

# Darwin Region

## DATA REPORT

Overview of selected demographic and health data for the Darwin region of the Northern Territory



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**phn**  
NORTHERN TERRITORY  
An Australian Government Initiative

RURAL  
**Workforce**  
AGENCY NT

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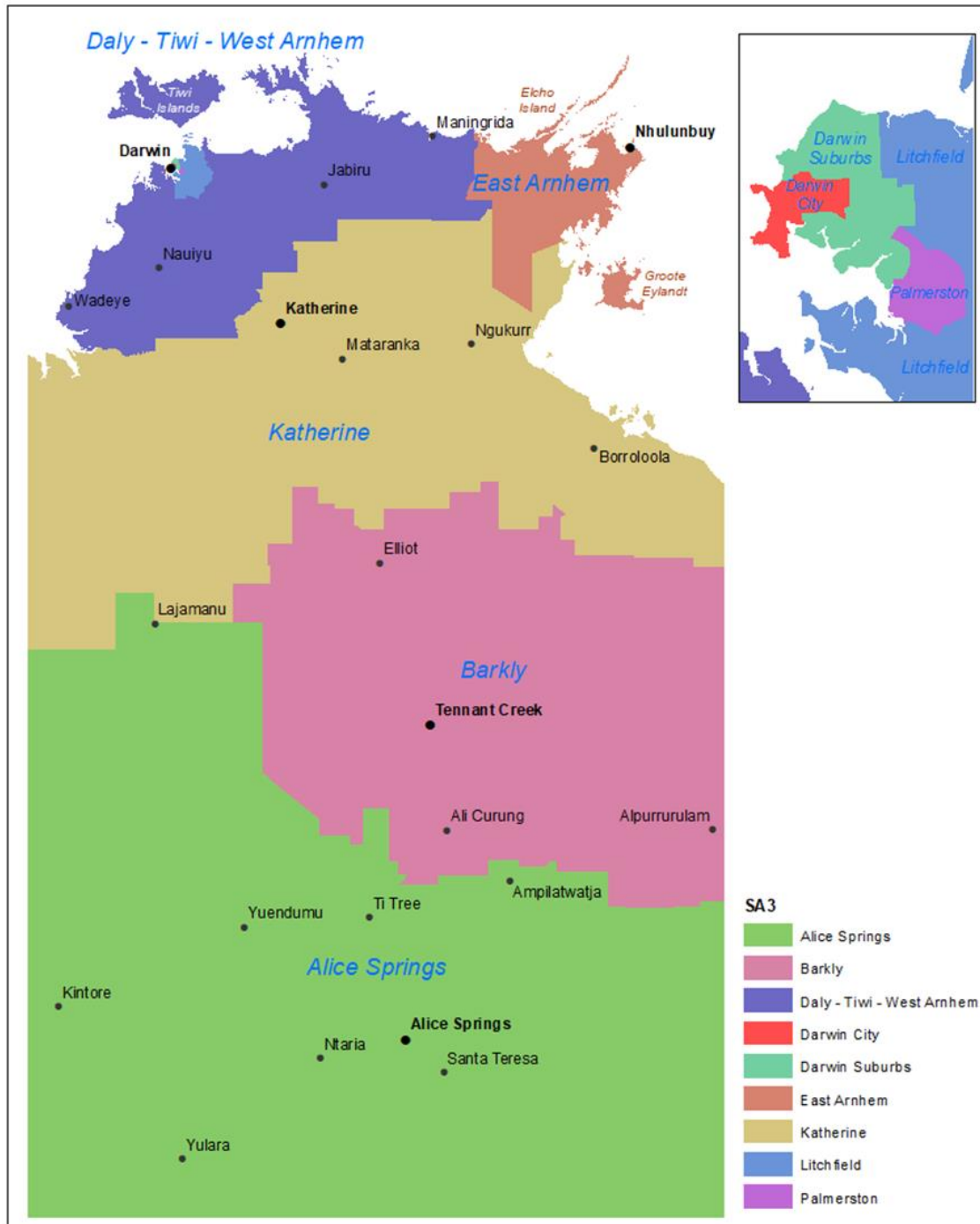
## Glossary

ABS	Australian Bureau of Statistics
ACCHS	Aboriginal Community Controlled Health Service
AECD	Australian Early Development Census
AIHW	Australian Institute of Health and Welfare
AMS	Aboriginal Medical Services
ASR	Age Standardised Rate
ATSI	Aboriginal and/or Torres Strait Islander
CCF	Congestive Cardiac Failure
COPD	Chronic Obstructive Pulmonary Disease
CVD	Cardiovascular Disease
ERP	Estimated Resident Population
HPV	Human Papillomavirus
HSD	Health Service District
ICD-10	International Classification of Diseases 10 <sup>th</sup> Revision
IMR	Infant Mortality Rate
IRSD	Index of Relative Socioeconomic Disadvantage
LGA	Local Government Area
MMM	Modified Monash Model
NES	Non-English Speaking
NT	Northern Territory
NP	Not Published
PATS	Patient Assistance Travel Scheme
PHIDU	Public Health Information Development Unit
PHN	Primary Health Network
PPH	Potentially Preventable Hospitalisation
SEIFA	Socioeconomic Index for Areas
SA#	Statistical Area, Level 1, 2, 3, etc.
SES	Socioeconomic Status
TFR	Total Fertility Rate
URP	Usual Resident Population

## Introduction

The Northern Territory PHN (NT PHN) covers the entire Northern Territory (NT) (Figure 1) – an area of some 1.4 million km<sup>2</sup> which is home to a widely dispersed population of 246,000 people. Primary health care services are provided predominantly by mainstream general practice and allied health providers in Darwin and the regional centres, and by a range of remote health clinics in smaller communities – whether provided by an Aboriginal Community Controlled Health Service (ACCHS) or by NT Health.

Figure 1: Regions of the Northern Territory.



Source: Compiled by NT PHN.

Darwin is the capital city of the NT, located on the northern coastline bordering the Arafura Sea (Figure 1 and 2). This region has an estimated population of 83,828 people – approximately 34% of the total NT population.

