

1.21 Sudden infant death syndrome

The number of Aboriginal and Torres Strait Islander infants aged less than 12 months who die from sudden infant death syndrome (SIDS), expressed as a rate (per 1,000 live births) for that period.

Data sources

Data for this measure come from the Australian Institute of Health and Welfare (AIHW) National Mortality Database.

National Mortality Database

The National Mortality Database is a national collection of de-identified unit record level data. It comprises most of the information recorded on death registration forms and medical (cause of death) certificates, including Indigenous status. The AIHW maintains the database. The Registrars of Births, Deaths and Marriages provide information on the characteristics and causes of death of the deceased and the Australian Bureau of Statistics (ABS) codes this nationally. The medical practitioner certifying the death, or a coroner, supplies the required information on the cause of death. The data are updated each calendar year and are presented by state/territory of usual residence rather than state/territory where death occurs.

It is considered likely that most deaths of Aboriginal and Torres Strait Islander people are registered. However, a proportion of these deceased are not reported as Aboriginal or Torres Strait Islander by the family, health worker or funeral director during the death registration process. That is, while data are provided to the ABS for the Indigenous status question for 99% of all deaths, there are concerns regarding the accuracy of the data. The funeral director does not always directly ask the Indigenous status question of relatives and friends of the deceased. Detailed breakdowns of Aboriginal and Torres Strait Islander deaths are therefore only provided for five jurisdictions – New South Wales, Queensland, South Australia, Western Australia and the Northern Territory (AIHW 2010).

Deaths for which the Indigenous status of the deceased was not reported have been excluded from the analysis.

Additional revised 2007 and preliminary 2008 mortality data for this indicator was supplied by the ABS from the ABS Cause of Death database. For further information see *Causes of death, Australia, 2008* (ABS 2010).

Data have been combined for the 5-year period 2003–2008 because of the small number of deaths from some conditions each year. Data have been analysed using the year of registration of death for all years. Note that the 2006 edition of this report used year of occurrence of death for all years of analysis except for the latest year of available data for which year of registration of death was used. Data published in this report may therefore differ slightly from those published in the previous edition for comparable years of data.

National Aboriginal and Torres Strait Islander Social Survey

The ABS conducted the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS) between August 2002 and April 2003. The 2008 NATSISS was conducted between

August 2008 and April 2009. The survey provides information about the Aboriginal and Torres Strait Islander populations of Australia for a wide range of areas of social concern including health, education, culture and labour force participation. The 2008 NATSISS included for the first time children aged under 15. The NATSISS will be conducted every six years, with the next survey planned for 2013.

The 2008 NATSISS collected information by personal interview from 13,300 Indigenous Australians across all states and territories of Australia, including those living in remote areas. The sample covered persons aged 15 years and over who are usual residents in selected private dwellings. It collected information on a wide range of subjects including family and culture, health, education, employment, income, financial stress, housing, and law and justice.

Analyses

Mortality

- Sudden infant death syndrome (SIDS) represented approximately 7% of all deaths of Aboriginal and Torres Strait Islander infants across New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined.
- For the period 2004–2008, there were 245 deaths from SIDS in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined, 39 (16%) of which were deaths of Aboriginal and Torres Strait Islander infants (Table 1.21.1).
- In New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined, Indigenous infants died from SIDS at almost three times the rate of non-Indigenous infants.

Table 1.21.1: SIDS mortality rates per 1,000 live births, by Indigenous status, NSW, Qld, WA, SA and NT, 2004–2008^{(a)(b)(c)(d)(e)(f)(g)(h)(i)(j)}

	Indigenous				Non-Indigenous				Rate ratio ^(o)
	Deaths	Rate ^{(k)(l)}	LCL 95% ^(m)	UCL 95% ⁽ⁿ⁾	Deaths	Rate ^{(k)(l)}	LCL 95% ^(m)	UCL 95% ⁽ⁿ⁾	
NSW	22	1.2	0.7	1.7	130	0.3	0.2	0.4	4.0*
Qld	10	0.5	0.2	0.8	61	0.2	0.1	0.3	2.2*
WA	n.p.	n.p.	n.p.	n.p.	9	0.1	0.0	0.2	5.5*
SA	0	0.0	..	..	n.p.	n.p.	n.p.	n.p.	..
NT	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	1.4
NSW, Qld, WA, SA & NT	39	0.7	0.5	0.9	206	0.2	0.2	0.2	2.9*

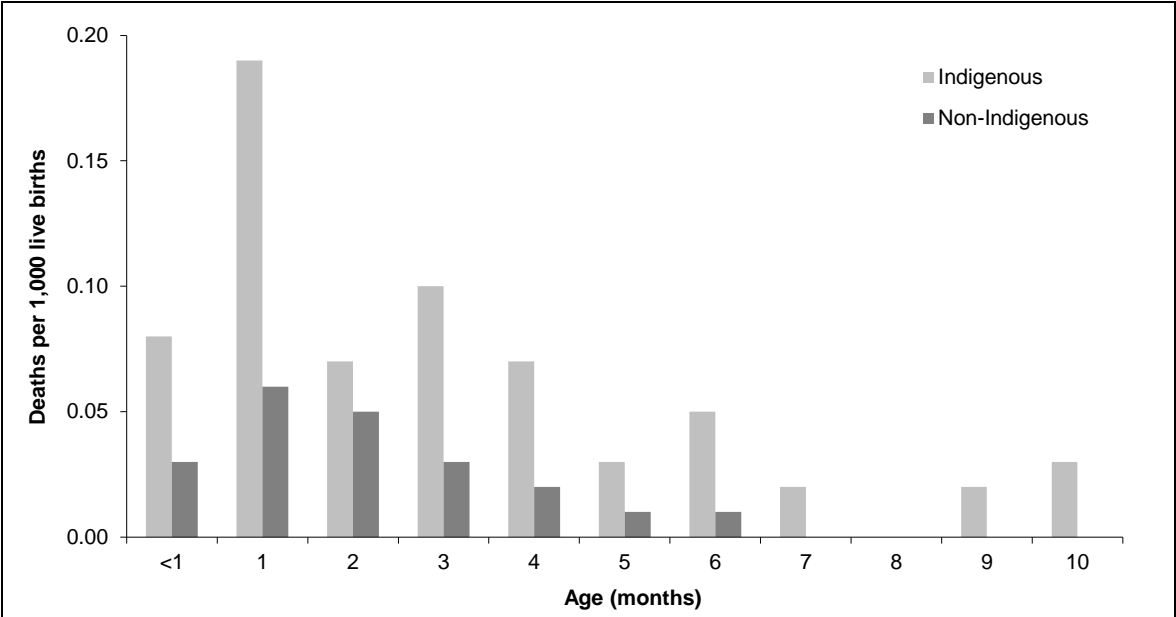
* Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons at the $p < 0.05$ level.

