Maternal smoking at two weeks postnatal

This factsheet presents information on rates of smoking among mothers who have recently given birth.

Key facts

Maternal smoking rates at two weeks postnatal have decreased from 13.7% in 2009 to 9.4% in 2018.

Māori mothers continue to have the highest smoking rates than any other ethnicity between 2009 and 2018. However, smoking rates among Māori mothers have declined from 32.4% in 2009 to 25.0% in 2018.

Since 2009, Tairāwhiti DHB has consistently had the highest rates of postnatal maternal smoking, while Auckland DHB has had the lowest.

Maternal smoking affects children's health

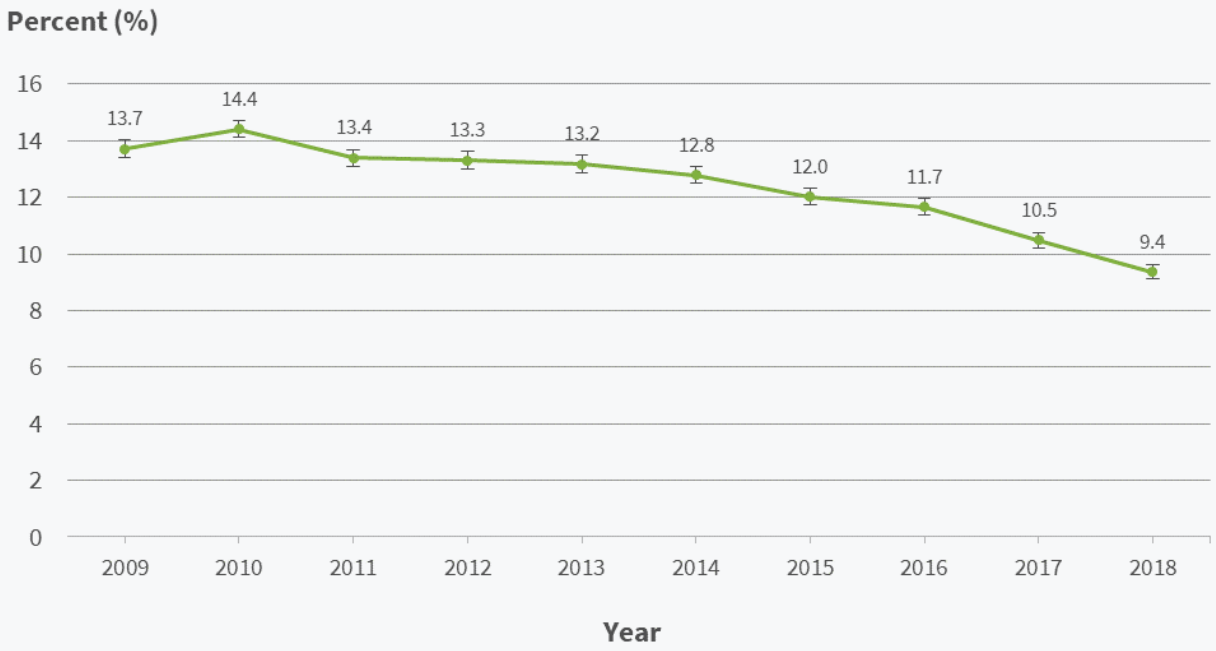
Maternal smoking is the largest modifiable risk factor affecting fetal and infant health in developed countries (McCowan et al 2009). Young children exposed to second-hand smoke are at higher risk of sudden unexpected death in infancy (SUDI), lower respiratory tract infections, middle ear disease, and 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 at two weeks after birth

In 2018, 9.4% of mothers smoked two weeks after giving birth (Figure 1). This represents 4,994 out of 53,314 mothers who gave birth in 2018 and reported a smoking status.

The percentage of mothers who smoked at two weeks postnatal has decreased from 13.7% in 2009 to 9.4% in 2018.

