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Australia's mothers and babies 1999

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Abbreviations

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AIHW	Australian Institute of Health and Welfare
g	gram
ICD-9	International Classification of Diseases, 9th Revision
ICD-10	International Classification of Diseases, 10th Revision
IPPR	Intermittent Positive Pressure Respiration
LMP	last menstrual period
na	not available
NPSU	National Perinatal Statistics Unit
NSW	New South Wales
NT	Northern Territory
Qld	Queensland
SA	South Australia
Tas	Tasmania
UNSW	University of New South Wales
Vic	Victoria
WA	Western Australia
WHO	World Health Organization

Highlights

- In 1999, 257,394 babies born to 253,352 mothers were notified to perinatal data collections in the States and Territories, a 0.7% increase in the number of births compared with 1998. This represents a birth every 2 minutes and approximately 705 births per day in Australia in 1999.
- The average age of all mothers in 1999 was 29.0 years, and 27.1 years for those having their first baby, continuing the upward trend in recent years. There were 12,983 teenage mothers (5.1% of all mothers), of whom 4,115 were aged 17 years or younger.
- An increasing number of women appeared to be deferring childbearing. Almost 1 in 10 (9.5%) mothers in 1999 were having their first baby at age 35 years or older.
- There were 8,822 Indigenous mothers representing 3.5% of all mothers in Australia in 1999. One-third (36.5%) of births in the Northern Territory were to Indigenous mothers. The proportion of births to Indigenous mothers in Western Australia and Queensland were 6.1% and 5.9%, respectively. The average age of Indigenous mothers was 24.5 years and there was a high proportion of teenage mothers (22.0%).
- The proportion of mothers who were born in a country other than Australia was 22.5% in 1999.
- Multiple pregnancies accounted for 1.6% of all confinements and included 3,821 twin pregnancies, 104 triplet pregnancies, and 4 higher order pregnancies.
- In 1999, more than 1 in 5 (21.9%) births were by caesarean section. South Australia (24.9%) had the highest caesarean rate in 1999 and the Australian Capital Territory (19.6%) the lowest. Caesarean rates were higher among older mothers, those having their first baby, and those who were private patients.
- More mothers had relatively short postnatal stays in hospital in 1999 than in previous years. The proportion who stayed less than 2 days increased from 3.2% in 1991 to 11.6% in 1999, while the proportion of those staying between 2 and 4 days increased from 35% to 55.4% in the same period. Mothers without private health insurance had shorter postnatal stays than those with private health insurance.
- Low birthweight (less than 2,500 g) occurred in 17,208 (6.7%) babies in 1999, remaining steady over recent years. The average birthweight of babies of Indigenous mothers was 3,149 g, 211 g less than the average for all births; 13.0% of Indigenous babies had a low birthweight, almost twice the national proportion.
- Fetal, neonatal and perinatal death rates were 7.0, 3.2 and 10.1 per 1,000 births, respectively, in 1999, based on State and Territory perinatal data collections. Rates remain low, having steadily declined for the past two decades. The perinatal death rates ranged from 20.3 in the Northern Territory to 8.3 deaths per 1,000 births in South Australia. Perinatal deaths were more likely to occur amongst babies born to either relatively younger or older mothers.

1 Introduction

This report has been prepared by the Australian Institute of Health and Welfare's National Perinatal Statistics Unit in conjunction with the State and Territory Health Departments. The 1999 national data on births are based upon notifications to the perinatal data collection in each State and Territory.

The major purposes of these perinatal collections are to:

- describe for all births the demographic and pregnancy characteristics of mothers, and the characteristics and outcomes of their babies;
- identify risk factors contributing to adverse outcomes of mothers, their pregnancies, and the health status of their babies;
- assist in the planning, implementation and evaluation of health services for pregnant women and their babies;
- enable analysis of national data, and comparison of characteristics and outcomes between States and Territories;
- analyse perinatal and infant deaths and other outcomes, by linking perinatal data to other relevant data;
- monitor specific outcomes such as congenital malformations;
- conduct epidemiological studies of health problems among pregnant women and babies.

The report also contains national data on trends in perinatal deaths.

1.1 Data sources

The perinatal collections are based on a national perinatal minimum data set which has been revised on several occasions since it was first introduced in 1979. Each State and Territory has a perinatal data collection in which midwives and other staff, using information obtained from mothers and from hospital or other records, complete notification forms for each birth. The information collected includes characteristics of the mother; previous pregnancies; the current pregnancy; labour, delivery and the puerperium; and the baby's birth status (live birth or stillbirth), sex, birthweight, Apgar scores and outcome. Data processing, analysis, and publication of reports are undertaken by each State and Territory health authority. In Tasmania, the Department of Obstetrics and Gynaecology at the University of Tasmania has run the perinatal collection since 1974 and a revised perinatal collection started there in 1995. Each State and Territory provided data in an electronic format to the Australian Institute of Health and Welfare (AIHW) National Perinatal Statistics Unit at the University of New South Wales.

Due to data editing and subsequent updates of State and Territory databases, the figures in this report may differ slightly from those in reports published by the States and Territories.

The Australian Bureau of Statistics (ABS) compiles statistics and publishes reports on registrations of live births and perinatal deaths from data made available by the Registrar of Births, Deaths and Marriages in each State and Territory. These datasets contain less clinical information than the perinatal collections as they are more an administrative dataset adapted to include some clinical data. The ABS now reports the perinatal deaths of babies of at least 400 g birthweight, or 20 weeks gestation where birthweight is unknown. These inclusion criteria differ from the World Health Organization (WHO) definition of 500 g, or 22 weeks gestation where birthweight is unknown, as reported previously. Data obtained from ABS and its published reports were used to analyse trends and variations in perinatal deaths using the lower criteria of 400 g birthweight or 20 weeks gestation where birthweight is unknown, in the period from 1973 to 1999.

1.2 Tasmanian perinatal data collection

The Tasmanian perinatal collection data for 1999 were not available for this report. The NPSU Management Advisory Committee, in consultation with the Tasmanian Department of Health and Human Services, decided to proceed with the inclusion of the 1998 Tasmanian data as a proxy for the unavailable 1999 data in the Australia's Mothers and Babies 1999 report. It is envisaged that data will be available from Tasmania for 1999 for inclusion in the Australian Mothers and Babies 2000 report.

1.3 Perinatal minimum data set and definitions

The national perinatal minimum data set has data items on demographic characteristics of the mother; previous pregnancies; the current pregnancy; labour, delivery and the puerperium; and the baby, including birth status, sex, birthweight, Apgar scores, resuscitation, neonatal morbidity, and congenital malformations. The National Perinatal Data Development Committee, which replaced the National Perinatal Data Advisory Committee in 1998, recommends definitions for perinatal data items to the National Health Data Committee and the National Health Information Management Group. Current definitions are included in the National Health Data Dictionary version 10.0 (AIHW 2001).

1.4 Criteria

Tabulated data in this report are based on births that occurred in each State and Territory in 1999 except for Tasmania where 1998 data has been used as a proxy for the 1999 data. Because of differences in data items, and varying practices for coding the mother's place of residence if she lived in a State or Territory other than that in which the birth occurred, it is presently not possible to analyse the perinatal data according to region of residence. Notification forms are completed for all births of at least 400 g birthweight or 20 weeks or more gestation.

1.5 Data quality

Each State and Territory perinatal data group routinely request further information on missing or doubtful data items from hospitals and homebirth practitioners. Edit checks, and summaries of data provided in reports to individual hospitals, enable additional review of data quality. Most States and Territories have also conducted validation studies of the accuracy of their data.

The main limitations of the perinatal collections are for data items on maternal medical conditions, obstetric complications, and neonatal morbidity. In some instances, clinical diagnoses may be recorded without reference to specific definitions. States and Territories also have different practices in collecting these clinical diagnoses, either by recording each specified diagnosis or by including checklists of the more common diagnoses.

1.6 Scope of report

Until all State and Territory perinatal collections are linked to registrations of perinatal deaths, these collections cannot provide national data on perinatal mortality. Annual reports based on registrations of perinatal deaths are published by the Australian Bureau of Statistics. These data have been used to examine trends in perinatal mortality (Tables A55–A70). Cause of perinatal death data for selected States using a modified Whitfield classification system are also presented (Table A77).

Notifications of congenital malformations from the perinatal collections are supplemented by other information from perinatal death certificates, autopsy reports, cytogenetic laboratories, children's hospitals and notifications of induced abortions. Separate reports on congenital malformations are published by the AIHW National Perinatal Statistics Unit.

1.7 State and Territory perinatal reports

Reports based on each State or Territory perinatal collection are published by State and Territory health authorities and by the Department of Obstetrics and Gynaecology of the University of Tasmania. For the 1999 data, reports have been published by New South Wales (Public Health Division 2000), South Australia (Chan et al. 2000), Victoria (Riley and Halliday 2001) and Western Australia (Gee & O'Neill 2001). The most recent reports for the Northern Territory, Australian Capital Territory and Queensland incorporated 1998 data (Gladigau et al. 2000; Bourne 2001; and Queensland Health 2000, respectively).

2 Mothers

2.1 Introductory notes

This chapter provides data on demographic and pregnancy characteristics of mothers and some characteristics and outcomes of their babies. The number of babies slightly exceeds the number of mothers because of multiple pregnancies and births. The term 'confinements' has been used in the headings of tables and figures to indicate maternal characteristics, whereas 'births' refer to babies.

Each State and Territory has developed its own forms for collecting perinatal data, often to maintain compatibility with its other data collections. While the perinatal collections are based on a national minimum data set, there may be differences in the options recorded for individual data items. The data in this report relate to the State or Territory of occurrence of births rather than to the area of usual residence of the mother.

2.2 Confinements and births

There were 253,352 confinements notified to State and Territory perinatal data collections in Australia in 1999, resulting in a total of 257,394 live births and fetal deaths (Table A1). Although birth rates in the States and Territories differ, the distribution of births generally reflects that of the population and of women in the reproductive age group (Figure 1).

To evaluate the completeness of notifications of births in the perinatal collections, these births can be compared with birth registrations published by the Australian Bureau of Statistics in Births, Australia 1999 (ABS 2000). In the registration system, 248,870 live births were registered in Australia in 1999 (ABS 2000), 6,735 fewer than the 255,605 live births notified to the perinatal collections. As the States and Territories sometimes differ in the conventions used for coding the residence of mothers living interstate, it is not readily possible to compare the numbers in the two data systems by State and Territory. These differences in the national figures on live births are due to significant delays in the registration of some live births and in cases where live births are not registered. It is also likely that some home births are not notified to the perinatal collections but are still registered by the parents.

Some States are already linking notifications from the perinatal collections to registrations of births and perinatal deaths. Once this is achieved in all States and Territories, with the assistance of Registrars and the Australian Bureau of Statistics, it will be possible to explain the discrepancies between the two perinatal data systems and to implement measures for ensuring complete notification and registration of births and perinatal deaths.

Linking data in the perinatal collections to birth registrations also has the advantage of enabling analysis of associations between paternal characteristics, various maternal characteristics and risk factors, and pregnancy outcome. Except for paternal

occupation recorded in South Australia, there are no paternal data in the 1999 perinatal collections. Birth registrations include information on paternal age, Indigenous status, country of birth and occupation, so enhanced analysis would be possible by linking the two data systems.

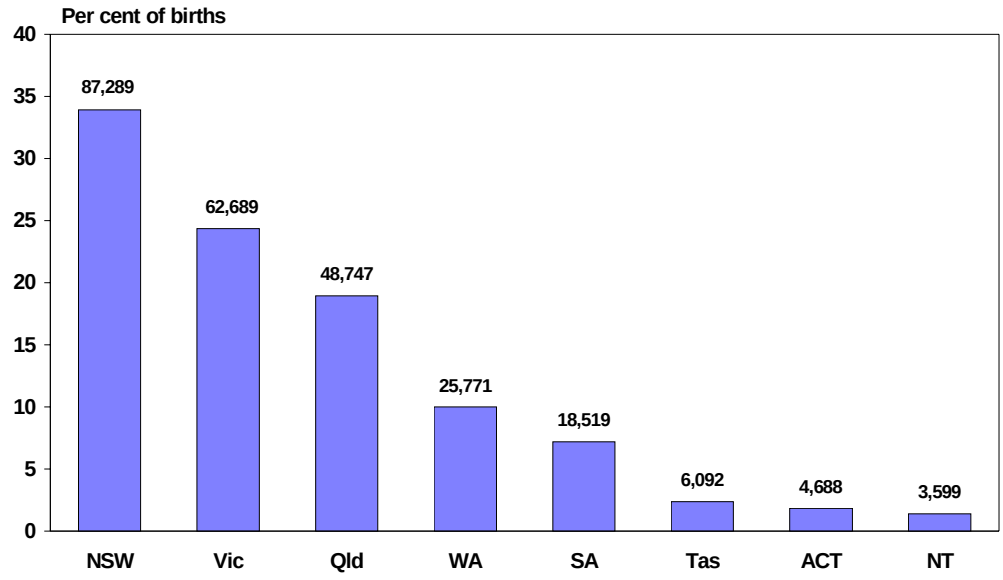

Figure 1: Distribution of births in Australia, States and Territories, 1999

Note:: Data for Tasmania unavailable, 1998 data used as an estimate.

2.3 Place of birth

Most births in Australia occur in hospitals, either in conventional labour-ward settings or in hospital birth centres. In 1999, nearly all States and Territories designated birth centres separately on notification forms. There were 5,293 confinements in birth centres in 1999 (Table A2), almost 15% higher than the 4,631 reported in 1998. In 1999, confinements in birth centres accounted for 2.1% of all confinements in the States and Territories. Planned home births, and births occurring unexpectedly before arrival in hospital for planned hospital births, are the other two groups and have relatively small numbers. In the Northern Territory, the 78 'other' confinements were mainly births in bush clinics.

Planned home births are under-ascertained in some State and Territory perinatal collections. In 1999, 842 planned home births, representing 0.3% of all confinements, were notified nationally (Table A2), increasing from 657 in 1998. Births occurring unexpectedly before the mother's arrival in hospital for a planned hospital birth decreased from 1,016 in 1998 to 880 in 1999.

2.4 Size of maternity unit

The size of maternity units, based on the annual number of confinements, varied from those with just a few births each year to those with more than 2,000 births. The actual number of maternity units in a region depends on its geographical location, the population of the region, and policies regarding maternity services. In 1999 approximately half (45.6%) of the maternity units in Australia had less than 100 confinements (Table A3). More than one-third (39.0%) had between 101 and 1,000 confinements, and 15.4% had more than 1,000 confinements. Although most maternity units are relatively small in size, the majority of hospital confinements (66.1%) occurred in the larger maternity units that had more than 1,000 confinements annually (Table A4). Over one-third (36.8%) of hospital confinements were in units with more than 2,000 confinements annually.

2.5 Maternal age

The average age of women giving birth in Australia has increased gradually in recent years. The average age in 1999 was 29.0 years, continuing the rise from 27.9 years in 1991. Maternal age is an important risk factor for perinatal outcome. Adverse outcomes are more likely to occur in younger and older mothers. Mothers in Victoria and the Australian Capital Territory were slightly older, and those in the Northern Territory slightly younger, than the national average. The average age of mothers having their first baby in 1999 was 27.1 years compared with 25.8 in 1991. The proportion of teenage mothers (5.1%) in 1999 was unchanged compared with 1998. The proportion of mothers aged 20 to 24 years has fallen from 20.2% in 1991 to 16.1% in 1999, but older mothers aged 35 years and over have continued to increase from 10.6% in 1991 to 16.4% in 1999 (Figure 2).

The actual number of teenage confinements declined from 13,373 in 1996 to 12,983 in 1999. The proportion of teenage confinements was 5.1% nationally and ranged from a low of 3.3% in Victoria to 14.4% in the Northern Territory (Table A5, Figure 3). There were relatively more younger teenage mothers in the Northern Territory.

The national age-specific birth rate for teenagers declined from a peak of 55.5 per 1,000 females in 1971 to a low of 18.1 per 1,000 females in 1999 (ABS 1999). Birth rates in teenagers varied considerably in 1999 from a low of 10.8 per 1,000 females in Victoria to a high of 67.6 per 1,000 in the Northern Territory.

The trend of decreasing age-specific birth rates of women aged 20 to 29 years continued in 1999, whereas the rates for women over 30 years increased slightly (ABS 1999).

The age-specific birth rate understates pregnancy as it does not include information on induced abortions. Currently, only South Australia, Western Australia and the Northern Territory collect population-based data on induced abortions. In South Australia, in 1999, there were 5,660 induced abortions reported, with an abortion rate of 17.8 per 1,000 women aged 15–44 years. The associated pregnancy rate was 76.0 per 1,000 women and almost one in four (23.4%) pregnancies resulted in abortions. More than half (54.4%) of all teenage pregnancies were terminated (Chan et al. 1999).

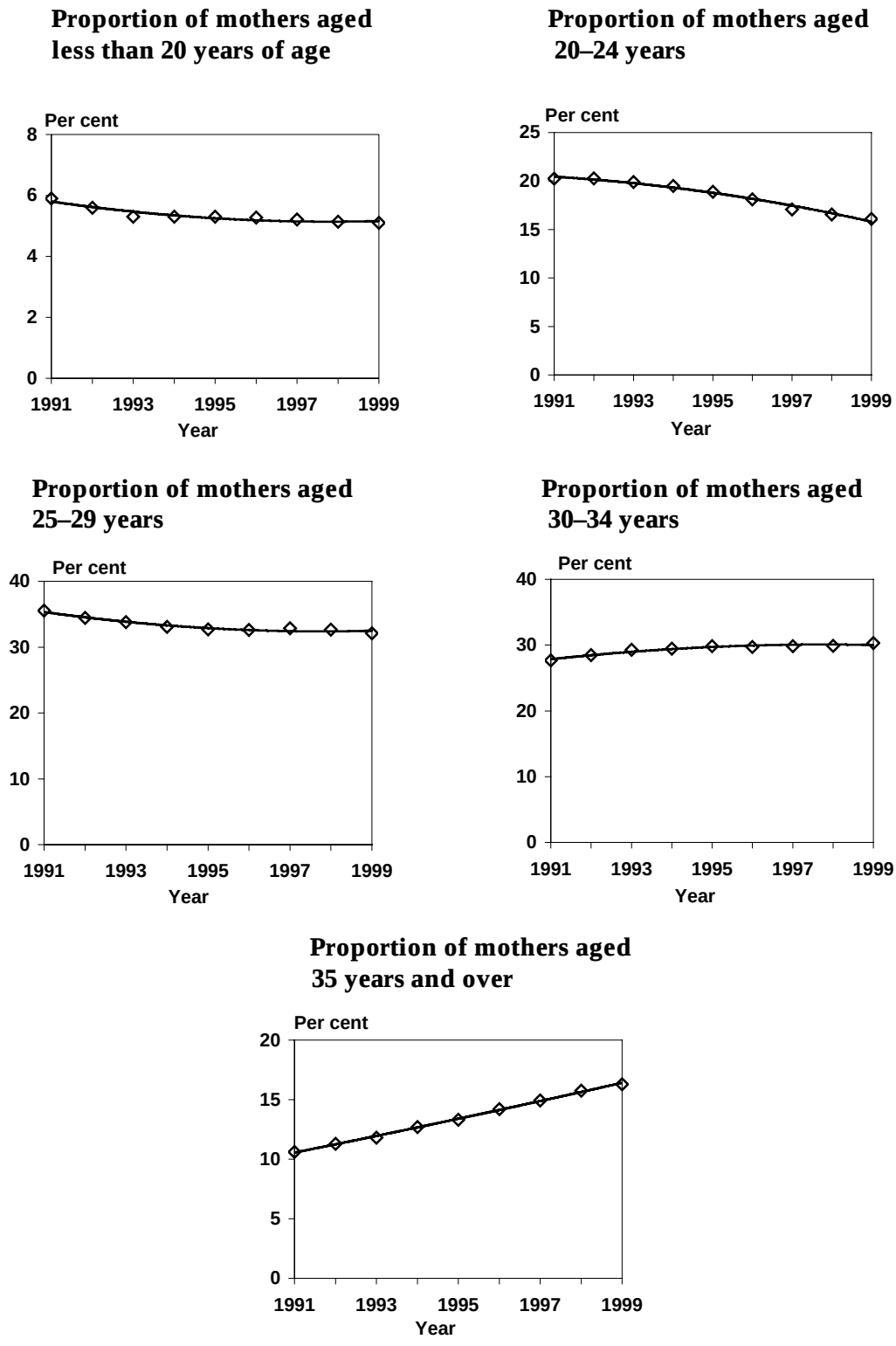

Figure 2: Trends in maternal age, Australia, 1991–1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

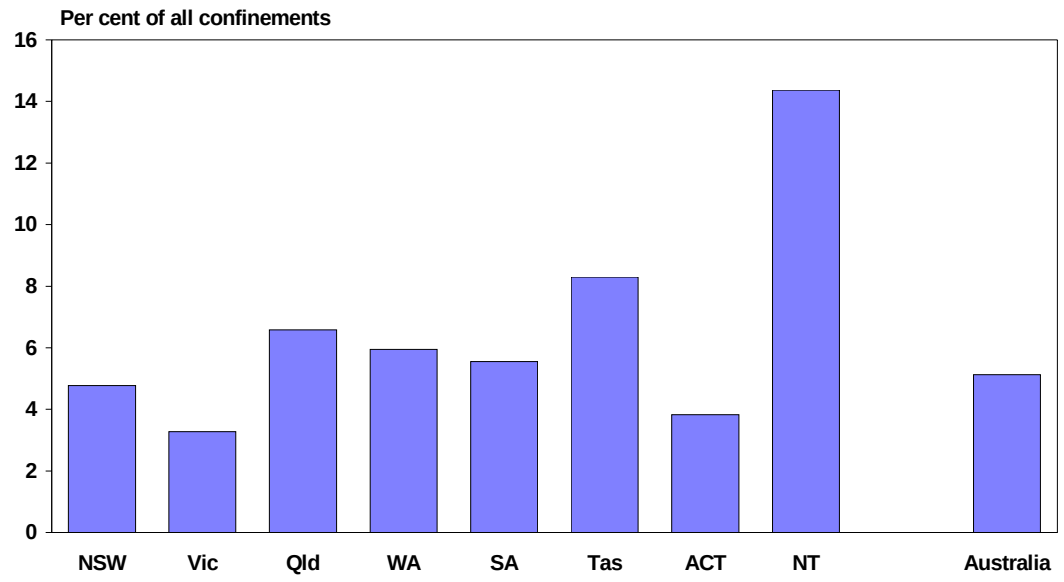

Figure 3: Proportion of teenage mothers, all confinements, States and Territories, 1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

2.6 Maternal parity

Parity is the number of previous pregnancies that resulted in live births or stillbirths. In 1999, 40.8% of mothers were having their first baby and another 33.9% already had one child (Table A6, Figure 4).

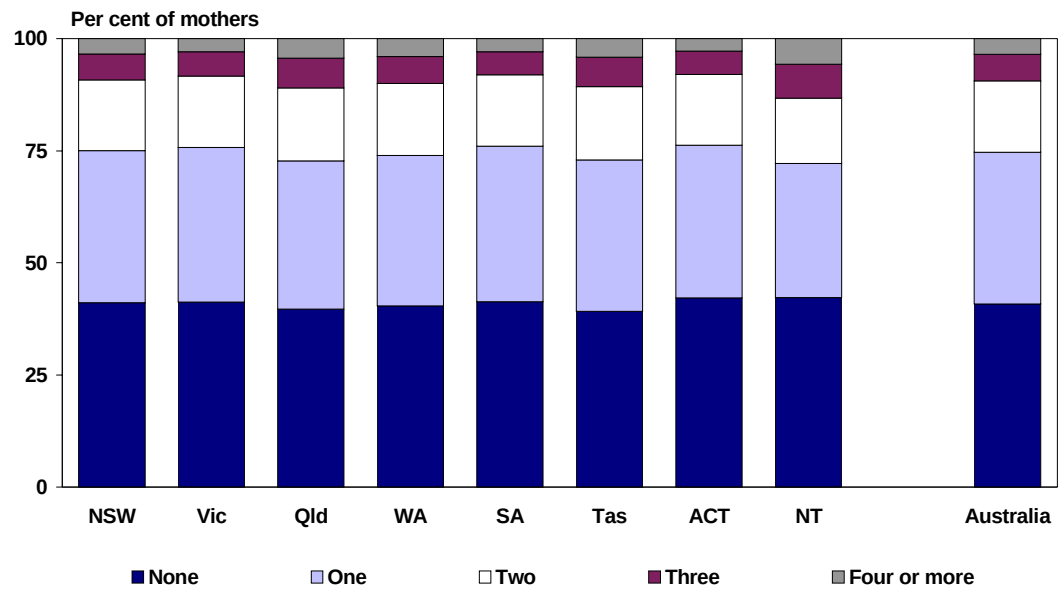

Figure 4: Mother's parity, all confinements, States and Territories, 1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

One in six mothers (15.9%) had given birth twice previously and 9.4% had three or more children. The proportion of mothers who had given birth at least twice previously increased with maternal age from 2.3% for teenagers to 49.3% for mothers aged 40 years and over (Table A7).

As indicated in Section 2.5, the average age at which women are having their first baby is gradually increasing. Nevertheless, the majority (66.7%) of these women are aged less than 30 years (Table A7). The proportion of first-time mothers aged 35 years or older is also increasing, with almost 1 in 10 (9.5%) of all primiparous women in this age group.

2.7 Marital status

Married women or those in de facto relationships accounted for 87.1% of all mothers in Australia in 1999 (excluding New South Wales). More than 1 in 10 (11.5%) of all mothers were single and another 1.4% were widowed, divorced, or separated (Table A8). Data on marital status for New South Wales was excluded at the request of NSW Health due to large fluctuations in numbers for mothers, thought to be due to changes in the method and timing of collection.

2.8 Indigenous status

The National Health Data Dictionary (AIHW 2001) defines Indigenous status as:

> 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 with which he or she lives.

All States and Territories have a specific data item for Indigenous status on their perinatal form. These separately identify Indigenous mothers as those of Aboriginal or Torres Strait Islander descent. No information is collected about the paternal or baby's Indigenous status. There has been ongoing validation work on the ascertainment of Indigenous mothers and their babies by the perinatal data collections (Day et al. 1999). The term 'Indigenous' is used in this report to refer to mothers and babies of mothers of Aboriginal or Torres Strait Islander descent.

In 1999, 8,822 Indigenous women gave birth in Australia representing 3.5% of all confinements (Table A10). Indigenous mothers accounted for a much greater proportion of all confinements in the Northern Territory (36.5%) than elsewhere in Australia (Figure 5). There were also significant proportions of confinements to Indigenous women in Western Australia (6.1%) and Queensland (5.9%). Because of their larger populations, there were actually more confinements of Indigenous mothers in Queensland (2,849), New South Wales (2,059) and Western Australia (1,545) than in the Northern Territory (1,295).

Indigenous mothers are more likely to have their babies at a younger age, and to have more babies, than other mothers (Tables A11, A12). In 1999, the average age of an Indigenous mother at confinement was 24.5 years compared with 29.0 years for all mothers at confinement. More than one in five (22.0%) Indigenous mothers were teenagers. The proportion of teenagers among Indigenous mothers was higher in the

Northern Territory (29.3%) than in the other States and the Australian Capital Territory.

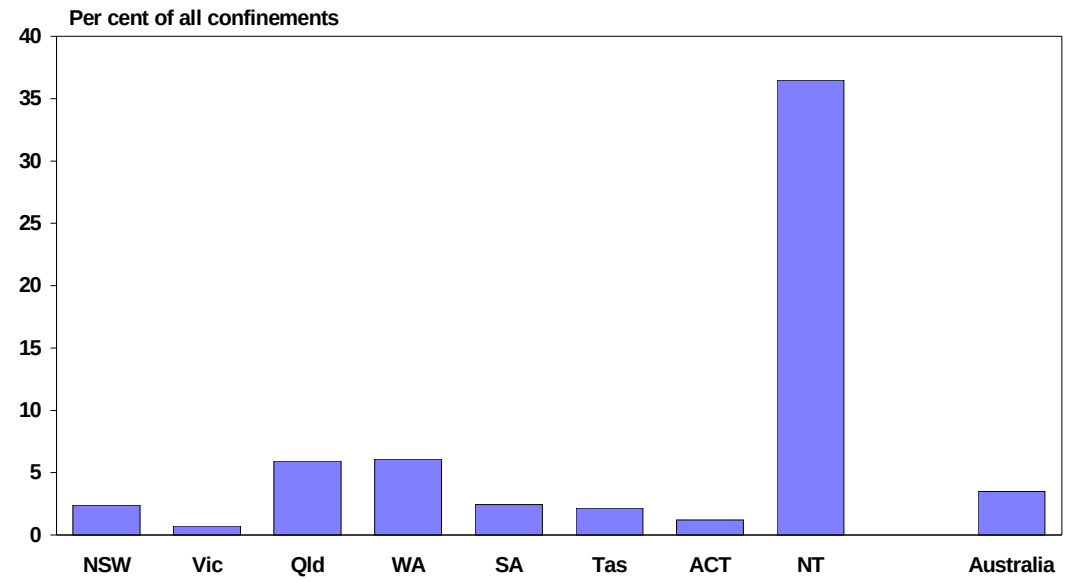

Figure 5: Maternal Indigenous status, all confinements, States and Territories, 1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

2.9 Maternal country of birth

The country of birth of the mother may be an important risk factor for outcomes such as low birthweight and perinatal mortality. In 1999, the States and Territories used the four-digit ABS country of birth classification (ABS 1998).

A high proportion (22.5%) of women giving birth in Australia in 1999 were born in countries other than Australia (Figure 6). Because of the large number of countries, generally only those countries with more than 1,000 confinements are reported separately (Table A13). Mothers born in the United Kingdom comprised 3.8% of all confinements and accounted for relatively higher proportions of all mothers in Western Australia (9.4%) and South Australia (5.4%). New Zealand-born mothers comprised 2.5% of all confinements. The proportion of mothers who were born in Asia has increased considerably in the last decade, reflecting recent trends in migration to Australia. In 1999, 7.8% of mothers had been born in Asia, compared with 5.2% in 1991.

Mothers born in countries where English is not the first language are more likely to reside in the more populous States, New South Wales and Victoria (Table A13). This pattern is evident for countries such as Lebanon and several Asian countries, particularly Vietnam and China. Teenage confinements were more common among mothers born in New Zealand and the United Kingdom; while births to mothers aged 35 years and over were more common amongst women born in the United Kingdom, New Zealand, China and Vietnam (Table A14). These variations in geographical distribution and maternal age need to be recognised in planning

culturally acceptable maternity and postnatal community health services, including prenatal diagnosis and interpreter services.

Marital status also varied according to the mother's country of birth. A higher proportion of mothers born in Australia, New Zealand and Vietnam was single than those born in most other countries (Table A15, Figure 7).

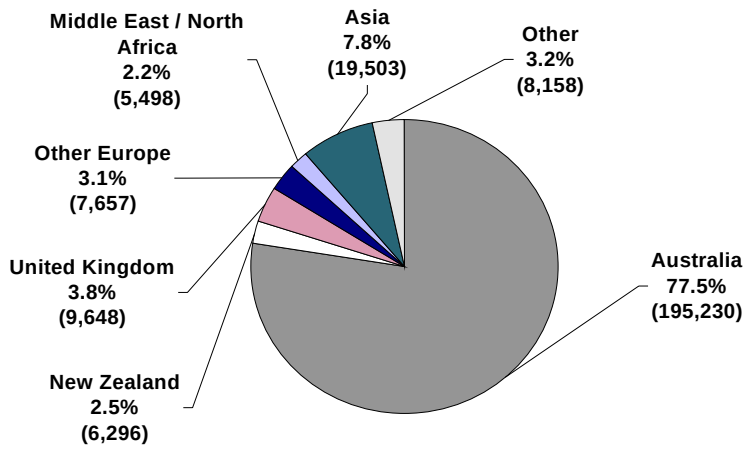

Figure 6: Maternal country of birth, all confinements, Australia, 1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

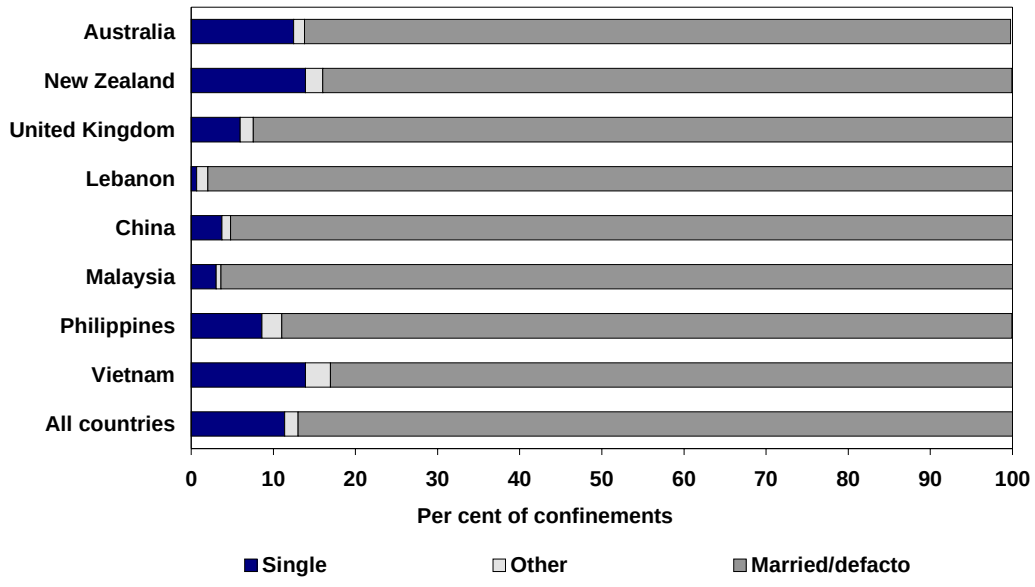

Figure 7: Marital status of mothers, selected countries, all confinements, 1999

Notes: Data exclude New South Wales
Data for Tasmania unavailable, 1998 data used as an estimate.

2.10 Admitted patient election status in hospital

The proportion of the Australian population with private health insurance declined from about 50.2% in 1984 to 32.7% in March 2000 (AIHW 2000). Patients admitted to hospitals may elect to be public or private; and is usually determined by whether or not they have private health insurance. The Northern Territory did not report information on admitted patient election status in hospital in their perinatal collections in 1999. The proportion of mothers with private status in hospital in the other States and the Australian Capital Territory decreased from 30.4% in 1998 to 28.6% in 1999 and ranged from 26.9% in Western Australia to 29.1% in Victoria (Table A16).

The mother's hospital status can be used as an indicator of socioeconomic status. Excluding confinements in the Northern Territory, mothers who had private status in hospital (16.0%) were more than twice as likely than those who had public status (6.8%) to have their first baby at 35 years or older, but clearly the proportion in this age group is still relatively small.

2.11 Duration of pregnancy

Accurate population data on gestational age are difficult to obtain. Estimates based on the calculated interval between the first day of the last menstrual period (LMP) and the baby's date of birth may be imprecise for some women because of uncertainty about the date of the LMP, irregular cycles, or delayed ovulation after use of oral contraceptives. Nevertheless, in the majority of pregnancies the gestational age derived from the dates provides an appropriate estimate of the duration of pregnancy.

As most pregnant women have at least one ultrasound examination during pregnancy, this may provide useful information on gestational age if performed in early pregnancy. The different practices for recording and estimating gestational age in the States and Territories are likely to result in variable estimates of the distribution of gestational age. This should be kept in mind when comparing State and Territory data on gestational age.

