



**Queensland
Government**

Closing the Gap in Mortality Rates for Indigenous Children Under Five in Queensland

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Introduction

Closing the gap in child health outcomes between Indigenous¹ and non-Indigenous Australians is a priority area of action, endorsed in 2008 by the Council of Australian Governments (COAG). As part of the COAG agenda, the Commonwealth, States and Territories agreed to the target of halving the gap in mortality rates for Indigenous children under five within a decade. This target is supported by the Queensland Government and incorporated in “Making Tracks toward closing the gap in health outcomes for Indigenous Queenslanders by 2033”, the Queensland Government’s policy and accountability framework and implementation plan for achieving sustainable health gains for Indigenous Queenslanders.

The purpose of this Statbite is to examine survival outcomes of babies born to Indigenous and non-Indigenous mothers in Queensland from birth to 5 years, explore the available recent evidence, identify existing gaps and the leading causes of mortality in this critical period of life and highlight any progress in achieving the COAG target.

Data Sources

Babies born to Indigenous and non-Indigenous mothers are the population of interest in this Statbite. Therefore, data for mothers where Indigenous status was ‘not stated’ were excluded. Data are sourced from the Queensland Health Perinatal Data Collection (PDC) and cover the period from 1999 to 2010. However, the Cause of Death data, supplied by the Australian Bureau of Statistics (ABS), is currently only available to 2007. Data were also sourced from the ABS publication “Deaths Australia 2009”. To avoid the annual fluctuation of small numbers, three years aggregated data that cover the period 2005-07 was considered as the baseline for monitoring future progress. Queensland Indigenous and non-Indigenous Estimated Resident Population (ERP) data were sourced from the Office of Economic and Statistical Research (OESR).

Outcomes

On average each year in Queensland, around 3,100 babies are born to Indigenous mothers, and 54,300 babies are born to non-Indigenous mothers. Statistics presented here show that Indigenous babies are disadvantaged in terms of survival outcomes.

Summary indices of child mortality are provided in Table 1. It shows that during 2005-07, the Indigenous child mortality rate (0-4 years) was 225.4 per 100,000, twice the non-Indigenous rate in Queensland for the same period. The comparable Indigenous to non-Indigenous rate ratio in Australia is 3.0². Over 80% of deaths to Indigenous children under the age of five occur during the first year of life (infant deaths), while deaths to children aged 1 to 4 accounts for less than 20% of the total child deaths. This shows the overwhelming influence of infant health and mortality on the overall health and mortality of children under the age of five.

¹ The word ‘Indigenous’ is used in this paper as a short expression denoting a person of Aboriginal and/or Torres Strait Islander origin.

² AIHW, The health and welfare of Australia’s Aboriginal and Torres Strait Islander people: an overview 2011, p. 84.

Table 1: Indicators of under five child mortality by Indigenous status, Queensland, 2005 to 2007

Indicators of Child Mortality	Indigenous Count	Indigenous Rate	Non-Indigenous Count	Non-Indigenous Rate	Rate Ratio
Child 0-4 Mortality (1) (Rate per 100,000)	129	225.4	853	113.8	2.0
- Infant Mortality (2) (Rate per 1,000 live births)	106	11.6	718	4.4	2.6
- Child 1-4 Mortality (3) (Rate per 100,000)	23	50.4	135	22.4	2.2

(1) Child 0-4 mortality rate: Number of Deaths to children 0-4 years old per 100,000 population of the same ages in the same year.

(2) Infant mortality rate (IMR): The number of deaths to infants during the first year of life per 1,000 live births in the same year.

(3) Child 1-4 mortality rate: Number of Deaths to children 1-4 years old per 100,000 population of the same ages in the same year.

Table 1 shows that during the period 2005-07, the Indigenous infant mortality rate in Queensland was 11.6 per 1,000 live births, which is 2.6 times the non-Indigenous rate. During the same period, the mortality rate of Indigenous children 1-4 years was 50.4 per 100,000 compared to 22.4 per 100,000 for non-Indigenous children 1-4 years of age.

In Table 2, infant mortality is further examined by a closer look at its constituent components. Table 2 shows that over two-thirds of the total Indigenous infant deaths occurred within the first 28 days of life (neonatal deaths), indicating a neonatal death rate of 8.1 per 1,000, which is 2.5 times the non-Indigenous rate. Infant deaths after 28 days (post-neonatal deaths), averaged 10 per year, with a rate of 3.5 per 1,000 which is 2.7 times the rate for babies born to non-Indigenous mothers.

