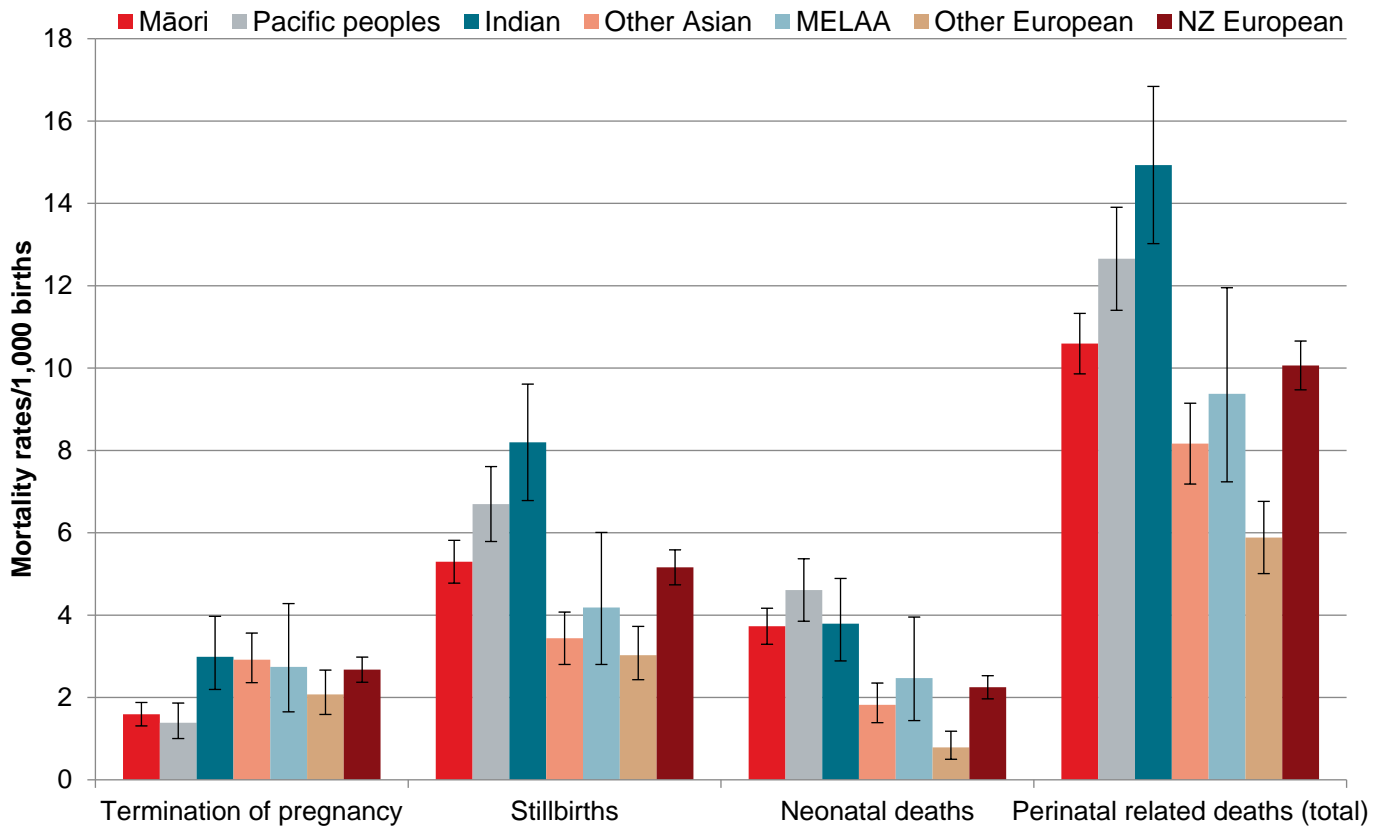


Te mate pēpi | Perinatal mortality

Perinatal related mortality by prioritised ethnic group

There were significant differences in perinatal related mortality by both maternal (Figure 3.6 and Table 3.13) and baby (Figure 3.7 and Table 3.14) prioritised ethnic group. These patterns were the same, regardless of whether mother or baby prioritised ethnic group was used.

