



Chapter 1

Early planned births

At a glance



Planned birth by caesarean section or induction (a medical treatment to start labour) is an important intervention in maternity care. However, the timing of birth should be carefully considered to ensure the best outcome for the mother and her baby.

When planning for birth by caesarean section or induction of labour, waiting until at least 39 weeks gestation results in better short- and long-term outcomes for the baby, unless there are medical or obstetric reasons for earlier birth. Short-term risks, such as respiratory problems and the need for intensive care, are higher for babies born at early term (by caesarean section or induction of labour) than at full term. Longer-term risks in children born before 39 weeks gestation (either vaginally or by caesarean section) compared with those born at full term include cognitive deficits and a higher risk of attention deficit hyperactivity disorder.

In 2017, the ranges of state and territory rates for caesarean sections without a medical or obstetric indication, as percentages of all caesarean sections at these gestational ages, were*:

- <37 weeks, 13.3–19.3%
- <38 weeks, 24.8–32.7%
- <39 weeks, 42.8–56.1%.

Despite a number of data limitations (see page 49),[▼] the estimates presented in this chapter suggest that the percentage of caesarean sections performed before 39 weeks without a medical or obstetric indication may be substantial, and action is needed to reduce these rates.

Strategies to reduce rates of planned birth without a medical or obstetric indication before 39 weeks gestation include:

- Changing policies of state and territory governments, hospitals and insurers to block booking of early planned births without a medical or obstetric indication
- Giving parents information about the risks and benefits of early planned birth, and support for shared decision making
- Giving clinicians information about the risks and benefits of early planned birth
- Collecting data on the reasons for early planned birth.

* Excludes Northern Territory.

Recommendations

The Commission consulted widely, but is solely responsible for making the recommendations; as such, the recommendations may not reflect the views of all contributors to the Atlas.

- 1a. It is recommended that pregnancies continue until at least 39 weeks gestation unless there is a medical or obstetric reason justifying earlier intervention.

- 1b. Health service organisations with maternity services, and clinicians, to implement systems to obtain informed patient consent that includes the provision of comparative information for prospective parents on the short- and long-term risks of early planned birth without a medical or obstetric indication.

- 1c. Health service organisations with maternity services to establish policies to cease booking planned births without a medical or obstetric indication before 39 weeks from July 2022 and to review adherence to these policies.

- 1d. Medicare Benefits Schedule payment for planned births before 39 weeks without a medical or obstetric indication to cease from July 2022.

- 1e. Health service organisations with maternity services, and clinicians, to ensure that care is consistent with The Whole Nine Months campaign.

- 1f. The Australian Institute of Health and Welfare (AIHW) to prioritise the development of the indicator on early caesarean section without a medical or obstetric indication in the National Core Maternity Indicators, including the need for a data element on the reason for early birth.

- 1g. All state and territory health departments to ensure consistent, routine collection and reporting of data on gestational age for planned births without a medical or obstetric indication to improve the quality of data collections. This should include reporting of gestational age in days to allow more in-depth understanding of the distribution of births occurring before 39 weeks.

1h. Health service organisations with maternity services to:

- i. Report early planned births without a medical or obstetric indication as part of mandatory reporting of National Core Maternity Indicators

 - ii. Conduct audits of records documenting the communication of information to prospective parents about the risks of early planned births without a medical or obstetric indication, and provide the results back to clinicians to act upon, in line with Action 1.28 of the National Safety and Quality Health Service Standards

 - iii. Incorporate individual clinicians' audit data as part of re-credentialing processes

 - iv. Report on agreed key performance indicators, trends and adverse events on early planned births without a medical or obstetric indication to the governing body.

- 1i. Short- and long-term risks arising from early planned birth without a medical or obstetric indication are avoidable. The Commission to include early caesarean section without a medical or obstetric indication in the national list of hospital-acquired complications.
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1.1 Early planned births without medical or obstetric indication

Why is this important?

When planning for birth by caesarean section or induction of labour, waiting until at least 39 weeks gestation results in better short- and long-term outcomes for the baby, unless there are medical or obstetric reasons for earlier birth. Short-term risks, such as respiratory problems and the need for neonatal intensive care, are higher for babies born at early term (by caesarean section or induction of labour) than at full term.¹⁻⁴ There is some evidence of longer-term risks in children born before 39 weeks gestation (either vaginally or by caesarean section) compared with those born at full term, including cognitive deficits and a higher risk of attention deficit hyperactivity disorder (ADHD).⁵

What did we find?

In 2017, the ranges of state and territory rates for caesarean sections without a medical or obstetric indication, as a percentage of all caesarean sections at these gestational ages, were*:

- <37 weeks, 13.3–19.3%
- <38 weeks, 24.8–32.7%
- <39 weeks, 42.8–56.1%.

Rates of induction of labour without a medical or obstetric indication at gestational age of <39 weeks were also examined: in contrast to caesarean section, these percentages were very low, ranging from 0.2% to 6% in 2017 in six reporting states and territories.

What can be done?

Strategies to reduce rates of early planned birth[†] without medical or obstetric indication before 39 weeks gestation include:

- Revision of the Medical Benefits Schedule (MBS) to cease payments for early term planned births without a medical or obstetric indication
- State and territory governments, hospitals and insurers to cease allowing early planned births without a medical or obstetric indication
- Giving parents information about the risks (and benefits, in some cases) of early planned birth, and support for shared decision making
- Giving clinicians information about the risks and benefits of early planned birth
- Improving data collection and monitoring to highlight where progress is being made and where more work is needed
- Reporting to the public at the hospital level to improve transparency and accountability.

* Excludes Northern Territory. Note: the reason for caesarean section and the reason for early birth are not necessarily related; data on medical or obstetric reasons for early birth are not collected.

† Birth without established labour is interpreted as planned birth in this report.

Early planned births without medical or obstetric indication

Context

Planned birth by caesarean section or induction (a medical treatment to start labour) can be an important intervention in maternity care. However, the timing of birth should be carefully considered to ensure the best outcome for the mother and her baby.

Where there are certain medical or obstetric complications, such as pre-eclampsia or fetal growth restriction, early planned birth may be necessary because the risks of waiting until 39 weeks gestation outweigh the benefits.⁶ But if there are no complications, waiting until at least 39 weeks is optimal for the baby because the last few weeks of pregnancy are important for the baby's development, including brain and lung maturation.^{4,5}

Parents may not be aware that waiting until at least 39 weeks is best for their baby if there are no medical or obstetric reasons for earlier birth.⁷ Educational campaigns on this issue have emphasised the effects of early birth on brain maturity and the need for admission to a special care nursery if the baby is born early (Figure 1.1).

Redefining 'full term'

Until recently, birth between 37 and 41 weeks gestation was considered full term, and neonatal outcomes were generally thought to be the same during this period.⁸ Evidence of poorer outcomes for babies born before 39 weeks prompted a re-evaluation of this definition. From 2010, the descriptor 'early term' began to be used for 37–38 weeks gestation, and 'full term' for 39–40 weeks gestation.⁸

Risks of early-term birth

Short-term risks

Observational studies have shown an increase in short-term risks, such as respiratory problems and the need for neonatal intensive care, for babies born at early term (37–38 weeks) rather than full term (39–41 weeks). These risks are higher following planned birth by either caesarean section or induction of labour.¹⁻⁴ Even after fetal lung maturity has been confirmed, babies born by early planned birth without a medical or obstetric indication have significantly worse respiratory outcomes, and poorer overall neonatal outcomes, than full-term babies.⁹

