

Sudden unexpected death in infancy (SUDI)

This factsheet presents information on rates of sudden unexpected death in infancy (SUDI) from 2009 to 2018 (the most recent data available).

38 babies died from SUDI (0.6 per 1,000 live births) in 2018, down from 48 deaths (0.8 per 1,000 live births) the previous year.



Pacific and Māori babies had five times the rate of SUDI as European/Other babies in 2014–18.



Babies of younger mothers (younger than 25 years) had higher SUDI rates than babies born to mothers in older age groups.



The SUDI rate for babies living in the most socioeconomically deprived areas (NZDep2013 quintile 5) was six times as high as babies in the least deprived areas (quintile 1).

Maternal smoking doubles the risk of SUDI

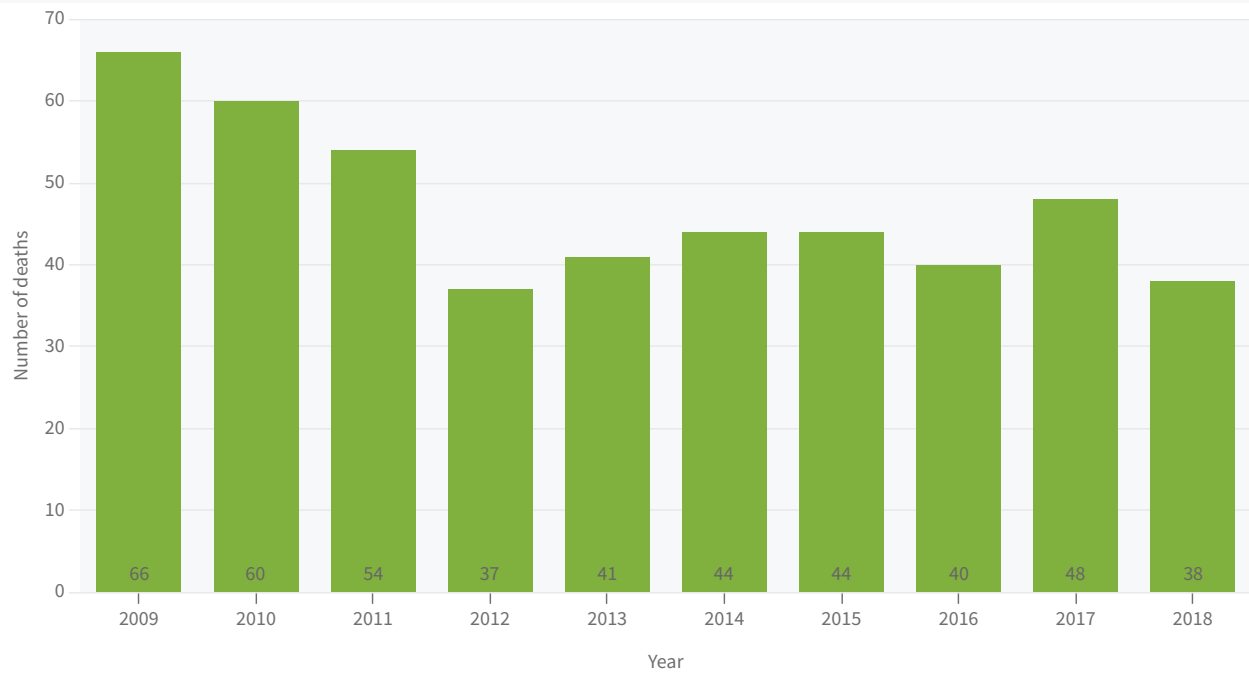
Exposure to second-hand smoke has been shown to increase the risk of SUDI in infants (under one year old) (US Department of Health and Human Services 2007, Anderson and Cook 1997). Having a mother who smokes also doubles their risk of dying from SUDI (Anderson and Cook 1997). In 2002–2010, New Zealand had a high SUDI rate compared with other developed countries (Taylor et al 2015).

Click on the links for more information about [SUDI](#) and [second-hand smoke exposure](#).

38 babies died from SUDI in 2018

In 2018, 38 babies less than one year of age (<1 year) (0.6 per 1,000 live births) died from SUDI, down from 48 deaths the previous year (Figure 1). In total, 472 babies died from SUDI from 2009 to 2018.