Preterm birth (less than 37 weeks gestation) occurred in 6.9% of all confinements (Table A17, Figure 8). The average duration of pregnancy in Australia was 39.0 weeks. Mothers gave birth at 20–27 weeks in 0.7% of confinements, at 28–31 weeks in 0.7%, and at 32–36 weeks in 5.5%. There was a higher incidence of preterm birth in the Northern Territory (10.5%) than elsewhere (Figure 9).

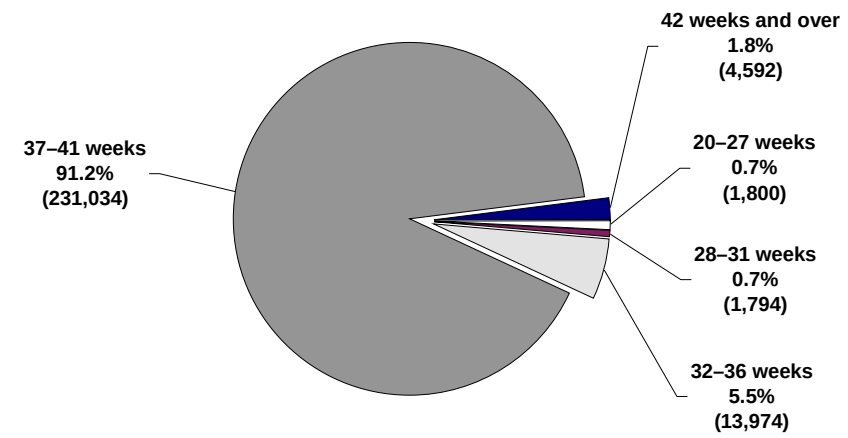

Figure 8: Duration of pregnancy, all confinements, Australia, 1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

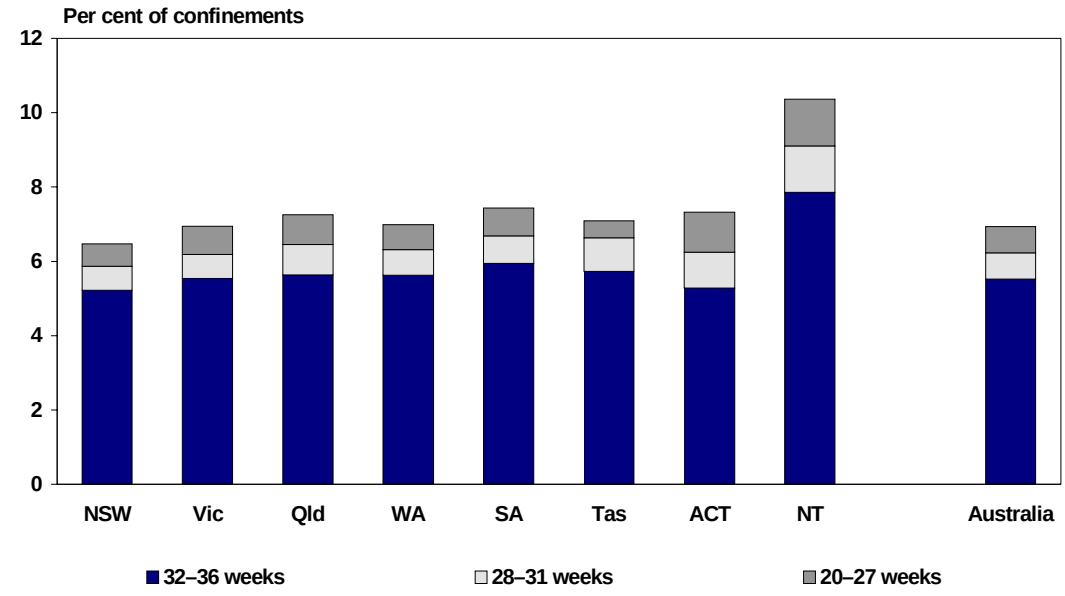

Figure 9: Preterm confinements, States and Territories, 1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Preterm birth varied with maternal age and was more likely among the youngest and oldest mothers than among those aged 20 to 34 years (Table A18, Figure 10).

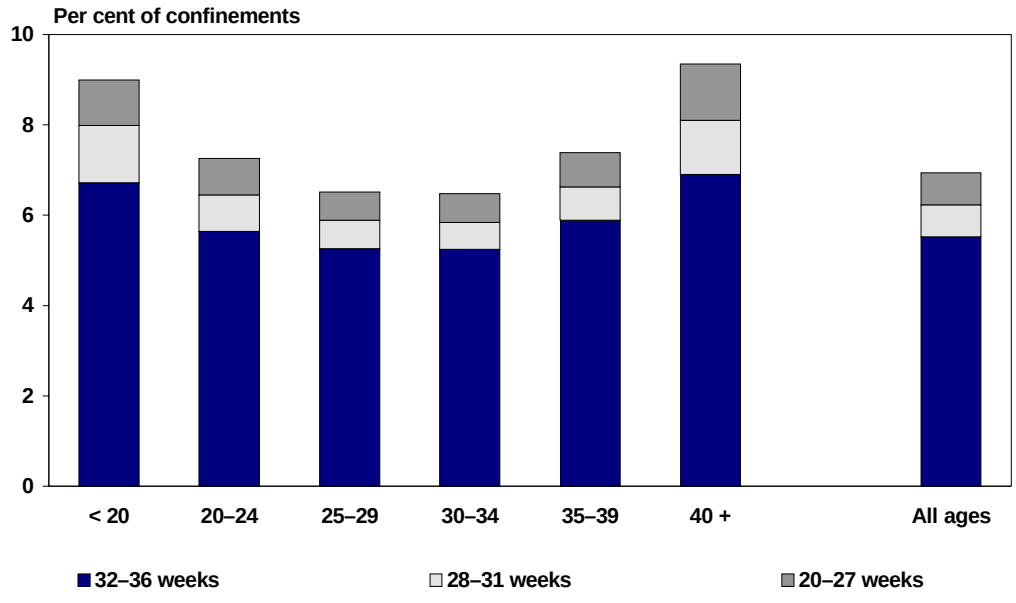

Figure 10: Preterm confinements by maternal age, Australia, 1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

2.12 Multiple pregnancy

In the perinatal collections, multiple pregnancies are based on the number of fetuses that remain in utero at 20 weeks gestation and are subsequently delivered as separate births. This definition excludes fetuses aborted before 20 completed weeks or fetuses compressed in the placenta at 20 weeks or more. If gestational age is unknown, only fetuses weighing 400 g or more are taken into account in determining whether it is a singleton or multiple pregnancy. As the perinatal collections include both live births and stillbirths, there are slightly more multiple pregnancies in these figures than in the data on registrations of live births published by the Australian Bureau of Statistics.

In 1999, there were 3,929 multiple pregnancies (1.6% of all confinements), consisting of 3,821 twin pregnancies, 104 triplet pregnancies, 3 quadruplet pregnancies and 1 quintuplet pregnancy (Table A19). The twinning rate was 15.1 per 1,000 confinements in 1999 (Figure 11), substantially higher than the low point of 9.0 per 1,000 confinements in 1977 (Doherty & Lancaster 1986). The number of triplet pregnancies increased from 85 in 1994 to 92 in 1995, 97 in 1996 and 104 in 1998. The increasing trend in multiple pregnancies in the last two decades can be attributed to increased use of fertility drugs and assisted conception and the increase in the number of older aged mothers.

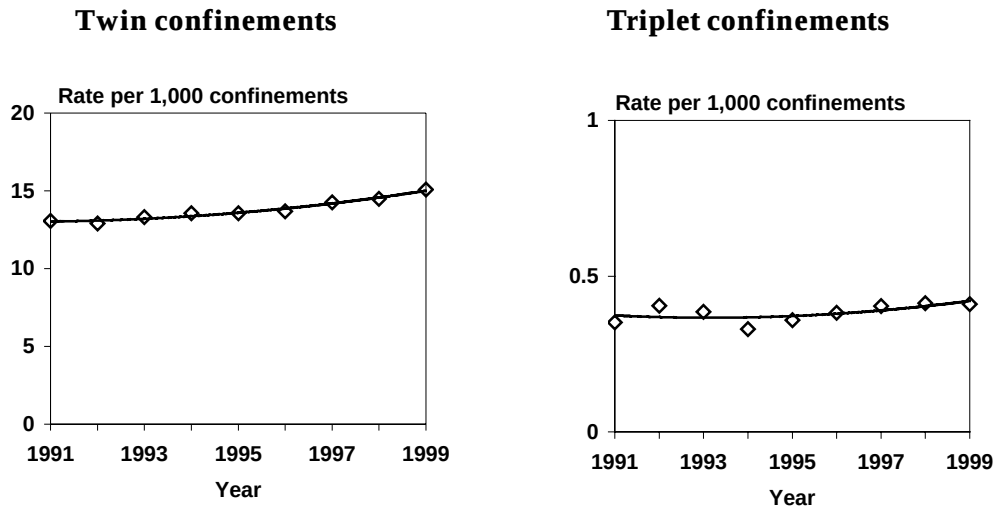

Figure 11: Trends in multiple births, Australia, 1991–1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Multiple pregnancy increases with advancing maternal age, peaking in women aged in the 35–39 year age group. In 1999, the highest proportion of twin confinements (2.1%) was among mothers aged 35 to 39 years (Table A20, Figure 12).

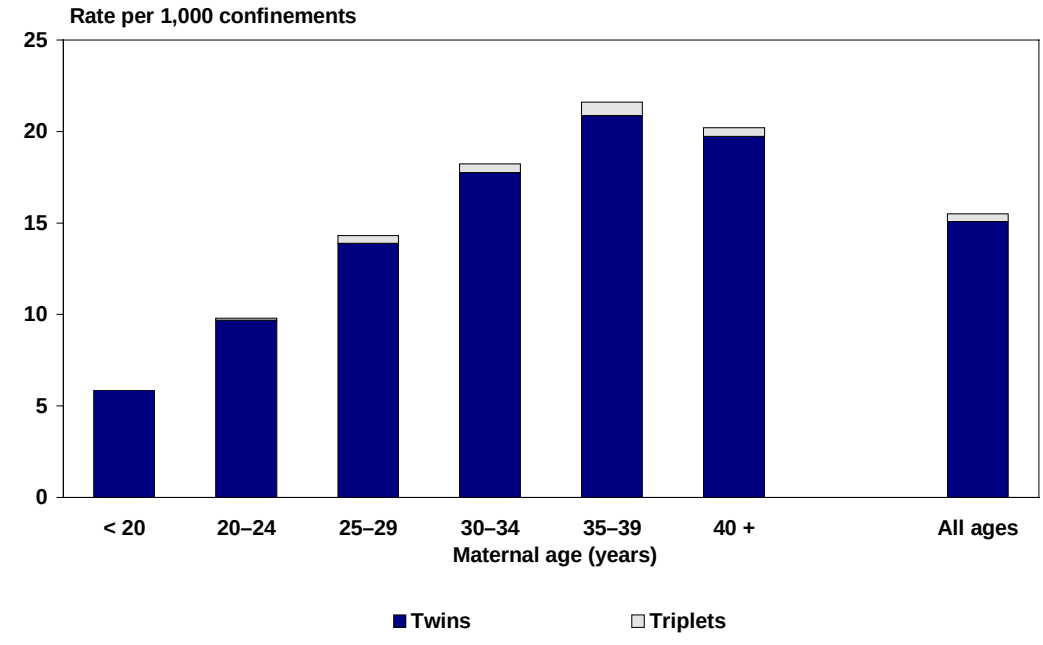

Figure 12: Maternal age-specific multiple birth rates, Australia, 1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

2.13 Onset of labour

The onset of labour was spontaneous in 61.9% of all confinements (Table A21, Figure 13); this proportion was highest in the Northern Territory (69.8%) and lowest in Western Australia (55.9%). There was considerable variation in whether labour was augmented ranging from over half (53.5%) in the Northern Territory to 29.0% of all births in Victoria.

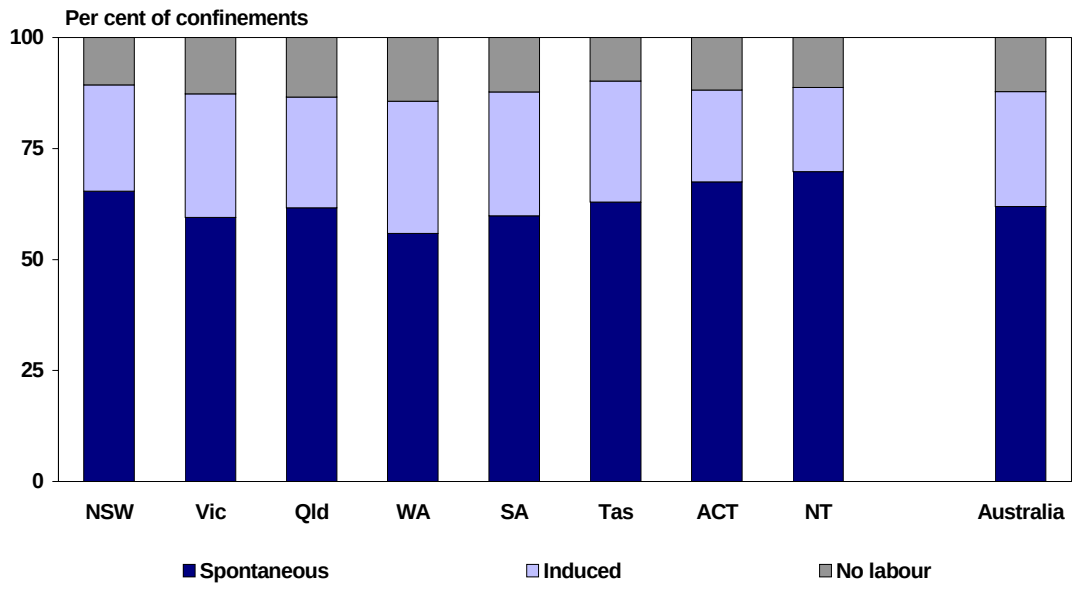

Figure 13: Onset of labour, all confinements, States and Territories, 1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Labour was induced in 25.9% of pregnancies and induction was more likely in Western Australia (29.8%) than in the other States and Territories. Combined medical and surgical induction of labour was more likely than either type alone. Most confinements with no labour (12.2%) were elective caesarean sections.

2.14 Presentation at birth

Breech presentation occurred in 4.3% of all confinements. Other presentations were represented by 0.8% of confinements (Table A22). In multiple pregnancies, the presentation and type of delivery of the first-born baby was used to classify each confinement.

2.15 Method of birth

Two-thirds (66.2%) of all confinements were spontaneous vaginal deliveries (Table A23, Figure 14). Forceps delivery occurred in 5.6%, vacuum extraction in 5.5%, and vaginal breech delivery in 0.7%.

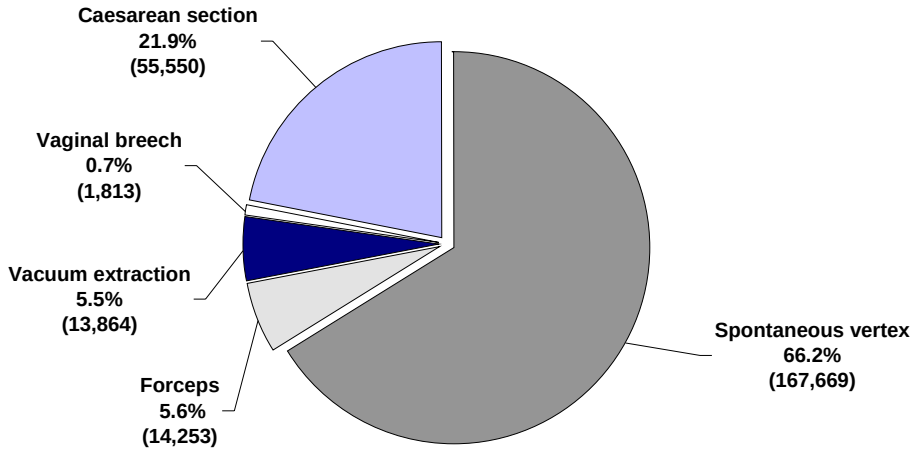

Figure 14: Type of delivery, all confinements, Australia, 1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

There were 55,550 caesarean sections performed in 1999, accounting for 21.9% of all confinements (Figure 14). The caesarean rate (per cent) continues to show an overall upward trend in recent decades (Lancaster & Pedisich 1993). South Australia (24.9%) had the highest caesarean rate in 1999 and New South Wales (19.7%) and the Australian Capital Territory (19.6%) the lowest (Table A24, Figure 16).

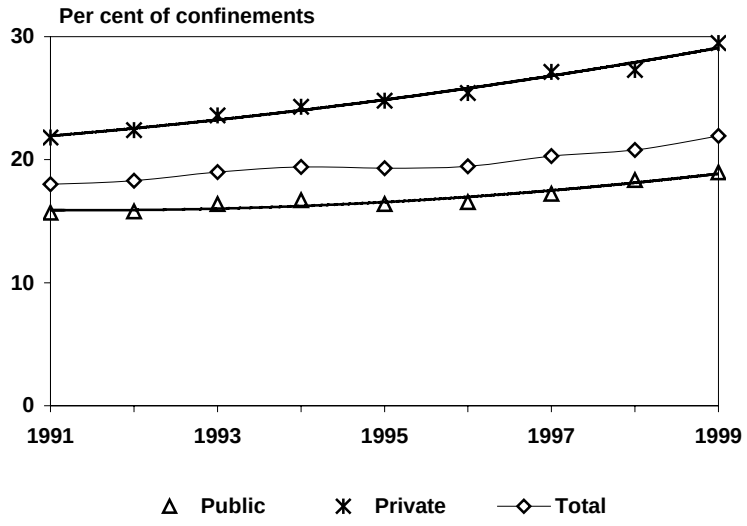

Figure 15: Trends in caesarean section rates by admitted patient status in hospital, Australia, 1991–1999

Notes: Data excludes Northern Territory.
Data for Tasmania unavailable, 1998 data used as an estimate.

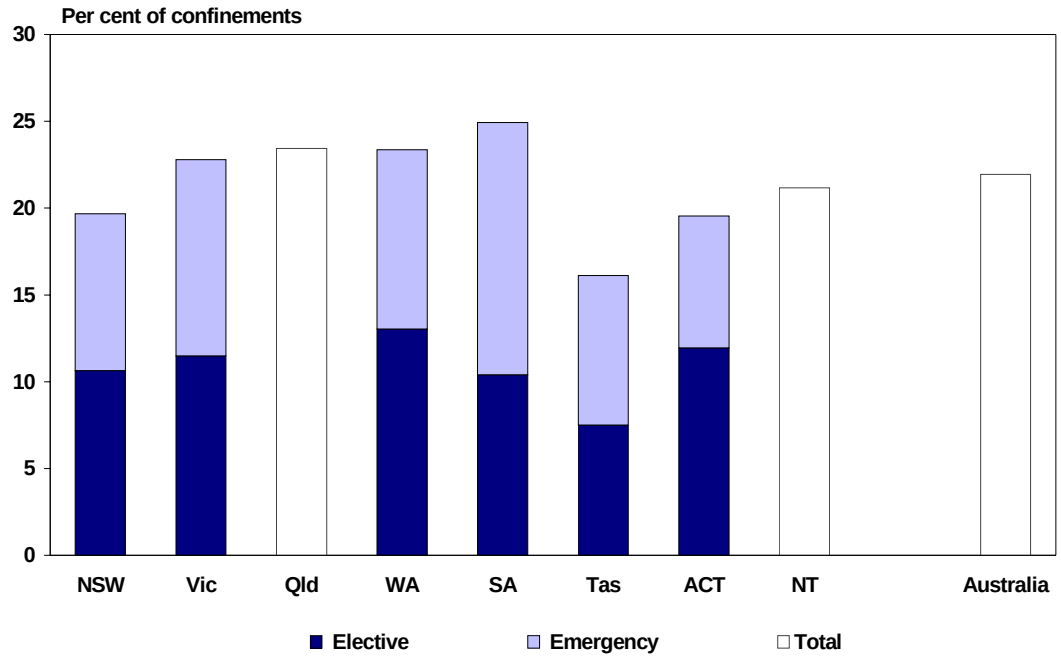

Figure 16: Caesarean rates, States and Territories, 1999

Notes: Elective and emergency caesarean data for Queensland and Northern Territory unavailable.
Data for Tasmania unavailable, 1998 data used as an estimate.

Caesarean rates for each State and Territory were compared in categories of maternal age, status in hospital, parity, singleton and multiple pregnancies, breech presentation in singleton confinements, and birthweight in singleton births (Tables A24, A25, A26, A27 and A28). Excluding the Northern Territory which did not have data on status in hospital, the caesarean rate of 29.5% for women who were private patients in hospital was 55.3% higher than the rate of 19.0% for public patients (Table A24, Figure 17). This difference was partly attributable to a higher proportion of older women among private patients. Approximately one-third of mothers with private status in hospital in Queensland (34.0%), Western Australia (32.6%) and South Australia (32.2%) had their babies by caesarean section.

The caesarean rate of 18.4% for Indigenous mothers was less than that for all mothers (21.9%) (Table 25). For the 7,132 Indigenous mothers who had public and 233 mothers who had private status, the caesarean rates were 17.9% and 30.0%, respectively. These are comparable with the overall rate of 19.0% for public status and 29.5% for private status in hospital among all mothers.

Analysis of national caesarean rates by 5-year maternal age group and public and private status in hospital showed these were associated with higher rates of caesarean section (Tables A26, A27). Caesarean rates were generally higher as maternal age increased. All mothers having their first baby had higher caesarean rates than those who had given birth previously. This may be attributed to lower risk of adverse outcomes in second pregnancies and an increase in the number of women attempting vaginal birth ('trial of labour') following a previous caesarean section (Appleton et al, 2000). Caesarean rates in nearly all maternal age and parity groups for mothers with private status in hospital were higher than for those with public status. Mothers aged 35 to 39 years who had private status in hospital and who were having their first baby had a caesarean rate of 44.3% compared with 34.0% for those

who had public status. For mothers aged 40 to 44 years, the rising trend with advancing maternal age continued with caesarean rates of 56.3% for those who had private status in hospital compared with 47.0% for those who had public status.

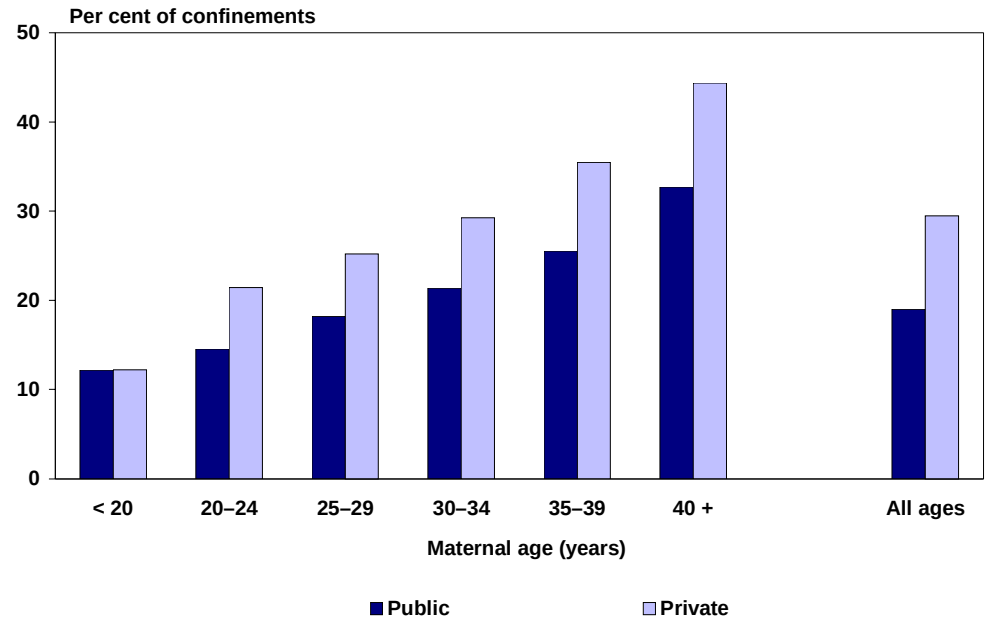

Figure 17: Caesarean rates by maternal age and admitted patient status in hospital, selected States and Territories, 1999

Notes: Data exclude Northern Territory.
Data for Tasmania unavailable, 1998 data used as an estimate.

Various other factors that influence caesarean rates include multiple pregnancy, breech presentation and the baby's birthweight (Table A28, Figure 18). The caesarean rate of 48.7% for twins was more than twice that for singleton births (21.5%); for other multiple births, the caesarean rate was 85.2%. Most babies (82.4%) presenting in the breech position in singleton pregnancies were born by caesarean section.

Caesarean rates were high for mothers of low birthweight babies in singleton pregnancies, particularly for babies weighing 1,000–1,499 g (56.4%) and 1,500–1,999 g (47.5%). For singleton births of 2,500 g and over, mothers who had private status in hospital had a caesarean rate of 28.2%, 58% higher than the rate of 17.8% for those who were public patients.

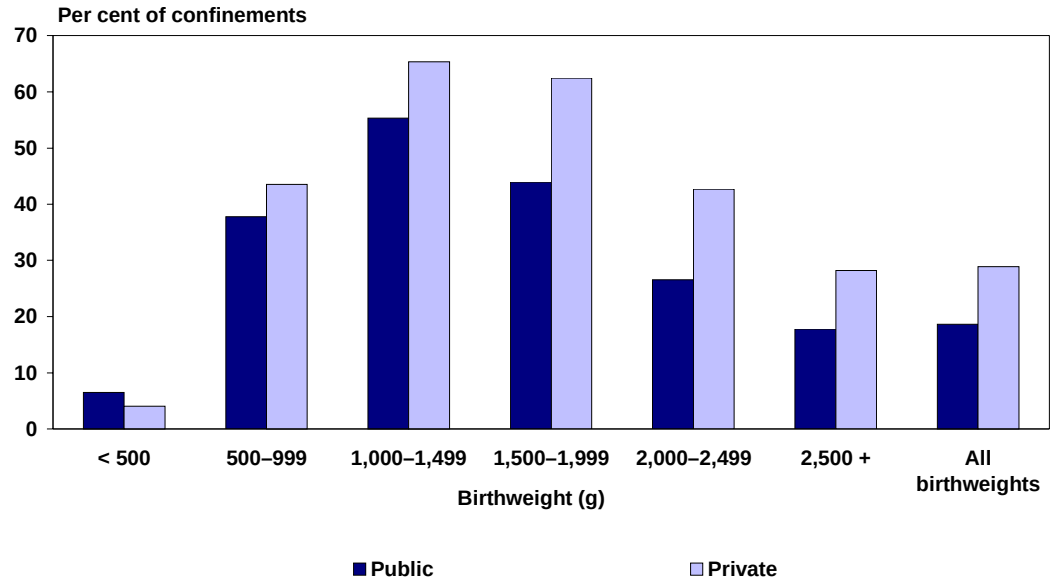

Figure 18: Caesarean rates by birthweight and accommodation status in hospital, singleton births, selected States and Territories, 1999

Notes: Data exclude Victoria and Northern Territory.
Data for Tasmania unavailable, 1998 data used as an estimate.

2.16 Perineal repair after delivery

All States and Territories collected information on the state of the perineum after delivery, however, Tasmania did not identify the degree of laceration sustained by mothers. An episiotomy was performed for 15.5% of all confinements, the highest rates recorded in Victoria (18.9%) and South Australia (18.7%). A vaginal tear or first degree or second degree laceration occurred in 31.5% of confinements whereas a higher degree laceration occurred in less than 1% of all mothers (0.8%) (Table A29).

2.17 Mother's length of stay in hospital

Most women gave birth either on the day of admission to hospital (63.1%) or on the following day (30.0%) (Table A30). About 1 in 70 women were hospitalised for at least 7 days immediately before delivery.

The length of the mother's postnatal stay in hospital may be influenced by factors such as the type of delivery, maternal medical and obstetric complications, neonatal morbidity, and specific hospital policies of early discharge. The final date of discharge of women transferred to other hospitals was not known, so these women were excluded from the calculation of length of postnatal stay. The average duration of postnatal stay was 3.8 days, having steadily declined from the average of 5.3 days in 1991. Postnatal stay in hospital was slightly longer on average in Tasmania (4.4 days), the Australian Capital territory (4.3 days) and the Northern Territory (4.3 days) than in the other States (Table A31).

The trend towards shorter postnatal stays in hospital is reflected by the higher proportion of mothers who were discharged less than 5 days after giving birth. In 1999, 11.6% of mothers were discharged less than 2 days after delivery while 55.4% of mothers were discharged between 2 and 4 days after delivery. This compares with 3.2% and 35.0%, respectively in 1991 (Figure 19). Relatively more mothers in Queensland (71.3%), New South Wales (67.8%), and Tasmania (66.6%) had stays of less than 5 days in 1999. Longer lengths of stay of 7 or more days were relatively more common in the Australian Capital Territory (15.1%), the Northern Territory (14.2%) and Western Australia (12.6%) (Table A31, Figure 20).

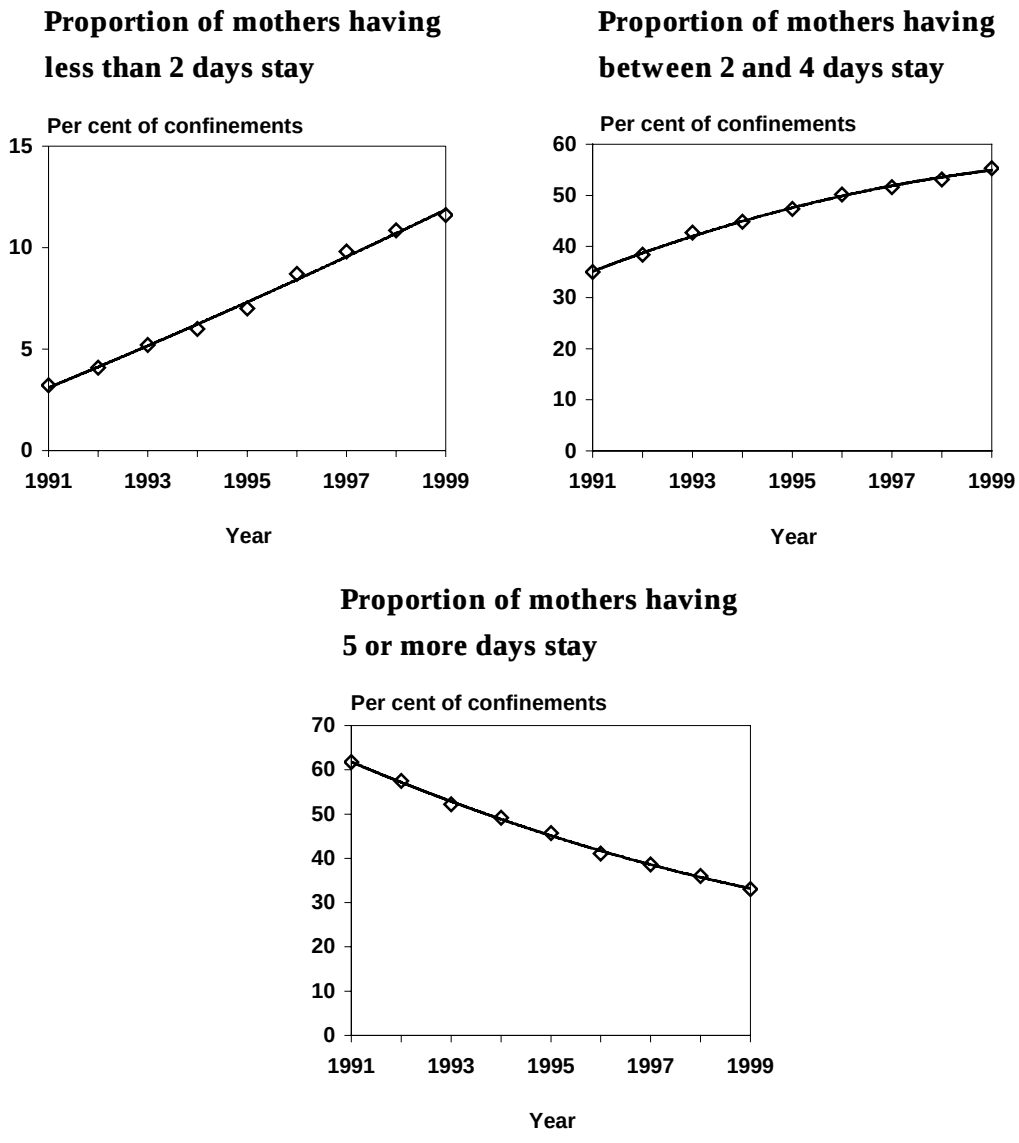

Figure 19: Mother's postnatal hospital length of stay, Australia, 1991–1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate

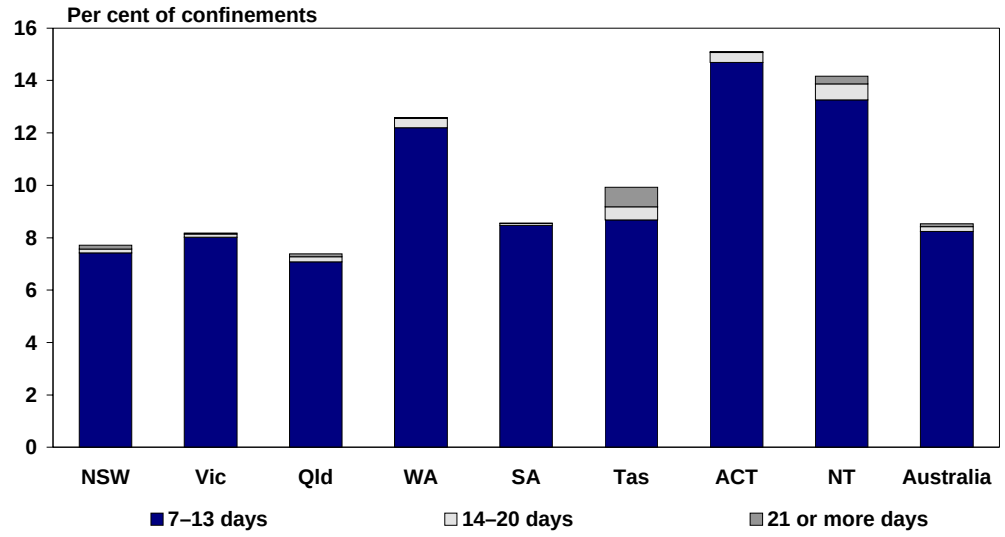

Figure 20: Maternal postnatal stay of 7 or more days, hospital confinements, States and Territories, 1999

Note: Excludes data for Tasmania.

In selected States and Territories, mothers who had private status in hospital had an average postnatal stay of 5.1 days, compared with 3.3 days for those who had public status (Table A32). Data for the Northern Territory was not available for these comparisons.

Factors associated with periods of postnatal hospitalisation of less than 5 days were younger maternal age, higher parity, Indigenous status and spontaneous delivery (Table A33). There were also marked differences in postnatal stays between public and private categories. The proportion of hospitalised mothers with a postnatal stay of less than 5 days was 36.1% for those with private status in hospital, half the proportion of mothers (79.5%) with public status (Table A33). Differences between public and private categories were apparent for all maternal ages, parity, Indigenous status, type of delivery and size of hospital groups (Tables A34, A35). For mothers having their first baby, 71.3% in the public category stayed for less than 5 days compared with only 24.9% in the private category.

2.18 Mother's mode of separation from hospital

Most mothers who gave birth in hospitals were discharged to their homes but 2.6% of mothers were transferred to other hospitals (Table A36), usually for continuing care in a hospital located nearer to their place of residence or sometimes for further treatment of complications. These transfers between hospitals were more likely to occur in New South Wales and South Australia than in the other States and Territories.