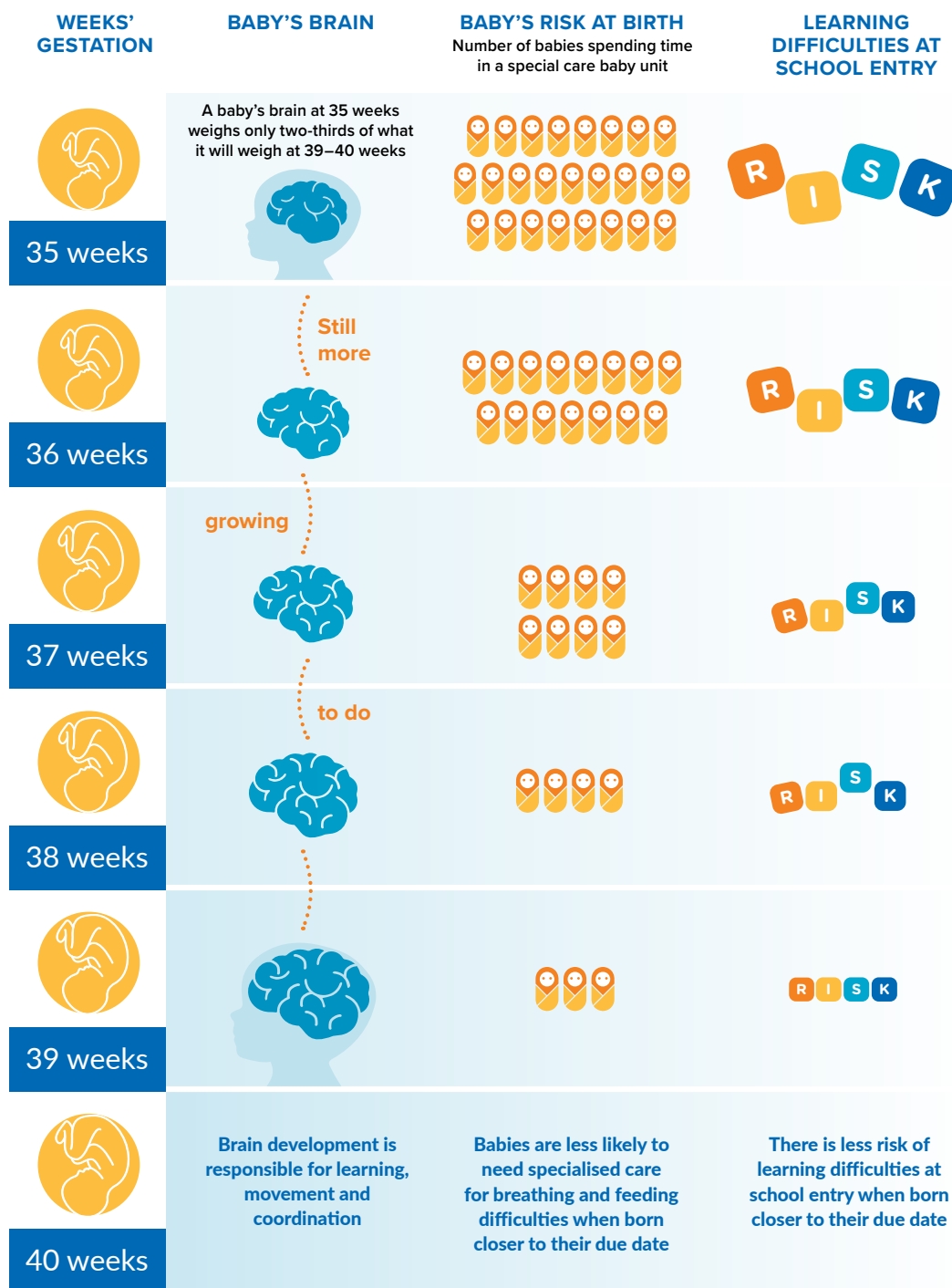
The risks of hypoglycaemia, jaundice and the need for neonatal intensive care unit for babies born by elective caesarean section decrease linearly from 37 weeks to 41 weeks gestation.⁴ That is, the earlier the planned birth in this period, the greater these risks.⁴ For example, among babies born by elective caesarean section, serious respiratory morbidity requiring neonatal intensive care occurred in 1.2% of those born at 37–38 weeks, compared with 0.5% of those born at 39–40 weeks, in an Australian study.¹⁰ Other potential consequences include negative psychological effects on parents from having their baby hospitalised in a neonatal intensive care unit.¹¹

The risk of neonatal death after elective caesarean section, although small, reaches the lowest point at 39 weeks, and then increases again.⁴ The risks of neonatal sepsis and of needing hospitalisation for five days or more also have a U-shaped course, with the lowest risk at 39 weeks.⁴

The risk of needing hospitalisation for infection in the first five years of life is higher among children born by planned caesarean section performed at 37–38 weeks gestation rather than at 39 weeks gestation.¹²

Figure 1.1: Every week counts towards the end of pregnancy*

EVERY WEEK COUNTS TOWARDS THE END OF PREGNANCY



* Reproduced with permission from Women and Babies Research, The Kolling Institute. Every Week Counts – version 1, 2019. Sydney: University of Sydney. everyweekcounts.com.au

Early planned births without medical or obstetric indication

Long-term risks

More recently, evidence has grown of an increased risk of effects on brain development from early-term birth. Compared with children born at 39–40 weeks, those born at 37–38 weeks (either vaginally or by caesarean section) have up to a 30% higher risk of ADHD and a 10–40% higher risk of cognitive problems.⁵ This evidence is based on observational studies, and includes spontaneous early births.

In some cases, poorer developmental outcomes may be explained by the obstetric factors that prompted the earlier birth. Studies that accounted for these factors still found poorer outcomes with birth at early term rather than full term.^{13,14} This suggests that harm is associated with the earlier timing, rather than the factors that prompted it.^{13,14} For example, a United States study of 128,050 children in third grade at school found that those born at early term (either vaginally or by caesarean section) had significantly poorer performance in maths than those born at full term.¹³ This effect remained even after accounting for the effect of obstetric factors such as caesarean birth, birth weight and maternal age, as well as socioeconomic disadvantage.¹³

Although developmental risks are greater for babies born before 37 weeks gestation, the greater frequency of births at 37 or 38 weeks gestation means that these births have larger implications at a population level.^{15,16} For example, children born at 37–39 weeks (either vaginally or by caesarean section) accounted for 5.5% of cases of special educational needs, compared with children born preterm (less than 37 weeks gestation), who accounted for 3.6% of cases, in a study of Scottish schoolchildren.¹⁶

Aboriginal and Torres Strait Islander children born at early term have a higher risk of developmental vulnerability than other Australian children born at the same gestational age.¹⁷ This is largely accounted for by the socioeconomic disadvantage experienced by Aboriginal and Torres Strait Islander people.¹⁷

Risks of waiting until 39 weeks

Stillbirth

The benefits of waiting until 39 weeks for birth must be weighed against the risk of stillbirth (Figure 1.2).¹⁸ The risk of stillbirth in Australia is 0.5 per 1,000 babies in utero at 36–39 weeks, rising to 0.8 per 1,000 at 40–41 weeks, and then rising more steeply to 2.3 per 1,000 at 42 weeks or more.¹⁹

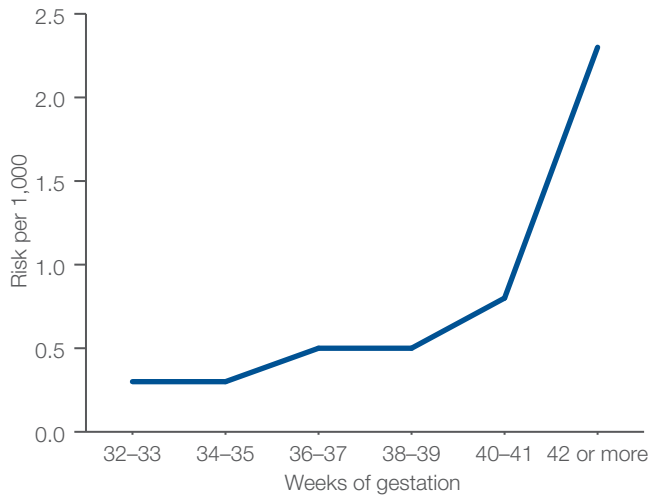
Identifying which babies are at risk and would benefit from earlier birth is challenging. Consequently, a large number of babies who would have benefited from longer gestation may need to be born early to prevent one stillbirth. The effects on neurodevelopmental outcomes from these early births are important and have been estimated.¹⁸ Although such estimates are complex and difficult to apply to decision-making for individuals, the risk of stillbirth and the risk of developmental problems appear to be at a minimum at 39–41 weeks for women and babies without known complications.