Figure 1: Maternal smoking at two weeks postnatal, 2009–2018 (percent of mothers who gave birth)

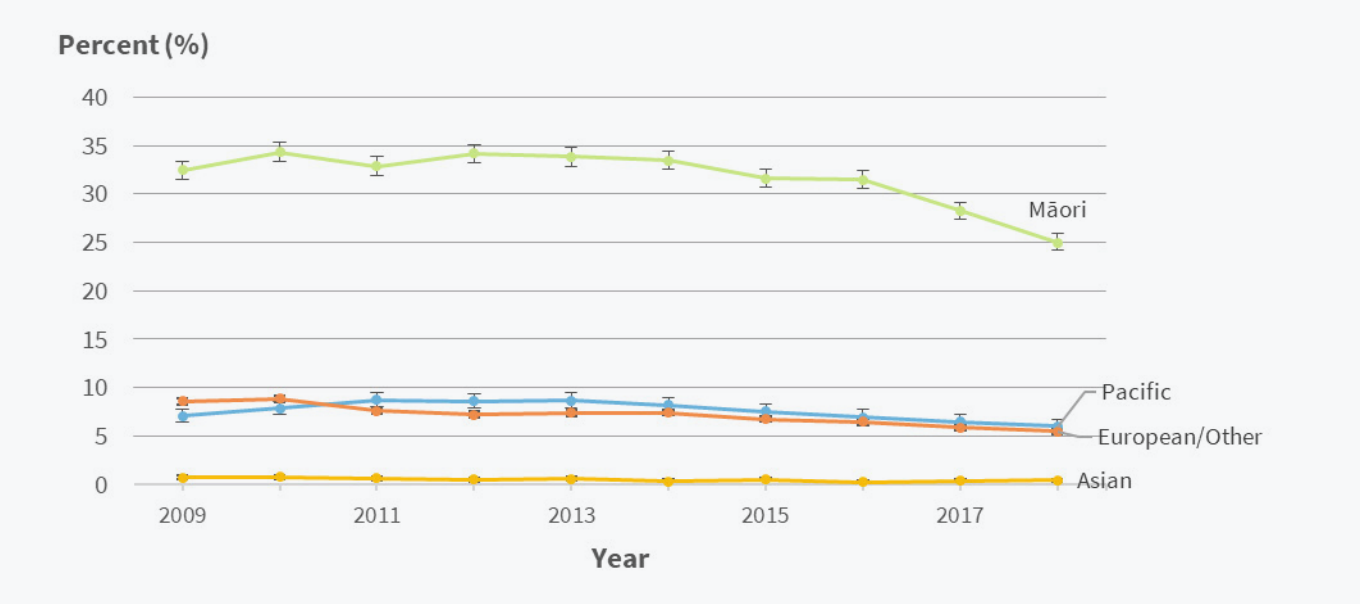


Source: Ministry of Health (2020)

Māori mothers are more likely to smoke after giving birth than mothers of other ethnic groups

Significant disparities in smoking persist by ethnicity in New Zealand. Maternal smoking rates at two weeks postnatal were highest among Māori mothers (25.0%) in 2018 (Figure 2). The rate for Māori mothers was also lower in 2018 than in any previous year. European/Other and Pacific mothers had similar smoking rates in 2018, at 6.0% and 5.5% respectively. Asian mothers had the lowest smoking rates at only 0.4%.

Figure 2: Maternal smoking at two weeks postnatal, by ethnic group, 2009–2018 (percent of mothers who gave birth)



Source: Ministry of Health (2020)