Table 2: Perinatal and post neonatal mortality by Indigenous status of mothers, Queensland, 2005 to 2007

Indicators of Child Mortality	Indigenous Count	Indigenous Rate	Non-Indigenous Count	Non-Indigenous Rate	Rate Ratio
Neonatal Deaths (1) (per 1000 live births)	74	8.1	511	3.2	2.5
Post-neonatal Deaths (2) (per 1000 neonatal survivors)	32	3.5	207	1.3	2.7
Still Birth (3)	112	12.1	1,055	6.5	1.9
Perinatal Deaths (4)	186	20.1	1,566	9.6	2.1

(1) Neonatal mortality rate: The number of deaths to infants within 28 days of birth per 1,000 live births.

(2) Post-neonatal mortality rate: The number of infant deaths occurring from 28 days to just prior to first birth day per 1000 neonatal survivors in the same year.

(3) Stillbirth Rate: The number of still births (fetal deaths) per 1000 total births in the same year.

(4) A perinatal death is a fetal or neonatal death. perinatal mortality rate: The number of still births plus neonatal deaths per 1000 total births in the same year.

Data Sources: Queensland Health, Perinatal Data Collection (PDC).

Perinatal mortality rate is an important indicator of mother and child health in a society. A perinatal death is a stillbirth or neonatal death. Table 2 shows that during the period 2005-07, the Indigenous stillbirth rate was 12.1 per 1000 births, 1.9 times the comparable rate for Queensland non-Indigenous births. When neonatal

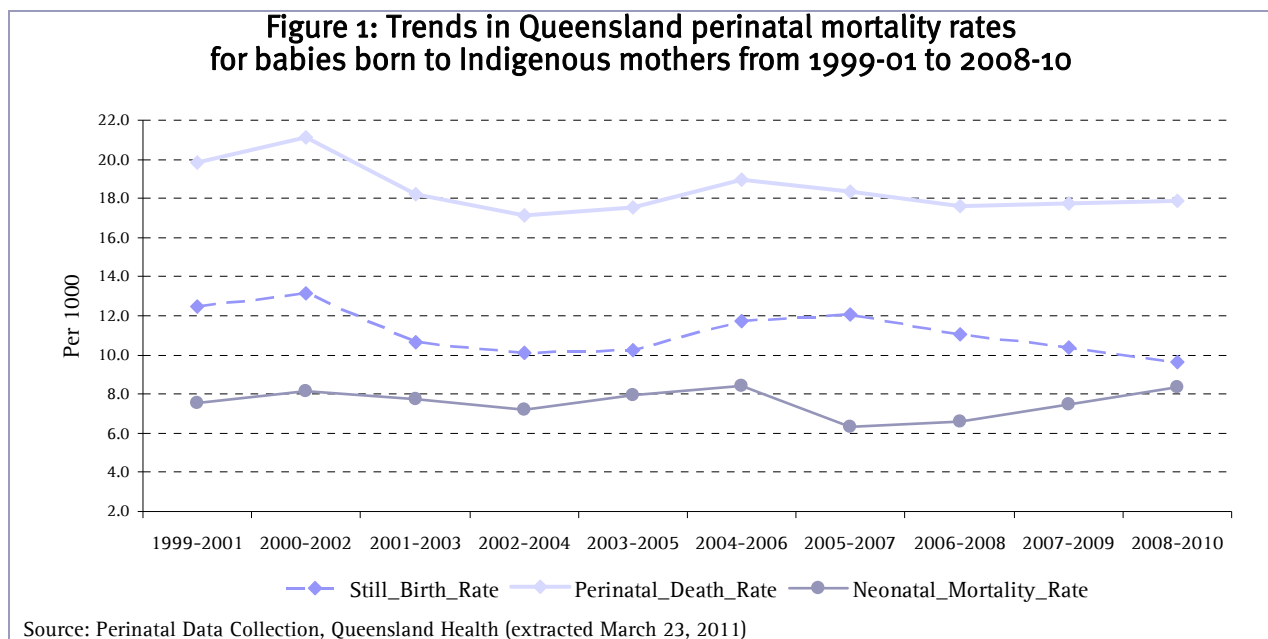
mortality is added, the resulting Indigenous perinatal mortality rate in Queensland was 20.1 per 1,000 births, which was 2.1 times the Queensland non-Indigenous rate.

During the study period, leading causes of infant mortality were:

- certain conditions originating in the perinatal period (6.55 per 1,000 live births, 3.1 times the non-Indigenous rate from these causes)³,
- symptoms, signs and abnormal clinical and lab findings (1.86 per 1,000 live births, 3.5 times rate)⁴,
- external causes of morbidity & mortality (0.66 per 1,000 live births, over 9 times the non-Indigenous rate)⁵, and
- diseases of the respiratory system (0.44 per 1,000 live births, 2.9 times the non-Indigenous rate).

Closing the Gap in Perinatal Outcomes

Trends in Queensland perinatal outcomes from 1999-01 to 2008-10 are presented in Figure 1.