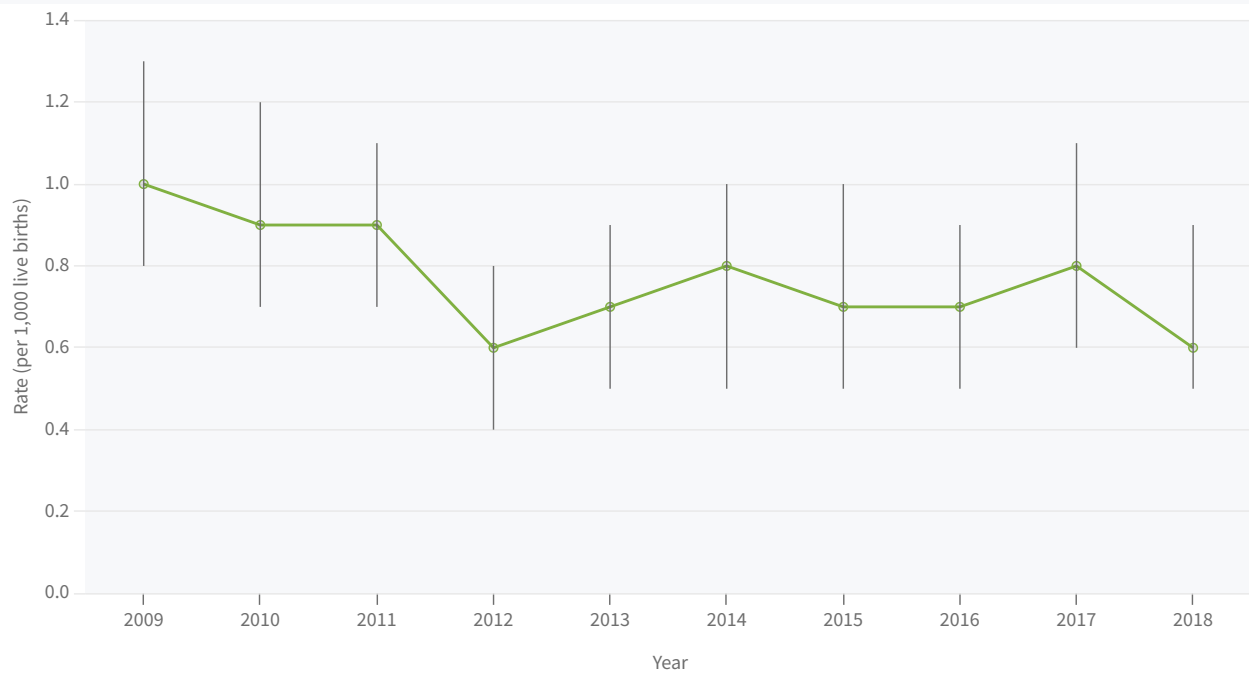
Figure 1 Number of SUDI deaths in children aged <1 year, 2009–2018



Source: Ministry of Health 2021

The SUDI rate has remained relatively steady over the ten years 2009–2018 (Figure 2). In 2017, the New Zealand government launched the National SUDI prevention programme. A target was set to reduce the SUDI rate from 0.7 per 1,000 live births to 0.1 per 1,000 live births by 2025 (Ministry of Health 2017).

Figure 2 SUDI deaths in children aged <1 year, 2009–2018 (rate per 1,000 live births)



