



**Queensland  
Government**  
Queensland Health

## Indigenous infant mortality – the denominator dilemma

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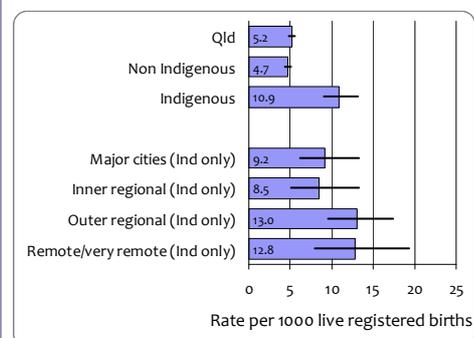
State-wide, the mortality rate of Indigenous infants is more than twice that of non-Indigenous infants. To reduce the gap between Indigenous and non-Indigenous mortality, services need to be targeted to support high risk infants and their families. To support evidence based service planning, robust data are required. A logical starting point is to determine which areas of Queensland have higher rates of infant mortality. This depends on the denominator that is used. Two options are available for calculation of infant mortality rates: live births registered to Queensland residents or all live births to Queensland residents sourced from the Queensland perinatal data collection (PDC). Figures 1 and 2 show the differences in rates both state-wide and regionally using these denominators.

The differences exist largely for two reasons:

1. Identification method – the PDC identifies only the Indigenous status of the mother. Analysis is based on babies born to Indigenous mothers compared with babies born to non-Indigenous mothers. In contrast, Indigenous status for registered live births is directly ascribed where either one or both parents are Indigenous. Theoretically then, there should be a higher number of Indigenous registered births than are recorded in the PDC each year. During the period 2004–2006 there were 10531 births registered as Indigenous compared with 8651 recorded in the PDC.
2. Data collection scope – while the PDC captures all reported live births in Queensland to Queensland women, the registration process does not, due to parents either delaying registration or not registering births at all. Young Indigenous mothers and those with ex-nuptial births are more likely to delay registration<sup>2</sup>. It is possible that they are also more likely not to register births at all. Babies born to residents of Indigenous local government areas (LGAs) are almost all born to Indigenous mothers, therefore it is expected that these counts would closely match the registration counts of babies in these LGAs. However, while 1348 live births to Indigenous mothers from Indigenous LGAs were recorded in the PDC over 2004–2006, only 716 were registered. The impact of this difference on the infant mortality rate is striking, 8.2 per 1000 compared with 15.4 per 1000 (not shown).

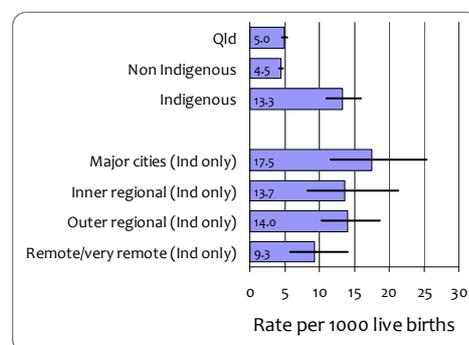
The identification method used in the deaths data to identify Indigenous deaths more closely matches that of the birth registration process than the PDC. For calculation of state-wide rates, registered live births should be used as the denominator; however, care should be taken when looking at regional rates, especially those from remote areas. It is also likely that registrations will increase over time. From 1 July 2007, parents need to have declared that they have lodged their child's birth registration form with the relevant state or territory Births, Deaths and Marriages Registry, in order to receive the Baby Bonus.

**Figure 1. Infant mortality, rate per 1000 registered live births, 2004–2006 – babies born with an Indigenous parent<sup>2</sup>**



<sup>2</sup>registered live births – Office of Economic and Statistical Research, sourced from the Australian Bureau of Statistics, Births Australia, 2006, 3301.0.

**Figure 2. Infant mortality, rate per 1000 live births, 2004–2006 – babies born to Indigenous mothers only<sup>3</sup>**



<sup>3</sup>live births sourced from the Queensland Perinatal Data Collection.