

RURAL HEALTH IN AUSTRALIA SNAPSHOT 2021

DEMOGRAPHICS

POPULATION

As at 2020, 7,111,203 people were spread across 12,670 rural, regional and remote localities¹, spanning 99.3% of Australia's land surface and contributing two-thirds of Australia's export earnings, including \$400 billion yearly in resources and agricultural exports.^{1,2,3} The role of the National Rural Health Alliance (the Alliance) is to advance better health and wellbeing for these people.



REMOTENESS CLASSIFICATIONS

ASGS-RA

Australian Statistical Geography Standard – Remoteness Area

Five classification groups based on service access.⁴



Population⁷
MAJOR CITIES 18,586,095

INNER REGIONAL 4,556,851
OUTER REGIONAL 2,062,597
REMOTE 291,190
VERY REMOTE 200,565

GCCSA

Greater Capital City Statistical Areas

Two classification groups that define the functional extent of the eight capital cities and the 'rest of state', which encompasses several major regional cities.⁵



Population⁸
CAPITAL CITIES 17,406,297
REST OF STATE 8,291,001

TOTAL POPULATION 25,697,298

MMM

Modified Monash Model

Developed by the Australian Government Department of Health. Seven classification groups from 1 (major cities) to 7 (very remote), including regional centres, towns and smaller communities in between.⁶

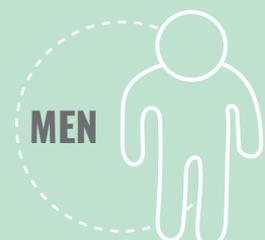


Population^{9,10}
1 18,586,095
2 2,283,346
3 1,599,197
4 975,146
5 1,758,049
6 282,520
7 212,945

Between 2010 and 2020, major cities experienced the highest rate of population growth (+19.9%), followed by inner (+12.4%) and outer (+4.8%) regional areas. Over the same period, the population decreased in remote (-2.7%) and very remote (-3.1%) areas.

PEOPLE

More people outside major cities, as a percentage of the population, are



MEN
 from 49.1% in major cities to 54.2% in very remote areas¹¹



OLDER
 in regional areas and younger in remote – from 14.2% aged 65 and over in major cities to 19.0% in regional areas and 11.0% in remote areas^{12, ii, iii}



INDIGENOUS AUSTRALIANS
 from 1.7% in major cities to 47.2% in very remote areas (although the greatest Indigenous population is in major cities and regional areas)¹³

SOCIAL DETERMINANTS OF HEALTH

UPSIDES

More social cohesiveness, community involvement and volunteering.^{14,15}

Better work-life balance (including for health professionals).^{16,17}

Restorative environment due to rural scenery and natural sounds.^{18,19}

Less traffic congestion and shorter commutes.²⁰

Happier families.^{22,23}

More home ownership in regional areas²⁴ and less mortgage stress.¹⁴

LIVING IN RURAL AREAS

Poorer internet access and mobile phone reception.^{14,15}

Greater need for disability assistance in regional areas.¹¹

Higher levels of unemployment, rising with increasing remoteness.¹⁴

Lower incomes, as well as a lower share of the population who are earners.²¹

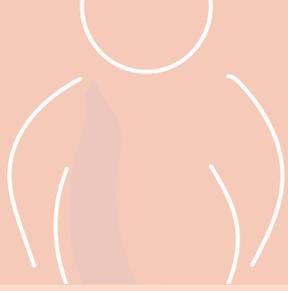
Lower completion rates for secondary and tertiary education, dropping with remoteness.¹²

More homelessness in remote and very remote areas.¹¹

DOWNSIDES

The health of rural Australians is impacted by disparities in rates of health and behavioural risk factors including: higher rates of **overweight and obesity**²⁵, **smoking**²⁶ (especially in Indigenous people²⁷), **risky alcohol consumption**²⁶, some **illicit drug use**²⁶ and **psychological distress**^{28,29}; poorer **diet**, including inadequate fruit consumption¹² and elevated

consumption of sugar-sweetened drinks¹²; as well as lower levels of **physical activity**, particularly strength training.³⁰ The health of rural mothers and babies, over their lifetime, is also impacted by more women **smoking during pregnancy**^{31,32} and more **babies being born prematurely**.^{33, iv}



Over 70% of adults are **overweight or obese** in rural areas (compared with 65.1% in major cities).



The prevalence of daily **sugar-sweetened drink consumption** increases with remoteness from 8.3% in major cities to 10.9% in inner regional areas, and 14.4% in outer regional and remote areas.



