Sudden Unexpected Death in Infancy (SUDI)

HIGHLIGHTS:

- **In 2015, 41 children aged less than one year old died from Sudden Unexpected Death in Infancy (SUDI), a rate of 0.7 deaths per 1000 live births.**
- **From 2000 to 2015, there was an overall decrease in the number and rate of SUDI deaths.**
- **In 2011—15, SUDI rates were higher among Māori babies (1.5 per 1000 live births) and Pacific babies (1.1 per 1000 live births) than European/Other babies (0.4 per 1000 live births) and Asian babies (0.1 per 1000 live births).**
- **The SUDI rate was much higher in the most deprived areas (NZDep2013 quintile 5) (1.4 per 1000 live births) than in the least deprived areas (quintile 1) (0.2 per 1000 live births) in 2011–15.**
- **The district health boards (DHBs) with the highest SUDI rates in 2011–2015 were Tairāwhiti (2.2 per 1000 live births) and Lakes (1.6 per 1000 live births) DHBs.**

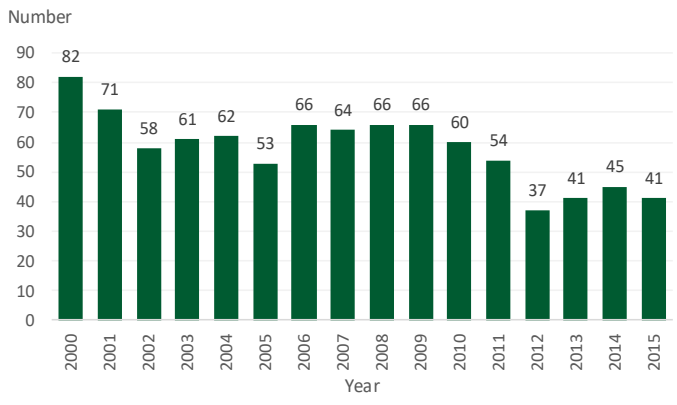
Relevance of SUDI to environmental health

Exposure to second-hand smoke increases the risk of sudden unexpected death in infancy (SUDI) for children under one year of age (US Department of Health and Human Services 2007). In particular, evidence shows an increased risk of SUDI for infants whose mother smokes, independent of whether the mother smoked during pregnancy (Anderson and Cook 1997).

In 2015 there were 41 deaths from SUDI

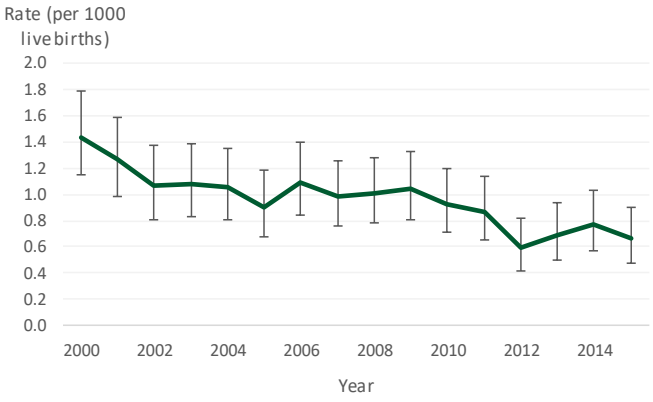
In 2015, 41 children under one year of age died from SUDI in New Zealand. This is a rate of 0.7 deaths per 1000 live births. Since 2000, there has been a substantial drop in the number of SUDI deaths, as well as in the rate per 1000 live births (Figures 1 and 2). The SUDI rate decreased from 1.4 deaths per 1000 live births in 2000, to 0.7 deaths per 1000 live births in 2015.

Figure 1 : Number of SUDI deaths, children aged <1 year, 2000–2015



Source: Ministry of Health 2018

Figure 2: Rate of SUDI deaths per 1000 live births, children aged <1 year, 2000–2015

