Focus On

Perinatal mortality in the ACT

ACT Government | ACT Health

What is perinatal mortality?

Perinatal mortality encompasses foetal deaths (stillbirths) and neonatal deaths that occur in the perinatal period commencing at 20 weeks (140 days) of pregnancy and ending at 28 days after birth.

Why do we track perinatal mortality in the ACT?

While the majority of pregnancies in Australia and the ACT do not result in mortality or severe illness; pregnancy, childbirth and infancy remain a time of vulnerability for mothers and their children. Each year throughout Australia around 3,000 Australian families will experience the tragic loss of a baby who was either stillborn or died in the first four weeks of life (AIHW, 2016).

In the ACT, all perinatal deaths are reviewed by the ACT Maternal and Perinatal Mortality Committee (ACT MPMC). The ACT MPMC developed from a few clinicians in 2002 who recognised the importance of collecting perinatal mortality data to allow accurate reporting and comparisons of perinatal deaths within the ACT and nationally.

While not all perinatal deaths are preventable, the reviewing, classifying and reporting of perinatal deaths creates a powerful tool for health professionals that enables continual improvement of practices and procedures. This will ensure that the ACT continues to be one of the safest places in the world to give birth.

How many perinatal deaths are there in the ACT

In the ACT

31,015
babies were born in the ACT between 2011–2015.

Of these,
30,769
(99.2%) were classified as live births

Around,
4,518
(14.6%) of these births were to mothers who lived outside of the ACT

In 2011–2015,

346
perinatal deaths occurred in the ACT

Average of 69 per year

ACT mothers
252
perinatal deaths

Average of 50 per year

Non ACT mothers
94
perinatal deaths

Average of 19 per year

ACT mothers

Foetal death rate	Neonatal death rate	Perinatal death rate
7.3 deaths per 1,000 total births	**2.2** deaths per 1,000 live births	**9.5** deaths per 1,000 births

30.8 YEARS

was the average age of ACT mothers who experienced a perinatal death

AROUND ONE IN 10 (10.0%)

of these babies were conceived with assisted reproduction technology

11.6% MOTHERS

stated that they had smoked cigarettes while they were pregnant.

Risk factors

Two of the most important factors that determine a baby's perinatal health are birthweight and gestational age. Infants with an extremely low birthweight and an early gestational age have an increased risk of perinatal death.

In 2011–2015, 83% of all perinatal deaths in the ACT were preterm deliveries (less than 37 weeks gestation). Extreme prematurity (less than 28 weeks gestation) was cited in 65% of all perinatal deaths.

National reporting has shown that perinatal mortality is highly related to maternal age, with mothers aged less than 20 years and those aged 45 years and older experiencing significantly higher rates than other mothers.[1] However, this was not found to be a significant factor in the ACT.

Throughout the 2011–2015 reporting period, women who stated that they had smoked during pregnancy experienced significantly higher perinatal mortality rates than those who did not smoke (74% higher).

Research conducted by ACT Health found that teenage girls were six times more likely to smoke during pregnancy than women aged 35 years or older.

Smoking status by age

42%
19 years or younger

9%
20 – 34 years

5%
35 years or older

What are the most common causes of perinatal mortality in the ACT

In 2011–2015, the most common cause of perinatal mortality in the ACT was congenital abnormality. Congenital abnormalities are structural or functional anomalies that occur prior to birth and can be identified prenatally, at birth, or sometimes may only be detected later in infancy, such as hearing defects.[2] Around one quarter of all perinatal death in the ACT are due to congenital abnormality.

- Congenital abnormality (24.6%)
- Specific perinatal conditions (14.3%)
- Antepartum haemorrhage (11.1%)
- Spontaneous preterm (10.3%).