Daily **smoking** rates increase with remoteness from 9.8% in major cities to 14.2% in inner and 17.1% in outer regional areas, and 19.2% in remote areas.

The daily **smoking** rate in remote areas is twice that of major cities.



Rates of daily **smoking in Aboriginal Australians** increase with remoteness from 30.1% in major cities, to 52.3% in very remote areas – 1.7 times higher.



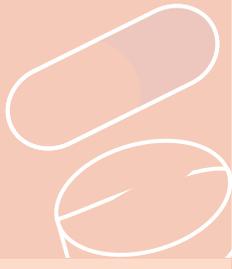
Rates of **lifetime risky drinking** increase from 15.5% in major cities to 18.6% in inner and 22.7% in outer regional areas, and 25.0% in remote areas.^v



The rate of **lifetime risky drinking** in remote areas is 1.6 times that of major cities.



Over one third (37.7%) of people in remote areas engage in **risky single-occasion drinking** compared to 24.4% in major cities.^{vi}



Non-medical use of painkillers, pain relievers and opioids is higher in outer regional (3.6%) and remote areas (4.0%) than in major cities and inner regional areas (both 2.6%).



The proportion of the Indigenous population experiencing high or very high levels of **psychological distress** is greatest in regional areas (34.5%) and lowest in remote areas (27.7%).



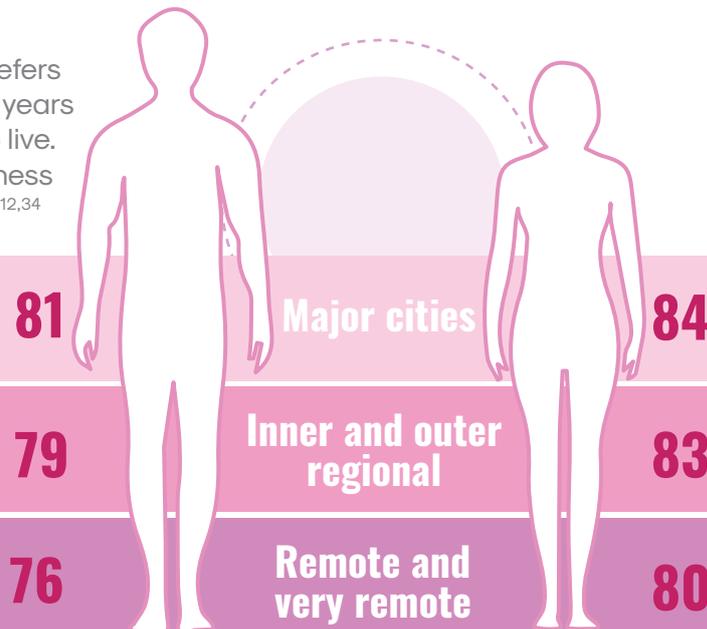
Expectant mothers living in very remote areas are 4.6 times more likely to **smoke during pregnancy** than expectant mothers in major cities.



13.4% of **babies born** in very remote areas are **pre-term**, compared with 8.5% of babies born in major cities.^{vii}

LIFE EXPECTANCY AT BIRTH

Life expectancy at birth refers to the average number of years a newborn is expected to live. It decreases with remoteness for both men and women.^{12,34}



The gap in life expectancy between Indigenous and non-Indigenous Australians increases with remoteness, from **7 years (females)** and **9 years (males)** in major cities to **14 years (males and females)** in remote areas, contributing significantly to the overall life expectancy difference by remoteness.³⁴ There is little change to the life expectancy of non-Indigenous Australians by remoteness.³⁴

BURDEN OF DISEASE

Burden of disease is a holistic measure of the impact of disease and injury in a population, taking both the effect of living with a disability, and death due to disease or injury, into account.

Total burden of disease increases with remoteness.

Major cities experience 174.8 disability adjusted life years (DALY) per 1000 population and remote areas experience 248.6 DALY.³⁵ The burden of disease in remote areas is **1.4 times** that of major cities. This inequity remained static between 2015 and 2018.³⁶

When comparing **disease burden between remoteness categories by specific disease state**^{35,37,38}, there is a clear trend for increasing disease burden with increasing remoteness for coronary heart disease, suicide and self-inflicted injuries, chronic obstructive pulmonary disease, lung cancer, stroke, type 2 diabetes and chronic kidney disease.