Darwin is serviced by twenty-four private general practices and one ACCHS, Danila Dilba Health Service, with five clinics in this region. Royal Darwin Hospital has 360 beds and provides a large range of services in all speciality areas. Co-located is Darwin Private Hospital, a 104-bed facility with specialised private services.

Remoteness is measured using the geographical classification system, the Modified Monash Model (MMM) using census population data, with seven remoteness categories ranging from Metropolitan (MM1) to Very Remote Community (MM7). The Darwin region falls within classification MM2, regional centre.

This report summarises data collated to date by NT PHN with a focus on the Darwin region.<sup>a</sup> Darwin is largely congruent with two Statistical Area Level 3 (SA3s), Darwin City and Darwin Suburbs, and aligns closely with the Darwin Local Government Area (LGA) (Figure 1 and 2). The data in this report is primarily presented by SA3 rather than LGA, as some areas such as Darwin Waterfront and Charles Darwin National Park are not included in the LGA data – it is classified as unincorporated area. Data for the Northern Territory, Australia and surrounding SA3 regions are reported alongside Darwin regional data for comparison.

***\*\*For a full overview of the entire Greater Darwin region, this report should be read in conjunction with the Palmerston and Litchfield Region Data Report\*\****

Figure 2: Darwin LGAs and SA3s.



Source: Compiled by NT PHN.

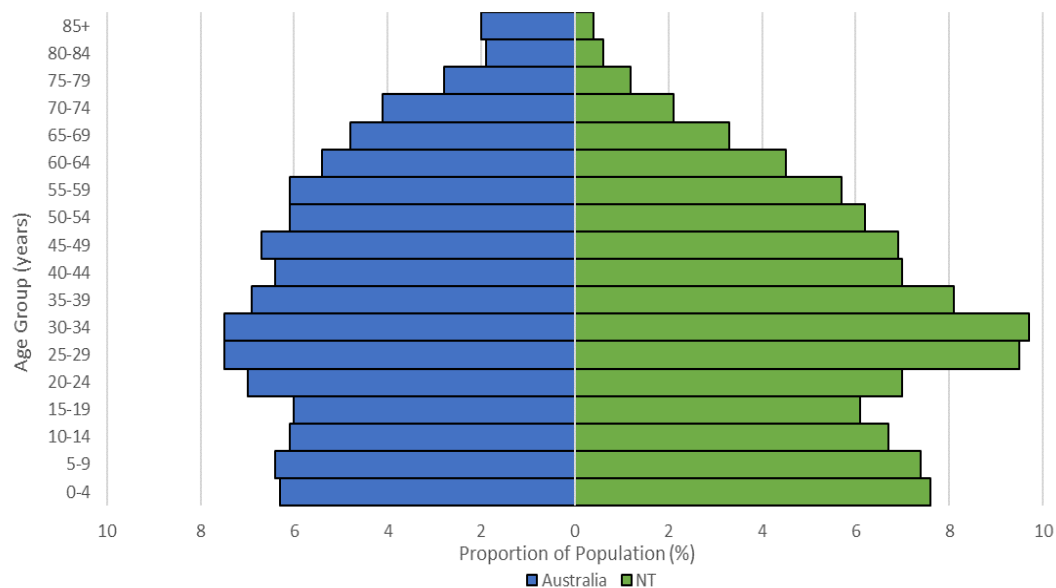
<sup>a</sup> In the NT, a custom geography known as Health Service Districts (HSD) is often used to define regions for health planning and delivery purposes. These regions do not align to national data collections, so the closest approximation of LGAs or SA3s are used in this report.

# Population Characteristics

## Population Structure

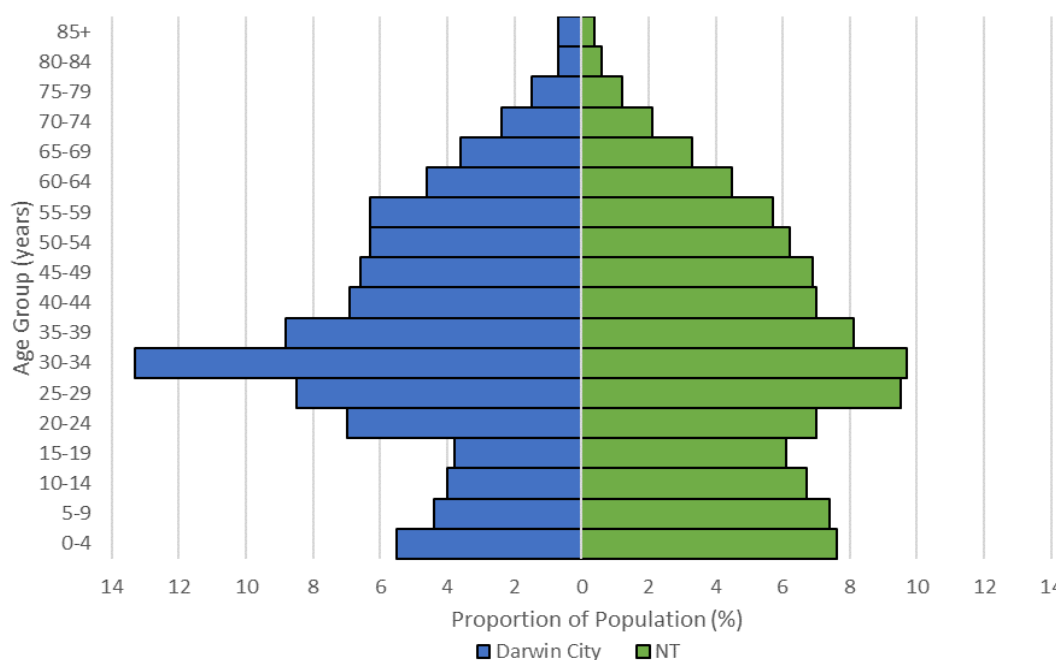
The population structure of the NT shows a marked difference to the Australian average, with higher proportions of children and young adults, and lower proportions of people aged 60+ (Figure 3). The Darwin Suburbs population follows a similar overall trend to the NT, however Darwin City has a higher proportion of adults aged 30-39 years – reflecting the significant short-term workforce - and less children (Figure 4a, 4b).

