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ABORIGINAL AND TORRES STRAIT ISLANDER
HEALTH SERIES NO. 1**

Overview of Aboriginal health status in Western Australia

**Neil Thomson
Norma Briscoe**



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Background to the report

This report has been prepared for the Royal Commission into Aboriginal Deaths in Custody as part of a consultancy arrangement, and the views presented are not necessarily those of the Royal Commission.

The report focuses on current State-wide social and health status indicators for Western Australian Aborigines and, along with similar reports for New South Wales, Queensland, South Australia and the Northern Territory, supplements the information provided to the Commission in a general Australian overview (Thomson 1990). The production of similar reports for Victoria, Tasmania and the Australian Capital Territory was prevented by the limited availability of data for those places.

It was beyond the scope of this report to undertake an analysis of the time trends of these indicators, or to summarise the available disease-specific information, usually the results of special surveys or other research. Similarly, no attempt has been made to consider in detail the underlying causes of the poor health status, or the various programs and services aimed at redressing the health disadvantages experienced by Aborigines.

Acknowledgements

The Australian Institute of Health is grateful to the Health Department of Western Australia for providing data on births, deaths and hospital admissions.

Thanks are extended also to the Department of Health New South Wales, the Queensland Department of Health, the South Australian Health Commission and the Northern Territory Department of Health and Community Services for the provision of data. The Institute acknowledges the cooperation of the South Australian Registry of Births, Deaths and Marriages in providing information on Aboriginal deaths in South Australia to the Royal Commission.

1 Introduction

The Health Department of Western Australia's 1986 review of health and illness in the State identified Aboriginal¹ ill-health as one of its 12 health priorities, selected on the basis of 'the existing magnitude of the ... problem and its likely future course in the absence of intervention, the potential for prevention through health promotion or education strategies, the prospect of a reasonable return for the level of resources that would be necessary to invest, and the likelihood of public acceptance' (Holman et al 1986:3). In fact, the magnitude of Aboriginal ill-health was so great, in terms of premature death, hospitalisation and chronic disability, that it was identified as one of five priorities of the 12 requiring immediate action.

By virtually every health status measure, and for almost all disease categories, overall the health of Aborigines is much worse than that of other Western Australians². The health problems of Aborigines probably vary across Western Australia, reflecting different circumstances, but the overall standard of health is low throughout the State.

Aboriginal mortality is 2.5 to three times that of the total Australian population, and Aborigines can expect to live about 18 years less than other Western Australians. The mortality of Aboriginal infants in Western Australia remains about 2.5 times higher than that of non-Aboriginal Australians, and perinatal mortality is almost twice as high as that of other Australians. The rates of hospitalisation of Aborigines are 2.5 to three times those of other Western Australians.

The causes of the poor health of Aborigines are complex, reflecting a combination of historical, cultural, social and economic factors. Australia-wide, the social and economic disadvantages of Aborigines have been seen as of central importance in determining current health status (Health Targets and Implementation (Health for All) Committee 1988). These social and economic disadvantages, related to Aboriginal dispossession and characterised by poverty and powerlessness, are reflected in measures of education, employment, income and housing.

Far more Aborigines than non-Aborigines have never attended school, and the proportion of Aborigines who have achieved post-secondary qualifications is less than a sixth of the proportion of non-Aborigines.

The overall rate of unemployment among Aborigines is more than four times that of other Western Australians. Aborigines are disproportionately represented among those Western Australians living in poverty, and are much more dependent on social welfare payments than are non-Aborigines.

1. In this paper, the term 'Aborigines' generally will be used to mean both Australian Aborigines and Torres Strait Islanders. Aboriginal identification is in accordance with the accepted working definition: 'an Aboriginal or Torres Strait Islander is a person of Aboriginal or Torres Strait Islander descent who identifies as an Aboriginal or Torres Strait Islander and is accepted as such by the community in which he (she) lives' (Department of Aboriginal Affairs 1981).

2. Attention is drawn to differences in the populations used for comparison purposes. Wherever possible, comparisons have been made between Western Australian Aborigines and non-Aborigines. In these instances, the comparative data are described as relating to Western Australian non-Aborigines or to other Western Australians. In some cases, it has not been possible to derive separate data for non-Aborigines in Western Australia, in which cases the comparative data are described as relating to the total Western Australian population or to all Western Australians. In those cases where the comparative data are for the total Australian population, they have been described as relating to the total Australian population or to all Australians.

In 1987, almost a third of all Aborigines in Australia were homeless or living in inadequate accommodation, and many were without access to those facilities taken for granted by other Australians.

To add to these substantial disadvantages, Aboriginal people probably experience the most discrimination of any identifiable sub-population in Australia, with Aborigines making more than a third of all complaints of discrimination. Underlying this discrimination is non-Aboriginal ignorance, intolerance and misunderstanding of Aborigines.

2 The Aboriginal population

According to the 1986 Australian Census of Population and Housing, the Australia-wide Aboriginal population was 227,645: 206,104 Australian Aborigines and 21,541 Torres Strait Islanders (Table 1). Of these, 37,789 (16.6 per cent) lived in Western Australia, with the largest numbers in the Perth and Kimberley statistical divisions (see Table 2). Of all Aborigines in Western Australia, 27 per cent lived in the Perth statistical division and 25 per cent in the Kimberley division.

The Aboriginal population is relatively young compared with the non-Aboriginal population in Western Australia. 39.5 per cent of Aborigines are less than 15 years of age, compared with 23.8 per cent of non-Aborigines. 5.2 per cent of Aborigines are aged 60 years or over, compared with 13.4 of other Western Australians (see Figure 1).

More than 65 per cent of Aborigines live in urban areas (centres with a total population of 1,000 or more), compared with 85 per cent of non-Aborigines. About 22 per cent of Aborigines live in 'other rural' locations: an increasing number in small groups in their traditional homelands, and the rest in Aboriginal towns and settlements on Aboriginal lands and reserves.

Table 1: Australian Aboriginal and Torres Strait Islander population, by States and Territories, 1986

<i>State/Territory</i>	<i>Total</i>	<i>Australian Aborigines</i>	<i>Torres Strait Islanders</i>	<i>Proportion of total population (%)</i>
Western Australia	37,789	37,110	679	2.7
New South Wales	59,011	55,672	3,339	1.1
Victoria	12,611	10,740	1,871	0.3
Queensland	61,268	48,098	13,170	2.4
South Australia	14,291	13,298	993	1.1
Tasmania	6,716	5,829	887	1.5
Australian Capital Territory	1,220	1,160	60	0.5
Northern Territory	34,739	34,197	542	22.4
Australia	227,645	206,104	21,541	1.5