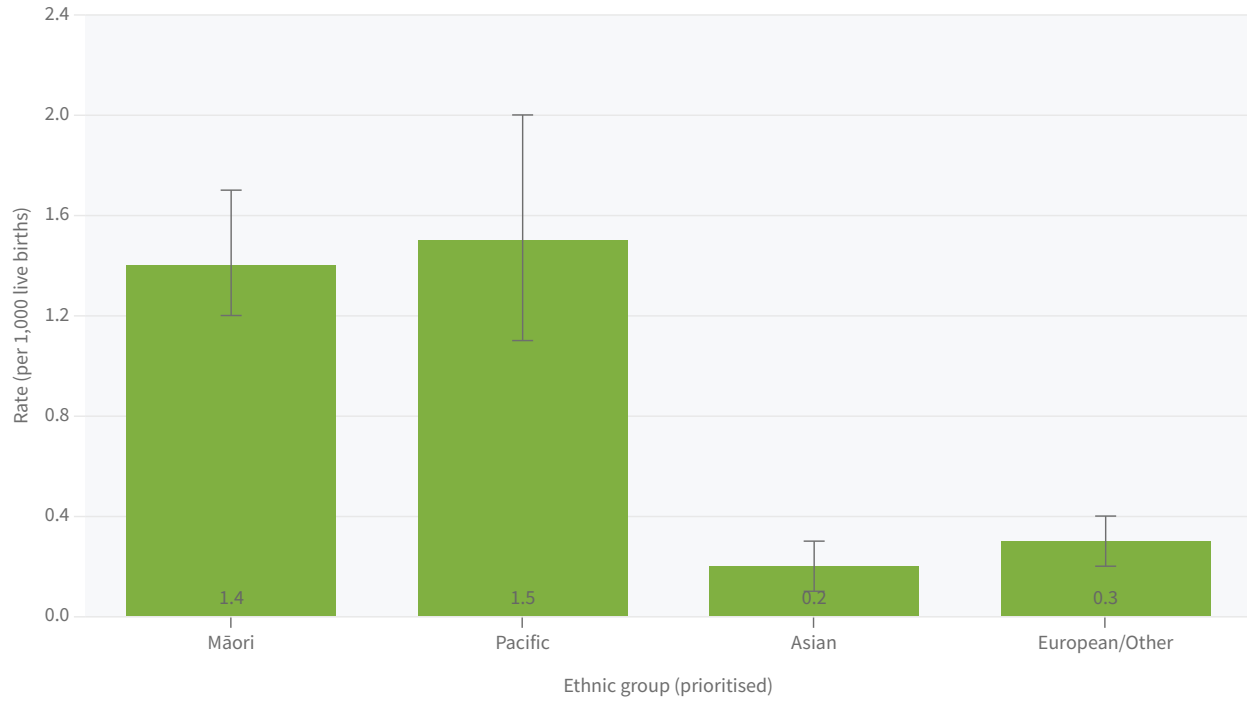
Note: 95% confidence intervals have been presented as error bars.

Source: Ministry of Health 2021

Pacific and Māori babies dying at a higher rate

Of the 38 babies that died from SUDI in 2018, 21 were Māori (55%), 8 were European (21%), 7 were Pacific (18%) and 2 were Asian (5%). In 2014–18, Pacific (1.5 per 1,000 live births) and Māori babies (1.4 per 1,000 live births) had five times the rate of SUDI as European/Other babies (0.3 per 1,000 live births) (Figure 3). Māori and Pacific babies also had high SUDI rates in 2009–13.

Figure 3 SUDI deaths in children aged <1 year, by ethnic group, 2014–18 (rate per 1,000 live births)



