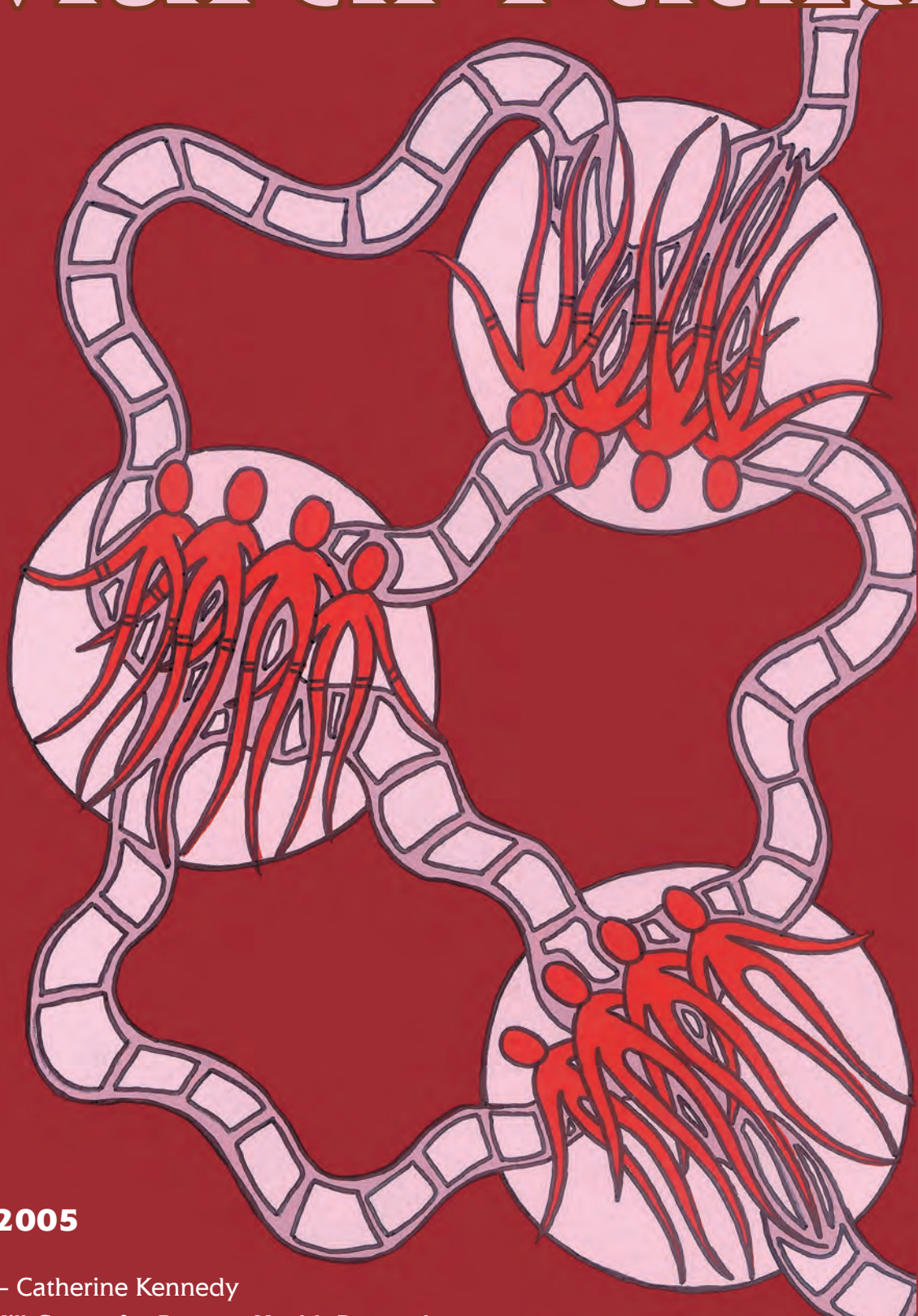


Health in the Murdi Paaki



JULY 2005

AUTHOR — Catherine Kennedy
Broken Hill Centre for Remote Health Research

A joint venture of the Greater Western Area Health Service and the University Department of Rural Health Broken Hill

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Introduction

The need for an epidemiological profile

Over the last fifty years most of the resources in our health system have gone into medical services designed to diagnose and treat illness once it has occurred. Overall recovery rates from illness have improved, much distress associated with health problems has been alleviated and life expectancy has increased with many once fatal diseases now being managed or averted by new medical techniques and technologies.

There are however, a substantial number of health problems for which medicine has no answers. Curative services receive priority over preventive services on grounds of urgency. People are taught to recognise and bring their health complaints to a doctor who will then diagnose and treat any illness present. Over a person's life span, the focus has been on the widespread use of procedures and drugs to treat rather than prevent illness.

Although great strides have been made in promoting health and preventing disease, there are still many diseases that cause premature death and deterioration in the quality of life. Preventing these relies on aspects such as immunisation, health education and behavioural modification, control of the environment and recruiting political will in communities to drive public health initiatives. It is the responsibility of everyone to protect communities from hazards and ensure optimal health by reducing the number of people susceptible to infectious and chronic diseases, treating people early, modifying the environment and promoting the healthy behaviour of communities and individuals.

There are major disparities between the health status of different sections of the population. Some groups may experience poorer health than the rest of the community, access local health services more often yet use preventive services such as screening less often. These problems pose a dilemma for health policy and the overall allocation of resources within the health sector.

The conditions, in which people live and work, as well as their social circumstances have a major impact on health. Unsafe working conditions, environmental pollution, inadequate housing, and being unemployed are just some factors that influence people's health and their capacity to recover from illness.

Reliable information about the health status of our local community is necessary to improve health. This information is collected regularly, reported rapidly and includes information on chronic and infectious diseases, environmental conditions, occupational exposure, behavioural characteristics and medical services.

Research provides us with a description of the distribution, dynamics and determinants of disease and health in a population. By identifying the characteristics of the people, the agents of disease, the environment that determines the occurrence of disease and health, we have some indication of how healthy, or unhealthy, the population is and what we need to do to control disease and promote health.

In essence, this document reports on illness, disease, disability and death. Information on mortality and survival (morbidity), perinatal and infant health, cancer and infectious and chronic diseases provides us with indicators of health. Information about population trends, fertility, economic environment, and risk factors such as food and nutrition, physical activity, alcohol and tobacco provides us with information on what determines our health.

By world standards our average health status may be good, but in many areas much remains to be achieved. The human and financial costs of an inadequate prevention focus are high. Neglect results in preventable illness, disability and premature death, while factors such as diet and smoking play a large role in determining our health status.

The cost of doing nothing in preventing ill health is the same as the cost of treatment and care for preventable illness and injury plus income maintenance and associated loss of productivity. Prevention is generally cheaper than treatment, although benefits are only seen in the long term. The incidence of preventable illness and death suggests that the potential for prevention to improve health and reduce expenditure in the long term is great.

Table of contents

Executive summary	3
Demography	5
Geography	5
Demography	6
Socio-economic status	7
Acute illness	11
Total admissions	11
Admission rates	11
Causes of admission	12
Deaths	13
Total deaths	13
Death rates	13
Causes of death	13
Potentially avoidable deaths	14
Cancer	16
New cases	16
Deaths	16
Mothers and babies	19
Births	19
Fertility rate	19
Birth weight	20
Premature births	20
Perinatal deaths	20
Infant mortality	20
Infectious diseases	21
Hepatitis	22
Vaccine preventable diseases	25
Sexually transmitted infections	29
Meningococcal infection	32
Arboviral illness	33
Q Fever	35
Murdi Paaki communities at a glance	36
Abbreviations	68
Data sources	69
Glossary	70

Executive summary

Health in the Murdi Paaki aims to provide an ongoing account of the health status of the population of the Murdi Paaki Region.

More babies born prematurely and with a low birth weight, higher proportions of deaths due to injury and respiratory diseases and higher rates of arboviral illness and Q fever pose a challenge to improving the health of Murdi Paaki Region residents.

Following is a selection of key points from the health profile of the Murdi Paaki Region. More detail is available in each section.

Demography

- The population of the Murdi Paaki in 2001 was 57,680 (14% Aboriginality).
- The population of the Murdi Paaki Region is of a lower socioeconomic status, with high unemployment and low incomes.

Acute illness

- On average there are 19,840 admissions of Murdi Paaki residents per annum.
- Murdi Paaki males are admitted to hospital at any age for any reason at a rate similar to NSW males. Females, however, are more likely to be admitted to hospital compared to NSW females.
- There is a larger proportion of all admissions of Murdi Paaki residents for respiratory diseases and injury and poisoning than in NSW. There is a smaller proportion of social admissions and admissions for digestive complaints than in NSW.

Deaths

- The Murdi Paaki Region averaged 511 deaths per annum.
- Both males and females in the Murdi Paaki are more likely to die at any age and from any cause, compared to NSW males and females.
- The percentage of all deaths that are due to circulatory disease and cancer is significantly less in the Murdi Paaki Region than NSW. The proportion of deaths due to injury is significantly higher than NSW.

Cancer

- On average there are 120 cancer deaths per year in the Murdi Paaki.
- The death and incidence rates of cancer in the Murdi Paaki are similar to NSW.
- In the Murdi Paaki the most commonly diagnosed cancer in males was prostate cancer (22%) and in females breast cancer (26%).
- In the Murdi Paaki the most common cancer causing death in males was lung cancer (25%) and in females breast cancer (17%).

Mothers and babies

- There are, on average, 728 babies born to Murdi Paaki women per annum.
- Babies born to Murdi Paaki women are more likely to be born with a low birth weight. A large proportion are born prematurely.

Infectious diseases

Data for this chapter is presented using the former Far West Area Health Service geography.

- There were higher rates of arboviral illness (particularly Ross River Virus) and Q fever in the Far West Area compared to NSW.
- The rates of chlamydia, gonorrhoea and syphilis in the Far West Area are substantially higher than in NSW.
- The rates of hepatitis B in the Far West Area are decreasing while the rates of Hepatitis C are increasing.
- There have been no reported cases of measles in the Far West since 2001. There were no reported cases of Rubella in the study period.

Demography

Geography, climate, history, growth and development all influence our health status. The climate and vegetation influences what flora and fauna there are, as well as the organisms which act as carriers of disease. It also has an impact on the production and availability of foods. As people increase their capacity to adapt to this environment, the patterns of human settlement, levels of sanitation and the impact on our natural resources all have an impact on our health.

Geography

The Murdi Paaki Region covers approximately 303,000 square kilometres (sq. km) of New South Wales (NSW). This equates to about one third of the total area of the state. There are, however, only 57,680 people populating this area, or about 1 person for every 5 sq. km. The following table shows the comparison of this density to NSW and Australia.

Population, area and density of Australia, NSW, and the Murdi Paaki Region

Area	Population	Area (sq. km)	Density (persons per sq. km)
Australia	18,769,242	7,695,000	2.44
NSW	6,311,168	800,725	7.88
Murdi Paaki Region	57,680	303,100	0.19

Source: 2001 ABS Census

The following map shows the Murdi Paaki region. The Murdi Paaki region incorporates the Local Government Areas of Bourke, Brewarrina, Broken Hill, Central Darling, Cobar, Coonamble, Walgett, Wentworth and the Unincorporated Far West. For simplicity the Balranald Local Government Area, which is in the Binaal Billa region, is included in this profile as it was in the former Far West Area Health Service.

Map of Local Government Areas and communities in the Murdi Paaki Region (including Balranald)



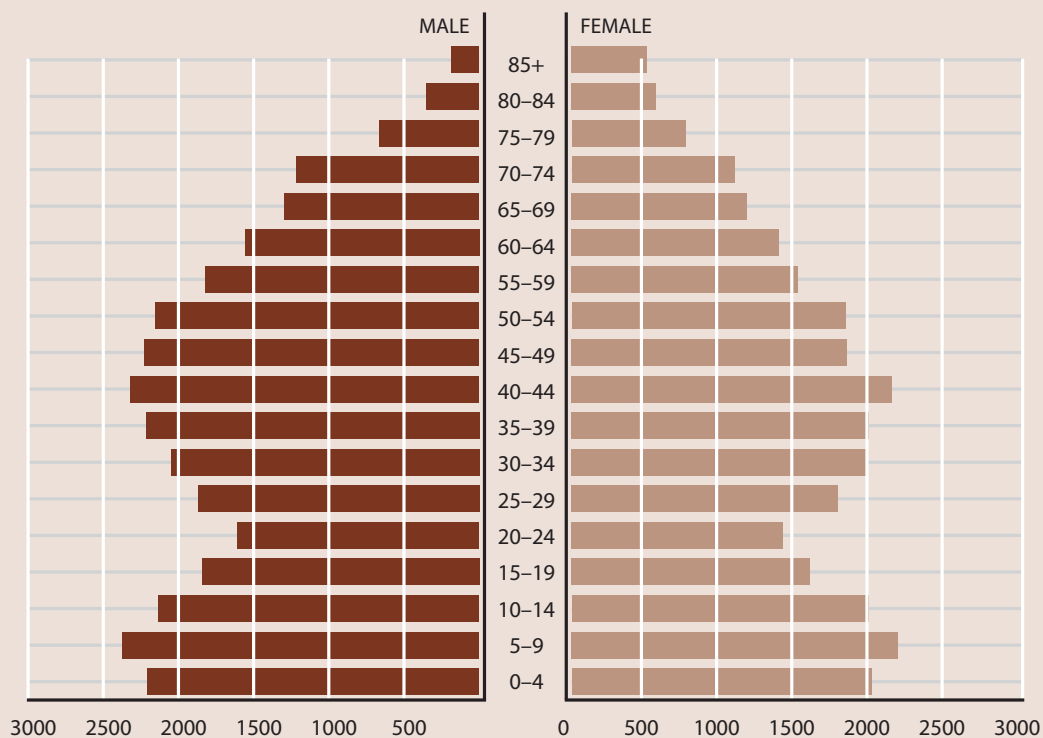
Demography

According to the 2001 Australian Bureau of Statistics (ABS) Census the Murdi Paaki Region has a population of 57,680, of which 30,091 (52%) are male and 27,589 (48%) are female. There are 7,846 (14%) Aboriginal people living in the Region (3,944 male; 3,902 female). The percentage of Aboriginal people is greater in some communities.

In comparison, 1.9% of the NSW population is Aboriginal.

The population of the Murdi Paaki has decreased over the last few decades. Most of the communities are expecting either maintenance of, or decline in, population counts. The population pyramid, below, shows that the population of the Region has a high proportion of aged people and many young people are leaving the Region to attend school, university and employment.

Murdi Paaki Region population pyramid



Source: 2001 ABS Census

Socio-economic status

Socio-economic status is an important indicator of health in the community. People with the most limited economic resources experience poorer health with higher rates of death and illness. Of all the people in the community, those of low socio-economic status are more likely to suffer disability, have serious chronic illness or suffer recent illnesses.

Many diseases and illnesses affecting people of low socio-economic status are also likely to coexist with risk factors such as smoking, being overweight, being inactive and not breastfeeding children.

Employment

Those who are employed have better health than those who are not employed.

According to the 2001 Census Dictionary the labour force includes people aged 15 and over who:

- Work for payment or profit, or as an unpaid helper in a family business, during the week prior to census night;
- Have a job from which they are on leave or otherwise temporarily absent;
- Are on strike or stood down temporarily; or
- Do not have a job but are actively looking for work and available to start work.

The following people are classified as being in the labour force:

- Employed people (the first three groups above)
- Unemployed people (the last group above)

People aged 15 years and over who are not employed or unemployed are classified as not in the labour force. This includes people who are retired, pensioners and people engaged solely in home duties.

The following table shows the number of employed and unemployed people in the Murdi Paaki Region. People in the Murdi Paaki Region have a higher percentage of unemployment than in NSW. The percentage of people in the labour force is smaller than in NSW.

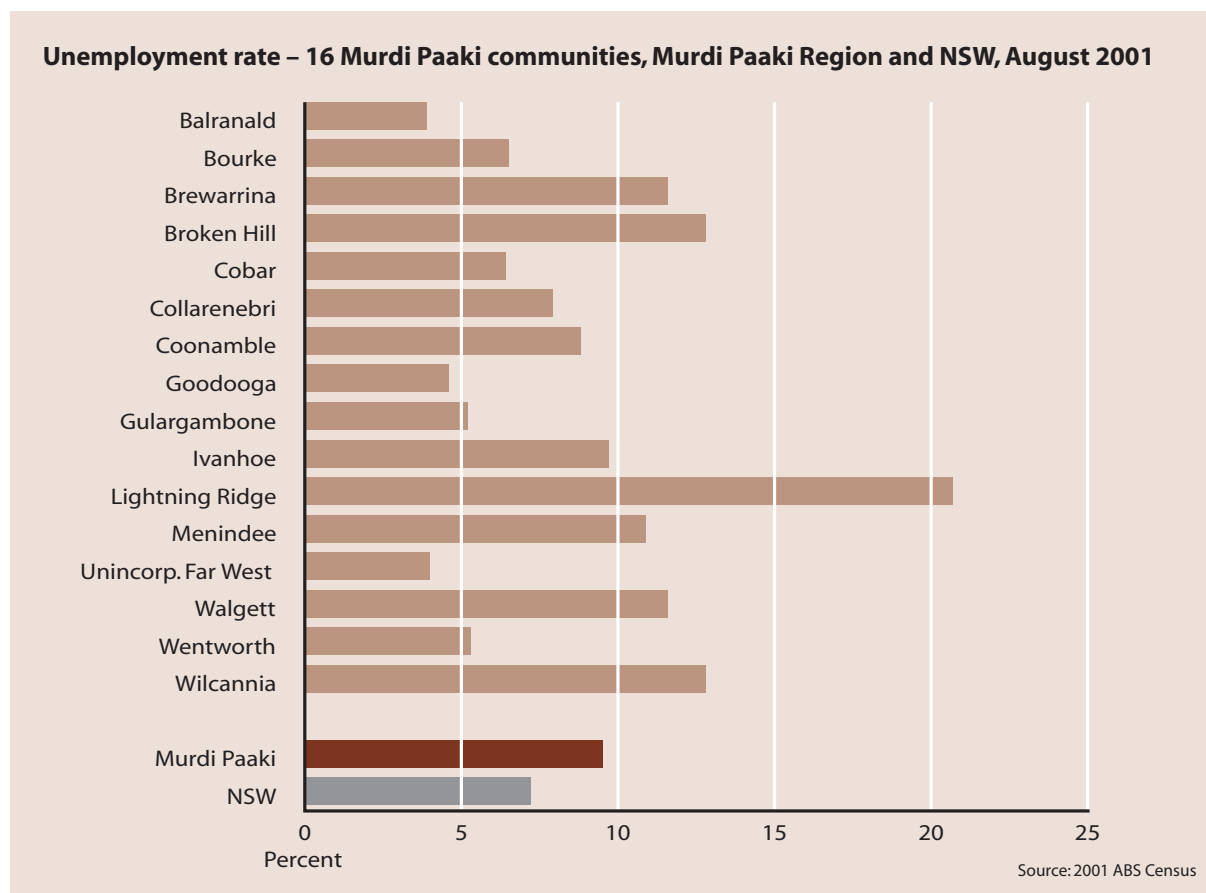
Percentage of employed and unemployed people in the Murdi Paaki Region compared to the percentage in NSW, August 2001

	Murdi Paaki	NSW
Employed		
Full time	64.9%	65.7%
Part time	31.1%	31.2%
Not stated	4.0%	3.1%
Employed total *	90.5%	92.8%
Unemployed		
Looking for full time work	76.2%	71.3%
Looking for part time work	23.8%	28.7%
Unemployed total *	9.5%	7.2%
Total labour force	55.4%	59.3%
Not in the labour force	39.0%	36.0%
Not stated	5.6%	4.7%

* Percentage of total labour force

Source: 2001 ABS Census

The following chart shows the unemployment rates, as determined from the 2001 Census, for 16 communities, the Murdi Paaki Region and NSW.



Income

People with high incomes generally experience better health than people on low incomes do. Low incomes have been linked to greater prevalence of risk factors.

According to the 2001 Census Dictionary people aged 15 and over are asked to state their usual gross weekly income, which is the income before tax, superannuation, health insurance, and other deductions are made.

Gross income includes family payments, additional family payments, pensions, unemployment benefits, student allowances, maintenance (child support), superannuation, wages, salary, overtime, dividends, rents received, interest received, business or farm income (less operation expenses) and worker's compensation received.

People are not asked to state their exact income, only to indicate the range into which their income falls.

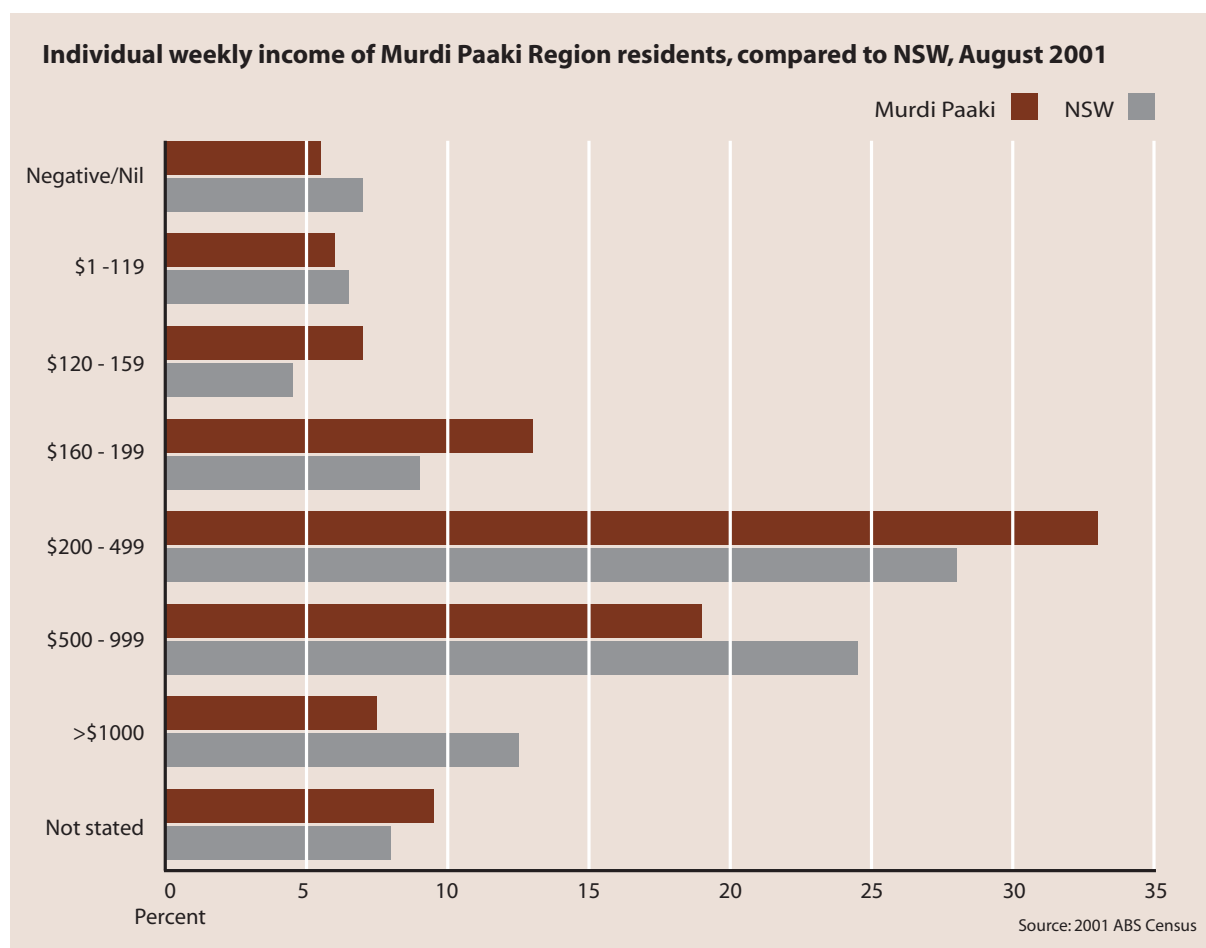
Income from some sources may be negative. As income from most sources is reported before deductions of expenses incurred in the earning of the income, these incomes are always a positive figure. However, business income from own unincorporated enterprise and income from rental property is collected net of expenses incurred in the raising of this income. Therefore, income derived from business or from rental properties may be a negative value. The total income may therefore be a negative value.