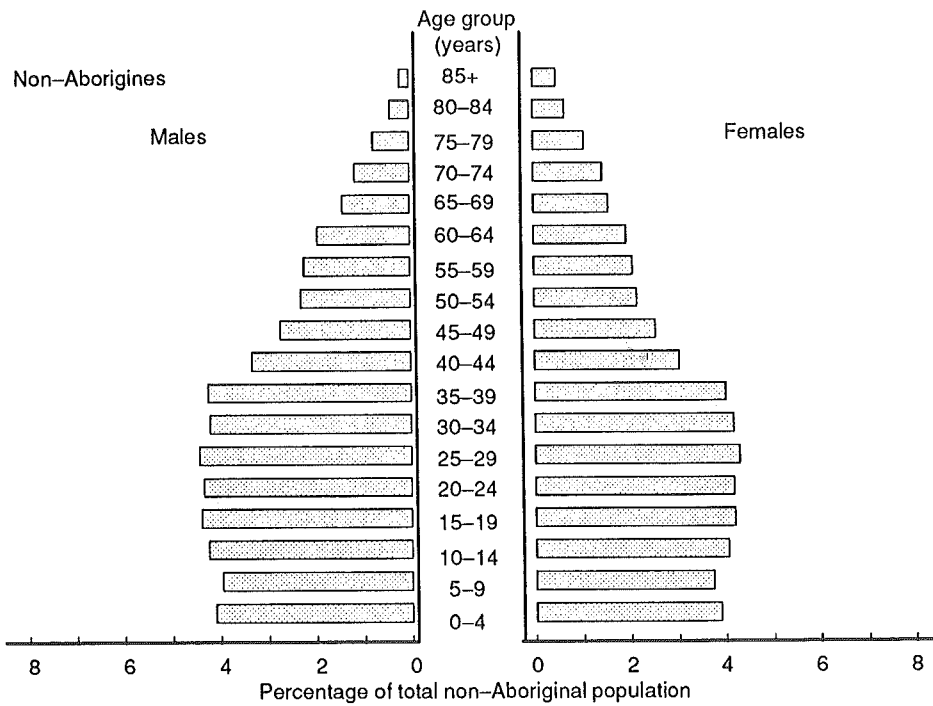
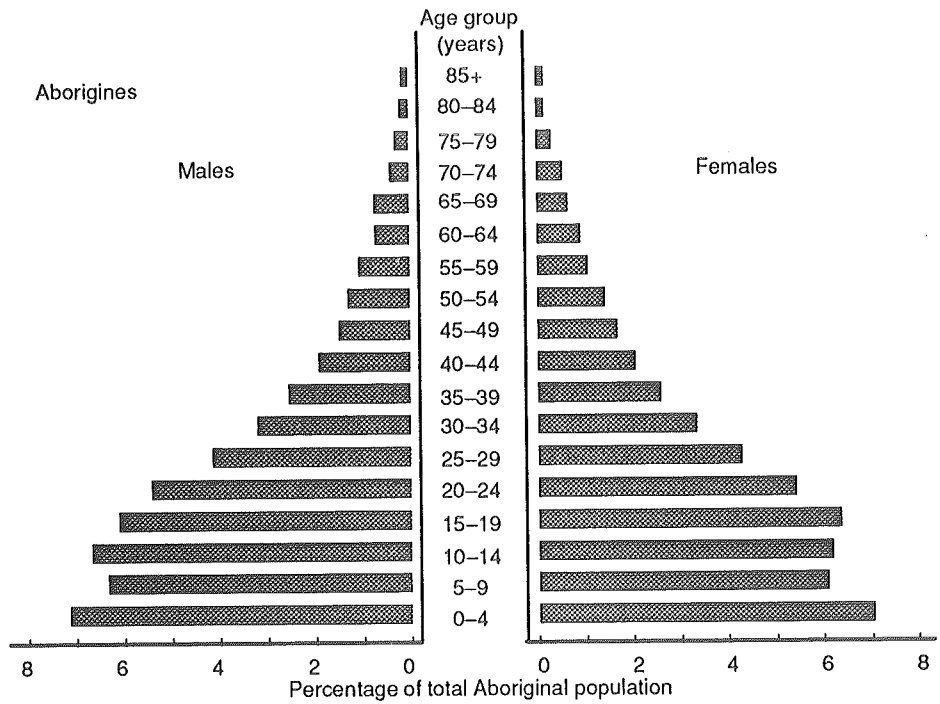
Source: Australian Bureau of Statistics, Census of population and housing 1986

Table 2: Aboriginal and total population, by statistical division, 1986

<i>Statistical division</i>	<i>Aborigines</i>	<i>Total population</i>	<i>Proportion Aboriginal (%)</i>
Perth	10,087	994,472	1.0
South-West	1,585	114,163	1.4
Lower Great Southern	1,364	43,102	3.2
Upper Great Southern	824	21,121	3.9
Midlands	1,597	47,895	3.3
South Eastern	2,715	45,871	5.9
Central	5,800	63,636	9.1
Pilbara	4,277	48,429	8.8
Kimberley	9,510	25,070	37.9
Western Australia	37,789	1,406,929	2.7

Source: Australian Bureau of Statistics, Census of population and housing 1986

Figure 1: Age structure: Western Australia, Aborigines and non-Aborigines, 30 June 1986



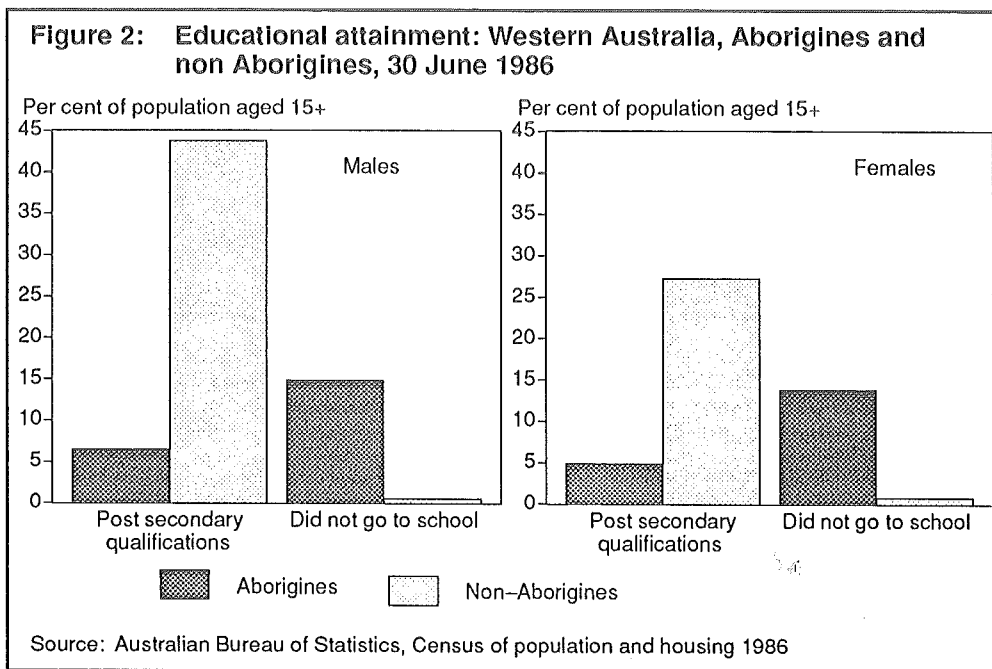
Source: Australian Bureau of Statistics, Census of population and housing 1986

3 Selected social indicators

Education

The 1986 Australian Census revealed substantial improvements in educational attendance of Aborigines in Western Australia. More than 97 per cent of Aborigines aged 15-24 years had had some schooling, whereas 55.1 per cent of those aged 50 years or more had not attended school. Overall, for people aged 15 years or more, 14.3 per cent of Aborigines had never attended school, compared with 0.7 per cent of other Western Australians (see Figure 2, which shows the proportions for males and females separately).

Despite these improvements, a lower proportion of Aborigines than of non-Aborigines participate in education beyond 15 years of age. In 1986, only 7.2 per cent of Aborigines aged 15-24 years were participating in post-secondary education, compared with 17.6 per cent of non-Aborigines. The net result is that only 5.7 per cent of Aborigines had achieved post-secondary qualifications, compared with 35.6 per cent of other Western Australians (see Figure 2). Tertiary qualifications had been achieved by 0.9 per cent of Aborigines, and by 9.5 per cent of non-Aborigines.

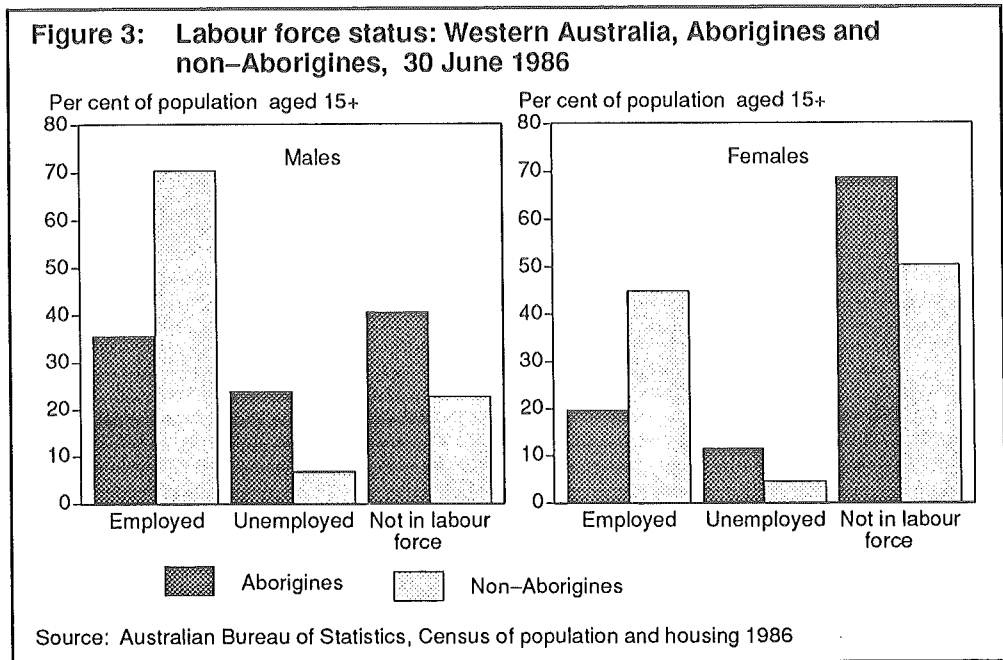


Employment status

According to the Census, for males aged 15 years or more, 40.6 per cent of Aborigines were not in the labour force, compared with 22.8 per cent of non-Aborigines. For females, 68.8 per cent of Aborigines were not in the labour force, compared with 50.4 per cent of other Western Australians. Of males in the labour force, 40.2 per cent of Aborigines were unemployed, compared with 8.8 per cent of other males in Western Australia. Of females, 36.9 per cent were unemployed, as were 9.3 per cent of non-Aborigines. Figure 3 shows the

proportions not in the labour force and, of those in the labour force, the proportions employed and unemployed.

