

Part II: Mortality, morbidity, disability and burden of disease

Chapter 3: Mortality

Chapter 4: Morbidity

Chapter 5: Disability

Chapter 6: Burden of disease

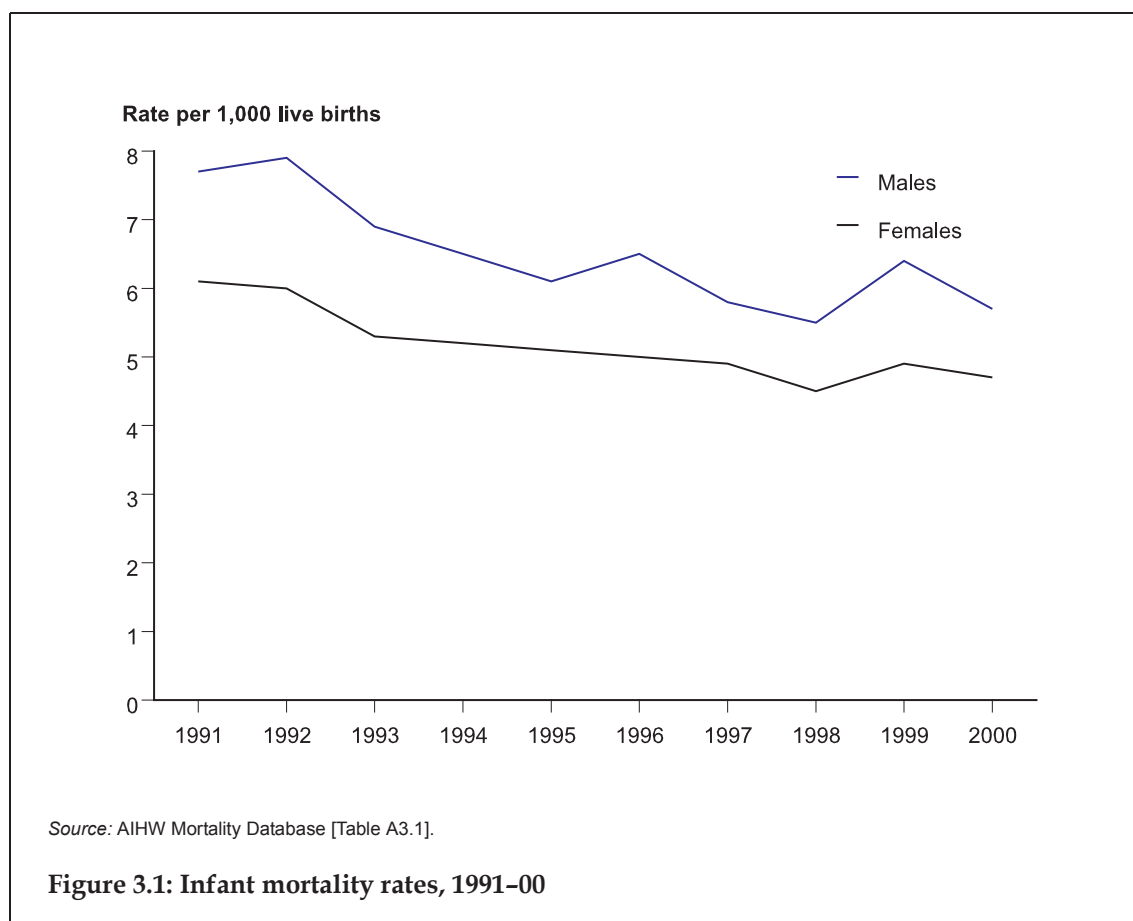
3. Mortality

Death rates are one of the most widely used measures of health in a population. For children, the death rate of those under 5 years, and in particular the infant mortality rate, has been widely used in monitoring the health of populations over time, and as a means of comparing the health of different populations. Identifying the causes of mortality provides a basis for setting priorities for public health action, for providing health services and for research.