Information on income distribution is important in planning public and private sector services such as social welfare and, particularly at the regional level, retail distribution and other commercial services.

A question on income was first asked in the 1933 Census in an attempt to assess the effects of the Depression. The question has subsequently been included in all censuses since 1976.

Information relating to income and its effects provide a basis for understanding the health of the community.

The individual weekly income of the residents of the Murdi Paaki Region and NSW is shown on the following chart. The majority of Murdi Paaki Region residents earn less than \$500 per week. More people in NSW reported a negative income than in the Murdi Paaki Region.



Education

An educational institution, as defined by the ABS, is a school (pre, primary and secondary), TAFE, university or tertiary institution. Also included are those institutions that offer courses such as Associations.

Of the 57,680 residents of the Murdi Paaki Region, 12,551 (22%) said that they were enrolled in an educational institution. This compares with 25% in NSW. Of the Murdi Paaki Region residents, 13,280 (23%) left school before completing Year 10. This compares with 14% in NSW.

SEIFA indices

Socio-economic indices for areas (SEIFA) are used by the ABS to summarise aspects of socio-economic conditions. The five indices are:

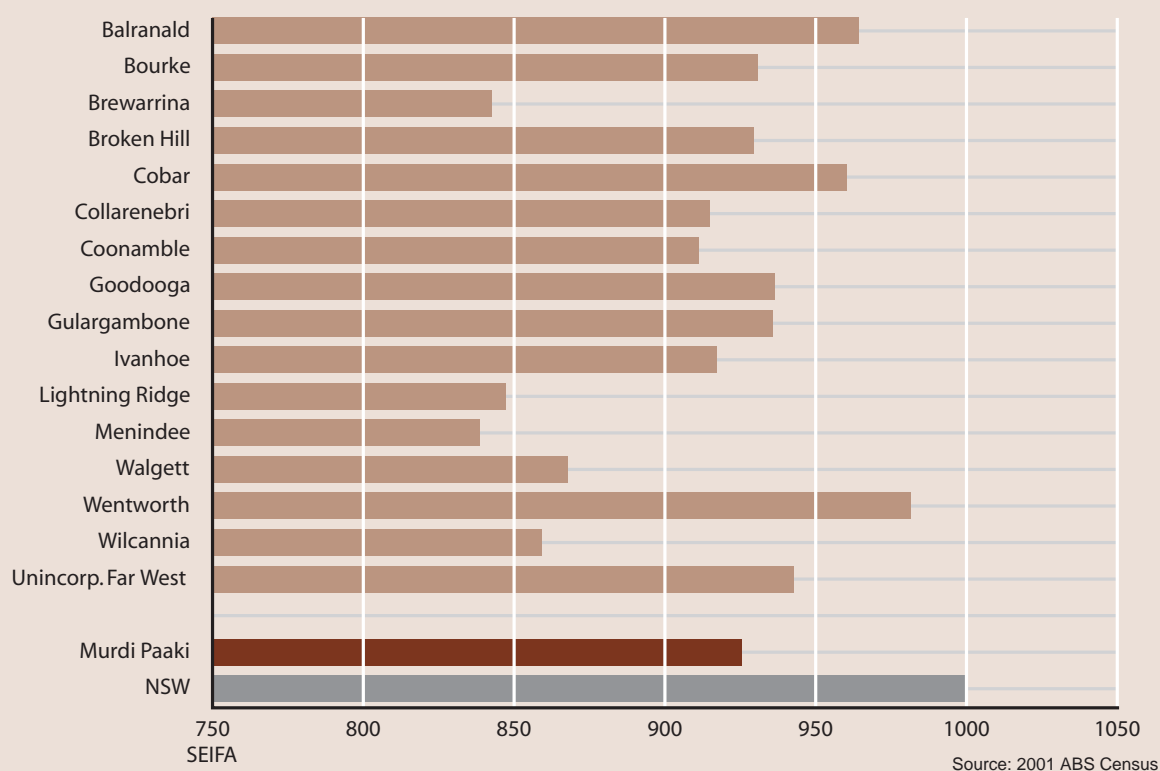
- Urban index of relative socio-economic advantage
- Rural index of socio-economic advantage
- Index of relative socio-economic disadvantage
- Index of economic resources
- Index of education and occupation

Against all five indices, for the four census periods 1986, 1991, 1996 and 2001, the Murdi Paaki Region was below the mean. This indicates the Area has a relatively low proportion of high-income households and small proportions of people with tertiary qualifications and people employed in skilled occupations.

The following chart shows the 2001 index of relative socio-economic disadvantage for each community. A high index indicates that the community has higher socio-economic advantage, while a lower index means the community has a lower socio-economic advantage. The figures cannot be used to show the magnitude of socio-economic disadvantage, just that one community is more disadvantaged than another.

All Murdi Paaki communities are below the socio-economic status of NSW. Menindee, Brewarrina and Lightning Ridge are the most disadvantaged while Cobar, Balranald and Wentworth are the least disadvantaged.

Index of relative socio-economic disadvantage for Murdi Paaki communities, compared to Murdi Paaki and NSW, August 2001



Acute illness

Since sick people come into contact with health services more often than healthy people do acute illness is an indirect but subjective way of assessing the health of the community.

Services provided in Emergency Departments have been collected using the non-inpatient register since October 2001. However, this collection is not complete with four of the fifteen small health services (excluding Broken Hill) not collecting information. Information from these registers can be obtained by contacting the Broken Hill Centre for Remote Health Research.

Currently there is no complete data available for services conducted in Outpatient Departments, Primary Health Care Centres or those provided by general practitioners. This chapter examines hospital admissions as a measure of acute illness.

Total admissions

Over the three-year period 2000/01 to 2002/03 there were 59,519 admissions of Murdi Paaki Region residents to any hospital in Australia. Of these admissions 28,127 (47%) were male and 31,392 (53%) were female.

Of the total admissions 16,139 (27%) were Aboriginal. Of these Aboriginal admissions 6,987 (43%) were male and 9,152 (57%) were female.

Admission rates

The crude admission rate (the total number of admissions per 1000 population) for the Murdi Paaki Region for the years 2000/01 to 2002/03 was 344.0 per 1000 population per year. This compares to the crude admission rate for NSW of 322.6 per 1000 population for the same period.

A directly standardised separation ratio (SSR) compares hospital separation rates of a study population (Murdi Paaki Region) with a standard population (NSW) to identify higher or lower rates in the study population. For comparison the SSR for NSW is 100. The 95% Confidence Interval (CI) is shown alongside the SSR.

Males in the Murdi Paaki Region are admitted to hospital at any age for any cause at a similar rate to NSW males. This is indicated by a SSR of 98.0 (95%CI: 96-100), which is not significantly different to NSW.

Females in the Murdi Paaki Region, however, are more likely to be admitted to hospital at any age for any cause compared to NSW females. This is indicated by a SSR of 111.1 (95%CI: 109-113), which is significantly higher than NSW.

Causes of admission

The four most common reasons for admission of residents of NSW are outlined in the table below. This table shows that, compared to NSW, there are significantly fewer admissions of Murdi Paaki Region residents for social reasons and digestive diseases but more admissions for injury.

Percentage of total admissions for the top four reasons for admission in NSW compared to the Murdi Paaki Region, 2000/01 to 2002/03

	Murdi Paaki		NSW
Social admissions	17.9%	↓	20.4%
Digestive diseases	10.2%	↓	11.5%
Circulatory diseases	7.3%		7.3%
Injury and poisoning	9.1%	↑	7.1%

↓ Significantly lower than NSW

Source: ISC

↑ Significantly higher than NSW

The four most common reasons for admission of Murdi Paaki Region are social admissions, digestive diseases, injury and respiratory diseases. There are significantly more admissions for respiratory diseases in the Murdi Paaki Region compared to NSW.

Deaths

Mortality data is used to describe severe ill health that results in death and can be used to identify sections of the community most at risk.

The main causes of death considered in this section are circulatory disease, cancer, respiratory disease and injury and poisoning. Circulatory disease is mainly heart diseases and stroke. Respiratory disease is mainly asthma, chronic obstructive airways diseases and emphysema. Injury and poisoning is mainly motor vehicle accidents, but also includes suicide and homicide.

While this section discusses leading causes of death in terms of heart disease, cancer, respiratory diseases and injury and poisoning, it is important to look at the determinants of these. Tobacco, diet, inactivity and alcohol are factors influenced by other factors such as education, income and employment. Changes in smoking prevalence, dietary patterns, levels of exercise, alcohol intake and addressing factors related to injury and poisoning will have the most substantial impact on the number of deaths.

Total deaths

Over the 6-year period 1997 – 2002 there were 3,069 deaths of Murdi Paaki Region residents. Of these deaths 1,742 (57%) were male and 1,327 (43%) were female.¹

Of the total deaths 312 (10%) were recorded as Aboriginal persons. Of these deaths 189 (61%) were male and 123 (39%) were female. If Indigenous status is not reported on the death certificate then the death is recorded as non-Aboriginal.

Death rates

Males in the Murdi Paaki Region are more likely to die at any age from any cause compared to NSW males. This is indicated by a standardised mortality ratio (SMR) of 119.7 (95%CI: 107-132), which is significantly high.

Similarly, females in the Murdi Paaki Region are more likely to die at any age from any cause compared to NSW females. This is indicated by a SMR of 115.9 (95%CI: 102-130), which is also significantly higher than NSW.

Causes of death

Four out of every five deaths in the Murdi Paaki Region are due to circulatory disease, cancer, respiratory disease or injury. This pattern is consistent across NSW and Australia. The following table shows the percentage of all deaths from each cause for Murdi Paaki Region and NSW.

1

We have combined six years of data because there are only a small number of deaths each year.

Compared to NSW, the Murdi Paaki Region has significantly fewer deaths due to circulatory disease and cancer, and significantly more deaths due to injury.

Cause of death, Murdi Paaki Region and NSW, 1997-2002

	Murdi Paaki		NSW
Circulatory disease	38.7%	↓	40.8%
Cancer	25.8%	↓	27.6%
Respiratory diseases	9.0%		8.1%
Injury	7.2%	↑	5.7%

↓ Significantly lower than NSW

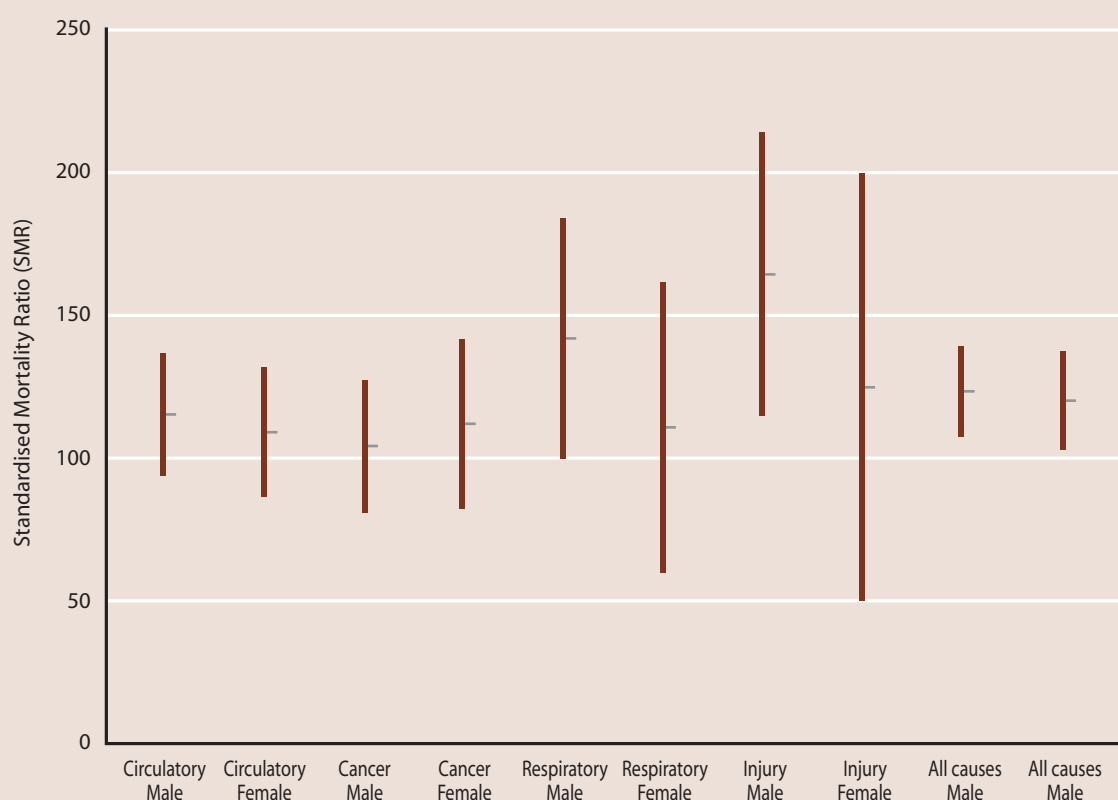
Source: ABS mortality data

↑ Significantly higher than NSW

The following chart shows the cause specific death rates. Where the bottom of the vertical bar is above 100 a 'significantly higher death rate' exists.

The rate of death of Murdi Paaki males due to injury is significantly higher than expected in NSW. The rate of death from any cause is significantly higher for both Murdi Paaki males and females.

Cause specific SMR, Murdi Paaki Region, 1997-2002



Source: ABS mortality data and 2001 ABS Census

Potentially avoidable deaths

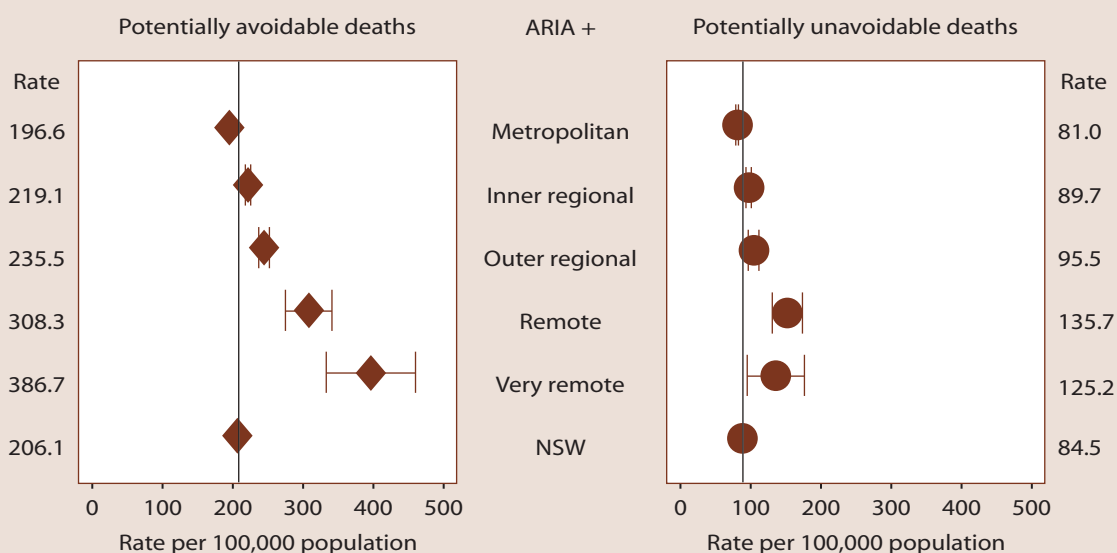
The 2004 Chief Health Officers Report² describes the potentially avoidable deaths in rural and remote populations. The following chart and analysis is taken directly from the report.

"Classification of premature deaths as 'avoidable' and 'unavoidable' gives an indication of the potential scope for closing health gaps. Deaths classified as 'avoidable' are those that could potentially be avoided through the activities of the health and related sectors.³

In NSW in the period 1998 to 2002, the death rate from all premature deaths increased with remoteness, as did those from 'avoidable' causes. The rate of potentially avoidable deaths was twice as high in 'very remote' areas than in 'metropolitan' areas. The rate from causes classified as 'unavoidable' also increased with remoteness, though less dramatically and was 1.6 times higher in 'very remote' areas than in 'metropolitan' areas. Seventy five percent of premature deaths were potentially avoidable in 'very remote' areas compared to 71 % in 'metropolitan' areas.

The avoidable death rate was 4 times higher in 'very remote' areas for Indigenous people than for non-Indigenous. The Indigenous death rate was 2.2 times higher in very remote areas compared to that seen in Indigenous people living in 'metropolitan' areas. The non-Indigenous rate was only 1.3 times that seen in 'metropolitan' areas. For Indigenous people in 'very remote' areas 74% of deaths were avoidable deaths.

Potentially avoidable deaths, persons aged less than 75 years, NSW 1998 to 2002 combined



Source: Population Health Division. *The health of the people of New South Wales - Report of the Chief Health Officer*. Sydney: NSW Department of Health. Available at: http://www.health.nsw.gov.au/public-health/chorep/rur/rur_avodth_aria.htm. Accessed 10 January 2005

The gap between remote areas and metropolitan areas in avoidable deaths appears mainly due to the high rates of premature deaths seen in Indigenous people in remote areas. A large proportion of these deaths are potentially avoidable.

These findings indicate that there is scope for closing the health gap between residents of remote and more accessible areas through targeting health services and programs towards Indigenous people in remote areas. However, they do not provide information on the feasibility or cost-effectiveness of such interventions."

² Population Health Division. *The health of the people of New South Wales - Report of the Chief Health Officer*. Sydney: NSW Department of Health. Available at: http://www.health.nsw.gov.au/public-health/chorep/rur/rur_avodth_aria.htm. Accessed 10 January 2005.

³ Tobias M, Jackson G. Avoidable mortality in New Zealand, 1981-97. *Aust N J Z Public Health* 2001; 25: 12-20

Cancer

Cancer is a diverse group of diseases characterised by the proliferation and spread of abnormal cells that invade and destroy surrounding tissue and spread to other parts of the body. The risk of developing cancer increases with age. As life expectancy increases and as cancer often takes a long time to develop, cancer will increase as a cause of illness and death in the community.

A mix of preventive, screening, medical and surgical procedures could reduce death and illness due to cancer. These include

- Deterring smoking uptake and promoting cessation to prevent lung and other cancers.
- Encouraging two yearly mammographic screening in women aged 50-69 to detect early stage breast cancer as well as encouraging all women to conduct regular self-examination of the breast.
- Increasing the consumption of breads, cereals, fruits and vegetables and lowering the consumption of fats to reduce the risk of developing cancers of the bowel.
- Encouraging regular Pap smear screening of women aged 18 – 70 to prevent cervical cancer.
- Reducing sun exposure and encouraging early detection of skin cancers.
- Increasing adequate physical activity.

The opportunity to do this is limited by the remoteness of many communities. Medical, surgical and screening services may be difficult to access, limited employment opportunities ensures that average incomes remain low, while cigarette smoking, alcohol consumption, poor nutrition and other risk factors remain unchanged.

Many of the following statistics are not statistically significant due to the small number of cancers compared to number statewide.

New cases

Incidence rates

Between 1990 and 2002 there were 3,434 residents of the Murdi Paaki Region diagnosed with a form of cancer. Of these 2,012 (59%) were male and 1,422 (41%) were female.

People in the Murdi Paaki Region are diagnosed with any form of cancer at the same rate as NSW residents. This is indicated by a Standardised Incidence Ratio (SIR) of 102.7 (95%CI: 90-115). Comparatively, NSW is 100.

Similarly, males in the Murdi Paaki Region are diagnosed with any form of cancer at the same rate as their NSW counterparts. This is indicated by a SIR of 100.4 (95%CI: 85-116) for males.

Females in the Murdi Paaki Region, however, are diagnosed with any form of cancer at a rate that is significantly lower than their NSW counterparts. This is indicated by a SIR of 47.3 (95%CI: 34-60) for females.

Leading sites

In NSW, for the period 1990 to 2002, four sites accounted for almost 60% of new cancer cases for males. These were cancer of the prostate (22%), colon (15%) and lung (14%) and melanoma of skin (8%).

For the same period the four leading sites accounted for more than half of all new cancer cases in females. These were breast (26%), colon (12%), melanoma of the skin (9%) and lung (8%).

The following table shows the leading causes of cancer diagnosis in the Murdi Paaki Region. In the Murdi Paaki, compared to NSW, there is a significantly lower proportion of cancer diagnosis due to melanoma of the skin in males. There is, compared to NSW, a significantly higher proportion of cancer diagnosis due to cancers of the head and neck in males.

In the Murdi Paaki, compared to NSW, there are significantly less diagnoses of colorectal cancers but significantly more head and neck cancers in females.

Percentage of all new cancer cases, Murdi Paaki Region and NSW, 1990–2002

	Males		Females	
	Murdi Paaki	NSW	Murdi Paaki	NSW
Lung	13.9%	12.2%	8.0%	6.8%
Breast	–	–	26.3%	28.0%
Colorectal	15.0%	13.8%	11.8% ↓	14.1%
Prostate	22.2%	24.1%	–	–
Head and neck	9.2% ↑	5.5%	3.6% ↑	2.4%
Cervical	–	–	3.0%	2.6%
Melanoma of skin	7.4% ↓	10.1%	8.9%	9.0%
Unspecified	5.1%	4.0%	5.6%	4.4%
TOTAL CASES	2,012	192,658	1,422	157,056

↓ Significantly lower than NSW

Source: NSW Cancer Registry

↑ Significantly higher than NSW

Deaths

Death rates

Between 1990 and 2002 there were 1,562 deaths of Murdi Paaki Region residents due to cancer. Of these 949 (61%) were males and 613 (39%) were females.

People in the Murdi Paaki Region die from any form of cancer at the same rate as NSW residents. This is indicated by a SMR of 108.1 (95%CI: 90–127).

Similarly, males in the Murdi Paaki die from any form of cancer at the same rate as NSW males. This is indicated by a SMR of 106.4 (95%CI: 83–130).

Females in the Murdi Paaki Region, however, die from any form of cancer at a rate statistically lower than the rate for NSW females. The SMR for Murdi Paaki Region females is 48.9 (95%CI: 29–69).

Leading sites

In NSW lung (23%), prostate (13%) and colorectal cancers (13%) accounted for nearly 50% of all cancer deaths in males. The most common cancers causing death in females were those of the breast (17%), colon or rectum (14%) and lung (13%).

The following table shows the leading causes of cancer death in the Murdi Paaki Region. There is, compared to NSW, a significantly higher proportion of deaths due cancers of the head and neck in males. There is, compared to NSW, a significantly higher proportion of deaths due cervical cancer in females.

