phn
CENTRAL QUEENSLAND, WIDE BAY, SUNSHINE COAST

An Australian Government Initiative

Central Queensland Wide Bay Sunshine Coast PHN: Aboriginal and Torres Strait Islander People's Health: Health Needs and Service Analysis

15 November 2021

Contents

Acronyms 3
1. Overview 4
2. Population Distribution and Life-Expectancy 7
2.1. Population Distribution within the PHN 7
2.2. Life Expectancy 9
3. Health Needs Analysis 10
3.1. Determinants of Health and Wellbeing 10
3.2. Health Status 22
3.3. Maternal and Child Health 36
3.4. Young People Aged 15-24 years 41
3.5. Older Aboriginal and Torres Strait Islander People 44
3.6. Mental Health and Suicide Prevention 48
3.7. Alcohol and Other Drugs 53
3.8. Palliative Care 54
4. Service Needs Analysis 56
4.1. Access to Health Services 56
4.2. Safety and Cultural Competency 66
4.3. Responsiveness 67
4.4. Insights from the PHN Services Data and Analysis 68
5. Triangulation 71
6. Opportunities, Priorities and Options 74
7. References 89

Acronyms

ABS	Australian Bureau of Statistics
ACAT	Aged Care Assessment Team
ACCHO	Aboriginal Community Controlled Health Organisation
AMS	Aboriginal Medical Service
ATAPS	Access to Allied Psychological Services Programme
AEDC	Australian Early Development Census
AIHW	Australian Institute of Health and Welfare
AOD	Alcohol and Other Drugs
AODTS	Alcohol and Other Drugs treatment Services
ARF	Acute Rheumatic Fever
ASR	Age-Standardised Rate
ASGS	Australian Statistical Geography Standard
ATAPS	Access to Allied Psychological Services Programme
BBV	Blood Borne Viruses
CHO	Chief Health Officer
CKD	Chronic Kidney Disease
COPD	Chronic Obstructive Pulmonary Disease
CQHHS	Central Queensland Hospital and Health Service
CQWBSCPHN	Central Queensland Wide Bay Sunshine Coast Primary Health Network
DALY	Disability-Adjusted Life Years
ED	Emergency Department
GAS	Group A Streptococcus
GP	General Practitioner
HHS	Hospital and Health Service
HNA	Health Needs Assessment
HIV	Human Immunodeficiency Virus
HPV	Human Papillomavirus
HHS	Hospital and Health Service
HWQ	Health Workforce Queensland
IARE	Indigenous Areas
IHPO	Indigenous Health Program Officer
ITC	Integrated Team Care
LGA	Local Government Area
LGBTIQ	Lesbian, Gay, Bisexual, Transgender, Intersex and Queer
NATSIHS	National Aboriginal and Torres Strait Islander Health Survey
NBCSP	National Bowel Cancer Screening Program
MBS	Medicare Benefit Scheme
NICU	Neonatal Intensive Care Unit
PHN	Primary Health Network
PPH	Potentially Preventable Hospitalisation
QGSO	Queensland Government Statistician’s Office
QLD	Queensland
RACGP	Royal Australian College of General Practitioners
RHD	Rheumatic Heart Disease
SA2	Statistical Area 2
SA3	Statistical Area 3
SCN	Special Care Nursery
STI	Sexually Transmissible Infections

1. Overview

In the Central Queensland Wide Bay Sunshine Coast Primary Health Network (the PHN) located within Queensland (Qld), as is the case across Australia, Aboriginal and Torres Strait Islander people experience poorer health outcomes than non-Aboriginal and Torres Strait Islander people. Recognition of significant health and service needs in this population has led to the Australian Government Department of Health identifying Aboriginal and Torres Strait Islander health as one of seven priority areas for Primary Health Networks (PHNs). The purpose of this health needs assessment (HNA) report is to identify and inform priority areas so that the services are tailored to the local needs. This HNA provides some evidence to guide effective approaches to improving Aboriginal and Torres Strait Islander health. The information in this report is derived from various publicly available datasets, peer reviewed publications and reports, and information received from the PHN staff members. While the PHN HNA is informed by a wide range of national, state and local data sources (Chief Health Officer (CHO) report, Australian Bureau of Statistics (ABS), Australian Institute of Health and Welfare (AIHW), Medicare Benefits Scheme (MBS), etc); such data is limited in its' ability to fully inform the health status and service needs due to a lack of available data presented at a local level. Other data is presented here is from the PHN surveys and evaluations.

- A survey was conducted within the PHN from Nov 2020 to Feb 2021 to seek inputs from Aboriginal and Torres Strait Islander people (the 'Have a yarn about health Community Health Survey', referred to in this document as the PHN survey 2020-21) (1). There were 603 survey responses for the *PHN Survey 2020-21.* Analysis of data from this survey, as well as the *PHN Stakeholder HNA Survey* (2) and the *PHN Community Health Survey 2020-21*(3), has facilitated better understanding and analysis of the health needs and service gaps for Aboriginal and Torres Strait Islander people across the PHN.
- The PHN also reviewed the process and implementation of the mental health stepped care services program to inform triage and effective commissioning in 2019-20. This includes data from a stream of service delivery that is solely focused on delivering mental health services for Aboriginal and Torres Strait Islander people.
- The Integrated Team Care (ITC) service (sometimes referred to as Care Coordination and Supplementary Services) provides chronic disease management and care coordination for people of Aboriginal and Torres Strait Islander descent. Data from the PHN's review of the Integrated Care Service program (July 2019-Sep 2020) is also used in this document to provide additional evidence.

It is the PHNs intention to produce a strength-based document, whilst balancing the requirement to make this a document which identifies needs. Traditionally, needs assessments have focused on gathering evidence about 'what works' from a deficit or gaps perspective, particularly in those communities identified as vulnerable. A strengths-based approach (4), on the other hand, work with the assets already existing in individuals, communities, and institutions to support the conditions for health. A strengths-based approach can contribute to empowering Aboriginal and Torres Strait Islander individuals and communities towards better health. Overtime, the PHN envisages that this needs assessment will include more information of the progress and strengths of our communities.

Table 1: Central Queensland Wide Bay Sunshine Coast PHN geography

Hospital Health Service Regions	Local Government Areas within HHS	Statistical Area Level 3 within HHS
Central Queensland	Banana (S)	Biloela
	Central Highlands (R)	Central Highlands (Qld)
	Gladstone (R)	Gladstone
	Livingstone (S)	Rockhampton
	Rockhampton (R)	
	Woorabinda (S)	
Wide Bay	Bundaberg (R)	Bundaberg
	North Burnett (R)	*Burnett**
	Fraser Coast (R)	Hervey Bay
		Maryborough
Sunshine Coast	Sunshine Coast (R)	Buderim
	Noosa (S)	Caloundra
	Gympie (R)	Gympie - Cooloola
		Maroochy
		Nambour
		Noosa
		Noosa Hinterland
		Sunshine Coast Hinterland

- ***Not full Burnett region is within the PHN**
- **Note that LGA and SA3 areas do not match in geography but are within each HHS as above**

The PHN geography is divided into multiple levels on which data is reported: Statistical Area 2 (SA2), Statistical Area 3 (SA3), Local Government Areas (LGAs) and Hospital and Health Service (HHS) regions. Specifically, for this analysis, Indigenous areas are used. Indigenous Areas (IARE) are medium sized geographical units designed to facilitate the release and analysis of more detailed statistics for Aboriginal and Torres Strait Islander Peoples. Indigenous Areas provide a balance between spatial resolution and population size, which provides the ability to release more detailed socioeconomic attribute data. They are created by combining together one or more Indigenous Locations. For the 2016 Australian Statistical Geography Standard (ASGS) 430 Indigenous Areas are defined to cover the whole of geographic Australia (5). Below are the defined IARE regions within the PHN.

Table 2: The PHN geography represented as Indigenous regions

PHN306	Central Queensland, Wide Bay, Sunshine Coast
IARE305001b	Banana (part b)
IARE305008	North Burnett
IARE305006	Gladstone
IARE305009	Rockhampton – Yeppoon
IARE305004	Central Capricorn
IARE305003	Bundaberg
IARE305005	Fraser Coast
IARE306004	Cooloola – Gympie
IARE301004	Caloundra
IARE301010	Maroochy
IARE306011b	Nanango - Kilkivan (part b)
IARE301011	Noosa

Not all data is available on all the levels and variability in reporting makes it challenging to provide consistent denominators.

2. Population Distribution and Life-Expectancy

For Aboriginal and Torres Strait Islander Australians, good health is more than just the absence of disease or illness; it is a holistic concept that includes physical, social, emotional, cultural, spiritual, and ecological wellbeing, for both the individual and the community. This concept of health emphasises the connectedness between these factors and recognises the impact that social and cultural determinants have on health (6). Understanding these health and service needs requires gathering appropriate data. This HNA starts by describing the population distribution and then explains these determinants of health along with health status and service distribution.

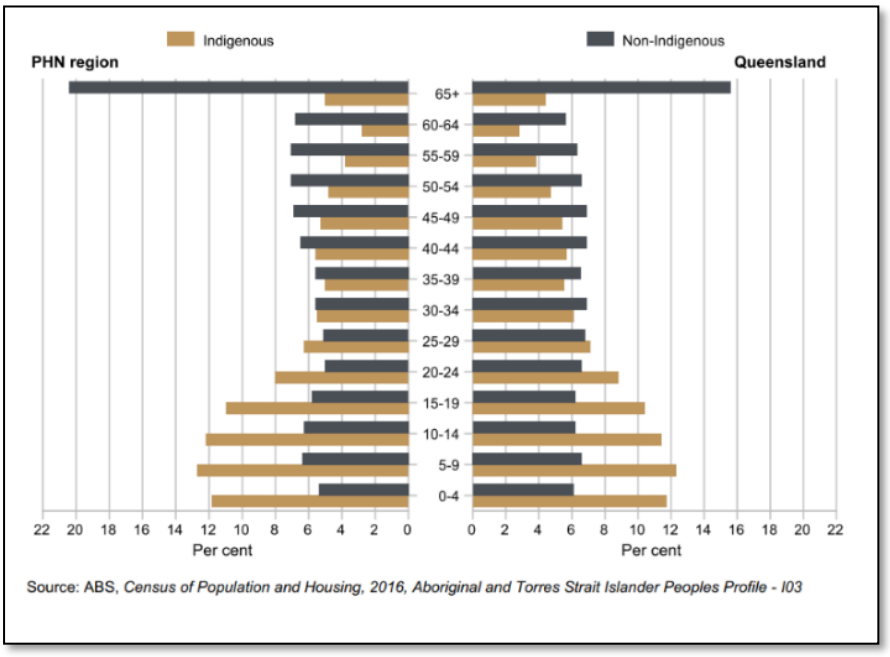
2.1. Population Distribution within the PHN

Below is population distribution to understand the regions with highest proportion of Aboriginal and Torres Strait Islander people within the PHN.

Within the PHN 3.6% (29,567 people) identified themselves as Aboriginal and Torres Strait Islander (Qld 4%) (7).

- Highest proportion within the PHN is in Woorabinda (94.4%, n=908), Rockhampton (7.4%, n=5,874) and North Burnett (6.5%, n=678). Note that, except Noosa, North Burnett and Banana LGAs the number of Aboriginal and Torres Strait Islander people residing in other LGAs [Sunshine Coast (5,716), Fraser Coast (4,231), Bundaberg (3,708), Gladstone (2,503), Gympie (1,771), Livingstone (1,607) and Central Highlands (1,210)] are higher compared to Woorabinda (908), an Aboriginal community (7).
- It is clear from Figure 1 that the age distribution of the Aboriginal and Torres Strait Islander population within the PHN is similar to that of Qld. Highest proportion of individuals are between the ages of 0 to 14 (36.7%) followed by 25-44 years (22.4%), 15 to 24 years (19.0%), 45-64 years (16.7%) and finally only 5% of 65 years and older. This 65+ proportion for non-Aboriginal and Torres Strait Islander populations within the PHN is 20.4% (7).
- The distribution of Aboriginal and Torres Strait Islander population is included in Figure 1. The data presented as Indigenous Areas (IARE) indicate that the age group 0-24 represents around 50% of the Indigenous population in each of the IARE region within the PHN. (8)

Figure 1: Persons by age and Aboriginal and Torres Strait Islander Status, PHN region and Queensland, 2016



Source: ABS, *Census of Population and Housing, 2016, Aboriginal and Torres Strait Islander Peoples Profile - I03*

Table 3: Age distribution of Aboriginal and Torres Strait People within the PHN, 2016, by age groups

State/PHN/IARE	Total Aboriginal and Torres Strait Islander Population (2016)	0-4 years		15-24 years		0-24 years		25-49 years		50+ years	
		N	%	N	%	N	%	N	%	N	%
Queensland	221,276	26,961	12.2	43,521	19.7	122,931	55.6	65,904	29.8	32,441	14.7
The PHN	35,082	4,368	12.5	6,780	19.3	19,913	56.8	9,784	27.9	5,385	15.3
Banana	661	95	14.3	102	15.5	339	51.3	209	31.6	113	17.1
North Burnett	832	74	8.9	141	16.9	412	49.5	222	26.7	198	23.8
Gladstone	2,969	417	14.1	603	20.3	1,709	57.6	869	29.3	391	13.2
Rockhampton - Yeppoon	8,963	1,146	12.8	1,802	20.1	5,227	58.3	2,529	28.2	1,207	13.5
Central Capricorn	2,574	362	14.0	465	18.1	1,448	56.2	784	30.5	342	13.3
Bundaberg	4,355	544	12.5	887	20.4	2,519	57.9	1,095	25.1	741	17.0
Fraser Coast	5,018	603	12.0	955	19.0	2,833	56.5	1,339	26.7	846	16.9
Cooloola - Gympie	1,919	270	14.1	324	16.9	1,118	58.3	497	25.9	303	15.8
Caloundra	2,630	310	11.8	497	18.9	1,508	57.4	749	28.5	373	14.2
Maroochy	4,065	427	10.5	815	20.1	2,204	54.2	1,206	29.7	656	16.1
Nanango - Kilkivan	167	22	13.2	28	16.8	92	55.3	41	24.8	33	19.9
Noosa	930	100	10.7	161	17.4	503	54.2	244	26.2	182	19.6

Source: Public Health Information Development Unit, 2021. Social health atlas of Australia, from https://phidu.torrens.edu.au/social-health-atlases/topic-atlas#indigenous-status-comparison-social-health-atlas-of-australia

2.2. Life Expectancy

Life expectancy and deaths are widely used as indicators of population health. Although Australia's national life expectancy is high compared with that of other countries, there are significant disparities between Aboriginal and Torres Strait Islander people and non- Aboriginal and Torres Strait Islander people. Life expectancy is a summary measure of how long a person can expect to live and is not a measure of the quality of life. In 2015–2017, life expectancy at birth for Aboriginal and Torres Strait Islander people was estimated to be 71.6 years for males and 75.6 years for females. (9) In comparison, over the same period life expectancy at birth for non- Aboriginal and Torres Strait Islander people was 80.2 years for males and 83.4 years for females.

Over the period 2006 to 2018, there was an improvement of almost 10 per cent in Aboriginal and Torres Strait Islander age-standardised mortality rates. However, non- Aboriginal and Torres Strait Islander mortality rates improved at a similar rate, so the gap has not narrowed. Since 2006, there has been an improvement in Aboriginal and Torres Strait Islander mortality rates from circulatory disease (heart disease, stroke and hypertension). However, this has coincided with an increase in cancer mortality rates, where the gap is widening (10). Closing the gap in life expectancy within a generation (by 2031) is one of the original Closing the Gap targets set by the Council of Australian Governments in 2008 (10).

Note: Deaths data by Aboriginal and Torres Strait Islander status are reported for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory, as these jurisdictions have sufficient levels of Aboriginal and Torres Strait Islander identification and numbers of deaths to support analysis.

In Summary,

- *Highest number of Aboriginal and Torres Strait Islander people within the PHN was in **Rockhampton** and highest proportion was in **Woorabinda***
- *Only 5% of Aboriginal and Torres Strait Islander people were aged 65 years or above compared to 20.4% of non-Aboriginal and Torres Strait Islander people, **indicating high mortality at younger age.***
- *Around 55% of the Aboriginal and Torres Strait Islander population within each IARE was between the ages of 0 to 24 years indicating **young population.***
- *There were 5,385 people above the age of 50 within the PHN and highest number of Aboriginal and Torres Strait Islander people aged 50 and above was in Rockhampton IARE (1,207).*
- *Highest number of Aboriginal and Torres Strait Islander people aged 0 to 4 years was in Rockhampton IARE (1,146) followed by Fraser Coast (603).*
- *Although**, life-expectancy** is slowly rising for Aboriginal and Torres Strait Islander people, there is still a **large gap** between life-expectancy of Aboriginal and Torres Strait Islander people and non- Aboriginal and Torres Strait Islander people*

3. Health Needs Analysis

3.1. Determinants of Health and Wellbeing

A complex set of factors including health risk factors, access to and use of health services, environmental factors, and an individual's own health capabilities impact the overall health of an individual. Systematic differences in these factors are related to an individual's socioeconomic position, including differences in education, employment, and income. These social determinants of health are behind the observed differences in health outcomes. Other social determinants include early life experiences, housing conditions, transportation and access to health services are other commonly accepted social determinants of health (11). Most of these social determinants are closely interrelated; for example, higher levels of education usually lead to better employment prospects and higher incomes, and that leads to healthier housing conditions. For Aboriginal and Torres Strait Islander people, the socioecological determinants of health also include factors impacting social and emotional wellbeing such as cultural identity, family, participation in cultural activities and access to traditional lands. The effects of colonisation continue to have an impact through intergenerational trauma (12).

Australia's Health, 2018 reports that: half (53%) of health gap between Aboriginal and Torres Strait Islander and non-Aboriginal and Torres Strait Islander working-age adults can be accounted for by (13):

- a set of five selected social determinants (contributed 34% of the gap): household income, employment and hours worked, level of schooling completed, highest non-school qualification, level of schooling completed, and housing adequacy and household income
- a set of six 'health risk factors' (contributed 19% of the gap): smoking, binge drinking, high blood pressure, overweight and obesity status, inadequate fruit and vegetable consumption and, insufficient physical exercise, and smoking.

Household income differences alone contributed almost 14% of the overall health gap, followed by differences in employment and hours worked (12%), and level of schooling completed (8.7%). Among the health risk factors, the key component was the difference in smoking status between Aboriginal and Torres Strait Islander and non-Aboriginal and Torres Strait Islander people (which contributed to 10% of the health gap). Selected social determinants of health and health risk behaviours are included in this chapter to generate a picture of these factors within the PHN.

3.1.1. Social Determinants

These determinants are described below and are summarised in Table 4 and Table 5 for the PHN region.

a. Household income and family structure

There are several factors which impact household income and subsequently health (14):

- Jobless families: Within the PHN, 38.9% of dependent children in families with Aboriginal and Torres Strait Islander persons are from jobless families compared to 13.6% of dependent children in non-Aboriginal and Torres Strait Islander families (QLD 39.3% and 12% respectively, 2016). Within IARE regions: the highest proportion of children aged less than 15 years in jobless families was in Fraser Coast (48.2%), followed by Bundaberg (48%), Cooloola-Gympie (45.0%) and Nanango-Kilkivan (44.7%) (see Table 5 below)
- One parent family: While similar to QLD more broadly, the PHN in 2016 included 25.8% of households with Aboriginal and Torres Strait Islander persons that were occupied by one parent families compared to 10.2% of non-Aboriginal and Torres Strait Islander households.

b. Employment

Employment is critical for individual mental and physical health. The unemployment rate for Aboriginal and Torres Strait Islander people (15-64 years in 2016) was at 21.2% for the PHN which is 12% higher compared to non-Aboriginal and Torres Strait Islander persons (8.3%) (14). Within the PHN, an unemployment rate of around 25% was reported in Nanango-Kilkivan (29.5%), Bundaberg (25.3%), Gladstone (25.5%), Fraser Coast (24.7%) and Rockhampton-Yeppoon (23.6%) IARE regions (8).

While local employment data is not available for comparison, national data indicates that in 2018–19, just under half (47%) of Aboriginal and Torres Strait Islander people were employed. The employment rate is calculated by dividing working people, by the population in the same age group. Men were more likely than women to be working (51% compared to 43%, respectively), with differences across age ranges. There was no change in the overall employment rate when compared to 2012–13. (15)

c. Education

Education plays an important role in health by improving job opportunities and improving health literacy and skills to navigate the health system. Within the PHN (2016), only 35.9% of Aboriginal and Torres Strait Islander persons aged 15 years and over had completed Year 12 or equivalent (compared to 46.5% of non-Aboriginal and Torres Strait Islander). Furthermore, 35% of Aboriginal and Torres Strait Islander youth (18-24 years) were working, studying, or training (compared to 57.1% of non-Aboriginal and Torres Strait Islander) (14).

It is important to note that the proportion of Aboriginal and Torres Strait Islander people (20-24 years) who had a year 12 or equivalent qualification increased nationally from 45% in 2008 to 66% in 2018-19 (16).

d. Housing

Safe, affordable and secure housing is associated with better health, which in turn impacts on people's participation in work, education and the community. It also affects parenting and social and familial relationships. There is a gradient in the relationship between health and quality of housing: as the likelihood of living in 'precarious' (unaffordable, unsuitable or insecure) housing increases health worsens (17). Many households in Aboriginal and Torres Strait Islander communities are deemed overcrowded, a situation that can lead to a wide range of health problems. Chronic ear infections (e.g., otitis media), eye infections, skin conditions (e.g., crusted scabies), gastroenteritis, respiratory infections, and exacerbation of family violence and mental health issues are all potential outcomes from overcrowded environments (18). The excessive number of people in a house puts strain on a range of household facilities, and can be an important contributor to the poor state of infrastructure in many dwellings, and a major limiting factor in conducting 'healthy living practices' (19). While 8.1% of households with Aboriginal and Torres Strait Islander persons were overcrowded in 2016, only 2.0% of non-Aboriginal and Torres Strait Islander households were overcrowded (18). Within the PHN, Central Capricorn IARE had 24.6% of people (n=500) living in crowded dwellings (compared to 18.8% in Qld) (8).

Overcrowding also impacts children's health by increasing possibility of secondhand smoke. Rates of secondhand smoke exposure are higher among remote Aboriginal and Torres Strait Islander communities (20). The prevalence of Aboriginal and Torres Strait Islander smoking rates in remote, discrete communities in Australia is elevated compared with their non- Aboriginal and Torres Strait Islander counterparts, hence making it critical to ensure smoke-free homes are provided for building healthy housing environments.

e. Residential environment including transport

The residential environment has an impact on health equity through its influence on local resources, behaviour, and safety. Communities and neighbourhoods that ensure access to basic goods and services; are socially cohesive; promote physical and psychological wellbeing; and protect the natural environment, are essential for health equity (21). To that end, health-promoting modern urban environments are those with appropriate housing and transport infrastructure, and a mix of land use encouraging recreation and social interaction. Transportation is a social determinant of health that affects rural community members in multiple ways. Transportation can affect access to healthcare services, social services, employment, and educational opportunities. Many of the I Aboriginal and Torres Strait Islander people within the PHN live in outer regional or remote areas.

Table 4: Selected demographic factors across the PHN in comparison with Qld, 2016 (7)

Indicator	The PHN Region				Queensland	
	Aboriginal and Torres Strait Islander		Non- Aboriginal and Torres Strait Islander		Aboriginal and Torres Strait Islander	
	N	%	N	%	N	%
Persons						
Total	29,567	3.6	736,120	89.6*	186,482	4.0
Male	14,777	3.6	361,159	89.2*	92,176	4.0
Female	14,773	3.5	374,954	89.9*	94,311	4.0
Age Distribution						
0-14	10,865	36.7	133,815	18.2	66,074	35.4
15-24	5,604	19.0	79699	10.8	35,884	19.2
25-44	6,630	22.4	167,839	22.8	45,286	24.3
45-64	4,948	16.7	204743	27.8	31,052	16.7
65+	1,489	5.0	150,010	20.4	8,194	4.4
Household Type						
One Parent Family	3,373	25.8	29,354	10.2	19,239	25.8
Children in jobless families	5,664	38.9	11,582	13.5	33,119	39.3
Highest Schooling completed						
Year 12 or equivalent	6,144	35.9	269,323	46.5	42,712	37.9
Did not go to school	151	0.9	1801	0.3	1066	1.0

Indicator	The PHN Region				Queensland	
	Aboriginal and Torres Strait Islander		Non- Aboriginal and Torres Strait Islander		Aboriginal and Torres Strait Islander	
Fully Engaged in work, study, or training (18-24 years)	1233	35.0	29,662	57.1	8,539	36.1
Unemployment						
Unemployment Rate (15-64 years)	2,164	21.2	28,391	8.3	13,178	20.3
By Age Group						
15-24	n/a	30.9	n/a	16.0	n/a	29.5
25-34	n/a	20.1	n/a	7.7	n/a	19.7
35-44	n/a	15.6	n/a	6.3	n/a	16.9
45-54	n/a	15.4	n/a	6.1	n/a	14.0
55-64	n/a	12.7	n/a	7.5	n/a	12.9
Number of motor vehicles per dwelling (no vehicle)	15,093	5.0	n/a	n/a	99,133	6.0
Overcrowding: Total Households	1,034	8.1	5712	2.0	7,592	10.5

Source: Queensland Governments Statistician's office (2020b) 'Queensland regional profiles. Indigenous Profile PHN region compared with Queensland. Created 7th Dec 202

Table 5. Selected sociodemographic factors impacting Aboriginal and Torres Strait Islander people's health (8)

State/PHN/IARE	Aboriginal people who left school at Year 10 or below, or did not go to school, 2016		Aboriginal persons Learning or Earning at ages 15 to 24*, 2016		Children aged less than 15 years in Aboriginal jobless families, 2016		Aboriginal persons living in crowded dwellings, 2016		Aboriginal Unemployment, 2016	
	N	ASR per 100	N	%	N	%	N	%	N	%
Queensland	53,491	44.6	23,122	64.4	26,215	39.7	33,097	18.8	13,255	20.1
The PHN region	8,872	46.9	3,753	67.1	4,282	39.5	3,593	12.7	2,180	21.1
Banana (part b)	169	47.7	54	66.7	55	27.5	43	8.0	38	17.0
North Burnett	228	45.9	69	60.5	91	41.4	115	17.3	42	18.1
Gladstone	764	49.2	332	66.0	354	38.6	165	6.7	253	25.5
Rockhampton – Yeppoon	2,019	43.6	926	63.6	1,069	37.9	847	12.3	611	23.6
Central Capricorn	701	53.7	205	53.7	319	40.6	500	24.6	115	17.1
Bundaberg	1,239	51.4	486	66.4	652	48.0	503	13.8	296	25.3
Fraser Coast	1,328	48.2	492	62.4	749	48.2	455	11.4	305	24.7
Cooloola – Gympie	508	51.8	182	69.2	294	45.0	196	12.4	101	22.1
Caloundra	653	45.1	327	76.9	253	29.9	259	11.5	155	17.5
Maroochy	982	42.4	552	79.9	334	29.0	423	12.5	216	14.3
Nanango - Kilkivan (part b)	48	50.0	12	57.0	24	44.7	12	9.3	9	29.5
Noosa	221	43.0	110	82.1	89	31.6	89	11.9	42	13.5

Source: Public Health Information Development Unit , 2021. Social health atlas of Australia, from https://phidu.torrens.edu.au/social-health-atlases/topic-atlas#indigenous-status-comparison-social-health-atlas-of-australia

f. Criminal justice and incarceration

Overall, prisoners have poorer health and show signs of ageing 10–15 years earlier than the non-imprisoned Australian population (22). Aboriginal and Torres Strait Islander adults make up around 4% of the Queensland population and yet constituted 33% of the Queensland's prison population. Despite efforts to address the high levels of incarceration, the number of Aboriginal and Torres Strait Islander people in Queensland prisons increased by more than 80 per cent between 2008 and 2018 (23). Aboriginal and Torres Strait Islander Queenslanders are 10 times more likely to be imprisoned than non-Aboriginal and Torres Strait Islander people. The high rate of incarceration among Aboriginal and Torres Strait Islander people is occurring in the context of broader socio-economic factors such as poor health, poor diet, inadequate housing, higher levels of family violence, and high level of unemployment. The prevalence of these risk factors is greater in remote and discrete communities where social and economic disadvantage is entrenched.

