phn NORTHERN TERRITORY

An Australian Government Initiative

NT PHN PROGRAM NEEDS ASSESSMENT 2019

Incorporating:

Mental Health and Suicide

Psychosocial Support

AOD

Practice Support

After Hours

CONTENTS

EXECUTIVE SUMMARY

Northern Territory PHN (NT PHN) is pleased to present this 2019 review and update to our needs assessments, which are presented here in one comprehensive document. This needs assessment report represents a selective review and update where some material has been comprehensively reviewed, new population health topics have been included, and most statistics have been reviewed and updated where new information is available. The associated priorities and options have also been reviewed and adjusted accordingly. The document has been restructured since the 2018 submission to improve the information flow and facilitate the preparation and integration of more focussed pieces of work to address specific issues throughout our continuous cycle of needs assessment. As a result of this restructure, it should be noted that **all priority page numbers have changed from the previous document**.

The Alcohol and Other Drugs, Psychosocial and After-hours needs assessments have been comprehensively reviewed. New inclusions have incorporated social determinants of health, which are acknowledged as significant influencing factors for the primary health care system and NT PHN's role in commissioning services. In particular, this new work includes chronic pain, sexual health and blood-borne viruses, disability and domestic violence. This has contributed to a more in depth understanding of these topics in the context of the Northern Territory health system. Ongoing commissioning work, and the increasing availability and integration of more up to date and localised data since the original submission, have further informed this update and contributed to the revised priorities and options.

Summary of changes:

<u>Alcohol and Other Drugs</u>

- Significant restructure and review
  - Merged some sections, deleted some sub-sections
  - Reviewed and updated data where new data was available
- Highlight the key national drug trends and use monitoring mechanisms
- Updated the NT policy and reviews and situated against the National policies and strategies e.g. National FASD Action Plan 2018 – 2028 / Addressing FASD in the Northern Territory 2018 – 24
- Updated with data from the 'Demand Study for Alcohol Treatment Services and The Social and Economic Costs of Alcohol Consumption in the NT' (Menzies)
- Add domestic, family and sexual violence discussion in the 'Alcohol Consumption and Associated Harm' section
- Included information from NT Tobacco Action Plan in the 'Tobacco' section
- Updated data in 'Cannabis', 'Amphetamine-type stimulants', 'Opioids' and 'Volatile Substance Use'
- Restructured the 'Substance Use and Mental Health' section with a focus on national and local data and rates of use among people with a diagnosis
- Included updated findings from the NT (Darwin) IDRS (Illicit drug reporting system) from 2018

- Updated data included in the 'People in Contact with the Criminal Justice System' section
- Restructured the 'AOD Service Sector' section that includes treatment trends and related issues such as pharmacotherapy, workforce and pressure on acute services
- Included information from the NT PHN Northern Territory Alcohol and Other Drug Workforce Development Strategic Framework
- Reviewed and revised the priority areas and expected outcomes – the focus of the priority areas have not significantly changed, however they have been amended or revised where they have already been achieved, or assessed as no longer relevant, and expanded where we have moved into the next phase:
    - Domestic violence-related priorities have been removed from this topic and included in the dedicated 'Domestic, Family and Sexual Violence' topic

<u>Mental Health</u>

- Moderately restructured and comprehensively reviewed
    - Reviewed, amended and updated data
- Included the national policy context with reference to the regional planning collaboration
    - Included reference to the NT Mental Health (revised version) and Suicide Prevention frameworks
    - Included reference to the Productivity Commission review
- Updated the data sources
- Incorporated and added new prevalence data and added tables (both mental health and suicide prevention)
    - Where possible restructure to reflect national prevalence data and make comparisons with NT data
- Included findings from the 'Diverse Sexuality and Gender Identity Health Needs Assessment'
- Included a new section on Eating disorders
- Reviewed and revised the priority areas and expected outcomes
    - the focus of the priority areas has not significantly changed
    - The number of discrete priorities (previously 30+) has been reduced by
    - the priority areas and outcomes for the National Suicide Prevention Trial have been updated to reflect the move into commissioning services

<u>Psychosocial Support</u>

- Restructure and review, incorporating CoS and Interface funding considerations
    - Removed extensive regional demand calculations for NPSM (no longer relevant)
    - Included outcomes from regional Psychosocial Co-design Workshops
    - Note that NT PHN has an integrated commissioning strategy for all psychosocial support funding
- Updated data to reflect statistics gathered from services at commencement of NPSM rollout, and subsequent NDIS transition rates and projections
- Psychosocial services mapped by region
- Barkly region added to geographic priorities
- Priority around capacity building of AOD services (#8.3 in 2018) changed to be inclusive of all complementary services

After Hours

- Full review and update
- Material condensed and streamlined
    - Removed individual service mapping material
- Updated program initiatives
- Incorporated consultation and learnings from the commissioning process
- Updated information and statistics, particularly current after-hours activity
    - Including Medicare and Healthdirect Helpline
- Priorities and options table developed in line with Key Priority Areas from previous needs assessment

Population Health

- All material reviewed, minor changes and data updates as appropriate
- New topics/material added with associated priorities identified:
    - Sexual health and Blood Borne Viruses
    - Domestic, family and sexual violence (DFSV)
    - Chronic pain
    - Disability
    - Population Cohorts
    - Veterans
    - Asthma
- People with Diverse Sexuality and Gender Identity
    - Renamed from LGBTQI
    - Significant rewrite to incorporate material from focussed needs assessment work conducted throughout 2019
    - Priorities and options updated to reflect recommendations from focussed needs assessment
- Population Health Systems and Services
    - General Practice reviewed and statistics updated
        - Including PIP QI and other incentive programs
        - Priorities adjusted to reflect ongoing work, minor rewording
        - Priority around after-hours access removed – covered in After Hours section
- Digital Health
    - Material updated and expanded to reflect Territory-wide initiatives
    - Priority language adjusted to cover a broader area of digital innovation
    - Priority added 'Understanding the digital landscape'

1. INTRODUCTION

NT PHN is committed to improving the coordination and integration of care throughout the Northern Territory (NT). The NT covers an area of 1,364,000 km^2, comprising 17 Local Government Areas (LGAs) and a total population of approximately 245,000. Health service delivery is often grouped by locally defined regions, which are illustrated in Figure 1a along with the locations of the main regional centres and other communities, predominantly Aboriginal and Torres Strait Islander communities.

According to 2016 Census data, there is a slightly higher percentage of males (52%) than females (48%) in the NT, and the median age is 32 years. Aboriginal and Torres Strait Islander peoples (hereafter referred to as Aboriginal) make up an estimated 30% of the population (over 74,000 people), significantly higher than the national average of 3.3%.[1]

The NT experiences a high turnover of residents, both seasonally and over longer durations. There is also a significant tourist influx, particularly during the northern Dry Season. Two groups that are more likely to spend extended time in the region are international backpackers and so-called 'grey nomads'.

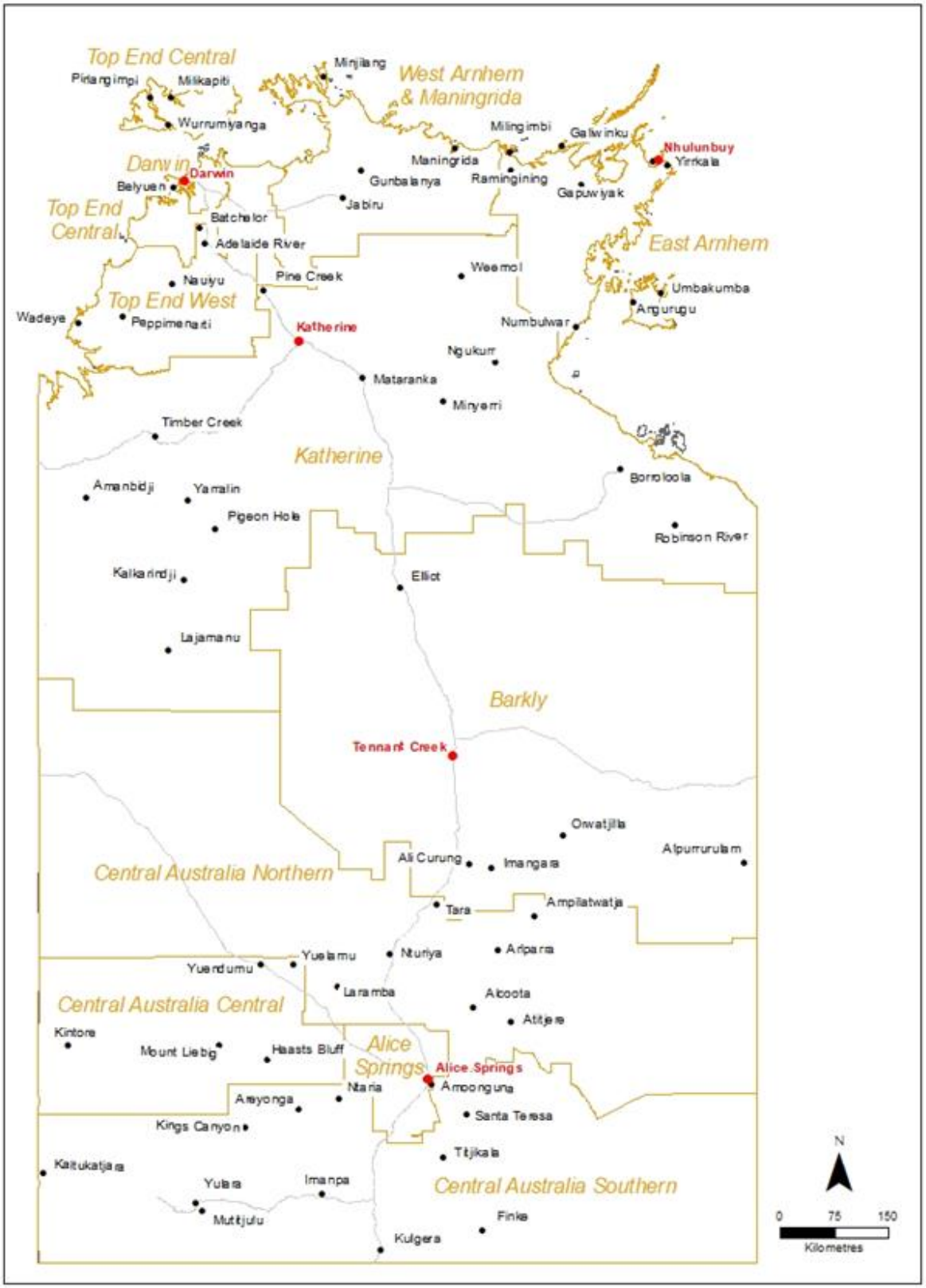
Changing community profile

The estimated resident population of the NT at the end of March 2019 was approximately 245,600 persons.[2] This represents a very slight decrease (0.4%) from the previous year, mainly driven by interstate and overseas migration loss.

In 2017-18, Palmerston (21.6%) and Lyons (6.9%) SA2 areas experienced the largest and fastest growth in population.[3] Preliminary population projections suggest that the total population of the NT will increase by 0.5% every year to reach over 350,000 by the year 2046. The Aboriginal population is projected to increase from the current 74,000 to over 104,000 by 2014, at an annual rate of 1.1%.[4]

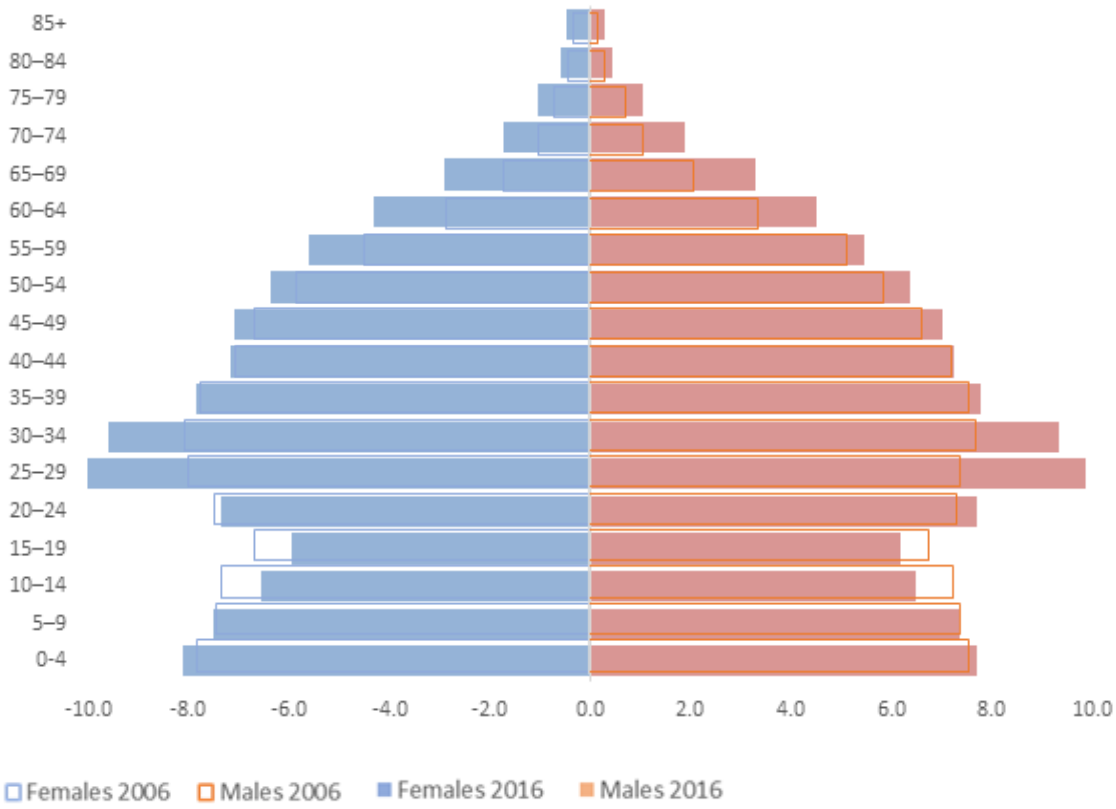
The structure of the population has also altered slightly over the past 10 years. By 2016, the proportion of the population aged 25-35 had increased noticeably along with the population aged over 55, while there have been notable decreases in the proportion of children and young people aged <25, and adults aged 35-50. The gender proportions are similar at both time points (Figure 1b).[5]

Figure 1a: Key communities and health region boundaries, Northern Territory.



Source: Compiled by NT PHN.

Figure 1b: Age and Sex Distribution (%), Northern Territory, 2006 and 2016.



Source: Compiled by NT PHN from Australian Bureau of Statistics estimated resident population statistics.[5]

Some of the unique characteristics of the NT environment and key population groups are outlined below:

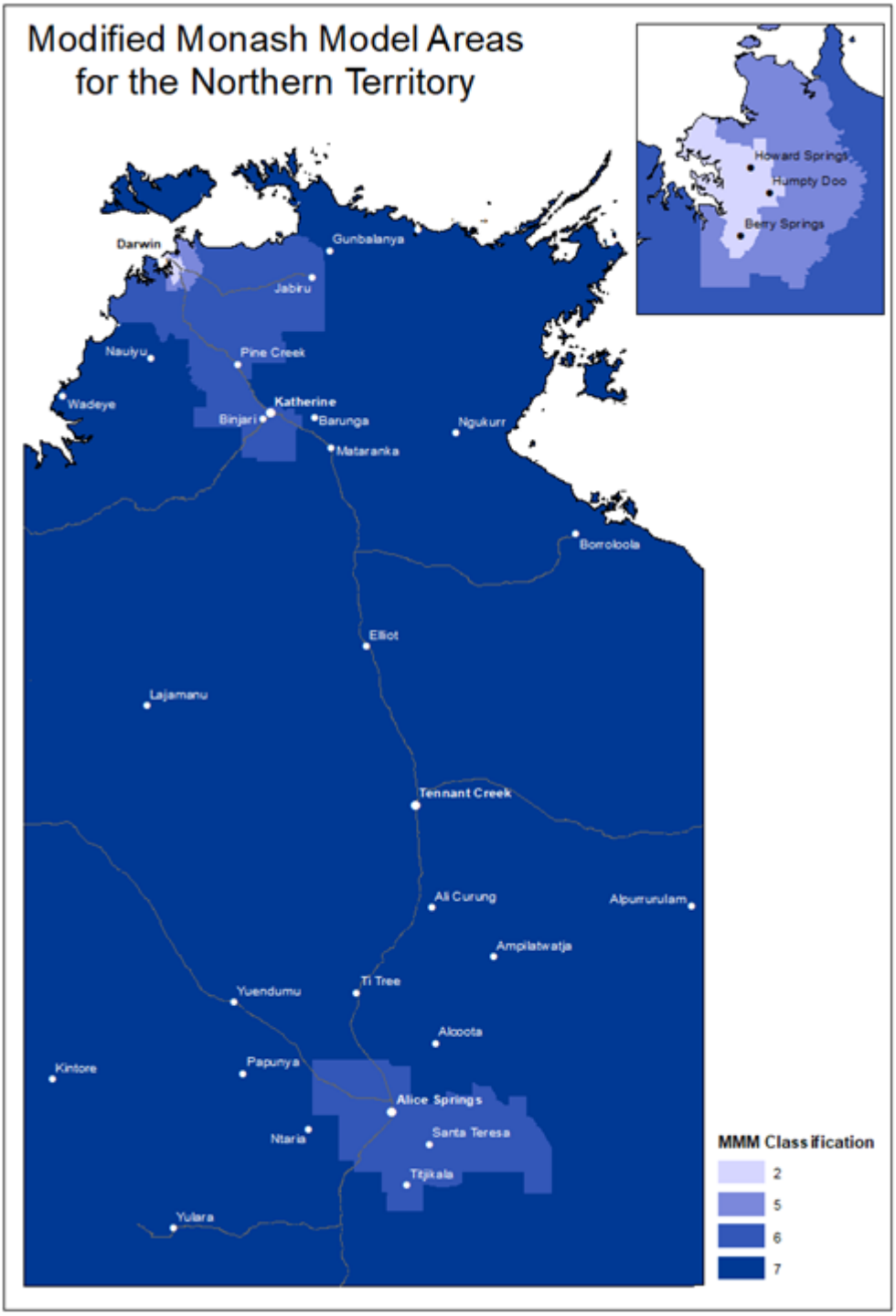
<u>Remoteness</u>

According to the Modified Monash Model (MMM) classification (Figure 1.3), the majority of the NT falls within categories 6 and 7. However, the majority of the population (57%, over 130,000 people) live within the category 2 region covering Darwin and surrounds. Alice Springs, Katherine and surrounding areas fall within category 6 (18.4%, over 41,000 people), and there is a small area of category 5 surrounding the greater Darwin region which covers 3% of the population. The most remote category 7 covers the bulk of the geographical area of the NT and includes over 47,000 people (21% of the population).[6]

People who live in remote and very remote areas experience poorer health outcomes including increased number of potentially preventable hospitalisations (PPH) (2.5 times as high as major cities), shorter life expectancy, lack of and barriers to accessing general practitioners (GPs) and specialists, and increased total disease burden (1.4 times as high). Social determinants of health including income, employment and education level, and modifiable risk factors including smoking, overweight and obesity, alcohol consumption and diet also decrease with increasing level of remoteness.[7]

Territorians, particularly Aboriginal people, can experience challenges when accessing care across borders, particularly around language and cultural safety issues.[8]

Figure 1c: Modified Monash Model (MMM), Northern Territory.



Source: Compiled by NT PHN using data from the Australian Government Department of Health via www.doctorconnect.gov.au.[6]

Transience

The NT has a highly transient population, with 17% of NT residents in 2016 reporting that they lived at a different address one year ago (national average 15%).[9] NT mobility reflects two discrete types of migration:

- Transient movement, largely of Aboriginal people, to/from and between homelands, remote communities and regional towns (including Darwin). This movement is often seasonal and may involve cultural obligations, visiting kin, accessing services, climate-driven relocation, or a combination of any of these.
- Economic relocation of a short-term workforce who come to the NT for a specific contract or position and leave again after several months or years. These workers are often employed in the construction and mining industry, but many are health, other professionals, or in the armed forces. There are also a number of international backpackers who take short-term employment predominantly in the hospitality industry. These short-term workers contribute to the 'bulge' in the population pyramid of people aged 25-34. (Figure 1b)

This transient population poses unique challenges to the implementation and maintenance of an integrated and coordinated primary health system, as continuity of care is difficult to maintain, and records are not always easily transferred.

Aboriginal and Torres Strait Islander population

Aboriginal people make up approximately 30% of the total population (over 74,000 people), of which a high proportion live in regional towns, Indigenous communities or Homelands, and over 58% live in remote areas. This is a very significant population proportion – nationally, Aboriginal people make up only 3.2% of the population.[1]

This is the oldest living culture in the world, and the connections to country, language and culture are a source of strength in modern Aboriginal communities. However, this population also tends to experience very high levels of disadvantage, particularly in more remote locations. This is reflected in poor health statistics, including high rates of chronic disease, infectious disease and premature mortality. The estimated gap in life expectancy between Aboriginal and non-Aboriginal Australians in the NT is 14.4 years for males and females[10], which is considerably higher than the national average. There are additional challenges in providing equitable and appropriate health services that are accessible, culturally safe and respectful to remote and isolated communities, where there are language and cultural barriers, and many people live with extreme poverty and disempowerment.

Age profile

The NT currently has the youngest age profile of all states and territories, with a median age of 33, and children aged 0-4 years and young adults making up a significant proportion. The NT is predicted to experience a rapid increase in ageing and total population; the total NT population is projected to age so that the proportion of people aged over 65 will increase significantly, particularly among Aboriginal populations, where the proportion is expected to more than double.[4] Continued

improvements in life expectancy, particularly for Indigenous people, and low fertility rates are the major drivers of this trend.

Other population cohorts

The NT has a number of sub-populations at increased risk of poor health:

- Children aged 0-4 years
- Youth
- People of diverse gender and sexuality (also referred to as LGBTQ)
- People of Culturally and Linguistically Diverse (CALD) backgrounds
- Veterans
- People in contact with the justice system

Health Service Profile

There are essentially two modalities of primary health care provision in the NT:

- Mainstream general practice and allied health services in Darwin and the regional centres
- Aboriginal Medical Services (AMS) including Aboriginal Community Controlled Health Services (ACCHS) and NT Government remote health services serving Aboriginal populations
    - There are also AMS located in Darwin and the major regional centres which serve the urban Aboriginal populations and visitors from remote communities.

There are 52 mainstream General Practices in the NT, with the vast majority located in Darwin and surrounds.

In more than 80 remote NT communities (of those with a steady population of over 100 people) there are resident health staff offering primary health care services, whether provided by an ACCHS or NT Health. These can consist of a mixture of Aboriginal Health Practitioners (AHPs), Remote Area Nurses (RANs) and Remote Medical Practitioners. Some communities have resident AHPs and/or RANs with regular service from a non-resident doctor, while others will also have a doctor in residence.

Whatever the core staff distribution, all centres are supplemented by visiting specialists and allied health professionals, and the outreach model for allied health and specialist care is particularly important in the NT.

Funding of the AMSs is different to the majority of mainstream general practice in Australia. The majority of health care is provided by RANs or AHPs, not by GP. Only a small portion of costs are covered by Medicare, and the majority of funding comes from State and Commonwealth Government grants.

The AMS sector includes 17 ACCHSs serving 32 remote communities. Some ACCHSs have as many as seven primary health care sites, while others are single locations serving populations as small as 500. The remaining 53 locations have services delivered by NT Health.

Many remote primary health care services provide outreach to homelands from a larger, central community. Significant differences in the size of these organisations mean that the available resources and presence of administrative supports (including Human Resources support), characteristic of larger organisations, varies significantly. All AMSs are unique organisations, and they use different models of service delivery (i.e. Nurse-led or AHP-led).

2. ABORIGINAL AND TORRES STRAIT ISLANDER HEALTH

The high proportion of Aboriginal people in the NT and extreme levels of disadvantage means that NT PHN has a particular focus on Aboriginal and Torres Strait Islander Health in almost all of our activity – a different and unique model to most other jurisdictions. NT PHN is committed to improving health outcomes for Aboriginal people and supporting service delivery to remote communities. As such, Aboriginal and Torres Strait Islander Health is integrated into all sections of the needs assessment. The issues of socio-economic disadvantage, remoteness, and disparities in health outcomes for NT Aboriginal people are at the forefront of all planning and collaboration.

Aboriginal people experience disproportionate health outcomes in Australia, with the NT often presenting more confronting statistics compared with Aboriginal people living elsewhere. On all indicators, such as health status, disease profiles, quality of life and social and emotional wellbeing, Aboriginal people report poorer health outcomes than the non-Aboriginal population in the NT, and in many instances, the Australian Aboriginal population.[10] Factors such as intergenerational trauma, forced dislocation and dispossession, remoteness and social determinants of health have contributed to these health outcomes for Aboriginal people. There are high rates and early onset of chronic disease among Aboriginal people in the NT, particularly cardiovascular disease, rheumatic heart disease, type 2 diabetes, respiratory conditions, kidney disease and cancer. As the NT has a large population of Aboriginal people with health needs across various conditions, this population is discussed in several sections in this needs assessment.

There remains a great discrepancy in life expectancy between Aboriginal and non-Aboriginal populations. The estimated gap in life expectancy between Aboriginal and non-Aboriginal people in the NT is 14.4 years for both males and females, this is greater than the national gap.[10] While this has decreased in recent years, the gap remains significant. This gap reflects poor health status across a range of conditions.[11]

Socio-Demographic Overview

Aboriginal and Torres Strait Islander people make up approximately 30% of the total population, over 70,000 people, of which a high proportion live outside of the Darwin urban area in regional towns, Indigenous communities or Homelands.

Particularly, poor social determinants of health, including housing, education and employment, has been associated with the gap in health status between Aboriginal and Torres Strait Islander Australians and non-Indigenous Australians. 39% of the gap between Indigenous and non-Indigenous Australians are associated with differences in social determinants.[11] This is also evident within Aboriginal populations. Based on self-reported survey data, Aboriginal Australians who are in the lowest income group have a lower level of educational attainment or are unemployed are less likely to be in 'excellent' or 'very good' health than those in the higher income groups, those with high educational attainment, or those who are employed.[12] Social determinants of health influence a person's ability to remain healthy, access health services and the type of care that they are provided.[13] Health professionals and clinical services have limited impact and working at an environmental or public

health level is important. Intersectoral work is likely to have a positive impact as well as including Indigenous and local people in co-design.

Health Status

As of 2011, Indigenous Australians experienced a burden of disease that was 2.3 times the rate of non-Indigenous Australians.[14] However, comparison with 2003 data shows that the total burden of disease in Indigenous populations fell by 5%, with an 11% reduction in the fatal burden. The NT and Western Australia had substantially higher rates of Indigenous burden of disease than New South Wales and Queensland (the 4 jurisdictions for which estimates are reported).[15]

People living in the NT have a disproportionately higher burden of disease across a range of conditions. The rates for selected chronic condition risk factors and bio-markers in the NT's Aboriginal population are higher than Aboriginal people in other states and territories. Premature mortality rates are the highest in Australia, with diseases such as cancer, diabetes, kidney disease, cardiovascular disease, respiratory disease and suicide all contributing significantly to these statistics. Underlying factors such as high alcohol consumption, smoking rates and poor nutrition are associated with these poor statistics, as are high levels of socio-economic disadvantage and the related poor social determinants of health.[15] The ability to address these factors is further complicated by the challenges of distance, and fragmentation of the health system.

Indigenous Health Check Data Tool AIHW

An Indigenous-specific health check, item 715 on the Medicare Benefits Schedule (MBS), is available to all Indigenous people as an annual assessment of health and welfare. In 2016, one-third of all Indigenous people in NT utilised the Indigenous Health Check, an increase from 20% in 2010. Females were more likely to undertake a health check (35.7%) compared to males (30.4%), and people 0-4yrs and >45yrs had the highest usage rate.[16]

The Aboriginal and Torres Strait Islander Health Performance Framework 2017[14] report for the NT summarises the gains and risks for the health status of Aboriginal Territorians as follows:

Areas of improvement for the NT include:

- 45% decline in age-standardised death rates due to circulatory diseases in the period from 1998 to 2015, from 611 to 433 deaths per 100,000. Despite this decrease, circulatory diseases are still the leading cause of death for Indigenous Australians.
- A significant increase in health assessments for Indigenous Australians was recorded through Medicare in the period between 2006–07 and 2015–16, from 67 to 329 per 1,000.
- A decrease in the infant mortality rate, from 21 per 1,000 live births in 1998–2000 to 13 per 1,000 live births in 2013-15.

Areas of concern for the NT include:

- The gap in the low birthweight rate for babies born to Indigenous compared with non-Indigenous mothers increased from 7.3% in 2001 to 8.8% in 2014.

- A higher proportion (age-standardised) of Indigenous than non-Indigenous mothers who gave birth in 2014 smoked during pregnancy (47% compared with 11%).
- There was a lower age-standardised rate of access to antenatal care services in the first trimester of pregnancy (56% for Indigenous mothers compared with 88% for non-Indigenous mothers) in 2014.
- The age-standardised mortality rate for cancer for Indigenous Australians in the NT increased by 38%, from 258 per 100,000 in 1998 to 323 per 100,000 in 2015.
- Age-standardised rates of participation in BreastScreen for Indigenous women aged 50–69 were lower than for non-Indigenous women, 28% compared with 43% in 2013–14.
- Age-standardised mortality rates for chronic diseases were much higher for Indigenous than non-Indigenous Australians: almost 8 times the rate for diabetes, and about 3 times the rate for respiratory diseases in 2011–2015.
- The incidence of end-stage kidney disease for Indigenous Australians increased 67% from 73 per 100,000 in 1996 to 140 per 100,000 in 2014.
- Age-standardised hospitalisation rate for Indigenous Australians due to injury and poisoning was 2 times the rate for non-Indigenous Australians (72 per 1,000 compared with 31 per 1,000) in July 2013 to June 2015.
- Over the last decade, age-standardised rates of hospitalisation due to injury and poisoning for Indigenous Australians increased by 29%, from 55 per 1,000 in 2004–05 to 74 per 1,000 in 2014–15.

Source: As reported in the Aboriginal and Torres Strait Islander Health Performance Framework 2017 report for the Northern Territory.[14]

As Aboriginal health outcomes are strongly reflected across the majority of the NT PHN priority areas, many of these issues, and the development of subsequent priorities, are addressed in detail in their respective sections.

3. POPULATION HEALTH

3.1 Population Health Overview

The NT includes population groups that have high rates of chronic disease, infectious diseases, accidental and non-accidental injuries and falls, non-communicable diseases, and ageing syndromes (including dementia). This impacts on health needs and service utilisation and compounds the burden of disease. Many population biomarkers are worse in the NT compared with the national averages, as illustrated in Table 3.1a.

The NT population has the lowest life expectancy at birth compared with the rest of Australia for both males (77.8 years) and females (83.1 years). The Aboriginal population of the NT also experiences the lowest life expectancy (males 63.4 years, females 68.7 years) compared to Aboriginal populations elsewhere, and this gap is highest in the NT.[10]

Table 3.1a: Selected population health statistics, Northern Territory and Australia.

	NT	Australia	*Measure*
Premature Mortality			
Cancer	125.7	99.9	*ASR/100,000*
Diabetes	31.9	6.0	*ASR/100,000*
Ischaemic heart disease	58.3	23.5	*ASR/100,000*
COPD	27.1	8.8	*ASR/100,000*
Median age at death (years)	62	81	*Years*
Hospitalisation			
Infectious/parasitic disease	1,352.1	672.5	*ASR/100,000*
Injury/poisoning/external causes	5,064.8	2,912.4	*ASR/100,000*
Kidney dialysis (same day)	42,323.6	6,036.2	*ASR/100,000*
Potentially Preventable Hospitalisations (PPH)			
Vaccine preventable	1,026.5	197.1	*ASR/100,000*
Acute conditions	2,413.9	1,333.0	*ASR/100,000*
Chronic conditions	3,004.1	1,336.2	*ASR/100,000*

ASR = Age Standardised Rate

Note: Time frames may vary.

Source: Data compiled by PHIDU from various sources.[17]

Data from the NT Burden of Disease Study[18] identifies unintentional injuries, cancer and cardiovascular disease as the biggest contributors to years of life lost (fatal burden of disease) across 2004-13 (Table 3.1b). The burden is not evenly distributed between the Aboriginal and non-Aboriginal populations, and most conditions have a much higher impact within the Aboriginal population. The rate of years of life lost due to kidney disease is over 15 times higher for Aboriginal people than non-Aboriginal people in the NT, followed by diabetes at nearly 10 times higher and mental illness almost 8 times higher.

Table 3.1b: Years of life lost (age standardised per 1,000) by cause of death and gender, Northern Territory 2004-2013 and Australia 2010.

	Northern Territory				Australia[9]	
	Aboriginal		Non-Aboriginal			
	Female	Male	Female	Male	Female	Male
Cardiovascular	71.8	112.2	14.9	32.5	15.3	27.9
Cancer	57.5	76.8	24.9	42.7	27.5	38.9
Unint. Injury	23.9	45.6	7.9	21.4	4.9	11.0
Int. injury	14.9	35.5	2.4	10.3	2.3	8.3
Infant	10.8	13.8	4.2	4.9	4.0	5.2
Gastrointestinal	26.4	25.3	2.9	6.8	2.7	4.7
Respiratory	21.9	35.2	4.8	10.2	3.8	5.7
Diabetes	28.9	29.2	1.9	4.1	1.9	3.0
Infection	16.9	20.1	2.0	4.1	1.5	2.3
Kidney	28.0	24.0	1.5	1.8	1.4	1.8
Neurological	11.0	15.9	5.7	6.1	5.1	6.0
Mental	3.7	6.4	0.4	0.9	0.8	2.3
Blood	5.9	6.9	1.7	1.9	1.1	1.4
Musculoskeletal	4.7	2.2	1.2	0.8	0.8	0.5
Skin	1.6	1.2	0.4	0.3	0.2	0.2
Other groups*	0.6	0.4	0.2	0.1	0.1	0.2
Total	**328.7**	**450.8**	**76.9**	**148.9**	**73.4**	**119.4**

Source: Copied from Zhao et. al. 2016, p19.[18]

Despite these very poor statistics, there have been some noticeable improvements, over time, in the NT. Years of life lost from cardiovascular diseases, and infant and congenital diseases have decreased overall, and for Aboriginal people the years of life lost from infectious and respiratory diseases have also decreased.

There is high rate of Potentially Preventable Hospitalisations (PPH) in the NT compared to other jurisdictions. The PPH rate per 100,000 people (age-standardised) in the NT is twice as high as the national average, with all SA3 regions within the Territory are higher than the national average (See Table 3.1c).

Similarly, the rate of premature mortality (deaths before age 75) is high, particularly for conditions like cancer, diabetes and heart disease. Road traffic injuries are also a significant cause of premature mortality in the NT (Table 3.1d).

Table 3.1c: Selected Potentially Preventable Hospitalisations (PPH) (age-standardised rate per 100,000) by SA3 region, Northern Territory, 2016-2017.

	TOTAL PPH	Total Chronic	Total Acute	Cellulitis	COPD	Diabetes	CCF	Kidney & UTI	Angina	Asthma	Convulsions & Epilepsy	Dental	ENT	Gangrene	RHD
National	*2,732*	*1,249*	*1,296*	*268*	*276*	*180*	*213*	*280*	*121*	*144*	*163*	*290*	*194*	*51*	*17*
NT	**5,777**	**2,288**	**2,607**	**731**	**768**	**277**	**358**	**483**	**284**	**138**	**376**	**313**	**373**	**222**	**144**
Alice Springs	9286	3147	4319	1016	823	460	464	668	349	154	701	580	925	223	190
Barkly#	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Daly-Tiwi-West Arnhem	5431	2402	1904	488	1041	190	340	198	NP	138	343	262	257	218	264
Darwin City	4084	1582	2047	534	648	197	200	516	243	NP	345	196	177	175	NP
Darwin Suburbs	3874	1556	1836	502	520	166	244	451	234	95	205	218	230	176	35
East Arnhem#	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Katherine	7557	3170	3298	1214	969	481	437	520	383	208	474	280	283	406	371
Litchfield	2931	1112	1592	515	382	114	199	256	236	NP	193	195	188	232	NP
Palmerston	4344	2090	1872	499	653	158	523	411	304	80	264	185	215	212	NP

 # = Interpret with caution. Rates are considered more volatile than other published rates
NP = Not available for publication

Source: My Healthy Communities (AIHW).[19]

COPD: Chronic Obstructive Pulmonary Disease
CCF: Congestive Cardiac Failure
UTI: Urinary Tract Infection
ENT: Ear Nose Throat
RHD: Rheumatic Heart Disease

Table 3.1d: Premature mortality by selected cause (age standardised rate per 100,000), Northern Territory, 2011-2015.

	Cancer	Diabetes	Circulatory System Disease	Respiratory	Road Traffic Injuries
National	*100.5*	*6*	*44.8*	*15*	*4.8*
NT	**133.6**	**31.9**	**100.8**	**40.6**	**17.3**
Alice Springs (T)	111.7	32.5	102.7	42.5	17.6
Barkly (R)	167.6	90.8	159.3	37.2	35.2
Belyuen (S)	..	0.0	..	0.0	..
Central Desert (R)	158.7	105.4	241.8	..	32.5
Coomalie (S)	173.3	..	94.4	..	..
Darwin (C)	113.6	14.3	53.8	19.5	8.4
East Arnhem (R)	224.5	65.6	328.0	134.6	..
Katherine (T)	119.2	23.7	107.0	43.6	21.5
Litchfield (M)	107.1	6.0	39.9	26.0	13.1
MacDonnell (R)	99.4	131.5	137.8	53.0	30.8
Palmerston (C)	155.7	15.3	76.3	37.5	9.2
Roper Gulf (R)	217.8	96.5	353.9	64.8	44.4
Tiwi Islands (R)	129.8	96.1	256.8	250.5	..
Victoria Daly (R)	214.2	77.5	213.8	77.1	67.8
Wagait (S)	..	0.0	..	..	..
West Arnhem (R)	248.7	71.1	198.5	114.3	15.1
West Daly (R)	190.8	181.0	221.9	88.2	55.6
Unincorporated NT	120.7	23.5	94.6	41.9	22.4

Source: Data compiled by PHIDU from state and national mortality databases.[17]

3.2 Population Cohorts

The NT has several sub-populations that face identified health care challenges. This includes youth, people from Culturally and Linguistically Diverse (CALD) backgrounds, veterans, people in contact with/exiting the justice system and people of diverse gender and sexuality (also referred to as LGBTQ). The needs of the latter cohort are covered in some detail in Section 3.2.4. While the other populations have been mentioned throughout the document, the key issues for each group are summarized below.