Figure 3: Population Structure of Australia and Northern Territory, 2018.



Source: Data compiled by PHIDU from ABS estimated resident population, 30 June 2018. Graph compiled by NT PHN.

Figure 4a: Population Structure of Darwin City and Northern Territory, 2018.



Source: Data compiled by PHIDU from ABS estimated resident population, 30 June 2018. Graph compiled by NT PHN.

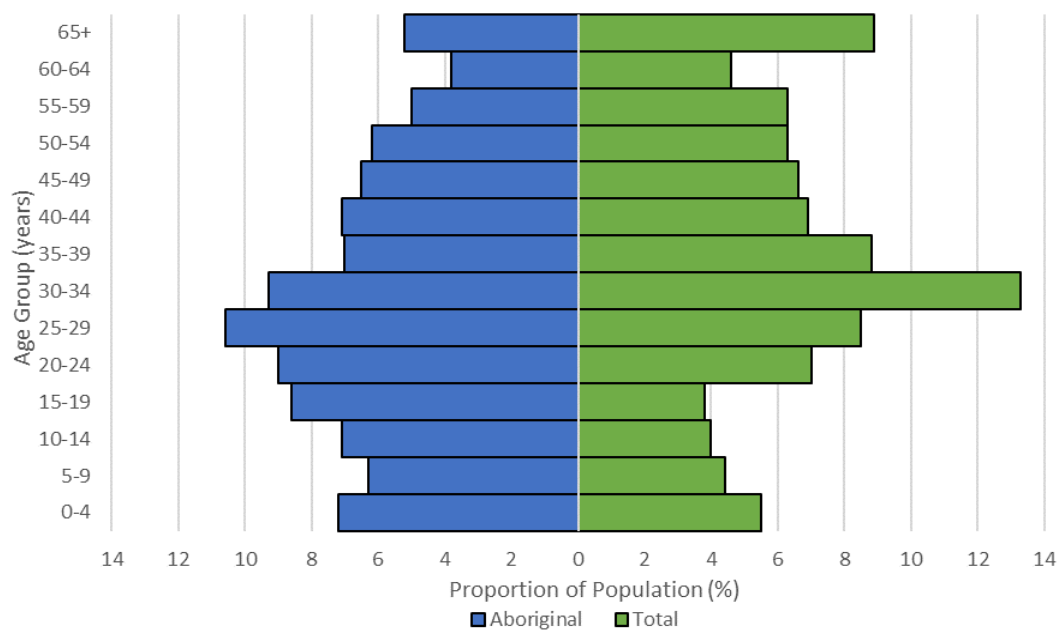
Figure 4b: Population Structure of Darwin Suburbs and Northern Territory, 2018.



Source: Data compiled by PHIDU from ABS estimated resident population, 30 June 2018. Graph compiled by NT PHN.

The Darwin City and Darwin Suburbs populations are made up of 7% and 12% Aboriginal and Torres Strait Islander peoples, (hereafter Aboriginal), respectively. The Aboriginal population structure in Darwin varies from the total Darwin population for both the City and Suburbs (Figure 5a, 5b). The Aboriginal populations in Darwin City and Darwin Suburbs have higher proportions of children and young people and a much lower proportion of people aged 30+ and elderly people.

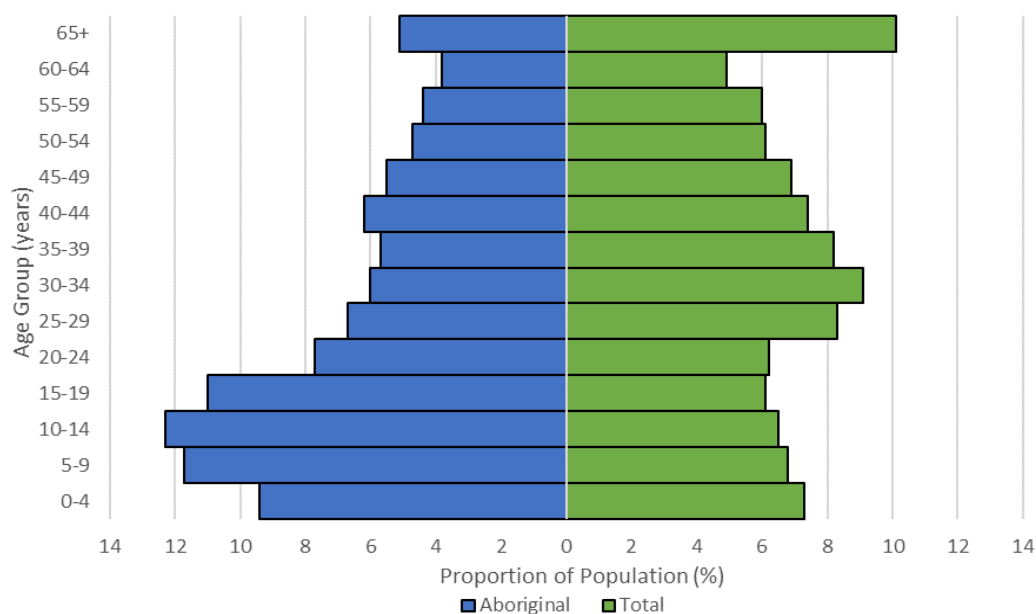
Figure 5a: Population Structure of the Aboriginal and/or Torres Strait Islander population and total population of Darwin City, 2016 and 2018.



Source: Data compiled by PHIDU from ABS estimated resident population, 30 June 2018; ABS Census of Population and Housing, August 2016. Graph compiled by NT PHN.



Figure 5b: Population Structure of the Aboriginal and/or Torres Strait Islander population and total population of Darwin Suburbs, 2016 and 2018.



Source: Data compiled by PHIDU from ABS estimated resident population, 30 June 2018; ABS Census of Population and Housing, August 2016. Graph compiled by NT PHN.