On an average day in 2017–18, around 2,600 Aboriginal and Torres Strait Islander young people, aged 10–17, across Australia were under youth justice supervision, with 81% being supervised in their community and 19% in youth detention centres. The rate of youth justice supervision (number per 10,000 population aged 10–17) has declined among both Aboriginal and Torres Strait Islander and non-Aboriginal and Torres Strait Islander Australians (24). As of 30 June 2019, there were 11,900 Aboriginal and Torres Strait Islander adults in prison. The age-standardised rate (ASR) of imprisonment for the Aboriginal and Torres Strait Islander adult population increased from 1,337 per 100,000 population in 2006 to 2,088 per 100,000 in 2019 (25). There has been some improvement in the rate of youth justice supervision among Aboriginal and Torres Strait Islander youth (decreasing from 212 to 170 per 10,000 population between 2010–11 and 2017–18). However, Aboriginal and Torres Strait Islander people represented nearly half (47%) of all young people in detention in 2017–18 (24).

Based on self-reported data from the 2014–15 National Aboriginal and Torres Strait Islander Social Survey (25):

- nearly half (48%) of Aboriginal and Torres Strait Islander men aged 15 and over had ever been formally charged by the police.
- 1 in 5 (20%) had been arrested in the previous 5 years.
- 1 in 20 (5.3%) had been imprisoned in the previous 5 years.

g. Violence

Aboriginal and Torres Strait Islander people are more likely to be victims of domestic and family violence, and more likely to be offended against by a partner or ex-partner. Aboriginal and Torres Strait Islander people are more likely to be the victims of crime. Despite being 4.6 per cent of the state population, 14 per cent of reported victims in Queensland identified as Aboriginal and Torres Strait Islander in 2017–18. The reported victimisation rate for Aboriginal and Torres Strait Islander Queenslanders (1,907 per 100,000 people) was more than three times the non-Aboriginal and Torres Strait Islander people (591 per 100,000 people) (23). Sociodemographic variables that were specifically associated with higher rates of partner violence for women include single parenthood, financial stress, unemployment, disability or a long-term health condition, poor or fair self-reported health status, and low levels of life satisfaction (26). The PHN staff members indicate that elder abuse is common in the Indigenous communities especially towards people vulnerable due to disability.

h. Child protection and out of home care

The social gradient of health (27) continues with the cycle of low socioeconomic status associated with poor health and poor health in turn impacting family environments. This includes impacts of parental health concerns on children's mental and physical health. The life-course approach to health (28) clearly

indicates association between childhood situation/experiences and health in adulthood (mental and physical). Studies have shown links between involvement in the child protection system and subsequent imprisonment as an adult. Aboriginal and Torres Strait Islander children are overrepresented in all stages of Queensland's child protection system. Aboriginal and Torres Strait Islander children were seven times more likely to be subject to a child safety substantiation than non-Aboriginal and Torres Strait Islander children, and eight times more likely to be in out of home care (29).

i. Connection to Country

For Aboriginal and Torres Strait Islander people, land relates to all aspects of existence - culture, spirituality, language, law, family and identity. Rather than owning land, each person belongs to a piece of land which they're related to through the kinship system. That person is entrusted with the knowledge and responsibility to care for their land, providing a deep sense of identity, purpose and belonging. This deep relationship between people and the land is often described as 'connection to Country' (30).

Connection to country is empowering and provides identity and sense of belonging to Aboriginal and Torres Strait Islander people. For example, having a strong connection to culture and country have has been suggested as a protective factor for prevention of excessive alcohol use and family violence (31).

Almost 75% of respondents (75%, n=447) of the PHN to Aboriginal and Torres Strait Islander survey indicated that they would use traditional healing if made available(1). Traditional healing connects Aboriginal and Torres Strait Islander people to their culture and country (1).

j. Cultural Safety

In Australia, there has been increasing recognition that improving cultural safety for Aboriginal and Torres Strait Islander health care users can improve their access to health care and the quality of the health care they receive (32). This in turn is likely to improve health outcomes and help to address gaps in health and wellbeing between Aboriginal and Torres Strait Islander and non- Aboriginal and Torres Strait Islander people. *The National Aboriginal and Torres Strait Islander Health Plan 2013–23* describes a vision for the Australian health system that is culturally safe, free of racism and inequality and one where all Aboriginal and Torres Strait Islander people have access to health services that are effective, high-quality, appropriate and affordable (33).

The PHN survey indicated that the cultural safety was felt by around 30% of Aboriginal and Torres Strait Islander respondents from the PHN (1).

3.1.2. The PHN consultation: survey findings

The PHN Aboriginal and Torres Strait Islander community survey 2020-21 informs that 110 of 595 respondents (18.5%) indicated 'social factors including income, education, employment, housing, transport, feeling safe and secure' as one of their most important concerns impacting personal health (3). These social factors were also indicated by 258 of 603 respondents (42.8%) as one of the most urgent health concerns facing their Aboriginal and Torres Strait Islander community (1).

There were 4% (n=26) of respondents who identified being from the LGBTIQ community.

When looking the most indicated health concerns, the following specific social determinants of health outcomes were relevant:

- 'Feeling isolated or alone' was one of the top five most important personal health concerns listed by 18–24-year-olds and people who identify as LGBTIQ
- 'domestic/family violence' was one of the top five urgent health concerns listed by all age groups for their community.

Identified Issues

- *Within the PHN,*
    - *over one in four of Aboriginal and Torres Strait Islander family's households have a **single parent and have a person living in the household with a disability**, and over one in three have parent(s) who are jobless or a parent without a job or people with disability.*
    - *Disability seems to be a concern within Aboriginal and Torres Strait Islander communities.*
- ***Low education rate, high unemployment rate and overcrowding** are other socio-economic factors that are impacting health.*
- *Some **progress has been made in education** including school retention rates for Aboriginal and Torres Strait Islander children and youth.*
- *Surveys indicate that more than two-thirds (68%) of Aboriginal and Torres Strait Islander people had experienced one or more stressors impacting their social and emotional wellbeing in the last 12 months. The most common were: death of a family member or close friend, inability to get a job, and serious illness (1).*
- *Consultation also highlights the concerns of not having transport to attend the services, feeling culturally unsafe, feeling isolated, and domestic/family violence.*

In identifying the above issues, the PHN also acknowledges that for our Aboriginal and Torres Strait Islander people, their connection to culture, family and community plays a critical role in improving their health. As discussed previously, many environmental factors, including housing, impact the mental and physical health of Aboriginal and Torres Strait Islander people and the PHN is playing an important role in working with various stakeholders to address these concerns.

3.1.3. Risk Factors

Health risk factors are attributes, characteristics or exposures that increase the likelihood of a person developing a disease or health disorder. Behavioural risk factors are those that individuals have the most ability to modify. Biomedical risk factors are bodily states that are often influenced by behavioural risk factors. As limited information is available at local levels on various indicators for wellbeing and risk behaviours, the gap in the information is narrowed by the data gathered via consultations within the PHN and is presented below.

a. Behavioural Risk Factors

The Burden of Disease study published in in 2017 indicated that overweight and obesity, tobacco smoking, and insufficient physical activity were the largest single contributing factors to the Aboriginal and Torres Strait Islander people's disease burden. Some chronic diseases were strongly influenced by risk factors. Almost 75% of the diabetes burden, 68% of the cardiovascular disease burden and 50% of the cancer burden could be avoided through the elimination of selected behavioural and environmental risk factors (34), indicating the importance of primary and secondary prevention in reducing burden of disease in the Aboriginal and Torres Strait Islander populations.

The Australian Institute of Health and Welfare, Aboriginal and Torres Strait Islander Health Performance Framework 2020 reported data on the following health risk factors for Aboriginal and Torres Strait Islander populations (2018-19) (25).

- Smoking

Smoking is a risk factor for many chronic conditions including cardiovascular disease, certain types of cancer and respiratory diseases. The proportion of Aboriginal and Torres Strait Islander people aged 15 and over who smoke every day has fallen substantially over the past decade. In 2018–19, 37% of Aboriginal and Torres Strait Islander people (aged 15 and over (about 200,400)) smoked every day, compared with 45% in 2008. *There has been an increase in the proportion of people who are 15-17 years and never smoked from 72% in 2008 to 85% in 2018-19, a 13% positive change* (25).

- Alcohol Consumption

In 2018–19, *54% (268,900) of Aboriginal and Torres Strait Islander adults reported drinking alcohol at levels exceeding the single occasion risk guideline (more than 4 drinks) in the previous 12 months. This is a decrease from 57% in 2012–13*. The decrease in the proportion of Aboriginal and Torres Strait Islander adults exceeding the single occasion risk guideline for alcohol consumption was driven by a decline in drinking in non-remote areas from 56% in 2012–13 to 50% in 2018–19, while the proportion in remote areas did not change significantly. About 1 in 5 (20% or 98,700) Aboriginal and Torres Strait Islander adults reported drinking alcohol at levels exceeding the lifetime risk guideline (more than 2 drinks per day) in the previous week. This was the same as in 2012–13 (25).

- Diet

Diet plays a key role in health and wellbeing. Health conditions that are often affected by diet include overweight and obesity, coronary heart disease, stroke, high blood pressure, some forms of cancer and type 2 diabetes. A range of external factors, including, for example, availability and affordability, may affect levels of fruit and vegetable consumption. In 2018–19, based on estimates from self-reported survey data (25):

    - 97% (522,100) of Aboriginal and Torres Strait Islander people aged 15 and over had inadequate daily fruit and vegetable consumption, with males more likely to have inadequate consumption than females (99% or 256,500 compared with 96% or 265,800, respectively)

- similar proportions of Aboriginal and Torres Strait Islander people aged 15 and over in remote (98% or 100,300) and non-remote areas (97% or 421,700) had inadequate daily intake of fruit and vegetables
- for Aboriginal and Torres Strait Islander children aged 2–14, 94% (224,000) had inadequate daily intake of fruit and vegetables
- the age-standardised proportion is not significantly different between Aboriginal and Torres Strait Islander and non- Aboriginal and Torres Strait Islander people (97.2% compared with 94.8%, respectively).

- Insufficient physical activity

Regular physical activity provides many benefits for physical and mental health and is an important factor in maintaining a healthy weight. Insufficient physical activity is a key contributor to disease burden in Australia. In 2018–19, based on self-reported data in Non-remote areas(25)

- most Aboriginal and Torres Strait Islander people aged 15 and over (89% or 385,900) did not meet the physical activity guidelines
- there was no significant difference between the proportions of females (90% or 202,100) and males (87% or 183,200) who did not meet the physical activity guidelines.

b. Biomedical Risk Factors

In 2018-19,

- Obesity

Obesity is associated with many chronic conditions and is a risk factors for chronic diseases such as diabetes and cardiovascular disease. Around 44% men (30% non-Aboriginal and Torres Strait Islander) and 48% women (28% non-Aboriginal and Torres Strait Islander) from Aboriginal and Torres Strait backgrounds were obese (age-standardised). At total of 71% (381,800) of Aboriginal and Torres Strait Islander people aged 15 and over were either overweight or obese. This was higher than in 2012–13 (66%). The rise was driven by an increase in obesity in non-remote areas (25).

- High Blood Pressure

High blood pressure is a leading risk factor for cardiovascular diseases, including coronary heart disease. In 2018-19 Almost 1 in 3 (31%) Aboriginal and Torres Strait Islander adults (151,200) had high blood pressure. Younger Aboriginal and Torres Strait Islander people are more likely than younger non-Aboriginal and Torres Strait Islander people to have high blood pressure. About 30% of Aboriginal and Torres Strait Islander people aged 35–44 had high blood pressure, compared with 18% of non-Aboriginal and Torres Strait Islander people —this was the largest difference of all age groups (35).

The 2018–19 National Aboriginal and Torres Strait Islander Health Survey indicates that of the adults whose blood pressure was measured as high (112,100), 25% (an estimated 28,000) had self-reported that they had been diagnosed with high blood pressure. However, 75% (an estimated 84,000) of those with blood pressure measured as high had not reported this to be the case (35).

- High Blood Sugar

In 2018-19, around 17% of Aboriginal and Torres Strait Islander adults reported having diabetes or high blood sugar levels (65,300), compared with 6.1% of non-Aboriginal and Torres Strait Islander people (age-standardised) (25). In 2014-18, for Aboriginal and Torres Strait Islander people, the age-standardised death rate for diabetes was more than 5 times as high as for non-Aboriginal and Torres Strait Islander people (78 compared with 15 deaths per 100,000 population).

Identified Issues

- ***Obesity, lack of exercise and smoking*** *are in the top five health concerns most frequently reported by Aboriginal and Torres Strait Islander people in the PHN.*
- *The proportion of Aboriginal and Torres Strait Islander people* ***aged 15 and over who smoke every day has fallen substantially*** *over the past decade (nationally reduced by 10% from 2008 to 2018).*
- *Although positive changes were slowly noticed including in* ***smoking and alcohol related behaviours, the large gap*** *between Aboriginal and Torres Strait Islander people and non-Aboriginal and Torres Strait Islander populations still exists.*
- ***Younger Aboriginal and Torres Strait Islander*** people *are more likely to have* ***high blood pressure*** *(compared to non-Aboriginal and Torres Strait Islander young people), the largest difference amongst all age groups.*
- *In 2018-19 survey, of the Aboriginal and Torres Strait Islander adults with measured high blood pressure (140/90 mmHg or greater), 75% (84,000) had not been told they had high blood pressure by a health professional.*
- *Obesity, lack of physical activity and alcohol and other drug intake were also identified as concerns from the PHN consultation.*

3.2. Health Status

3.2.1. Self-assessed Health Status

Self-assessed health status is a subjective measure that depends on an individual's expectations for their own health and their comparisons with others around them (36). In 2018–19, 43% of Aboriginal and Torres Strait Islander people aged 15 and over in Queensland rated their health as very good or excellent, higher than the rate of 37% in 2012–13 (37). Self-assessed health status varies across remoteness areas; Aboriginal and Torres Strait Islander people living in regional areas or major cities were more likely to rate their health as 'fair' or 'poor' than Aboriginal and Torres Strait Islander people in very remote and remote areas (38).

The PHN Aboriginal and Torres Strait Islander community survey 2020-21 *and* ***the PHN Community health survey, 2020-21,*** both indicate that self-assessed health status of Aboriginal and Torres Strait Islander people in the PHN is rated poorer than the broader Aboriginal and Torres Strait Islander population and the local non-Aboriginal and Torres Strait Islander population. Only 168 of 599 (28%) of PHN Aboriginal and Torres Strait Islander survey respondents across the PHN aged 18 and over, rated their health as 'excellent' or 'very good', and for those aged 45 and over this proportion was 20% (60/296 respondents) (1).

3.2.2. Functioning/Disability

According to the QGSO data, in 2016, 8.1% (n=2,400) of Aboriginal and Torres Strait Islander people within the PHN identified themselves as having profound or severe disability (QLD=6.4%) (7). The highest rates of disability were reported for people above the age of 65 years (27.8%, n=414; QLD=27.6%) followed by people aged between 45 and 64 years old (13.7%, n=681; QLD=11.1%). Within the IARE regions, around 15% of Aboriginal and Torres Strait Islander people aged 15 and over were providing assistance to persons with a disability, with the highest proportions in Bundaberg (15.5%), Caloundra (15.0%), Fraser Coast (15.6%), Maroochy (15.1%) and Noosa (15.4%) (8) (see Table 7 for more details).

In 2014–15, an estimated 45% of Aboriginal and Torres Strait Islander people (almost 200,000 people) had disability or a long-term health condition that restricted their everyday activities, at 1.7 times the rate of non-Aboriginal and Torres Strait Islander people (38). Applying this proportion to the Aboriginal and Torres Strait Islander population within the PHN, there are potentially approximately 13,000 Aboriginal and Torres Strait Islander people with restricted activities of daily life. Nationally, 6% of Aboriginal and Torres Strait Islander people were users of NDIS services between 2013-14 to 2017-18 and 84% of those who used the services were aged under 50 years (39).

3.2.3. Social and Emotional Wellbeing

Social and emotional wellbeing is a holistic concept that includes mental health and illness but also encompasses the importance of connection to land, culture, spirituality, and ancestry, and how these affect the wellbeing of the individual and the community. A gap still exists between Aboriginal and Torres Strait Islander and non-Aboriginal and Torres Strait Islander populations in wellbeing. In 2014–15, (38).

- More than two-thirds (68%) of Aboriginal and Torres Strait Islander people had experienced one or more stressors impacting their social and emotional wellbeing in the last 12 months.
- The stressors reported most often were the death of a family member or close friend (28%), inability to get a job (18%), serious illness (12%), and mental illness (10%).
- Aboriginal and Torres Strait Islander people who had experienced at least one stressor were 1.9 times as likely to report high/very high levels of psychological distress compared to Aboriginal and Torres Strait Islander people those who had not experienced a stressor (36% compared with 19%)

- While the majority of Aboriginal and Torres Strait Islander people reported low or very low levels of psychological distress (67%), one-third (30%) experienced high or very high levels of psychological distress (2014–15). These levels were 2.7 times as high as those for non-Aboriginal and Torres Strait Islander people (11%, 2012–13 data) (38).

3.2.4. Chronic Disease

Chronic diseases are main contributors to the mortality gap between Aboriginal and Torres Strait Islander and non-Aboriginal and Torres Strait Islander people .For example, while there were improvements in mortality from cancer in the non-Aboriginal and Torres Strait Islander population between 2001 and 2012, this did not occur in the Aboriginal and Torres Strait Islander population, leading to a significant increase in the mortality gap due to cancer for both males and females. Aboriginal and Torres Strait Islander people have poorer health outcomes and higher prevalence of chronic conditions. As the PHN includes various locations with high proportions of Aboriginal and Torres Strait Islander people, the management of chronic disease also requires a focus on equitable distribution of resources and access to culturally appropriate services. Consistently higher rates of chronic diseases and associated mortality among Aboriginal and Torres Strait Islander populations compared with the general population is a key concern within the PHN catchment.

The largest contributors to disease and injury burden were mental disorders, chronic disease, and unintentional injuries. The top six contributors responsible for more than two-thirds of the total disease and injury burden among Queensland's Aboriginal and Torres Strait Islander people were (25):

- mental disorders (20 %)
- cardiovascular disease (14%)
- diabetes (11 %)
- cancers (9 %)
- chronic respiratory disease (9 %)
- unintentional injuries (5 %).

The long-term health conditions with the highest self-reported prevalence among Aboriginal and Torres Strait Islander people in 2014–15 were (38): eye diseases and vision problems (29%), respiratory diseases (24%), musculoskeletal diseases (22%) and cardiovascular disease (16%).

Australian Aboriginal and Torres Strait Islander HealthInfoNet 2018 indicated that for Aboriginal and Torres Strait Islander people (40):

- Cardiovascular disease was the leading cause of death in 2016 (24% of deaths 2011-2015). Hospitalisations for cardiovascular disease was 1.7 times the age adjusted rate for non-Aboriginal and Torres Strait Islander people.
- Age adjusted incidence of end stage renal disease in 2011-2015, was 6.8 times higher than for non- Aboriginal and Torres Strait Islander people.
- Prevalence of self-reported diabetes was 13% in 2012-13, 3.5 times greater than that of non-Aboriginal and Torres Strait Islander people. Aboriginal and Torres Strait Islander people were 5.6 times more likely to die from diabetes than non- Aboriginal and Torres Strait Islander people.
- 2014-15 age adjusted hospitalisation rates were 5 times higher for COPD and 3.1 times higher for influenza than for non- Aboriginal and Torres Strait Islander people.
- A risk of developing chronic diseases based on waist circumference among Aboriginal and Torres Strait Islander people, 18+ years old, was higher in 74.8 % of people in 2018-19 (41).

3.2.5. Specific Conditions

Further details on the top contributors responsible for more than two-thirds of the total disease and injury burden among Aboriginal and Torres Strait Islander people are provided below.

a. Cardiovascular Disease

Cardiovascular disease includes conditions such as coronary heart disease and stroke. It is the second leading cause of death among Aboriginal and Torres Strait Islander people, accounting for 23% of deaths (3,300) in 2014–2018. Furthermore (25):

- In 2018–19, about 16% (122,100) of Aboriginal and Torres Strait Islander people aged 2 and over had a cardiovascular condition, based on self-reported survey information.
- For Aboriginal and Torres Strait Islander adults aged 25–54, rates of self-reported cardiovascular disease are about double those of non-Aboriginal and Torres Strait Islander adults in corresponding age groups in both non-remote and remote areas.
- Prevalence of cardiovascular disease among people with diabetes (18+ years) in 2018-19 was 58% while this was 71% in people aged 65 and above (41).

- Nationally, the age-standardised rate of deaths due to cardiovascular disease per 100,000 population decreased from 323 in 2006 to 229 in 2018 (25). Deaths from cardiovascular disease have decreased along with a decreased rate of smoking and increased rates of hospital procedures related to coronary heart disease. The decline in mortality from cardiovascular disease coincided with reductions in smoking rates and an increase in hospitalisations for cardiovascular disease-related procedures.
- The rates of hospitalisation across the PHN due to Ischemic Heart Disease are reported as an example of variability within the PHN. For Aboriginal and Torres Strait Islander people in 2015/16-2017/18 the rates were significantly. higher in the PHN (720.6 ASR per 100,000) compared to Australia (652.8 ASR per 100,000). Significantly higher ASRs per 100,000 were reported in Central Capricorn (987.4), Fraser Coast (864.8) , Gladstone (856.7) and Rockhampton-Yeppoon (1008.4) (8). (See Table 6Table 6: Hospital admissions Aboriginal and Torres Strait Islander people, 2015/16-2017/18 by specific chronic conditions for details)

b. Diabetes

Type 2 Diabetes is a chronic condition with serious health implications as well as a risk factor for cardiovascular disease and can lead to kidney damage. Being overweight or obese, unhealthy lifestyle, such as insufficient exercise, obesity, unhealthy diet, and smoking are causal factors for some types of diabetes. The prevalence of diabetes/high sugar levels increases with age and is higher among Aboriginal and Torres Strait Islander people in remote areas than in non-remote areas (25). Aboriginal and Torres Strait Islander people have a 3–6 fold increased likelihood of experiencing a diabetes related foot complication compared to non-I Aboriginal and Torres Strait Islander people (42). All data indicates the need for primordial, primary, and secondary prevention as a focus for reducing the diabetes related burden.

In 2018–19,

- About 8% of Aboriginal and Torres Strait Islander adults reported having diabetes, the same proportion as in 2012–13. This prevalence, when self-reported, was as high as 13.5 (ASR) per 100 people (43).
- About 17% of Aboriginal and Torres Strait Islander adults reported having diabetes or high blood sugar levels (65,300), compared with 6.1% of non-Aboriginal and Torres Strait Islander people (age-standardised) (43).
- Weight loss is critical to manage diabetes successfully and avoid secondary complication. However, only 9.8% of people with diabetes were able to achieve the target level for body mass index, 2018-19 (43).

- Significantly higher proportion of Aboriginal and Torres Strait Islander people had dual diagnosis of diabetes and mental health condition in 2018-19 (ASR 19.4 % (95% CI 16.1-22.7) compared to 7.4 (95% CI 6.4-8.3)) (43).
- Between July 2015 and June 2017, Aboriginal and Torres Strait Islander people were hospitalised due to diabetes at nearly four times the rate (age-standardised) of non-Aboriginal and Torres Strait Islander people (43).
- Hospitalisation rate for type 2 diabetes as a principal diagnosis (2017-18) was ASR 672 per 100,000 for Aboriginal and Torres Strait Islander compared to ASR 145 per 100,000 non-Aboriginal and Torres Strait Islander people (40).
- The age-standardised death rate from diabetes for Aboriginal and Torres Strait Islander people decreased from 93 per 100,000 population in 2006 to 72 per 100,000 in 2018. But rates remain high, with Aboriginal and Torres Strait Islander people dying from diabetes at about five times the rate (age-standardised) of non-Aboriginal and Torres Strait Islander people in the period 2014–2018 (40).
- Hospitalisation rate for coronary heart disease or stroke with diabetes (2017-18) was more than three time higher among Aboriginal and Torres Strait Islander people compared to non-Aboriginal and Torres Strait Islander (ASR 725 compared to 193 per 100,000) (40).
- Hospitalisations for lower limb amputations with type 2 diabetes as a principle or additional diagnosis (18+ year old, 2017-18) was ASR 107 per 100,000 population (compared to non-Aboriginal and Torres Strait Islander ASR 23 per 100,000) (40).
- Although number of deaths from diabetes in 2018 was lower to previous years (n=308), the rate of death was much higher compared to non-Aboriginal and Torres Strait Islander people (ASR 210 compared to 52 per 100,000)(40).
- Overall, from 2014-18, there were 841 (ASR 44 per 100,000 people) avoidable and preventable deaths from diabetes for Aboriginal and Torres Strait Islander people (40).
- The rate of diabetes related hospitalisations For Aboriginal and Torres Strait Islander people in 2015/16-2017/18 was lower in the PHN (380.5 ASR per 100,000) compared to Australia (420.9 ASR per 100,000); however, the difference was not statistically significant. Significantly higher rates were reported in Rockhampton-Yeppoon IARE (513.3) and significantly lower rates were reported in Cooloola-Gympie (243.4), Noosa (243.4) and Fraser Coast (306.5) (8). (See Table 6Table 6: Hospital admissions Aboriginal and Torres Strait Islander people, 2015/16-2017/18 by specific chronic conditions for details)

c. Cancer

Aboriginal and Torres Strait Islander Health Performance Framework Data indicates that (25):

- The age-standardised hospitalisation rate for cancer among Aboriginal and Torres Strait Islander people increased from 10.2 per 1,000 population in 2007–08 to 12.5 per 1,000 in 2016–17.
- Cancer is a leading cause of disease burden, and the leading cause of death among Aboriginal and Torres Strait Islander people. Cancer accounted for 23% of deaths (3,400) in 2014–2018 (data from NSW, QLD, WA, SA and NT combined).
- Lung cancer accounts for about one-quarter (26%) of deaths from cancer among Aboriginal and Torres Strait Islander people .For Aboriginal and Torres Strait Islander people living in non-remote areas, the death rate from lung cancer was 54 per 100,000 population, compared with 63 per 100,000 in remote areas. This shows the impact of smoking along with the lack of access or seeking access to early diagnosis and care.
- Nationally, the age standardised rate of deaths per 100,000 population increased from 205 in 2006 to 235 in 2018.

