Summary of Aboriginal and Torres Strait Islander health status - selected topics 2022

Core funding is provided by the Australian Government Department of Health and Aged Care

Australian Indigenous Health*InfoNet*

The mandate of the Australian Indigenous Health*InfoNet* (Health*InfoNet*) is to contribute to improvements in Aboriginal and Torres Strait Islander health by making relevant, high quality knowledge and information easily accessible to policy makers, health service providers, program managers, clinicians and other health professionals (including Aboriginal and Torres Strait Islander Health Workers and Health Practitioners) and researchers. The Health*InfoNet* also provides easy-to-read and summarised material for students and the general community.

The Health*InfoNet* achieves its commitment by undertaking research into various aspects of Aboriginal and Torres Strait Islander health and disseminating the results (and other relevant knowledge and information) mainly via Health*InfoNet* websites (https://healthinfonet.ecu.edu.au), the Alcohol and Other Drugs Knowledge Centre (https://aodknowledgecentre.ecu.edu.au), Tackling Indigenous Smoking (https://tacklingsmoking.org.au) and WellMob (https://wellmob.org.au). The research involves analysis and synthesis of data and other information obtained from academic, professional, government and other sources. The Health*InfoNet*'s work in knowledge exchange aims to facilitate the transfer of pure and applied research into policy and practice to address the needs of a wide range of users.

Recognition statement

The Health*InfoNet* recognises and acknowledges the sovereignty of Aboriginal and Torres Strait Islander people as the original custodians of the country. Aboriginal and Torres Strait Islander cultures are persistent and enduring, continuing unbroken from the past to the present, characterised by resilience and a strong sense of purpose and identity despite the undeniably negative impacts of colonisation and dispossession. Aboriginal and Torres Strait Islander people throughout the country represent a diverse range of people, communities and groups, each with unique identities, cultural practices and spiritualities. We recognise that the current health status of Aboriginal and Torres Strait Islander people has been significantly impacted by past and present practices and policies.

We acknowledge and pay our deepest respects to Elders past, present and emerging throughout the country. In particular, we pay our respects to the Whadjuk Noongar peoples of Western Australia on whose Country our offices are located (https://healthinfonet.ecu.edu.au/acknowledging-country).

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Summary of Aboriginal and Torres Strait Islander health status - selected topics 2022

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Further information

This *Summary* is based on our more comprehensive publication the *Overview of Aboriginal and Torres Strait Islander health status 2022 (Overview)*. The *Summary* does not cover all of the health topics found in the *Overview*, only those which receive specific funding through the Health*InfoNet* funding partners. The *Overview* and *Summary* are produced annually and can be found at: healthinfonet.ecu.edu.au/summaries and healthinfonet.ecu.edu.au/overviews.

Acknowledgements

Special thanks are extended to staff at the Australian Indigenous Health*InfoNet* for their assistance and support, and to the Australian Government Department of Health and Aged Care and other funding partners for their ongoing support of the work of the Australian Indigenous Health*InfoNet.*

Tell us what you think

We value your feedback as part of our post-publication peer review process. Please let us know if you have any suggestions for improving this *Summary*: https://healthinfonet.ecu.edu.au/contact-us

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Cover artwork

Bibdjool *by Donna Lei Rioli*

Donna Lei Rioli, a Western Australian Indigenous artist, was commissioned by the Health*InfoNet* to create a logo incorporating a gecko, chosen as it is one of a few animals that are found across the great diversity of Australia.

Donna is a Tiwi/Noongar woman who is dedicated to the heritage and culture of the Tiwi people on her father's side, Maurice Rioli, and the Noongar people on her mother's side, Robyn Collard. Donna enjoys painting because it enables her to express her Tiwi and Noongar heritage and she combines the two in a unique way.

Donna interpreted the brief with great awareness and conveyed an integrated work that focuses symbolically on the pathway through life. This is very relevant to the work and focus of the Health*InfoNet* in contributing to improving the health and wellbeing of Aboriginal and Torres Strait Islander people.

Featured icon artwork *by Frances Belle Parker*

The Health*InfoNet* commissioned Frances Belle Parker, a proud Yaegl woman, mother and artist, to produce a suite of illustrated icons for use in our knowledge exchange products. Frances translates biomedical and statistically based information into culturally sensitive visual representations, to provide support to the Aboriginal and Torres Strait Islander workforce and those participating in research and working with Aboriginal and Torres Strait Islander people and their communities. Frances came to prominence winning the Blake Prize in 2000, making her the youngest winner and the first Indigenous recipient over the 65 year history of the prize.

"Biirrinba is the Yaygirr name for the mighty Clarence River (NSW). It is this river that is the life giving vein for the Yaegl people. And it is this river which inspires much of my artwork. I am deeply inspired by my Mother's land (Yaegl land) and the Island in the Clarence River that my Mother grew up on, Ulgundahi Island. The stories which are contained within this landscape have shaped me as a person, as an artist and most recently as a Mother. This is my history, my story and it will always… be my responsibility to share this knowledge with my family and my children."

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Introduction

Aboriginal and Torres Strait Islander people have lived on their traditional lands across Australia, including the Torres Strait Islands, for the past upwards of 60,000 years and their continuity, history and cultural traditions are unrivalled in the world [1,2]. Before colonisation, Aboriginal and Torres Strait Islander people lived in family and community groups, and moved across the land following seasonal changes [1]. The Aboriginal and Torres Strait Islander concept of health is not just about the individual person, but a whole-of-life view that includes the social, emotional and cultural wellbeing of the community [3].

There are distinctive ethnic and cultural differences between Aboriginal societies and between Torres Strait Islander societies, each having their own languages and traditions [2,4]. Despite their differences, Aboriginal and Torres Strait Islander people have had many similar experiences of colonisation. Colonisation is now unequivocally recognised as a 'traumatic disruption' to the way of life prior to colonisation when Aboriginal and Torres Strait Islander peoples lived relatively healthy lives [2, p.40]. It is evident that ongoing marginalisation, separation from culture and land, food and resource insecurity, intergenerational trauma, disconnection from culture and family, racism, systemic discrimination and poverty have resulted in poorer physical and mental health for many Aboriginal and Torres Strait Islander people [2,4,5].

Nationally, there has been a shift away from the deficit approach (focusing on the negative differences between Aboriginal and Torres Strait Islander people and non-Indigenous people) to focus more on the positive affirming impacts of cultural determinants, whereby the narrative can shift more towards strengths based understandings of Aboriginal and Torres Strait Islander health [6-9]. The *Summary of Aboriginal and Torres Strait Islander health status – selected topics 2022* (*Summary*) aims to deliver the most important and up to date information about Aboriginal and Torres Strait Islander health while also limiting comparisons with other Australians.

The Health*InfoNet* has prepared this *Summary* as part of our contribution to support those who work in the Aboriginal and Torres Strait Islander health sector. Key health topics are summarised in plain language and an infographic style to enable readers to absorb data easily and quickly.

The accuracy of the identification of Aboriginal and Torres Strait Islander people in health data collections varies across the country. Information about hospitalisations is generally considered to be accurate for all jurisdictions: New South Wales (NSW), Victoria (Vic), Queensland (Qld), Western Australia (WA), South Australia (SA), Tasmania (Tas), the Australian Capital Territory (ACT) and the Northern Territory (NT), however in some jurisdictions private hospital data are not included. Other statistical information is only considered to be sufficient and complete for certain jurisdictions, for example data about deaths are usually only provided for NSW, Qld, WA, SA and the NT. Please refer to the sources for full details on the statistical information presented here.

If you want more information about the health and wellbeing of Aboriginal and Torres Strait Islander people, you can:

- read our latest *Overview* [10] for a more comprehensive health status update
- read one of our health topic reviews (healthinfonet.ecu.edu.au/reviews)
- visit our website (healthinfonet.ecu.edu.au).