- (a) SIDS – Sudden Infant Death Syndrome, ICD-10 code: R95. SIDS data in this table is for deaths under 1 year of age.
- (b) Data are reported for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory only. These five jurisdictions are considered to have adequate levels of Indigenous identification in mortality data. They do not represent a quasi-Australian figure.
- (c) Data exclude 10 registered infant deaths where Indigenous status was not stated over the period 2004–2008 in NSW, Queensland, Western Australia, South Australia and the Northern Territory combined.
- (d) Data are presented in 5-year groupings because of the small numbers each year.
- (e) Although most deaths of Indigenous Australians are registered, it is likely that some are not accurately identified as Indigenous. Therefore, these statistics are likely to underestimate the Indigenous all causes mortality rate.
- (f) Deaths prior to 2007 are by year of registration and state/territory of usual residence. Deaths from 2007 onwards are by reference year and state/territory of usual residence. Registration year prior to 2007 is equivalent to reference year from 2007 onwards.
- (g) Causes of death data for 2007 have been revised and are subject to further revisions. See *Causes of death, Australia, 2008* (ABS 2010, cat. No. 3303.0) Technical Note 2: Revisions Process for further information.
- (h) 2008 data have been subject to a process improvement which has increased the quality of these data. See *Causes of death, Australia, 2008* (cat. No. 3303.0) Technical Note 1: 2008 COD Collection – Process Improvement for further information.
- (i) Causes of death data for 2008 are preliminary and subject to a revisions process. See *Causes of Death, Australia, 2008* (cat. No. 3303.0) Technical Note 2: Revisions Process for further information.
- (j) Data cells with small values have been randomly assigned to protect the confidentiality of individuals. As a result, some totals will not equal the sum of their components. It is important to note that cells with a zero value have not been affected by confidentialisation.
- (k) Rates have been directly age-standardised using the 2001 Australian standard population.
- (l) No. per 1,000 live births.
- (m) LCL = lower confidence limit.
- (n) UCL = upper confidence limit.
- (o) Rate ratio Indigenous: non-Indigenous.

Source: AIHW and ABS analysis of ABS Mortality Database.

Mortality by age (months)

- For the period 2004–2008, the majority (51.5%) of all deaths from SIDS among Aboriginal and Torres Strait Islander infants in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined occurred in the first 2 months of life.
- The highest mortality rates for SIDS occurred at around the age of 1 month for Indigenous and non-Indigenous infants (0.19 and 0.06 per 1,000 live births respectively) (Figure 1.21.1; Table 1.21.2).
- Mortality rate ratios between Indigenous and non-Indigenous infants were highest among those aged 3 months, where Indigenous infants died from SIDS at over three times the rate of non-Indigenous infants.



Source: AIHW and ABS analysis of ABS Mortality Database.

Figure 1.21.1: SIDS mortality rates per 1,000 live births, by age in months and Indigenous status, NSW, Qld, WA, SA and NT, 2004-2008

Table 1.21.2: SIDS mortality rates per 1,000 live births, by age in months and Indigenous status, NSW, Qld, WA, SA and NT, 2004–2008^{(a)(b)(c)(d)(e)(f)(g)(h)(i)(j)(k)}

Age in months	Indigenous	Non-Indigenous	Total
<1	0.08	0.03	0.03
1	0.19	0.06	0.07
2	0.07	0.05	0.05
3	0.10	0.03	0.04
4	0.07	0.02	0.02
5	0.03	0.01	0.01
6	0.05	0.01	0.01
7	0.02	0.00	0.01
8	0.00	0.00	0.00
9	0.02	0.00	0.00
10	0.03	0.00	0.00

- (a) SIDS – Sudden Infant Death Syndrome, ICD-10 code: R95. SIDS data in this table is for deaths under 1 year of age.
- (b) Data are reported for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory only. These five jurisdictions are considered to have adequate levels of Indigenous identification in mortality data. They do not represent a quasi-Australian figure.
- (c) Data exclude 10 registered infant deaths where Indigenous status was not stated over the period 2004–2008 in NSW, Queensland, Western Australia, South Australia and the Northern Territory combined.
- (d) Data are presented in 5-year groupings because of the small numbers each year.
- (e) Although most deaths of Indigenous Australians are registered, it is likely that some are not accurately identified as Indigenous. Therefore, these statistics are likely to underestimate the Indigenous all causes mortality rate.
- (f) Deaths prior to 2007 are by year of registration and state/territory of usual residence. Deaths from 2007 onwards are by reference year and state/territory of usual residence. Registration year prior to 2007 is equivalent to reference year from 2007 onwards.
- (g) Causes of death data for 2007 have been revised and are subject to further revisions. See Causes of Death, Australia, 2008 (cat. No. 3303.0) Technical Note 2: Revisions Process for further information.
- (h) 2008 data have been subject to a process improvement which has increased the quality of these data. See Causes of Death, Australia, 2008 (cat. No. 3303.0) Technical Note 1: 2008 COD Collection – Process Improvement for further information.
- (i) Causes of death data for 2008 are preliminary and subject to a revisions process. See Causes of Death, Australia, 2008 (cat. No. 3303.0) Technical Note 2: Revisions Process for further information.
- (j) Data cells with small values have been randomly assigned to protect the confidentiality of individuals. As a result, some totals will not equal the sum of their components. It is important to note that cells with a zero value have not been affected by confidentialisation.
- (k) Rates are crude rates per 1,000 live births