- See Table 6Table 6: Hospital admissions Aboriginal and Torres Strait Islander people, 2015/16-2017/18 by specific chronic conditions for detailed information on hospital admission related to total cancers within the PHN. These rates were significantly higher with the PHN (1279.8 ASR per 100,000) compared to Australia (983.8 ASR per 100,000)

d. Respiratory Diseases

Chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease (COPD), make a large contribution to disease burden among Aboriginal and Torres Strait Islander people. Data indicates that (25):

- In 2018–19, almost 1 in 3 Aboriginal and Torres Strait Islander people (29% or 238,000) had a long-term respiratory disease (lasting 6 months or more), based on self-reported survey data. *This is around 9800 Aboriginal and Torres Strait Islander people within the PHN.*
- Age-standardised rates of hospitalisation from respiratory disease among Aboriginal and Torres Strait Islander people increased over the decade to 2017, but the age-standardised rate of deaths from respiratory disease changed little over a similar period (2006–2018).
- Hospital admissions for respiratory system diseases (2015/16-2017/18) were significantly lower for the PHN (3071.5 ASR per 100,000) compared to Australia (3,373.8 ASR per 100,000). The rates were significantly higher for Banana (4,686.8), Central Capricorn (3,913.0) and North Burnett (4,686.8) IAREs (8).
- In 2014–2018, 1,400 Aboriginal and Torres Strait Islander people died from respiratory diseases (9% of all deaths), making this the fourth leading cause of death. Most of these deaths were from COPD (62%), pneumonia and influenza (17%), and asthma (4.6%).

e. Chronic Kidney Disease

Chronic kidney disease (CKD) is defined as the presence of impaired or reduced kidney function lasting at least 3 months. In 2012–13, 18% (59,600) of Aboriginal and Torres Strait Islander adults aged 18 and over had biomedical signs of CKD, but only around 1 in 10 (11%) of these self-reported having kidney disease. The rate of CKD increased with age, affecting approximately half (49%) of Aboriginal and Torres Strait Islander adults aged 65 and over. After accounting for differences in age structure, Aboriginal and Torres Strait Islander people adults were twice as likely as non-Aboriginal and Torres Strait Islander adults to have biomedical signs of CKD (22% and 10%, respectively) (44).

The Aboriginal and Torres Strait Islander Health Performance Framework summary report, 2020 indicates that (25):

- Between July 2015 and June 2017, care involving dialysis was the leading cause of hospitalisation among Aboriginal and Torres Strait Islander people, accounting for 46% (460,900) of all hospitalisations.
- Patients with end-stage kidney disease need dialysis or a kidney transplant to maintain normal kidney functions. In the three-year period 2015–2017, 950 Aboriginal and Torres Strait Islander people began treatment for end-stage kidney disease, an incidence rate of 64 per 100,000 (ASR). In comparison, the age-standardised incidence rate for treated end-stage kidney disease for non-Aboriginal and Torres Strait Islander Australians was 9.2 per 100,000.
- Between 2008 and 2017, the age-standardised incidence rate for treated end-stage kidney disease did not change significantly for Aboriginal and Torres Strait Islander or non-Aboriginal and Torres Strait Islander people.
- The age-standardised death rate from kidney disease among Aboriginal and Torres Strait Islander people decreased from 45 per 100,000 in 2006 to 20 per 100,000 in 2018.

- Hospitalisations for end-stage renal disease with diabetes (2017-18) were at a much higher rate in Aboriginal and Torres Strait Islander people compared to non-Aboriginal and Torres Strait Islander people (ASR 97 compared to 8 per 100,000 respectively) (45).
- CKD-related hospitalisations in 2015/16-2017/18 were significantly lower in the PHN (275.2 ASR per 100,000) compared to Australia (387.3 ASR per 100,000). Non-significant higher ASRs were reported in Banana (373.6) , Maroochy (396.7) and North Burnett (373.6) IAREs, while significantly lower ASRs were reported in Bundaberg (232.9), Fraser Coast (206.0), Gladstone (167.6) and Rockhampton-Yeppoon (288.2) (8) .

3.2.6. Other Conditions

Specific health conditions such as Rheumatic Heart Disease that have low prevalence amongst non-Aboriginal and Torres Strait Islander people have high prevalence in Aboriginal and Torres Strait Islander communities. Such conditions that do not fit under chronic conditions per se but are important in terms of prevention in primary care are included in this section.

f. Injury and Poisoning

Most injury-related deaths are preventable. Aboriginal and Torres Strait Islander people have a relatively high level of mortality with injury being the leading cause of the fatal disease burden (24%). Injury also accounted for 15% of the fatal gap between Aboriginal and Torres Strait Islander and non-Aboriginal and Torres Strait Islander people. The rate of injury death for Aboriginal and Torres Strait Islander males was nearly double that for females (25).

- Injury data published in 2020 indicates that the highest proportion of deaths due to injury were within the age group 15-19 years (82.57%, n=199) followed by 20-24 (72%, n=234) and 10-14 years (70%, n=55). The percentage of injury related deaths was above 50% for the age groups 1-9 years and 25-34-years (46).
- Injury and poisoning is the second leading cause of disease burden and third leading cause of death among Aboriginal and Torres Strait Islander people. It accounted for 15% of deaths (2,200) in 2014–2018 (25).
- Among Aboriginal and Torres Strait Islander people, the most common underlying causes of deaths from injury and poisoning in 2014–2018 were suicides (796 deaths), transport accidents (418 deaths), accidental poisoning (369 deaths), assault (183 deaths) and falls (95 deaths) (25).
- Injury and poisoning was the most common cause of hospitalisation for Aboriginal and Torres Strait Islander people (excluding dialysis), and the age-standardised hospitalisation rate increased between 2007–08 and 2016–17. The age-standardised death rate due to injury and poisoning among Aboriginal and Torres Strait Islander people did not change significantly between 2006 and 2018 (25).
- Injury, poisoning and other external causes related hospitalisations in 2015/16-2017/18 were lower in the PHN (4,254.4 ASR per 100,000) compared to Australia (4,364.4 ASR per 100,000) and the difference was not statistically significant. Significantly higher ASRs were reported in Banana (5,279.5) , Caloundra (4,933.0), Central Capricorn (5,094.5), and North Burnett (5,275.5) IAREs while significantly lower ASRs were reported in Cooloola-Gympie (3,653.3), Gladstone (3,832.9) and Nanango-Kilkivan (3,584.8) IAREs (8).

Table 6: Hospital admissions Aboriginal and Torres Strait Islander people, 2015/16-2017/18 by specific chronic conditions

	Admissions for all cancers		Admissions for diabetes		Admissions for ischaemic heart disease		Admissions for asthma		Admissions for chronic obstructive pulmonary disease (COPD)		Admissions for chronic kidney disease		Admissions for injury, poisoning and other external causes	
	Number	Average annual ASR per 100,000	Number	Average annual ASR per 100,000	Number	Average annual ASR per 100,000	Number	Average annual ASR per 100,000	Number	Average annual ASR per 100,000	Number	Average annual ASR per 100,000	Number	Average annual ASR per 100,000
AUSTRALIA+	23,564	983.8	10,081	420.9	15,634	652.8	7,196	300.4	14,248	594.9	9,277	387.3	104,524	4364.1
Queensland	6,962	1095.2	3,010	469.2	4,614	730.5	2,174	325.3	3,305	526.4	2,531	392.4	29,210	4461.7
The PHN region	1,229	1279.8	361	380.5	688	720.6	278	283.6	402	416.4	260	275.2	4,015	4254.4
Banana (part b)	42	807.5	20	407.4	34	626.0	19	436.0	40	726.8	18	373.6	234	5279.5
North Burnett	42	807.5	20	407.4	34	626.0	19	436.0	40	726.8	18	373.6	234	5279.5
Gladstone	82	1062.9	29	358.8	66	856.7	27	292.4	22	299.6	14	167.6	332	3832.9
Rockhampton - Yeppoon	298	1227.5	127	513.3	240	1008.4	63	231.5	72	305.4	72	288.2	1,073	4135.5
Central Capricorn	100	909.3	46	406.2	108	987.4	55	428.7	69	656.5	34	293.5	614	5095.4
Bundaberg	178	1295.1	50	380.5	85	627.2	50	378.7	106	748.3	30	232.9	566	4475.3
Fraser Coast	298	1866.3	47	306.5	137	864.8	60	393.9	94	570.4	31	206.0	636	4340.1
Cooloola - Gympie	98	1089.2	21	243.4	51	566.5	14	159.3	24	258.8	23	268.9	300	3653.3
Caloundra	89	1164.9	22	288.9	28	368.3	18	224.6	18	235.3	23	305.3	376	4933.0
Maroochy	144	1154.8	45	362.5	47	374.4	27	225.0	26	206.3	49	396.7	498	4083.3
Nanango - Kilkivan (part b)	62	1220.1	19	395.1	22	438.4	13	267.5	21	399.3	13	276.0	157	3584.8
Noosa	98	1089.2	21	243.4	51	566.5	14	159.3	24	258.8	23	268.9	300	3653.3

Source: Public Health Information Development Unit , 2021. Social health atlas of Australia, from https://phidu.torrens.edu.au/social-health-atlases/topic-atlas#indigenous-status-comparison-social-health-atlas-of-australia

Note: (a) All comparisons for statistical significance are with Australia (b) Significantly higher or significantly lower is colour coded

a. Acute Rheumatic Fever and Rheumatic Heart Disease

Acute Rheumatic Fever (ARF) and Rheumatic Heart Disease (RHD) are preventable diseases caused as an autoimmune response to infection of the upper respiratory tract (and possibly of the skin) by Group A Streptococcus (GAS) bacterium. It is now established that ARF rates increase with remoteness, and that rates are highest in Aboriginal and Torres Strait Islander people, females and in young people aged 5–14 years (47).

- As of 31 December 2017, (47):
    - there were 4,255 (45 per 100,000 all population) living persons with RHD recorded on state and territory registers. Eighty–seven per cent were Aboriginal and Torres Strait Islander people (3,687 diagnoses).
    - Qld rate of prevalent RHD diagnoses was 531 per 100,000 for Aboriginal and Torres Strait Islander people (n=1160) and
    - there were 11 deaths (5.0 per 100,000) reported across Qld.
- The rate of ARF diagnoses among Aboriginal and Torres Strait Islander people by region of onset, 2013–2017 indicates that (compared to Qld 56.8 per 100,000 [n=124] in 2017) (47)
    - Central Queensland had 21 cases (29.7 per 100,000)
    - Wide Bay had 4 cases (8.3 per 100,000)
- Rate of RHD diagnoses among Aboriginal and Torres Strait Islander people by region of onset, 2013–2017 indicates that (compared to QLD 30.7 per 100,000 [n=67] in 2017) (47)
    - Central Queensland had 15 cases (21.2 per 100,000)

b. Eye Health

Eye diseases and vision problems are the most common long-term health conditions reported by Aboriginal and Torres Strait Islander people, with one-third of Aboriginal and Torres Strait Islander people (33%) reporting one or more long-term eye conditions. This is a concern as blindness or eye issues impact quality of life extensively.

- In 2018 (48):
    - Aboriginal and Torres Strait Islander people suffered from vision loss at 2.8 times the rate of non-Aboriginal and Torres Strait Islander people.
    - The hospitalisation rate for eye injuries for Aboriginal and Torres Strait Islander people aged 35 to 44 was more than eight times the rate of non-Aboriginal and Torres Strait Islander people in this age group.
    - The three leading causes of vision impairment and blindness (vision loss) for Aboriginal and Torres Strait Islander people aged 40 and over were refractive error (61%), cataract (20%), and diabetic retinopathy (5.5%).
- Prevalence of vision loss among Aboriginal and Torres Strait Islanders with diabetes (18+ years) in 2018-19 was 17.7%. This was highest for people aged 55 to 64 years (23%) (49).
- PHN level and SA3 level data indicates (45):
    - Hospitalisation rates for eye injuries were lower within the PHN compared to Qld (1.1 per 1000 and 1.3 per 1000 respectively)
    - Hospitalisations for diseases of eye, within the PHN (5.1 per 1000) was similar to Qld (5.5 per 1000) however almost double in Central Highlands (10.5 per 1000) and Maroochy (10 per 1000) SA3 areas.

c. Ear Health

Ear disease and associated hearing loss are largely preventable. Poor ear and hearing health is associated with household overcrowding, hygiene practices, second-hand smoke exposure, a poor diet and lack of access to medical services. Experiencing hearing loss in childhood can affect speech and language development, and may lead to behavioural problems, early school leaving, limited employment options and increased contact with the criminal justice system (50).

- In 2018–19, based on self-reported data from the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) (43):
    - An estimated 14% (111,700) of Aboriginal and Torres Strait Islander people had a long-term ear/hearing problem. The proportion was the same for men and women (14%), and similar for remote (13%) and non-remote (14%) areas.
    - Ear and hearing problems increased with age. Aboriginal and Torres Strait Islander people aged over 55 had the highest proportion of ear/hearing problems (34%), with deafness accounting for the majority of problems (30%). Children aged 0–14 were more likely to have otitis media than older age groups (2.6% compared with 0.2%–1.0%, respectively).

d. Oral Health

Aboriginal and Torres Strait Islander people have poorer oral health than other Australians (51). Aboriginal and Torres Strait Islander people suffer from more caries, periodontal diseases, and tooth loss than non- Aboriginal and Torres Strait Islander people (52). This discrepancy is attributed in part to the fact that access to culturally appropriate and timely dental care is often not available to Aboriginal and Torres Strait Islander people, especially in rural and remote areas, along with unavailability of culturally appropriate resources on dental care and nutritional guidelines. If Aboriginal and Torres Strait Islander oral health is to be ameliorated, access to dental care must be improved, and an integrated holistic approach to oral health, which includes preventative measures, needs to be established (53).

- In 2018–19, the Aboriginal and Torres Strait Islander Health Performance Report indicates (25) that:
    - 58% of Aboriginal and Torres Strait Islander children aged 0–14 had seen a dentist in the last 12 months in 2018–19.
    - Aboriginal and Torres Strait Islander children aged 0–4 were hospitalised for dental conditions at 1.7 times the rate of non- Aboriginal and Torres Strait Islander children between July 2015 and June 2017.
    - 19% of Aboriginal and Torres Strait Islander people reported that they did not go to a dentist when they needed to in the previous 12 months. Reasons for this included: cost (42%), too busy (24%), disliking service or professional, or feeling embarrassed or afraid (22%), and waiting time too long or not available at time required (15%).
    - 6% of Aboriginal and Torres Strait Islander people aged 15 and over were reported to have complete tooth loss and 45% had lost at least one tooth, in 2018–19.

e. Sexually Transmitted Diseases

Aboriginal and Torres Strait Islander peoples continue to be disproportionately impacted by blood borne viruses (BBV) and sexually transmissible infections (STI). With the advent of more effective prevention methods, testing and treatments, there is a significant opportunity to close the gap between Aboriginal and Torres Strait Islander peoples and non- Aboriginal and Torres Strait Islander people in relation to BBV and STI, reduce associated morbidity and mortality, and greatly improve health outcomes (54).

- Data indicates that in 2016 (55):
    - The Human immunodeficiency virus (HIV) notification rate was two times higher in Aboriginal and Torres Strait Islander people than in the non- Aboriginal and Torres Strait Islander population.
    - Aboriginal people were three times more likely to be diagnosed with chlamydia, seven times more likely to be diagnosed with gonorrhoea, and five times more likely to be diagnosed with infectious syphilis when compared with non-Aboriginal people.
    - In the past five years, there was a 25% increase in the notification rate of hepatitis C diagnoses in the Aboriginal and Torres Strait Islander population (from 138 per 100 000 in 2012 to 173 per 100 000 in 2016), whereas the rate in the non- Aboriginal and Torres Strait Islander population remained stable (43 per 100 000 in 2012 and 45 per 100 000 in 2016).
    - In the past five years (2012–2016), the notification rate of newly diagnosed hepatitis B infection in the Aboriginal and Torres Strait Islander population halved from 62 per 100 000 in 2012 to 31 per 100 000 in 2016, with declines in all age groups but the greatest decline in people under 40 years of age.
    - As a result of a vaccination program in schools, since 2007 there has been an 88% decrease in genital warts among Aboriginal men, and a 100% decrease among Aboriginal women ages 21 years or younger attending sexual health clinics for the first time.

3.2.7. Mortality associated with chronic conditions

In 2014–2018, cancer (as a broad disease group) was the leading cause of death among Aboriginal and Torres Strait Islander people. The five leading specific causes of death for Aboriginal and Torres Strait Islander people were: (i) coronary heart disease, (ii) diabetes, (iii) lung cancer, (iv) COPD, and (v) suicide (25).

From 2014-18 (25):

- The age-standardised death rate for diabetes was more than five times as high as for non-Aboriginal and Torres Strait Islander people (78 compared with 15 deaths per 100,000 population).
- The age-standardised death rate for COPD, was almost three times as high (70 compared with 24 deaths per 100,000 population).

Potentially avoidable deaths

Between 2006 and 2018, the age-standardised rate of avoidable deaths among Aboriginal and Torres Strait Islander people fell from 374 to 303 per 100,000. Aboriginal and Torres Strait Islander people died from avoidable causes at three times the rate of non- Aboriginal and Torres Strait Islander people (25). During the period 2014–2018, around 61% (7,072) deaths of the Aboriginal and Torres Strait Islander people (0-74 years) were from avoidable causes. This equates to an age-standardised rate of 312 per 100,000 people, compared with 103 per 100,000 among non-Aboriginal and Torres Strait Islander people (25). Avoidable deaths from all causes within the PHN were highest for Gladstone IARE (8) (See **Table 7** for more details).

Data from 2014-2018 indicates (25):

- From 2006 to 2018, there was a significant decline of 17% in avoidable mortality rates for Aboriginal and Torres Strait Islander people.
- The most common causes of avoidable deaths remain unchanged: ischemic heart disease, diabetes, suicide, COPD, Transport accidents and cancer.

- The conditions contributing the most to the avoidable mortality gap between Aboriginal and Torres Strait Islander and non-Aboriginal and Torres Strait Islander people were ischemic heart disease (26% of the gap), diabetes (19% of the gap) and COPD (12% of the gap).
- Avoidable mortality rate was higher in remote areas (479 per 100,000 compared to 278 per 100,00 in regional areas).
- Large gaps existed between rates of avoidable deaths in each group. Some notable statistics are listed below for selected age groups. Age-specific avoidable mortality rates, 2013-2018 were:
    - For <1 year old: 452 per 100,000 for Aboriginal and Torres Strait Islander males compared to 369 per 100,000 for Aboriginal and Torres Strait Islander females.
    - For 25–34-year-old: 181 per 100,000 for Aboriginal and Torres Strait Islander males compared to 88 per 100,000 for Aboriginal and Torres Strait Islander females and 56 per 100,000 non-Aboriginal and Torres Strait Islander males.
    - For 35–44-year-old: 310 per 100,000 for Aboriginal and Torres Strait Islander males compared to 176 per 100,000 for Aboriginal and Torres Strait Islander females and 90 per 100,000 non-Aboriginal and Torres Strait Islander males.
    - For 45–54-year-old: 504 per 100,000 for Aboriginal and Torres Strait Islander males compared to 292 per 100,000 for Aboriginal and Torres Strait Islander females and 145 per 100,000 non-Aboriginal and Torres Strait Islander males.
    - For 55–64-year-old: 823 per 100,000 for Aboriginal and Torres Strait Islander males compared to 613 per 100,000 for Aboriginal and Torres Strait Islander females and 145 per 100,000 non-Aboriginal and Torres Strait Islander males.
    - For 65- 74-year-old: 1,522 per 100,000 for Aboriginal and Torres Strait Islander males compared to 1,240 per 100,000 for Aboriginal and Torres Strait Islander females and 697 per 100,000 non-Aboriginal and Torres Strait Islander males.

Premature Deaths

Premature deaths rates (0 to 64 years) among Aboriginal and Torres Strait Islander people compared to non- Aboriginal and Torres Strait Islander people were (56):

- two and a half times higher
- 17% higher for deaths from cancer
- more than three times higher for deaths from circulatory systems diseases
- more than three and a half times higher for deaths from respiratory systems diseases; and
- more than two and a half times higher for deaths from external causes.

Overall, within the PHN few IARE regions reported higher rate of premature death from all causes. These IARE regions were Gladstone (372.9 ASR per 100,000), North Burnett (371.0 ASR per 100,000) and Rockhampton-Yeppoon (334.2 ASR per 100,000) compared to Qld (314.2 ASR per 100,000). The PHN rate was lower compared to Qld (268.9 ASR per 100,000) (see Table 7 for more details).

Table 7: Health Status and Mortality (8)

State/PHN/IARE	Aboriginal people aged 15 years and over providing assistance to persons with a disability		Premature Deaths from all causes, Aboriginal persons aged 0 to 74 years*		Avoidable Deaths from all causes, Aboriginal persons aged 0 to 74 years*	
	N	%	N	ASR per 100,000	N	ASR per 100,000
Queensland	15,171	12.6	3,316	314.2	2,002	189.3
Central Queensland, Wide Bay, Sunshine Coast PHN	2,553	13.7	458	268.9	270	163.6
Banana (part b)	49	13.6	n/a	244.3	n/a	191.1
North Burnett	64	14.0	20	371.0	n/a	191.5
Gladstone	201	12.7	47	372.9	30	235.5
Rockhampton - Yeppoon	550	11.8	133	334.2	78	194.9
Central Capricorn	129	9.7	33	277.5	17	142.3
Bundaberg	363	15.5	57	254.6	31	140.1
Fraser Coast	417	15.6	59	228.0	36	140.6
Cooloola - Gympie	121	12.7	26	270.9	14	147.4
Caloundra	213	15.0	22	178.4	15	121.8
Maroochy	350	15.1	48	228.7	32	153.3
Nanango - Kilkivan (part b)	11	12.3	n/a	n/a	n/a	n/a
Noosa	76	15.4	n/a	n/a	n/a	n/a

*deaths by causes not reported due to small numbers (<10) but are discussed in the text where appropriate.

The PHN Aboriginal and Torres Strait Islander community survey 2020-21 (1) informs that 60% of respondents (359 out of 603) self-report one or more chronic health conditions. The proportion of people reporting chronic conditions is highest in Gympie (68/81, 84%), North Burnett (25/34, 74%) and Sunshine Coast (128/189, 68%). LGAs with the lowest proportion of people reporting chronic conditions are Central Highlands (3/21, 14%), Livingston (4/13, 31%) and Fraser Coast (28/72, 39%).

- The most frequently self-reported chronic health conditions across the PHN were:
    - Mental health conditions (reported by 142 of 603 respondents, 24%).
    - Obesity/weight management (124/603, 21%).
    - Diabetes/high blood sugar (116/603, 19%).
    - High blood pressure (114/603, 19%).
- Self-reported chronic conditions differed slightly by males and females, with males also frequently reporting high cholesterol and females frequently reporting arthritis or other musculoskeletal condition.
- The most common community strengths and concerns were:
    - Community strengths: community facilities, accepting all cultures and resilience.
    - Community urgent health concerns: mental health, alcohol and other drugs, smoking and domestic violence.

3.2.8. Impacts of COVID-19 on Aboriginal and Torres Strait Islander Communities

As with previous pandemics, there was considerable concern that COVID-19 would disproportionally affect Aboriginal and Torres Strait Islander peoples and communities. Although infections have been low, there is concern that the public health responses to COVID-19 (including social distancing, lockdowns and limits to the number of people at gatherings) have affected Aboriginal and Torres Strait Islander peoples due to increased disconnection from family, community, culture and country – key social determinants of health and wellbeing for Aboriginal and Torres Strait Islander people. Factors that were known to increase the risks of infection include an already high burden of chronic disease, issues related to access to healthcare (especially for those living in remote and very remote communities) and established social and economic disadvantage in areas such as housing, education and employment. The data gathered via survey supported these concerns indicating loneliness and isolation felt by the Aboriginal and Torres Strait Islander people during pandemic (57).

It is not yet known what the long-term impacts of delayed or missed health care, including Aboriginal and Torres Strait Islander -specific health checks, will be on the health outcomes of the population. Therefore, it is important to continue to monitor the impacts of COVID-19 on health service delivery and use in the future. However, a report based on New South Wales indicates that (58):

- The COVID-19 pandemic is likely to amplify the social determinants of health,13,14 and our concern is these determinants will continue to affect access to health care and increase health inequalities.
- For some Aboriginal and Torres Strait Islander people, access to care has become more challenging during COVID-19 with reduced availability of services.

Identified Issues

- ***Long-term health conditions*** *with highest self-reported prevalence: vision problems, respiratory diseases, musculoskeletal diseases, and cardiovascular disease.*
- ***The most common causes of avoidable deaths remain unchanged****: ischemic heart disease, diabetes, suicide, COPD, transport accidents and cancer.*
- ***Concerns regarding sexual health among young people and ear health among children and older people.***
- ***The five leading specific causes*** *of death for Aboriginal and Torres Strait Islander people were: coronary heart disease, diabetes, lung cancer, COPD, suicide.*
- ***Premature deaths*** *due to cancer, circulatory system diseases, respiratory system diseases and external causes, all were higher compared to non-Aboriginal and Torres Strait Islander people.*
- ***Prevalence, hospitalisations, and deaths associated with diabetes****, all indicators were higher compared to non-Aboriginal and Torres Strait Islander people.*
- *Nearly half of the Aboriginal and Torres Strait Islander adults aged 65 and over had chronic kidney disease.* ***End stage renal disease was 6.8 times higher*** *compared to non-Aboriginal and Torres Strait Islander people. However, the age-standardised death rate from kidney disease among Aboriginal and Torres Strait Islander people decreased from 45 per 100,000 in 2006 to 20 per 100,000 in 2018.CKD related hospitalisations rates are also lower compared to national rates within the PHN.*
- *One-third of Aboriginal and Torres Strait Islander people* ***(33%) report one or more long-term eye conditions*** *and the three leading causes of vision loss were refractive error, cataract, and diabetic retinopathy.*
- *Nationally, age-standardised rate of deaths per 100,000 population decreased from 323 in 2006 to 229 in 2018.* ***The decline in mortality from cardiovascular disease coincided with reductions in smoking rates and an increase in hospitalisations for cardiovascular disease-related procedures.***
- ***Cancer accounted for 23% of deaths*** *and lung cancer causes 26% of those deaths.*
- ***Injury associated deaths were high (>50%)*** *within each age group and highest in 15–19-year-olds.* ***Injury and poisoning is the second leading cause of disease burden*** *and third leading cause of death among Aboriginal and Torres Strait Islander people with the most common causes being suicide, transport accidents, accidental poisoning, assault and falls. The hospitalisations associated with this are significantly higher across the PHN.*
- ***The PHN surveys*** *also highlight high blood pressure, mental health conditions, obesity/weight management and diabetes/high blood sugar as key concerns.*

The disparities in morbidity and mortality between Aboriginal and Torres Strait Islander and non-Aboriginal and Torres Strait Islander people can be linked back to social determinants of health and cultural and emotion wellbeing. These factors require to be at the centre of addressing any health concerns in this population.