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Statistical terms

- **Burden of disease (and injury)** is the quantified impact of a disease or injury on a population using the **disability-adjusted life year** measure.
- **Disability-adjusted life year (DALY)** is a year of healthy life lost, either through premature death or living with a disability due to illness or injury.
- **Fatal burden** is the burden of dying prematurely from a disease or injury as measured by **years of life lost**. It offers a way to compare the impact of different diseases, conditions or injuries on a population. See **non-fatal burden**.
- **Hospitalisation** refers to a period of hospital care for a person admitted to hospital. **Hospitalisation rates** are calculated as the total number of such periods of care divided by the total number of the population of interest. The rate is usually written per 1,000. Unless indicated, rates of hospitalisations provided in this *Summary* are ***excluding dialysis separations*** – these are the regular hospitalisations required by kidney disease patients for dialysis treatment.
- **Incidence** is the number of new cases of a disease or condition during a time period, the **incidence rate** is the number divided by the population of interest.
- **Maternal mortality** refers to pregnancy-related deaths occurring to women during pregnancy, or up to 42 days after delivery.
- **Maternal mortality ratio** is the number of maternal deaths divided by the number of confinements (expressed in 100,000s).
- **Median** is the middle number in a range where 50% fall below and 50% fall above.
- **Non-fatal burden** is the burden from living with ill health, as measured by **years lived with disability**.
- **Prevalence** is the proportion of people living with a disease or condition in a given time period.
- **Rates** are one way of looking at how common a disease or condition is in a population. A rate is calculated by taking the number of cases and dividing it by the population at risk, for a specific time period. A specific type of rate, called an **age-standardised rate**, allows for comparison between populations that have different age profiles. These are different from **crude rates**. Unless stated otherwise, rates presented in this *Summary* are age-standardised.
- **Survival** is statistically measured as the likelihood of a person being alive for a given period of time after being diagnosed with a disease or condition. Data about survival are provided for NSW, Vic, Qld, WA and the NT.
- **Years lived with disability** measures the years of what could have been a healthy life that were instead spent in states of less than full health. Years lived with disability represent **non-fatal burden.**
- **Years of life lost** measures years of life lost due to premature death, defined as dying before the ideal lifespan (based on the lowest observed death rates from multiple countries). Years of life lost represent **fatal burden**.

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Sources of information

Most of the information presented in this *Summary* is sourced from government reports, particularly those produced by the Australian Bureau of Statistics (ABS), the Australian Institute of Health and Welfare (AIHW), the Health Chief Executives Forum (formerly the Australian Health Ministers Advisory Council) and the Steering Committee for the Review of Government Service Provision (SCRGSP). Data in these reports come from national health surveys, hospitals and other government agencies (including the birth and death registration systems).

It is important to note that data presented from national health surveys were generally calculated from responses by people aged 15 years and over. For children aged 14 years and under, a parent or guardian of a child generally provided responses on behalf of the child.

Surveys that have informed this *Summary*

2012-13 Australian Aboriginal and Torres Strait Islander Health Survey	**2012-13 AATSIHS**
2018-19 National Aboriginal and Torres Strait Islander Health Survey	**2018-19 NATSIHS**
2019 National Drug Strategy Household Survey	**2019 NDSHS**

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Aboriginal and Torres Strait Islander population

Number of Aboriginal and Torres Strait Islander people

Proportion of state or territory population that identify as Aboriginal and/or Torres Strait Islander

PAPUA NEW GUINEA
TORRES STRAIT
MAINLAND AUSTRALIA

State/territory	Number of Aboriginal and Torres Strait Islander people	Proportion of population
NT	78,994	32%
QLD	252,733	4.7%
WA	112,253	4.0%
SA	47,426	2.6%
NSW	297,389	3.6%
ACT	8,869	1.9%
VIC	66,975	1.0%
TAS	31,337	5.5%

National estimates, 2022

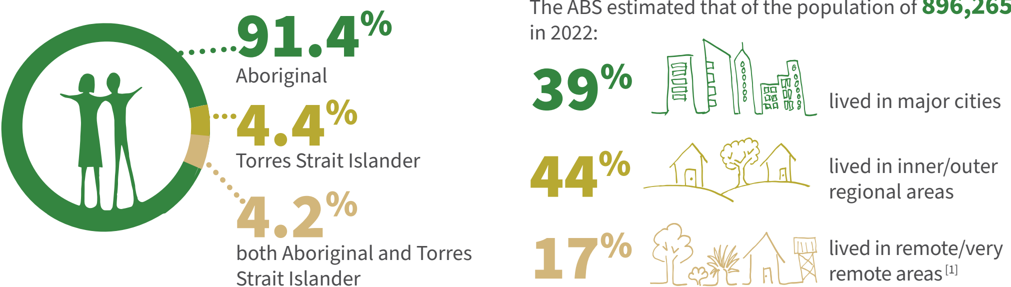
896,265

3.4% of the Australian population [1, 2]

ABS, 2019 [1], ABS, 2022 [2]

The Aboriginal and Torres Strait Islander population is much younger overall than the non-Indigenous population [1, 2]. **In 2022, it was estimated that nearly 1/3** of the Aboriginal and Torres Strait Islander population was aged **<15 years** and **just over 5%** of Aboriginal and Torres Strait Islander people were aged **65 years+** [1].

More detailed information about the Aboriginal and Torres Strait Islander population can be found in the 2021 Census [3].



The top five Indigenous Regions where Aboriginal and Torres Strait Islander people resided in 2022 were **Brisbane, NSW Central-North Coast, Sydney-Wollongong, Perth and Townsville-Mackay** [1].

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Determinants of health

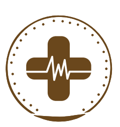
among Aboriginal and Torres Strait Islander people

Factors known as the 'determinants of health' impact the health and wellness of individuals [1]. Social determinants of health are the conditions in which people are born, grow, work, live, and age, and include [2]:

employment

education

income



access to **health care**

Education

In 2021 [3], the retention rate$_1$ for Aboriginal and Torres Strait Islander secondary students was:

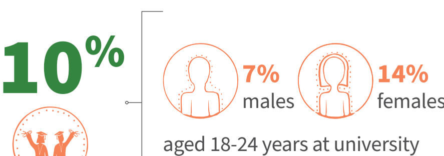
100% to Year 10 **81%** to Year 11 **59%** to Year 12

Aboriginal and Torres Strait Islander students at, or above the national minimum standard, 2022 [4]:

	Year 3	Year 5	Year 7	Year 9
Reading	83%	79%	77%	67%
Writing	85%	72%	67%	56%
Numeracy	80%	78%	69%	81%

The 2021 Australian Census reported for Aboriginal and Torres Strait Islander people [5]:

10%



7% males **14%** females

aged 18-24 years at university

12%

12% males **13%** females

aged 18-24 years at an other education institution (e.g. TAFE)

Employment and income

The 2021 Australian Census reported for Aboriginal and Torres Strait Islander people [5]:

88%

of those aged 15 years or over who were in the labour force were employed

37%

reported a household weekly income$_2$ of **$1,000** or more

$540

median weekly personal income

1. Students who started school in year 7/8 and continued through to the specified year.
2. This is based on equivalised household income, which is a special calculation that allows for the comparison of incomes of different types of households.

References

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Births and pregnancy

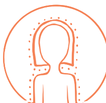
among Aboriginal and Torres Strait Islander people

In 2021, there were **23,510 births**$_1$ registered in Australia where one or both parents were Aboriginal and/or Torres Strait Islander, this represented **7.5% of all births** registered [1]:

11,964 males

11,546 females

Aboriginal and/or Torres Strait Islander status of parents for births registered as Indigenous:



46% mother only

31% father only

23% both parents

Babies

Low birthweight (LBW) is a birthweight of less than 2,500 grams [2]. Babies with LBW are at greater risk of health problems and death [3]. For babies born to Aboriginal and Torres Strait Islander mothers in 2020 [4]:

3,223 grams average weight

12% were of LBW

Mothers

Antenatal (pre-birth) care from health professionals during pregnancy supports positive health outcomes for mother and child, especially when provided during the first trimester (less than 14 weeks) of pregnancy [5, 6, 7].

In 2020, **71%** of pregnant women attended their first antenatal care appointment during their first trimester of pregnancy [4].

For Aboriginal and Torres Strait Islander mothers who gave birth in 2021 [1]:

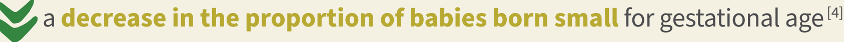
- the median age was **26.5 years**
- **58%** were aged **20-29 years**
- **9.2%** were **teenagers** aged 15-19 years.