### Population Change

Since 2011, the NT population has increased by over 6%, particularly for Darwin City, which has experienced a 12% increase in population (Table 1). However there is a pattern of decline becoming evident since 2017.

Table 1: Population change in the Darwin region, 2011 to 2019.

	Total Persons					% Change 2011-2019
	2011	2016	2017	2018	2019	
<b>Darwin City (SA3)</b>	<b>24,776</b>	<b>28,574</b>	<b>28,995</b>	<b>28,378</b>	<b>27,674</b>	<b>11.7%</b>
<b>Darwin Suburbs (SA3)</b>	<b>55,238</b>	<b>57,645</b>	<b>57,848</b>	<b>57,013</b>	<b>56,154</b>	<b>1.7%</b>
<i>Palmerston (SA3)</i>	<i>29,290</i>	<i>35,880</i>	<i>36,884</i>	<i>37,801</i>	<i>38,255</i>	<i>30.6%</i>
<b>Northern Territory</b>	<b>231,292</b>	<b>245,678</b>	<b>247,517</b>	<b>247,058</b>	<b>245,929</b>	<b>6.3%</b>
<i>Australia</i>	<i>22,340,024</i>	<i>24,190,907</i>	<i>24,601,860</i>	<i>24,982,688</i>	<i>25,365,571</i>	<i>13.5%</i>

Source: ABS Regional Population Growth, Australia, 2017-18.



## Population Dynamics

The total fertility rate (TFR) in the Darwin region is lower than the rest of the Territory and Australia (Table 2). In real terms, there were a total 1,192 births in the Darwin region in 2018.

The loss of population to internal migration and a small population gain from overseas migration is consistent across many regions of the NT, including in the Darwin region.

The median age of death in Darwin is above the Territory average, but still much lower than the national average. The median age at death for Aboriginal people is at the NT average, but still lower than the total Darwin population age.

Infant mortality and youth mortality rates<sup>b</sup> are high throughout the NT, particularly in the more remote regions. Hence, Darwin has lower rates of infant and youth mortality than the NT average.

*Table 2: Population Dynamics in the Darwin region.*

	Fertility		Net Migration		Median Age at Death		Infant Mortality	Youth Mortality
	2018		2019-19		2013-17		2013-17	
	No. Births	TFR	Internal	Overseas	All People	Aboriginal People*	IMR/1,000	ASR/100,000
<b>Darwin City (SA3)</b>	<b>330</b>	<b>1.3</b>	<b>-1,144</b>	<b>207</b>	<b>70</b>	<b>55</b>	<b>5.9</b>	<b>60.5</b>
<b>Darwin Suburbs (SA3)</b>	<b>862</b>	<b>1.9</b>	<b>-1,663</b>	<b>227</b>	<b>70</b>	<b>56</b>	<b>3.1</b>	<b>38.2</b>
<i>Palmerston (SA3)</i>	<i>737</i>	<i>2.2</i>	<i>-206</i>	<i>85</i>	<i>65</i>	<i>57</i>	<i>4.4</i>	<i>49.9</i>
<b>Northern Territory</b>	<b>4,046</b>	<b>1.97</b>	<b>-4,371</b>	<b>718</b>	<b>63.5</b>	<b>56</b>	<b>7.1</b>	<b>94.1</b>
<i>National</i>	<i>313,330</i>	<i>1.85</i>	<i>0</i>	<i>239,602</i>	<i>81</i>	<i>59</i>	<i>3.3</i>	<i>35.8</i>

*Source: Compiled by PHIDU from multiple sources. \*Compiled by NT PHN from PHIDU Aboriginal and Torres Strait Islander Health Atlas.*

*\*Figures are averages of several smaller Indigenous Areas within each SA3.*

<sup>b</sup> Infant Mortality Rate (IMR) represents deaths that occurred before 12 months of age, expressed as per 1,000 live births. Youth mortality represents deaths of people aged 15 to 24 years, expressed as age-standardised rate per 100,000 population (aged 15 to 24 years).

## Demography and Disadvantage

Table 3 summarises key demographic and socioeconomic indicators for the Darwin region and surrounding areas. A smaller proportion of the Darwin population are aged 0 to 14 years compared to the rest of the Territory. Overall, the region has lower levels of disadvantage compared to the rest of the NT. Unlike the rest of the Territory, there is a high proportion of people born overseas in non-English speaking countries and people aged 65+.

Table 3: Demographic overview of the Darwin region.

	Age 0-14	Age 65+	Aboriginal Persons	Born Overseas (NES <sup>^</sup> )	Early School Leavers	Single Parent Families	Low Income Households	Overcrowded Housing	Unemployment	No Internet at Home	No Motor Vehicle	Disadvantage (IRSD)
	2018 ERP %	2018 ERP %	2016 ERP %	2016 URP %	2016 URP <i>ASR/100</i>	2016 %	2016 %	2016 %	June 2016 %	2016 %	2016 %	2016 <i>Score</i>
<b>Darwin City (SA3)</b>	<b>13.9</b>	<b>8.9</b>	<b>6.6</b>	<b>21.2</b>	<b>20.4</b>	<b>14.2</b>	<b>26.4</b>	<b>9.9</b>	<b>2.6</b>	<b>10.6</b>	<b>8.0</b>	<b>1071</b>
<b>Darwin Suburbs (SA3)</b>	<b>20.6</b>	<b>10.1</b>	<b>11.5</b>	<b>24.8</b>	<b>26.2</b>	<b>19.0</b>	<b>41.0</b>	<b>11.7</b>	<b>3.9</b>	<b>11.9</b>	<b>5.8</b>	<b>1027</b>
<i>Palmerston (SA3)</i>	<i>26.1</i>	<i>4.9</i>	<i>14.5</i>	<i>13.6</i>	<i>34.1</i>	<i>20.4</i>	<i>37.6</i>	<i>7.8</i>	<i>3.9</i>	<i>11.3</i>	<i>4.2</i>	<i>1027</i>
<b>Northern Territory</b>	<b>21.6</b>	<b>7.6</b>	<b>30.3</b>	<b>13.4</b>	<b>34.4</b>	<b>22.1</b>	<b>43.2</b>	<b>21.9</b>	<b>4.2</b>	<b>16.9</b>	<b>10.7</b>	<b>939</b>
<i>Australia</i>	<i>18.8</i>	<i>15.7</i>	<i>3.3</i>	<i>17.9</i>	<i>30.4</i>	<i>20.4</i>	<i>40.5</i>	<i>7.1</i>	<i>5.9</i>	<i>14.1</i>	<i>7.5</i>	<i>1000</i>