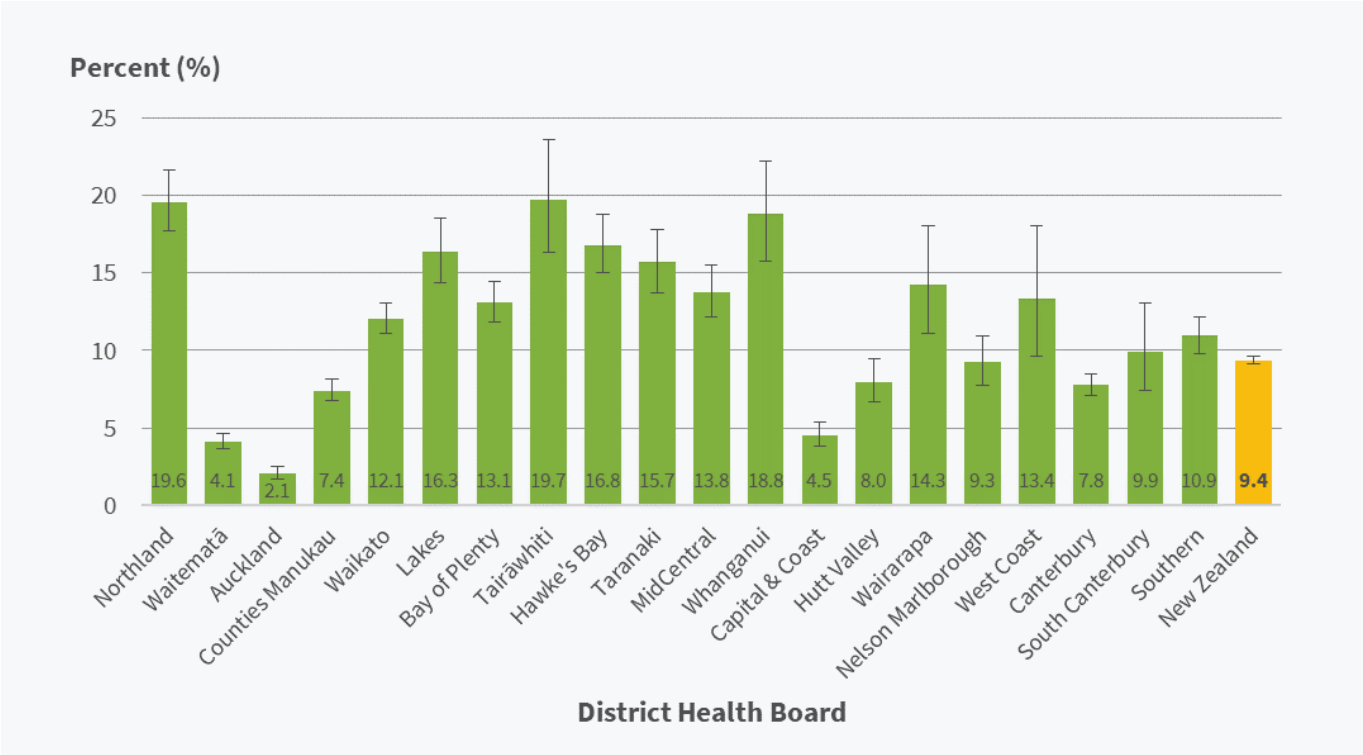
Between 2009 and 2018, maternal smoking rates at two weeks postnatal has declined for Māori mothers, while Pacific, European/Other and Asian mothers' smoking rates remained relatively consistent.

Tairāwhiti DHB has consistently had the highest rates of maternal smoking, while Auckland DHB has had the lowest.

Since 2009, Tairāwhiti District Health Board (DHB) has consistently had the highest maternal smoking rates. In contrast, Auckland DHB has had the lowest.

The DHBs with the highest rates of maternal smoking at two weeks postnatal in 2018 were Tairāwhiti (19.7%), Northland (19.6%), Whanganui (18.8%), Hawke's Bay (16.8%), and Lakes (16.3%) (Figure 3). Auckland (2.1%), Waitematā (4.1%), Capital and Coast (4.5%), and Counties Manukau (7.4%) DHBs had the lowest rates.

Figure 3: Maternal smoking at two weeks postnatal, by DHB, 2018 (percent of mothers who gave birth)