Percentage of all cancer deaths, Murdi Paaki Region and NSW, 1990– 2002

	Males		Females	
	Murdi Paaki	NSW	Murdi Paaki	NSW
Lung	24.9%	23.2%	14.8%	13.2%
Breast	–	–	16.6%	17.3%
Colorectal	12.3%	12.9%	12.2%	14.1%
Prostate	12.9%	13.1%	–	–
Head and neck	7.9% ↑	4.2%	2.1%	1.8%
Cervical	–	–	4.1% ↑	2.0%
Unspecified	8.7%	7.4%	10.4%	9.0%
TOTAL DEATHS	949	85,671	613	65,315

↓ Significantly lower than NSW

↑ Significantly higher than NSW

Source: NSW Cancer Registry

Mothers and babies

The health of a woman during her pregnancy has a number of consequences for both the woman and her child. The health of the mother is influenced by many factors, including age, number of pregnancies and wellbeing before and during pregnancy. Diet, environmental conditions, activities such as smoking and drinking alcohol and the amount of rest and exercise obtained will also influence a woman's health. The mother's health influences the child's growth in the womb and it's health at birth. Exposure to infection or some other substance such as tobacco, alcohol or legal or illegal drugs or nutritional deficiencies during pregnancy may result in lifelong consequences for a child. A premature or small baby will encounter greater challenges, which may continue for years.

Births

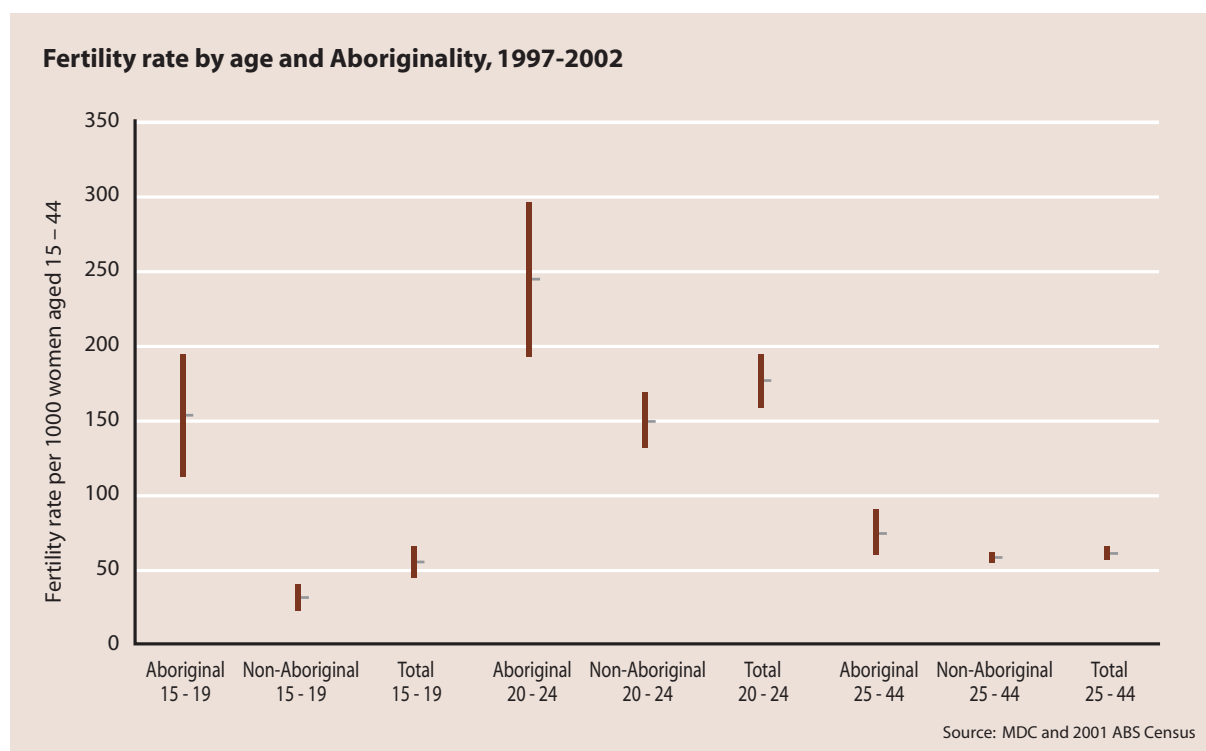
Between 1997 and 2002 there were 4,367 babies born to women who resided in the Murdi Paaki Region and delivered in any NSW hospital. Of these births 1,188 (27.2%) were to Aboriginal women who represent 15.1% of the total Murdi Paaki female population aged 15 to 49 years.

Fertility rate

Fertility refers to the actual number of children born to a woman. The fertile life is defined as being between 15 and 44. The fertility rate refers to the number of babies born per 1000 women aged 15 – 44.

The fertility rate in the Murdi Paaki Region is 69 babies born to every 1000 women aged 15 – 44. This number is significantly higher than the rate for NSW (63 per 100 women aged 15 – 44).

The fertility rate is influenced by the age of the mother. The following chart shows the fertility rate by age group for Aboriginal, non-Aboriginal and total women in different age groups.



Birth weight

Birth weight is a good indicator of the risk of infant morbidity and mortality. Infants are classified as being of a low birth weight if they weigh less than 2,500 grams at birth.

Maternal age, socioeconomic status, alcohol consumption, cigarette smoking and nutritional status of pregnant women increase the risk of having a baby with a low birth weight. Some of these risk factors are preventable.

Overall, infants born to Murdi Paaki women are significantly more likely to be born with a low birth weight compared to NSW babies. Eight percent of all Murdi Paaki babies are born with a low birth weight compared to 6.4% in NSW. Fourteen percent of all Murdi Paaki Aboriginal babies are born with a low birth weight, more than twice as many as NSW as a whole.

Premature births

A premature baby is one born before 37 weeks gestation.

As with low birth weight, prematurity exposes the infant to a number of hazards during the neonatal and infant period.

Almost 8% of all Murdi Paaki babies are born prematurely compared to 7.1% in NSW. Aboriginal babies are nearly twice as likely to be born prematurely (13.4%).

Perinatal deaths

A perinatal death is defined as a stillbirth or death of a baby within the first month of life.

In the Murdi Paaki perinatal deaths are no more likely than elsewhere in NSW, for Aboriginal and non-Aboriginal babies.

Infant mortality

The infant mortality rate is the number of deaths of children aged less than one year per 1,000 live births.

The Aboriginal infant mortality rate in the Murdi Paaki Region is 1.7 per 1,000 live births. This is not significantly different to the NSW Aboriginal infant mortality rate of 2.5 per 1,000 live births.

The non-Aboriginal infant mortality rate is 0.3 per 1,000 live births, which is also not significantly different to the NSW non-Aboriginal rate, which is 0.8 per 1,000 live births.

Infectious diseases

The Public Health Act 1991 requires laboratories, hospitals and doctors to advise the Population Health Unit of cases of a number of infectious illnesses. The Act aims to improve infectious disease control in NSW through improved notification procedures. Notifiable diseases include those that cause significant illness and/or have the capacity to spread rapidly.

The list of notifiable infectious diseases has been reduced to those that require a public health response to enable the control and/or prevention of the condition. Where the response is urgent, for example measles, whooping cough or polio, notification by telephone is required.

Notifiable infectious disease data is collected locally and entered into the statewide Notifiable Diseases Database. The data quality depends on how well the diseases are reported by doctors, laboratories and hospitals.

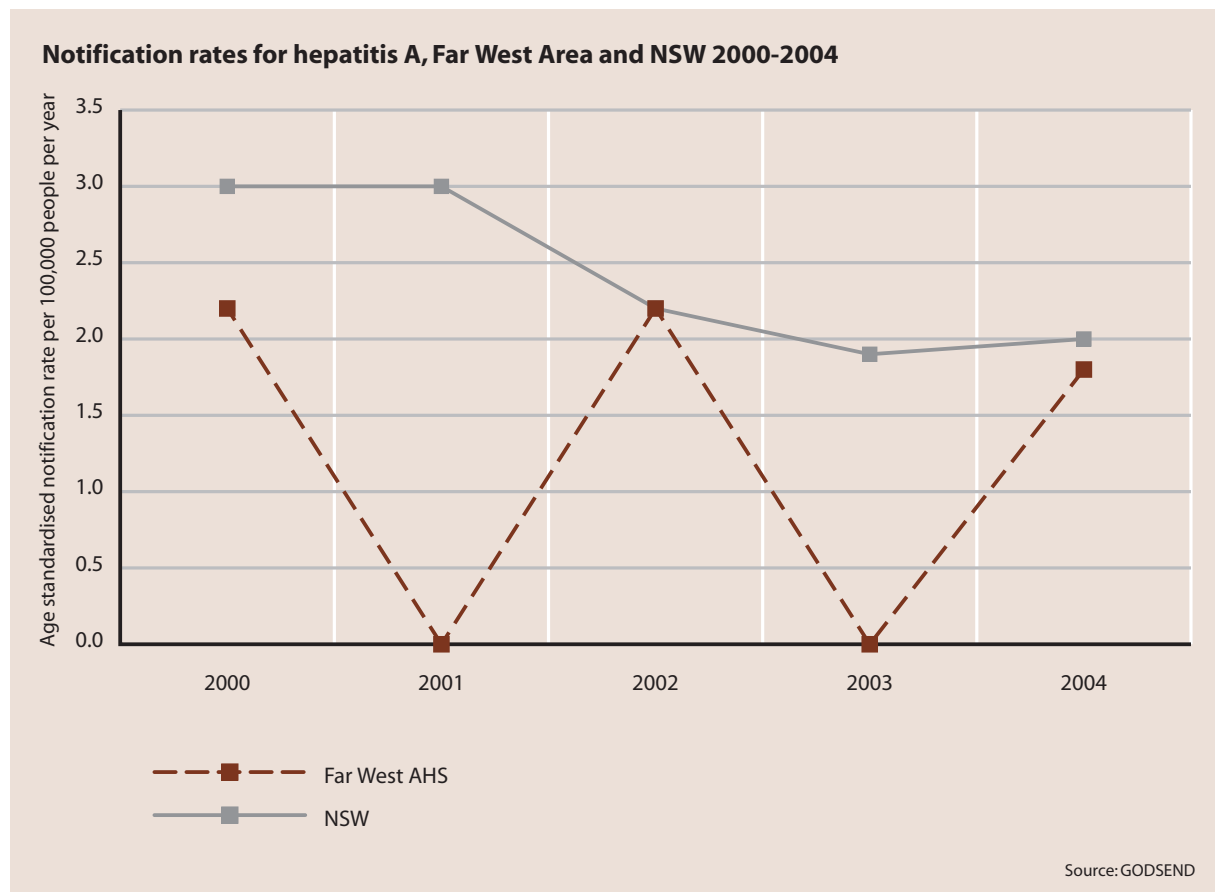
Data is shown for the former Far West Area Health Service as this is the most relevant of the geographies available. Data is shown for the years 2000 – 2004.

Hepatitis

Hepatitis A

Hepatitis A is an inflammation of the liver caused by a virus. Recent hepatitis A infection can be diagnosed by doing a blood test called 'anti-hepatitis A IgM'. Symptoms, when present, may include abdominal discomfort, loss of appetite, nausea, low-grade fever and tiredness, sometimes followed by yellow skin and eyes, dark urine and pale faeces. Older children and adults are much more likely to have symptoms than younger children are. Mild cases last 1-2 weeks, whilst severe cases may last up to several months. Children under the age of 3 rarely have symptoms, however, they frequently spread the infection through organisms living in microscopic amounts of faeces on their hands, which can contaminate objects or food. The virus is then transferred by mouth. Urine can also be responsible for transmission of this virus.

Notifications of hepatitis A in NSW have decreased over the past five years. However, the rate in NSW has consistently been higher than that in the Far West.



Hepatitis B

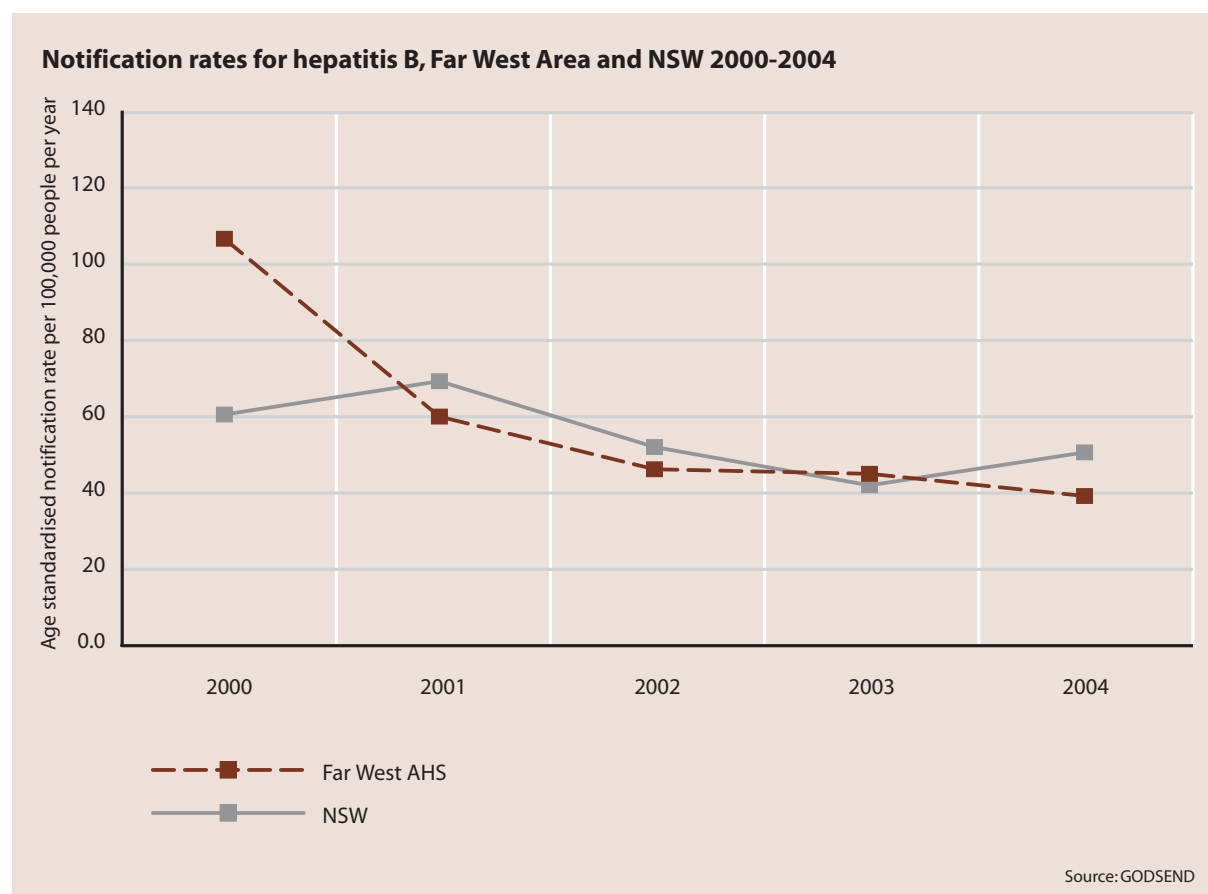
Hepatitis B is an infection of the liver caused by the hepatitis B virus. The virus is found mainly in the blood of an infected person, and to a lesser extent in some other body fluids (for example, semen). Saliva is not thought to play a big part in transmission. Hepatitis B is more common in adults than in children. Frequently, this virus is carried without symptoms.

Women who have this disease during pregnancy may transmit it to their newborn babies. Many of these babies become long-term carriers of the virus.

The disease is spread when infected blood enters the body through a cut or abrasion, mucous membranes (such as the lining of the mouth) or by sexual transmission.

Symptoms, if present, may include abdominal discomfort, loss of appetite, nausea, fever, tiredness, joint pain, dark urine and yellow skin or eyes (jaundice).

The rate of notification of hepatitis B in the Far West decreased between 2000 and 2002. The following chart shows the trend over the last five years.

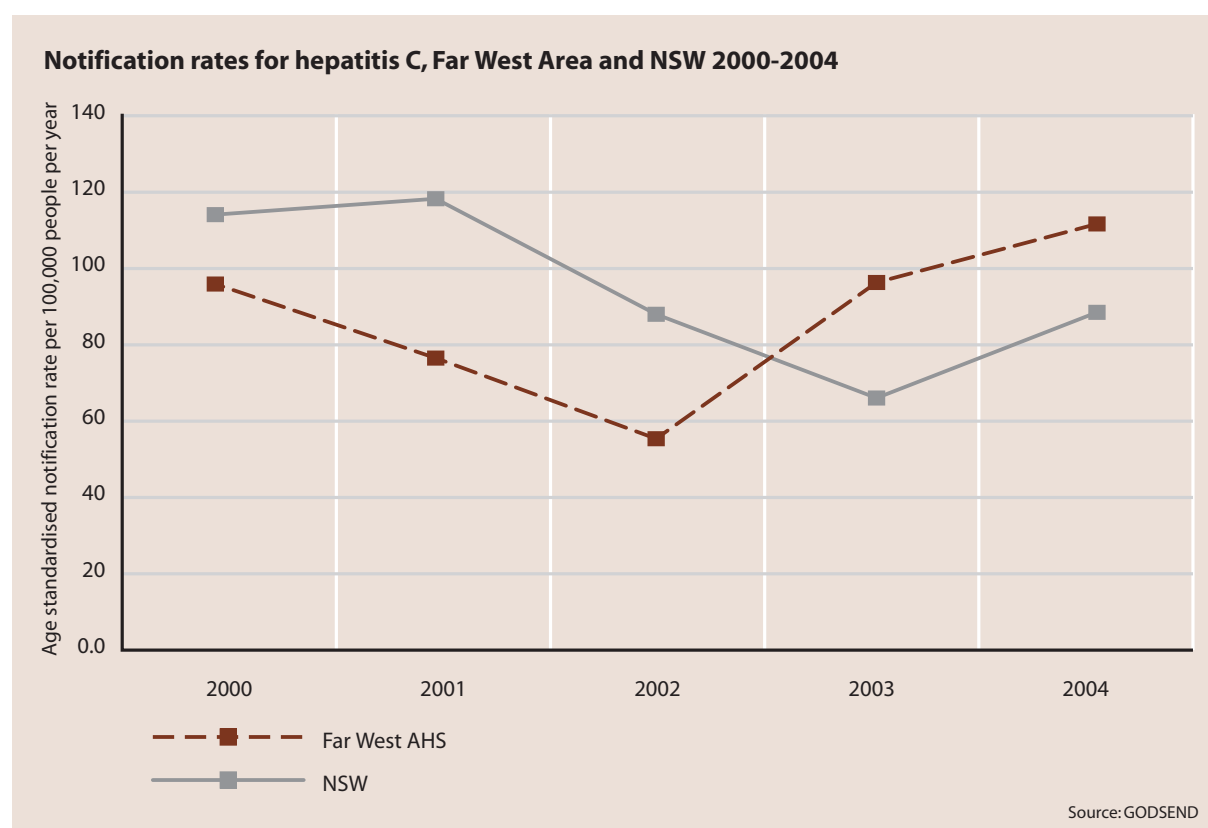


Hepatitis C

Hepatitis C is an infection of the liver, caused by the hepatitis C virus. The virus is found primarily in the blood of an infected person. Transmission of hepatitis C is predominantly through contact with contaminated blood. People at risk include, intravenous drug users who share injecting equipment, people with haemophilia and those people who received blood transfusions before February 1990, when screening tests became available. Saliva is not thought to play a large part in transmission. About 20-50% of people with acute infection progress to long-term liver disease, which can be fatal.

Symptoms of hepatitis C may include abdominal discomfort, loss of appetite, nausea, fever, tiredness, joint pain, dark urine, and yellow skin or eyes (jaundice). The virus may be carried without symptoms.

The rate of notification of hepatitis C for Far West residents decreased between 2000 and 2002 before experiencing a large increase in 2003 and 2004. 2003 was the first year when the notification rate was greater in the Far West than in NSW.



Vaccine preventable diseases

Vaccine preventable illnesses continue to occur in the far western NSW. Immunisation offers the potential to protect the community against a number of infectious diseases. A high level of immunisation in a community offers protection to individuals and the community as a whole.

Results published in the NSW Public Health Bulletin July 1999, showed the Far West was the top performing Area Health Service during the National Measles Control Campaign conducted in late 1998. The Far West Area Health Service vaccinated 89% of its target population.

In the participating schools in the Far West, measles, mumps and rubella (MMR) vaccine was offered to 5,280 eligible school children. The parents of 4,883 children (93%) returned consent forms to the teachers, and 4,787 of these parents gave consent for their children to be immunised. A total of 4,675 (88.5%) of children were immunised during the campaign. Reasons for the remaining children not being vaccinated included school absence, intercurrent illness or child refusal.

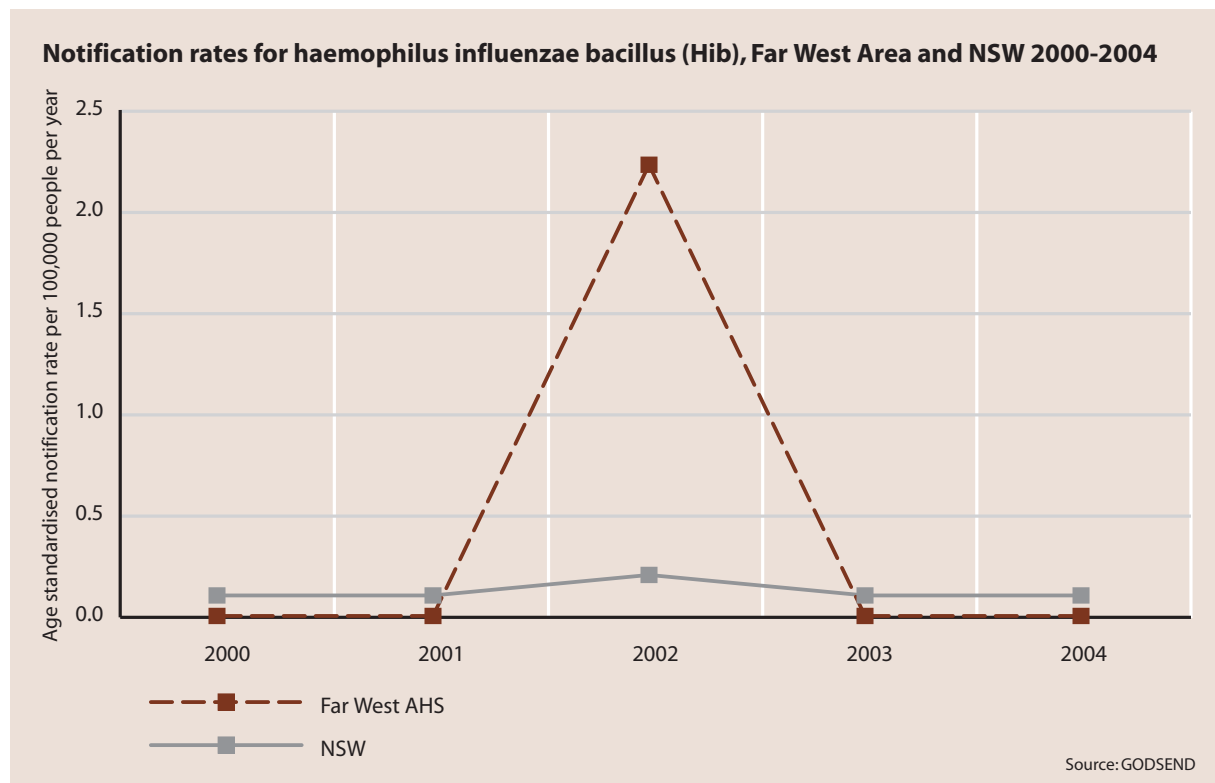
Haemophilus influenzae bacillus (Hib)

This bacterium can cause meningitis (infection of the brain lining), epiglottitis (swelling of part of the throat, which obstructs breathing), pneumonia, joint infection or cellulitis (infection of the tissue under the skin).

Symptoms of meningitis include fever, vomiting, headache, irritability, fitting and neck stiffness. Neck stiffness may be hard to identify.

