



7.15 Caesarean sections

Since 1985, the World Health Organization (WHO) has recommended a population caesarean section rate of 10–15% to ensure mortality rates are kept low for mothers and babies (RHR 2015). Of the close to 309,000 babies born to 304,300 women in 2015 in Australia, 33% (101,370) were born by caesarean section.

According to the latest Organisation for Economic Co-operation and Development (OECD) data, in 2014, Australia had the eighth highest caesarean section rate of 33 countries, with a caesarean rate of 34 per 100 live births—higher than the OECD average of 28 per 100 live births (OECD 2017). The caesarean section rate among OECD countries ranged from 16 per 100 live births for Finland to 53 per 100 for Turkey (OECD 2017).

Caesarean section rates are increasing

Between 2005 and 2015, the rate of birth by caesarean sections in Australia continued to rise, from 30% of births in 2005 to 33% of births in 2015. Both emergency (unplanned) and elective (planned) caesarean section births have increased in Australia over time, but there seems to be a larger increase in rates of planned caesarean sections (ACSQHC 2017). As caesarean section rates increase, it is important that mothers are aware of the risks involved with this procedure, and that caesarean sections should occur only when there is a clinical need (RHR 2015).

Variation in caesarean section rates

In 2015, of the 51,372 women who had previously had a caesarean section, most (85%) had a repeat caesarean section. Of all mothers who gave birth, having had a previous caesarean section was the most common reason given for having one in 2015. Nearly one-quarter (23%) of mothers had a primary caesarean section (that is, they had not had a caesarean section before).

Other factors related to mothers being more likely to have a caesarean section were:

- maternal age of 40 or more (52%)
- mothers who had a multiple birth (69% of twins and 88% of other multiples)
- mothers whose babies were breech, where the baby exits buttocks or feet first (87%).

Women who gave birth in a private hospital were also more likely to have a caesarean section (45%) than women who gave birth in a public hospital (30%) (Table 7.15.1).



Table 7.15.1: Factors related to mothers being likely to have a caesarean section, 2015

	Caesarean births	Vaginal births
Previous caesarean	85%	15%
Total = 51,372	Number = 43,584	Number = 7,787
40 years and over	52%	48%
Total = 12,903	Number = 6,734	Number = 6,168
Twins	69%	32%
Total = 8,922	Number = 6,111	Number = 2,810
Other multiple births	88%	12%
Total = 237	Number = 209	Number = 28
Breech presentation	87%	13%
Total = 13,424	Number = 11,703	Number = 1,720
Birthed in a private hospital	45%	55%
Total = 79,525	Number = 35,835	Number = 43,687

Note: Not stated values included in denominator 'Total'.

Source: National Perinatal Data Collection; Table S7.15.1.

Rates using the Robson classification system

In 2015, the WHO guidelines were revised. The WHO now recommends that, rather than a population-based estimate of caesarean section rate, the Robson classification (also called the 10-group classification) be used to evaluate and compare caesarean section rates between groups of women (ACSQHC 2017; RHR 2015). This classification system groups women into 10 mutually exclusive groups based on obstetric characteristics, such as parity (number of previous pregnancies), onset of labour, whether there has been a previous caesarean section, and the baby's gestational age (RHR 2015).

The AIHW, in collaboration with the National Maternity Data Development Project Advisory Group, recently undertook preliminary work using the National Perinatal Data Collection 2015 data for the first time to group women into the 10 Robson classification categories. Women presenting with a breech pregnancy were most likely to have a caesarean section (92% for first pregnancies, 86% for subsequent pregnancies) followed by those with singleton pregnancies near term who had one or more previous caesarean sections (85%). Focusing on key groups within the Robson classification provides a more detailed understanding of caesarean section rates among different classification groups. This will allow a more targeted intervention, and further understanding of the relatively high caesarean section rate in Australia.



Women who gave birth in 2015, by the ten Robson classification categories

First time mother, singleton pregnancy, baby in breech (feet first) presentation

6,076 women gave birth in this group
5,574 had a caesarean section



Mother has previously given birth with current singleton baby in breech (feet first) presentation

4,714 women gave birth in this group
4,066 had a caesarean section



Mother has previously given birth with a previous caesarean scar, singleton pregnancy, baby in cephalic (head first) presentation, >37 weeks gestation, induced labour or caesarean section before labour

44,403 women gave birth in this group
37,586 had a caesarean section



Multiple pregnancy, including women with previous caesarean scars

4,540 women gave birth in this group
3,086 had a caesarean section



All women with a singleton pregnancy, baby in transverse (side on) or oblique lie, including women with previous caesarean scars