Source: AIHW and ABS analysis of ABS Mortality Database.

Time series analysis

Longer term mortality trend data are limited to three jurisdictions – Western Australia, South Australia and the Northern Territory, which have 17 years of adequate identification of Indigenous deaths in their recording systems.

There is a consistent time series of population estimates from 1991. Because of changes in the classification and coding of causes of death from ICD-9 (used until 1996) to ICD-10 (used from 1997 onwards) which affects the comparability of the data, the analysis reported for this indicator has been done for two time periods – 1991–1996 and 1997–2008. Data are presented in 3- to 4-year groupings because of low numbers of deaths from SIDS each year.

Because of the late inclusion of a ‘not stated’ category of Indigenous status in 1998 (before which ‘not stated’ responses were included with non-Indigenous deaths), Indigenous mortality rates have been compared with the mortality rates of other Australians (which include deaths of both non-Indigenous people and people for whom Indigenous status was not stated).

SIDS mortality rates, rate ratios and rate differences between Indigenous and other Australian mortality from SIDS over the period 1991–1993 to 1994–1996 and 1997–1999, 2000–2002, 2003–2005 to 2006–2008 are presented in Table 1.21.3 and Figure 1.21.2.

- Over the period 1991–1993 to 1994–1996, there were non-significant declines in mortality rates for SIDS for Indigenous infants in Western Australia, South Australia and the Northern Territory. Over the same period there were significant declines in mortality rates for SIDS for other infants (a decline of around 0.4 deaths per 1,000 live births) (Table 1.21.3).
- Over the period 1997–1999 to 2006–2008, there were significant declines in mortality rates for SIDS for both Indigenous and other infants in Western Australia, South Australia and the Northern Territory combined. The fitted trend implies an average yearly decline in the rate of around 0.4 per 1,000 births for Indigenous infants (equivalent to a 111% decline over the period) and 0.01 per 1,000 births for other infants (equivalent to a 102% decline) (Table 1.21.3).
- Over the same period, there was a significant decline in the mortality rate ratio between Indigenous and other infants of around 0.3 per 1,000 live births. There was also a significant decline in the mortality rate difference of around 0.4 per 1,000 live births.

Fluctuations in the level of Indigenous mortality over time partly reflect changing levels of identification of Indigenous deaths and population estimates. Given the variability in the measures of Indigenous mortality, caution should be exercised in assessing trends in Indigenous mortality over time and comparisons between jurisdictions and with the non-Indigenous population.

In addition, analysis of infant mortality data in Western Australia has, in recent years, shifted away from a classification of ‘SIDS’ towards a classification of ‘unascertainable’, particularly for Aboriginal infants. This has implications for the analysis of trends in SIDS over time (Freemantle et al. 2005).

Table 1.21.3: SIDS mortality rates, rate ratios and rate differences per 1,000 live births, by Indigenous status, WA, SA and NT, 1991–1993 to 1994–1996 and 1997–1999 to 2006–2008^{(a)(b)(c)(d)(e)(f)}

	Deaths		No. per 1,000 ^(g)		Rate ratio ⁽ⁱ⁾	Rate difference ^(j)
	Indigenous	Other ^(h)	Indigenous	Other ^(h)		
1991–1996						
1991–1993	62	149	6.0	1.1	5.5	4.9
1994–1996	44	92	4.3	0.7	6.2	3.6
Difference in rates ^(k)	..	..	-1.8	-0.4*		
1997–2008						
1997–1999	38	70	3.7	0.5	6.8	3.1
2000–2002	23	35	2.0	0.3	7.2	1.7
2003–2005	6	15	0.5	0.1	4.3	0.4
2006–2008	3	10	0.2	0.1	3.2	0.1
Annual change ^(l)	..	..	-0.4*	-0.01*	-0.3*	-0.4*
Per cent change over period ^(m)	..	..	-111.3*	-101.6*	-71.4*	-112.9*