3.3. Maternal and Child Health

Reported maternal and child health indictors mainly include:

- birthweight recording and results
- MBS health assessments
- child immunisation
- the smoking status of females who gave birth
- antenatal care visits.

An overview of maternal and child health indicators, and analysis of needs assessment data in relation to specific indicators is provided below.

3.3.1. Overview of Health Status and Outcomes Indicators

Most Aboriginal and Torres Strait Islander mothers and their babies are doing well nationally, with improvements in outcomes for mothers and babies observed in recent years. There has been a notable increase in the proportion of Aboriginal and Torres Strait Islander mothers attending an antenatal visit in the first trimester and a slight increase in the proportion attending five or more antenatal visits. The rate of Aboriginal and Torres Strait Islander mothers smoking during pregnancy has declined, and there was also a small decrease in perinatal mortality rates (59). However, gaps still exist.

- Compared with non-Aboriginal and Torres Strait Islander mothers, Aboriginal and Torres Strait Islander mothers were(59):
    - 8 times as likely to be teenage mothers
    - 4 times as likely to smoke at any time during pregnancy
    - 1.6 times as likely to be obese
    - 1.1 times as likely to have gestational diabetes
    - 4 times as likely to have pre-existing diabetes
    - 3 times as likely to have pre-existing (chronic) hypertension.
- While compared with babies of non-Aboriginal and Torres Strait Islander mothers, babies of Aboriginal and Torres Strait Islander mothers were (59):
    - 1.6 x as likely to be born pre-term
    - 1.8 x as likely to be low birthweight
    - 1.5 x as likely to be small for gestational age
    - 1.6 x as likely to be admitted to a special care nursery (SCN) or neonatal intensive care unit
    - 1.7 x as likely to be stillborn
    - 2 x as likely to die within the first 28 days of life (neonatal death).

Around 4.6% of all mothers who gave birth in 2018 were Aboriginal and Torres Strait Islander—slightly higher than the proportion of Aboriginal and Torres Strait Islander women of reproductive age in the population (3.6%) indicating a higher proportion of younger mothers. Aboriginal and Torres Strait Islander mothers were, on average, younger than non-Aboriginal and Torres Strait Islander mothers (26.2 years compared with 30.9) (59).

3.3.2. Specific Indicators of Maternal and Child Health

a. Smoking during pregnancy

- About two in five Aboriginal and Torres Strait Islander mothers (44%) reported smoking during pregnancy in 2018, a decrease from 52% in 2009 (59).
- In 2018, 43% of Aboriginal and Torres Strait Islander mothers compared with 11% of non-Aboriginal and Torres Strait Islander mothers smoked in the first 20 weeks of pregnancy (age-standardised percentages) (41, 59).
- In 2016-18, within the PHN regions, while 43,7% of Aboriginal and Torres Strait Islander mothers smoked during pregnancy (Qld=42.7%), this rate was highest in Central Capricorn IARE (53.1%) and lowest in Noosa IARE (27%) (8) (see Table 8 below).

b. Access to antenatal care

Antenatal care in the first trimester has a positive impact on baby outcomes. After adjusting for a range of factors, an analysis showed that: (i) Having the first antenatal visit after the first trimester was associated with increased odds of low birthweight and NICU/SCN admission and; (ii) having no antenatal care was associated with increased odds of pre-term birth and perinatal death (60).

- In 2017, 99.2% of Aboriginal and Torres Strait Islander mothers accessed antenatal care services at least once during their pregnancy. From 2012 to 2017, the proportion of Aboriginal and Torres Strait Islander mothers who attended antenatal care in the first trimester (less than 14 weeks) increased from 51% to 63% (59). The ***PHN Aboriginal and Torres Strait Islander community survey 2020*** informs that these figures are similar for the PHN, with 29 of 45 (64%) of respondents who were pregnant in the last 12 months accessing antenatal/maternity care before 14 weeks.
- Nationally, almost two in three Aboriginal and Torres Strait Islander mothers had an antenatal visit in the first trimester (65%) and almost nine in 10 attended five or more visits throughout their pregnancy (87%), compared with 73% and 94% of non-Aboriginal and Torres Strait Islander mothers, respectively (age-standardised) (59).
- During 2016-18, within the PHN regions 63.4% of Aboriginal and Torres Strait Islander mothers did not attend antenatal care within the first 10 weeks (Qld 60.2%). This rate was highest in North Burnett (80%) and lowest in Noosa (37.7%) IARE (8) (see Table 8 for details).

c. Birthweight

- The proportion of low birthweight babies (excluding multiple births) born to Aboriginal and Torres Strait Islander mothers fell from 11.3% in 2007 to 10.7% in 2017. There is a strong relationship between low birthweight and smoking during pregnancy, which has also declined (25).
- During 2016-18, within the PHN regions 11.2% of Aboriginal and Torres Strait Islander babies born had low birth weight (Qld = 10.7%). This proportion was highest in Fraser Coast (13.9%) and lowest in Maroochy (5.9%) (8) (see Table 8 for details).

d. Breast Feeding

- In 2018-19, proportion of Aboriginal and Torres Strait Islander children (aged 6 to 12 months) breastfed to at least six months of age was 16.3% compared to 28.5% in non-Aboriginal and Torres Strait Islander children (25).

e. Other health indicators during pregnancy

- Rate of hospitalisations during pregnancy (2017-18) was much higher in Aboriginal and Torres Strait Islander mothers (ASR 8,049 per 100,000 population) compared to non-Aboriginal and Torres Strait Islander mothers (ASR 1,121 per 100,000 population) (59).
- In 2018, among Aboriginal and Torres Strait Islander mothers who gave birth (59):
    - 12% had gestational diabetes and 2.1% had pre-existing diabetes
    - 3.2% had gestational hypertension, and
    - 1.2% had pre-existing (chronic) hypertension.

f. Perinatal Mortality

- Perinatal mortality rates among babies of Aboriginal and Torres Strait Islander mothers (16 per 1,000 births) were 1.8 times those of non-Aboriginal and Torres Strait Islander mothers (9 per 1,000). Perinatal mortality rates are inversely associated with gestational age and birthweight (59).
    - Babies born to Aboriginal and Torres Strait Islander mothers were 1.6 times as likely to be admitted to a SCN or NICU as babies of non-Aboriginal and Torres Strait Islander mothers (59).
- Perinatal deaths are stillbirths and infant deaths within 28 days following birth. Perinatal, infant, and child death rates for Aboriginal and Torres Strait Islander children have declined over the past 20 years, but there has been little change in the 10 years to 2018 (from 18 deaths per 1,000 births in 1998 to 9.7 per 1,000 in 2008, but no change to 2018) (25).

g. Australian Early Development Census (AEDC) indicators

The Australian Early Development Census (AEDC) provides a national measurement to monitor Australian children's development and evidence to support policy, planning and action for health, education, and community support. The AEDC measures five important areas of early childhood development. The domains of AEDC are:

- physical health and wellbeing
- social competence
- emotional maturity
- language and cognitive skills (school-based)
- communication skills and general knowledge.

Compared to Qld (27.0%) the percentage of Aboriginal and Torres Strait Islander children developmentally vulnerable on two or more domains was (8):

- Notably higher % in North Burnett (33.3%), Bundaberg (33.3%) and Fraser Coast (30.3%).
- Lower % in Nanango-Kilkivan (11.1%) (see Table 8 for details).

These indicators are summarised in the table below.

Table 8: Maternal and Child Health Indicators, the PHN and IARE regions. (8)

State/PHN/IARE	Aboriginal women who did not attend antenatal care within the first 10 weeks (2016-18)		Aboriginal women smoking during pregnancy, 2016-18		Low birth weight Aboriginal babies, 2016-18		Aboriginal children fully immunised at 5 years of age, 2018		Early childhood development: AEDC, Developmentally vulnerable on two or more domains, 2018	
	N	%	N	%	N	%	N	%	N	%
Queensland	7,490	60.2	5,305	42.7	1,632	10.7	4,710	97.1	1,462	27.0%
The PHN region	1,160	63.4	798	43.7	278	11.2	800	96.5	n/a	n/a
Banana (part b)	n/a	n/a	n/a	n/a	n/a	n/a	17	90.0	n/a	n/a
North Burnett	28	80.0	15	42.9	n/a	n/a	16	94.1	n/a	33.3
Gladstone	136	72.3	72	38.3	23	9.5	94	97.9	27	26.2
Rockhampton - Yeppoon	302	59.6	246	48.5	84	12.0	207	97.6	61	25.4
Central Capricorn	127	70.9	95	53.1	22	11.0	59	92.2	23	33.8
Bundaberg	150	62.8	107	44.8	40	11.8	116	100.0	43	33.3
Fraser Coast	166	68.3	114	46.9	45	13.9	106	96.4	46	30.1
Cooloola - Gympie	62	63.3	46	46.9	16	11.3	53	98.1	n/a	17.3
Caloundra	45	56.3	24	30.0	17	13.6	55	100.0	12	17.4
Maroochy	86	53.8	43	27.3	14	5.9	65	91.6	20	21.7
Nanango - Kilkivan (part b)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	11.1
Noosa	16	37.7	12	27.0	n/a	n/a	12	85.8	n/a	25.0

Source: Public Health Information Development Unit , 2021. Social health atlas of Australia, from https://phidu.torrens.edu.au/social-health-atlases/topic-atlas#indigenous-status-comparison-social-health-atlas-of-australia

Notes: (a) Numbers under 10 are not reported. (b) Please see original data for all the denominators and other comparison.

Identified Issues

- ***Smoking during pregnancy reduced by 10%*** *over the past decade (2009 to 2018).*
- *The proportion of Aboriginal and Torres Strait Islander* ***mothers attending antenatal care in the first trimester increased by 12%*** *in five years (2012-2015) however the proportion of not attending antenatal care is still high across the PHN.*
- ***The proportion of low birthweight babies fell slightly*** *(11.3% in 2007 to 10.7% in 2017) along with reduction in smoking during pregnancy.*
- *Only 16.3% of babies born to Aboriginal and Torres Strait Islander mothers were breast fed to six months (2018-19).*
- ***Perinatal, infant, and child death rates*** *for Aboriginal and Torres Strait Islander children have* ***declined*** *over the past 20 years (1998-2008),* ***but*** *there has been* ***little change in the 10 years to 2018.***
- ***Immunisation coverage is increased*** *substantially in the last decade.*
- ***North Burnett, Bundaberg and Fraser Coast*** *had the highest proportion of Aboriginal and Torres Strait Islander* ***children vulnerable on two or more domains of AEDC.***

Although the health gap between Aboriginal and Torres Strait Islander and non-Aboriginal and Torres Strait Islander mothers exists, there has been a notable increase in the proportion of Aboriginal and Torres Strait Islander mothers attending an antenatal visit in the first trimester and a slight increase in the proportion attending five or more antenatal visits. The rate of Aboriginal and Torres Strait Islander mothers smoking during pregnancy has declined, and there was also a small decrease in low-birth-weight babies.

3.4. Young People Aged 15-24 years

This section provides an overview of known determinants, health status and health concerns of young Aboriginal and Torres Strait Islander people 15-24 years within the PHN.

3.4.1. Determinants of Health

The proportion of young people who identified themselves as being Aboriginal or Torres Strait Islander within the PHN was similar to Queensland overall in 2016 (the PHN n=5,604, 19.0% and QLD 19.2%). Within the PHN the information on 15–24-year-old Aboriginal and Torres Strait Islander young people indicates that (7):

- 30.9% were unemployed reported compared to 16% of non-Aboriginal and Torres Strait Islander youth.
- 5.7% (n=308) had a profound or severe disability (compared to 3.3% of non-Aboriginal and Torres Strait Islander youth).
- 68.2% of Aboriginal and Torres Strait Islander persons aged 20 to 24 years attained a year 12 or equivalent or Australian Qualifications Framework Certificate II or above qualification (compared to 85.5% of non-Aboriginal and Torres Strait Islander youth).
- 35.0% of Aboriginal and Torres Strait Islander persons aged 18 to 24 years were working, studying, or training (compared to 57% of non-Aboriginal and Torres Strait Islander youth).

While 67.1% of Aboriginal and Torres Strait Islander youth (15-24 years) was learning or earning in 2016 within the PHN, this proportion was (8):

- Highest in Noosa (82.1%) followed by Maroochy (79.9%) and Caloundra (76.9%) IARE.
- Lowest in Central Capricorn (53.7%) and Nanango-Kilkivan (57.0%) IARE.

Information from Mission Australia Survey

A total of 1,128 respondents (15-to-19-year old) to Mission Australia's Youth Survey 2020, identified themselves as having Aboriginal and Torres Strait Islander background (61). Furthermore:

- Around one in eight (12.7%) identified as living with disability.
- One in six (16.2%) reported speaking a language other than English at home.
- Almost half (48.6%) of respondents indicated high levels of confidence in their ability to achieve their study/work goals.
- The three most highly valued items nationally were friendships (other than family) (82.5%), family relationships (78.9%) and school or study satisfaction (67.5%).
- Responses for the top three concerns over the past year were: coping with stress (42.5%), mental health (33.9%) and body image (33.0%).
- The top three biggest personal issues in the past year identified by young people were education (34.2%), mental health (17.2%), and COVID-19 (9.3%).
- Friend/s (83.5%), parent/s or guardian/s (71.7%) and relative/family friend (55.3%) were the three most frequently cited sources of help for young people.
- Around four in 10 young people identified equity and discrimination (40.2%) and COVID-19 (38.8%) as important issues in Australia today.
- Four in 10 (42.6%) young people felt stressed either all the time or most of the time.

3.4.2. Health Conditions and Other Health Concerns

Aboriginal and Torres Strait Islander young adults experience chronic and other health conditions which contribute to their health status and outcomes:

- Prevalence of type 1 diabetes, children and young adults aged 0-24 was 197.2 per 100,000 population (compared to 231.9 per 100,000), in 2018 (25).
- Most Aboriginal and Torres Strait Islander people aged 15–24 reported low to moderate levels of psychological distress (67% or 90,900 nationally). A considerable proportion reported high to very high levels of psychological distress (33% or 44,700) (62).
- Burden of disease analyses show that for Aboriginal and Torres Strait Islander people aged 10–24 the leading contributors to the disease burden were suicide and self-inflicted injuries (13%), anxiety disorders (8%), alcohol use disorders (7%) and road traffic accidents (6%) (62).
- Most of these deaths among young Aboriginal and Torres Strait Islander people are potentially avoidable. Around 83% of the deaths of young Aboriginal and Torres Strait Islander people in 2011–2015 were classified as avoidable deaths (62). This includes suicides, transport accidents and assault, as the main causes of deaths for this age group.

PHN survey data

The ***PHN Aboriginal and Torres Strait Islander community survey 2020-21*** indicates that the most important health concerns for 18–24-year-olds (n=87) within the PHN were:

- diet/weight (26 of 87, 30%)
- mental health (24 of 87, 28%)
- smoking (17 of 87, 20%)
- feeling isolated or alone (16 of 87, 18%).

Key urgent health concerns of Aboriginal and Torres Strait Islanders for their communities include mental health (56 of 87, 56%), alcohol and other drugs (54%) and domestic/family violence (54%).

Identified Issues

- ***A gap between education, employment, and training*** *between Aboriginal and Torres Strait Islander and non-Aboriginal and Torres Strait Islander young people that needs to be reduced.*
- ***High proportion of disability*** *as an outcome of mental and physical health issues in Aboriginal and Torres Strait Islander youth.*
- ***Considerably higher mental health burden*** *in Aboriginal and Torres Strait Islander youth.*
- *A need to understand that young Aboriginal and Torres Strait Islander people* ***seek identifying cultural norms and not feel discriminated.***
- *Unexpectedly* ***high percentage of avoidable deaths*** *among young people (suicides, transport accidents and assault).*
- *Consultation identified* ***top key concerns*** *for the young people as* ***diet/weight, mental health, making, feeling isolated and lack of physical activity.***
- *During consultation young people identified* ***top key strengths*** *for the community as* ***accepting all cultures****, access to* ***community facilities****, attractive* ***public spaces****, parks and natural spaces,* ***public transport****, and* ***quality of environment*** *e.g., water and air quality*.

3.5. Older Aboriginal and Torres Strait Islander People

There were 5,709 people above the age of 50 years within the PHN region which includes 46.6% males (n=2658) and 53.4% of females (n=3051) in 2015 (63).

This section provides an overview of known social determinants, health status and concerns of older Aboriginal and Torres Strait Islander people both nationally and within the PHN.

3.5.1. Social Determinants

a. Household structure

Nationally in 2016, among Aboriginal and Torres Strait Islander people aged 50 and over (64):

- 53% of men lived with a spouse or partner—compared with 43% of women.
- 30% of women lived with other relatives—compared with 15% for men.
- 18% (17,744) assisted a person with daily activities due to disability, long-term health conditions or problems related to old age.

b. Self-assessed health status

In 2014–15, among Aboriginal and Torres Strait Islander people aged 50 and over, 56% (55,100) reported their health as good, very good or excellent (64). Applying that to the PHN Aboriginal and Torres Strait Islander population >50 years that is 3,197 people out of 5,709 people.

c. Homelessness

On Census night in 2016, nearly 3% (3,060) of the Aboriginal and Torres Strait Islander Australian population aged 50 and over were homeless. Of this group 17% (533) lived in improvised dwellings, tents or sleeping out (64). This equates to approximately 170 Aboriginal and Torres Strait Islander people within the PHN region.

d. Disability

In 2014–15, among Aboriginal and Torres Strait Islander people aged 50 and over, 13% (an estimated 13,300 people) had a severe or profound core activity limitation; that is, they needed help with communication, mobility and self-care (64). This translates to around 742 Aboriginal and Torres Strait Islander people within the PHN aged 50 and above having severe or profound disability.

e. Personal and Community Safety

In 2014–15, Aboriginal and Torres Strait Islander people aged 50 and over reported that (64):

- 22% (15,000) of those who walked alone after dark felt unsafe or very unsafe (of those who walked alone after dark).
- 70% (67,600) were aware of at least one local neighbourhood or community problem the most common neighbourhood or community problems reported were—
    - dangerous and noisy driving (reported by 44%)
    - theft (43%)
    - illegal drugs (37%)

- alcohol (36%).

3.5.2. Behavioural Risk Factors

a. Tobacco, alcohol and other drug use

In 2014–15, among Aboriginal and Torres Strait Islander people aged 50 and over (64):

- 37% (an estimated 36,700) reported that they were current smokers—with 36% smoking daily.
- 23% (an estimated 22,200) exceeded single occasion alcohol guidelines—34% for men and 13% for women, while 15% (an estimated 14,100) exceeded the guidelines for lifetime risk—24% for men and 6% for women.
- 17% (an estimated 15,200) misused prescription drugs and used illicit drugs in the previous 12 months.
- Applying these proportions to the PHN population over the age of 50 years, that is approximately:
- 2,100 current smokers (37% of 5,709).
- 638 men (24% of 2,658) and 183 women (6% of 3,051) exceeding the guidelines for lifetime risk.
- 970 people (17% of 5,709) misusing prescription drugs and using illicit drugs in the previous 12 months.

b. Injury and Poisoning

In 2014–16, among Aboriginal and Torres Strait Islander people aged 50 and over, for hospitalisations with a principal diagnosis of injury and poisoning:

- there were 8,400 hospitalisations—39 per 1,000 population
- 46% had an external cause of falls
- 12% had an external cause of assault (64).

3.5.3. Chronic Conditions and Causes of Death

a. Mental Health

Although older data, in 2011 among Aboriginal and Torres Strait Islander people aged 50 and over (64):

- 6% (4,076 disability-adjusted life years (DALYs)) of the total disease burden experienced was due to mental and substance use disorders (higher for women than men—6.6% compared with 5.7%). Mainly anxiety, depressive disorders, and alcohol use disorders.
- 3% (2,069 DALYs) of the total disease burden experience was due to dementia (higher for women than men—3.9% compared with 2.4%).
- 1% (427 DALYs) of the total disease burden was due to self-inflicted injuries and suicide causing an estimated 4.8 years of healthy life lost per 1,000 population.

These estimates are also likely to be a lower than actual numbers, particularly for older people living in remote and disadvantaged areas.

b. Leading cause of disease burden

Although old data (2011), among Aboriginal and Torres Strait Islander people aged 50 and over (64):

- 20.4% of the total disease burden was due to cardiovascular diseases
- 19.6% of the total disease burden was due to cancer and other neoplasms followed by respiratory conditions (11%).

c. Leading Causes of Death

Leading broad causes of death for Aboriginal and Torres Strait Islander people aged 50 and over were (64):

- cancer and other neoplasms—2,492 deaths, corresponding to a rate of 5 .5 deaths per 1,000 population
- cardiovascular diseases—2,413 deaths, corresponding to a rate of 5 .3 deaths per 1,000 population
- endocrine, nutritional, and metabolic diseases—1,004 deaths, or a rate of 2.2 per 1,000 population
- respiratory diseases rate of 2.1 per 1000 population.

d. Health care access and use

Access to health care by older Aboriginal and Torres Strait Islanders included the following:

- **Primary health care**: In 2014-15, among Aboriginal and Torres Strait Islander people aged 50 and over, 90% (an estimated 89,100) reported that they had seen a doctor in the previous 12 months for their own health (64). The ***PHN Aboriginal and Torres Strait Islander community survey 2020-21*** (1) indicates that 170 of 298 (57%) Aboriginal and Torres Strait Islanders within the PHN did not access as doctor/general practitioner (GP) in the past 12 months when they felt they needed to for reasons including too busy and could not get an appointment when needed.
- **Disability services**: The ***PHN Aboriginal and Torres Strait Islander community survey 2020-21*** (1) reported that of the 36% (108 of 298) of people 45 years and over live in households where someone has a disability, and over one-third (39/108, 36%) felt that they needed support for that person but did not get it in the past 12 months. Reasons included accessing required support through the NDIS.
- **Admitted hospital patient care**: In 2014-16, excluding dialysis care, the rate of hospitalisations among Aboriginal and Torres Strait Islander people aged 50 and over, was 670 per 1,000 population (AIHW analysis of National Hospital Morbidity Database) (64).
- **Emergency Department (ED) presentations**: Over the 2-year period 2015-17, there were 731 ED presentations per 1,000 Aboriginal and Torres Strait Islander people aged 50 and over, the highest was for those living in remote areas—1,140 per 1,000 population (64).
- **Residential aged care facilities:** As of 2017, the majority of Aboriginal and Torres Strait Islander people who were receiving assistance, were receiving care in their own home. A very small proportion (1.4%) were in residential aged care (64).
- **Assessment for aged care:** In 2015–16 (64):
    - 2.1% of all Aboriginal and Torres Strait Islander people aged 50 and over had an Aged Care Assessment Team (ACAT) assessment.

- Among Aboriginal and Torres Strait Islander people aged 50 and over with an ACAT assessment—94% (2,160) needed help or support with domestic chores and 92% (2,128) needed help with transport.

e. The PHN consultation: survey data

The **PHN Aboriginal and Torres Strait Islander community survey 2020-21** (1) indicates that the most important health concerns for those aged 45 and over within the PHN were:

- chronic health conditions
- diet/weight
- lack of physical exercise
- mental health.

For the 30 respondents to the ***PHN Stakeholder HNA Survey*** were organisations that primarily support Aboriginal and Torres Strait Islander people. Around 14 (almost 50%) felt that there were gaps in provision of older persons' health services. Key gaps listed by respondents were:

- transport to services and appointments
- long wait lists
- Aged Care funding and packages
- provision of holistic care.

Identified Issues

- ***High proportion of people with disability*** *in older age group (defined as requiring support for daily activities for living and communication support).*
- ***Illegal drugs and alcohol*** *were repeatedly mentioned as problems for the community.*
- ***Mental health*** *is highlighted as main concern along with other chronic conditions.*
- ***High burden of disease and deaths due to cardiovascular disease, cancer and respiratory conditions.***
- ***Lack of holistic care, long waiting periods*** *to see healthcare professionals and* ***transport*** *highlighted as key concerns with access to healthcare in the consultation.*

3.6. Mental Health and Suicide Prevention

This section provides an overview of the prevalence of mental health conditions and access to mental health and support services by Aboriginal and Torres Strait Islanders, including within the PHN.

3.6.1. Prevalence of Common Mental Health Conditions

For the Aboriginal and Torres Strait Islander population, the burden of disease related to mental health was 2.4 times the burden of non-Aboriginal and Torres Strait Islander people (65).

- Nationally, 2018-19 data for Aboriginal and Torres Strait Islander people with a mental or behavioural condition showed the following (43):
    - both women (25%) and men (23%) were equally affected
    - people living in non-remote areas (28%) affected three times higher for than those in remote areas (10%)
    - around one in three have mental and behavioural conditions for most age groups, except those aged 2–14 years (about 1 in 6) and 15–24 years (about one in four).
- Mental health concerns were the leading contributor to the burden of disease in Queensland's Aboriginal and Torres Strait Islander people, responsible for around one-fifth of the total disease burden. Anxiety and depression was the top specific cause, contributing more than two-thirds of the mental disorders burden. This was followed by schizophrenia, alcohol dependence and heroin or polydrug dependence (31).
- In 2014–15, 68% of Aboriginal and Torres Strait Islander adults (303,300) reported that in the previous year they had experienced one or more specified personal stressors—that is, events with the potential to adversely affect their health or wellbeing, such as serious illness or the death of a family member or friend. About 34% of those who had experienced at least one of these events had high to very high levels of psychological distress, compared with 19% of those who had not (25).
- Detailed data on prevalence of mental illness for Aboriginal and Torres Strait Islander populations at the PHN level was not available. However, Public Health Information Development Unit data for 2017-18 indicates that there were 978 Aboriginal and Torres Strait Islander people (ASR 3,184 per 100,000) presented with mental and behavioural disorders at the ED within the CQWBSCPHN . The rate is much higher than the Queensland rate (ASR 2,721 per 100,000) for Aboriginal and Torres Strait Islander people. Comparable non-Aboriginal and Torres Strait Islander data shows ASR 1,152 per 100,000 (or 49,597 people) (66).

3.6.2. Specific Mental Health Conditions

a. Psychological Distress

Psychological distress is associated with future complex mental health concerns. The impact of racism, stigma, stolen generation, colonisation, and historical social and political contexts created significant hardships for Aboriginal and Torres Strait Islander people and continue to contribute to higher rates of mental health issues in Aboriginal and Torres Strait Islander people. Nationally, high or very high levels of psychological distress among Aboriginal and Torres Strait Islander adults are nearly three times the rate of non- Aboriginal and Torres Strait Islander adults (67) . National Aboriginal and Torres Strait Islander Health Survey 2018-19 indicates the following regarding the extent of the ***high or very high levels of psychological distress*** among Aboriginal and Torres Strait Islander population (43):

- In 2018–19, around 3 in 10 Aboriginal and Torres Strait Islander people in Queensland had high to very high levels of psychological distress (31%, age-standardised)—a proportion that has not changed significantly since 2008—compared with 13% of non-Aboriginal and Torres Strait Islander

people (25). Based on this information approximately 6,300 Aboriginal and Torres Strait Islander adults within the PHN suffer from high to very high levels of psychological distress.