2,918 women gave birth in this group
1,388 had a caesarean section



First time mother, singleton pregnancy, baby in cephalic (head first) presentation, >37 weeks gestation, induced labour or caesarean section before labour

54,043 women gave birth in this group
24,447 had a caesarean section



All women with a singleton pregnancy, baby in cephalic (head first) presentation, ≤ 36 weeks gestation, including women with previous caesarean scars

17,874 women gave birth in this group
7,060 had a caesarean section



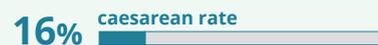
Mother has previously given birth without a previous caesarean scar, singleton pregnancy, baby in cephalic (head first) presentation, >37 weeks gestation, induced labour or caesarean section before labour

39,920 women gave birth in this group
6,536 had a caesarean section



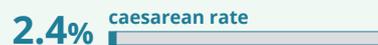
First time mother, singleton pregnancy, baby in cephalic (head first) presentation, >37 weeks gestation, spontaneous labour (not induced)

58,958 women gave birth in this group
9,482 had a caesarean section



Mother has previously given birth without a previous caesarean scar, singleton pregnancy, baby in cephalic (head first) presentation, >37 weeks gestation, spontaneous labour (not induced)

68,537 women gave birth in this group
1,676 had a caesarean section



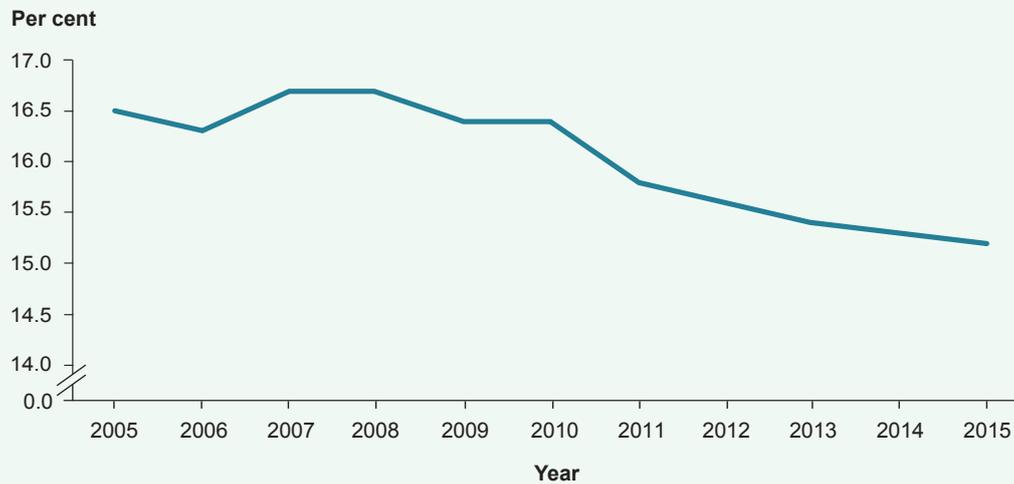
Source: National Perinatal Data Collection; Table S7.15.2.

Vaginal births after caesarean section rates have declined over time

The rate of women opting for a vaginal birth after having had a previous caesarean section (VBAC) declined slightly between 2005 and 2015. The rate of mothers having a successful VBAC (with or without instrumentation) for their current birth was 16.5% in 2005, decreasing to 15.2% in 2015 (Figure 7.15.1).



Figure 7.15.1: Mothers who had a vaginal birth who have had a previous caesarean section, 2005 to 2015



Source: National Perinatal Data Collection; Table S7.15.3.

Monitoring caesarean sections in Australia

The National Core Maternity Indicators (NCMIs) present information on measures of clinical activity and outcomes over time to monitor the safety and quality of maternity care. The indicators related to caesarean section in the NCMIs include 'Caesarean section for selected women giving birth for the first time' and 'Women having their second birth vaginally whose first birth was by caesarean section'. Monitoring the rates of caesarean sections is an important way to ensure that there is continual improvement in the quality of maternity services in Australia.

What is missing from the picture?

There are limited data on caesarean sections, especially in terms of planned versus emergency caesarean sections. These data are essential if best evidence-based practices are to be implemented across settings, and to better inform policy decisions.

As noted in this snapshot, caesarean section rates using the Robson classification are a more effective way to view caesarean section rates than reporting a population rate. Future routine reporting and analysis of caesarean sections using this system will allow policy and practice to more effectively target specific groups of women.

Where do I go for more information?

More information on mothers and babies in Australia, including the perinatal dynamic data displays and the National Core Maternity Indicators report and display, are available at www.aihw.gov.au/reports-statistics/population-groups/mothers-babies/overview.

The report *Australia's mothers and babies 2015—in brief* and other recent releases are available for free download.



Australian Government

Australian Institute of
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Chapter 7

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