

Te mate pēpi | Perinatal mortality

Maternal smoking

Data on smoking in pregnancy come from MAT and are based on LMC registration data; specifically, the smoking status of the woman at first LMC registration.¹

Our data showed mortality rates were statistically significantly higher in babies of mothers who smoked, compared with those who did not smoke, for all types of death, excluding termination of pregnancy (Figure 3.16 and Table 3.23).

There is evidence from the literature that outcomes for babies can be improved where women are supported to stop smoking. In a multi-centre study of nulliparous women, rates of spontaneous preterm birth and small for gestational age babies in women who quit smoking before 15 weeks' gestation were the same as for non-smokers.² Furthermore, there is evidence that incentives are effective in reducing smoking rates in pregnancy.³ For example, Counties Manukau DHB has had the Smokefree Pregnancy Incentives Programme operating since 2013. This programme has a 70% 4-week quit rate, which is similar across all ethnicities.⁴ Given the significance of smoking as a risk factor, the clear improvement in outcomes when women are able to quit, and that effective smoking cessation programmes exist, resource should be invested in reducing this modifiable risk factor.

¹ National Health Board Business Unit. 2011. *National Maternity Collection Data Mart Data Dictionary*. URL: <https://www.health.govt.nz/system/files/documents/publications/mat-dict-v1-0.pdf> (accessed 15 August 2018), p 174.

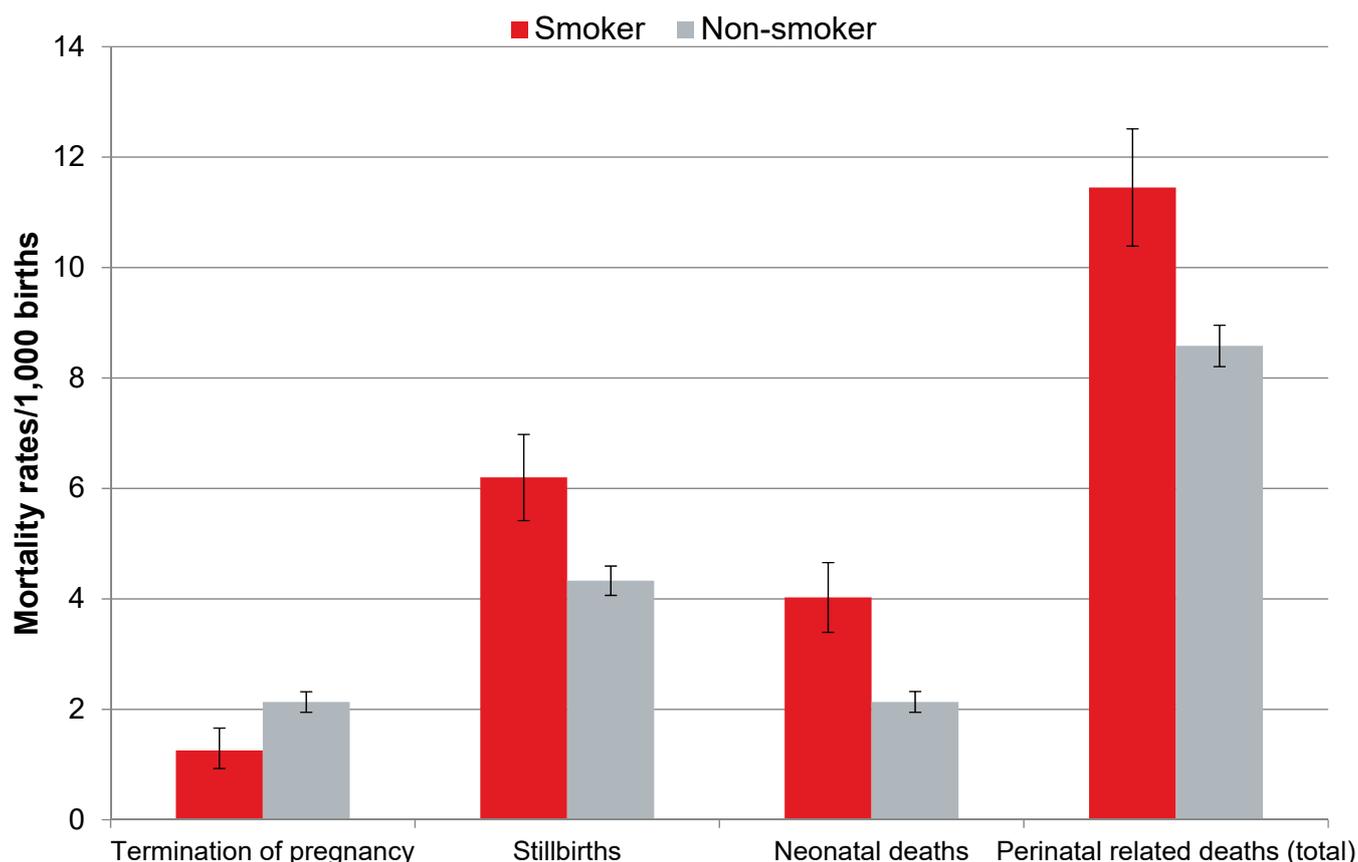
² McCowan L, Dekker GA, Chan E, et al. 2009. Spontaneous preterm birth and small for gestational age infants in women who stop smoking early in pregnancy: prospective cohort study. *BMJ* 338: b1081. URL: <https://doi.org/10.1136/bmj.b1081> (accessed 15 August 2019).

³ Tappin D, Bauld L, Purves D, et al. 2015. Financial incentives for smoking cessation in pregnancy: randomised controlled trial. *BMJ* 350: h134. URL: <https://doi.org/10.1136/bmj.h134> (accessed 15 August 2019).

⁴ Counties Manukau Health. 2018. *Women's Health and Newborn Annual Report 2017–2018*. URL: <https://countiesmanukau.health.nz/our-services/womens-health/maternity-services/womens-health-and-newborn-annual-report/> (accessed 30 August 2019).

Extracted from the full report at: www.hqsc.govt.nz/our-programmes/mrc/pmmrc/publications-and-resources/publication/3832

Figure 3.16: Perinatal related mortality rates (per 1,000 births) by smoking at registration with maternity care* (with 95% CIs) 2013–2017



* All data limited to mothers who were registered for care with an LMC (either a midwife, obstetrician or GP) claiming from the Section 88 Primary Maternity Services Notice.

Sources: Numerator: PMMRC's perinatal data extract where matched to MAT data, 2013–2017; Denominator: MAT births 2013–2017.

Table 3.23: Perinatal related mortality rates (per 1,000 births) by smoking at registration with maternity care* 2013–2017

Maternal smoking at registration	Total births		Fetal deaths						Neonatal deaths			Perinatal related deaths (total)		
			Termination of pregnancy			Stillbirths								
	N	%	n	%	Rate	n	%	Rate	n	%	Rate	n	%	Rate
	N=274,506		n=551			n=1,261			n=655			n=2,467		
Smoker	39,041	14.2	49	8.9	1.26	242	19.2	6.20	156	23.8	4.03	447	18.1	11.45
Non-smoker	235,385	85.7	502	91.1	2.13	1,019	80.8	4.33	499	76.2	2.13	2,020	81.9	8.58
Unknown	80	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Data not supplied to MAT			18						-21			-3		

* All data limited to mothers who were registered for care with an LMC (either a midwife, obstetrician or GP) claiming from the Section 88 Primary Maternity Services Notice.

Sources: Numerator: PMMRC's perinatal data extract where matched to MAT data, 2013–2017; Denominator: MAT births 2013–2017.