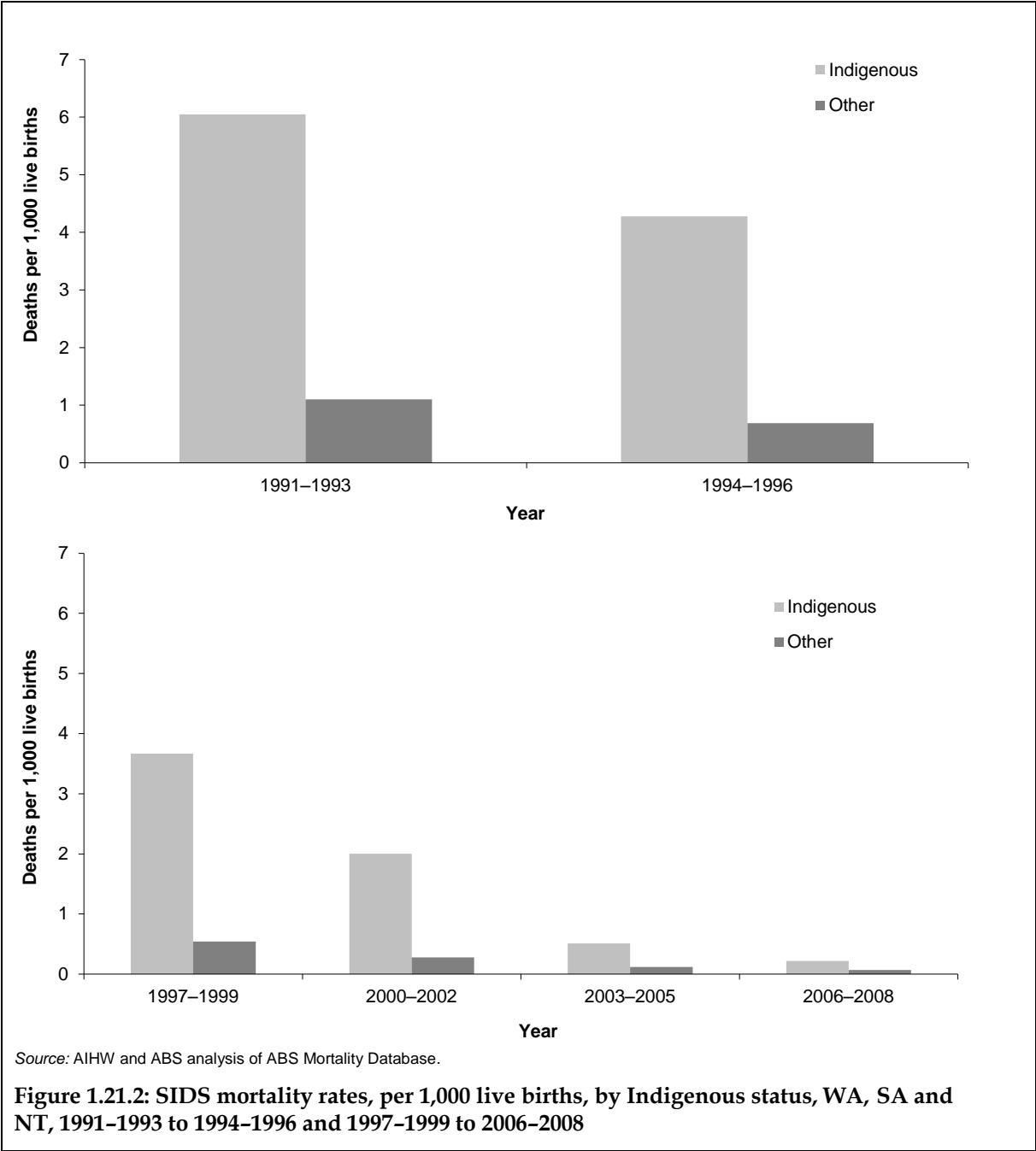
* Represents statistically significant differences at the $p < 0.05$ level over the period 1991–1993 to 1994–1996 and 1997–1999 to 2006–2008.

- (a) SIDS – Sudden Infant Death Syndrome, ICD-10 code: R95. SIDS data in this table is for deaths under 1 year of age.
- (b) Data are reported for Western Australia, South Australia and the Northern Territory only. These three jurisdictions are considered to have adequate levels of Indigenous identification in mortality data. They do not represent a quasi-Australian figure.
- (c) Although most deaths of Indigenous Australians are registered, it is likely that some are not accurately identified as Indigenous. Therefore, these statistics are likely to underestimate the Indigenous all causes mortality rate.
- (d) Deaths prior to 2007 are by year of registration and state/territory of usual residence. Deaths from 2007 onwards are by reference year and state/territory of usual residence. Registration year prior to 2007 is equivalent to reference year from 2007 onwards.
- (e) Causes of death data for 2007 have been revised and are subject to further revisions. See Causes of Death, Australia, 2008 (cat. No. 3303.0) Technical Note 2: Revisions Process for further information.
- (f) 2008 data have been subject to a process improvement which has increased the quality of these data. See Causes of Death, Australia, 2008 (cat. No. 3303.0) Technical Note 1: 2008 COD Collection – Process Improvement for further information.
- (g) Rates are per 1,000 live births.
- (h) 'Other' includes deaths of non-Indigenous people and those for whom Indigenous status was not stated.
- (i) Mortality rate for Indigenous Australians divided by mortality rate for other Australians.
- (j) Mortality rate for Indigenous Australians minus the mortality rate for other Australians.
- (k) Mortality rate for 1994–1996 minus mortality rate for 1991–1993.
- (l) Average annual change in rates, rate ratios and rate differences determined using linear regression analysis.
- (m) Per cent change between 1997 and 2008 based on the average annual change over the period.

Notes

1. Data are presented in 3-year and 4-year groupings because of the small number of Indigenous deaths from SIDS each year.
2. The completeness of identification of Indigenous deaths can vary by age.
3. Deaths and rates presented in this table may differ from those presented in the 2006 edition of this report for comparable years because of a change from using year of occurrence of death to year of registration of death for mortality analyses.

Source: AIHW and ABS analysis of ABS Mortality Database.



Additional trends analysis has been presented for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined from 2001 to 2008 for Indigenous and non-Indigenous Australians in Table 1.21.4 and Figure 1.21.3.

- Over the period 2001–2002 to 2007–2008, there were significant declines in mortality rates for SIDS for Indigenous infants in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined (an 81% decline). Over the same period there were no significant changes in mortality rates for SIDS for other infants (Table 1.21.4).
- Over the same period, there was a significant decline in the mortality rate ratio between Indigenous and non-Indigenous infants of around 0.6 per 1,000 live births. There was also a significant decline in the mortality rate difference of around 0.2 per 1,000 live births.

