

Maternal smoking at two weeks postnatal

This report presents an analysis of data from the New Zealand Maternity Clinical Indicators on smoking rates among mothers who have recently given birth.

Key facts

- Maternal smoking rates at two weeks postnatal have decreased from 13.7% in 2009 to 7.3% in 2021.
- The gap in smoking rates between Māori mothers and other ethnic groups continues to decrease. Smoking rates among Māori mothers have declined from 32.2% in 2009 to 19.5% in 2021.
- Maternal smoking rates have dropped by more than 30% across most health districts between 2009 and 2021, particularly in Tairāwhiti.

Maternal smoking affects children's health

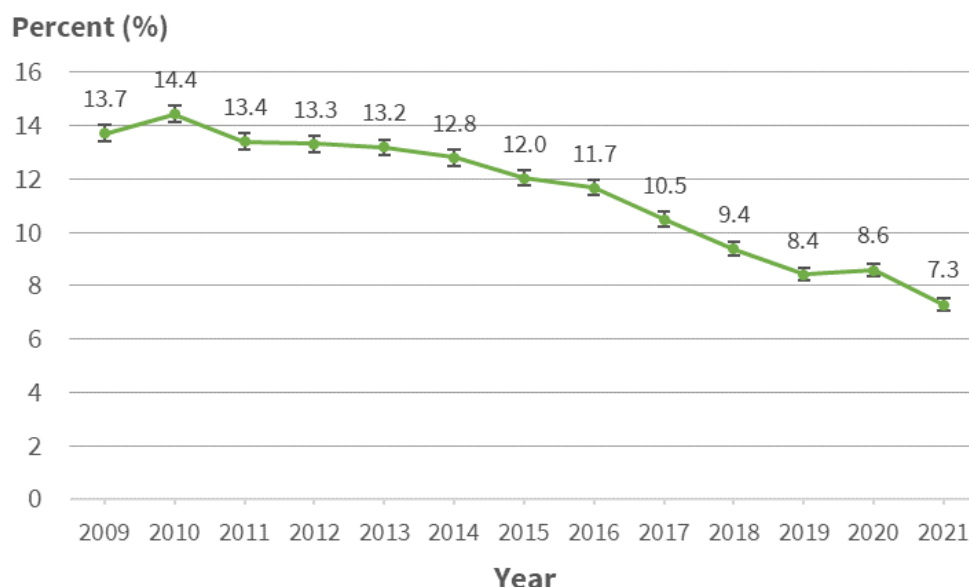
Maternal smoking is the largest modifiable risk factor affecting fetal and infant health in developed countries (McCowan et al 2009). Young children exposed to second-hand smoke are at higher risk of sudden unexpected death in infancy ([SUDI](#)), [lower respiratory tract infections](#), middle ear disease, and more severe [asthma](#) (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). Children are particularly vulnerable because their respiratory, immune, and nervous systems are still developing.

Fewer mothers are smoking two weeks after birth

In 2021, 7.3% of mothers smoked two weeks after giving birth, compared to 8.6% in 2020 and 13.7% in 2009 (Figure 1). This represents 4,172 out of 57,242 mothers who gave birth in 2021 and reported a smoking status.

Figure 1: Maternal smoking at two weeks postnatal, 2009–2021 (percent of mothers who gave birth)



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

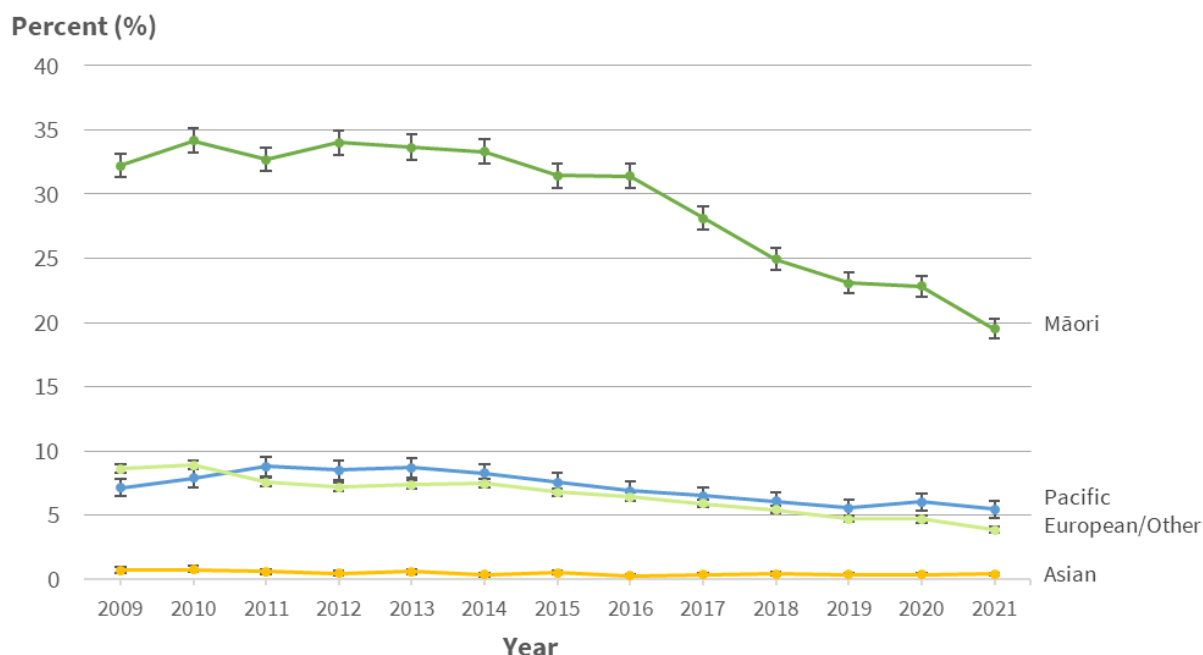
Source: New Zealand Maternity Clinical Indicators (Health New Zealand—Te Whatu Ora 2023)