2.19 Maternal mortality

The perinatal collections are incomplete sources of maternal deaths as any deaths occurring after discharge from the hospital where the birth has occurred are not recorded in these data systems. The few maternal deaths associated with spontaneous or induced abortion or with ectopic pregnancy are also excluded from the perinatal collections. Twenty two maternal deaths were reported through the State and Territory perinatal collections in 1999.

An alternative reporting of maternal deaths occurs through the triennial report on maternal deaths in Australia. The NHMRC and AIHW NPSU triennial report for 1994–1996 classifies maternal deaths into three groups; a) direct maternal deaths which result from obstetric complications of the pregnant state; b) indirect obstetric deaths resulting from pre-existing disease that developed during and may have been exacerbated by pregnancy; and c) incidental deaths which occurred during pregnancy, but where the pregnancy is unlikely to have contributed significantly to the death. Currently, any death among pregnant women or within 42 days of pregnancy being delivered or terminated is included as a maternal death (NHMRC & AIHW 2001).

The overall maternal mortality rate in the 1994–1996 triennium was 13.0 per 100,000 confinements, an increase from the previous triennium in which the rate was 10.9 deaths per 100,000 confinements. The primary causes of direct maternal deaths in this period were pulmonary embolism (8, 17.4%), amniotic fluid embolism (8, 17.4%) and preeclampsia (6, 13.0%); whilst indirect deaths occurred most often in association with cardiovascular disease (10, 50.0%). The primary cause of incidental maternal deaths were injuries (17, 50.0%), neoplasms (5, 14.7%) and cerebrovascular disease (4, 11.8%). One in five (21.0%) maternal deaths occurred in women aged 35 years and older.

3 Babies

3.1 Introduction

This chapter provides data on the characteristics of the 257,394 total births reported in 1999 to the perinatal collections; and includes birth status, sex, gestational age, birthweight, length of hospital stay and separation mode from hospital.

3.2 Baby's birth status

Babies are recorded as liveborn or stillborn (fetal deaths) on perinatal notification forms. There is a separate requirement for legal registration of stillbirths and liveborn babies dying within 28 days of birth. The Australian Bureau of Statistics now publishes annual data on perinatal deaths (ABS 1999) using the 400 g birthweight or, if birthweight is unavailable, at least 20 weeks gestation criteria for legal registration of births. The criteria for notification of births in the perinatal collections differ slightly from the World Health Organization (WHO) definitions and include additional babies whose birthweight is less than 500 g but who meet the criteria of at least 400 g birthweight or 20 weeks gestation or more. As noted previously, there were an estimated 255,605 live births and 1,789 fetal deaths in 1999, giving a total of 257,394 births (Table A1).

3.3 Baby's month of birth

A changing seasonal pattern of births was evident in Australia up to the 1970s, the earlier peak of births in September being replaced by a bimodal pattern of peaks in February / March and September (Mathers & Harris 1983). The bimodal pattern of peaks in late summer and spring has continued in recent years. In 1999, of the estimated 257,394 births in Australia, most births occurred in the months of March and July to October (Table A37). When adjustment is made for the number of days in the month by deriving a standardised index, the bimodal pattern seen in recent years is not so evident, with the peak months for births being September / October and the low months November and December (Figure 21). In 1999 there were, on average, 21,450 births per month with a birth every two minutes, and 705 births per day in Australia.

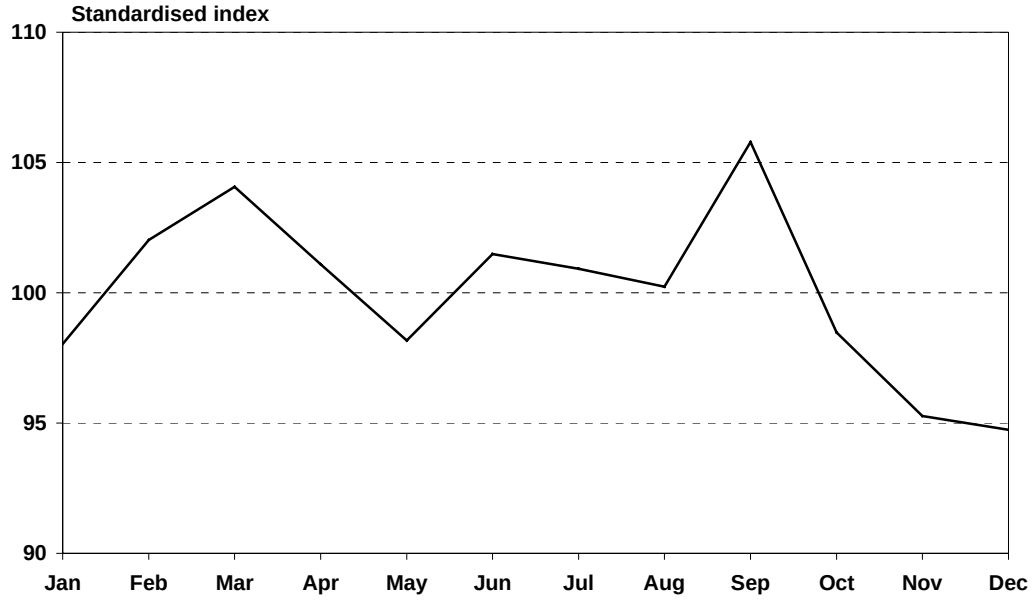

Figure 21: Monthly variation in births, Australia, 1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

3.4 Baby's sex

Male births exceeded female births in all States and Territories (Table A38). The national sex ratio was 105.6 male births per 100 female births; for singleton births it was 105.6, for twins, 104.7 and for other multiple births, 103.4.

3.5 Baby's gestational age

Preterm birth before 37 weeks gestation accounts for a high proportion of perinatal deaths. It is associated with many neonatal problems that cause significant morbidity in newborn babies and may sometimes be associated with long-term disabilities (National Health and Medical Research Council 1996). The number of births in Australia for each week of gestational age increased from 208 at 20 weeks to 85,871 at 40 weeks (Table A39, Figure 22). Preterm births were classified according to the criteria of the WHO into groups at 20–27 weeks, 28–31 weeks, and 32–36 weeks (Figure 23). Amongst all births, 7.7% were preterm, with most of the preterm births at 32–36 weeks. Approximately 1 in 5 preterm births were at earlier gestational ages.

Preterm birth occurred in 50.7% of twins and in 97.1% of triplet births, much higher than the proportion of 6.2% among singleton births (Table A40). The difference in gestational age distribution between singleton and multiple births is even more pronounced when babies of less than 32 weeks gestation are considered. One in ten twin births and nearly half (44.3%) of triplet births were in this high-risk group compared with only 1 in 100 (1.2%) for singleton births.

Differences in the manner in which gestational age was estimated may have been a factor contributing to variations in preterm births among the States and Territories.

The highest proportion of preterm births was 10.9% in the Northern Territory (Table A41).

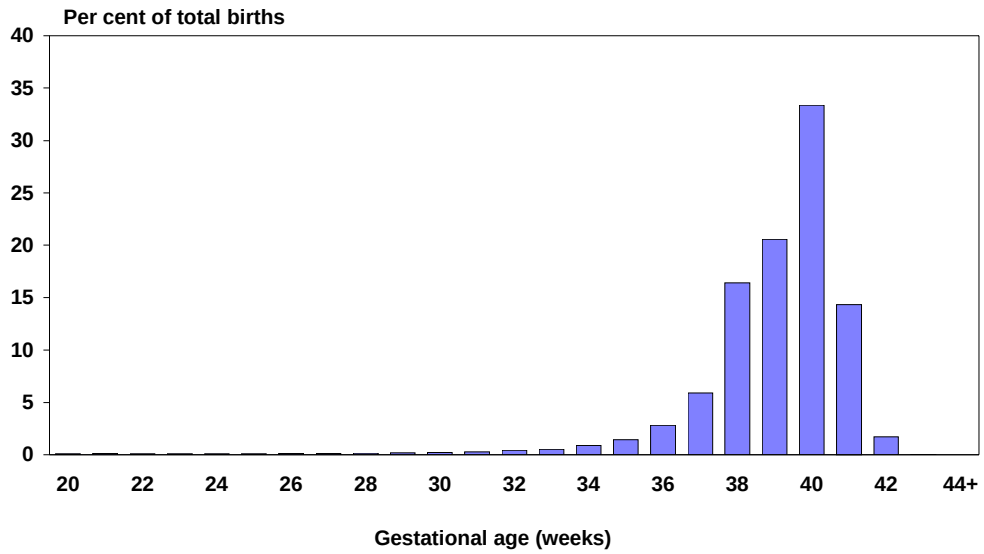

Figure 22: Distribution of births by gestational age, Australia, 1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

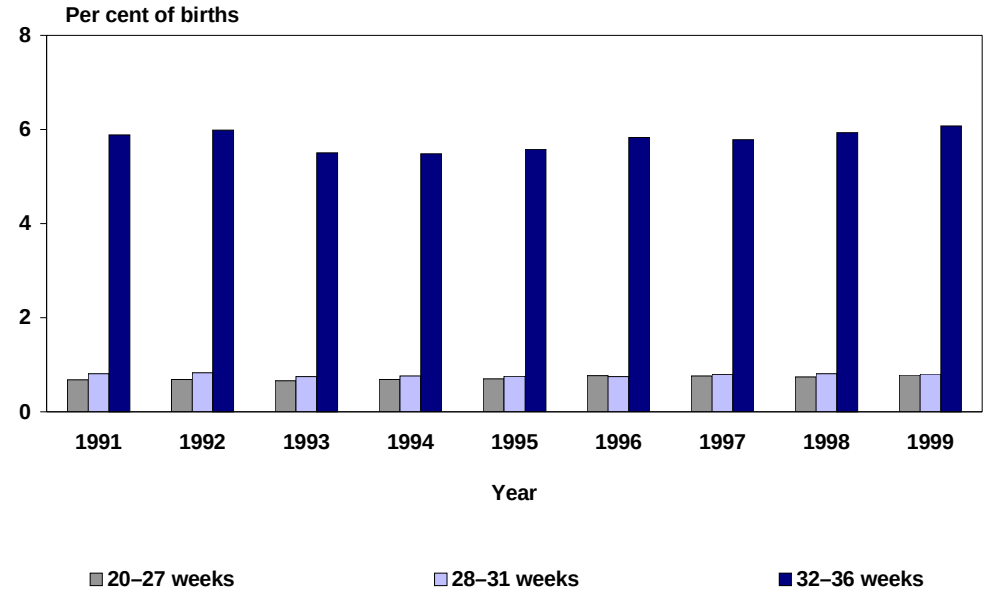

Figure 23: Preterm births, Australia, 1991–1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

3.6 Baby's birthweight

The baby's birthweight is a key indicator of health status. Babies are defined as low birthweight if their birthweight is less than 2,500 g. Within this category, those weighing less than 1,500 g are designated as very low birthweight and those less than 1,000 g as extremely low birthweight.

In 1999, there were 17,208 (6.7%) babies of low birthweight, which was unchanged from 1998. The 3,782 very low birthweight babies comprised 1.5% of all births in 1999 and the 2,150 extremely low birthweight babies, 0.8% (Table A42). There was some increase in the proportion of extremely low (less than 1,000 g) birthweight babies between 1991 and 1999, but little change in the proportion of babies in the other categories of low birthweight (Figure 24).

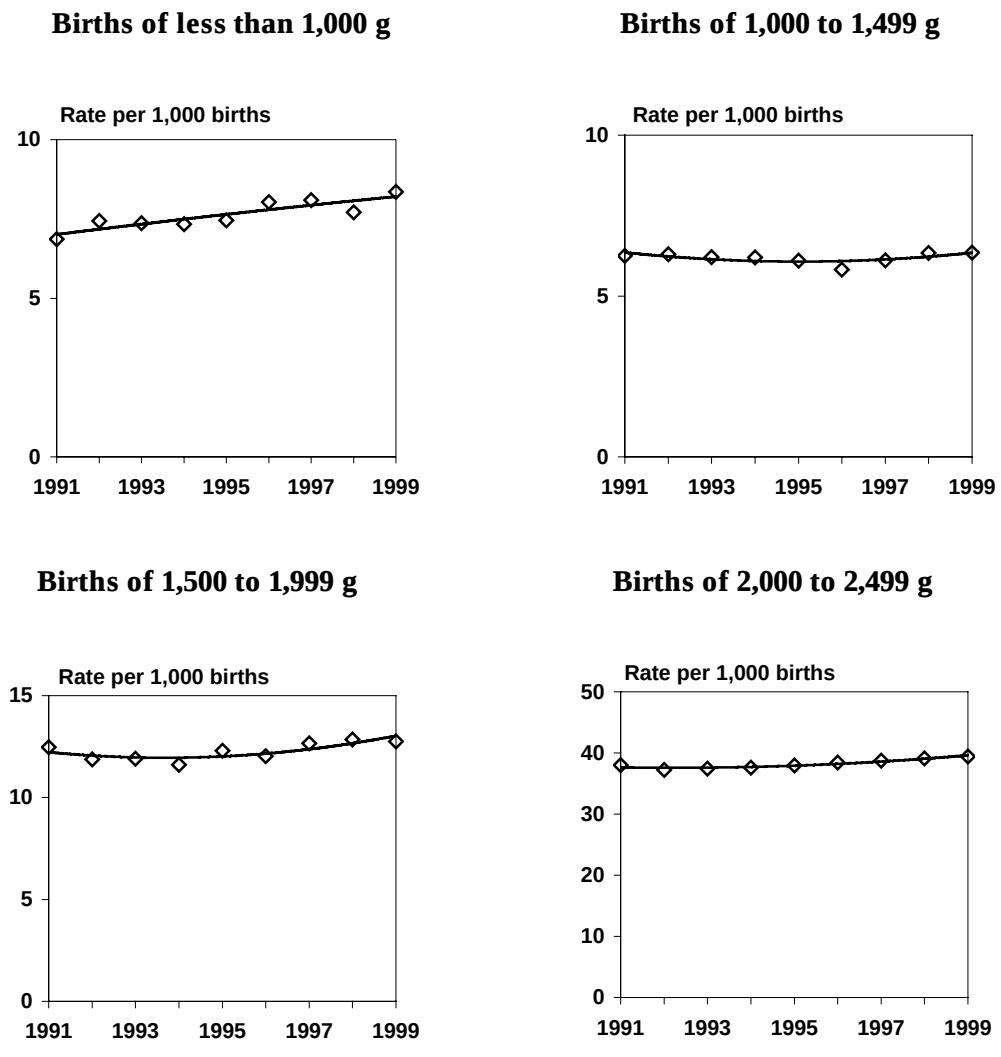

Figure 24: Trends in low birthweight, Australia, 1991–1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

The average birthweight of all liveborn and stillborn babies in Australia in 1999 was 3,360 g and showed relatively little variation among the different States and Territories, except for a lower average of 3,239 g in the Northern Territory where there was also the highest proportion of low birthweight babies (10.0%) (Table A42, Figure 25).

The average birthweight of liveborn babies was 3,373 g (Table A43). Low birthweight occurred in 6.2% of liveborn babies and in 77.2% of stillborn babies. More than half (54.2%) of the stillborn babies had a birthweight of less than 1,000 g.

In twins, the proportion of low birthweight was 50.1%, almost ten times higher than in singleton births (5.2%); in triplets, this proportion was 96.5% and in other multiple births, 100% (Table A44, Figure 26). The average birthweight was 3,392 g in singletons, 2,396 g in twins, 1,506 g in triplets, and 1,017 g for other multiple births.

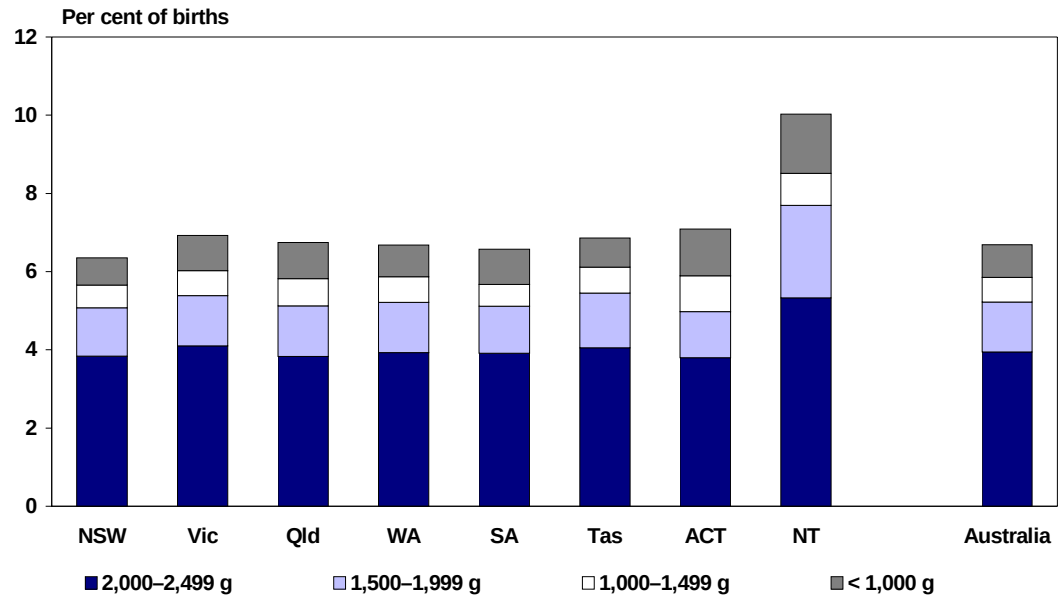

Figure 25: Proportion of low birthweight babies, all births, Australia, 1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

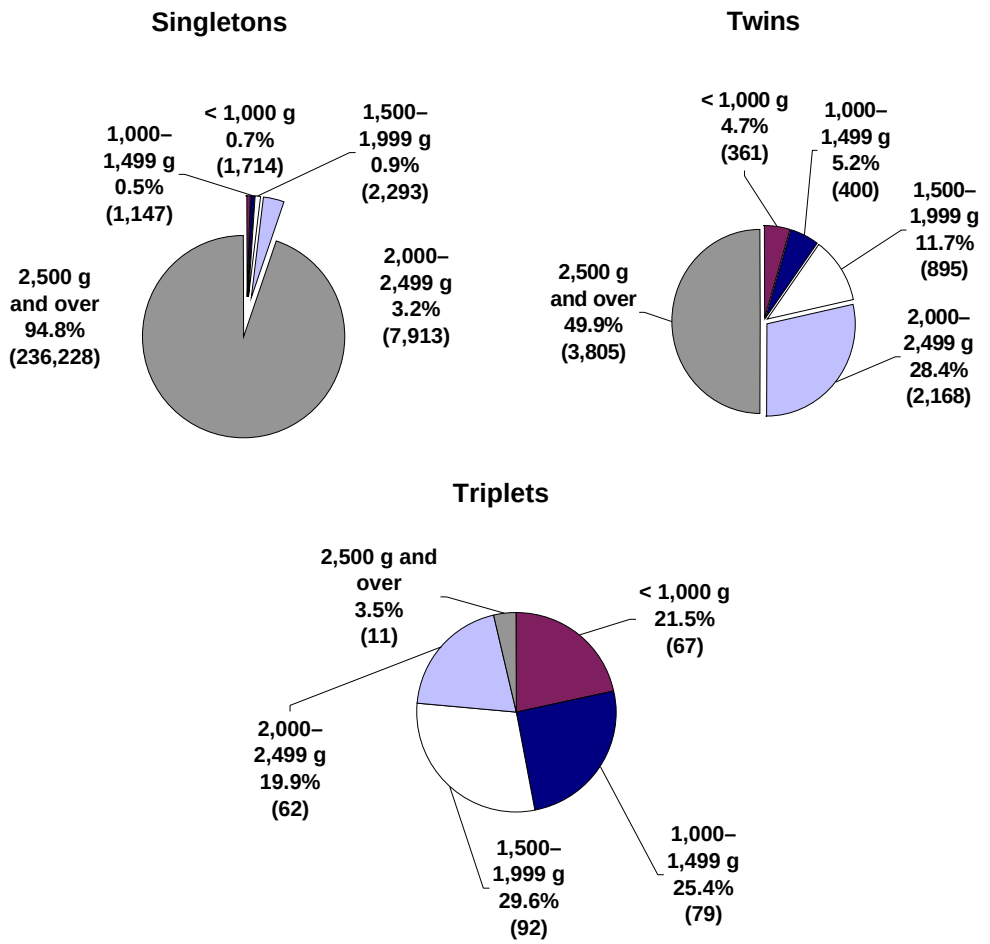

Figure 26: Distribution of birthweight, singleton and multiple births, Australia, 1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Male babies were less likely to be low birthweight (6.2%) than were females (7.2%) (Table A45). In the higher birthweight categories, there were relatively more males in the groups with birthweights of 3,500–3,999 g and over. The average birthweight of males was 3,420 g, which was 123 g higher than that of females (3,297 g).

The average birthweight of live and stillborn babies of Indigenous mothers in 1999 was 3,149 g, slightly lower than 3,169 g reported in 1998. This was 211 g less than the national average of 3,360 g for all births. The proportion of low birthweight in babies of Indigenous mothers was 13.0% (Table A46), twice that of 6.5% in babies of non-Indigenous mothers. The average birthweight of babies of Indigenous mothers, and the proportion with low birthweight, varied markedly among the States and Territories. Low birthweight was more likely among babies of Indigenous mothers in South Australia (16.7%), Victoria (15.5%) and Western Australia (14.8%) (Figure 27).

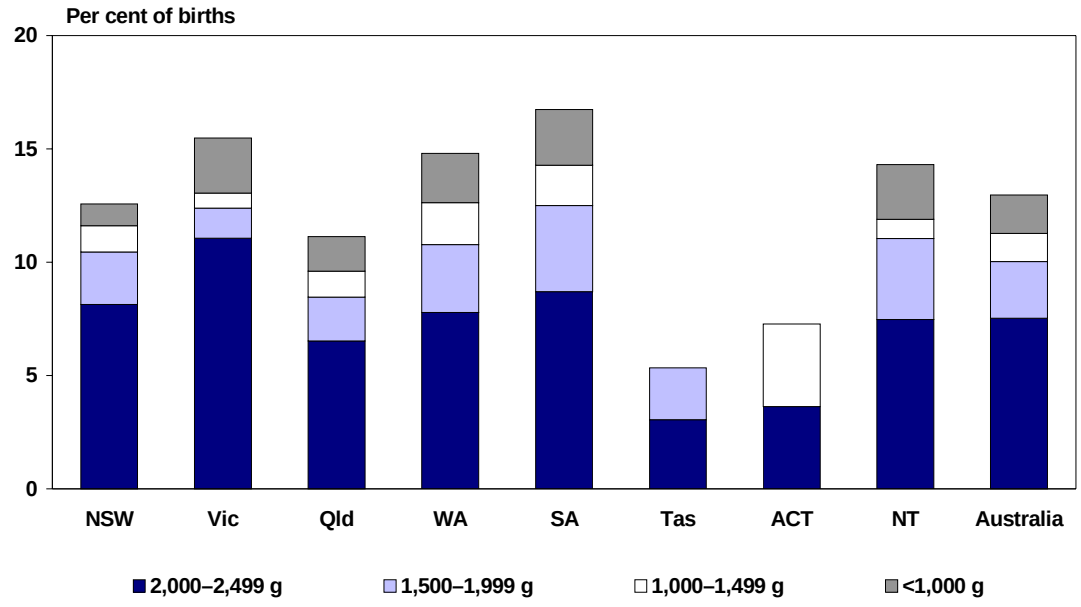

Figure 27: Proportion of low birthweight babies of Indigenous mothers, States and Territories, 1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

There were relatively small differences in the proportion of low birthweight babies according to the mother's country of birth. Low birthweight babies were slightly more common for mothers born in India and the Philippines (Table A47, Figure 28). Mothers born in China and Lebanon were less likely to have babies of low birthweight.

Mothers aged 30–34 years had the lowest proportion of low birthweight babies (6.1%); the proportion was higher among babies of younger and older mothers (Table A47).

Women having their first baby, and those with four or more previous children, were more likely than other parity groups to have a low birthweight baby, while those giving birth for the second or third time were least likely to do so (Table A47).

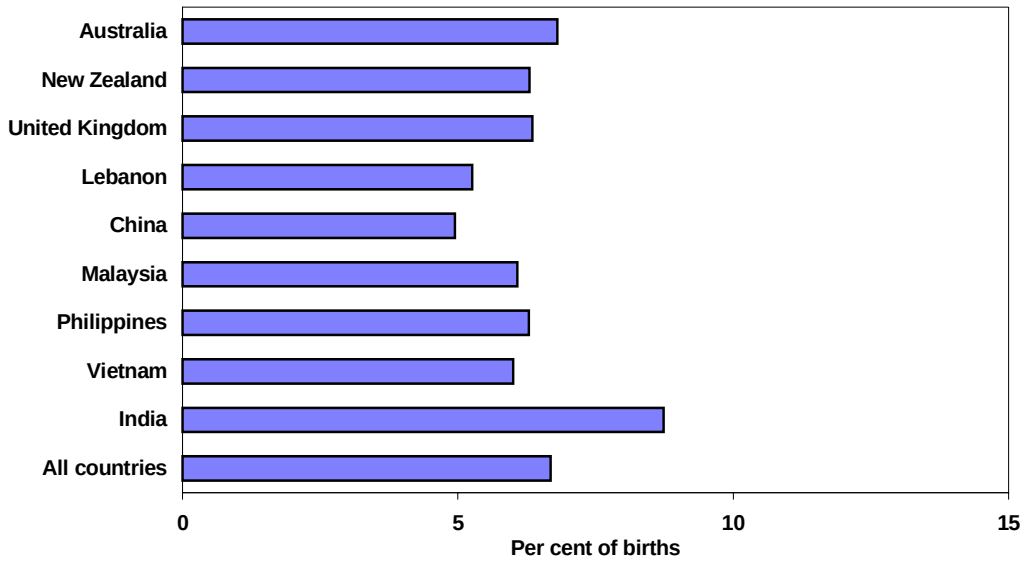

Figure 28: Low birthweight rates, selected maternal countries of birth, Australia, 1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

The proportion of low birthweight babies was higher in mothers who were public patients (6.8%) compared with mothers who were private patients (5.3%) (Table A47, Figure 29).

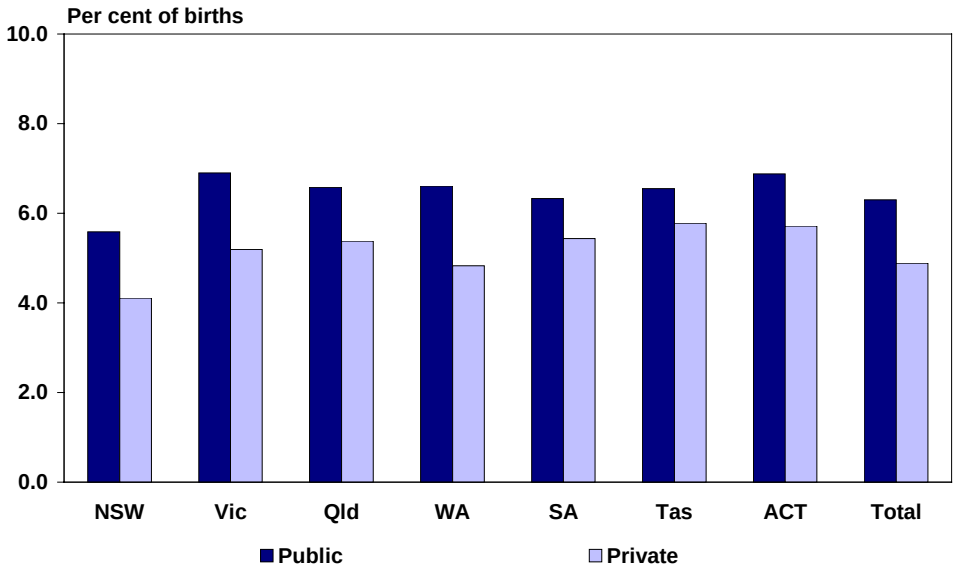

Figure 29: Low birthweight by maternal admitted patient status, selected States and Territories, 1999

Notes: Data exclude Northern Territory.
Data for Tasmania unavailable, 1998 data used as an estimate.

Women giving birth at home and in birth centres usually present with low risk and have been selected to exclude those with major risk factors for low birthweight. This appears to be reflected in the lower proportion of low birthweight babies in home births (2.7%), and in birth centres (0.9%), than in hospital births (6.8%) (Table A47). On the other hand, there was a high proportion of low birthweight babies among those born before arrival in hospital (16.7%) and elsewhere (26.1%).

The proportion of various categories of low birthweight babies, especially those weighing less than 1,500 g, who were born in larger hospitals that have adequate staffing and facilities provides an indicator of the effectiveness of regionalisation of perinatal care. This proportion was high in all regions except the Northern Territory which has relatively few births, only one large maternity unit, and a relatively high proportion of births to Indigenous mothers in remote locations (Table A48).

More than three-quarters (77.0%) of the highest risk babies weighing 500–999 g were born in hospitals that had more than 2,000 confinements annually, and another 16.0% were born in hospitals with 1,001–2,000 confinements annually. The Northern Territory (18.8%) had relatively more babies in this birthweight group born in hospitals with fewer than 1,000 confinements annually. The Northern Territory, Australian Capital Territory and Tasmania also had a relatively higher proportion of babies weighing 1,500–1,999 g born in hospitals with less than 1,000 confinements annually.

3.7 Apgar scores

Apgar scores are clinical indicators of the baby's condition shortly after birth, based on assessment of the heart rate, breathing, colour, muscle tone, and reflex irritability. Between 0 and 2 points are given for each of these five characteristics and the total score may vary between 0 and 10. The Apgar score is routinely assessed at 1 and 5 minutes after birth, and subsequently at 5-minute intervals if it is still low at 5 minutes.

Consistent with the usual convention for grouping Apgar scores, the distribution in each State and Territory was compared (Tables A49, A50, Figure 30). In all States and Territories, the distribution of 1-minute and 5-minute Apgar scores is similar. Low Apgar scores of 1–3 were recorded at 1 minute in 2.3% of live births and at 5 minutes in 0.3%.

Low Apgar scores of less than 4 were strongly associated with the baby's birthweight. Babies from singleton and multiple births within the same birthweight categories had similar Apgar scores (Table A51).

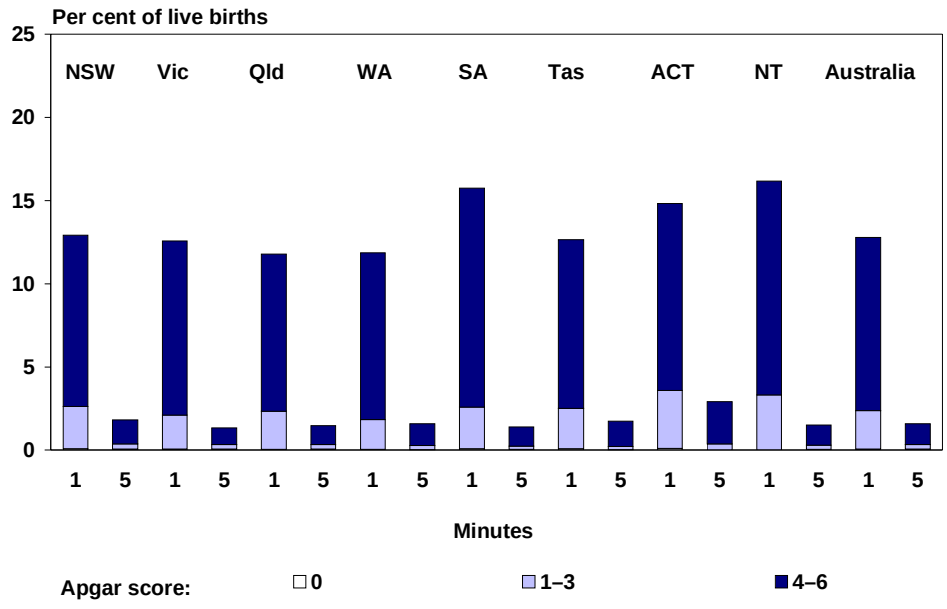

Figure 30: Low Apgar scores at 1 and 5 minutes after birth, live births, States and Territories, 1999

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

3.8 Resuscitation at birth

The type of resuscitation given to babies immediately after birth includes active measures and / or drug therapy. Recording of active measures has improved in recent years among the States and Territories, however, drug therapy is either not collected or varies considerably among the States and Territories. Ventilatory assistance by intermittent positive pressure respiration (IPPR) through a bag and mask or after intubation was performed for 8.2% of all live births in Australia. External cardiac massage was provided for a small proportion of babies (0.2%) in 1999, the greatest for 0.6% live births in the Northern Territory (Table A52).

3.9 Baby's length of stay in hospital

A majority of babies are discharged from hospital at the same time as their mother, however, some babies may stay on longer as a result of poor health conditions. Babies who died or were transferred to another hospital after birth were excluded from the data used to calculate length of stay. The majority of babies (88.1%) remained in their hospital of birth for less than 7 days (Table A53). More babies had relatively short stays of less than 5 days in hospital in 1999 than in the previous 5 years. In 1999, 64.3% of babies stayed in hospital for period of less than 5 days compared with only 37.0% in 1991. This trend occurred in all States and Territories but the national data did not include New South Wales in 1991 and 1992. In 1999, relatively more babies born in Queensland (68.9%) and in New South Wales (64.3%) were in the short-stay group.

Duration of hospitalisation for 28 or more days occurred for 1.1% of babies. As the period of hospitalisation of babies transferred from their hospital of birth to another

hospital is not included here, except for South Australia, these figures underestimate the proportion of babies staying in hospital for long periods.

The baby's gestational age and birthweight are usually the main factors influencing the duration of hospitalisation (Table A54). Twins and other babies from multiple births usually have longer stays than singleton babies. Babies born to Indigenous mothers were more likely to be discharged relatively early from hospital. This finding is consistent with the preference of Indigenous mothers for early discharge from hospital. However, a higher proportion of babies of Indigenous mothers also have a longer length of stay of 14 days or more. Babies with a gestational age of less than 28 weeks, or a birthweight less than 1,000 g, were more likely to have short periods of stay of less than 3 days in their hospital of birth because of higher risks of neonatal death or transfer to other hospitals. A higher proportion of preterm and low birthweight babies also had longer stays in hospital of 14 days or more.

3.10 Baby's mode of separation from hospital

A total of 4.1% of babies were transferred to another hospital from their hospital of birth (Table A55). Although the States and Territories record the hospital to which the baby is transferred on their perinatal forms, the type of hospital is not presently included in the data provided for the national report. Therefore it is not possible to compare the proportion of babies transferred for further treatment of neonatal conditions with other reasons for transfer.

If a baby dies at home within 28 days of birth, or dies after being transferred to another hospital, this death may not be included in the perinatal collection unless a registered neonatal death has been linked with its perinatal form. In recent years a number of the States and Territories have linked their perinatal data collections to the registered perinatal deaths of their respective Births, Deaths and Marriages. However, this linkage has not yet been achieved in all States and Territories. Thus, the data on mode of separation of the baby are an incomplete source of information on neonatal deaths and cannot be used to determine national neonatal death rates.

4 Perinatal mortality

4.1 Definitions

There are different legal and statistical definitions in Australia for registering and reporting perinatal deaths (Table 1). For legal purposes, all fetal and neonatal deaths of at least 400 g birthweight or, if birthweight is unavailable, a gestational age of at least 20 weeks are registered (ABS 2000). The lower limit inclusion criteria has been adopted by the ABS because it recognises the availability of reliable 400 g/20 week data from the State and Territory Registrars of Births, Deaths and Marriages and recommendations from major users that the ABS adopt the legal requirement for registration of perinatal deaths as the statistical standard (ABS 2000).