Coronary heart disease burden in remote areas is **twice** that of major cities. The disease burden due to suicide and self-inflicted injuries in remote areas is **2.2 times** that of major cities. Chronic kidney disease results in **3.7 times** the disease burden in remote areas compared to major cities.

Leading causes of disease burden vary with remoteness³⁷

Coronary heart disease is the leading cause of disease burden in all remoteness areas.

Suicide and self-inflicted injuries rate more highly as a relative source of disease burden with increasing remoteness (eighth in major cities but second in remote areas).

Lung cancer increases in its relative disease burden with remoteness, as does **type 2 diabetes**.

Chronic obstructive pulmonary disease is the fourth leading cause of disease burden in major cities, increasing to second in regional areas and third in remote areas.

Back pain and problems become a lesser source of disease burden with remoteness, dropping from second in major cities to fifth in outer regional areas and fourth in remote areas.



Dementia is the third leading cause of disease burden in major cities but drops to sixth in outer regional areas and then outside of the top ten in remote areas.



Anxiety and depressive disorders also become lesser sources of disease burden with remoteness, dropping from fifth and sixth respectively in major cities to ninth and tenth in inner regional areas and then not further rating within the top ten.



DEATHS

Potentially avoidable deaths are deaths in people under 75 years of age from conditions considered preventable given the context of the current health system.

People die at a higher rate outside of major cities.³⁹ The overall **death rate** (from all causes) increases with remoteness, per 100,000 population, in both males (from **587.9 deaths** in major cities to **775.9 deaths** in very remote areas) and females (from **420.9 deaths** in major cities to **634.5 deaths** in very remote areas).



People die from potentially avoidable causes at higher rates the further away they reside from major cities.³⁹

When compared to the rate in major cities, potentially avoidable deaths in very remote Australia are **2.3 times higher** in males and **3.0 times higher** in females.

MORBIDITY AND MORTALITY BY DISEASE

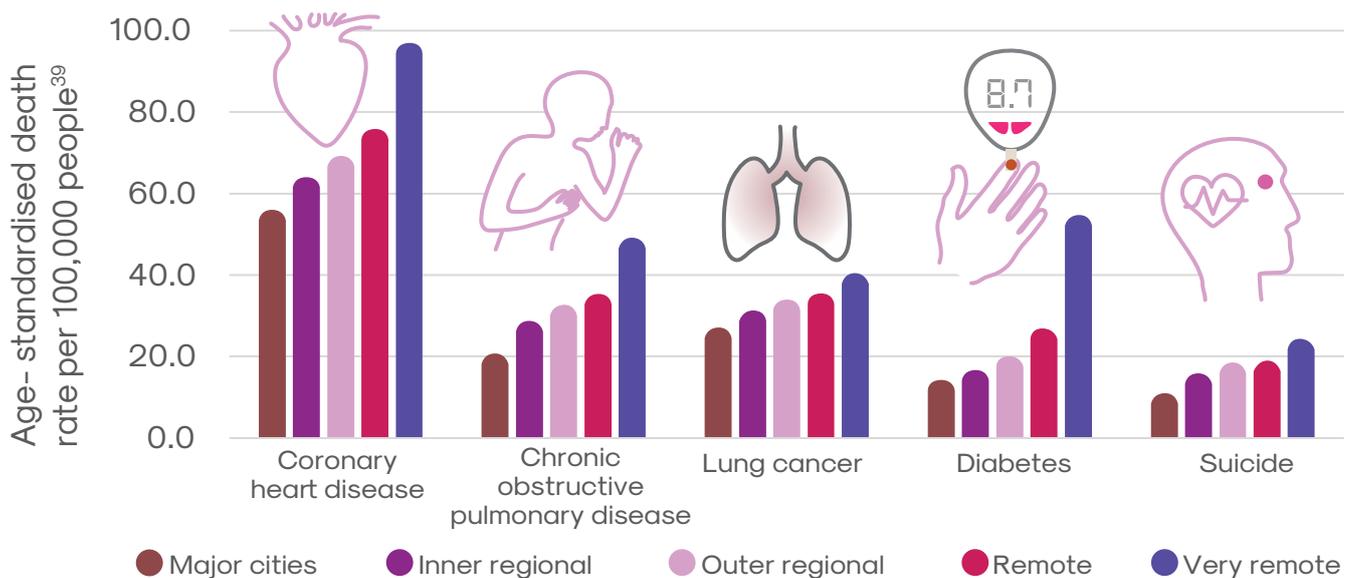
The **prevalence** of the following conditions, of note due to their contribution to burden of disease, is similar across remoteness areas: coronary heart disease⁴⁰, diabetes⁴¹, chronic obstructive pulmonary disease⁴², back problems⁴³, stroke and cerebrovascular disease⁴⁴, and chronic kidney disease.^{45,viii}