The total fertility rate$_2$ was: **2.3** babies **per 1,000** women

There have been **improvements in birth and pregnancy outcomes** for Aboriginal and Torres Strait Islander mothers and babies, with evidence of:

an **increase in the proportion of mothers attending antenatal care** in the first trimester

a **decrease in the rate of mothers smoking** during pregnancy



a **decrease in the proportion of babies born small** for gestational age [4].

1. Likely to be underestimated as Indigenous status is not always identified, and there may be a delay in birth registrations.
2. The total fertility rate is the number of children born to 1,000 women at the current level and age pattern of fertility.

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Deaths

among Aboriginal and Torres Strait Islander people

In 2021, there were **4,081 deaths**[1] registered for Aboriginal and/or Torres Strait Islander people [1]. This accounts for **2.4% of all deaths in Australia** for 2021.

Leading causes of death[2] in 2021 [2]:

10% ischaemic heart disease

7.4% diabetes

7.0% chronic lower respiratory disease

6.6% lung and related cancers

In 2021 [1] the **median age at death** was **61.7 years**:

59.5 years males

64.3 years females

The rate of deaths for **babies** 12 months or younger was **5.2 per 1,000** live births.

For 2012-2020, the maternal mortality ratio was **16** deaths **per 100,000** women who gave birth [3].

The **life expectancy** for Aboriginal and Torres Strait Islander people born in 2015-2017 was [4]:

71.6 years males

75.6 years females

Life expectancy was **lower** for people living in remote and very remote areas than those living in major cities:

Males:

72.1 years major cities

65.9 years remote and very remote areas.

Females:

76.5 years major cities

69.6 years remote and very remote areas.

Deaths from **avoidable causes**[3] **(7,366)** accounted for **60%** of all deaths in the five-year period 2015-2019 [5].

In July 2020, a new national agreement on Closing the Gap was endorsed by Aboriginal and Torres Strait Islander leaders. Specific outcomes, targets and monitoring measures were set for life expectancy; deaths; leading causes of death; and potentially avoidable deaths [6].

1. The ABS notes that the actual number of deaths may be slightly higher because of inaccurate data or delays in registration.
2. In 2021, leading causes of death only included data from NSW, Qld, WA, SA and the NT (3,696 deaths).
3. Deaths that could have been prevented with timely and effective health care, including early detection and effective treatment [5].

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Hospitalisations

among Aboriginal and Torres Strait Islander people

Statistics on hospitalisation provide some indication of the burden of disease in the population [1]. However, they provide only a part of the overall picture of health because:

- they only report on conditions that are serious enough to require hospitalisation
- depending on where people live, not everyone has access to hospitals
- different hospitals may have different admission policies and procedures for illnesses
- the statistics relate to events of hospitalisation rather than to individual patients, i.e. one person may be hospitalised several times in the time period [2-5].

In 2020-21 there were [6]:

615,400 hospitalisations identified as Aboriginal and/or Torres Strait Islander

5.2% of all hospitalisations

42% males

58% females

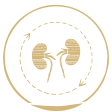
92% Aboriginal people

3.9% Torres Strait Islander people

4.4% both Aboriginal and Torres Strait Islander people

A key factor in the high rates of hospitalisation for Aboriginal and Torres Strait Islander people is dialysis treatment for kidney disease, which involves repeat admissions for the same patients [3,6].

Leading causes of Aboriginal and Torres Strait Islander hospitalisation in 2020-21 [6]:



47% mostly care involving dialysis

7.0% injuries

5.5% digestive conditions

5.4% pregnancy and birth

4.5% mental and behavioural disorders

Potentially preventable hospitalisations

Potentially preventable hospitalisations are those that could have been avoided with preventative care actions and early disease management [7]. They can be used as a way to measure how easily people can access primary health or community care and how effective it is [8].

In 2020-21, the rate of potentially preventable hospitalisations was **68 per 1,000** [6].

The highest rates for potentially preventable hospitalisations were for:

Condition	Rate
chronic conditions (includes 7.7 for diabetes complications)	**33**
acute conditions	**30**
vaccine-preventable conditions	**6.7**

per 1,000

In 2018-19, the crude rate of hospitalisations for Aboriginal and Torres Strait Islander **children aged 0-4** years for potentially preventable diseases and injuries was **171 per 1,000** [9].

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Burden of disease

among Aboriginal and Torres Strait Islander people

In 2022, detailed findings for Aboriginal and Torres Strait Islander people were released for Australia's National Burden of Disease study [1]. The reference year for this study was 2018.

Burden of disease studies have been undertaken in Australia for more than 20 years by the Australian Institute of Health and Welfare (AIHW) [2]. These studies measure the impact of diseases and injuries on a group of people in terms of:

- the number of years of healthy life lost through living with illness, and
- the number of years of life lost through dying prematurely [1].

When added together, these measures are called **total burden**.

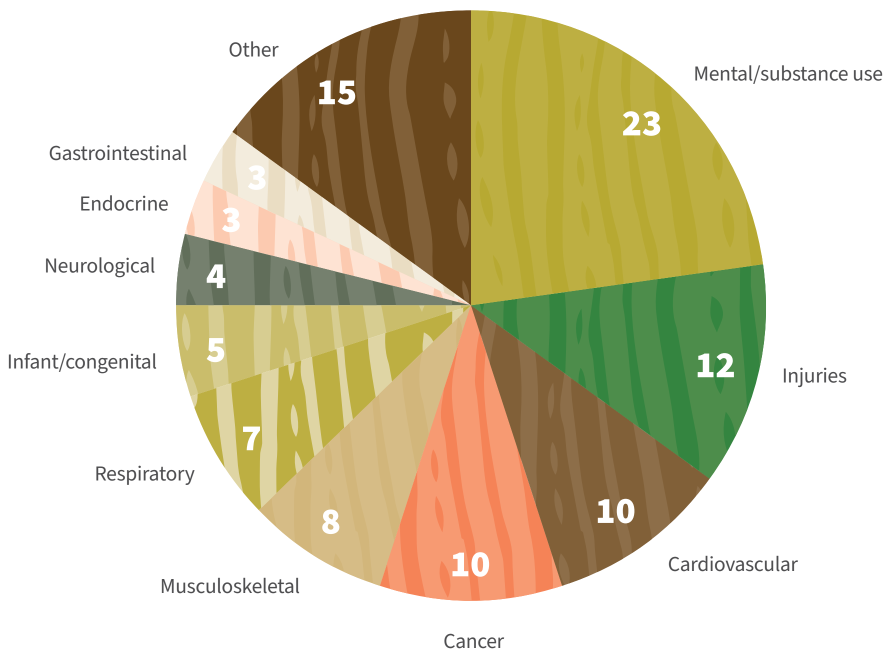
The findings from the burden of disease analysis are useful to people who plan health services because they highlight which diseases and injuries are having the most impact on a population.

This *Summary* presents information[1] about the impact that selected diseases and risk factors have on total burden among Aboriginal and Torres Strait Islander people.

Contribution of disease groups to total burden

Each **disease group** made a different contribution to overall burden for Aboriginal and Torres Strait Islander people. The leading contributors were **mental and substance use disorders** and **injuries** [1].

Contribution (%) of disease groups to total burden (DALY[2]) among Aboriginal and Torres Strait Islander people, 2018



1. Findings from the burden of disease study selected for inclusion in this *Summary* differ slightly from those included in the *Overview of Aboriginal and Torres Strait Islander health status 2022*.
2. For definition of DALY, see Statistical terms on page 3.