The bacteria live in the throat. They are spread in respiratory secretions by direct person-to-person contact (for example, kissing), and by hands.

The chart shows that the notification rates in NSW were very low between 2000 and 2004. During this time there was just one case in the Far West in 2002.



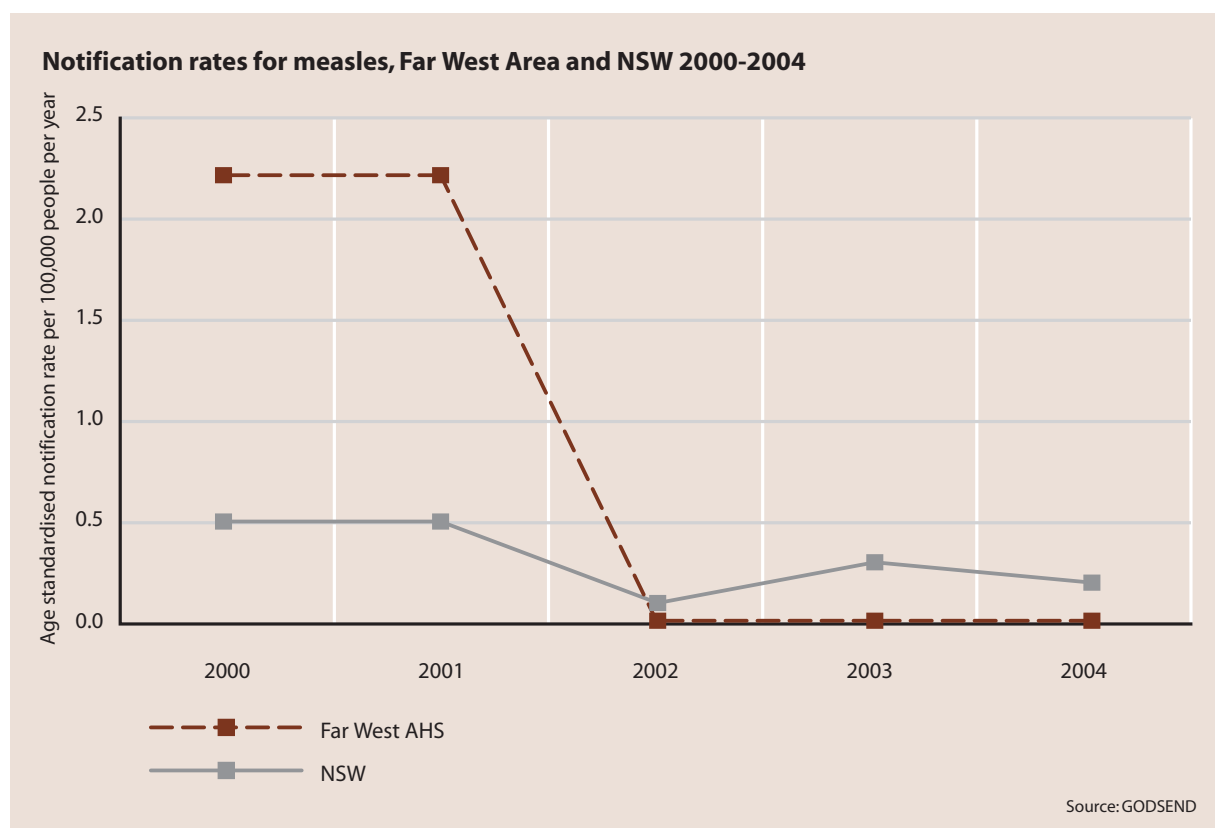
Measles

Measles is a highly infectious and serious viral illness. It begins with fever, tiredness, cough, runny nose and inflamed eyes. These symptoms usually worsen over a three-day period. The cough tends to be worse at night. Children may avoid light because of inflamed eyes.

Measles is not a simple childhood disease. In a high number of cases, the measles virus causes serious complications, such as pneumonia or inflammation of the brain. For this reason there is much concern about the disease.

The rate of notification of measles has declined substantially since the highest period in the early nineties. In NSW the largest outbreak was in 1993 with the rate as high as 40 per 100,000 population. This rate has since decreased substantially.

The rate of notification of measles in the Far West has been very low since 2000, with no cases reported since 2001. This is a testament to the current high rates of immunisation amongst children.



Rubella

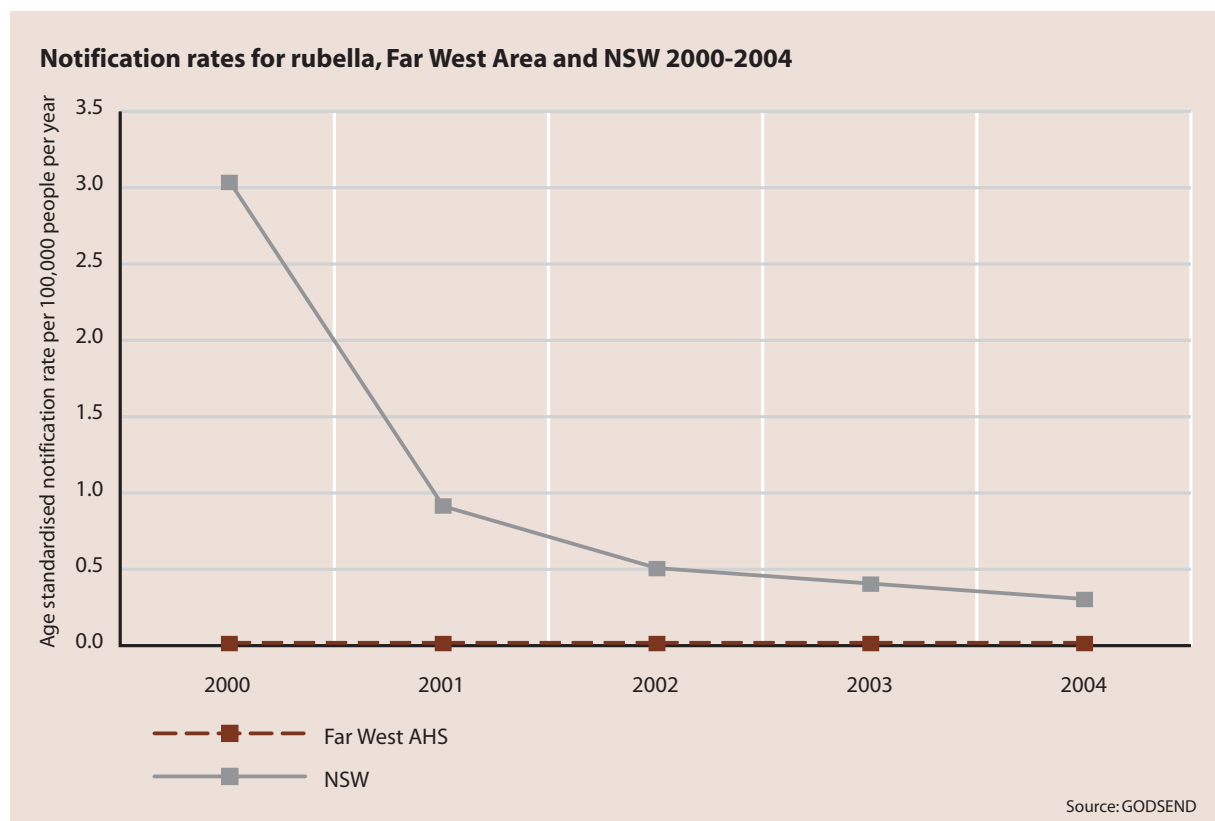
Rubella is a mild viral disease. Symptoms include fever and a general body rash. The first sign of this illness may be swollen glands, usually at the back of the skull and behind the ears.

Rubella is spread through airborne droplets or direct contact with nose or throat secretions of an infected person.

Rubella usually causes only mild illness in children. However, infants who are born to mothers who had rubella during pregnancy may have severe birth defects. The risk is highest in early pregnancy.

In 2002 a rubella vaccination program targeting 18 – 30 year olds was introduced across NSW.

There were no incidences of rubella in the Far West between 2000 and 2004. This is shown on the following chart.



Whooping cough

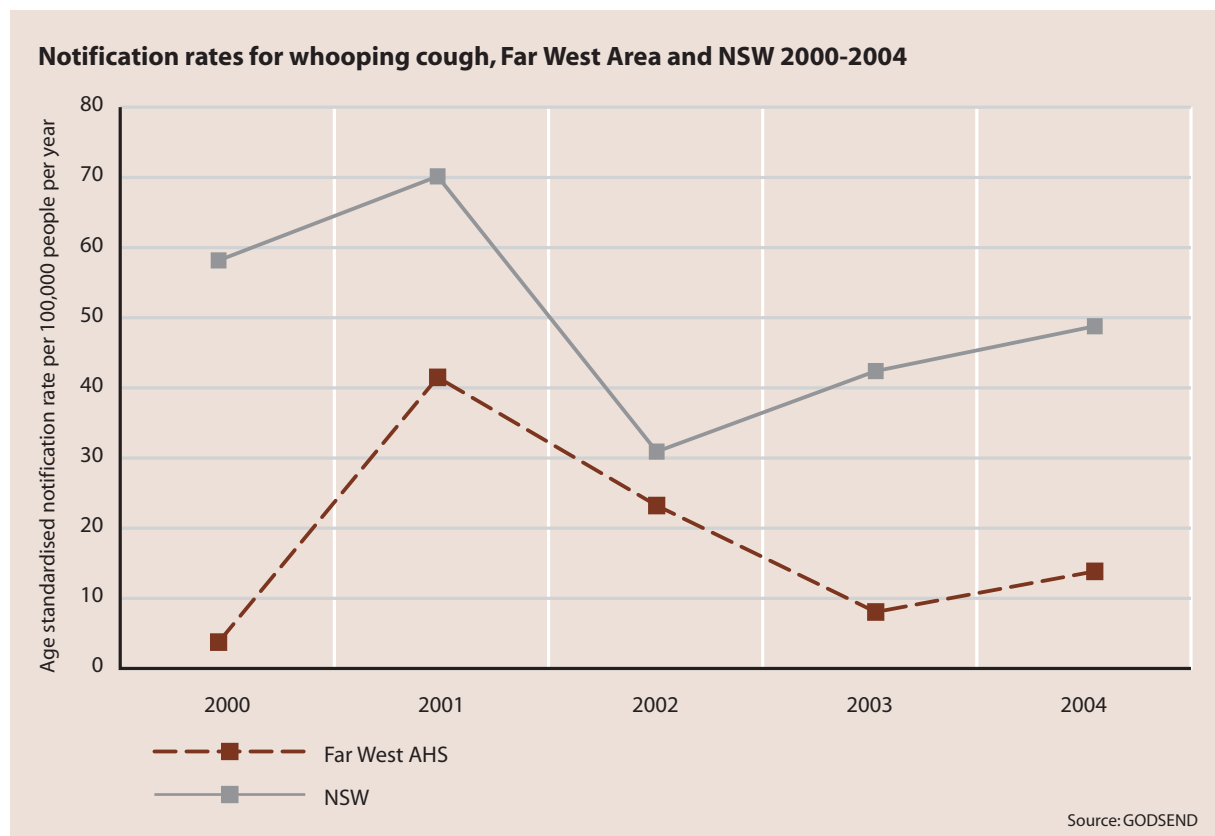
Whooping cough is a highly contagious bacterial disease. The illness may begin with cold-like symptoms that progress to a cough, or the child may simply begin coughing. The child may vomit after coughing or they may lose their breath. Sometimes a high-pitched crowing (the whoop) is heard when inhaling. The coughing can last 1 – 3 months.

Whooping cough is particularly serious in children under two years of age and hospitalisation is usually necessary. Deaths may occur but are uncommon – less than one percent of all cases aged less than six months result in death.

Whooping cough is transmitted by direct contact from the nose and throat of an infected person.

A school based vaccination program was implemented in 2004, in order to re-vaccinate children aged between 15 – 19 years. This is necessary, as the vaccination is known to not provide long-term immunity. It is thought that the current low levels of disease represent an inter-epidemic lull.

High rates of whooping cough have been observed in NSW particularly during 2000 and 2001. The following chart shows the trend over the past five years. Between 2000 and 2004 notification rates in the Far West have been consistently lower than those for NSW as a whole.



Sexually transmitted infections

Sexually transmitted infections are notified to the PHU for surveillance purposes. Syphilis, chlamydia and gonorrhoea are notified to allow the contacts of cases to be traced and treated.

In 1998 specialist sexual health services were introduced in the Murdi Paaki Region. These are referred to as the Sexual Health Network. The employment of specialist nurses as well as visiting sexual health specialist physicians has increased the number of notifications of sexually transmitted infections and has also raised awareness of fatal diseases such as HIV/AIDS. Some fluctuations in the rates of sexually transmitted diseases can be attributed to the high turn over of personnel in the Murdi Paaki resulting in limited services at times.

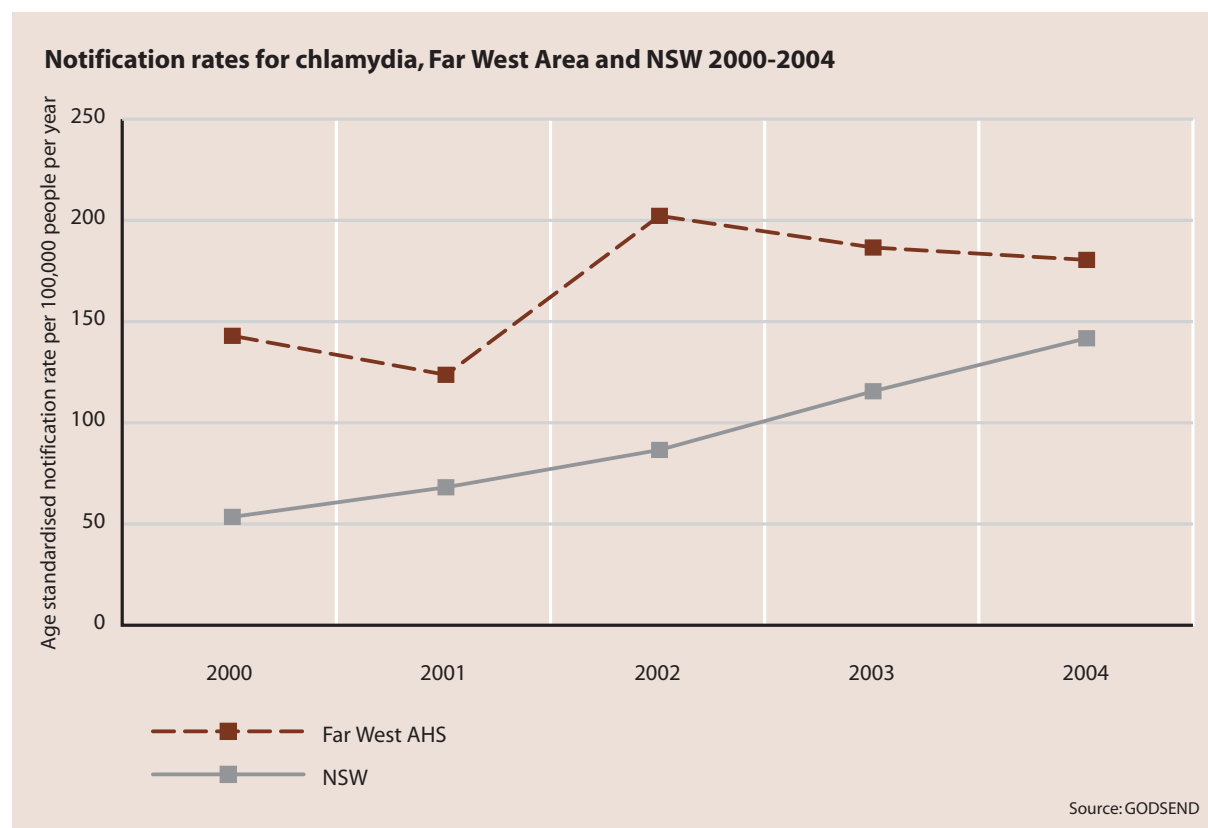
Chlamydia

Chlamydia is a disease where bacteria invade the urethra of the male and the vagina of the female.

Within three weeks of being infected, men may experience pain whilst urinating and a white or clear discharge from the penis.

Women may develop a yellowish discharge, but often the disease has no symptoms. The diseases may cause infertility. Chlamydia can be cured by treatment with antibiotics.

Rates of notification of chlamydia infection in Far West have fluctuated over the last five years. The rate in NSW however has continued to rise, almost three-fold in fact, from 54 per 100,000 in 2000 to 142 per 100,000 in 2004.



Gonorrhoea

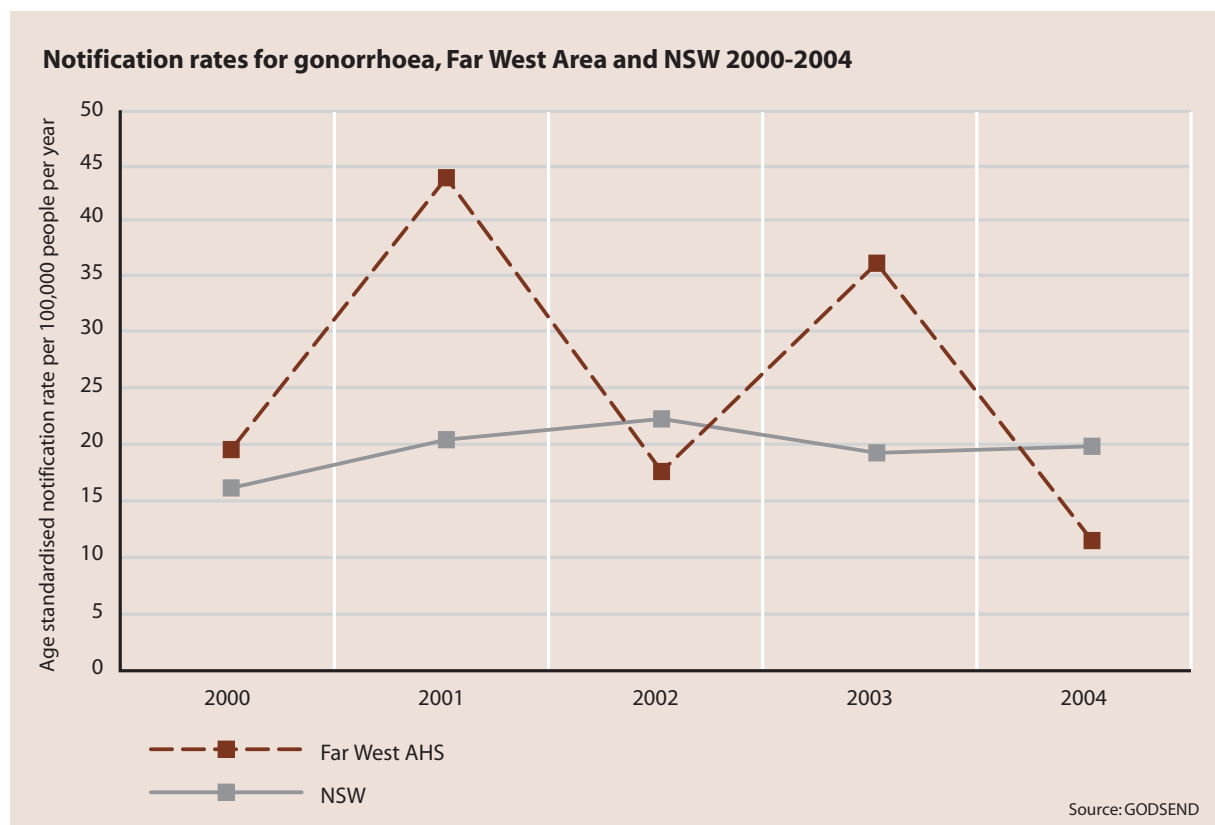
Gonorrhoea is the inflammation of the genital tract mucous membranes, caused by infection with gonococci (berry-shaped bacteria).

Other areas of the body such as the eye, oral cavity, rectum and joints may be affected as well. Symptoms include pain while urinating and a yellow pus-like discharge.

Many women carry the disease without showing symptoms, while others have pain, discharge and experience pelvic inflammatory disease.

Men and women can acquire anorectal and pharyngeal gonococcal infections as a result of sexual activity. Chlamydia and gonorrhoea infections often occur together. When treating these infections, doctors prescribe antibiotics for all sexual contacts of the case.

The rate of gonorrhoea notification in the Far West fluctuated over the period. The rate of notification was higher than those for NSW in all years except 2002 and 2004.



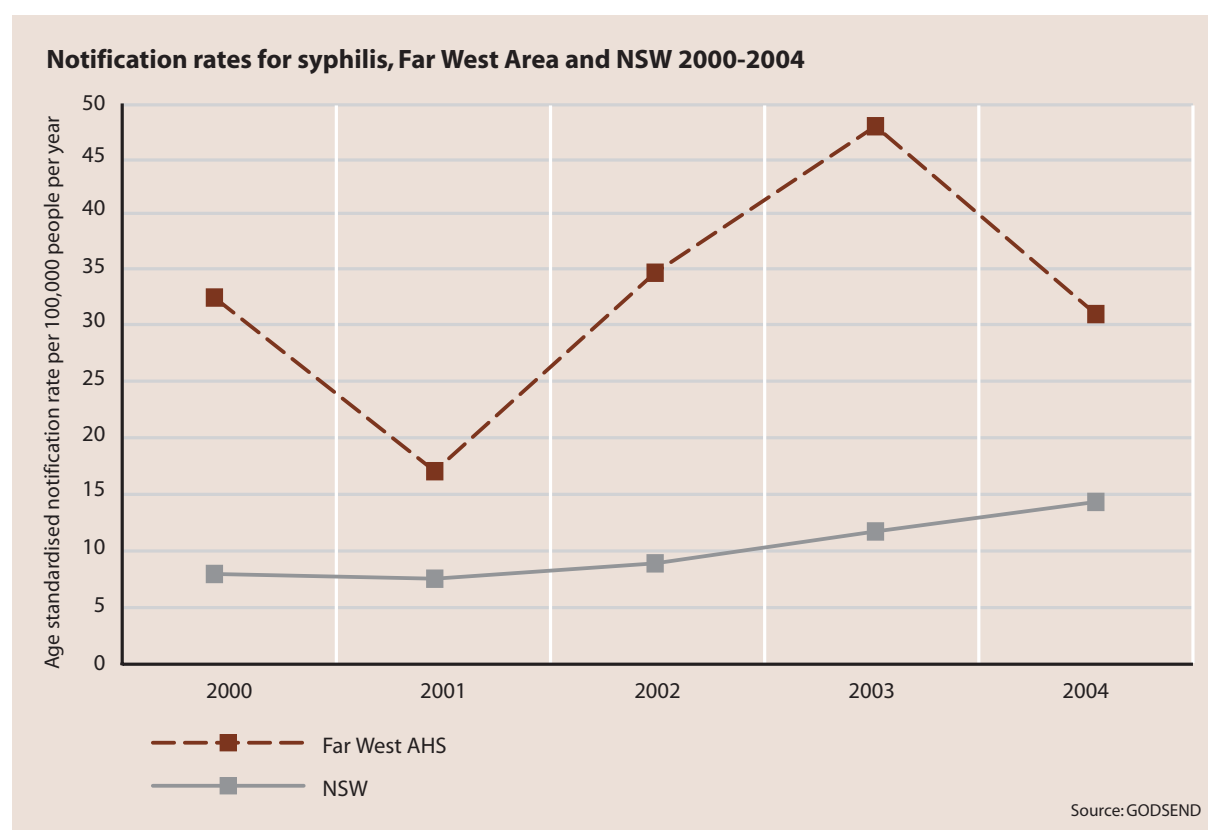
Syphilis

Syphilis is a chronic infectious disease caused by a spirochaete, a spiral-shaped bacterium, and can affect any organ of the body.