The occupational distribution of Aborigines is also atypical. Of employed Aboriginal males, 45.4 per cent were employed in labouring and related occupations, compared with 15.6 per cent of employed non-Aboriginal males in Western Australia. Of employed Aboriginal females, 28.9 per cent were employed in these occupations, compared with about 13.9 per cent of employed non-Aboriginal females. Of the State's employed Aborigines, 15.6 per cent were described as 'managers and administrators', 'professionals' or 'para-professionals', compared with 30.7 per cent of employed non-Aborigines.

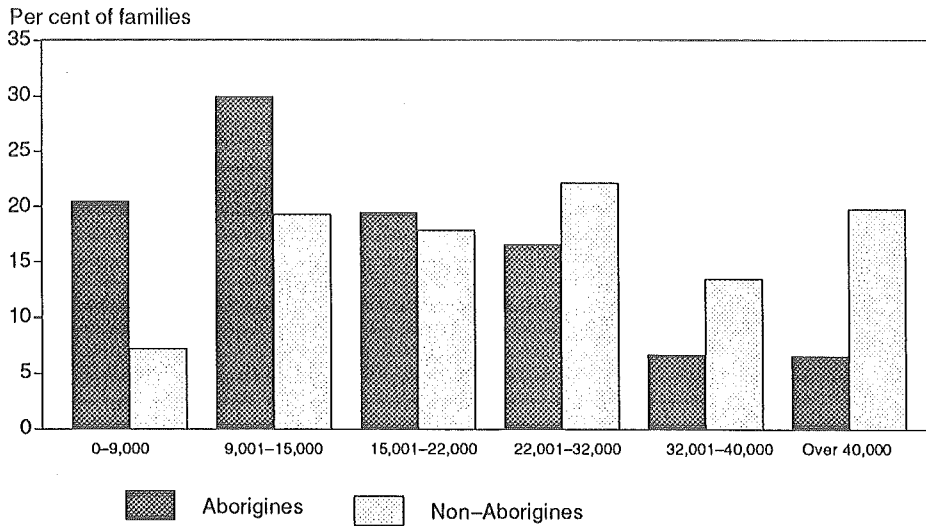


Economic status

The low levels of education and high rates of unemployment result in a substantially lower economic status for Aborigines. According to the 1986 Census, for those people aged 15 years or more providing details of income, only 10.9 per cent of Aborigines had an individual income of more than \$15,000, compared with 34.8 per cent of other Western Australians. More than 70 per cent of Aboriginal families had an income of \$22,000 or less, compared with 44.4 per cent of non-Aboriginal families in Western Australia (see Figure 4).

The prospects for future improvements in economic status are limited by the extent to which current Aboriginal income comes from social security sources: a much greater proportion of Aboriginal than of non-Aboriginal income is derived from such sources.

Figure 4: Annual family income: Western Australia, Aborigines and non-Aborigines, 30 June 1986



Source: Australian Bureau of Statistics, Census of population and housing 1986

Housing

The level and standard of current housing is a clear expression of Aboriginal disadvantage, not only in remote areas, but also in long-settled parts of Australia. For Australia as a whole, it was estimated in 1987 that over 70,000 Aborigines (31 per cent of the Census population) were homeless or living in inadequate accommodation (Aboriginal Development Commission 1988). The sub-standard living conditions are generally characterised by overcrowding, inadequate water and washing facilities, poor sanitation and sewage disposal, limited food storage and sub-optimal food preparation facilities.

To adequately house Western Australian Aborigines living in sub-standard or overcrowded conditions, it was estimated that 2,565 additional dwellings were required (Aboriginal Development Commission 1988). The estimated number of dwellings had decreased from the number estimated in 1985, 3,205, but the cost of overcoming the continuing backlog was higher, \$223 million.

The 1986 Australian Census confirmed that each Aboriginal dwelling housed a higher number of people than did other dwellings. For separate houses in Western Australia, the median number of occupants per dwelling was 5.4 for Aborigines and 3.3 for other Western Australians.

4 Fertility and pregnancy outcome

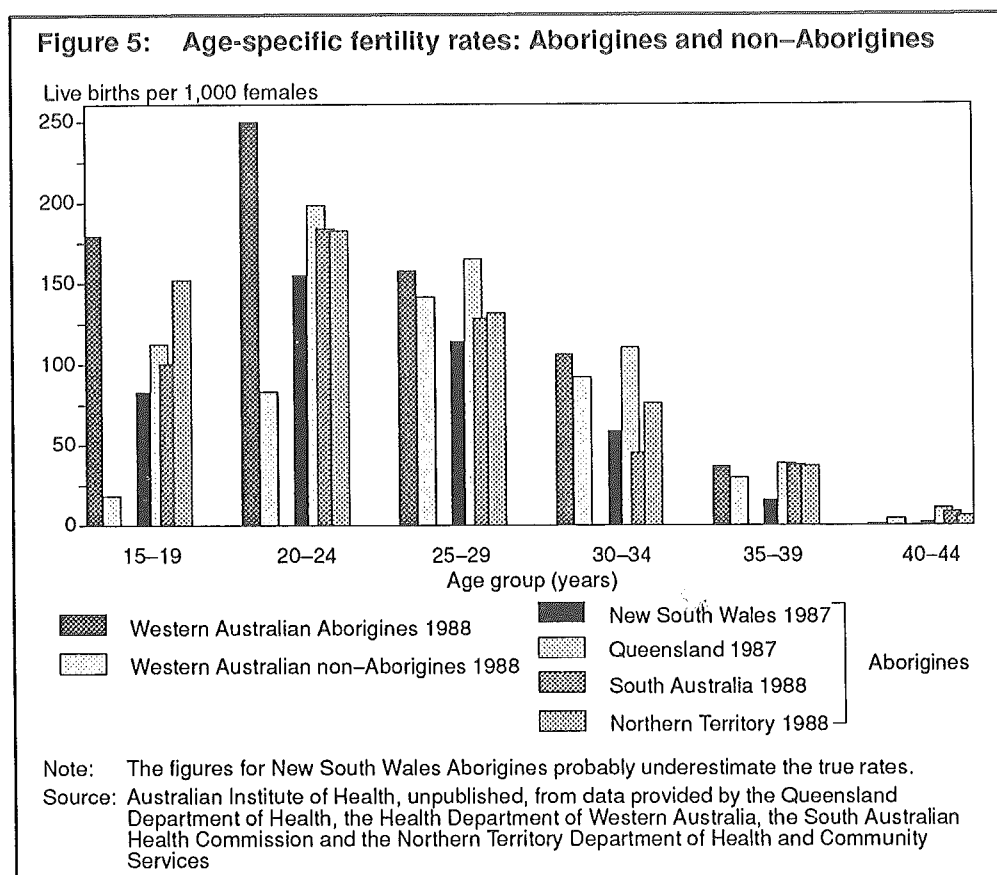
Fertility

The fertility³ of Aboriginal women in Western Australia remains much higher than that of non-Aboriginal women. This is despite the fact that Aboriginal fertility in Western Australia, and in other parts of Australia, has declined substantially since the late 1960s, largely in parallel with the decline in fertility in the total population (Gray 1983).

The higher present-day fertility of Aboriginal women is largely due to the great excess of births occurring at young ages, particularly in the teenage years (see Figure 5).