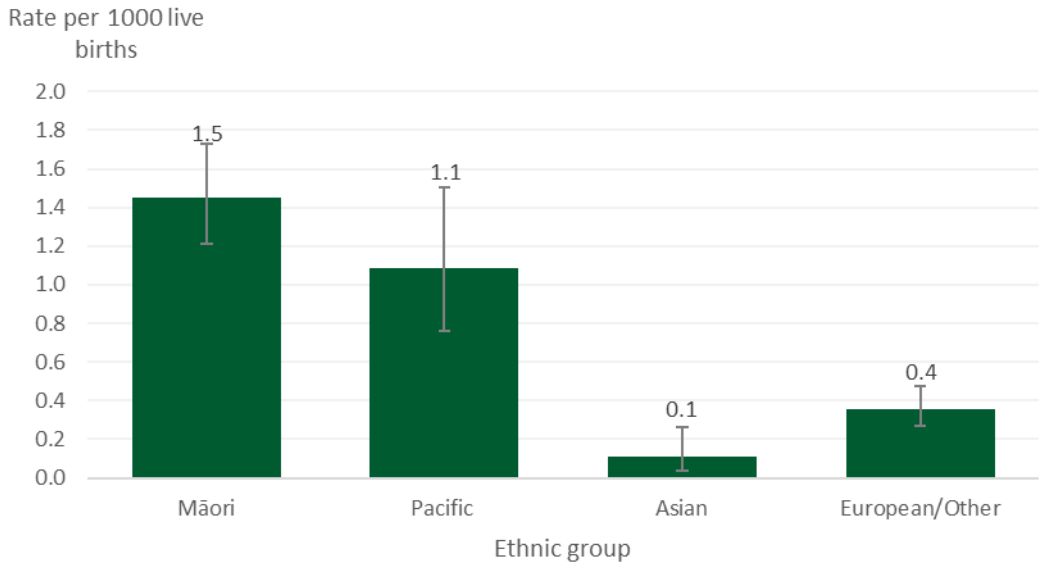


Source: Ministry of Health 2018

Māori and Pacific babies have higher SUDI rates

In 2015, 17 SUDI deaths were in Māori babies, 8 were in European/Other babies, 14 in Pacific babies and 2 in Asian babies. In 2011–15, Māori and Pacific babies had a much higher rate of SUDI deaths per 1,000 live births than other ethnic groups (Figure 3).

Figure 3: SUDI deaths, children aged <1 year, by prioritised ethnic group, 2011-15 (rate per 1,000 live births)

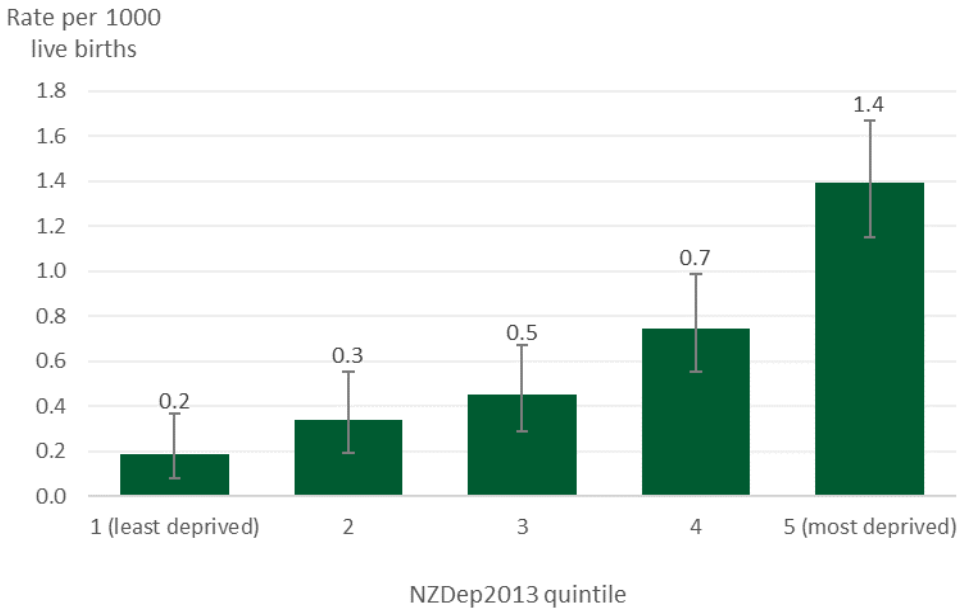


Source: Ministry of Health 2018

Highest SUDI rates in the most deprived areas

In 2011–15, babies living in the most deprived areas (NZDep2013 quintile 5) had a much higher SUDI rate (1.4 deaths per 1,000 live births), than babies in the least deprived areas (quintile 1) (0.2 deaths per 1,000 live births) (Figure 4).