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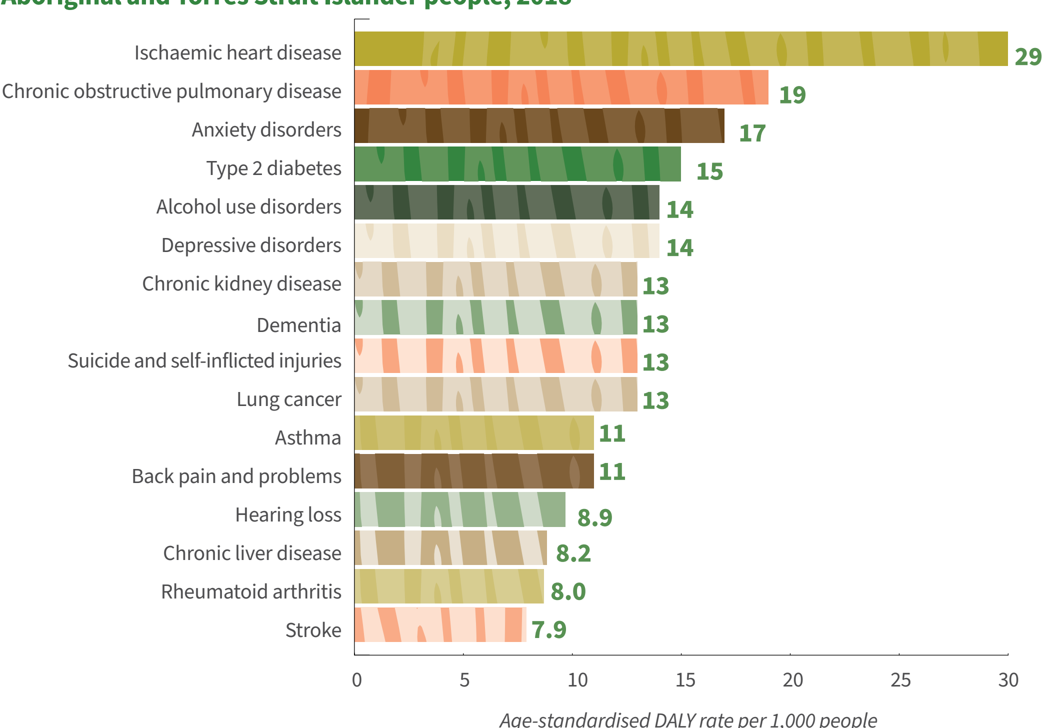
Leading specific causes of total burden

Ischaemic heart disease, chronic obstructive pulmonary disease and **anxiety disorders** were the leading **specific** causes of total burden among Aboriginal and Torres Strait Islander people [1].

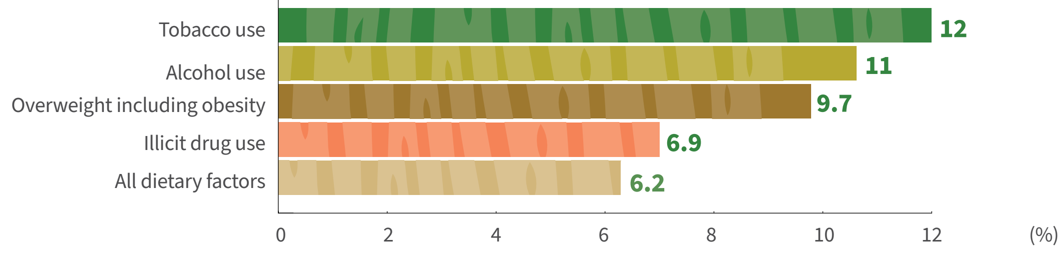
Leading specific causes of total burden (based on age-standardised DALY rate) among Aboriginal and Torres Strait Islander people, 2018



Leading risk factors contributing to total burden

The study calculated the contribution made by modifiable risk factors to the total burden of disease among Aboriginal and Torres Strait Islander people. **It found that almost half (49%) of total burden could have been prevented by avoiding modifiable risk factors**. Tobacco use was the risk factor that contributed the most burden [1].

Proportion (%) of total burden attributable to the leading five risk factors among Aboriginal and Torres Strait Islander people, 2018



Note: Risk factor contributions in this graph can not be added together to estimate totals, due to interactions between factors.

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Cardiovascular health

among Aboriginal and Torres Strait Islander people

Cardiovascular disease (CVD) is the common term for all of the diseases and conditions that affect the heart and blood vessels [1]. These include [1-3]:

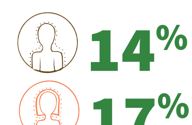
- ischaemic heart disease (**IHD**)
- heart failure
- vascular disease
- cerebrovascular disease (including stroke)
- rheumatic heart disease (**RHD**)
- high blood pressure.

Prevalence

In the 2021 Census, **heart disease** (including heart attack or angina) was **reported by 3.7%** of the Aboriginal and Torres Strait Islander population and **stroke by 0.9%** [4].

In the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) 2018-19 [3]:

15% of participants reported having CVD



14%

17%

CVD was reported more frequently by females than by males

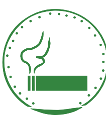
the prevalence of CVD increased with age

from **1.9%** among those **aged 0-14 years** to

56% among those **aged 55 years and over**

Risk factors

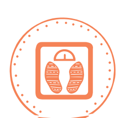
Risk factors for CVD include [5-7]:



smoking

drinking alcohol at risky levels

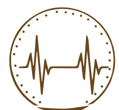
lack of physical activity



unhealthy weight

depression and social isolation

unhealthy diet



high blood pressure

high cholesterol

In 2018-19, about **one quarter of Aboriginal and Torres Strait Islander adults had high blood pressure and 4.5% reported high cholesterol** [3]. Other health conditions like diabetes and chronic kidney disease can also increase the risk of developing CVD [7].

Due to the high prevalence of CVD among Aboriginal and Torres Strait Islander people, it is now recommended for all adults to participate in regular screening for CVD risk factors from the age of 18 years [7].

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Hospitalisations

There were **17,275** hospitalisations for CVD in 2020-21 [8]:

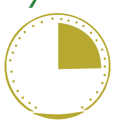
5.3% **of all Aboriginal and Torres Strait Islander hospitalisations**

The crude rate of hospitalisations in 2018-19 [9]:
19 per 1,000

Although rates of CVD are highest among older people, CVD is recognised as having a substantial impact on **younger** Aboriginal and Torres Strait Islander people [10].

In 2015-17 the rate of hospitalisations for CVD in Aboriginal and Torres Strait Islander **people aged 35-44 years** was **22 per 1,000**

Deaths



23% About one quarter of all deaths were caused by CVD in 2015-2019 [10]:

Age-specific mortality rates for **overall CVD increased with age**, with **high rates** seen among people as **young as 25-34 years at 23 per 100,000** [10].

IHD was the leading cause of deaths in 2021 [11]:

146 males

72 females

per 100,000

Acute rheumatic fever (ARF) and rheumatic heart disease (RHD)

ARF and RHD are preventable health problems that affect many Aboriginal and Torres Strait Islander people and communities [12]. RHD occurs when ARF, a sickness caused by the germ *Streptococcus*, leads to permanent damage to the heart valves. Risk factors for ARF include overcrowding and poor sanitation [12, 13].

In NSW, Qld, WA, SA and the NT combined in 2016-2020, among Aboriginal and Torres Strait Islander people, there were [14]:

2,392 episodes of **ARF**

nearly half these episodes were in the **5–14 age-group**

55% of episodes were in the NT

1,399 new diagnoses of **RHD**[1]

the rate for **females was nearly double** the rate for males

x2

A roadmap for ending RHD in Australia by 2031 was released in 2020 [12].

---

1. NSW data not included for RHD because NSW uses different RHD notification criteria than other jurisdictions.

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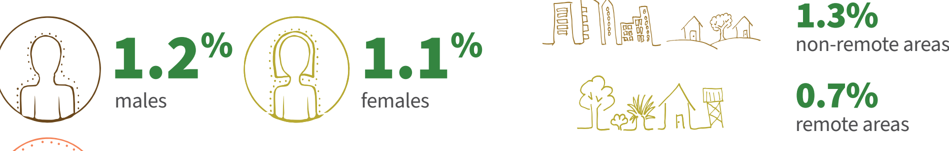
Cancer

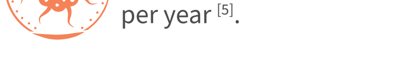
among Aboriginal and Torres Strait Islander people

Cancer is the term used for a number of related diseases that cause damage to healthy body cells [1]. There are more than 200 types of cancer [2], and it can start almost anywhere in the body [1]. The location in the body where the cancer cells begin forming is known as the primary site. For example, lung cancer begins in the lungs. When cancer cells spread to other parts of the body it is known as 'metastasis' [2]. 'Neoplasms' is sometimes used to describe conditions associated with abnormal growth of new tissue (tumour) [3]. Neoplasms can be benign (not cancerous) or malignant (cancerous).