A hard ulcer usually appears on the external genitalia a few weeks after infection. Diseases in the lymph glands can be detected as the infection spreads to the internal organs. Later stages include damage to the brain, spinal cord, and heart.

Syphilis can be transmitted during pregnancy, from the mother to the foetus. The disease is treated with penicillin.

The rate of notification in the Far West has exceeded the rate in NSW. The rate was lowest in 2001 and has since begun to rise again.



Meningococcal infection

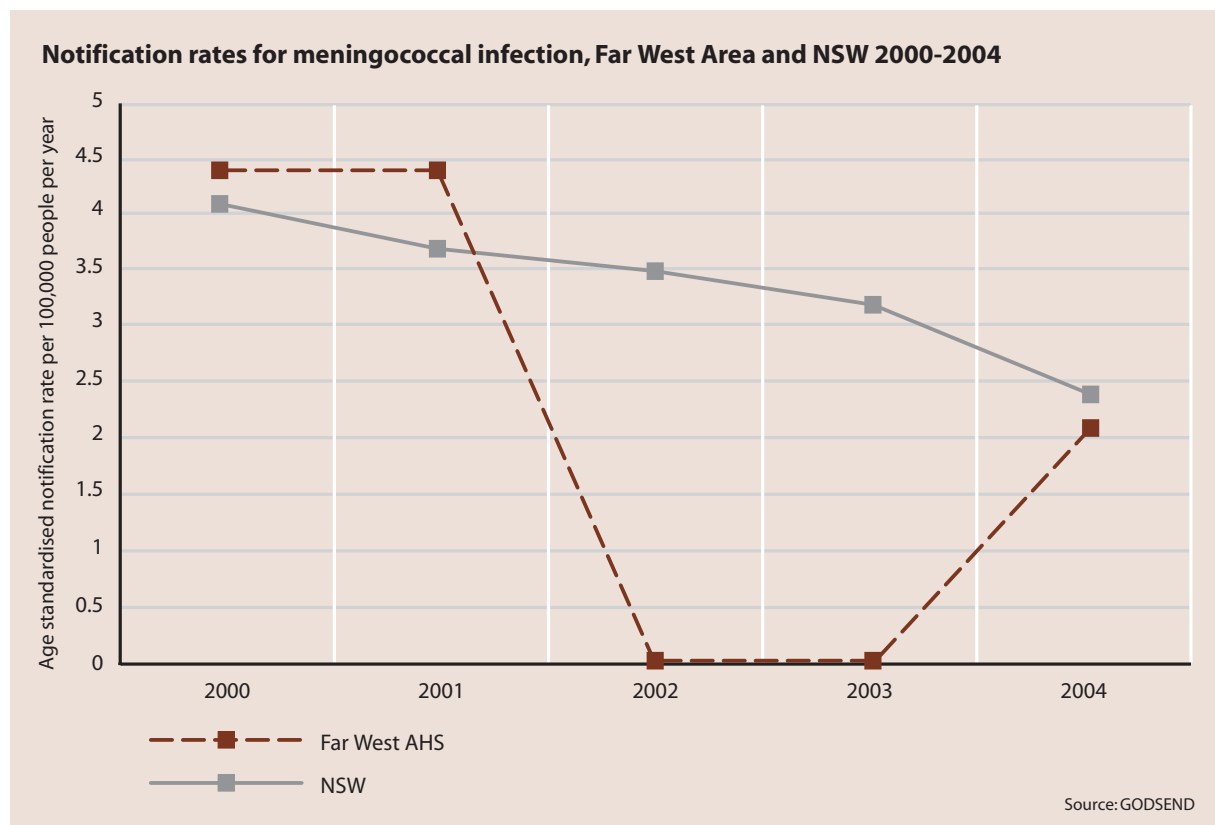
This is a rare bacterial infection. It can cause life-threatening illness at any age, but is particularly dangerous for young children because between 5% and 15% of all cases die.

The bacteria live in the throat. They are spread in respiratory secretions by direct person-to-person contact (for example kissing), and indirectly on hands or on mouthed toys or objects.

Meningococcal infection may cause meningitis or septicaemia (infection of the blood). Symptoms of meningitis include fever, vomiting, headache, irritability, fitting and neck stiffness. Symptoms of septicaemia include high fever and rash.

Antibiotics are given to kill the organisms present in the nose and throat. A child with meningococcal infection will be treated in hospital with antibiotics.

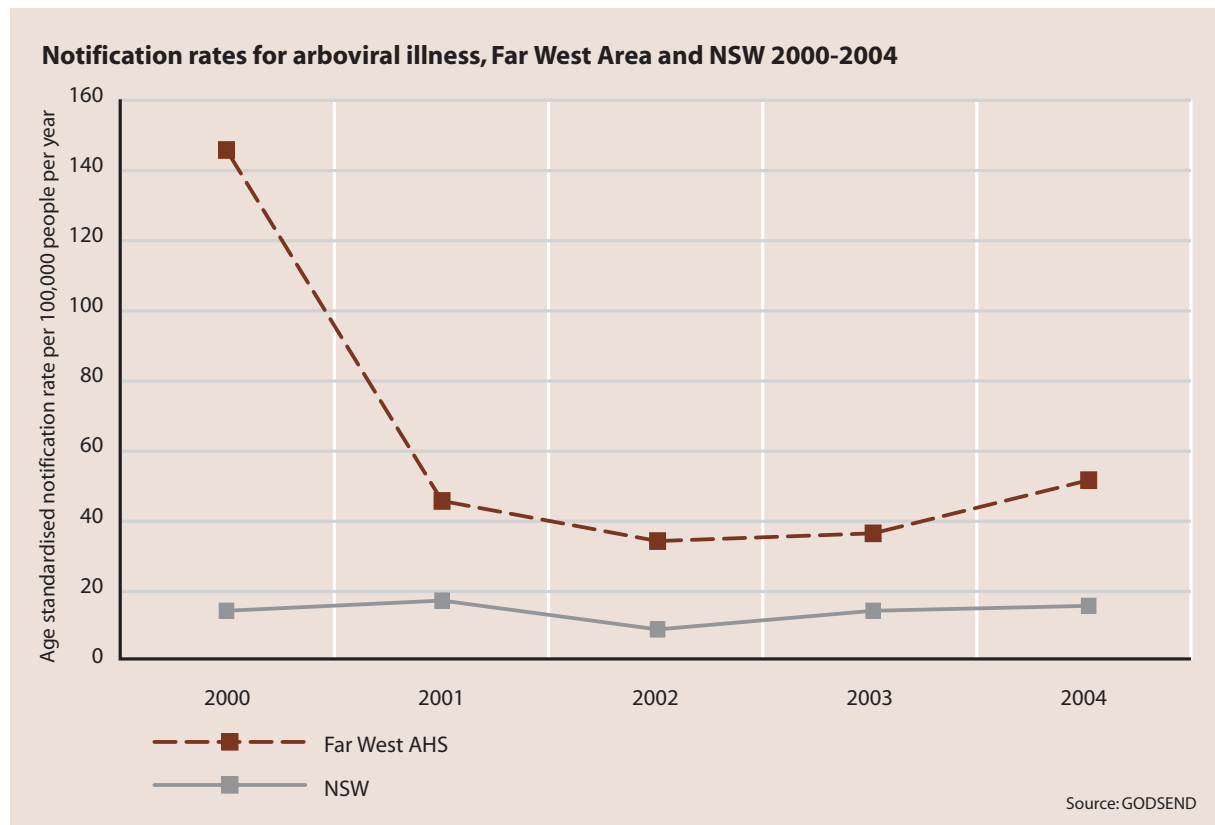
The following chart shows the rate of notification of meningococcal infection in the Far West Area and NSW for the years 2000 - 2004. The rate of notification in NSW has decreased steadily over the period. In 2003, NSW Health carried out a school based immunisation program for Meningococcal C. Over 5,000 children were immunised in the Far West alone.



Arboviral illnesses

Arboviral illnesses are carried by mosquitoes and include Barmah Forest Virus, Dengue Fever, Flavivirus, Kokobera, Kunjin, Murray Valley Encephalitis, Ross River Viruses and Sindbis.

The rate of notification of all arboviruses in the Far West has been consistently higher than in NSW.



People are infected with Ross River Virus (RRV) after being bitten by a mosquito carrying the virus. RRV may also infect birds and other mammals. Mosquitoes pass the virus by biting an infected animal and then biting a human. In inland areas, the virus is mainly transmitted by fresh water mosquitoes breeding in pools of water in grassy areas. In coastal areas, salt marsh mosquitoes spread the virus.

Wet years increase the number of mosquito breeding sites, which may increase the number of infections contracted.

Conversely, hot summers may dry up breeding sites thus decreasing the number of mosquitoes and hence notified cases.

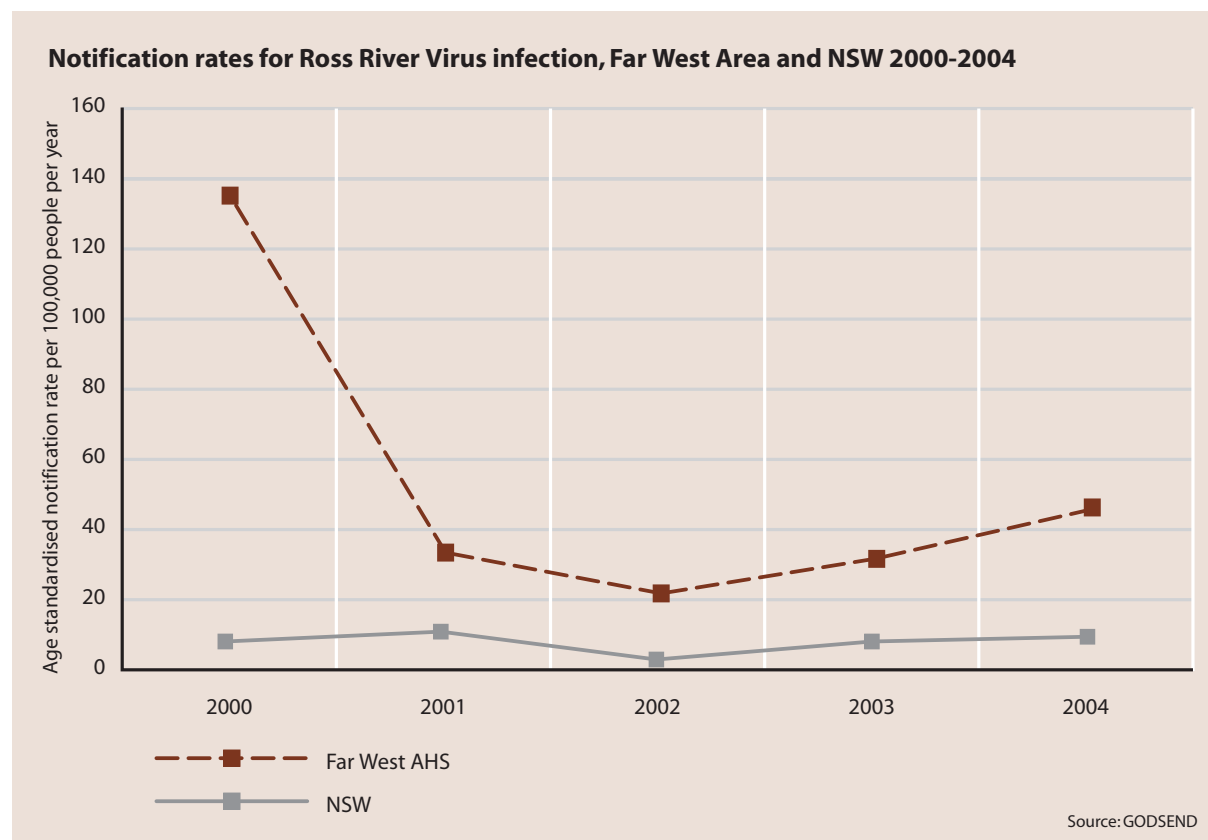
People who contract RRV infection may get arthritis with or without fever. Arthritis most commonly occurs in the knees, feet, hands, wrists and ankles. A rash, fever and chills may also occur. Other symptoms include sore muscles, headache, weariness, a feeling of being generally unwell and depression. Symptoms usually develop between 2 and 21 days after infection. Some people may not display symptoms at all.

RRV infection most commonly occurs in adults. The only way to diagnose RRV infection is through blood tests.

There is no cure for RRV infection. Treatment is aimed at relieving the symptoms. Once infection is diagnosed, the doctor will usually recommend rest and aspirin to relieve the pain and swelling of joints. Little to moderate exercise, stress management, gentle physiotherapy and plenty of rest during the day can all help in relieving the symptoms. Appropriate exercise in a heated pool is also beneficial.

Although most patients recover in three to four weeks, it can take as long as two years for people to fully recover from infection with RRV.

Rates of notification of RRV infection have been consistently higher in the Far West than in NSW, with rates peaking in 2000. The lowest rate was experienced in 2002, which maybe due to the continued hot conditions associated with drought. The chart shows that most arbovirus notifications in the Far West can be attributed to RRV.



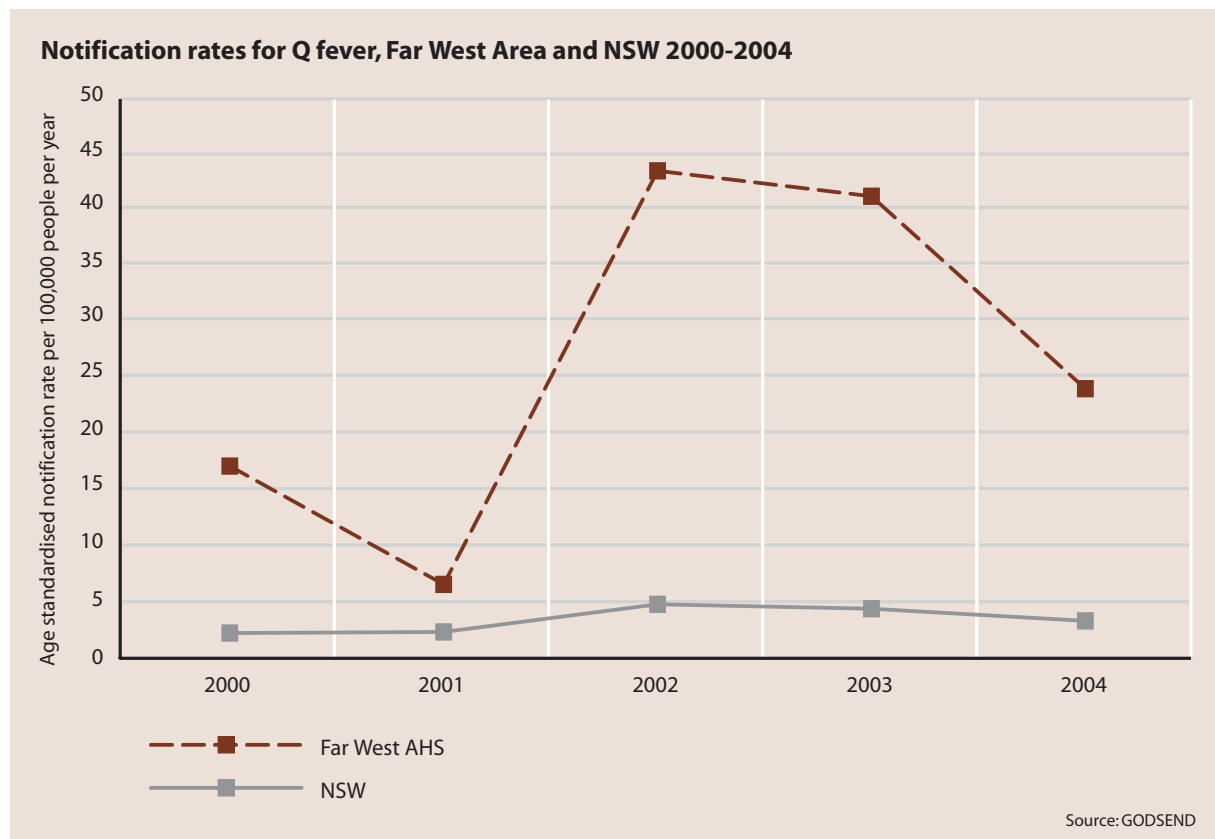
Q Fever

The Q fever organism is spread by dust, which has been contaminated by tissue, fluid, excreta and afterbirth of infected animals. The dust is often found near meat processing works. Contaminated dust may be carried over one kilometre. The Q fever organism may also be picked up by direct contact with an infected animal or contaminated materials such as straw, wool, fertiliser or the dirty clothes of an infected person.

Q fever affects people working with animals, including veterinarians, meat and dairy workers, shearers, and farmers. Outbreaks have occurred amongst workers in stockyards, people handling goats and in meatpacking and rendering plants.

Cattle, sheep, goats, ticks and some native animals such as kangaroos and bandicoots carry Q fever. Domestic animals usually do not have any symptoms, but large numbers of the organism are present in the placenta and other tissue when they give birth.

The rate of notification of Q fever is much higher in the Far West than in NSW. This pattern is expected, as Q fever is a 'rural' disease. The peak in notifications in 2002 and 2003 has been attributed to the drought, which has increased dust, stock movement and the opening and closing of abattoirs. It is also thought that there is an increasing awareness of this disease.



Murdi Paaki communities at a glance

Balranald Shire

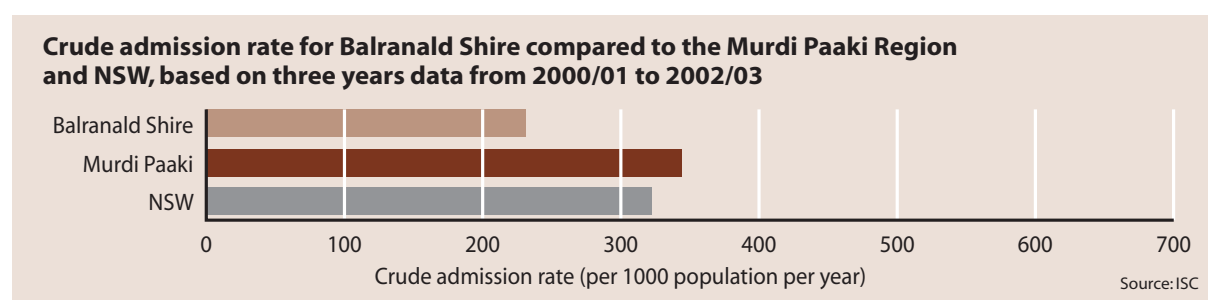
Population **2,771 (7% Aboriginality)**
Leading cause of illness **Respiratory diseases (15.2%)**
Leading cause of death **Cancer (32.3%)**

Demography

- The population of Balranald Shire in 2001 was 2,771 (7% Aboriginality).
- Balranald Shire residents in comparison to NSW have lower unemployment, comparable incomes and a similar number of benefits per capita.

Acute illness

- On average there are 639 admissions of Balranald Shire residents per annum.



- Overall Balranald Shire males and females are less likely to be admitted to hospital compared to NSW males and females.
- Compared to the Murdi Paaki Region, there is a larger proportion of admissions of Balranald Shire residents for injury and poisoning and respiratory diseases, whereas there is a smaller proportion for social reasons and digestive diseases.

Percentage of total admissions for the top four reasons for admission in Murdi Paaki Region compared to Balranald Shire, based on three years experience 2000/01 to 2002/03

	Balranald Shire	Murdi Paaki
Social admissions	14.0% ↓	17.9%
Digestive diseases	7.4% ↓	10.2%
Injury and poisoning	10.7% ↑	7.3%
Respiratory disease	15.2% ↑	9.1%

↓ Significantly lower than Murdi Paaki

↑ Significantly higher than Murdi Paaki

Source: ISC

Deaths

- There were, on average, 21 deaths per year of Balranald Shire residents.
- Overall, the death rate for Balranald Shire males and females is similar to NSW males and females.
- Compared to NSW there are significantly fewer deaths due to circulatory disease of Balranald Shire residents.

Cause of death as a percentage of the total deaths, Balranald Shire and NSW, based on six years data - 1997 – 2002.

	Balranald Shire	Murdi Paaki
Circulatory disease	27.6% ↓	40.8%
Cancer	32.3%	27.6%
Respiratory disease	11.8%	8.1%
Injury	6.3%	5.7%

↓ Significantly lower than NSW

Source: ABS mortality data

↑ Significantly higher than NSW

Cancer

- In the Balranald Shire there are about 5 cancer deaths per year.
- In the Balranald Shire the most commonly diagnosed cancer in males was prostate cancer (26%), and in females breast cancer (44%).
- In the Balranald Shire lung cancer was the most common cause of cancer death in males (22%) and for females breast cancer (30%) accounted for the most cancer deaths.

Mothers and babies

- There are, on average, 44 babies born every year to women who reside in the Balranald Shire.
- On average 7% of all births are to Aboriginal women who represent 8% of the Balranald Shire female population aged 15 – 44.
- The fertility rate for Balranald Shire Aboriginal and non-Aboriginal women is similar to NSW Aboriginal and non-Aboriginal women.
- There are more women aged 15 – 19 and fewer women aged over 30 in Bourke Shire having babies compared to NSW.

Bourke Shire

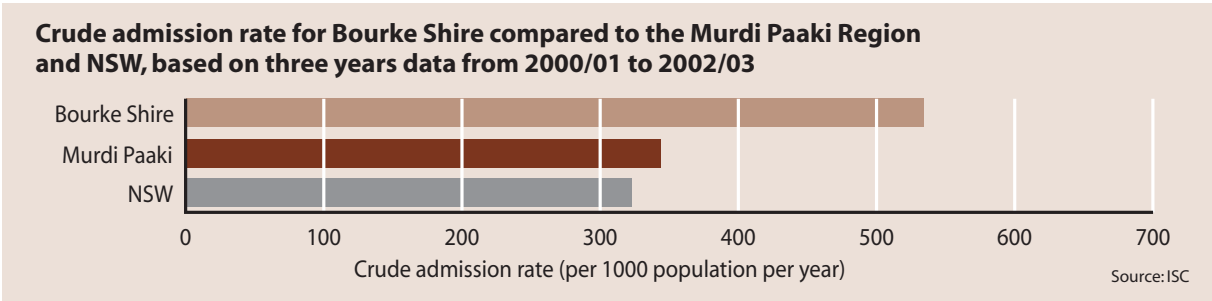
Population **3,903 (25% Aboriginality)**
Leading cause of illness **Social admissions (14.7%)**
Leading cause of death **Circulatory diseases (36.4%)**

Demography

- The population of Bourke Shire in 2001 was 3,903 (25% Aboriginality).
- Bourke Shire residents in comparison to NSW have high unemployment, lower incomes and are more likely to have left school at a younger age. They receive more benefits per capita compared to NSW.

Acute illness

- On average there are 2,079 admissions of Bourke Shire residents per annum.



- Overall Bourke Shire males and females are more likely to be admitted to hospital compared to NSW males and females.
- Compared to the Murdi Paaki Region, there is a larger proportion of admissions of Bourke Shire residents for digestive diseases, injury and poisoning and respiratory diseases. There is a smaller proportion for social reasons compared to Murdi Paaki residents.

Percentage of total admissions for the top four reasons for admission in Murdi Paaki Region compared to Bourke Shire, based on three years experience 2000/01 to 2002/03

	Bourke Shire	Murdi Paaki
Social admissions	14.7% ↓	17.9%
Digestive diseases	11.3% ↑	10.2%
Injury and poisoning	11.6% ↑	7.3%
Respiratory disease	11.4% ↑	9.1%

↓ Significantly lower than Murdi Paaki
↑ Significantly higher than Murdi Paaki

Source: ISC

Deaths

- There were, on average, 29 deaths per year of Bourke Shire residents.
- Overall, the death rate for Bourke Shire males and females is similar to NSW males and females.
- Compared to NSW there are significantly more deaths due to injury of Bourke Shire residents.