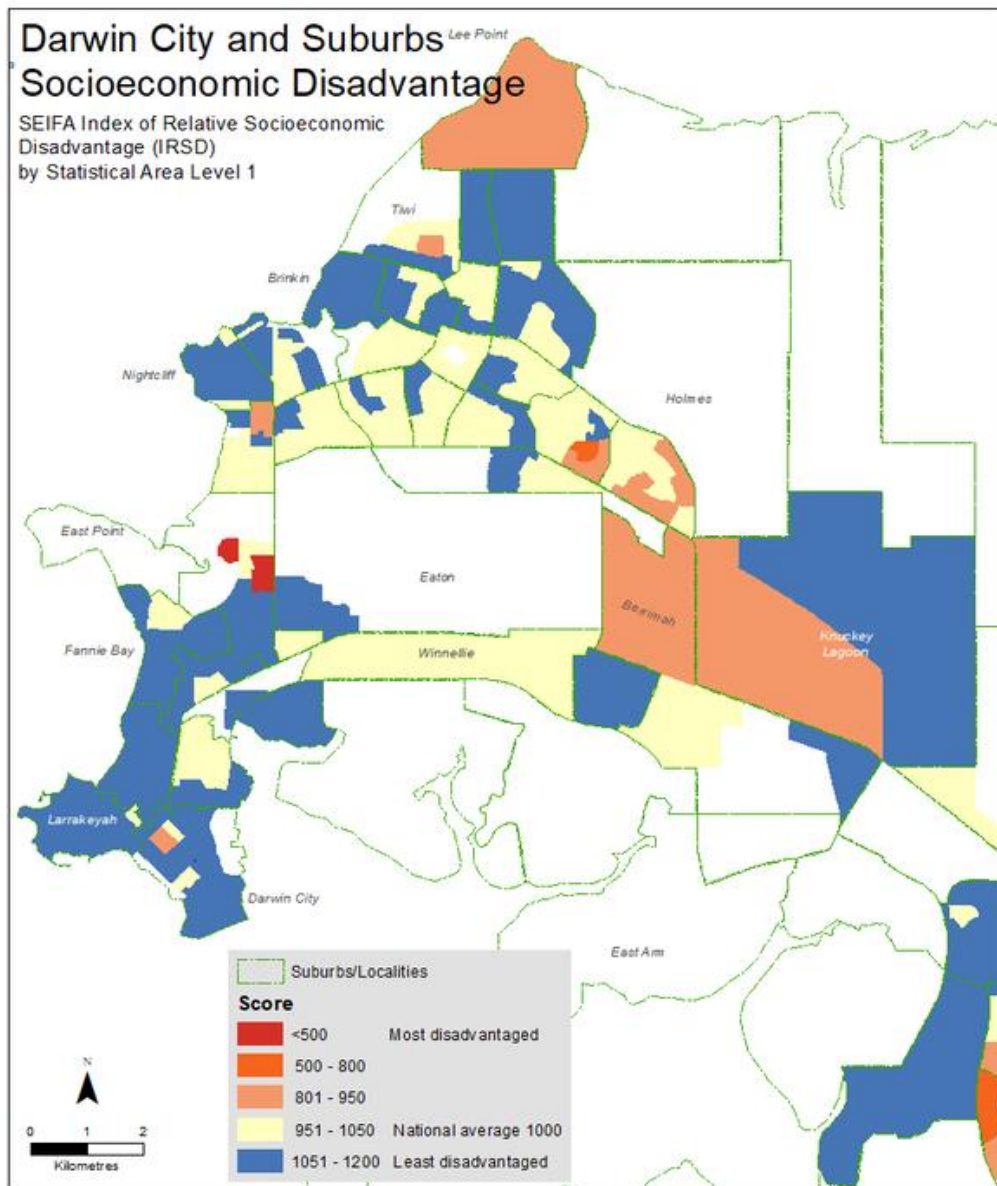
Source: Compiled by PHIDU from ABS estimated resident population, 30 June 2018, ABS Census of Population and Housing, August 2016.

<sup>^</sup>NES = non-English Speaking

After each census, the Australian Bureau of Statistics (ABS) derives a series of indexes, known as Socioeconomic Indexes for Areas (SEIFA), to quantify aspects of disadvantage. The Index of Relative Socioeconomic Disadvantage (IRSD) is commonly used to describe the relative level of overall disadvantage in small areas. The IRSD is scaled so that the national average score is 1000, where scores above are considered more advantaged and scores below are more disadvantaged. Darwin City and Darwin Suburbs have lower levels of disadvantage using this measure, with scores at and above the national average.

Figure 8 illustrates the distribution of disadvantage at a much finer scale, where it can be seen that even within the relatively less disadvantaged Darwin region, there are still pockets of low scores.

Figure 6: Areas of socioeconomic disadvantage within Darwin.



Source: Compiled by NT PHN from ABS Census of Population and Housing: SEIFA, Australia, 2016

## Childhood

The Australian Early Development Census (AEDC) is conducted every 3 years, for each child in their first year of school. They are assessed by the teacher against five domains. Children who are developmentally vulnerable can be at risk of poor social, emotional, and health outcomes in later life. The proportion of children who are vulnerable on two or more of the AEDC domains is often used as an indicator of children most at risk.

The 2018 AEDC results for children within the Darwin region have been reproduced here. Full reports for each local community, containing additional information including previous census results, can be accessed from the AEDC website: <https://www.aedc.gov.au/data/data-explorer>.

The Darwin region has a lower proportion of children who are developmentally vulnerable compared to the rest of the NT (Table 4). In every tested domain, there is a lower proportion of developmentally vulnerable children in Darwin City than the NT and Australia, and Darwin Suburbs is also below the NT average.