Yet the prevalence of people living with two or more chronic conditions is higher in regional areas (21% per 100,000 population, compared with 18% in major cities).⁴⁶

The **incidence** of lung cancer increases with remoteness from 42.1 in major cities to 58.5 in very remote areas, per 100,000 population.⁴⁷

A strong relationship between **hospitalisation** for self-harm and remoteness is evident; hospitalisations increase from 102.6 in major cities to 197.7 in very remote areas, per 100,000 population.⁴⁸ Interestingly, despite the lack of difference in prevalence rates, hospitalisations for stroke, coronary heart disease and diabetes are **1.4⁴⁴**, **1.5⁴⁰** and **2.5⁴¹ times higher**, respectively, when comparing remote areas to major cities. The prevalence of treated end-stage kidney disease is much higher in remote areas than elsewhere (**3.5 times higher** than major cities).⁴⁵

Death rate by cause and ASGS remoteness for selected diseases, 2015–19



Coronary heart disease is the **leading cause of death** in all remoteness areas. There is a clear relationship between **death rate** and remoteness for coronary heart disease, chronic obstructive pulmonary disease, lung cancer, diabetes and

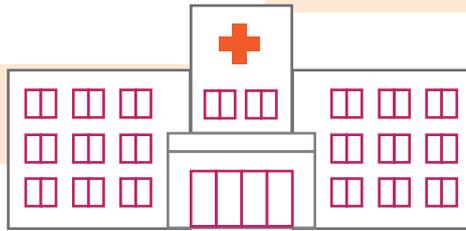
suicide. In very remote Australia, the death rate due to diabetes, chronic obstructive pulmonary disease and suicide are **3.8**, **2.4** and **2.2 times** the rate in major cities, respectively.

OVERVIEW

Australia has one of the best health systems in the world.^{49,50} Health services around the country are delivered across a variety of settings, from large, specialised hospitals to small health clinics. There are three overarching service types:

- **primary** health care, providing primary and secondary prevention services, including health promotion, vaccination and screening
- **secondary** care, including acute care and most other hospital services
- **tertiary** care, including services for specific or complex conditions, mostly in hospital.⁵¹

The health workforce includes doctors, nurses, midwives, dentists, allied health practitioners (such as physiotherapists, psychologists, podiatrists, pharmacists, paramedics, Aboriginal health workers), and administrative and other support staff.



Three measures of the strength of the health system are the:

- ability of primary health care to **minimise** avoidable interactions with the hospital system⁵²
- ability of the hospital system to treat patients in a **safe and efficient** manner
- health **outcomes** of the population.

Australia performs well at these measures overall but underperforms rurally due to issues with affordability, wait times, availability of care, preventable hospitalisations and exposure to health risk factors.^{49,52}

HEALTH SYSTEM FUNDING

Australia has a complex public–private health system, with funding primarily from the federal and state or territory governments, as well as non-government funders such as private health insurers and individuals. Private for-profit and not-for-profit businesses also play an important role in filling gaps in health care.