Smoking rates by Māori mothers continue to decrease, narrowing the gap between ethnic groups

Maternal smoking rates at two weeks postnatal were highest among Māori mothers (19.5%) in 2021. While there is a large disparity in maternal smoking rates by ethnicity in New Zealand, the disparity is decreasing. Smoking rates among Māori mothers have declined from 32.2% in 2009 to 19.5% in 2021 (Figure 2).

In comparison to the rates for Māori mothers, Pacific and European/Other mothers had similar smoking rates in 2021, at 5.4% and 3.9%, respectively. Asian mothers had the lowest smoking rates at only 0.4%.

Figure 2: Maternal smoking at two weeks postnatal, by ethnic group, 2009–2021 (percent of mothers who gave birth)



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

Source: New Zealand Maternity Clinical Indicators (Health New Zealand—Te Whatu Ora 2023)

Maternal smoking rates varied by district in 2021, but were lower in most districts compared to 2020

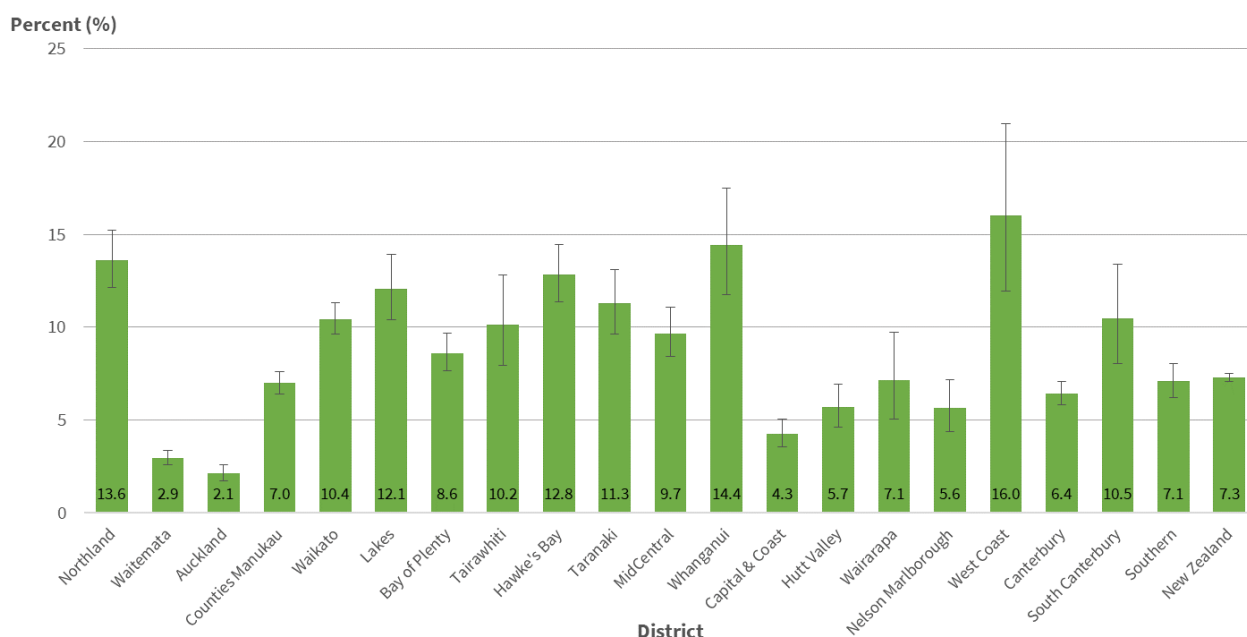
In 2021, the following districts had relatively high maternal smoking rates (Figure 3):

- Whanganui (14.4%)
- Northland (13.6%)
- Hawke's Bay (12.8%)
- Lakes (12.1%)

During that same year, Auckland (2.1%) and Waitematā (2.9%) districts had low rates.