The National Health Data Dictionary (NHDD) records a slightly broader definition of perinatal deaths to include all fetal and neonatal deaths of at least 400 g birthweight or at least 20 weeks gestation (AIHW 2001). This definition is adopted by the AIHW National Perinatal Statistics and extends up to 28 completed days after birth. Further information on perinatal deaths based on data from the perinatal collections is available in sections 1.9, 1.10 and 1.11 of this chapter.

Table 1: Various definitions of perinatal mortality

Institution	Fetal deaths		Neonatal deaths
	Birthweight	Gestational age	
WHO – International comparisons	1000 g	28 weeks (only if birthweight is unavailable)	< 7 days
– National reporting	500 g	22 weeks (only if birthweight is unavailable)	< 7 days
ABS	400 g	20 weeks (only if birthweight is unavailable)	< 28 days
NHDD	400 g	20 weeks	< 28 days

In the past, the Australian Bureau of Statistics (ABS) published annual data on perinatal deaths in Causes of Death, Australia 1996 and previous publications, based on recommendations of the World Health Organization (WHO) for reporting national perinatal statistics. WHO recommends that fetal deaths be included if the birthweight is at least 500 g or, when birthweight is not available, if the gestational age is at least 22 weeks, and there is no evidence of life after birth. Commencing with the Causes of Death, Australia 1997 publication and continuing in subsequent reports the ABS now also publishes data on perinatal deaths at the lower inclusion criteria of 400 g, or when birthweight is unavailable, a gestational age of at least 20 weeks. The ABS data for neonatal deaths include liveborn babies dying within 28 days of birth and are based on the same criteria of birthweight or gestational age as for fetal deaths. ABS death data presented in this chapter are from Causes of Death, Australia 1999 unless otherwise specified.

WHO recommendations differ from this standard and include only early neonatal deaths occurring in the first 7 days and not all neonatal deaths up to 28 days, as reported by ABS. WHO has also recommended that for international comparisons, countries should report data based on lower limits of 1,000 g or, when birthweight is not available, a gestational age of at least 28 weeks, excluding births and fetal and neonatal deaths that do not meet these criteria (Table A56).

Perinatal death rates vary markedly according to which definition is used (Table A56). In the period from 1997 to 1999, the perinatal death rate for babies 400 g/20 weeks (8.7 per 1,000 births) was almost double the estimated rate of 4.8 per 1,000 births based on the WHO definition for international comparisons. Using the criteria of 400 g/20 weeks for national data, the 1999 perinatal death rate of 8.5 per 1,000 births was 81% higher than the estimated rate of 4.7 per 1,000 births based on the WHO criteria for international comparisons.

Unless otherwise specified, annual fetal, neonatal and perinatal death rates in this report are based on the year of registration and the ABS definition using a lower limit of 400 g birthweight or 20 weeks gestation when birthweight was unknown (400 g/20 week), and include neonatal deaths within 28 days of birth.

4.2 Trends in fetal, neonatal and perinatal deaths

Depending on when the fetal heart stopped beating, fetal deaths can be grouped as antepartum deaths, when the heartbeat ceased before labour commenced; intrapartum deaths, when the heartbeat ceased during labour; and unknown deaths, when it was not known whether the heartbeat ceased before or during labour. There is another small group of registered perinatal deaths for which it was not known whether the heartbeat ceased before or after birth. The ABS includes this group with the fetal deaths and the practice has been followed in this report, including them with the intrapartum fetal deaths.

In the period between 1973 and 1999, the fetal death rate has more than halved from 11.1 to 5.1 per 1,000 births (Table A56, Figure 31). The fall during this period of 69.4% in intrapartum fetal death rates was greater than the decline of 46.0% for antepartum fetal death rates (Figure 32). Unknown type of fetal death rates declined 27.2% between 1973 and 1996, but then jumped from 0.8 per 1,000 births in 1996 to 1.2 per 1,000 births in 1997. However, in 1999, rates have continued the decreasing trend with 0.6 per 1,000 births. As a result of these decreasing rates, antepartum fetal deaths increased as a proportion of all fetal deaths from 63.8% in 1973 to 75.6% in 1999, and intrapartum fetal deaths decreased from 36.2% in 1973 to 24.4% of all fetal deaths in 1999.

The neonatal death rate declined even more sharply than the fetal death rate, falling by 70.7% from 11.6 per 1,000 live births in 1973 to 3.4 per 1,000 live births in 1999 (Table A58, Figure 33). Initially, the early neonatal death rate for deaths within 7 days of birth fell more rapidly than the rate of late neonatal deaths that occurred in the second to fourth weeks after birth, however, the rates have all plateaued in recent years.

Based on the lower legal and, now ABS definition, the national perinatal mortality rate declined by 62.4%, from 22.6 per 1,000 births in 1973 to 8.5 per 1,000 births in 1999 (Figure 31).

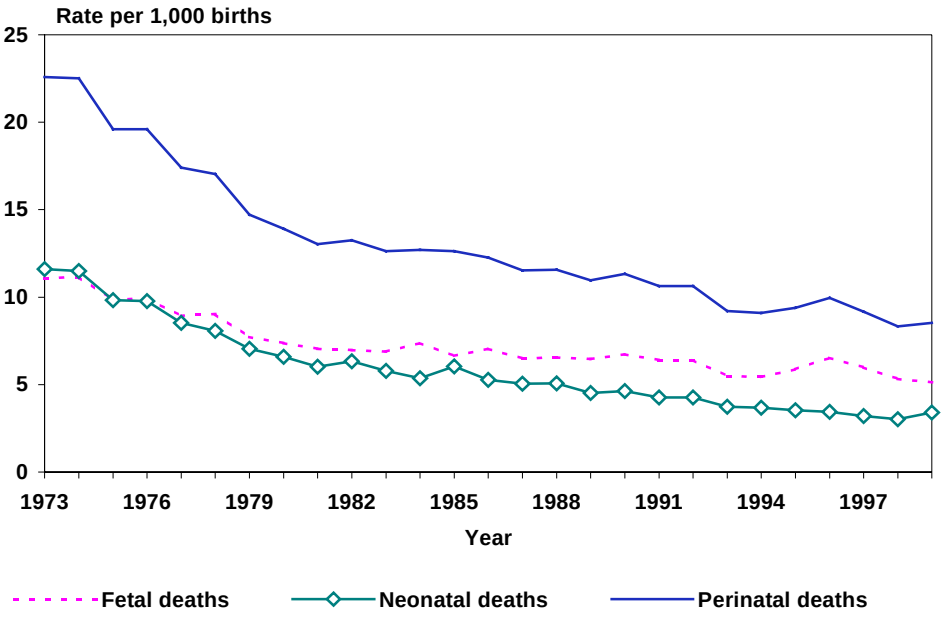

Figure 31: Fetal, neonatal and perinatal death rates, Australia, 1973–1999

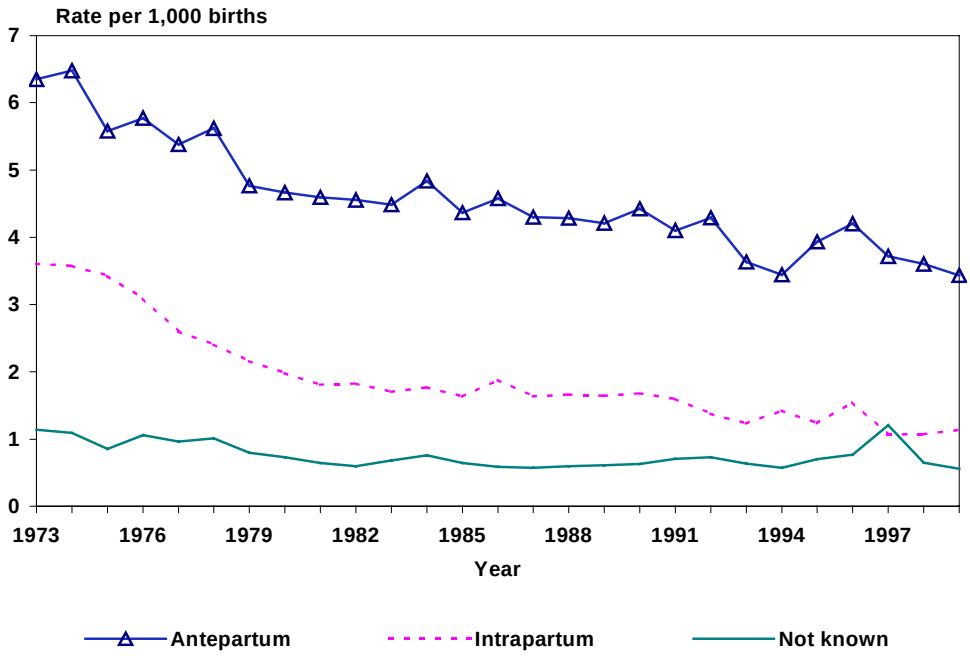

Figure 32: Type of fetal death, Australia, 1973–1999

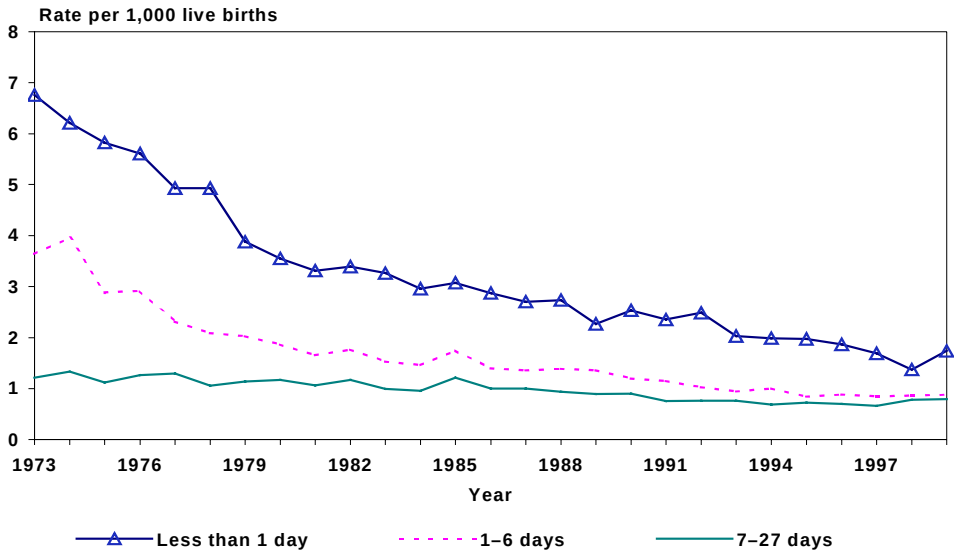

Figure 33: Neonatal death rates by age at death, Australia, 1973–1999

4.3 Perinatal deaths by State and Territory of residence

Except for higher rates in the Northern Territory, Tasmania and the Australian Capital Territory, there were relatively small differences in perinatal death rates among the States and Territories (Table A60, Figure 34). In the 3-year period from 1997 to 1999, South Australia, Western Australia and Victoria had the lowest perinatal death rates. In this 3-year period, at least 90% of perinatal deaths were registered in the State and Territory of mothers' usual residence (Table A61).

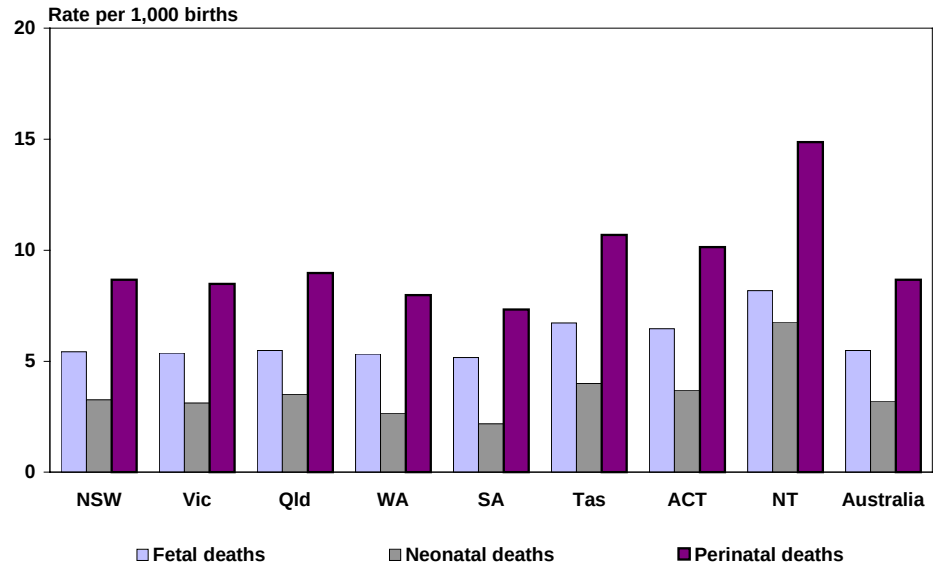

Figure 34: Fetal, neonatal and perinatal death rates, States and Territories, 1997–1999

4.4 Perinatal deaths by maternal age

The perinatal death rate was significantly higher for babies with younger mothers aged less than 20 years and older mothers aged 40 years or more than for mothers aged 30–34 years, which had the lowest rate of 7.3 per 1,000 births in the period from 1997 to 1999 (Table A62, Figure 35).

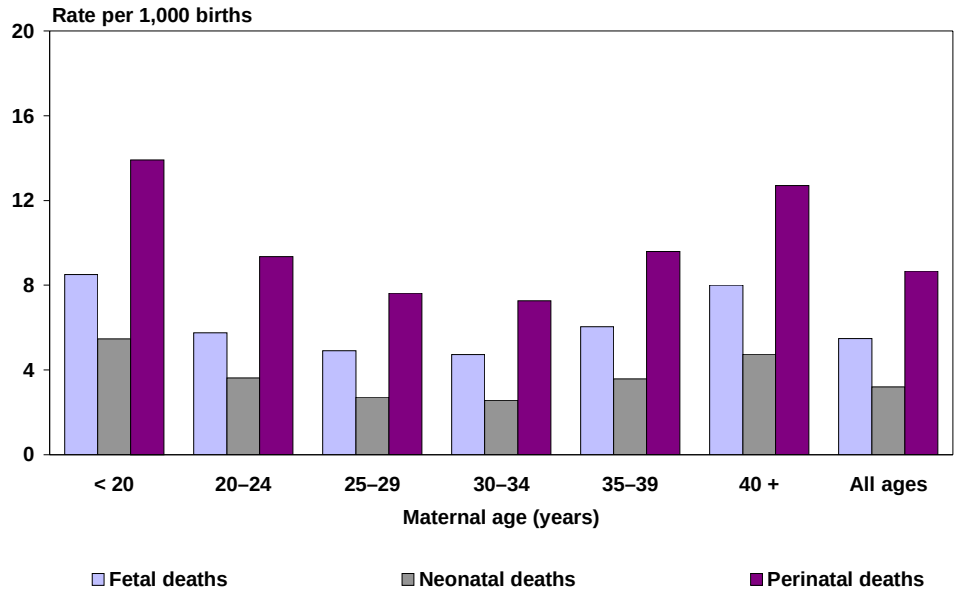

Figure 35: Fetal, neonatal and perinatal death rates by maternal age, Australia, 1997–1999

4.5 Perinatal deaths by plurality

Perinatal death rates are higher for multiple than for singleton births (Table A63). The number of perinatal deaths among triplet and higher order multiple births is relatively small each year so data were analysed for the 3-year period of 1997 to 1999.

There were 6,544 perinatal deaths in 1997–1999; 656 (10.0%) occurred in twins and 67 (1.0%) in other multiple births, so multiple births accounted for 11.0% of all perinatal deaths. The perinatal death rate of twins for the period 1997–1999 was 3.8 times higher, and of other multiple births 8.7 times higher, than that of singleton births (Table A63), mainly due to their increased occurrence of preterm birth and low birthweight.

4.6 Perinatal deaths by baby's sex

Perinatal death rates for males are consistently higher than for females. In 1997–1999, the rate for males was 16.3% above that for females (Table A64). The difference in rates between the sexes was slightly greater for neonatal deaths than for fetal deaths. The neonatal death rate for males was 28.6% higher than for females; the fetal death rate was 9.6% higher for males.

4.7 Proportionate perinatal death rates by gestational age

The duration of pregnancy is recorded in completed weeks on perinatal death certificates, based either on the gestational age (calculated using the date of the first day of the last menstrual period and the baby's date of birth), or on clinical assessment. As information about the gestational age distribution of all births between 1973 and 1999 was lacking, fetal, neonatal and perinatal deaths in categories of gestational age are expressed as proportionate death rates. The denominator for calculating proportionate death rates is the total number of births rather than the number of births in a particular gestational age (or, see below, birthweight) category.

In 1973, preterm births of less than 37 weeks accounted for 58.9% of fetal deaths with stated gestational ages and those less than 28 weeks for 23.1%. In 1999, these proportions had increased to 71.3% and 39.7%, respectively (Table A65, Figure 36). Many countries still have a lower limit of 28 weeks for registering fetal deaths, thereby excluding about one-third of fetal deaths included in the Australian data.

The distribution of neonatal deaths by gestational age was similar to that for fetal deaths but there were relatively more neonatal deaths of less than 28 weeks in 1999 than in 1973. The proportion in this group increased from 26.8% in 1973 to 49.6% in 1999 while the proportion of all neonatal deaths of known gestational age that were preterm was 69.2% in 1973 and 71.2% in 1999 (Table A66, Figure 37).

Between 1973 and 1999, there were substantial falls in the proportionate perinatal death rates in all gestational age groups, but the decline for deaths of less than 28 weeks was not as marked as for deaths in the other gestational age groups. In 1999, 43.6% of perinatal deaths were less than 28 weeks gestation (Table A67, Figure 38).

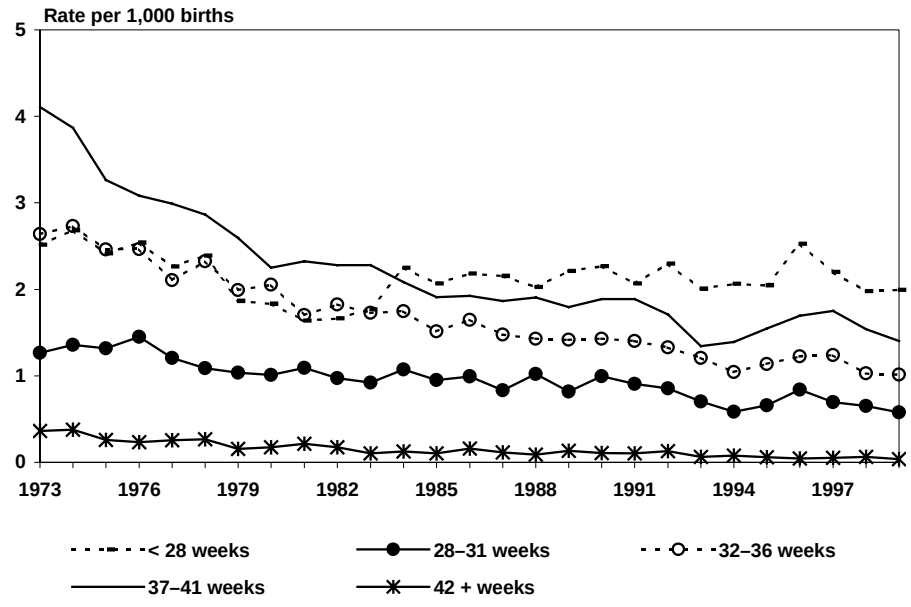

Figure 36: Proportionate fetal death rates by gestational age, Australia, 1973–1999

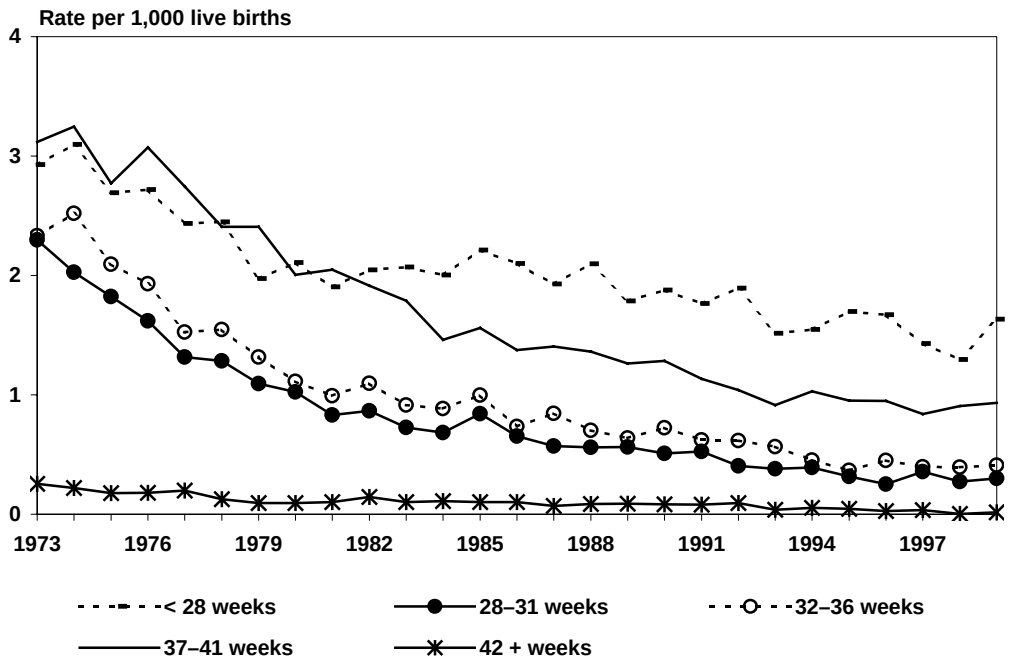

Figure 37: Proportionate neonatal death rates by gestational age, Australia, 1973–1999

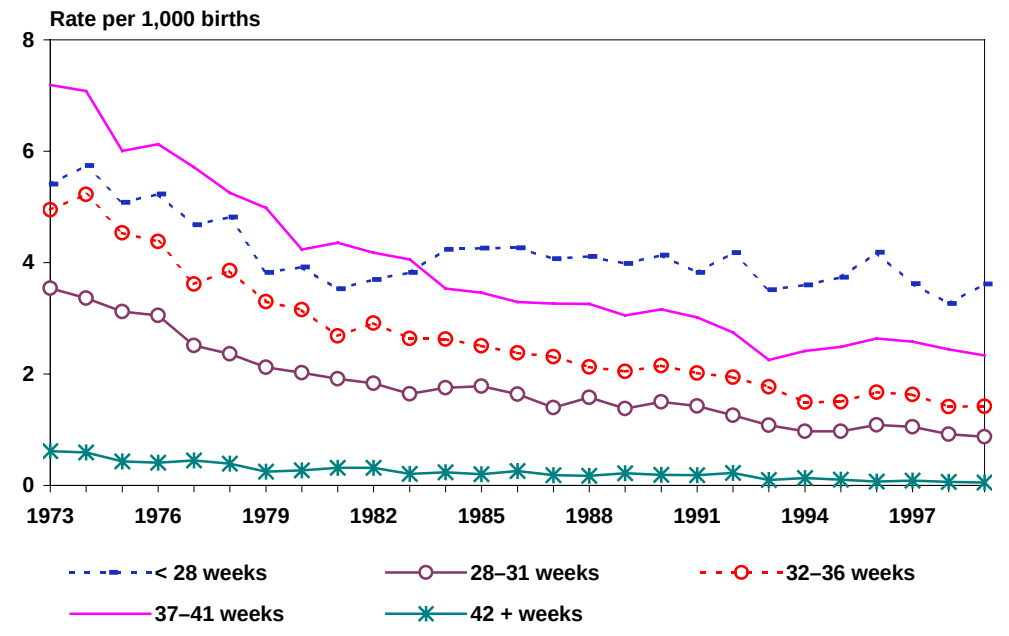

Figure 38: Proportionate perinatal death rates by gestational age, Australia, 1973–1999

4.8 Proportionate perinatal death rates by birthweight

As for those deaths tabulated in gestational age groups, the fetal, neonatal and perinatal death rates by birthweight for the period 1973 to 1999 are expressed as proportionate death rates. In 1973, low birthweight babies of less than 2,500 g accounted for 64.1% of fetal deaths with stated birthweights and those weighing less than 1,000 g for 27.1% (Figure 39). In 1999, these proportions had increased to 71.7% and 42.8%, respectively (Table A68).

The decline in the proportionate neonatal death rate was much greater for babies weighing 1,000–2,499 g than for those in lighter or heavier birthweight groups (Table A69, Figure 40). The rate for babies of 1,000–2,499 g fell from 4.7 per 1,000 live births in 1973 to 0.8 per 1,000 live births in 1999. For babies weighing less than 1,000 g the proportionate death rate declined from 3.0 to 1.6 per 1,000 live births in the same period, while for those weighing 2,500 g and over, it declined from 2.8 per 1,000 in 1973 to 0.9 per 1,000 live births in 1999.

Although there were substantial falls in the proportionate perinatal death rates in all birthweight groups, the greatest decline of 74.1% was for babies weighing 1,000–2,499 g, particularly reflecting the decline in neonatal deaths in this birthweight group (Table A70, Figure 41).

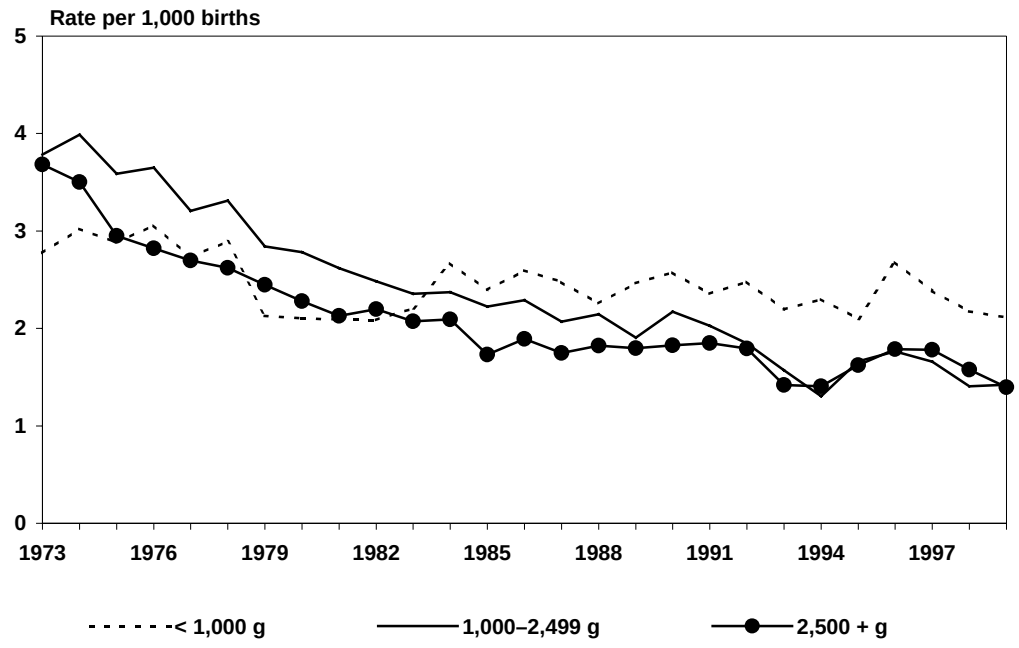

Figure 39: Proportionate fetal death rates by birthweight, Australia, 1973–1999

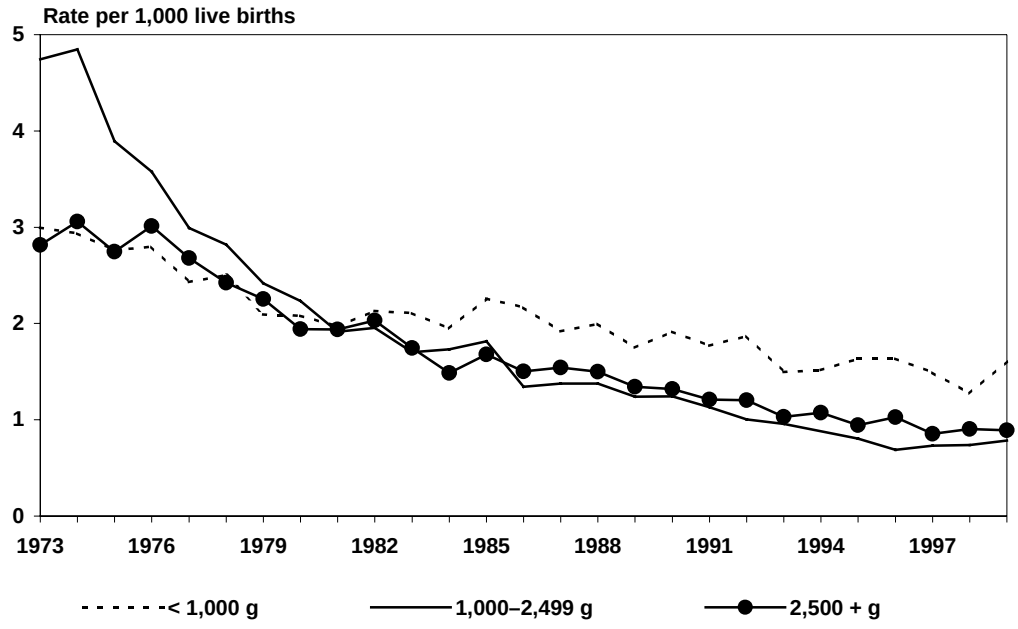

Figure 40: Proportionate neonatal death rates by birthweight, Australia, 1973–1999

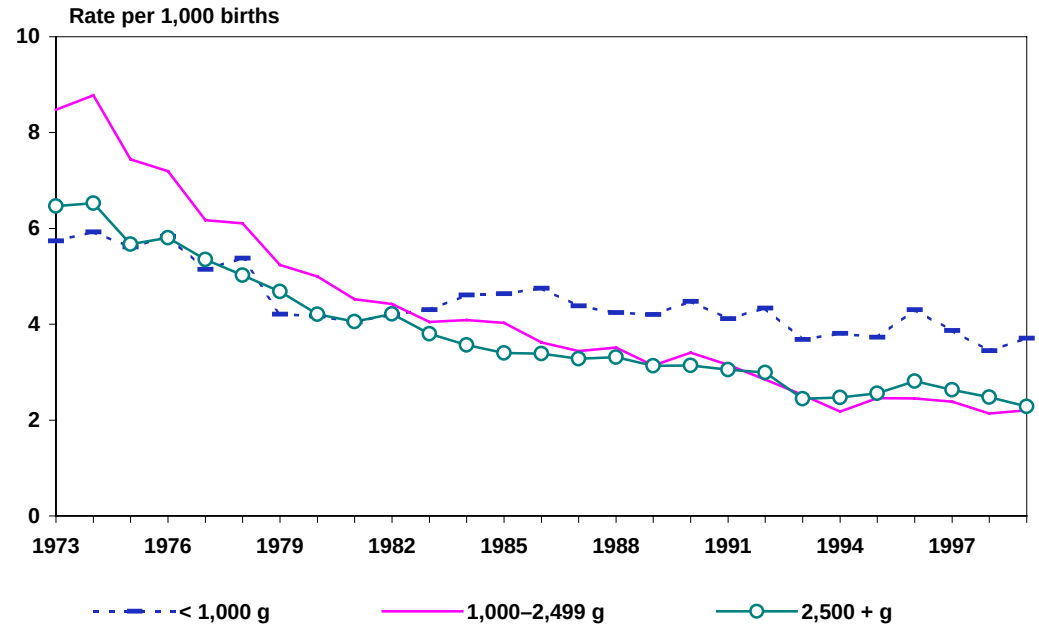

Figure 41: Proportionate perinatal death rates by birthweight, Australia, 1973–1999

4.9 Fetal deaths in State and Territory perinatal data collections

As noted in previous sections, fetal deaths are included in the State and Territory perinatal collections if the birthweight is at least 400 g or the gestational age is 20 weeks and over. There are more fetal deaths included in the perinatal collection than the national registration data because of more complete data and the broader definition. Unlike perinatal death registration data collected by ABS, information which may affect fetal death rates such as maternal parity, Indigenous and admitted patient hospital status are collected for most births in the perinatal collections. However, the advantage of the perinatal death certificates is that they enable more reliable distinction between fetal and neonatal deaths because the certifier is required to specify when the heartbeat ceased in relation to the onset of labour or to birth.

In 1999, there were 1,789 fetal deaths notified to the perinatal collections, resulting in a fetal death rate of 7.0 per 1,000 births, 37.3% higher than the rate of 5.1 per 1,000 in the ABS registration data (Table A76). The variations in fetal death rate with maternal age showed a pattern similar to that for perinatal deaths (see Section 4.4), ranging from 6.2 per 1,000 births for babies of mothers aged 30 to 34 years to 12.5 per 1,000 for babies of mothers aged 40 years and over (Table A71).

The fetal death rate of babies born to Indigenous mothers was 12.5 per 1,000 births, almost twice the rate of 6.7 per 1,000 in the non-Indigenous population (Table A72).

Fetal death was more likely among first-born babies (7.8 per 1,000 births) than among babies whose mothers already had one child (5.6 per 1,000 births) (Table A73). With higher parity, the fetal death rate increased to a maximum of 11.4 per 1,000 births for those with four or more previous children.

The fetal death rate of twins (22.2 per 1,000 births) and of babies born in higher order multiple births (45.6 per 1,000 births) was much higher than that of singleton babies (6.4 per 1,000 births) (Table A74).

Fetal death rates were higher for mothers who had public status in hospital (7.0 per 1,000 births) than for those who had private status in hospital accommodation (5.7 per 1,000 births) (Table A75).

4.10 Neonatal and perinatal deaths in State and Territory perinatal data collections

The continuing decline in fetal, neonatal and perinatal death rates noted in previous sections has been influenced by changes in the characteristics of pregnant women and their babies and by the quality of care during pregnancy, labour and the postnatal period. As the increased risk of perinatal death associated with maternal factors and complications arising during pregnancy is often mediated through higher rates of preterm birth and low birthweight, it is important to take account of these variables in analysing perinatal outcomes such as fetal and neonatal death. It may be difficult to obtain sufficiently accurate information on gestational age for population-based analyses, so most studies have concentrated on birthweight-specific outcomes.

Birthweight is not recorded on birth registration forms in most States and Territories but this information is obtained from the forms completed by midwives and other staff for the perinatal data collections. These collections have complete data on fetal

deaths, but ascertainment of neonatal deaths within 28 days of birth is likely to be incomplete for deaths occurring among babies transferred to another hospital, readmitted to hospital, or dying at home. This deficiency can be overcome by linking perinatal death registrations to their birth records in the perinatal collections, but this linkage has not yet been achieved in all States and Territories. In recent years a number of the States and Territories have linked their perinatal data collections to the registered perinatal deaths of their respective Registries of Births, Deaths and Marriages, in an effort to improve the extent to which neonatal deaths are ascertained. This has led to improved information about perinatal deaths in those States and Territories and apparent reporting of higher numbers of neonatal deaths. Valid comparisons between the neonatal data of States and Territories are, therefore, not always possible in these circumstances, however, improved standardisation and linkage of perinatal deaths by all States and Territories will allow valid comparisons and interpretation of perinatal mortality in the future.

The data on perinatal deaths published by the ABS are based on the year of registration rather than on the year of birth. When analysing perinatal death rates it is preferable that both the deaths and the births should include only those babies born in a particular year so that the numerator and denominator have the same year of birth. By merging data files on perinatal death registrations for two successive years, it is possible to obtain near complete perinatal deaths by year of birth for the first of those two years. The disadvantage of such analyses is that publication of reports based on year-of-birth cohorts is delayed and some late registrations of deaths are not included. Missing information on the birthweight of some babies is an additional problem in analysing birthweight-specific death rates. Thus, no meaningful comparison of perinatal death rates between the two collections could be done for this 1999 report, as perinatal death registration data for 2000 were not available at the time of publication.