3.2.1 Early Childhood

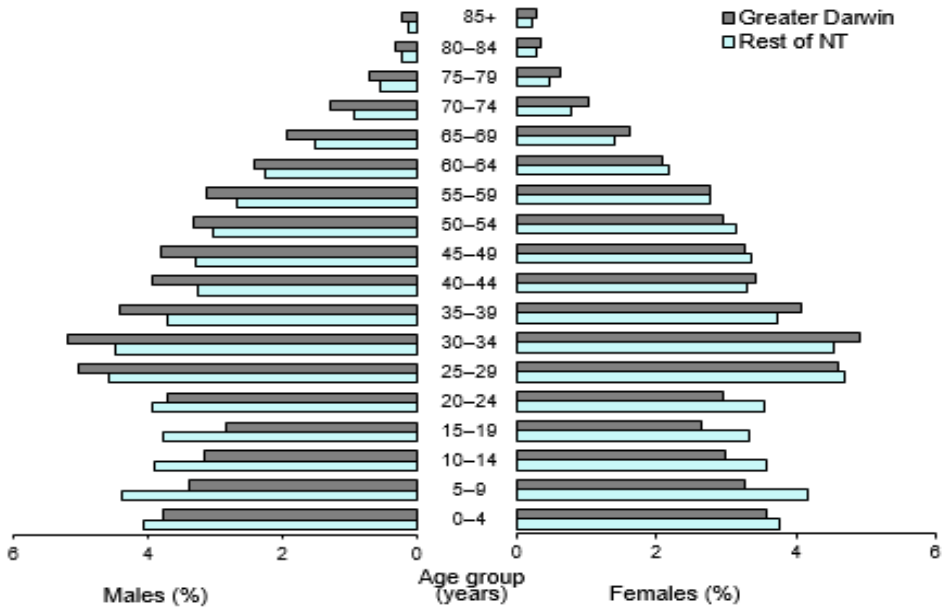
Early childhood (including the period from conception to birth) is a pivotal time for the establishment of health and wellbeing, with the influences measurable through to adulthood in areas as diverse as obesity, mental health and economic status. The National Primary Health Care Strategic Framework[20] recognises the importance of a child's formative years – including the health and wellbeing of their parents, antenatal care, and early childhood development. This has also been explicitly recognised by the NT Government with the release of the 'Starting Early for a Better Future' strategy for early childhood development.[21]

A focus on the health and wellbeing of 0-5-year-old children is important for short term outcomes for this cohort. However, the long-term implications of early childhood conditions and experiences for the health and wellbeing of our future adult population is also foundational.

Socio-Demographic Overview

The NT has a higher proportion of children aged 0-4 years than the national average, with several LGAs having between 10-12%. The age distribution of Greater Darwin is similar to that of other capitals, but in remote and very remote areas of NT, there are higher proportion of children, adolescents and young adults (Figure 3.2.1a). In the NT, over 30% of the 0-4 year age group are Aboriginal, compared to 5% nationally. The NT also has a higher proportion of single parent families, and families where the mother's highest level of schooling was year 10 or below.

Figure 3.2.1a: Age and Sex Distribution (%), Greater Darwin and Rest of NT, at 30 June 2018.



Source: Regional Population by Age and Sex, Australia, 2018 (ABS).[3]

Preschool attendance rates in the NT are generally in line with national averages at 42% and 44.3%, respectively. (Table 3.2.1b). However, the Australian Early Development Census results for 2015 show that an extremely high proportion of NT children are disadvantaged at school entry, with over 70% of children in some regions assessed as vulnerable in one or more of the measured domains, and over 50% are vulnerable in 2 or more domains (Table 3.2.1b).

Aboriginal children in the NT are 7 times more likely to be born to a younger mother, born to mothers with poor health status, have a low birth weight, live in socio-economically disadvantaged households, have had involvement with the child protection system, and live in remote communities where basic needs such as housing, safe sleeping and nutrition are not always adequately met.[22] They may also witness or be victims of domestic violence and experience child neglect.

However, it is also recognised that Aboriginal children are blessed with strong connections to family, community and country and can grow up in an environment rich in cultural heritage and knowledge.

For non-Aboriginal families, the transient nature of the NT population can provide specific challenges, as social supports from family and friends can be missing and parents of young children can feel

isolated. This can potentially affect the well-being of the children. People in this situation often look to a GP for advice and support.[23]

In summary, young children make up a significant proportion of the NT population, and many are living in socioeconomic circumstances that can act as barriers to their healthy development.

Health Status

Smoking during pregnancy

Maternal smoking during pregnancy is associated with poorer birth outcomes including low birthweight, pre-term birth, placental complications and perinatal mortality. It has also been associated with sudden infant death syndrome (SIDS), cancer, asthma, and many other conditions more likely to occur in children of women who smoked during pregnancy.

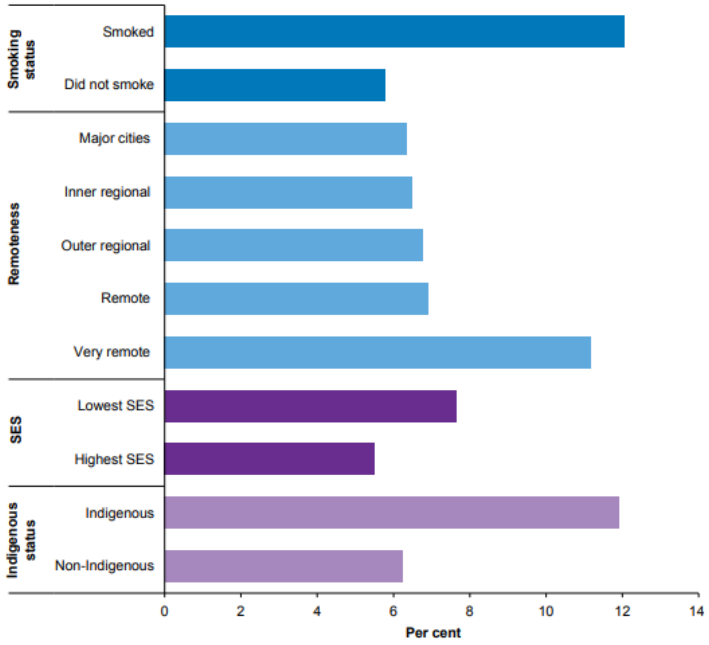
Women often live in over-crowded houses where most adults smoke, and even with the best of intentions cannot avoid secondary smoke. In 2015, NT women were twice as likely to smoke during the first 20 weeks of pregnancy (21.2%) compared to the national average. This represents a decrease of 4% since 2011. The proportion of Indigenous mothers smoking was 48.9%, which is higher than the national average of 43.8%, and has not significantly decreased since 2011. Smoking rates were around 3.4 times higher for mothers living in remote or very remote areas (26%) compared to women living in major cities (7.7%). An earlier dataset (Table 3.2b) show that rates of smoking during pregnancy were particularly high in Victoria Daly (including West Daly) (59.2%), Tiwi Islands (50%) and several other LGAs with rates above 50%, and every LGA except Darwin well above the national average.

Low Birthweight

Birthweight is a key indicator of a baby's health at birth, and there is an increasing risk of adverse outcomes for babies who are born weighing less than 2,500 grams. Low birthweight may occur due to prematurity, or a full-term baby may be small for gestational age. There are a range of maternal factors which can contribute to low birthweight including harmful behaviours, poor nutrition and poor antenatal care. This is set in a context of food insecurity and poverty. Factors that contribute to low birth weight nationally are readily found in remote areas of the NT (Figure 3.2.1c).

In 2015, 9.1% of live born infants in the NT weighed less than 2,500 grams, compared to 6.5% nationally. 16.3% of babies born to NT Indigenous mothers were of low birthweight compared to 11.9% nationally. The proportion of low birthweight infants in the NT has increased since 2006, and the highest proportion of low birthweight babies were in the Tiwi Islands and East Arnhem (Table 3.2.1b).

Figure 3.2.1c: Low birthweight live-born babies by selected maternal characteristics, Australia, 2015.



Sources: Australia's mothers and babies 2015, AIHW National Perinatal Data Collection.[24]

Infant Mortality

NT child mortality rates (0-4 years) continue to be the highest in Australia. The 2013-17 NT Indigenous mortality rate (305 per 100,000) was 3 times higher than the NT non-Indigenous mortality rate. Nationally, 84% percent of Indigenous infant deaths were in the 0-1-year age group for this period and were predominantly due to perinatal conditions. Deaths in the 1-4-year age group were predominantly due to external causes. The overall child mortality trend is downwards, despite there being no significant closing of the gap, due to improvements in the non-Indigenous mortality rate.[25,26]

Fetal Alcohol Spectrum Disorder

Fetal Alcohol Spectrum Disorder (FASD) is an emerging public health issue in Australia. FASD is a common cause of intellectual disability among children – and, ultimately, adults – and is preventable by non-alcohol use in pregnancy. The high rate of alcohol consumption in the NT indicates an environment where pregnant women are more likely to consume alcohol and children will subsequently be born with FASD-related conditions.

FASD is a range of intellectual and behavioural disorders, with severity increasing with increased prenatal exposure to alcohol. The severe end of the spectrum is represented by Fetal Alcohol Syndrome (FAS), characterised by neuro-developmental abnormalities, poor growth and development, and distinctive facial features. At the lower end of the spectrum, children may present with learning delays and behavioural problems.[27, 28]

There is limited data on the prevalence of FASD in Australia, although it is known to occur in both the Aboriginal and non-Aboriginal populations, rates are much higher in Aboriginal populations. Aboriginal data estimates indicate that the incidence of FASD may range from 1.87 to 4.7 per 1,000 births. Absent or delayed diagnosis of FASD conditions impacts the ability to influence long-term outcomes with early

intervention. A high proportion of young people and adults with FASD are likely to come into contact with the justice system.[27, 28] A recent study conducted in a youth detention centre in Western Australia suggests that as many as 36% of the young people in the youth detention centre had FASD.

The subject of FASD in the NT is gaining greater prominence from Government and Non-Government Organisations (NGO's), in line with the NT and National FASD Frameworks, and APONT 2018 forum recommendations.[29] FASD is also indirectly addressed through the NT Government's Alcohol Harm Minimisation Action Plan 2018-2019, which has seen measurable reductions in alcohol-related assault and hospitalisation. FASD with significant functional impairment is also now eligible for support under the NDIS.

Malnutrition

In 2015, up to 15% of Aboriginal children in the NT under the age of 5 years were considered either stunted (short), underweight or wasted (underweight for height).[30] Additionally, 17% were found to be anaemic. Poor growth and development can be due to acute illness or inadequate diet. In East Arnhem, 8% of children measured were wasted.[30] The most recent AHKPI reported 4.6% of measured children were underweight, and 15% anaemic. Over 90% of children were measured for height, while 76% were measured for anaemia.[31] Nutrition across remote areas of the NT is challenging due to household issues with food security and affordability, access to fruit and vegetables and the reliance on less nutritious meals from remote outlets. Aboriginal-run organisations such as ALPA subsidise fresh produce in remote stores and are proactive in providing more nutritious choices. School nutrition programs in various remote communities also provide breakfast and/or lunch for school-aged children to supplement nutritional intake.

Table 3.2.1b: Selected socio-demographic and health indicators by LGA, Northern Territory, 2011-2016.

	Children 0-4	Population Proportion	Proportion Aboriginal	Single Parent Families	Low Maternal Education	Dwellings needing extra bedrooms	Preschool Participation	Developmentally Vulnerable - 2 or more domains	Low Birth Weight Babies	Smoking during Pregnancy	Infant Deaths
	#	%	%	%	%	%	%	%	%	%	IDR/1000
LGA	2016 ERP		2016 URP	2016	2016	2016	2016	2015	2012-2014	2012-2014	2011-2015
Alice Springs (T)	2,009	7.5	22.2	23.2	16.3	5.7	41.9	13.5	7.1	19.5	7.0
Barkly (R)	687	9.1	78.4	31.2	53.1	24.2	48.1	52.7	10.1	38.3	..
Belyuen (S)	7	3.9	100.0	66.7	52.9	34.4	..	..	..	..	0.0
Central Desert (R)	405	9.6	89.9	29.8	66.3	39.8	42.6	59.2	10.5	28.9	14.9
Coomalie (S)	88	6.1	45.7	46.2	24.2	9.2	47.2	..	..	34.4	..
Darwin (C)	5,772	6.8	9.7	17.8	13.4	6.1	42.2	10.7	6.4	11.5	3.5
East Arnhem (R)	925	8.9	95.4	37.1	43.5	57.1	53.9	51.1	18.7	52.6	19.3
Katherine (T)	880	8.3	26.6	22.1	22.1	7.8	39.7	19.6	9.1	26.0	..
Litchfield (M)	1,405	5.6	10.5	16.5	17.1	7.7	38.3	19.7	6.0	16.5	..
MacDonnell (R)	489	7.1	86.3	37.0	53.1	34.3	47.3	50.5	10.7	26.2	18.1
Palmerston (C)	3,708	10.4	15.1	20.4	19.6	4.4	41.6	14.6	5.6	15.7	4.4
Roper Gulf (R)	757	10.2	87.6	29.7	44.5	42.4	34.9	46.6	15.9	54.3	18.5
Tiwi Islands (R)	185	6.6	95.6	30.8	42.9	32.7	34.5	39.5	19.4	55.0	22.4
Victoria Daly (R)	337	10.5	82.0	31.6	43.9	26.8	42.9	64.7	13.0	59.2	..
Wagait (S)	27	5.4	21.7	24.3	7.6	8.5	63.6	..	..	34.4	0.0
West Arnhem (R)	747	10.6	82.0	23.0	34.3	40.5	40.7	..	14.3	51.4	..
West Daly (R)	430	11.8	93.0	29.5	59.5	56.0	43.7	64.7	13.0	59.2	21.0
Unincorporated NT	525	6.9	9.8	13.3	11.0	4.8	46.3	16.0	6.0	16.1	..
Northern Territory	**19,376**	**7.9**	**31.7**	**22.1**	**24.2**	**10.3**	**42.0**	**23.1**	**8.2**	**22.7**	**7.2**
AUSTRALIA	1,573,817	6.5	5.0	20.4	17	3.7	44.3	11.1	6.1	12.3	3.5

Key

>50% poorer than NT value

>10% poorer than NT value

Source: Data compiled by PHIDU from ABS 2016 census and estimated resident population, Australian Early Development Census, and other sources.[32]

Mental Health

The National Mental Health Service Planning Framework (NMHSPF) tool estimates a 'prevalence population' of 4,541 NT children aged 0-4 who are likely to have some form of mental illness, and 3,450 of these are likely to require treatment. The majority of these fall into the Early Intervention or Mild Mental Illness categories.[33] Due to the limitations of the NMHSPF tool in accounting for both remoteness and Aboriginality, these are likely to be underestimates. Prolonged neglect and exposure to trauma (complex trauma) such as domestic violence can elevate the risk of serious mental health problems and undermine healthy functioning and brain development in the early years [34]. Emotional difficulties that emerge early in life can become more serious disorders over time if appropriate care is not provided.

In addition, mental health promotion and prevention initiatives may be particularly important in this age group as a foundation for future mental health resilience. This is particularly true for children who are at higher risk due to having parent/s with mental illness. It is not known if this high-risk group is routinely identified in the primary health care setting.

In 2015-16, 14 children aged 0-4 received a total of 91 services through the NT Access to Allied Psychological Services (ATAPS) program. However, it is likely that the majority of children receive mental health services through other agencies.

Infectious Disease

Common early childhood infectious diseases in the NT include scabies, otitis media and diarrhoea. The NT Centre for Disease Control estimates that 30-50% of children may be affected by scabies in some communities.[35] Untreated streptococcal infection can lead to serious complications such as acute rheumatic fever (ARF). The NT has the highest rate of ARF in Australia (354.1 per 100,000), the majority being Aboriginal. Nationally, 41% of cases were aged 5-14 at age of diagnosis, and 94% were Indigenous Australian's.[36] ARF is a complication of streptococcus infection that can develop into rheumatic heart disease (RHD), causing permanent heart valve damage and premature mortality. An arduous 10-year regime of monthly prophylactic antibiotics is usually commenced to prevent ARF from progressing to RHD.[36] Improved housing and reduced overcrowding are preventative social determinants for ARF, and early diagnosis and treatment of streptococcal infection in children aged 5-14 who are at high risk of developing ARF.

Otitis Media is a persistent problem affecting the hearing and development of Indigenous children in the NT. 64% of Indigenous children aged 5 years and younger who received a hearing outreach service in 2018 had at least one type of ear condition. Acute Otitis Media with perforation and chronic suppurative otitis media are preventable; improvements in this rate have been achieved following intervention that have included treatment and public health initiatives. [37]

Meningococcal disease is a life-threatening condition that infects several children every year in the NT. Nationally, infants (aged <1 year) are at increased risk of developing invasive meningococcal disease (IMD), at 47.1 DALY (disability adjusted life years) per 100,000 in 2015, and 8.4 DALY in aged 1-4 years. This is much above the national average of 2.7 DALY per 100,000 and 2.9 in the NT. This is attributed to the vaccines available for several strains including meningococcal A, C, W and Y on the National Immunisation Program (NIP) for infants.[38]

Eye infections, notably trachoma, are more prevalent in remote areas of Australia, particularly affecting Aboriginal children in communities. In the NT, 5.0% of children aged 5-9 years had active trachoma in 2017. The national average in this age group decreased from 14% in 2009 to 3.8% in 2017.[39] Housing and poor personal and family hygiene are important risk factors, with the infection easily spread through infected eye secretions. Trachoma can cause blindness in older people who have had severe infections in childhood.[40]

Immunisation

According to the Australian Immunisation Register (AIR) data for 2016-17, rates of immunisation in the NT are slightly lower than the national rate across all childhood groups, but not significantly. Rates are fairly consistent across the SA3 regions (Table 3.2.1d). Most diseases require a vaccination rate of 93-96% to provide 'herd immunity' to prevent outbreaks in the community.

Immunisation rates for Aboriginal children are slightly lower than for all children, except for 5-year-olds, where the Aboriginal rate is slightly higher. NT Aboriginal rates are slightly lower than the national Aboriginal rates, (Table 3.2.1d) and have decreased for 1-year-old and 2-year-old children from the rates reported for 2015-16. The NT had the highest rates of vaccine-preventable hospitalisations in Australia in 2017-18 in all age groups.[41]

There is evidence to suggest that children from CALD backgrounds and migrant families are less likely to be fully immunised on arrival, and may face additional barriers, such as cost and accessibility, to comply with the Australian immunisation schedule.[42]

Table 3.2.1d: Immunisation coverage (%) by SA3 region and Indigenous status, Northern Territory, 2016-17.

	1 year old	ATSI 1 year old	2 years old	ATSI 2 years old	5 years old	ATSI 5 years old
National	93.8	92.2	90.9	88.6	93.5	95.7
NT	**92.8**	**91.4**	**88.1**	**85.7**	**93.1**	**94.7**
Alice Springs	91.7		85.6		91.4	
Barkly	90.5		82.0		95.5	
Daly-Tiwi-West Arnhem	93.8		84.6		94.0	
Darwin City	92.6		84.2		92.6	
Darwin Suburbs	92.4		90.3		92.3	
East Arnhem	94.7		91.7		94.8	
Katherine	91.4		87.6		94.5	
Litchfield	93.0		90.4		94.4	
Palmerston	94.1		89.0		93.2	

Source: My Healthy Communities, AIHW.[19]

Systems and Services

Addressing the social determinants of health is critical to improving child health outcomes. Slow progress has occurred in addressing overcrowding, education, adequate child services and maintaining appropriate housing standards. Poverty and food security issues levels remain high, and the NT experiences lower Aboriginal labour participation than other jurisdictions.[43]

Young children and pregnant women will usually come into contact with the health system through their primary health care clinic or GP practice. These spaces need to be culturally safe and judgement-free for all families to continuously engage and support their health and wellbeing. Educational centres – especially Child and Family Centres – are another pathway of engagement for young Aboriginal families, and stronger links between the health and education sectors would potentially improve outcomes.[44]

Notwithstanding the workforce issues discussed elsewhere, it is important for primary health care practitioners to be supported to understand, monitor, diagnose and treat the conditions specific to early childhood, especially those which may not be routinely encountered in other jurisdictions. This is particularly important for practitioners new to the NT and/or the remote primary health care environment.

Eye and Ear Health

As well as regular primary health care services, there are two specific outreach programs for eye and ear health operating to remote NT communities. The NT Outreach Hearing Health Program provides audiology, ear nose and throat teleotology and Clinical Nurse Specialist service to Aboriginal and Torres Strait Islander children and youth.

Mental Health

There is an overall shortage of mental health professionals in the NT, as reported elsewhere, and this is likely to impact on service and treatment options for young children. Many of those living in remote communities may receive services through the Social and Emotional Wellbeing programs, schools, or visiting outreach mental health services. It is unknown whether the level of service provision is adequate to meet the needs of the preschool population, especially in the early intervention space.

Oral health

The NT Remote Aboriginal Oral Health Program provides outreach preventative and clinical oral health services to Aboriginal and Torres Strait Islander children in the NT. Indigenous children are more likely to experience tooth decay due to social disadvantage and reduced access to appropriate diet and dental services. A high proportion of Indigenous children had experienced tooth decay (80% aged 5-10 years) and missing and filled teeth. In 2018, almost 5,700 Indigenous children received treatment to prevent tooth decay.[45]

3.2.2 Youth

Young people, a broad term that can cover people from 10 and up to 29 years of age, are particularly vulnerable to experiencing poorer social and emotional wellbeing outcomes than other Australians. The National Mental Health Reform process, as outlined in the Fifth National Mental Health and Suicide Prevention Plan[46], has identified an integrated and equitable approach to youth mental health as a priority. Other key areas of focus for young people are suicide prevention and sexual health.

Socio-Demographic Overview

The NT has a relatively large population aged 10-24 years, representing 22.6% of the total population compared to 20.5% nationally.[17] In the NT, According to the National Aboriginal and Torres Strait

Islander Social Survey, 2014-15, a high proportion (40%) of the Aboriginal population are under 20 years of age.[47]

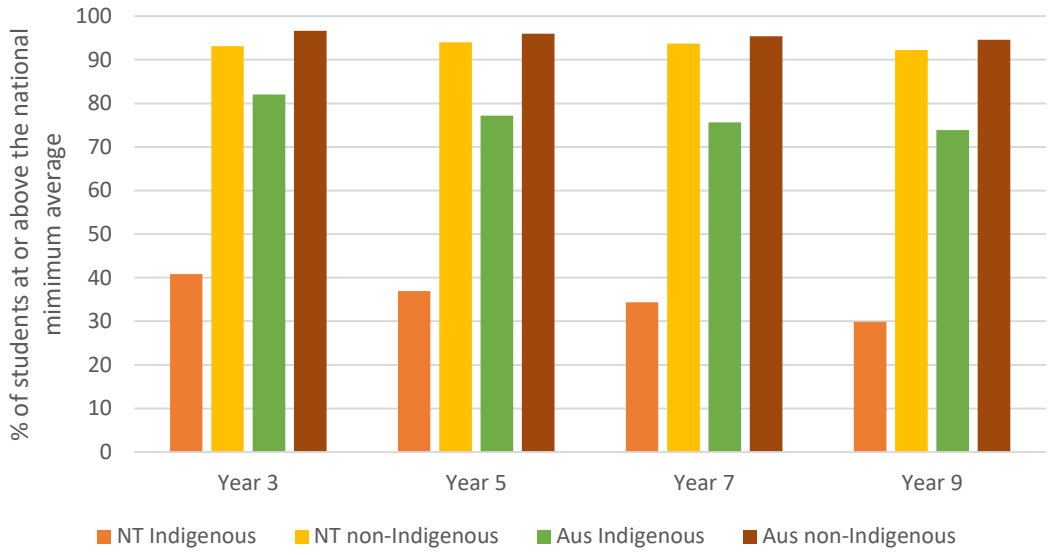
Health Status

Education

There is a two-way association between health and education. People with low educational attainment tend to have poorer health, fewer opportunities, low incomes and reduced employment prospects.[48] In turn, poor health is associated with lower educational attainment.[49]

According to 2016 NAPLAN results, the proportion of students 'at or above the national minimum standard' for reading was between 23.5 and 27.8% lower in all age groups in the NT compared to the Australian average. The proportion of Indigenous students at or above the minimum standard for reading was significantly lower than for non-Indigenous students for all age groups, in both the NT and Australia (Figure 3.2.2a). The NT had the lowest participation rate of all jurisdictions, and there was a clear association between decreased proportion of students at or above the minimum level of reading and increased remoteness in the NT.[50]

Figure 3.2.2a: NAPLAN results, proportion (%) of students 'at or above the national minimum standard' for reading, by year level and Indigenous status, Northern Territory and Australia, 2018.



Source: Compiled by NT PHN, from NAPLAN 2018 National Report.[50]

Mental Health and Suicide

There is a high prevalence of mental disorders in children and young people in the NT, particularly in East Arnhem, Daly-Tiwi-West Arnhem and Palmerston SA3 regions. Young people are over-represented in mental health services compared to other age groups.[51] While it has been estimated that 70% of young people who experience mental health and substance abuse problems do not seek help, local evidence is showing that when an appropriate service is made available, service use will increase markedly.

As discussed in Section 4.3, estimates of mental health disorder prevalence based on data derived from the 2014 Australian Child and Adolescent Survey of Mental Health and Wellbeing have been prepared and confidentially made available to PHNs.[52]

Suicide was the leading cause of death of young people aged 5-17 years of age, and one-third of deaths among young people aged 14-24 years in 2015 were attributable to suicide.[53] Aboriginal youth are a particular at-risk category, with the 10-24-year age group representing 80% of the suicide population.[54] This is discussed further in Section 4.4.

Youth Sexual Health

Young people are at greater risk of poor sexual health, reflected by high rates of sexually transmissible infections (STIs) and blood borne viruses (BBVs) in the 15-24-year age group in the NT and nationally. Youth sexual health is a major priority, with Aboriginal young people carrying the highest burden of STIs. Key issues identified for youth sexual health include: (discussed further in Section 3.6)

- The current high rates of syphilis, particularly among Aboriginal young people in northern Australia
- STIs rates, particularly chlamydia and gonorrhoea, among young people aged 15-29 years (Aboriginal and non-Aboriginal)
- Sexual health of young males in prison
- Teenage pregnancy birth rate (mothers aged 15-19 years). The NT had the highest rate in Australia in 2015, at 39.70 births per 1,000 females
- Lack of school curriculum covering sexuality and relationship education

Systems and Services

There is no youth health strategy available that identifies service needs, and it has been reported that limited consultation has been undertaken in relation to this issue.

There is a major service gap in relation to youth sexual health, following the cessation of funding in June 2015 of the Adolescent Sexual Health Program by the Australian Government. The need has been identified for a program to target youth health education in a comprehensive format. This could include substance misuse, violence, gender imbalances and gender-based vulnerability and risks, tobacco, and with a contextualised focus on sexual health and safe sexual relationships. The national headspace programs are making progress in this space, encompassing mental health, physical and sexual health, work and study, and alcohol and other drugs for ages 12-25 years.

3.2.3 People Living in Remote Areas

The challenges of living and remaining healthy in remote areas are not restricted to Aboriginal people alone. Even the Darwin urban area is considered a regional location, and residents do not have access to the full range of health services commonly found in the larger capital cities. People living in remote or regional areas often fall within the lowest classification for socio-economic disadvantage (SEIFA) and can experience lower health status due to both geographic isolation, including difficulty and cost of accessing services, unavailability of some services, and higher rates of risky health behaviours (e.g. daily smoking).

Socio-Demographic Overview

The Accessibility Remoteness Index of Australia (ARIA) classifies the majority of the NT as very remote apart from Darwin (outer regional) and Alice Springs (remote). This index is based upon accessibility to goods and services on the basis of geographic location and isolation.[55] As such, 42% of the population is defined as living in remote or very remote areas, which particularly impacts on the Aboriginal population, of whom 80% live outside of Darwin in remote or very remote regions.[1]

Health Status

According to the Northern Territory Burden of Disease Study: Fatal Burden of Disease and Injury, 2004-2013[18], the rate of years of life lost due to disease in remote areas was almost twice as high as in non-remote areas. The rate was 20% higher in Central Australia compared to the Top End. Similarly, Australia's Health Report 2018,[11] found that people living in outer regional or remote areas had higher rates of daily smoking, risky alcohol consumption, physical inactivity and overweight and obesity compared to people in major cities. These risk factors, along with reduced access to services in rural and remote areas, leads to greater health impacts across many chronic conditions including asthma, osteoarthritis and diabetes.[11] While some of these differences are probably related to the high levels of socio-economic disadvantage also commonly found in the more remote areas, the fact remains that people living in remote locations are at higher risk of poor health.

Overall, mortality rates increase with remoteness, with 2015 age-standardised mortality rates indicating that people living in very remote areas have a mortality rate almost 1.4 times as high as people living in major cities (759 per 100,000 population compared with 524 per 100,000 population). People living in very remote areas have a potentially avoidable death rate over 2.5 times as high as people living in major cities (256 per 100,000 population compared with 96 per 100,000 population). The overall rate of PPH in 2015-16 was highest for residents of remote and very remote areas (40 and 61 per 1,000 population, respectively), and lowest for residents of major cities (25 per 1,000 population).[11, 56]

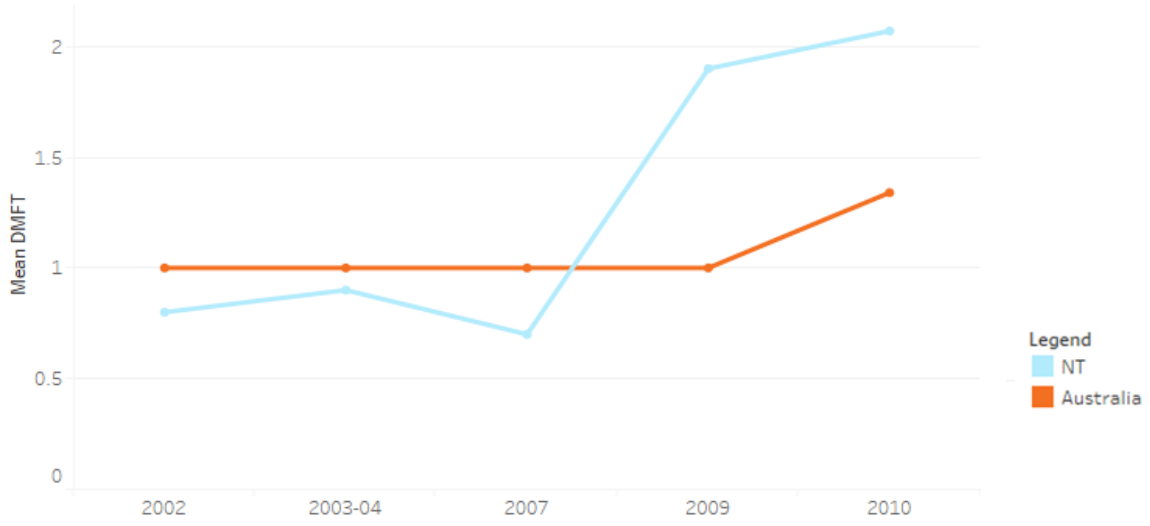
Systems and Services

<u>Oral Health</u>

Oral health status declines with increasing remoteness, meaning that people who live in the most remote areas of Australia have the poorest oral health of all Australians, especially Aboriginal Australians.

Risk factors for poor oral health in remote and rural areas include poor diet, tobacco use, harmful alcohol use, high stress and low control, poor dental hygiene, poor oral health literacy, reduced access to regular oral health care, reduced access to fluoridated water, limited access to fruit and vegetables and the high cost of dental products. Overall, the NT has seen a deterioration in child oral health (Figure 3.2.3a). In 2012-13, 19% of Indigenous Australians in the NT aged 2 and over were reported to have not seen a health provider when it was necessary. Oral health was the most common service not accessed when needed.[14]

Figure 3.2.3a: Headline indicator 'child dental health', mean number of decayed, missing or filled teeth (DMFT) among primary school children aged 12, Northern Territory and Australia, 2002-2010.



Source: Children's Headline Indicators, AIHW.[57]

Timely access to oral health services is critical, and provides opportunities for preventative dental checks, early diagnosis of oral diseases and conditions, maternal oral health, and health promotion and educational awareness regarding oral health.[58] Oral health is also important for people with RHD to prevent chronic health conditions, further health issues and infections.[59]

An analysis of data from the Closing the Gap Child Oral Health Program, delivered to Aboriginal children living in prescribed communities in the NT (between August 2007 and December 2011), of the 3,223 children who received a dental referral:

- 2,458 children (76%) had received a dental service
- 756 children (23%) had an outstanding dental referral indicating further need for services
- 9 children (less than 11%) were considered loss-to-follow up

The average waiting time between referral and receiving the service was 18 months. The need for further services was highlighted by the fact that 2,001 children were referred for additional treatment or services for their oral health conditions identified during their dental visits.

Oral Health Services NT provides oral health services including pain and trauma management, emergency care, restorative fillings and repairs, endodontics, extractions, oral hygiene, oral health promotion and denture services. Specialist services include orthodontics, oral surgery, and treatment in hospital under general anaesthetic. Adults with a Centrelink Pensioner Concession Card or Health Care Card are eligible for free dental services, however as demand for services is high, waiting lists can apply. Free dental services are provided from birth to 19 years of age, through school-based clinics, community clinics and mobile services.

In summary, barriers to accessing oral health services in remote and rural areas include:

- Service availability/provision: few permanent services, sporadic provision of temporary services, specialist services unavailable
- Service access: lack of transport, long travel distances
- Cost of dental treatment: high individual out-of-pocket expenses
- Workforce mal distribution: few dental services available, and where services exist, difficultly retaining staff
- Appropriateness of services: client unlikely to visit service if not culturally appropriate
- Lack of investment in oral health

Health Workforce and Access

While health workforce is discussed in more detail in Section 3.9, there is a decline in full-time equivalent health care professionals in remote areas, with the exception of GPs. People who live outside major cities were more likely to visit a hospital emergency department (ED), possibly due to limited access to other primary care professionals and after-hours services.

There is a general lack of oral health professionals in regional and remote areas across Australia, particularly the NT. The NT has the lowest rate of FTE equivalent dentists per 100,000 population, at 39.3 compared with a national average of 57.7 in 2016. The NT also has an extremely low rate of dental prosthetists per population (1.0 FTE per 100,000), but other oral health professions (dental hygienists, therapists) have comparatively good population rates.[60] Opportunities for dentists to work in private practice are limited, with the NT having a much higher FTE rate employed in the public sector than other states and territories.

3.2.4 People of diverse sexuality and gender identity

The NT PHN 2016 Baseline Needs Assessment identified a gap in knowledge around the primary health care needs of people of diverse sexuality and gender identities, and recommended that a more comprehensive needs analysis be undertaken to better understand the extent and range of need for people within this population cohort. A more comprehensive needs assessment has been carried out in two phases: Phase 1 was focused on the needs of transgender, intersex health and service needs in the Darwin region, conducted in early 2018.

Key themes identified in Phase 1 of the diverse gender identity needs assessment:

- Lack of diverse gender friendly mainstream services
- Limited specialist gender diverse services (except for one clinic in Darwin)
- High mental unwellness vulnerability
- Limited social support

Phase 2 of the needs assessment investigated and documented some of the broader health needs of people of diverse sexuality and gender identity in the NT, and was completed in late 2019. This has resulted in a more in-depth view of some of the health needs of this population cohort.

The needs assessment process employed a wide-ranging community consultation process because it is recognised as a key method of drawing out the factors that affect health and wellbeing among

specific and/or hard to reach cohorts. It is also an effective means of gaining insight to issues and needs that may not be represented or visible in mainstream data sets.

The recent findings drew attention to the need to expand availability and access to diverse sexuality and gender identity friendly primary health services and specialist support, as well as more culturally secure clinical and non-clinical supports, across the NT.

Socio-Demographic Overview

There is limited national and local NT data regarding population estimates and demographic profile of people with diverse sexualities and gender identities. In Australia, people who identify as sexuality and gender identity-diverse are considered a minority population group. Diverse sexuality and gender identification is influenced by a range of factors such as age, ethnicity, socioeconomic position, peoples lived experience and relationships with others.[61]

However, it is estimated that up to 11% of the Australian population may be of diverse sexuality and/or gender identity.[62] For the NT, with a population of close to 250,000 people, this suggests approximations up to 27,500 residents. Other evidence, primarily from the United States, indicates that 4% of adults identify as having diverse sexuality and/or gender identity,[63] equating to about 7,000 adult Territorians. This total is likely to be conservative given that older people are less likely to self-identify and younger people (<18 years) are increasingly likely to question gender identity/sexuality.

Recent national non-heterosexual population estimates for people aged over 18 are approximately 600,000, which represents about 3.2% of the population. NT estimates are noted as the smallest (approximately 4,700), with NSW having the largest non-heterosexual population (about 204,000 people).[64]

Similarly, data on the number of Intersex people are uncertain. Organisation Intersex Australia (OII) recommends an estimate of 1.7% be used,[65] which would indicate that there are approximately 4,000 Territorians born with an Intersex variation. Other estimates are as low as 0.06%.

The ABS Census of Population and Housing (2016)[61] shows that the number of same-sex couples in Australia represents about 1 in 100 of all couple families, just under half of the same-sex couples are female (49%) and with one-quarter of these couples having children. People in same-sex couples tend to be younger than people in opposite sex couples.

Data gaps

Gaps in data and other forms of evidence often results in invisibility of cohorts within these populations. Specific health and wellbeing issues that relate to sexuality and gender identity, often get overlooked or generalised in reporting and outcome data. This has resulted in a lack of demographic or detailed data in this area.[66]

Invisibility in data, policy, rebates and item numbers can lead to service provider assumptions about the relative number of people with diverse sexualities and gender identities. This data gap, that at times renders sections of the population poorly represented or invisible can contribute to a lack of dedicated strategies and policies and impedes the need for employing evidence based best practice standards for diverse sexuality and gender identity-safe and inclusive health care service environments.[66]

The above identified data absences and gaps can also impact funding decisions about increasing dedicated health services, including mental health, alcohol and other drug and suicide prevention.

Health Status

Mental Health

As indicated in Australia's Health Report (2018)[11], there is evidence that people with diverse sexuality and gender identity face disparities in terms of their mental health, sexual health and rates of substance use. With regards to mental health, almost 1 in 3 (32%) homosexual/bisexual people aged 16 and over in Australia met the criteria for an anxiety disorder in the previous 12 months, compared with 1 in 7 (14%) heterosexual people.

Mental health and suicidality is a particular risk for transgender people.[67] This was also evident in the NT PHN Needs Assessment, as noted by a visiting specialist in transgender health:

> **Severe chronic depression with suicidal thinking – that's a really common presentation. Some will have been through mainstream psychiatric services which haven't addressed their gender, have medicated them but haven't addressed the underlying main issue that's driven them to that point. [GP 4][67]**

The most recent health needs assessment highlighted a broad range of mental health and wellbeing problems that are experienced by participants. This included depression, sleeping problems, anxiety disorder, suicidal thoughts and suicide attempts, eating disorders, self-medicating, addiction, bi-polar disorder and 'exhaustion'. The mental health care needs of people with diverse sexualities and gender identities are at times complicated by a tendency of some health care providers to over pathologise issues or engage in 'diagnostic overshadowing', a process whereby physical symptoms are wrongly attributed to mental illness or thought to be caused by gender dysphoria, resulting in the provider overlooking the presence of co-morbid conditions. Participants reiterated the point that being transgender is not a mental illness, nonetheless transgender people are disproportionately at risk of mental ill-health because people are at times having to cope with challenging issues in isolation.[66]

Better coordination of care through better service linkages and secure referral pathways could contribute to improving support levels for people with diverse gender identity. It was suggested that health and mental health care providers could work in partnership to provide support and direction to people who are needing to navigate a complicated multi-faceted system of care.[66]

Some of these issues were identified as being complicated further for Aboriginal people who identify as having diverse sexuality and gender identity, restating the need to have timely access to appropriate multi-disciplinary clinical and non-clinical mental health services that are culturally safe and secure for themselves as well as for their friends and family.[66]

Alcohol and Other Drugs

People who identify as having a diverse sexuality or gender identity have relatively high rates of substance use and may have patterns of use that differ from that of the heterosexual population, however there is a dearth of data on the associated harms for this population cohort.