The assessment of risk versus benefit is likely to be different between ethnic groups. For example, the rate of stillbirth in south Asian- and African-born women is higher than in Australian-born women after 37 weeks gestation.²⁰

Risk of spontaneous labour

Another common concern about waiting until 39 weeks gestation for a planned caesarean section is the risk of the mother going into spontaneous labour beforehand, and possibly requiring an emergency caesarean section.²¹ This is a particular concern for women who live far from 24-hour emergency obstetric services. Emergency caesarean section is associated with higher risks of complications and higher costs.^{22,23} If caesarean section is planned for 39 weeks gestation, an estimated 13–25% of women will end up having a caesarean section after labour has started, compared with 8–11% if it is planned for 38 weeks gestation.²¹

Figure 1.2: Risk of stillbirth per 1,000 fetuses remaining in utero, by gestational age, Australia, 2015 and 2016



Source: *Stillbirths and Neonatal Deaths in Australia 2015 and 2016: In brief.*¹⁹

Guidelines for timing of planned birth

Several Australian states and territories have initiatives in place to reduce preterm and early-term births. These include guidance to avoid caesarean section and induction before 39 weeks gestation without a medical or obstetric indication – for example, *The Whole Nine Months*’ in Western Australia and *Every Week Counts* in New South Wales.^{24,25}

Guidelines for timing of planned caesarean section

Waiting until 39 weeks gestation for a planned caesarean section, if there are no medical or obstetric reasons for earlier birth, is now recommended by some Australian states and territories and several international organisations, including the American College of Obstetricians and Gynecologists, and the United Kingdom (UK) National Institute for Health and Care Excellence.²⁶⁻²⁸ A position statement from the Royal Australian and New Zealand College of

Obstetricians and Gynaecologists (RANZCOG) states: ‘On balance, weighing up the risk of respiratory morbidity following elective caesarean section and the risk of labouring prior to caesarean section, it is recommended that elective caesarean section in women without additional risks should be carried out at approximately 39 weeks gestation’.^{6,29}

Guidelines for timing of induction of labour without a medical or obstetric indication

Some international guidelines give recommendations on the timing of non-medically indicated induction of labour. For example, United States guidelines state that non-medically indicated inductions should not occur before 39 weeks gestation.²⁷ UK guidelines state that ‘Induction of labour should not routinely be offered on maternal request alone. However, under exceptional circumstances (for example, if the woman’s partner is soon to be posted abroad with the armed forces), induction may be considered at or after 40 weeks’.³⁰

No national Australian guidelines were found on the lower limit of gestational age for induction without a medical or obstetric indication.

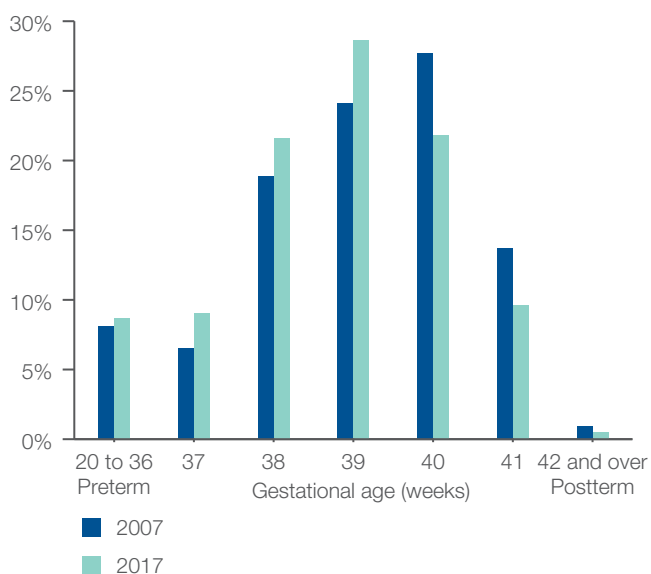
Early planned births without medical or obstetric indication

Trends in Australia

Gestational age at birth

Of all babies born each year in Australia, the proportion born at early term (37 or 38 weeks gestation) has increased in recent years. Between 2007 and 2017, the proportion of all babies born at 37, 38 or 39 weeks gestation increased, while the proportion born at 40 or 41 weeks gestation decreased (Figure 1.3).³¹

Figure 1.3: Percentage of babies, by gestational age in weeks, Australia, 2007 and 2017



Caesarean section

Rates of caesarean section overall have risen steadily in Australia since the early 1990s. In 2017, 35% of births in Australia were by caesarean section, compared with 31% in 2007 and 18% in 1990.^{31,32} Australia's rate is higher than the average for countries in the Organisation for Economic Co-operation and Development (34 per 100 live births and 28 per 100 live births, respectively, in 2017).³³

Planned early-term caesarean section

Few Australian data are available on trends in the proportion of caesarean sections that are planned and occur at early term. In New South Wales, the proportion of all singleton births that were prelabour caesarean sections almost doubled between 1994 and 2009, increasing from 9.1% to 17.1%.³⁴ Another New South Wales study showed that, between 2001 and 2009, the rate of planned caesarean section at 38 weeks gestation increased from 4.3% to 5.4%, and at 39 weeks gestation from 4.2% to 7.1%.³⁵ The proportion of all caesarean sections or inductions reported with established medical or obstetric indications, such as maternal hypertension or fetal distress, decreased between 2001 and 2009, while the proportion increased for conditions in which evidence is equivocal (for example, diabetes mellitus).³⁵

Induction of labour

Rates of induction of labour have increased in Australia in recent years. Between 2007 and 2017, the percentage of mothers who had an induced labour increased from 25% to 33%.³¹ Diabetes and prolonged pregnancy are the most common reasons for induction.³¹

Patterns of gestational age at induction have also changed. In New South Wales, between 1994 and 2009, the rate of inductions at 40 weeks gestation decreased, and rates of induction at 37–39 weeks increased.³⁴

Note: Pre-term births may include a small number of births of less than 20 weeks gestation.
Source: *Australia's Mothers and Babies 2017: In brief*.³¹

Rates of induction at early term (37–38 weeks) vary substantially between hospitals in New South Wales (3.3–13.9%). Early-term inductions are more common among women from the highest socioeconomic status areas than among those from the lowest socioeconomic status areas (24.1% compared with 15.2%).³⁶

Gestational diabetes

Gestational diabetes increases the risk of complications, including gestational hypertension, pre-eclampsia and having a baby that is large for gestational age.^{37–39} Among women who have a vaginal birth, the rate of shoulder dystocia and third- or fourth-degree perineal tears is higher for mothers with gestational diabetes than for those without diabetes.³⁸

The rate of gestational diabetes increased from 5.2% to 15.1% in Australia between 2000–01 and 2016–17.⁴⁰ A change in recommended diagnostic criteria in 2014 is likely to be responsible for part of this substantial rise.⁴¹ Other factors that are likely to have contributed to the increase in gestational diabetes include:

- Increased rates of obesity
- Increased age at child-bearing
- Immigration of women from ethnicities with higher rates of gestational diabetes, such as Asian, Indian, Torres Strait Islander, Pacific islander, Maori, Middle Eastern and non-white South African women.⁴²

Women diagnosed with gestational diabetes are more likely to have a planned birth than women without diabetes. They are also more likely to have a caesarean section than women without diabetes (40.4% and 33.0%, respectively, in Australia in 2014–15)⁴³ and more likely to have an induction than women without diabetes (44.4% and 27.2%, respectively, in 2014–15).⁴⁴

Planned birth by caesarean section or induction may be recommended as a result of conditions that develop because of gestational diabetes (for example, gestational hypertension) or conditions that are more common among mothers with gestational diabetes (for example, pre-existing hypertension).^{39,45} Caesarean section may be recommended to prevent shoulder dystocia and brachial plexus palsy, depending on the estimated weight of the baby.⁴⁶ Recommendations in Australian local guidelines for timing of birth for women with gestational diabetes vary.^{47,48}

Early planned births without medical or obstetric indication

Previous Atlas findings on early planned caesarean section

The *Third Australian Atlas of Healthcare Variation* included a special report on early planned caesarean section without a medical or obstetric indication. Although data collection by states and territories for this indicator was in its early stages, and was not yet complete enough to allow the usual maps and graphs presented for other Atlas topics, a combination of factors prompted the Australian Commission on Safety and Quality in Health Care to publish the available data:

- Growing evidence of long-term impacts on brain development in children who had a planned birth before 39 weeks gestation
- Increased risks of short-term adverse effects in babies born before 39 weeks, such as respiratory problems and the need for intensive care
- The large number of children affected in Australia and the potential to prevent substantial unnecessary adverse effects in the future.

What were the findings in the third Atlas?

The third Atlas reported that, in 2015, the percentage of planned caesarean sections performed at less than 39 weeks gestation without an obstetric or medical indication ranged from 42% to 60% in the four states and territories with data that could be presented.⁴⁹ The percentage of planned caesarean sections performed at less than 37 weeks gestation without an obstetric or medical indication ranged from 10% to 22% in the four states and territories with data that could be presented.

Rates were generally higher for patients with private accommodation status (private patients) than for patients with public accommodation status (public patients) for planned caesareans performed before 37 or 39 weeks. For example, in 2015, in the four states and territories with published data, the percentage of caesarean sections at less than 39 weeks gestation without an obstetric or medical indication was 51.6% for public patients, compared with 60.1% for private patients.⁴⁹

Why are we revisiting this topic?