Neonatal and perinatal death rates based upon State and Territory perinatal collection data, though incompletely reported, varied between States and Territories (Table A76). Low neonatal death rates were reported for South Australia and Tasmania, while the highest rates were reported for the Northern Territory. The national perinatal death rate based on the perinatal collections was 10.1 per 1,000 births in 1999. Total perinatal death rates were lowest in South Australia (8.3 per 1,000 births) and New South Wales (9.0 per 1,000 births), and relatively higher in Victoria, Tasmania (11.3 per 1,000 births, respectively) and the Northern Territory (20.3 per 1,000 births).

4.11 Causes of perinatal deaths

It is widely recognised that the International Classification of Diseases (ICD-9 and ICD-10) does not adequately emphasise those causes of perinatal death that may be preventable. As a result, other classifications that specify various antecedent maternal conditions, pregnancy complications and fetal abnormalities have been developed (Whitfield et al. 1986). In Australia a national classification of perinatal deaths, Australia and New Zealand Antecedent Classification of Perinatal Mortality (ANZACPM) and neonatal deaths, the Australia and New Zealand Neonatal Deaths Classification (ANZNDC) are currently being developed. Several States (Queensland, Western Australia and South Australia) have used the Whitfield classification, or local modifications, in their reports on the causes of perinatal

deaths. The main categories in the Whitfield classification are: spontaneous preterm; intrauterine growth restriction; unexplained intrauterine death; birth trauma; intrapartum asphyxia; hypertension; maternal disease; antepartum haemorrhage; fetal abnormality; haemolytic disease; infection and other causes. This report includes data from two States that have used the Whitfield classification, Western Australia and South Australia (Maternal Perinatal and Infant Mortality Committee 2000) (Table A77). The main causes of perinatal deaths based on the Whitfield classification were fetal abnormality, spontaneous preterm birth and unexplained intrauterine fetal death. These three groups of causes accounted for at least half of all perinatal deaths in both States in 1999 (Figures 42, 43). Antepartum haemorrhage and infection were also significant causes of death.

Multiple pregnancy is included in the spontaneous preterm category of the Whitfield classification, but other perinatal deaths associated with multiple pregnancy may be classified as intrauterine growth restriction, or as twin-to-twin transfusion in the 'other' category.

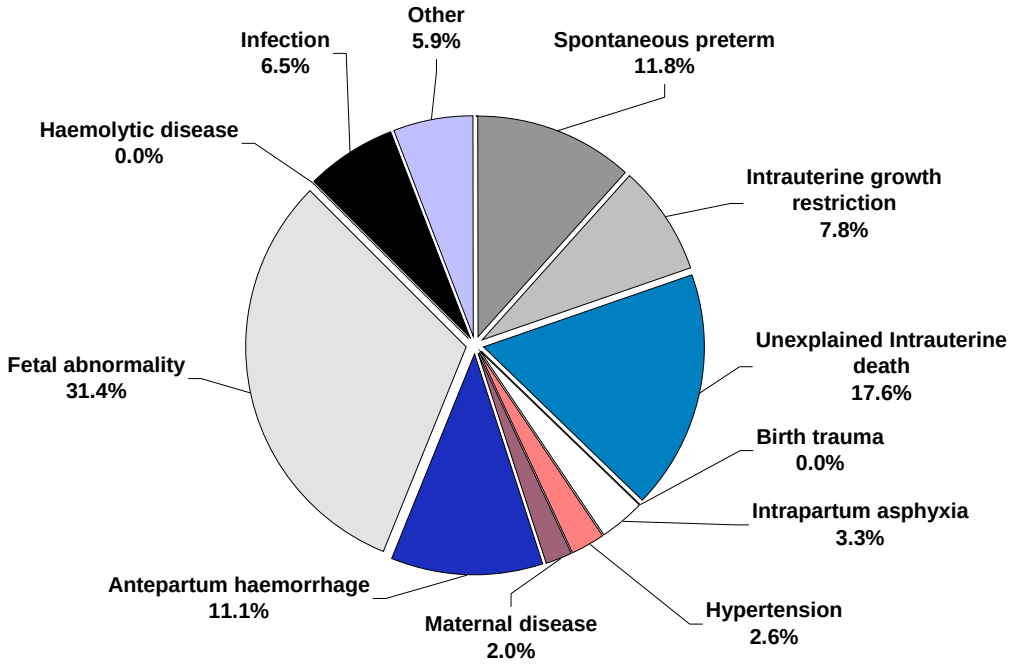

Figure 42: Causes of perinatal deaths, modified Whitfield classification, South Australia, 1999

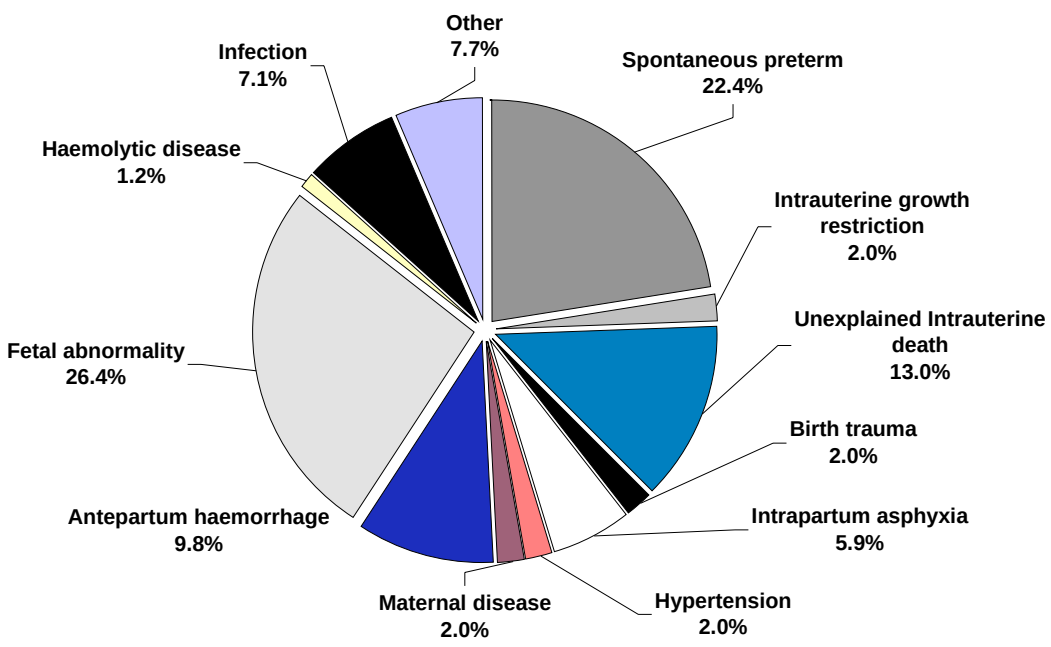

Figure 43: Causes of perinatal deaths, modified Whitfield classification, Western Australia, 1999

Appendix: tables

Table A1: Confinements and births, States and Territories, 1999

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Confinements	85,967	61,587	48,042	25,378	18,233	5,996	4,599	3,550	253,352
Fetal deaths	533	472	347	179	115	55	38	50	1,789
Live births	86,756*	62,217	48,400	25,592	18,404	6,037	4,650	3,549	255,605
All births	**87,289**	**62,689**	**48,747**	**25,771**	**18,519**	**6,092**	**4,688**	**3,599**	**257,394**

* Includes 17 births in NSW with 'not stated' birth status.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A2: Place of birth, all confinements, States and Territories, 1999

Place of birth	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
Hospital	83,216	60,333	47,256	24,765	17,220	5,726	4,214	3,425	246,155
Birth centre	2,249	888	387	417	925	81	346	-	5,293
Home	139	298	164	126	39	8	21	47	842
Born before arrival	363	62	234	70	49	84	18	-	880
Other	-	5	1	-	-	11	-	78	95
Not stated	-	1	-	-	-	86	-	-	87
All places of birth	**85,967**	**61,587**	**48,042**	**25,378**	**18,233**	**5,996**	**4,599**	**3,550**	**253,352**
					Per cent				
Hospital	96.8	98.0	98.4	97.6	94.4	96.9	91.6	96.5	97.2
Birth centre	2.6	1.4	0.8	1.6	5.1	1.4	7.5	-	2.1
Home	0.2	0.5	0.3	0.5	0.2	0.1	0.5	1.3	0.3
Born before arrival	0.4	0.1	0.5	0.3	0.3	1.4	0.4	-	0.3
Other	-	0.0	0.0	-	-	0.2	-	2.2	0.0
All places of birth	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A3: Distribution of maternity units by size, States and Territories, 1999

Number of confinements annually	NSW	Vic	Qld[(a)]	WA	SA[(b)]	Tas	ACT	NT	Australia
					Number				
1–100	53	47	71	30	36	8	-	1	246
101– 500	43	33	31	21	19	2	1	2	152
501–1,000	22	12	8	8	3	3	1	2	59
1,001–2,000	17	14	10	5	3	2	1	1	53
2,001 and over	12	7	6	2	2	-	1	-	30
All hospitals	**147**	**113**	**126**	**66**	**63**	**15**	**4**	**6**	**540**
					Per cent				
1–100	36.1	41.6	56.3	45.5	57.1	53.3	-	16.7	45.6
101– 500	29.3	29.2	24.6	31.8	30.2	13.3	25.0	33.3	28.1
501–1,000	15.0	10.6	6.3	12.1	4.8	20.0	25.0	33.3	10.9
1,001–2,000	11.6	12.4	7.9	7.6	4.8	13.3	25.0	16.7	9.8
2,001 and over	8.2	6.2	4.8	3.0	3.2	-	25.0	-	5.6
All hospitals	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Includes one tertiary level hospital of less than 2,000 confinements.
(b) Data from *Pregnancy Outcome in South Australia 1999*.
Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A4: Distribution of confinements by size of maternity unit, States and Territories, 1999

Number of confinements annually	NSW	Vic	Qld[(a)]	WA	SA	Tas	ACT	NT	Australia
					Number				
1–100	1,116	1,447	1,408	739	1,001	259	11	39	6,020
101– 500	9,700	8,557	8,718	5,175	4,997	261	274	526	38,208
501–1,000	15,190	8,249	5,824	5,558	2,055	2,107	756	1,332	41,071
1,001–2,000	23,446	20,133	13,810	6,408	4,249	3,264	1,218	1,528	74,056
2,001 and over	36,376	22,897	18,117	7,372	5,892	-	2,319	-	92,973
All hospitals	**85,828**	**61,283**	**47,877**	**25,252**	**18,194**	**5,891**	**4,578**	**3,425**	**252,328**
					Per cent				
1–100	1.3	2.4	2.9	2.9	5.5	4.4	0.2	1.1	2.4
101– 500	11.3	14.0	18.2	20.5	27.5	4.4	6.0	15.4	15.1
501–1,000	17.7	13.5	12.2	22.0	11.3	35.8	16.5	38.9	16.3
1,001–2,000	27.3	32.9	28.8	25.4	23.4	55.4	26.6	44.6	29.3
2,001 and over	42.4	37.4	37.8	29.2	32.4	-	50.7	-	36.8
All hospitals	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Includes one tertiary level hospital of less than 2,000 confinements.
Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A5: Maternal age, all confinements, States and Territories, 1999

Maternal age (years)	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Mean age (years)	29.1	29.7	28.3	28.7	28.8	27.8	29.6	26.7	29.0
					Number				
Less than 16	145	68	111	79	39	23	6	67	538
16	375	151	280	161	101	45	10	71	1,194
17	727	336	605	271	191	123	27	103	2,383
18	1,125	590	909	421	303	125	57	121	3,651
19	1,727	874	1,256	577	379	180	76	148	5,217
Less than 20	**4,099**	**2,019**	**3,161**	**1,509**	**1,013**	**496**	**176**	**510**	**12,983**
20–24	13,790	8,017	9,185	4,384	2,847	1,203	619	817	40,862
25–29	27,678	19,454	15,672	8,023	6,103	1,982	1,432	1,050	81,394
30–34	25,703	20,825	13,258	7,572	5,543	1,541	1,469	757	76,668
35–39	12,372	9,600	5,811	3,346	2,321	646	764	354	35,214
40–44	2,199	1,612	925	521	397	109	135	61	5,959
45 and over	97	58	29	23	9	5	3	1	225
Not stated	29	2	1	-	-	14	1	-	47
All ages	**85,967**	**61,587**	**48,042**	**25,378**	**18,233**	**5,996**	**4,599**	**3,550**	**253,352**
					Per cent				
Less than 16	0.2	0.1	0.2	0.3	0.2	0.4	0.1	1.9	0.2
16	0.4	0.2	0.6	0.6	0.6	0.8	0.2	2.0	0.5
17	0.8	0.5	1.3	1.1	1.0	2.1	0.6	2.9	0.9
18	1.3	1.0	1.9	1.7	1.7	2.1	1.2	3.4	1.4
19	2.0	1.4	2.6	2.3	2.1	3.0	1.7	4.2	2.1
Less than 20	**4.8**	**3.3**	**6.6**	**5.9**	**5.6**	**8.3**	**3.8**	**14.4**	**5.1**
20–24	16.0	13.0	19.1	17.3	15.6	20.1	13.5	23.0	16.1
25–29	32.2	31.6	32.6	31.6	33.5	33.1	31.1	29.6	32.1
30–34	29.9	33.8	27.6	29.8	30.4	25.8	31.9	21.3	30.3
35–39	14.4	15.6	12.1	13.2	12.7	10.8	16.6	10.0	13.9
40–44	2.6	2.6	1.9	2.1	2.2	1.8	2.9	1.7	2.4
45 and over	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1
All ages	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A6: Mother's parity, all confinements, States and Territories, 1999

Parity	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
None	35,311	25,394	19,070	10,252	7,523	2,346	1,939	1,499	103,334
One	29,191	21,236	15,870	8,501	6,334	2,027	1,565	1,061	85,785
Two	13,512	9,806	7,808	4,084	2,897	976	725	519	40,327
Three	4,942	3,375	3,200	1,527	955	393	242	268	14,902
Four or more	2,993	1,776	2,094	1,014	524	250	128	203	8,982
Not stated	18	-	-	-	-	4	-	-	22
All parities	**85,967**	**61,587**	**48,042**	**25,378**	**18,233**	**5,996**	**4,599**	**3,550**	**253,352**
					Per cent				
None	41.1	41.2	39.7	40.4	41.3	39.2	42.2	42.2	40.8
One	34.0	34.5	33.0	33.5	34.7	33.8	34.0	29.9	33.9
Two	15.7	15.9	16.3	16.1	15.9	16.3	15.8	14.6	15.9
Three	5.7	5.5	6.7	6.0	5.2	6.6	5.3	7.5	5.9
Four or more	3.5	2.9	4.4	4.0	2.9	4.2	2.8	5.7	3.5
All parities	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A7: Distribution of confinements by maternal age and parity, Australia, 1999

	Maternal age (years)							
Parity	Less than 20	20–24	25–29	30–34	35–39	40 and over	Not stated	All ages
				Number				
None	10,660	22,054	36,211	24,559	8,443	1,385	22	103,334
One	2,038	13,101	27,671	28,902	12,309	1,748	16	85,785
Two	254	4,263	11,695	14,812	7,978	1,319	6	40,327
Three	21	1,129	3,988	5,334	3,650	779	1	14,902
Four or more	10	315	1,829	3,061	2,834	953	2	9,004
All parities	**12,983**	**40,862**	**81,394**	**76,668**	**35,214**	**6,184**	**47**	**253,352**
				Per cent				
None	82.1	54.0	44.5	32.0	24.0	22.4	46.8	40.8
One	15.7	32.1	34.0	37.7	35.0	28.3	34.0	33.9
Two	2.0	10.4	14.4	19.3	22.7	21.3	12.8	15.9
Three	0.2	2.8	4.9	7.0	10.4	12.6	2.1	5.9
Four or more	0.1	0.8	2.2	4.0	8.0	15.4	4.3	3.6
All parities	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A8: Marital status, all confinements, States and Territories, 1999

Marital status	Vic	Qld	WA	SA	Tas	ACT	NT	Total[(a)]
				Number				
Married/de facto	53,863	41,693	22,865	15,775	4,953	4,046	2,320	145,515
Single	6,936	5,640	2,163	2,192	883	355	983	19,152
Widowed, divorced, or separated	732	709	350	265	88	188	58	2,390
Not stated/other	56	-	-	1	72	10	189	328
All marital status	**61,587**	**48,042**	**25,378**	**18,233**	**5,996**	**4,599**	**3,550**	**167,385**
				Per cent				
Married/de facto	87.5	86.8	90.1	86.5	83.6	88.2	69.0	87.1
Single	11.3	11.7	8.5	12.0	14.9	7.7	29.2	11.5
Widowed, divorced, or separated	1.2	1.5	1.4	1.5	1.5	4.1	1.7	1.4
All marital status	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Data exclude New South Wales.
Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A9: Marital status of teenage mothers, Australia, 1999

Maternal age (years)	All confinements[(a)]	Married/de facto		Single		Other	
		Number	Per cent	Number	Per cent	Number	Per cent
Less than 16	393	36	9.2	348	88.5	0	0.0
16	819	219	26.7	585	71.4	3	0.4
17	1,656	615	37.1	1,024	61.8	5	0.3
18	2,526	1,157	45.8	1,349	53.4	7	0.3
19	3,490	1,937	55.5	1,506	43.2	30	0.9
Less than 20	**8,884**	**3,964**	**44.6**	**4,812**	**54.2**	**45**	**0.5**

(a) Data exclude New South Wales
Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A10: Indigenous status of mothers, all confinements, States and Territories, 1999

Indigenous status	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
Non-Indigenous	83,899	61,136	45,192	23,833	17,788	5,867	4,478	2,255	244,448
Aboriginal or Torres Strait Islander	2,059	445	2,849	1,545	445	129	55	1,295	8,822
Not stated	9	6	1	-	-	-	66	-	82
All confinements	**85,967**	**61,587**	**48,042**	**25,378**	**18,233**	**5,996**	**4,599**	**3,550**	**253,352**
					Per cent				
Non-Indigenous	97.6	99.3	94.1	93.9	97.6	97.8	98.8	63.5	96.5
Aboriginal or Torres Strait Islander	2.4	0.7	5.9	6.1	2.4	2.2	1.2	36.5	3.5
All confinements	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A11: Distribution of confinements of Indigenous mothers by maternal age and parity, Australia, 1999

	Maternal age (years)						
Parity	**Less than 20**	**20–24**	**25–29**	**30–34**	**35–39**	**40 and over**	**All ages**
				Number			
None	1,410	751	327	135	41	7	2,671
One	448	932	522	207	68	5	2,182
Two	73	667	591	218	89	15	1,653
Three	12	298	459	213	68	12	1,062
Four or more	2	125	458	444	190	35	1,254
All parities	**1,945**	**2,773**	**2,357**	**1,217**	**456**	**74**	**8,822**
				Per cent			
None	72.5	27.1	13.9	11.1	9.0	9.5	30.3
One	23.0	33.6	22.1	17.0	14.9	6.8	24.7
Two	3.8	24.1	25.1	17.9	19.5	20.3	18.7
Three	0.6	10.7	19.5	17.5	14.9	16.2	12.0
Four or more	0.1	4.5	19.4	36.5	41.7	47.3	14.2
All parities	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A12: Confinements of Indigenous mothers by maternal age, States and Territories, 1999

Maternal age (years)	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Mean age (years)	24.6	25.8	25.0	24.1	24.3	25.2	25.1	23.5	24.5
					Number				
Less than 20	443	67	531	375	109	25	15	380	1,945
20–24	642	132	900	504	142	41	15	397	2,773
25–29	586	128	799	390	100	35	9	310	2,357
30–34	264	81	446	188	67	20	11	140	1,217
35–39	100	30	154	80	24	7	4	57	456
40 and over	24	7	19	8	3	1	1	11	74
All confinements	**2,059**	**445**	**2,849**	**1,545**	**445**	**129**	**55**	**1,295**	**8,822**
					Per cent				
Less than 20	21.5	15.1	18.6	24.3	24.5	19.4	27.3	29.3	22.0
20–24	31.2	29.7	31.6	32.6	31.9	31.8	27.3	30.7	31.4
25–29	28.5	28.8	28.0	25.2	22.5	27.1	16.4	23.9	26.7
30–34	12.8	18.2	15.7	12.2	15.1	15.5	20.0	10.8	13.8
35–39	4.9	6.7	5.4	5.2	5.4	5.4	7.3	4.4	5.2
40 and over	1.2	1.6	0.7	0.5	0.7	0.8	1.8	0.8	0.8
All confinements	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A13: Maternal country of birth, all confinements, States and Territories, 1999

Country of birth	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
Australia	62,556	47,032	40,430	17,455	15,396	5,585	3,714	3,062	195,230
New Zealand	1,966	1,000	2,024	895	197	67	78	69	6,296
United Kingdom	2,627	1,997	1,435	2,255	985	117	140	92	9,648
Italy	221	256	30	63	47	1	12	2	632
Former Yugoslavia	662	636	120	152	na	5	17	-	1,592
Other Europe and former USSR	1,852	1,569	647	841	336	44	95	49	5,433
Lebanon	1,788	572	28	23	28	1	8	-	2,448
Other Middle East and North Africa	1,494	1,062	98	134	67	11	25	7	2,898
China	2,015	834	162	117	68	5	37	9	3,247
Hong Kong	409	153	70	37	13	-	10	1	693
India	635	470	86	134	64	8	32	7	1,436
Malaysia	286	283	131	195	44	3	23	8	973
Philippines	1,319	536	426	129	133	20	25	53	2,641
Vietnam	1,804	1,685	319	294	295	2	69	21	4,489
Other Asia	2,814	1,564	645	516	225	26	136	98	6,024
Northern America	558	305	215	157	71	15	43	29	1,393
South and Central America, and the Caribbean	722	351	108	78	40	6	30	2	1,337
Africa (excluding North Africa)	675	706	297	370	84	11	31	4	2,178
Other countries	1,546	576	768	101	140	17	65	37	3,250
Not stated	18	-	3	1,432	-	52	9	-	1,514
All countries	**85,967**	**61,587**	**48,042**	**25,378**	**18,233**	**5,996**	**4,599**	**3,550**	**253,352**
					Per cent				
Australia	72.8	76.4	84.2	72.9	84.4	94.0	80.9	86.3	77.5
New Zealand	2.3	1.6	4.2	3.7	1.1	1.1	1.7	1.9	2.5
United Kingdom	3.1	3.2	3.0	9.4	5.4	2.0	3.1	2.6	3.8
Italy	0.3	0.4	0.1	0.3	0.3	0.0	0.3	0.1	0.3
Former Yugoslavia	0.8	1.0	0.2	0.6	na	0.1	0.4	-	0.6
Other Europe and former USSR	2.2	2.5	1.3	3.5	1.8	0.7	2.1	1.4	2.2
Lebanon	2.1	0.9	0.1	0.1	0.2	0.0	0.2	-	1.0
Other Middle East and North Africa	1.7	1.7	0.2	0.6	0.4	0.2	0.5	0.2	1.2
China	2.3	1.4	0.3	0.5	0.4	0.1	0.8	0.3	1.3
Hong Kong	0.5	0.2	0.1	0.2	0.1	-	0.2	0.0	0.3
India	0.7	0.8	0.2	0.6	0.4	0.1	0.7	0.2	0.6
Malaysia	0.3	0.5	0.3	0.8	0.2	0.1	0.5	0.2	0.4
Philippines	1.5	0.9	0.9	0.5	0.7	0.3	0.5	1.5	1.0
Vietnam	2.1	2.7	0.7	1.2	1.6	0.0	1.5	0.6	1.8
Other Asia	3.3	2.5	1.3	2.2	1.2	0.4	3.0	2.8	2.4
Northern America	0.6	0.5	0.4	0.7	0.4	0.3	0.9	0.8	0.6
South and Central America, and the Caribbean	0.8	0.6	0.2	0.3	0.2	0.1	0.7	0.1	0.5
Africa (excluding North Africa)	0.8	1.1	0.6	1.5	0.5	0.2	0.7	0.1	0.9
Other countries	1.8	0.9	1.6	0.4	0.8	0.3	1.4	1.0	1.3
All countries	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A14: Maternal age distribution by selected country of birth, all confinements, Australia, 1999

Country of birth	Maternal age (years)							
	Less than 20	20–24	25–29	30–34	35–39	40 and over	Not stated	All ages
				Number				
Australia	11,640	33,804	65,123	56,715	24,011	3,899	38	195,230
New Zealand	330	1,136	1,830	1,867	952	180	1	6,296
United Kingdom	152	564	2,028	4,020	2,443	440	1	9,648
Italy	4	21	89	262	193	62	1	632
Former Yugoslavia	15	247	473	588	230	39	0	1,592
Lebanon	102	586	733	666	299	61	1	2,448
China	7	103	781	1,148	993	215	0	3,247
Hong Kong	2	31	116	279	226	39	0	693
India	5	144	493	537	220	37	0	1,436
Malaysia	8	49	245	376	241	54	0	973
Philippines	95	343	683	843	546	131	0	2,641
Vietnam	70	699	1,645	1,281	644	150	0	4,489
Other countries	453	2,889	6,718	7,638	3,974	837	4	22,513
Not stated	100	246	437	448	242	40	1	1,514
All countries	**12,983**	**40,862**	**81,394**	**76,668**	**35,214**	**6,184**	**47**	**253,352**
				Per cent				
Australia	90.4	83.2	80.4	74.4	68.7	63.5	82.6	77.5
New Zealand	2.6	2.8	2.3	2.4	2.7	2.9	2.2	2.5
United Kingdom	1.2	1.4	2.5	5.3	7.0	7.2	2.2	3.8
Italy	0.0	0.1	0.1	0.3	0.6	1.0	2.2	0.3
Former Yugoslavia	0.1	0.6	0.6	0.8	0.7	0.6	0.0	0.6
Lebanon	0.8	1.4	0.9	0.9	0.9	1.0	2.2	1.0
China	0.1	0.3	1.0	1.5	2.8	3.5	0.0	1.3
Hong Kong	0.0	0.1	0.1	0.4	0.6	0.6	0.0	0.3
India	0.0	0.4	0.6	0.7	0.6	0.6	0.0	0.6
Malaysia	0.1	0.1	0.3	0.5	0.7	0.9	0.0	0.4
Philippines	0.7	0.8	0.8	1.1	1.6	2.1	0.0	1.0
Vietnam	0.5	1.7	2.0	1.7	1.8	2.4	0.0	1.8
Other countries	3.5	7.1	8.3	10.0	11.4	13.6	8.7	8.9
All countries	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A15: Marital status of mother by selected country of birth, all confinements, Australia, 1999

Country of birth	All confinements[a][b]	Married /de facto		Single		Other	
		Number	Per cent	Number	Per cent	Number	Per cent
Australia	132,674	114,070	86.0	16,569	12.5	1,749	1.3
New Zealand	4,330	3,633	83.9	603	13.9	91	2.1
United Kingdom	7,021	6,485	92.4	428	6.1	105	1.5
Italy	411	397	96.6	10	2.4	4	1.0
Former Yugoslavia	930	881	94.7	37	4.0	12	1.3
Lebanon	660	645	97.7	10	1.5	5	0.8
China	1,232	1,176	95.5	42	3.4	12	1.0
Hong Kong	284	272	95.8	12	4.2	-	-
India	801	778	97.1	14	1.7	9	1.1
Malaysia	687	662	96.4	21	3.1	4	0.6
Philippines	1,322	1,175	88.9	114	8.6	32	2.4
Vietnam	2,685	2,251	83.8	354	13.2	74	2.8
Other countries	12,852	11,817	91.9	796	6.2	217	1.7
Not stated	1,496	1,334	89.2	142	9.5	15	1.0
All countries	**167,057**	**145,576**	**87.1**	**19,152**	**11.5**	**2,329**	**1.4**

(a) Data exclude New South Wales.

(b) Includes cases where marital status was not stated.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A16: Mother's accommodation status, all confinements, selected States and Territories, 1999

Status in hospital	NSW	VIC	Qld[b]	WA	SA	Tas	ACT	NT	Total[a]
					Number				
Public	60,683	43,638	33,611	13,336	17,587	4,203	3,348	na	176,406
Private	23,981	17,949	14,266	4,897	6,574	1,699	1,251	na	70,617
Not stated/other	1,303	-	165	-	1,217	94	-	na	2,779
All classifications	**85,967**	**61,587**	**48,042**	**18,233**	**25,378**	**5,996**	**4,599**	**na**	**249,802**
					Per cent				
Public	71.7	70.9	70.2	73.1	72.8	71.2	72.8	na	71.4
Private	28.3	29.1	29.8	26.9	27.2	28.8	27.2	na	28.6
All classifications	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**na**	**100.0**

(a) Data exclude Northern Territory.

(b) Not stated/other category include homebirths.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A17: Duration of pregnancy, all confinements, States and Territories, 1999

Duration of pregnancy (weeks)	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Mean (weeks)	39.1	39.0	39.0	38.9	39.0	39.1	39.0	38.7	39.0
					Number				
20–27[(a)]	521	464	386	172	137	27	49	44	1,800
28–31	550	400	392	175	135	54	44	44	1,794
32–36	4,491	3,410	2,706	1,427	1,084	341	240	275	13,974
37–41	78,467	56,338	43,717	23,329	16,640	5,358	4,102	3,083	231,034
42 and over	1,931	967	840	275	237	174	112	56	4,592
Not stated	7	8	1	-	-	42	52	48	158
All confinements	**85,967**	**61,587**	**48,042**	**25,378**	**18,233**	**5,996**	**4,599**	**3,550**	**253,352**
					Per cent				
20–27	0.6	0.8	0.8	0.7	0.8	0.5	1.1	1.3	0.7
28–31	0.6	0.6	0.8	0.7	0.7	0.9	1.0	1.3	0.7
32–36	5.2	5.5	5.6	5.6	5.9	5.7	5.3	7.9	5.5
37–41	91.3	91.5	91.0	91.9	91.3	90.0	90.2	88.0	91.2
42 and over	2.2	1.6	1.7	1.1	1.3	2.9	2.5	1.6	1.8
All confinements	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Includes four confinements with less than 20 weeks duration of pregnancy.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A18: Duration of pregnancy by maternal age, all confinements, Australia, 1999

	Maternal age (years)							
Duration of pregnancy (weeks)	Less than 20	20–24	25–29	30–34	35–39	40 and over	Not stated	All ages
					Number			
Confinements								
20–27	130	331	508	487	267	77	-	1,800
28–31	165	328	511	457	259	74	0	1,794
32–36	871	2,304	4,279	4,019	2,073	427	1	13,974
37–41	11,528	37,058	74,578	70,334	31,988	5,507	41	231,034
42 and over	271	811	1,475	1,333	603	98	1	4,592
Not stated	18	30	43	38	24	1	4	158
All confinements	**12,983**	**40,862**	**81,394**	**76,668**	**35,214**	**6,184**	**47**	**253,352**
					Per cent			
20–27	1.0	0.8	0.6	0.6	0.8	1.2	0.0	0.7
28–31	1.3	0.8	0.6	0.6	0.7	1.2	0.0	0.7
32–36	6.7	5.6	5.3	5.2	5.9	6.9	2.3	5.5
37–41	88.9	90.8	91.7	91.8	90.9	89.1	95.3	91.2
42 and over	2.1	2.0	1.8	1.7	1.7	1.6	2.3	1.8
All confinements	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A19: Plurality, all confinements, States and Territories, 1999

Plurality	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
Singleton	84,676	60,520	47,361	25,003	17,949	5,901	4,512	3,501	249,423
Twin	1,261	1,032	658	360	282	94	85	49	3,821
Triplet	30	34	22	13	2	1	2	-	104
Quadruplet	-	1	1	1	-	-	-	-	3
Quintuplet	-	-	-	1	-	-	-	-	1
All confinements	**85,967**	**61,587**	**48,042**	**25,378**	**18,233**	**5,996**	**4,599**	**3,550**	**253,352**
					Per cent				
Singleton	98.5	98.3	98.6	98.5	98.4	98.4	98.1	98.6	98.4
Twin	1.5	1.7	1.4	1.4	1.5	1.6	1.8	1.4	1.5
Triplet	0.0	0.1	0.0	0.1	0.0	0.0	0.0	-	0.0
Quadruplet	-	0.0	0.0	0.0	-	-	-	-	0.0
Quintuplet	-	-	-	0.0	-	-	-	-	0.0
All confinements	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A20: Plurality by maternal age, Australia, 1999

	Maternal age (years)							
Plurality	Less than 20	20–24	25–29	30–34	35–39	40 and over	Not stated	All ages
					Number			
Singleton	12,907	40,462	80,227	75,269	34,453	6,059	46	249,423
Twin	76	396	1,130	1,361	735	122	1	3,821
Triplet	-	4	35	36	26	3	-	104
Quadruplet	-	-	1	2	-	-	-	3
Quintuplet	-	-	1	-	-	-	-	1
All confinements	**12,983**	**40,862**	**81,394**	**76,668**	**35,214**	**6,184**	**47**	**253,352**
					Per cent			
Singleton	99.4	99.0	98.6	98.2	97.8	98.0	97.9	98.4
Twin	0.6	1.0	1.4	1.8	2.1	2.0	2.1	1.5
Triplet	-	0.0	0.0	0.0	0.1	0.0	-	0.0
Quadruplet	-	-	0.0	0.0	-	-	-	0.0
Quintuplet	-	-	0.0	-	-	-	-	0.0
All confinements	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A21: Onset of labour, all confinements, States and Territories, 1999

Onset of labour	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
Spontaneous	56,207	36,619	29,610	14,178	10,914	3,695	3,085	2,441	156,749
—no augmentation	39,682	25,990	17,179	8,304	6,736	2,725	2,138	1,135	103,889
—medical only[(a)]	5,536	3,605	2,473	1,554	1,090	425	300	419	15,402
—surgical only	7,842	5,098	8,503	3,201	2,464	545	381	187	28,221
—combined	3,123	1,923	1,444	1,105	624	-	196	123	8,538
—other / not stated	24	3	11	14	-	-	70	577	699
Induced	20,612	17,171	12,003	7,554	5,083	1,601	947	665	65,636
—medical only[(a)]	6,692	5,137	4,851	1,436	1,685	726	257	277	21,061
—surgical only	1,305	1,330	1,580	701	653	131	102	90	5,892
—combined	12,461	10,690	5,503	5,341	2,745	641	511	283	38,175
—other / not stated	154	14	69	76	-	103	77	15	508
No labour	9,147	7,797	6,429	3,646	2,236	574	539	393	30,761
Not stated	1	-	-	-	-	126	28	51	206
All confinements	**85,967**	**61,587**	**48,042**	**25,378**	**18,233**	**5,996**	**4,599**	**3,550**	**253,352**
					Per cent				
Spontaneous	65.4	59.5	61.6	55.9	59.9	62.9	67.5	69.8	61.9
—no augmentation	46.2	42.2	35.8	32.7	36.9	46.4	46.8	32.4	41.0
—medical only[(a)]	6.4	5.9	5.1	6.1	6.0	7.2	6.6	12.0	6.1
—surgical only	9.1	8.3	17.7	12.6	13.5	9.3	8.3	5.3	11.1
—combined	3.6	3.1	3.0	4.4	3.4	-	4.3	3.5	3.4
—other / not stated	0.0	0.0	0.0	0.1	-	-	1.5	16.5	0.3
Induced	24.0	27.9	25.0	29.8	27.9	27.3	20.7	19.0	25.9
—medical only[(a)]	7.8	8.3	10.1	5.7	9.2	12.4	5.6	7.9	8.3
—surgical only	1.5	2.2	3.3	2.8	3.6	2.2	2.2	2.6	2.3
—combined	14.5	17.4	11.5	21.0	15.1	10.9	11.2	8.1	15.1
—other / not stated	0.2	0.0	0.1	0.3	-	1.8	1.7	0.4	0.2
No labour	10.6	12.7	13.4	14.4	12.3	9.8	11.8	11.2	12.2
All confinements	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Includes use of oxytocin or prostaglandins