The great differences in maternal age mean that 31.9 per cent of Aboriginal women having babies in 1988 were 19 years or younger, compared with 5.0 per cent of other Western Australian women.

Compared with the total fertility rate of almost 1,958 children per 1,000 non-Aboriginal women in Western Australia in 1988, the rate for Aboriginal women was 3,625 per 1,000.



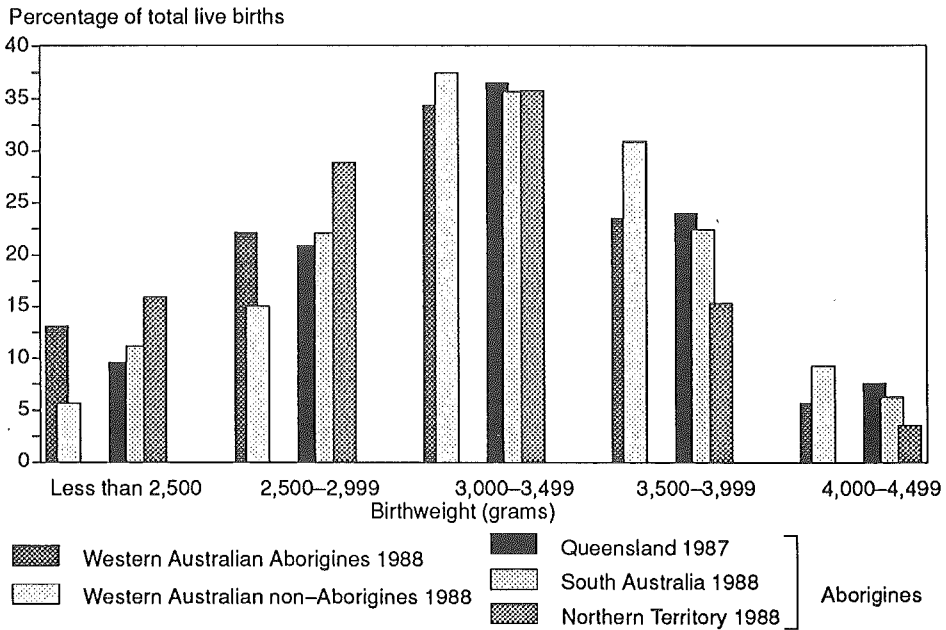
3. Note: 'fertility' is used in the technical sense, denoting actual, rather than potential, reproductive performance. See Glossary for further detail.

Birthweight

Babies born to Aboriginal women were around 200 grams lighter than those born to non-Aboriginal women. In 1988, the mean birthweight of babies born to Aboriginal women was 3,155 grams, and the median weight was 3,215 grams. For babies born to non-Aboriginal women, the mean weight was 3,370 grams and the median 3,390 grams.

Of particular significance is the proportion of babies of low birth weight, that is, less than 2,500 grams. In 1988, 13.1 per cent of babies born to Aboriginal women were of low birth weight, compared with 5.7 per cent of babies born to non-Aboriginal women (see Figure 6).

Figure 6: Birthweight distribution: babies born to Aboriginal and non-Aboriginal women



Source: Australian Institute of Health, unpublished, from data supplied by the Queensland Department of Health, the Health Department of Western Australia, the South Australian Health Commission and the Northern Territory Department of Health and Community Services

5 Mortality

Provision for the identification of Aborigines in death statistics has existed in Western Australia since 1983. In 1987–1988, for an estimated Aboriginal male population of 19,300, 388 deaths were identified as being of Aborigines. For the estimated Aboriginal female population of 19,380, 240 deaths were identified as being of Aborigines. The completeness of identification is not known.

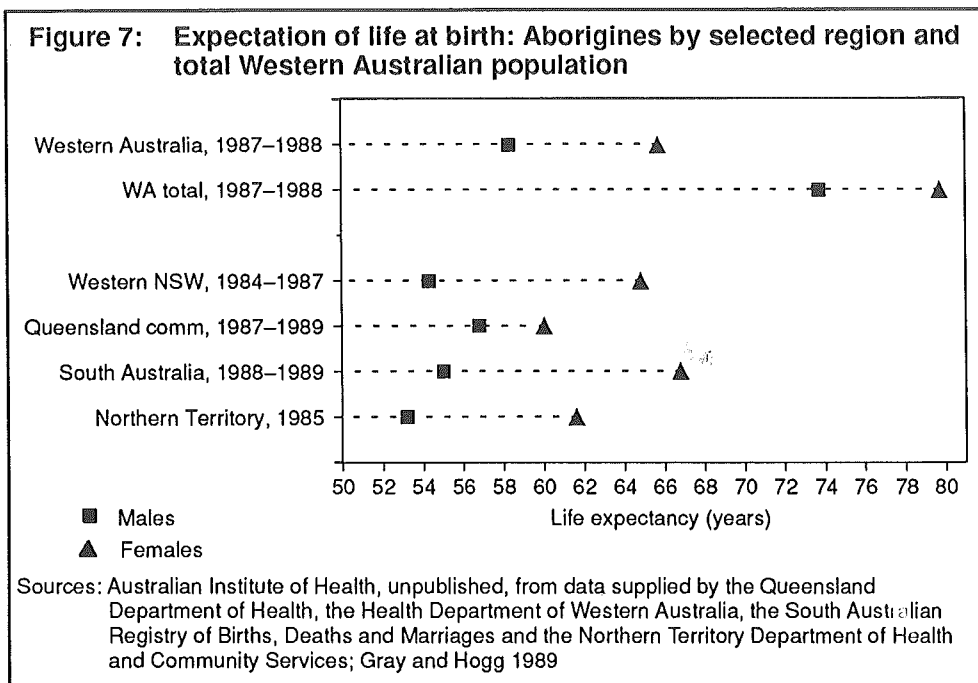
Expectation of life

The extent of Aboriginal health disadvantage is reflected in their expectation of life at birth, markedly lower than that of other Western Australians, and poor even by international standards.

For Aboriginal males in Western Australia in 1987–1988, the estimated expectation of life at birth was 58.3 years (see Table 3), more than 15 years less than that of the total Western Australian population in 1987–1988, 73.7 years. For Aboriginal females, the estimated expectation of life at birth was 65.7 years, 14 years less than that of the total female population in Western Australia, 79.7 years (see Figure 7).

Compared with these figures for all Aborigines in Western Australia, separate estimates for Aborigines living in the Kimberley region of Western Australia in 1983–1984 were slightly higher for males, 60.8 years, and slightly lower for females, 64.2 years (Holman and Quatros 1986).

These estimates for Aborigines living in Western Australia are broadly consistent with those for Aborigines living in other parts of Australia⁴ (Table 3), and with estimates from an intercensus survival analysis applied to population figures from the 1981 and 1986 Australian Censuses (see Table 4).



4. The Queensland data apply to the Aboriginal reserve communities (see Glossary).

Table 3: Expectation of life at birth: Aborigines for selected regions, by sex

	<i>Male</i>	<i>Female</i>
Western Australia, 1987-1988	58.3	65.7
Kimberley, WA, 1983-1984	60.8	64.2
Western New South Wales, 1984-1987	54.3	64.8
Queensland communities, 1987-1989	56.8	60.0
South Australia, 1988-1989	55.0	66.8
Northern Territory, 1985	53.2	61.6

Source: Australian Institute of Health, unpublished, from data supplied by the Queensland Department of Health, the Health Department of Western Australia, the South Australian Registry of Births, Deaths and Marriages and the Northern Territory Department of Health and Community Services; Gray and Hogg 1989; Holman and Quadros 1986

Table 4: Expectation of life at birth: Aborigines for States and Territories, based on intercensal survival estimates (years)

	<i>Male</i>	<i>Female</i>
Western Australia	55.3	63.2
New South Wales/Australian Capital Territory	56.9	65.0
Victoria/Tasmania	57.2	66.6
Queensland	55.6	63.9
South Australia	56.2	65.1
Northern Territory	53.7	61.8
Australia	55.7	63.9

Source: Gray, 1990

Standardised mortality

After adjustment is made for differences in the age structures of the Aboriginal and non-Aboriginal populations⁵, the death rate of Aboriginal males in Western Australia in 1987-1988 was 2.5 times that of the total Australian male population, and the death rate of Aboriginal females 2.6 times that of all Australian females. Table 5 shows the number of observed and expected deaths for Aborigines in Western Australia, and for the Kimberley region of the State, along with the standardised mortality ratios (including 95 per cent confidence intervals) (see also Figure 8). For comparison, data from a number of other regions are also shown.