This update includes an additional year of data (births in 2017) and provides a more complete picture of planned early births with the following additions:

- Publishable contributions from an additional three states and territories, allowing data from seven of the eight states and territories of Australia to be presented
- Data on planned caesarean section at less than 38 weeks, in addition to less than 37 and less than 39 weeks, as presented in the third Atlas; this shows the proportion of planned births that are carried out more than a week earlier than many guidelines recommend
- Data on inductions of labour without a medical or obstetric indication, as a proportion of all inductions for any reason, at less than 37, less than 38 and less than 39 weeks.

Important notes on the data used in this report

The draft National Core Maternity Indicator 18 – ‘Caesarean sections <39 completed weeks (273 days) without obstetric or medical indication’ used in this report was developed by the Expert Commentary Group responsible for the National Core Maternity Indicators to benchmark practice and to reduce neonatal respiratory morbidity by minimising early births. The indicator has not yet been endorsed by the National Health Data and Information Standards Committee and is not routinely reported. The potential to reduce avoidable harm prompted the Commission to publish data for this indicator.

A number of limitations with this indicator should be noted.

Birth without established labour is interpreted as planned birth in this report.

Data on the reason for early planned birth (by any method) are not available at the national level. Therefore, as a proxy measure, this indicator uses data collected on the main reason for caesarean section. The main reason for caesarean section may be unrelated to the reason for early birth. For example, there are a number of medical or obstetric reasons for early birth that will not appear as a reason for caesarean section, including pre-eclampsia and stillbirth. The induction indicator uses reason for induction as a proxy measure for early planned birth.

Differences exist between states and territories in definitions and methods used for collection of data on the main reasons for caesarean section and for induction. For this reason, data are not comparable across states and territories.

Some state and territory health departments found in their review of data that recording of the main reason for caesarean section was not always updated as the clinical situation evolved. For example, medical or obstetric indications for early birth, such as fetal compromise, were not always recorded as the main

indication for early caesarean section if a caesarean section had already been planned for other reasons. Similarly, clinical events such as pre-labour rupture of membranes may lead to an unplanned early caesarean section, but these were not always recorded if the caesarean section had already been planned for other reasons. This means that the count of planned caesarean sections performed before 39 weeks without medical or obstetric indication is an overestimate for some states. This may also apply to the recording of the reason for induction of labour. South Australia was unable to collect data for the main reason for caesarean section according to revised specifications introduced from 1 July 2015. Data were mapped by the Australian Institute of Health and Welfare (AIHW) to the revised specifications, where possible.

Data on the main indication for caesarean section are published at the state and territory level in the supplementary tables for the AIHW report *Australia's Mothers and Babies*.³¹ It is anticipated that, as clinicians start to use the data for quality improvement purposes, all states and territories will be able to report according to the specifications.

Caesarean section without medical or obstetric indication

The numerator for this indicator is caesarean sections ‘without medical or obstetric indication’ where the caesarean section occurred in the absence of labour and at less than 39 completed weeks for the following reasons:

- Maternal choice in the absence of any obstetric, medical, surgical or psychological indication
- Previous caesarean section
- Previous severe perineal trauma
- Previous shoulder dystocia.

Although these may be indications for planned caesarean section, they were not considered reasons for early planned caesarean section – that is, before 39 weeks.

Early planned births without medical or obstetric indication

The listed reasons included in the data element 'Main indication for caesarean section' in the perinatal data collection were used in the development of the indicator for this report. For the purposes of this report, all indications in the data element, except the four listed above, were considered medical or obstetric indications for early planned caesarean section.

The denominator is the total number of women who gave birth by caesarean section at less than 39 completed weeks gestation and where there was no established labour.

Induction of labour without medical or obstetric indication

The numerator for this indicator is induction of labour 'without medical or obstetric indication' at less than 39 completed weeks gestation for the following reasons:

- Administrative or geographical indication
- Maternal choice in the absence of any obstetric, medical, fetal, administrative or geographical indication.

The denominator is the total number of women who gave birth following induction of labour at less than 39 completed weeks gestation.

Data source and subanalyses

Data are sourced from the National Perinatal Data Collection, which includes births that occur in hospitals, birth centres and the community (such as home births), for patients with public or private elected accommodation status. Because of small numbers, data are reported only at the state and territory level. Reporting by smaller geographical area, remoteness and socioeconomic disadvantage is not possible.

Data availability

Data were available for publication for seven states and territories for the caesarean section indicator. Nationally, there were 37,709 caesarean sections before 39 weeks gestation without established labour (denominator of this indicator) in 2017. Of these, 37,182 caesarean sections (98.6%) were from the seven reporting states and territories; 527 (1.4%) were from the remaining territory and are not included in the analysis.

Data were available for publication for six states and territories for the induction of labour indicator. Nationally, there were 37,278 inductions before 39 weeks gestation without established labour (denominator for this indicator) in 2017. Of these, 26,992 inductions (72.4%) were from the six reporting states and territories; 10,286 (27.6%) were from other states and territories and are not included in the analysis.

What do the data show?

Early planned birth without a medical or obstetric indication

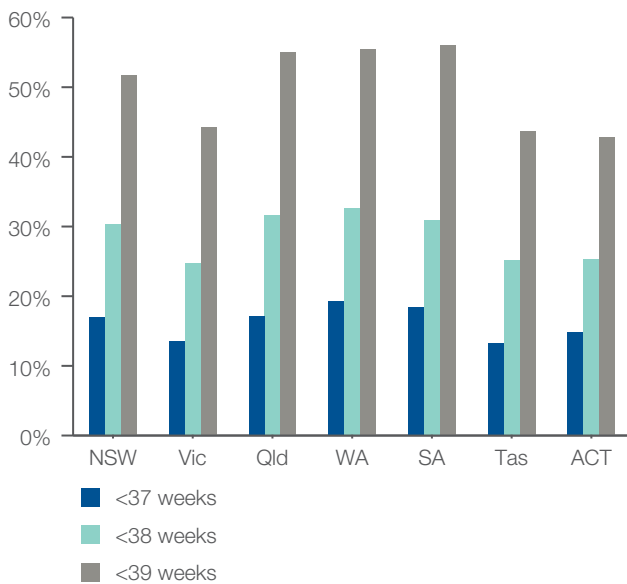
Caesarean section without a medical or obstetric indication

In 2017, the ranges of state and territory rates for caesarean sections without a medical or obstetric indication, as a percentage of all caesarean sections at these gestational ages, were (Figure 1.4)*:

- <37 weeks, 13.3–19.3%
- <38 weeks, 24.8–32.7%
- <39 weeks, 42.8–56.1%.

* Excludes the Northern Territory
Birth without established labour is interpreted as planned birth in this report.

Figure 1.4: Caesarean sections at <37, <38 or <39 weeks without a medical or obstetric indication, as a percentage of all caesarean sections at these gestational ages, by state and territory of usual residence, 2017^{a-9}



The data for Figure 1.4 are available at safetyandquality.gov.au/atlas

Notes:

- (a) Because of differences in definitions used and methods of data collection, these data are not comparable across states and territories.
- (b) Data include women who gave birth by caesarean section with no established labour only.
- (c) 'Without obstetric or medical indication' includes the following reasons for caesarean section: previous caesarean section; previous severe perineal trauma; previous shoulder dystocia; and maternal choice in the absence of any obstetric, medical, surgical or psychological indications. Although these may be indications for planned caesarean section, they were not considered reasons for planned caesarean section before 39 weeks. See page 49 for more information on obstetric and medical indications.
- (d) Clinical indications for early delivery, such as fetal compromise, were not always recorded as the main indication for caesarean section when the decision to deliver by caesarean section was pre-planned in the antenatal period.
- (e) South Australia was unable to collect data for this item according to revised specifications introduced from 1 July 2015. Data have been mapped to the new specifications, where possible.
- (f) Data for the Northern Territory were not published.
- (g) For Tasmania, the majority of private hospitals were unable to collect data for this item according to revised specifications introduced from 1 July 2015. Data have been mapped to the new specifications where possible. Care must be taken when interpreting these numbers.

