What is the research about?

Infant mortality is a key indicator of effective public health policies and programs, and an accurate picture of infant mortality informs a society as to its social progress. However, in Victoria the data describing Aboriginal* postneonatal infant and child mortality have not been published to date.

Thus, this research has initiated the generation of high-quality information describing the health of Victorian Aboriginal infants and children, and provided more accurate information on Indigenous identification associated with both Aboriginal infant and child, births and deaths.

A transparent way of working

To calculate Aboriginal infant and child mortality, a more accurate ascertainment of the Indigenous status of births and deaths in Victoria was critical. To do this, the Victorian Aboriginal Child Mortality Study (VACMS) has reported the number of births in Victoria where mother and/or father identified as Aboriginal and/or Torres Strait Islander using the Ever-Aboriginal Rule (Phases 1 and 2), and the number of infant and child deaths associated with these births (Phases 3 and 4). The Victorian Aboriginal community has guided this research from its inception and throughout the study.

Who is involved?

This research is being carried out in partnership between the Onemda VicHealth Group at the University of Melbourne and the Victorian Aboriginal Community Controlled Health Organisation (VACCHO). Advice has also been provided by the Aboriginal Health Branch of the Department of Health (DoH), Victoria.

The data custodians, the Consultative Council on Obstetric & Paediatric Mortality and Morbidity (CCOPMM)**, have provided both the data and advice for the study through the Clinical Councils Unit at the DoH, Victoria.
The methodology

This project is based on the application of best-practice linkage methodology and a comprehensive audit of all available information describing the causes and circumstances of the deaths of Victorian infants and children from 1999–2008, inclusive. The project has four phases, and this report includes the outcomes of Phases 3 and 4.

Phase 3:
- review of all death information (reported to the CCOPMM)
- coding and classification of the death information using a specific cause of death code and validation of the coding and classifications
- development of a comprehensive death dataset.

Phase 4:
- linking the matched birth dataset with the death dataset
- analysis and preparation of a report that describes the patterns and trends of deaths for Aboriginal compared with non-Aboriginal infants (neonatal, postneonatal) and children (0–<11 years) from 1999–2008, inclusive.

What the results tell us

**Between 1999–2008...**

*Aboriginal deaths in the neonatal period have reduced...*

however, the risk of death remains nearly twice as high for Aboriginal infants compared with non-Aboriginal infants.

Neonatal deaths (or deaths that occur in the first 28 days of life) indicate our progress in hospital care.

*Rates of Aboriginal postneonatal deaths have more than doubled over the 10 years...*

from 2/1000 to 4/1000 neonatal survivors.

The number of postneonatal deaths (which occur between 29 days and an infant’s 1st birthday) indicate how well we are providing community and social support.

*We observed no change in the gap in Victorian infant mortality...*

with 9.3/1000 Aboriginal live births compared to 4.5/1000 for non-Aboriginal live births, this represents a more than twofold increased risk of death for Aboriginal infants.

Infant mortality is a key indicator of effective public health policies and programs. So with double the rate of Aboriginal infants dying, the use of evidence that is based on population-linked data in determining these policies and programs is crucial.
the rates of death due to prematurity, infection, injury and SIDS are significantly higher for Aboriginal infants than for non-Aboriginal infants. The rate of SIDS among Aboriginal infants has doubled over the 10 years.

An Aboriginal child is more than twice as likely than a non-Aboriginal child to die before reaching their 11th birthday...

with injury as the main cause of death – which is entirely preventable.

Through the VACMS data linkage method it was found that 1/3 of Aboriginal infant deaths were not recorded as being Aboriginal.

Population data linkage provides a more accurate picture of health outcomes for the Aboriginal population living in Victoria...

using data linkage we observed 36 Aboriginal deaths that had been previously identified as non-Aboriginal deaths.

The report reveals the birth population of Aboriginal infants (1999–2008) as 1.6% of Victorian births. It was previously estimated at 0.8%.

The under-identification of Aboriginal births in Victoria is estimated to be between 87% and 120%

How we matched the data

Figure 2: Four phases of the VACMS
**Recommendations**

1. Introduce routine linkage of the Victorian Perinatal Data collection with the Registry of Births Deaths and Marriages to improve identification of Aboriginal births and deaths.

2. Develop a collaborative working group to reduce SIDS, and other preventable deaths, in Aboriginal infants.

3. Introduce governance protocols and a legislative process for continued access to the VACMS dataset.

4. Include a representative from VACCHO on the CCOPMM.

5. Develop a mechanism to enable the continuation of the VACMS method in the systematic review of Aboriginal birth and death data.

6. Develop a mechanism through which to make the VACMS outcomes available to Aboriginal services and community controlled organisations to inform policy and planning while ensuring strict individual and family privacy and confidentiality.

**Reporting**

This is the fourth publication arising from VACMS, with the others being:


- Freemantle, J., Ritte, R., Heffernan, B., Cutler, T. & Iskandar, D. 2013, *Victorian Aboriginal Child Mortality Study Phase 1: The Birth Report—Patterns and Trends in Births to Victorian Aboriginal and Torres Strait Islander and Non-Aboriginal and Torres Strait Islander Mothers and/or Fathers 1988–2008 Inclusive*.

**Who should you contact for more information?**

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www.vacms.net.au

* Aboriginal and/or Torres Strait Islander populations are referred to in this report as ‘Aboriginal’. The term includes Torres Strait Islander people, but because of their small population in Victoria data describing them is not disaggregated.

** Access to the data for this study was provided by the CCOPMM. The views expressed in this report are those of the authors and not of the CCOPMM.**

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*This image represents ‘connections’ and their relevance to health and wellbeing. Our connections with mother earth and the natural world keep us well and our connections with one another through family and community heal us and keep us whole. Artwork by Shawana Andrews.*