The actual differences in mortality between Aborigines and non-Aborigines in Western Australia are greater than the comparison with Australian total population age-specific death rates suggests, as overall mortality in Western Australia is lower than that of the total Australian populations. For Western Australia overall, in 1987-1988 there were 10,421 male deaths and 7,991 female deaths. Using the same reference populations applied in estimating the expected number of Aboriginal deaths, the 1986 total Australian populations, 11,168 male deaths (SMR 0.93 (0.92-0.95)) and 8,927 female deaths (SMR 0.90 (0.88-0.91)) would be expected.

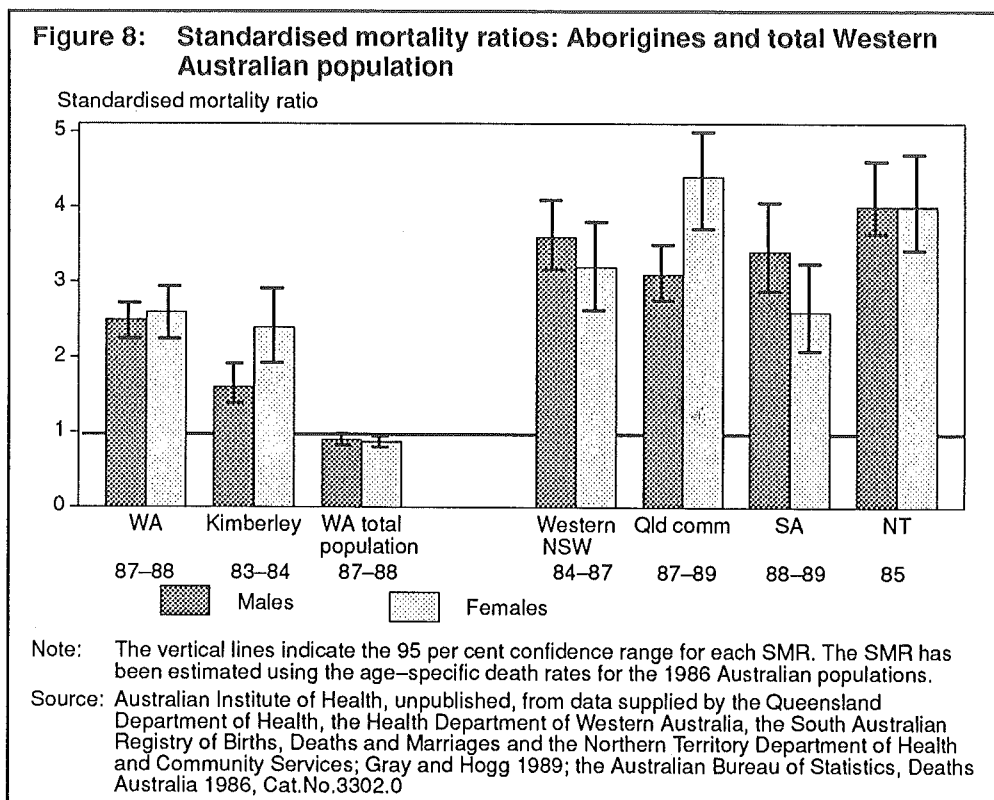
5. A technique known as indirect standardisation is used to provide an estimate of the number of deaths expected by the various Aboriginal sub-populations if they experienced the same age-specific death rates as a reference population. The ratio of the number of deaths observed to the number expected is known as the standardised mortality ratio (SMR). In this analysis, the 1986 total Australian male and female populations have been used as the reference populations. Although it is not strictly correct to compare indirectly adjusted rates (and hence ratios) with each other, they provide a reasonably accurate basis for comparison (see Kahn 1983).

Table 5: Aboriginal observed and expected number of deaths, and standardised mortality ratios

<i>Male</i>	<i>Observed No</i>	<i>Expected No</i>	<i>SMR</i>
Western Australia, 1987-1988	387	156.9	2.5 (2.2-2.7)
Kimberley, WA, 1983-1984	108	68.0	1.6 (1.3-1.9)
Western New South Wales, 1984-1987	205	56.8	3.6 (3.1-4.1)
Queensland communities, 1987-1989	226	73.8	3.1 (2.7-3.5)
South Australia, 1988-1989	155	45.4	3.4 (2.9-4.0)
Northern Territory, 1985	209	52.2	4.0 (3.5-4.6)
<i>Female</i>	<i>Observed No</i>	<i>Expected No</i>	<i>SMR</i>
Western Australia, 1987-1988	240	93.3	2.6 (2.2-2.9)
Kimberley, WA, 1983-1984	81	34.1	2.4 (1.9-2.9)
Western New South Wales, 1984-1987	110	34.6	3.2 (2.6-3.8)
Queensland communities, 1987-1989	168	38.4	4.4 (3.7-5.0)
South Australia, 1988-1989	90	34.0	2.6 (2.1-3.2)
Northern Territory, 1985	151	37.4	4.0 (3.4-4.7)

Note: The estimated number of deaths and the SMRs may differ slightly from those provided in the sources, as they have been recalculated using the 1986 age-specific death rates of the total Australian male and female populations.

Source: Australian Institute of Health, unpublished, from data supplied by the Queensland Department of Health, the Health Department of Western Australia, the South Australian Registry of Births, Deaths and Marriages and the Northern Territory Department of Health and Community Services; Gray and Hogg 1989; Holman and Quadros 1986

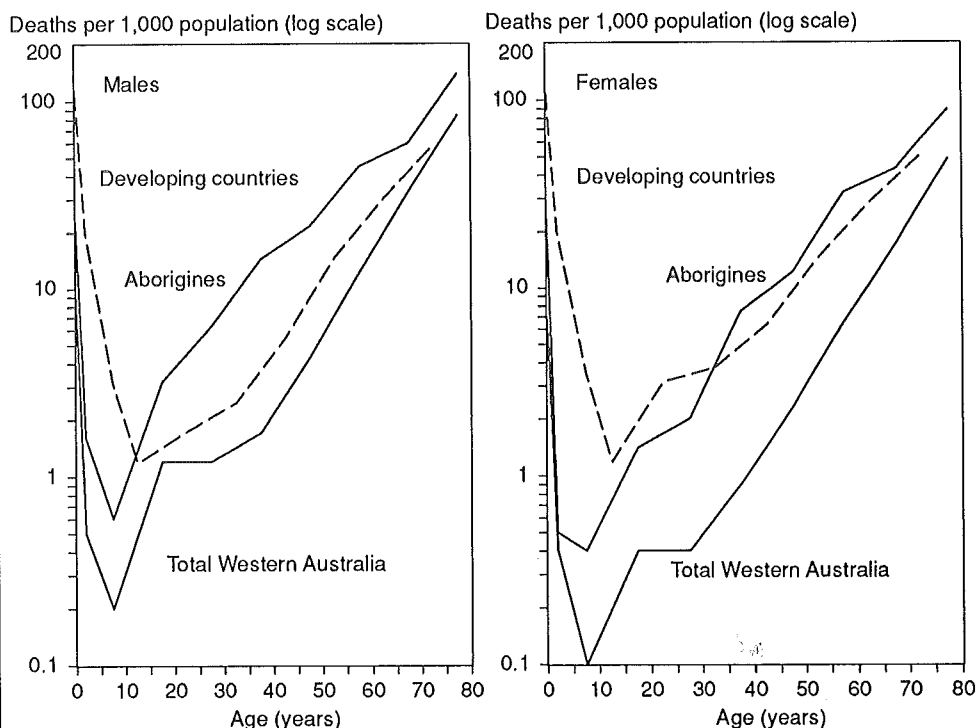


Age-specific death rates

The most striking aspect of Aboriginal mortality is the much higher death rates experienced by young adults, with the Aboriginal:total Western Australia ratios of age-specific death rates being highest for young and middle aged adults. The highest ratios were for 35-44 years olds: 8.5 for males and 8.3 for females. The age-specific death rates for Aborigines in Western Australia, for 1987-1988, are shown in Figure 9, along with the rates for the total Western Australian population.