Cause of death as a percentage of the total deaths, Bourke Shire and NSW, based on six years data - 1997 – 2002.

	Bourke Shire	Murdi Paaki
Circulatory disease	36.4%	40.8%
Cancer	23.9%	27.6%
Respiratory disease	9.7%	8.1%
Injury	10.2% ↑	5.7%

↓ Significantly lower than NSW

Source: ABS mortality data

↑ Significantly higher than NSW

Cancer

- In the Bourke Shire there are about 7 cancer deaths per year.
- In the Bourke Shire the most commonly diagnosed cancer in males was prostate (17%) and lung cancer (17%) in males and in females breast cancer (31%).
- In the Bourke Shire lung cancer was the most common cause of cancer death in males (33%) and for females lung (14%) and colon cancer (14%) accounted for the most cancer deaths.

Mothers and babies

- There are, on average, 86 babies born every year to women who reside in the Bourke Shire.
- On average 42% of all births are to Aboriginal women who represent 26% of the Bourke Shire female population aged 15 – 44.
- The fertility rate for Bourke Shire Aboriginal is significantly higher than NSW Aboriginal women.
- The fertility rate for Bourke Shire non-Aboriginal women is similar to NSW non-Aboriginal women.
- There are more women aged 15 – 19 and fewer women aged over 30 in the Bourke Shire having babies compared to NSW.

Brewarrina

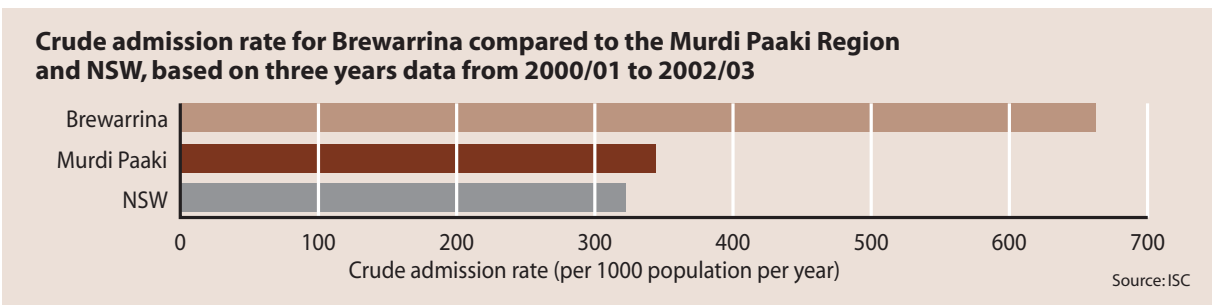
Population **1,551 (52% Aboriginality)**
Leading cause of illness **Social admissions (38.1%)**
Leading cause of death **Circulatory diseases (39.1%)**

Demography

- The population of Brewarrina town in 2001 was 1,551 (52% Aboriginality).
- Brewarrina town residents in comparison to NSW have high unemployment, lower incomes and are more likely to have left school at a younger age. They receive more benefits per capita compared to NSW.

Acute illness

- On average there are 2,361 admissions of Brewarrina town residents per annum.



- Overall Brewarrina town males and females are more likely to be admitted to hospital compared to NSW males and females.
- Compared to the Murdi Paaki, there is a larger proportion of admissions of Brewarrina town residents for social reasons. There is a smaller proportion for digestive and respiratory diseases compared to Murdi Paaki.

Percentage of total admissions for the top four reasons for admission in Murdi Paaki Region compared to Brewarrina town, based on three years experience 2000/01 to 2002/03

	Brewarrina	Murdi Paaki
Social admissions	38.1% ↑	17.9%
Digestive diseases	7.8% ↓	10.2%
Injury and poisoning	6.6%	7.3%
Respiratory disease	6.6% ↓	9.1%

↓ Significantly lower than Murdi Paaki
↑ Significantly higher than Murdi Paaki

Source: ISC

Deaths

Due to small numbers the following data relates to Brewarrina Shire.

- There were, on average, 15 deaths per year of Brewarrina Shire residents.
- Overall, the death rate for Brewarrina Shire males and females is similar to NSW males and females.
- Compared to NSW the pattern of cause of death for Brewarrina Shire residents is the same.

Cause of death as a percentage of the total deaths, Brewarrina Shire and NSW, based on six years data - 1997 – 2002.

	Brewarrina Shire	Murdi Paaki
Circulatory disease	39.1%	40.8%
Cancer	20.7%	27.6%
Respiratory disease	7.6%	8.1%
Injury	9.8%	5.7%

↓ Significantly lower than NSW

↑ Significantly higher than NSW

Source: ABS mortality data

Cancer

Due to small numbers the following data relates to Brewarrina Shire.

- In the Brewarrina Shire there are about 3 cancer deaths per year.
- In the Brewarrina Shire the most commonly diagnosed cancer in males was lung cancer (21%), and in females breast cancer (29%).
- In the Brewarrina Shire lung cancer was the most common cause of cancer death in males (31%) and females (40%).

Mothers and babies

Due to small numbers the following data relates to Brewarrina Shire.

- There are, on average, 40 babies born every year to women who reside in the Brewarrina Shire.
- On average 67% of all births are to Aboriginal women who represent 55% of the Brewarrina Shire female population aged 15 – 44.
- The fertility rate for Brewarrina Shire Aboriginal and non-Aboriginal women is similar to NSW Aboriginal and non-Aboriginal women.
- There are more women aged 15 – 19 and fewer women aged over 30 in the Brewarrina Shire having babies compared to NSW.

Broken Hill

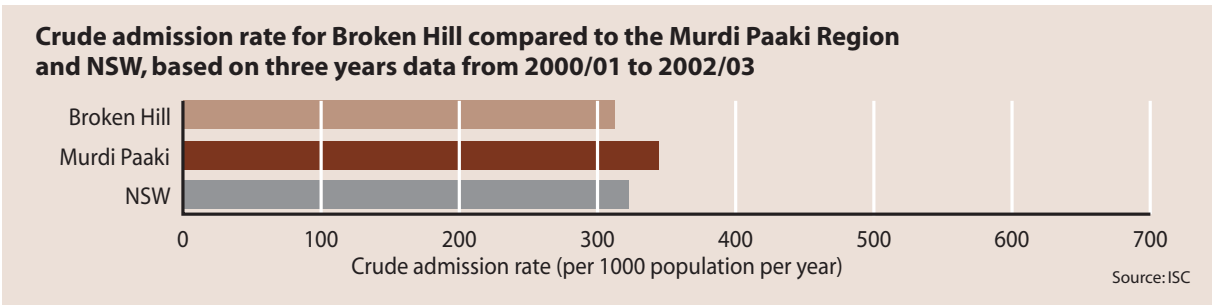
Population **20,279 (5% Aboriginality)**
Leading cause of illness **Social admissions (14.6%)**
Leading cause of death **Circulatory diseases (44.9%)**

Demography

- The population of Broken Hill in 2001 was 20,279 (5% Aboriginality).
- Broken Hill residents in comparison to NSW have high unemployment, lower incomes and are much more likely to have left school at a younger age. They receive more benefits per capita compared to NSW.

Acute illness

- On average there are 6,328 admissions of Broken Hill residents per annum.



- Overall Broken Hill males and females are less likely to be admitted to hospital for any reason compared to NSW males and females.
- Compared to the Murdi Paaki, there is a larger proportion of admissions of Broken Hill residents for digestive diseases. There is a smaller proportion for social reasons and respiratory diseases compared to Murdi Paaki.

Percentage of total admissions for the top four reasons for admission in Murdi Paaki Region compared to Broken Hill, based on three years experience 2000/01 to 2002/03

	Broken Hill	Murdi Paaki
Social admissions	14.6% ↓	17.9%
Digestive diseases	11.9% ↑	10.2%
Injury and poisoning	7.6%	7.3%
Respiratory disease	6.6% ↓	9.1%

↓ Significantly lower than Murdi Paaki
↑ Significantly higher than Murdi Paaki

Source: ISC

Deaths

- There were, on average, 225 deaths per year of Broken Hill residents.
- Overall, the death rate for Broken Hill males and females is similar to NSW males and females.
- Compared to NSW there are significantly more deaths due to circulatory diseases of Broken Hill residents. There are significantly fewer deaths due to cancer and injury.

Cause of death as a percentage of the total deaths, Broken Hill and NSW, based on six years data - 1997 – 2002.

	Broken Hill	Murdi Paaki
Circulatory disease	44.9% ↑	40.8%
Cancer	24.7% ↓	27.6%
Respiratory disease	8.6%	8.1%
Injury	3.9% ↓	5.7%

↓ Significantly lower than NSW

↑ Significantly higher than NSW

Source: ABS mortality data

Cancer

- In the Broken Hill there are about 45 cancer deaths per year.
- In the Broken Hill the most commonly diagnosed cancer in males was prostate cancer (24%), and in females breast cancer (25%).
- In the Broken Hill lung cancer was the most common cause of cancer death in males (23%) and for females breast cancer (26%) accounted for the most cancer deaths.

Mothers and babies

- There are, on average, 256 babies born every year to women who reside in Broken Hill.
- On average 10% of all births are to Aboriginal women who represent 6% of Broken Hill female population aged 15 – 44.
- The fertility rate for Broken Hill Aboriginal and non-Aboriginal women is similar to NSW Aboriginal and non-Aboriginal women.
- There are more women aged 15 – 19 and fewer women aged over 30 in Broken Hill having babies compared to NSW.

Cobar Shire

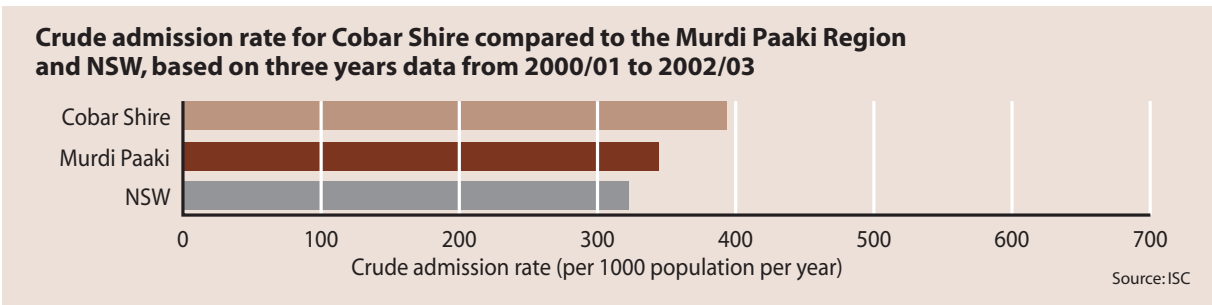
Population **5,149 (9% Aboriginality)**
Leading cause of illness **Social admissions (12.5%)**
Leading cause of death **Cancer (32.8%)**

Demography

- The population of Cobar Shire in 2001 was 5,149 (9% Aboriginality).
- Cobar Shire residents are less likely to receive benefit payments, have lower unemployment and higher incomes, indicative of the local mining industry.

Acute illness

- On average there are 2,022 admissions of Cobar Shire residents per annum.



- Overall Cobar Shire males and females are more likely to be admitted to hospital for any reason compared to NSW males and females.
- Compared to the Murdi Paaki, there is a larger proportion of admissions of Cobar Shire residents for injury and poisoning, whereas there is a smaller proportion for social reasons and respiratory diseases.

Percentage of total admissions for the top four reasons for admission in Murdi Paaki Region compared to Cobar Shire, based on three years experience 2000/01 to 2002/03

	Cobar Shire	Murdi Paaki
Social admissions	12.5% ↓	17.9%
Digestive diseases	10.5%	10.2%
Injury and poisoning	11.3% ↑	7.3%
Respiratory disease	8.1% ↓	9.1%

↓ Significantly lower than Murdi Paaki
↑ Significantly higher than Murdi Paaki

Source: ISC

Deaths

- There were, on average, 34 deaths per year of Cobar Shire residents.
- Overall, the death rate for Cobar Shire males and females is similar to NSW males and females.
- Compared to NSW there are significantly more deaths due to injury and fewer deaths due to circulatory disease of Cobar Shire residents.

Cause of death as a percentage of the total deaths, Cobar Shire and NSW, based on six years data - 1997 – 2002.

	Cobar Shire	Murdi Paaki
Circulatory disease	27.4% ↓	40.8%
Cancer	32.8%	27.6%
Respiratory disease	8.0%	8.1%
Injury	10.9% ↑	5.7%

↓ Significantly lower than NSW

Source: ABS mortality data

↑ Significantly higher than NSW

Cancer

- In the Cobar Shire there are about 8 cancer deaths per year.
- In the Cobar Shire the most commonly diagnosed cancer in males was prostate cancer (21%), and in females breast cancer (27%).
- In the Cobar Shire lung cancer was the most common cause of cancer death in males (25%) and for females breast cancer (20%) accounted for the most cancer deaths.

Mothers and babies

- There are, on average, 90 babies born every year to women who reside in the Cobar Shire.
- On average 9% of all births are to Aboriginal women who represent 10% of the Cobar Shire female population aged 15 – 44.
- The fertility rate for Cobar Shire Aboriginal women is similar to NSW Aboriginal women.
- Cobar Shire non-Aboriginal women are more likely to have babies compared to NSW non-Aboriginal women.
- There are more women aged 15 – 19 and fewer women aged over 30 in the Cobar Shire having babies compared to NSW.

Collarenebri

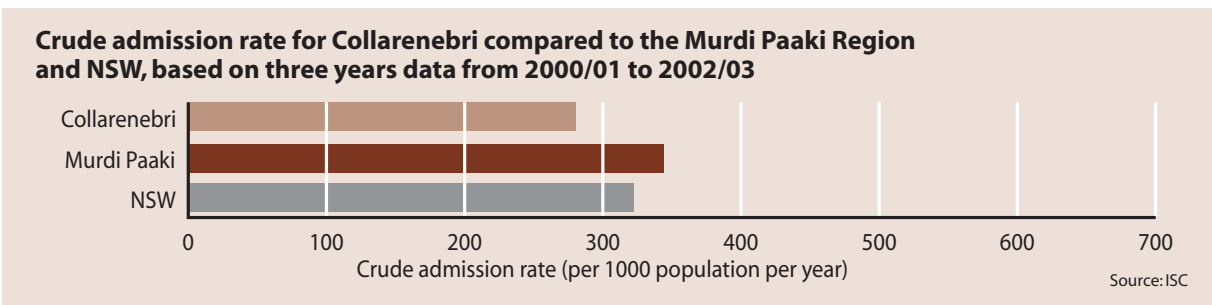
Population **1,066 (25% Aboriginality)**
Leading cause of illness **Digestive diseases (12.1%)**
Leading cause of death **Circulatory diseases (30.3%)**

Demography

- The population of Collarenebri in 2001 was 1,066 (25% Aboriginality).
- Collarenebri residents in comparison to NSW have lower incomes and are more likely to have left school at a younger age. They receive more benefits per capita compared to NSW.

Acute illness

- On average there are 298 admissions of Collarenebri residents per annum.



- Overall Collarenebri males are less likely to be admitted to hospital for any reason compared to NSW males, whereas Collarenebri females are admitted to at a rate similar to NSW females.
- Compared to the Murdi Paaki, there is a larger proportion of admissions of Collarenebri residents for injury and poisoning and respiratory diseases. There is a smaller proportion for social reasons compared to Murdi Paaki.

Percentage of total admissions for the top four reasons for admission in Murdi Paaki Region compared to Collarenebri, based on three years experience 2000/01 to 2002/03

	Collarenebri	Murdi Paaki
Social admissions	6.7% ↓	17.9%
Digestive diseases	12.1%	10.2%
Injury and poisoning	9.7% ↑	7.3%
Respiratory disease	11.5% ↑	9.1%

↓ Significantly lower than Murdi Paaki
↑ Significantly higher than Murdi Paaki

Source: ISC

Deaths

Due to small numbers the following data relates to Walgett Shire.

- There were, on average, 61 deaths per year of Walgett Shire residents.
- Overall, the death rate for Walgett Shire males and females is similar to NSW males and females.
- Compared to NSW there are significantly fewer deaths due to circulatory disease and more deaths due to injury of Walgett Shire residents.

Cause of death as a percentage of the total deaths, Walgett Shire and NSW, based on six years data - 1997 – 2002.

	Walgett Shire	Murdi Paaki
Circulatory disease	30.3% ↓	40.8%
Cancer	27.5%	27.6%
Respiratory disease	9.9%	8.1%
Injury	12.7% ↑	5.7%

↓ Significantly lower than NSW

Source: ABS mortality data

↑ Significantly higher than NSW

Cancer

Due to small numbers the following data relates to Walgett Shire.

- In the Walgett Shire there are about 16 cancer deaths per year.
- In the Walgett Shire the most commonly diagnosed cancer in males was prostate cancer (22%), and in females breast cancer (22%).
- In the Walgett Shire lung cancer was the most common cause of cancer death in males (30%) and females (18%).

Mothers and babies

Due to small numbers the following data relates to Walgett Shire.

- There are, on average, 62 babies born every year to women who reside in the Walgett Shire.
- On average 39% of all births are to Aboriginal women who represent 26% of the Walgett Shire female population aged 15 – 44.
- Walgett Shire Aboriginal women are more likely to have babies compared to NSW Aboriginal women, whereas the fertility rate for Walgett Shire non-Aboriginal women is the same as NSW non-Aboriginal women.
- There are more women aged 15 – 19 and fewer women aged over 30 in the Walgett Shire having babies compared to NSW.

Coonamble

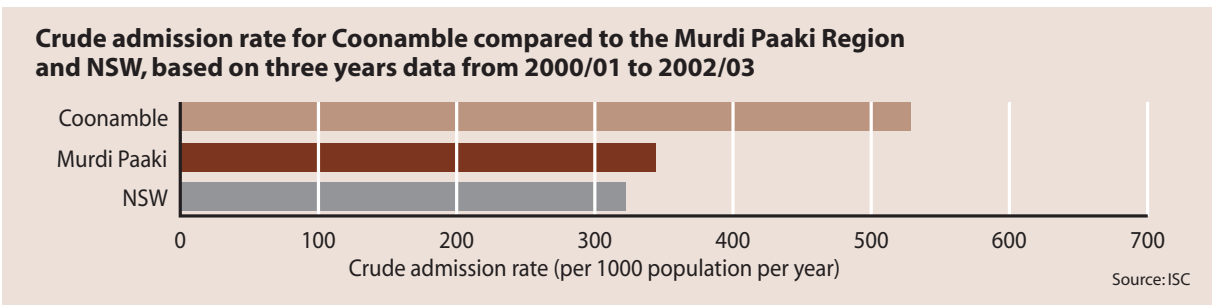
Population **3,830 (20% Aboriginality)**
Leading cause of illness **Social admissions (21.7%)**
Leading cause of death **Circulatory diseases (37.7%)**

Demography

- The population of Coonamble town in 2001 was 3,830 (20% Aboriginality).
- Coonamble town residents in comparison to NSW have high unemployment, lower incomes and are more likely to have left school at a younger age. They receive more benefits per capita compared to NSW.

Acute illness

- On average there are 1,573 admissions of Coonamble town residents per annum.



- Overall Coonamble town males and females are more likely to be admitted to hospital for any reason compared to NSW males and females.
- Compared to the Murdi Paaki, there are significantly more admissions of Coonamble town residents for social reasons and injuries. There are significantly fewer admissions for digestive diseases.

Percentage of total admissions for the top four reasons for admission in Murdi Paaki Region compared to Coonamble town, based on three years experience 2000/01 to 2002/03

	Coonamble	Murdi Paaki
Social admissions	21.7% ↑	17.9%
Digestive diseases	9.3% ↓	10.2%
Injury and poisoning	9.8% ↑	7.3%
Respiratory disease	9.0%	9.1%

↓ Significantly lower than Murdi Paaki
↑ Significantly higher than Murdi Paaki

Source: ISC

Deaths

Due to small numbers the following data relates to Coonamble Shire.

- There were, on average, 43 deaths per year of Coonamble Shire residents.
- Overall, the death rate for Coonamble Shire males and females is similar to NSW males and females.
- Compared to NSW the pattern of cause of death for Coonamble Shire residents is the same.

Cause of death as a percentage of the total deaths, Coonamble Shire and NSW, based on six years data - 1997 – 2002.

	Coonamble Shire	Murdi Paaki
Circulatory disease	37.7%	40.8%
Cancer	24.1%	27.6%
Respiratory disease	10.5%	8.1%
Injury	7.0%	5.7%

↓ Significantly lower than NSW

Source: ABS mortality data

↑ Significantly higher than NSW

Cancer

Due to small numbers the following data relates to Coonamble Shire.

- In the Coonamble Shire there are about 10 cancer deaths per year.
- In the Coonamble Shire the most commonly diagnosed cancer in males was prostate cancer (23%), and in females breast cancer (17%) and lung cancer (17%).
- In the Coonamble Shire lung cancer was the most common cause of cancer death in males (22%) and for females breast cancer (30%) accounted for the most cancer deaths.

Mothers and babies

Due to small numbers the following data relates to Coonamble Shire.

- There are, on average, 85 babies born every year to women who reside in the Coonamble Shire.
- On average 32% of all births are to Aboriginal women who represent 23% of the Coonamble Shire female population aged 15 – 44.
- The fertility rate for Coonamble Shire Aboriginal and non-Aboriginal women is statistically significantly higher than the rate for NSW Aboriginal and non-Aboriginal women.
- There are more women aged 15 – 19 and fewer women aged over 35 in the Coonamble Shire having babies compared to NSW.

Goodooga

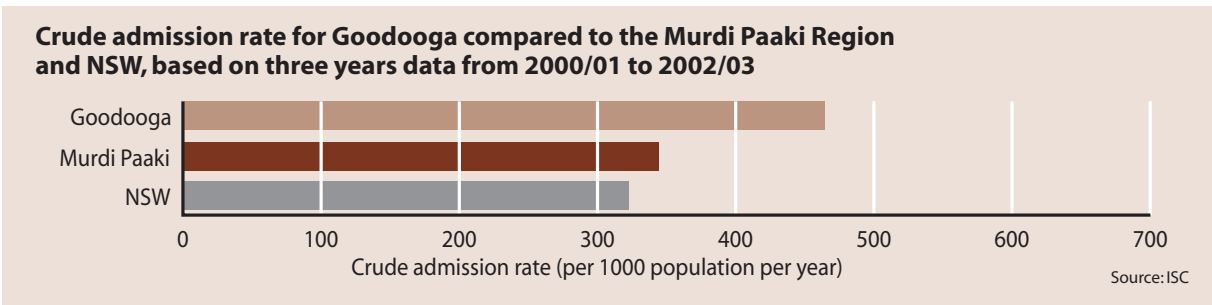
Population **303 (79% Aboriginality)**
Leading cause of illness **Social admissions (21.1%)**
Leading cause of death **Circulatory diseases (39.1%)**

Demography

- The population of Goodooga in 2001 was 303 (79% Aboriginality).
- Goodooga residents in comparison to NSW have lower unemployment, but lower incomes and are more likely to have left school at a younger age. They receive more benefits per capita compared to NSW.

Acute illness

- On average there are 129 admissions of Goodooga residents per annum.



- Overall Goodooga males and females are more likely to be admitted to hospital for any reason compared to NSW males and females.
- Compared to the Murdi Paaki, the pattern of reasons for admission of Goodooga residents to hospital is similar.