In 2016, lesbian, gay and bisexual (LGB) people were reported to use tobacco, alcohol, illicit drugs and pharmaceuticals at rates significantly higher than the heterosexual population. The 2016 National Drug Strategy Household Survey[68] found that illicit drug use in the last 12 months was more common among homosexual or bisexual people (42%) than among heterosexual people (14%). Recent illicit drug use (cannabis, ecstasy, methamphetamine, cocaine) ranges from 3 – 5 times the population rate. There are no Australian statistics available for either transgender or intersex people.

Sexual Health

The Kirby Institute annual surveillance report[69] found that the proportion of gay and bisexual men reporting unprotected intercourse with casual male partners in the past 6 months increased from 38% in 2012 to 44% in 2016. Male-to-male sex is a major HIV risk exposure in Australia, attributable to 70% of new HIV diagnoses in 2016. Pre-exposure prophylaxis (PrEP) for HIV prevention became available in Australia from 2016, and from April 2018 was made available on the PBS.

Consultations for the most recent needs assessment indicated that participants have had positive sexual health care experiences, including HIV treatment, via dedicated clinics in Darwin. However, outside of Darwin there is limited access to and knowledge about PreP, with some clients reporting that they are having to educate providers about HIV prophylaxis.[66]

Systems and Services

Skills and Capacity

The most common issue identified throughout the needs assessment related to locating services with staff, policies, systems and skills that would enable effective treatment and care to people with diverse sexualities and gender identities across all age ranges and cultures.

There was consistent acknowledgement of skill shortfalls and capacity constraints of the service system. These identified system and service deficits limit care and treatment options for people of diverse sexuality and gender identity across the NT.

- Limited availability of evidence based best practice care and specialist skills, including preventative care, within mainstream services act as a barrier for people seeking support and treatment in a timely manner which at times compounds risk and/or chronicity of health issues
- An identified need for general practices to gain increased access to guidance and providing evidence based best practice care across the primary health care sector in the NT.

There are a limited range of options for skilled primary and specialist care in Darwin. There is one specialist general practice in Darwin that is well known for its commitment to skilled diverse sexuality and gender identity treatment. There are also a limited number of other GPs and allied health professionals in Darwin and Alice Springs that are known to provide safe and specialised practice, however there is only a very small number that directly promote their work in this area across the NT. Nonetheless, these services operate in Darwin and in a NT context that is characterised by a significant lack of dedicated skills and capacity in this area. There was an expressed need for greater training for mainstream general practitioners and service providers to be more diverse sexuality and gender identity friendly.[66]

Patients discussed the need for additional services and support, including social and psychological support, an online directory and advertising of diverse sexuality and gender identity friendly places, and the option of a telephone service. In the NT, there is currently only one known diverse sexuality and gender identity friendly psychologist with expertise with transgender patients. Access to psychiatrists is limited even for the general population, and it is understood that there is no local access to specialised transgender psychiatry services.

Sexual Health Services

The NT Department of Health's Blood Borne Virus Program, which focuses on prevention control and treatment of Hepatitis B, Hepatitis C and HIV, is reported to be severely under-resourced in both funding and staffing. Staff recruitment and retention in sexual health services is highly challenging due to staff coverage and vacancies in sexual health positions, especially for Aboriginal Health Practitioner positions. Recent funding has been provided to the Menzies School of Health Research to eliminate chronic hepatitis B from Aboriginal and Torres Strait Islander communities in the NT.[70]

These service competency and treatment access issues are complicated by patient beliefs about 'small town' issues such as fear of identification and discrimination. This was reported to result in a preference for some to travel 'down south' for treatment and HIV prophylaxis.[66]

Cost Barriers

The cost of care was reported to be a burden for many respondents. Medical and health care costs can be significant and burdensome for some people in the NT as there is limited access to bulk billing GPs, and limited referral services available at low or no cost to consumers. For people with diverse gender and sexual identities, locating safe or specialised services that also bulk-bill or offer free counselling and support is particularly difficult. Long appointments are often needed for complex gender and sexuality-based health issues, adding an additional cost burden/barrier. There was general acknowledgment that often it is very difficult, if not impossible, to access some kinds of gender

diversity and transitioning surgery in the NT, because of the cost or because the specific surgery was unavailable.[66] In the NT, the Patient Assisted Travel Scheme (PATS) is not available for GP services, limiting access to the specialist clinic in Darwin and other treatment options available in Darwin urban and Alice Springs, for people outside of these regions.

Diverse sexuality and gender identity-specific health issues were reported to be inadequately covered through health insurance policies and there are limits on the range of care options available in the public health system. Specialist medical services for chronic health conditions and complex gender diversity issues often need to be accessed interstate which adds an additional cost and time burden. It was suggested that funding should be expanded to subsidise additional services across the NT.[67]

3.2.5 Culturally and Linguistically Diverse (CALD)

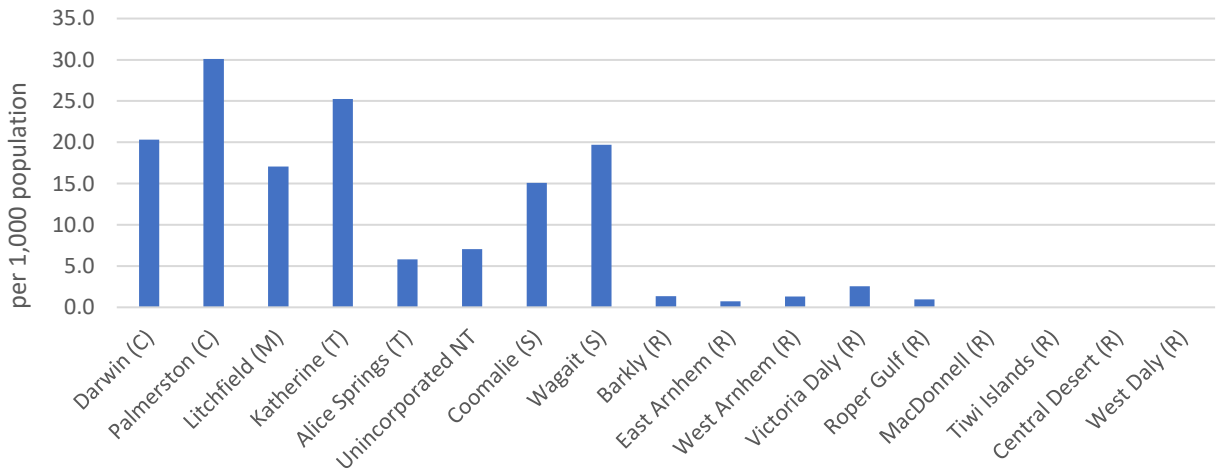
The NT is highly culturally diverse, with over 30% of the total population born overseas in predominantly non-English speaking countries. People with a CALD background are predominantly located in the urban centres of Darwin (23.7%) and Palmerston (13.5%)[32]

Refugees and migrants from non-English speaking backgrounds are likely to experience poorer mental and physical health than the general population, and also face more barriers in accessing health services. They may have poor initial health status and a background of trauma, which impacts upon both mental and physical health. Specific data at the small-area level is sparse; however, for recent arrivals, the contributions of poor initial health status, low health (and English) literacy and cultural challenges in adaptation, particularly to the health system, can contribute to poor health outcomes.

3.2.6 Veterans

There is a significant defence presence in the NT, with many active service people stationed in the Darwin and Katherine regions, and around 641,000 people who have ever served in the Australian Defence Force (ADF). The regions with the greatest proportion of DVA clients are Palmerston, Katherine and Darwin LGAs (Figure 3.2.6a), those closest to the major military bases.[71]

Figure 3.2.6a: DVA Clients (per 1,000 population) by LGA, Northern Territory, at 5 July 2019.



Note: MacDonnell (R), Tiwi Islands (R), Central Desert (R) and West Daly (R) <4 net total DVA clients.
Source: Compiled by NT PHN, DVA.[71]

Recent data from the Department of Veterans Affairs' (DVA) has outlined the most common conditions for veterans as tinnitus, post-traumatic stress disorder (PTSD) and sensori-neural hearing loss.[71] Those who have served overseas are particularly vulnerable to poor mental health and increased suicide rates, with PTSD associated with combat experiences being a major contributor. The mental health and suicide status of veterans is explored further in Section 4.3.

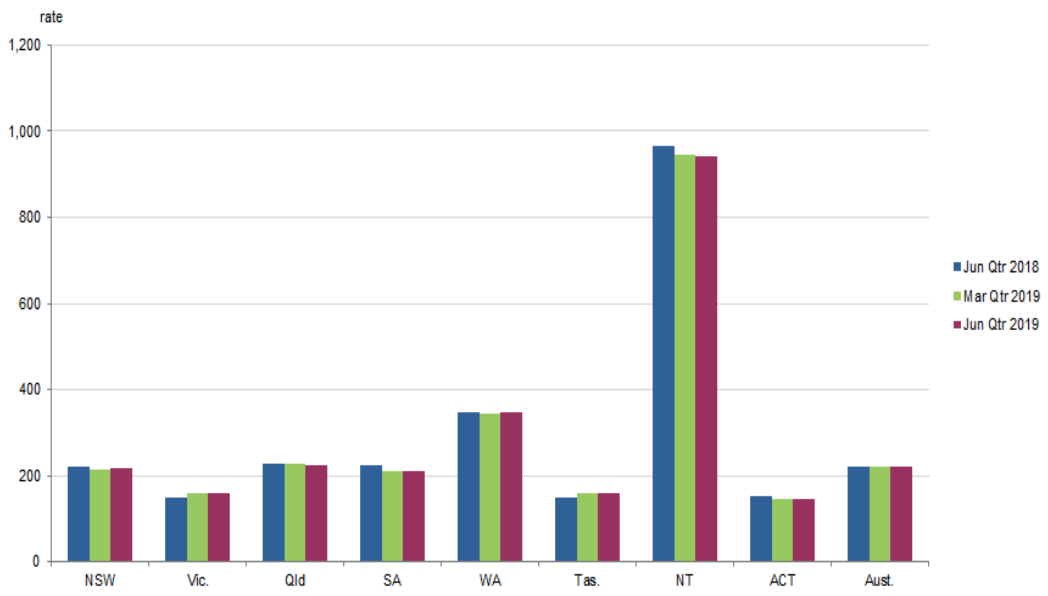
According to the 2014–15 National Health Survey, men aged 55 and over who have served in the ADF generally report lower or similar rates of selected chronic conditions as men who have not served.[72]

3.2.7 People in contact with the Criminal Justice System

The NT has the highest imprisonment rate of all states and territories, with the highest rate of Aboriginal adult (80%) and youth detainees (94%).[73] In 2016, Aboriginal males aged 18-29 years were more than 7 times more likely to be imprisoned than non-indigenous males of the same age.[73] The NT Correctional Services Annual Statistics for 2016-17 estimates that 903 people per 100,000 population in the NT are in prison, over four times higher than the national average.[74]

Nationally, the average daily imprisonment rate for the June quarter 2019 was 221 persons per 100,000 adult population. The NT has the highest imprisonment rate compared to other states and territories, with 941 persons per 100,000 adult population. In contrast, imprisonment rates ranged from 2.7 to 6.4 times greater in the NT compared to other states and territories (Figure 3.2.7a).[75]

Figure 3.2.7a: Average daily imprisonment rate (per 100,000 population), by state/territory, at June 2018, March 2019 and June 2019.



Note: Rate is the number of prisoners per 100,000 adult population. Based on average daily number.
Source: Corrective Services, Australia, June Quarter 2019 (ABS).[75]

Mental health, drug and alcohol misuse, poor physical health and lack of social support and resources, including support services and housing, are all issues for people in contact with the justice system, particularly on discharge from custody. According to Australia's Health Report,[11] people entering prison are likely to have mental and physical health problems and behave in ways that are risky to

their health. It is reported that half (50%) of all prison entrants had a history of mental health conditions, one-third (31%) had a current chronic condition and three-quarters (74%) were current smokers in 2015. It is also noted that people in prison experience 'accelerated ageing' with signs of ageing occurring 10 to 15 years earlier than the general population.[76]

A finding from the Royal Commission into the Protection and Detention of Children in the Northern Territory[77] was 'ongoing health assessments and treatment were not always available for children and young people in detention in a timely or comprehensive manner. Youth justice officers, who did not have medical training, made judgments about whether children or young people required medical treatment.' There is need for consideration of prisoner health and wellbeing outcomes, particularly support upon discharge.

3.3 Chronic Disease

The early onset of chronic disease, particularly in the Aboriginal population, leads to multiple comorbidities and poor overall health status, requiring multiple and complex care arrangements and pathways. The journey and experience of care is often difficult and a barrier to timely, efficient quality care and often complex for individuals, their carers and family.

3.3.1 Diabetes

Diabetes mellitus is the fastest growing chronic disease in Australia. According to the National Health Survey 2017-18[72], diabetes is a chronic condition that affects the health of 4.9% of the Australian population (1.2 million people). This includes 0.6% of people with type 1 diabetes and 4.1% with type 2 diabetes. The cause of type 1 diabetes is not known, and it cannot be prevented or cured. Risk factors for type 2 diabetes include family history, age, being overweight or obese, high blood pressure and being from an Aboriginal or Torres Strait Islander background.

In the NT, at least 4.3% of the population have a form of diabetes. The National Health Measures Survey[78] found that 19 per cent of Aboriginal people in the NT had diabetes compared to 11 per cent nationally, and 32 per cent had kidney disease compared to 18 per cent nationally. The rate of PPH from diabetes complications in the NT (Table 3.1c) is almost double the national average. The rate of preventable hospitalisations in SA3 regions is above the national rate in all regions except Darwin City and Palmerston.

According to the more recent data available in the Australian Diabetes Map, which records the number of people registered on the National Diabetes Services Scheme (NDSS), the NT has high levels of diabetes, with 5.7% of the NT population registered with NDSS and 91.6% of these registrants having type 2 diabetes.[79] It is likely that many remote residents with diabetes are not registered with the NDSS, so these figures are conservative at best.

Barkly LGA has the highest proportion of registrants in the Territory with 8.5% of the population registered with NDSS, and high rates also recorded in Coomalie LGA (7.7%) and Roper Gulf LGA (7.2%) – these rates are above the national rate of 5.3% registered.[79]

Diabetes-related deaths in the NT are over three times the national average. Rates were higher than the national rate in all SA3 areas and higher than the NT rate in all areas except Darwin and Darwin suburbs. The highest rate was Barkly at more than double the NT rate, followed by Daly-Tiwi-West Arnhem and Katherine, both more than 50% higher than the NT average.[80]

Emerging research has identified a significant increase in the rates of diabetes in youth in the NT. This is in line with other national and international observations.[81] This disease progresses rapidly and there is so far limited understanding of the course and appropriate treatment. Similarly, rates of gestational diabetes (GDM) are particularly high among NT Aboriginal women, and those with GDM are highly likely to develop type 2 diabetes within a very short time frame.

3.3.2 Kidney Disease

Kidney disease is a chronic condition and is associated with other long-term health conditions such as diabetes, and risk factors such as smoking and obesity. In 2014-15, kidney disease affected 0.9% of Australians, with estimate of 1.1% of the NT population.[72]

According to the Australian Aboriginal and Torres Strait Islander Health Survey: Biomedical Results, in 2012-13 almost one in five (17.9%) Aboriginal people aged 18 years and over had indicators of chronic kidney disease. Aboriginal people were significantly more likely than non-Indigenous people to have kidney disease. This is especially evident in the age group of 45-55 years, with Aboriginal people three times as likely as non-Indigenous people to have kidney disease.

In 2010-14, deaths from kidney failure were more than 50% above the NT average in Alice Springs, Barkly and Daly-Tiwi-West Arnhem.[19]

3.3.3 Cardiovascular Disease

Cardiovascular disease includes a range of conditions including heart, stroke and vascular disease. In 2014-15, 5.2% of Australians had heart disease. In 2015, ischaemic heart diseases were the leading cause of death for both Aboriginal and non-Indigenous Australians, yet the rate was twice as high for Aboriginal people.[72]

PPH from congestive heart failure in the NT is 50% higher than the national average. The rate is particularly high in Alice Springs at over 50% the NT average.[82]

Australia has some of the highest recorded rates of acute rheumatic fever (ARF) and rheumatic heart disease (RHD) in the world, especially among Aboriginal Australians living in central and northern Australia. Reports indicate the Aboriginal population living in the NT has the highest documented incidence of ARF in the world. Investigating the rates of ARF and RHD in the NT, Lawrence et al. found little evidence of decline in the incidence of ARF or RHD in the period 1997 – 2010, yet there was some decline in the ARF recurrence rate. For Aboriginal Australians in the NT, associated morbidity and mortality from ARF and RHD remain very high. After RHD diagnosis, 27% of people developed heart failure within five years.[83]

The incidence of ARF within NT's Aboriginal population is more than twice the rate of the next highest state (Western Australia). Within the NT, incidence of ARF is highest within the 5-14 years age group, occurring at a rate of 3.4 per 1000 Aboriginal population in 2011-15. This is over four times higher than the incidence for this age group in Western Australia (0.8) and Queensland (0.7).[84]

The NT has the highest rates of RHD within Australia, occurring at a rate of 22.1 per 1000 Aboriginal Australians. This is almost five times higher than the next most prevalent state of Queensland, with a rate of 4.7 per 1000 Aboriginal population. Looking at age breakdowns, the highest prevalence of RHD

in NT is in the 35-44-year-old age group at a rate of 35.3 per 1000 Aboriginal population (compared to a rate of 7.8 in Queensland and 5.3 in WA for this aged group).

3.3.4 Respiratory Disease

In 2015, respiratory diseases accounted for 7.5% of total burden (DALY), 9.5% of non-fatal burden (YLD) and 5.5% of fatal burden (YLL).[85]

Chronic obstructive pulmonary disease (COPD) is a major cause of death in Australia. The premature mortality rate (age-standardised per 100,000) was 27.1 compared to a national rate of 8.8 in 2011-15. Rates were particularly high in the East Arnhem and Daly-Tiwi-West Arnhem regions.[86]

The rate of PPH from COPD is three times higher in the NT compared to the national rate. This rate is particularly high in Alice Springs, Barkly and East Arnhem.[17] Cigarette smoking is the most significant risk factor for COPD and other respiratory conditions.[87] High rates of smoking in NT, at 19.6% compared with 13.8% nationally, could be a factor in high rates of COPD.[88]

In 2017-18, 441 deaths in Australia were due to asthma, accounting for 0.3% of all deaths. Prevalence of asthma in females is higher in every age group compared to males, except the age group 0-14 years where males have a higher prevalence. In 2012-13, 18% of Aboriginal and Torres Strait Islander people had asthma, almost twice as high compared to non-Indigenous people in most age groups.[89]

1 in 4 people aged 15 and older, and two-thirds of children aged 0-14, with asthma have a written asthma action plan to reduce flare-ups and ED visits.[89]

Asthma is a chronic condition, and people with asthma may experience a poorer quality of life. In 2017-18, people with asthma were more likely to report themselves as having 'fair' or 'poor' health than people without asthma, experience higher levels of psychological distress and bodily pain, and were slightly less likely to be employed, compared to people without asthma.[89]

3.3.5 Cancer

In the NT Aboriginal population, the leading cause of years of life lost was cardiovascular disease followed by cancer, while in the non-Aboriginal population cancer has overtaken cardiovascular disease.[90]

Incidence of breast cancer is lower for Indigenous women than non-Indigenous women at 214 compared with 278 new cases per 100,000 women aged 50-69 years. Despite this, mortality from breast cancer is similar at 45 and 43 deaths per 100,000 women, respectively. Overall, Indigenous Australians have higher death rates from cancer than other Australians, yet a lower incidence of cancers that are commonly diagnosed in the non-Indigenous population. Common cancers in Indigenous populations include cervical, liver, uterus and lung-cancer. Across all populations in the NT, lung cancer is the most common cause of cancer death.[91]

However, cancer screening participation for breast cancer, colorectal cancer and cervical cancer in the NT, in both Aboriginal and non-Aboriginal people, is lower than the national average in all regions. Barkly and East Arnhem have the lowest screening rates for bowel cancer and breast cancer, while the Tiwi Islands has the lowest screening rate for cervical cancer.[92]

3.3.6 Chronic Pain

Several million Australians are living with pain every day and the burden continues to grow. The Australian Government Department of Health defines pain as 'a temporary discomfort associated with injury, illness or post-surgery'. Pain becomes chronic when it occurs daily and persists or recurs for longer than 3 months.[93]

Socio-Demographic Overview

Chronic pain can significantly impact on work, sleep, daily activities, relationships and finances, as well as health and wellbeing. Injury, musculoskeletal conditions (such as osteoporosis, back problems and osteoarthritis) and cancer are the most common causes of chronic pain and have the greatest cost. (Figure 3.3.6a) Females (53.8%) and people of working age (68.3%) are more likely to be living with chronic pain, and up to 80% of aged care residents are affected by chronic pain.[94]

Comorbidities are common in people living with chronic pain due to its debilitating nature; most frequently reported are depression or anxiety (44.6%), sleep disturbance and fatigue, and high blood pressure. The suicide rate is at least 2-3 times higher in people with chronic pain compared to the national rate.[94]

Figure 3.3.6a: Allocated health system costs associated with chronic pain by condition, Australia, 2018.

Condition	Cost of condition per person ($)	Cases with chronic pain	Costs ($m)
Injury	1,212	1,231,865	1,493.0
Cancer	18,813	51,868	975.8
Musculoskeletal	1,291	779,896	1,006.8
Mental health/behavioural	2,478	36,274	89.9
Gastrointestinal	4,463	33,251	148.4
Neurological	3,067	21,160	64.9
Infection	18,420	18,137	334.1
Circulatory (cardiovascular)	2,880	21,160	60.9
Genitourinary	6,907	18,137	125.3
Endocrine/hormonal	1,296	6,046	7.8
Respiratory	1,012	6,046	6.1
No clear reason/don't know	2,124	1,017,910	2,162.2
Total		**3,241,750**	**6,475.2**

Source: Deloitte Access Economics based on AIHW (2014), ABS (2015), Institute for Health Metrics and Evaluation (IHME)(2018).[94]

In 2018, chronic pain was estimated to cost Australia a total of $73.2 billion in financial costs, comprised largely of productivity losses, health system costs, and other expenses such as informal care, aids and modifications, and deadweight losses. In addition, chronic pain often restricts the activities an individual can undertake which impacts on quality of life, valued at an additional $66.1 billion. In the NT, chronic pain cost a total of $1.3 billion, in financial ($727.5 million) and quality of life costs ($577.8 million).[94]

Health Status

In 2011-12, 15.4% of Australian's (aged 15 years or older) were living with chronic pain, and this is estimated to increase to 16.9% by 2050. In 2018, overall prevalence in Australia is 12.7%, and 11.2% in the NT. 65.6% of people with chronic pain live in urban areas, compared to 34.4% in regional areas.[94]

In 2017, low back pain was the leading cause of disability worldwide.[95] In 2018, around 3.24 million Australian people were living with chronic pain, estimated to represent 6.8% of the total disease burden in Australia and 6.5% of total health system expenditure.[94] Of the general practice population in the NT in September 2019, 13.5% reported a musculoskeletal condition that can cause chronic pain; most commonly osteoarthritis (5.7%), osteoporosis (2.9%), inflammatory arthritis (1.5%), and other muscular conditions (3.4%).[96] The total number in this population was 98,257 people, however this is likely to primarily indicate to the non-Indigenous population in urban centres.

There is a lack of comprehensive, specific data in this area, particularly at the state and regional level. This is largely due to a previous lack of understanding and recognition that pain is a chronic condition.

Following the National Pain Summit, held in Canberra in 2010, Australia was the first country to develop a 'National Pain Strategy'. The mission was to 'improve quality of life for people with pain and their families, and to minimise the burden of pain on individuals and the community.' In 2019, the Department of Health built on the initial strategy by releasing the 'National Strategic Action Plan for Pain Management 2018-2021' outlining eight key goals and actions: recognise that pain is a national and public health priority, better understand and manage pain, health practitioners become more well-informed, minimisation of chronic pain through prevention and early intervention strategies, supporting community/work participation, and research.[93]

Systems and Services

In Australia, on average, one in five GP presentations are management of chronic back pain or arthritis, and medication was prescribed to manage pain in 64.8% of consultations. In the NT, there are 77.8 GPs per 100,000 population, and pain is effectively managed in just 4% of consults. There is no data available on rates of medication, referral and imaging for NT, though it is available nationally and for every other state and territory. There is a need to move away from prescribing conventional opioids to treat chronic pain, as it can lead to dependence, addiction, overdose and death, with an estimated 823 Australian's losing their life to prescription opioid misuse in 2017-18.[94] More research is required to determine effectiveness of atypical opioids to treat chronic pain.[97]

In 'The cost of pain in Australia' report, Painaustralia recommends 'a roll out of a pain specialist-designed and led national GP training program'. Increase in multidisciplinary care, development of best-practice care guidelines, and research into new opioid treatments, is estimated to save up to 249 lives per year and billions of dollars in financial and wellbeing costs.[2] Nearly 80% of Australian people living with chronic pain have no access to treatment or services that can improve their health and quality of life.

Funding and projects:

- NT PHN currently delivers funding to Pain NT to provide biopsychosocial assessments by a team of pain specialists- a physiotherapist, occupational therapist, and psychologist. A pain rehab and recovery program are developed followed by a maintenance program.[98]
- As part of the national HealthPathways project, NT PHN has developed a specific 'pain management' pathway to assist GPs to diagnose and manage chronic pain and prescribe medications.
- The Australian Prevention Partnership Centre has received funding to implement a project aimed at improving pain management in primary care and prevent progression. The funding will be directed toward prevention and early intervention of chronic pain, before it progresses to interfere with life, require medication and intensive pain management services, and identify gaps in service capacity (e.g. pathways to specialist care). This information will be used and piloted by PHNs to improve service capacity and delivery in this sector.[99]
- The 'Chronic Pain Project' – a framework of the types of chronic pain initiatives implemented in PHNs.[97]
    - Goal 1: Access to multidisciplinary care and improving consumer health literacy and care navigation
    - Goal 2: Ensuring health professionals are skilled and provide best-practice evidence-based care
    - Goal 3: Quality improvement and health system support
- In 2019, the Australian Government Department of Health recognised the need to 'improve understanding and management of pain by consumers and health professionals', committing up to $6.8 million in funding to improve access to pain management services for Australians living with chronic pain. Proposed plans include outreach to regional, rural and remote areas and upskilling of GPs and primary care providers in treatment and medication.[100]
- The NT population is underserviced in relation to the treatment of chronic pain, and is not currently participating in the electronic Persistent Pain Outcomes Collaboration (ePPOC), a program aimed at improving services and outcomes for Australians living with chronic pain, despite every other jurisdiction in Australia and New Zealand participating.[94]

3.4 Social Determinants of Health

The social determinants of health, including housing, education, employment, also encompassing family and relationships (including domestic violence), have a major impact on the health and wellbeing of all Australians. It has been estimated that the social determinants of health account for approximately 75% of the health of a population.[101] Social determinants can also influence access to health services. The social determinants of health are fundamental to all population groups and play a role in the development of most health conditions. This discussion is therefore relevant to all of the identified health needs in this needs assessment.

The NT has some very affluent population groups, but also has a large proportion of residents – both Aboriginal and non-Aboriginal – who live in circumstances which are complex and challenging for the maintenance of their physical and mental health and wellbeing. Of the 100 lowest scoring (most disadvantaged) Socio-Economic Indexes for Areas – Index of Relative Socio-Economic Disadvantage

(SEIFA IRSD) in Australia; 41 are located in the NT, including the five very lowest.[102] These tend to be in remote areas, where accessibility compounds the effects of disadvantage.

Measurements of socio-demographic indicators such as overcrowded housing, education and employment are generally poor in the NT compared to other jurisdictions, and these vary quite widely within the NT. Some LGAs have rates of unemployment and poor educational attainment (for example) more than twice the national rate. The proportion of dwellings considered overcrowded is particularly high in the NT, with East Arnhem and West Daly having overcrowded homes at over 15 times the national rate (Table 3.4a). It should be no surprise that populations living with such high levels of disadvantage are particularly vulnerable to poor health outcomes.

Poor social determinants of health have been associated with the gap in health status between Aboriginal and Torres Strait Islander Australians and non-Aboriginal Australians.[11] This gap is also evident *within* Aboriginal populations. Based on self-reported survey data, Aboriginal Australians who are in the lowest income group, have a lower level of educational attainment or who are unemployed, are less likely to report 'excellent' or 'very good' health than those in the higher income groups.[103]

Table 3.4a: Selected sociodemographic indicators by LGA, Northern Territory, 2016.

	Low Education	Single Parent Families	Low Income Households	Overcrowded Housing	Unemployed	No internet at home	No motor vehicle
	ASR/100	%	%	%	%	%	%
Alice Springs (T)	29.0	23.2	33.3	5.7	1.9	15.8	7.6
Barkly (R)	59.7	31.2	47.8	24.2	8.9	35.8	28.4
Belyuen (S)	101.0	66.7	94.1	34.4	..	71.1	34.2
Central Desert (R)	76.9	29.8	63.7	39.8	13.4	63.3	44.8
Coomalie (S)	34.5	46.2	40.6	9.2	2.7	33.4	6.8
Darwin (C)	24.3	17.8	31.1	6.1	3.4	11.4	6.5
East Arnhem (R)	60.7	37.1	76.5	57.1	9.7	42.0	54.6
Katherine (T)	33.2	22.1	32.7	7.8	2.3	20.2	7.8
Litchfield (M)	32.4	16.5	30.7	7.7	2.7	13.4	1.9
MacDonnell (R)	53.9	37.0	49.8	34.3	9.3	51.7	39.7
Palmerston (C)	34.3	20.4	34.4	4.4	3.9	11.4	4.3
Roper Gulf (R)	61.2	29.7	46.5	42.4	9.7	35.8	39.6
Tiwi Islands (R)	57.2	30.8	80.4	32.7	10.8	24.3	62.5
Victoria Daly (R)	55.4	31.6	44.9	26.8	9.7	45.8	27.4
Wagait (S)	31.2	24.3	48.8	8.5	2.5	16.3	2.1
West Arnhem (R)	51.5	23.0	45.1	40.5	9.1	33.7	37.4
West Daly (R)	77.9	29.5	68.1	56.0	9.7	57.3	54.4
Unincorporated NT	29.8	13.3	27.7	4.8	3.4	16.9	11.9
Northern Territory	**34.4**	**22.1**	**40.5**	**10.3**	**4.2**	**14.1**	**7.5**
Australia	**30.4**	**20.4**	**43.2**	**3.7**	**5.9**	**16.9**	**10.7**

Source: Data from ABS Census 2016, compiled by PHIDU.[32]

Addressing the social and cultural determinants of health, including primary prevention through food security and nutrition, participation in education and employment, mobility and exercise, a safe environment, access to appropriate housing, portable water and facilities is critical to improving long-term health outcomes. This requires coordination across the many agencies responsible for these

areas (including across all three levels of government and NGOs) which is difficult, and places multiple demands on limited community infrastructure.

Preventative health initiatives including immunisation, screening, campaigns, health education and improving health literacy require significant resourcing to impact the most at risk and vulnerable, and those most difficult to reach.

Systems and Services

Given the high rate of chronic disease and the link between lifestyle factors and behaviours, health promotion and prevention that target well and/or at-risk populations is essential.

The early onset of chronic disease comorbidities gives rise to the building epidemic of chronic disease, requiring multiple and complex care arrangements and pathways. The journey and experience of care is often difficult and a barrier to timely, efficient quality care and often complex for individuals, their carers and family.

Prevention and management of chronic conditions is a key issue for Aboriginal and non-Aboriginal people in the NT. The key in reducing chronic disease mortality lies in the combination of risk factor prevention, primary care and management for chronic diseases such as cardiovascular disease, cancers, diabetes and kidney disease.

3.5 Domestic, Family and Sexual Violence

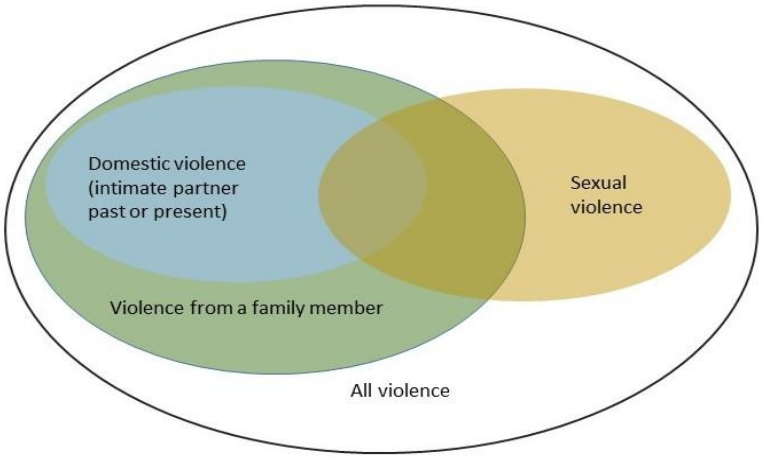
Domestic, family and sexual violence (DFSV) is a major national health and welfare issue that can have lifelong impacts for victims and perpetrators. It can involve people of all ages and backgrounds, but predominantly affects women and children. The ABS 2016 Personal Safety Survey (PSS)[104] estimated that 2.2 million adults have been victims of physical and/or sexual violence from a partner.[105] DFSV can be experienced in diverse physical and/or non-physical forms: financial abuse, emotional and psychological abuse, verbal abuse, spiritual and social abuse, forced or coercive sex and physical assault.

Family violence refers to violence between family members, typically where the perpetrator exercises power and control over another person. It is the preferred term for violence between Aboriginal and Torres Strait Islander people, as it covers the extended family and kinship relationships in which violence may occur (Figure 3.5a).[106] Family violence is best understood within broader contexts as both a cause and effect of social disadvantage, intergenerational trauma, poor parenting and substance misuse. It remains a critical social policy issue that effects all communities, placing a particularly large burden on remote Aboriginal communities[107] and significantly affects the health and wellbeing of victims and families.

Domestic violence, or intimate partner violence, involves physical aggression or assault, sexual assault or coercion, psychological abuse and controlling behaviours from a current or past intimate partner.

Sexual violence is the use of force, coercion or psychological intimidation by one person toward another person to engage in a sex act against that person's will, whether or not the act is completed.

Figure 3.5a: Definitions of Domestic, Family and Sexual Violence (DFSV).



Source: Compiled by NT PHN from AIHW.[105]

Policy and legislative environment

The Northern Territory Domestic and Family Violence Act section 124A[108] requires that every adult in the NT must report to the police if they believe domestic violence has occurred or is likely to occur, or there is imminent threat to a person. The NT Child Protection System requires mandatory reporting of child abuse, which also includes 'exposure to physical violence.'[109]

In 2017, 58% of all assaults in in the NT (4,500) were determined to be DFSV. There are three main service entry points for support following family violence for Indigenous and non-Indigenous Territorians:[110]

- Justice and statutory services, including police, family courts and child protection services
- Mainstream services, including health and education services
- Specialist DFSV services such as safe houses and other homelessness services, crisis services, forensic services, counselling, financial assistance, perpetrator intervention services and Family Violence Prevention Legal Services

Socio-Demographic Overview

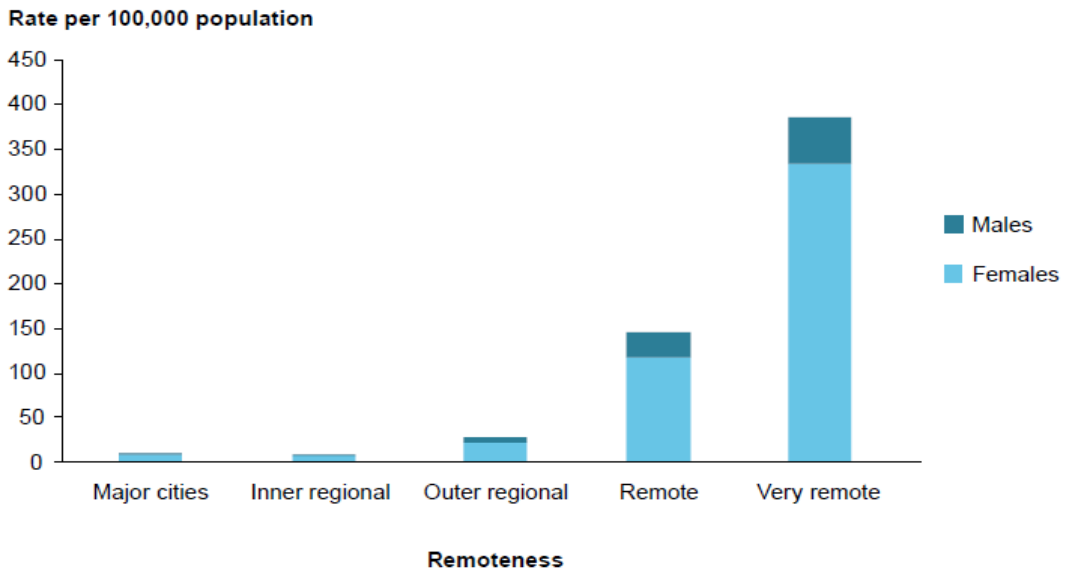
Based on ABS experimental data, in the NT, the female-to-male victim ratio for domestic and family violence is estimated to be 5:1 – the highest jurisdictional ratio in Australia. Aboriginal Territorians had a much higher proportion of female assault victims than non-Indigenous people (77% compared to 36%).[109] Aboriginal over-representation in the data is also reflected in geographical dispersion of DFSV in the NT (see figure 2), with the rates highest in predominantly remote Aboriginal areas such as Tennant Creek.

Health Status

Between 2010-2014 there were 14 deaths by homicide in the NT linked to historical incidences of domestic and family violence,[111] which is three to five times higher than rates in any other Australian jurisdiction.

Nationally, almost 1 in 4 hospitalisations for assault injury are due to domestic and family violence.[105] Hospitalisation for domestic violence were 24 times the rate for people living in remote and very remote areas of Australia, compared to major cities.[110] The hospitalisation rate for family violence for Indigenous Australians also increases with remoteness, and is much higher in remote and very remote areas compared to major cities (Figure 3.5b).[107] Children were hospitalised due to assault perpetrated by a parent in 38% of cases, and other family members in 51% of cases in the NT. Aboriginal children accounted for 82% of admissions for child assault, with the highest rates of assault again recorded in remote areas such as Barkly, Alice Springs rural and Katherine regions.[111]

Figure 3.5b: Assault hospitalisations where the perpetrator was spouse or partner, adults aged 15 and over, by remoteness are of usual place of residence, by gender, Australia, 2016-2017.



Note: These population rates have been calculated using the total population of each remoteness area.
Source: FDSV in Australia 2019, AIHW.[105]

Sexual assaults accounted for 11% of custodial sentences in the NT.[112] Indigenous Australians are up to 3.4 times more likely to be sexually assaulted than non-Indigenous Australians are.

The risk of homelessness following DFSV and the need for immediate protection for women and children has contributed to the growth of specialist homelessness services (SHS) in the NT. There are currently 18 women's safe houses located in remote areas of the NT. Remote areas of the NT had the highest rate of SHS clients in Australia with 563 clients per 10,000 population.[113] Domestic and family violence was the primary reason for seeking homelessness assistance in the NT, accounting for 48% of requests.[114]

Social determinants and Intersectoral collaboration

Alcohol was a factor in 67% of family violence offences and is considered a major situational factor in the lead up to DFSV, with the rate of alcohol consumption in the NT being 73% higher than the national average. Males attending residential alcohol treatment services in the NT consistently reference assaults they have committed while intoxicated as the reason for attending alcohol treatment services in NT in 2019[115]. The justice system also finds it necessary to stipulate 'full non-contact while

intoxicated' as one of three Domestic Violence Order rules that can be applied to perpetrators of DFSV when community (non-custodial) orders are issued.[108]

The SEIFA census data index of relative socio-economic disadvantage across the NT suggests a correlation between higher rates of reported DFSV and remoteness.[116] Nationally, 48% of Aboriginal people fall within the lowest SEIFA category, and 3 of the 10 most disadvantaged LGA's in Australia are located in the NT.[117]

Systems and Services

Interventions for perpetrators

Justice sector: The overall NT imprisonment rate is very high, and Indigenous prisoners are over-represented within this cohort. In the NT, 89% of family violence defendants are Indigenous men. The frequent removal of men from their community (on custodial sentences) causes significant disruption to families and communities.