Table 1.21.4: SIDS mortality rates, rate ratios and rate differences per 1,000 live births, by Indigenous status, NSW, Qld, WA, SA and NT, 2001–2008^{(a)(b)(c)(d)(e)(f)(g)}

	2001–2002	2003–2004	2005–2006	2007–2008 ^(h)	Annual change ⁽ⁱ⁾	Per cent change over period ^(j)
Indigenous deaths from SIDS	40	22	19	18	–3.5*	–60.4*
Non-Indigenous deaths from SIDS	121	70	91	129	2.3	13.0
Indigenous rate per 1,000 ^(k)	1.9	1.0	0.9	0.5	–0.2*	–80.7*
Non-Indigenous rate per 1,000 ^(k)	0.4	0.2	0.3	0.2	0.0	–41.7
Rate ratio ^(l)	5.4	5.0	3.4	2.1	–0.6*	–74.5*
Rate difference ^(m)	1.6	0.8	0.6	0.3	–0.2*	–89.7*

* Represents statistically significant differences at the p<.05 level over the period 2001–2008.

(a) SIDS – Sudden Infant Death Syndrome, ICD-10 code: R95. SIDS data in this table are for deaths under 1 year of age.

(b) Data are reported for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory only. These five jurisdictions are considered to have adequate levels of Indigenous identification in mortality data. They do not represent a quasi-Australian figure.

(c) Although most deaths of Indigenous Australians are registered, it is likely that some are not accurately identified as Indigenous. Therefore, these statistics are likely to underestimate the Indigenous all causes mortality rate.

(d) Deaths prior to 2007 are by year of registration and state/territory of usual residence. Deaths from 2007 onwards are by reference year and state/territory of usual residence. Registration year prior to 2007 is equivalent to reference year from 2007 onwards.

(e) Causes of death data for 2007 have been revised and are subject to further revisions. See Causes of Death, Australia, 2008 (cat. No. 3303.0) Technical Note 2: Revisions Process for further information.

(f) 2008 data have been subject to a process improvement which has increased the quality of these data. See Causes of Death, Australia, 2008 (cat. No. 3303.0) Technical Note 1: 2008 COD Collection – Process Improvement for further information.

(g) Data exclude infant deaths for which Indigenous status was not stated.

(h) Preliminary 2007 and 2008 ABS mortality data.

(i) Average annual change in rates, rate ratios and rate differences determined using linear regression analysis.

(j) Per cent change between 2001 and 2008 based on the average annual change over the period.

(k) Rates are per 1,000 live births.

(l) Mortality rate for Indigenous Australians divided by the mortality rate for non-Indigenous Australians.

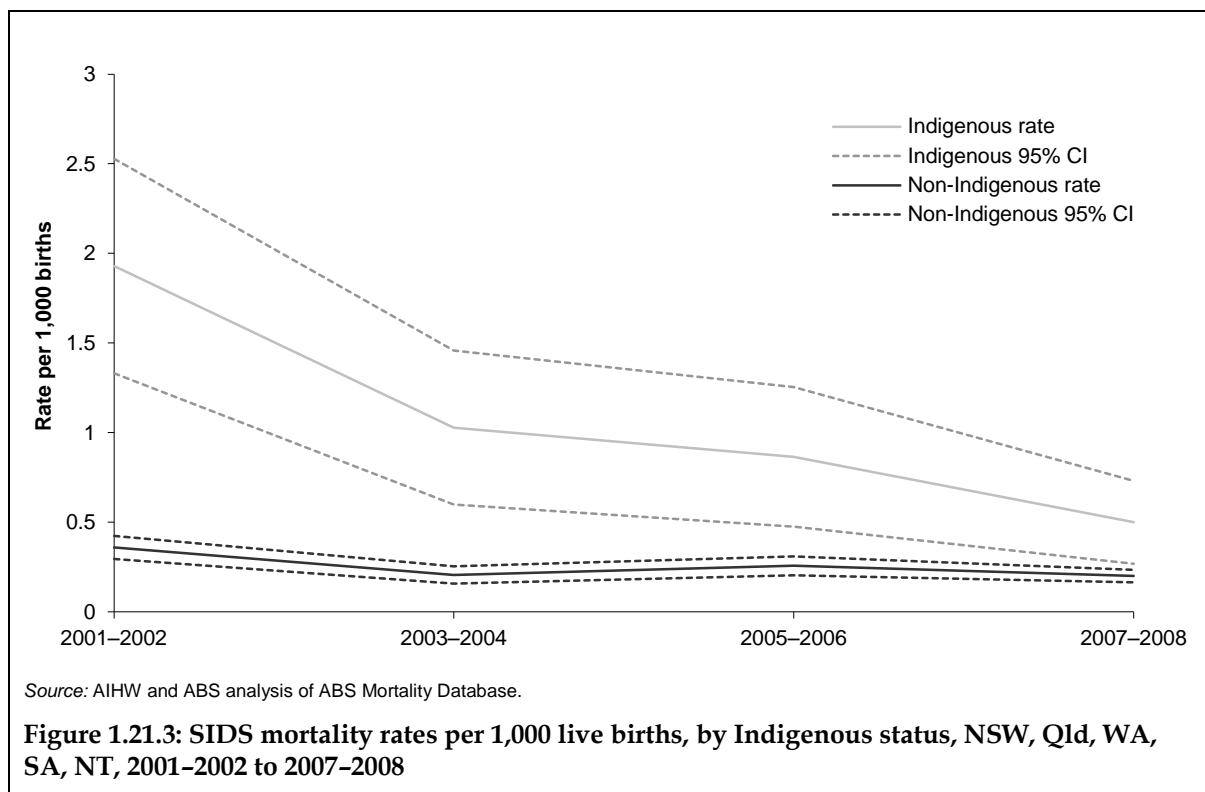
(m) Mortality rate for Indigenous Australians minus the mortality rate for non-Indigenous Australians.