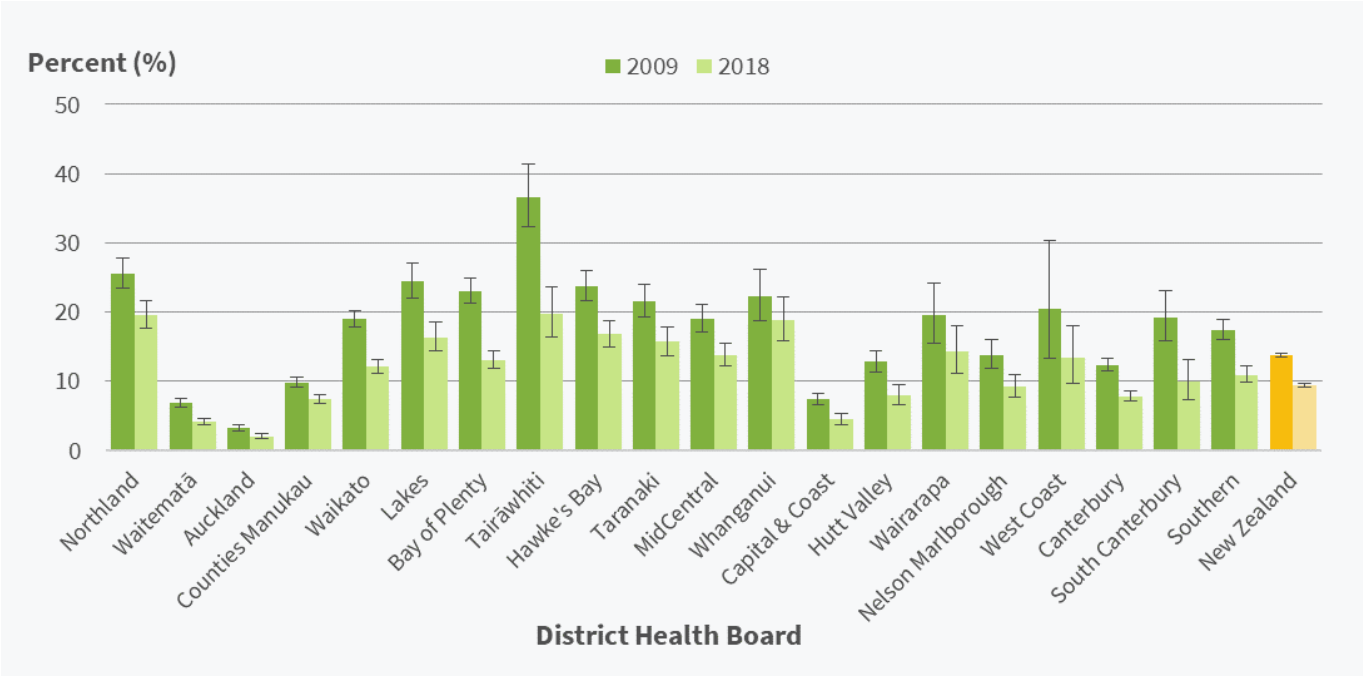


Note: The statistical test for differences between rates in the above graph uses a multiple testing adjustment. Please note that the adjusted values used for multiple testing may not be reflected in the above graph.

Source: Ministry of Health (2020)

Between 2009 and 2018, maternal smoking rates have almost halved in South Canterbury (19.2% in 2009 to 9.9% in 2018) and Tairāwhiti (36.7% in 2009 to 19.7% in 2018). Maternal smoking rates have also decreased across most DHBs (Figure 4).

Figure 4: Maternal smoking at two weeks postnatal, by DHB, 2009 and 2018 (percent of mothers who gave birth)



Source: Ministry of Health (2020)

Data for this indicator

Data comes from the National Maternity Collection, as published in New Zealand Maternity Clinical Indicators 2018 (Ministry of Health 2020). The rates presented in this indicator for women who gave birth in 2018, 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 year of delivery, and DHB refers to the DHB of residence. It is assumed that the Ministry of Health has gathered this data based on prioritised ethnicity.

For ethnicity, the Ministry of Health publication 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.

All 95% confidence intervals have been presented as error bars on graphs. Unless otherwise stated, all differences mentioned in the text between two values are statistically significant at the 5% level or less.

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, 1003–1009.

McCowan LME, Dekker GA, Chan E, et al. 2009. Spontaneous preterm birth and small gestational age infants in women who stop smoking early in pregnancy: prospective cohort study. *BMJ*, 338:b1081 doi:10.1136/bmj.b1081

Ministry of Health. 2020. *New Zealand Maternity Clinical Indicators 2018.* Wellington: Ministry of Health. Available online: **https://www.health.govt.nz/publication/new-zealand-maternity-clinical-indicators-2018** (accessed 14/10/2020)

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:

Sudden unexpected death in infancy (SUDI)
Second-hand smoke exposure
Health burden due to second-hand smoke exposure
Household crowding
Asthma
Meningococcal disease
Lower respiratory tract infections
Home heating

Author

The author of this factsheet is Helene Marsters **ehinz@massey.ac.nz**

Citation

Environmental Health Intelligence. 2021. Maternal smoking at two weeks postnatal. [Factsheet]. Wellington: Environmental Health Intelligence NZ, Massey University.

Further information

For descriptive information about the data **Metadata Sheet**

Visit our website

Subscribe to our newsletter