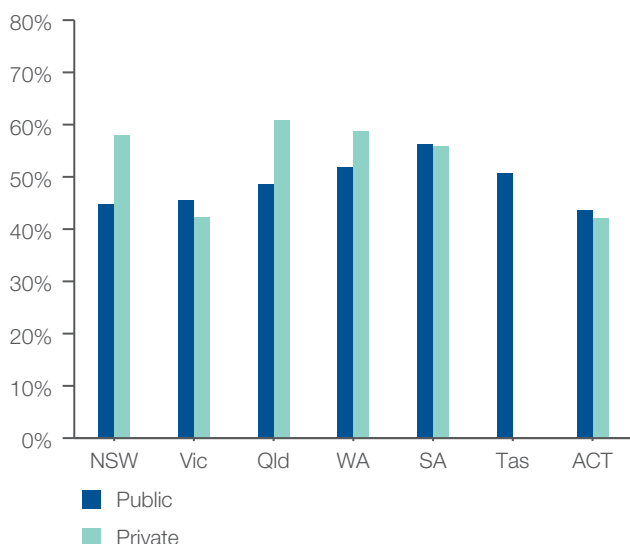
Source: AIHW analysis of National Perinatal Data Collection.

Early planned births without medical or obstetric indication

Analysis by funding status

Rates of caesarean section at less than 39 weeks without a medical or obstetric indication were higher for private patients than for public patients in New South Wales, Queensland and Western Australia (Figure 1.5). The rates for public and private patients were similar in both South Australia and the Australian Capital Territory.

Figure 1.5: Women who gave birth by caesarean section at less than 39 completed weeks gestation without medical or obstetric indication, by state and territory of usual residence and admitted patient elected accommodation status, 2017^{a-i}



The data for Figure 1.5 are available at safetyandquality.gov.au/atlas

Analysis by Aboriginal and Torres Strait Islander status

Data on rates of caesarean section at less than 39 weeks gestation without a medical or obstetric indication for Aboriginal and Torres Strait Islander women were available for publication from four states. Data were available from three other states and territories but could not be published for confidentiality reasons due to small numbers.

The percentages of caesarean sections performed at less than 39 weeks gestation without an obstetric or medical indication in the states with published data were lower among Aboriginal and Torres Strait Islander women than among other Australian women (Figure 1.6). The difference was 2 to 4 percentage points in each state.

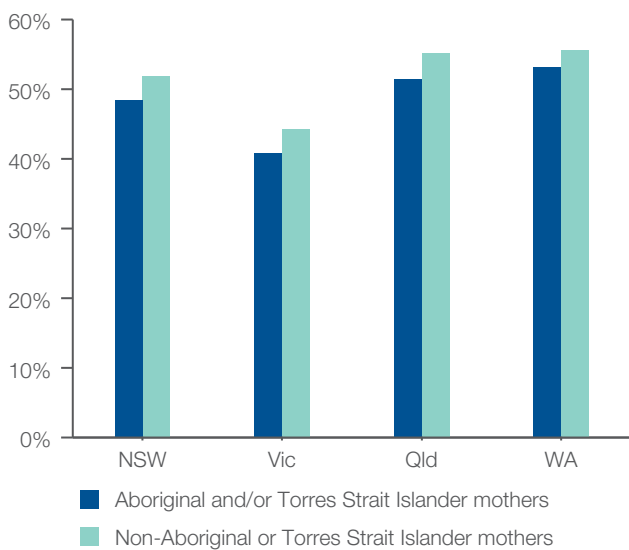
The denominators are low for this category (for example, for one state, the denominator is 110), so caution should be used in judging whether differences are significant.

Notes:

- Because of differences in definitions used and methods of data collection, these data are not comparable across states and territories.
- Data include women who gave birth by caesarean section with no established labour only.
- 'Without obstetric or medical indication' includes the following reasons for caesarean section: previous caesarean section; previous severe perineal trauma; previous shoulder dystocia; and maternal choice in the absence of any obstetric, medical, surgical or psychological indications. Although these may be indications for planned caesarean section, they were not considered reasons for planned caesarean section before 39 weeks. See page 49 for more information on obstetric and medical indications.
- Clinical indications for early delivery, such as fetal compromise, were not always recorded as the main indication for caesarean section when the decision to deliver by caesarean section was pre-planned in the antenatal period.
- For Western Australia, some private hospitals admit public women; hence, the number of women who elected private status might be lower than the number of women admitted to private hospitals. Care must be taken when interpreting these numbers.
- South Australia was unable to collect data for this item according to revised specifications introduced from 1 July 2015. Data have been mapped to the new specifications, where possible.
- For Tasmania, the majority of private hospitals were unable to collect data for this item according to revised specifications introduced from 1 July 2015; this may affect women with an admitted patient elected accommodation status of both public and private. Data have been mapped to the new specifications where possible. Data for public hospitals were collected according to the new specifications. Care must be taken when interpreting these numbers.
- Data for the Northern Territory were not published.
- Excludes women who gave birth in birth centres attached to hospitals.

Source: AIHW analysis of National Perinatal Data Collection.

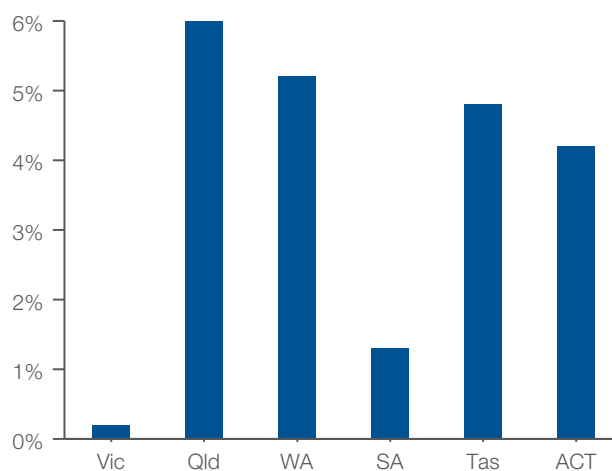
Figure 1.6: Women who gave birth by caesarean section at less than 39 weeks gestation without medical or obstetric indication, by state of usual residence and Aboriginal and Torres Strait Islander status, 2017^{a-g}



Induction of labour without a medical or obstetric indication

State and territory rates for induction of labour at less than 39 weeks gestation without a medical or obstetric indication ranged from 0.2% to 6.0% (excludes New South Wales and the Northern Territory; Figure 1.7).

Figure 1.7: Inductions at less than 39 weeks without a medical or obstetric indication, as a percentage of all inductions at less than 39 weeks, by state and territory of usual residence, 2017^{a-g}



The data for Figures 1.6 and 1.7 are available at safetyandquality.gov.au/atlas

Notes:

- Because of differences in definitions used and methods of data collection, these data are not comparable across jurisdictions.
- Data include women who gave birth by caesarean section with no established labour only.
- 'Without obstetric or medical indication' includes the following reasons for caesarean section: previous caesarean section; previous severe perineal trauma; previous shoulder dystocia; and maternal choice in the absence of any obstetric, medical, surgical or psychological indications. Although these may be indications for planned caesarean section, they were not considered reasons for planned caesarean section before 39 weeks. See page 49 for more information on obstetric and medical indications.
- Clinical indications for early delivery, such as fetal compromise, were not always recorded as the main indication for caesarean section when the decision to deliver by caesarean section was pre-planned in the antenatal period.
- Data for South Australia, Tasmania and the Australian Capital Territory are not published for confidentiality reasons due to small numbers (less than 5) of Aboriginal and Torres Strait Islander women.
- Data for the Northern Territory were not published.
- In 2017, 4.5% of women who gave birth in Australia identified as Aboriginal and/or Torres Strait Islander.³¹

Source: AIHW analysis of National Perinatal Data Collection.

Notes:

- Includes women who had induced labour and gave birth vaginally (including non-instrumental, forceps and vacuum extraction); or induced labour and gave birth by caesarean section.
- 'Without obstetric or medical indication' includes the following reasons for induction of labour: administrative or geographical indication; and maternal choice in the absence of any obstetric, medical, fetal, administrative or geographical indication.
- Because of differences in definitions used and methods of data collection, these data are not comparable across states and territories.
- Data not provided for New South Wales, because data for reason for induction of labour could not be collected according to revised specifications introduced from 1 July 2015.
- South Australia was unable to collect data for reason for induction of labour according to revised specifications introduced from 1 July 2015. Data have been mapped to the new specifications, where possible.
- Data for the Northern Territory were not published.
- For Tasmania, the majority of private hospitals were unable to collect data for this item according to revised specifications introduced from 1 July 2015. Data have been mapped to the new specifications where possible. Care must be taken when interpreting these numbers.

Source: AIHW analysis of National Perinatal Data Collection.