Notes

1. Data are presented in 2-year groupings because of the small number of Indigenous deaths from SIDS each year.

2. The completeness of identification of Indigenous deaths can vary by age.

Source: AIHW and ABS analysis of ABS Mortality Database.



International comparisons

International indigenous mortality data are available for New Zealand, the United States and Canada.

There are several common issues that adversely affect the quality of Indigenous mortality data in these three countries and Australia. These include the lack of an accurate denominator value for the Indigenous population (mainly because of under-counting) and the lack of agreement over which population denominator values to use if they do exist (for example, whether to use single ethnic response groups or the multiple ethnic response groups). There are differences in how Indigenous status is defined in the different countries. There have also been frequent modifications to the ethnicity question recorded in the censuses in some of these countries. These frequent changes in the census ethnicity question have led to difficulties in comparing mortality trends over time and have also produced difficulties in estimating population denominator counts between censuses.

The most important issue in relation to the quality of Indigenous mortality data is the under-counting of deaths (the numerator for mortality data). In each of the four countries, the under-counting of Indigenous deaths is likely to lead to an underestimation of the relative size of disparities that exist between Indigenous and non-Indigenous populations.

International statistics on infant mortality show that Indigenous infants in the United States and New Zealand have higher mortality rates for SIDS than other infants, but the gap is not as great as for Aboriginal and Torres Strait Islander infants. In 2004-2008, the infant mortality rate for SIDS for Aboriginal and Torres Strait Islander infants was around three times that for non-Indigenous infants (0.7 per 1,000 live births compared with 0.2 per 1,000 live births). The latest available data from the United States and New Zealand are outlined below. Data are not provided for Canada, as information on the cause of death of infants is

incomplete and not suitable for the calculation of rates. Note that the figures provided for Australia and New Zealand are based on births according to the race of the parents, whereas those provided for the United States are based on births according to the race of the mother.

- During the period 2001–2005, the death rate from SIDS was 1.2 per 1,000 live births among American Indians and Alaskan Natives compared with 0.5 per 1,000 live births for other people in the United States (United States Department of Health and Human Services unpublished data).
- For the period 2003–2007, the mortality rate for SIDS was 1.8 per 1,000 live births among New Zealand Maoris, compared with 0.4 per 1,000 live births among non-Indigenous people in New Zealand (Statistics New Zealand unpublished data).

Time series

SIDS mortality data are available from 1996 to 2007 for the Maori population in New Zealand, and from 1996 to 2005 for the American Indian and Alaskan Native population in the United States. These data are presented in Figure 1.21.4 and Table 1.21.5 along with data for Australia for the period 1996–2007.

- In New Zealand between 1996 and 2007 there were significant declines in mortality from SIDS in the Maori population. The fitted trend implies an average yearly decline in the rate of around 0.2 per 1,000 live births, which is equivalent to a 55% reduction in the rate over this period. There were also significant declines in non-Indigenous SIDS mortality rates between 1996 and 2007 (a reduction of 37%) (Statistics New Zealand unpublished data).
- In the United States between 1996 and 2005 there were significant declines in mortality from SIDS in the American Indian and Alaskan Native population. The fitted trend implies an average yearly decline in the rate of around 0.1 per 1,000 live births which is equivalent to a 38% reduction in the rate over this period. There were also significant declines in SIDS mortality rates for other persons in the United States between 1996 and 2005 (a reduction of 35%) (United States Department of Health and Human Services unpublished data).