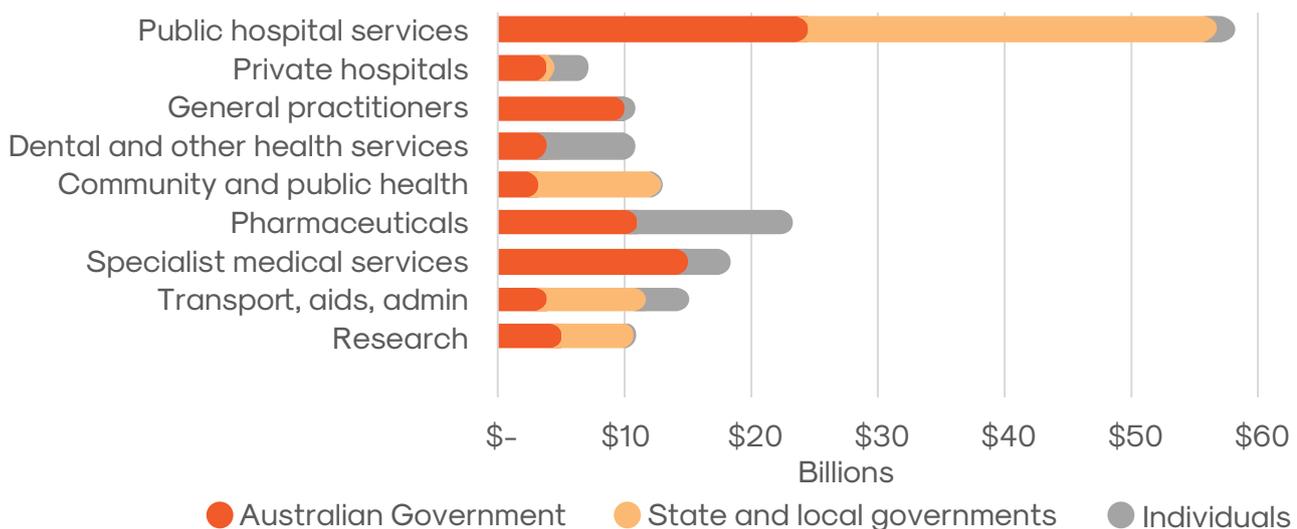
In major cities and large regional centres, health services are primarily supported through activity-based funding in hospitals, and fee-for-service funding through Medicare. Moving away from the metropolitan centres, there is a greater reliance on block funding from the Australian, state and territory governments to compensate for high variability in patient throughput and the absence of economies of scale. Therefore, block funding is the main mechanism to support

small rural hospitals, community clinics, Aboriginal health services, and many other essential health services in rural and remote areas.

In 2018–19, **\$195.7 billion** was spent on health care in Australia, from federal (\$80.6 billion) and state or territory (\$53.0 billion) funding, individuals (\$31.8 billion) and private business (\$30.3 billion).⁵³

The Alliance has calculated that, each year, there is a **\$4 billion deficit** in government health funding for rural communities. This includes funding of Medicare, public hospitals, aged care, mental health and disability services, pharmaceuticals and private health insurance – covering the broad array of health services and workers across primary health, hospital and specialist care.

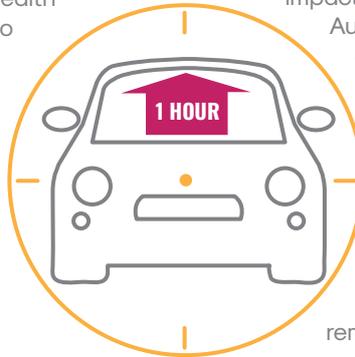
Health system expenditure 2018–19



ACCESS TO HEALTH CARE SERVICES

Australians outside major cities are **three times more likely** to rate access to general, specialist and mental health services as poor.⁵⁴ They also utilise Medicare up to **40% less** than those in major cities.⁵⁵

Almost **43,000 Australians** have no access to any primary healthcare services within an hour's drive from their home (one way).⁵⁵ Within the same drive time, over **65,000 people** have no access to a GP, over **142,000 people** have no access to dental services, and almost **107,000 people** have no access to mental health services.



In addition to travel times and their associated personal impacts, other barriers to accessing health care in rural Australia include the cost of care, the non-existence of many health services, and reluctance to seek help for mental health services and non-urgent care.⁵⁶

The consequence of poorer access to primary health care in rural Australia is higher rates of potentially preventable hospitalisations (PPHs). Compared to major cities, the rate of PPHs is higher by **11%** in inner and **22%** in outer regional, **70%** in remote and **154%** in very remote areas.

Access to specialists, pharmaceuticals, allied health and aged care services are poorer in remote areas.

HEALTH WORKFORCE DISTRIBUTION



FOOTNOTES

- i Calculations by the National Rural Health Alliance based on the number of state suburbs (SSC) in Australian Government publications.
- ii Throughout this document, regional refers to both inner regional and outer regional areas, unless stated otherwise.
- iii Throughout this document, remote refers to both remote and very remote areas, unless stated otherwise.
- iv Throughout this document, data is age-standardised where accessible and appropriate and utilises the most recent source available prior to publication.
- v Lifetime risky drinking is an average of more than two standard drinks per day in the last 12 months.
- vi Risky single-occasion drinking is more than four standard drinks on one occasion at least monthly.
- vii Pre-term is less than 37 weeks' gestation.
- viii It is important to note the age structure of the population outside of major cities is different and therefore the unadjusted prevalence for some of these conditions is higher in rural areas.
- ix Calculations by the National Rural Health Alliance based on the National Health Workforce Dataset and population figures provided by the Australian Government Department of Health.

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