Percentage of total admissions for the top four reasons for admission in Murdi Paaki Region compared to Goodooga, based on three years experience 2000/01 to 2002/03

	Goodooga	Murdi Paaki
Social admissions	21.1%	17.9%
Digestive diseases	12.4%	10.2%
Injury and poisoning	8.0%	7.3%
Respiratory disease	9.3%	9.1%

- ↓ Significantly lower than Murdi Paaki
↑ Significantly higher than Murdi Paaki

Source: ISC

Deaths

Due to small numbers the following data relates to Brewarrina Shire.

- There were, on average, 15 deaths per year of Brewarrina Shire residents.
- Overall, the death rate for Brewarrina Shire males and females is similar to NSW males and females.
- Compared to NSW the pattern of cause of death for Brewarrina Shire residents is the same.

Cause of death as a percentage of the total deaths, Brewarrina Shire and NSW, based on six years data - 1997 – 2002.

	Brewarrina Shire	Murdi Paaki
Circulatory disease	39.1%	40.8%
Cancer	20.7%	27.6%
Respiratory disease	7.6%	8.1%
Injury	9.8%	5.7%

↓ Significantly lower than NSW

Source: ABS mortality data

↑ Significantly higher than NSW

Cancer

Due to small numbers the following data relates to Brewarrina Shire.

- In the Brewarrina Shire there are about 3 cancer deaths per year.
- In the Brewarrina Shire the most commonly diagnosed cancer in males was lung cancer (21%), and in females breast cancer (29%).
- In the Brewarrina Shire lung cancer was the most common cause of cancer death in males (31%) and females (40%).

Mothers and babies

Due to small numbers the following data relates to Brewarrina Shire.

- There are, on average, 40 babies born every year to women who reside in the Brewarrina Shire.
- On average 67% of all births are to Aboriginal women who represent 55% of the Brewarrina Shire female population aged 15 – 44.
- The fertility rate for Brewarrina Shire Aboriginal and non-Aboriginal women is similar to NSW Aboriginal and non-Aboriginal women.
- There are more women aged 15 – 19 and fewer women aged over 30 in the Brewarrina Shire having babies compared to NSW.

Gulargambone

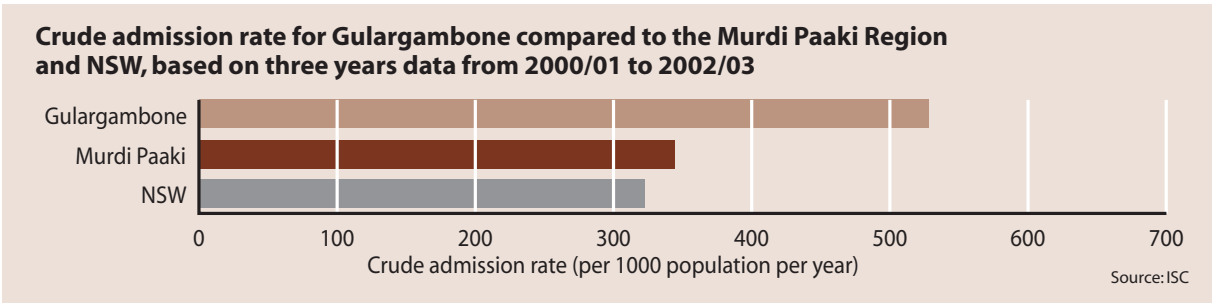
Population **998 (20% Aboriginality)**
Leading cause of illness **Social admissions (35.7%)**
Leading cause of death **Circulatory diseases (37.7%)**

Demography

- The population of Gulargambone in 2001 was 998 (20% Aboriginality).
- Gulargambone residents in comparison to NSW have lower unemployment, but lower incomes and are more likely to have left school at a younger age. They also receive more benefits per capita compared to NSW.

Acute illness

- On average there are 527 admissions of Gulargambone residents per annum.



- Overall Gulargambone males and females are more likely to be admitted to hospital for any reason compared to NSW males and females.
- Compared to the Murdi Paaki, there are significantly more admissions of Gulargambone residents for social reasons. There are significantly fewer admissions for digestive and respiratory diseases.

Percentage of total admissions for the top four reasons for admission in Murdi Paaki Region compared to Gulargambone, based on three years experience 2000/01 to 2002/03

	Gulargambone	Murdi Paaki
Social admissions	35.7% ↑	17.9%
Digestive diseases	8.7% ↓	10.2%
Injury and poisoning	7.0%	7.3%
Respiratory disease	6.4% ↓	9.1%

↓ Significantly lower than Murdi Paaki
↑ Significantly higher than Murdi Paaki

Source: ISC

Deaths

Due to small numbers the following data relates to Coonamble Shire.

- There were, on average, 43 deaths per year of Coonamble Shire residents.
- Overall, the death rate for Coonamble Shire males and females is similar to NSW males and females.
- Compared to NSW the pattern of cause of death for Coonamble Shire residents is the same.

Cause of death as a percentage of the total deaths, Coonamble Shire and NSW, based on six years data - 1997 – 2002.

	Coonamble Shire	Murdi Paaki
Circulatory disease	37.7%	40.8%
Cancer	24.1%	27.6%
Respiratory disease	10.5%	8.1%
Injury	7.0%	5.7%

↓ Significantly lower than NSW

↑ Significantly higher than NSW

Source: ABS mortality data

Cancer

Due to small numbers the following data relates to Coonamble Shire.

- In the Coonamble Shire there are about 10 cancer deaths per year.
- In the Coonamble Shire the most commonly diagnosed cancer in males was prostate cancer (23%), and in females breast cancer (17%) and lung cancer (17%).
- In the Coonamble Shire lung cancer was the most common cause of cancer death in males (22%) and for females breast cancer (30%) accounted for the most cancer deaths.

Mothers and babies

Due to small numbers the following data relates to Coonamble Shire.

- There are, on average, 85 babies born every year to women who reside in the Coonamble Shire.
- On average 32% of all births are to Aboriginal women who represent 23% of the Coonamble Shire female population aged 15 – 44.
- The fertility rate for Coonamble Shire Aboriginal and non-Aboriginal women is statistically significantly higher than the rate for NSW Aboriginal and non-Aboriginal women.
- There are more women aged 15 – 19 and fewer women aged over 35 in the Coonamble Shire having babies compared to NSW.

Ivanhoe

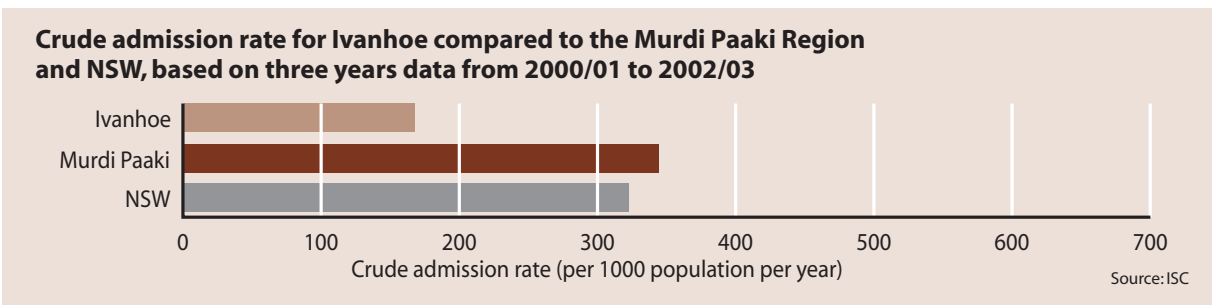
Population **510 (18% Aboriginality)**
Leading cause of illness **Injury and poisoning (15.7%)**
Leading cause of death **Circulatory diseases (38.2%)**

Demography

- The population of Ivanhoe in 2001 was 510 (18% Aboriginality).
- Ivanhoe residents in comparison to NSW have high unemployment, lower incomes and are more likely to have left school at a younger age. They receive more benefits per capita compared to NSW.

Acute illness

- On average there are 85 admissions of Ivanhoe residents per annum.



- Overall Ivanhoe males and females are less likely to be admitted to hospital for any reason compared to NSW males and females.
- Compared to the Murdi Paaki, there are significantly more admissions of Ivanhoe residents for injuries. There are significantly fewer admissions for social reasons and respiratory diseases.

Percentage of total admissions for the top four reasons for admission in Murdi Paaki Region compared to Ivanhoe, based on three years experience 2000/01 to 2002/03

	Ivanhoe	Murdi Paaki
Social admissions	11.0% ↓	17.9%
Digestive diseases	12.2%	10.2%
Injury and poisoning	15.7% ↑	7.3%
Respiratory disease	5.9% ↓	9.1%

↓ Significantly lower than Murdi Paaki
↑ Significantly higher than Murdi Paaki

Source: ISC

Deaths

Due to small numbers the following data relates to Central Darling Shire.

- There were, on average, 21 deaths per year of Central Darling Shire residents.
- Overall, the death rate for Central Darling Shire males and females is similar to NSW males and females.
- Compared to NSW there are significantly more deaths of Central Darling Shire residents due to injury.

Cause of death as a percentage of the total deaths, Central Darling Shire and NSW, based on six years data - 1997 – 2002.

	Central Darling Shire	Murdi Paaki
Circulatory disease	38.2%	40.8%
Cancer	26.8%	27.6%
Respiratory disease	9.8%	8.1%
Injury	13.0% ↑	5.7%

↓ Significantly lower than NSW

↑ Significantly higher than NSW

Source: ABS mortality data

Cancer

Due to small numbers the following data relates to Central Darling Shire.

- In the Central Darling Shire there are about 6 cancer deaths per year.
- In the Central Darling Shire the most commonly diagnosed cancer in males was lung cancer (18%) and prostate cancer (18%), and in females breast cancer (24%).
- In the Central Darling Shire lung cancer was the most common cause of cancer death in males (35%) and females (20%).

Mothers and babies

Due to small numbers the following data relates to Central Darling Shire.

- There are, on average, 35 babies born every year to women who reside in the Central Darling Shire.
- On average 61% of all births are to Aboriginal women who represent 35% of the Central Darling Shire female population aged 15 – 44.
- Central Darling Shire Aboriginal women are more likely to have babies compared to NSW non-Aboriginal women.
- The fertility rate for Central Darling Shire non-Aboriginal women is similar to NSW non-Aboriginal women.
- There are more women aged 15 – 19 and fewer women aged over 35 in the Central Darling Shire having babies compared to NSW.

Lightning Ridge

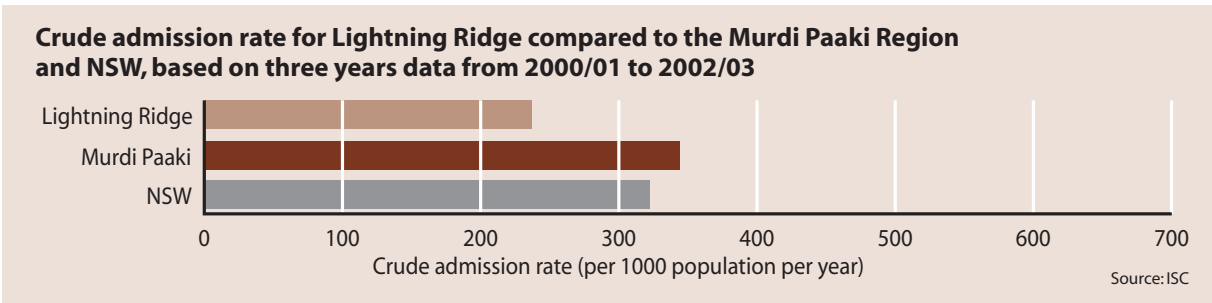
Population **3,343 (14% Aboriginality)**
Leading cause of illness **Digestive diseases (12.1%)**
Leading cause of death **Circulatory diseases (30.3%)**

Demography

- The population of Lightning Ridge in 2001 was 3,343 (14% Aboriginality).
- Lightning Ridge residents, compared to NSW, have the highest unemployment rate in the region, lower incomes and are more likely to have left school at a younger age. They also receive more benefits per capita compared to NSW.

Acute illness

- On average there are 791 admissions of Lightning Ridge residents per annum.



- Overall Lightning Ridge males and females are less likely to be admitted to hospital for any reason compared to NSW males and females.
- Compared to the Murdi Paaki, there is a larger proportion of admissions of Lightning Ridge residents for digestive diseases and injury and poisoning. There is a smaller proportion for social reasons and respiratory diseases compared to Murdi Paaki.

Percentage of total admissions for the top four reasons for admission in Murdi Paaki Region compared to Lightning Ridge, based on three years experience 2000/01 to 2002/03

	Lightning Ridge	Murdi Paaki
Social admissions	9.9% ↓	17.9%
Digestive diseases	12.1% ↑	10.2%
Injury and poisoning	9.7% ↑	7.3%
Respiratory disease	7.8% ↓	9.1%

↓ Significantly lower than Murdi Paaki
↑ Significantly higher than Murdi Paaki

Source: ISC

Deaths

Due to small numbers the following data relates to Walgett Shire.

- There were, on average, 61 deaths per year of Walgett Shire residents.
- Overall, the death rate for Walgett Shire males and females is similar to NSW males and females.
- Compared to NSW there are significantly fewer deaths due to circulatory disease and more deaths due to injury of Walgett Shire residents.

Cause of death as a percentage of the total deaths, Walgett Shire and NSW, based on six years data - 1997 – 2002.

	Walgett Shire	Murdi Paaki
Circulatory disease	30.3% ↓	40.8%
Cancer	27.5%	27.6%
Respiratory disease	9.9%	8.1%
Injury	12.7% ↑	5.7%

↓ Significantly lower than NSW

↑ Significantly higher than NSW

Source: ABS mortality data

Cancer

Due to small numbers the following data relates to Walgett Shire.

- In the Walgett Shire there are about 16 cancer deaths per year.
- In the Walgett Shire the most commonly diagnosed cancer in males was prostate cancer (22%), and in females breast cancer (22%).
- In the Walgett Shire lung cancer was the most common cause of cancer death in males (30%) and females (18%).

Mothers and babies

Due to small numbers the following data relates to Walgett Shire.

- There are, on average, 62 babies born every year to women who reside in the Walgett Shire.
- On average 39% of all births are to Aboriginal women who represent 26% of the Walgett Shire female population aged 15 – 44.
- Walgett Shire Aboriginal women are more likely to have babies compared to NSW Aboriginal women, whereas the fertility rate for Walgett Shire non-Aboriginal women is the same as NSW non-Aboriginal women.
- There are more women aged 15 – 19 and fewer women aged over 30 in the Walgett Shire having babies compared to NSW.

Menindee

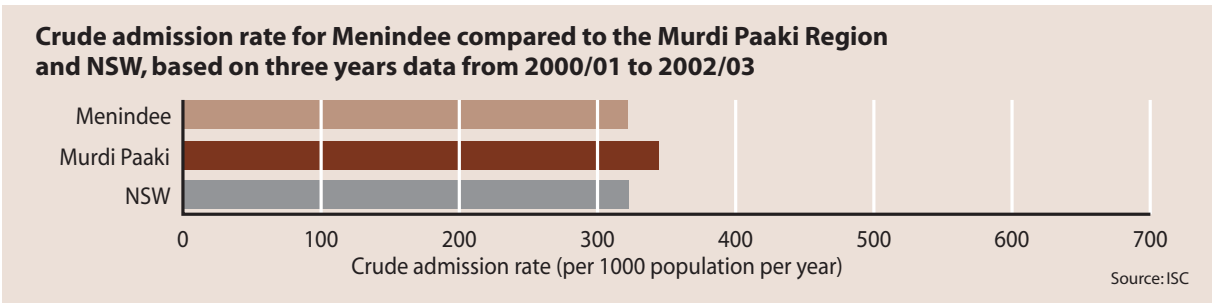
Population **751 (25% Aboriginality)**
Leading cause of illness **Social admissions (10.5%)**
Leading cause of death **Circulatory diseases (38.2%)**

Demography

- The population of Menindee in 2001 was 751 (25% Aboriginality).
- Menindee residents in comparison to NSW have high unemployment, lower incomes and are more likely to have left school at a younger age. They receive more benefits per capita compared to NSW.

Acute illness

- On average there are 241 admissions of Menindee residents per annum.



- Overall Menindee males and females are admitted to hospital for any reason at the same rate as NSW males and females.
- Compared to the Murdi Paaki, there are significantly fewer admissions of Menindee residents for social reasons.

Percentage of total admissions for the top four reasons for admission in Murdi Paaki Region compared to Menindee, based on three years experience 2000/01 to 2002/03

	Menindee	Murdi Paaki
Social admissions	10.5% ↓	17.9%
Digestive diseases	10.4%	10.2%
Injury and poisoning	8.2%	7.3%
Respiratory disease	10.2%	9.1%

↓ Significantly lower than Murdi Paaki
↑ Significantly higher than Murdi Paaki

Source: ISC

Deaths

Due to small numbers the following data relates to Central Darling Shire.

- There were, on average, 21 deaths per year of Central Darling Shire residents.
- Overall, the death rate for Central Darling Shire males and females is similar to NSW males and females.
- Compared to NSW there are significantly more deaths of Central Darling Shire residents due to injury.

Cause of death as a percentage of the total deaths, Central Darling Shire and NSW, based on six years data - 1997 – 2002.

	Central Darling Shire	Murdi Paaki
Circulatory disease	38.2%	40.8%
Cancer	26.8%	27.6%
Respiratory disease	9.8%	8.1%
Injury	13.0% ↑	5.7%

↓ Significantly lower than NSW

↑ Significantly higher than NSW

Source: ABS mortality data

Cancer

Due to small numbers the following data relates to Central Darling Shire.

- In the Central Darling Shire there are about 6 cancer deaths per year.
- In the Central Darling Shire the most commonly diagnosed cancer in males was lung cancer (18%) and prostate cancer (18%), and in females breast cancer (24%).
- In the Central Darling Shire lung cancer was the most common cause of cancer death in males (35%) and females (20%).

Mothers and babies

Due to small numbers the following data relates to Central Darling Shire.

- There are, on average, 35 babies born every year to women who reside in the Central Darling Shire.
- On average 61% of all births are to Aboriginal women who represent 35% of the Central Darling Shire female population aged 15 – 44.
- Central Darling Shire Aboriginal women are more likely to have babies compared to NSW non-Aboriginal women.
- The fertility rate for Central Darling Shire non-Aboriginal women is similar to NSW non-Aboriginal women.
- There are more women aged 15 – 19 and fewer women aged over 35 in the Central Darling Shire having babies compared to NSW.

Unincorporated Far West

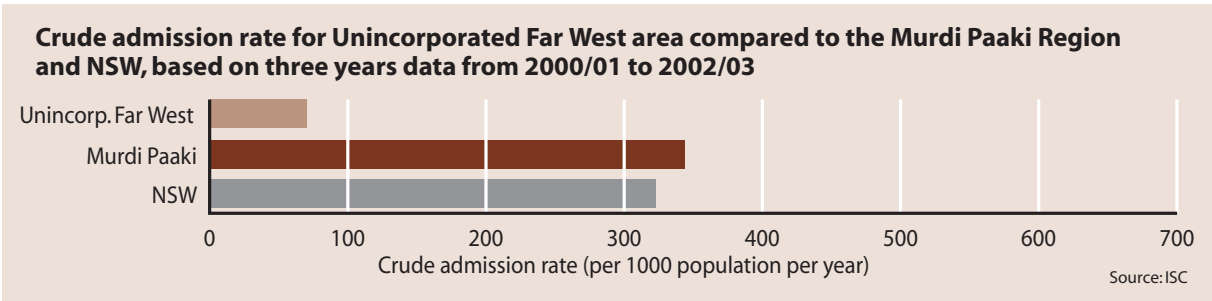
Population **1,049 (5% Aboriginality)**
Leading cause of illness **Injury and poisoning (15.1%)**
Leading cause of death **Circulatory diseases (53.8%)**

Demography

- The population of the Unincorporated Far West area in 2001 was 1,049 (5% Aboriginality).
- Unincorporated Far West residents in comparison to NSW have low unemployment, moderate incomes and are more likely to have left school at a younger age. Benefit payments for Unincorporated Far West residents are reflected in the Broken Hill data, which shows more benefits paid per capita compared to NSW.

Acute illness

- On average there are 73 admissions of Unincorporated Far West residents per annum.



- Overall Unincorporated Far West males and females are less likely to be admitted to hospital for any reason compared to NSW males and females.
- Compared to the Murdi Paaki, there is a larger proportion of admissions of Unincorporated Far West residents for injury and poisoning. There is a smaller proportion for social reasons compared to Murdi Paaki.

Percentage of total admissions for the top four reasons for admission in Murdi Paaki Region compared to the Unincorporated Far West area, based on three years experience 2000/01 to 2002/03

	Unincorporated Far West	Murdi Paaki
Social admissions	6.8% ↓	17.9%
Digestive diseases	11.4%	10.2%
Injury and poisoning	15.1% ↑	7.3%
Respiratory disease	9.6%	9.1%

↓ Significantly lower than Murdi Paaki
↑ Significantly higher than Murdi Paaki

Source: ISC

Deaths

- There were, on average, 2 deaths per year of Unincorporated Far West residents.
- Overall, the death rate for Unincorporated Far West males and females is similar to NSW males and females.
- Compared to NSW the pattern of causes of death is similar in the Unincorporated Far West area.

Cause of death as a percentage of the total deaths, the Unincorporated Far West area and NSW, based on six years data - 1997 – 2002.

	Unincorporated Far West	Murdi Paaki
Circulatory disease	53.8%	40.8%
Cancer	23.1%	27.6%
Respiratory disease	0%	8.1%
Injury	15.4%	5.7%

↓ Significantly lower than NSW

↑ Significantly higher than NSW

Source: ABS mortality data

Cancer

- In the Unincorporated Far West area there is less than 1 cancer death per year.
- Due to small numbers leading causes of cancer cases and deaths cannot be reported.

Mothers and babies

- There are, on average, 35 babies born every year to women who reside in the Unincorporated Far West area.
- On average 8% of all births are to Aboriginal women who represent 4% of the Unincorporated Far West female population aged 15 – 44.
- The fertility rate for Unincorporated Far West Aboriginal and non-Aboriginal women is similar to NSW Aboriginal and non-Aboriginal women.
- There are more women aged 15 – 19 and fewer women aged over 25 in the Unincorporated Far West area having babies compared to NSW.

Walgett

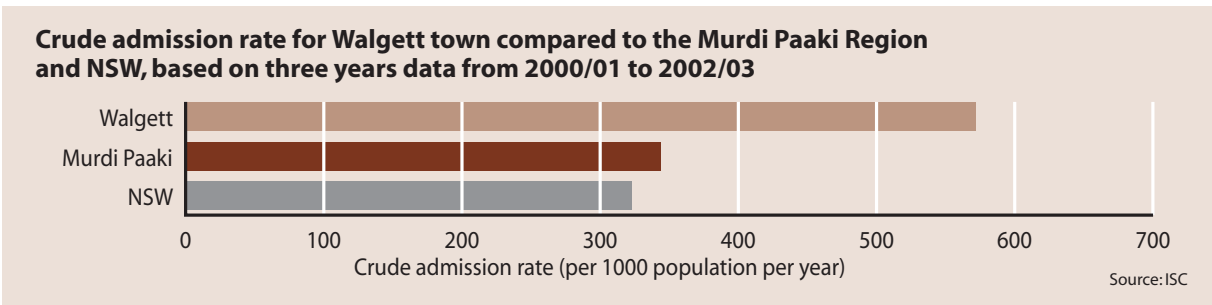
Population **3,121 (32% Aboriginality)**
Leading cause of illness **Respiratory diseases (10.9%)**
Leading cause of death **Circulatory diseases (30.3%)**

Demography

- The population of Walgett town in 2001 was 3,121 (32% Aboriginality).
- Walgett town residents in comparison to NSW have high unemployment, lower incomes and are more likely to have left school at a younger age. They receive more benefits compared to NSW.