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A22: Presentation at delivery, all confinements, States and Territories, 1999

Presentation	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
Vertex	81,896	58,141	45,590	24,086	17,214	5,447	4,250	3,317	239,941
Breech	3,572	2,760	2,095	1,075	810	194	187	133	10,826
Other[(a)]	498	598	353	217	180	62	43	51	2,002
Not stated	1	88	4	-	29	293	119	49	583
All confinements	**85,967**	**61,587**	**48,042**	**25,378**	**18,233**	**5,996**	**4,599**	**3,550**	**253,352**
					Per cent				
Vertex	95.3	94.5	94.9	94.9	94.6	95.5	94.9	94.7	94.9
Breech	4.2	4.5	4.4	4.2	4.4	3.4	4.2	3.8	4.3
Other[(a)]	0.6	1.0	0.7	0.9	1.0	1.1	1.0	1.5	0.8
All confinements	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Includes face or brow presentation.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A23: Method of birth, all confinements, States and Territories, 1999

Method of birth	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
Spontaneous vaginal	58,951	39,356	32,398	15,772	11,353	4,194	3,103	2,542	167,669
Forceps	4,190	4,860	1,968	1,197	1,288	338	276	136	14,253
Vacuum extraction	5,152	2,865	2,160	2,332	955	125	211	64	13,864
Vaginal breech	762	474	249	148	93	37	31	19	1,813
Caesarean section	16,912	14,032	11,260	5,929	4,544	1,249	883	741	55,550
—elective	9,147	7,076	na	3,310	1,895	447	538	na	22,413*
—emergency	7,765	6,956	na	2,619	2,649	513	342	na	20,844*
Other	-	-	7	-	-	11	-	-	18
Not stated	-	-	-	-	-	42	95	48	185
All methods of birth	**85,967**	**61,587**	**48,042**	**25,378**	**18,233**	**5,996**	**4,599**	**3,550**	**253,352**
					Per cent				
Spontaneous vaginal	68.6	63.9	67.4	62.1	62.3	70.4	68.9	72.6	66.2
Forceps	4.9	7.9	4.1	4.7	7.1	5.7	6.1	3.9	5.6
Vacuum extraction	6.0	4.7	4.5	9.2	5.2	2.1	4.7	1.8	5.5
Vaginal breech	0.9	0.8	0.5	0.6	0.5	0.6	0.7	0.5	0.7
Caesarean section	19.7	22.8	23.4	23.4	24.9	21.0	19.6	21.2	21.9
—elective	10.6	11.5	na	13.0	10.4	7.5	11.9	na	8.9*
—emergency	9.0	11.3	na	10.3	14.5	8.6	7.6	na	8.2*
Other	-	-	0.0	-	-	0.2	-	-	0.0
All methods of birth	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

* Elective and emergency caesarean section data exclude Queensland and the Northern Territory.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A24: Caesarean rates by maternal age and accommodation status in hospital, States and Territories, 1999

Hospital status/ Maternal age (years)	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
Public[a]									
Less than 20	408	256	372	188	168	52	17	na	1,461
20–24	1,575	1,137	1,249	615	455	191	71	na	5,293
25–29	3,320	2,807	2,147	1,079	1,019	252	171	na	10,795
30–34	2,950	2,832	1,667	1,044	861	169	184	na	9,707
35–39	1,728	1,465	807	514	389	85	84	na	5,072
40 and over	411	337	172	109	73	26	22	na	1,150
Not stated	1	-	-	-	-	-	-	na	1
All ages[b]	**10,393**	**8,834**	**6,414**	**3,549**	**2,965**	**775**	**549**	na	**33,479**
Private[a]									
Less than 20	13	6	10	7	4	5	-	na	45
20–24	171	129	236	70	52	25	7	na	690
25–29	1,472	1,101	1,344	515	430	155	71	na	5,088
30–34	2,554	2,256	1,982	927	668	172	146	na	8,705
35–39	1,660	1,408	1,061	516	351	85	90	na	5,171
40 and over	391	298	213	111	74	12	20	na	1,119
Not stated	1	-	-	-	-	5	-	na	6
All ages[b]	**6,262**	**5,198**	**4,846**	**2,146**	**1,579**	**459**	**334**	**na**	**20,824**
					Caesarean rate (per cent)				
Public[a]									
Less than 20	10.5	13.0	12.1	13.3	17.1	11.2	9.8	na	12.2
20–24	12.6	15.3	15.1	15.9	17.2	17.9	12.3	na	14.5
25–29	16.3	18.7	19.3	18.8	22.1	18.4	15.6	na	18.2
30–34	19.1	22.2	22.3	23.7	24.7	19.4	19.1	na	21.4
35–39	24.3	26.5	25.7	27.5	28.0	24.1	18.6	na	25.6
40 and over	30.5	35.0	32.7	37.3	31.2	36.1	26.2	na	32.7
All ages[b]	**17.1**	**20.2**	**19.1**	**20.2**	**22.2**	**18.4**	**16.4**	**na**	**19.0**
Private[a]									
Less than 20	9.0	13.3	10.4	25.0	12.1	26.3	-	na	12.2
20–24	15.6	22.6	26.9	22.6	25.0	22.5	15.9	na	21.4
25–29	21.4	24.6	29.9	26.9	28.7	26.6	21.3	na	25.2
30–34	25.8	28.0	34.6	33.0	32.6	26.1	29.0	na	29.3
35–39	32.9	34.5	40.1	39.9	37.6	30.1	28.8	na	35.4
40 and over	43.2	42.2	50.5	49.6	43.0	30.8	37.0	na	44.4
All ages[b]	**26.1**	**29.0**	**34.0**	**32.6**	**32.2**	**27.0**	**26.7**	**na**	**29.5**
All confinements									
Less than 20	10.4	13.0	12.1	13.4	17.0	12.0	9.8	14.7	12.3
20–24	12.8	15.8	16.2	16.3	17.8	18.5	12.8	16.2	15.1
25–29	17.6	20.1	22.3	20.6	23.7	20.9	17.4	22.4	20.0
30–34	21.7	24.4	27.5	27.1	27.6	22.4	22.9	23.7	24.5
35–39	27.9	29.9	32.1	32.1	31.9	26.4	23.2	28.5	29.7
40 and over	35.7	38.0	40.4	42.5	36.2	34.2	30.4	44.3	37.6
All ages	**19.7**	**22.8**	**23.4**	**23.4**	**24.9**	**21.0**	**19.6**	**21.2**	**21.9**

(a) Data exclude Northern Territory.

(b) Excludes cases where admitted patient status is other or not stated.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A25: Caesarean rates for Indigenous mothers by maternal age and accommodation status in hospital, States and Territories, 1999

Hospital status/ Maternal age (years)	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
Public[(a)]									
Less than 20	46	13	86	55	34	4	4	na	242
20–24	82	24	139	60	29	6	-	na	340
25–29	110	27	132	68	28	5	1	na	371
30–34	48	13	77	46	19	-	2	na	205
35–39	22	7	38	19	8	3	1	na	98
40 and over	7	-	3	5	1	1	1	na	18
All ages[(b)]	**315**	**84**	**475**	**253**	**119**	**19**	**9**	**na**	**1,274**
Private[(a)]									
Less than 20	1	-	-	-	-	-	-	na	1
20–24	-	-	1	-	-	-	-	na	1
25–29	4	1	11	-	1	1	1	na	19
30–34	2	6	19	-	-	2	-	na	29
35–39	-	3	12	-	-	-	-	na	15
40 and over	2	-	3	-	-	-	-	na	5
All ages[(b)]	**9**	**10**	**46**	**-**	**1**	**3**	**1**	**na**	**70**
					Caesarean rate (per cent)				
Public[(a)]									
Less than 20	10.6	19.4	16.3	15.7	31.2	17.4	26.7	na	15.9
20–24	13.1	18.6	15.7	12.9	20.6	15.4	-	na	14.8
25–29	19.9	22.7	17.5	18.8	28.6	15.2	14.3	na	19.3
30–34	19.2	19.1	19.5	27.4	28.4	-	18.2	na	21.1
35–39	22.7	29.2	30.4	26.0	34.8	50.0	33.3	na	27.9
40 and over	33.3	-	21.4	71.4	33.3	100.0	100.0	na	34.0
All ages[(b)]	**15.9**	**20.3**	**17.6**	**17.8**	**27.0**	**16.5**	**17.3**	**na**	**17.9**
Private[(a)]									
Less than 20	16.7	-	-	-	-	-	-	na	11.1
20–24	-	-	9.1	-	-	-	-	na	4.8
25–29	21.1	11.1	26.2	-	50.0	50.0	50.0	na	25.0
30–34	18.2	46.2	41.3	-	-	28.6	-	na	36.7
35–39	-	50.0	41.4	-	-	-	-	na	36.6
40 and over	100.0	-	75.0	-	-	-	-	na	71.4
All ages[(b)]	**20.5**	**31.3**	**34.3**	**-**	**25.0**	**25.0**	**33.3**	**na**	**30.0**
All confinements									
Less than 20	10.8	19.4	16.2	31.2	15.2	20.0	16.8	26.7	16.0
20–24	13.1	18.2	15.6	20.4	12.5	15.0	20.2	-	15.4
25–29	19.8	21.9	17.9	29.0	18.5	17.6	20.3	22.2	19.5
30–34	19.3	23.5	21.5	28.4	25.0	10.0	27.0	20.0	22.5
35–39	22.0	33.3	32.5	33.3	23.8	42.9	27.3	33.3	28.3
40 and over	37.5	-	31.6	33.3	62.5	100.0	18.2	100.0	33.8
All ages	**16.0**	**21.1**	**18.3**	**17.0**	**27.0**	**18.1**	**19.2**	**20.2**	**18.4**

(a) Data exclude Northern Territory.

(b) Excludes cases where admitted patient status is other or not stated.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A26: Caesarean rates by maternal age, parity and public accommodation status in hospital, Australia, 1999

Maternal age (years)	Parity				Parity			
	None	One	Two +	Total[(a)]	None	One	Two +	Total[(a)]
	Number				Rate (per cent)			
Less than 20	1,239	174	48	1,461	12.6	9.4	18.8	12.2
20–24	3,075	1,544	674	5,293	16.0	13.0	12.8	14.5
25–29	5,074	3,439	2,282	10,795	21.0	17.0	15.4	18.2
30–34	3,438	3,318	2,951	9,707	26.1	20.9	18.0	21.4
35–39	1,440	1,684	1,948	5,072	34.0	27.0	20.8	25.6
40 and over	303	332	515	1,150	47.0	37.5	25.9	32.7
Not stated	-	1	-	1	-	-	-	-
Total[(a)]	**14,569**	**10,492**	**8,418**	**33,479**	**20.4**	**18.4**	**17.5**	**19.0**

(a) Data exclude Northern Territory.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A27: Caesarean rates by maternal age, parity and private accommodation status in hospital, Australia, 1999

Maternal age (years)	Parity				Parity			
	None	One	Two +	Total[(a)]	None	One	Two +	Total[(a)]
	Number				Rate (per cent)			
Less than 20	37	7	1	45	11.3	18.9	33.3	12.2
20–24	526	137	27	690	23.2	17.7	15.7	21.4
25–29	3,111	1,564	413	5,088	27.6	22.9	19.9	25.2
30–34	3,695	3,484	1,526	8,705	33.8	27.8	24.3	29.3
35–39	1,778	2,032	1,361	5,171	44.3	35.0	28.5	35.4
40 and over	397	372	350	1,119	56.3	44.7	35.6	44.4
Not stated	5	1	-	6	-	-	-	-
Total[(a)]	**9,549**	**7,597**	**3,678**	**20,824**	**32.3**	**28.4**	**25.7**	**29.5**

(a) Data exclude Northern Territory.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A28: Caesarean rates by parity, plurality, breech presentation and birthweight, Australia, 1999

Characteristic	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
Parity									
Primipara	7,657	6369	4796	2539	2026	562	381	344	24,674
Multipara	9,255	7663	6464	3390	2518	687	502	397	30,876
All parity	**16,912**	**14,032**	**11,260**	**5,929**	**4,544**	**1,249**	**883**	**741**	**55,550**
Plurality									
Singleton	16,345	13,460	10,903	5,729	4,396	1,202	844	719	53,598
Twin	545	542	335	187	146	46	37	22	1,860
Other multiple	22	30	22	13	2	1	2	-	92
All confinements	**16,912**	**14,032**	**11,260**	**5,929**	**4,544**	**1,249**	**883**	**741**	**55,550**
Breech presentation in singleton births	**2,602**	**2,079**	**1,701**	**852**	**668**	**143**	**132**	**105**	**8,282**
Birthweight (singleton births)									
Less than 500 g	8	8	12	1	5	2	2	-	38
500–999 g	105	88	81	35	45	13	13	7	387
1,000–1,499 g	203	149	136	65	48	14	20	12	647
1,500–1,999 g	339	297	195	99	81	26	20	32	1,089
2,000–2,499 g	696	619	479	234	171	63	37	38	2,337
2,500 g and over[(a)]	14,991	12,299	10,000	5,292	4,046	1,074	750	630	49,082
—public	9,098	7,665	5,586	3,148	2,591	656	457	na	29,201
—private	5,670	4,634	4,414	1,931	1,455	405	293	na	18,802
—other	223	-	-	213	-	13	-	na	449
Not stated	3	-	-	3	-	10	2	-	-
All singleton births	**16,345**	**13,460**	**10,903**	**5,729**	**4,396**	**1,202**	**844**	**719**	**53,580**
					Caesarean rate (per cent)				
Parity									
Primipara	21.7	25.1	25.1	24.8	26.9	24.0	19.6	22.9	23.9
Multipara	18.3	21.2	22.3	22.4	23.5	18.8	18.9	19.4	20.6
All parity	**19.7**	**22.8**	**23.4**	**23.4**	**24.9**	**20.8**	**19.2**	**20.9**	**21.9**
Plurality									
Singleton	19.3	22.2	23.0	22.9	24.5	20.4	18.7	20.5	21.5
Twin	43.2	52.5	50.9	51.9	51.8	48.9	43.5	44.9	48.7
Other multiple	73.3	85.7	95.7	86.7	100.0	100.0	100.0	-	85.2
All confinements	**19.7**	**22.8**	**23.4**	**23.4**	**24.9**	**20.8**	**19.2**	**20.9**	**21.9**
Breech presentation in singleton births	**78.1**	**81.7**	**86.9**	**86.3**	**88.1**	**81.3**	**77.6**	**83.3**	**82.4**
Birthweight (singleton births)									
Less than 500 g	4.9	4.1	7.1	1.5	11.1	9.5	14.3	-	5.5
500–999 g	34.0	36.7	42.2	33.3	46.9	61.9	43.3	21.2	37.7
1,000–1,499 g	54.3	56.4	57.4	56.5	67.6	45.2	66.7	48.0	56.4
1,500–1,999 g	45.2	54.3	43.1	45.0	51.6	40.6	55.6	47.8	47.5
2,000–2,499 g	26.6	31.3	32.5	29.3	30.2	32.1	29.8	23.0	29.5
2,500 g and over[(a)]	18.6	21.5	22.3	22.3	23.8	19.4	17.6	20.0	20.8
—public	16.1	19.0	17.9	19.2	20.9	17.0	14.7	na	17.8
—private	25.0	27.4	32.8	31.2	31.4	25.7	25.0	na	28.2
All singleton births	**19.3**	**22.2**	**23.0**	**22.9**	**24.5**	**20.4**	**18.7**	**20.5**	**21.5**

(a) Data include patient admitted election status 'not stated' and 'other'.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A29: Perineal repair after delivery, States and Territories, 1999

Perineal status	NSW	Vic	Qld	WA	SA	Tas[(a)]	ACT	NT	Australia
					Number				
Type									
None	36,949	32,955	27,384	13,326	8,726	1,968	2,315	2,008	125,631
1st degree laceration	17,946	7,929	7,452	3,153	1,553	1,332	640	292	40,297
2nd degree laceration	15,308	8,508	6,479	3,546	4,147	-	986	458	39,432
3rd degree laceration	706	306	332	191	115	-	56	30	1,736
4th degree laceration	65	17	24	-	7	-	-	-	113
Episiotomy	11,592	10,412	4,950	3,996	3,009	679	499	242	35,379
Combined laceration and episiotomy	1,112	1,201	651	494	400	-	-	-	3,858
Other	2,270	259	767	672	273	2,017	2	174	6,434
Not stated	19	-	3	-	3	-	101	346	472
Total confinements	**85,967**	**61,587**	**48,042**	**25,378**	**18,233**	**5,996**	**4,599**	**3,550**	**253,352**
					Per cent				
None	43.0	53.5	57.0	52.5	47.9	32.8	51.5	62.7	49.7
1st degree laceration	20.9	12.9	15.5	12.4	8.5	22.2	14.2	9.1	15.9
2nd degree laceration	17.8	13.8	13.5	14.0	22.7	-	21.9	14.3	15.6
3rd degree laceration	0.8	0.5	0.7	0.8	0.6	-	1.2	0.9	0.7
4th degree laceration	0.1	0.0	0.0	-	0.0	-	-	-	0.0
Episiotomy	13.5	16.9	10.3	15.7	16.5	11.3	11.1	7.6	14.0
Combined laceration and episiotomy	1.3	2.0	1.4	1.9	2.2	-	-	-	1.5
Other	2.6	0.4	1.6	2.6	1.5	33.6	0.0	5.4	2.5
Total confinements	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Data included in 1st degree laceration does not identify higher degree of laceration.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A30: Length of mother's antenatal stay in hospital, States and Territories, 1999

Length of stay[(a)]	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Mean length of stay (days)	0.7	0.6	0.7	0.7	0.8	0.8	0.7	0.9	0.7
					Number				
Less than 1 day	52,058	40,668	30,797	14,471	11,023	3,582	2,801	1,989	157,389
1 day	25,922	17,185	13,518	8,240	5,723	1,706	1,484	1,033	74,811
2–6 days	5,367	2,667	2,714	1,209	1,104	318	200	312	13,891
7–13 days	685	371	345	194	169	42	45	57	1,908
14–20 days	213	131	112	61	68	20	16	24	645
21–27 days	102	65	47	26	16	9	5	8	278
28 or more days	129	133	107	45	42	23	5	2	486
Not stated	989	1	3	936	-	107	4	-	2,040
All hospital confinements	**85,465**	**61,221**	**47,643**	**25,182**	**18,145**	**5,807**	**4,560**	**3,425**	**251,448**
					Per cent				
Less than 1 day	61.6	66.4	64.6	59.7	60.7	62.8	61.5	58.1	63.1
1 day	30.7	28.1	28.4	34.0	31.5	29.9	32.6	30.2	30.0
2–6 days	6.4	4.4	5.7	5.0	6.1	5.6	4.4	9.1	5.6
7–13 days	0.8	0.6	0.7	0.8	0.9	0.7	1.0	1.7	0.8
14–20 days	0.3	0.2	0.2	0.3	0.4	0.4	0.4	0.7	0.3
21–27 days	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1
28 or more days	0.2	0.2	0.2	0.2	0.2	0.4	0.1	0.1	0.2
All hospital confinements	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Length of mother's antenatal stay in hospital or birth centre only.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A31: Length of mother's postnatal stay in hospital, all hospital confinements, States and Territories, 1999

Length of stay[(a)]	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Mean length of stay (days)	3.8	3.9	3.6	4.0	3.8	4.4	4.3	4.3	3.8
					Number				
Less than 1 day	2,178	732	1,308	640	339	339	69	71	5,676
1 day	8,419	3,715	5,752	2,152	1,340	682	144	264	22,468
2 days	13,365	8,852	8,788	3,682	2,842	848	315	460	39,152
3 days	15,289	13,508	9,560	4,510	3,540	947	435	652	48,441
4 days	16,309	12,540	8,069	4,292	3,215	1,059	379	611	46,474
5 days	12,718	10,319	6,395	3,633	3,505	868	345	543	38,326
6 days	7,377	5,350	3,616	2,307	1,355	501	308	338	21,152
7–13 days	6,079	4,804	3,320	2,961	1,494	505	345	454	19,962
14–20 days	124	72	95	83	14	29	9	21	447
21–27 days	25	12	30	9	-	4	1	8	89
28 or more days	91	9	25	1	2	39	-	2	169
Not stated	893	-	6	982	-	34	51	-	1,966
All hospital confinements	**82,867**	**59,913**	**46,964**	**25,252**	**17,646**	**5,855**	**2,401**	**3,424**	**244,322**
					Per cent				
Less than 1 day	2.7	1.2	2.8	2.6	1.9	5.8	2.9	2.1	2.3
1 day	10.3	6.2	12.2	8.9	7.6	11.7	6.1	7.7	9.3
2 days	16.3	14.8	18.7	15.2	16.1	14.6	13.4	13.4	16.2
3 days	18.7	22.5	20.4	18.6	20.1	16.3	18.5	19.0	20.0
4 days	19.9	20.9	17.2	17.7	18.2	18.2	16.1	17.8	19.2
5 days	15.5	17.2	13.6	15.0	19.9	14.9	14.7	15.9	15.8
6 days	9.0	8.9	7.7	9.5	7.7	8.6	13.1	9.9	8.7
7–13 days	7.4	8.0	7.1	12.2	8.5	8.7	14.7	13.3	8.2
14–20 days	0.2	0.1	0.2	0.3	0.1	0.5	0.4	0.6	0.2
21–27 days	0.0	0.0	0.1	0.0	-	0.1	0.0	0.2	0.0
28 or more days	0.1	0.0	0.1	0.0	0.0	0.7	-	0.1	0.1
All hospital confinements	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Length of mother's stay in hospital or birth centre of birth only. Transfers and home births are excluded.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A32: Mother's length of postnatal stay by accommodation status, hospital confinements, Australia, 1999

Status in hospital / Length of postnatal stay[(a)]	NSW	VIC	Qld	WA	SA	Tas	ACT	NT	Total[(b)]
Public	58,950	42,402	32,836	17,587	12,895	4,100	1,264	na	170,034
Mean length of stay (days)	3.4	3.4	2.9	3.3	3.3	4.0	3.2	na	3.3
				Per cent					
1 day or less	15.8	9.9	20.5	15.2	12.5	17.8	11.3	na	14.9
2 days	20.4	19.9	25.0	19.8	21.1	18.4	23.1	na	21.1
3 days	22.1	29.6	24.3	22.9	25.1	19.1	30.7	na	24.7
4 days	19.0	20.3	15.8	19.2	19.2	19.1	18.8	na	18.7
5 days	11.7	11.8	7.9	12.9	12.8	12.4	8.2	na	11.2
6 days	6.0	4.8	3.2	5.4	5.3	6.2	4.7	na	5.0
7 or more days	5.0	3.7	3.2	4.6	4.0	7.0	3.2	na	4.3
All confinements	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**na**	**100.0**
Private	22,805	17,511	14,128	6,574	4,751	1,668	1,137	na	68,574
Mean length of stay (days)	4.8	5.2	5.0	5.9	5.2	5.4	5.5	na	5.1
				Per cent					
1 day or less	5.6	1.5	2.4	1.5	1.3	16.7	6.6	na	3.5
2 days	5.8	2.2	4.0	2.9	2.5	5.2	2.8	na	4.0
3 days	9.8	5.5	11.1	7.0	6.4	9.0	5.1	na	8.4
4 days	22.2	22.4	20.5	13.6	15.6	16.0	13.2	na	20.3
5 days	25.3	30.3	26.8	20.6	39.0	20.9	21.8	na	27.2
6 days	16.7	19.0	18.2	20.5	14.2	14.9	22.3	na	17.8
7 or more days	14.7	19.0	17.0	33.9	21.0	17.1	28.2	na	18.8
All confinements	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**na**	**100.0**

(a) Length of mother's stay in hospital or birth centre of birth only. Transfers and home births are excluded.

(b) Data exclude Northern Territory.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A33: Length of mother's postnatal stay in hospital by age, parity, Indigenous status, accommodation status, type of delivery, and size of hospital, Australia, 1999

Characteristic[(a)]	Confinements	0–2 days	3–4 days	5–6 days	7–8 days	9–10 days	11–13 days	14 or more days
					Per cent			
All confinements	244,322	27.8	39.2	24.5	6.5	1.2	0.4	0.3
Maternal age								
Less than 20	12,434	37.1	43.6	14.7	2.8	0.9	0.4	0.5
20–24	39,406	39.0	42.0	15.0	2.9	0.7	0.3	0.2
25–29	78,562	28.9	40.6	23.4	5.5	1.0	0.3	0.2
30–34	74,035	22.7	37.7	29.2	8.2	1.4	0.5	0.3
35–39	33,937	20.9	35.3	30.6	10.2	1.9	0.7	0.4
40 and over	5,931	20.3	32.9	30.4	12.0	2.7	0.9	0.7
Not stated	17	11.8	29.4	29.4	23.5	5.9	-	-
Parity								
None	99,798	17.3	40.3	30.6	9.1	1.8	0.6	0.4
One	82,905	32.1	39.0	22.3	5.3	0.8	0.3	0.2
Two or three	53,042	51.8	38.6	18.2	4.4	0.9	0.3	0.2
Four or more	8,577	45.9	34.4	14.0	3.8	0.9	0.5	0.4
Indigenous status								
Indigenous	8,322	40.2	35.4	15.7	5.0	1.7	1.1	0.9
Non-Indigenous	235,925	27.3	39.3	24.8	6.6	1.2	0.4	0.3
Not stated	75	20.6	38.1	25.4	11.1	3.2	-	1.6
Hospital accommodation status[(b)]								
Public	170,034	36.1	43.4	16.2	3.0	0.7	0.3	0.3
Private	68,574	7.4	28.7	45.1	15.3	2.5	0.7	0.4
Other/Not stated	5,714	23.9	36.8	25.8	8.5	2.8	1.3	0.8
Type of delivery								
Spontaneous vaginal	161,610	37.5	42.1	16.9	2.6	0.5	0.2	0.2
Caesarean section	53,537	4.2	29.3	43.4	18.1	3.4	1.1	1.1
Other	29,044	16.9	41.3	32.3	7.5	1.3	0.5	0.5
Not stated	131	26.2	33.8	28.5	8.5	3.1	-	-
Size of hospital								
1–100	5,730	24.7	41.4	26.0	6.5	1.1	0.1	0.1
101–500	35,443	20.8	40.6	28.8	7.6	1.3	0.4	0.3
501–1,000	38,110	19.8	36.4	32.0	9.2	1.6	0.5	0.4
1,001–2,000	69,462	27.8	39.3	25.1	6.4	0.9	0.3	0.2
2,001 and over	95,577	33.7	39.5	19.5	5.3	1.3	0.5	0.3

(a) Length of mother's stay in hospital or birth centre of birth only. Transfers and home births are excluded.
(b) Data exclude Northern Territory.
Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A34: Length of mother's postnatal stay for public accommodation status in hospital by age, parity, Indigenous status, type of delivery, and size of hospital, Australia, 1999

Characteristic[(a)]	Confinements	0–2 days	3–4 days	5–6 days	7–8 days	9–10 days	11–13 days	14 or more days
					Per cent			
Confinements[(b)]	170,034	36.1	43.4	16.2	3.0	0.7	0.3	0.3
Maternal age								
Less than 20	11,467	38.4	44.2	13.8	2.3	0.7	0.3	0.4
20–24	35,120	41.4	42.7	12.7	2.3	0.6	0.2	0.2
25–29	57,217	36.1	44.3	15.9	2.7	0.6	0.2	0.2
30–34	43,757	33.6	43.9	17.8	3.5	0.7	0.3	0.3
35–39	19,088	31.6	41.7	20.5	4.4	0.9	0.4	0.4
40 and over	3,379	29.0	39.6	23.0	5.7	1.6	0.5	0.5
Not stated	6	33.3	66.7	-	-	-	-	-
Parity								
None	68,726	22.5	48.8	22.7	4.3	1.0	0.4	0.3
One	55,091	43.6	41.3	12.3	2.1	0.4	0.2	0.2
Two or three	39,010	46.2	39.5	11.2	2.1	0.5	0.2	0.2
Four or more	7,207	47.6	37.0	11.6	2.4	0.7	0.3	0.3
Indigenous status								
Indigenous	6,739	45.0	35.1	13.5	3.6	1.3	0.7	0.8
Non-Indigenous	163,254	35.7	43.8	16.4	3.0	0.7	0.3	0.2
Not stated	41	38.7	48.4	6.5	6.5	-	-	-
Type of delivery								
Spontaneous vaginal	120,585	45.9	42.8	9.0	1.6	0.4	0.2	0.2
Caesarean section	31,927	5.6	42.0	41.5	7.8	1.8	0.7	0.5
Other	17,443	23.8	50.8	19.9	4.1	0.9	0.3	0.2
Not stated	79	39.7	44.9	10.3	3.8	1.3	-	-
Size of hospital								
1–100	4,644	26.7	44.3	23.5	4.3	0.9	0.1	0.1
101–500	22,779	28.7	45.4	20.5	4.0	0.8	0.3	0.3
501–1,000	20,233	32.2	45.5	17.5	3.4	0.7	0.3	0.3
1,001–2,000	45,675	37.9	43.3	15.2	2.6	0.6	0.2	0.2
2,001 and over	76,703	38.8	42.4	14.8	2.8	0.7	0.3	0.2

(a) Length of mother's stay in hospital or birth centre of birth only. Transfers and home births are excluded.
(b) Data exclude Northern Territory.
Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A35: Length of mother's postnatal stay for private accommodation status in hospital by age, parity, Indigenous status, type of delivery, and size of hospital, selected States and Territories, 1999

Characteristic[(a)]	Confinements	0–2 days	3–4 days	5–6 days	7–8 days	9–10 days	11–13 days	14 or more days
					Per cent			
Confinements[(b)]	68,574	7.4	28.7	45.1	15.3	2.5	0.7	0.4
Maternal age								
Less than 20	361	26.2	31.8	33.7	6.7	1.4	0.3	-
20–24	3,121	14.9	34.9	39.1	9.1	1.4	0.4	0.3
25–29	19,569	8.2	30.3	45.1	13.6	2.0	0.5	0.3
30–34	28,914	6.3	28.3	46.5	15.3	2.5	0.7	0.3
35–39	14,168	6.4	26.6	44.3	18.1	3.2	1.0	0.4
40 and over	2,430	8.3	23.8	40.8	20.9	4.2	1.4	0.7
Not stated	11	-	9.1	45.5	36.4	9.1	-	-
Parity								
None	28,779	4.6	20.3	49.6	20.3	3.6	1.0	0.5
One	26,008	8.1	34.1	43.5	12.0	1.5	0.5	0.3
Two or three	12,735	10.3	36.0	40.1	11.1	1.8	0.4	0.2
Four or more	1,052	15.7	36.1	35.3	10.7	1.6	0.5	0.1
Indigenous status								
Indigenous	221	11.8	34.8	39.4	11.3	1.4	0.9	0.5
Non-Indigenous	68,319	7.4	28.6	45.1	15.3	2.5	0.7	0.3
Not stated	34	3.1	28.1	43.8	15.6	6.3	-	3.1
Type of delivery								
Spontaneous vaginal	37,045	10.9	39.8	42.4	5.7	0.8	0.3	0.2
Caesarean section	20,382	1.9	9.7	46.2	34.2	5.8	1.5	0.7
Other	11,095	6.2	26.3	51.8	12.7	2.0	0.7	0.3
Not stated	52	5.8	17.3	55.8	15.4	5.8	-	-
Size of hospital								
1–100	934	14.2	26.8	39.1	17.4	2.0	0.2	0.3
101–500	11,751	5.8	31.1	45.4	14.5	2.2	0.7	0.4
501–1,000	16,197	4.8	25.4	49.7	16.4	2.6	0.7	0.4
1,001–2,000	21,754	6.2	31.1	46.5	14.2	1.5	0.3	0.1
2,001 and over	17,938	12.0	27.2	39.3	15.9	3.8	1.2	0.6

(a) Length of mother's stay in hospital or birth centre of birth only. Transfers and home births are excluded.
(b) Data exclude Northern Territory.
Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A36: Mode of separation of mother, all hospital confinements, selected States and Territories, 1999

Mode of separation	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
Discharge home	82,854	59,909	46,959	na	17,645	5,302	na	3,424	216,093
Transfer to another hospital	2,961	1,370	913	na	548	36	na	1	5,829
Died	7	4	5	na	1	5	na	-	22
Other	-	-	-	na	-	381	na	-	381
Not stated	6	-	-	na	-	167	na	-	173
All confinements	**85,828**	**61,283**	**47,877**	**na**	**18,194**	**5,891**	**na**	**3,425**	**222,498**
					Per cent				
Discharge home	96.5	97.8	98.1	na	97.0	92.6	na	100.0	97.2
Transfer to another hospital	3.5	2.2	1.9	na	3.0	0.6	na	0.0	2.6
Died	0.0	0.0	0.0	na	0.0	0.1	na	0.0	0.0
Other	0.0	0.0	0.0	na	0.0	6.7	na	0.0	0.2
All confinements	**100.0**	**100.0**	**100.0**	**na**	**100.0**	**100.0**	**na**	**100.0**	**100.0**

(a) Data exclude Western Australia and the Australian Capital Territory.
Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A37: Infant's month of birth, all births, States and Territories, 1999

Month of birth	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
January	7,325	5,182	4,019	2,170	1,571	441	401	322	21,431
February	6,804	4,894	3,835	2,008	1,472	481	368	284	20,146
March	7,637	5,520	4,442	2,228	1,655	516	428	324	22,750
April	7,303	5,068	4,122	2,199	1,510	484	387	315	21,388
May	7,146	5,137	4,088	2,284	1,568	482	395	361	21,461
June	7,389	5,116	4,009	2,172	1,586	502	398	298	21,470
July	7,503	5,344	4,272	2,191	1,492	579	383	297	22,061
August	7,506	5,296	4,210	2,080	1,550	547	419	305	21,913
September	7,573	5,584	4,181	2,168	1,638	539	426	271	22,380
October	7,236	5,472	3,864	2,149	1,565	570	389	282	21,527
November	6,818	5,040	3,721	2,022	1,441	505	350	259	20,156
December	7,049	5,036	3,984	2,100	1,471	446	344	281	20,711
All births	**87,289**	**62,689**	**48,747**	**25,771**	**18,519**	**6,092**	**4,688**	**3,599**	**257,394**
					Per cent				
January	8.4	8.3	8.2	8.4	8.5	7.2	8.6	8.9	8.3
February	7.8	7.8	7.9	7.8	7.9	7.9	7.8	7.9	7.8
March	8.7	8.8	9.1	8.6	8.9	8.5	9.1	9.0	8.8
April	8.4	8.1	8.5	8.5	8.2	7.9	8.3	8.8	8.3
May	8.2	8.2	8.4	8.9	8.5	7.9	8.4	10.0	8.3
June	8.5	8.2	8.2	8.4	8.6	8.2	8.5	8.3	8.3
July	8.6	8.5	8.8	8.5	8.1	9.5	8.2	8.3	8.6
August	8.6	8.4	8.6	8.1	8.4	9.0	8.9	8.5	8.5
September	8.7	8.9	8.6	8.4	8.8	8.8	9.1	7.5	8.7
October	8.3	8.7	7.9	8.3	8.5	9.4	8.3	7.8	8.4
November	7.8	8.0	7.6	7.8	7.8	8.3	7.5	7.2	7.8
December	8.1	8.0	8.2	8.1	7.9	7.3	7.3	7.8	8.0
All births	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A38: Baby's sex by plurality, all births, States and Territories, 1999