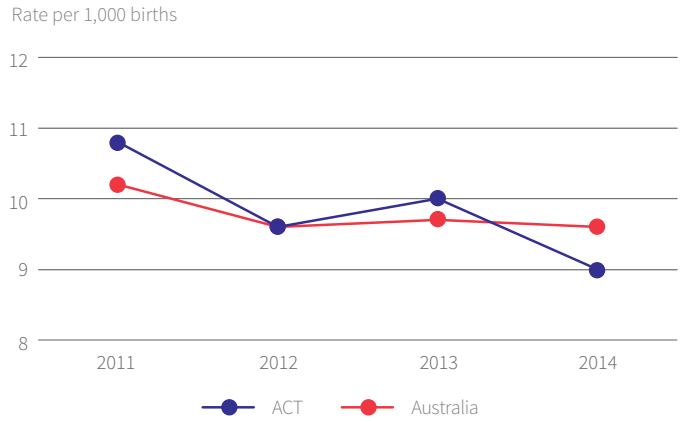
Specific perinatal conditions included conditions associated with single-placenta multiple births, uterine abnormalities and cord complications.

Investigations of each perinatal loss aim to provide answers to families as to why their baby has died and whether this has implications for future pregnancies. Sadly, despite investigations, 19% of antepartum deaths remain unexplained. The number of unexplained antepartum deaths in the ACT was relatively consistent during the 2001–2005 and 2006–2010 reporting periods at 33 deaths and 35 deaths respectively. However, the number increased to 54 deaths in 2011–2015. This equated to an increased rate from 1.5 deaths per 1,000 births in 2006 to 2010, to 2.0 deaths per 1,000 births in 2011–2015. ACT Health strives to reduce the number of unexplained perinatal deaths and this is an ongoing focus. Investigations of perinatal losses aim to provide answers to families as to why their baby has died and whether this has implications for future pregnancies. It is important that the value of conducting autopsies is recognised to minimise the number of perinatal deaths that remain unexplained.

How does the ACT compare to rest of Australia

While perinatal mortality rates in the ACT fluctuate due to the small number of deaths that occur each year they are generally similar to the Australian rate.

Figure 1: Perinatal mortality rates, ACT residents and Australia, 2011–2014



Note: ACT rates are based on three year rolling averages.
Notes for Australian data.
(a) Stillbirth and perinatal death rates were calculated using all births; neonatal death rates were calculated using all live births.
(b) Neonatal deaths may exclude neonatal deaths within 28 days of birth for babies transferred to another hospital or readmitted to hospital and those dying at home.
(c) Perinatal deaths may include late terminations of pregnancy.

Source: Source: ACT Perinatal Death Data Collection, ACT Maternal and Perinatal Data Collection and AIHW National Perinatal Data Collection.

Success story – foetal growth restriction

Foetal growth restriction (FGR) is associated with a significant proportion of perinatal deaths. Focus in the early antepartum period is aimed at identifying risk factors. During the later antepartum period, there is increased surveillance for signs of FGR and early delivery when recommended. However, a proportion of babies continue to not be identified as growth restricted during pregnancy. A number of the ACT MPMC members are involved in the development of a national training program aimed at increasing the identification of pregnancies complicated by FGR, with the aim of reducing the morbidity and mortality associated with this risk factor. This program is planned to be available both as a live instructional course and as an e-learning program in 2018. In the ACT, rates of perinatal loss associated with FGR have declined significantly since the last reporting period, from 35 to 17 deaths (1.5 to 0.6 deaths per 1,000 births).

Reducing unexplained perinatal deaths

An important area of future focus in perinatal loss is unexplained antepartum death. The Canberra Hospital is involved with a large National Health and Medical Research Council (NHMRC) funded study that is designed to determine the investigations that should be performed when an antepartum death has occurred to maximise the likelihood of explaining the death.

For more information

ACT Health (2017). Perinatal Mortality in the Australian Capital Territory, 2011–2015, ACT Government, Canberra ACT.
https://stats.health.act.gov.au/epidemiology-publications

References

[1] AIHW. (2016). Perinatal deaths in Australia, 1993–2012. Canberra: AIHW.

[2] WHO, Congenital anomalies - fact sheet, 2017, http://www.who.int/mediacentre/factsheets/fs370/en/

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