The pattern of Aboriginal age-specific death rates is highly unusual, even compared with the rates typical of a developing country, also shown in these Figures. While Aboriginal death rates in infancy and early childhood are much lower than those in developing countries, beyond the teenage years the position is reversed, with death rates for young and middle aged Aboriginal adults, particularly males, being higher.

Figure 9: Age-specific death rates: Western Australia, Aborigines and total population, and developing countries



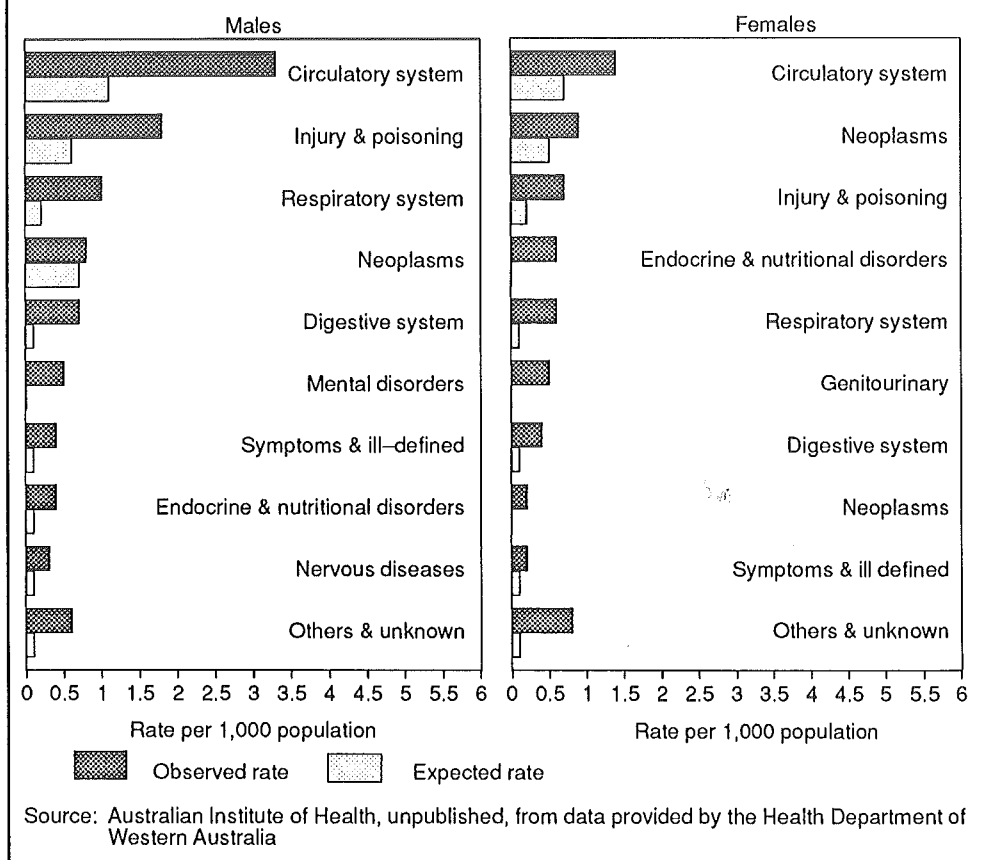
Source: Australian Institute of Health, unpublished, from data provided by the Health Department of Western Australia

Causes of death

In 1987-1988, the leading cause of Aboriginal deaths, for both males and females, was disease of the circulatory system (see Figure 10). Overall for males, the death rate from these diseases, including ischemic and other heart disease, was more than three times that expected, compared with the total Australian male population. For females, the rate was twice that expected, compared with the total Australian female population. Deaths from disease of the circulatory system were responsible for 34 per cent of the excess mortality experienced by Aboriginal males, and for 18 per cent of that experienced by Aboriginal females.

For Aborigines, the second most frequent cause of death for males, and third for females, was the ICD group 'External causes of injury and poisoning', which includes motor vehicle and other accidents, suicide and self-inflicted injury, and homicide and injury purposely inflicted by others. Deaths from these causes were around three times more frequent than expected from total Australian rates, and they were responsible for 18 per cent of the excess mortality experienced by Aboriginal males, and 12 per cent of that experienced by females.

Figure 10: Leading causes of death: Western Australia, Aborigines, observed and expected rates



Neoplasms were the second leading cause of death for Aboriginal females, and fourth for Aboriginal males. For Aboriginal females, neoplasms were responsible for eight per cent of the excess mortality, with cancer of the cervix alone being responsible for five per cent of the excess.

Disease of the respiratory system was the third leading cause of death for males, and fifth for females, for each sex contributing more than 11 per cent of the excess mortality. For Aboriginal females, the ICD group 'Endocrine, nutritional and metabolic diseases and immunity disorders' was the fourth most frequent cause of death. In 1987-1988, all except one of the deaths in this group were attributed to diabetes mellitus. The number occurring was much higher than expected, with the result that deaths from diabetes mellitus were responsible for 14 per cent of the excess mortality experienced by Aboriginal females.

Suicide and self-inflicted injuries do not feature highly in the official death statistics for Aborigines, but it is likely that such causes are under-reported for Aborigines (Hunter 1988a, Hunter 1988b, Reser 1989), as they are for the general community.

It is likely that the impact of alcohol on Aboriginal mortality is also under-reported. Alcohol-related conditions are not frequently reported in official statistics, but alcohol abuse has been found to be a major contributing factor in deaths attributed to other causes (Thomson and Smith 1985, Hicks 1985).

Fetal and infant mortality⁶

For Western Australia, the Aboriginal infant mortality rate (deaths in the first year of life per 1,000 live births) has declined significantly since the early 1970s, from an estimated 76 infant deaths per 1,000 live births in 1971 to 24 per 1,000 in 1986-1988 (see Table 6 and Figure 11).

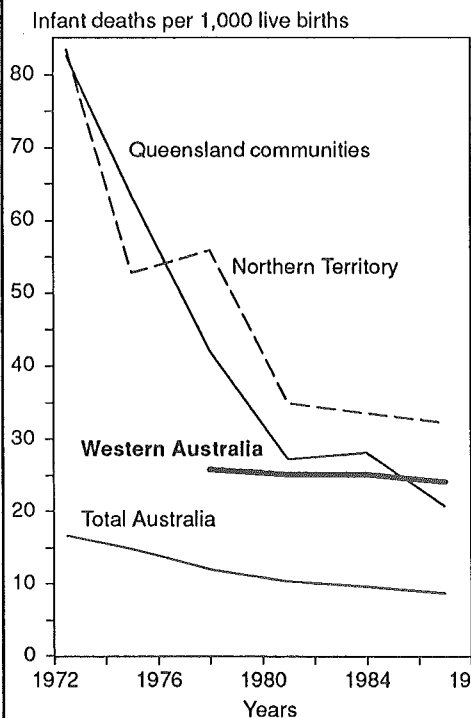
For Western Australia, and for Queensland and the Northern Territory, the major decline occurred during the 1970s, and there has been no substantial improvement in the 1980s. For 1986-1988, the infant mortality rate for Aborigines in Western Australia was 2.8 times that of the total Australian population.

The most useful indicator of fetal and neonatal survival is the perinatal mortality rate, which is the number of late fetal deaths (death of a fetus of at least 500 grams or, if weight is not known, of at least 22 weeks gestation; also known as stillbirths) and neonatal deaths (deaths of live born infants within the first 28 days of life) per 1,000 total births (live births plus late fetal deaths). Some caution needs to be used in comparing the figures quoted here with international figures, some of which relate only to deaths of live born infants within the first seven days of life.

6. The estimation of Aboriginal rates has followed the convention of using as the denominator the number of births to Aboriginal mothers, disregarding the race of the father. This convention developed because of the absence of separate figures of the numbers of births to non-Aboriginal mothers and Aboriginal fathers. The exclusion of such births from the denominator may result in overestimation of the level of Aboriginal infant mortality, the presence and extent of overestimation depending on the numbers of these births relative to the numbers born to Aboriginal mothers, and on the actual identification of babies and of infant deaths. For Western Australia, it is understood that data on births and deaths in infancy relate only to babies born to Aboriginal mothers.

The preparation of precise estimates of Aboriginal rates requires accurate information about the identification of babies, for both the denominator (births) and numerator (deaths). Since the definition of Aboriginality involves an element of self-identification, it is possible that some deaths of Aboriginal infants may not be identified as such if the infant's Aboriginality is assessed without reference to the parents. On the other hand, it is also possible that some babies with an Aboriginal mother or father may not in fact be identified by their parents as such.