Baby's sex	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
All births									
Male	44,805	32,073	25,239	13,149	9,472	3,195	2,383	1,841	132,157
Female	42,473	30,605	23,497	12,622	9,047	2,895	2,304	1,757	125,200
Indeterminate	10	11	11	-	-	2	1	-	35
Not stated	1	-	-	-	-	-	-	1	2
All births	**87,289**	**62,689**	**48,747**	**25,771**	**18,519**	**6,092**	**4,688**	**3,599**	**257,394**
Sex ratio	105.5	104.8	107.4	104.2	104.7	110.4	103.4	104.8	105.6
Singletons									
Male	43,498	30,928	24,510	12,777	9,173	3,101	2,293	1,787	128,067
Female	41,167	29,588	22,843	12,226	8,776	2,798	2,218	1,713	121,329
Indeterminate	10	4	8	-	-	2	1	-	25
Not stated	1	-	-	-	-	-	-	1	2
Sex ratio	105.7	104.5	107.3	104.5	104.5	110.8	103.4	104.3	105.6
Twins									
Male	1,259	1,079	689	351	294	92	87	54	3,905
Female	1,264	978	624	369	270	96	83	44	3,728
Indeterminate	-	6	3	-	-	-	-	-	9
Sex ratio	99.6	110.3	110.4	95.1	108.9	95.8	104.8	122.7	104.7
Other multiple births									
Male	48	66	40	21	5	2	3	-	2,383
Female	42	39	30	27	1	1	3	-	2,304
Indeterminate	-	5	4	9	-	-	-	-	1
Sex ratio	114.3	169.2	133.3	77.8	500.0	200.0	100.0	-	103.4
					Per cent				
All births									
Male	51.3	51.2	51.8	51.0	51.1	52.4	50.8	51.2	51.3
Female	48.7	48.8	48.2	49.0	48.9	47.5	49.1	48.8	48.6
Indeterminate	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0
All births	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Singletons									
Male	51.4	51.1	51.8	51.1	51.1	52.6	50.8	51.1	51.3
Female	48.6	48.9	48.2	48.9	48.9	47.4	49.2	48.9	48.6
Twins									
Male	49.9	52.3	52.4	48.8	52.1	48.9	51.2	55.1	51.1
Female	50.1	47.4	47.4	51.3	47.9	51.1	48.8	44.9	48.8
Other multiple births									
Male	53.3	60.0	54.1	36.8	83.3	66.7	50.0	-	50.8
Female	46.7	35.5	40.5	47.4	16.7	33.3	50.0	-	49.1

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A39: Baby's gestational age, live births and fetal deaths, Australia, 1999

Gestational age (weeks)	Live births		Fetal deaths		All births	
	Number	Per cent	Number	Per cent	Number	Per cent
20[(a)]	55	0.0	153	8.6	208	0.1
21	77	0.0	192	10.8	269	0.1
22	81	0.0	167	9.4	248	0.1
23	127	0.0	103	5.8	230	0.1
24	129	0.1	86	4.8	215	0.1
25	159	0.1	74	4.2	233	0.1
26	235	0.1	62	3.5	297	0.1
27	259	0.1	45	2.5	304	0.1
28	350	0.1	52	2.9	402	0.2
29	408	0.2	31	1.7	439	0.2
30	501	0.2	47	2.6	548	0.2
31	638	0.2	41	2.3	679	0.3
32	985	0.4	48	2.7	1,033	0.4
33	1,351	0.5	47	2.6	1,398	0.5
34	2,221	0.9	69	3.9	2,290	0.9
35	3,584	1.4	59	3.3	3,643	1.4
36	7,199	2.8	81	4.6	7,280	2.8
37	15,073	5.9	89	5.0	15,162	5.9
38	42,078	16.5	109	6.1	42,187	16.4
39	52,828	20.7	63	3.5	52,891	20.6
40	85,781	33.6	90	5.1	85,871	33.4
41	36,754	14.4	60	3.4	36,814	14.3
42	4,452	1.7	7	0.4	4,459	1.7
43	118	0.0	2	0.1	120	0.0
44 and over	14	0.0	-	-	14	0.0
Not stated	148	-	12	-	160	-
All births	**255,605**	**100.0**	**1,789**	**100.0**	**257,394**	**100.0**
			Preterm births			
20–27	1,122	0.4	882	49.6	2,004	0.8
28–31	1,897	0.7	171	9.6	2,068	0.8
32–36	15,340	6.0	304	17.1	15,644	6.1
All preterm births	**18,359**	**7.2**	**1,357**	**76.4**	**19,716**	**7.7**

(a) Includes four babies of less than 20 weeks gestation.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A40: Baby's gestational age by plurality, all births, Australia, 1999

Gestational age (weeks)	Singletons		Twins		Triplets		All births	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
20–27[(a)]	1,619	0.6	319	4.2	57	18.3	2,004	0.8
28–31	1,550	0.6	433	5.7	81	26.0	2,068	0.8
32–36	12,358	5.0	3,117	40.8	165	52.9	15,644	6.1
37–41	229,149	91.9	3,767	49.3	9	2.9	232,925	90.5
42 and over	4,591	1.8	2	0.0	-	-	4,593	1.8
Not stated	156	-	4	-	-	-	160	-
All births	**249,423**	**100.0**	**7,642**	**100.0**	**312**	**100.0**	**257,394**	**100.0**
20–36 weeks	15,527	6.2	3,869	50.7	303	97.1	19,716	7.7
				Mean gestational age (weeks)				
20+ weeks	**39.1**		**35.5**		**30.9**		**39.0**	

(a) Includes four babies of less than 20 weeks gestation.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A41: Duration of pregnancy, preterm births, States and Territories, 1999

Duration of pregnancy (weeks)	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Mean (weeks)	33.4	33.2	33.1	33.3	33.4	33.6	32.7	33.0	33.3
					Number				
20–27[(a)]	585	521	431	188	147	28	56	49	2,005
28–31	625	478	443	207	157	59	51	48	2,068
32–36	5,026	3,853	3,006	1,601	1,201	382	278	297	15,644
All preterm births	**6,236**	**4,852**	**3,880**	**1,996**	**1,505**	**469**	**385**	**394**	**19,717**
					Per cent of total births				
20–27	0.7	0.8	0.9	0.7	0.8	0.5	1.2	1.4	0.8
28–31	0.7	0.8	0.9	0.8	0.8	1.0	1.1	1.3	0.8
32–36	5.8	6.1	6.2	6.2	6.5	6.3	5.9	8.3	6.1
All preterm births	**7.1**	**7.7**	**8.0**	**7.7**	**8.1**	**7.7**	**8.2**	**10.9**	**7.7**

(a) Includes four babies of less than 20 weeks gestation.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A42: Baby's birthweight, all births, States and Territories, 1999

Birthweight (g)	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Mean birthweight (g)	3,371	3,346	3,373	3,342	3,359	3,375	3,375	3,239	3,360
					Number				
Less than 500	212	244	189	82	52	21	17	12	829
500–999	391	322	261	126	116	24	39	42	1,321
1,000–1,499	509	400	340	168	103	40	43	29	1,632
1,500–1,999	1,076	801	627	332	222	85	55	84	3,282
2,000–2,499	3,353	2,573	1,869	1,012	725	245	178	189	10,144
2,500–2,999	12,942	9,936	6,922	4,081	2,825	909	648	686	38,949
3,000–3,499	30,978	22,231	16,861	9,375	6,610	2,030	1,593	1,249	90,927
3,500–3,999	27,173	18,899	15,538	7,832	5,669	1,913	1,458	907	79,389
4,000–4,499	9,002	6,228	5,211	2,333	1,849	655	560	294	26,132
4,500 and over	1,629	1,045	924	425	348	128	91	57	4,647
Not stated	24	10	5	5	-	42	6	50	142
All births	**87,289**	**62,689**	**48,747**	**25,771**	**18,519**	**6,092**	**4,688**	**3,599**	**257,394**
Less than 1,000	603	566	450	208	168	45	56	54	2,150
Less than 1,500	1,112	966	790	376	271	85	99	83	3,782
Less than 2,500	5,541	4,340	3,286	1,720	1,218	415	332	356	17,208
					Per cent				
Less than 500	0.2	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3
500–999	0.4	0.5	0.5	0.5	0.6	0.4	0.8	1.2	0.5
1,000–1,499	0.6	0.6	0.7	0.7	0.6	0.7	0.9	0.8	0.6
1,500–1,999	1.2	1.3	1.3	1.3	1.2	1.4	1.2	2.4	1.3
2,000–2,499	3.8	4.1	3.8	3.9	3.9	4.0	3.8	5.3	3.9
2,500–2,999	14.8	15.9	14.2	15.8	15.3	15.0	13.8	19.3	15.1
3,000–3,499	35.5	35.5	34.6	36.4	35.7	33.6	34.0	35.2	35.3
3,500–3,999	31.1	30.2	31.9	30.4	30.6	31.6	31.1	25.6	30.9
4,000–4,499	10.3	9.9	10.7	9.1	10.0	10.8	12.0	8.3	10.2
4,500 and over	1.9	1.7	1.9	1.6	1.9	2.1	1.9	1.6	1.8
All births	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 1,000	0.7	0.9	0.9	0.8	0.9	0.7	1.2	1.5	0.8
Less than 1,500	1.3	1.5	1.6	1.5	1.5	1.4	2.1	2.3	1.5
Less than 2,500	6.3	6.9	6.7	6.7	6.6	6.9	7.1	10.0	6.7

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A43: Baby's birthweight, live births and fetal deaths, Australia, 1999

	Live births		Fetal deaths		All births	
Birthweight (g)	**Number**	**Per cent**	**Number**	**Per cent**	**Number**	**Per cent**
Less than 500	239	0.1	590	33.6	829	0.3
500–999	958	0.4	363	20.6	1,321	0.5
1,000–1,499	1,507	0.6	125	7.1	1,632	0.6
1,500–1,999	3,149	1.2	133	7.6	3,282	1.3
2,000–2,499	9,998	3.9	146	8.3	10,144	3.9
2,500–2,999	38,802	15.2	147	8.4	38,949	15.1
3,000–3,499	90,784	35.5	143	8.1	90,927	35.3
3,500–3,999	79,319	31.0	70	4.0	79,389	30.9
4,000–4,499	26,106	10.2	26	1.5	26,132	10.2
4,500 and over	4,632	1.8	15	0.9	4,647	1.8
Not stated	111	-	31	-	142	-
All births	**255,605**	**100.0**	**1,789**	**100.0**	**257,394**	**100.0**
Less than 1,000	1,197	0.5	953	54.2	2,150	0.8
Less than 1,500	2,704	1.1	1,078	61.3	3,782	1.5
Less than 2,500	15,851	6.2	1,357	77.2	17,208	6.7
			Mean birthweight (g)			
All birthweights	3,373		1,405		3,360	

Notes: Birthweights 'Less than 1500 g' and 'Less than 2500 g' are cumulative.
Data for Tasmania unavailable, 1998 data used as an estimate.

Table A44: Baby's birthweight by plurality, all births, Australia, 1999

	Singletons		Twins		Triplets		Other multiple births	
Birthweight (g)	**Number**	**Per cent**	**Number**	**Per cent**	**Number**	**Per cent**	**Number**	**Per cent**
Less than 500	688	0.3	114	1.5	23	7.4	4	23.5
500–999	1,026	0.4	247	3.2	44	14.1	4	23.5
1,000–1,499	1,147	0.5	400	5.2	79	25.4	6	35.3
1,500–1,999	2,293	0.9	895	11.7	92	29.6	2	11.8
2,000–2,499	7,913	3.2	2,168	28.4	62	19.9	1	5.9
2,500–2,999	36,348	14.6	2,591	34.0	10	3.2	-	-
3,000–3,499	89,876	36.1	1,050	13.8	1	0.3	-	-
3,500–3,999	79,237	31.8	152	2.0	-	-	-	-
4,000–4,499	26,121	10.5	11	0.1	-	-	-	-
4,500 and over	4,646	1.9	1	0.0	-	-	-	-
Not stated	128	-	13	-	1	-	-	-
All births	**249,423**	**100.0**	**7,642**	**100.0**	**312**	100.0	**17**	**100.0**
Less than 1,000	1,714	0.7	361	4.7	67	21.5	8	47.1
Less than 1,500	2,861	1.1	761	10.0	146	46.9	14	82.4
Less than 2,500	13,067	5.2	3,824	50.1	300	96.5	17	100.0
			Mean birthweight (g)					
All birthweights	3,392		2,396		1,506		1,017	

Notes: Birthweights 'Less than 1500 g' and 'Less than 2500 g' are cumulative.
Data for Tasmania unavailable, 1998 data used as an estimate.

Table A45: Baby's birthweight by sex, all births, Australia, 1999

	Male		Female		Indeterminate / Not stated	
Birthweight (g)	**Number**	**Per cent**	**Number**	**Per cent**	**Number**	**Per cent**
Less than 500	429	0.3	381	0.3	19	59.4
500–999	716	0.5	604	0.5	1	3.1
1,000–1,499	849	0.6	782	0.6	1	3.1
1,500–1,999	1,615	1.2	1,666	1.3	1	3.1
2,000–2,499	4,533	3.4	5,609	4.5	2	6.3
2,500–2,999	17,031	12.9	21,917	17.5	1	3.1
3,000–3,499	43,284	32.8	47,639	38.1	4	12.5
3,500–3,999	43,920	33.3	35,467	28.3	2	6.3
4,000–4,499	16,504	12.5	9,627	7.7	1	3.1
4,500 and over	3,189	2.4	1,458	1.2	-	-
Not stated	87	-	50	-	5	-
All births	**132,157**	**100.0**	**125,200**	**100.0**	**37**	**100.0**
Less than 1,000	1,145	0.9	985	0.8	20	62.5
Less than 1,500	1,994	1.5	1,767	1.4	21	65.6
Less than 2,500	8,142	6.2	9,042	7.2	24	75.0
			Mean birthweight (g)			
All birthweights	3,420		3,297		1,276	

Notes: Birthweights 'Less than 1500 g' and 'Less than 2500 g' are cumulative.
Data for Tasmania unavailable, 1998 data used as estimate.

Table A46: Birthweight of babies of Indigenous mothers, States and Territories, 1999

Birthweight (g)	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Mean birthweight (g)	3,163	3,119	3,207	3,079	3,114	3,402	3,280	3,072	3,149
					Number				
Less than 500	4	4	19	15	2	-	-	6	50
500–999	16	7	25	19	9	-	-	25	101
1,000–1,499	24	3	33	29	8	-	2	11	110
1,500–1,999	48	6	56	47	17	3	-	46	223
2,000–2,499	169	50	188	122	39	4	2	96	670
2,500–2,999	465	106	589	400	89	24	14	331	2,018
3,000–3,499	721	133	1,018	509	141	39	17	452	3,030
3,500–3,999	463	111	684	317	101	44	12	225	1,957
4,000–4,499	144	28	213	88	31	15	5	82	606
4,500 and over	23	4	59	22	11	2	3	12	136
Not stated	1	-	-	1	-	-	-	27	29
All births	**2,078**	**452**	**2,884**	**1,569**	**448**	**131**	**55**	**1,313**	**8,930**
Less than 1,000	20	11	44	34	11	-	-	31	151
Less than 1,500	44	14	77	63	19	-	2	42	261
Less than 2,500	261	70	321	232	75	7	4	184	1,154
					Per cent				
Less than 500	0.2	0.9	0.7	1.0	0.4	-	-	0.5	0.6
500–999	0.8	1.5	0.9	1.2	2.0	-	-	1.9	1.1
1,000–1,499	1.2	0.7	1.1	1.8	1.8	-	3.6	0.9	1.2
1,500–1,999	2.3	1.3	1.9	3.0	3.8	2.3	-	3.6	2.5
2,000–2,499	8.1	11.1	6.5	7.8	8.7	3.1	3.6	7.5	7.5
2,500–2,999	22.4	23.5	20.4	25.5	19.9	18.3	25.5	25.7	22.7
3,000–3,499	34.7	29.4	35.3	32.5	31.5	29.8	30.9	35.1	34.0
3,500–3,999	22.3	24.6	23.7	20.2	22.5	33.6	21.8	17.5	22.0
4,000–4,499	6.9	6.2	7.4	5.6	6.9	11.5	9.1	6.4	6.8
4,500 and over	1.1	0.9	2.0	1.4	2.5	1.5	5.5	0.9	1.5
All births	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 1,000	1.0	2.4	1.5	2.2	2.5	-	-	2.4	1.7
Less than 1,500	2.1	3.1	2.7	4.0	4.2	-	3.6	3.3	2.9
Less than 2,500	12.6	15.5	11.1	14.8	16.7	5.3	7.3	14.3	13.0

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A47: Distribution of birthweight by mother's Indigenous status, country of birth, age, parity, marital status, public and private accommodation status, and place of birth, Australia, 1999

	Less than 1,000 g		Less than 1,500 g		Less than 2,500 g		2,500 g and over	
Characteristic	**Number**	**Per cent**	**Number**	**Per cent**	**Number**	**Per cent**	**Number**	**Per cent**
Indigenous status								
Indigenous	151	1.7	261	2.9	1,154	13.0	7,747	87.0
Non-Indigenous	1,999	0.8	3,521	1.4	16,050	6.5	232,219	93.5
Maternal country of birth								
Australia	1,677	0.8	2,998	1.5	13,500	6.8	184,858	93.2
New Zealand	54	0.8	90	1.4	400	6.3	5,996	93.7
United Kingdom	71	0.7	128	1.3	608	6.2	9,172	93.8
Italy	4	0.6	5	0.8	39	6.1	601	93.9
Former Yugoslavia	15	0.9	25	1.5	107	6.6	1,517	93.4
Lebanon	14	0.6	30	1.2	131	5.3	2,363	94.7
China	25	0.8	37	1.1	149	4.5	3,133	95.5
Hong Kong	6	0.9	9	1.3	45	6.4	658	93.6
India	17	1.2	21	1.4	138	9.5	1,321	90.5
Malaysia	2	0.2	7	0.7	64	6.5	918	93.5
Philippines	22	0.8	42	1.6	197	7.4	2,464	92.6
Vietnam	32	0.7	42	0.9	267	5.9	4,255	94.1
Other countries	186	0.8	314	1.4	1,430	6.3	21,379	93.7
Not stated	25	1.6	34	2.2	133	8.6	1,409	91.4
Maternal age (years)								
Less than 16	11	2.1	18	3.4	71	13.2	465	86.8
16–19	132	1.1	243	1.9	1,091	8.7	11,418	91.3
20–24	383	0.9	675	1.6	3,003	7.3	38,236	92.7
25–29	621	0.8	1,092	1.3	5,177	6.3	77,385	93.7
30–34	582	0.7	1,026	1.3	4,742	6.1	73,333	93.9
35–39	324	0.9	573	1.6	2,544	7.1	33,435	92.9
40 and over	97	1.5	155	2.5	579	9.2	5,728	90.8
Not stated	-	-	-	-	1	2.2	44	97.8
Parity								
None	1,058	1.0	1,923	1.8	8,403	8.0	96,567	92.0
One	555	0.6	950	1.1	4,495	5.2	82,564	94.8
Two	280	0.7	456	1.1	2,366	5.8	38,565	94.2
Three	144	1.0	241	1.6	1,117	7.4	14,025	92.6
Four or more	113	1.2	212	2.3	827	9.0	8,323	91.0
Marital status[(a)]								
Married/ de facto	1,233	0.8	2,163	1.5	9,488	6.4	138,462	93.6
Single	277	1.4	448	2.3	1,886	9.7	17,459	90.3
Other	31	1.3	49	2.1	246	10.4	2,117	89.6
Hospital status[(b)]								
Public	1,489	0.8	2,646	1.5	12,092	6.8	165,907	93.2
Private	458	0.6	800	1.1	3,788	5.3	67,806	94.7
Place of birth								
Hospital	2,099	0.8	3,706	1.5	16,952	6.8	233,141	93.2
Birth centre	3	0.1	4	0.1	47	0.9	5,249	99.1
Home	7	0.9	8	1.0	30	3.7	789	96.3
Born before arrival	34	3.8	53	6.0	152	17.1	736	82.9
Other	6	8.7	10	14.5	19	27.5	50	72.5
Not stated	1	1.1	1	1.1	8	9.2	79	90.8

(a) Data exclude New South Wales.

(b) Data exclude Northern Territory.

Notes: Birthweights 'Less than 1500 g', 'Less than 2500 g' and '2500 g and over' are cumulative.

Data for Tasmania unavailable, 1998 data used as an estimate.

Table A48: Proportion of liveborn low birthweight infants born in hospitals of different sizes, States and Territories, 1999

Low birthweight category/ hospital size	NSW	Vic	Qld[(a)]	WA	SA	Tas	ACT	NT	Australia
Birthweight: 500–999 g									
Number of births	284	235	196	85	88	14	29	23	954
					Per cent				
1–100 confinements	0.4	-	1.0	-	2.3	-	-	-	0.5
101–500 confinements	2.5	3.0	3.6	3.5	1.1	-	-	-	2.6
501–1,000 confinements	3.5	6.0	3.1	1.2	1.1	-	-	17.4	3.8
1,001–2,000 confinements	18.0	9.4	20.9	-	6.8	100.0	-	82.6	16.0
2,001 and over confinements	75.7	81.7	71.4	95.3	88.6	-	100.0	-	77.0
All births: 500–999 g	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Birthweight: 1,000–1,499 g									
Number of births	472	363	315	150	100	34	42	26	1,502
					Per cent				
1–100 confinements	0.2	0.3	1.3	1.3	-	5.9	-	-	0.7
101–500 confinements	2.3	2.8	4.8	0.7	2.0	-	-	-	2.6
501–1,000 confinements	4.0	9.9	2.2	2.0	-	5.9	-	15.4	4.7
1,001–2,000 confinements	16.1	16.0	25.1	-	10.0	88.2	2.4	84.6	18.4
2,001 and over confinements	77.3	71.1	66.7	96.0	88.0	-	97.6	-	73.6
All births: 1,000–1,499 g	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Birthweight: 1,500–1,999 g									
Number of births	1,011	777	606	323	214	77	53	81	3,142
					Per cent				
1–100 confinements	0.4	-	2.0	0.6	1.9	6.5	-	1.2	0.9
101–500 confinements	4.5	4.8	8.1	5.0	7.0	1.3	5.7	4.9	5.4
501–1,000 confinements	9.9	12.0	5.9	1.5	4.7	18.2	17.0	29.6	9.3
1,001–2,000 confinements	22.7	25.6	27.1	1.5	16.8	74.0	11.3	64.2	23.8
2,001 and over confinements	62.5	57.7	56.9	91.3	69.6	-	66.0	-	60.6
All births: 1,500–1,999 g	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Includes one tertiary level hospital of less than 2,000 confinements.
Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A49: Baby's Apgar score at 1 minute, live births, States and Territories, 1999

Apgar score[(a)]	NSW	VIC	Qld	SA	WA	Tas	NT	ACT	Australia
					Number				
All live births	**86,756**	**62,217**	**48,400**	**18,404**	**25,592**	**6,037**	**3,549**	**4,650**	**255,605**
					Per cent				
0	0.1	0.1	0.0	0.1	0.0	0.1	-	0.1	0.1
1–3	2.5	2.0	2.3	2.5	1.8	2.4	3.3	3.5	2.3
4–6	10.3	10.5	9.4	13.2	10.0	10.1	12.9	11.2	10.4
7–10	87.1	87.4	88.2	84.2	88.1	87.3	83.8	85.2	87.2
All live births	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Excludes Apgar scores 'not stated'.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A50: Baby's Apgar score at 5 minutes, live births, States and Territories, 1999

Apgar score[(a)]	NSW	VIC	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
All live births	**86,756**	**62,217**	**48,400**	**25,592**	**18,404**	**6,037**	**4,650**	**3,549**	**255,605**
					Per cent				
0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	-	0.0
1–3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.4	0.3
4–6	1.4	1.0	1.1	1.2	1.3	1.5	1.2	2.5	1.3
7–10	98.2	98.7	98.5	98.6	98.4	98.3	98.5	97.1	98.4
All live births	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Excludes Apgar scores 'not stated'.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A51: Apgar scores at 1 and 5 minutes by birthweight and plurality, live births, Australia, 1999

Apgar score[(a)]	Less than 1,000 g	1,000–1,499 g	1,500–1,999 g	2,000–2,499 g	2,500 g and over	Not stated
			Singleton live births			
Apgar score: 1 minute						
Live births	879	1,039	2,174	7,782	235,838	107
			Per cent			
0	3.3	0.8	0.4	0.1	0.0	3.7
1–3	46.0	16.4	8.8	4.6	1.9	13.0
4–6	31.7	32.1	22.5	15.0	9.8	7.4
7–10	19.0	50.7	68.4	80.3	88.3	75.9
Apgar score: 5 minutes						
Live births	879	1,039	2,174	7,782	235,838	107
			Per cent			
0	5.8	0.4	0.2	0.1	0.0	3.8
1–3	23.4	3.8	1.4	0.4	0.1	3.8
4–6	18.9	9.3	5.0	2.6	1.0	7.7
7–10	51.9	86.5	93.4	96.9	98.8	84.6
			Multiple live births			
Apgar score: 1 minute						
Live births	318	468	975	2,216	3,805	4
			Per cent			
0	2.2	0.6	0.4	-	0.1	-
1–3	39.9	9.0	5.4	3.2	2.2	-
4–6	31.3	27.8	21.8	15.9	11.6	100.0
7–10	26.6	62.5	72.4	80.9	86.1	-
Apgar score: 5 minutes						
Live births	318	468	975	2,216	3,805	4
			Per cent			
0	7.6	0.4	0.2	-	0.1	-
1–3	19.0	1.1	0.8	0.1	0.2	-
4–6	15.5	5.4	2.8	1.7	1.2	25.0
7–10	57.9	93.1	96.2	98.2	98.5	75.0

(a) Excludes Apgar scores 'not stated'.
Note : Data for Tasmania unavailable, 1998 data used as an estimate.

Table A52: Resuscitation at birth, active measures, live births, selected States and Territories, 1999

Resuscitation at birth	NSW	VIC	Qld	WA	SA	Tas	ACT	NT	Australia
Type					**Number**				
None	35,512	35,176	16,532	12,098	6,679	5,314	2,360	1,221	114,892
Suction	26,136	10,277	16,342	6,437	4,996	-	1,108	669	65,965
Oxygen therapy	17,058	11,148	11,058	4,494	4,734	-	717	807	50,016
IPPR through bag and mask	4,980	5,008	3,790	1,694	1,744	681	329	311	18,537
Endotracheal intubation and IPPR	925	-	593	427	224	23	64	59	2,315
External cardiac massage and ventilation	228	153	85	48	27	-	9	18	568
Other	1,893	454	-	394	-	19	49	-	2,809
Not stated	24	1	-	-	-	-	14	464	503
Total live births	**86,756**	**62,217**	**48,400**	**25,592**	**18,404**	**6,037**	**4,650**	**3,549**	**255,605**
Type					**Per cent**				
None	40.9	56.5	34.2	47.3	36.3	88.0	50.9	39.6	45.0
Suction	30.1	16.5	33.8	25.2	27.1	-	23.9	21.7	25.9
Oxygen therapy	19.7	17.9	22.8	17.6	25.7	-	15.5	26.2	19.6
IPPR through bag and mask	5.7	8.0	7.8	6.6	9.5	11.3	7.1	10.1	7.3
Endotracheal intubation and IPPR	1.1	-	1.2	1.7	1.2	0.4	1.4	1.9	0.9
External cardiac massage and ventilation	0.3	0.2	0.2	0.2	0.1	-	0.2	0.6	0.2
Other	2.2	0.7	-	1.5	-	0.3	1.1	-	1.1
Not stated									
Total live births	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A53: Length of baby's stay in hospital, live births, States and Territories, 1999

Length of stay[(a)]	NSW	VIC	Qld	WA	SA	Tas	ACT	NT	Australia
Mean length of stay (days)	4.4	4.7	4.4	5.4	4.7	4.7	5.2	4.7	4.6
					Number				
Less than 1 day	3,293	1,175	1,525	775	307	338	279	142	7,834
1 day	7,945	3,948	5,836	2,164	1,255	672	456	383	22,659
2 days	12,350	8,833	8,718	3,682	2,761	836	710	500	38,390
3 days	15,201	13,191	9,357	4,509	3,434	940	895	612	48,139
4 days	16,869	12,067	7,809	4,307	3,168	1,035	727	552	46,534
5 days	13,666	10,081	6,222	3,688	3,462	863	527	453	38,962
6 days	7,867	5,305	3,593	2,396	1,383	484	405	257	21,690
7–13 days	7,305	5,603	3,721	3,326	1,775	516	493	334	23,073
14–20 days	919	719	517	258	266	87	54	86	2,906
21–27 days	438	336	333	120	174	26	20	39	1,486
28 or more days	756	656	603	242	381	76	63	74	2,851
Not stated	6	-	2	-	-	58	-	-	66
All live births	**86,615**	**61,914**	**48,236**	**25,467**	**18,366**	**5,931**	**4,629**	**3,432**	**254,590**
					Per cent				
Less than 1 day	3.8	1.9	3.2	3.0	1.7	5.8	6.0	4.1	3.1
1 day	9.2	6.4	12.1	8.5	6.8	11.4	9.9	11.2	8.9
2 days	14.3	14.3	18.1	14.5	15.0	14.2	15.3	14.6	15.1
3 days	17.6	21.3	19.4	17.7	18.7	16.0	19.3	17.8	18.9
4 days	19.5	19.5	16.2	16.9	17.2	17.6	15.7	16.1	18.3
5 days	15.8	16.3	12.9	14.5	18.9	14.7	11.4	13.2	15.3
6 days	9.1	8.6	7.4	9.4	7.5	8.2	8.7	7.5	8.5
7–13 days	8.4	9.0	7.7	13.1	9.7	8.8	10.7	9.7	9.1
14–20 days	1.1	1.2	1.1	1.0	1.4	1.5	1.2	2.5	1.1
21–27 days	0.5	0.5	0.7	0.5	0.9	0.4	0.4	1.1	0.6
28 or more days	0.9	1.1	1.3	1.0	2.1	1.3	1.4	2.2	1.1
All live births	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Length of stay for live births in hospital or birth centre of birth only, transfers are excluded.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A54: Length of baby's stay in hospital by plurality, Indigenous status, gestational age, and birthweight, live births, selected States and Territories, 1999

Characteristic[(a)]	Babies	0–2 days	3–4 days	5–6 days	7–13 days	14–20 days	21–27 days	28 or more days
					Per cent			
Plurality								
Singleton	246,818	27.7	38.0	24.0	8.2	0.9	0.4	0.8
Twin	7,461	7.4	13.1	20.4	36.1	9.7	5.0	8.4
Other multiple birth	311	10.6	2.6	1.0	19.6	16.4	7.1	42.8
Indigenous status								
Indigenous	8,728	41.1	32.4	13.8	7.6	1.8	1.1	2.2
Non-Indigenous	245,786	26.6	37.4	24.2	9.1	1.1	0.6	1.1
Not stated	76	34.2	36.8	21.1	7.9	-	-	-
Gestational age								
20–27 weeks	1,119	42.6	2.2	1.1	3.0	1.4	2.1	47.7
28–31 weeks	1,889	14.3	2.4	3.0	10.1	8.3	7.9	54.1
32–36 weeks	15,299	11.8	14.8	16.8	29.5	13.8	7.2	6.1
37–41 weeks	231,640	28.0	39.1	24.6	7.8	0.3	0.1	0.2
42 or more weeks	4,545	31.7	40.2	21.6	6.0	0.3	0.0	0.1
Not stated	98	32.0	30.9	25.8	10.3	-	-	1.0
Birthweight								
Less than 1,000 g	1,193	39.8	2.7	1.1	2.8	1.8	1.9	49.9
1,000–1,499 g	1,502	14.4	1.7	1.7	8.6	8.3	9.2	56.0
1,500–1,999 g	3,142	9.2	4.4	6.7	22.1	18.1	15.9	23.5
2,000–2,499 g	9,969	12.0	19.5	20.4	28.5	11.8	4.9	2.8
2,500 g and over	238,726	27.9	38.8	24.5	8.1	0.4	0.1	0.2
Not stated	58	49.1	26.3	17.5	5.3	-	-	1.8

(a) Length of baby's stay in hospital or birth centre of birth only. Transfers and home births are excluded.
Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A55: Mode of separation of infants born in hospitals, selected States and Territories, 1999

Mode of separation	NSW	VIC	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
Discharge home	81,929	59,303	46,601	24,426	17,287	5,543	4,306	3,453	242,848
Transfer to another hospital[(a)]	4,425	2,407	1,483	958	822	52	301	-	10,448
Fetal or neonatal death	788	647	499	240	141	69	53	69	2,506
Other	-	32	-	21	230	408	5	-	696
Not stated	6	-	-	-	-	12	2	30	50
All births	**87,148**	**62,389**	**48,583**	**25,645**	**18,480**	**6,084**	**4,667**	**3,552**	**256,548**
					Per cent				
Discharge home	94.0	95.1	95.9	95.2	93.5	91.3	92.3	98.0	94.7
Transfer to another hospital[(a)]	5.1	3.9	3.1	3.7	4.4	0.9	6.5	-	4.1
Fetal or neonatal death	0.9	1.0	1.0	0.9	0.8	1.1	1.1	2.0	1.0
Other	-	0.1	-	0.1	1.2	6.7	0.1	-	0.3
All births	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Includes infants that were transferred to another hospital and died.

Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A56: Fetal, neonatal and perinatal deaths and rates, various definitions, Australia, 1997–1999

	Number				Rate per 1,000 births			
Definition/Outcome	**1997**	**1998**	**1999**	**1997–1999**	**1997**	**1998**	**1999**	**1997–1999**
400 g/20 weeks								
Fetal deaths	1,516	1,336	1,284	4,136	6.0	5.3	5.1	5.5
Neonatal deaths	805	754	849	2,408	3.2	3.0	3.4	3.2
Perinatal deaths (ABS)	*2,321*	*2,090*	*2,133*	*6,544*	*9.2*	*8.3*	*8.5*	*8.7*
Live births	251,774	249,555	248,839	755,134				
500 g/22 weeks								
Fetal deaths	1,280	1,122	1,054	3,456	5.1	4.5	4.2	4.6
Early neonatal deaths	557	485	789	1,831	2.2	1.9	3.2	2.4
Neonatal deaths	718	679	744	2,141	2.9	2.7	3.0	2.9
Perinatal deaths (WHO)	*1,837*	*1,607*	*1,843*	*5,287*	*7.3*	*6.4*	*7.4*	*7.0*
Perinatal deaths (ABS)	*1,998*	*1,801*	*1,798*	*5,597*	*7.9*	*7.2*	*7.2*	*7.4*
Live births	251,720	249,495	248,753	749,968				
1,000 g/28 weeks								
Fetal deaths	891	923	732	2,546	3.5	3.7	2.9	3.4
Early neonatal deaths	307	282	440	1,029	1.2	1.1	1.8	1.4
Perinatal deaths (WHO)	*1,198*	*1,205*	*1,172*	*3,575*	*4.8*	*4.8*	*4.7*	*4.8*
All births[(a)]	250,509	248,537	247,781	746,827				

(a) Estimated live births.

Note: Fetal, neonatal and perinatal deaths from ABS based on year of registration.

Source: Australian Bureau of Statistics (ABS) 2000. *Causes of Death Australia, 1999* Cat. no. 3303.0. Canberra: AGPS. ABS Perinatal deaths data, 1999.