Psychoeducation: In response to the high rate of DFSV within the NT, psycho-education programs based on the Duluth Model have been employed (usually mandated during sentencing) to modify male offending attitudes and behaviour. The Duluth Model approach[118] aims to 'take the blame off the victim and place the accountability for abuse on the offender'. This model employed nationally and in the NT, in the Our Watch initiative [119] and the NT DFSV framework [106].

Culturally appropriate models: The Duluth model has been criticised by some NGOs working in this sector[109] as being less effective in reducing family violence in Indigenous communities because it doesn't address the social determinants associated with the community and family dysfunction behind 'couple fighting'. Interventions in Aboriginal communities should employ a holistic model, including dealing with underlying trauma while not sacrificing women's safety at the point of crisis[109].

Health sector responses

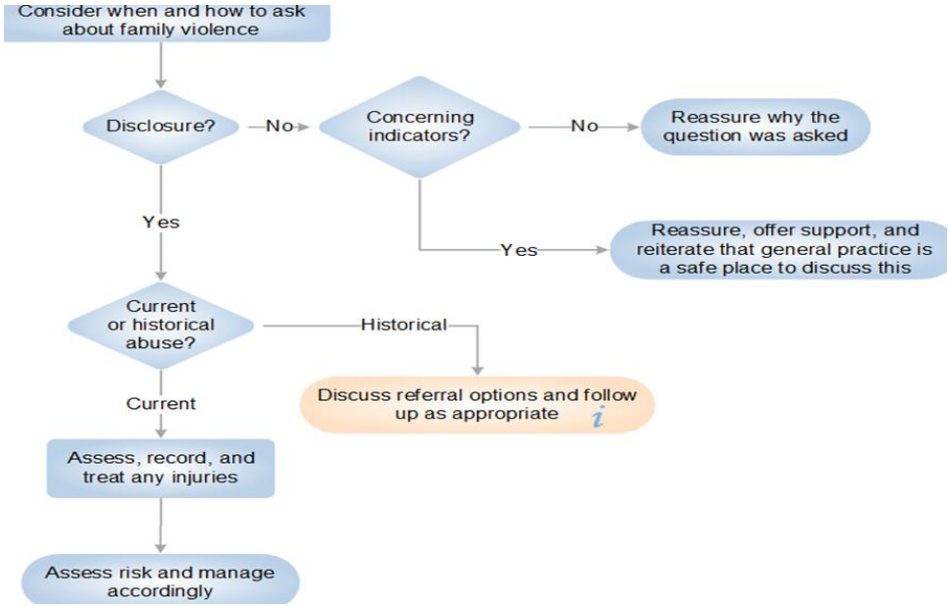
As stated above, families and communities affected by DFSV interact with a range of sectors including justice, health and housing. There is a lack of data on pathways, impacts and outcomes for victims and perpetrators, and a lack of data to evaluate the effectiveness of current prevention and intervention programs[110].

The health sector is a key service entry point for victims and perpetrators of DFSV, providing treatment, referral and escalation of responses if required. Non-disclosure of DFSV by victims during health service contacts is an issue, and one that is particularly high in Indigenous communities[110]. Often when victims have disclosed DFSV, it may lead to inter-family warfare, ostracism, and retribution[120]. The 250% increase in the rate of prosecution for family and domestic violence following the 2007 NT intervention[109] has contributed to community apprehension regarding the possible consequences of disclosure of DFSV. Homelessness, breach of a domestic violence order (DVO), potential further assaults, and a fear of having children removed are additional barriers to disclosure that require a sensitive and informed approach by clinicians when DFSV is suspected[109].

According to the RACGP, screening as an intervention should be considered when there is reason to suspect that family violence is occurring, or if the antecedents to family violence are present (Figure

3.5c). Medicare supports screening for domestic violence (amongst other issues) during obstetric consultations, but evidence indicates that workers should have a low threshold for making enquiries if there is any indication.[121]

Figure 3.5c: Family violence clinical guidance recommendations, as outlined in NT HealthPathways.



Source: NT HealthPathways.[122]

In Australia, many people on a low income have three or more legal issues a year. Evidence shows they are more likely to talk about these issues with a trusted health professional compared to a lawyer[123]. Health sector collaboration with legal sector services, or health justice partnerships (HJP), can provide an entry point for people who have experienced DFSV but have been unaware of potential legal interventions on their behalf. A sizeable proportion of people take no action to resolve their legal problems and consequently achieve poor outcomes. HJP's have been established between Danila Dilba Health Service and the NT Legal Aid Commission, the Central Australian Woman's Legal Service and CAHS, and another is being established in the Katherine region. Nationally, the most common issues addressed by HJP's have been domestic and family violence and family law (62%).[124]

3.6 Sexual Health & Blood-Borne Viruses

The burden of sexually transmissible infections (STIs) and blood-borne viruses (BBVs) continues to increase in Australia, particularly in young people aged 15-29 years, Aboriginal and Torres Strait Islander peoples, people of diverse gender and sexuality, CALD people, sex workers and people who inject drugs (PWID). In response, many strategies have been developed by Australian and state/territory governments, including the 'Fourth National STI Strategy', 'Fifth Aboriginal and Torres Strait Islander BBV and STI Strategy' and 'Northern Territory Sexually Transmissible Infections and Blood-borne Viruses Strategic and Operational Plan 2019-2023.'

<u>Sexually transmissible infections (STIs)</u>

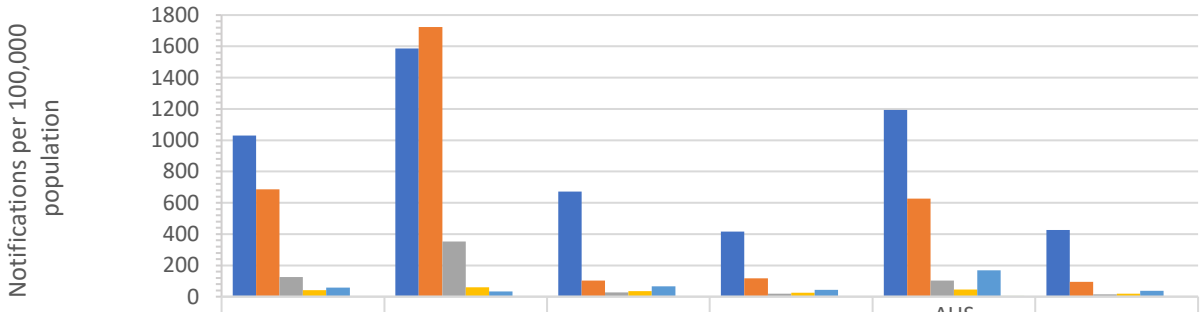
STIs are transmitted through unprotected sexual contact, bodily fluids, or mother-to-child by childbirth or breastfeeding. Chlamydia is the most frequently reported STI and communicable disease

in Australia. In 2017, three quarters of chlamydia notifications (73%) and half of gonorrhoea notifications (54%) occurred in young people aged 15-29yrs. It is estimated that a large proportion of young people (76%) carry the infection but remain undiagnosed and untreated, leading to continued reinfection and transmission.[125]

In the NT, rates of all STIs and BBVs are higher when compared to the national average. The NT Aboriginal and Torres Strait Islander population has higher notification rates of chlamydia (2.4 times as high), gonorrhoea (17x), infectious syphilis (13x) and hepatitis B (1.6x), compared to the non-Indigenous population in NT, and much greater than the rest of the Australian population (Figure 3.6a).[125]

Antimicrobial resistance is emerging in some strains of the *Neisseria gonorrhoeae* bacteria. Due to the increasingly high rates of gonorrhoea, multi-drug resistant gonorrhoea has the potential to become a significant health issue in Australia.[126]

Figure 3.6a: Notification rate of STIs and BBVs (age-standardised rate per 100,000) by Aboriginal status, Northern Territory and Australia, 2017.



	NT Total	NT Aboriginal and Torres Strait Islander	NT Non-Indigenous	AUS Total	AUS Aboriginal and Torres Strait Islander	AUS Non-Indigenous
Chlamydia	1029.7	1586.1	671.6	416.8	1193.9	427.0
Gonorrhoea	686.6	1723.9	102.6	118.0	627.5	95.6
Infectious Syphilis	126.5	353.1	26.7	18.3	102.5	15.5
Hepatitis B	40.8	60.0	36.0	25.0	45.1	19.2
Hepatitis C	58.0	33.8	65.8	43.3	168.1	38.4
HIV	0.3			1.0	4.6	2.8

Note: Blank where data is not available for HIV notifications in NT by Indigenous status.
Source: Data compiled by NTPHN from Kirby Institute.[125]

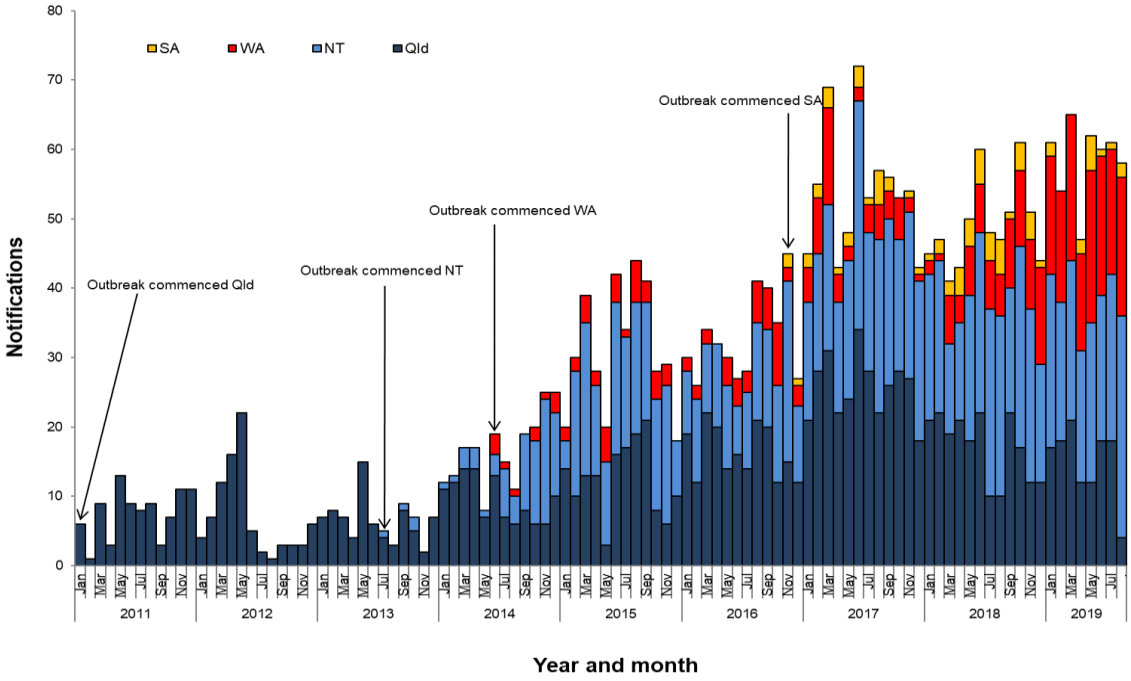
Infectious syphilis

In 2017, the age-standardised notification rate of infectious syphilis (defined as <2 years after infection) in the NT was seven times higher than the national rate, and NT Aboriginal and Torres Strait Islander people had a notification rate 13 times higher than the non-Indigenous population. (see figure 1) These high rates correspond with the current outbreak of infectious syphilis in young Aboriginal and Torres Strait Islander people, aged 15-29 years, in seven regions of the NT: Alice Springs rural, Alice Springs urban, Barkly, Katherine, East Arnhem, Darwin rural and Darwin urban. (Figure 3.6b) The outbreak originated in northern Queensland in January 2011, extending to NT in July 2013, the

Kimberley region of Western Australia in June 2014, and several parts of South Australia in November 2016. (See figure 2) As at 31 August 2019, there have been a total of 2,974 reported cases of infectious syphilis in the four affected areas of Australia, and 1136 cases in NT. 61% of all cases in NT and nationally occurred in the age group 15-29yrs.[127] The priority areas for the enhanced response are: testing and treatment, surveillance and reporting, education and awareness, and antenatal care.[128]

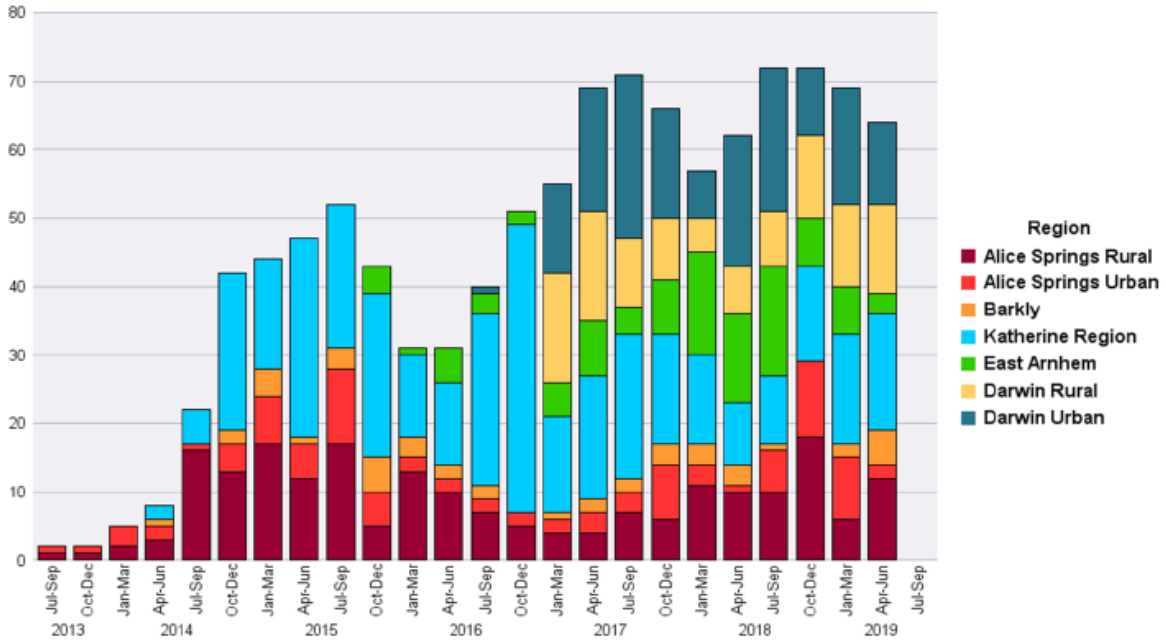
A partnership between the National Aboriginal Community Controlled Health Organisation (NACCHO) and the NT Department of Health has put a $8.8 million grant towards the syphilis outbreak response, and high rates of other STIs and BBVs, in Northern Australia. The funding has been used to facilitate workshops and training on Point of Care Testing (PoCT), as well as education, testing kits and pharmaceutical supplies.[129]

Figure 3.6b: Epidemic curve of infectious syphilis outbreak cases notified in Aboriginal and Torres Strait Islander people residing in affected regions of Queensland, Northern Territory, Western Australia and South Australia, January 2011 – August 2019.



Source: Multijurisdictional Syphilis Outbreak Surveillance Report: September 2019, Australian Government Department of Health.[130]

Figure 3.6c: Quarterly notifications of infectious syphilis outbreak cases by health region, Northern Territory, July 2013 – June 2019.



Source: NT Department of Health, Syphilis outbreak update.[131]

Blood-borne viruses

Blood-borne viruses (BBVs) are transmitted through shared injecting needles (drug/tattoo), unprotected sexual contact, and mother-to-child. Rates of viral hepatitis B and C are on the rise in Australia in many disadvantaged populations.

In 2017, the age-standardised notification rate of hepatitis B in the NT was 60% higher than the national average, and 60% higher in NT Aboriginal population compared to the non-Indigenous population (Figure 3.6a).[125] Although prevalence of chronic hepatitis B (CHB) was highest in NT PHN, treatment uptake in the NT (5.2%) was below the national average (8.3%); it was very low in Katherine, Alice Springs and Daly-Tiwi-West Arnhem (2.4%, 3.4%, 4.0%). Yet the proportion of people who received care for CHB (treatment or monitoring) was slightly higher than the national average. Within many PHNs, people born overseas comprised the majority of people living with CHB; most commonly were China (17.8%) and Vietnam (8.2%).[132]

While not curable, the hepatitis B vaccine is highly effective at providing protection against the hepatitis B virus. Australia has a hepatitis B infant immunisation coverage of 94.7% at 12 months of age, and the NT has 94.6% coverage. However, the proportion of Aboriginal and Torres Strait Islander children immunised in Australia is lower, and people born overseas are often not immunised or infected at birth/in childhood.[132]

In 2017, the age-standardised notification rate of hepatitis C in the NT was 1.3 times as high as the national average, and 4.4 times higher in the overall Australian Aboriginal population compared to the non-Indigenous population (Figure 3.6a).[125] Prevalence of chronic hepatitis C (CHC) was highest in NT PHN, particularly in Darwin City (4.28% of the population). Treatment uptake in people living with CHC was much lower in the NT (10.2%) compared to the national average (23.6%), and considerably lower in Darwin City (6.2%) and Katherine (5.6%). There was no data available for Barkly, Daly-Tiwi-West

Arnhem and East Arnhem due to low population/notifications.[132] Hepatitis C is a curable illness, and the current priority is to improve capacity to test and treat in the primary care setting and targeting priority populations; primarily PWID, CALD, and people in correctional facilities.

Across Australia, human papillomavirus (HPV) immunisation coverage was high in girls and boys turning 15 years of age in 2017 (80% and 76%, respectively). The three-dose HPV immunisation program has seen cases of genital warts decrease by 96% in Australian-born women under 21 years of age attending sexual health clinics for the initial visit, and 93% in heterosexual men under 21 years of age. In addition, the rate of high-grade abnormalities detected through cervical screening has decreased by 66% in women aged under 20 years, and a 44% decrease in women aged 20-24 years.[125]

HIV

Human immunodeficiency virus (HIV) is a serious illness which damages the immune system and there is currently no cure. People living with HIV require life-long monitoring and treatment with antiretroviral therapy (ART), aimed at suppressing the viral load to below detectable levels to prevent onward transmission. If left untreated, HIV can progress to acquired immunodeficiency syndrome (AIDS), although this is rare in Australia. Men who have sex with men have the highest rates of HIV in the total population (70%). Cases of HIV in Aboriginal and Torres Strait Islander people are more commonly attributed to injecting drug use (16%) and heterosexual sexual contact (21%), compared to non-Indigenous people.[133]

In 2017, the HIV notification rate in the NT was lower than the national average, and the lowest of any other jurisdiction. This may be due lower testing rates

Nationally, the notification rate for Aboriginal and Torres Strait Islander people is 1.6 times as high as the Australian-born non-Indigenous population, and this rate increased by 41% between 2013 and 16 (Figure 3.6a).[125]

Systems and Services

STI notification data demonstrates that young people aged 15-29 years are significantly affected by poor sexual health and should be the target of opportunistic screening in the primary care setting. Upon a positive diagnosis, contact tracing should be conducted, and retesting (within 3 months) to prevent reinfection with the STI. In addition, health promotion and education activities are necessary to reduce stigma, improve awareness of sexual health, STIs and BBVs, and normalise condom use and STI testing.[134] In the current NT STI and BBV Strategic and Operational Plan 2019-2023[135], STI/BBV testing is a priority area. Including coverage of testing in priority populations, expanding research, opportunistic testing in primary healthcare settings, with emphasis on the syphilis outbreak response. Barriers to seeking services, particularly for young people and Aboriginal people, are shame and stigma, lack of awareness and knowledge of sexual health, cost and availability of services.

Clinic 34 is a specialised sexual health service, funded by NT Health Centre for Disease Control, with locations in Darwin, Alice Springs, Katherine, Nhulunbuy and Tennant Creek. All services, including testing and treatment, are free, confidential and no Medicare card is required. GPs, community clinics and Family Planning clinics provide additional services such as ongoing care, cervical screening and contraception, however a Medicare card is required, and a fee may be charged.

Needle and Syringe Programs (NSP) are a harm reduction strategy aimed at 'reducing the risk of transmission of HIV, hepatitis B and C and reduce the other harms associated with injecting drug use'. In the NT, NSPs are run by the NT AIDS and Hepatitis Council (NTAHC) and provide sterile injecting equipment, collection boxes, referrals and education to PWID at no cost. One of the goals is to prevent onward transmission of BBVs, by providing referrals to sexual health services for testing and treatment, sexual health education, and distribution of condoms and lube. This service is unique compared to similar services around Australia because the services are staffed by 'peers' in the form of current or ex-PWID. Aside from few 24-hour token-operated dispensing units, there is currently no after-hours or weekend NSP service for support and education in the NT.

The Sex Worker Outreach Program (SWOP NT) engages with and provides free, non-judgmental services to sex workers in NT. SWOP NT operates from a peer education model and provides support, sexual health and BBV transmission education, outreach, referrals and training for service providers. Sex workers are legally bound to operate within the Northern Territory Prostitution Regulation Act 1992, which is currently under review. The focus of the review highlights some of the tensions that exist between a decriminalised sex industry and a criminalised industry, particularly in the areas of work health and safety (WHS), sexual health and BBV transmission risk, and stigma and discrimination.

3.7 Disability

The ABS[136] defines disability as 'a limitation, restriction or impairment, which has lasted, or is likely to last, for at least six months and restricts everyday activities.' Disabilities can range from mild to severe or profound limitations, and can present as intellectual, physical, neurological or psychiatric. People with a disability are more likely to experience comorbidities, poor health outcomes and social determinants including income, employment, education, housing, social support, and environmental factors such as accessibility.

Socio-Demographic Overview

People with a disability often face challenges in their everyday life and particular health risks compared to people without disability. In 2014-15, people with a disability were more likely to report insufficient physical activity in the past week, daily smoking, and less likely to report risky alcohol consumption. People with a severe or profound disability experienced increased difficulty in accessing health services compared to people with other forms of disability and people without a disability.[61]

The majority of people with a disability, particularly young people aged 15-24 years, have reported experiencing discrimination and social exclusion, especially from health staff.[136, 137] A lower proportion of people with a disability of working age (15-64 years) were part of the workforce, and were more likely to be unemployed compared to people without a disability.[138] They are also at higher risk of being homeless compared to the general population, due to low income, unemployment, low levels of education, and lack of social and financial support.[139] Many workplaces have strategies in place to improve career opportunities and retention of people with a disability. There are a number of services that provide information and support to people with a disability and their carers, such as legal services, advocacy services, Department of Social Services and various NGOs.

A recent media release by the ABS outlines improvements in rates of people with a disability completing year 12 in 2018 (33.4%), a bachelor degree (16.1%) and people with a profound or severe

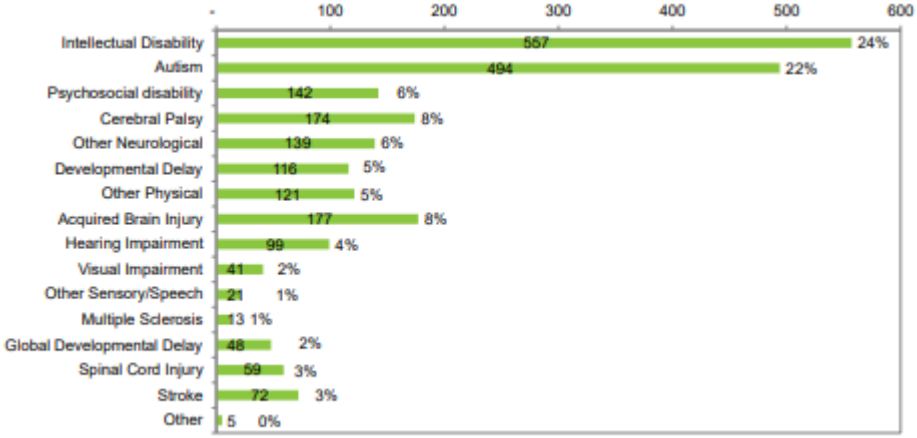
disability working full time (11.4%). Also noted was a decrease in the overall rate of disability in Australia (17.7% of the population) compared to 2015 data.[140]

Health Status

Nearly 1 in 5 Australian people (18.3%, 4.3 million people) and 1 in 4 Aboriginal and Torres Strait Islander people (23.9%) are currently living with a disability, and more than one-third of Australian households contained a person with a disability (35.9%).[136] The majority of people with a disability reported a physical disability (78.5%), followed by a mental or behavioural disorder (21.5%).[141]

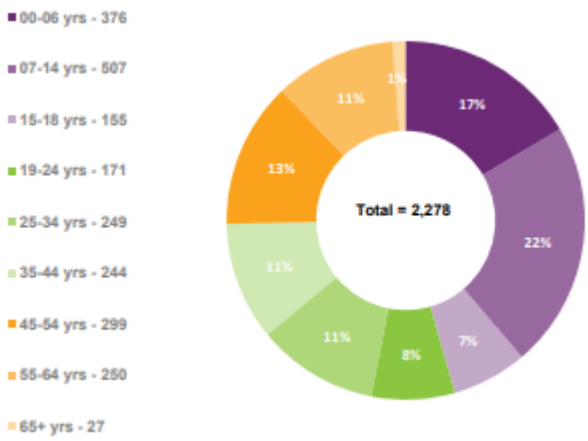
In Australia, the primary disability of active participants with an approved National Disability Insurance Scheme (NDIS) plan were autism (30%) and intellectual disability (26%). In the NT, the primary disabilities are intellectual disability, autism, acquired brain injury and cerebral palsy (Figure 3.7a). Children aged 0-18 years made up the majority of active NDIS participants, with 7-14 year-age group the most predominant in both the NT and Australia (Figure 3.7b). Over half (52%) of active NDIS participants in the NT reported being of Indigenous status, and 28% of CALD background.[142]

Figure 3.7a: Primary disability of active participants with an approved NDIS plan, Northern Territory, at 30 June 2019.



Source: NT Public Dashboard, NDIS.[142]

Figure 3.7b: Age profile of active participants with an approved NDIS plan, Northern Territory, at 30 June 2019.



Source: NT Public Dashboard, NDIS.[142]

Fetal Alcohol Spectrum Disorder (FASD)

There are several disabilities that are particularly prevalent in the NT. Fetal Alcohol Spectrum Disorder (FASD) is the umbrella term for a range of physical, cognitive, behavioural and neurodevelopmental abnormalities that occur as a result of alcohol use during pregnancy. Australian and international guidelines recommend no exposure to alcohol prenatally or while breastfeeding. There are high rates of FASD in some Aboriginal communities. Indigenous women of child-bearing age (18-44 years) are more likely to drink at risky/high-risk levels compared to non-Indigenous women of the same age. Indigenous women reported consuming alcohol to deal with stress and disadvantage, historical trauma, loss of language, land and culture, domestic violence and geographical isolation. The FASD Strategic Action Plan involves Indigenous teenage sexual health and reproductive health, young parent support measure and evidence-based antenatal care guidelines.[143]

Hearing loss

Ear disease and associated hearing loss is prevalent in Aboriginal communities, particularly in children, with risk factors including household overcrowding, passive exposure to smoking, premature birth, bottle feeding and malnutrition. This led to the establishment of an outreach hearing service in the NT. Early detection and intervention are necessary to reduce impact on a child's development and education. 61% of Indigenous children aged 0-20 years who received a hearing outreach service between July 2012 and December 2018 were diagnosed with at least one type of ear condition, with two-thirds experiencing hearing loss. 57% of Indigenous children who had hearing loss showed improvement with use of the outreach hearing services.[37]

Machado-Joseph Disease (MJD)

Machado-Joseph Disease (MJD) is a neurodegenerative condition causing muscular weakness, progressing over time to a total lack of voluntary control and severe permanent physical disability. MJD is hereditary; the child of a person who carries the defective gene has a 50% chance of developing the disease. 'Anticipation' is a rare phenomenon that occurs in MJD, where the gene expands upon passing to the next generation, resulting in symptoms presenting 8-10 years earlier and being more severe. It was previously known as 'Groote Eylandt Syndrome', as Aboriginal people from this island and many regions in the NT are known to carry the gene. There are 650 people alive today thought to be 'at-risk' (direct descendants of a person with the disease) of developing the disease in the NT. The MJD Foundation contracts a range of health professionals to improve quality of life for Aboriginal Australians living with MJD. Education and training, research, providing equipment, advocacy, community services are current initiatives.[144]

Systems and Services

People with a disability have the right to access mainstream services, receive adequate health care, make decisions about their own health, and have trusting relationships with health professionals. People with a disability have the same general health care needs as the rest of the population, including dentistry, breast and cervical screening, and sexual education. Health promotion and prevention strategies are often not inclusive of people with a disability. GPs are the key practitioner for a person with a disability, often providing life-long health care and providing evidence for NDIS

claiming. However, often GPs are not properly educated on the NDIS, and do not receive communication from NDIS about approval or plans for their clients.[145]

Some people with a disability require a carer or companion to provide help or supervision; usually this is a friend, family member, partner or paid/unpaid assistant. 1 in 3 people in the NT will become a carer in their lifetime. The 'NT Companion Card' is available to any person with a disability who requires a lifelong carer, allowing the carer to accompany the person to any venue or event without paying for a ticket. There are a number of services available to provide support and access for people with a disability, including Life Without Barriers, Office of Disability, Somerville Community Services, as well as the peak bodies.

The National Disability Strategy 2010-2020 outlines six broad outcome areas to 'enable people with disability to fulfill their potential as equal citizens'. These are inclusive and accessible communities; rights protection, justice and legislation; economic security; personal and community support; learning and skills; and health and wellbeing. The purpose of the strategy is to provide a framework for government policy, services, visibility and national leadership with a focus on human rights, social and economic factors. The strategy will be reviewed to be released for the next time period.[146] There is currently no NT Disability Strategy.

The NDIS provides funding directly to Australian people with a disability. At full capacity, the NDIS will provide funding for supports and services to around 460,000 people, who are under the age of 65 with a permanent and significant disability. Early Childhood Early Intervention (ECEI) is a program for children aged 0-6 years with developmental delay or disability. For people aged 65 years and over, assistance and services are delivered separately through 'My Aged Care'. Participants reported that the NDIS has helped with daily living, relationships, social, community and civic participation, work, and choice and control.[141]

The National Disability Insurance Agency (NDIA) assesses eligibility for funding on a case-by-case status. If eligible, an individualised NDIS Plan is developed to identify support and services required for the person. Building connections for people with a disability to community services and supports including doctors, sporting clubs, support groups, libraries and schools, and supports provided by state and territory governments.[141] Following regional roll-out in the NT, the NDIS will be entirely available as of 1 July 2019. At this time point:

- 298,816 people are accessing the NDIS nation-wide, and 2,453 people in NT.
- 99,537 Australian people are receiving support for the first time, 667 people in NT.
- 5,312 children receiving support through ECEI in Australia, 379 children in NT.
- 419 initial plans have been approved in NT in Q4 2018-19, an increase of 22% since Q3.
- 848 approved providers in the NT, 20% are currently active.[141]

For people with a disability that are not eligible for the NDIS, who have a mild to moderate impairment with no permanent disability, there are several health services and supports available; allied health services, including physiotherapy, speech therapy and occupational therapy, community equipment and the Seating Equipment Assessment and Technical (SEAT) service.[147]

Most community facilities in the NT, including museums, libraries and shopping centres, accommodate for people with a disability. This includes disability/wheelchair access, ramps, electronic chair lift, disability toilet access, disability parking, large print/spoken resources.

Mental Health

The NDIS funds non-clinical services for people with severe and persistent mental illness or psychiatric conditions, to support them to undertake daily living activities and participate in the community and social and economic life. The mental health system funds clinical services and supports including acute, ambulatory and continuing care in the community, rehabilitation/recovery, as well as early intervention supports and comorbidity. For people with severe and persistent mental illness or psychosocial conditions who do not qualify for NDIS, the National Psychosocial Support Measure (NPSM) is available.[148] Refer to Section 5 more information on Psychosocial Support.

3.8 Overall Population Health Systems and Services

3.8.1 MOICD Outreach Program

The Medical Outreach Indigenous Chronic Disease (MOICD)[149] program is a Commonwealth funded initiative to deliver a range of multi-disciplinary health outreach services to Aboriginal people in the area of chronic disease prevention, detection, treatment and management. In the NT, the MOICD program is administered by NT PHN and provides services to more than 80 communities across the NT. Services covered include dietetics, physiotherapy, occupational therapy, podiatry, cardiac educators, exercise physiologists and diabetes educators. Services are delivered to most rural and remote health clinics at various frequencies and for various lengths of time, but schedules and effectiveness can be disrupted by such things as climate-related accessibility factors, provider availability, host clinic functioning (e.g. staffing, emergencies) and community factors (e.g. Sorry Business).

Whilst there have been significant improvements in recent years relating to the prevention and management of chronic conditions, including improvements in recall and registration systems, care planning, follow up and continuous quality improvement (CQI) systems, the rates PPH remain high.[19] There is continued support for the coordination, continuation and expansion of outreach programs to provide both specialist and allied health services in remote locations, particularly cardiac, diabetes and respiratory services.

Other outreach services are delivered beyond the MOICD program, funded by other services and departments. For example, NT Department of Health handles the Rural Health Outreach Fund (RHOF) which funds outreach specialist services. NT PHN also funds other programs that may support delivery of outreach services such as the Rural Primary Health Service (RPHS) and Integrated Team Care (ITC) programs. To coordinate service delivery across these sites, the NT Department of Health and NT PHN have a shared online calendar which will be accessible by all outreach service providers, clinics and agencies to assist in service coordination.

NT PHN conducted a service needs assessment of the MOICD program in 2018, which also aligned with previous evaluation work by AMSANT.[150] Consultation was undertaken with health organisations that host visiting services, as well as service providers.

Key themes emerging from discussions with the host health organisations were:

- Integration and Coordination of Services
- Facility Agreements and Communication
- Telehealth opportunities
- Interpreters
- Service Delivery Considerations

Key themes emerging from discussion with the providers were:

- Service Delivery Approach and Accessing Patients
- Relationship Building and Trust in the Community
- Building Local Capacity
- Integration and Coordination of Services
- Key Barriers and Areas for Improvement
- Translators
- Telehealth
- Training Opportunities
- Support and Networking Opportunities
- Recruitment and Retention of Staff

There is some overlap from both sectors, resulting in 6 overarching priority areas for outreach service delivery within the NT:

- Planning MOICD Services and Contract Management
- Communication and Feedback Opportunities between Clinics, Service Providers and NT PHN
- Social Support/Networking Opportunities for Providers
- Training Opportunities
- Rapport and Relationship Building
- Telehealth Options

3.8.2 Initiatives and Health Screening

Participation rates in adult health checks are high, and care planning is routinely undertaken for chronic conditions.[31, 151] However, due to the high burden of chronic disease and many people experiencing multiple co-morbidities, population health initiatives in the NT can be particularly challenging to achieve. The NT has a diverse and dispersed population with two large regional population centres and dispersed rural and remote communities from CALD backgrounds.

Access to a range of health services by Aboriginal people in the NT compares well with national rates, based on a number of national KPIs. For example, the NT has the highest rates of cervical screening, influenza immunisation, GP management plans and team care arrangements claimed by Aboriginal health care services in 2012-2015.[152]

3.8.3 System Integration

A stronger, more integrated, efficient quality primary health care system is a perquisite to meet health care need and demand into the future. Key elements to achieve this include:

- Strengthening and expanding scope of comprehensive primary health care services in remote and very remote communities of interest
- Use of common compulsory clinical protocols
- Scaling up and improving clinical information systems, robust health data and digital technology solutions
- Better tackling the social determinants of health for sustained improvements in health and disadvantage
- Building a skilled Aboriginal workforce
- Maintaining and strengthening CQI programs
- A need has been identified for improved adherence to evidence-based current treatment guidelines and protocols (e.g. CARPA Guidelines and HealthPathways)
- Improved recording of clinical patient information across a range of Aboriginal health condition areas
- Improved recall and follow up of abnormal findings, risk factors, and review of medication
- A culturally safe primary health care system
- Culturally and clinically competent workforce

There is a need to support primary health care services where prescribing patterns are outside the usual range for specific medication use for patients with chronic conditions. A need has been identified for improved adherence to evidence-based current treatment guidelines (e.g. CARPA Guidelines). In some cases, there may be a lack of recording of recommended clinical patient information across the range of Aboriginal health condition areas. This is accompanied by a lack of follow-up on abnormal findings, risk factors, and medication review.[153]

Timely, responsive, safe and affordable health care across the care continuum for people with complex conditions requires effective coordination with providers and the workforce for quality care outcomes.

There has been a strong emphasis on system development within all sectors. Features include use of common clinical protocols (i.e. Central Australia Rural Practitioners Association [CARPA] suite of manuals); reporting common clinical performance indicators across services; resourcing for CQI; practice accreditation; high uptake of recall and reminder systems; and increasingly sophisticated use of electronic information management systems.

3.8.4 Patient Care Journeys

Patient care journeys can be particularly complex, challenging and costly, not only for the person experiencing them (particularly Aboriginal people), but also for their carers, family and health system assisting them in accessing various health and support services. A number of patient care journey maps have been completed in the NT which demonstrated better understanding of complex patient journeys for Aboriginal people and produced practical tools to highlight critical segments and gaps.[154]

By understanding and mapping patient journeys it was possible to:

- Reduce average length of stay in the long term
- Improve level of engagement between Aboriginal and Torres Strait Islander patients, referred care providers and primary level providers (private or public) to deliver better follow up and referral processes
- Improve long-term stability in primary provider choice
- Improve patient satisfaction with the care and patient journey (based on domains of concern to patients)
- Reduce admissions and incomplete treatments for Aboriginal and Torres Strait Islander patients

Accommodation required to access services can be difficult to secure or unsuitable (i.e. located at a considerable distance from the treatment centre). There are additional issues with access to accommodation for carers and families, and for pregnant women from remote communities who may be waiting in regional centres for up to four weeks before giving birth.

Communication across the primary health care sector and hospitals is a critical area to improve, especially when Aboriginal patient journeys are complex and long. Patients can fall through the cracks of formal care systems.

3.8.5 General Practice

Australian Health Practitioner Registration Agency (AHPRA) data for 2017 indicates that there were 265 medical practitioners working in General Practice as their primary specialty in the NT.[155] This includes practitioners working within hospitals, ACCHS and AMS (run by the NT Department of Health). The regional distribution of these practitioners is shown in Table 3.8.5a.

Figure 3.8.5a: Number of medical practitioners identifying primary specialty as 'General Practice' by SA3 region, Northern Territory, 2017.

SA3	# of GPs
Darwin City	40
Darwin Suburbs	55
Litchfield	12
Palmerston	24
Alice Springs	66
Barkly	12
Daly - Tiwi - West Arnhem	12
East Arnhem	18
Katherine	26
Total	**265**

Source: National Health Workforce Dataset.[155]

The General Practice workforce in the NT is often transient, can be heavily reliant on locums and overseas trained doctors, and faces challenges of recruitment and retention. In this environment, GPs with limited experience, particularly in the NT context where the disease profile is quite different to the rest of Australia and supporting/complementary services for referral are sparse, can face significant challenges. There is a continuing need for best practice resources to support GPs to

recognise, manage and appropriately refer patients with a wide range of common and less common conditions.