Incidence and prevalence

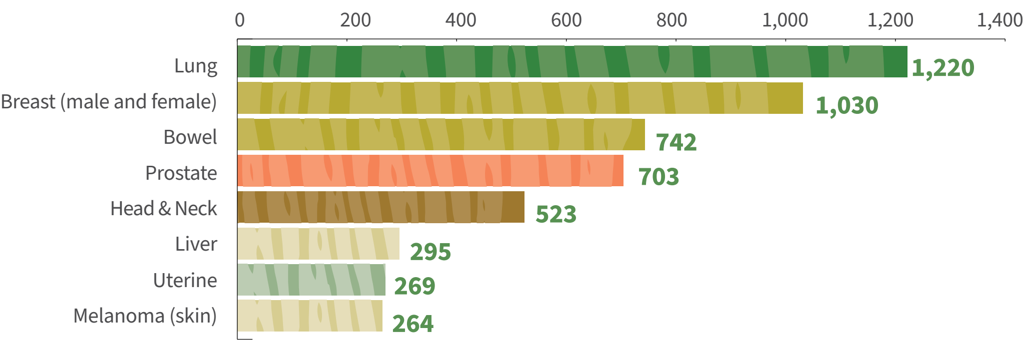
In the 2018-19 NATSIHS [4], **1.1%** of Aboriginal and Torres Strait Islander people reported having cancer (malignant neoplasm):





In 2012-2016, **8,326** new cases were diagnosed, an average of **1,665** new cases per year [5].

New cases of the most common cancers [5]:



For 2012-2016, when comparing by remoteness, major cities, outer regional, remote and inner regional locations had higher incidence rates, than very remote locations [5]:

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Survival

For the period 2007-2016, the likelihood of **surviving five years after a cancer diagnosis was 47%** [5]. Observed survival decreased with remoteness:

53% major cities

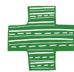
38% remote/very remote areas

The highest observed survival rates were found in breast cancer (females) and melanoma (skin), while cancer of unknown primary site had the lowest [5]:

76% breast cancer (females)

76% melanoma (skin)

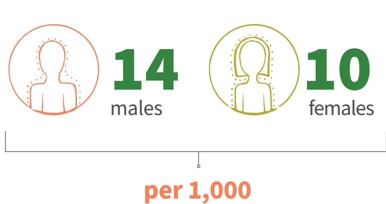
5.8% unknown primary site



Hospitalisations

In 2020-21, there were **10,755 hospitalisations** for neoplasms, representing **3.3%** of all hospitalisations [6].

In 2015-17, there were **10,232** hospitalisations for cancer as the principal diagnosis, at a rate of **12 per 1,000** [7]:



46% regional locations

36% major cities

17% remote/very remote areas

Deaths

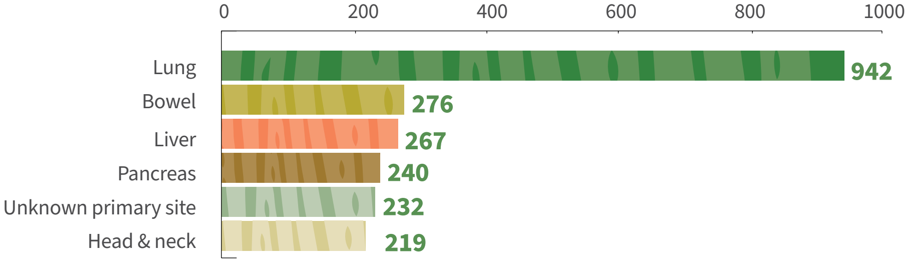
There were **3,576 deaths** due to cancer in 2015-2019, at a rate of **230 per 100,000** [5]:

1,637 females

194 per 100,000

Cancers of the trachea, bronchus and lung combined were the **4th highest overall cause of death** in 2021 [8].

Number of deaths for selected cancers 2015-2019 [5]:



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Diabetes

among Aboriginal and Torres Strait Islander people

Diabetes is a chronic disease marked by high levels of glucose in the blood [1].

There are different types of diabetes with the three most common being:

- **type 1 diabetes**
- **type 2 diabetes**
- **gestational diabetes mellitus (GDM)** (a type of diabetes that occurs in pregnancy) [2].

Diabetes can cause life-threatening complications [1].

Incidence and prevalence

Diabetes (excluding GDM) was reported by **5.9%** of Aboriginal and Torres Strait Islander people in the 2021 Census [3].

In the 2018-19 NATSIHS, **7.9%** of people self-reported diabetes (including GDM) [4]:

7.6% males

8.2% females

12% remote areas

7.0% non-remote areas

WA and the NT had the highest levels of diabetes (both **11%**).

Diabetes increased with age:

35% of people **55 years +** had diabetes.

Crude rates of new diabetes diagnoses in 2020 were [5]:

Type 1 diabetes:

23 males

15 females

per 100,000

Type 2 diabetes:

233 males

268 females

per 100,000

In 2019-20 [5]:

There were **1,872 new cases of GDM among females aged 15-49 years,** with a crude incidence of **13%.**

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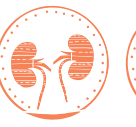
Risk factors

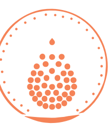
Risk factors for diabetes include [1, 2, 6, 7]:

Smoking

Family history

Obesity



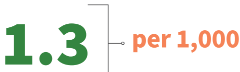


Other chronic conditions such as kidney disease, cardiovascular disease, liver disease and anaemia.

Hospitalisations

In 2019-20, there were **4,835 hospitalisations** for diabetes as a main diagnosis and **81,347** for diabetes as a main and/or **additional** diagnosis [8].

In 2017-18, there were **1,016** hospitalisations for **type 1** diabetes as a main diagnosis [9]:

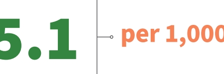


The hospitalisation rate was **1.3** per 1,000

1.1 males

1.4 females

There were **2,504** hospitalisations for **type 2** diabetes as a main diagnosis:



The hospitalisation rate was **5.1** per 1,000

5.5 males

4.7 females

Hospitalisations for type 2 diabetes for those living in remote and very remote areas were **2.3x higher** (8.4 per 1,000) than for those living in major cities (3.6 per 1,000) [9].

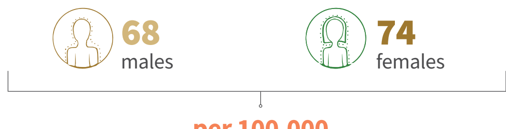
In 2017-18, there were **589 hospitalisations** for diabetes as the main diagnosis **during pregnancy (GDM)** [9].

The rate of hospitalised GDM was **more than 5x higher** for those living in remote and very remote areas (119 per 1,000) than for those living in major cities (22 per 1,000).

Deaths

Diabetes was the **second leading cause of death** for Aboriginal and Torres Strait Islander people in 2021 [10]:

273 deaths, **7.4%** of all deaths

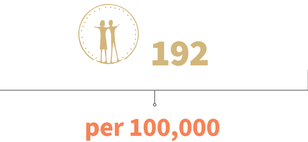


68 males

74 females

per 100,000

The **NT** had the highest rate of deaths due to diabetes:



192

per 100,000

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Social and emotional wellbeing

(including mental health) among Aboriginal and Torres Strait Islander people

For many Aboriginal and Torres Strait Islander people, social and emotional wellbeing (SEWB) includes mental health and also:

- connection to Country
- culture
- spirituality
- the body and emotions
- ancestry
- family and community [1, 2].

Factors that have been found to support wellbeing include [2,3]:

cultural continuity

self-determination

supporting Indigenous knowledge systems

maintaining family networks

strong community governance

Prevalence

In the 2018-19 NATSIS there were some **encouraging and positive indicators** [4].

