	health promoters in the community. Increased participation in health promoting activities.		
Increase workforce support	Ensure that primary health care providers are informed of major policy and system changes when they occur, e.g. the introduction of the NDIS.	NDIS readiness of workforce	Workforce knowledge	PHN in conjunction with relevant organisations.
Early Life				
Improve access to child development services	Support and strengthen the capacity of allied health/child development services to identify and assist children who are developmentally vulnerable.	Reduction in the number and proportion of vulnerable children. Increase in the number of children receiving support. Improvements in AEDC results across the region over time.	Australian Educational Development Census results.	PHN to commission services.
Improve parenting skills.	Support and strengthen the range of support available to parents from preconception through pregnancy and early childhood. Improving access to high-quality parenting programs such as TripleP.	Increased access to parenting programs. Increased antenatal visits.	Child health indicators Mother and infant indicators	PHN
Strengthen maternal care	Improve coordination between maternal health services as a way	Improved immunisation rates	Immunisation rates	PHN

Opportunities, priorities and options				
Priority	**Possible Options**	**Expected Outcome**	**Possible Performance Measurement**	**Potential Lead**
	of improving the health of mothers and their babies. Improve care coordination for children and families with complex care needs. Identify strategies to increase childhood immunisation rates, particularly in areas where immunisation levels are low.	Improved mother and infant health indicators. Satisfactory growth and development indicators.	Mother and infant indicators Growth and development indicators	
Improve workforce support	Provide ongoing education and training to general practitioners and practice nurses in relation to immunisation processes and practices.	Improved knowledge regarding immunisation processes and practices within general practice.	Immunisation rates	PHN in collaboration with Public Health Units.
Youth				
Improve health literacy	Promote improved health literacy and healthy behaviours among young people	Improvement in modifiable risk factors such as poor diet, physical inactivity, overweight and obesity, smoking, and risky alcohol use among young people.	Rates of modifiable risk factors among people aged 15-24 years.	PHN
Develop locally based strategies	Encourage communities to develop locally based strategies which harness available community resources to improve health and increase access to primary healthcare for young people. Strategies may include community initiatives that aim to	Improved access to primary healthcare for youth. Increased availability and use of online counselling and information for youth at risk of drug and alcohol abuse as well as mental health issues	Use of counselling and information services by youth. Use of MBS items by age group.	PHN

Opportunities, priorities and options				
Priority	**Possible Options**	**Expected Outcome**	**Possible Performance Measurement**	**Potential Lead**
	build resilience and improve social and emotional wellbeing in young people.			
Strengthening the health workforce	Work with local health and community service providers to increase the availability of primary health care prevention and management services for young people in relation to sexual health.	Enhanced capacity of the primary health care workforce to provide appropriate services for young people.	Enhanced capacity of the primary health care workforce to provide appropriate services for young people.	PHN
Healthy Ageing				
Workforce	Enhance skills within the primary health care workforce to detect, manage and treat issues affecting the health and wellbeing of older people through: - Provision and promotion of training opportunities in relation to over 75 health assessments, dementia detection and treatment, palliative care, advance care planning, falls prevention and significant policy and process changes e.g. My Aged Care - Facilitating access to specialist aged care by primary care services	Enhanced knowledge and skills related to specific health conditions in the elderly population among the primary care workforce. Implementation of new service delivery and workforce models to support improvements in the delivery of primary care services to older people.	Attendance at continuing professional education focused on aged care. Service utilisation by age groups	PHN in collaboration with relevant peak bodies and education providers.

