

Australia's mothers and babies:

Maternal deaths

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Citation

AIHW

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In Australia, where childbirth is safe for most women, maternal death is rare. All maternal deaths are reviewed by health professionals to determine the likely cause and whether the pregnancy contributed to the death.

Maternal death is the death of a woman while pregnant or within 42 days of the end of pregnancy, irrespective of the duration and outcome of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.

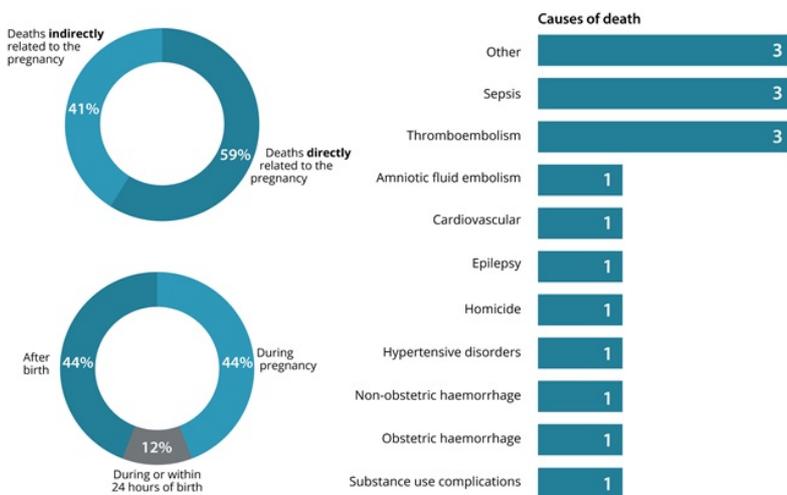
Maternal deaths are divided into two categories, **direct** and **indirect**. Direct maternal deaths are those resulting from obstetric complications of pregnancy or its management. Indirect maternal deaths are those resulting from diseases or conditions that were not due to a direct obstetric cause, but were aggravated by the physiologic effects of pregnancy. Deaths considered to be causally unrelated to pregnancy are classified as **coincidental** (see below for more information on these deaths).

Coincidental deaths are defined as those that are reported to have occurred during pregnancy or within 42 days of the end of pregnancy, but are considered to be causally unrelated to pregnancy. Unlike direct and indirect maternal deaths, coincidental deaths are excluded from analysis and MMR calculations.

There were 41 coincidental deaths in Australia from 2010-2019. The most common causes of these deaths were motor vehicle trauma and cancer. For more information visit [data tables 1 & 2](#).

Figure 1: Maternal deaths in Australia, 2019

In 2019, there were 17 maternal deaths, or 6 deaths per 100,000 women giving birth



Note: Data not available from Western Australia for 2019

Maternal mortality over time

The incidence of maternal death is expressed as the **maternal mortality ratio (MMR)**. The MMR is calculated using direct, indirect and not classified maternal deaths (excluding coincidental deaths and deaths awaiting classification) and expressed as per 100,000 women giving birth. Between 2010 and 2019, the MMR in Australia was relatively stable, ranging from between 5.0 to 8.4 per 100,000 women giving birth.

Fluctuations appear to reflect the normal variability that might be expected with rare events such as maternal deaths. The data visualisation shows a bar chart of the maternal mortality ratio by year for the period 2010 to 2019. In 2019, the maternal mortality ratio was 6.4 per 100,000 women giving birth.

Visualisation not available for printing

For more information on maternal mortality ratio over time see [National Maternal Mortality Data Collection annual update table 1](#).

Causes of maternal deaths

The most frequent causes of maternal death reported in Australia between 2010 and 2019 were complications of pre-existing cardiovascular disease and non-obstetric haemorrhage (mostly haemorrhage within the brain and haemorrhage from a ruptured aneurysm of the splenic artery).

The most frequent causes of direct maternal death between 2010 and 2019 were thromboembolism and obstetric haemorrhage. The data visualisation shows a bar chart of the number of direct and indirect maternal deaths by cause of death for the period 2010 to 2019. During this period, cardiovascular disease was the leading cause of maternal death, with 28 deaths.

Visualisation not available for printing

For more information on causes of maternal death see [National Maternal Mortality Data Collection annual update table 2](#).

Timing of maternal deaths

Understanding the timing of maternal deaths is important for identifying periods of critical risk. Between 2010 and 2019 one third (33%) of maternal deaths occurred in women who were reported to be pregnant at the time of their death, and of these women 2 in 5 (40%) died during the first trimester of pregnancy (less than 14 weeks of pregnancy).

In the same period, 1 in 5 (21%) maternal deaths were reported to have occurred during the birth process or within 24 hours of giving birth, and nearly half (46%) of all maternal deaths occurred after birth, with 3 in 5 (61%) deaths occurring within 1 to 13 days of giving birth. These proportions do not include maternal deaths following or due to miscarriage or termination of pregnancy as the timing of death was not adequately reported for these cases.

The data visualisation shows a bar chart of the number of direct and indirect maternal deaths by timing of death for the period 2010 to 2019. During this period, most deaths occurred after birth, with 76 deaths.

Visualisation not available for printing

For more information on timing of maternal death see [National Maternal Mortality Data Collection annual update table 3](#).

Characteristics of women who died

This section presents some demographic characteristics of the women who died from 2012-2019. It should be noted that not all demographic information was available for all women who died. Caution should be used when interpreting these data, due to the small number of maternal deaths in Australia, and even smaller numbers when these deaths are broken down by characteristics.

The data visualisation shows a bar chart of the maternal mortality ratio for the maternal characteristics of age, Indigenous status, smoking status, parity and remoteness for the period 2012 to 2019. During this period, the maternal mortality ratio for women aged under 20 was 17.2 per 100,000 women giving birth.

Visualisation not available for printing

Maternal age

Women aged under 20 had the highest MMR, followed by those aged 40 or more (18.8 and 12.5 per 100,000 women giving birth). The lowest MMR was for women in the 20 to 24 age group, followed by women in the 30 to 34 age group (2.0 and 4.8 per 100,000 women giving birth).

Maternal Indigenous status

Between 2012 and 2019, the MMR for Aboriginal and Torres Strait Islander women was 17.5 per 100,000 women giving birth. In the same period, the MMR for non-Indigenous women was 5.5 per 100,000 women giving birth.

Parity

Parity refers to a woman's number of previous pregnancies, excluding the current pregnancy, carried to a viable gestational age (usually 20 weeks). The rate of maternal death increased with parity, from an MMR of 4.8 and 4.7 per 100,000 women giving birth for women with a parity of none and 1 respectively, increasing up to 11.7 for women with a parity of 3 and 16.8 for women with a parity of 4 or more.

Smoking status

The rate of maternal deaths was higher in women who reported smoking during the first 20 weeks of pregnancy than in women who reported that they did not smoke during the first 20 weeks of pregnancy (16.9 compared to 3.5 per 100,000 women giving birth). As the number of maternal deaths with an unknown smoking status is relatively high (33% of data from included jurisdictions), caution should be used when interpreting these data.

Remoteness

Women who lived in *Remote* and *Very Remote* areas had the highest MMR, followed by women who lived in *Inner Regional* areas (10.8 and 8.6 per 100,000 women giving birth). The lowest MMR was for women who lived in *Major Cities* (5.5 per 100,000 women giving birth). The rate of maternal death in areas other than *Major Cities* should be treated with caution due to the small numbers.

For more information on timing of characteristics women who died see [National Maternal Mortality Data Collection annual update tables 4 to 8](#).

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