This chapter provides an overview of child mortality, covering mortality over the last decade, age distribution and the underlying causes of death by age groups based on the 10th Revision of the International Classification of Diseases for mortality (ICD-10). Selected specific causes of death by age group are also covered in this chapter.

Infant mortality

The indicator for infant mortality is the number of deaths of infants in a given year, as a rate per 1,000 live births.



- In Australia in 2000, 1,931 children aged 0-14 years died, representing 2% of all deaths in that year. Of these, 1,290 were infants. This represented 67% of all deaths of children aged 0-14 years. Among infants, 56% of the deaths were boys.

- The infant mortality rate declined for both boys and girls between 1991 and 2000. In 1991, the male rate was 7.7 deaths per 1,000 live births. By 2000, the rate had fallen to 5.7 per 1,000 live births (a 26% decrease). Similarly, the female rate decreased from 6.1 to 4.7 (a 23% decrease).
- Male infants had higher death rates than female infants in all years.

In 1999, Australia's infant mortality rate (5.7 deaths per 1,000 live births) was high compared with other developed countries, ranking 19th among OECD countries. In the same year, Iceland ranked number one, with a rate of 2.4 per 1,000 live births. The high infant mortality rate among Aboriginal and Torres Strait Islander infants is a contributor to the relatively high Australian rate.

Causes of infant mortality

A summary of the underlying causes of deaths reported for infants in 2000, according to ICD-10 chapter, is presented in Table 3.1.

Table 3.1: Causes of deaths of infants, 2000

Cause of death	Number			Rate per 100,000 infants		
	Males	Females	Persons	Males	Females	Persons
Conditions originating in the perinatal period	355	281	636	279.1	231.6	255.9
Congenital malformations	181	142	323	142.3	117.0	130.0
Other symptoms, signs and abnormal findings	94	55	149	73.9	45.3	60.0
Injury and poisoning	24	23	47	18.9	19.0	18.9
Nervous system	25	20	45	19.7	16.5	18.1
Respiratory system	12	9	21	9.4	7.4	8.4
Infectious and parasitic	8	11	19	6.3	9.1	7.6
Endocrine, nutritional and metabolic diseases	8	8	16	6.3	6.6	6.4
Circulatory system	6	7	13	4.7	5.8	5.2
Neoplasms	3	5	8	2.4	4.1	3.2
Other conditions ^(a)	9	4	11	7.1	3.3	5.2
Total	725	565	1,290	570.0	465.7	519.1

(a) 'Other conditions' include: diseases of the digestive system, diseases of the blood and blood-forming organs, mental and behavioural disorders, and diseases of the musculoskeletal system and connective tissue.