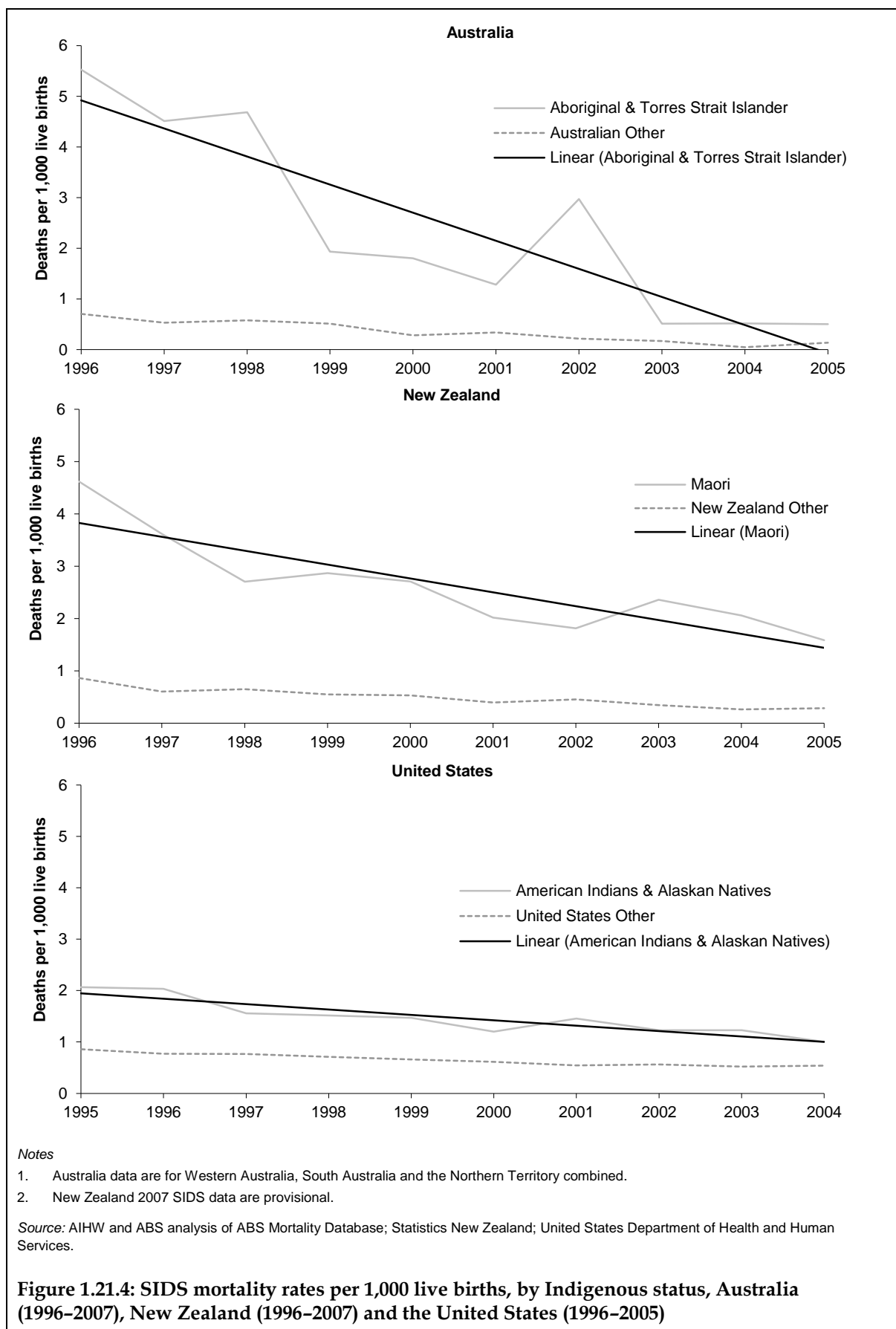


Table 1.21.5: SIDS mortality rates per 1,000 live births, by Indigenous status, Australia (1996–2007), New Zealand (1996–2007), United States (1996–2005)

	Australia		New Zealand		United States	
	Indigenous	Other	NZ Maoris	Other	American Indian and Alaska Native	Other
1996	5.5	0.7	4.6	0.9	2.0	0.8
1997	4.5	0.5	3.6	0.6	1.6	0.8
1998	4.7	0.6	2.7	0.7	1.5	0.7
1999	1.9	0.5	2.9	0.6	1.5	0.7
2000	1.8	0.3	2.7	0.5	1.2	0.6
2001	1.3	0.3	2.0	0.4	1.5	0.5
2002	3.0	0.2	1.8	0.5	1.2	0.6
2003	0.5	0.2	2.4	0.3	1.2	0.5
2004	0.5	0.0	2.1	0.3	1.0	0.5
2005	0.5	0.1	1.6	0.3	1.1	0.5
2006	0.5	0.1	1.6	0.5	n.a.	n.a.
2007	0.0	0.0	1.4	0.6	n.a.	n.a.
Annual change ^(a)	-0.5*	-0.1*	-0.2*	-0.03*	-0.1**	-0.03**
Total % change ^(b)	-94.4*	-92.6*	-54.6*	-36.7*	-37.6**	-35.3**

* Represents statistically significant differences at the $p < .05$ level over the period 1996–2007.

** Represents statistically significant differences at the $p < .05$ level over the period 1996–2005.

(a) Average annual change in rates determined using linear regression analysis.

(b) Per cent change between 1996 and 2007 based on the average annual change over the period for New Zealand and Australia, Per cent change between 1996 and 2005 based on the average annual change over the period for the United States.

Notes:

1. Australia data are for Western Australia, South Australia and the Northern Territory combined.
2. New Zealand 2007 SIDS data are provisional.

Source: AIHW and ABS analysis of ABS Mortality Database; Statistics New Zealand; United States Department of Health and Human Services.

Sleeping position

Infants sleeping in the prone (front down) or semi-foetal positions have been associated with an increased risk of SIDS (Dwyer 1991).

Presented in Table 1.21.6 is the proportion of Indigenous infants that usually slept in various positions in 2008.

- The most common sleeping position among Indigenous infants in 2008 was the child sleeping on their back (45.9%), while the least common sleeping position was sleeping on their tummy.

Table 1.21.6: Usual sleeping position of Indigenous infants^(a), 2008

	Number	Proportion
Child sleeps on back	24,397	45.9
Child sleeps on side	17,738	33.3
Child sleeps on tummy	11,061	20.8
Total^(b)	53,196	100.0
<i>Not known</i>	685	..

(a) Children aged 0–3 years

(b) Total excludes unknown responses

Source: 2008 NATSISS.

Data quality issues

National Mortality Database

Deaths

The mortality rate for Indigenous Australians can be influenced by identification of Indigenous deaths, late registration of deaths, and changes to death forms and/or processing systems. Because of the small size of the Indigenous population, these factors can significantly affect trends over time and between jurisdictions. At present, there is considerable variation across the states and territories in the completeness of mortality and hospital data for Indigenous people.

Indigenous status question

All jurisdictions comply with the standard wording for the Indigenous status question and categories for their death registration forms. However, while data are provided to the ABS for the Indigenous status question for 99% of all deaths, there are concerns regarding the accuracy of the data. The Indigenous status question is not always directly asked. Detailed breakdowns of Indigenous deaths are therefore only provided for five jurisdictions – New South Wales, Queensland, South Australia, Western Australia and the Northern Territory.

Indigenous status information from the two sources are kept in the database, although these may not be consistent for an individual.