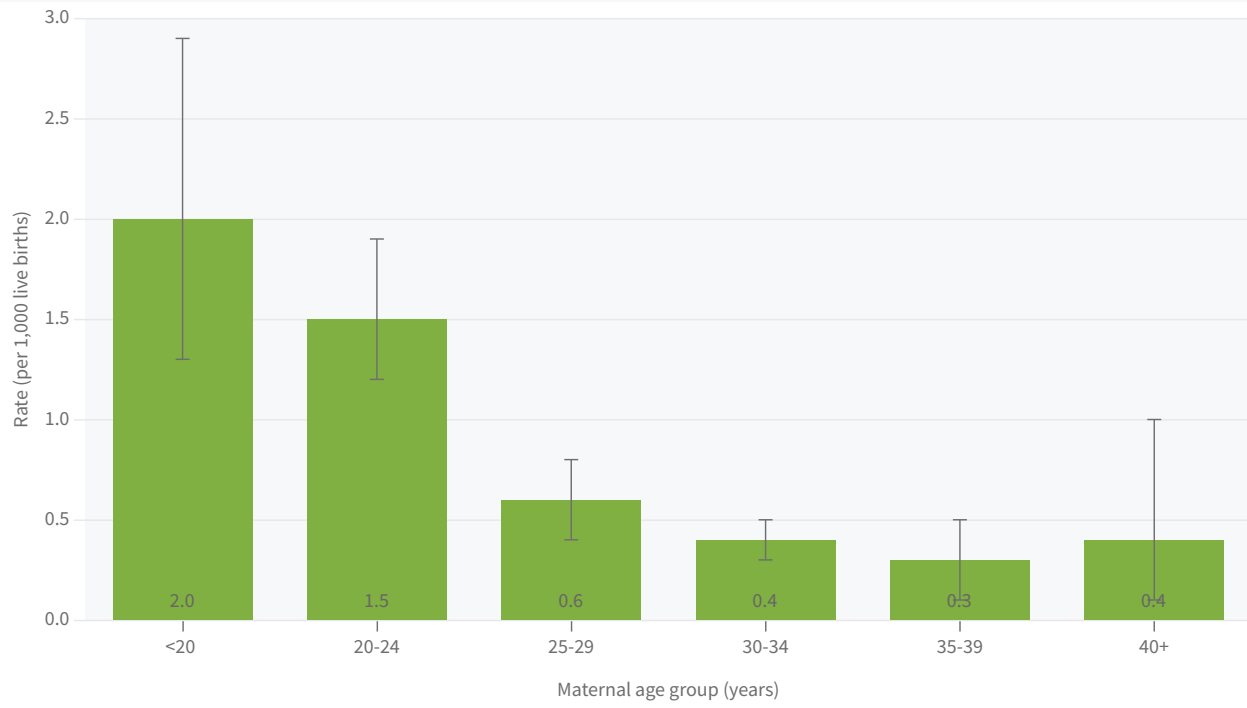
Note: 95% confidence intervals have been presented as error bars.

Source: Ministry of Health 2021

Babies of younger mothers have higher rates of SUDI

In 2014–18, SUDI rates were higher for babies whose mothers were younger than 25 years old (Figure 4). A similar pattern was seen in 2009–13.

Figure 4 SUDI deaths in children aged <1 year, by maternal age, 2014–18 (rate per 1,000 live births)