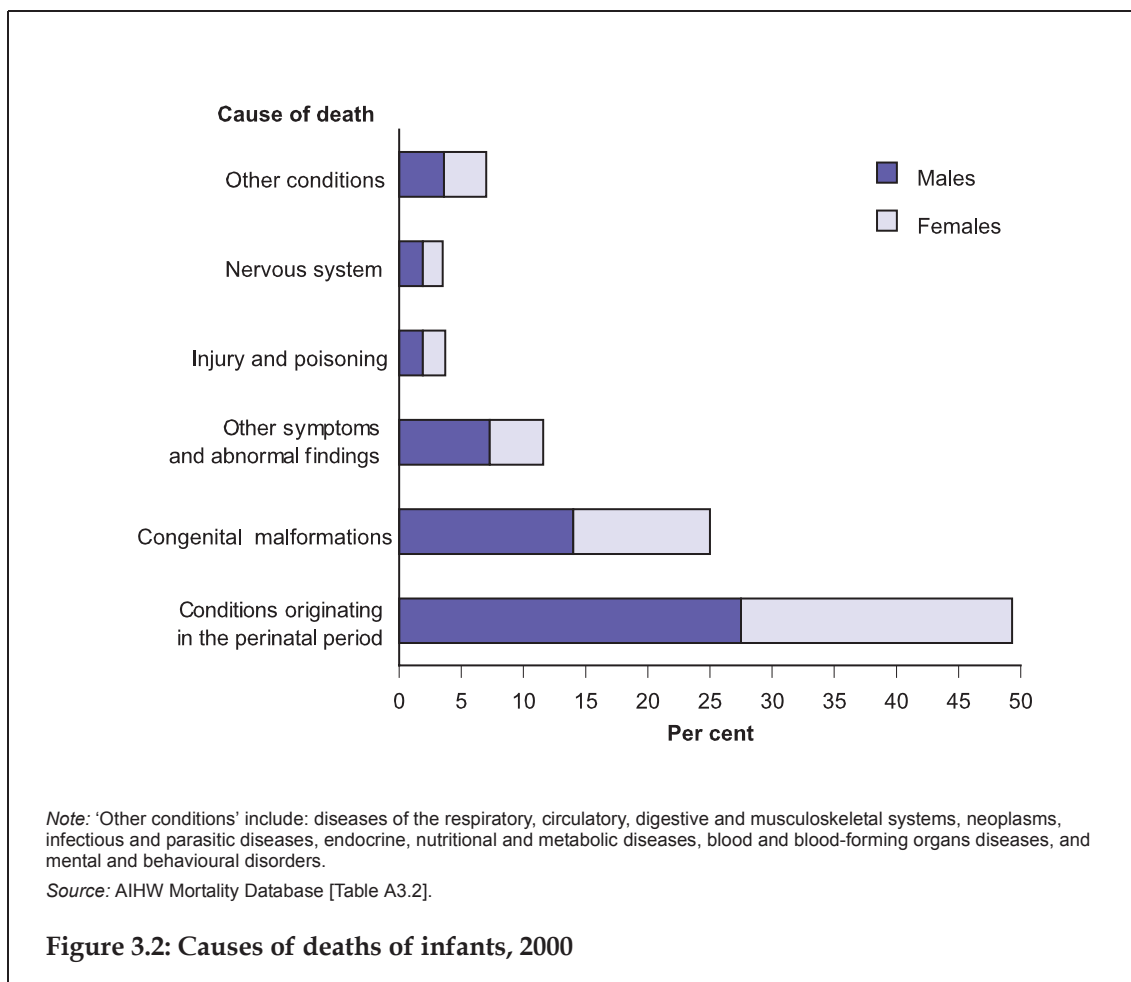
Notes

1. ICD-10 codes used: P00–P96, Q00–Q99, R00–R99, S00–T98, G00–G99, J00–J99, A00–B99, E00–E90, I00–I99, C00–D48 and remainder of codes for 'other conditions'.
2. For comparability, all rates in this table are per 100,000 infants. The infant mortality rate and rates for congenital malformations and conditions originating in the perinatal period discussed elsewhere in this report are based on live births.

Source: AIHW Mortality Database.