For Aboriginal and Torres Strait Islander people over 18 years of age:

80% reported feeling calm and peaceful all/most of the time

87% felt happy all/most of the time

78% reporting feeling calm and peaceful all/most of the time

88% felt happy all/most of the time

These are similar to the results of the 2018-2020 Mayi Kuwayu Study[1]. For Aboriginal and Torres Strait Islander participants over 18 years of age [3]:

87% reported being satisfied with their lives

78% reported feeling a 'fair bit' to 'alot' of control over their lives

69% reported moderate to high family wellbeing

In the 2018-19 NATSIHS, **31%** of Aboriginal and Torres Strait Islander respondents aged 18 years and over reported high or very high levels of psychological distress [4]:

31% of Aboriginal people

23% of Torres Strait Islander people

More females reported high or very high levels of psychological distress compared with males:

26% males

35% females

28% remote areas

31% non-remote areas

The 2018-2020 Mayi Kuwayu Study[1] found that, **up to half of the psychological distress burden** among Aboriginal and Torres Strait Islander people **could be attributable to experiences of discrimination** [5].

1. The study was 'conceptualised, designed, conducted and analysed by Aboriginal and Torres Strait Islander people for our mobs'.

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Mental health conditions

In the 2018-19 NATSIHS [4]:

25% of Aboriginal people and **17%** of Torres Strait Islander people aged two years and over were reported as having a mental and/or behavioural condition.

17%

Anxiety was the most common mental and behavioural condition reported.

13%

Depression was the second most common mental and behavioural condition reported.

Mental and behavioural conditions were more likely to be reported by people living in non-remote areas compared with remote areas.

9.8% remote areas

28% non-remote areas

Hospitalisations

In 2020-21 [6]:

There were **27,457** hospitalisations of Aboriginal and Torres Strait Islander people for **mental** and **behavioural** disorders.

8.4% of all hospitalisations

Intentional **self-harm**[2] was responsible for **2,967** hospitalisations.

0.5% of all hospitalisations

Deaths

In 2021, **196 people died** from intentional self-harm (suicide) [7].

Suicide was the 5th leading cause of death overall in 2021 for Aboriginal and Torres Strait Islander people.

30% Suicide was the leading cause of death for Aboriginal and Torres Strait Islander children aged 5-17 years in the period 2017-2021 (30% of deaths).

75% A little over 75% of children who died by suicide were aged between 15 and 17 years.

55% Over half of Aboriginal and Torres Strait Islander children who died by suicide were female.

For 2017-2021, the age groups with the highest rate of death by suicide were:

For 2017-2021, rates of death from suicide ranged from **21 per 100,000 in NSW** to **35 per 100,000 in WA**.

1. Intentional self-harm as a principal diagnosis for external causes of injury or poisoning for Aboriginal and Torres Strait Islander people.

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Kidney health

among Aboriginal and Torres Strait Islander people

Keeping the kidneys healthy is important because they clean the blood by removing extra water and unwanted chemicals, and making urine [1]. If the kidneys stop working properly, waste can build up in the blood and damage the body [2]. Many people are unaware that they have kidney disease as up to 90% of kidney function can be lost before symptoms appear [3].

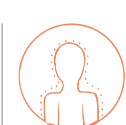
Incidence and prevalence

For the 2012-13 AATSIHS, **18%** of Aboriginal and Torres Strait Islander adults **had biomedical signs of CKD** [4].

For the 2018-19 NATSIHS, **1.8%** of Aboriginal and Torres Strait Islander people reported kidney disease as a long-term health condition [5]:

1.9% Aboriginal people

0.4% Torres Strait Islander people



1.2% males

2.3% females

Prevalence increased with age

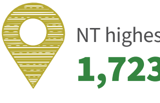
7.6% for people aged 55 years +

3.4% remote areas

1.4% non-remote areas

For 2016-2020, the incidence rate of ESKD for Aboriginal and Torres Strait Islander people was:

616 **per 1,000,000 population**
(Derived from [6-9])



NT highest **1,723** **per 1,000,000** NSW lowest **201**

For ESKD, **55%** of people were aged **less than 55 years**.

Risk factors

Risk factors for kidney disease which can be changed or controlled include [3, 10]:

overweight or obesity

high blood pressure

high blood glucose (sugar)

smoking

Risk factors for Aboriginal and Torres Strait Islander people that cannot be changed or controlled include [11]:

age (30yrs+)

family history of CKD

history of acute kidney injury

vascular disease

References

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Hospitalisations

In 2019-20, the crude rate of **CKD** hospitalisation was **34** **per 1,000** [12]:

29 males — **per 1,000** — **40** females

In 2018-19, there were **242,274** hospitalisations for **ESKD** at a crude hospitalisation rate of **289** **per 1,000** [13].

In 2016-18, the crude rate of ESKD hospitalisation was **278** **per 1,000**:

241 males — **per 1,000** — **316** females

In 2016-18, the rate for people living in remote and very remote locations (681 per 1,000) was **5x higher** than for those living in major cities (137 per 1,000) [13].

Dialysis:

Dialysis is the most common reason Aboriginal and Torres Strait Islander people are hospitalised [14].

In 2019-20, the rate of hospitalisation for regular dialysis was **300** **per 1,000** [11].

In 2021, **349** people commenced dialysis, **up from 322** in 2020 [15].

In 2021, **2,170** people were receiving dialysis: **haemodialysis 93%** and **peritoneal dialysis 7%** [15].

Kidney transplants:

In 2020, there were **48** **transplant operations** [15].

Deaths

In 2021, there were **75** **deaths due to diseases of the urinary system** (including disorders of the bladder and urethra, as well as disease of the kidneys and ureters) [16].

In 2016-20, death rate for kidney disease (major cause) was [17]:

22 — **per 100,000**

In 2021, **258** Aboriginal and Torres Strait Islander people who were receiving dialysis died [15].

The **most common cause of death for the dialysis patients was CVD** **(81 deaths)**.

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Respiratory health

among Aboriginal and Torres Strait Islander people

Respiratory health can be impacted by a number of conditions that affect the airways and other parts of the lung [1]. They range from those that come on quickly or do not last long (acute respiratory conditions), to those that last a long time (chronic respiratory conditions) [2].

Prevalence

Long-term respiratory health conditions reported by Aboriginal and Torres Strait Islander people in the 2021 Census included [3]:

13% Asthma

2.2% COPD

COVID-19:

From December 2021 to October 2022 there were [4]:

316,068 **confirmed and probable cases of COVID-19** among Aboriginal and Torres Strait Islander people.

There were **3.1x as many cases in major cities compared with remote areas** (138,959 and 44,161 respectively).

138,959 Major cities

44,161 Remote areas

In the 2018-19 NATSIHS, **29%** of Aboriginal and Torres Strait Islander people reported **having a long-term respiratory condition** [5].

The level of respiratory disease among Aboriginal and Torres Strait Islander **females** was approximately **1.2x higher** than for males.

26% males

32% females

The proportion of Aboriginal and Torres Strait Islander people **reporting respiratory diseases increased with age**:

19% 0-14 years

47% 55 years +

References

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Risk factors

The main risk factors for respiratory disease include [1]:

tobacco smoking

environmental conditions

occupational exposures and hazards

family history

obesity

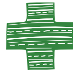
Risk factors for infants and children include [6, 7]:

exposure to second-hand tobacco smoke

poor living conditions

poor nutrition

limited access to medical care



Hospitalisations

In 2020-21, there were **24,903 hospitalisations for respiratory disease** among Aboriginal and Torres Strait Islander people [8].

In 2018-19, crude hospitalisation rates were highest for Aboriginal and Torres Strait Islander people with [9]:

Condition	per 1,000 hospitalisations
influenza and pneumonia	9.2
COPD	6.7
acute upper respiratory infections	4.6
asthma	2.7

Deaths

In 2021 **chronic lower respiratory disease** (which includes asthma, bronchitis, emphysema, and COPD), was the **3rd leading cause of death** for Aboriginal and Torres Strait Islander people, **responsible for 260 deaths** [10].

Of the **top five causes of death (by sex)**, **chronic lower respiratory disease** ranked as the second most common cause of death for females and fifth most common cause of death for males.