Early planned births without medical or obstetric indication

Analyses by remoteness and socioeconomic status

Small numbers made analyses by remoteness and socioeconomic status difficult to interpret. Data are available at safetyandquality.gov.au/atlas

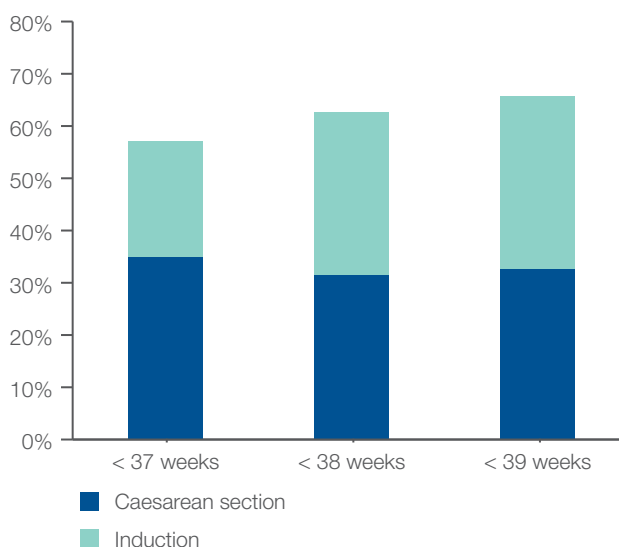
Early planned births, for any reason

Data presented in the previous section related to planned births without a medical or obstetric indication. The data in this section show planned births for any reason – that is, caesarean section or induction with or without a medical or obstetric indication.

The rates of women who gave birth by caesarean section (without labour) or following induction, as a percentage of all births at these gestational ages, for six states and territories were (Figure 1.8)*:

- <37 weeks, 57.1%
- <38 weeks, 62.7%
- <39 weeks, 65.7%.

Figure 1.8: Women who gave birth by caesarean section or who had labour induced, for any reason, as a percentage of all women giving birth at each gestational age, six states and territories, by gestational age, 2017^{a-d}



The data for Figure 1.8 are available at safetyandquality.gov.au/atlas

* Excludes New South Wales and the Northern Territory.

Notes:

- Excludes New South Wales and the Northern Territory. Data were not provided for New South Wales, because data for reason for induction of labour could not be collected according to revised specifications introduced from 1 July 2015. Data for the Northern Territory were not published.
- Caesarean section data include women who had no established labour and gave birth by caesarean section. Induction data include women who had induced labour and gave birth vaginally (including non-instrumental, forceps and vacuum extraction); or induced labour and gave birth by caesarean section.
- Data exclude Australian non-residents, residents of external territories and records where state or territory of residence was not stated.
- In the case of multiple births, gestational age and method of birth are based on the first-born baby.

Source: AIHW analysis of National Perinatal Data Collection.

Interpretation

Despite data limitations (see ‘Important notes on the data used in this report’), the estimates presented in this chapter suggest that the percentage of caesarean sections performed before 39 weeks without a medical or obstetric indication may be substantial, and action is needed to reduce these rates. See ‘Planned early caesarean section without a medical or obstetric indication’, below.

In the case of inductions of labour, almost all were performed with a medical or obstetric indication, but the number of babies in this group is large and the indications are not universally agreed. Further debate, and weighing of the risks and benefits could shed light on whether reducing the rate of inductions before 39 weeks could produce better outcomes for children overall. See ‘Influences on induction rates’ (page 56).

Planned early caesarean section without a medical or obstetric indication

Approximately half of the planned caesarean sections performed before 39 weeks did not have a stated medical or obstetric indication in 2017. This translates into a large number of children who may have an increased risk of adverse outcomes.

The availability of publishable data improved between 2015 and 2017, increasing from four to seven states and territories, which is an encouraging development.

Planned early caesarean section at less than 38 weeks

The third Atlas noted that the gestational age recommended in the RANZCOG position statement differed from the cut-off age used in the data item (‘approximately 39 weeks’ and ‘39 weeks’, respectively), which would have affected the interpretation of findings.⁶ For example, planned births at 38 weeks and 6 days gestation are appropriate

according to the RANZCOG position statement, but were counted in the numerator of the third Atlas data.⁶ In the fourth Atlas, additional analyses with less than 38 weeks and less than 37 weeks as the cut-off gestation period have been included, to clarify the proportion of planned caesarean sections that occurred well before the RANZCOG recommended minimum gestational age of approximately 39 weeks.

The percentage of planned caesarean sections without obstetric or medical indication occurring before 37 weeks gestation (13.3–19.3%) and before 38 weeks gestation (24.8–32.7%) shows that a substantial number are occurring well before the RANZCOG recommendation of approximately 39 weeks gestation.⁵⁰

Public versus private funding

The relationship between elected public or private accommodation status and rate of early planned caesarean section varied considerably among states and territories.

Aboriginal and Torres Strait Islander women

In 2017, 29% of Aboriginal and Torres Strait Islander women gave birth by caesarean section, compared with 35% of all women giving birth in Australia.³¹ The rates of early-term caesarean section without a medical or obstetric indication were lower among Aboriginal and Torres Strait Islander women than among other Australian women in the four reporting states. The difference was between 2 and 4 percentage points in each of the four states. Analysis by remoteness was not possible with the available data, but the rate of early planned birth among Aboriginal and Torres Strait Islander women living in remote areas may be greater because of the need to travel to a major centre.

Early planned births without medical or obstetric indication

Potential reasons for variation

The reported rates of early planned births could be influenced by a number of factors, such as variation in:

- Data factors (see 'Important notes on the data used in this report' (page 49))
- Clinician and organisational factors
 - failure to implement best-practice guidelines
 - MBS item descriptor and private health insurance payment do not reflect best practice
 - culture within individual hospitals and individual clinicians⁵¹
 - method for calculating estimated due date, which may give differing estimates
 - opinion on what constitutes a valid medical or obstetric indication for early planned birth
 - accountability for the decision to schedule an early planned birth⁵²
 - quality of information provided to enable shared decision making and informed consent
 - operating theatre capacity
- Health system factors
 - proportion of smaller units in each state or territory – limited capacity may increase rates of early planned birth
 - implementation of stillbirth prevention initiatives⁵³
 - access to midwife-led care
 - state and territory training requirements for general practitioners (GPs) providing antenatal shared care – mandatory training and refresher courses may increase awareness of risks of early planned birth
- Demographic and consumer factors
 - social factors – for example, timing to ensure that the partner is present for the birth in areas with military bases or fly-in-fly-out workers

- rates of private health insurance – early planned birth rates are higher among private patients in some states and territories; lower rates of early planned birth among Aboriginal and Torres Strait Islander women may reflect lower rates of private health insurance in this population
- maternal obesity
- proportion of pregnancies resulting from assisted reproduction technologies
- rates of induction of labour without a medical or obstetric indication before 39 weeks – a proportion become caesarean section births.

Influences on induction rates

Hospital factors appear to play a substantial role in decision-making about induction.³⁶ A New South Wales study found large variation in induction rates overall, and in early-term induction rates, between hospitals, even after accounting for differences in casemix (for example, rates of diabetes or hypertension).³⁶ Overall, half of the variation in hospital rates of induction at 37–38 weeks could be explained: 7% was explained by patient factors, and 43% by hospital factors.³⁶ Hospital factors included annual number of births, neonatal care facilities, region, and obstetric training provided. Culture within hospitals also appears to play a substantial role in influencing rates of induction.³⁶

A qualitative study of decision-making about induction in New South Wales hospitals found the following⁵²:

- Obstetricians in hospitals with high rates of induction tended to have less accountability for the decision to induce labour
- A common decision point that determined whether an induction went ahead was the acceptance of the booking in the hospital – if the bookings were taken by a senior midwife who had the authority to question the decision, the hospital was more likely to have a lower rate of induction
- Variations in decisions about induction were based on obstetricians' perceptions of risk in the pregnancy

- Where obstetricians within the same hospital had substantially different approaches to induction, induction rates tended to be higher – if a hospital had one obstetrician with a greater tendency to induce labour than their colleagues, women were able to ‘doctor shop’ within the hospital and have the induction that the previous obstetrician had refused.

Inconsistencies in guideline recommendations about indications and timing could contribute to variation in rates of induction.⁵⁴ Guidelines are most consistent on the following indications for induction:

- Prolonged pregnancy
- Decreased fetal movements and oligohydramnios, although recommendations on timing are absent or inconsistent.⁵⁴

There is little consensus on the validity or timing of induction for:

- Gestational diabetes
- Fetal macrosomia
- Elevated maternal body mass index
- Maternal age
- Ethnicity.