As at September 2019, there are 52 private general practices in the NT, with 42 located in the wider Darwin region, 6 in Alice Springs, and one each in Katherine, Nhulunbuy, Tennant creek and Yulara. Approximately 100 GPs work within this system, providing services predominantly to the non-Aboriginal population of their regions. There is a total of 158,939 active patients across the NT, of which 68% identify as non-indigenous, 6% identify as Aboriginal or Torres Strait Islander, and 26% of active patient ethnicity is not recorded.

Territorians are less likely than the national average to have a usual GP or place of care, and less likely to rate their care highly or report that they felt involved in their care and comfortable with communication.[156] This is likely due to both the limited number of services available, particularly in more remote locations, physical and financial accessibility, and a high turnover of practitioners.

In the NT, there are 155 general practice providers (not exclusive to mainstream general practice) registered with My Health Record and over 211,460 shared health summaries were uploaded between 1 Oct 18 and 30 June 2019. The NT has a relatively high proportion of providers registered compared to other jurisdictions. The Primary Care Support team at NT PHN continue to provide education and support with the use of My Health Record which includes supporting practices to meet their quarterly eHealth incentive requirements of uploading My Health Summaries.

Of the 52 private general practices, 40 are licence holders of the PenCS software and are sharing Population Health Data with the NT PHN on a monthly basis. NT PHN's Primary Care Support team provides each of the 40 practices with monthly benchmark reports based on the aggregated data. These reports show three key areas, RACGP Patient Information Recording demographic data, Opportunity for billable Health Assessments and Clinical Conditions coding. This information is used to inform where a general practice might want to concentrate CQI activities. There are 39 practices registered to participate in the PIP QI incentive program. The Primary Care Support team actively works to support general practice in continuing quality improvement.

There are 40 general practices currently accredited by either Australian General Practice Accreditation Limited (AGPAL) or General Practice Accreditation (GPA). The barriers to non-accredited practices include both time constraints, not having the human resources to undertake the requirements for accreditation and resistance to change. The Primary Care Support team provide support to all general practices who are preparing for or undergoing their accreditation surveys.

The total number of Health Care Homes sites in the NT is 19. Five are general practices and 14 are ACCHS. The total patient enrolment across all sites is 1140, with 150 of those patients from the general practices.

The identified barriers to the adoption of both PenCS tools and accreditation include both time constraints and resistance to change, with some practices either not seeing the value in these initiatives or simply not having enough time to undertake the required activities. Smaller practices are less likely to have the resources to take up these opportunities, however the combination of reasons can be unique to each practice.

As at May 2018, 61 practices (not exclusive to mainstream general practice) in the NT received a Practice Incentive Program (PIP) payment for the quarter, with smaller numbers receiving after hours incentive payments at each level. Thirty-one practices received an Indigenous Health Incentive payment, with 44 receiving an Indigenous Health Incentive patient registration payment. Additionally, 43 practices received an eHealth Incentive payment, and 37 received a Rural loading payment. These statistics indicate reasonable engagement with the PIP program. As yet, there is no clear understanding of the barriers which might prevent practices in the NT from registering for these incentives.

3.9 Health Workforce

Timely and effective access to health care services is adversely affected by the availability and stability of the workforce. Recruitment and retention of primary health care staff, and the availability of staff housing in remote communities are significant issues. There is a reliance on fly-in fly-out (FIFO) models of care and specialist's services. Additionally, staff working in remote areas may be required to provide After Hours care in addition to their duties during the day. This may affect their ability to staff primary health care services the following day, as well as presenting safety risks. While much better served than more remote areas, there are still challenges for health workforce retention and recruitment even in Darwin and Alice Springs.

The high turnover of the NT population requires agencies to invest considerable resources into constant induction and training of new staff, as well as a lack of knowledge in knowing other referral agencies. Most staff recruited to work in the NT health system train elsewhere and can be unfamiliar with the significant contextual issues of the NT. With large numbers of relatively new staff, a significant number of employees at any one time within an agency may have limited or reduced knowledge of programmes, or protocols. Additionally, consumers may see the turnover in clinical staff as a barrier in repetition of their clinical history and establishing trust.

Compared with other jurisdictions, the NT has a much smaller private health sector, including fewer pharmacists, dentists and allied health professionals working outside Darwin and Alice Springs. Whilst there may be an adequate supply of GPs in urban Darwin, there are severe shortages in rural and remote communities.

The NT experiences extremely high rates of workforce turnover and vacancies particularly in regional and remote areas, and there are many unfilled AHP positions. The remote workforce can be called upon to fulfil a range of roles and functions. As a result, some staff may be in positions of considerable influence or responsibility despite only limited professional experience in that area. While the willingness of workers to take on additional responsibility is highly valued, there is a need for system supports, decision-making aids, detailed guidelines and support from specialists and experienced staff.

Health care delivery is also often constrained by the infrastructure, including ICT systems, the design of clinics, limited housing, lack of clinic space for visiting services, and limited capacity to support multi-disciplinary approaches. The safety of staff working remotely, including in the after-hours period, has also been identified as an issue.

Some of the key issues for workforce throughout the NT include:

- International graduates make up 36% of the medical practitioner workforce
- Demanding work rosters caused by small populations, isolation and communication challenges
- The impact of skill shortages felt more sharply due to small population
- Long lead times in training and education
- Low employment of Aboriginal people in health-related workforce

National workforce datasets do not accurately capture the workforce challenges in the NT which include workforce mix, capability and accessibility. Aboriginal people are significantly under-represented in the health workforce. In 2017, there were 292 Aboriginal people employed in the NT health workforce, representing less than 1% of the Aboriginal population.[157]

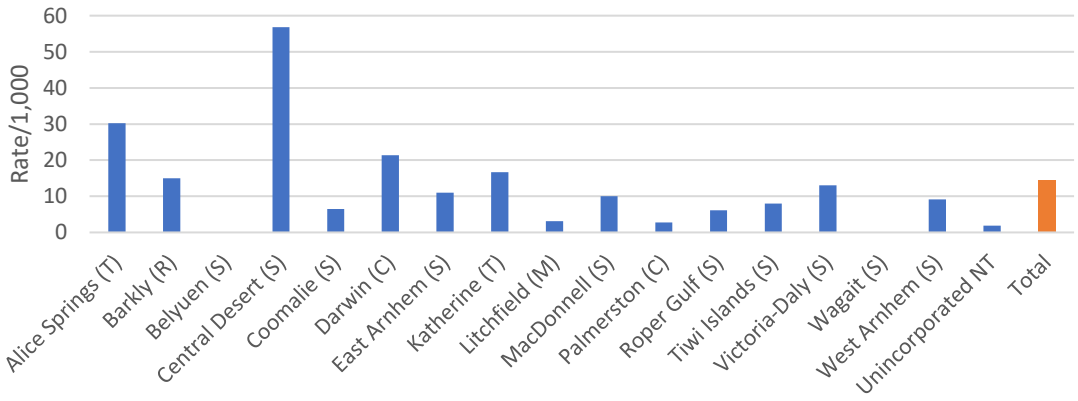
Workforce Availability

The majority of this section is summarised from the Northern Territory Primary Health Care Workforce Needs Assessment.

The total number of nurses per 1,000 population for the NT in 2017 was 14.5 (Figure 3.9a). This data represents a snapshot of both registered and enrolled nurses working as clinicians in the NT in the week before they filled out their registration survey, working across all settings, including hospitals. Central Desert, Alice Springs and Darwin LGAs have a much higher rate, while a number of the smaller and more remote LGAs have a rate of five or below.

The unexpectedly high number of nurses per 1,000 population in the Central Desert is likely a result of the small size of communities in this area – the average community size in the Central Desert LGA is around 280 Aboriginal people, whereas in the McDonnell and Barkly LGAs the average size is over 400 people. Health services carry a minimum staffing level to support safety and equity. As such smaller communities will have a higher per capita staffing ratio. Given this, the staffing is generally two nurses and therefore is not resilient to resignations. As such, the high ratio of staff should not be seen as an indicator of a decreased need for workforce support. It is likely that the majority of nurses practicing outside of Darwin and the regional centres are RANs.

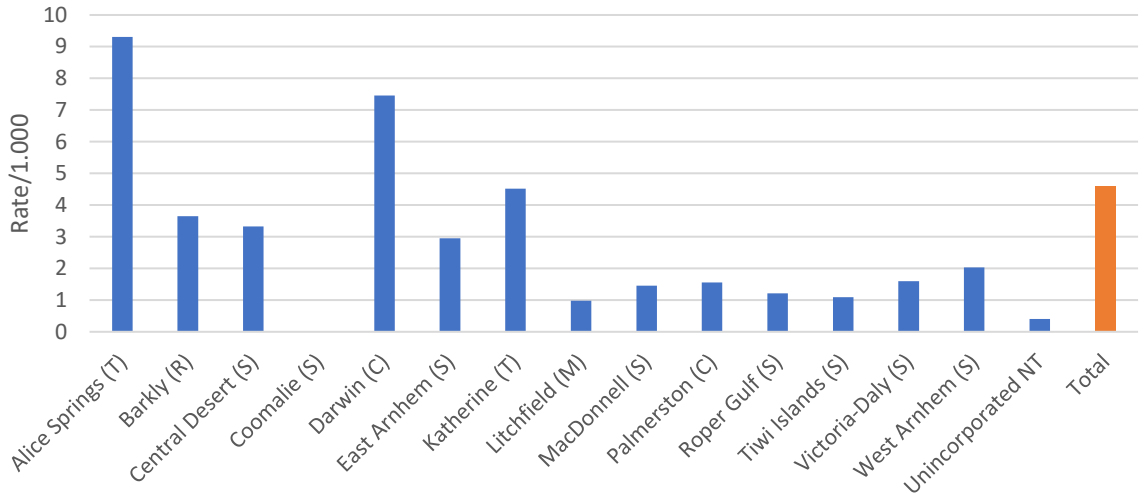
Figure 3.9a: Rate of nurses (per 1,000 population) by LGA, Northern Territory, 2017.



Source: National Health Workforce Data Set[155], derived from APHRA registration data 2017 and ABS Estimated Resident Population 2016.

The distribution of Medical Practitioners by LGA in 2017 is similar to that of nurses, although without the spike in the Central Desert (Figure 3.9b). These figures include all medical practitioners, not just GPs, and similarly represent a snapshot of practitioners working as clinicians in the NT in the week before they completed their registration survey. The total number of medical practitioners per 1,000 population in NT is 4.6. It is clear that population rates of practitioners in the more remote LGAs are well below state and national averages.

Figure 3.9b: Rate of medical practitioners (per 1,000 population) by LGA, Northern Territory, 2017.

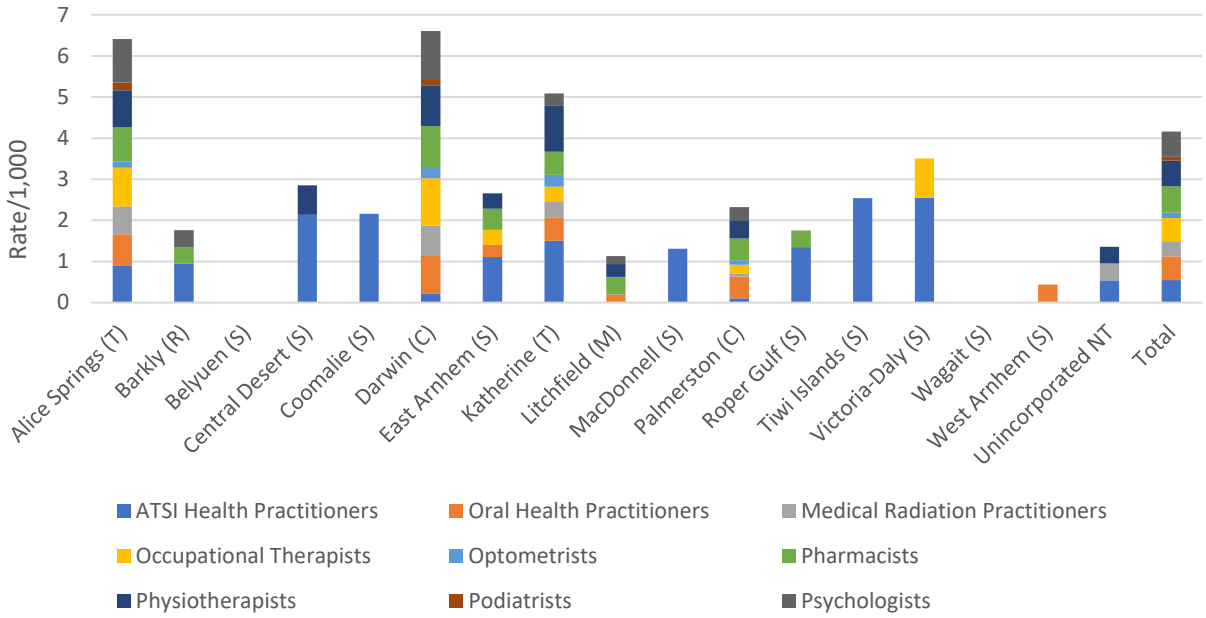


Source: National Health Workforce Data Set[155], derived from APHRA registration data 2017 and ABS Estimated Resident Population 2016.

Similarly, the distribution of selected allied health professionals (Figure 3.9c) shows a concentration in Darwin and the regional centres, with AHPs making up a high proportion of the workforce in the regional and remote areas. Despite this, AHPs are underrepresented in the NT health workforce compared to the population and there are difficulties in accessing local training for and retaining AHPs, who often function as key members of the multidisciplinary primary health care team. There remain deficits in numeracy and literacy and access to culturally appropriate training models, particularly in rural and very remote sites, along with limited opportunities to offer entry level positions, traineeships and opportunities to shape career pathways or access to ongoing professional development.

Additionally, there are multiple challenges associated with AHPs practicing in their own community, with the need for AHPs to be well supported. It is also important for AHPs to ensure that their work responsibilities are aligned with their cultural responsibilities.

Figure 3.9c: Rate of allied health practitioners (per 1,000 population) by LGA, Northern Territory, 2017.



Source: National Health Workforce Data Set[155], derived from APHRA registration data 2017 and ABS Estimated Resident Population 2016.

It should also be noted that none of these estimations take into account the high rates of staff turnover and temporary workforce models that are known to impact the stability of service in many locations throughout the NT. While the workforce figures provide a useful baseline to discuss workforce distribution, the actual situation in many communities is far more complex than can be represented by standard data collections. Population ratios of practitioners should be used with caution as they do not take into account the realities of providing quality service in remote locations, where the realities of FIFO services and high turnover of staff adds extra pressure. The expanded roles and additional skills needed for nurses working often as the main practitioner (with limited GP support) are also not reflected in standardised rates.

The NT PHN Health Workforce Stakeholder Group (HWSG) reviewed the population and demographic data in association with the Medical Practitioner and Nurse data[a], and identified all remote Aboriginal primary health care services as the highest priority areas for improving workforce numbers and models of care. They also identified a number of additional geographic regions for prioritisation in terms of the adequacy of the workforce as follows:

- Katherine: A major regional centre, low GP to patient ratio
- Tennant Creek: A regional centre, limited GP services and some instability in the mode of service delivery
- Nhulunbuy: The regional centre for East Arnhem, very remote, undergoing sociodemographic change with the closure of mining activities

[a] This group will examine the allied health workforce in 2018/19 and determined that the same geographic priorities apply

- Dundee region: A new growth corridor and popular recreation destination within 1.5 hours of Darwin, no primary health service and a very high level of resident concern
- Wagait Beach: A semi-rural community accessible by ferry from Darwin, limited health clinic hours and increasing resident concern
- Darwin rural: A high population growth area near Darwin, experience relative difficulty in recruitment and retention of staff

3.9.1 Digital Health

The NT is home to unique communities who live and thrive in circumstances unlike most other Australians. They are culturally rich, often transient and often very isolated. Digital health solutions can provide a means to address some of the challenges in enabling people to access services and take care of their health. These challenges include:

- Timeliness: waiting times, lack of staff, remoteness and seasonality
- Accurate information: disconnected information systems
- Right care: effective, culturally appropriate and well-supported
- Sustainable system: reduce duplication of effort and increase inefficiency

There are many dimensions to the digital health space, including electronic health records, client databases, practitioner decision-making and information tools, digitally delivered health interventions (assisted and unassisted) and electronic prescribing software. The NT was an early adopter of the electronic health records system, and the benefits of these services are beginning to be realised.

Across Australia, the adoption of My Health Record continues to grow. As of July 2019, 93.6% of eligible NT residents were participating in My Health Record, the highest proportion of any state or territory. In May 2019, there were 398 provider registrations and 35,946 shared health summaries uploaded; the second highest number of shared health summaries uploaded in Australia following NSW. NT reported the highest number of specialist letters uploaded with 6,886.[158]

Specific technologies and solutions such as secure messaging, telehealth, smart forms, eReferrals, apps/mobile health and point of care testing all support health care professionals to enhance workflows and increase access to information, with a focus on improving patient safety. Patient engagement can also be increased and enhanced through digital tools and online resources – which is another emerging space. Outside of major issues such as access to steady internet connectivity and lack of interoperability, the NT continues to embrace digital health solutions as a means to improve delivery of high-quality care.

3.10.1 Integration of Health Databases

In this and other jurisdictions, there are a number of sub-optimally integrated databases used across government, NGOs, ACCHSs and private health services. This results in difficulty in accessing client records and achieving health planning to enhance delivery of patient centered care.

The NT Government (NTG) Department of Health has multiple, unintegrated databases in their six hospitals ranging from client activity recording, pathology, medication management, billing etc. The NT acute care information system does not integrate with the NTG primary health care system. These

data interoperability issues within the NT health sector results in duplication of client records, difficulty accessing client records (to ensure continuity of care), and under- and over-servicing of client's health needs. The resultant lack of accurate epidemiological data restricts the ability for these organisations, NT PHN and NTG to accurately map population health needs and thus plan, implement, monitor and evaluate health service activity to improve health outcomes for the NT population.

Poor integration leads to wasted resources in investigations and patient time. A level of duplication of care planning is inevitable; however, it may be desirable where the population is highly mobile, and often living between two or more communities. Whilst some patients may need to be 'regular clients' at two or more health services, there could be greater sharing of care plans or common care planning across services.

These issues have been recognised, and the NTG Department of Health has initiated a Core Clinical Systems Renewal Program (CCSRP) which will ultimately create a single, secure, digitally enabled, Territory-wide electronic health record across all NT Health services.[159] More broadly, a partnership has been formed between NT Health, AMSANT and NT PHN to ensure that future investment in digital health innovation and technologies is transparent and approached in a collective and coordinated manner.[160]

3.10.2 Digital Health Tools and Programmes

Within the NT, Secure Electronic Messaging Service (SEMS) is used to securely communicate confidential patient information electronically. Advancements nationally in the secure messaging space may assist the NT in moving forwards for greater uptake and use of secure messaging.

Increase in uptake of the PenCS clinical auditing software in General Practice, with 40 practices currently providing monthly de-identified data to this system, is contributing to CQI which meets the requirements for the PIP QI incentive program, and data collection improvements. However, Aboriginal Health Clinic data is not reported to NT PHN, so this collection covers mainstream GP practices only.

Occasionally, IT issues and lack of interoperability prevent integration of systems between jurisdictions and/or providers. Further integration of health care systems would assist in management and planning of health care to promote patient centred care.

<u>Telehealth</u>

The full capability, uptake and extent of telehealth initiatives in the NT is unclear. There are different models of use, including case conferencing and some formal trials as well as coordinated programs like those provided by Telehealth NT. Further mapping of the technology environment and patterns of use throughout the NT will help to determine if there are specific opportunities and priorities which can be identified and addressed in this space.

Telehealth NT provides videoconferencing systems to enable patients in remote areas to connect with healthcare providers and specialists in major centres. This involves Tele-Critical Care, Tele-Specialist Clinics, Tele-Workforce Support, Tele-Complex Case Management, Tele-Inpatient Care and Tele-

Family Support and Virtual Visitations and Tele-Sonography. Palliative care services are now also being supported by telehealth.[161]

The Telehealth NT program has seen significant patient uptake since initial roll-out in 2014. An independent evaluation of the Telehealth NT trial (part of the National Telehealth Connection Service) found that it saved time, money (particularly for the NTG Department of Health's 'Patient Travel Assistance Scheme') and improved access to care. The evaluation recommended an expansion of the service.[162]

Whilst uptake of this service continues to grow, infrastructure and lack of training remains a problem in some areas. There is room for further expansion to support improved use of specialist medical services. Primary health care centres also require support including administration and patient support.

4. Mental Health and Suicide

NT PHN is pleased to deliver this update of the Mental Health and Suicide Prevention Needs Assessment. This update has been characterised as a light review because of the evidence building work currently being undertaken in the area of mental health and suicide prevention in the NT. This evidence building process is part of a collaborative regional planning reform agenda being undertaken in a partnership between NT PHN and NT Government. Over the past two years, there has been considerable resources put into youth severe/complex mental health, the National Psychosocial Support Measure, National Suicide Prevention Trial (NSPT), headspace and the development of the Integrated Regional Mental Health and Suicide Prevention Plan.

Accurate, consistent and timely access to data continues to be an issue in the context of the NT's unique population, levels of social disadvantage and geography. Statistical reporting by SA3 (statistical area level) is becoming more widespread and certainly welcome. However, it is inadequate in some regions, particularly in Central Australia where the relevant SA3 includes the city of Alice Springs within a vast remote area. Some data sets, such as MBS and PBS data, are of limited relevance in communities where different models of service provision are not reflected in these statistics. The issue of confidentiality and de-identification also complicates the utility of the data, work is therefore ongoing is this area. Therefore, the following summary relies heavily on ABS and AIHW data sources as a means of comparing national prevalence rates and trends against the NT.

Policy Context

The 2014 National Mental Health Commission review 'Contributing Lives Thriving Communities' highlights the complexity, inefficiencies and fragmentation in the mental health system and the prominence of unmet need in regional, rural and remote areas of Australia. The findings of the review were taken up in the Fifth Mental Health and Suicide Prevention Plan through priorities and actions. The Fifth Plan, released in 2017, also takes up the identified 'wide gap' in wellbeing that exists between Aboriginal and non-Aboriginal Australians and prioritises achieving system and service integration through regional planning,[46] for which PHNs have been given significant roles. The Fifth Plan commits Commonwealth, State and Territory Governments to collaborate with regard to mental health service integration and the impact of suicide nationally through regionally based planning partnerships.

The NT Government have released the NT Mental Health Strategic Plan 2019-2025[163] and the NT Suicide Prevention Strategic Framework 2018-2023[164] to provide guidance in this area. Both frameworks align with the Fifth Plan to promote wellness, service integration, health literacy, community engagement and a responsive service system.

The Productivity Commission commenced an inquiry in 2019 about the mental health and wellbeing of the Australian population, prevention and early detection of mental illness and treatment for people who have a diagnosis. The draft report was published in October 2019, with the final report due in early 2020. This inquiry contends that it has considered and compliments the reform work that is being led across Australia by the National Mental Health Commission.

Data Sources

The National Mental Health Service Planning Framework (NMHSPF) stems from a commitment made under the Fourth National Mental Health Plan. The framework has been designed to inform mental health planning for PHNs, but has been assessed to be an unreliable planning tool for populations under 250,000, which is approximately the total population of the NT. Ongoing work is progressing so that the framework can adequately model the right mix and levels of service provision in rural and remote settings. These current limitations mean that the tool has not been used to assist in building evidence for this needs assessment or for mental health planning more broadly in the NT.

It is also noted that the National Survey of Mental Health and Wellbeing was last conducted over ten years ago, in 2007. This survey is still being relied upon for a source of national data on the prevalence of mental health and wellbeing but is generally considered be out of date. It is important that this survey, or a similar instrument, be repeated as soon as possible.

Because of these data limitations, it is imperative for needs assessment work in the NT to incorporate a significant qualitative focus. While the lack of accurate local data can make it seem that there is less clarity in identifying differences in need and service provision between locations, this is offset by the richness of the information which is shared and the opportunities for networking and relationship building which are facilitated by the consultation process. This provides a strong basis for integration and collaboration into the future.

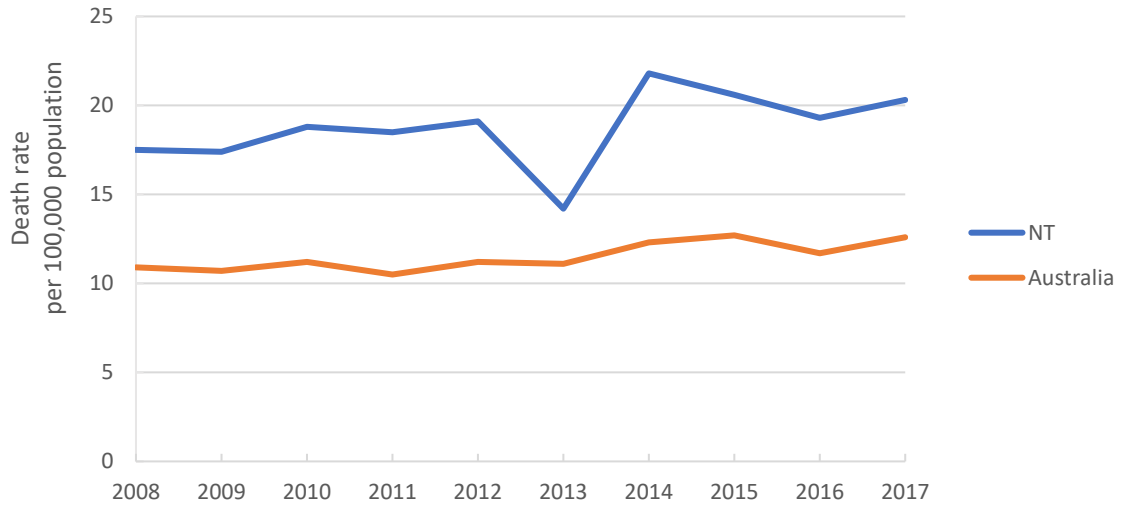
4.1 Health Status

Approximately 20% of Australians are affected by some form of mental illness every year. Mental health and substance use disorders, including suicide related self-inflicted injuries, alcohol use disorders and depressive disorders make up approximately 12% of the total burden of disease in Australia, and 36% in the NT.[85]

National statistics indicate that NT rates for mental health related hospitalisations are generally lower than the Australian average. This does not necessarily reflect a lower prevalence of mental illness but is at least partially indicative of disparities in the level of access to care and treatment. In the NT, mental health care usually occurs in the primary health care setting, and there are limited specialist and acute care options.

Approximately 3,000 Australians take their own lives every year, with wide ranging impacts on families, friends, workplaces and communities.[165] In 2017, 3,128 deaths by suicide were registered in Australia – that is over 12 people for every 100,000 in the population. The rate of premature mortality due to suicide in the NT is almost double that of the national rate.[90] In 2017 the NT had the highest standardised death rate for suicide than any other state and territory at 20.3 deaths per 100,000 population, much higher than the national average of 12.6 deaths per 100,000 (Figure 4.1a).[53] Rates are particularly high in the more remote regions.[86]

Figure 4.1a: Suicide death rate (age-standardised per 100,000), Northern Territory and Australia, 2008-2017.



Source: Compiled by NT PHN, from Causes of Death, Australia, 2017 (ABS).[53]

4.2 Population Cohorts

Children and young people

Mental ill-health is the leading cause of disability for 10-24-year-olds, accounting for almost half (45%) of the disease burden in this age group. The onset of mental ill-health peaks between the ages of 12 and 24 years and affects one in four young people every year. In young people aged 12-24 years, severe mental illness can be exacerbated by lack of access to appropriate treatment or reluctance to seek help from mainstream services. These effects are magnified for youth living outside of major population centres.[166]

Young people often deal with a range of issues which can impact upon and be impacted by their mental health, and the interrelationships are often complex. Young people with mental ill-health may have a history of trauma, experience challenges with sexuality or gender identity, emotional regulation, and intimate and social relationships, which may lead to self-harm and suicidal ideation.

Young people in the NT are over represented within mental health services compared to other age groups.[51] Estimates of mental health disorder prevalence based on data derived from the 2014 Australian Child and Adolescent Survey of Mental Health and Wellbeing have been prepared and confidentially made available to PHNs.[52] The modelling is based on the observed links in the survey between certain socio-economic characteristics and the prevalence of mental disorders. These estimates are not based on actual prevalence data but may provide an indication of the possible distribution of youth mental health disorders across the NT. These estimates indicate that overall mental illness prevalence for NT youth is higher than the national average, with rates particularly elevated among the 4-11-year age group. Estimated rates are highest for mild disorders, and highest in East Arnhem, Daly-Tiwi-West Arnhem and Palmerston SA3 regions. Within the NT, socio-demographic indicators can be further used as a proxy to identify regions with young people at high risk of mental illness, and these indicators identify East Arnhem, Central Desert and the Tiwi Islands as LGAs of concern.

There are 3 headspace centres operating in the NT; Alice Springs (CAAC), Darwin (Anglicare NT) Katherine (Anglicare NT - opened late 2019) all funded through NT PHN. Across the 2 headspace centres in Alice Springs and Darwin that reported during the period up until 30 June 2019 there were 3,818 occasions of service (Alice Springs 2,031; Darwin 1,785), with 667 occasions of service having been delivered to 'new young people', and an average visit frequency of 4. The primary type of service provided in both Alice Springs (60%) and Darwin (66%) was mental health, followed by engagement and assessment in Darwin (35%) and physical health (16.5%) and sexual health[b] (14%) in Alice Springs. The Alice Springs physical and sexual health service types are higher than the National headspace service types (physical health 2.7% and sexual health 1.1%).

Trauma is a major issue for young people presenting to the Top End Mental Health Service (TEMHS).[167] Trauma can be current (e.g. sexual assault, bullying, domestic violence, verbal and emotional abuse), or historical (e.g. childhood physical, sexual or emotional abuse, neglect). Trauma can result in the emergence of PTSD related symptoms and stress disorders and may include self-harming behaviours and suicidal ideation. DFSV rates in the NT are the highest in the nation, and it has been estimated that at least one child is subjected to domestic and family violence each day.[168] The 2017 Royal Commission into the Protection and Detention of Children in the Northern Territory[77] found that for young people in contact with the justice system, conditions and treatment in NT detention centres have been of a standard that put detainee's health, safety and wellbeing at serious risk.

It is estimated that approximately 70% of young people who experience mental health and substance use problems do not actively seek services.[169] However time series data from the ATAPS program shows that with the introduction of the new service tier (Child and Youth Mental Health) in late 2013, a significant uptake of services was noted: initial increase 60%, with a further 40-50% increase in subsequent years. Total increase from 2011-12 to 2015-16 was over 250%.[170] This local evidence suggests that when an appropriate service is made available, young people will be more inclined to seek treatment.

Aboriginal and Torres Strait Islander People

In the NT, inter-generational trauma associated with the impacts of colonisation, cultural dislocation and child protection practices contribute to social isolation and increased vulnerability to the risk factors associated with violence, substance abuse and mental ill-health. Mental health hospitalisation rates for Aboriginal people in 2014-15 were approximately double the total population rates for all regions of the NT.[10]

Although the overall population in NT with high or very high psychological distress is less than national average (8.1 % vs 11.8 % respectively, for Aboriginal and Torres Strait Islander people in the NT, high or very high psychological distress is almost twice national average at 23.3 %.[53] Mental health services data 2017-18 indicates that the majority of contacts with community-based mental health services were for Aboriginal people which is 70% higher than the national average (456.3 vs 264.8 per 1,000 population).[171]

[b] Note that sexual health service type at headspace includes reproductive health

Migrant and Refugee populations

There is a significant and growing population of refugees in the NT with very particular and specialised mental and physical health needs, which are sometimes difficult to determine through information provided by mainstream services. Although there are migrants and refugees living throughout the NT, people who were born overseas in predominantly non-English speaking countries are concentrated in the Darwin/Palmerston area.[32] Palmerston LGA had the highest proportion of new migrant arrivals in 2016 who did not speak English well (46%).[172]

Migrant and refugee populations have higher levels of anxiety and depression than the general population, notably among refugees. Refugees are also more likely to experience poorer health status, have higher rates of long-term medical and psychological conditions and visit health services more frequently. Most health problems are largely due to physical and psychological trauma, deprivation of basic resources required for good health and poor access to health care prior to arrival in Australia.[173]

Migrant and refugee populations are less likely to receive treatment for a number of reasons, which can include stigma and shame, language barriers including health literacy, poor knowledge and lack of trust, among others.[173]

People in contact with the criminal justice system

People who have been incarcerated tend to have poor mental health and high levels of health risk behaviours, such as drug and alcohol use and smoking.[174] People who have contact with the criminal justice system experience higher rates of homelessness and unemployment and often come from socially disadvantaged backgrounds, with thousands of people cycling through the system annually at a national level. In the NT, Aboriginal people account for 84% of the prison population.[175] It is worth noting that the majority of individuals incarcerated in the NT are young Aboriginal and Torres Strait Islander males. Aboriginal males aged 18-29 were more than 7 times more likely to be imprisoned than non-Indigenous males in 2016.[73]

Incarcerated populations tend to have poor physical and mental health, high levels of health risk behaviours, such as drug, alcohol use and smoking with 2 in 3 prison entrants reporting illicit drug use in the previous year.[176]. 34% of people entering prison were at high risk of alcohol related harm.[177] 73% smoked tobacco on entry to prison (80% Indigenous; 73% non-Indigenous) and 67% engaged in illicit drug use in the last 12 months (60% Indigenous; 69% non-Indigenous). Nationally, 40% of inmates had been told by a doctor or health professional that they have a mental health disorder, including drug and alcohol abuse, with 1 in 4 prisoners receiving medications for mental health related issues while in prison.[27]

Arrival to the Emergency Department (ED) via police or correctional vehicles was the most common mode of transportation for people experiencing mental health crises in the NT.[178] It is widely acknowledged that the forensic mental health capacity of services in the NT is limited and restrained due to under-resourcing.

Australian Defence Force and Veterans

There is a significant defence presence in the NT, this translates to a veteran population who continue to reside here. There is a high reported prevalence of anxiety, depression, post-traumatic stress disorder (PTSD) and suicide risk among current and former service personnel.

The latest update from AIHW 'National suicide monitoring of serving and ex-serving Australian Defence Force personnel: 2019 update' found that there were 419 suicides between 2001-17 among serving, reserve and ex-serving ADF personnel who have served since 2001. Ex-service men's rate of suicide was 18% higher than the age-adjusted rate of all Australian men, similarly higher in ex-serving women compared to all Australian women.[179] In 2014-16, young male veterans (aged under 30) had a suicide rate 2.2 times that of Australian men.[180]

It has been reported that defence personnel are often reluctant to seek services for mental health issues due to fear of damaging careers.[181] Nationally, the highest rated barrier to seeking help was concern it would reduce deploy-ability (36.9%).[182]

Open Arms is a service run by Department of Veteran Affairs (DVA), providing counselling, case coordination and an after-hours telephone counselling service for veterans and their families. Participants had varying views on the Open Arms service, and there is no published outcomes data, so effectiveness of its services is not clear. DVA should develop outcomes measures for Open Arms.[183]

People of diverse sexuality and gender identity

People who are sexuality and gender identity-diverse are not a homogenous group and capturing all of their health needs is a complex task. In a review of the literature in relation to mental health and wellbeing among people who are sexuality and gender identity diverse, Ritter et al (2012)[184] found that this minority population cohort experience mental health and substance misuse disorders at a significantly higher rate than the heterosexual population across both genders, and in both youth and adult populations. They are also at greater risk of suicide and self-harm.[185] The causes for this are often attributed to societal stigma and the associated sense of isolation and discrimination which can result in risk-taking and self-harming behaviours.

The recent health needs consultation identified a broad range of mental health and wellbeing problems experienced by participants, that included: depression, sleeping problems, anxiety disorder, suicidal thoughts and suicide attempts, eating disorders, self-medicating, addiction, bi-polar disorder and 'exhaustion'. Further it was noted that being gender identity diverse does not equate to having a mental illness, nonetheless this minority population cohort carries risk factors that are related to the challenges such as isolation, stigma and discrimination and limited access to peer networks and to dedicated primary health care.[66] See Section 3.2.4 on People of diverse sexuality and gender identity.

Residents of Residential Aged Care Facilities

Physical deterioration, chronic illness, social isolation and decreasing independence can all contribute to the development of depression in older people. For those entering into or living in residential aged

care facilities, these effects can be magnified. It is estimated that older Australians living in aged care facilities suffer from depression or anxiety at five times the rate of those living in the community.[186] Mental health care is not routinely available to people in aged care facilities and have not traditionally been within the scope of personal care or accommodation services. Nonetheless it is estimated that mild to moderate depression is experienced by 39% of all permanent care residents.[187]

National data indicates that over half of people in residential aged care in 2012 had symptoms of depression, with a diagnosis either obtained or being sought for 68%. For newly admitted residents, the proportion was 45%. Residents with depressive symptoms were more likely to have high care needs compared to those without depression.[188]

In the NT, only 31.5% of newly admitted residents showed symptoms of depression, this was the lowest of all states and territories and below the national average of 44.6%.[188] The reasons for this are unclear and could be attributable to both individual and systemic factors.

In addition to mental ill-health such as noted above, a significant number of residents of aged care facilities have some degree of cognitive decline or dementia, however this should not exclude people from receiving mental health interventions.[187] This population cohort have numerous risk factors for adverse mental health outcomes that include social and cultural determinants of health. Improving psychological support in Aged Care facilities is on the agenda of the Australian Government. NT PHN is currently trialing a model of psychological support in one Aged Care site in the NT and hopes to broaden the roll out this model relative to funding capacity.

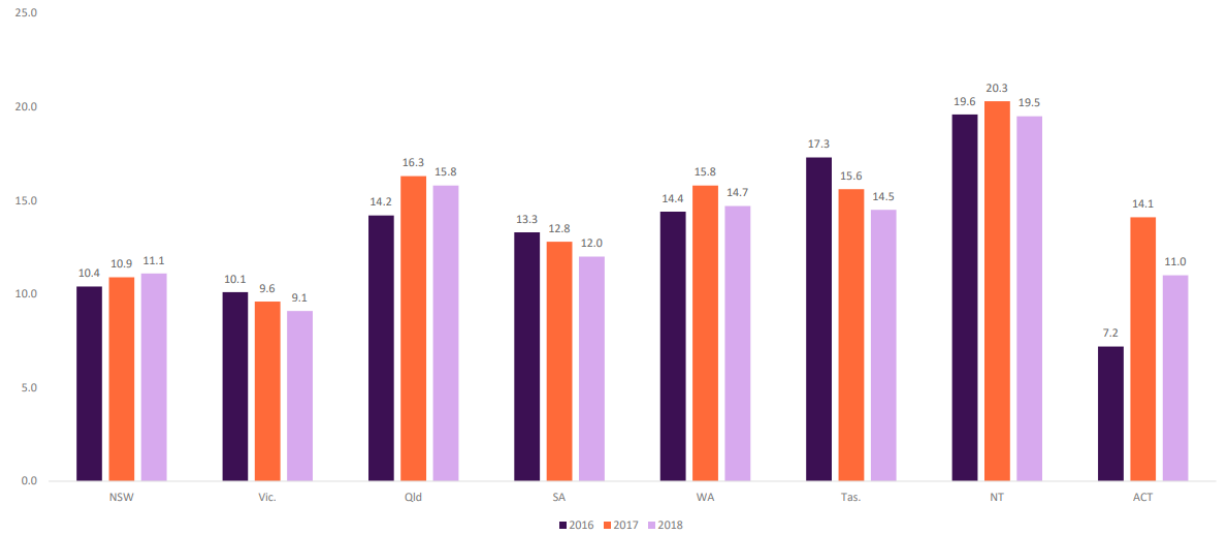
4.3 Suicide prevalence

Suicide is interpreted as a complex public health issue that encompasses biological, psychological, social, cultural, economic, spiritual and other factors including place. Some factors may increase vulnerability and other factors may be protective.[37]

Nationally, the suicide rate is very high with 3,046 deaths by intentional self-harm in 2018, equating to 12.2 deaths per 100,000 population.[189] All states except for Tasmania, Victoria and South Australia recorded increase in deaths due to suicide in 2017.

