International Journal of Population Data Science (2017) 1:217

International Journal of
Population Data Science

Journal Website: www.ijpds.org

Using population data linkage to make the invisible, visible: patterns and trends in mortality for Victorian born Aboriginal compared with non-Indigenous Victorian infants

Ritte, Rebecca[1*], Freemantle, Jane[1], Mensah, Fiona[2], Sullivan, Mary[3], Chang, Sue[1], and Read, Anne[4]

[1]University of Melbourne
[2]Australian National University
[3]Department of Health Victoria
[4]Telethon Kids Institute

Objectives

The disparity between the infant mortality rates of Aboriginal and Torres Strait Islander (forthwith respectfully ‘Aboriginal’) and non-Aboriginal populations in Australia is well documented. However, major public health initiatives and campaigns aimed particularly at halving the Aboriginal infant mortality rate are hindered by the lack of comprehensive and accurate data. To date, infant and child mortality rates for Victorian born Aboriginal children have not been reported in national statistics. The aim of Victorian Aboriginal Child Mortality Study was to accurately measure the patterns and trends of Aboriginal infant mortality and to report the disparities between Aboriginal and non-Aboriginal infants born in Victoria, Australia between 1999 and 2008 inclusive.

Approach

We used best practice methodologies to link total population data and comprehensive mortality case review to classify and code the deaths to determine, for the first time, all-cause and cause-specific mortality for Aboriginal and non- Aboriginal infants born in Victoria from 1999 to 2008.

Results

Between 1999 and 2009, Aboriginal infants were twice as likely to die in in the first year of life as non-Aboriginal infants. Infant cumulative mortality rates (CMR) were higher among Aboriginal births (9.1/1000 livebirths in 1999-2003 and 9.4/1000 livebirths in 2004-2008) than non- Aboriginal births (4.7/1000 livebirths in 1999-2003 and 4.5/1000 livebirths in 2004-2008). For Aboriginal infants there was an observed decrease in the rate of neonatal deaths, and conversely an increase in the postneonatal CMR (from 2.2/1000 livebirths in 1999-2003 and 3.8/1000 livebirths in 2004-2008). Among Aboriginal infants there was an increase in deaths attributed to prematurity (3.1/1000 livebirths in 1999-2003 and 4.3/1000 livebirths in 2004-2008) and sudden infant death syndrome (SIDS) (1.0/1000 livebirths in 1999-2003 and 1.7/1000 livebirths in 2004-2008). There were significantly more potentially preventable deaths among Aboriginal infants than in non-Aboriginal infants [infection (0.6/1000 Aboriginal livebirths vs 0.2/1000 non-Aboriginal livebirths, RR 2.5 95%CI 1.1-5.6) injury (0.6/1000 Aboriginal livebirths vs 0.1/ 1000non-Aboriginal livebirths, RR 5.8 95%CI 2.5-13.5), and SIDS (1.4/1000 Aboriginal livebirths vs 0.28/1000 non-Aboriginal livebirths, RR 5.0 95%CI 2.9-8.6)].

Conclusion

This is the first time that all-cause and cause-specific mortality rates for Victorian born Aboriginal and non-Indigenous infants have been reported. The observed increasing disparities between Aboriginal and non- Indigenous infants, especially due to preventative causes, such as infection, injury and SIDS, in the post neonatal period, demand immediate action in partnership with Aboriginal communities. Collaborative action must focus on both access to primary health care and better living conditions.

---

*Corresponding Author:
Email Address: rebecca.ritte@unimelb.edu.au (R. Ritte)

http://dx.doi.org/10.23889/ijpds.v1i1.237