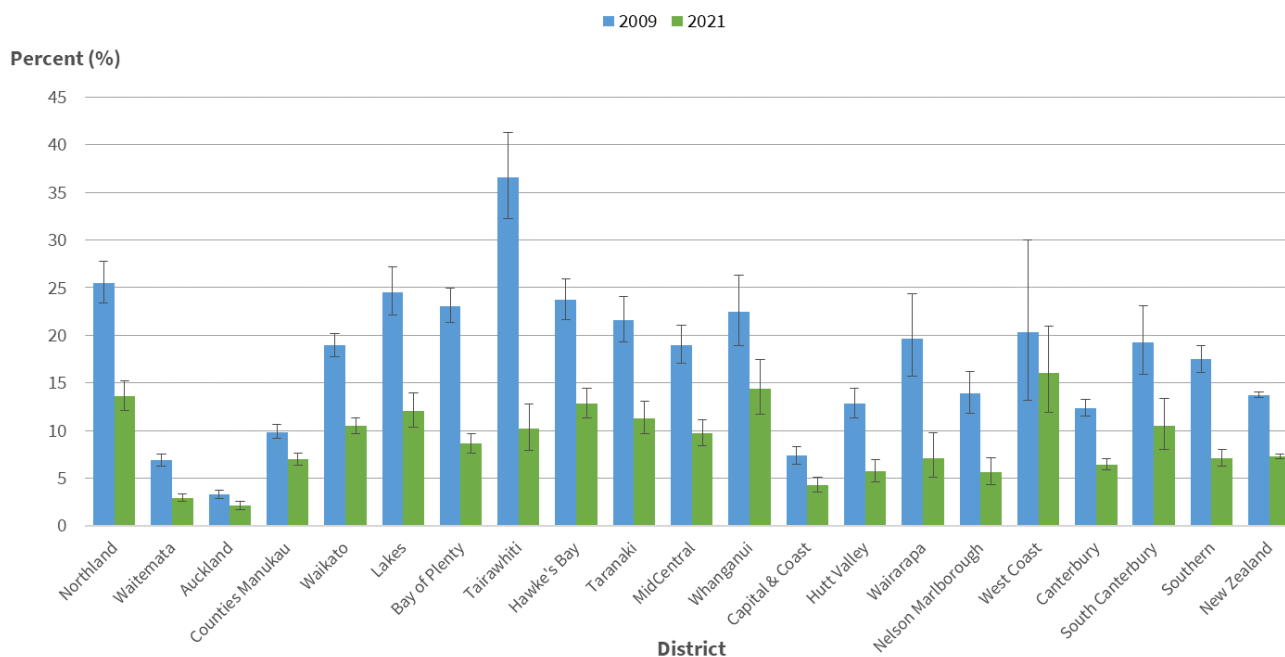
Between 2009 and 2021, maternal smoking rates decreased across most districts, with the greatest decline in Tairāwhiti (36.6% in 2009 to 10.2% in 2021) (Figure 4).

Figure 3: Maternal smoking at two weeks postnatal, by district, 2021 (percent of mothers who gave birth)



Notes: 95% confidence intervals have been presented as vertical bars. District refers to the areas formerly known as District Health Boards.
Source: New Zealand Maternity Clinical Indicators (Health New Zealand—Te Whatu Ora 2023)

Figure 4: Maternal smoking at two weeks postnatal, by district, 2009 and 2021 (percent of mothers who gave birth)



Notes: 95% confidence intervals have been presented as vertical bars. District refers to the areas formerly known as District Health Boards.
Source: New Zealand Maternity Clinical Indicators (Health New Zealand—Te Whatu Ora 2023)

Data for this indicator

These data include the most recent published data from the New Zealand Maternity Clinical Indicators 2021. These indicators are based on the National Maternity Collection and were published by Health New Zealand–Te Whatu Ora (Health NZ) in August 2023.

The rates presented for this indicator for women who gave birth in 2021, are the number of women identified as smokers (tobacco use) at two weeks after birth, among all women with smoking status (at two weeks after birth) reported. Year refers to the year of delivery. It is assumed that Health NZ has output the ethnicity data based on prioritised ethnic groups.

For ethnicity, Health NZ distinguishes between mothers of Indian ethnicity and mothers belonging to all other Asian ethnicities. This is because Indian mothers tend to have different pregnancy profiles than the rest of the Asian prioritised ethnic group. However, as smoking rates are the focus of this indicator and do not differ significantly between the two groups, we have recalculated the rates to represent all mothers belonging to the 'Asian' prioritised ethnicity as a single group.

This indicator uses self-reported smoking status. Consequently, some women do not have a reported smoking status at two weeks postnatal and have therefore been excluded from the analysis. The proportion of women without a reported smoking status at the national level is generally between 88-93%. This appears to be consistent over time. However, the reported smoking status by district varies over time and may influence the results.

For additional information, see 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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Author

The author of this report is Kirsty Craig, ehinz@massey.ac.nz

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