Australians living in regional and remote areas generally experience poorer health than people living in major cities. They have higher levels of mortality, morbidity and health risk factors than those who live in major metropolitan areas.

In order to understand and monitor the health of regional and remote populations, the Australian Institute of Health and Welfare (AIHW) has produced a Rural Health Information Framework. The framework consists of three tiers:

1. health status and outcomes
2. determinants of health
3. health system performance.

The AIHW report, *Rural, regional and remote health: indicators of health status and determinants of health* provides information on selected indicators relating to the first two tiers. A complementary report, scheduled for release mid-2008, will focus on indicators related to health system performance.

In 2006, 68% of the population lived in major cities, 29% lived in regional areas and 3% remote areas. The Indigenous population of each area increased with remoteness—comprising 1% of the major cities population, 8% of regional areas and 58% of remote areas (Figure 1).

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**Fast Facts**

- Compared with people in major cities, those in regional and remote areas were less likely to report very good or excellent health.
- Life expectancy is lower for people in regional and remote areas, particularly for Indigenous Australians.
- In general, people living outside major cities were more likely to engage in behaviours associated with poorer health than people living within major cities.

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**Figure 1: Percentage of Indigenous Australians in each Remoteness Area, 2006.**
Health status

Specific health status measures, such as life expectancy and the prevalence of chronic disease, illustrate the generally poorer health of people living in regional and remote areas. Compared with Major Cities, the life expectancy in regional areas is 1–2 years lower and in remote areas is up to 7 years lower. The reduced life expectancy of Indigenous Australians—which is about 17 years lower than that of all Australians—along with the higher proportion of Indigenous Australians living in remote areas contributes to the lower life expectancy with increasing remoteness.

People living in regional and remote* areas were more likely to report asthma, arthritis and bronchitis, and less likely to report osteoporosis than those living in major cities (Figure 2). Rates of diabetes, cerebrovascular disease and coronary heart disease were generally similar across all areas.

In 2001–03, the incidence of cancer for people in regional areas was about 4% higher than in major cities, but about 10% lower in very remote areas. Preventable cancers, for example those associated with sun exposure (melanoma) or smoking (lung, head and neck, and lip) and those detectable through screening (cervix), were among the cancers with significantly higher incidence rates in regional areas in 2001–03.

Health behaviours

Health behaviours, such as tobacco smoking and alcohol consumption, accounted for a large burden of Australia’s disease in 2003, and people in remote areas were found to be engaging in more behaviours that carry health risks.

People living in regional and remote* areas were 1.2 times as likely to engage in risky or high risk alcohol consumption as those in major cities. In fact, for males aged 25–44 years, consumption at these levels was 1.5 times as high as that in major cities. Males living in outer regional and remote areas were also around 1.2 times as likely to engage in personally risky behaviour while intoxicated, than those in major cities.

Similarly, people in regional and remote areas were 1.2 times as likely to be daily smokers, and more likely to report sedentary levels of physical activity than those in major cites. They were also more likely to eat four or more servings of vegetables, but less likely to eat the recommended daily amount of fruit.

What defines regional and remote?

The Australian Standard Geographical Classification Remoteness Area classification allocates one of five remoteness categories to an area. Areas are classified as major cities, inner regional or outer regional, remote and very remote. In general, when inner regional and outer regional are taken together we use the term regional. When remote and very remote areas are taken together we use the term remote. Where data were not available for very remote areas, remote* is used.

Understanding variation across areas

Using major cities as the benchmark, the difference in rates between major cities and regional and remote areas has been described using a standardised prevalence ratio. This ratio tells us how much higher or lower rates in regional and remote areas were than would be expected if major cities rates had applied everywhere. All statements about rates in this report are based on this ratio.

* Excludes very remote areas.
Aboriginal and Torres Strait Islander peoples

Indigenous Australians generally experience poorer health than other Australians. They die at much younger ages than other Australians, and are more likely to experience disability and ill-health. The higher proportion of Indigenous Australians in remote area populations contributes to, but does not completely account for, the generally poorer health of people living in remote areas.

In Queensland, Western Australia, South Australia and the Northern Territory, the four jurisdictions which are considered to most accurately record Indigenous status in mortality data, death rates for Indigenous people were over three times as high as those for non-Indigenous people who lived in major cities.

Compared with all people in major cities, Aboriginal and Torres Strait Islander peoples were more likely to self-report most chronic diseases such as diabetes and asthma (Figure 3).

Indigenous Australians were also more likely to engage in behaviours associated with poorer health. Compared with all people in major cities, Aboriginal and Torres Strait Islander peoples were:

- less likely to consume adequate amounts of fruit
- 1.3 times as likely to report consuming alcohol at risky or high risk levels
- twice as likely to report daily smoking.

In regards to fertility, Indigenous mothers tend to have more babies and give birth at younger ages than non-Indigenous mothers. During 2002–04, babies born to Indigenous mothers had a lower average birthweight than babies born to non-Indigenous mothers.

![Standardised prevalence ratio](image)

**Figure 3: Standardised prevalence ratios for Indigenous Australians, selected chronic diseases 2004–05**

Notes
1. This graph compares the prevalence of chronic diseases amongst Aboriginal and Torres Strait Islander peoples in 2004–05 with the prevalence expected if age-specific rates for the total population in major cities in 2004–05 applied in those populations.
2. † Indicates statistical significance.


Understanding the data

Despite these general patterns there is considerable variation within each geographical area that is masked in the broad statistics presented. For example, there is evidence that mortality rates differ between inland and coastal regions, as well as between statistical local areas of the same remoteness category (AIHW 2003; AIHW 2007). The relative prosperity of Australia’s rural areas, and the health of people living there, can be dramatically influenced by climatic conditions such as drought, by natural disasters, and by the availability of natural resources. These conditions can affect population migration, employment and demand for infrastructure and services, observed most recently in the growth of mining communities. Therefore, remoteness does not necessarily mean poorer health, just as living in major cities does not guarantee the opposite.
References
AIHW 2003. Rural, regional and remote health: information framework and indicators version 1b. AIHW cat. no. PHE 69. Canberra: AIHW
AIHW 2007: Rural, regional and remote health: a study on mortality (2nd ed.). AIHW cat. no. PHE 95. Canberra: AIHW

About the Population Health Unit
The Population Health Unit develops and provides information on the health of the Australian population and sub-populations, and covers health inequalities. The unit undertakes specific projects in the areas of rural health and veterans’ health. The unit also takes a population health approach to its work in monitoring chronic diseases and associated determinants of health, in management of the National Mortality Database, and in support of the Institute’s use of demographic data.

AIHW rural health publications
Rural, regional and remote health: indicators of health status and determinants of health.
Rural health series no. 9
PUBLISHED 31 MARCH 2008. AIHW CAT. NO. PHE 97: INTERNET ONLY

Rural, regional and remote health: a study on mortality (2nd edition)
Rural health series no. 8
PUBLISHED 18 DECEMBER 2007. AIHW CAT. NO. PHE 95: $40.00

Rural health series no. 7
PUBLISHED 29 MARCH 2006. AIHW CAT. NO. PHE 71: $24.00

Australia’s health 2006
PUBLISHED 21 JUNE 2006. AIHW CAT NO. AUS 73. $60.00

Rural, regional and remote health: indicators of health
Rural health series no. 5
PUBLISHED 13 MAY 2005; AIHW CAT. NO. PHE 59; INTERNET ONLY

Rural, regional and remote health: a study on mortality
Rural health series no. 2
PUBLISHED 31 OCTOBER 2003; AIHW CAT. NO. PHE 45; $40.00

Web links
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