125 males

135 females

COVID-19:

Between January 2020 and October 2022, there were **279 reported deaths from COVID-19** among Aboriginal and Torres Strait Islander people [4].

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Sexually transmissible infections

among Aboriginal and Torres Strait Islander people

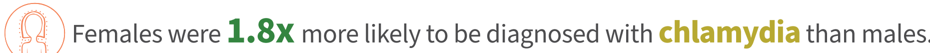
Sexually transmissible infections (STIs) include bacterial, viral and parasitic infections that are primarily transmitted through sexual contact [1]. **The STIs reported on in this section are all bacterial infections**. Most STIs are treatable although early detection is important. Safe sex practices, such as using condoms, are recommended to prevent exposure and the spread of STIs.

Incidence and prevalence of some notifiable[1] STIs

In 2020, there were [2]:

Notifications	Rate per 100,000
7,030 notifications of chlamydia	**1,111**
4,237 notifications of gonorrhoea	**446**
883 notifications of syphilis	**102**

In 2020 [2]:



Females were **1.8x** more likely to be diagnosed with **chlamydia** than males.

Males and females were diagnosed with **gonorrhoea** at similar rates.

Males and females were diagnosed with **syphilis** at similar rates.

In 2020 [2]:

Chlamydia notification rates were highest among those **aged 20-24 years of age.**

Gonorrhoea notification rates were highest among those **aged 20-24 years of age.**

Syphilis notification rates were highest among those **aged 15-19 years of age.**

In 2020 [2]:

Chlamydia notification rates were highest in remote areas at **1,600 per 100,000.**

Gonorrhoea notification rates were highest in remote areas at **1,287 per 100,000.**

Syphilis notification rates were highest in remote areas at **266 per 100,000.**

1. A disease required by law to be reported to government authorities in order to monitor its spread.

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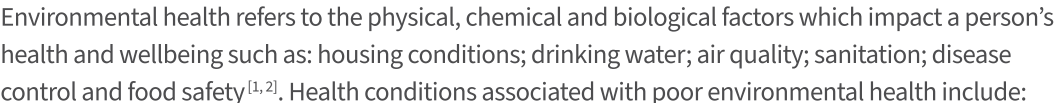
References

Environmental health

among Aboriginal and Torres Strait Islander people



Environmental health refers to the physical, chemical and biological factors which impact a person's health and wellbeing such as: housing conditions; drinking water; air quality; sanitation; disease control and food safety [1, 2]. Health conditions associated with poor environmental health include:

- infectious diseases of the bowels (such as 'gastro')
- skin infections (such as scabies, boils)
- middle ear infections
- chronic diseases (such as ARF)
- respiratory issues (such as asthma)
- some cancers (such as lung cancer) [3, 4].

Aboriginal and Torres Strait Islander people are disproportionately affected by the diseases associated with environmental health due to:

- the remoteness of some communities
- lack of adequate housing
- lack of cleaning, health and personal care equipment
- poor infrastructure
- lack of access to tradespeople and repairs
- the cost of maintenance
- overcrowding [2-5].

Overcrowding

In 2021, **19%** of Aboriginal and Torres Strait Islander people reported living in an **overcrowded house** [6].

Overcrowding was reported: highest in the **NT (57%)** and lowest in the **ACT (9.2%)** [1].

Infrastructure

In the 2018-19 NATSIHS [1]:

80% of Aboriginal and Torres Strait Islander households reported living in housing of an acceptable[1] standard

the majority of respondents reported having access to household facilities for:

- washing people **97%**
- washing bedding and clothes **96%**
- preparing/storing food **91%**
- sewerage facilities **98%**.

Access to functioning facilities was lowest in remote areas.

33% of households reported major structural issues including:

- major cracks in walls/floors **12%**
- walls or windows not straight **10%**
- sinking/moving foundations **7.7%**
- major plumbing problems **6.6%**
- wood rot/termite damage **6.6%**.

households with **major structural** issues increased with remoteness.

Hospitalisations for diseases related to environmental health

In 2016-18 [1] rates were higher in remote/very remote areas compared with major cities for: **scabies (3.2 times)** and **influenza and pneumonia (1.7 times)**.

crude rate per 1,000 hospitalisations 2018-19 [1]

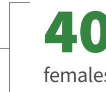
Condition	Rate
influenza and pneumonia	9.2
infectious diseases of bowels	9.0
bacterial diseases	8.0
acute upper respiratory infections	4.6
asthma	2.7
scabies	1.8

Deaths related to poor environmental health

In 2014-2018 [1]:

44 males

per 100,000



40 females

1. Housing of an 'acceptable' standard must have at least four working household facilities and not more than two major structural problems [1].

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Alcohol use

among Aboriginal and Torres Strait Islander people

Drinking too much alcohol, both on single drinking occasions (binge drinking) and over a person's lifetime can lead to health and social harms including:

- chronic diseases
- injury and transport accidents
- mental health disorders
- intergenerational trauma
- violence.

Alcohol use not only affects individuals, but also families and the wider community [1, 2].

The 2020 National Health and Medical Research (NHMRC) *Australian guidelines to reduce health risks from drinking alcohol* provide recommendations on reducing the risk of alcohol-related harm for adults, young people, and women who are pregnant or breastfeeding [3]:

- **Guideline 1** recommends that to reduce the risk of alcohol-related disease or injury, men and women should drink no more than four standard drinks on any day or no more than 10 standard drinks in a week.
- **Guideline 2** recommends that to reduce the risk of alcohol-related harm and injury, children and people aged under 18 years should not drink alcohol.
- **Guideline 3** recommends that to prevent alcohol-related harm to an unborn child, women who are planning a pregnancy, or who are pregnant, should not drink alcohol. For women who are breastfeeding, not drinking alcohol is the safest option for their baby.

The 2018-19 NATSIHS assessed a person's alcohol consumption for short-term and lifetime risk using the previous (2009) NHMRC alcohol guidelines.

Abstinence and alcohol consumption

The following information was self-reported by participants in the 2018-19 NATSIHS aged 18 years and over [4]:

Abstinence (or those who had never drunk alcohol) in the last 12 months:

26% of Aboriginal people

23% of Torres Strait Islander people

The proportion of people who abstained was highest for those **aged 55 years** and older.

The proportion of people who abstained was **higher** for people living in **very remote areas**:

43% very remote areas

19% major cities

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Short-term risk (no more than four drinks on a single occasion) in the last 12 months:

18% of Aboriginal people and **22%** of Torres Strait Islander people consumed some alcohol but **did not exceed** the guidelines.

54% of people reported **exceeding** the short-term risk guideline.

Males were 1.5x more likely to exceed the guideline compared with females:

65% males

43% females

Young people were more likely to exceed the guideline compared with people **aged 55 years** and older:

65% aged 18-24 years

34% aged 55 years +

Lifetime risk (no more than two standard drinks on a single day) in the last week:

26% of Aboriginal people and **21%** of Torres Strait Islander people consumed some alcohol but **did not exceed** the guidelines.

20% of Aboriginal people and **24%** of Torres Strait Islander people reported **exceeding** the guideline for lifetime risk.

Males were 3x more likely to exceed the guideline for lifetime risk compared with females:

30% males

10% females

The proportion of people exceeding the guideline for lifetime risk was higher for people living in non-remote areas compared with remote and very remote areas:

21% non-remote areas

17% remote and very remote areas

Hospitalisations

In 2016-18 [5], the crude alcohol-related hospitalisation rate was **7.6 per 1,000**

8.4 males

per 1,000

6.8 females

Deaths

For 2015-2019 [6], the crude rate of death due to alcohol use was **13 per 100,000**, **2.1x higher for males** than for females.

17 males

per 100,000

8.1 females

The main cause of alcohol-related deaths was **alcoholic liver disease.**

Between 2010 and 2019 there was a reduction in the proportion of Aboriginal and Torres Strait Islander people aged 14 years and older exceeding the 2009 alcohol guidelines for lifetime risk [2].

32% in 2010

19% in 2019

In 2018-19, **90% of mothers of Aboriginal and Torres Strait Islander children** (aged 0-3 years) had **not drunk alcohol** during their pregnancy [6].