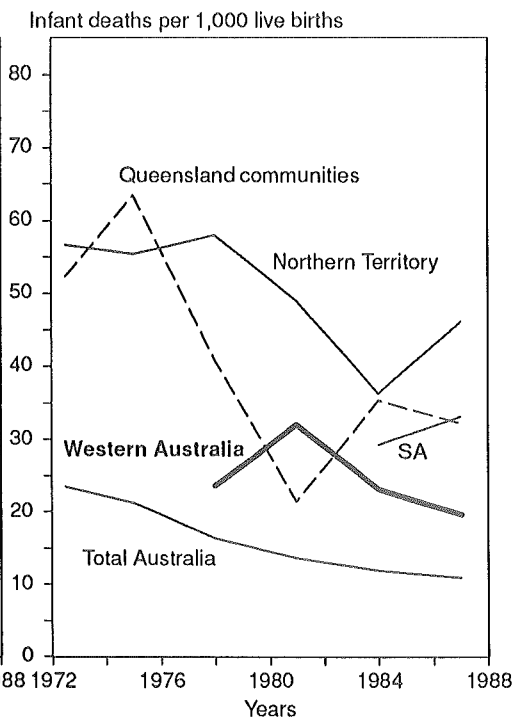
Figure 11: Infant mortality rates, Aboriginal and total Australian population



Note: Rates are infant deaths per 1,000 live births.

Source: Australian Institute of Health, unpublished, from data supplied by the Queensland Department of Health, the Health Department of Western Australia, the Northern Territory Department of Health and Community Services

Figure 12: Perinatal mortality rates, Aboriginal and total Australian population



Note: Rates are perinatal deaths per 1,000 total births.

Source: Australian Institute of Health, unpublished, from data supplied by the Queensland Department of Health, the Health Department of Western Australia, the South Australian Health Commission and the Northern Territory Department of Health and Community Services

The available estimates reveal that the perinatal mortality rate for Aborigines in Western Australia has declined substantially since the late 1970s, but still remains around twice that of the total Australian population (see Table 7 and Figure 12).

Table 6: Infant mortality rates^(a-d), Aboriginal and total Australian population, by triennium

	<i>Western Australia</i>	<i>Queensland communities</i>	<i>South Australia</i>	<i>Northern Territory</i>	<i>Total population Australia</i>
1972-1973	na	82.6 (5.0)	na	83.4 (5.0)	16.6
1974-1976	na	63.4 (4.3)	na	52.8 (3.6)	14.8
1977-1979	25.8 (2.1)	42.0 (3.5)	na	55.9 (4.7)	12.0
1980-1982	25.1 (2.4)	27.2 (2.6)	na	34.9 (3.4)	10.3
1983-1985	25.1 (2.6)	28.1 (2.9)	na	33.5 (3.5)	9.6
1986-1988	24.1 (2.8)	20.7 (2.4)	20.4 (2.3)	32.2 (3.7)	8.7

(a) Rates are infant deaths per 1,000 live births.

(b) Numbers in parentheses are the Aboriginal:total population rate ratios.

(c) Except for the first period (1972-1973) and the figures included under 1977-1979 for Western Australia, these estimates represent the grouped data for three-year periods. Reliable data are not available for 1971, nor for Western Australia for 1977.

(d) The data provided for 1988 by the South Australian Health Commission have been updated with figures from Hampton and Rogers 1990.

Source: Australian Institute of Health, unpublished, from data supplied by the Queensland Department of Health, the Health Department of Western Australia, the South Australian Health Commission, the Northern Territory Department of Health and Community Services; Australian Bureau of Statistics 1988a, 1988b

Table 7: Perinatal mortality rates^(a,b), Aborigines and total Australian population, by triennium

	<i>Western Australia</i>	<i>Queensland communities</i>	<i>South Australia</i>	<i>Northern Territory</i>	<i>Total population Australia</i>
1972-1973	na	52.3 (2.2)	na	56.7 (2.4)	23.4
1974-1976	na	63.4 (3.0)	na	55.4 (2.6)	21.2
1977-1979	23.6 (1.4)	40.8 (2.5)	na	58.0 (3.5)	16.3
1980-1982	32.0 (2.4)	21.4 (1.6)	na	49.0 (3.6)	13.6
1983-1985	23.1 (1.9)	35.3 (3.0)	29.2 (2.4)	36.2 (3.0)	11.9
1986-1988	19.6 (1.8)	32.1 (2.9)	33.1 (3.0)	46.1 (4.2)	10.9

(a) Rates are late fetal deaths plus neonatal deaths per 1,000 total births (live births plus late fetal deaths).

(b) Numbers in parentheses are the Aboriginal:total population rate ratios.

Source: Australian Institute of Health, unpublished, from data supplied by the Queensland Department of Health, the Health Department of Western Australia, the South Australian Health Commission, the Northern Territory Department of Health and Community Services; the Australian Bureau of Statistics 1988a, 1988b; Hampton and Rogers 1990

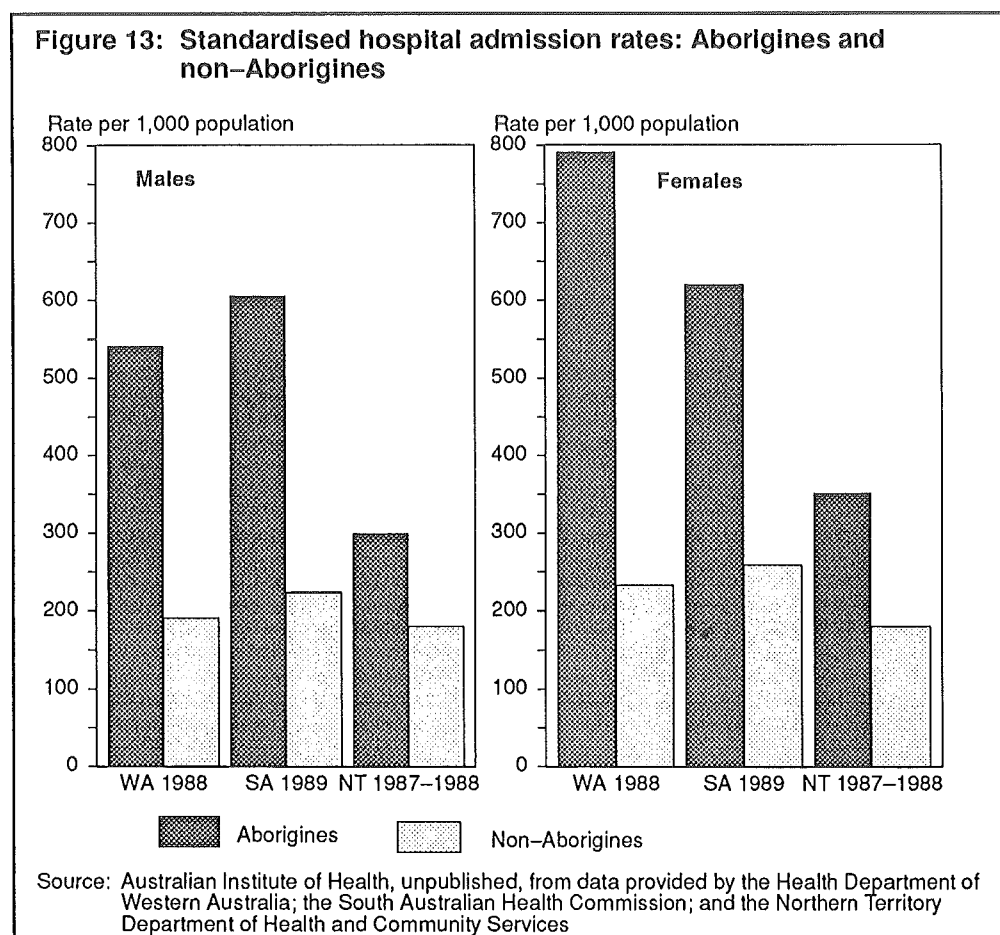
6 Hospitalisation

While not necessarily accurately reflecting the extent or pattern of treatable illness in the community, hospital statistics, generally reflecting more serious types of morbidity, confirm the relatively poor health status of Aborigines, both in terms of the rate of hospitalisation and the length of stay in hospital.