A lack of high-quality evidence to drive recommendations in guidelines is likely to contribute to variation in the level of consensus.⁵⁴

Distance from metropolitan areas

The need to avoid an emergency caesarean section is greater in settings without rapid, 24-hour access to an operating theatre. Rates of caesarean section before 39 weeks gestation may be higher in some nonmetropolitan areas for this reason.

Policy and guideline differences

Differences in the gestational age used as the cut-off for this indicator (‘less than 39 completed weeks’) versus that recommended in the RANZCOG position statement (‘approximately 39 weeks’) may have inflated rates reported for this item.⁶

For example, births at 38 weeks and 6 days gestation are appropriate according to the RANZCOG position statement, but are included in some of the data in this analysis.⁶

Reducing rates of early planned birth

The high rates reported for planned caesarean sections without an obstetric or medical indication occurring before 39 weeks, 38 weeks and 37 weeks gestation highlight the need for a concerted effort to address this issue.

Multifaceted approaches

The Western Australian Preterm Birth Prevention Initiative to reduce the rate of preterm births and non-medically indicated early-term births was implemented from 2014.⁵⁵ The initiative includes education materials and workshops for health professionals, as well as a consumer education campaign. The rate of preterm birth (20–37 weeks) was significantly reduced over the three years evaluated in tertiary centres.⁵⁵ The greatest reduction in preterm birth (from 16.1% in 2013 to 12.8% in 2017) was seen in pregnancies classified as low risk at the first attendance, and in established tertiary centres.⁵⁵ In non-tertiary centres, preterm birth was reduced in the first year, but not in the subsequent two years. No benefit was seen in the private sector. The rate of stillbirth did not change significantly after the program was implemented.⁵⁵ The Australian Preterm Birth Alliance grew out of the Western Australian experience, and is now adapting similar prevention strategies for implementation across Australia.⁵⁶

Many organisations in the United States have worked to reduce rates of preterm birth and birth before 39 weeks gestation without a medical or obstetric indication, and large improvements have been seen in recent years.⁵⁷ Strategies have included publishing data, undertaking public awareness campaigns, educating clinicians and prohibiting bookings for births before full term.

Early planned births without medical or obstetric indication

A multifaceted approach is also needed in Australia. This could include:

- Providing parents with information about fetal development, and the risks (and benefits, in some cases) of early-term births
- Providing support for shared and informed decision making
- Implementing hard-stop policies in hospitals (see 'Clinician education and hospital policies')
- Providing information to clinicians about the risks and benefits of early-term births, and advice about how to have conversations with parents about the issue
- Collecting data on reasons for early birth
- Using the Robson classification system to assess caesarean section practices over time at a hospital level
- Ensuring that hospital-level public reporting includes planned births without a medical or obstetric indication before 39 weeks
- Supporting case load midwifery models of care
- Including balance measures to minimise unnecessary early births prompted by initiatives to reduce stillbirth
- Supporting local initiatives to reduce early planned birth without a medical or obstetric indication
- Supporting further research to determine the risk of outcomes by gestational age, and maternal and fetal characteristics (for example, ethnicity, fetal size).

Women's knowledge, shared decision making and informed consent

Gaps in women's knowledge about the optimal timing of birth were shown in Australian research that reported that more than half of the pregnant women surveyed believed that 37–38 weeks gestation was the earliest time for safe birth.⁷ Women support education initiatives and decision aids as strategies to improve shared decision making about planned caesarean section.⁵⁸ Providing education to parents about difference in outcomes, particularly effects on

long-term child development, between early-term and full-term births could be a powerful strategy to reduce early planned birth where there are no medical or obstetric indications. Making this information available at the beginning of pregnancy and again halfway through would provide time for women to consider it before discussions about the timing of planned birth, if this was being contemplated. Decision aids show promise as a strategy to improve shared decision making about planned caesarean section, and are viewed positively by both women and clinicians.⁵⁸

Greater engagement with consumers is needed to support woman-centred maternity care. Meaningful collaboration with consumers in policy development and at an organisational level is needed to ensure that health service planning and delivery reflect consumer values and priorities.

Clinician education and hospital policies

Providing information for clinicians about the most recent evidence for optimal timing of planned birth, and how to have conversations with parents about the issue, may be useful. However, combining education with changes to hospital policies is more effective for reducing early planned birth that is not medically indicated.⁵⁹ This was shown in a United States study of three different approaches to reducing elective early-term births (inductions and caesarean sections):

- Education only – physicians were given literature and recommendations against performing purely elective births at less than 39 weeks gestation
- Education plus a 'soft-stop' approach – compliance with a policy of not scheduling purely elective births at less than 39 weeks gestation was left up to individual physicians, but all exceptions to the policy were referred to a local peer review committee
- Education plus a 'hard-stop' approach – purely elective planned births at less than 39 weeks gestation were prohibited, and the policy was enforced by hospital staff who were empowered to refuse to schedule such births.⁵⁹

During the two-year study period, the hard-stop policy was associated with the largest drop in elective births before 39 weeks (from 8.2% to 1.7%).⁵⁹ The soft-stop approach was associated with a smaller drop (from 8.4% to 3.3%).⁵⁹ Clinician education alone was less effective in changing practice, with a drop in rates from 10.9% to 6.0%.⁵⁹ Note that the data used in the study are not directly comparable with those in this report because of different denominators. For all groups combined, the rate of admissions to neonatal intensive care units fell during the study (from 8.9% to 7.5%).⁵⁹

An education campaign on optimal timing for planned birth, specifically focusing on Australian GPs, could be worthwhile, as GPs sometimes undertake shared care with obstetricians.

Increasing flexibility of access to operating theatres

In some cases, a lack of capacity in theatre lists allocated for planned caesarean section once a woman has reached 39 weeks gestation may lead to theatre bookings at an earlier gestation. Hospital policies to increase flexibility of access to operating theatres may reduce rates of planned caesarean section before 39 weeks.

Balance measures with stillbirth prevention programs

Initiatives that reduce the risk of stillbirth can come at the cost of increasing intervention in normal pregnancies, due to the lack of specificity of techniques for identifying fetuses at greatest risk.⁶⁰ This can result in increases in early planned births. Potential harms (such as early planned births), as well as benefits, of initiatives to reduce the rate of stillbirth need to be measured so that the overall impact on children at a population level can be seen and considered.

Improving detection and management of fetal growth restriction and reduced fetal movements is part of the Safer Baby Bundle, an initiative implemented in New South Wales, Queensland and Victoria to reduce the risk of stillbirth.⁶¹ These changes in practice could

increase early planned birth in healthy pregnancies, as well as those at risk of stillbirth. The Safer Baby Bundle includes messages about the need to consider the adverse consequences of planned birth before 39 weeks, but these may be overshadowed by the influence of measures to avoid stillbirth.

The risk of unintended consequences was shown in a large UK trial of a program that aimed to reduce stillbirth.⁶² Data from 409,175 pregnancies showed significant increases in rates of caesarean section and inductions, without any reduction in rates of stillbirth.⁶² The program aimed to increase women's awareness of the need for prompt reporting of reduced fetal movements, and involved standardised management, including timely planned birth.⁶²

This pattern has also been seen in Victoria in management of suspected fetal growth restriction, which is the strongest contributor to stillbirth. The number of babies born early as a result of suspected fetal growth restriction almost quadrupled between 2000 and 2017 in Victoria.⁶⁰ This increase coincided with introduction of public reporting of a hospital performance indicator of babies born severely small-for-gestational-age.⁶⁰ Births of severely small-for-gestational-age babies decreased, and the stillbirth rate fell by 3.3 per 1,000 births. However, among babies delivered because they were suspected small-for-gestational-age, the percentage with birthweights in the top 10th centile increased from 41% to 53% over the same period. In addition, admissions to a neonatal intensive care unit for babies born early for being suspected small-for-gestational-age but with a birthweight in the top 10th centile increased from 0.8% to 2.0%.⁶⁰

More accurate methods of detecting fetal growth restriction are urgently needed to reduce the harm associated with increased early intervention to reduce the risk of stillbirth. In the interim, the balance measures included in the ongoing evaluation of the Safer Baby Bundle that record harms associated with early planned births will be important for clinicians and policymakers to consider.⁵³

Early planned births without medical or obstetric indication

Hospital monitoring and public reporting of local rates

Ensuring that hospital-level public reporting includes data on planned births before 39 weeks without a medical or obstetric indication would allow women to make more informed choices. Quality improvement activities by hospitals, obstetricians and neonatologists could also provide insights into local rates of planned birth without a medical or obstetric indication before 39 weeks gestation. For example, local monitoring of clinical variation, as required by Action 1.28 of the Clinical Governance for Health Service Organisations Standard in the National Safety and Quality Health Service Standards (second edition)⁶³, could include monitoring of variation between the local rate and the state or territory rate, variation between practitioners, and deviation from evidence-based guidelines.