In 2004, a new range of codes were introduced as part of the effort to standardise and improve Indigenous identification in data collection nationally.

Indigenous Mortality Quality Study

The ABS conducted a number of quality studies based on the 2006 Census of Population and Housing and other data sets as part of the Census Data Enhancement (CDE) project (ABS 2008). The CDE Indigenous Mortality Quality Study linked Census records with death registration records and examined differences in the reporting of Indigenous status across the two datasets.

There were 106,945 registered death records available to be linked in the study. Of these, 1,800 (1.7%) were identified as Indigenous on the death registration. Of the total registered deaths, 98,898 (92%) were linked to a Census record. However, a much lower linkage rate was achieved for Indigenous deaths, with more than one quarter of all Indigenous death registrations (26% or 473) unable to be linked to a Census record. As a result, Indigenous death records were over-represented in the unlinked death registrations.

As well as being over-represented in unlinked death registrations, unlinked Indigenous death records had different characteristics to linked Indigenous death registrations. Indigenous death records with older ages at death and from non-remote regions were more likely to be linked.

Under-identification

Almost all deaths in Australia are registered. However, the Indigenous status of the deceased is not always recorded/recorded correctly. The incompleteness of Indigenous identification means the number of deaths registered as Indigenous is an underestimate of deaths occurring in the Aboriginal and Torres Strait Islander population (ABS 1997). As a result, the observed differences between Indigenous and non-Indigenous mortality are underestimates of the true differences.

Longer term mortality trend data are limited to three jurisdictions (Western Australia, South Australia and the Northern Territory) with 10 years of adequate identification of Indigenous deaths in their recording systems (ABS & AIHW 2005). The quality of the time series data is also influenced by the late inclusion of a 'not stated' category for Indigenous status in 1998. Before this time, the 'not stated' responses were probably included with the non-Indigenous.

The ABS calculated the implied coverage (identification) of Indigenous deaths for the period 2002–2006 using population estimates: New South Wales 45%, Victoria 32%, Queensland 51%, South Australia 62%, Western Australia 72%, Northern Territory 90%, Australia 55% (Tasmania and the Australian Capital Territory were not calculated because of small numbers) (ABS 2007).

Note that different causes may have levels of under-identification that differ from the all-cause coverage estimates. Note also that the quality of the cause of death data depends on every step of the process of recording and registering deaths (including the documentation available at each step of the process) from certification to coding of cause of death.

There are also current concerns about data quality for causes of death, especially relating to external causes of death of all Australians (not just Indigenous) (ABS 2006).

Problems associated with identification result in an underestimation of deaths and hospital separations for Indigenous people.

Numerator and denominator

Rate and ratio calculations rely on good numerator and denominator data. There are changes in the completeness of identification of Indigenous people in death records. These may take place at different rates from changes in the identification of Indigenous people in other administrative collections and population censuses. Denominators used here are

sourced from Experimental estimates and projections: Aboriginal and Torres Strait Islander Australians 1991 to 2021 (ABS 2009).

National Aboriginal and Torres Strait Islander Social Survey

The NATSISS is conducted in all states and territories and includes remote and non-remote areas. The 2008 sample was 13,300 persons in 6900 households, with a response rate of 82% of households. Up to three randomly selected Indigenous people were chosen from selected households to participate in the survey. Trained ABS interviewers conducted the survey using face-to-face interviews. In non-remote areas interviewers used a notebook computer to record responses, while in remote areas a paper questionnaire was used. Interviewers obtained the consent of a parent or guardian before interviewing those aged 15 to 17 years.

Indigenous persons usually resident in non-private dwellings such as hotels, motels, hostels, hospitals, short-stay caravan parks, prisons and other correctional facilities were excluded.

The NATSISS uses the standard Indigenous status question. The NATSISS sample was specifically designed to select a representative sample of Aboriginal and Torres Strait Islander Australians.

As with other surveys, the NATSISS is subject to sampling and non-sampling errors.

Care has been taken to ensure that the results of this survey are as accurate as possible. Trained ABS officers conducted all the interviews. However, some factors may affect the reliability of the data.

Information recorded in this survey is 'as reported' by respondents, and therefore may differ from information available from other sources or collected using different methodologies.

Data on health-related indicators have been age-standardised to the 2001 total Australian population to account for differences in the age structures of the states and territories and the Indigenous and non-Indigenous population.

Time series comparisons for the 2008 survey are available through the 1994 National Aboriginal and Torres Strait Islander Survey and the 2002 NATSISS. However not all data elements align across the three (1994, 2001 and 2008) NATSISS surveys, hence care is required when reviewing results across the three surveys. There are no strictly comparable non-Indigenous results available for the 2008 NATSISS because the latest General Social Survey (which has been used in the past to compare with Indigenous results from the NATSISS) was run in 2006, with the next being run in 2010–11. Data from other ABS surveys run in 2008 may, however, be used to obtain rough non-Indigenous comparisons for some data items. Where possible, the ABS has provided recommendations for non-Indigenous data comparisons and these have been adopted in this report.

The 2008 NATSISS has a relatively large level of under-coverage when compared to other ABS surveys. There was also an increase in under-coverage compared to previous ABS Indigenous surveys. For example, the estimated under-coverage in the 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) was 42%. The overall under-coverage rate for the 2008 NATSISS is approximately 53% of the in-scope population at the national level. This rate varies across the states and territories (ABS 2010).

Further information on NATSISS data quality issues can be found in the 2008 NATSISS User's guide (ABS 2010).

List of symbols used in tables

n.a.	not available
–	rounded to zero (including null cells)
0	zero
..	not applicable
n.e.c.	not elsewhere classified
n.f.d.	not further defined
n.p.	not available for publication but included in totals where applicable, unless otherwise indicated

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