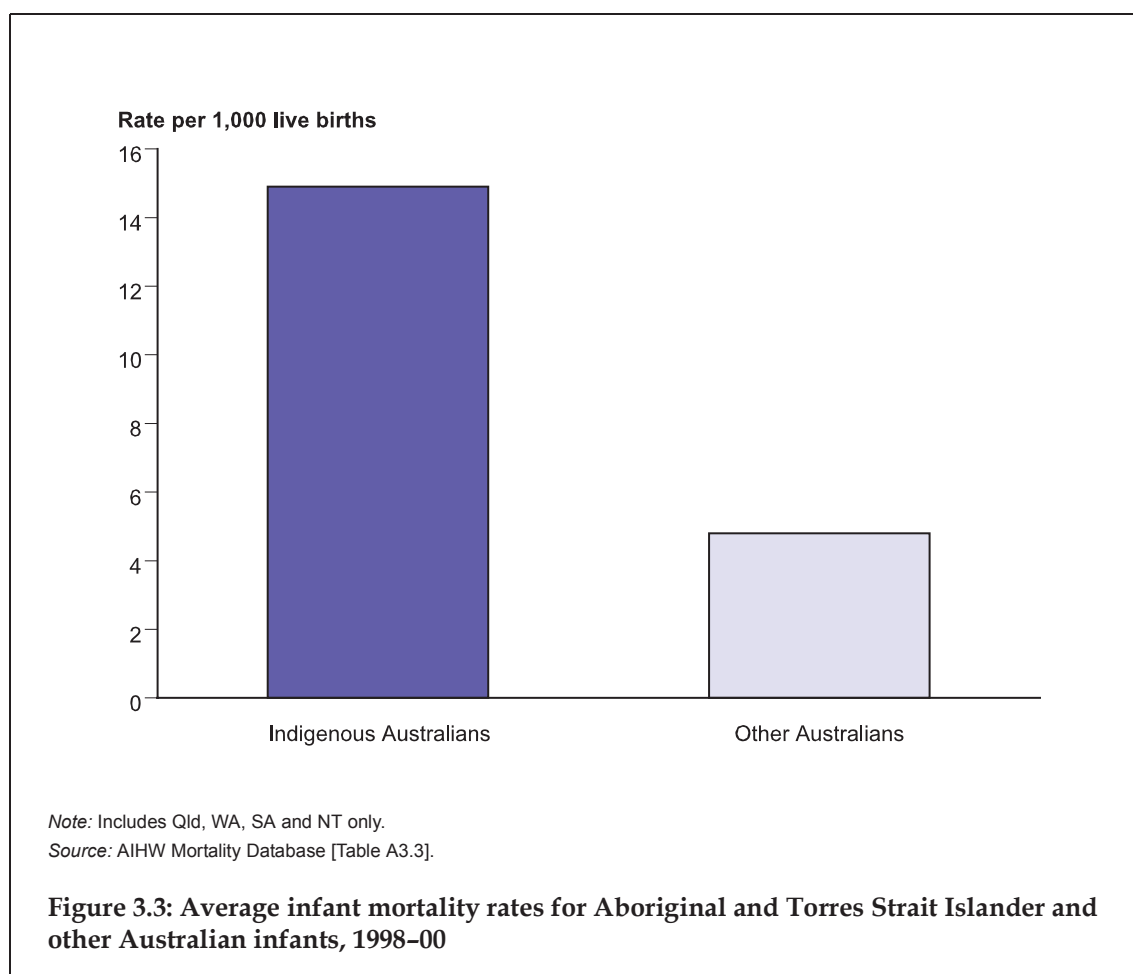
- In 2000, more infants died from conditions originating in the perinatal period than from any other condition (636 deaths, or 255.9 per 100,000 infants).
- Another common cause of death was congenital malformations, from which 323 infants died (130.0 per 100,000 infants).
- Other symptoms, signs and abnormal findings, which include sudden infant death syndrome (SIDS), accounted for 149 deaths (60.0 per 100,000 infants).

Deaths of male and female infants as a proportion of all infant deaths are presented in Figure 3.2.



- Conditions originating in the perinatal period were responsible for 49% of all infant deaths in 2000.
- Congenital malformations accounted for 25% of deaths. Other symptoms, signs and abnormal findings (the majority of deaths in this group of conditions are due to SIDS) were responsible for 12%, and injuries and poisoning 4%.
- For most conditions, a higher number of deaths occurred of male than of female infants.

Aboriginal and Torres Strait Islander infants



- Between 1998 and 2000 in Queensland, Western Australia, South Australia and the Northern Territory, 300 Aboriginal and Torres Strait Islander infants died. This represented 71% of all deaths of Indigenous children aged 0-14 years in these States/Territories. Of these deaths, 172 (57%) were male infants and 128 (43%) were female infants.