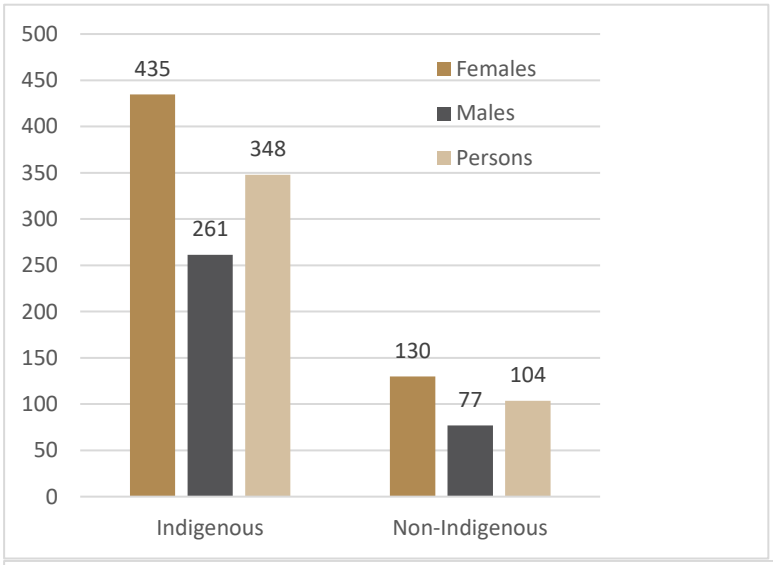
- The proportion of people who experienced high or very high levels of psychological distress in 2018-19 was about the same (30%) as it was in 2012-13.
- Women were affected slightly higher than men (35% compared to 26%, respectively).
- No significant difference between people living in non-remote areas (31%) and remote areas (28%).
- All age groups are affected equally.

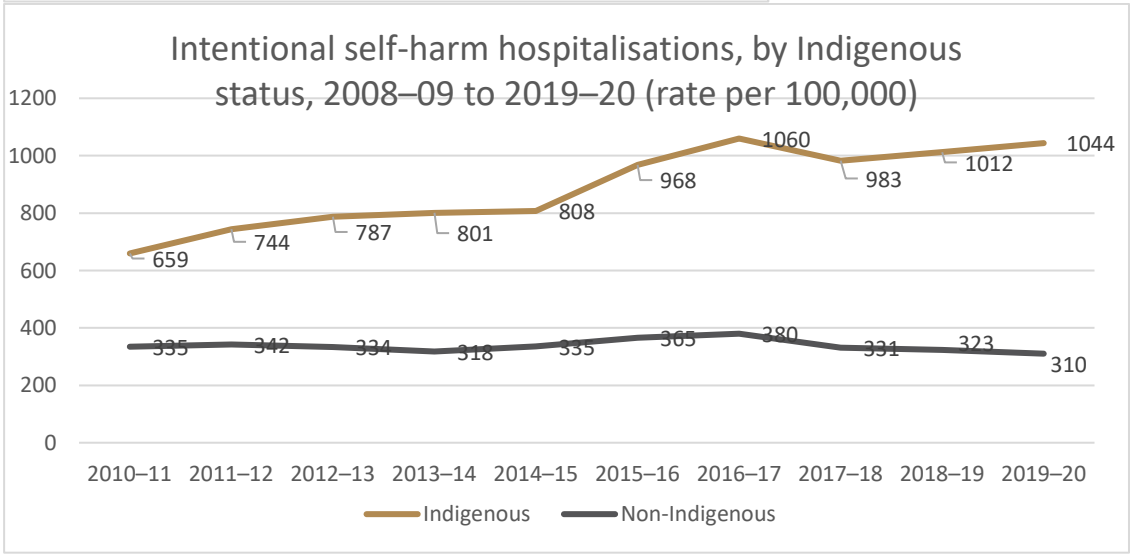
b. Intentional Self-Harm and Suicide

Suicide rates of Aboriginal and Torres Strait Islander people are more than double that of other Australians, with young males and those in regional communities particularly at risk.

In 2019-20, almost 1,044 Aboriginal and Torres Strait Islander people were hospitalised due to intentional self-harm. The rates are on steady rise for the past 10 years (68). See Figure 2.

Figure 2: Intentional self-harm hospitalisations, by Indigenous status and sex, 2019-20 (rate per 100,000)





In 2019, suicide accounted for 5.7% of all deaths of Aboriginal and Torres Strait Islander peoples while the comparable proportion for non-Indigenous Australians was 1.9% (69). Moreover, there has been no significant and sustained reduction in the death rate from suicide over the past decade, despite ongoing efforts to make suicide prevention more effective (67).

- Aboriginal and Torres Strait Islander people were hospitalised for self-harm at nearly three times the rate (ASR) of non-Aboriginal and Torres Strait Islander people and the rate and the gap have been increasing for the last 10 years.
- Top three age groups with the highest rates for self-harm hospitalisation include 15-19 (ASR 668 per 100,000), 40-44 (ASR 607 per 100,000) and 20-24 years (ASR 586 per 100,000).
- Both Aboriginal and Torres Strait Islander females were 1.7 times more at risk for intentional self-harm hospitalisation compared to their respective males (67).

Suicide was one of the five leading causes of death for Aboriginal and Torres Strait Islander people in 2014-18 (25).

- Suicide is the second leading cause of death for Aboriginal and Torres Strait Islander males (41).
- Suicide rate for Aboriginal and Torres Strait Islander people increased between 2006-2018 from 18 to 24 per 100,000 with the highest rate of suicide being among those aged 35–39 (25).
- In 2014–2018, the age-standardised suicide rate among Aboriginal and Torres Strait Islander people (ASR 23.7 per 100,000) was 1.9 times the rate among non-Aboriginal and Torres Strait Islander people (12.3 per 100,000)(69).
- The suicide rate among Aboriginal and Torres Strait Islander people was highest among those aged 35–39 (62 per 100,000) in 2014–2018 (69).
- In Queensland, Aboriginal and Torres Strait Islander youth aged under 25 accounted for 41% and those aged under 30 accounted for 60.7% of all suspected suicides by Aboriginal and Torres Strait Islander Queenslanders in 2019 (70).

c. Co-morbidity

People experiencing mental illness have a relatively high rate of physical illness compared with the rest of the population, which can lead to lower quality of life and premature death. Indirect evidence suggested a substantially higher prevalence of dual diagnosis amongst the Aboriginal and Torres Strait Islander population compared to non-Aboriginal and Torres Strait Islander populations.

- At least 40% of aged 45 and over with COPD had at least one of asthma, mental and behavioural conditions or back problems (71).
- Aboriginal and Torres Strait Islander men are 3.7 times more likely than non-Aboriginal and Torres Strait Islander men to be hospitalised due to mental disorders attributable to psychoactive substance use. For Aboriginal and Torres Strait Islander women the rate is 3.5 times higher than for non-Aboriginal and Torres Strait Islander women (12).

3.6.3. Accessing Mental Health Services

- In 2019-20, nationally, there were 36,769 mental health-related Aboriginal and Torres strait Islander people ED presentations in public hospitals (480.1 per 100,000) compared to 107.9 per 100,000 admission of non-Indigenous people (72).
- In 2015–16, Aboriginal and Torres Strait Islander people used the Access to Allied Psychological Services Programme (ATAPS) at an age-standardised rate of 826 per 100,000 population. This was more than four times that of non-Aboriginal and Torres Strait Islander people (193 per 100,000) (25).
- In 2018–19, the rate of contact with state and territory community and hospital-based outpatient mental health care services (ASR) for Aboriginal and Torres Strait Islander people was 1,200 per 1,000 population, more than three times that for non-Aboriginal and Torres Strait Islander people (340 per 1,000) (25).
- Medicare claim rates for psychologist and psychiatrist care were much lower for Aboriginal and Torres Strait Islander people than for non-Aboriginal and Torres Strait Islander people (25).
- The data published by the Public Health Information Development Unit in 2021 indicates in 2015/16 to 2017/18 rate of admissions for mental health related conditions within the PHN was 2,068.4 ASR per 100,000 (Australia 2,626.5 ASR per 100,000). The highest rate was in Banana and North Burnett IARE (both 3,969.3 ASR per 100,000) (8).

Table 9: Admissions for mental health related conditions, Aboriginal persons: 2015/16 to 2017/18

State/PHN/IARE	Number	Average annual ASR per 100,000 (2015/16-2017/18)
Australia	62,908	2,626.5
Queensland	16,415	2,528.1
The PHN region	1,891	2,068.4
Banana (part b)	172	3,969.3
North Burnett	172	3,969.3
Gladstone	129	1,499.0
Rockhampton - Yeppoon	538	2,127.4
Central Capricorn	236	1,966.8
Bundaberg	313	2,626.3
Fraser Coast	251	1,798.4
Cooloola - Gympie	99	1,276.1
Caloundra	88	1,192.3
Maroochy	301	2,470.2
Nanango - Kilkivan (part b)	80	1,981.5
Noosa	99	1,276.1

Note: All rates significantly higher or lower compared to Australia except Bundaberg and Maroochy

3.6.4. The PHN consultation: Survey data

The PHN Aboriginal and Torres Strait Islander community survey 2020-21 (1) indicates that in the last 12 months, 212 of 603 respondents (35%) felt that they needed to see a mental health worker but did not go. Key reasons for not seeing a mental health worker included:

- too busy
- cost of appointment
- did not know where to go.

For the 30 respondents to the PHN Stakeholder HNA Survey whose organisations primarily support Aboriginal and Torres Strait Islander people, 23 felt that there were gaps in provision of mental health services. Key gaps listed by respondents were:

- lack of trained and experienced professionals, including trauma informed care
- long wait times
- need for more services including early diagnosis and intervention, acute inpatient care, community-based programs, and services for children and young people
- high service costs, including private sector
- services not always culturally appropriate.

Identified Issues

- *Aboriginal and Torres Strait Islander people **living in non-remote areas** (28%) **affected by mental health concerns at a three times higher rate** than those in remote areas (10%).*
- ***Around one in three** Aboriginal and Torres Strait Islander people **have mental and behavioural conditions for most age groups**, except those aged 2–14 years (about one in six) and 15–24 years (about one in four).*
- ***High proportion of psychological distress** with no change since 2012-13.*
- *Aboriginal and Torres Strait Islander people were **hospitalised for self-harm at nearly three times the rate** of non-Aboriginal and Torres Strait Islander people and the rate and the gap between Aboriginal and Torres Strait Islander and non-Aboriginal and Torres Strait Islander population have been increasing for the last 10 years.*
- ***High rates of mental-health related ED admissions.***
- ***Suicide was one of the five leading causes of death** for Aboriginal and Torres Strait Islander people in 2014-18.*
- ***Substantially higher prevalence of dual diagnosis** (mental health concerns with multiple chronic co-morbidities) amongst the Aboriginal and Torres Strait Islander population compared to non-Aboriginal and Torres Strait Islander populations.*
- ***The PHN consultation supported the finding from the data indicating that the mental health concerns within the PHN require to address workforce issues including cultural competency and lack of trauma informed care training.***

3.7. Alcohol and Other Drugs

This section provides an overview of the prevalence of alcohol and other drug use, and access to support services by Aboriginal and Torres Strait Islanders within the PHN. Details are also included in under Alcohol and Other Drugs (AOD) HNA.

3.7.1. Prevalence of Alcohol and Other Drug Use

a. Alcohol

While the proportion of Aboriginal and Torres Strait Islander people who consume alcohol at levels that exceed lifetime risk guidelines has decreased overall since 2008, this proportion increased from 14.7% in 2014 to 18.4% in 2018–19 (58).

b. Use of methamphetamine

The most commonly used drugs in Aboriginal and Torres Strait Islander communities are tobacco, cannabis and alcohol, however meth use is an issue for Aboriginal and Torres Strait Islander people (73). Physical and mental impacts of methamphetamine are significant and major harms include increased risk of stroke and cardiovascular problems, dependence, psychosis, overdose and death (74).

A summary of use of meth indicates that (74):

- 3.1% of Aboriginal and Torres Strait Islander people said that they have used meth/amphetamine in the last 12 months (applying that to around 19,000 people aged 14 and over within the PHN; roughly 589 people have used meth/amphetamine).
- Compared to non-Aboriginal and Torres Strait Islander people (aged 14 and above), Aboriginal and Torres Strait Islander people were 2.2 times more like to use meth/amphetamine.
- Use was highest among respondents from urban and regional areas compared with remote areas.
- Methamphetamine-related hospital admissions in Queensland (12 months) increased for Aboriginal and Torres Strait Islander people, from 18 in 2009-10 to 443 in 2015-16 (75).

Overall, the reasons for using illicit drugs in Aboriginal and Torres Strait Islander communities have strong roots in the cultural and social aspects of society that has inequalities. However, efforts have been made to address specifically illicit drug issues include:

- offering culturally safe health services
- family, friends, and community support
- holistic services
- strength-based approach
- localised resources and services.

3.7.2. Accessing Alcohol and Other Drug Services

- In 2018-19, Aboriginal and Torres Strait Islander people (3,580 per 100,000 population) were seven times as likely to receive AOD treatment services than non-Indigenous Australians (515 per 100,000 population) (58).
- In 2016–17, Aboriginal and Torres Strait Islander clients travelled one hour or longer to their treatment service in about one in four (26%) closed treatment episodes. About one in eight (13%) closed treatment episodes for non-Indigenous clients had a travel time of one hour or longer (58).

- Queensland Health Alcohol and Other Drugs Treatment Services (AODTS) data (76) for 2018-19 indicates that:
    - 13% of AOD service episodes across the PHN in 2018-19 were delivered to Aboriginal and/or Torres Strait Islanders, similar to the 16% observed in Queensland.
    - The proportion of services delivered to Aboriginal and/or Torres Strait Islanders was highest in Central Queensland (22%) followed by Wide Bay (14%), with Sunshine Coast (8%) only half the Queensland figures (16%).
    - The split of treatment delivery settings for AOD treatment services for Aboriginal and Torres Strait Islander people (non-residential settings 78%, followed by outreach services 16%) was similar to overall treatment services across the PHN (non-residential settings 82% and outreach 13%), but with a much lower proportion of outreach services than Queensland overall (28%).
- The lower proportion of outreach services in the PHN becomes important in light of AIHW data indicating that Aboriginal and Torres Strait Islander clients travelled one hour or longer to their treatment service in about one in four (26%) closed treatment episodes, compared to about one in eight (13%) closed treatment episodes for non-Indigenous clients (77).

3.7.3. The PHN consultation: Survey data

The ***PHN Aboriginal and Torres Strait Islander community survey 2020-21 (1)*** indicates that in the last 12 months, 46 of 603 respondents (8%) felt that they needed to see someone about an alcohol or drug related issue but did not go. Key reasons for not attending an appointment included:

- too busy
- did not know where to go
- could not get an appointment when needed.

For the 30 respondents to the PHN Stakeholder HNA Survey(2) whose organisations primarily support Aboriginal and Torres Strait Islander people, 17 felt that there were gaps in provision of alcohol and other drugs' services. Key gaps listed by respondents were:

- lack of local services
- lack of qualified staff and clinicians willing to work in the sector
- lack of timely interventions
- insufficient services for youth
- services not always culturally appropriate.

3.8. Palliative Care

The goal of palliative care is to improve the quality of life of patients with an active, progressive disease that has little or no prospect of a cure. Although no data is available on the Aboriginal and Torres Strait Islander peoples end of life care, it is agreed that culturally safe and responsive palliative care requires the health professional to recognise and respond to the health beliefs, health practices and culture and linguistic needs of the individual and of communities (78). Aboriginal and Torres Strait Islander people are more likely to seek health care and achieve better outcomes by accessing services that are culturally safe and respectful places (79). The data on palliative care outcomes indicates that from 45,608 patients in palliative care (2019) across Australia, only 712 (1.6%) were Aboriginal and Torres Strait Islander

people (80). This might be due to multiple causes including: high mortality at younger age, preference to stay at home and lack of access to palliative care services nearby families/communities.

PHN Survey data

For the 30 respondents to the PHN Stakeholder HNA Survey (2) whose organisations primarily support Aboriginal and Torres Strait Islander people, five had come across gaps in provision of palliative care services. Key gaps listed by respondents were:

- lack of local services
- lack of information or knowledge regarding palliative care services
- lack of trained palliative care workers outside cities.

Identified Issues

- *The **most commonly used drugs** in Aboriginal and Torres Strait Islander communities are **tobacco, cannabis and alcohol, however methamphetamine use** is an issue for Aboriginal and Torres Strait Islander people.*
- *Higher rates of AOD harmful use in young people are evident and indicates **need for readily available withdrawal and rehabilitation services, including residential options.***
- ***Reduction in fragmentation of services, particularly for those with dual diagnoses (e.g., mental health, disability) are required.***
- ***Culturally appropriate services** that meet the demand for AOD services delivered to Aboriginal and Torres Strait Islander people are required.*
- *The PHN consultation supported the finding from the data including **lack of local services and need for sufficient workforce** to address the concerns.*

4. Service Needs Analysis

4.1. Access to Health Services

Access to health care impacts a person's overall physical, social, and mental health status and quality of life. While potential health effects of low health care access include poor management of chronic disease, increased burden due to preventable diseases and disability, and premature death; having access to quality health care service help to promote and maintain health while achieving health equity.

4.1.1. Preventive Health Services

a. Immunisation

- Immunisation is highly effective in reducing illness and death caused by vaccine-preventable diseases. Between 2008 and 2018, the proportion of fully immunised Aboriginal and Torres Strait Islander children aged five increased from 77% to 97% (25).
- Within the PHN this proportion has been steadily increasing for most of the vaccinations and for all three age groups. Data from January 2020 to December 2020 indicates that most of the immunisation coverage is above 90% with 93.7% of 12-<15 months, 90.3% of 24-<27 months and 95.8% of 60-<63 months fully vaccinated in 2020 (81).

b. Cancer Screening

National screening programs in Australia reduce the risk of death from several cancers. Participation rates in the National Bowel Cancer Screening Program (NBCSP), BreastScreen Australia and the National Cervical Cancer Screening Program appear to be lower for Aboriginal and Torres Strait Islander people than non-Aboriginal and Torres Strait Islander people. Further, the Aboriginal and Torres Strait Islander mortality rates among each target age cohort is higher for the cancers these programs are trying to prevent (25). Several preventable cancers occur more commonly and with a lower survival rates for Aboriginal and Torres Strait Islander than other Australians, indicating that preventive strategies and clinical care are not as effective as they could, and should, be for Aboriginal and Torres Strait Islander people (82). The screening rates are lower in remote and very remote locations compared to regional areas and vary by states. These screening rates are slowly on rise.

- Breast cancer screening participation (25) aged-standardised rates were 27.4 per 100 for Aboriginal and Torres Strait Islander women (34.4 per 100 for non-Aboriginal and Torres Strait Islander women) aged 40 years and above, in 2016-17. These rates are steadily increasing from 2011-12 (21.3 per 100) (83). Latest data indicates that 38% of Aboriginal and Torres Strait Islander women aged 50–74 participated in BreastScreen Australia in 2017–2018, compared with 54% of non-Aboriginal and Torres Strait Islander women. Breast cancer screening for Aboriginal and Torres Strait Islander women aged 50–74 varied by remoteness and was lowest in remote areas (32%) and highest in inner regional areas (42%). Screening proportions for Aboriginal and Torres Strait Islander women aged 50–74 also varied by jurisdiction, with the lowest rate in the Northern Territory (26%) and the highest in Queensland (45%) (83).
- Bowel cancer screening: The estimated participation rate for Aboriginal and Torres Strait Islander people aged 50–74 in the NBCSP was 23% in 2017–2018, compared with 45% for non-Aboriginal and Torres Strait Islander people (25). The 2018–19 Health Survey showed that 23% of Aboriginal and Torres Strait Islander males and 20% of Aboriginal and Torres Strait Islander females aged 50–74 reported having at least one bowel cancer screening test. Aboriginal and Torres Strait Islander participants were more likely to receive a positive (that is, potentially abnormal) test result than non-Aboriginal and Torres Strait Islander people (10% and 7%, respectively). However, Aboriginal and Torres Strait Islander participants with a positive result had a lower rate of follow-up colonoscopy

(48% compared with 66%) and a longer median time between a positive screen and assessment (69 days compared with 51, days respectively) (84).

- Cervical cancer screening rates reporting is challenging as 29% of all women aged 25–74 who had a human papillomavirus (HPV) test under the National Cervical Screening Program in 2018 did not state their Aboriginal and Torres Strait Islander status. This high level of incomplete Aboriginal and Torres Strait Islander identification in the National Cervical Screening Register makes it difficult to estimate the cervical screening participation rate by Aboriginal and Torres Strait Islander women accurately (25) .

c. Health Checks in Primary Care

The aim of this MBS health assessment item is to help ensure that Aboriginal and Torres Strait Islander people receive primary health care matched to their needs, by encouraging early detection, diagnosis and intervention for common and treatable conditions that cause morbidity and early mortality. Through Medicare, Aboriginal and Torres Strait Islander people can receive specific health checks from their doctor, as well as referrals for specific follow-up services.

- MBS data from 2019-20 shows approximately 12,650 of the Aboriginal and Torres Strait Islander population had health checks within the PHN (33.4%) (Qld=35.2%). This percentage ranks the PHN 8th highest from 31 PHNs and compares to 27.9% nationally (85).

Table 10: Aboriginal and Torres Strait Islander health check rates, 2018–19 to 2019–20

State/PHN/SA3	Total Population	Number of patients with health checks	%
Queensland	238,522	83,984	35.2
The PHN	37,916	12,650	33.4
Biloela	695	310	44.6
Central Highlands (Qld)	2,673	1,334	49.9
Gladstone	3,113	1,402	45.0
Rockhampton	9,422	3,770	40.0
Bundaberg	4,456	1,478	33.2
Burnett	4,676	1,254	26.8
Hervey Bay	2,949	946	32.1
Maryborough	2,486	866	34.8
Sunshine Coast Area			
Buderim	1,045	168	16.1
Caloundra	2,088	417	20.0
Gympie - Cooloola	2,294	545	23.8
Maroochy	1,370	215	15.7
Nambour	1,603	409	25.5
Noosa	662	95	14.4
Noosa Hinterland	564	116	20.6
Sunshine Coast Hinterland	1,267	344	27.2

Source: AIHW, 2021, Indigenous Health Checks https://www.aihw.gov.au/reports/indigenous-australians/indigenous-health-checks-follow-ups/data

- In 2018-19, rate of use of the MBS item 715 (as a percentage of the Aboriginal and Torres Strait Islander population) was highest in Central Highlands SA3 (47.9%) while lowest in the Sunshine Coast area (between 13.1% to 27%, compared to Australia 29.8%) (86).
- Between 2009–10 and 2018–19, the number of Aboriginal and Torres Strait Islander people accessing health checks increased almost fourfold, from 47,300 in 2009–10 (a rate of 68 per 1,000 population) to 248,800 in 2018–19 (a rate of 297 per 1,000). Health check rates increased across all age groups over this period (25).
- The proportion of respondents to the PHN Aboriginal and Torres Strait Islander community survey 2020-21 (1) who had had an Aboriginal health check in the past 12 months (333/595, 55%) was higher than 50%. Although this may indicate that the rate of usage of MBS item 715 is increasing, the top reasons given for not having an Aboriginal health check were: (a) did not know about the check, (b) too busy.
- Nationally, the number of health assessments for Aboriginal and Torres Strait Islander people increased fourfold between 2009–10 and 2018–19, from 68 to 297 per 1,000. Health check rates

increased across all age groups over this period. There was also an increase in the proportion of Aboriginal and Torres Strait Islander women aged 50–69 who were screened for breast cancer, from 31% in 1999–00 to 37% in 2017–18 (25).

4.1.2. Potentially Preventable Hospitalisations (PPH)

PPH is a key measure of the performance of the health system. In particular, it serves as a proxy measure of access to timely, effective and appropriate primary and community-based care. An analysis of the conditions for which people are admitted to hospital reveals that, in many cases, the hospital admission could have been prevented through timely and effective care outside hospital.

In July 2017 to June 2019, across Australia (83):

- 86,293 hospitalisations of Aboriginal and Torres Strait Islander people were potentially preventable. This is an age-standardised rate of 68.8 preventable hospitalisations per 1,000 Aboriginal and Torres Strait Islander people, compared with 25.4 per 1,000 among non-Aboriginal and Torres Strait Islander people. The leading three causes of preventable hospitalisations were (83):
    - COPD (10,810 and 112.2 per 1,000 compared to 2.8 per 1,000 for non-Aboriginal and Torres Strait Islander people)
    - cellulitis—a bacterial skin condition (9,954 and 7.4 per 1,000 compared to 3.1 per 1,000 for non-Aboriginal and Torres Strait Islander people)
    - ear, nose and throat infections (7,990 and 3.8 per 1,000 compared to 1.4 per 1,000 for non-Aboriginal and Torres Strait Islander people).
- Potentially preventable hospitalisations (PPH) are slowly on rise overtime across Australia for Aboriginal and Torres Strait Islander people: 39,337 in 2016–17 (65.4 per 1,000), 41,888 in 2017–18 (67.9 per 1,000) and 44,405 in 2018-19 (69.7 per 1,000). This rate has stayed almost same over time for non-Aboriginal and Torres Strait Islander Australia over this period (25 per 1,000 people).
- The rate of PPH within Qld was 2.5 times higher for Aboriginal and Torres Strait Islander people compered to non-Aboriginal and Torres Strait Islander people (75.0 per 1000 compared to 30.6 per 1000, July 2017-June 2019) (83).

The details of potentially preventable hospitalisations are provided in the tables below (see Table 11 and Table 12 below). Potentially lower rates of preventable hospitalisations in certain areas can be associated with better primary care or even higher ED presentations. Table xxx maps indicators: use of ED, total PPHs, total number of hospitalisations along with potentially preventable deaths within the PHN and each IARE.