The NT continues to have the highest suicide numbers compared to any other state or territory, and is significantly higher than the national average, at 19.5 and 12.1 per 100,000 population respectively in 2018 (Figure 4.3a). The suicide rate was lowest in Greater Darwin (14.2 per 100,000) compared to the rest of the NT (27.1 per 100,000).[190]

Figure 4.3a: Suicide death rate (age-standardised per 100,000), by state/territory, 2016-2018.



Source: Copied from Australia Suicide Data 2018, Mindframe, from ABS (2019).[189]

Nationally, suicide was the leading cause of death among people aged between 15-44 years in 2017, with a median age at death of 44.5 years, compared to the median age of 81.9 years for all deaths.[53] In 2018, males had an age-specific suicide rate of 18.7 deaths per 100,000 population, which is over three times as high as females at 5.8.[189]

The number of males who die by suicide is greater than the number of females across all age ranges, with the peak age range for men 45-49 years (11%) and females also 45-49 years of age (12.1%). Suicide remained the leading cause of death in children (Aboriginal and Torres Strait Islander and non-Indigenous children) aged between 5 and 17 years (n=98), most suicides were aged between 15 and 17 years of age.[191]

The Aboriginal and Torres Strait Islander suicide rate is double that of non-Aboriginal people across Australia. Nationally[c], the suicide standardised death rate for Aboriginal and Torres Strait Islander people in 2017 was 165. Which is 25.5 deaths per 100,000 people a slight increase from 2016. More Aboriginal males than females are dying through intentional self-harm and the rate is increasing at a faster rate than that of females. Intentional self-harm was the leading cause of death for Aboriginal and Torres Strait Islander people between 15 and 34 years of age in 2017. Aboriginal and Torres Strait Islander males and females are dying from intentional self-harm at a rate that is 2 times that of the non-Indigenous population.[191]

In the NT, Aboriginal and Torres Strait Islander suicide rates were particularly high in the more remote LGAs, with only Katherine and Belyuen below the national average.[86] Premature mortality due to suicide in 2010-14 was almost 4 times the national rate in the Central Desert, East Arnhem and Roper Gulf LGAs. West Arnhem, MacDonnell and Victoria-Daly LGAs have rates more than 3 times the national average.[86] In the NT, suicide rates for Aboriginal and Torres Strait Islanders is higher, at a rate

[c] Aboriginal and Torres Strait Islander suicide data for Victoria, Tasmania and the Australian Capital Territory have been excluded, in line with national reporting guidelines (ABS, 2017)

of 26.4 per 100,000 compared to that of the broader NT population (14.4 per 100,000).[192] For Aboriginal people mental ill-health, poor self-esteem, substance use disorders, chronic grief, lack of employment, reduced access to health service, poor housing and involvement in the criminal justice system are significant contributing factors to these high rates.[192]

The NT Government 'Gone Too Soon' report into youth suicide, published in 2012, states: 'The suicide rate for Aboriginal Territorians is particularly disturbing, with 75% of suicides of children from 2007 to 2011 in the Territory being Aboriginal'.[193] In 1991, Aboriginal people in the NT made up 5% of the population who had committed suicide and Non-Aboriginal people represented 95%. In 2010, that number had increased from 5% to 50% for Aboriginal people and from 95% to 50% for non-Aboriginal people. The greatest at-risk category is among 10 to 24-year-olds who represent 80% of the suicide population cohort.[54]

Of particular concern is the increasing rate of youth suicide in the Aboriginal population 10-17 years old, with rates increasing from 18.8 per 100,000 in 2001-05 to 30.1 per 100,000 in 2006-10.[193] The NT reported the highest rate of child (aged 5-17 years) deaths due to suicide at 13.9 deaths per 100,000 population, compared to other jurisdictions, with 79% occurring in age 15-17 years.

Mental illness or distress is a contributing factor in many suicides, but this is not always identified or reported to services. Less than 30 per cent of people who committed suicide in the NT had seen a mental health professional at least once, and less than 10 per cent were clients of NTG mental health services.[194]

One of the key issues that impacts upon suicide in Aboriginal communities is the contagion effect. This is also known as a 'cluster'. Queensland's Commission for Children and Young People and Child Guardian states that 'contagion' is a key factor in 60% of suicides among children and adolescents, who took their own lives after the suicide or attempted suicide of a friend, relative or community member".[195] Research by Hanssens (2007)[196] from Charles Darwin University found that young, unmarried, unemployed males aged between 15-45 are at the highest risk of the suicide contagion effect. This research also cited that the use of alcohol and drugs had been found to be a factor in approximately 70% of suicides in the NT. The co-morbidity of risk factors therefore seems to be a significant issue influencing suicide in many Aboriginal communities.[195]

Eating Disorders

'Eating disorder' is an umbrella term for a range of mental illnesses associated with disordered eating and body weight control. There is limited national and local data on prevalence of eating disorders, estimated costs to society and service access, and most of the available data are estimates. For all Australian people aged 15 years and over, prevalence is estimated to be between 4-16%. The four commonly recognised types of eating disorder are anorexia nervosa, bulimia nervosa, binge eating disorder, and other specified feeding or eating disorder.[61] Eating disorders cause a significant amount of distress for both sufferers and families, with the mortality rate from anorexia nervosa estimated to be approximately 450 people per year and 200 per year for bulimia nervosa. Eating disorders can also be a contributing factor to suicide.[197]

National data demonstrates that eating disorders most commonly occur in young females aged 15-34 years of age. Of all hospitalisations with a primary diagnosis of an eating disorder in 2015-16, 95% were females and 57% were aged 15-24 years. Additionally, 58% of community mental health care clients with a primary diagnosis of an eating disorder were females aged 15-24 years, and 14% were aged under 15 years.[61] The relatively young age structure of the NT population means these high risk groups are disproportionately represented in the jurisdiction.

headspace Darwin and the TEHS Child and Adolescent Eating Disorder Service are the only services in the NT registered with the National Eating Disorders Collaboration.[198] However, considering the estimated national prevalence, there is a gap in specialised eating disorder services for areas outside of Darwin, and more generally for people aged 25+. Currently, many people with an eating disorder are likely to be accessing general practice and non-specialist mental health services and not receiving the enhanced care they require.

A new MBS item has been rolled out as of 1 November 2019, the Eating Disorder Plan (EDP), based on evidence-based best practice treatment for eating disorders. A GP can create the plan and refer the client to mental health professionals, where the client can receive refunds from Medicare for a range of psychological treatments, up to 40 sessions, with regular review of progress by the referring GP. Up to 20 sessions with a dietician are also funded through the EDP.[199] Uptake rates of the EDP will generate useful insights into prevalence rates from which NT rates may be able to be estimated, although uptake of these item numbers may be impacted if there are a limited range of appropriate service providers to refer clients to.

4.4 Health Systems and Services

4.4.1 Service Coordination and Integration

Similar to general health service needs, mental health services face the same challenges of delivering care to a small population distributed over a vast geographic area, with difficulties in recruitment and a higher cost of service delivery. This often results in service levels that are unable to meet the need in remote locations, poor continuity of care and follow up especially for remote clients on either side of acute admissions. These types of issues were consistently identified in the Mental Health and Suicide Prevention Services Review (MHSP SR) consultations conducted by the NT Mental Health Coalition (NTMHC).[200]

In general, service providers perceive that there was very little opportunity to have input into program design and that there needs to be significant progress in collaborating and coordination of care with other service providers.[201] They also felt that there is no uniform/central planning process or strategy, rather each funding body (e.g. NT PHN, NTG, AMSANT) develops strategies independently with little or no alignment with each other or across the peak bodies.[201]

It was also perceived that there is a disparity in approaches across the sector to clinical governance, data collection and patient information systems. These system disparities can act as an impediment to system integration, service collaboration and integrated patient journeys. In addition, evaluation activities focus on outputs and activity, rather than patient outcomes.[54]

The MHSP SR consultation also identified the following as compounding system fragmentation, this includes: [200]

- Poor integration among mental health, SEWB and auxiliary services
- High staff turnover and consequent loss of sectoral knowledge and relationships
- Individual service capacity pressure limits time to pursue integration and collaboration

Rural Workforce Agency NT data (preliminary analysis of unpublished data) suggests that the total vacancy time for mental health workforce positions is greater than that for many other types of clinicians, especially in the more remote regions.

4.4.2 General Practice

GPs are usually the first point of contact in the diagnosis and management of patients with mild to moderate mental illness. GPs providing mental health care work in collaboration with Mental Health Specialists, psychologists and other allied health professionals. It is well recognised that all patients need an ongoing relationship with a GP for their general physical health, and routine non-psychiatric care.[202]

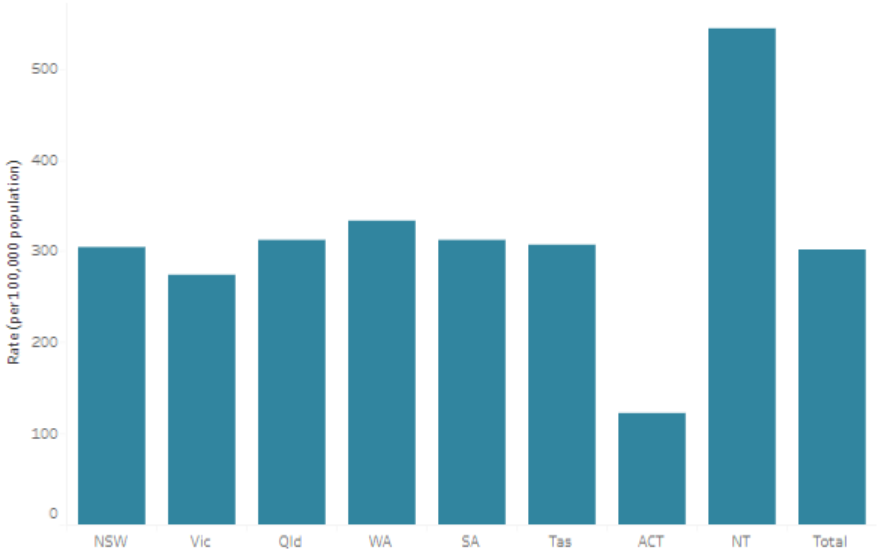
According to the BEACH survey, around 12.4% of all GP encounters in 2015-16 were mental health-related, an increase from 10.8% in 2007/08. This equates to a national rate of 749.9 encounters per 1,000 population. About one-third of estimated mental health-related GP encounters were for management of depression, with the most common management strategy being prescription of medication (61.6 per 100 mental health-related problems managed). People aged over 65 years had the highest rate of encounters at 1,198.2 per 1,000 population, much higher than the national rate of 749.9.[171]

In 2017-18, the NT had the lowest proportion of population receiving Medicare-subsidised mental health-specific services (5%), much lower than the national average (10.2%). GPs delivered the majority of these Medicare-subsidised mental health-specific services, with a small proportion delivered by clinical psychologists, other psychologists, psychiatrists and allied health professionals.[171]

NT PHN'sATAPS program accepts referrals by a range of professionals for clients diagnosed with a mild to moderate mental disorder to access short-term, focused psychological services. Professionals from a range of sectors can refer their clients to ATAPS including GPs, hospital EDs, nurses and school principals. ATAPS was designed to improve access to Medicare-subsidised mental health services for people who have difficulty accessing these services due to geographical location, cost and risk of homelessness.[171]

Across Australia, 91,798 ATAPS referrals were made in 2015-16, of which 78.9% resulted in service uptake. In the five years before 2015-16, there was a 53% increase in the number of ATAPS referrals. The NT had the highest rate of ATAPS clients at 545.0 per 100,000 population, much higher than the national rate of 301.7 (Figure 4.5.2a). Across Australia, the most common diagnosis amongst ATAPS clients (44.7%) was depression, and females were more likely to access ATAPS services at about twice the rate of males in all age groups, except the age group 15 years and below.[171]

Figure 4.4.2a: Rate of Access to Allied Psychological Services (ATAPS) consumers (per 100,000), by state/territory, 2015-2016



Source: Access to Allied Psychological Services (ATAPS) Minimum Dataset, copied from Mental Health Services in Australia (AIHW).[171]

While ATAPS uptake rates are high in the NT, stakeholder consultations have indicated that the quality of GP mental health care plans was highly variable.[51]

Multiple sources have indicated that the GP mental health referral process presents challenges and barriers to access. One provider estimated that as many as 50% of referrals are not successfully actioned by the referring agency due to the lack of clarity of the referral pathway.[203] This has been confirmed by NT PHN project work[204] which examined vertical integration within the public mental health system in the Darwin urban area. This report identified:

- Quality data
- Perception that GPs could manage more mild-to-moderate presentations without need for referral if given additional training
- Time constraints
- Poor or no communication back to GPs from tertiary services (including discharge summaries)
- Limited or no avenues for GPs to seek advice from e.g. a psychiatrist
- Fragmented care for complex patients who also present with physical health needs[d]

This appears to be related to both high turnover of GPs within the NT, as well as the limited time GPs can spend with patients, which may sometimes lead to incomplete assessments. Peak bodies and service providers further report that some GPs have very limited knowledge of available mental health programs and related processes that at times results in patients being inadequately screened and

[d] Options for addressing these issues as identified through this NT PHN project work are included in the Priorities and Options section below.

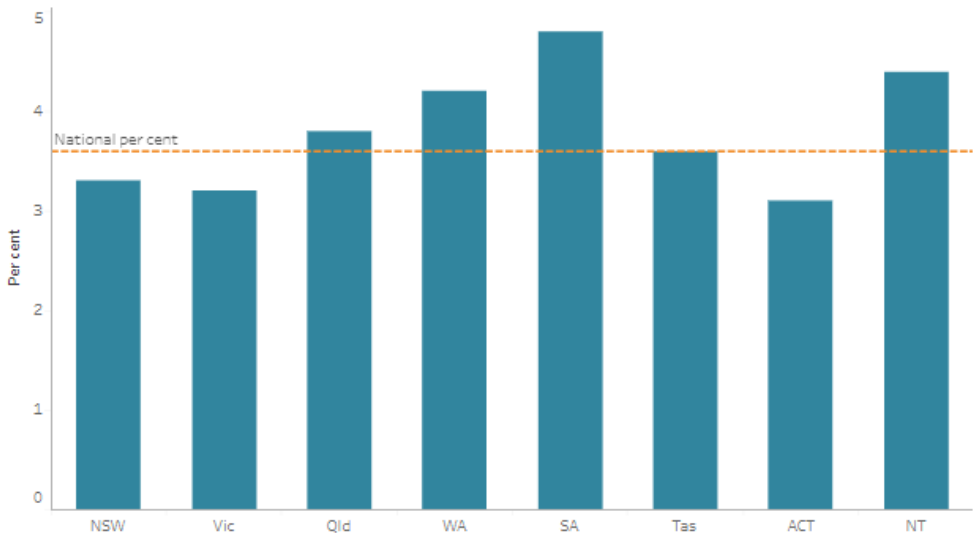
referred.[51] HealthPathways for mental health have been designed to provide referral guidance for GPs, among the range of other mental health treatment options.

4.4.3 Hospital Emergency Departments (EDs)

People often attend EDs to seek mental health-related services, most commonly as the first point of contact or for after-hours care. ED presentation data from all states and territories is compiled annually into the National Non-Admitted Patient Emergency Department Care Database (NNAPEDCD).

In 2017-18, 286,985 presentations to Australian public hospital EDs were attributed to mental health, this equates to 3.6% of all presentations. 78.6% of these presentations were either classified as 'urgent' (patient should be seen within 30 minutes) or 'semi-urgent' (patient should be seen within 60 minutes). The NT had the highest rate of public ED department presentations with a principal diagnosis relating to mental health at 280.4 presentations per 10,000 population, accounting for 4.4% of all ED presentations (Figure 4.4.3a). Barkly and Alice Springs were amongst the SA3 regions with the highest mental health-related ED presentation rate in Australia, at 715.6 and 707.0 presentations per 10,000 population, respectively.[171] Across Australian EDs, people who 'left at own risk' was most common across the NT, NSW and Victoria.[178]

Figure 4.4.3a: Proportion (%) of mental health-related presentations of all emergency department (ED) presentations in public hospitals, by state/territory, 2017-2018.



Source: National non-admitted patient emergency department care database, copied from Mental Health Services in Australia (AIHW).[171]

4.4.4 Availability of Specific Services

The Mental Health and Suicide Prevention Service Review [200] identified a specific service shortfalls across all regions in the NT, specifically in the areas of:

- Trauma-informed care
- Forensic services
- Low intensity mental health services
- Integrated mental health and AOD services

The review also noted that the utilisation of community mental health care services in the NT is much higher than the national average, and this is at least partly due to a correspondingly lower availability and over stretched of specialised public facilities, and private (allied health) referral options and service partnerships. There are limited public hospital inpatient facilities across the NT, with less than 50 mental health beds available.

There is also a lack of after-hours mental health care and crisis support. The most commonly mentioned need for allied health services was around acute mental health presentations in hospital EDs in Nhulunbuy, Katherine and Tennant Creek, where the ED is the primary after-hours health provider. In these regional centres, there is no after-hours mental health team, and patients admitted on a Friday night can spend the entire weekend in ED waiting for a mental health assessment on Monday. Equally as undesirable, in many cases where ED staff are unable to manage the patient or patient load in general, these patients are evacuated off-country to the Royal Darwin or Alice Springs Hospitals.[205]

4.4.5 Suicide Prevention

Training in suicide intervention skills was identified as a priority area for mental health workforce development and training. It was noted that a systems-based approach needed to address the wide range of factors which contribute to the development of suicidal ideation.[200] Furthermore, it was noted that monitoring and evaluation of the quality of current suicide prevention services is limited, and as such should be prioritised. Responsibility for those without a specific mental health diagnosis, in the area of suicide prevention and risk management, often falls to family and friends. This highlights the importance of non-health service-based networks in the area of suicide prevention.

A comprehensive amount of work is progressing in the area of suicide prevention nationally and in the NT. A more thorough overview of some of this work will be included in the next iteration of the needs assessment.

4.4.6 Mental Health Workforce

Remote frontline doctors and other health professionals face greater difficulties and challenges with their work, and are often the first point of contact for people entering into the mental health system.[206] However, the NT has a very low rate of uptake for preparation of GP Mental Health Care Plans and mental health service utilisation (NT rate of <150 per 10,000, compared with >350 per 10,000 for Australia).[17] The NT had less than half that of the national average: 6.84 vs 14.41 for Medicare-subsidised mental health-related GP services per 100 population in 2017-18.[207] Relevant mental health related Medicare item numbers may not be claimed by some of the ACCHS, this together with the use of occupational health services by some of the population may explain the low numbers of GP Mental Health Plans.

In 2017, there were 20 psychiatrists registered in the NT, and none of these were registered as having any advanced subspecialty. Very few psychiatry registrars and trainees are undertaking their training in the NT, so there is unlikely to be an appreciable influx of psychiatrists in the near future. The majority of psychologists reside and practice in Darwin, with remote regions of the NT have almost no resident psychologists. In the NT, the use of MBS funded services delivered by psychiatrists has

declined by one-third over the last five years, whilst the number of psychiatrists has remained stable. This is the opposite of the national pattern.[208]

Geographic differences were also evident in the MBS-subsidised mental health services provided by psychiatrists and allied health professionals (psychologists, social workers and occupational therapists). In 2014-15, the average rate of MBS-funded psychologist services was 78 per 1,000 population whereas in the NT it was 12 per 1,000. Similarly, psychiatrists provided an average of 95 services per 1,000 population nationally. In the NT, the rate was 12 services per 1,000. Contrary to the national pattern of a slow but steady growth (1% per annum average) in the numbers of MBS-funded services delivered by psychiatrists, the numbers of services provided in the NT have declined by one third over the last five years.[207]

Primary health care workforce issues outlined in Section 3.9 provide further insight into some of the mental health service provision challenges.

4.4.7 Child and Youth Mental Health

All mental health services, including youth mental health services in the NT are highly fragmented with substantial overheads related to duplication of services, poor coordination and uncertain and unclear pathways between providers.[167, 200] Existing services are heavily concentrated in Darwin, Alice Springs and, to a lesser extent, Katherine,[200] notwithstanding that the health needs and service provision challenges are greatest in the rural and remote areas.[209, 210] The following is a summary of some of the youth mental health service issues identified in the NT:

- Many do not serve the full age range of young people
- Many service providers are not mental health or youth specific (e.g. ACCHS) and do not necessarily include a full specialist workforce
- TEHS services specifically exclude eating disorders
- There are limited services available after hours[209, 210]
- Young people can be considered 'too high-risk' for headspace, but not unwell enough to access tertiary services[200, 210]
- Services where access is not restricted by diagnosis (i.e. that can offer early intervention) are needed to limit progression of symptoms and reduce potential harm[200, 210]
- Limited availability of co-morbidity (dual diagnosis) services that include physical illness and/or AOD and volatile substances

Given the significant levels of trauma impacting the lives of many Aboriginal people, there is a lack of practitioners trained in trauma-informed or developmental trauma care to comprehensively respond to young people presenting with early onset mental health symptoms related to trauma.

Additionally, young people who are questioning their gender or sexuality are at risk of complex mental health problems without the access to appropriate support and treatment options. A gap has been identified in the mental health workforce for trained specialist care for young people of diverse sexuality and/or gender identity.

There are a range of region-specific service and system needs identified in the Mental Health and Suicide Prevention Service Review (MHSP SR) which are summarised in the Youth Severe Needs Assessment:

Darwin Region	- Lack of capacity across the Darwin based services - Issues with continuity of care (integration) - Youth falling through the gaps - Limited specialist treatment
Central Australia	- Importance of schools/community in engagement and monitoring - Interaction with the justice system - Lack of trauma-informed practice
East Arnhem	- Limited services available to remote locations - Issues with continuity of care (integration) - Lack of trauma-informed practice
Barkly	- Limited services/lack of qualified practitioners - Long wait times - Communication issues
Katherine	- Limited mental health services - Young people who are sexuality and gender diverse - After-hours services

GPs may specifically benefit from additional training in specific youth mental health strategies, particularly suicide prevention.

4.5.8 Mental Health Workforce for Aboriginal and Torres Strait Islander People

A well trained and resourced Aboriginal mental health workforce is seen as critical to the delivery of equitable and culturally appropriate mental health care for Aboriginal people in the NT. There is an identified lack of training and formal recognition of skills, as well as a limited number of strategies for recruitment and ultimately career progression.[200]

Aboriginal Mental Health Workers (AMHWs) are recognised as having a wide-ranging scope and diversity of skills and capacity. AMHW demonstrate an extraordinary array of skills and their contribution to a holistic approach to mental health care is noted as remarkable.[211] AMHWs are also able to establish relationships within community, and generate referrals for mental health treatment with GPs.[203] However, AMHWs are an aging workforce and younger workers are not coming through the system. This is compounded by an inadequate pathway for developing the Aboriginal mental health workforce.[212]

Several providers and other stakeholders noted that for many Aboriginal people, appropriate service provision would be delivered in less formal or non-clinical settings and in groups and would address the social context of issues, in particularly family contextual issues.[203] The National Mental Health Commission notes that the significant mental health gap between Aboriginal and Torres Strait Islander peoples and non-Aboriginal people exists “in part because services and programs designed for the general population are not culturally appropriate within a broader context of social and emotional wellbeing as understood by Aboriginal and Torres Strait Islander peoples. Furthermore, such services do not ensure a connected transition through the mental health system for Aboriginal and Torres

Strait Islander peoples."[213] The significance of the role that the Aboriginal community controlled sector can play in delivering high quality, effective, culturally appropriate SEWB, MH and AOD programs has been clearly acknowledged by the Mental Health Commission, but there continues to be challenges with equitable funding of these programs.[201]

There is some evidence that uptake of electronic services by Aboriginal people is low. Mindspot, an organisation that provides online assessment and treatment for anxiety and depression, data shows that the percentage of their clients who identify as Aboriginal or Torres Strait Islander is less than 10%, well below the population proportion of 30%.[214] While this may be partially explained by limited internet access in remote areas, it is also possible that this service is not well known to or understood by Aboriginal people. Issues of internet availability, health literacy (around both promotion and use of the service) and cultural appropriateness need to be fully investigated if electronic services are to be effective as part of the Stepped Care approach.

5. Psychosocial Support Services

NT PHN is pleased to present this update to the National Psychosocial Support Measure (NPSM) Needs Assessment, encompassing the Continuity of Support (CoS) and Interface funding measures. This update has been informed by the rollout of the NPSM/Transition, CoS and Interface programs, including stakeholder and community consultations and relevant provider data on client numbers and NDIS transition.

5.1 Background

The NPSM is a shared commitment between the Australian, State and Territory Governments. It forms part of the reform occurring within the mental health sector as the NDIS enters the final stages of roll out.

The purpose of the NPSM and associated transition funding is to provide appropriate psychosocial services to people with a severe mental illness and associated psychosocial functional impairment who are not currently supported through the NDIS, and to provide support for them to test eligibility to the NDIS.

The CoS funding is intended to provide ongoing support to previous participants of the Partners in Recovery (PIR), Personal Helpers and Mentors (PHAMs) and Day to Day Living (D2DL) programs who are not eligible for the NDIS, while the Interface initiative allows for the development of coordinated services to support clients of those programs who have not yet tested eligibility to be tested and supported as they enter new care arrangements.

Given the remoteness and existing service delivery models within this jurisdiction, NT PHN has elected to use an integrated commissioning approach for the psychosocial support services programs.

5.2 Literature Review and Stakeholder Input

A review of evidence based psychosocial support services and understanding of local service provision was developed through a literature review and consultation with the NT NPSM Reference Group which, for the purpose of the Needs Assessment, has included representation of Carers, Consumers, Peer Workers, Aboriginal and Torres Strait Islander People, service providers and the peak body for community mental health services, the NT Mental Health Coalition. Psychosocial Co-design Workshops were subsequently held in Darwin, Katherine and Alice Springs in March/April 2019 and attended by a mix of clients, support workers and service providers who explored themes around what is important to and works for clients, and how services can achieve desired outcomes.

A report by the Centre for Mental Health, Melbourne School of Population and Global Health[215] was commissioned at a point in time when Early Intervention to avert or mitigate psychosocial disability caused by severe mental illness was still viewed as the responsibility of the NDIS. Late in 2017 and early in 2018, it became apparent when publications such as the NDIS Mental Health Snapshot Series[216] were released and the NDIS Operational Guidelines[217] were updated, that early Intervention for the purpose of averting or mitigating psychosocial disability would be excluded from the NDIS. The responsibility instead continues with mainstream government and community mental health services. Indeed, strategic funding arrangements such as the NPSM have been created expressly for this

purpose and will assume responsibility for services such as PIR/PHAMs/D2DL which will transition into COS arrangements and cease taking new clients.

This report identified that the interventions for psychosocial disability that received a high level of endorsement in the literature were:

- Social Skills Training
- Supported Employment
- Family Psycho-education and Support
- Outreach treatment and support services
- Cognitive Remediation
- Cognitive Behavioural Therapy for psychosis
- Illness Self-Management
- Supported Education
- Supported Housing
- Physical Health Management
- Peer Support/Consumer Networking.

Three interventions in particular were cited as optimal in terms of evidence base, personal choice and recovery outcomes.

- Social Skills Training
- Supported Employment
- Supported Housing

Evidence of early intervention outcomes for Illness Self-Management, Cognitive Remediation and CBT for Psychosis was also strong, although this may not be the immediate personal choice for participants. Support to improve physical health is potentially a priority need yet there was lack of evidence relating to its effectiveness from an early intervention perspective. Evidence for Family Psycho-education was very strong and Peer Support was determined to improve the recovery aspects of all interventions.

The literature review suggests that further examination of "areas of Family Psycho-education and Support, Social Skills, Illness Self-Management, Peer Support and consumer networks" are potentially valuable and effective interventions.

In the NT, most psychosocial supports for adults with severe and complex mental illness were formerly implemented through individualized psychosocial outreach programs like PIR (Darwin, Alice Springs, Katherine, Tennant Creek and East Arnhem), PHAMs (Darwin, Palmerston, Alice Springs, Katherine, Tiwi Islands, East Arnhem, Roper Gulf, Victoria and Daly Region, Tennant Creek and West Arnhem), and equivalent NTG funded programs including Pathways to Recovery (Alice Springs) and Recovery Assistance Program (Darwin and Katherine). Housing support is provided through NT Government funded programs such as the Alice Springs Tenancy Support Program and the Darwin Housing Accommodation Support Initiative (HASI).

Less resource intensive centre-based supports were implemented in the form of D2DL (Alice Springs and Darwin), and NTG funded centres including the Darwin based Mental Illness Fellowship Australia, Northern Territory (MIFANT) and Palmerston based Top End Mental Health Consumer Organisation Inc (TEMHCO).

The NT NPSM reference group and the Psychosocial Co-design Workshop participants identified additional challenges and associated opportunities in relation to the NT psychosocial support services.

Comorbidity between Mental Illness and Alcohol and Other Drug issues

Residential rehabilitation is available for AOD issues but not for Mental Health. People with psychotic illnesses generally become mentally unwell when they attempt to withdraw from drugs and alcohol. This means that they are often too unwell to be supported by an AOD facility to address their alcohol and other drug issues. AOD rehabilitation facilities are anxious to upskill staff to support complex mental health and there is an opportunity to promote and support partnerships that facilitate AOD rehabilitation while supporting people with acute mental illness.

People experiencing homelessness and complex needs

It is challenging to support someone's psychosocial needs when their basic needs are not met. Some people who live with complex mental health issues such as psychotic illnesses may from time to time self-medicate with alcohol and or other drugs as a means of mediating their symptoms. This cycle of behaviour can be synonymous with homelessness as emergency and temporary accommodation services often have a zero tolerance to intoxication which often results in eviction into homelessness. Services that provide outreach in the homelessness sector or to other populations with complex needs have an established relationship that can be leveraged to support this cohort to appropriately access the NDIS and/or other supports.

This understanding was reinforced by participants at the Psychosocial Co-design Workshops where clients and support workers consistently identified housing (including safety), hygiene and nutrition as things that were both important to them and which worked for them as support activities. Only one provider workshop specifically identified adequate housing as a precondition for achieving programme outcomes, however it is likely that most providers consider these elements as either outside of their control (e.g. housing) or integral to their programmes (e.g. nutrition) and did not call them out specifically.

Holistic health and wellbeing

There is traditionally a separation in how we treat and support people's mental health needs and physical health needs. AMS provide an example of a holistic approach to health and some AMSs in the NT are NDIS providers or PIR/PHAMs providers. Primary healthcare providers may be upskilled and encouraged to specifically support people with complex mental health needs more holistically.

Carers and consumers in the Psychosocial Co-design Workshops also consistently identified healing places and activities as being important to them as part of their journey.

Peer support workforce

The absence of Vocational Education and Training (VET) training and support for a Peer Workforce in the NT is a missed opportunity but development in this area may align with the NSPM. Workers with lived experience have a reputation for following through on what they say and are known to develop rapport very quickly with vulnerable people. There is a lack of strong role models who are open about their mental illness. Engaging more peers and encouraging them to speak publicly about their experience with mental illness and their successes in managing illness would be encouraging and normalizing for other people experiencing complex mental illness.

Respecting people's relationships with services

Traditional mental health service providers may be unappealing to people with mental illness due to stigma or the feeling that they have been let down by the rigidity and fragmentation of the system. People may have been denied service by specific organizations due to probative and/or restrictive criteria. There is an opportunity to engage community organisations not traditionally known as mental health service providers to reach people they already have a relationship with or people who choose not to engage with traditional mental health services. Such organisations would require support to establish governance and staff capacity building to support clients into appropriate referral pathways in the event they become acutely unwell. Examples of community or non-traditional mental health services include men sheds, grass roots initiatives, large workplaces, tertiary education institutions, disability services, sporting clubs and organizations.

Support for family and friends

Informal supports are not traditionally well engaged by any kind of mental health service, yet they provide continuity of support and provide greater value of care in consideration to the amount of time and expertise they contribute to the person overall care (the economic value of Australia's mental health carers is estimated at 13.2 billion dollars per year)[218]. Services providing supports to individuals need to be encouraged to build the capacity of informal networks and engage them appropriately in models of care. Young carers are particularly vulnerable to stigma and isolation, yet they are often left out of models of care in spite of carrying out adult responsibilities outside of formal support services.

The NT is the only state or territory that does not offer VET for a Certificate in Peer Support. Nor is there a professional body supporting the Peer Workforce. The extent to which Peers are employed and supported in the NT mental health sector is yet unknown, however a report into Peer Workforce opportunities in the NT conducted by the NT Mental Health Coalition will provide some insight into these issues when finalised.

In recent years family based Psycho-education opportunities have been implemented only once per year in the major centres of Alice Springs and Darwin suggesting an opportunity missed in building the capacity of informal support networks for people with severe and complex mental illness.

Youth services

There are many services connected to youth including schools that do not have capacity to support severe and complex mental health presentations, 75% of which will emerge by the time a person is 25 years of age. Similar opportunities described in the section above "Respecting people's relationships with services" can be applied specifically to Youth services.

5.3 Service Population

The National Mental Health Service Planning Framework (NMHSPF) estimates that approximately 3% of the population will have severe mental illness.[33] This equates to approximately 8,800 people in the NT by 2022-23. This data source has limitations in its robustness for smaller populations and it does not accurately model remote populations or those with a high proportion of Aboriginal residents, so this estimate could be considered conservative. However, it should also be noted that a proportion of this 'severe' population will be adequately supported within the clinical mental health system and through informal supports and will not routinely require formal psychosocial support services or NDIS support. Data from the ABS suggests that nationally some 45% of people with a severe and profound psychosocial disability access formal support.[219]

Approximately 580 individual clients were receiving services through PHAMs/PIR/D2DL or NTG services at November 2018, however only 50% of these had been tested for NDIS eligibility by March 2019. In contrast, the NDIA estimates forecast demand for NDIS in the NT for mental illness associated disability in 2023 to be around 780 clients (upper limit).[220] The overall NDIS transition rates are projections based on the work of the Productivity Commission in their report released in 2011.

The Productivity Commission noted that there are limitations specifically relating to Aboriginal and Torres Strait Islander peoples with disability and people with disability living in regional and remote locations. The psychosocial NDIS transition rates are based on interstate trial areas (namely the Barwon and Hunter regions). Limitations include a lack of comparative data relating to the availability of services to support people with psychosocial disability to transition, significantly lower rates of immigration than the NT, significantly lower proportions of Aboriginal and Torres Strait Islander persons than the NT, a lower dispersion of population over significantly smaller areas, and a higher median age for the overall population.

While definitive data around the size of the population in need of psychosocial supports is difficult to ascertain, it is apparent that there is a gap between the number of people who would benefit from psychosocial support and those who are currently participating in programs. It is also evident that testing NDIS eligibility is a complex process requiring a high level of coordination and understanding and that if NDIS transition is successful then the availability of appropriate services is not guaranteed in many locations. The additional complexities inherent in remote locations and non-English speaking populations make this a particularly challenging space for adequate and equitable service provision.

5.4 Systems and Services

The 2018 NPSM Needs Assessment prioritised the Darwin Urban area, based on the estimated number of people with severe and complex mental illness who were not currently well supported by existing psychosocial programs. Other regions with low proportions of the severe and complex population

having access to CoS or NTG funded programs were East Arnhem, Central Australia and Darwin Remote.

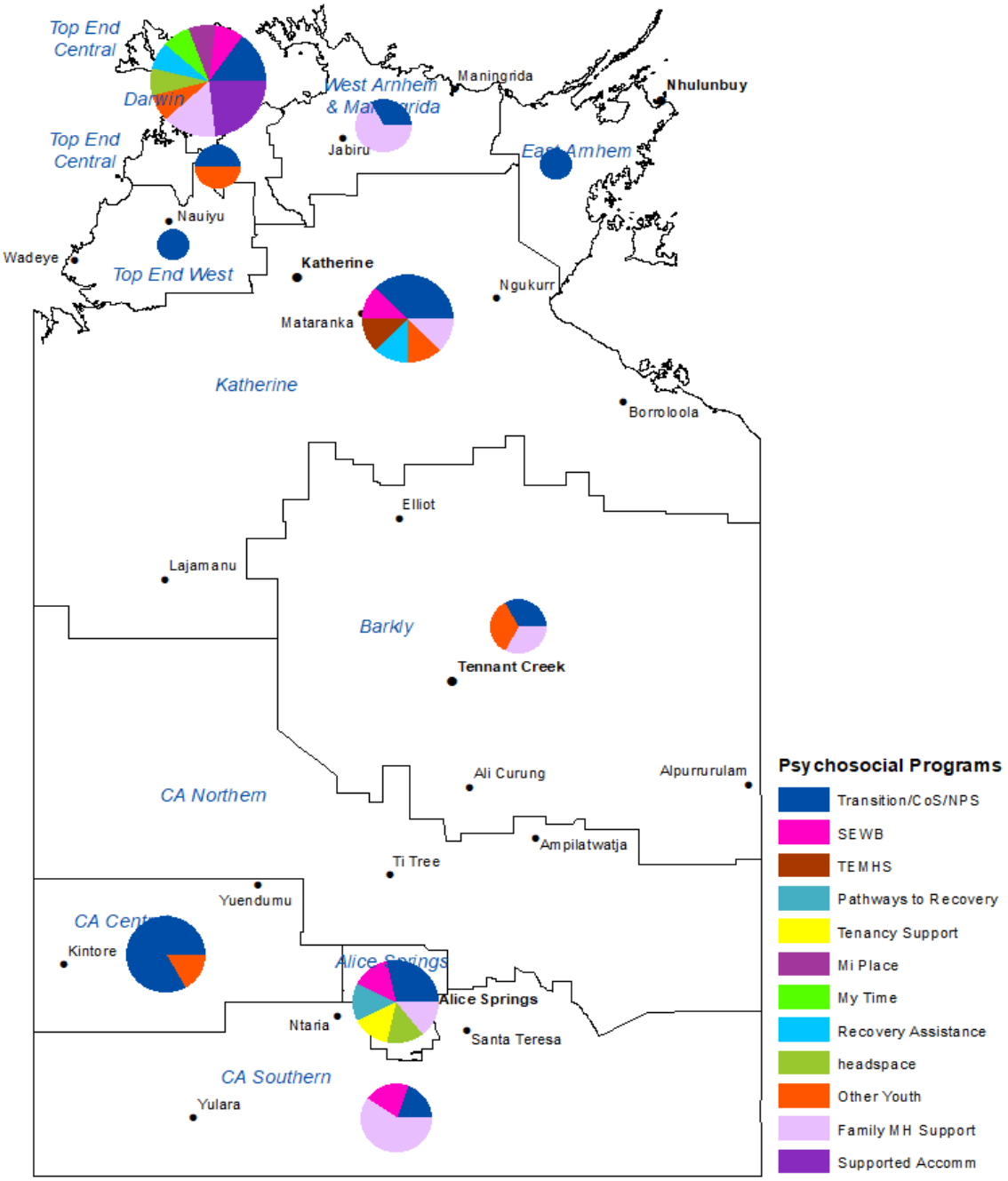
These regions stood out as having a higher need to expand or extend transition support services, and to potentially implement assertive outreach to support people into the NDIS. Anecdotally, some existing service providers report that there are cohorts of people within their jurisdiction who have previously received services and should be tested for NDIS eligibility but have become disengaged from the service. This population will be difficult to reach and reengage, but it is noted that unless they are appropriately supported to access the NDIS now, they have the potential to draw very heavily on the NPSM and related programs to support their needs in the future.