Midwifery continuity of care

Collaboration between midwives, obstetricians and GPs is a key element of providing safe and high-quality maternity care.⁶⁴ In Australia, a range of models of care exist for low-risk pregnant women. Continuity-of-care models that include case load midwifery have been found to be effective in reducing the rate of caesarean section in women at low risk from vaginal birth, with no change in perinatal deaths. In midwifery continuity-of-care models, antenatal care and care during labour are provided by the same midwife or small group of midwives (for example, one to three midwives), who work in collaboration with obstetricians.

In the COSMOS trial of more than 2,300 low-risk women at a Victorian maternity hospital (2007–2010), case load midwifery care, compared with standard care, reduced the rate of caesarean section (19.4% versus 24.9%).⁶⁵ The difference was primarily related to a fall in unplanned caesareans.⁶⁵ Case load midwifery may not be as effective in reducing the risk of caesarean section in women at higher risk. In the M@NGO trial of more than 1,700 pregnant women of

any risk level, case load care did not affect the overall caesarean rate, but the rate of pre-labour caesarean section was lower with case load care than with standard care (8% compared with 11%).⁶⁶ Neonatal outcomes did not differ between the two groups.⁶⁶

Improving data collection and monitoring

Collecting data on the reason for early planned birth would clarify the proportion of these births that did not have a medical or obstetric indication in Australia. This would allow efforts to be targeted where they are most needed, and show whether interventions are having an effect.

Additional data improvements could include:

- Reporting of gestational age in days to allow a better understanding of the distribution of births occurring before 39 weeks (currently a voluntary data item)
- Hospital monitoring and public reporting of local rates
- Inclusion of early planned caesarean section and early inductions without a medical or obstetric indication as hospital-acquired complications.

In the United States, planned early-term birth without a medical indication is a national perinatal quality benchmark monitored by the National Quality Forum and the Joint Commission.⁶⁷ Consumers in the United States also have access to published rates of early elective births for many hospitals.^{57,67}

Reducing early-term and preterm birth in Aboriginal and Torres Strait Islander women

Aboriginal and Torres Strait Islander mothers require access to culturally secure models of maternity care, provided by a culturally competent health system.⁶⁸ This care should be based on woman-centred principles, including continuity of care and carer; it should be integrated with culturally safe mainstream services, and committed to employment of Aboriginal and Torres Strait Islander people in a variety of roles.⁶⁸

A number of maternity indicators among Aboriginal and Torres Strait Islander mothers have shown improvements in recent years. For example, among Aboriginal and Torres Strait Islander mothers:

- The percentage who attended antenatal care in the first trimester increased from 50% in 2012 to 63% in 2017
- The proportion who reported smoking during pregnancy decreased from 52% in 2009 to 44% in 2017.³¹

Preterm birth (before 37 weeks) may be a substantially larger contributor to adverse outcomes among Aboriginal and Torres Strait Islander children than early-term planned birth, and a larger contributor than in other Australian children. In 2016–17, 14% of babies born to Aboriginal and Torres Strait Islander mothers were preterm, compared with 8.4% of babies born to other Australian mothers.⁶⁹

The Birthing in Our Community maternity service in Brisbane has demonstrated a halving of the preterm birth rate among Aboriginal and Torres Strait Islander mothers using the service.⁷⁰ The service was co-designed by two Aboriginal Community Controlled Health Organisations and a tertiary maternity hospital with the aim of reducing preterm birth. The service design included principles of⁷⁰:

- Increasing Aboriginal and Torres Strait Islander governance of, and workforce in, maternity services
- Midwifery continuity of care
- An integrated approach to supportive family services
- A community-based hub.

The rate of preterm birth was compared in records of women who gave birth to an Aboriginal or Torres Strait Islander baby between 2013 and 2017, 345 of whom attended the new service and 345 of whom received standard care. The rate of preterm birth was 7.5% in the Birth in Our Community service, and 13.9% for mothers receiving standard care.⁷⁰

The service redesign was based on the RISE framework that was developed to increase the effectiveness and cultural acceptability of services for Aboriginal and Torres Strait Islander people⁷¹:

- Redesign the health service
- Invest in the workforce
- Strengthen families
- Embed Aboriginal and Torres Strait Islander community governance and control.

Further testing of this framework may show improvements in other outcomes, including reducing early planned births, among Aboriginal and Torres Strait Islander mothers.

Early planned births without medical or obstetric indication

Resources

- Western Australian Preterm Birth Prevention Initiative
- The whole nine months consumer and health professional resources, thewholeninemonths.com.au²⁴
- Women and Babies Research, The Kolling Institute. Every Week Counts – consumer and health professional resources, everyweekcounts.com.au. version 1, 2019. Sydney: The University of Sydney²⁵
- Australian Preterm Birth Prevention Alliance statement on balancing the risks and benefits of early planned birth, and joint decision making⁷²
- Antenatal care for Aboriginal and Torres Strait Islander women⁷³
- Birthing on Noongar Boodjar (Cultural Security & Aboriginal Birthing Women) project recommendations⁶⁸
- Reducing preterm birth amongst Aboriginal and Torres Strait Islander babies: a prospective cohort study⁷⁰
- *Safer Baby Bundle – Working Together to Reduce Stillbirth: Handbook and resource guide*⁶¹
- *Position Statement: Improving decision-making about the time of birth for women with risk factors for stillbirth*⁷⁴
- *Playbook for the Successful Elimination of Early Elective Deliveries*⁷⁵
- *Elimination of Non-medically Indicated (Elective) Deliveries Before 39 Weeks Gestational Age*⁷⁶
- *WHO Statement on Caesarean Section Rates*⁷⁷

Australian initiatives

The information in this chapter will complement work already under way to reduce rates of non-medically indicated early caesarean section and induction in Australia. At a national level, this work includes:

- Australian Preterm Birth Prevention Alliance Initiative: The Whole Nine Months⁵⁶
- Safer Baby Bundle handbook and resource guide, Centre of Research Excellence in Stillbirth⁶¹
- Woman-centred care: strategic directions for Australian maternity services⁷²
- RANZCOG statement on timing of elective caesarean section at term⁶
- RANZCOG statement on caesarean delivery on maternal request⁵⁰
- National Agreement on Closing the Gap, Outcome 2: Aboriginal and Torres Strait Islander children are born healthy and strong⁷³
- Birthing on Country Project; Congress of Aboriginal and Torres Strait Islander Nurses and Midwives, Australian College of Midwives, CRANApus.

Many state and territory initiatives are also in place, including:

- Policy of booking all elective caesarean sections for 39 weeks unless there is an obstetric or medical indication for earlier delivery, Australian Capital Territory (ACT)
- Canberra hospital and health services clinical guideline: induction of labour, ACT⁷⁴
- The Whole Nine Months program, ACT
- Guideline on timing of elective or pre-labour caesarean section, New South Wales²⁸
- Women and Babies Research, The Kolling Institute. Every Week Counts – consumer and health professional resources, everyweekcounts.com.au. version 1, 2019. Sydney: The University of Sydney²⁵

- NSW Health translational research project grant for 'Are we there yet? Optimising timing of planned birth to improve newborn outcomes and reduce health service costs'
- Queensland clinical guidelines: vaginal birth after caesarean section⁸¹
- Scoping to improve maternal and child continuity of care, Queensland
- Birthing in Our Community, Queensland⁷¹
- Waijungbah Jarjums, a service that connects Aboriginal and Torres Strait Islander parents with an Aboriginal and Torres Strait Islander midwife, Gold Coast, Queensland
- Queensland community maternity hubs, such as Logan Hospital and Logan Together
- Perinatal practice guidelines for caesarean section, South Australia⁸²
- Preterm birth prevention initiative, Tasmania
- Planning for birth after caesarean, Victoria⁸³
- Maternity eHandbook: induction of labour, Victoria⁸⁴
- Publication of early-term birth data, Victorian Consultative Council on Obstetric and Paediatric Mortality and Morbidity
- Birthing on Noongar Boodjar (Cultural Security and Aboriginal Birthing Women) project, Western Australia⁶⁸
- Preterm birth prevention initiative: The Whole Nine Months, Western Australia (now expanded nationally).⁵⁵

Early planned births without medical or obstetric indication

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