Acute illness

- On average there are 1,782 admissions of Walgett town residents per annum.



- Overall Walgett town males and females are more likely to be admitted to hospital for any reason compared to NSW males and females.
- Compared to the Murdi Paaki, there is a larger proportion of admissions of Walgett town residents for injury and poisoning and respiratory diseases. There is a smaller proportion for social reasons and digestive diseases compared to Murdi Paaki.

Percentage of total admissions for the top four reasons for admission in Murdi Paaki Region compared to Walgett town, based on three years experience 2000/01 to 2002/03

	Walgett	Murdi Paaki
Social admissions	10.3% ↓	17.9%
Digestive diseases	7.1% ↓	10.2%
Injury and poisoning	10.5% ↑	7.3%
Respiratory disease	10.9% ↑	9.1%

↓ Significantly lower than Murdi Paaki
↑ Significantly higher than Murdi Paaki

Source: ISC

Deaths

Due to small numbers the following data relates to Walgett Shire.

- There were, on average, 61 deaths per year of Walgett Shire residents.
- Overall, the death rate for Walgett Shire males and females is similar to NSW males and females.
- Compared to NSW there are significantly fewer deaths due to circulatory disease and more deaths due to injury of Walgett Shire residents.

Cause of death as a percentage of the total deaths, Walgett Shire and NSW, based on six years data - 1997 – 2002.

	Walgett Shire	Murdi Paaki
Circulatory disease	30.3% ↓	40.8%
Cancer	27.5%	27.6%
Respiratory disease	9.9%	8.1%
Injury	12.7% ↑	5.7%

↓ Significantly lower than NSW

↑ Significantly higher than NSW

Source: ABS mortality data

Cancer

Due to small numbers the following data relates to Walgett Shire.

- In the Walgett Shire there are about 16 cancer deaths per year.
- In the Walgett Shire the most commonly diagnosed cancer in males was prostate cancer (22%), and in females breast cancer (22%).
- In the Walgett Shire lung cancer was the most common cause of cancer death in males (30%) and females (18%).

Mothers and babies

Due to small numbers the following data relates to Walgett Shire.

- There are, on average, 62 babies born every year to women who reside in the Walgett Shire.
- On average 39% of all births are to Aboriginal women who represent 26% of the Walgett Shire female population aged 15 – 44.
- Walgett Shire Aboriginal women are more likely to have babies compared to NSW Aboriginal women, whereas the fertility rate for Walgett Shire non-Aboriginal women is the same as NSW non-Aboriginal women.
- There are more women aged 15 – 19 and fewer women aged over 30 in the Walgett Shire having babies compared to NSW.

Wentworth Shire

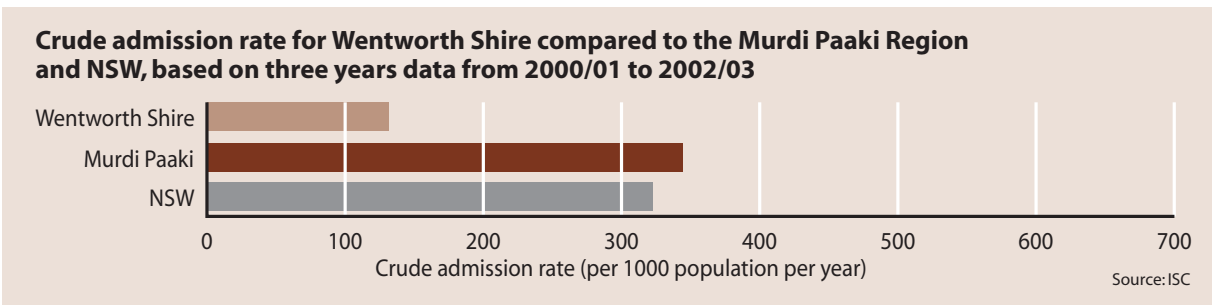
Population **6,958 (8% Aboriginality)**
Leading cause of illness **Social admissions (43.7%)**
Leading cause of death **Circulatory diseases (36.0%)**

Demography

- The population of Wentworth Shire in 2001 was 6,958 (8% Aboriginality).
- Wentworth Shire residents in comparison to NSW have low unemployment but lower incomes and are more likely to have left school at a younger age. They receive more benefits per capita compared to NSW.

Acute illness

- On average there are 914 admissions of Wentworth Shire residents per annum.



- Overall Wentworth Shire males and females are less likely to be admitted to hospital for any reason compared to NSW males and females.
- Compared to the Murdi Paaki, there is a larger proportion of admissions of Wentworth Shire residents for social reasons. There is a smaller proportion for digestive diseases, injury and poisoning and respiratory diseases compared to Murdi Paaki.

Percentage of total admissions for the top four reasons for admission in Murdi Paaki Region compared to Wentworth Shire, based on three years experience 2000/01 to 2002/03

	Wentworth Shire	Murdi Paaki
Social admissions	43.7% ↑	17.9%
Digestive diseases	9.0% ↓	10.2%
Injury and poisoning	6.0% ↓	7.3%
Respiratory disease	4.6% ↓	9.1%

↓ Significantly lower than Murdi Paaki
↑ Significantly higher than Murdi Paaki

Source: ISC

Deaths

- There were, on average, 61 deaths per year of Wentworth Shire residents.
- Overall, the death rate for Wentworth Shire males and females is similar to NSW males and females.
- Compared to NSW the pattern of causes of deaths is similar for Wentworth Shire residents.

Cause of death as a percentage of the total deaths, Wentworth Shire and NSW, based on six years data - 1997 – 2002.

	Wentworth Shire	Murdi Paaki
Circulatory disease	36.0%	40.8%
Cancer	25.6%	27.6%
Respiratory disease	7.9%	8.1%
Injury	8.2%	5.7%

↓ Significantly lower than NSW

Source: ABS mortality data

↑ Significantly higher than NSW

Cancer

- In the Wentworth Shire there are about 11 cancer deaths per year.
- In the Wentworth Shire the most commonly diagnosed cancer in males was prostate cancer (21%), and in females breast cancer (27%).
- In the Wentworth Shire prostate cancer was the most common cause of cancer death in males (18%) and for females lung cancer (25%) accounted for the most cancer deaths.

Mothers and babies

- There are, on average, 96 babies born every year to women who reside in the Wentworth Shire.
- On average 15% of all births are to Aboriginal women who represent 9% of the Wentworth Shire female population aged 15 – 44.
- The fertility rate for Wentworth Shire Aboriginal and non-Aboriginal women is similar to NSW Aboriginal and non-Aboriginal women.
- There are more women aged 15 – 19 and fewer women aged over 30 in the Wentworth Shire having babies compared to NSW.

Wilcannia

Population **1,421 (34% Aboriginality)**

Leading cause of illness **Social admissions (12.2%)**

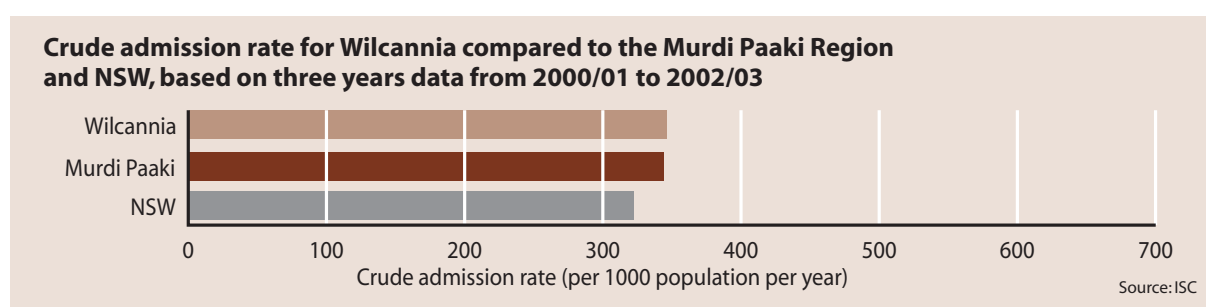
Leading cause of death **Circulatory diseases (38.2%)**

Demography

- The population of Wilcannia in 2001 was 1,421 (34% Aboriginality).
- Wilcannia residents in comparison to NSW have high unemployment, lower incomes and are more likely to have left school at a younger age. They receive more benefits per capita compared to NSW.

Acute illness

- On average there are 491 admissions of Wilcannia residents per annum.



- Overall Wilcannia males are admitted to hospital for any reason at a rate similar to NSW males, whereas Wilcannia females are more likely to be admitted to hospital for any reason compared to NSW females.
- Compared to the Murdi Paaki, there are significantly more admissions of Wilcannia residents for injuries. There are significantly fewer admissions for social reasons and digestive diseases.

Percentage of total admissions for the top four reasons for admission in Murdi Paaki Region compared to Wilcannia, based on three years experience 2000/01 to 2002/03

	Wilcannia	Murdi Paaki
Social admissions	12.2% ↓	17.9%
Digestive diseases	7.5% ↓	10.2%
Injury and poisoning	9.7% ↑	7.3%
Respiratory disease	10.1%	9.1%

↓ Significantly lower than Murdi Paaki

↑ Significantly higher than Murdi Paaki

Source: ISC

Deaths

Due to small numbers the following data relates to Central Darling Shire.

- There were, on average, 21 deaths per year of Central Darling Shire residents.
- Overall, the death rate for Central Darling Shire males and females is similar to NSW males and females.
- Compared to NSW there are significantly more deaths of Central Darling Shire residents due to injury.

Cause of death as a percentage of the total deaths, Central Darling Shire and NSW, based on six years data - 1997 – 2002.

	Central Darling Shire	Murdi Paaki
Circulatory disease	38.2%	40.8%
Cancer	26.8%	27.6%
Respiratory disease	9.8%	8.1%
Injury	13.0% ↑	5.7%

↓ Significantly lower than NSW

↑ Significantly higher than NSW

Source: ABS mortality data

Cancer

Due to small numbers the following data relates to Central Darling Shire.

- In the Central Darling Shire there are about 6 cancer deaths per year.
- In the Central Darling Shire the most commonly diagnosed cancer in males was lung cancer (18%) and prostate cancer (18%), and in females breast cancer (24%).
- In the Central Darling Shire lung cancer was the most common cause of cancer death in males (35%) and females (20%).

Mothers and babies

Due to small numbers the following data relates to Central Darling Shire.

- There are, on average, 35 babies born every year to women who reside in the Central Darling Shire.
- On average 61% of all births are to Aboriginal women who represent 35% of the Central Darling Shire female population aged 15 – 44.
- Central Darling Shire Aboriginal women are more likely to have babies compared to NSW non-Aboriginal women.
- The fertility rate for Central Darling Shire non-Aboriginal women is similar to NSW non-Aboriginal women.
- There are more women aged 15 – 19 and fewer women aged over 35 in the Central Darling Shire having babies compared to NSW.

Abbreviations

ABS	Australian Bureau of Statistics
CI	Confidence Interval
GODSEND	Graphical Online Data Surveillance and Evaluation for Notifiable Diseases
Hib	Haemophilus influenzae bacillus
ISC	Inpatient Statistics Collection
MDC	Midwives Data Collection
MMR	Measles, mumps and rubella vaccine
NSW	New South Wales
RRV	Ross River Virus
SEIFA	Socio-economic indices for Areas
SIR	Standardised Incidence Ratio
SMR	Standardised Mortality Ratio
sq. km	square kilometres
SSR	Standardised Separation Ratio

Data Sources

Australian Bureau of Statistics

Data was sourced from the 2001 Census through CDATEA2001 for MapInfo; computerised data attached to mapping software with the ability to access the 2001 Census data. The Census provides a wide range of demographic information on age, sex, housing, Aboriginality, income, employment and more. This information can then be used to identify specific populations or areas of need.

Acute illness

Morbidity data was obtained from NSW Health's Inpatient Statistics Collection and includes information on patients admitted to all public, private and psychiatric hospitals. Data from the financial years 2000/01 to 2002/03 was aggregated.

Important issues affecting the reliability and interpretation of ISC data include:

- Ambiguities in determining principal diagnosis and sequencing diagnoses.
- Completeness of the information supplied on the discharge summary.
- Accuracy of coding.

Deaths

Mortality data was obtained for deaths of Murdi Paaki residents that occurred between 1997 and 2002. The data file contains information on the principal cause of death, age, sex and place of usual residence and was obtained from the Registry of Births, Deaths and Marriages, through the ABS.

Important issues affecting the reliability and interpretation of mortality data include:

- The accuracy of the diagnosis recorded on the death certificate. If multiple conditions are present at the time of death, the decision about which was the underlying cause of death might be equivocal.
- Misinterpretation of the guidelines for determining the underlying causes of death by the attending physician completing the death certificate.
- Errors in transcription and coding of death certificates.

Maternal data

The Midwives Data Collection was used to provide information on mothers and babies in the Region. The Midwives Data Collection monitors pregnancies resulting in live or stillbirth, as well as perinatal outcomes. It covers all births in NSW public and private hospitals as well as home births. Major limitations of the MDC are inconsistent recording of Aboriginality and notifications of births to NSW women that happen outside the State. Perinatal mortality may also be underestimated.

Data is shown here for the years 1997 to 2002.

Cancer

The NSW Cancer Registry maintains a register of all cancer cases and deaths since 1972. Data is shown here for the years 1990 to 2002. This registry allows monitoring of trends in incidence and mortality from specific cancers over time. The major limitation of this data source is the small number of cases, which makes interpretation difficult.

Infectious diseases

The Notifiable Diseases Database is a monitoring system used across NSW Public Health Units. Private and government laboratories, general practitioners and hospitals notify notifiable diseases to the Public Health Unit. The Notifiable Diseases Database relies on accurate data obtained by doctors and laboratories. Data is accessed using GODSEND, presented for the former Far West Area Health Service and is reported for the years 2000 - 2004.

Glossary

Admission

A patient who is admitted to hospital for treatment as an inpatient (including day-only admission). Admissions do not include

- Staff receiving care in their quarters;
- Patients in the Emergency Department who are not transferred to another ward;
- Newly born children whose mothers are inpatients except if the child is admitted to ICU or receives extensive medical treatment (> 9 days).

Birth

A birth is a live birth, that is, the delivery, irrespective of the duration of pregnancy, or a child who, after being born, breathes or shows any other evidence of life such as a heartbeat.

Blood and blood forming diseases and immune mechanism disorders [ICD10 D50 – D89]

Diseases in this classification include nutritional anaemia (iron deficiency, vitamin B12, folate) and blood anaemia (thalassaemia, sickle-cell disorder).

Cancer [ICD10 C00 – D48]

Diseases in this classification include all cancer sites described by their behaviour – malignant, in situ, benign or uncertain or unknown behaviour.

Circulatory diseases [ICD10 I00 – I99]

Diseases in this classification include rheumatic heart diseases, hypertension, ischaemic heart diseases, pulmonary heart disease, pericarditis, endocarditis, myocarditis, cardiomyopathy, heart failure, cerebrovascular diseases (cerebral infarction or other stroke), atherosclerosis and thrombosis.

Conditions originating in the perinatal period [ICD10 P00 – P96]

Diseases in this classification relate to the child at the time of birth. The conditions may be due to complications of pregnancy, labour and delivery. Diseases include slow foetal growth and malnutrition, low or high birth weight, short or long gestation, birth injury, birth asphyxia, bacterial sepsis of the newborn and neonatal jaundice.

Congenital malformations, deformations and chromosomal abnormalities [ICD10 Q00 – Q99]

Diseases in this classification relate to congenital anomalies most likely acquired before birth. Diseases include spina bifida, cleft palate, cystic kidney disease, Down's syndrome, Edwards' syndrome, Patau's syndrome and Turner's syndrome.

Confidence Interval

All rates and ratios are calculated as single values (point estimates), eg the SMR for males in the Murdi Paaki Region 119.7. Since each single value is only a best estimate of the actual rate, a range around the best estimate is defined within which the true rate is likely to lie. This range of values is called a Confidence Interval. Different levels of statistical significance or certainty can be assigned to CIs (often 95% or 99%). For example the SMR for males in the Murdi Paaki Region is 119.7 with a 95% CI of 107 to 132. This means that there is a 95% certainty of the true SMR lying between this range.

Crude admission rate

The number of admissions per 1,000 of the population of that year.

Demography

The scientific and statistical study of population, and in particular the size of populations.

Digestive diseases [ICD10 K00 – K93]

Diseases in this classification include oral health issues (teeth and gums), gastric and peptic ulcers, appendicitis, hernias, irritable bowel syndrome, peritonitis, liver diseases, gall bladder diseases and pancreatitis.

Ear and mastoid process diseases [ICD10 H60 – H95]

Diseases in this classification include otitis externa, otitis media, perforation of the tympanic membrane (ear drum), otosclerosis, and conductive and sensorineural hearing loss.

Endocrine, nutritional and metabolic diseases [ICD10 E00 – E90]

Diseases in this classification include hypo- and hyperthyroidism, diabetes mellitus, nutritional deficiencies and metabolic disorders (including cystic fibrosis).

Epidemiology

The study of frequency, distribution and cause of disease in defined populations.

Eye and adnexa diseases [ICD10 H00 – H59]

Diseases in this classification include conjunctivitis, cataract disorders, retinal detachments and breaks, glaucoma, optic neuritis, blindness and low vision.

Fertility Rate

The number of live births to mothers aged 15 – 44 per 1,000 females in this age group.

Genitourinary diseases [ICD10 N00 – N99]

Diseases in this classification include renal diseases, renal failure, kidney stones, cystitis, prostate disorders, breast disorders, salpingitis, oophoritis, endometriosis and infertility disorders.

Incidence

The number of new cases of a particular health problem within a specified time period. This is usually expressed as a rate per head of population per unit of time.

Infant mortality rate

The infant mortality rate is the number of deaths among children aged less than one year per 1000 live births.

Infectious disease

Any disease that can be transmitted from one person to another.

Infectious diseases [ICD10 A00 – B99]

Diseases in this classification include arboviral illnesses, Q Fever, chicken pox, measles, whooping cough, meningococcal infection, tuberculosis, HIV and sexually transmitted infections.

Injury and poisoning [ICD10 S00 – T98]

Diseases in this classification include fractures, open wounds, burns, dislocation, sprain, strain, crushing, traumatic amputation, foreign body in or on a body part, frostbite, hypothermia, poisoning by drugs or medications and toxic effects of non-medicinal substances.

Low birth weight

The birth of a baby weighing less than 2500g.

Mental and behavioural disorders [ICD10 F00-F99]

Diseases in this classification include dementia, mental and behavioural disorders due to substance use, schizophrenia, mood disorders (bipolar disorders) and eating disorders.

Morbidity

Illness.

Mortality

Death.

Musculoskeletal and connective tissue diseases [ICD10 M00 – M25]

Diseases in this classification include arthritis, osteoporosis and osteomyelitis.

Nervous system diseases [ICD10 G00 – G99]

Diseases in this classification include encephalitis, Huntington's disease, Parkinson's disease, Alzheimer's disease, multiple sclerosis, epilepsy, migraine, cerebral palsy and other paralytic syndromes.

Notifiable disease

A disease that must be reported to the health authorities in order that speedy control and preventive action may be undertaken if necessary.

Notification

Reported cases to a central organisation such as the NSW Health Department.

Perinatal mortality rate

The number of perinatal deaths (stillbirths and neonatal deaths) per 1,000 total births (live births and still births) during a calendar year.

Pregnancy, childbirth and the puerperium [ICD10 O00 – O99]

Diseases in this classification include ectopic pregnancy, diseases in pregnancy (hypertension, oedema and proteinuria eclampsia), gestational diabetes, placenta praevia, false labour, pre-term labour, delivery and postpartum haemorrhage,

Prevalence

The extent of a particular health problem within a specified population at one point in time. This is usually expressed as a rate per head of population.

Respiratory diseases [ICD10 J00 – J99]

Diseases in this classification include acute upper respiratory infections (sinusitis and tonsillitis), influenza and pneumonia, bronchitis, asthma, emphysema and other lung diseases associated with external agents (dust and asbestos).

SEIFA indices

The ABS has developed socio-economic indices for areas (SEIFA) as scores that are combined measures of individual socio-economic indicators. These indices summarise different aspects of socio-economic conditions by geographical areas.

There are five indices. Each index is constructed with a mean "score" of 1000 and a standard deviation of 100 for Australia. All geographical areas are described relative to the Australian estimates. However, SEIFA indices are ordinal measures only. An index of 1100 does not infer that the particular area is 10% better than the Australian average, only that it is better.

Separation (from hospital)

A discharge, transfer or death of a patient.

Significance level

The statistical significance level defines the degree of certainty that an observation or health event is real and not due to chance. Significance levels can be expressed either a proportion or "p" value or as a confidence interval. A standard level of significance is $p < 0.05$, that is, there is less than 5% probability that the value is due to chance. An alternative way of expressing this p value is to quote the 95% confidence interval in which there is a 95% certainty that the real value lies within the given range.

Skin diseases [ICD10 L00 – L99]

Diseases in this classification include impetigo (school sores), abscesses, cellulitis, dermatitis, psoriasis, sunburn, nail disorders, hair loss, acne, decubitus ulcers (bed sores) and other skin ulcers.

Social admission/reason [ICD10 Z00 – Z99]

Patients are admitted as a 'social admission' when circumstances other than a classifiable disease or injury are recorded as "diagnoses" or "problems". This can arise in three ways

- When a person who is currently not sick encounters the health service for a specific cause eg. organ or tissue donation, vaccinations or discussions of problems which is in itself not a disease or injury;
- When a person encounters the health care system for a specific treatment of a known disease or injury eg. dialysis for renal disease, chemotherapy for malignancy or a cast change;
- When some circumstance or problem is present which influences a person's health status, but is not in itself a current illness or injury, for example, a family disruption due to divorce or estrangement, lack of housing or a patient who is waiting for transport to a different facility.

Reasons for this type of admission include follow-up care after treatment for malignant neoplasm, reproduction management (fertility treatment, antenatal screening, delivery outcome), prosthetic device attachment, dialysis and an individual or family history of allergic reaction to medication.

Standardisation

A set of statistical techniques to remove as far as possible the effects of differences in age when comparing two or more populations.

Standardised Incidence Ratio (SIR)

An indirectly standardised comparison between the incidence of a disease in a study population (Murdi Paaki) with an expected incidence of that disease had the rates of the standard population (NSW) applied in the study population. If the confidence interval does not span 1.00 then the Murdi Paaki (or study population) rate is statistically different to NSW (or the standard population) rate at that level of significance.

Standardised Mortality Ratio (SMR)

An indirectly standardised comparison between the frequency of deaths in a study population (Murdi Paaki) with an expected frequency of deaths had the rates of the standard population (NSW) applied in the study population. If the confidence interval does not span 1.00 then the Murdi Paaki (or study population) rate is statistically different to NSW (or the standard population) rate at that level of significance.

Standardised Separation Ratio (SSR)

An indirectly standardised comparison between the frequency of hospital separations in a study population (Murdi Paaki) with an expected frequency of hospital separations had the rates of the standard population (NSW) applied in the study population. If the confidence interval does not span 1.00 then the Murdi Paaki (or study population) rate is statistically different to NSW (or the standard population) rate at that level of significance.

Symptoms, signs and abnormal clinical and laboratory findings [ICD10 R00 – R99]

Diseases in this classification include results of investigative procedures, and ill-defined conditions where no classifiable diagnosis can be given. Diseases include nausea and vomiting, heartburn, rash, convulsions, dizziness and giddiness, speech disturbances, headache, malaise and fatigue.