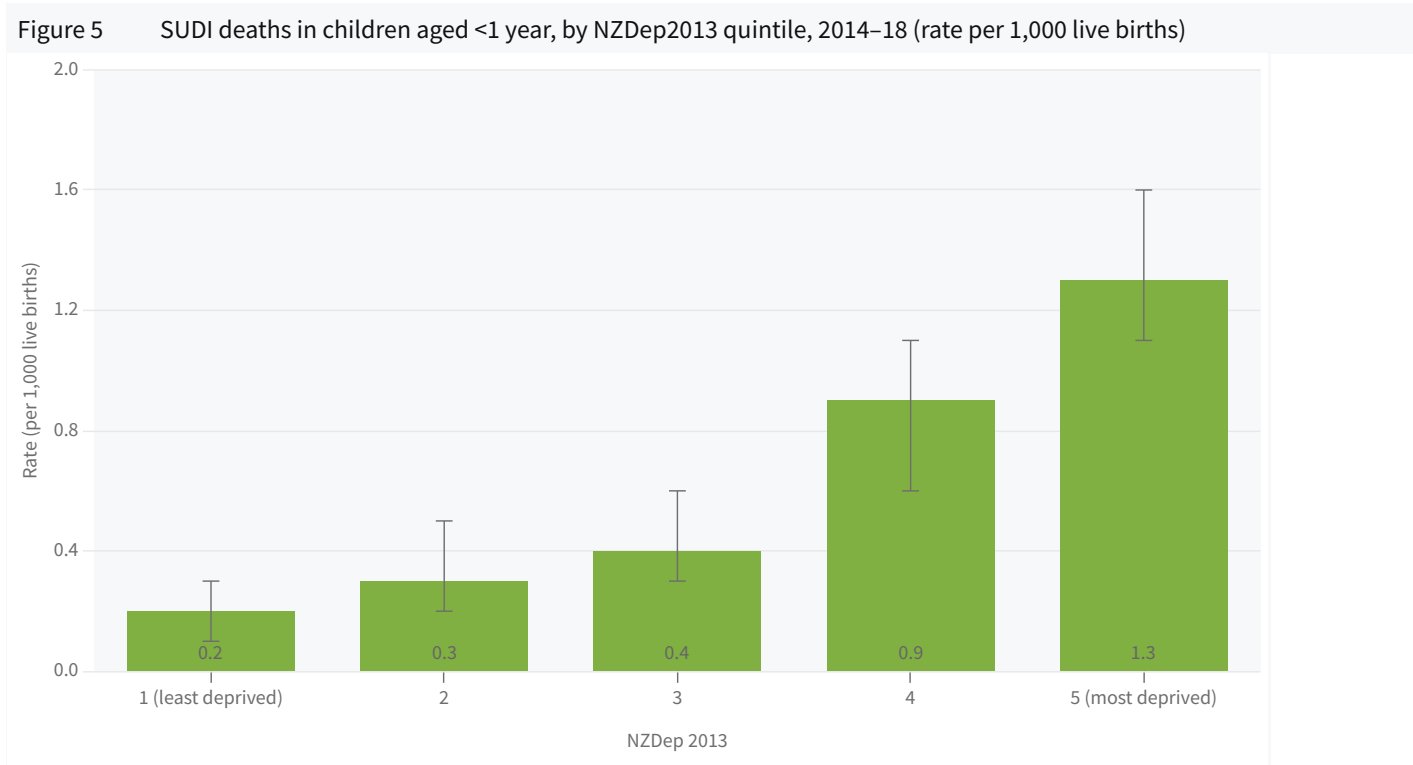


Note: 95% confidence intervals have been presented as error bars.

Source: Ministry of Health 2021

High SUDI rates in the most deprived areas

In 2014–18, the SUDI rate for babies living in the most deprived areas (NZDep2013 quintile 5) was higher (1.3 per 1,000 live births) than for those living in other quintiles (Figure 5). The SUDI rate was more than six times higher in the most deprived areas (quintile 5) than in the least deprived areas (quintile 1).

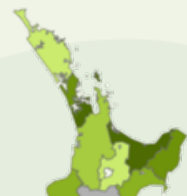


Note: 95% confidence intervals have been presented as error bars.

Source: Ministry of Health 2021

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[Interactive regional dashboard](#)



Data for this indicator

This indicator includes the most recent data available from the Fetal and Infant Deaths web tool published by the Ministry of Health in December 2021.

The indicator presents data related to 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-10AM codes:

- R95 – sudden infant death syndrome (SIDS)
- R96 – other sudden death, cause unknown
- R98 – unattended death
- R99 – other ill-defined and unspecified causes
- W75 – accidental suffocation and strangulation in bed
- W78 – inhalation of gastric contents
- 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). Mortality rates are presented as deaths per 1,000 live births.

For additional information, see the metadata link below.

References

Anderson HR, Cook D. 1997. Passive smoking and sudden infant death syndrome: review of the epidemiological evidence. *Thorax* 52: 1003–09. .

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Ministry of Health. 2017. *National SUDI prevention programme launched*. 2017. . URL: <https://www.beehive.govt.nz/release/national-sudi-prevention-programme-launched> (accessed 6 July 2021).

Ministry of Health. 2021. Fetal and Infant Deaths web tool. Wellington: Ministry of Health. URL: <https://www.health.govt.nz/publication/fetal-and-infant-deaths-web-tool> (accessed 7 December 2021).

Taylor BJ, Garstang J, Engelberts A et al. 2015. International comparison of sudden unexpected death in infancy rates using a newly proposed set of cause-of-death codes. *Archives of Disease in Childhood* 100(11): 1018–23. DOI: 10.1136/archdischild-2015-308239.

US Department of Health and Human Services. 2007. Children and Secondhand Smoke Exposure. Excerpts from *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

Other related topics include:

[Second-hand smoke exposure](#)

[Health burden due to second-hand smoke exposure](#)

[Home heating](#)

[Maternal smoking at two weeks postnatal](#)

[Household crowding](#)

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Contact

✉ ehinz@massey.ac.nz

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For descriptive information about the data  [Metadata Sheet](#)

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