Table 4: Australian Early Development Census (AEDC) Results, 2018.

	Children Developmentally Vulnerable (%)					Vulnerable on One or More Domains	Vulnerable on Two or More Domains
	Physical Health & Wellbeing	Social Competence	Emotional Maturity	Language & Cognitive Skills	Communication Skills & General Knowledge		
<b>Darwin City (SA3)</b>	<b>8.3</b>	<b>6.3</b>	<b>9.2</b>	<b>3.5</b>	<b>7.5</b>	<b>16.6</b>	<b>8.7</b>
<b>Darwin Suburbs (SA3)</b>	<b>11.2</b>	<b>11.8</b>	<b>9.9</b>	<b>12.7</b>	<b>9.6</b>	<b>25.5</b>	<b>14.2</b>
<i>Palmerston (SA3)</i>	<i>13.2</i>	<i>13.8</i>	<i>9.5</i>	<i>8.6</i>	<i>7.5</i>	<i>26.0</i>	<i>14.3</i>
<b>Northern Territory</b>	<b>17.6</b>	<b>17.8</b>	<b>14.9</b>	<b>19.6</b>	<b>16.7</b>	<b>35.8</b>	<b>23.4</b>
<i>Australia</i>	<i>9.6</i>	<i>9.8</i>	<i>8.4</i>	<i>6.6</i>	<i>8.2</i>	<i>21.7</i>	<i>11.0</i>

Source: Australian Early Development Census (AEDC), 2019.

## Offending

NT Police maintain a database of offences, which includes assaults related to both domestic violence and alcohol. The NT Police, Darwin region, is geographically similar to the combined Darwin City and Darwin Suburbs region.

The Darwin region has a lower overall assault rate compared to the Territory average (Table 5). Alcohol and domestic violence contribute heavily to assault offences in the region.

Table 5: Crime Statistics – Assault, at June 2019.

	Total Assaults	Rate per 100,000*	% of Assaults associated with:	
			Alcohol	Domestic Violence
<b>Darwin</b>	<b>113</b>	<b>2,200</b>	<b>56%</b>	<b>40%</b>
<i>Palmerston</i>	<i>31</i>	<i>1,597</i>	<i>42%</i>	<i>45%</i>
<b>Northern Territory</b>	<b>431</b>	<b>3,014</b>	<b>47%</b>	<b>60%</b>

Source: Northern Territory Crime Statistics, Data through September 2019. Department of the Attorney-General and Justice.  
\*2018

## Health Indicators

### Potentially Preventable Hospitalisations

Potentially preventable hospitalisations (PPH) are admissions for which the hospitalisation could possibly have been prevented through the timely and appropriate provision of primary or community-based health care, and as such are considered indicators of the effectiveness of non-hospital care. Rates of PPH may reflect access to primary health care service and/or other contextual factors.

PPH for many chronic and acute conditions are much higher in the NT than the rest of Australia (Table 6). PPH rates for many chronic conditions, acute cellulitis and vaccine-preventable pneumonia and influenza in Darwin are lower than the NT average.

*Table 6: Potentially Preventable Hospitalisations (PPH) for Chronic, Acute and Vaccine-Preventable Conditions (ASR/100,000), 2017-18.*

	Congestive Cardiac Failure	COPD <sup>^</sup>	Diabetes Complications	Total Chronic Conditions	Cellulitis	Total Acute Conditions	Pneumonia/ Influenza
<b>Darwin City (SA3)</b>	<b>221</b>	<b>333</b>	<b>107</b>	<b>1,157</b>	<b>495</b>	<b>1,980</b>	<b>216</b>
<b>Darwin Suburbs (SA3)</b>	<b>316</b>	<b>499</b>	<b>209</b>	<b>1,683</b>	<b>501</b>	<b>1,858</b>	<b>239</b>
<i>Palmerston (SA3)</i>	<i>259</i>	<i>715</i>	<i>223</i>	<i>1,869</i>	<i>437</i>	<i>2,053</i>	<i>295</i>
<b>Northern Territory</b>	<b>336</b>	<b>706</b>	<b>284</b>	<b>2,260</b>	<b>685</b>	<b>2,711</b>	<b>355</b>
<i>Australia</i>	<i>206</i>	<i>267</i>	<i>187</i>	<i>1,233</i>	<i>258</i>	<i>1,286</i>	<i>207</i>

*Source: AIHW Potentially Preventable Hospitalisations in Australia 2017-18.*

<sup>^</sup>Chronic Obstructive Pulmonary Disease

### Mortality

Coronary heart disease is the leading cause of death in both Australia and the NT. The other leading causes of death in the Darwin region are COPD, lung cancer, Dementia and Alzheimer disease, diabetes and suicide. These are similar to the overall NT leading causes of death.

### Cancer

Compared to the rest of Australia, the NT has a low incidence of cancer, yet a higher rate of premature mortality from cancer. This reflects a pattern of late diagnosis, where treatment is unlikely to be lifesaving due to advanced cancer stage at diagnosis. In this context, cancer screening initiatives for early detection can play an important role in reducing mortality.

Cancer incidence and hospital admissions are high in Darwin Suburbs, while Darwin City has the lowest rate of premature mortality in the NT (Table 7). Participation rates in national screening programs are close to the NT average, however screening is consistently lower in Darwin City.

Darwin has the highest rates of breast cancer screening in the NT, this may be due to the year-round availability and proximity of Breastscreen services in Darwin. For residents outside of Darwin, the BreastScreenNT bus services the major towns and communities outside of regional centres annually or biannually.