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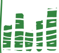
Illicit drug and volatile substance use

among Aboriginal and Torres Strait Islander people

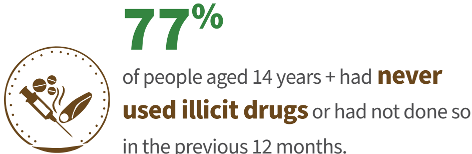
Illicit drug use is the use of illegal drugs such as cannabis, heroin, cocaine and methamphetamine, as well as the use of prescribed drugs, such as painkillers, in ways in which they were not intended or prescribed [1, 2]. Illicit drug use is associated with an increased risk of mental illness, poisoning, self-harm, infection with blood borne viruses from unsafe injection practices, chronic disease and death [3-5].

Most Aboriginal and Torres Strait Islander people surveyed do not use illicit drugs [6-8].



Prevalence

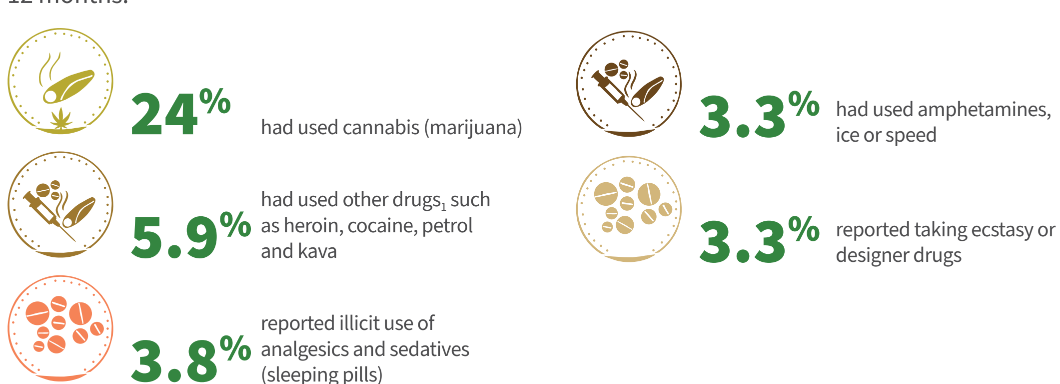
In the 2019 National Drug Strategy Household Survey (NDSHS) [8]:



77% of people aged 14 years + had **never used illicit drugs** or had not done so in the previous 12 months.

23% of people aged 14 years + reported they **had used illicit drugs** in the previous 12 months.

In the 2018-19 NATSIHS [7], people aged 15 years + reported **specific drug** use in the previous 12 months:



24% had used cannabis (marijuana)

3.3% had used amphetamines, ice or speed

5.9% had used other drugs,[1] such as heroin, cocaine, petrol and kava

3.3% reported taking ecstasy or designer drugs

3.8% reported illicit use of analgesics and sedatives (sleeping pills)

Illicit drug use was **1.8x** higher among males than females [7]:

37% males

21% females

In 2020-21, the most common principal illicit drugs of concern that Aboriginal and Torres Strait Islander people **sought treatment** for were **amphetamines, cannabis and heroin** [9].

1. Drugs included in the 'other' category includes heroin, cocaine, petrol, LSD/synthetic hallucinogens, naturally occurring hallucinogens, kava, methadone and other inhalants.

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Hospitalisations

The two main reasons for **drug-related hospitalisations** among Aboriginal and Torres Strait Islander people in 2018-19 were **mental and behavioural disorders** (crude rate of 4.7 per 1,000) and **poisoning** (crude rate of 3.0 per 1,000) [10].

The **most common drugs** to cause mental and behavioural disorders requiring hospitalisation in 2016-18 were [10]:

2.1 amphetamines[2]

1.0 cannabis

per 1,000

Hospitalisation rates due to drug use were higher in major cities than in inner and outer regional areas, and remote and very remote areas [10].

9.2 major cities

6.6 regional areas

4.3 remote and very remote areas

per 1,000

Deaths

In 2016-2020 [11]:

There were **536** **unintentional** drug-induced deaths among Aboriginal and Torres Strait Islander people.

Volatile substance use

Volatile substance use (VSU) involves sniffing inhalants - substances that give off fumes such as petrol, paint, glue or deodorants [12]. Sniffing can have serious short and long-term health effects, including a condition known as sudden sniffing death which causes the heart to stop within minutes [13].

In the 2018-19 NATSIHS, **0.9%** of Aboriginal and Torres Strait Islander people aged 15 years and over **reported using petrol and other inhalants** in the 12 months prior to the survey [14].

Crude rates of hospitalisation caused by VSU for 2016-18 [10]:

Toxic effect of organic solvents (e.g. petrol)	**0.05**
Accidental poisoning from organic solvents	**0.03**
Mental/behavioural disorders from use of volatile substances	**0.06**

per 1,000

Overall, the number of people using volatile substances is small but the issue of VSU is still a concern in some communities [15]. **Positively**, one study reported a **95% reduction of VSU between 2006 and 2018**, attributed to the replacement of regular unleaded petrol with low aromatic fuel.

2. ICD code F15 hospitalisation from use of other stimulants includes amphetamine-related disorders and caffeine but not cocaine.

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Tobacco use

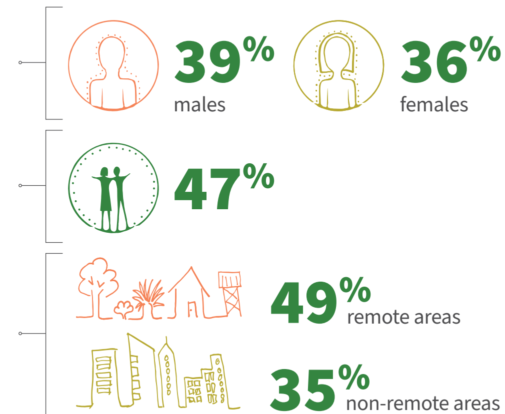
among Aboriginal and Torres Strait Islander people

Tobacco smoking increases the risk of chronic disease, such as CVD, many forms of cancer and lung diseases, and is also a risk factor associated with preterm birth and LBW [1]. Environmental tobacco smoke (passive smoking) and thirdhand smoke (the residue left from second-hand smoke on surfaces and in indoor dust) can also make people sick, especially children [1, 2]. Passive smoking is a risk factor for children who are particularly susceptible to middle ear infections, asthma and increased risk of sudden infant death syndrome (SIDS).

Smoking among Aboriginal and Torres Strait Islander people

In the 2018-19 NATSIHS [3]:

37% of people aged 15 years+ reported they were current daily smokers



39% males

36% females

the age-group with the **highest** proportion of current daily smokers was **35-44 years**

47%

people living in **remote areas reported a higher proportion** of current daily smokers than those living in non-remote areas

49% remote areas

35% non-remote areas

8.1% of Aboriginal and Torres Strait Islander adults self-reported having ever used **e-cigarettes** and **1.3%** reported that they were currently using e-cigarettes either daily or weekly [4].

Passive smoking reported in the 2018-19 NATSIHS [3]

57% of Aboriginal and Torres Strait Islander children aged 0-14 years lived in households with a daily smoker.

For those children living with a daily smoker, **15%** were living in households where people smoked indoors.

Deaths

In 2018, **835 deaths** (**23% of all deaths** among Aboriginal and Torres Strait Islander people) were due to tobacco use [5].

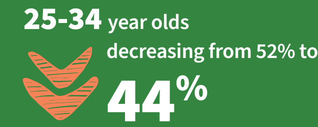
The proportion of **young people starting to smoke has decreased**, which will result in improved health outcomes over time.

Daily smoking rates reduced between the 2012-13 AATSIHS and the 2018-19 NATSIHS [3]:

15-17 year olds decreasing from 18% to **9.7%**

18-24 year olds decreasing from 42% to **36%**

25-34 year olds decreasing from 52% to **44%**



A 2021 study found that there was a **15% lower prevalence** of smoking inside the home in areas funded under the Tackling Indigenous Smoking (TIS) program compared to non-TIS areas [6].

The proportion of Aboriginal and Torres Strait Islander mothers who reported smoking during pregnancy **has decreased** from 49% in 2010 to **43%** in 2020 [7].

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