Table 11: Potentially preventable hospitalisations Aboriginal and Torres Strait Islander people, 2015/16-2017/18, by age groups

	Admissions for potentially preventable conditions, aged 0 to 14 years		Admissions for potentially preventable conditions, aged 15 to 24 years		Admissions for potentially preventable conditions, aged 25 to 44 years		Admissions for potentially preventable conditions, aged 45 to 64 years		Admissions for potentially preventable conditions, aged 65 years and over		Admissions for potentially preventable conditions, aged 15 years and over	
Australia/Queensland/PHN/IARE	Number	Average annual ASR per 100,000	Number	Average annual ASR per 100,000	Number	Average annual ASR per 100,000	Number	Average annual ASR per 100,000	Number	Average annual ASR per 100,000	Number	Average annual ASR per 100,000
AUSTRALIA+	26,750	3,250.3	11,721	2,517.7	31,201	5,159.0	41,473	10,375.0	18,074	17,713.4	102,469	4,278.3
Queensland	8,270	3,476.9	3,723	2,854.9	7,958	4,854.9	10,960	10,378.0	5,365	20,456.7	28,006	4,382.1
The PHN region	1,218	3,406.3	470	2,521.5	889	4,001.2	1,145	7,358.1	702	15,912.1	3,206	3,419.2
Banana (part b)	85	5,767.8	47	6,721.0	50	4,728.3	65	7,090.5	56	23,534.2	218	4,449.9
North Burnett	85	5,767.8	47	6,721.0	50	4,728.3	65	7,090.5	56	23,534.2	218	4,449.9
Gladstone	107	3,102.6	39	2,173.0	99	4,490.0	84	6,314.9	40	14,532.5	262	3,242.4
Rockhampton – Yeppoon	354	3,484.3	132	2,456.6	260	4,175.8	327	8,333.8	212	20,528.1	931	3,806.0
Central Capricorn	261	5,373.1	123	5,700.2	167	5,399.4	252	13,069.7	84	21,403.7	626	5,539.8
Bundaberg	130	2,678.4	51	1,952.6	150	5,438.8	251	11,928.4	115	16,091.2	567	4,387.0
Fraser Coast	189	3,416.8	88	3,126.5	114	3,372.3	203	8,171.4	120	14,935.7	525	3,480.6
Cooloola – Gympie	104	3,129.5	17	1,181.6	68	3,711.9	76	5,168.6	37	8,446.9	198	2,347.3
Caloundra	128	4,347.1	34	2,329.4	52	2,914.8	66	5,273.9	53	15,093.9	205	2,733.8
Maroochy	121	3,011.8	62	2,529.5	96	3,226.3	73	3,509.7	69	12,362.8	300	2,422.2
Nanango - Kilkivan (part b)	32	1,758.5	17	2,194.0	47	5,223.7	61	7,536.4	34	12,934.5	159	3,464.6
Noosa	104	3,129.5	17	1,181.6	68	3,711.9	76	5,168.6	37	8,446.9	198	2,347.3

Source: Public Health Information Development Unit , 2021. Social health atlas of Australia, from https://phidu.torrens.edu.au/social-health-atlases/topic-atlas#indigenous-status-comparison-social-health-atlas-of-australia

Note: (a) All comparisons for statistical significance are with Australia (b) Significantly **higher** or significantly **lower** is colour coded

Table 12: Potentially preventable hospitalisations Aboriginal and Torres Strait Islander people, 2015/16-2017/18, by conditions

	Total admissions for potentially preventable conditions		Admissions for total vaccine-preventable conditions		Admissions for total acute-preventable conditions		Admissions for total chronic-preventable conditions	
	Number	Average annual ASR per 100,000	Number	Average annual ASR per 100,000	Number	Average annual ASR per 100,000	Number	Average annual ASR per 100,000
AUSTRALIA+	129,219	5,395.2	16,795	701.2	63,046	2,632.3	49,378	2,061.6
Queensland	36,276	5,580.2	3,897	605.1	18,864	2,857.4	13,515	2,114.2
The PHN region	4,424	4,613.2	409	432.9	2,373	2,469.4	1,642	1,708.3
Banana (part b)	303	6,345.2	19	389.7	155	3,473.7	129	2,514.8
North Burnett	303	6,345.2	19	389.7	155	3,473.7	129	2,514.8
Gladstone	369	4,348.7	61	726.5	191	2,132.2	117	1,478.7
Rockhampton – Yeppoon	1,285	5,035.6	94	378.8	737	2,788.9	454	1,845.7
Central Capricorn	887	7,461.7	82	696.4	538	4,307.6	267	2,393.2
Bundaberg	697	5,291.1	83	645.2	321	2,480.5	293	2,158.5
Fraser Coast	714	4,668.6	56	371.9	360	2,406.9	298	1,885.5
Cooloola – Gympie	302	3,474.8	38	440.8	158	1,852.3	106	1,188.3
Caloundra	333	4,313.3	27	356.6	210	2,702.1	96	1,245.9
Maroochy	421	3,439.1	31	252.6	241	1,999.9	149	1,194.4
Nanango - Kilkivan (part b)	191	4,032.2	21	454.6	84	1,822.1	86	1,740.7
Noosa	302	3,474.8	38	440.8	158	1,852.3	106	1,188.3

Source: Public Health Information Development Unit , 2021. Social health atlas of Australia, from https://phidu.torrens.edu.au/social-health-atlases/topic-atlas#indigenous-status-comparison-social-health-atlas-of-australia

Note: (a) All comparisons for statistical significance are with Australia (b) Significantly **higher** or significantly **lower** is colour coded

Table 13: Use of health services across the PHN by Aboriginal and Torres Strait Islander people, 2015/16-2017/18

State/PHN/IARE	Use of emergency department		Total admissions for potentially preventable conditions		Total admissions (excluding same-day admissions for renal dialysis)		Avoidable Deaths from all causes, Aboriginal persons aged 0 to 74 years	
	Number	Average annual ASR per 100,000	Number	Average annual ASR per 100,000	Number	Average annual ASR per 100,000	N	ASR per 100,000
Australia	495,860	62,109.4	129,219	5,395.2	841,136	35,119.1	7,085	203.6
Queensland	101,420	46,166.5	36,276	5,580.2	250,019	38,429.8	2,002	189.3
The PHN region	19,447	61,128.8	4,424	4,613.2	34,390	36,362.1	270	163.6
Banana (part b)	209	14,223.5	303	6,345.2	1,903	41,312.4	n/a	191.1
Central Capricorn	671	16,310.2	887	7,461.7	4,841	40,488.8	17	142.3
Gladstone	2,636	89,249.2	369	4,348.7	2,768	32,505.4	30	235.5
Rockhampton – Yeppoon	5,456	62,024.2	1,285	5,035.6	9,457	37,005.2	78	194.9
Bundaberg	3,055	71,444.7	697	5,291.1	5,079	39,485.2	31	140.1
Fraser Coast	3,905	79,231.2	714	4,668.6	5,333	35,806.6	36	140.6
North Burnett	209	14,223.5	303	6,345.2	1,903	41,312.4	n/a	191.5
Cooloola – Gympie	1,392	49,864.3	302	3,474.8	2,656	31,630.0	14	147.4
Caloundra	1,167	45,490.2	333	4,313.3	2,928	38,691.2	15	121.8
Maroochy	1,627	40,338.6	421	3,439.1	4,266	35,033.1	32	153.3
Nanango - Kilkivan (part b)	343	23,002.7	191	4,032.2	1,516	33,370.4	n/a	n/a
Noosa	1,392	49,864.3	302	3,474.8	2,656	31,630.0	n/a	n/a

Source: Public Health Information Development Unit , 2021. Social health atlas of Australia, from https://phidu.torrens.edu.au/social-health-atlases/topic-atlas#indigenous-status-comparison-social-health-atlas-of-australia

Note: (a) All comparisons for statistical significance are with Australia (b) Significantly **higher** or significantly **lower** is colour coded

4.1.3. Specialist Services

In 2017-18, rate of specialist services claimed by Aboriginal and Torres Strait Islander Australian's was lower compared to non-Aboriginal and Torres Strait Islander people (87).

- This rate was 55.9 per 1,000 claims for psychiatrist services compared to 96.1 per 1,000 for non-Aboriginal and Torres Strait Islander population.
- In 2018, there were 1,927 Aboriginal and Torres Strait Islander patients with end-stage kidney disease with dialysis needs (367.8 ASR per 100,000 people compared to 39.0 per 100,000 non-Aboriginal and Torres Strait Islander people).

4.1.4. Use of hospitals (hospital admissions and emergency presentations)

Hospitalisation rates associated with principle diagnosis are presented in Table 6 and explained under each chronic disease in section 3.2.4. The data on the use of emergency departments is included in this section and in Table 14.

- Over 522,000 Emergency presentations (6.6%) were reported for patients who identified as being of Aboriginal and/or Torres Strait Islander origin. Nationally, the proportion of presentations seen on time for Aboriginal and Torres Strait Islander people was 73% (Table 5.5). The median waiting time for Aboriginal and Torres Strait Islander people (19 minutes) was similar to that for other Australians (19 minutes). (88)
- In 2014-15, Aboriginal and Torres Strait Islander peoples account for 3.0% of Australia's total population, but accounted for 5.6% of the total 7.2 million emergency department (ED) presentations to Australian hospitals in 2014-15. Aboriginal and Torres Strait Islander peoples accounted for a higher proportion of all ED presentations in very remote (50%) and remote areas (35%), compared to 3% of ED presentations in metropolitan areas; however, they were overrepresented across all of these areas in comparison to their proportion in the general population — 45% of people living in very remote areas, 16% of people living in remote areas and 1.5% of people living in metropolitan areas were Aboriginal and Torres Strait Islander (89)

Consistently higher rates of total ED visits were seen in Bundaberg, Fraser Coast, Gladstone, IAREs however, only Gladstone IARE had significantly higher rates of cat 5 ED presentations. Bundaberg and Fraser Coast IARE including Gladstone had higher rates of cat 4 (semi-urgent) presentations.

Table 14: ED presentations Aboriginal and Torres Strait Islander people, 2015/16-2017/18, by category

	Total ED Presentations		Total Urgent ED Presentations (category 1 to 3)		Total Semi-urgent Presentations (category 4)		Total Non-urgent Presentations (category 5)	
	Number	ASR per 100,000	Number	ASR per 100,000	Number	ASR per 100,000	Number	ASR per 100,000
AUSTRALIA	495,860	62,109.4	172,804	21,644.7	206,284	25,838.3	53,048	6,644.6
Queensland	101,420	46,166.5	44,787	20,412.3	35,075	15,891.7	4,960	2,260.3
The PHN region	19,447	61,128.8	8,147	25,626.3	7,717	24,155.1	1,050	3,316.9
Banana (part b)	209	14,223.5	107	7,233.9	63	4,395.8	7	462.7
North Burnett	209	14,223.5	107	7,233.9	63	4,395.8	7	462.7
Gladstone	2,636	89,249.2	1,060	35,921.8	902	30,228.9	223	7,612.9
Rockhampton – Yeppoon	5,456	62,024.2	2,458	28,035.0	2,143	24,080.7	185	2,107.7
Central Capricorn	671	16,310.2	320	7,782.3	203	4,889.8	42	1,029.1
Bundaberg	3,055	71,444.7	1,236	28,847.3	1,314	30,664.9	181	4,282.4
Fraser Coast	3,905	79,231.2	1,468	29,742.5	1,750	35,489.8	233	4,771.5
Cooloola – Gympie	1,392	49,864.3	547	19,565.4	579	20,715.9	86	3,122.6
Caloundra	1,167	45,490.2	529	20,697.7	395	15,291.9	54	2,106.0
Maroochy	1,627	40,338.6	742	18,438.6	571	14,175.2	81	1,995.8
Nanango - Kilkivan (part b)	343	23,002.7	162	10,819.5	90	6,044.7	13	862.5
Noosa	1,392	49,864.3	547	19,565.4	579	20,715.9	86	3,122.6

Source: Public Health Information Development Unit , 2021. Social health atlas of Australia, from https://phidu.torrens.edu.au/social-health-atlases/topic-atlas#indigenous-status-comparison-social-health-atlas-of-australia

Note: (a) All comparisons for statistical significance are with Australia (b) Significantly **higher** or significantly **lower** is colour coded

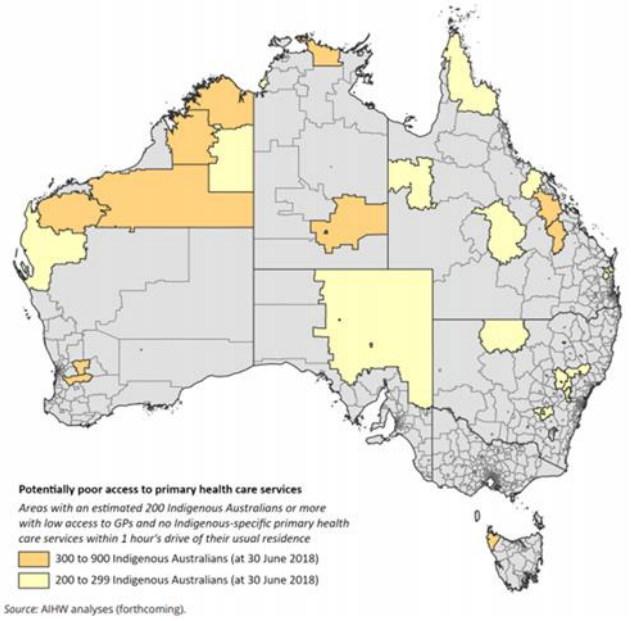
4.1.5. Overall, health system

Avoidable mortality across Queensland for Aboriginal and Torres Strait Islander persons aged 0-74 was 286.8 per 100,000 compared to 108.2 per 100,000 for non-Aboriginal and Torres Strait Islander persons.

- Except for deaths associated with cancer all other 15 listed causes associated with potentially avoidable deaths indicated the large differences between Aboriginal and Torres Strait Islander People and non-Aboriginal and Torres Strait Islander people, nationally (2014-18 data) (87). To highlight a few:
    - For ischemic heart disease as a cause of death the rate was 72.8 per 100,000 for Aboriginal and Torres Strait Islander people (compared to 17.7 for non-Aboriginal and Torres Strait Islander).
    - For diabetes as a cause of death the rate was 44.0 per 100,000 for Aboriginal and Torres Strait Islander people (compared to 5.2 for non-Aboriginal and Torres Strait Islander).
    - For renal failure as a cause of death the rate was 8.7 per 100,000 for Aboriginal and Torres Strait Islander people (compared to 1.1 for non-Aboriginal and Torres Strait Islander).
    - For assault as a cause of death the rate was 6.1 per 100,000 for Aboriginal and Torres Strait Islander people (compared to 0.9 for non-Aboriginal and Torres Strait Islander).
- In 2018–19, almost 3 in 10 Aboriginal and Torres Strait Islander people in Queensland (30% n=243,700) did not go to a health provider, when they needed to, on at least one occasion in previous 12 months. The most common reasons Aboriginal and Torres Strait Islander people did not see a health care provider when needed being too busy (one in three), cost (one in three) or dislikes service/health professional, embarrassed, afraid (one in five) (25). A list of SA2s with potentially poor access to primary health care services (in 2018) includes areas from the PHN:
    - Central Highlands (East) (670 people)
    - Gympie Region (295 people)
    - Barcaldine - Blackall (290 people)
    - Cooloola (275 people).

Aboriginal and Torres Strait Islander Health Performance Framework 2020 provides a map of areas where Aboriginal and Torres Strait Islander people have potentially poor access to primary healthcare services. The map below clearly indicates lower access to services in Wide bay region.

Figure 3: Areas with potentially poor access to primary health care services, by size of population, 2018



The PHN Aboriginal and Torres Strait Islander survey 2020-21 (1) indicates that:

- 58% (n=100) of the respondents who stayed overnight in hospital saw an Aboriginal Health Practitioners during their stay.
- The reasons behind not accessing primary care services even when needed were being busy, not being able to get an appointment and cost of the appointment.
- There are issues with accessing services required, this frequently included a lack of services in their area resulting in having to travel long distances to access services and issues with transportation to and from services.

The PHN stakeholder survey respondents (n=240) reported following (2):

- 13% (n=30) primarily provided services to the Aboriginal and Torres Strait Islander people.
- 31% (n=74) agreed or strongly agreed that there were adequate numbers of the Aboriginal and Torres Strait Islander services to meet demand.
- 38% (n=92) perceived that Aboriginal and Torres Strait Islander services are accessible and appropriate.

4.2. Safety and Cultural Competency

Mission Australia survey indicates that three in 10 (30.4%) Aboriginal and Torres Strait Islander people reported that they were treated unfairly due to their race/cultural background (61). While in Queensland, 97% of the Aboriginal and Torres Strait Islander primary health care organisations has a commitment to culturally safe health care, 27% did not have mechanisms for gaining advice on cultural matters and 53% had a board that was fully Aboriginal and Torres Strait Islander.

- In 2017–18 (87) the rate of employment for Aboriginal and Torres Strait Islander people in 2019 was:
  - 50.9 per 100,000 for Aboriginal and Torres Strait Islander medical practitioners (compared to 430.5 per 100,000 for non-Aboriginal and Torres Strait Islander)

- 514.1 per 100,000 for Aboriginal and Torres Strait Islander nurses and midwives (compared to 1,458.1 per 100,000 for non-Aboriginal and Torres Strait Islander)
- 8.9 per 100,000 for Aboriginal and Torres Strait Islander allied health professionals (compared to 69.6 per 100,000 for non-Aboriginal and Torres Strait Islander)
- 178.0 per 100,000 for Aboriginal and Torres Strait Islander allied health professionals (compared to 664.0 per 100,000 for non-Aboriginal and Torres Strait Islander)
- 44.5 per 100,000 for Aboriginal and Torres Strait Islander health practitioners.

- In 2018–19, almost 3 in 10 Aboriginal and Torres Strait Islander people in Queensland (29%) did not go to a health provider when they needed to. The most common reasons Aboriginal and Torres Strait Islander people did not see a health care provider when needed included being too busy, cost or dislikes service/health professional, embarrassed, afraid (25).

To understand whether services are considered culturally safe for Aboriginal and Torres Strait Islander people, respondents to ***the PHN Stakeholder Survey*** were asked to rate whether they felt the services were culturally safe. Overall, services that appear to be perceived as not being culturally safe were mental health services (20%), AOD services (19%) and after hours services (16%). Around 47% and 44% of respondents strongly agree or agree that GP services and Aboriginal and Torres Strait Islander services are culturally safe, respectively (2).

The PHN have been approved by the Royal Australian College of General Practitioners (RACGP) to deliver the cultural competency training and the training will be delivered on the Sunshine Coast around September 2021. The PHN also commissions the Cultural Healing Program in Gympie region and several Social and Emotional Wellbeing programs specific to Aboriginal and Torres Strait Islander clients via Mental Health and Alcohol and Other Drugs programs.

4.3. Responsiveness

a. Patient choice/experience

In 2018-19, Aboriginal and Torres Strait Islander patients indicated that (87):

- Doctors listen to them around 80% of the time.
- Doctors explained things to them around 88% of the time.
- Maternal clinic offered culturally appropriate rescores around 76% of the time.
- 28.5% did not access service when needed due to service not being culturally appropriate.
- 1.9% of Aboriginal and Torres Strait Islander (compared to 0.5% non-Aboriginal and Torres Strait Islander) hospitalisations where patients left against medical advice/were discharged at own risk (2017-19). This proportion was higher for very remote areas (6.3%), in 35-44 years age group (7.0%) and for principal diagnosis of skin conditions and endocrine conditions.
- Doctors showed respect to what was said around 83% of the time (2014-15).
- 60% of people showed trust in hospitals (2014-15).
- 6% indicate that they avoid seeking healthcare because they were treated unfairly previously (2012-13).

The PHN consultation (1) indicates that the top three reasons for self-discharge are: treatment required for other health conditions, did not feel that they were treated/supported properly and did not want to be

at hospital. Only 7% of GPs did not ask about the ethnicity, this proportion was >25% for the specialists and dentists.

b. Workforce and Workforce projections

Detailed information is not available however in Queensland (2016), Queensland Health had 1,5224 (headcount) Aboriginal and Torres Strait Islander employees with 58.7 per cent of this workforce in non-clinical streams and 41.3 per cent in clinical streams. Since 2009, there has been a marginal increase in the number of Aboriginal and Torres Strait Islander employees across all clinical workforce streams (90).

In the 2016 Census, more than 11,000 Aboriginal and Torres Strait Islander people were employed in health-related occupations. In 1996, about 96 of every 10,000 employee, Aboriginal and Torres Strait Islander people worked in health-related occupations. By 2016, this rate had increased to 173 per 10,000 (25).

The service mapping undertaken by the Health Workforce Queensland (HWQ) for the PHN (2020) received responses from nine Aboriginal Service provider Organisations within Central Queensland and 14 from Wide Bay area. There are six service providers that operate from the Sunshine Coast area. (91).

c. Referral pathways

Establishing culturally responsive services and ensuring integrated care pathways is important to provide continuity of care. The Integrated Team Care (ITC) service delivered by the PHN ensures that knowledge of the program exists amongst the service providers ensuring referrals-in and also refer out to other health practitioners if required.

4.4. Insights from the PHN Services Data and Analysis

The PHN gathered data from consumers from 2019-21 by three different means: survey data to understand health and service needs, ITC review to measure efficiency and effectiveness of the program and Stepped Care mental health services review to undertake process evaluation. Survey data is used throughout this needs analysis and the program review data is concluded below.

- ***The Integrated Team Care review:*** The key objectives of the ITC programs include improving access to care co-ordination and primary care services to address management of chronic conditions. An evaluation to improve efficiency and effectiveness of these services included a total of 72 consumers completing the online/phone survey and eight GPs completing the referrer survey. There were 19 participants in the staff interviews, including 14 participants from service providers and five from the PHN. The conclusion was that more co-design efforts were required including in the space of gathering data to measure the impact, service planning can possibly involve broader range of stakeholders including Hospital and Health Services (HHSs) and developing cultural competency even more. The PHN is committed to address the gaps and has met with the ITC Providers who were involved to discuss the evaluation and gave feedback on their service. The next step will be co-design process (ITC service providers, community members and ITC clients) to ensure the improvements in ITC service provision and tailor the recommendations to each service provider. Furthermore, the ITC review showed that, in a small sample of respondents, the knowledge regarding services available in the region was quite low. It is an ongoing requirement of the Aboriginal and Torres Strait Islander Health Program Officers (IHPOs) and service providers to raise awareness and referral from external areas. Monitoring of the ITC program including data over the next 12 months, and the PHN will work towards improving the referrals, processes, outcomes, access and reporting across the region,

hopefully increasing consistency. The PHN also partners with (i) CheckUP and Central Queensland Hospital and Health Service (CQHHS) to ensure streamlined delivery and aligned resourcing for funding of allied health services at the Woorabinda allied health clinic, including physiotherapy, diabetes education, exercise physiotherapy, psychology and podiatry, (ii) CQHHS, Woorabinda Aboriginal Shire Council and Yoonthalla Services Woorabinda in continuing to support the Woorabinda community to achieve the community aspirations of self-determination and self-management.

- ***Stepped Care Mental Health Services Review:*** The services delivered under stream six that is Aboriginal and Torres Strait Islander-specific services had 119 consumers (129 episodes of care) with high service contact rate (average 11.7 service contacts per consumer). In 2018, 161 consumers identified as Aboriginal and Torres Strait Islander and attended Aboriginal and Torres Strait Islander specific stream. Of these people, 68% used the S6-Aboriginal and Torres Strait Islander specific stream, with an additional 16% accessing S4-Severe and Complex stream. The PHN continues to work on making mental health services available to the cohort.
- ***The PHN survey:*** it clearly indicates the need for services to be accessible, culturally appropriate and driven by Aboriginal and Torres Strait Islander leaders. It also supports the wider data to indicate the need for a focus on mental health, chronic disease care including diabetes management and domestic violence within the communities.

Identified Issues

- *Steady increase in immunisation <5 years within the PHN.*
- *Steady increase in breast and bowel cancer screening but the gap still exists.* ***Low breast cancer and bowel cancer screening*** *participation rates.*
- ***Several preventable cancers occur more commonly and with a lower survival rates****, indicating that preventive strategies and clinical care are not as effective as they could, and/or should, be for Aboriginal and Torres Strait Islander people.*
- ***Identification and reporting of the ethnicity*** *need to improve to confidently present the data.*
- *Slow and steady rise in use of MBS item 715 or 228 overtime from 2012-13 to 2018-19. The PHN ranks 8th highest for proportion of health checks under MBS item 715 coverage is only 34% (2018-19 data).*
- *Steady rise in PPH rates associated with COPD, cellulitis and ear, nose and throat infections.*
- ***Category 4 and 5 ED presentations*** *were significantly higher in* ***Gladstone IARE***
- ***Significantly higher use of ED r****equires attention to primary care access* ***in Rockhampton, Fraser Coast and Gladstone IAREs***
- ***Significantly higher PPHs in Banana, Central Capricorn and North Burnett*** *require attention to timely and effective care outside hospitals and in primary care. Especially Central Capricorn IARE shows significantly higher PPHs across all age groups except for 25 to 44 years old where the rate is higher but not statistically significant.*
- ***Low use of specialist services*** *although high need of such services including mental health related psychiatry services and dialysis for patients with end-stage kidney disease.*
- ***High rates of avoidable deaths associated with diabetes, Ischemic heart disease, renal failure, and assault.***
- ***Cultural competency*** *of service providers is improving but requires more attention to address concerns with use of health services*
- ***Consultations also indicate the need for*** *workforce development, lack of /limited Aboriginal and Torres Strait Islander practitioners, retention, and recruitment of workforce in rural/remote areas.*

5. Triangulation

A holistic view to healing for Aboriginal and Torres Strait Islander people includes cultural, spiritual, and social wellbeing aspects of health. Extensive disruption to the life, that was lived for many centuries, has impacted cultural beliefs and practices and has adversely affected the social and emotional wellbeing of Aboriginal and Torres Strait Islander people. Culture and identity are central to Aboriginal and Torres Strait Islander perceptions of health. The interconnected risk and protective factors for Aboriginal and Torres Strait Islander health noted in the literature are summarised here.

Protective factors are social connectedness and sense of belonging, connection to land, culture, spirituality and ancestry, living on or near traditional lands, strong community governance and passing on of cultural practices. ***Keeping these determinants of health at the forefront of any program designed to address the burden of disease in this population improves the possibility of success***.

***Risk factors*:** The risk factors listed below are associated with higher burden of mental and physical health conditions in Aboriginal and Torres Strait Islander population. (92)

- Unresolved trauma: Trauma is a huge factor in Aboriginal and Torres Strait Islander health and an agent for many health conditions. If unresolved, trauma can debilitate a person and be passed on to the next generation.
- Poor physical health: Almost one in four Aboriginal people report having both a mental health condition and one or more other long-term health conditions.
- Widespread grief and loss: This include grief about the loss of culture, land and connection.
- Stolen generations: The impact of the past Stolen Generations and ongoing removal of children puts a lot of mental pressure on people.
- Loss of identity and culture: Due to separation their culture and identity.
- Discrimination and racism: Discrimination based on race or culture, as well as racism, can have a large impact on any person's health.
- Violence: Domestic violence, as well as violence in prisons, for example, contributes to poor mental health.
- Few economic opportunities: Due to other factors explained throughout this docuemnt, many Aboriginal people are economically and socially disadvantaged. For example, constant worry about finance or how you are perceived by others contributes to mental illness and physical illness.
- Incarceration: Being imprisoned has a large effect on people's mental health.
- Culturally inappropriate treatment environments: Cultural sensitivity is critical in primary care and hospital environments

Below is the synthesis and triangulation of all the information gathered via the health and service needs analysis. Analysis of all the quantitative data and qualitative information gathered through consultations, and presented in the previous chapters, identifies specific needs listed under each chapter. Triangulation of these needs and gaps in healthcare identifies themes that can be used to establish priorities for the PHN.