Table 7: Cancer Statistics

	Cancer Incidence# 2009-13	Hospital Admissions^ 2016/17 ASR/100,000	Premature Mortality^ 2013-17	Screening*			
				Bowel aged 50-74 2017-18 %	Breast aged 50-74 2017-18 %	Cervical aged 20-69 2015-16 2018 <sup>c</sup> %	
Darwin City (SA3)	482	2,241	85	31.2	37.7	50.8	-
Darwin Suburbs (SA3)	497	2,852	123	33.4	42.5	52.3	-
Palmerston (SA3)	442	2,678	150	29.1	37.2	51.4	-
<b>Northern Territory</b>	<b>460</b>	<b>2,422</b>	<b>133</b>	<b>29.1</b>	<b>38.3</b>	<b>51.8</b>	<b>50.9</b>
<i>Australia</i>	<i>497</i>	<i>2,826</i>	<i>99</i>	<i>42.4</i>	<i>55.0</i>	<i>55.4</i>	<i>54.1</i>

Source: #AIHW Australian Cancer Database. ^Compiled by PHIDU from AIHW. \*AIHW National Cancer Screening Programs Participation Data.

### Risk factors for Chronic Conditions

The main source of data for information about risk factors such as overweight/obesity, high blood pressure etc., is the National Health Survey which is conducted every few years by the ABS. However, this survey excludes discrete Aboriginal communities and very remote areas, which is around 20% of the NT population, therefore is not a representative data set for the NT context.

The figures published indicate that the largely non-Aboriginal, urbanised portion of the population have high rates of insufficient physical activity, harmful alcohol consumption and overweight and obesity, which are similar to the national averages (Table 8).<sup>d</sup> Smoking rates are much higher in the NT, while the proportion of people with uncontrolled high blood pressure are lower. These rates are also similar to the statistics seen in the aggregated general practice data (not published), which is drawn from a similar population profile.

It is likely that these figures are underestimates, and that if a fully representative NT population were surveyed, then the overall NT data would compare unfavourably with the national averages. For the more remote locations in the NT, it can be expected that the prevalence of chronic disease risk factors will be particularly high.

Similarly, the National Aboriginal and Torres Strait Islander Health Survey, conducted in 2018-19, demonstrates higher rates of insufficient physical activity, inadequate fruit and vegetable consumption and daily smoking in the NT Aboriginal population. Patterns of alcohol misuse in the NT differ from other jurisdictions and are not necessarily reflected in the survey statistics. These surveys also do not sample homeless and transient populations.

<sup>c</sup> On 1 December 2017, the renewed National Cervical Screening Program (NCSP) was introduced. Instead of women aged 20–69 having a Pap test every 2 years, women aged 25–74 now have a Cervical Screening Test (CST) every 5 years (the CST is an HPV test, followed by a cytology test if HPV is found). SA3 data not yet available for renewed NCSP.

<sup>d</sup> AIHW analysis of ABS National Health Survey, 2014-15.

Table 8: Chronic disease risk factors, proportion of population (%).

		Overweight /Obese	Current daily smoker	Inadequate fruit or vegetable consumption	Insufficient Physical Activity	High Blood Pressure	Risky alcohol consumption (lifetime <sup>e</sup> )	Risky alcohol consumption (single occasion <sup>f</sup> )
National Health Survey, 2017-18	<b>NT</b> <i>Australia</i>	<b>65.5</b> 66.4	<b>18.9</b> 14.0	<b>93.2</b> 94.8	<b>85.0</b> 84.6	<b>17.2</b> 21.8	<b>21.2</b> 16.0	<b>47.8</b> 43.2
National Aboriginal and Torres Strait Islander Health Survey, 2018-19	<b>NT</b> <i>Australia</i>	<b>59.0</b> 71.2	<b>58.0</b> 43.4	<b>98.2</b> 97.4	<b>92.8</b> 89.0	<b>20.0</b> 23.1	<b>12.7</b> 20.0	<b>42.3</b> 53.5

Source: ABS National Health Survey, 2017-18, ABS National Aboriginal and Torres Strait Islander Health Survey, 2018-19.

## Mental Health and Suicide, Drug and Alcohol Use

Overnight mental health hospital admissions for drug and alcohol episodes and intentional self-harm are higher in the NT compared to Australia, yet these rates are lower in the Darwin region (Table 9).

These figures represent a lower rate of death due to suicide and self-inflicted injury in Darwin compared to the rest of the NT, still above the national average. The more remote regions of the NT demonstrate the highest rates of mental health hospitalisations and suicide death rate.

Table 9: Mental Health Hospitalisations and Suicide in the Darwin region.

	Hospital Admissions			Deaths (0-74 years)
	All Mental Health# <i>ASR/10,000</i> <i>2017-18</i>	Drug and Alcohol Episodes <sup>^</sup> <i>ASR/100,000</i> <i>2014-15</i>	Intentional Self Harm <sup>^</sup>	Suicide and Self-Inflicted Injuries* <i>ASR/100,000</i> <i>2013-17</i>
<b>Darwin City (SA3)</b>	<b>87</b>	<b>191</b>	<b>136</b>	<b>14.8</b>
<b>Darwin Suburbs (SA3)</b>	<b>66</b>	<b>79</b>	<b>138</b>	<b>13.8</b>
<i>Palmerston (SA3)</i>	<i>60</i>	<i>93</i>	<i>155</i>	<i>12.8</i>
<b>Northern Territory</b>	<b>100</b>	<b>227</b>	<b>228</b>	<b>19.5</b>
<i>Australia</i>	<i>105</i>	<i>180</i>	<i>161</i>	<i>12.2</i>

Source: #AIHW Mental health services in Australia. <sup>^</sup>AIHW Hospitalisations for mental health conditions and intentional self-harm. \*Compiled by PHIDU from ABS Causes of Death, Australia, 2017.

<sup>e</sup> National Health and Medical Research Council (NHMRC) 2009 guideline 1 for the consumption of alcohol which recommends no more than 2 standard drinks per day.

<sup>f</sup> NHMRC 2009 guideline 2 for the consumption of alcohol which recommends no more than 4 standard drinks on a single occasion.



## Immunisation

Immunisation targets vary depending on the vaccine and disease – 90% coverage is considered sufficient for most diseases to establish herd immunity (protection for entire population), but highly infectious diseases like measles require 95% coverage to interrupt disease transmission in the community.

Table 10 demonstrates the immunisation coverage rates for children and adolescent HPV immunisation.