The causes of death of Aboriginal and Torres Strait Islander and other Australian infants, according to ICD-10 chapter, are presented in Table 3.2.

Table 3.2: Causes of death for Aboriginal and Torres Strait Islander and other Australian infants, 1998–00

Cause of death	Total number		Average rate per 100,000 infants		Rate ratio
	Indigenous Australians	Other Australians	Indigenous Australians	Other Australians	
Conditions originating in the perinatal period	126	567	608.4	217.8	2.8
Other symptoms, signs and abnormal findings	61	167	294.5	64.2	4.6
Congenital malformations	55	360	265.6	138.3	1.9
Respiratory system	15	20	72.4	7.7	9.4
Injury and poisoning	12	50	57.9	19.2	3.0
Infectious and parasitic	11	11	53.1	4.2	12.6
Nervous system	10	33	48.3	12.7	3.8
Other conditions ^(a)	10	54	48.3	20.7	2.3
Total	300	1,262	1,448.5	484.8	3.0

(a) 'Other conditions' include: endocrine, nutritional and metabolic diseases, diseases of the circulatory system, neoplasms, diseases of the digestive system, diseases of blood and blood-forming organs, and diseases of the genitourinary system.

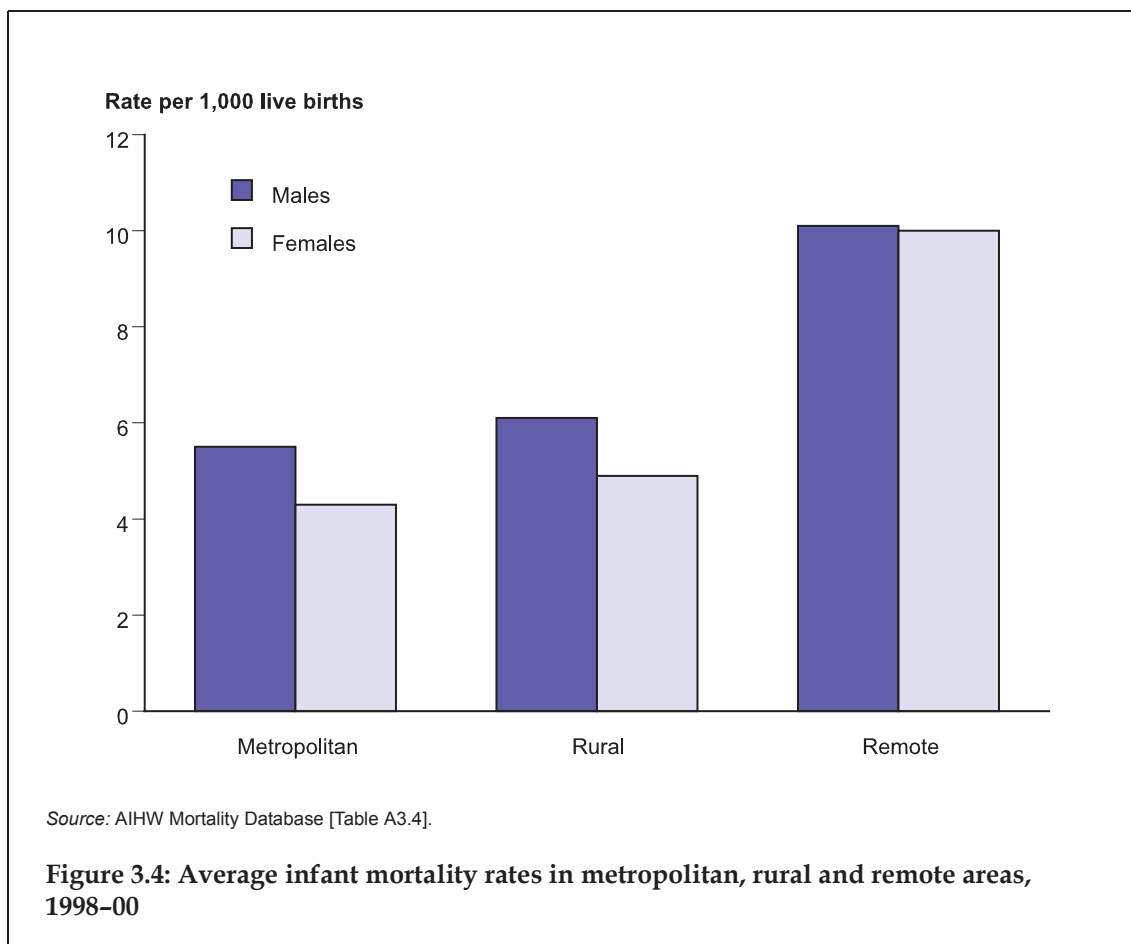
Notes

1. For comparability, all rates in this table are per 100,000 infants. The infant mortality rate and rates for congenital malformations and conditions originating in the perinatal period discussed elsewhere in this report are based on live births.
2. Includes Qld, WA, SA and NT only.
3. This total excludes 12 infants for whom Aboriginal and Torres Strait Islander status was unknown or missing.

Source: AIHW Mortality Database.

- Rate ratios (Table 3.2) provide a means for comparing the death rates of Indigenous and other Australian infants. For 1998–00, the average rate for Indigenous infants was 3 times higher than for other Australian infants (1,448.5 compared with 484.8 per 100,000).
- The conditions responsible for the greatest numbers of Indigenous infant deaths were similar to those reported for other Australian infants. These were conditions originating in the perinatal period (126 deaths, or 608.4 per 100,000 infants), other symptoms, signs and abnormal findings including SIDS (61, or 294.5) and congenital malformations (55, or 265.6). These conditions accounted for 81% of all deaths of Indigenous infants.