Table A57: Type of fetal death, Australia, 1994–1999

	Antepartum		Intrapartum[(a)]		Not known[(b)]		All fetal deaths	
Year	**Number**	**Rate per 1,000 births**	**Number**	**Rate per 1,000 births**	**Number**	**Rate per 1,000 births**	**Number**	**Rate per 1,000 births**
1994	893	3.4	370	1.4	149	0.6	1,412	5.4
1995	1,013	3.9	318	1.2	181	0.7	1,512	5.9
1996	1,074	4.2	397	1.6	197	0.8	1,668	6.5
1997	941	3.7	270	1.1	305	1.2	1,516	6.0
1998	904	3.6	269	1.1	163	0.6	1,336	5.3
1999	859	3.4	285	1.1	140	0.6	1,284	5.1

(a) Includes fetal deaths where it was not known whether heartbeat ceased before or after delivery.

(b) Not known whether heartbeat ceased before or during labour.

Note: Fetal deaths from ABS based on year of registration with 400 grams/20 weeks gestation definition.

Source: ABS Perinatal deaths data, 1999.

Table A58: Neonatal deaths by age at death, Australia, 1994–1999

Year	Less than 1 day		1–6 days		7–27 days		All neonatal deaths[(a)]	
	Number	Rate per 1,000 live births	Number	Rate per 1,000 live births	Number	Rate per 1,000 live births	Number	Rate per 1,000 live births
1994	513	2.0	259	1.0	177	0.7	949	3.7
1995	505	2.0	216	0.8	186	0.7	908	3.5
1996	474	1.9	224	0.9	177	0.7	879	3.5
1997	425	1.7	213	0.8	167	0.7	805	3.2
1998	342	1.4	215	0.9	195	0.8	754	3.0
1999	432	1.7	219	0.9	198	0.8	849	3.4

(a) Includes 'not stated' age at death.

Note: Neonatal deaths from ABS based on year of registration with 400 grams/20 weeks gestation definition.

Source: ABS Perinatal deaths data, 1999.

Table A59: Fetal, neonatal and perinatal deaths, Australia, 1994–1999

Year	Fetal deaths		Neonatal deaths		Perinatal deaths	
	Number	Rate per 1,000 births	Number	Rate per 1,000 live births	Number	Rate per 1,000 births
1994	1,412	5.4	949	3.7	2,361	9.1
1995	1,512	5.9	907	3.5	2,419	9.4
1996	1,668	6.5	875	3.4	2,543	10.0
1997	1,516	6.0	805	3.2	2,321	9.2
1998	1,336	5.3	754	3.0	2,090	8.3
1999	1284	5.1	849	3.4	2,133	8.5

Note: Fetal, neonatal and perinatal deaths from ABS based on year of registration with 400 grams/20 weeks gestation definition.

Source: Australian Bureau of Statistics (ABS) 2000 *Causes of Death Australia, 1999* Cat. no. 3303.0. Canberra: AGPS.

Table A60: Fetal, neonatal and perinatal deaths by maternal State or Territory of usual residence, 1994–1999

Outcome/Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
Fetal deaths									
1994	433	399	259	131	111	29	17	33	1,412
1995	467	381	278	162	127	40	26	31	1,512
1996	656	364	287	161	109	44	25	22	1,668
1997	568	333	271	135	109	48	19	33	1,516
1998	463	297	262	126	93	39	31	25	1,336
1999	385	343	241	137	81	35	31	31	1,284
1997–1999	*1,416*	*973*	*774*	*398*	*283*	*122*	*81*	*89*	*4,136*
Neonatal deaths									
1994	382	202	160	79	54	29	14	29	949
1995	318	201	181	73	65	24	15	31	908
1996	303	178	193	94	56	18	14	23	879
1997	293	189	159	67	43	22	9	23	805
1998	232	173	190	60	38	20	18	23	754
1999	320	200	144	71	38	30	19	27	849
1997–1999	*845*	*562*	*493*	*198*	*119*	*72*	*46*	*73*	*2,408*
Perinatal deaths									
1994	815	601	419	210	165	58	31	62	2,361
1995	785	582	459	235	192	64	41	62	2,420
1996	959	542	480	255	165	62	39	45	2,547
1997	861	522	430	202	152	70	28	56	2,321
1998	695	470	452	186	131	59	49	48	2,090
1999	705	543	385	208	119	65	50	58	2,133
1997–1999	*2,261*	*1,535*	*1,267*	*596*	*402*	*194*	*127*	*162*	*6,544*

Note: Fetal, neonatal and perinatal deaths from ABS based on year of registration with 400 grams/20 weeks gestation definition.
Source: Australian Bureau of Statistics (ABS) 2000 *Causes of Death Australia, 1999* Cat. no. 3303.0. Canberra: AGPS.

Table A60: Fetal, neonatal and perinatal death rates by maternal State or Territory of usual residence, 1994–1999 (cont.)

Outcome/Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Rate per 1,000 births				
Fetal deaths									
1994	4.9	6.2	5.5	5.2	5.7	4.2	3.8	9.0	5.5
1995	5.3	6.1	6.0	6.4	6.5	6.1	5.9	8.2	5.9
1996	7.5	5.9	6.0	6.5	5.7	6.8	5.7	6.2	6.5
1997	6.5	5.5	5.7	5.4	5.9	7.9	4.5	9.1	6.0
1998	5.4	4.9	5.5	5.1	5.1	6.5	7.7	6.8	5.3
1999	4.4	5.8	5.2	5.5	4.5	5.8	7.2	8.6	5.1
1997–1999	*5.4*	*5.4*	*5.5*	*5.3*	*5.2*	*6.7*	*6.5*	*8.2*	*5.5*
Neonatal deaths									
1994	4.3	3.2	3.4	3.1	2.8	4.2	3.1	8.0	3.7
1995	3.6	3.2	3.9	2.9	3.4	3.7	3.4	8.2	3.5
1996	3.5	2.9	4.0	3.8	2.9	2.8	3.2	6.5	3.5
1997	3.4	3.1	3.4	2.7	2.3	3.7	2.1	6.4	3.2
1998	2.7	2.9	4.0	2.4	2.1	3.3	4.5	6.3	3.0
1999	3.7	3.4	3.1	2.9	2.1	5.0	4.5	7.6	3.4
1997–1999	*3.3*	*3.1*	*3.5*	*2.7*	*2.2*	*4.0*	*3.7*	*6.8*	*3.2*
Perinatal deaths									
1994	9.2	9.4	9.0	8.3	8.5	8.4	6.9	17.0	9.1
1995	8.9	9.3	9.8	9.3	9.9	9.7	9.2	16.4	9.4
1996	11.0	8.8	10.0	10.2	8.6	9.5	8.8	12.6	10.0
1997	9.8	8.6	9.1	8.1	8.2	11.6	6.6	15.5	9.2
1998	8.1	7.7	9.6	7.5	7.2	9.8	12.2	13.1	8.3
1999	8.1	9.2	8.2	8.3	6.6	10.7	11.7	16.1	8.5
1997–1999	*8.7*	*8.5*	*9.0*	*8.0*	*7.3*	*10.7*	*10.1*	*14.9*	*8.7*

Note: Fetal, neonatal and perinatal deaths from ABS based on year of registration with 400 grams/20 weeks gestation definition.
Source: Australian Bureau of Statistics (ABS) 2000 *Causes of Death Australia, 1999* Cat. no. 3303.0. Canberra: AGPS.

Table A61: Perinatal deaths registered in the State or Territory of mothers' usual residence, Australia, 1997–1999

	State of registration								
State of usual residence	**NSW**	**Vic**	**Qld**	**WA**	**SA**	**Tas**	**ACT**	**NT**	**Australia**
					Number				
NSW	2,143	24	58	-	3	-	33	-	2,261
Vic	5	1,511	14	-	3	-	2	-	1,535
Qld	16	3	1,247	-	-	-	-	1	1,267
WA	-	4	8	582	1	-	-	1	596
SA	-	6	4	-	390	-	-	2	402
Tas	-	16	-	-	-	178	-	-	194
ACT	2	-	1	-	-	-	124	-	127
NT	1	3	-	1	5	-	-	152	162
Australia	**2,167**	**1,567**	**1,332**	**583**	**402**	**178**	**159**	**156**	**6,544**
					Per cent				
NSW	94.8	1.1	2.6	-	0.1	-	1.5	-	100.0
Vic	0.3	98.4	0.9	-	0.2	-	0.1	-	100.0
Qld	1.3	0.2	98.4	-	-	-	-	0.1	100.0
WA	-	0.7	1.3	97.7	0.2	-	-	0.2	100.0
SA	-	1.5	1.0	-	97.0	-	-	0.5	100.0
Tas	-	8.2	-	-	-	91.8	-	-	100.0
ACT	1.6	-	0.8	-	-	-	97.6	-	100.0
NT	0.6	1.9	-	0.6	3.1	-	-	93.8	100.0
Australia	**33.1**	**23.9**	**20.4**	**8.9**	**6.1**	**2.7**	**2.4**	**2.4**	**100.0**

Note: Perinatal deaths from ABS based on year of registration with 400 grams/20weeks gestation definition.
Source: ABS Perinatal deaths data, 1999.

Table A62: Fetal, neonatal and perinatal deaths by maternal age, Australia, 1994–1999

Outcome/Year	Maternal age (years)							
	Less than 20	20–24	25–29	30–34	35–39	40 and over	Not stated	All ages
					Number			
Fetal deaths								
1994	89	268	381	423	196	40	15	1,412
1995	131	294	427	395	187	47	31	1,512
1996	131	329	449	446	221	66	26	1,668
1997	105	270	462	382	236	40	21	1,516
1998	108	225	378	344	204	51	26	1,336
1999	95	205	365	361	185	50	23	1,284
1997–1999	*308*	*700*	*1,205*	*1,087*	*625*	*141*	*70*	*4,136*
Neonatal deaths								
1994	66	193	270	228	115	28	49	949
1995	77	193	243	219	102	20	54	908
1996	58	161	250	238	98	26	48	879
1997	81	138	204	201	121	25	35	805
1998	47	132	227	180	126	23	19	754
1999	68	169	233	205	122	35	17	849
1997–1999	*196*	*439*	*664*	*586*	*369*	*83*	*71*	*2,408*
Perinatal deaths								
1994	155	461	651	651	311	68	64	2,361
1995	208	487	670	614	289	67	85	2,420
1996	189	490	699	684	319	92	74	2,547
1997	186	408	666	583	357	65	56	2,321
1998	155	357	605	524	330	74	45	2,090
1999	163	374	598	566	307	85	40	2,133
1997–1999	*504*	*1,139*	*1,869*	*1,673*	*994*	*224*	*141*	*6,544*

Note: Fetal, neonatal and perinatal deaths from ABS based on year of registration with 400 grams/20 weeks gestation definition.
Source: ABS Perinatal deaths data, 1999.

Table A62: Fetal, neonatal and perinatal death rates by maternal age, Australia, 1994–1999 (cont.)

Outcome / Year	Maternal age (years)						
	Less than 20	20–24	25–29	30–34	35–39	40 and over	All ages
	Rate per 1,000 births						
Fetal deaths							
1994	6.9	5.4	4.4	5.5	6.8	8.7	5.4
1995	10.3	6.2	5.1	5.1	6.2	9.4	5.9
1996	10.4	7.3	5.4	5.8	6.9	12.4	6.5
1997	8.5	6.4	5.6	5.0	7.0	7.4	6.0
1998	9.0	5.6	4.6	4.5	5.9	8.6	5.3
1999	8.0	5.2	4.6	4.7	5.2	7.9	5.1
1997–1999	*8.5*	5.8	4.9	4.7	6.0	8.0	5.5
Neonatal deaths							
1994	5.1	3.9	3.2	3.0	4.0	6.2	3.7
1995	6.1	4.1	2.9	2.8	3.4	4.0	3.5
1996	4.6	3.6	3.0	3.1	3.1	5.0	3.5
1997	6.6	3.3	2.5	2.6	3.6	4.7	3.2
1998	4.0	3.3	2.8	2.4	3.7	3.9	3.0
1999	5.8	4.3	2.9	2.7	3.4	5.6	3.4
1997–1999	5.5	3.6	2.7	2.6	3.6	4.7	3.2
Perinatal deaths							
1994	12.0	9.3	7.6	8.4	10.8	14.8	9.1
1995	16.3	10.2	8.0	7.9	9.5	13.4	9.4
1996	15.0	10.8	8.4	8.9	9.9	17.3	10.0
1997	15.0	9.6	8.0	7.6	10.7	12.1	9.2
1998	13.0	8.9	7.4	6.9	9.6	12.6	8.3
1999	13.8	9.6	7.5	7.3	8.6	13.4	8.5
1997–1999	13.9	9.4	7.6	7.3	9.6	12.7	8.7

Note: Fetal, neonatal and perinatal deaths from ABS based on year of registration with 400 grams/20 weeks gestation definition.
Source: ABS Perinatal deaths data, 1999.

Table A63: Fetal, neonatal and perinatal deaths, singleton and multiple births, Australia, 1994–1999

Outcome/ Year	Singletons		Twins		Other multiple births		All babies	
	Number	Rate per 1,000 births	Number	Rate per 1,000 births	Number	Rate per 1,000 births	Number	Rate per 1,000 births
Fetal deaths								
1994	1,292	5.1	117	17.0	3	12.0	1,412	5.4
1995	1,371	5.5	133	19.6	8	26.7	1,512	5.9
1996	1,507	6.1	153	22.6	8	25.0	1,668	6.5
1997	1,375	5.6	128	18.4	13	39.0	1,516	6.0
1998	1,226	5.0	103	14.3	7	23.3	1,336	5.3
1999	1,156	4.8	118	16.2	10	30.3	1,284	5.1
1997–1999	*3,757*	5.1	*349*	16.3	*30*	31.1	*4,136*	5.5
Neonatal deaths								
1994	805	3.2	135	20.0	9	36.6	949	3.7
1995	743	3.0	152	22.9	13	44.5	908	3.5
1996	738	3.0	123	18.6	18	57.7	879	3.5
1997	700	2.9	89	13.0	16	50.0	805	3.2
1998	660	2.7	87	12.2	7	23.8	754	3.0
1999	704	2.9	131	18.2	14	43.8	849	3.4
1997–1999	*2,064*	2.8	*307*	14.5	*37*	39.6	*2,408*	3.2
Perinatal deaths								
1994	2,097	8.3	252	36.7	12	48.2	2,361	9.1
1995	2,114	8.4	285	42.0	21	70.0	2,420	9.4
1996	2,245	9.0	276	40.8	26	81.3	2,547	10.0
1997	2,075	8.4	217	31.2	29	87.1	2,321	9.2
1998	1,886	7.7	190	26.3	14	46.5	2,090	8.3
1999	1,860	7.7	249	34.1	24	72.7	2,133	8.5
1997–1999	*5,821*	8.0	*656*	30.5	*67*	69.5	*6,544*	8.7

Note: Fetal, neonatal and perinatal deaths from ABS based on year of registration with 400 grams/20 weeks gestation definition.
Source: ABS Perinatal deaths data, 1999.

Table A64: Fetal, neonatal and perinatal deaths by infant's sex, Australia, 1994–1999

	Number			Rate per 1,000 births		
Outcome/Year	**Males**	**Females**	**All infants**	**Males**	**Females**	**All infants**
Fetal deaths						
1994	798	614	1,412	6.0	4.9	5.4
1995	805	707	1,512	6.1	5.6	5.9
1996	900	768	1,668	6.8	6.2	6.5
1997	829	687	1,516	6.4	5.6	6.0
1998	707	629	1,336	5.5	5.1	5.3
1999	682	602	1284	5.3	4.9	5.1
1997–1999	*2,218*	*1,918*	*4,136*	5.7	5.2	5.5
Neonatal deaths						
1994	561	388	949	4.2	3.1	3.7
1995	514	394	908	3.9	3.2	3.5
1996	509	370	879	3.9	3.0	3.5
1997	443	362	805	3.4	3.0	3.2
1998	435	319	754	3.4	2.6	3.0
1999	510	339	849	4.0	2.8	3.4
1997–1999	*1,388*	*1,020*	*2,408*	3.6	2.8	3.2
Perinatal deaths						
1994	1,359	1,002	2,361	10.2	8.0	9.1
1995	1,319	1,101	2,420	10.0	8.8	9.4
1996	1,409	1,138	2,547	10.7	9.2	10.0
1997	1,272	1,049	2,321	9.8	8.5	9.2
1998	1,142	948	2,090	8.9	7.8	8.3
1999	1,192	941	2,133	9.3	7.7	8.5
1997–1999	*3,606*	*2,938*	*6,544*	*9.3*	*8.0*	*8.7*

Note: Fetal, neonatal and perinatal deaths from ABS based on year of registration with 400 grams/20 weeks gestation definition.
Source: Australian Bureau of Statistics (ABS) 2000 Causes of Death Australia, 1999 Cat. No. 3303.0. Canberra: AGPS.

Table A65: Fetal deaths by gestational age, Australia, 1994–1999

Year	Gestational age (weeks)						
	Less than 28	28–31	32–36	37–41	42 and over	Not stated	Total
				Number			
1994	535	151	271	361	20	74	1,412
1995	527	169	293	398	15	110	1,512
1996	645	214	313	433	11	52	1,668
1997	557	176	313	443	13	14	1,516
1998	496	163	257	386	15	19	1,336
1999	498	144	253	351	9	29	1,284
				Proportionate death rate per 1,000 births			
1994	2.1	0.6	1.0	1.4	0.1	0.3	5.4
1995	2.0	0.7	1.1	1.5	0.1	0.4	5.9
1996	2.5	0.8	1.2	1.7	0.0	0.2	6.5
1997	2.2	0.7	1.2	1.7	0.1	0.1	6.0
1998	2.0	0.6	1.0	1.5	0.1	0.1	5.3
1999	2.0	0.6	1.0	1.4	0.0	0.1	5.1

Note: Fetal deaths from ABS based on year of registration with 400 grams/20 weeks gestation definition.
Source: ABS Perinatal deaths data, 1999.

Table A66: Neonatal deaths by gestational age, Australia, 1994–1999

Year	Gestational age (weeks)						
	Less than 28	28–31	32–36	37–41	42 and over	Not stated	Total
				Number			
1994	399	101	117	266	14	52	949
1995	435	81	94	244	12	42	908
1996	424	64	114	241	7	29	879
1997	360	90	100	211	9	35	805
1998	323	68	98	226	1	38	754
1999	406	75	102	232	4	30	849
				Proportionate death rate per 1,000 births			
1994	1.5	0.4	0.5	1.0	0.1	0.2	3.7
1995	1.7	0.3	0.4	1.0	0.0	0.2	3.5
1996	1.7	0.3	0.4	0.9	0.0	0.1	3.5
1997	1.4	0.4	0.4	0.8	0.0	0.1	3.2
1998	1.3	0.3	0.4	0.9	0.0	0.2	3.0
1999	1.6	0.3	0.4	0.9	0.0	0.1	3.4

Note: Neonatal deaths from ABS based on year of registration with 400 grams/20 weeks gestation definition.
Source: ABS Perinatal deaths data, 1999.

Table A67: Perinatal deaths by gestational age, Australia, 1994–1999

Year	Gestational age (weeks)						
	Less than 28	28–31	32–36	37–41	42 and over	Not stated	Total
				Number			
1994	934	252	388	627	34	126	2,361
1995	962	250	387	642	27	152	2,420
1996	1,069	278	427	674	18	81	2,547
1997	917	266	413	654	22	49	2,321
1998	819	231	355	612	16	57	2,090
1999	904	219	355	583	13	59	2,133
				Proportionate death rate per 1,000 births			
1994	3.6	1.0	1.5	2.4	0.1	0.5	9.1
1995	3.7	1.0	1.5	2.5	0.1	0.6	9.4
1996	4.2	1.1	1.7	2.6	0.1	0.3	10.0
1997	3.6	1.1	1.6	2.6	0.1	0.2	9.2
1998	3.3	0.9	1.4	2.4	0.1	0.2	8.3
1999	3.6	0.9	1.4	2.3	0.1	0.2	8.5

Note: Perinatal deaths from ABS based on year of registration with 400 grams/20 weeks gestation definition.
Source: ABS Perinatal deaths data, 1999.

Table A68: Fetal deaths by birthweight, Australia, 1994–1999

Year	Birthweight (g)				
	Less than 1,000	1,000–2,499	2,500 and over	Not stated	Total
			Number		
1994	597	338	365	112	1,412
1995	541	428	418	125	1,512
1996	685	451	457	75	1,668
1997	604	420	451	41	1,516
1998	546	353	396	41	1,336
1999	528	356	349	51	1,284
			Proportionate death rate per 1,000 births		
1994	2.3	1.3	1.4	0.4	5.4
1995	2.1	1.7	1.6	0.5	5.9
1996	2.7	1.8	1.8	0.3	6.5
1997	2.4	1.7	1.8	0.2	6.0
1998	2.2	1.4	1.6	0.2	5.3
1999	2.1	1.4	1.4	0.2	5.1

Note: Fetal deaths from ABS based on year of registration with 400 grams/20 weeks gestation definition.
Source: ABS Perinatal deaths data, 1999.

Table A69: Neonatal deaths by birthweight, Australia, 1994–1999

Year	Birthweight (g)				
	Less than 1,000	1,000–2,499	2,500 and over	Not stated	Total
			Number		
1994	391	227	277	54	949
1995	419	206	242	41	908
1996	415	175	261	28	879
1997	376	184	215	30	805
1998	318	184	226	26	754
1999	400	195	222	32	849
			Proportionate death rate per 1,000 live births		
1994	1.5	0.9	1.1	0.2	3.7
1995	1.6	0.8	0.9	0.2	3.5
1996	1.6	0.7	1.0	0.1	3.5
1997	1.5	0.7	0.9	0.1	3.2
1998	1.3	0.7	0.9	0.1	3.0
1999	1.6	0.8	0.9	0.1	3.4

Note: Neonatal deaths from ABS based on year of registration with 400 grams/20 weeks gestation definition.
Source: ABS Perinatal deaths data, 1999.

Table A70: Perinatal deaths by birthweight, Australia, 1994–1999

Year	Birthweight (g)				
	Less than 1,000	1,000–2,499	2,500 and over	Not stated	Total
			Number		
1994	988	565	642	166	2,361
1995	960	634	660	166	2,420
1996	1,100	626	718	103	2,547
1997	980	604	666	71	2,321
1998	864	537	622	67	2,090
1999	928	551	571	83	2,133
			Proportionate death rate per 1,000 births		
1994	3.8	2.2	2.5	0.6	9.1
1995	3.7	2.5	2.6	0.6	9.4
1996	4.3	2.5	2.8	0.4	10.0
1997	3.9	2.4	2.6	0.3	9.2
1998	3.4	2.1	2.5	0.3	8.3
1999	3.7	2.2	2.3	0.3	8.5

Note: Perinatal deaths from ABS based on year of registration with 400 grams/20 weeks gestation definition.
Source: ABS Perinatal deaths data, 1999.

Table A71: Fetal deaths by maternal age, Australia, 1999

Maternal age (years)	Fetal deaths	Live births	Total births	Fetal death rate
		Number		(per 1,000 births)
Less than 20	137	12,922	13,059	10.5
20–24	292	40,973	41,265	7.1
25–29	525	82,076	82,601	6.4
30–34	481	77,626	78,107	6.2
35–39	272	35,730	36,002	7.6
40 and over	79	6,233	6,312	12.5
Not stated	3	45	48	-
All ages	**1,789**	**255,605**	**257,394**	**7.0**

Notes: Data include fetuses and infants of at least 20 weeks gestation or 400 g birthweight.
Data for Tasmania unavailable, 1998 data used as an estimate.

Table A72: Fetal deaths by maternal age and Indigenous status, Australia, 1999

Maternal age (years)	Fetal deaths		Live births		Total births		Fetal death rate	
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous[(a)]	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
			Number				(per 1,000 births)	
Less than 20	21	116	1,935	10,987	1,956	11,103	10.7	10.4
20–24	42	250	2,757	38,216	2,799	38,466	15.0	6.5
25–29	20	505	2,373	79,703	2,393	80,208	8.4	6.3
30–34	17	464	1,225	76,401	1,242	76,865	13.7	6.0
35–39	11	261	452	35,278	463	35,539	23.8	7.3
40 and over	1	78	76	6,157	77	6,235	13.0	12.5
Not stated	-	3	-	45	-	48	-	-
All ages	**112**	**1,677**	**8,818**	**246,787**	**8,930**	**248,464**	**12.5**	**6.7**

(a) Includes cases where Indigenous status is not stated as these were live births.
Notes: Data include fetuses and infants of at least 20 weeks gestation or 400 g birthweight.
Data for Tasmania unavailable, 1998 data used as an estimate.

Table A73: Fetal deaths by parity, Australia, 1999

Parity	Fetal deaths	Live births	Total births	Fetal death rate
		Number		(per 1,000 births)
None	818	104,236	105,054	7.8
One	491	86,594	87,085	5.6
Two	250	40,700	40,950	6.1
Three	126	15,026	15,152	8.3
Four or more	104	9,049	9,153	11.4
All parities	**1,789**	**255,605**	**257,394**	**7.0**

Notes: Data include fetuses and infants of at least 20 weeks gestation or 400 g birthweight.
Data for Tasmania unavailable, 1998 data used as an estimate.

Table A74: Fetal deaths by plurality, Australia, 1999

Plurality	Fetal deaths	Live births	Total births	Fetal death rate
		Number		(per 1,000 births)
Singleton	1,604	247,819	249,423	6.4
Twin	170	7,472	7,642	22.2
Other multiple births	15	314	329	45.6
All births	**1,789**	**255,605**	**257,394**	**7.0**

Notes: Data include fetuses and infants of at least 20 weeks gestation or 400 g birthweight.
Data for Tasmania unavailable, 1998 data used as an estimate.

Table A75: Fetal deaths by admitted patient election status in hospital, selected States and Territories, 1999

Hospital status[(a)]	Fetal deaths	Live births	Total births	Fetal death rate
		Number		(per 1,000 births)
Public	1,255	176,799	178,054	7.0
Private	409	71,205	71,614	5.7
Not stated	125	7,601	7,726	-
All births	**1,789**	**255,605**	**257,394**	**7.0**

(a) Data exclude Northern Territory.
Notes: Data include fetuses and infants of at least 20 weeks gestation or 400 g birthweight.
Data for Tasmania unavailable, 1998 data used as estimate.

Table A76: Fetal, neonatal and perinatal deaths, States and Territories, 1999

Outcome	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
Live births	86,756	62,217	48,400	25,592	18,404	6,037	4,650	3,549	255,605
Fetal deaths	533	472	347	179	115	55	38	50	1,789
Neonatal deaths[(a)]	251	237	171	75	38	14	13	23	822
Total perinatal deaths	784	709	518	254	153	69	51	73	2,611
Total births	**87,289**	**62,689**	**48,747**	**25,771**	**18,519**	**6,092**	**4,688**	**3,599**	**257,394**
					Rate per 1,000 births				
Fetal deaths	6.1	7.5	7.1	6.9	6.2	9.0	8.1	13.9	7.0
Neonatal deaths[(a)]	2.9	3.8	3.5	2.9	2.1	2.3	2.8	6.5	3.2
Total perinatal deaths	9.0	11.3	10.6	9.9	8.3	11.3	10.9	20.3	10.1

(a) May exclude neonatal deaths within 28 days of birth for babies transferred or readmitted to hospital and those dying at home.
Note: Data for Tasmania unavailable, 1998 data used as an estimate.

Table A77: Causes of perinatal deaths, selected States, 1999

	Western Australia		South Australia	
Causes[(a)]	Number	Per cent	Number	Per cent
Spontaneous preterm	57	22.4	18	11.8
Intrauterine growth restriction	5	2.0	12	7.8
Unexplained intrauterine death	33	13.0	27	17.6
Birth trauma	5	2.0	-	0.0
Intrapartum asphyxia	15	5.9	5	3.3
Hypertension	5	2.0	4	2.6
Maternal disease	5	2.0	3	2.0
Antepartum haemorrhage	25	9.8	17	11.1
Fetal abnormality	67	26.4	48	31.4
Haemolytic disease	3	1.2	-	-
Infection	18	7.1	10	6.5
Other	16	6.3	9	5.9
All causes	**254**	**100.0**	**153**	**100.0**

(a) Causes of perinatal death based upon a modified Whitfield classification system.

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Explanatory notes

- The term 'Indigenous' is used to refer to mothers of Aboriginal or Torres Strait Islander descent and their babies.
- Tabulated data in this report are based on births that occurred in each State and Territory in 1999. Because of differences in data items, and varying practices for coding the mother's place of residence if she lived in a State or Territory other than that in which the birth occurred, it is presently not possible to analyse the perinatal data according to region of residence.
- Confinements and births in 'not stated' categories are excluded from calculation of percentages. Due to rounding, percentages may not always add up to exactly 100.0%.
- Trend lines have been fitted using a second order polynomial regression model to approximate a line of best fit (Kleinbaum et al. 1988).
- Maternal age in this report is calculated as an integer function of the difference in days between the baby's and mother's dates of birth divided by 365.25. Slight differences in maternal age may exist compared to those in State and Territory reports.
- All averages are arithmetically derived excluding unknowns and may differ from those derived by the States and Territories in their reports.
- Length of stay in this report is calculated as a function of the difference in days between the baby's date of birth and the mother's or baby's date of separation, and only accounts for stays at the hospital or birth centre of initial confinement. Those babies born before arrival are also included. Mothers or babies who are transferred and home births are excluded from length of stay statistics.
- Perinatal data from the Tasmanian perinatal data collection for 1999 was not available at the time of submission for the Australia's mothers and babies 1999 report. Thus, 1998 data was used as a proxy for 1999 data in this report.
- Data on marital status for New South Wales in 1999 were excluded at request by NSW Health due to large fluctuations in numbers for the items, thought to be due to changes in the method and timing of its data collection.
- If data items such as presentation or type of delivery differed for twins or other multiple births, the confinement was arbitrarily included in the category of the first multiple birth.
- Fetal deaths (stillbirths) from the State and Territory perinatal collections have a gestational age of at least 20 weeks or a birthweight of at least 400 g and relate to year of 'birth'. Fetal, neonatal and perinatal deaths in the tables and figures based on data from the Australian Bureau of Statistics also use a birthweight of at least 400 g or, when birthweight was not available, a gestational age of at least 20 weeks and relate to year of 'registration'.

- Information on the Australian Bureau of Statistics births denominators for gestational age and birthweight breakdowns of fetal, neonatal and perinatal death rates are not available. These categories of gestational age and birthweight are expressed as proportionate death rates. The denominator used for calculating proportionate death rates is the total number of births rather than the number of births in a particular gestational age or birthweight group.
- The National Health Data Dictionary version 10.0 definition defines the scope of perinatal data collection as mortality and morbidity occurring at the hospital of birth from the period of 20 completed weeks gestation and up to 28 days post live born delivery.
- Due to data editing and subsequent updates of State and Territory databases, the figures in this report may differ slightly from those in reports published by the States and Territories.

Glossary

Aboriginality (Indigenous status): 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 with which he or she is associated (Department of Aboriginal Affairs, Constitutional Section 1981). Aboriginality is determined by the person's self-identification.

Admission date: date on which a pregnant woman commences an episode of care as an admitted patient, resulting in confinement (delivery).

Antepartum fetal death: fetal death occurring before the onset of labour.

Apgar score: numerical score to evaluate the baby's condition at 1 minute and 5 minutes after birth.

Birth status: status of the baby immediately after birth.

Birthweight: the first weight of the baby (stillborn or liveborn) obtained after birth (usually measured to the nearest five grams and obtained within one hour of birth).

Caesarean section: operative birth through an abdominal incision.

Complications of labour and delivery: medical and obstetric problems arising after the onset of labour and before the completed delivery of the baby and placenta.

Complications of puerperium: medical and obstetric problems of the mother occurring during the postnatal period (up to 6 weeks after giving birth).

Confinement: pregnancy resulting in at least one birth.

Congenital malformations: structural or anatomical abnormalities that are present at birth, usually resulting from abnormal development in the first trimester of pregnancy.

Discharge date: date on which a woman completes an episode of care as an admitted patient after giving birth.

Early neonatal death: death of a liveborn baby within 7 days of birth.

Elective caesarean section: operative birth through an abdominal incision performed before the onset of labour.

Emergency caesarean section: operative birth through an abdominal incision performed after the onset of labour.

Extremely low birthweight: birthweight of less than 1,000 g.

Fetal death (stillbirth): death prior to the complete expulsion or extraction from its mother of a product of conception of 20 or more completed weeks of gestation or of 400 g or more birthweight. The death is indicated by the fact that after such separation the fetus does not breathe or show any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles.

Forceps: assisted birth using a metallic obstetric instrument.

Gestational age: the duration of pregnancy in completed weeks calculated from the date of the first day of a woman's last menstrual period and her baby's date of birth, or derived from clinical assessment during pregnancy or from examination of the baby after birth.

Hospital size: number of confinements occurring annually in a hospital.

Indigenous: a person of Aboriginal and/or Torres Strait Islander descent who identifies as an Aboriginal and/or Torres Strait Islander and is accepted as such by the community with which he or she is associated.

Baby's discharge date: date on which a newborn baby completes an episode of care after birth.

Baby's length of stay: number of days between date of birth and date of discharge from the hospital of birth (calculated by subtracting the date of birth from the date of discharge).

International Classification of Diseases: WHO's internationally accepted classification of death and disease. The 9th Revision (ICD-9) and the tenth revision, Australian Modification (ICD-10-AM) is referred to in this report.

Intrapartum fetal death: fetal death occurring during labour.

Late neonatal death: death of a liveborn baby after 7 completed days and before 28 completed days.

Live birth: live birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached; each product of such a birth is considered liveborn (WHO definition).

Low birthweight: birthweight of less than 2,500 g.

Marital status: current marital status of a woman at the time of confinement. Married and de facto are coded as one variable.

Maternal age: mother's age at her child's birth.

Maternal medical conditions: pre-existing maternal diseases and conditions, and other diseases, illnesses or conditions arising during pregnancy, that are not directly attributable to pregnancy but may significantly affect care during pregnancy and/or pregnancy outcome. Examples include essential hypertension, diabetes mellitus, epilepsy, cardiac disease, and chronic renal disease.

Mode of separation of mother: status at separation of patient (discharge/transfer/death) and place to which patient is released (where applicable).

Mother's length of stay: number of days between admission date (during the admission resulting in delivery) and discharge date (from the hospital where delivery occurred). The interval is calculated by subtracting the date of admission from the date of discharge.

Multipara: pregnant woman who has had at least one previous pregnancy resulting in a live birth or stillbirth.

Neonatal death: death of a liveborn baby within 28 days of birth.

Neonatal morbidity: any condition or disease of the baby diagnosed after birth and before separation from care.

Obstetric complications: Obstetric complications are conditions arising during pregnancy that are directly attributable to pregnancy and may significantly affect care during pregnancy and/or pregnancy outcome. Examples include threatened abortion, antepartum haemorrhage, pregnancy-induced hypertension and gestational diabetes.

Parity: number of previous pregnancies resulting in live births or stillbirths.

Perinatal death: A perinatal death is a fetal or neonatal death of at least 20 weeks gestation or at least 400 g birthweight.

Plurality: the number of births resulting from a pregnancy.

Presentation at delivery: presenting part of the fetus (that is, at lower segment of uterus) at delivery.

Preterm birth: birth before 37 completed weeks of gestation.

Primipara: pregnant woman who has had no previous pregnancy resulting in a live birth or stillbirth.

Repair following delivery: surgical suturing of perineal laceration or episiotomy incision.

Resuscitation of baby: active measures taken shortly after birth to assist baby's ventilation and heartbeat; or to treat depressed respiratory effort and to correct metabolic disturbances.

Spontaneous vertex: birth without intervention in which the baby's head is the presenting part.

Stillbirth: See 'fetal death'.

Vacuum extraction: assisted birth using a suction cap applied to the baby's head.

Vaginal breech: birth in which the baby's buttocks or lower limbs are the presenting parts.

Very low birthweight: birthweight of less than 1,500 g.

Whitfield: a classification system for perinatal deaths.

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