At the end of 2018, eligibility testing and transition rates for participants of the existing psychosocial programs were low (well below expected rates) in all regions as reported by the existing program providers. There is no justification for particular geographic prioritisation based on these statistics, rather all providers require ongoing support to test their clients within the complex social and economic environments within which people access their services.

Regional mapping of psychosocial services (Figure 5.4a) also highlights East Arnhem, the Darwin Remote area (Top End West/Central, West Arnhem and Maningrida) and the Barkly as having limited currently available services. Many of the services represented on this map are available only or predominantly in the major regional centres or larger towns, leaving additional problems of access for residents of more remote communities.

Given the relatively thin market and the importance of service relationships for clients with mental health issues, it is imperative that existing providers are prioritised to continue service delivery to minimise disruption and are supported to do this in an integrated and effective manner within the new funding system.

Figure 5.4a: Potential Psychosocial Programs by Health Region, Northern Territory.



Source: Compiled by NT PHN.

6. Alcohol and Other Drugs

The initial NT PHN Drug and Alcohol Treatment Needs Assessment was undertaken in March 2016. It was developed with input from NT peak bodies and other key stakeholders. A working group was established to support this process, with representatives from Top End Health Service (TEHS), Central Australian Health Service (CAHS), NTG Mental Health Directorate, NTG Alcohol and Other Drugs Directorate, the NT Mental Health Coalition (NTMHC), Aboriginal Medical Services Alliance Northern Territory (AMSANT), the Association of Alcohol and Other Drugs Agencies Northern Territory (AADANT) and GPs. Additional input was provided by NT PHN's Community Advisory Council and Clinical Advisory Councils. Since the initial needs assessment was conducted in 2016, it has been reviewed and updated annually.

There are a number of key mechanisms that monitor alcohol and other drug (AOD) use and treatment trends nationally; the National Drug Strategy Household Survey, Alcohol and other drug treatment services in Australia (that draws data from the AODTS NMDS), the Illicit Drug Reporting System (IDRS), and the National Wastewater Drug Monitoring Program. Data from these surveys and monitoring systems will be used to inform the following sections.

A key theme throughout the literature and among stakeholder networks is that AOD misuse and abuse can compound the effects of social and economic disadvantage. Substance misuse and abuse is often exacerbated by the impact of inter-generational trauma. An effective response to the problematic use of AOD would ideally include strategies that consider social determinants of health. Poor social determinants coupled with AOD misuse can be reinforcing and entrench social disadvantage.

6.1 Health Status

Policy and Research

It is expected that the work of PHNs is informed by and consistent with Australian Government, Northern Territory and Aboriginal and Torres Strait Islander policies, strategies and frameworks.

Over the past two years, considerable resources have been invested into understanding alcohol consumption patterns and associated harms. The NT Alcohol Policies and Legislation Review[221] (also known as the Riley Review) was completed in 2017, forming the basis for the NT Alcohol Harm Minimisation Action Plan 2018-2019,[222] Tobacco Action Plan 2016-18,[223] and Addressing Fetal Alcohol Spectrum Disorder (FASD) in the Northern Territory 2018-2024.[224] The NT Government commissioned the Demand Study for Alcohol Treatment Services in the Northern Territory[115] undertaken by Menzies School of Health Research, University of New South Wales, Social Policy Research Centre and Drug Policy Modelling Program.

The NT based plans are guided by the National Drug Strategy 2017-2026,[225] and a collection of sub-strategies such as the National Tobacco Strategy 2012-2018, National Pharmaceutical Drug Misuse Framework for Action 2012-2015, National FASD Action Plan 2018-2028 and National Ice Action Strategy 2015.

The Banned Drinking Register (BDR) was re-introduced to the NT in September 2017, after being decommissioned in 2012 due to a change of government. The BDR lists people that have been

identified as consuming alcohol at harmful levels and who may be at risk to themselves or others. Their names are placed on the register which prohibits the consumption, possession and purchase of alcohol, for a period of 3, 6 or 12 months. These individuals are banned from purchasing takeaway alcohol and this measure incorporates the use of Police Auxiliary Liquor Inspectors (PALIs) to support oversight. The BDR is intended to contribute to a range of alcohol-related harm reduction strategies. The BDR is currently being evaluated by consortia of stakeholders including NT PHN, NT Government, Central Australian Aboriginal Congress, and several academics who have expertise across policy and epidemiology.

The focus on alcohol in this needs assessment is informed by evidence that the NT has the highest alcohol consumption rates per capita, the highest rates of hospitalisations related to alcohol misuse, and the highest death rate due to alcohol misuse in Australia.

6.2 Alcohol Consumption and Associated Harm

Compared to national alcohol consumption rates, people in the NT record the highest rate of risky alcohol consumption, highest proportion of people exceeding lifetime risk of two or more standard drinks (28%), and single occasion risk consuming five or more standard drinks in a single occasion (36%).[68] About 1 in 5 (20%) Indigenous Australians exceeded the lifetime risk guidelines in 2016- a small but non-significant decline from 23% in 2013, and significantly lower than 32% in 2010.[68]

The NT has the highest rates of harmful alcohol consumption in Australia, across both Aboriginal and Torres Strait Islander and non-Indigenous populations. Per capita alcohol consumption rates in the NT are among the highest in the world.[226] Approximately 48% of adults in the NT exceed the NHMRC guidelines for alcohol consumption, and consumption rates are 173% greater than the national average.[222] Data on wholesale alcohol supply estimates that consumption of alcohol per capita in the NT decreased from 13.4 litres per person to 11.6 litres between 2010 and 2017.[227]

The harmful use of alcohol leads to a significant health, social and economic burden on society, resulting in family and societal breakdown including child removal, homelessness, incarceration, violence, and social isolation. The social and economic costs and harms related to alcohol consumption in the NT equates to $1.38 billion, with tangible costs of $701.3 million and intangible costs of $685.5 million.[228] At an individual level, it is estimated that the total tangible and intangible social cost of alcohol use in the NT in 2015-16 was $7,578 per adult. It has been noted that while there has been a slight decrease in overall alcohol consumption levels, the associated costs and harms have in fact increased. [228]

Within treatment settings in the NT, alcohol has consistently been the most common principal drug of concern in 58% of clients, much higher than the national rate of 35%.[229] Alcohol plays a significant factor in DFSV (see Section 3.5) and violent assault, with at least 60% of all violent assaults and 67% of domestic violence incidents in the NT attributed to alcohol use. Alcohol also contributes to suicide, premature death, falls, motor vehicle accidents, imprisonment rates, disability and homelessness. Rates of death wholly attributed to alcohol abuse are eight times higher for NT Aboriginal and Torres Strait Islander men than non-Indigenous men, and 16 times higher for women.[230]

According to health rating data, the NT had higher rates of adults exceeding both the lifetime risk guideline (21.4% compared with 16.1%) and single occasion risk guideline (49.1% compared with 42.1%) compared with national rates.[68]

Fetal Alcohol Spectrum Disorder

Fetal Alcohol Spectrum Disorder (FASD) is gaining recognition as an emerging public health issue in Australia and is a preventable disability. Although there is no national data on prevalence of FASD in Australia, it is known to occur in both the Aboriginal and non-Aboriginal populations in the NT. High rates of alcohol consumption in the NT and feedback from health professionals, educators and communities indicates that there is likely to be a high incidence of FASD in the NT.

The NT Government, through the FASD strategy[224], is prioritising prevention, education, assessment and support. In general, there is a need to encourage health and human services workforce to have an awareness of their role in FASD prevention, including supporting access and referral to treatment for alcohol misuse for women and pregnant women.

Aboriginal Territorians and Alcohol consumption

Aboriginal Territorians are less likely to drink alcohol than non-Aboriginal people. Nationally, 51% of Aboriginal adults have reported that they abstain from alcohol, while only 15% of non-Aboriginal adults are abstainers. However, those Aboriginal people who do drink experience higher rates of medical and social problems than non-Aboriginal people who drink. Alcohol consumption was responsible for the greatest burden of disease and injury for Aboriginal males aged 15-34 years in the NT.[231] It is estimated that across all age groups, between 20-40% of all Aboriginal people in the NT are drinking at risky or high risk levels.[12]

The alcohol-related rate of death for Aboriginal Territorians is more than three times the national average, and twice as high than for non-Indigenous people.[231] In the NT, alcohol use disorders are believed to be directly responsible for 2.1% of the burden of disease in 2004-2013. This increases to 3.1% for the Aboriginal population and is particularly high (5%) for Aboriginal people aged 25-44 years. It is the leading cause contributing to years lived with a disability, at 7% for Aboriginal people aged 25-44.[90]

6.3 Other drugs consumption patterns and associated harms

Tobacco

Tobacco smoking is one of the largest preventable causes of death and disease in Australia.[223] In 2016, the NT had the highest proportion of daily smokers over the age of 14, at a rate of 17.2%, much higher than the national average of 12.2%. People aged between 50-59 recorded the highest daily smoking rate of all age groups across Australia and the NT.[68]

Consistent with national trends, the rate of daily nicotine use is higher in rural and remote communities than in urban areas. This may reflect the strong correlation between smoking rates and socio-economic status (SES), and the greater success of smoking cessation strategies in urban settings. Nationally, the proportion of risky drinkers aged 14 years or older is higher in remote and very remote areas (36.7%) compared to major cities (24.2%). Likewise, in the NT, the proportion of daily smokers aged 14 years or older is greater in remote and very remote areas (25.9%) compared to major cities (15.4%). Nationally, the proportion of daily smokers aged 14 years or older is greater among lowest SES (17.7%) compared to highest SES (6.5%). While rates of daily smoking remain high in rural and

remote settings, tobacco consumption appears to be declining, with 23.2% of young adults in the NT not establishing patterns of smoking.[68]

Between 2010 and 2013, the proportion of Aboriginal and Torres Strait Islander people smoking daily did not decline significantly, but there was a substantial reduction in the number of cigarettes smoked.[68] The rate of smoking amongst Aboriginal people continues to be significantly higher than that of the general population. As such, the NT Government's Tobacco Action Plan is placing special emphasis on reducing harm for Aboriginal Territorians who suffer the greatest burden from tobacco use. As well as other priority populations pregnant women and their families, children and young people, people with mental illness and Prisoners released from NT prisons for focused action areas.

Illicit drugs

Illicit drug use (including unsafe injecting practices) contributed to 2.3% of the total burden of disease and injury in 2011 nationally. Forty-one percent of the illicit drug use burden was from opioids, followed by amphetamines (18%), cocaine (8%) and cannabis (7%).[232]

According to the National Drug Strategy Household Survey 2016[68], people living in the NT had the highest rate of illicit drug use in the 12 months preceding the survey. In 2016, people in the NT reported highest recent use of illicit drugs (21.6%) for people aged 14 or older, and this was highest in the age group 20-29 years (28.7%). Nationally, the proportion of illicit drug use in people aged 14 years or older is greater in remote and very remote areas (24.8%) compared to major cities (15.6%). Illicit drug use is also higher in Indigenous Australians (27.0%) compared to non-Indigenous (15.3%), and people who are unemployed or unable to work (23.6 and 23.9%).[68]

The Alcohol and Other Drug Treatment Services Northern Territory data (2015-16) indicated that the most common principal drug of concern was alcohol (48% of clients), followed by cannabis (19%), amphetamines (14%), and volatile solvents (12%), which is much higher than the national average (less than 1%).[233]

Cannabis

Cannabis is the most widely used illicit drug in Australia, with use among the general population remaining stable between 2001 (12.9%) and 2016 (10.4%).[68]

In the NT, cannabis use rose from 12% to 19% over the 5-year period up to 2015-16.[233] In 2016, the NT had the highest proportion of people using cannabis in the last 12 months (16%).[68] Rates of cannabis use among Aboriginal and Torres Strait Islander Australians were almost twice that of the general population (19.4% compared to 10.4%). According to the Illicit Drug Reporting System (IDRS) 2018, recent cannabis used remained high in the NT.[234]

Cannabis was the second most common drug type identified at toxicology for accidental deaths nationally in 2016.[233]

Amphetamine-type Stimulants (ATS)

In the NT, amphetamines as a principal drug of concern increased from 5% to 14% over the 5-year period to 2015-16.[233] The Legislative Assembly of the Northern Territory's 'Ice' Select Committee reported that 21% of sterile injecting equipment distributed through primary and secondary Needle and Syringe Program (NSP) outlets in 2014 was to clients who reported amphetamines as the last drug they injected.[235] NSP staff report the vast majority (more than 95%) of these clients inject 'ice'.[235] 73.6% of clients who last injected amphetamines were male, and 26.4% were female. Three quarters of these people were non-Aboriginal (75.5%), while the remainder were Aboriginal (24.5%). 72.5% of clients who last injected amphetamines were between 30 and 50 years of age.[235]

In the NT, use of methamphetamine (ice) has increased from 30.4% in 2010 to 44.6% in 2013.[236] The number of seizures of amphetamine-type substances (ATS) in the NT increased from 350 (7.03kg) in 2012-13 to 447 (18.5kg) in 2013-14.[236]

As part of the 2018 IDRS survey[234], 99 people who inject drugs (PWID) were interviewed in Darwin and Palmerston, with a mean age of 46 years, 65% of which were male and 28% were Aboriginal and/or Torres Strait Islander. Of this sample, methamphetamine (31%) and morphine (31%) were most frequently reported as the drug of choice. The popularity of methamphetamine continued to increase for the fifth year in a row, with an increasing number of people reporting it as the drug most often injected in the month prior to being interviewed.

Opioids

The NT has one of the lowest rates of reported use of heroin in Australia, however there is some suggestion that it is increasing, and that the incidence of abuse of prescription medications is increasing.

According to the 2018 IDRS survey[234] of PWID in Darwin and Palmerston (N=99), morphine was the most commonly used and injected opioid in the NT, and most frequently used daily. Recent use of heroin remained low with only 9% of participants had injected heroin in the preceding six months with daily use slowly increasing since 2013.

Volatile Substance Use (VSU)

In the NT, the proportion of closed episodes for drug use where volatile solvents were indicated as the primary drug of concern was 8.2% in 2017-18.[233] Petrol sniffing remains the most prevalent form of volatile substance use (VSU) among Aboriginal people in remote communities. Volatile substance users are at an increased risk of co-occurring mental health disorders and other co-morbid disorders and impairment.

The introduction of Opal fuel has had a significant impact on reducing VSU in certain communities. A 2008 evaluation found a 94% reduction in petrol sniffing across Central Australia following the rollout of low aromatic fuel.[237] However, the NT continues to have the highest rates of VSU in Australia, with Aboriginal children and young people are at increased risk. The majority of Aboriginal young people who engage in the use of volatile substances are aged between 8 and 30 years old, and is most prominent among 12-16 year olds.[238] Overall, there has been a decrease in petrol sniffing, even among

people who regularly engage in this behaviour, resulting in less harm. While there has been some improvement in the available services, challenges continue.[238]

The NTG has guidelines for the management of possession, supply and use of volatile substances. Through the guidelines and via the Volatile Substance Abuse Prevention Act 2005[239], community members and councils can request to the Health Minister to declare a place a management area and to approve a management plan. Local Management Plans are devised to control the possession, sale, supply, use and storage of the volatile substance of concern.[238]

6.4 Substance Use and Mental Health

National data

The diagnosis or treatment of a mental illness is much more common in those who have used an illicit drug in the past 12 months (27%) or in the past month (29%), than the non-drug using adult population (14%).[68] While the proportion of people being diagnosed with, or treated for, a mental illness significantly increased across all drug-using groups, it was found that people using amphetamine-type substances (including methamphetamine) in the past 12 months were more likely than other drug users to report being diagnosed or treated for a mental illness, and their rate was almost three times as high as the non-illicit drug using population (42.3% compared with 15.5%).[68]
People who reported smoking daily were twice as likely to have high/very high levels of psychological distress (22%) compared with people who had never smoked (9.7%). They were also twice as likely to have been diagnosed or treated for a mental health condition, compared those who had never smoked (29% compared with 12.4%).[68]

People who exceeded the alcohol single occasion risk guidelines at least weekly were more likely to have high or very high levels of psychological distress (16%) than people drinking at low-risk levels for a single occasion (9.3%). The treatment for a mental health condition was approximately 1.2 times higher for drinking at risky levels than those drinking at low-risk levels.[68]

Northern Territory data

Approximately 25% of all people admitted to in-patient mental health settings in the NT have a mental health disorder attributed to psychoactive substance use.[51] There is also estimated to be a higher than average incidence of acquired brain injury (ABI) in the NT due to alcohol and volatile substance use.[51] Risky levels of alcohol consumption are associated with poorer mental health and increased hospital admissions from self-harm and assault. There has been a steady rise in alcohol related mental disorder hospitalisation for Aboriginal and Torres Strait Islander people from 1992-2008.[240] This hospital admission data was published in 2011 and has not yet been replicated, it continues to be utilised as a useful NT specific source.

A study of completed suicides in the NT in the decade to December 2010 found that alcohol was present in the blood or alcohol abuse was mentioned in 64% of all suicide reports, including 72% of Aboriginal suicides and 55% for non-Aboriginal. Alcohol was a more influential factor compared to other factors such as conflict and relationship breakdown or mental health issues.[241]

The local data from the 2018 IDRS survey indicated that 32% of the sample (N=99) reported recent mental health issues (primarily depression and anxiety), with seven out of ten people in this group attending a health professional for their mental health issue.[234]

6.5 Population Cohorts

People of diverse sexuality and gender identity

People who identify as having a diverse sexuality or gender identify have relatively high rates of alcohol and other drug use, however there is a lack of data on the associated harms for this population cohort.

In the 2016 national drug household survey[68], lesbian, gay and bisexual (LGB) people were reported to use tobacco, alcohol, illicit drugs and pharmaceuticals at rates significantly higher than the general population. In particular, recent illicit drug use (cannabis, ecstasy, methamphetamine, cocaine) ranges from 3 to 5 times greater than the general population rate. Nationally, over 25% of people who identify as homosexual or bisexual reported drinking at levels that exceeds the lifetime risk guidelines, compared to 17% of heterosexual identified people. There is no Australian data available for transgender or intersex people.

Possible explanations for the higher rates of AOD use and harm among people with diverse sexuality and gender identity may include minority stress, significance of bar and nightclub cultures, 'chemsex' and normalisation of illicit drug use in social networks.

Further information about the health needs of people with diverse sexuality and gender identity is provided in Section 3.2.4.

People in contact with the criminal justice system

People who have contact with the criminal justice system experience higher rates of homelessness, unemployment and often come from socially disadvantaged backgrounds, with thousands of people cycling through the system annually at a national level. In the NT, Aboriginal people account for 84% of the prison population.[175] Incarcerated people tend to have poor physical and mental health, and high levels of health risk behaviours such as drug and alcohol use and smoking, with 2 in 3 prison entrants reporting illicit drug use in the previous year.[242]

Nationally, 40% of inmates had been told by a doctor or health professional that they have a mental health disorder (including drug and alcohol abuse). One-third of people entering prison were at high risk of alcohol related harm.[242] 73% smoked tobacco on entry to prison (80% Indigenous; 73% non-Indigenous) and 67% engaged in illicit drug use in the past 12 months (60% Indigenous; 69% non-Indigenous). Nationally, 1 in 4 prisoners received medications for mental health related issues while in prison.[242]

Further information about the health needs of people in contact with the criminal justice system is provided in Section 3.2.7.

People who inject drugs

Needle and Syringe Program (NSP) data is the primary source of information about injecting drug use in the NT. It suggests that injecting drug use is concentrated in the Top End (91.9%) and amongst males (almost 80%). 8,339 occasions of service were recorded across the 13 primary and secondary NSP outlets in the NT, of these 84.9% were recorded by the 3 primary outlets located in Darwin, Palmerston

and Alice Springs. Among these occasions of service, 6,542 (78.5%) were delivered to males and 1,794 (21.5%) were delivered to females.[243]

Non-Aboriginal clients accounted for 74.9% of occasions of service, while Aboriginal and Torres Strait Islander clients accounted for 16.5%. The majority of NSP clients in the NT are non-Aboriginal males in the relatively older 30-39- and 40-49-year age groups, residing in the 3 main urban areas in the NT- Darwin, Palmerston and Alice Springs. It is worth noting that a small, but not insignificant, proportion of NSP clients resided in regional areas.[243]

The NT NSP Minimum data set (MDS) indicates that in 2017, amphetamines (particularly crystal methamphetamine) was the most commonly injected drug (38%), followed by morphine and other pharmaceutical opioids (29%), and steroids and other performance or image enhancing drugs (PIEDs) (9%).[18]

Overall, amphetamines were the most commonly injected and 'last injected drug' for the general population. However, in young men (aged 30 years or younger), steroids and other PIEDs are the most common 'last injected drug' for young men (43.2% compared with the 38.2% for amphetamines). In women aged 30 years or younger, amphetamines remained the most common drug last injected (69%).[243]

6.6 AOD Service Sector

Local issues for AOD Treatment

The NT is one of the smallest PHNs in regard to population and one of the largest from a geographical perspective. It has very localised issues and highly complex service delivery arrangements which creates a challenging environment for alcohol and other drug service planning and commissioning.

In the NT, patterns of substance use and service delivery options vary greatly between urban and remote settings. This variability is also noted across the different population cohorts, particularly among Aboriginal and Torres Strait Islander people. Given this complexity, AOD service planning may be enhanced through consulting with local community members and service providers, including specialist and non-specialist treatment services. The NT AOD sector planning could benefit from incorporating place-based strategies that account for some of the localised determinants of misuse.

The NT Government offers specialist AOD treatment services and a remote AOD Workforce program through clinics based in Alice Springs, Tennant Creek, Nhulunbuy, Katherine and Darwin. Some ACCHS, such as Central Australian Aboriginal Congress, offer specialist treatment services within the context of Social and Emotional Wellbeing teams. However, many ACCHS do not have the resources to offer a specialist treatment response. A range of residential rehabilitation, shelters and counselling services are funded through the NT Government, Department of Prime Minister and Cabinet, and the Department of Health. There are insufficient services to meet need in both urban and remote settings.

As 65% of people receiving treatment in relation to AOD issues are Aboriginal, the need for culturally appropriate integrated services within ACCHS cannot be underestimated. The Primary Health streams of care for Aboriginal clients must include the full range of treatment options: 1) medical, 2) psychological and 3) social and cultural elements. Strategies must include demand reduction, supply reduction and harm minimization elements.[244].

There is also a need for post treatment responses that include after-care and ongoing care responses. The AADANT review notes that there are limited housing and accommodation options available for clients who may not be able to return to their community of origin. For those who do return, communication between the originating service and providers in the home community is often made challenging by issues such as staff turnover, unreliable ICT, and ultimately a lack of knowledge regarding service delivery options and capacity.[245]

A health system response to the issues of alcohol and other drug misuse in the NT must be supported by other measures that will work toward undermining the precursor and compounding factors such as social, economic and cultural disadvantage.

AOD Treatment Services

Clients accessing AOD services across Australia commonly have multiple episodes of treatment spanning several years. Episodic service users accounted for 30% of all service users, while continual service users accounted for 3% of all services users. For people receiving treatment in the NT, the principal drugs of concern were alcohol (58%), cannabis (15%), amphetamines (13%) and volatile solvents (8%) – much higher than the national average (less than 1%) (see table 1).[246]

There are a range of publicly funded AOD treatment agencies in the NT. Most specialist services are concentrated in the three main population centres of Darwin, Alice Springs and Palmerston. In 2017-18, a total of 26 AOD treatment agencies were identified in the NT, 21 of which were non-government organisations. These agencies provided treatment to an estimated 3,628 clients in 2017-18, representing a steady per capita increase since 2013-14, and the highest rate of all states and territories. 72% of these clients were male, 55% were aged 20-40, and 72% were Indigenous. The majority of closed treatment episodes were for assessment only (47%), with a further 18.4% of episodes for rehabilitation and 17.6% for counselling, as per the AODTS NMDS.[229]

Table 6.6a: Specialist AOD treatment services, Northern Territory and Australia, 2017-2018.

Topic		NT	Australia
Agencies	Government	19.2%	39.5%
	Non-government	80.8%	60.5%
	TOTAL #	26	952
Clients	TOTAL #	3,628	130,031
	Rate/100,000	1,731	602
	Males	71.7	66.1
	Indigenous	71.6	15.7
	Aged 20 - 39 years	54.5	53.7
Treatment Type (client's own drug use)	Assessment only	48.9%	16.0%
	Rehabilitation	19.2%	6.1%
	Counselling	14.7%	37.5%
	Withdrawal management	3.4%	12.9%
	Support/Case management	4.1%	14.8%
	Information/Education only	5.0%	8.2%
	Other	4.8%	4.4%
Principal Drug of concern	Alcohol	58.3%	34.3%
	Cannabis	15.5%	20.8%
	Amphetamines	12.9%	25.1%
	Volatile solvents	8.2%	0.3%

Source: Alcohol and other drug treatment services in Australia 2017-18: key findings (AIHW).[24]

The majority of services offered through the dedicated AOD treatment services in the NT are provided to adults only, with a limited number of services providing treatment to young people or offering youth-specific programs.[245]

ACCHS also play a large role in addressing substance use through specialist roles and Social and Emotional Wellbeing (SEWB) teams. Client data on treatment services delivered as part of regular operations by Aboriginal Community Controlled Health Organisations (ACCHOs) is not included here.

Overall, the AADANT survey indicated that there is some confusion about the referral process, referral pathways, and the delivery of the appropriate intervention based on the person's need. This confusion negatively impacts the service delivery continuum for treatment service clients. As poor referral process can lead to a denial of service or inefficient use of time and resources upon intake.[245] AADANT is working in conjunction with the NT Government to develop a framework for service delivery which will more clearly identify continuum of care pathways.

Gaps in AOD Treatment

Many population cohorts across the NT do not have access to specialist services or dedicated AOD treatment services. This is due in part to a range of issues such as, dispersed and remote populations, complex social and health issues, geographic remoteness and problems with recruitment and retention of workers across the NT.

In particular, young people are not well serviced by the current AOD treatment system, which is largely focused on responding to the needs of adults. There are few specific youth withdrawal services in the NT, and no youth Residential Rehabilitation services in the Top End. There is an acknowledgement that many of the current residential rehabilitation settings, often dominated by people with an extensive history of drug use, are not optimal settings for young people.

Young people require different engagement strategies, flexible treatment models and a focus on resilience building. The absence of follow-up/after care services to support the young person to maintain gains achieved through treatment is a significant service gap.

Long-term use of alcohol can contribute to Alcohol Related Brain Injury, Wernicke-Korsokoff syndrome and early onset of other forms of dementia. There is an absence of geriatric-focused substance abuse services and little specific support to aged care settings to address the impacts of substance abuse.[245]

Unfunded treatment activity

In response to treatment demand, a number of agencies reported providing unfunded AODTS, ranging from day programs and withdrawal services to telephone support. These services are being delivered on top of the work being undertaken through funded programs. Half of the AADNT surveyed organisations (n=17) reported providing at least one (and often multiple) unfunded services, including activities like education and employment support, as well as meals and transport. Transport costs can be significant due the centralisation of services and the vast extent of the catchment areas.[245]

Pharmacotherapy Treatment

The NT has the lowest rate of pharmacotherapy clients (6 per 10,000 population) in Australia. This is attributed to the limited availability of heroin, the impact of remote locations on treatment delivery, and a highly mobile population. Pharmacotherapy options across Australia include methadone, Buprenorphine and a combination of Buprenorphine and Naloxone (Suboxone). In 2017, there was a total of 138 people receiving pharmacotherapy treatment in the NT, this compares to 154 receiving treatment in 2014.[247]

A snapshot of pharmacotherapy treatment is undertaken on a single day in all states and territories. In 2017, Methadone was the most common pharmacotherapy treatment in all jurisdictions, except for the NT, where only 28% of clients were prescribed methadone.[247] However, It should be noted that in all jurisdictions, all new pharmacotherapy clients are most likely to be prescribed Buprenorphine and Naloxone unless contraindicated.

A snapshot of pharmacotherapy clients was taken on a single day in 2017, approximately 67% of clients receiving pharmacotherapy in the NT were male. The proportion of Aboriginal and Torres Strait Islander Australian clients is 14% in the NT. The NT has 3 times as many public prescribers (n=6) compared to private prescribers (n=2).[247]

AOD Sector Workforce

In 2019, NT PHN commissioned the Northern Territory Alcohol and Other Drug Workforce Development Strategic Framework (2019)[248], that was undertaken by the National Centre for Education and Training on Addiction (NCETA, Flinders University). The framework is intended to assist funding bodies, policy makers, peak bodies and service providers to grow capacity within the AOD

workforce over the next 5 years. The framework highlights some of the key challenges for the NT AOD Sector, specifically a workforce that is characterised as having diverse skills and competencies and this is highly mobile. The framework identifies recruitment, retention, professional development and career pathways as priority areas.

An AOD Development Steering Group has been initiated by the AOD peak body AADANT to implement the Workforce Strategy and is currently working through progressing the recommendations.

Pressure on Acute Services

Hospital EDs across the NT are overburdened with a significant proportion of people presenting where alcohol is a primary or secondary factor. Alice Springs Hospital is one of the busiest hospitals per capita in Australia. The population of Central Australia is 48,000 and the hospital sees 40,000 patients a year. Increasing numbers of patients puts pressure on already overworked hospitals.

The rate of drug and alcohol related hospitalisations in the NT is above the national average. The rate of AOD hospitalisations in the Alice Springs and Barkly SA3s were approximately 3 times above the national average in 2014-15. This may reflect either a high rate of substance abuse as referred to above, a lack of primary AOD services or treatment options, or more likely a combination of the two.

There is a need to engage traditional owners in alcohol reforms to ensure culturally appropriate and effective responses. Consideration of both supply and demand measures are required to curb alcohol consumption and associated harms.[230]

Lack of access to evidence-based dual diagnosis service responses

People with a dual substance dependence and mental health diagnosis ideally require specialist services, in spite of the high prevalence of dually diagnosed presentations in primary care settings. Nonetheless, there are few dedicated specialist dual diagnosis services nationally, and limited availability locally.[249] In the NT, clients who are dually diagnosed report being turned away from both mental health and substance abuse services.

Office of Aboriginal and Torres Strait Islander Health-funded AOD services noted that clients most commonly experienced depression, hopelessness or despair, anxiety or stress, family relationship issues and family violence. These issues do not necessarily meet the threshold for a mental health diagnosis, and thus limits eligibility for access to mainstream mental health services. Delivery of AOD services for Aboriginal and Torres Strait Islander peoples ideally would occur within an Aboriginal community controlled, culturally safe service delivery environment, likely to be most effective. Increased coordination to deliver drug and alcohol treatment services across sectors will improve outcomes for Aboriginal people with, or at risk of mental illness and/or suicide.

An Aboriginal and Torres Strait Islander-specific screening tool (Aboriginal and Torres Strait Islander Risk Impact Screen and Brief Intervention tool – IRIS) has been developed to detect mental health and drug and alcohol issues and allow for early intervention.[249]

Access to a broader range of options offering a holistic SEWB response, delivered by or in conjunction with ACCHS in remote settings, including home-based withdrawal and residential rehabilitation, is put forward as a more effective response to the complex health and wellbeing needs of Aboriginal people. Applying the SEWB model helps ensure that treatment is targeted and culturally appropriate.

AMSANT believes this is achievable with appropriately skilled workers and is already happening in some areas due to lack of access to specialist services for people with dual mental health and substance abuse issues.

Sobering-up shelters

Lack of access to and limitations at sobering-up shelters result in increased demand on hospital EDs, which are often not resourced to respond holistically to presenting clients. Paramedics can take people to sobering-up shelters, however these shelters will only accept people who can stand up and shower themselves. If a person is unsuitable for the sobering-up shelter the ambulance will take them to the hospital so they can 'sleep it off' under medical supervision.[68]

The NT Government has released funding to extend the capacity of the Larrakia Nation Patrol vehicles and staff and the sobering-up shelter to 24 hours 365 days per year as part of their Antisocial Behaviour Action Plan.

Sobering-up shelters and night patrols provide good examples of how community-based workers, with appropriate support and supervision, can address the provide appropriate support at the community level.

Services in the Justice System

Prisoners have high levels of modifiable risk factors, and prison offers an opportunity to provide complete care and prevention interventions. There are programs such as Smoke Free prisons and the Prison Health Clinic which use the shared e-health records and client information systems. Prisoners assessed for mental health may be referred to Forensic Mental Health Services, however there is limited access to support for anxiety, depression, grief and loss, or PTSD conditions.

Prisoners may be referred to AOD residential rehabilitation settings in the community as part of their pre-release planning or as a condition of release. AOD services report that the issue of assessment and intake of prison populations contrasts significantly with self-referred non-custodial populations and can at times create specific challenges for the community-based treatment services. Service providers believe the provision of rehabilitation within the custodial setting may be a more appropriate option. The use of telehealth is also limited in custodial settings due to security and staffing issues.

Recently in the NT there has had more of a focus of diverting young people who are in contact with the criminal justice system out of custody, this includes funding ACCO's to facilitate youth diversion programs in urban and remote locations and a youth specific program - 'Back on Track' which will roll out over the next 12 months.

Service gaps related to drug injection and blood-borne viruses

Currently there is limited access to the NSP outside of urban centres. The NT is the only Australian jurisdiction that does not have afterhours access to sterile injecting equipment or outreach services to PWID. There is also lack of community education. No remote health professionals or ACCHS are authorised to distribute sterile injecting equipment, other than Yulara Medical Centre, in the NT.[250]

There is little information about injecting drug use in remote settings, and the extent to which the current NSP meets the needs of remote communities or what level of injecting behaviour is occurring. The lack of accessible outlets in both urban and remote settings, including after hours, is likely to obscure the actual levels of need for services and increase risk of transmission of communicable diseases.

7. Healthy Ageing and Aged Care

The health and wellbeing of older people is an important consideration in Australia, where there is a shift towards a higher proportion of people aged 65+ in the demographic profile, and the associated costs of care are predicted to increase steeply. This is especially true for the NT. The availability of services to enable people to stay in their own homes or on country, and out of residential care, is a key factor in containing costs and has additional benefits for social and emotional wellbeing. In this context, the concept of 'healthy ageing', where older people have access to appropriate social, intellectual, physical and primary health care resources to reduce or delay their need for supported care, is an important part of the aged care service continuum.

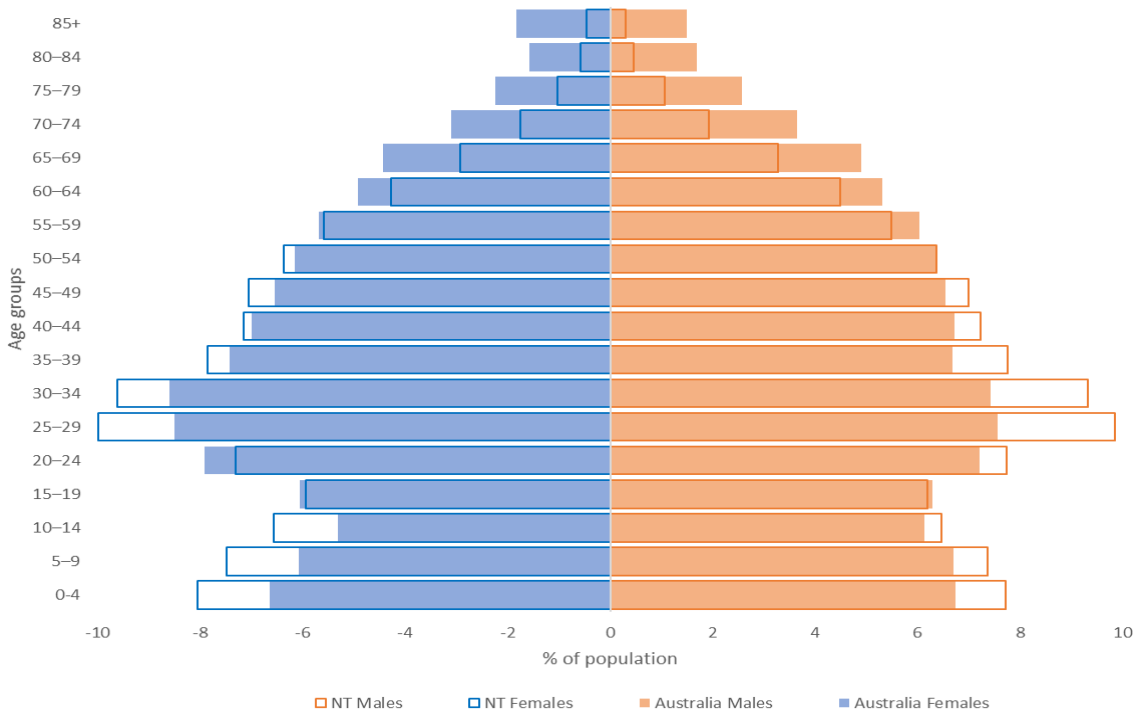
7.1 Socio-Demographic Overview

While the NT currently has the lowest proportion of older people compared to all other states and territories (Figure 7.1a), the number of ageing Australians in the NT is anticipated to more than double by 2046,[4] with the NT predicted to experience the fastest ageing population in Australia. Continued improvements in life expectancy, particularly for Aboriginal people, are a major driver for this expected increase.

In the NT, the proportion of the population aged 65 and over is extremely high in Wagait (16.2%) and Coomalie (16%). Most other LGAs are near or below the NT rate of 6.9%. In terms of absolute numbers, the majority of older people live in the greater Darwin region and Alice Springs, and lower numbers in the more rural and remote LGAs.[17]

The NT's younger age demographic should not overshadow the significant and increasing burden of ageing and multi-morbidity in the NT. Many Aboriginal people aged in their 40s and 50s have disability and morbidity characteristics similar to that of non-Aboriginal NT people aged 65 years and older. Frailty and geriatric syndromes, dementia and disabilities are particularly prevalent in remote Aboriginal communities in people 50 years and older.[251] This population is more evenly distributed across the NT, with particularly high numbers in East Arnhem.[17]

Figure 7.1a: Age and Sex Distribution (%), Northern Territory and Australia, 2016.



Source: Population by Age and Sex, Regions of Australia (ABS).[5]

7.2 Health Status

The lifestyles of older Territorians are generally less healthy than the rest of Australia, with this reflected particularly in the poor health of the Aboriginal population. The NT is reporting increasing levels of morbidity burden (i.e. self-rated health, chronic disease and disability) with age. This indicates considerable health care issues which could be prevented or ameliorated.[251] Other problems experienced as a result of a rapidly ageing population include the caregiving burden and reduced financial, social, housing and environmental resources.