Immunisation coverage rates in the NT are close to or slightly below the national average for all children and Aboriginal children aged 1, 2 and 5. In Darwin, immunisation coverage is high in children at 1, 2 and 5 years of age. Overall, immunisation coverage is high among Aboriginal children in the NT at age 1, 2 and 5 and approaches the national average.

HPV vaccination is recommended for all young persons aged 15 years in three doses. HPV immunisation coverage is higher in the NT than the national average for females and males, though males in Darwin City have a low coverage rate. There is no clear pattern between immunisation rates, age and region.

*Table 10: Immunisation Coverage, proportion of children fully immunised (%).*

	Children Fully Immunised 2018						HPV 3-dose Coverage 2017	
	1 Year Old	Aboriginal 1 Year Old	2 Years Old	Aboriginal 2 Years Old	5 Years Old	Aboriginal 5 Years Old	Females Aged 15	Males Aged 15
<b>Darwin City (SA3)</b>	<b>93.1</b>	-	<b>90.5</b>	-	<b>91.6</b>	-	<b>97.6</b>	<b>102.0</b>
<b>Darwin Suburbs (SA3)</b>	<b>93.1</b>	-	<b>92.3</b>	-	<b>93.0</b>	-	<b>90.8</b>	<b>80.5</b>
<i>Palmerston (SA3)</i>	<i>94.6</i>	-	<i>92.5</i>	-	<i>94.4</i>	-	<i>76.2</i>	<i>93.1</i>
<b>Northern Territory</b>	<b>94.0</b>	<b>92.8</b>	<b>91.0</b>	<b>90.2</b>	<b>93.6</b>	<b>95.8</b>	<b>95.6</b>	<b>88.0</b>
<i>Australia</i>	<i>94.3</i>	<i>92.6</i>	<i>91.6</i>	<i>89.9</i>	<i>94.8</i>	<i>96.9</i>	<i>80.5</i>	<i>76.1</i>

*Source: Compiled by PHIDU from Australian Immunisation Register (AIR).*

*Note: Values of >100% are likely an artefact of high mobility inter- and intra-state within the NT.*

## Health Workforce

The Health Workforce data published by the Australian Government Department of Health is derived from the national annual registration database for health professionals, by a survey completed at time of registration. This data is limited in the NT context as ‘primary location of work in the past’ week may not accurately capture the transient population and fly-in fly-out workforce. Therefore, the data presented represents a discrete ‘point in time’ situation.

Overall, the Darwin region has a strong workforce of medical, oral and allied health professionals (Table 11). Darwin Suburbs has a high rate of medical practitioners and nurses and midwives, compared to the NT average, yet a lower rate of ATSI Health Practitioners, which differs from the remote areas in the NT.

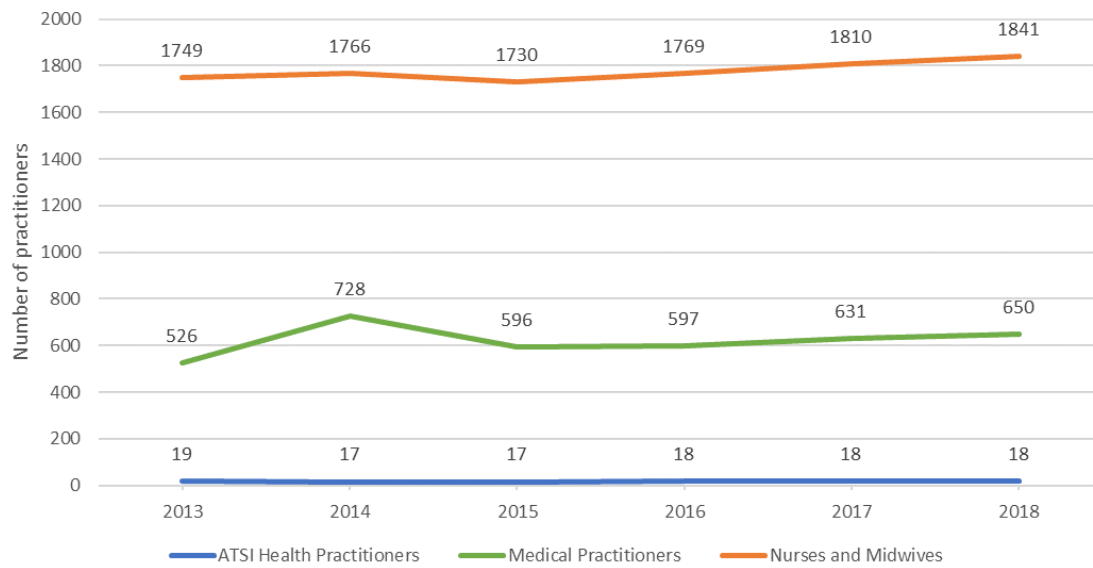
*Table 11: Availability of Health Workforce, per 10,000 population, 2018.*

	Darwin City (SA3)	Darwin Suburbs (SA3)	Northern Territory	Australia
ATSI Health Practitioners	2.1	2.1	5.8	0.8
Medical Practitioners	42.6	92.8	48.0	205.3
Nurses and Midwives	91.6	277.3	149.6	674.5
Oral Health Practitioners	12.0	7.5	5.9	44.6
Occupational Therapists	11.6	11.9	6.5	33.3
Optometrists	2.8	1.6	1.3	10.6
Pharmacists	8.8	11.1	7.1	49.5
Physiotherapists	12.3	8.4	6.6	52.7
Podiatrists	2.8	1.4	1.1	9.7
Psychologists	19.0	7.2	6.3	53.0

*Source: Health Workforce Dataset, Department of Health 2018.*

The Darwin region has a high rate of medical practitioners and nurses and midwives, but a lower rate of ATSI health practitioners. In real terms, between 2013 and 2018, the number of nurses and midwives has increased moderately and remains high (Figure 7). The number of medical practitioners has experienced a moderate increase, and the number of ATSI health practitioners remains low but relatively unchanged, as this occupation is more commonly found in remote NT.

Figure 7: Availability of Health Workforce in Darwin by profession (number), 2013 – 2018.



Source: Health Workforce Dataset, Department of Health 2018.

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