Infants in metropolitan, rural and remote areas



- Between 1998 and 2000, there were 2,607 deaths of infants in metropolitan areas, 1,026 in rural areas and 294 in remote areas.
- The average mortality rate for infants living in remote areas was higher than for those in rural and metropolitan areas (10.0 deaths per 1,000 live births compared with 5.5 and 4.9, respectively).
- The rate was higher for male than for female infants.

Table 3.3: Causes of deaths of infants in metropolitan, rural and remote areas, 1998–00

Cause of death	Total number			Average rate per 100,000 infants		
	Metropolitan	Rural	Remote	Metropolitan	Rural	Remote
Conditions originating in the perinatal period	1,280	439	123	242.1	234.2	417.6
Congenital malformations	709	283	68	134.1	151.0	230.9
Other symptoms, signs and abnormal findings	282	142	53	53.3	75.7	179.9
Injury and poisoning	79	51	9	14.9	27.2	30.6
Nervous system	72	38	9	13.6	20.3	30.6
Respiratory system	43	16	14	8.1	8.5	47.5
Endocrine, nutritional and metabolic diseases	37	11	5	7.0	5.9	17.0
Infectious and parasitic	29	15	7	5.5	8.0	23.8
Circulatory system	31	10	2	5.9	5.3	6.8
Neoplasms	20	14	2	3.8	7.5	6.8
Other conditions ^(a)	25	7	2	4.7	3.7	6.8
Total	2,607	1,026	294	493.1	547.3	998.1

(a) 'Other conditions' include: diseases of the digestive system, diseases of blood and blood-forming organs, diseases of the genitourinary system, and mental and behavioural disorders.

Notes

1. For comparability, all rates in this table are per 100,000 infants. The infant mortality rate and rates for congenital malformations and conditions originating in the perinatal period discussed elsewhere in this report are based on live births.

2. This total excludes 23 infants for whom area of residence was unknown or missing.

Source: AIHW Mortality Database.

- For most causes of death, the average death rate for infants living in remote areas was higher than for those living in rural or metropolitan areas.