Overall, Aborigines are admitted to hospital 2.5 to three times more frequently than non-Aborigines, and, once admitted, tend to stay slightly longer. They are admitted more frequently for virtually every cause, and for every age-group, than are non-Aborigines.

Admission⁷ rates

Admission data for Aborigines and non-Aborigines living in Western Australia in 1988, directly standardised using the World Standard Population as the reference population, reveal that the hospital admission rate for Aboriginal males was 2.6 times that for non-Aboriginal males, and the rate for Aboriginal females was 3.0 times the non-Aboriginal rate (see Figure 13).

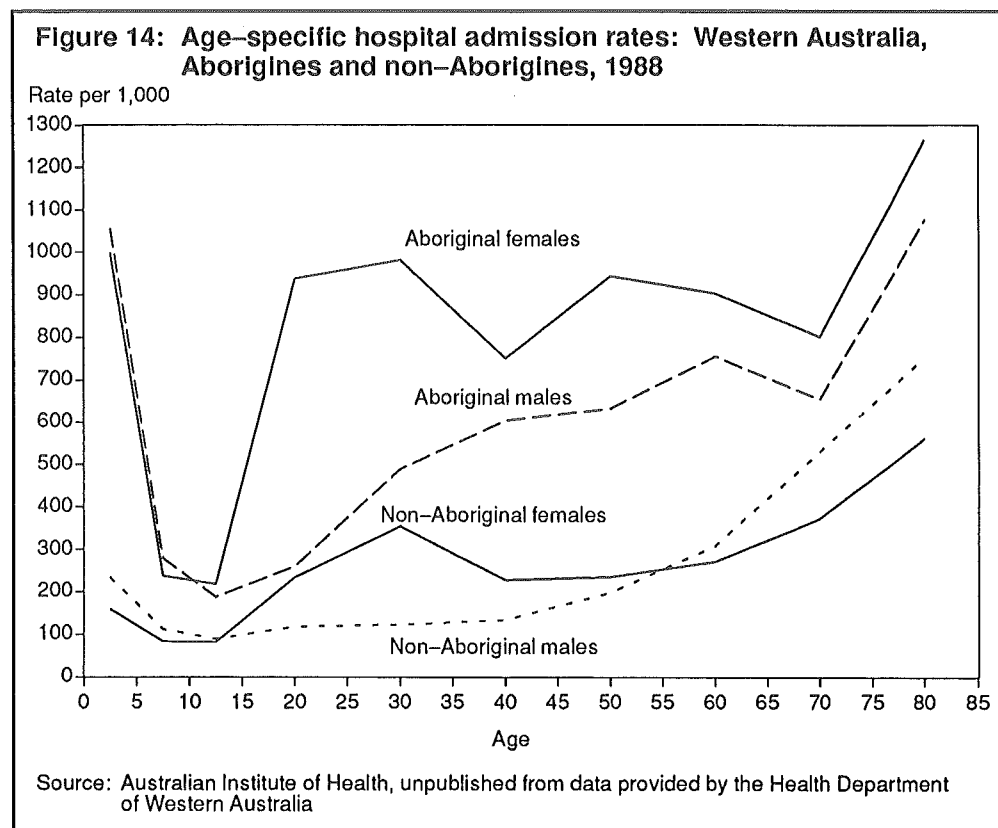


7. Hospitalisation data are usually reported in terms of 'separations', comprising discharges, transfers and deaths. However, in this paper the more generally understood term 'admission' is used.

Age-specific admission rates

The age-specific admission rates were uniformly higher for Aborigines than for non-Aborigines (Figure 14). Excluding pregnancy-related admissions, age-specific rates were highest for infants and young children (0-4 year age group), and for older people.

For both males and females, the highest rate ratio was documented for the 0-4 year age group, with the next highest rate ratios being found among young and middle aged adults (age group 35-44 years for males, and 45-54 years for females).



Causes of hospitalisation

For Aboriginal males in Western Australia in 1988, the leading cause of hospitalisation was disease of the respiratory system (ICD 460-519), with more than half the admissions being contributed by the 0-4 year age group.

Conditions classified within the ICD group 'External causes of injury and poisoning' (ICD E800-E999) contributed the next highest number of admissions, with diseases of the digestive system (ICD 520-579) being the next most frequent cause of hospitalisation.

For Aboriginal females, the leading cause of hospitalisation was the ICD supplementary classification, which includes a number of conditions associated with reproductive function. The next leading causes were the groups 'Complications of pregnancy, childbirth, and the puerperium' (ICD 630-679), diseases of the respiratory system (ICD 460-519) and 'External causes of injury and poisoning' (ICD E800-E999).

7 Summary

The current data support the conclusion reached by the Health Department of Western Australia in its 1986 review of health and illness in the State: Aboriginal ill-health is a major cause of premature deaths, excess hospitalisation and chronic disability.

Overall, Aboriginal mortality is 2.5 to three times that of the total Australian population. The major cause of Aboriginal deaths is disease of the circulatory system, (including heart disease), with injuries and diseases of the respiratory system also making major contributions to the excess mortality experienced by Aborigines. The greatest difference between Aboriginal and non-Aboriginal death rates is found among young and middle aged adults. The net result of the excess mortality experienced by Aborigines is that the expectation of life at birth of Aborigines is about 15 years less than that of other Western Australians.

Despite substantial improvements since the early 1970s, the mortality of Aboriginal infants in Western Australia remains more than 2.5 times higher than that of non-Aboriginal Australians, and perinatal mortality is almost twice as high as that of other Australians.

The rates of hospitalisation of Aborigines are 2.5 to three times those of other Western Australians and, as with death rates, the greatest difference between Aboriginal and non-Aboriginal rates is found among young and middle aged adults.

The magnitude of the health problems experienced by Aborigines in Western Australia clearly justify the Health Department of Western Australia's recognition of Aboriginal ill-health as a priority area for immediate action.

Glossary

Aborigine/Torres Strait Islander. A person of Aboriginal or Torres Strait Islander descent who identifies as an Aborigine or Torres Strait Islander and is accepted as such by the community in which he (she) lives.

age specific death rate. Number of deaths in a specified period of persons of a specific age group per 1,000 persons of the same age group.

age specific fertility rate. The number of live births to women in a specified age group in one year per 1,000 women in the same age group.

age standardised. Weighted average of age-specific rates according to a standard distribution of age to eliminate the effect of different age distributions and thus facilitate valid comparison of groups with differing age compositions.

expectation of life. Predicted number of years of life remaining to a person if the present pattern of mortality does not change.

fertility. The actual production of live offspring. Fetal deaths and abortions are not included in the measurement of fertility in a population.

fertility rate. See age specific fertility rate.

infant death. Death of an infant within a year of birth.

infant mortality rate. Number of infant deaths per 1,000 live births.

late fetal death. Birth of a fetus weighing at least 500 grams (or where birthweight is unavailable, of at least 22 weeks gestation), which shows no signs of life.

late fetal death rate. Number of late fetal deaths per 1,000 total births, live and stillborn.

low birthweight. Less than 2,500 grams.

neonatal death. Death of an infant within 28 days of birth.

neonatal mortality rate. Number of neonatal deaths per 1,000 live births.

perinatal death. Stillbirths (fetal deaths) plus neonatal deaths.

perinatal mortality rate. Number of perinatal deaths per 1,000 total births.

postneonatal death. Death between 28 days and one year of birth of an infant surviving the neonatal period.

postneonatal mortality rate. Number of postneonatal deaths per 1,000 live births.

prevalence. The number of instances of a given disease or other condition in a given population at a designated time.

Queensland Aboriginal communities. Data relate to Aurukun, Bamaga, Cherbourg, Doomadgee, Pormpuraaw (Edward River), Hopevale, Kowanyama, Lockhart River, Gununa (Mornington Island), Palm Island, Weipa South, Woorabinda, Wujal Wujal and Yarrabah. Some recent data also include Camooweal, Cowal Creek, Thursday Island and Weipa North.

relative risk. The ratio of the risk of disease or death among the exposed to the risk among the unexposed.

stillbirth. See late fetal death.

stillbirth rate. See late fetal death rate.

total fertility rate. The number of live births a woman would have if, throughout her reproductive years, she had children at the rates prevailing in the reference calendar year. It is the sum of the age specific fertility rates for that calendar year.

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