The NTG published a comprehensive review of the health and wellbeing of older Territorians in 2013, which identified increased years lived with disability and increasing rates of disease and injury as key areas of concern.[252]

Older patients account for up to a quarter of all emergency department visits. Atypical clinical presentation of illness, a high prevalence of cognitive disorders, and the presence of multiple comorbidities complicate their evaluation and management. Increased frailty, delayed diagnosis, limited attention to cognitive functioning upon admission to hospital and greater illness severity contribute to a higher risk of adverse outcomes.[253]

<u>Dementia</u>

The prevalence of dementia in Australia is estimated to be 8.8% in people aged 65 and older.[254] Dementia is not caused by age; however, it does primarily affect the older population. In 2017, it was one of the leading underlying causes of death in Australia, particularly in females (11% of deaths).[255] People with dementia rely heavily on health and aged care services, with a significant burden also placed on informal care networks.[256]

In June 2015, over half (52%) of the people in permanent residential aged care facilities (RACF) in the NT were recorded as having dementia, with 95% of these residents assessed as having high behavioural needs. In the NT, it is estimated that the prevalence of dementia among Aboriginal people is almost three times greater than in the non-Aboriginal population, and that the onset of the disease occurs earlier.[257]

Falls

Falls in older Australians are both more likely to occur, and more likely to result in functional impairment. Age, sensory decline, impaired cognition and medication side effects are just a few of the risk factors for falling. A study conducted by the Pharmacy Guild of Australia in 2016 for Aboriginal people aged 50+ living in remote communities in the NT, identified that one-third of the patients audited were at risk of falls. Many were taking medication, or a combination of medications, that increased their risk of falling, and prescribing changes were recommended for 20% of the patients at risk of falls.[258]

Poor identification and management of functional decline is one of the major causes of preventable population deterioration. Decline is linked to multi-morbidity, ageing or geriatric syndromes and disability. The ability to intervene earlier allows older people to remain well in their homes in the community rather than requiring costlier residential and/or acute services. It is instrumental in improving outcomes for older people, especially in rural and remote areas.

7.3 Systems and Services

Communities with ageing populations are aware of and express concern over the health service needs of this cohort. Recent consultation in the growth areas adjacent to, but somewhat isolated from, greater Darwin has identified an ageing population as a major concern. This work has been done in predominantly non-Aboriginal communities,[259] however Aboriginal people particularly value their elders and recognise benefits to both individuals and the community when older people can stay on country.

Healthy Ageing

Prevention of functional decline is important, and community programs which enable older people to be physically and socially active can play an important role in supporting older people to maintain their strength and mobility and protect their mental health. In the NT, regional councils and non-government organisations are most likely to offer programs which meet these criteria. Preliminary service mapping undertaken by NT PHN indicates that the types of programs available might include men's and women's social groups, seniors exercise, craft and cultural activities. The majority of these programs are run in Darwin and the major regional centres.

Additionally, monitoring of older people through routine health checks to identify and manage functional decline before an incident occurs (e.g. fall) is an important population health measure for this cohort. In the Aboriginal health clinics (ACCHS and AMS), 69.4% of clients aged 55+ received an adult health check in 2016-17.[31] In the general practice population, as of November 2019, 29% of patients aged 75+ and 13% of patients aged 45-49 had received a health check. The general practice statistics are quite low – it is uncertain whether this actually reflects current practice, or whether there is an issue with data recording in the clinical systems.

Aged Care

Compared to the rest of Australia, the NT has the lowest rate of people using formal aged care overall (Figure 7.3a), and a significantly lower rate of Residential Care use (Figure 7.3b). However, there is a higher rate of Home Care use (Figure 7.3c). Territorians also use Transition Care services at a slightly higher rate than the national average (data not shown).[260]

These statistics probably reflect both the limited number of RACFs in the NT, particularly outside the Darwin urban region, and a desire by Aboriginal people to age on country rather than relocate to a larger centre where they may be isolated from community and culture. The NT is the only jurisdiction with more home care than residential care places.[261]

Figure 7.3a: People using All aged care (per 1,000 of the target population), by gender and state/territory, at 30 June 2018.

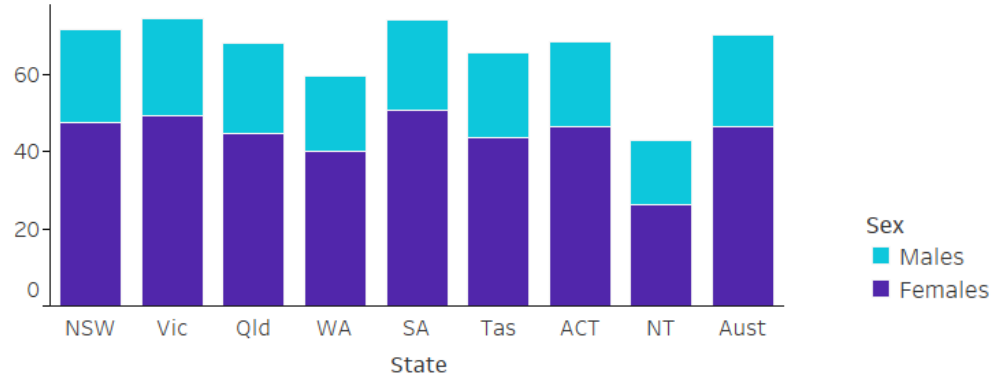


Figure 7.3b: People using Residential care (per 1,000 of the target population), by gender and state/territory, at 30 June 2018.

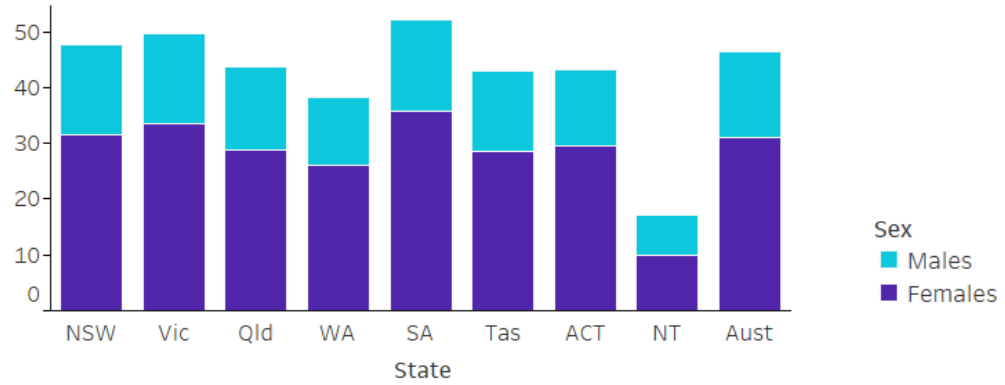
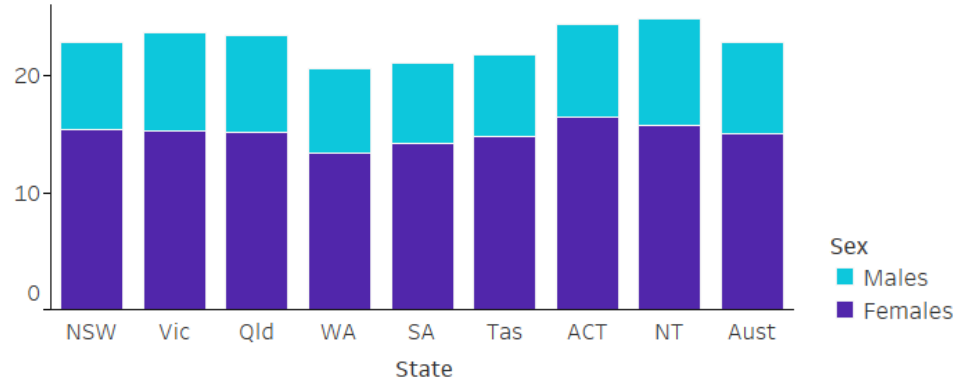


Figure 7.3c: People using Home care (per 1,000 of the target population), by gender and state/territory, at 30 June 2018.



Source: GEN Aged Care Data (AIHW).[260]

There is a growing body of evidence which identifies mainstream aged care funding models as being inappropriate for service delivery in remote communities.[261-263] There are additional base costs associated with remoteness and isolation, service delivery can be much more challenging in the complex socio-economic and physical environments found in many communities, and there is a need to integrate aged care services into community life rather than as a siloed activity.[263] The relatively new block funding arrangement offered by the National Aboriginal and Torres Strait Islander Flexible Aged Care Program (NATSIFACP) may go some way to addressing this disparity.

Home Care

Government funded home support and home care services are provided for older people to remain safely in their own homes and communities. This is done at different levels of intensity, offering different levels of support.

At 30 March 2019, there were approximately 120 organisations providing Help at Home services across the NT with services ranging from social support, meals and home maintenance to personal care, transport, nursing and respite. Services were delivered from 69 locations, 17 of which were based in the Darwin/Palmerston urban area. Almost every provider received Commonwealth Government subsidised funding.[260]

Many of these same organisations also provide Home Care Packages, with a total of 69 providers offering packages from Level 1 to Level 4, with the majority offering all 4 levels. Only 16 organisations specified Australian Aboriginal as a cultural target, but this information appears to be incomplete as a number of other organisations are also based in Aboriginal communities.[260]

Over 4,800 people received Home Support packages in 2018-19, almost half of whom were identified as Aboriginal.

Residential Aged Care

In the NT, there were 559 operational RACF places provided by 12 organisations as at 30 June 2019. The majority of places are provided by community based organisations, followed by private for-profit organisations.[260]

This is a rate of 50.2 places per 1,000 population aged 70 years and over, which is below the national average of 76.2 places. At a regional level, the East Arnhem Aged Care Planning Region (ACPR) had the lowest rate of places (10.1 places per 1,000) and Darwin and Barkly ACPRs both had rates near 45/1,000. Alice Springs and Katherine ACPRs had the highest rates with approximately 127 places per 1,000 population aged 70 years and over.[260] Given that the health profile of Aboriginal populations means that they are likely to need residential care at a much younger age than 70, the functional number of places per population at risk will actually be much lower.

The NT also had the lowest proportion of RACF residents classified as palliative in 2016-17 (1.0%) compared to other jurisdictions (Australia 1.8%).[264] The reasons for this are unclear, it may be an administrative/recording issue, or it may reflect a lack of formalised palliative care options in RACFs. This may be worth further exploration, especially as the FTE/100,000 population for specialist palliative medicine physicians in the NT (1.9) is well above the national average (0.9).[264]

Residential care services ideally need tailored facilities to provide the best standard of care for residents with dementia. This population can present with complex care needs, requiring more staff and facility resourcing.

Workforce

Nationally, the attraction, training and retention of a stable and skilled aged care workforce has recently received public and policy attention, culminating in the June 2018 release of Australia's Aged Care Workforce Strategy. This document sets out a case for reform and integrates consumer centric and industry imperatives in the identification of 14 strategic actions to address current workforce pressures and position the aged care workforce for the future.[262]

At the same time, the Industry Skills Advisory Council of the NT (ISACNT) developed a report of the aged care workforce in the NT, estimating that there are currently 1,500 workers in the NT either directly (client care) or indirectly (administration, management etc) providing services to aged care clients.[261] Collectively, both reports identify challenges in the perception of aged care as a career choice, training and recruitment, gaps in workforce competency and career pathways, attraction and retention, remote service models, and funding.

In the NT, a high value is placed on cultural awareness and cultural safety within the workforce, and there is a strongly expressed preference for the development of a local workforce. It is also noted that provision of care for Aboriginal people in the remote NT is often undertaken by small organisations with limited capacity which makes them very vulnerable to changes in their operating environment. Service delivery in these remote areas is challenging, with a complex socio-cultural environment, limited resources and a very vulnerable client population.[263] Competition for workers between the NDIS and the aged care sector may pose additional challenges.[261]

It is agreed that the workforce will need to expand to meet future demand, and be supported with appropriate training, career pathways and professional development. ISACNT have identified gaps in some of the Certificate IV and more specialised training options available within the NT, however the completion rates for the relevant courses which are available in the NT are very low, with the highest rate below 50% (Table 7.3d, 7.3e). In some courses, the dropout rates are at or near 100%.

Table 7.3d: Health enrolments and completions, Northern Territory, 2014-2016.

	2014		2015		2016		Completion Rate*
	Enrolments	Completions	Enrolments	Completions	Enrolments	Completions (Preliminary)	
Certificate III in Health Services Assistance	42	8	52	8	81	16	**18.29%**
Certificate III Allied Health Assistance	0	0	5	0	0	0	**0.00%**
Certificate IV in Allied Health Assistance	26	0	30	0	35	2	**2.20%**
Diploma of Nursing	40	17	58	17	80	10	**24.72%**
Advanced Diploma of Nursing (Enrolled/ Division 2 nursing)	7	0	1	0	3	0	**0.00%**

*

**Percentage of completions 2014-2016 of Enrolments 2014-2016.*
Source: Copied from 2018 Aged Care report (ISACNT), p22.[261]

Table 7.3e: Community Services enrolments and completions, Northern Territory, 2014-2016.

	2014		2015		2016		Completion Rate*
	Enrolments	Completions	Enrolments	Completions	Enrolments	Completions (Preliminary)	
Certificate II in Community Services	343	82	302	45	279	78	22.19%
Certificate III in Aged Care (Superseded by Individual Support)	285	46	320	77	240	99	26.27%
Certificate III in Individual Support	0	0	0	0	326	31	
Certificate IV in Leisure and Health	24	2	33	11	8	5	27.69%
Certificate IV Ageing Support	13	4	51	3	80	0	4.86%
Certificate IV Community Services	271	69	237	48	255	209	42.73%
Diploma of Community Service	74	11	150	16	271	50	15.56%
Advance Diploma of Community Sector Management	43	20	24	7	35	12	38.24%

**Percentage of completions 2014-2016 of Enrolments 2014-2016.*
Source: Copied from 2018 Aged Care report (ISACNT), p22.[261]

Additional Considerations in the Aged Care Environment

With the development of more consumer-centric models of care, there has been growing recognition of the need for holistic care in the aged care environment. This can include consideration of the needs of vulnerable groups such as diverse gender and sexuality, people from diverse socio-cultural backgrounds, and clients with mental illness (not dementia related). These particular considerations haven been identified at a national strategic level through initiatives such as the National LGBTI Ageing and Aged Care Strategy, and the Federation of Ethnic Communities Councils of Australia review of Australian research on older people from CALD backgrounds.[265, 266] The mental health needs of residents of aged care facilities have been expressly prioritised by the allocation of funding to PHNs to provide psychosocial support to RACF residents.

The use of Advance Care Directives (ACDs) to inform aged care journeys and choices and, at end of life, palliative care options, is also an emerging area of focus both within the formal aged care system and for people who have not entered the system. The formal identification and recording of people's wishes for care and support is a valuable tool for the delivery of consumer centred care when care becomes necessary. The proportion of people in the aged care system who have an ACD, and the implications for their care, is not well understood. Additionally, the appropriateness of the current ACD for culturally diverse cohorts, especially remote Aboriginal populations, is questionable, particularly from a health literacy and health systems perspective.

Ideally ACDs would be used to inform the delivery of palliative care services for individuals. Given the complexity of service delivery in remote environments, there is likely to be some discrepancy between people's wishes for end of life care and the best practice options which are available to them. The support and services provided by the NT Government through Territory Palliative Care are quite broad reaching and innovative (e.g. use of telehealth), but the level of unmet need is unknown. The use and

appropriateness of ACDs and the availability and options available for palliative care need to be more widely understood in the NT context.

8. After Hours

8.1 Background

Under the Primary Health Networks Core Funding, PHNs are required to undertake a needs assessment to determine the after-hours service needs of the PHN region. The After-hours Primary Health Care Program Needs Assessment (the After-hours Needs Assessment) forms part of the strategic planning phase of the Commissioning Cycle which will allow NT PHN to set priorities for activity planning and procurement of after-hours primary health care service activities for 2019 and beyond.

The initial NT PHN After-hours Needs Assessment was completed in 2015 and was developed in consultation across and within key health sectors including GPs and Pharmacists, Residential Aged Care, Hospital and Health Service Districts and ACCHS – a total of 50 organisations and 111 individuals participated in the consultations. These consultations identified a range of gaps in after-hours service needs and some innovative local solutions. These have informed the development of NT PHN's key priority areas for after-hours primary health care.

The 2015 needs assessment was supported by a comprehensive service review, which identified all primary health care services and opening hours across the jurisdiction. This function is now available as part of 'business as usual' through the dynamic NT PHN internal Client Relationship Management (CRM) system and is not duplicated here.

This 2019 review of the After-hours Needs Assessment represents an update to the comprehensive 2015 document, incorporating consultation and learnings from the development and commissioning of services and changes identified in the service environment. The key findings and priority areas remain essentially unchanged, as the NT environment of remoteness, socio-economic disadvantage, poor population health and limited service provider options has not changed significantly.

This report should be read in conjunction with the full NT PHN Health Needs Assessment for an understanding of the overall population, health and service environment in which after-hours programmes operate.

<u>After-hours primary health care business models</u>

Health services in the NT are delivered by a mix of Government services, private practices, and ACCHS and other NGOs. Privately owned and operated services are more common in urban and regional areas, with core remote health services largely delivered by NT Government clinics or by ACCHS.

For the purpose of this Needs Assessment, in line with the National Health Reform, the after-hours period is defined as:

- Before 8:00am and after 6:00pm on weekdays
- Before 8:00am and after 12:00pm on Saturdays
- All day on Sundays and Public Holidays.

Current after-hours health service provision in the NT can be classified into six broad business models:

1. GP practice after-hours services - fee for service or bulk-billing
2. After-hours ACCHS – urban clinics (as distinct from remote clinics)

3. After-hours public hospital – Emergency Department
4. After-hours services in remote clinics – NT Government and ACCHS
5. After-hours medical retrieval
6. After-hours Nurse and GP telephone helplines

The first two are predominantly available in Darwin and, to a lesser extent, Alice Springs. Remote medical clinics generally provide 24-hour coverage, which tends to be predominantly nurse-led. Careflight (Top End) and the Royal Flying Doctor Service (Central Australia and Barkly) provide emergency aero-medical retrieval services throughout the NT.

In addition, pharmacy services have a role in providing after-hours primary health support in the NT. Pharmacists deliver vital after-hours services, providing medical advice, information on the management of minor ailments/conditions, filling urgent and non-urgent prescriptions and providing information about medications. Pharmacists are also able to refer people to a GP or other health providers for further assessment or advice.

Pharmacists are generally accessible after-hours in urban and regional areas. Of the 37 community pharmacies in the NT, 31 (84%) are open variously in the after-hours period. A Pharmacy offering after-hours services is often co-located or located close to an after-hours GP service. However, people living in remote areas have more limited access to pharmacists, with medications generally supplied through the local remote health centre (whether managed by the Department of Health or an ACCHS), under the "s100" bulk supply scheme.

8.2 Current After-hours Activities

Table 8.2a illustrates the geographic and organisational spread of specific after-hours services available in the NT. This does not include the on-call services available in most remote health clinics but is focussed on organisations which have any regular opening time in the after-hours period. This can represent a significant amount of time or be as little as one or two hours per week.

Table 8.2a: After-hours services by health region and service type, Northern Territory, 2017.

	Alice Springs Urban	Barkly	Darwin Urban	Katherine	Top End Remote	Total
ACCHS	2		1	1	1	**6**
Dental Services			10			**10**
General Practice	2		25			**27**
Pharmacy	5	1	26	1		**33**
Total	**9**	**1**	**62**	**2**	**2**	**76**

Source: Compiled by NT PHN, from National Health Workforce Dataset.[155]

Several general practices within the Darwin Urban area currently offer between 27 and 30 hours of after-hours access per week (excluding public holidays). Several pharmacies, including one in Alice Springs, provide 30+ hours per week in the after-hours period.

NT PHN Activity

In 2015-16, NT PHN funded 5 organisations to deliver after-hours primary health care services in Alice Springs, Tennant Creek, and East Arnhem. Funding was distributed between Government, Private and ACCHS organisations for services ranging from hospital after-hours initiatives, extended GP hours, and Aboriginal health professionals as first responders.

Fifteen projects were funded by the After-hours Program in 2016-17 (Table 2). These include four established and ongoing (3+ year) projects and 11 pilot projects (to be implemented in 2016-17 only). Projects vary in focus and include service delivery, training, health literacy and systems reform. Projects are being delivered by a range of organisations, referred to as partners, which include ACCHS, NTG Health Services and private sector operators.

Table 8.2b: NT PHN after-hours activity, 2016-17.

Partner Organisation	Location of After-hours service delivery	After-hours service provided
Existing Partners		
Central Australian Aboriginal Congress	Alice Springs (co-located at hospital)	After-hours GP Clinic operating: • Monday to Friday from 6pm-9pm • Weekends and public holidays from 2pm-5pm
Laynhapuy Homelands Aboriginal Corporation	Laynhapuy Homelands, East Arnhem	Delivery of professional development and training of Aboriginal Health Practitioners in community.
Miwatj Health Aboriginal Corporation	Galiwin'ku (Elcho Island)	Aboriginal Health Practitioners engaged at Ngalkanbuy Health Centre as first responders to after calls hours for medical assistance.
Central Australian Health Service	Tennant Creek hospital	After-hours Social Worker service for victims of domestic and family violence.
Innovation Grant Partners		
Alice Springs Pharmacy	Alice Springs	Late Night Trading at Alice Springs Pharmacy
Central Australia Health Service	Alice Springs Hospital	After-hours Access to Social Work Service at Alice Springs Hospital
Central Australia Health Service	Alice Springs Hospital	Extending Pharmacy Weekend and Public Holiday Service at Alice Springs Hospital
Central Australia Health Service	Tennant Creek Hospital	After-hours Mental Health and Alcohol and Other Drug Support
Danila Dilba Biluru Butji Binnulutlum Health Service	Palmerston Danila Dilba Clinic	Palmerston Centre Extended Opening Hours
Palmerston GP Super Clinic (FCD Health Limited)	Palmerston GP Superclinic	Point of Care Laboratory
Sunrise Health Service	Katherine	After-hours Call-out Story
Top End Health Service	Darwin - Remote	Talking About Patients Project – nurse triage
Top End Health Service	Darwin - Remote	Talking About Patients Project – eLearning
Top End Health Service	Darwin	Allied Health Link Service
Wurli Wurlinjang Aboriginal Corporation	Katherine	Wurli After-hours Primary Health Outreach

Source: Compiled by NT PHN.

Following the evaluation of the pilot projects, several services and initiatives have been further commissioned in addition to the 4 established and ongoing services. These include:

- Ongoing services at the Alice Springs and Tennant Creek Hospitals linking tertiary care to primary care with the aim of reducing avoidable admissions
- Continuing after-hours primary health outreach in Katherine to vulnerable populations
- The establishment of an after-hours website where people can access a list of available services near their location in the NT at any selected time, along with an associated advertising campaign (health literacy focus)
- The implementation of an after-hours telehealth trial for residents of Katherine
- The implementation of an extended opening hours trial for a Katherine pharmacy
- The establishment of after-hours home visiting General practice service in Alice Springs

8.3 Key Gaps

There are essentially no after-hours primary health care-based services in either East Arnhem or Tennant Creek, except those provided by the remote medical clinics which are focused on, but not limited to, to Aboriginal communities only. After-hours primary health care in these regional centres is otherwise dependent upon the emergency departments of regional public hospitals.

The lack of a bulk billing general practice in both Katherine and Alice Springs is a significant barrier to access, even if practices do provide after-hours services. In Katherine in particular, there is only one practice which currently does not provide after-hours consultations. These gaps are addressed to some extent by NT PHN commissioned initiatives including telehealth options, but these do not fully address the need for local, sustainable after-hours primary health care.

In remote areas of the NT, primary health care is delivered by remote health clinics. These clinics are run either by the NTG or by an ACCHS in the region. These clinics are staffed by Remote Area Nurses (RANs) who have an increased scope of practice for these settings. In some larger communities a GP may be available during normal working hours, e.g., 8:00am-5:00pm. After-hours primary health care is delivered in the main by the RANs with GPs, where available, usually not on an after-hours roster. Regardless, there are workload and safety considerations for the clinic staff. Staff required to work during the night are unable to fill the full roster at the clinic during the day. Nurses are usually the first point of call and are required to have a second staff member present for safety reasons when responding. Initiatives to train Aboriginal Health Workers as first responders may help to address this need, but the overarching challenges of providing safe, accessible and responsive primary health care coverage in remote communities remain for both the business hours and after-hours models.

8.4 After-hours primary health care service utilisation

Service utilisation data availability is limited and should be viewed with caution as utilisation is dependent upon a number of factors other than need – particularly service availability. When viewed in the context of the disparity in locations of GP practices across the NT and the prevalence of remote health clinics as the primary source of health care in remote areas the data suggest that utilisation of, and access to, after-hours primary healthcare is highly variable across the NT and leads to inequity in the availability of after-hours services.

Medicare benefits expenditure data for 2017-18[267] shows that 49,406 individual patients accessed 98,128 occasions of service in the after-hours period for a rate of 39.7 services per 100 people. This is an increase of approximately 18 services per 100 people since 2013-14, with the biggest increase occurring between 2014-15 and 2015-16. More than 95% of these episodes were classified as non-urgent care.

Medicare benefits expenditure per patient on after-hours GP services ($115.55 pp) in the NT are less than the national average ($133.72 pp). When considered regionally across the Territory, after-hours Medicare benefits expenditure is seen to be higher in the Darwin urban area compared with areas such as Alice Springs, Barkly, Katherine and more remote centres. This discrepancy in Medicare benefits expenditure per person is more likely to reflect limited access to GP practices that operate after-hours than it is to indicate a level of need for after-hours primary health care. These figures also don't capture after-hours presentations at remote clinics when no Medicare billing occurs.

The Healthdirect Helpline call data for 2018 shows 1,251 calls were made to the after-hours GP helpline in the NT. These numbers have been quite consistent over the past 3 years and the majority come from within the Darwin and Alice Springs postcodes. It is likely that, for a variety of reasons including (but not limited to) language, cultural responsiveness, awareness and connectivity, Aboriginal people living in remote communities are less likely to use this type of service.

8.5 Key priority areas in after-hours primary health care

Key priority areas identified in the After-hours Primary Health Care Program will continue to inform targeted procurement and resource development within the commissioning framework.

Overarching Priority Area: Health literacy

In the NT, the high proportion of the population who speak English either poorly or not at all (as high as 22% in the West Daly region)[9] introduces significant health literacy challenges for all sectors, not just primary health care. The limited amount of information available in language (and the reliance on oral rather than written communication), and the limited number of health professionals who have any proficiency in Aboriginal language/s are significant barriers to appropriate self-management and service utilisation. Given the diversity of languages throughout the NT and numerous cultural and community contexts, it is anticipated that health literacy activities would need to be locally devised and delivered. It is recommended that health literacy is not considered a single priority area but that health literacy activities are invited across all priority areas and interwoven across all projects, in line with the NT PHN Health Literacy Strategy.

Within this context, it is worth noting that health literacy was one of the most commonly discussed needs across all five regions. In some cases, these were very specific needs identified such as the need to educate consumers on appropriate use of services, e.g. when to use after-hours services and when to wait. The need for community education about appropriate use of after-hours services was similar whether this was identified as a need in urban, rural or remote areas and focussed on freeing up after-hours resources to be utilised by those that had more urgent needs. This was most strongly discussed in the context of remote clinics where an after-hours attendance by staff affects the staff member's ability to work the following usual business day and can affect the normal operations of the clinic (i.e.

delivery of usual and preventative health care). Stakeholders also suggested that health front line staff also needed to be educated about how to manage/triage non-urgent after-hours requests to support the efficient and effective utilisation of services after-hours.

Health literacy was also discussed more broadly around skills for communicating details about patient health status and retrieval request after-hours. Other, wider thinking, about needs for health literacy included delivering first aid training to community members so that they can manage appropriate self-care until regular service delivery times in remote clinics.

Table 8.5a: Summary of identified need: Health literacy.

Identified need	Key issue
Health literacy	How and when to use after-hours services
	Localised approach required to account for cultural and language diversity
	Staff need support in addressing unnecessary after-hours service requests (humbugging)
	First aid/self-care education to prevent avoidable after-hours presentations
	Improved skills to communicate effectively about medical status in retrieval requests

Source: Compiled by NT PHN.

Key priority area one: Increasing access to after-hours general practice/primary health care in urban, rural and remote areas

Increasing access to after-hours general practice/primary health care in urban, rural and remote areas and/or for disadvantaged groups, including transportation solutions. This may include service delivery and/or system reform and/or health literacy.

There is overarching need for increased availability of after-hours primary health care (particularly in the rural and remote areas) whether through new service models, extended opening hours of existing services, or expansion of capacity for existing after-hours models.

In addition, it is imperative that primary care physicians and other health professionals who provide care in the after hours period are equipped with the appropriate skills and knowledge to deliver quality and safety care, especially as access to other professional supports may be limited during these hours. The availability of up to date resources to support clinical patient management, localised to the NT and

sub-regional context and including the most appropriate local referral options and guidelines, is important for the safe and efficient provision of primary health care.

There is also recognition that some specific needs identified through consultation are unique to an individual organisation or mentioned only by one or two individuals. However, these are still note-worthy needs as they impact on specific, if more limited populations in service contexts within the Northern Territory.

A broad priority area such as this will allow organisations to propose unique solutions to their own unique needs. Some examples of specific needs captured by this priority area include:

- Transport for victims of domestic violence from their homes to after-hours medical care
- Transport from the ED to home after-hours
- Medication management support to assist people to take their medication/apply treatments after-hours

Key priority area two: Aboriginal health workforce

Increasing the role of Aboriginal Liaison Officers (ALO), AHWs and AHPs in the delivery of after-hours general practice/primary health care in urban, rural and remote regions. This may include service delivery and/or system reform and/or health literacy.

The need for increased numbers of AHWs, AHPs or ALOs, specifically to assist after-hours was another issue expressed frequently across all regions. EDs are the foremost after-hours health provider in Tennant Creek, Katherine, Nhulunbuy and to a lesser extent in Alice Springs and there is a significant lack of access to AHW/ALOs after-hours. This workforce is seen as critical in providing a culturally safe health service and assisting the Health Professionals to communicate appropriately.

In communities, AHW and AHPs are seen as key community contacts and were identified as having a role in health literacy around appropriate use of after-hours services and delivering more effective after-hours (on-call) triage decreasing humbugging[e] which impacts on the effectiveness of after-hours primary health care. In community the role of AHWs and AHPs was also seen as an opportunity for more effective medication management after-hours.

Key priority area three: GP support of front-line health professionals

Increasing access to GPs for clinical support in person or via telephone and video conferencing. For the support of front-line primary health care providers including staff in Residential Aged Care Facilities (RACFs), remote clinics and after-hours Pharmacy. This may include service delivery and/or system reform and/or health literacy.

Across the entire region, urban, rural and remote, the need for after-hours GP support either through after-hours visits or telephone/video-conferencing was identified as an unmet need. A significant

[e] 'Humbugging' is a term used primarily in northern Australia which refers generally to making unreasonable demands on people – e.g. through street begging, or more specifically to demands for sharing of resources within (Aboriginal) families

portion of after-hours health care is delivered in remote clinics by RANs. While some communities have access to a GP residing in community, these GPs are not generally engaged in after-hours service delivery. In many cases, RANs would benefit from clinical support after-hours as a step before contacting the RMP/DMO for medical retrieval of a patient. RANs on-call in the after-hours period are generally working independently of other clinic staff in the absence of a GP. Clinical support in diagnosis or symptom management may enable the RAN to deliver care in the community instead of requiring an evacuation.

RACFs broadly identified a need to support RNs in RACFs with clinical guidance after-hours. Many GPs support their own patient list in a RACF although this is not universal and has limitations. These limitations are around the access that RANs have to the patient's GPs in terms of visits to the RACF vs on-call. These arrangements do not necessarily include telephone support, subject to individual GP agreements. GPs are not incentivised to deliver after-hours telephone support which may influence the type and accessibility of after-hours support preferred. RACFs in remote locations such as the Tiwi Islands do not have after-hours GP support and rely on the RANs in the local clinic. Generally, these RNs also don't have access to RMPs/DMOs and the RAN is the intermediary for retrieval.

A less mentioned but none-the-less interesting need for after-hours clinical guidance was raised by a number of pharmacists. Consultation with this group, although limited in numbers, suggests that there is a role for clinical guidance offered to Pharmacists who are maintaining after-hours trading. Pharmacists can find it challenging when they are filling a script after-hours and are unable to consult with the prescribing physician around matters such as contra-indications.

Key priority area four: After-hours access to allied health professionals

Increasing access to multidisciplinary allied health services after-hours including mental health services in urban, rural and remote areas. This may include service delivery and/or system reform and/or health literacy.

The most commonly mentioned need for allied health services was around acute mental health presentations in EDs across Nhulunbuy, Katherine and Tennant Creek where ED is the primary after-hours health provider. In these regional centres there is no after-hours mental health team and patients admitted on a Friday night can spend a weekend in ED waiting for a mental health assessment on Monday. Equally as undesirable, in many cases where ED staff are unable to manage the patient or patient load in general, these patients are evacuated off country to the Royal Darwin or Alice Springs Hospital. The need for expansion of other allied health services within the Alice Springs Hospital was mentioned by the CAHS around greater access to radiography, radiology, ultrasound and pathology to support diagnosis and management after-hours. This need was supported by GPs during consultation.

Key priority area five: After-hours support for RACFs

Increasing the range of general practice/after-hours primary health care services to RACFs including after-hours visits and improved after-hours discharge planning. This may include service delivery and/or system reform and/or health literacy.

Although similar to the needs described around access to clinical support from GPs for RNs managing patients in RACFs this key priority area focusses on the hospital discharge and RACF admittance process. Generally, RACFs have no Pharmacists or GPs available to facilitate transfers during the after-hours period to assist with assessment or medication. As a result, RACFs often limit hospital transfers during this after-hours period. This can result in patients experiencing avoidable hospital stays overnight or over the weekend period. Access to GP and Pharmacy services to support after-hours admitting is seen as a need across urban and regional aged care.

Hospital discharge processes can be challenging for RACFs in the after-hours period. The need for system improvement around discharge is amplified in remote communities such as the Tiwi Islands where all patients returning to the RACFs on the island are arriving by plane in the after-hours period.

Key priority area five: Increasing access to Pharmacy services after-hours

Increasing access to after-hours Pharmacy services including Pharmacy delivery services. This may include service delivery and/or system reform and/or health literacy.

Although there are numerous Pharmacies that operate limited after-hours services there is presently no 24-hour Pharmacy in the NT although there are two after-hours mobile GP services and a 24 hour GP clinic in the Darwin urban and rural region. Additionally, for patients without transport access to pharmacy to have scripts refilled and access medication management services was challenging. A need for Pharmacy delivery service linked to the mobile doctors as well as medication management services was identified. This need was identified in the Darwin urban and rural context specifically.

In the Central Australia context, it was identified that the Alice Springs Hospital did not operate a Saturday afternoon or Sunday Pharmacy which impacted on patients being discharged in these after-hours periods. This need is particularly important around patients being discharged that are in need of Webster packs which are time consuming to prepare and impact on the capacity at retail Pharmacies. GPs and Pharmacists felt there was a need for increased Pharmacy hours or support of capacity in retail Pharmacy to allow retail Pharmacy to play a role in filling these prescriptions.

Out of scope priority

Across a large number of organisations that operate remote clinics, the most frequently mentioned need was for additional staff. Clinics are funded through their core funding to provide 24/7 health care within communities. The general feeling was that these clinics are under resourced to provide the after-hours on call and continue to deliver their normal level of health care and preventative programs. Under employee working conditions, particularly for a smaller clinic with less staff, when a RAN has responded to an after-hours call-out that RAN works decreased hours the following shift/day. This leads to a reduction in their delivery of usual care.

9. Glossary of Acronyms

ATSI	Aboriginal and Torres Strait Islander
ACCHS	Aboriginal Community Controlled Health Service
ACCO	Aboriginal Community Controlled Organisation
AHKPI	Aboriginal Health Key Performance Indicators
AHP	Aboriginal Health Practitioner
ALO	Aboriginal Liaison Officer
AMS	Aboriginal Medical Service
AMSANT	Aboriginal Medical Services Alliance of the Northern Territory
AMHW	Aboriginal Mental Health Worker
ARIA	Accessibility Remoteness Index of Australia
ATAPS	Access to Allied Psychological Services
AIDS	Acquired Immunodeficiency Syndrome
ARF	Acute Rheumatic Fever
ACD	Advance Care Directives
ACPR	Aged Care Planning Region
ASR	Age-Standardised Rate
AOD	Alcohol and Other Drugs
ART	Antiretroviral Therapy
AADANT	Association of Alcohol and Other Drugs Agencies Northern Territory
ABS	Australian Bureau of Statistics
AHPRA	Australian Health Practitioner Registration Agency
AIR	Australian Immunisation Register
AIHW	Australian Institute of Health and Welfare
BDR	Banned Drinking Register
BBV	Blood Borne Virus
CAHS	Central Australia Health Service
CALD	Culturally and Linguistically Diverse
CHB	Chronic Hepatitis B
CHC	Chronic Hepatitis C
COPD	Chronic Obstructive Pulmonary Disease
CBT	Cognitive Behavioural Therapy
CoS	Continuity of Support
CQI	Continuous Quality Improvement

DMFT	Decayed, Missing or Filled Teeth
DALY	Disability Adjusted Life Years
D2DL	Day to Day Living
DFSV	Domestic, Family and Sexual Violence
DPMC	Department of the Prime Minister and Cabinet
DVA	Department of Veterans Affairs
EDP	Eating Disorder Plan
ED	Emergency Department
ERP	Estimates Resident Population
FASD	Fetal Alcohol Spectrum Disorder
FAS	Fetal Alcohol Syndrome
FIFO	Fly-in, Fly-out
FTE	Full Time Equivalent
GP	General Practitioner / General Practice
HIV	Human Immunodeficiency Syndrome
HPV	Human Papilloma Virus
IDRS	Illicit Drug Reporting System
ISACNT	Industry Skills Advisory Council of the NT
ITC	Integrated Team Care
IMD	Invasive Meningococcal Disease
IDR	Infant Death Rate
IRSD	Index of Relative Socioeconomic Disadvantage
LGBTI	Lesbian Gay Bisexual Transgender and/or Intersex
LGA	Local Government Area
MJD	Machado-Joseph Disease
MBS	Medicare Benefits Schedule
MOICD	Medical Outreach for Indigenous Chronic Disease
MDS	Minimum Data Set
MMM	Modified Monash Model
NACCHO	National Aboriginal Community Controlled Health Organisation
NAPLAN	National Assessment Program – Literacy and Numeracy
NDSS	National Diabetes Services Scheme
NDIA	National Disability Insurance Agency
NDIS	National Disability Insurance Scheme

NHMRC	National Health and Medical Research Council
NIP	National Immunisation Program
NMHSPF	National Mental Health Service Planning Framework
NPSM	National Psychosocial Support Measure
NSPT	National Suicide Prevention Trial
NSP	Needle and Syringe Program
NGO	Non-Government Organisation
NT	Northern Territory
NTG	Northern Territory Government
NT PHN	Northern Territory Primary Health Network
PIR	Partners in Recovery
PATS	Patient Assisted Travel Scheme
PWID	People Who Inject Drugs
PHAMs	Personal Helpers and Mentors
PBS	Pharmaceutical Benefits Schedule
PoCT	Point of Care Testing
PTSD	Post Traumatic Stress Disorder
PPH	Potentially Preventable Hospitalisations
PrEP	Pre-Exposure Prophylaxis
PHN	Primary Health Network
RAN	Remote Area Nurse
RMP	Remote Medical Practitioners
RACF	Residential Aged Care Facilities
RHD	Rheumatic Heart Disease
RACGP	Royal Australian College of General Practitioners
RHOF	Rural Health Outreach Fund
RPHS	Rural Primary Health Service
STI	Sexually Transmissible Infection
SA3 / SA3	Statistical Area level 2 / 3
SEWB	Social and Emotional Wellbeing
SEIFA	Socio-Economic Indexes for Areas
SES	Socio-Economic Status
SHS	Specialist Homelessness Services
SIDS	Sudden Infant Death Syndrome

TEHS	Top End Health Service
URP	Usual Residence Population
VSU	Volatile Substance Use

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