Figure 4: SUDI deaths, children aged <1 year, by NZDep2013 quintiles, 2011–15 (rate per 1,000 live births)

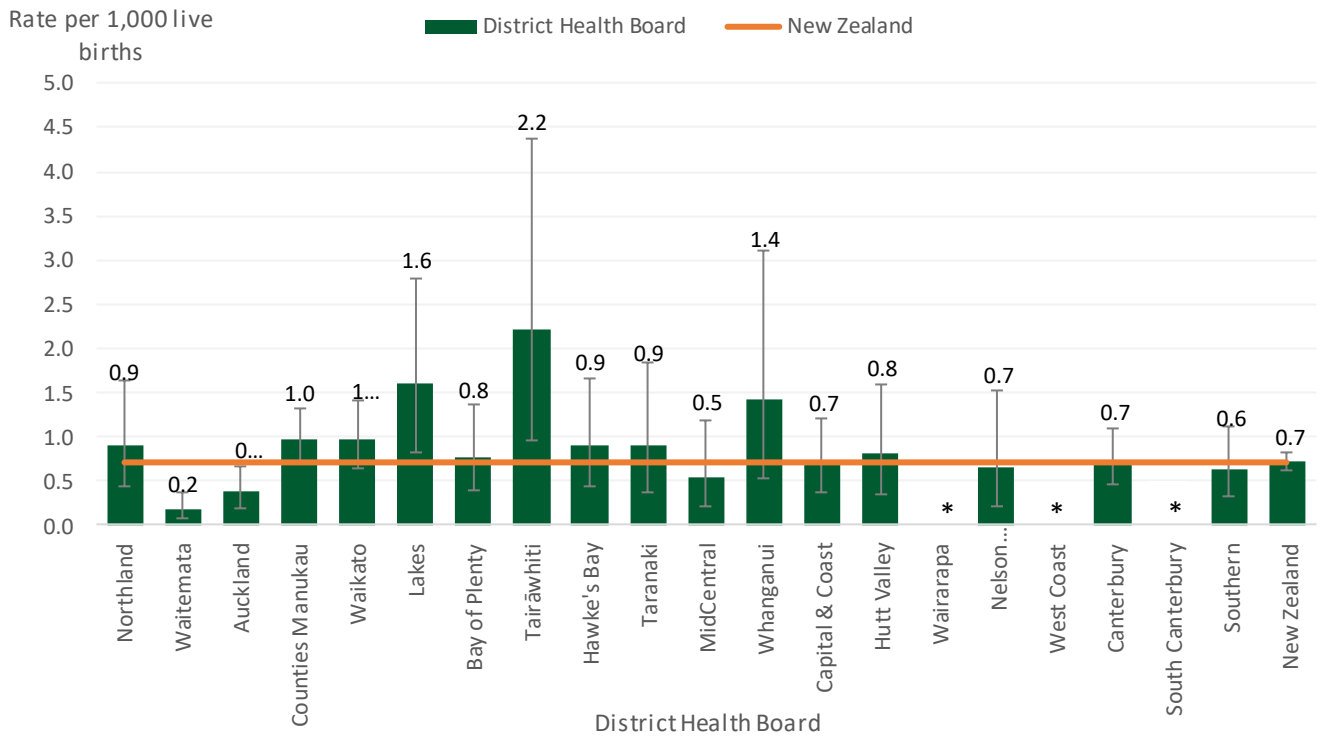


Source: Ministry of Health 2018

Tairāwhiti and Lakes DHBs had the highest SUDI rates in 2011–2015

In 2011–15, the highest SUDI rates were in Tairāwhiti District Health Board (DHB) (2.2 deaths per 1,000 live births) and Lakes DHB (1.6 deaths per 1,000 live births) (Figure 5).

Figure 5: SUDI deaths, children aged <1 year, by District Health Board, 2011–15 (rate per 1,000 live births)



Source: Ministry of Health 2018

Note: (*) Some rates have been suppressed due to counts less than five.

FURTHER INFORMATION

Related environmental health indicators for SUDI are available from the **EHINZ website**.

DATA FOR THIS INDICATOR

Data come from the data tables *Fetal and Infant Deaths 2015* (Ministry of Health, 2018). The indicator presents data for sudden unexpected death in infancy (SUDI), defined as deaths in children aged less than one year old, with an underlying cause of death in the following ICD-10 codes: R95 (sudden infant death syndrome), R96 (other sudden death, cause unknown), R98 (unattended death), R99 (other ill-defined and unspecified causes of mortality), W75 (accidental suffocation and strangulation in bed), W78 (inhalation of gastric contents) and W79 (inhalation and ingestion of food causing obstruction of respiratory tract). This definition follows the recommendations of the Child and Youth Mortality Review Committee (2009).

Rates are presented per 1000 live births. 95% confidence intervals have been presented for this indicator. Additional information for this indicator is available in the **Metadata sheet.**

REFERENCES

Anderson HR, & Cook, D. 1997. Passive smoking and sudden infant death syndrome: review of the epidemiological evidence. *Thorax,* 52, 1003-1009.

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