Opportunities, priorities and options				
Priority	**Possible Options**	**Expected Outcome**	**Possible Performance Measurement**	**Potential Lead**
	- Strengthening workforce roles such as nurse practitioners who can provide high level, independent aged care expertise and services.			
Develop locally based solutions	Promoting and supporting the development of local strategies, e.g. social support networks that assist older people to live independently in their homes.	Improved social interaction between elderly and the community. Improved health outcomes for older people.	Proportion of older people living at home. Self-rated health among older people in the PHN catchment.	PHN in collaboration with local community and aged care service providers
Improve service integration and coordination	Promote and support the development of service options such as Palliative Care Partnerships that enable people to receive care in their place of choice and avoid hospital admission. Encourage service providers involved in the provision of aged care services to share knowledge and learning and work more collaboratively. Identify ways to better integrate services within local communities, especially between residential aged care facilities, general practices and hospital services.	Enhanced access to palliative care services in community based settings. Improved integrated of aged care services within local communities.	Increased availability and utilisation of community based palliative care services. Reduced potentially preventable hospitalisations among the over 65 population.	PHN
Aboriginal and Torres Strait Islander Health				

Opportunities, priorities and options				
Priority	**Possible Options**	**Expected Outcome**	**Possible Performance Measurement**	**Potential Lead**
Work with Aboriginal and Torres Strait Islander organisations and communities to reduce the prevalence of modifiable risk behaviours and improve health literacy.	Support the development of strategies to promote healthy lifestyles among Aboriginal and Torres Strait Islander young people and make more informed choices regarding sexual health, e.g. Deadly Choices. Support the development of evidence-based strategies that are coordinated and integrated with mainstream strategies; involve Aboriginal and Torres Strait Islander people; and support, strengthen and build upon existing programs aimed at addressing the underlying behavioural drivers of ill-health.	Reduction in risk behaviours among young Aboriginal and Torres Strait Islander people. Improved knowledge and understanding of risk behaviours and their impacts on long-term health. Increased participation of Aboriginal and Torres Strait Islander people in programs to address poor health and social and emotional wellbeing.	Increased uptake of the Closing the Gap 715 annual health assessments. Reductions in the prevalence of key risk factors over the long-term.	PHN in collaboration with Aboriginal Community Controlled Health Services.
Work with Aboriginal and Torres Strait Islander health organisations to develop strategies to strengthen the Aboriginal and Torres Strait Islander health workforce and promote a culturally-appropriate health care system.	Support actions to increase the number of Aboriginal and Torres Strait Islander people enrolling in health-related higher-education training courses, such as such as VET Certificate IV courses and university-level courses. Support strategies such as the *Leaders in Indigenous Medical Education (LIME) Network* that promote and support effective teaching and learning about Aboriginal and Torres Strait	Increased number of Aboriginal and Torres Strait Islander health professionals employed across the region. A more culturally-competent health-care system in the region.	Percentage of primary care staff attending cultural competency training. Aboriginal and Torres Strait Islander health workforce availability. Utilisation of general practice services by Aboriginal and Torres Strait Islander people.	PHN

Opportunities, priorities and options				
Priority	**Possible Options**	**Expected Outcome**	**Possible Performance Measurement**	**Potential Lead**
	Islander health in medical education programs. Promote cultural competency within the primary health care setting.			
Work with Aboriginal and Torres Strait Islander organisations and communities to better tailor local needs to health services.	Commission *Aboriginal Community Researchers* to undertake community-level assessments on how best to match unmet needs to health services at a community level.	More tailored and effective health services. Improved Aboriginal and Torres Strait Islander health and social and emotional wellbeing.	Aboriginal and Torres Strait Islander indicators	PHN
Work with Aboriginal and Torres Strait Islander organisations to develop locally based/driven health strategies.	Improve access to primary health care by: • promoting awareness of the Care Coordination and Supplementary Services program, • ensuring that ATAPS and RPHS services are available and acceptable to Aboriginal and Torres Strait Islander communities • developing strategies to increase the availability of services for children with development delays, e.g. due to hearing loss	Enhanced capacity of primary health care providers to partner deliver culturally appropriate and effective services. Increased numbers of ATAPS and RPHS services uptake by Aboriginal and Torres Strait Islander people. Improved developmental outcomes for children.	Service utilisation by Aboriginal and Torres Strait Islander status. Measurable improvement on key health indicators.	PHN in collaboration with ACCHOs and commissioned service providers