- ***Chronic disease focus: Identification of risk and protective factors along with identification of high-risk individuals:*** Low education levels, lack of employment opportunities and overcrowding is affecting self-efficacy and health literacy, impacting knowledge about how to seek help, and knowledge of how to navigate the health system. Multiple stressors (e.g., death of a family member

or friend, inability to get a job, serious illness) along with smoking, illicit drug intake and drinking alcohol at risky levels, are giving rise to risk factors such as obesity, high blood pressure and high cholesterol. For example, CKD (risk factors mainly are diabetes and high blood pressure) is on the rise and end stage renal disease is 6.8 times higher compared to non-Aboriginal and Torres Strait Islander people. This clearly indicates a focus and strategies are required for early identification and management of high-risk individuals. This also requires

- ***Diabetes management including primary and secondary prevention:*** Prevalence, hospitalisations, and deaths associated with diabetes, are higher compared to non-Aboriginal and Torres Strait Islander people indicating a need for early diagnosis and management of diabetes including early intervention, prevention, heath promotion, access to culturally appropriate health services, diabetes educators and Aboriginal Health Practitioners.
- ***Maternal and child health:*** The life-course approach proposes that experiences, education and health in young age predicts long-term outcomes.(93) A high proportion of Aboriginal and Torres Strait Islander children are vulnerable on two or more domains of AEDC (North Burnett, Bundaberg and Fraser Coast LGAs). Although many maternal and child health indicators show improvement, smoking during pregnancy is still high and the proportion of breast feeding up to six months is low.
- ***Addressing antecedents of mental health concerns including suicidal tendencies***: Mental health concerns are reported across all the age groups. Around one in three Aboriginal and Torres Strait Islander people have mental and behavioural conditions for most age groups, except those aged 2–14 years (about one in six) and 15–24 years (about one in four). Hospitalisations for self-harm are three times higher compared to non-Aboriginal and Torres Strait Islander people. Suicide was one of the five leading causes of death for Aboriginal and Torres Strait Islander people in 2014-18. However, the mental health service use is not proportionate, and it is unclear that if that is due to lack of access, availability, or affordability of the services. The role of stigma in having a mental health condition and seeking support services is also unknown.
- ***Timely care for primary and secondary prevention:*** Long-term health conditions with highest self-reported prevalence (vision problems, respiratory diseases, musculoskeletal diseases, and cardiovascular disease) are the ones that can be managed successfully. The five leading causes of death also include coronary heart disease, diabetes, suicide, and respiratory disease. This clearly indicates a lack of access to care in timely manner. The high rates of potentially preventable hospitalisations and cat 4 and/or 5 ED presentations in specific areas requires further attention to access, availability and affordability of health services within those regions.
- ***Reducing acquired disability by reduction in injury and poisoning***: Injury and poisoning is the second leading cause of disease burden and third leading cause of death among Aboriginal and Torres Strait Islander people, with the most common causes being suicide, transport accidents, accidental poisoning, assault and falls. This is impacting young lives and creating disability when some of these injuries and deaths are avoidable. This also include harmful use of alcohol and other drugs.

Established literature over past decades indicates that any program that: (i) is culturally appropriate, (ii) has high level of Aboriginal and Torres Strait Islander ownership and community support, (iii) uses trauma informed care or (iv) addresses past and current racism and issues such as poverty and homelessness, will be successful.

Furthermore, some key principles need to be considered in effort to improve heath of Aboriginal and Torres Strait Islander people e.g.

1. Aboriginal and Torres Strait Islander health is understood in a holistic and whole-of-life view:
    - Recognising and embodying the Aboriginal and Torres Strait Islander concept of health, that encompasses physical, mental, cultural and spiritual health.

- A social determinants of health approach entails consideration of both health and wellbeing through a holistic, whole-of-life lens.
- Social and emotional wellbeing (SEWB) for Aboriginal and Torres Strait Islander people sits within a holistic and whole-of-life view of health, recognising the importance of connection to land, culture, spirituality, ancestry, family and community, and the significance of these connections for individuals.
- Cultural wellbeing includes valuing the knowledge of Australia's First Peoples and especially the knowledge that Elders possess.
- Spiritual wellbeing includes recognising and valuing the connection between spirituality and health.

2. Culture at the centre – strong connections to culture and family are vital for good health and wellbeing
   - Recognising the centrality of culture to health and respecting Aboriginal people and cultures is necessary to enhance service access, equity and effectiveness.
   - The cultural determinants of health originate from and promote a strengths-based perspective and encompass the cultural factors that promote resilience, foster a sense of identity and support good mental and physical health and wellbeing for individuals, families and communities.
3. Genuine partnerships with communities is essential for optimal results
   - Meaningful community involvement, consultation and empowerment
   - Recognising and acknowledging the diversity of Aboriginal and Torres Strait Islander communities and their cultures, rather than assuming cultural homogeneity.9
   - Moving slowly and working in partnership with community, having multiple ways to engage and being flexible with timelines.

Considering these principles at the heart of all commissioning, the PHN will address the identified health and service needs by ensuring a system-wide and local attention to:

- ***Chronic disease early identification and management***: Health promotion and prevention focus including strengthening regular monitoring of HbA1c (for patients with Type 2 diabetes) and reviewing and adjusting medication for patients with abnormal HbA1c, total cholesterol or blood pressure results.
- ***Improved collaboration, communication, and integration***: There is an intrinsic link between employment addressing socio-economic issues and underpinning good health. Recognising the improvement in Aboriginal and Torres Strait Islander health status must include attention to physical, spiritual, cultural, emotional and social wellbeing, capacity and governance at both community and individual levels. The growth of the Aboriginal and Torres Strait Islander health workforce will assist in addressing this process. This also includes factors such as local decision-making, working in partnerships and help building the capacity of health services to ensure sustainability.
- ***Improved management of mental health related conditions***: Assessment and support regarding emotional wellbeing for patients with and without chronic conditions to prevent deaths due to suicide.
- ***Ensuring commissioning of culturally appropriateness of services***: Improved care-coordination and providing culturally appropriate services. Care-coordination and referrals data to ensure recording of brief interventions (such as advice or referrals for physical activity and tobacco cessation programs) and linkages with chronic disease treatments.
- ***Encouraging improvements in data quality****:* Improved data collection and quality of data will help to monitor the changes in health outcomes.

6. Opportunities, Priorities and Options

The issues and options listed below, to improve Aboriginal and Torres Strait Islander Peoples' health within the PHN region, are based on the vision and principles for the delivery of successful healthcare services to Aboriginal and Torres Strait Islander children and families across Australia. It aims to provide guidance for the development and implementation of services to meet the needs of Aboriginal and Torres Strait Islander children and families within the PHN region. A strong evidence base exists for addressing the identified priorities in the options table below.

Many national strategies focus on addressing the key concerns for Aboriginal and Torres Strait Islander population including socio-demographic factors. Examples of these are provided below and can be used as a basis to develop evidence-based activities by the PHN.

1. **National Aboriginal and Torres Strait Islander Education Strategy** (94): Recognising the different roles of governments, the Strategy includes actions that build on existing national initiatives such as the Australian Curriculum and the Australian Professional Standards for Teachers to accelerate the rate of improvement for Aboriginal and Torres Strait Islander student outcomes. The initial set of actions focus on:
    - Attendance and Engagement
    - Transition Points (including pathways to post-school options)
    - Early Childhood Transitions
    - Workforce
    - Australian Curriculum
2. **The National Scheme's Aboriginal and Torres Strait Islander Health and Cultural Safety Strategy 2020-2025** (95): It aims to make cultural safety the norm for Aboriginal and Torres Strait Islander patients. More specifically, it will identify, implement and monitor the National Scheme's Strategy and role in ensuring patient safety for Aboriginal and Torres Strait Islander Peoples in Australia's health system.
3. **The National Aboriginal and Torres Strait Islander Health Plan 2013-2031**: (33): The plan has a vision to make the Australian health system free of racism and inequality and all Aboriginal and Torres Strait Islander people to have access to health services that are effective, high quality, appropriate and affordable. Together with strategies to address social inequalities and determinants of health, this provides the necessary platform to realise health equality by 2031.
4. **National Strategic Framework for Aboriginal and Torres Strait Islander Peoples' Mental Health and Social and Emotional Wellbeing 2017-2023** (96) and Queensland strategy(97) : Both focus on responding to the high incidence of social and emotional wellbeing problems and mental ill-health, by providing a framework for action. It focuses on nine guiding principles, one of the main principles being "Aboriginal and Torres Strait Islander health is viewed in a holistic context, that encompasses mental health and physical, cultural and spiritual health. Land is central to wellbeing. Crucially, it must be understood that when the harmony of these interrelations is disrupted, Aboriginal and Torres Strait Islander ill health will persist."
5. **National Aboriginal and Torres Strait Islander People's Alcohol and Other Drug Strategy** (98): The strategy aims at preventing and minimising alcohol-related harms among individuals, families and communities by:
    - identifying agreed national priority areas of focus and policy options.
    - promoting and facilitating collaboration, partnership and commitment from the government and non-government sectors; and,
    - targeting a 10% reduction in harmful alcohol consumption

- alcohol consumption at levels that puts individuals at risk of injury from a single occasion of drinking, at least monthly; and - alcohol consumption at levels that puts individuals at risk of disease or injury over a lifetime.

6. **National Aboriginal and Torres Strait Islander Peoples' Drug Strategy 2014-19** (99): The strategy aims to build safe and healthy communities by minimising alcohol, tobacco and other drug related health, social and economic harms among individuals, families and communities. The overarching goal of the Strategy is to improve the health and wellbeing of Aboriginal and Torres Strait Islander people by preventing and reducing the harmful effects of alcohol and other drugs (AOD) on individuals, families, and their communities.
7. **Fifth National Aboriginal and Torres Strait Islander Blood Borne Viruses and Sexually Transmissible Infections Strategy 2018-2022** (54) : The Fifth National Aboriginal and Torres Strait Islander Blood Borne Viruses and Sexually Transmissible Infections Strategy 2018–2022 includes four guiding principles to support high-quality, evidence based and equitable responses to BBV and STI in Aboriginal and Torres Strait Islander peoples. These are : (1) Aboriginal and Torres Strait Islander community control and engagement; (2) Health equality and a human rights approach; (3) Partnership and; (4) Accountability.
8. **Aboriginal and Torres Strait Islander Maternity Services Strategy 2019 – 2025** (100): This Strategy identifies characteristics of effective, culturally focussed and safe maternal health services for mothers of Aboriginal and Torres Strait Islander babies that embed the cultural traditions, values and beliefs of Aboriginal and Torres Strait Islander people and their communities. The strategy includes principles such as:
    - Partnerships and collaborative woman-centred care
    - Continuity of Carer
    - Integrated health and other support services
    - Transferring women for birth
    - Aboriginal and Torres Strait Islander workforce
    - A culturally capable workforce

The table below includes options that are evidence based and can be implemented by the PHN to address the inequity in health outcomes that exists within the PHN region. Our priorities and approaches for providing health services to our Aboriginal and Torres Strait Islander community closely align with these national and regional focus areas and strategies. We have identified the following priority areas based on the HNA findings, in consultation with relevant strategies/plans and key stakeholders. The PHN focus to commission AOD initiatives will need to ensure the following key areas are supported and implemented successfully.

Priority area 1: Communication, Collaboration, Care-coordination, and Integration of Services: this includes delivering supportive, co-ordinated and integrated care by building timely communication and multidisciplinary collaboration

Priority area 2: Chronic Disease Early Identification and Management (Psychosocial determinants): with a focus on improving mental health this priority targets and facilitates co-design and implementation of strategies that will target the lifestyle behaviours of young Aboriginal and Torres Strait Islander people. The aim will be to foster and support the development of strategies designed to increase the participation of Aboriginal and Torres Strait Islander men in addressing social and emotional health and wellbeing.

Priority area 3: **Improving Access to Culturally Appropriate Services for mothers and babies:** this involves identification of at-risk pregnant women and new mothers and the proactive culturally appropriate provision of ante- and post-natal care in convenient locations, supporting transient lifestyles and supporting babies to have good start to life.

Priority area 4: **Workforce Development:** ensuring culturally appropriate workforce is available

Priority area 5: **Chronic disease early identification and management**: this priority will focus on diabetes (prevention and management), chronic kidney disease and eye health issues

Opportunities, priorities, and options

The following opportunities, priorities and options have been suggested based on the identified needs, however actual implementation of these depends on various factors such as available evidence base, ability to tailor it to local conditions, careful consideration of opportunity cost, and consultation/collaboration with PHN stakeholders. At the heart of implementation of these priorities will be the Aboriginal Service Providers, Aboriginal Community Controlled Organisations and Aboriginal Health Workers.

Priority	Possible Options	Expected Outcome	Potential lead agency and opportunities for collaboration and partnership
Priority 1: Communication, Collaboration, Care-coordination, and Integration of Services			
Key Issue: Need to further develop integrated care practices and culturally competent workforce and practices. **Priority Area:** Aboriginal and Torres Strait Islander Health. **Priority sub-category:** Access	Identify opportunities to increase access to primary health services. Increase participation in all programs designed for Aboriginal and Torres Strait Islander community members (101). Leverage the Integrated Team Care program delivery across the region to improve access to care coordination, specialist, and supplementary services, through targeted marketing and promotional opportunities with general practice and community. Encourage and support primary health care providers to utilise their data to identify cohorts of at risk for Aboriginal and Torres Strait Islander community members and develop the required screening, monitoring and care plans, utilising the appropriate MBS items and recall and reminder processes following information from AIHW resource on how data can be used	Improved participation in allied health clinics and programs in regional, rural and remote locations by Aboriginal and Torres Strait Islander community members with, or at risk of, chronic disease. Improved collaboration between primary, secondary, and tertiary health care providers for Aboriginal and Torres Strait Islander community members through effective care coordination services. Greater levels of health and disease literacy in Aboriginal and Torres Strait Islander community members At-risk Aboriginal and Torres Strait Islander community members are identified and their health monitored through their GP or Aboriginal medical Service (AMS) using the Closing the Gap 715 annual health check as a baseline.	Work with regional Aboriginal Community Controlled Health Organisations (ACCHOs), general practice, allied health, peak bodies, CheckUP.

Opportunities, priorities, and options

The following opportunities, priorities and options have been suggested based on the identified needs, however actual implementation of these depends on various factors such as available evidence base, ability to tailor it to local conditions, careful consideration of opportunity cost, and consultation/collaboration with PHN stakeholders. At the heart of implementation of these priorities will be the Aboriginal Service Providers, Aboriginal Community Controlled Organisations and Aboriginal Health Workers.

Priority	Possible Options	Expected Outcome	Potential lead agency and opportunities for collaboration and partnership
	to improve the quality of Aboriginal and Torres Strait Islander health care (17). Support general practice, allied health, and primary health care clinicians to provide culturally safe and appropriate environments for Aboriginal and Torres Strait Islander community members. Improve health and disease literacy within Aboriginal and Torres Strait Islander communities (including regarding palliative care). Increasing access to culturally appropriate resources including yarning circles, stories and art to promote and support self-management of chronic disease with identified and appropriate Aboriginal and Torres Strait Islander community members. Reduce avoidable admissions by undertaking deep dives which interventions are able to successfully reduce avoidable admissions among Aboriginal people, and the importance	Aboriginal and Torres Strait Islander community members experiencing chronic disease and comorbid conditions are encouraged to self-manage their health. Culturally appropriate and safe environments are developed for Aboriginal and Torres Strait Islander community members.	

Opportunities, priorities, and options

The following opportunities, priorities and options have been suggested based on the identified needs, however actual implementation of these depends on various factors such as available evidence base, ability to tailor it to local conditions, careful consideration of opportunity cost, and consultation/collaboration with PHN stakeholders. At the heart of implementation of these priorities will be the Aboriginal Service Providers, Aboriginal Community Controlled Organisations and Aboriginal Health Workers.

Priority	Possible Options	Expected Outcome	Potential lead agency and opportunities for collaboration and partnership
	of culturally appropriate community health care.(102)		
Key Issue: Support in development of a coordinated and integrated system to address mental health related concerns: High proportion of people with mental health concerns and high suicide rates including higher risk of suicide for Aboriginal and Torres Strait Islander youth is needed. **Priority Area:** Mental Health. **Priority sub-category:** Aboriginal and Torres Strait Islander Health	Early identification and intervention for mental health concerns including suicide prevention (97). As well as strategies to promote mental health, wellbeing and resilience. Partnerships at the primary and acute care interface (97). A multisector approach. Partnerships between clinical and community support services (Fundamental to care coordination for Aboriginal and Torres Strait Islander people with severe and persistent mental illness is the development of a single care plan that links their physical and mental health clinical care needs with any other community based social and disability support services they may require) (97). Develop culturally appropriate referral pathways and systems between HHSs and community-based services to facilitate follow-up care for Aboriginal and Torres Strait Islander individuals following a suicide attempt.	Effective engagement with Aboriginal and Torres Strait Islander mental health stakeholders to identify appropriate and effective service delivery options and settings. Improved access to and utilisation of services and programs which address Aboriginal and Torres Strait Islander mental health issues in culturally specific ways. Reduced potentially preventable hospitalisations from mental health related conditions amongst Aboriginal and Torres Strait Islander communities. Improved participation in allied health clinics and programs in regional, rural and remote locations by Aboriginal and Torres Strait Islander community members with, or at risk of, mental health conditions. Improved collaboration between primary, secondary, and tertiary health care providers	The PHN, NGOs, HeadSpace, HHS, AMSs, communities, education sector, social services

Opportunities, priorities, and options

The following opportunities, priorities and options have been suggested based on the identified needs, however actual implementation of these depends on various factors such as available evidence base, ability to tailor it to local conditions, careful consideration of opportunity cost, and consultation/collaboration with PHN stakeholders. At the heart of implementation of these priorities will be the Aboriginal Service Providers, Aboriginal Community Controlled Organisations and Aboriginal Health Workers.

Priority	Possible Options	Expected Outcome	Potential lead agency and opportunities for collaboration and partnership
		for Aboriginal and Torres Strait Islander community members through effective care coordination services.	
Key Issue: Locally based solutions need to be co-designed. **Priority Area:** Alcohol and Other Drugs (AOD) **Priority sub-category:** Aboriginal and Torres Strait Islander Health	Improve access to and delivery of high quality AOD services that effectively engage the Aboriginal and Torres Strait Islander population. Includes better identification of treatment pathways for Aboriginal and Torres Strait Islander population (99). Build capacity and capability of the AOD service system, particularly Aboriginal and Torres Strait Islander controlled services and its workforce, as part of a cross-sectoral approach with the mainstream AOD (99). Work with families, elders and community during screening and referral processes to incorporate cultural perspectives and values. Provide access to traditional healers and healing services. Aboriginal and Torres Strait Islander ownership of solutions (99). Facilitate access to appropriate treatment, information and support services.(98).	Established collaborations with Aboriginal and Torres Strait Islander organisations to deliver culturally appropriate and effective services. Improved access to AOD services across the PHN.	Collaborate with Aboriginal and Torres Strait Islander organisations and communities

Opportunities, priorities, and options

The following opportunities, priorities and options have been suggested based on the identified needs, however actual implementation of these depends on various factors such as available evidence base, ability to tailor it to local conditions, careful consideration of opportunity cost, and consultation/collaboration with PHN stakeholders. At the heart of implementation of these priorities will be the Aboriginal Service Providers, Aboriginal Community Controlled Organisations and Aboriginal Health Workers.

Priority	Possible Options	Expected Outcome	Potential lead agency and opportunities for collaboration and partnership
	Improving the understanding and awareness of alcohol related harms, particularly to those experiencing disproportionate risks and harms (98).		
Priority 2: Chronic Disease Early Identification and Management (Psychosocial determinants)			
Key Issue: High socioeconomic disadvantage. Social determinants of health impact health. Address health behaviours by addressing determinants. **Priority Area:** Aboriginal and Torres Strait Islander Health. **Priority sub-category:** Social Determinants.	Foster and support the development of strategies designed to increase the participation of Aboriginal and Torres Strait Islander men in addressing social and emotional health and wellbeing(103). Facilitate co-design and implementation of strategies targeting the lifestyle behaviours of young Aboriginal and Torres Strait Islander people.	Empowering communities and people by providing appropriate support. Increased participation of Aboriginal and Torres Strait Islander people in addressing social and emotional health and wellbeing. Reduction in risk behaviours among young Aboriginal and Torres Strait Islander people. Improved knowledge and understanding of risk behaviours and implications for long term health outcomes.	Environmental Health Agencies, communities, NGOs, AMSs, ACCHOs
Priority 3: Improving Access to Culturally Appropriate Services for Mothers and Babies			
Key Issue: Poor maternal and child health requires better access to culturally appropriate services	Identification of at-risk pregnant women and new mothers and the proactive culturally appropriate provision of ante- and post-natal	Greater opportunities for pregnant women and new mothers to access culturally	Collaborate with HHSs, ACCHOs and primary health care clinicians.

Opportunities, priorities, and options

The following opportunities, priorities and options have been suggested based on the identified needs, however actual implementation of these depends on various factors such as available evidence base, ability to tailor it to local conditions, careful consideration of opportunity cost, and consultation/collaboration with PHN stakeholders. At the heart of implementation of these priorities will be the Aboriginal Service Providers, Aboriginal Community Controlled Organisations and Aboriginal Health Workers.

Priority	Possible Options	Expected Outcome	Potential lead agency and opportunities for collaboration and partnership
as healthy childhood is associated with better health in the future. **Priority Area: Other:** Maternal and Child Health. **Priority sub-category:** Aboriginal and Torres Strait Islander Health	care in convenient locations, supporting transient lifestyles (100). Develop tools to inform the planning, design and implementation of collaborative woman-centred maternity care services (100). Facilitate access to culturally appropriate clinics for Aboriginal and Torres Strait Islander mothers and babies across the region and promote the use of My Health Record and child health records to support continuity of care. Work with primary health care providers to improve child health and illness literacy for Aboriginal and Torres Strait Islander mothers, increasing access to culturally appropriate resources including yarning circles, stories and art. Support the maternity workforce to work across organisational boundaries to facilitate continuity of midwifery and maternity care (100).	appropriate ante- and post-natal care in the location of their choice. Greater opportunities for pregnant Aboriginal and Torres Strait Islander women to access shared care pregnancy services.	

Opportunities, priorities, and options

The following opportunities, priorities and options have been suggested based on the identified needs, however actual implementation of these depends on various factors such as available evidence base, ability to tailor it to local conditions, careful consideration of opportunity cost, and consultation/collaboration with PHN stakeholders. At the heart of implementation of these priorities will be the Aboriginal Service Providers, Aboriginal Community Controlled Organisations and Aboriginal Health Workers.

Priority	Possible Options	Expected Outcome	Potential lead agency and opportunities for collaboration and partnership
Priority 4: Workforce Development			
Key Issue: Improvements to access to available services, culturally appropriate services and health literacy – AOD. **Priority Area:** Alcohol and Other Drugs. **Priority sub-category:** Aboriginal and Torres Strait Islander Health	Continue working with Aboriginal and Torres Strait Islander organisations and communities to identify specific AOD needs and service gaps for Aboriginal and Torres Strait Islander people. Dedicated, culturally appropriate Aboriginal and Torres Strait Islander community Alcohol and Other Drug (AOD) services. Integrated social and emotional wellbeing services available to regional Aboriginal and Torres Strait Islander community members at low or no cost, in a timeframe that is suitable to their needs. Work with primary health care providers to improve AOD health literacy within Aboriginal and Torres Strait Islander communities, increasing access to culturally appropriate resources including yarning circles, stories and art.	Effective engagement with Aboriginal and Torres Strait Islander stakeholders to identify appropriate and effective service delivery options and settings. Improved access to and utilisation of services and programs which address Aboriginal and Torres Strait Islander harmful substance use issues in culturally specific ways. Enhanced treatment outcomes for Aboriginal and Torres Strait Islander people. Improved participation in allied health clinics and programs in regional, rural and remote locations by Aboriginal and Torres Strait Islander community members with alcohol and other drug related problems. Reduced potentially preventable hospitalisations from alcohol and other drugs amongst Aboriginal and Torres Strait Islander communities.	Environmental Health Agencies, NGOs, AMSs, ACCHOs and the PHN

Opportunities, priorities, and options

The following opportunities, priorities and options have been suggested based on the identified needs, however actual implementation of these depends on various factors such as available evidence base, ability to tailor it to local conditions, careful consideration of opportunity cost, and consultation/collaboration with PHN stakeholders. At the heart of implementation of these priorities will be the Aboriginal Service Providers, Aboriginal Community Controlled Organisations and Aboriginal Health Workers.

Priority	Possible Options	Expected Outcome	Potential lead agency and opportunities for collaboration and partnership
	Continue to invest in capacity building and cultural sensitivity training to service providers to enhance cultural competence and understanding of the historical, cultural and social factors that contribute to harmful substance use among Aboriginal and Torres Strait Islander populations.	More effective and patient-centred service delivery across the region to Aboriginal and Torres Strait Islander community members by culturally aware and safe clinicians.	
Key Issue: Identify local workforce that can connect with the communities can deliver better health outcomes. **Priority Area:** Health Workforce. **Priority sub-category:** Aboriginal and Torres Strait Islander Health	Work with organisations such as Health Workforce Queensland, ACCHOs, HHSs, Local and State Government to close the gap in workforce shortages across the region. Improve cultural competency of the workforce through the employment of Aboriginal and Torres Strait Islander mental health professionals at different levels within the sector and provision of appropriate training to support non-Aboriginal and Torres Strait Islander staff. Proactively develop partnerships with employing health care organisations, schools, universities, Local and State Government	Improved access to culturally competent staff for employing organisations. Greater numbers of qualified Aboriginal Health Workers and clinicians within the region. Availability of appropriate training courses e.g., Cert III, Cert IV and Diplomas in Aboriginal and Torres Strait Islander Primary Health Care, Aboriginal and Torres Strait Islander Health Worker, across the region. Aboriginal and Torres Strait Islander community members more engaged with the continuum of health care services.	Workforce training organisations, ACCHOs, HWQ, the PHN

Opportunities, priorities, and options

The following opportunities, priorities and options have been suggested based on the identified needs, however actual implementation of these depends on various factors such as available evidence base, ability to tailor it to local conditions, careful consideration of opportunity cost, and consultation/collaboration with PHN stakeholders. At the heart of implementation of these priorities will be the Aboriginal Service Providers, Aboriginal Community Controlled Organisations and Aboriginal Health Workers.