As can be seen in Figure 1, the level of Indigenous perinatal mortality in Queensland has not changed significantly during the last 10 years, averaging 18.4 per 1,000 births over the decade. Given that the non-Indigenous perinatal mortality rate remains relatively steady at about 9.8 per 1,000 per year, a 9 per 1,000 gap between the perinatal rates for Indigenous and non-Indigenous in Queensland continue to exist. Figure 1 also shows that although stillbirth rates are falling, the mortality rate of babies born to Indigenous mothers within 28 days from birth has not improved, and in fact is on the rise.

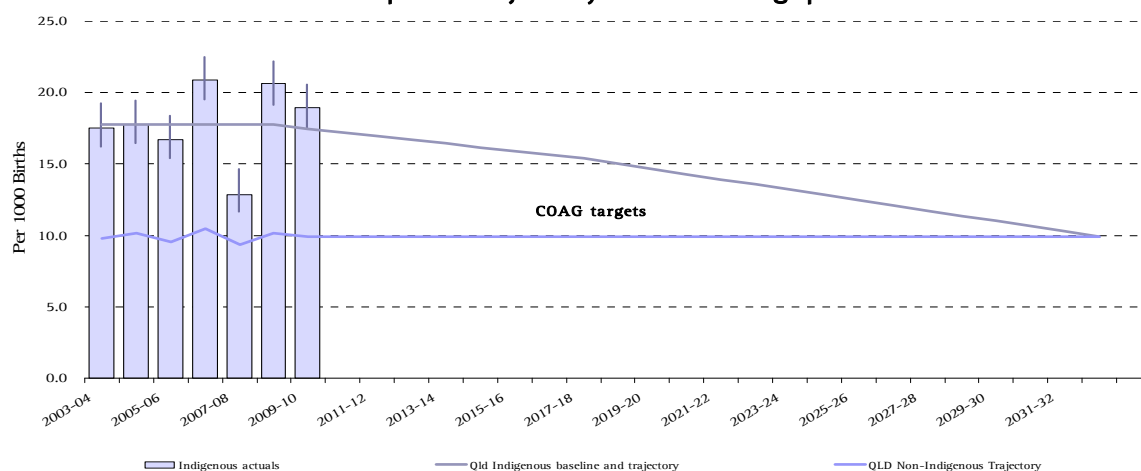
³ This cause include the impact of maternal factors on the foetus and newborn, complications of pregnancy, labour and delivery as well as disorders related to length of gestation and foetal growth.

⁴ This category includes ill-defined and unknown causes of mortality.

⁵ Includes falls, accidents, exposure to harmful substances etc.

The trajectory of perinatal mortality rates required to achieve the COAG targets is presented in Figure 2.

Figure 2: Perinatal mortality rates (per 1,000 births), Queensland, 2003-04 to 2032-33 required trajectory to close the gap



Source: The baseline data were extracted from Perinatal Data Collection, Queensland Health (extracted March 23, 2011)

Conclusions

Indigenous babies are disadvantaged in terms of survival outcomes. While better than the Australian Indigenous average, Indigenous child (under five) mortality in Queensland is twice the non-Indigenous rate, and mortality for Indigenous children aged 1-4 years, is 2.2 times the non-Indigenous mortality rate. The bulk of child mortality occurred during the first year of life, and in particular, within the first 28 days after birth where Indigenous mortality is over 2.5 times the non-Indigenous rate. Reviewing the Perinatal outcomes of the last two years since the COAG targets were fixed, it appears the mortality rate of babies born to Indigenous mothers within 28 days from birth has not improved, and in fact is on the rise. Much more needs to be done to improve survival chances of babies born to Indigenous mothers. Maternal factors and complications of pregnancy, labour and delivery, disorders related to length of gestation affecting growth of the foetus and new born, as well as, external causes of morbidity & mortality have been identified as leading causes of mortality in the first year of life. However, it is obvious that better focusing appropriate health intervention policies to overcome Indigenous disadvantage during pregnancy and early in life will contribute significantly to improving Indigenous child survival chances and ensuring a healthier life.

References

ABS 2010, Deaths Australia 2009, Cat.# 33020.

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Queensland Health, *Making Tracks* toward closing the gap in health outcomes for Indigenous Queenslanders by 2033, Policy and Accountability Framework, Queensland Health 2010.

Queensland Health, *Making Tracks* toward closing the gap in health outcomes for Indigenous Queenslanders by 2033, Implementation Plan 2009-10 to 2011-12, Queensland Health 2010.

Data Sources

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ABS 2010, Deaths Australia 2009, Cat.# 33020.

Queensland Health Perinatal Data Collection (PDC), 2003 to 2010.