Priority	Possible Options	Expected Outcome	Potential lead agency and opportunities for collaboration and partnership
	bodies to facilitate the building of education and career pathways into primary health care.		
Key Issue: To keep up with changing policy and healthcare environments, workforce require continues professional development. **Priority Area:** Health Workforce. **Priority sub-category:** Aboriginal and Torres Strait Islander Health	Work with organisations such as Health Workforce Queensland, ACCHOs, HHSs, Local and State Government to close the gap in workforce shortages across the region. Work with training organisations and employers to provide access to suitable training opportunities for current Aboriginal and Torres Strait Islander health workers to develop their skills/professional development (including on the job, virtual, mentoring, and traditional training opportunities). In the needs assessment and strategy outlined above, address workforce development issues for Aboriginal and Torres Strait Islander workers and ensure strategies adopted are culturally safe.	Specific needs and strategies tailored to the Aboriginal and Torres Strait Islander workforce are identified and adopted, while ensuring alignment with the Queensland Aboriginal and Torres Strait Islander Health Workforce Strategic Framework. Increased Aboriginal and Torres Strait Islander mental health workforce in the region. Further advancement of Aboriginal and Torres Strait Islander workers through to Senior Clinical and Management positions.	Workforce training organisations, HWQ, the PHN

Opportunities, priorities, and options

The following opportunities, priorities and options have been suggested based on the identified needs, however actual implementation of these depends on various factors such as available evidence base, ability to tailor it to local conditions, careful consideration of opportunity cost, and consultation/collaboration with PHN stakeholders. At the heart of implementation of these priorities will be the Aboriginal Service Providers, Aboriginal Community Controlled Organisations and Aboriginal Health Workers.

Priority	Possible Options	Expected Outcome	Potential lead agency and opportunities for collaboration and partnership
Need Identified: Culturally competent mainstream services are needed to ensure best use of available services. **Priority Area:** Health Workforce. **Priority sub-category:** Aboriginal and Torres Strait Islander Health	Increase cultural competency training, including options to move from competency through to proficiency with immersion or other advanced training and capacity building. Collect regular stakeholder feedback on cultural competency and the appropriateness of services and providers. Ensure provision of culturally safe mainstream workplaces for Aboriginal and Torres Strait Islander health professionals.	Improved participation in cultural training and ability for all those who work in health services to improve their current level of cultural competency. Regular improvements made to mainstream services based on stakeholder feedback and audit data. Through cultural safe workplaces, an increase in Aboriginal and Torres Strait Islander employment, and subsequent potential for future provision of culturally appropriate services.	Workforce training organisations, trauma informed care training organisations, HWQ, the PHN
Priority 5: Chronic disease early identification and management			
Key Issue: Diabetes prevention and management: High proportion of people getting diagnosed with diabetes and associated high mortality. **Priority Area:** Aboriginal and Torres Strait Islander Health.	Use evidence-based strategies to address this on multiple levels (104): Primordial prevention: Ensure environmental health issues impacting health are being addressed.	Improvement in diabetes related health literacy. Reduction in overweight and obesity. Early diagnosis and treatment of high blood sugar levels and diabetes.	GPs, HHSs, AMSs, ACCHOs , school literacy programs

Opportunities, priorities, and options

The following opportunities, priorities and options have been suggested based on the identified needs, however actual implementation of these depends on various factors such as available evidence base, ability to tailor it to local conditions, careful consideration of opportunity cost, and consultation/collaboration with PHN stakeholders. At the heart of implementation of these priorities will be the Aboriginal Service Providers, Aboriginal Community Controlled Organisations and Aboriginal Health Workers.

Priority	Possible Options	Expected Outcome	Potential lead agency and opportunities for collaboration and partnership
Priority sub-category: Chronic Disease	Primary prevention: Reduction of unhealthy behaviours hence reduction in overweight and obesity. Secondary prevention: Ensuring access to regular checks by implementing screening initiatives for individuals at greatest risk of diabetes, including those with a family history or previous gestational diabetes. Plus, glycaemic control and improving health literacy around diabetes and complications. Tertiary prevention: Early detection and treatment of diabetic complications. Establish health pathways for diabetes care across care continuum.	Early detection of diabetes related complications. Reduction in diabetes related hospitalisations.	
Key Issue: Chronic Kidney Disease (CKD): Burden of CKD is higher in Aboriginal and Torres Strait Islander population and diabetes and high blood pressure are the most common causes of CKD. Smoking is another risk factor.	Early identification and treatment of diabetes and high blood pressure as CKD risk factors. Promote healthy lifestyle including quitting smoking and reduction in alcohol intake. Lay groundwork for effective and acceptable programs (105).	Improve lifestyle including reduction in smoking and alcohol intake. Early diagnosis of high blood sugar and high blood pressure.	GPs, HHSs, AMSs, ACCHOs

Opportunities, priorities, and options

The following opportunities, priorities and options have been suggested based on the identified needs, however actual implementation of these depends on various factors such as available evidence base, ability to tailor it to local conditions, careful consideration of opportunity cost, and consultation/collaboration with PHN stakeholders. At the heart of implementation of these priorities will be the Aboriginal Service Providers, Aboriginal Community Controlled Organisations and Aboriginal Health Workers.

Priority	Possible Options	Expected Outcome	Potential lead agency and opportunities for collaboration and partnership
Priority Area: Aboriginal and Torres Strait Islander Health **Priority sub-category:** Early Intervention and prevention			
Key Issue: Eye health: Blindless due to preventable causes is one of the main reasons for lower quality of life and disability. **Priority Area:** Aboriginal and Torres Strait Islander Health. **Priority sub-category:** Access	Increase access to optometrist and ophthalmologist in regular and timely manner. Ensure diabetes control to promote reduction in diabetes retinopathy. Early identification and treatment of cataract to prevent blindness. Early identification of refractive error can be addressed in time by surgical interventions (106).	Reduced blindness due to avoidable causes.	GPs, HHSs, AMSs, ACCHOs, optometrists, specialists

7. References

1. Central Queensland Wide Bay Sunshine Coast PHN. 'Have a yarn about health Community Health Survey for Aboriginal and Torres Strait Island People'. 2020.
2. Central Queensland Wide Bay Sunshine Coast PHN. Stakeholder Survey for Health Needs Analysis 2020.
3. Central Queensland Wide Bay Sunshine Coast PHN. General Survey for Health Needs Analysis 2020.
4. Foley W, Schubert L, editors. Applying strengths-based approaches to nutrition research and interventions in Indigenous Australian communities2013.
5. Australian Bureau of Statistics. 1270.0.55.002 - Australian Statistical Geography Standard (ASGS): Volume 2 - Indigenous Structure, July 2016 2016 [
6. AIHW. Indigenous health and wellbeing, in Chapter 6 Indigenous Health. Australia's Health 20182018.
7. QGSO (Queensland Government Statistician's Office). Queensland regional profiles. Indigenous Profile PHN region compared with Queensland. Created 7th Dec 2020 2020.
8. Public Health Information Development Unit. Social health atlas of Australia 2020 [Available from: https://phidu.torrens.edu.au/social-health-atlases/topic-atlas#indigenous-status-comparison-social-health-atlas-of-australia.
9. AIHW. Australia's Health 2020. Indigenous life expectancy and deaths. 2020 [Available from: https://www.aihw.gov.au/reports/australias-health/indigenous-life-expectancy-and-deaths.
10. Australian Government. Closing the Gap Report. 2020 [Available from: https://ctgreport.niaa.gov.au/life-expectancy.
11. Wilkinson R, Marmot M. Social determinants of health, The solid facts. 2 ed2003.
12. Gray D, Saggers S, Atkinson D, Wilkes E. Substance misuse. In: Couzos S, Murray R, editors. Aboriginal primary health care: An evidence-based approach. 3 ed. South Melbourne: Oxford University Press; 2008. p. 755-87.
13. AIHW. Australia's Health 2018, Chapter 6.7 Size and sources of the Aboriginal and Torres Strait Islander health gap. 2018.
14. QGSO (Queensland Government Statistician's Office). QGSO regional profles_7th Dec 2020 based on Source: ABS, Census of Population and Housing, 2016, unpublished data (usual residence). 2020.
15. Vandenbroek P. Aboriginal and Torres Strait Islander people at work: Parliament of Australia 2021 [Available from: https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/FlagPost/2021/August/ATSI_people_at_work.
16. AIHW. Aboriginal and Torres Strait Islander Health Performace Framework. Tier 2-Determinants of health. 2.05 Education outcomes for young children 2020 [Available from: https://www.indigenoushpf.gov.au/measures/2-05-education-outcomes-young-people.
17. AIHW. Australia's Health 2016. Canberra: AIHW; 2016.
18. Liotta M. Overcrowding leads to poorer health outcomes for Aboriginal and Torres Strait Islander peoples 2018 [Available from: https://www1.racgp.org.au/newsgp/racgp/overcrowding-a-key-determinant-of-poor-health-outc.
19. Pholeros P, Rainow S, Torzillo P. Housing for health: Towards a healthy living environment for Aboriginal Australia.
. Newport Beach, NSW, Australia: Healthabitat; 1993.
20. Clough A, Grant K, Robertson J, Wrigley M, Nichols N, Fitzgibbon T. Interventions to encourage smoke-free homes in remote Indigenous Australian communities: A study protocol to evaluate the effects of a community-inspired awareness-raising and motivational enhancement strategy. BMJ Open. 2018;8(3):e018955.
21. Commission on Social Determinants of Health. Closing the gap in a generation: Health equity through action on the social determinants of health. Final report of the Commission on Social Determinants of Health. Geneva: World Health Organization; 2008.
22. AIHW. Health and ageing of Australia's prisoners 2018 2020 [Available from: https://www.aihw.gov.au/getmedia/1656721b-e93e-42f2-8f2c-3d6fafe647e6/aihw-phe-269.pdf.aspx?inline=true.
23. Queensland Productivity Commission. Inquiry into imprisonment and recidivism. 2019 [Available from: https://qpc.blob.core.windows.net/wordpress/2020/01/FINAL-REPORT-Imprisonment-Volume-I-.pdf.

24. AIHW. Youth Justice in Australia 2018–19 Canberra: AIHW; 2020 [Cat. no. JUV 132:[Available from: https://www.aihw.gov.au/getmedia/a5a364b9-fe69-4d02-9c93-1965a69a3d93/aihw-juv-132.pdf.aspx?inline=true.
25. AIHW. Aboriginal and Torres Strait Islander Health Performance Framework 2020 summary report. Canberra: AIHW; 2020 [Available from: https://www.aihw.gov.au/reports/australias-health/australias-health-2020-data-insights/contents/summary.
26. Australian Bureau of Statistics. Disability and violence-In focus: Crime and justice statistics 2021 [Available from: https://www.abs.gov.au/statistics/people/crime-and-justice/focus-crime-and-justice-statistics/latest-release.
27. Marmot M. Understanding social inequalities in health. . Perspectives in Biology and Medicine 2003;46(3):S9-S23.
28. Elder G, Johnson M, Crosnoe R. The emergence and development of life course theory. In: J. M, M. S, editors. Handbook of the life course. Handbooks of Sociology and Social Research. Boston, MA: Springer; 2003.
29. AIHW. Child protection Australia 2018–19. Canberra: AIHW; 2020.
30. The Common Ground. Connection to Country 2021 [Available from: https://www.commonground.org.au/learn/connection-to-country.
31. Commonwealth of Australia. Social and economic determinants of harmful alcohol use. Inquiry into the harmful use of alcohol in Aboriginal and Torres Strait Islander communities: Alcohol, hurting people and harming communities 2015 [Available from: https://www.aph.gov.au/Parliamentary_Business/Committees/House/Indigenous_Affairs/Alcohol/Report.
32. Australian Health Ministers' Advisory Council. Cultural Respect Framework 2016–26 for Aboriginal and Torres Strait Islander health: A national approach to building a culturally respectful health system. Canberra: AHMAC; 2016.
33. Department of Health. National Aboriginal and Torres Strait Islander Health Plan 2013–2023. Canberra: Australian Government.; 2013 [Available from: https://www.health.gov.au/resources/publications/national-aboriginal-and-torres-strait-islander-health-plan-2013-2023.
34. Queensland Health. The burden of disease and injury in Queensland's Aboriginal and Torres Strait Islander people 2017 (reference year 2011), Main report Brisbane: Queensland Health; 2017 [Available from: https://www.health.Qld.gov.au/__data/assets/pdf_file/0024/660840/BoD-MainReport-FINAL.pdf.
35. AIHW. Aboriginal and Torres Straits Islander Health Performance Framework 2020. Measures, high blood pressure. 2020 [Available from: https://www.indigenoushpf.gov.au/measures/1-07-high-blood-pressure.
36. Delpierre C, Lauwers-Cances V, Datta G, Lang T, Berkman L. Using self-rated health for analysing social inequalities in health: A risk for underestimating the gap between socioeconomic groups? Journal of Epidemiology and Community Health. 2009;63:426–32.
37. AIHW. Aboriginal and Torres Strait Islander Health Performance Framework 2020 Key health indicators—Queensland. Canberra; 2020.
38. AIHW. Australia's Health 2018. Canberra: AIHW; 2018.
39. AIHW. Disability support services: Services provided under the National Disability Agreement 2017-18, No. 147 2019 [Available from: https://www.aihw.gov.au/reports/dis/73/disability-support-services-2017-18/contents/table-of-contents.
40. Australian Aboriginal and Torres Strait Islander HealthInfoNet. Overview of Aboriginal and Torres Strait Islander health status, 2017. Perth, WA. 2018 [Available from: https://healthinfonet.ecu.edu.au/learn/health-facts/overview-aboriginal-torres-strait-islander-health-status/.
41. Australian Bureau of Statistics. National Aboriginal and Torres Strait Islander Health, Australia, 2018–19. ABS cat. no. 4715.0.55.001. Findings based on detailed microdata analysis. Canberra: ABS; 2020.
42. West M, Chuter V, Munteanu S, Hawke F. Defining the gap: A systematic review of the difference in rates of diabetes-related foot complications in Aboriginal and Torres Strait Islander Australians and non-Indigenous Australians. Journal of Foot and Ankle Research 2017;10(48).
43. Australian Bureau of Statistics. National Aboriginal and Torres Strait Islander Health Survey 2018-19 2019 [Available from: https://www.abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/national-aboriginal-and-torres-strait-islander-health-survey/latest-release#mental-health.

44. AIHW. Profiles of Aboriginal and Torres Strait Islander people with kidney disease Canberra: AIHW; 2020 [Available from: https://www.aihw.gov.au/getmedia/ca29cd5a-a0f8-46a7-84af-698675002175/aihw-ihw-229.pdf.aspx?inline=true.
45. AIHW. Indicators for the Australian National Diabetes Strategy 2016-2020: Data update - Data tables AIHW National Hospital Morbidity Database 2020 [Available from: https://www.aihw.gov.au/reports/diabetes/diabetes-indicators-strategy-2016-2020/contents/technical-information.
46. AIHW. Aboriginal and Torres Strait Islander injury deaths: 2011–12 to 2015–16 Canberra: AIHW; 2020 [Available from: https://www.aihw.gov.au/reports/injury/indigenous-injury-deaths-2011-12-to-2015-16/data.
47. AIHW. Acute rheumatic fever and rheumatic heart disease in Australia, 2013-2017 Canberra: AIHW; 2019 [Available from: https://www.aihw.gov.au/reports/Aboriginal and Torres Strait Islander-australians/acute-rheumatic-fever-rheumaticheart-disease.
48. AIHW. Aboriginal and Torres Strait Islander eye health measures 2018, 22nd July 2019 edition 2019 [Available from: https://www.aihw.gov.au/getmedia/eae99357-a549-40ae-9d51-64998d74238e/aihw-ihw-210.pdf.aspx?inline=true.
49. AIHW. Indicators for the Australian National Diabetes Strategy 2016–2020: Data update Canberra: AIHW; 2020 [Available from: https://www.aihw.gov.au/getmedia/b74d08ae-96c2-4bd6-b8e4-84c5e825bea3/CVD81-data-update.pdf.aspx?inline=true.
50. Burns J, Thomson N. Review of ear health and hearing among Indigenous Australians. Australian Indigenous HealthInfoNet. 2013.
51. Jamieson L, Sayers S. Oral health investigations of indigenous participants in remote settings: A methods paper describing the dental component of wave III of an Australian Aboriginal birth cohort study. BMC Oral Health. 2008;8(1):1-8.
52. Roberts-Thomson K, Spencer A, Jamieson L. Oral health of Aboriginal and Torres Strait Islander Australians. Medical Journal of Australia. 2008;188(10):592.
53. Williams S, Jamieson L, MacRae A, Gray A. Review of Indigenous oral health. Australian Indigenous HealthBulletin. 2011;11(2).
54. Department of Health. Fifth National Aboriginal and Torres Strait Islander Blood Borne Viruses and Sexually Transmissible Infections Strategy 2018-2021. 2017 [Available from: https://www1.health.gov.au/internet/main/publishing.nsf/Content/ohp-bbvs-1/$File/ATSI-Fifth-Nat-Strategy-2018-22.pdf.
55. The Kirby Institute. Aboriginal surveillance report on HIV, viral hepatitis and STIs 2017 2017 [Available from: https://kirby.unsw.edu.au/report/aboriginal-surveillance-report-hiv-viral-hepatitis-and-stis-2017.
56. Public Health Information Development Unit. Indigenous status comparison: Social health atlas of Australia: Premature deaths 2020 [Available from: https://phidu.torrens.edu.au/social-health-atlases/topic-atlas/indigenous-status-atlas#premature-mortality.
57. Healing Foundation. Impacts of COVID-19 on Stolen Generations survivors. 2021 [Available from: https://healingfoundation.org.au/app/uploads/2021/04/HF_Impacts_of_COVID-19_on_Stolen_Generations_Survivors_Report_Apr2021_V5.pdf.
58. AIHW. Alcohol, tobacco & other drugs in Australia Canberra: AIHW; 2021 [Available from: https://www.aihw.gov.au/reports/alcohol/alcohol-tobacco-other-drugs-australia/contents/impact-of-covid-19-on-alcohol-and-other-drug-use.
59. AIHW. Australia's mothers and babies 2018: In brief Canberra: AIHW; 2020 [Available from: https://www.aihw.gov.au/reports/mothers-babies/australias-mothers-and-babies-2018-in-brief/summary.
60. AIHW. Antenatal care use and outcomes for Aboriginal and Torres Strait Islander mothers and their babies 2016-2017. Canberra: AIHW; 2020.
61. Tiller E, Fildes J, Hall S, Hicking V, Greenland N, Liyanarachchi D, et al. Youth survey report 2020. Sydney, NSW: Mission Australia; 2020.
62. AIHW. Aboriginal and Torres Strait Islander adolescent and youth health and wellbeing, p. 245. Canberra, ACT; 2018.
63. QGSO (Queensland Government Statistician's Office). Aboriginal peoples and Torres Strait Islander peoples: Population estimates and projections, 2015 data 2015 [Available from: https://www.qgso.Qld.gov.au/statistics/theme/population/aboriginal-peoples-torres-strait-islander-peoples/population-estimates-projections.
64. AIHW. Insights into vulnerabilities of Aboriginal and Torres Strait Islander people aged 50 and over: 2019 Canberra: AIHW; 2019 [Available from: https://www.aihw.gov.au/getmedia/a87628df-a3ea-4e9c-8453-892d6f3c6fdc/aihw-ihw-207.pdf.aspx?inline=true.

65. AIHW. Australian Burden of Disease Study: Impact and causes of illness and death in Australia 2015. Canberra: AIHW; 2019.
66. Public Health Information Development Unit. Aboriginal & Torres Strait Islander data by PHN Emergency department presentations, total - by principal diagnosis, 2017-18. 2020.
67. Productivity Commission. Mental Health Canberra2020 [Available from: https://www.pc.gov.au/inquiries/completed/mental-health/report/mental-health.pdf
68. AIHW. Suicide and self-harm monitoring, National Mortality Database: Table NHMD S5: Intentional self-harm hospitalisations, by Indigenous status, age and sex, 2008–09 to 2019–20. 2021.
69. AIHW. Suicide and self-harm monitoring, National Mortality Database-Suicide: Table NMD S7: Suicide (ICD 10 X60–X84, Y87.0), by year of registration of death, Aboriginal and Torres Strait Islander status and sex, Australia, 2001 to 2019. 2020.
70. Leske S, Adam G, Schrader I, Catakovic A, Weir B, Crompton D. Suicide in Queensland: Annual report 2020. Brisbane, Queensland, Australia: Australian Institute for Suicide Research and Prevention, School of Applied Psychology, Griffith University.; 2020.
71. AIHW. Chronic obstructive pulmonary disease (COPD), associated comorbidities and risk factors Canberra: AIHW; 2020 [Available from: https://www.aihw.gov.au/reports/chronic-respiratory-conditions/copdassociated-comorbidities-risk-factors
72. AIHW. Mental health services in Australia, 2020: Services provided in public hospital emergency departments 2019-20. 2021.
73. AIHW. National Drug Strategy Household Survey 2016: Detailed findings Canberra. 2017 [Available from: https://www.aihw.gov.au/reports/illicit-use-of-drugs/2016-ndshs-detailed/summary.
74. Australian Aboriginal and Torres Strait Islander HealthInfoNet. Summary of methamphetamine use among Aboriginal and Torres Strait Islander people Perth, WA: Australian Aboriginal and Torres Strait Islander HealthInfoNet; 2020 [Available from: https://aodknowledgecentre.ecu.edu.au/healthinfonet/getContent.php?linkid=644828&title=Summary+of+methamphetamine+use+among+Aboriginal+and+Torres+Strait+Islander+people&contentid=40563_1.
75. Queensland Health. Queensland Health methamphetamine paper Brisbane: State of Queensland; 2017 [Available from: https://www.health.qld.gov.au/__data/assets/pdf_file/0021/641316/methpaper.pdf.
76. Australian Institute of Health and Welfare. Alcohol Risk and Harm 2020 [Available from: https://www.aihw.gov.au/reports/aus/234/determinants-of-health/alcohol-risk-and-harm.
77. Australian Institute of Health and Welfare. Alcohol, tobacco & other drugs in Australia 2021 [Cat. no: PHE 221. Web report: Priority populations:[Available from: https://www.aihw.gov.au/reports/alcohol/alcohol-tobacco-other-drugs-australia/contents/about.
78. Department of Health. Providing culturally appropriate palliative care to Aboriginal and Torres Strait Islander peoples: Resource kit 2007 [Available from: https://webarchive.nla.gov.au/awa/20140801064435/http://www.health.gov.au/internet/main/publishing.nsf/Content/palliativecare-pubs-indig-resource.htm.
79. Queensland Health. Palliative care for Aboriginal & Torres Strait Islander Peoples Brisbane: Centre for Palliative Care Research and Education; 2021 [Available from: https://www.health.qld.gov.au/cpcre/indig_pc
80. AIHW. Palliative care services in Australia, 2021 2021 [Available from: https://www.aihw.gov.au/reports/palliative-care-services/palliative-care-services-in-australia/data.
81. Department of Health. Childhood immunisation coverage data, 2021 2021 [Available from: https://www.health.gov.au/resources/collections/childhood-immunisation-coverage-data-phn-and-sa3#phn-data-by-year.
82. AIHW. Aboriginal and Torres Strait Islander Health Performance Framework. Early detection and early treatment 2020 [Available from: https://www.indigenoushpf.gov.au/measures/3-04-early-detection-early-treatment.
83. AIHW. Cultural safety in healthcare: Monitoring framework, Supplementary tables 2020 [Available from: https://www.aihw.gov.au/reports-data/population-groups/Aboriginal and Torres Strait Islander-australians/data?page=2
84. AIHW. National Bowel Cancer Screening Program: Monitoring report 2020 Canberra2020 [Available from: https://www.aihw.gov.au/reports/cancer-screening/national-bowel-cancer-screening-monitoring-2020/contents/summary.
85. AIHW. Indigenous health checks and follow-ups 2021 [Available from: https://www.aihw.gov.au/reports/indigenous-australians/indigenous-health-checks-follow-ups/data.

86. AIHW. Aboriginal and Torres Strait Islander health checks and follow-ups 2021 [Available from: https://www.aihw.gov.au/reports/indigenous-australians/indigenous-health-checks-follow-ups/data.
87. AIHW. Cultural safety in health care: monitoring framework (2021 release) 2021 [Available from: https://www.aihw.gov.au/reports/indigenous-australians/cultural-safety-health-care-framework/contents/summary
88. AIHW. Emergency department care 2017–18: Australian hospital statistics. Health services series no. 89. Cat. no. HSE 216. Canberra: AIHW.; 2018.
89. Aboriginal and Torres Strait Islander and Non-Indigenous Presentations to Australian Emergency Departments [press release]. Department of Policy, Research and Advocacy, 2018.
90. Queensland Health. Aboriginal and Torres Strait Islander Health Workforce Strategic Framework 2016–2026. 2016 [Available from: https://www.health.Qld.gov.au/__data/assets/pdf_file/0023/628340/aboriginal-torres-strait-islander-workforce-framework.pdf.
91. Central Queensland Wide Bay Sunshine Coast PHN. Service mapping of primary care services within the PHN. 2021.
92. Creative Spirits. Mental Health and Aboriginal people. https://www.creativespirits.info/aboriginalculture/health/mental-health-and-aboriginal-people 2021 [
93. Jones NL, Gilman SE, Cheng TL, Drury SS, Hill CV, Geronimus AT. Life Course Approaches to the Causes of Health Disparities. Am J Public Health. 2019;109(S1):S48-S55.
94. Education Council. National Aboriginal and Torres Strait Islander Education Strategy 2015. 2015.
95. AHPRA and National Boards. The National Scheme's Aboriginal and Torres Strait Islander Health and Cultural Safety Strategy 2020-2025. 2020.
96. Department of Health. National Strategic Framework for Aboriginal and Torres Strait Islander Peoples' Mental Health and Social and Emotional Wellbeing: 2017-2013. 2017.
97. Queensland Health. Queensland Health Aboriginal and Torres Strait Islander Mental Health Strategy 2016–2021. . 2016.
98. Department of Health. National Alcohol Startegy 2019-2028. A national framework to prevent and minimise alcohol-related harms among individuals, families and communities. 2019.
99. Intergovernmental Committee on Drugs. National Aboriginal and Torres Strait Islander Peoples' Drug Strategy 2014 - 2019 2014.
100. Queensland Health. Growing Deadly Families Aboriginal and Torres Strait Islander Maternity Services Strategy 2019 — 2025. 2019.
101. Department of Aboriginal and Torres Strait Islander Partnerships. Moving Ahead: A strategic approach to increasing the participation of Aboriginal people and Torres Strait Islander people in Queensland's economy 2016–2022. Queensland Government 2016.
102. Jayakody A, Oldmeadow C, Carey M, Bryant J, Evans T, Ella S, et al. Frequent avoidable admissions amongst Aboriginal and non-Aboriginal people with chronic conditions in New South Wales, Australia: a historical cohort study. BMC Health Services Research. 2020;20(1):1082.
103. Australian Aboriginal and Torres Strait Islander HealthInfoNet. Environmental health n.d. [Available from: https://healthinfonet.ecu.edu.au/learn/determinants-of-health/environmental-health/.
104. Dornhorst A, Merrin P. Primary, secondary and tertiary prevention of non-insulin-dependent diabetes. Postgraduate Medical Journal. 1994;70:529-35.
105. Reilly R, Evans K, Gomersall J, Gorham G, Peters M, Warren S, et al. Effectiveness, cost effectiveness, acceptability and implementation barriers/enablers of chronic kidney disease management programs for Indigenous people in Australia, New Zealand and Canada: A systematic review of mixed evidence. BMC Health Service Research. 2016;16.
106. The Department of Health. Specialist eye health guidelines for use in Aboriginal and Torres Strait Islander populations Canberra2001 [Available from: https://www1.health.gov.au/internet/main/publishing.nsf/Content/health-oatsih-pubs-sehg.htm1.