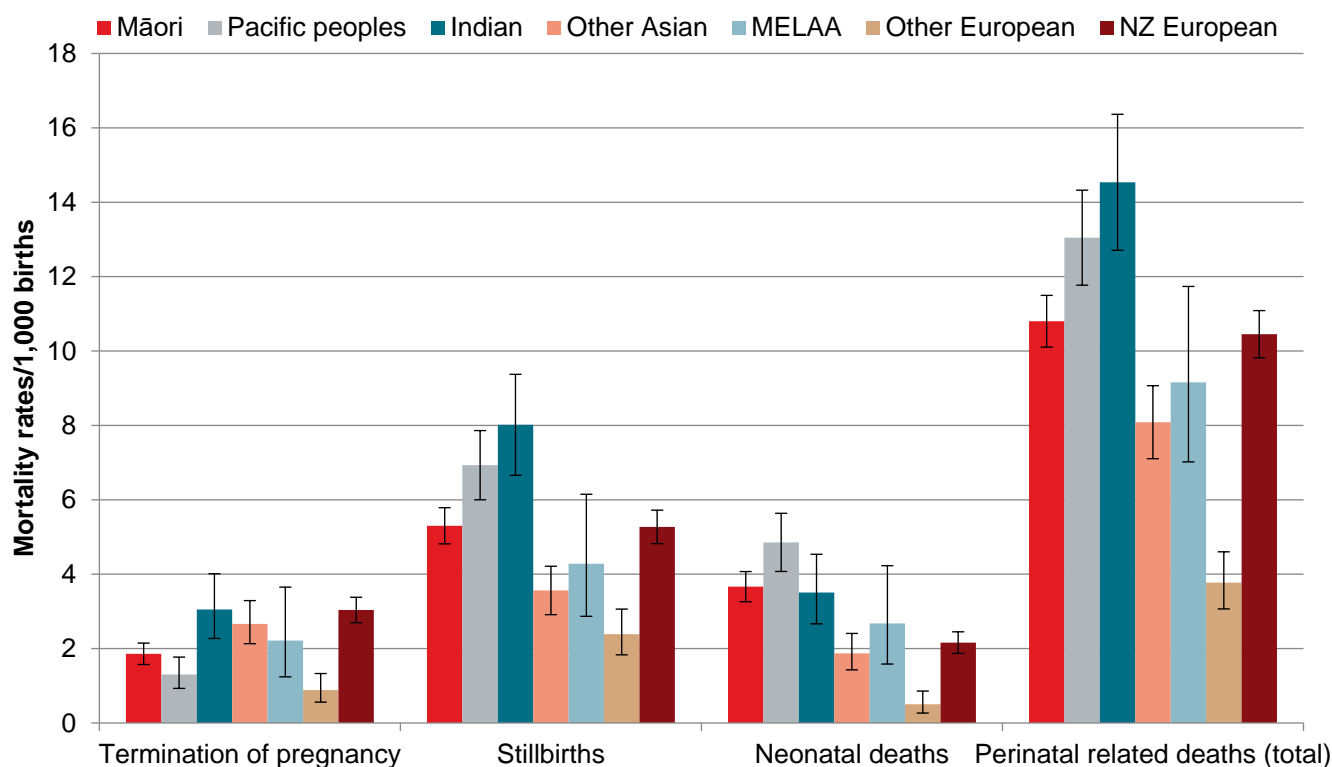
Figure 3.6: Perinatal related mortality rates (per 1,000 births) by maternal prioritised ethnic group (with 95% CIs) 2013–2017



MELAA = Middle Eastern, Latin American, or African.

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

Figure 3.7: Perinatal related mortality rates (per 1,000 births) by baby prioritised ethnic group (with 95% CIs) 2013–2017



MELAA = Middle Eastern, Latin American, or African.

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

Table 3.13: Perinatal related mortality rates (per 1,000 births) by maternal prioritised ethnic group 2013–2017

Prioritised ethnic group (mother)	Total births		Fetal deaths						Neonatal deaths			Perinatal related deaths (total)		
			Termination of pregnancy			Stillbirths								
	N=301,043*		n=679			n=1,535			n=824			n=3,038		
	n	%	n	%	Rate	n	%	Rate	n	%	Rate	n	%	Rate
Māori	75,328	25.0	120	17.7	1.59	399	26.0	5.30	279	33.9	3.73	798	26.3	10.59
Pacific peoples	31,055	10.3	43	6.3	1.38	208	13.6	6.70	142	17.2	4.61	393	12.9	12.65
Asian	48,313	16.0	142	20.9	2.94	241	15.7	4.99	118	14.3	2.46	501	16.5	10.37
Indian	15,738	5.2	47	6.9	2.99	129	8.4	8.20	59	7.2	3.79	235	7.7	14.93
Other Asian	32,575	10.8	95	14.0	2.92	112	7.3	3.44	59	7.2	1.82	266	8.8	8.17
MELAA	6,932	2.3	19	2.8	2.74	29	1.9	4.18	17	2.1	2.47	65	2.1	9.38
European	139,281	46.3	355	52.3	2.55	656	42.7	4.71	268	32.5	1.94	1,279	42.1	9.18
NZ European	109,887	36.5	294	43.3	2.68	567	36.9	5.16	245	29.7	2.25	1,106	36.4	10.06
Other European	29,394	9.8	61	9.0	2.08	89	5.8	3.03	23	2.8	0.79	173	5.7	5.89

* Includes 134 unknown maternal ethnicity among total births and 2 unknown maternal ethnicity perinatal related deaths (total).

MELAA = Middle Eastern, Latin American, or African.

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

Table 3.14: Perinatal related mortality rates (per 1,000 births) by baby prioritised ethnic group 2013–2017

Prioritised ethnic group (baby)	Total births		Fetal deaths						Neonatal deaths			Perinatal related deaths (total)		
			Termination of pregnancy			Stillbirths								
	N=301,043*		n=679			n=1,535			n=824			n=3,038		
	n	%	n	%	Rate	n	%	Rate	n	%	Rate	n	%	Rate
Māori	86,006	28.6	160	23.6	1.86	456	29.7	5.30	313	38.0	3.67	929	30.6	10.80
Pacific peoples	30,732	10.2	40	5.9	1.30	213	13.9	6.93	148	18.0	4.86	401	13.2	13.05
Asian	48,993	16.3	137	20.2	2.80	249	16.2	5.08	118	14.3	2.43	504	16.6	10.29
Indian	16,716	5.6	51	7.5	3.05	134	8.7	8.02	58	7.0	3.51	243	8.0	14.54
Other Asian	32,277	10.7	86	12.7	2.66	115	7.5	3.56	60	7.3	1.87	261	8.6	8.09
MELAA	6,772	2.2	15	2.2	2.22	29	1.9	4.28	18	2.2	2.68	62	2.0	9.16
European	125,362	41.6	325	47.9	2.59	586	38.2	4.67	226	27.4	1.82	1,137	37.4	9.07
NZ European	99,406	33.0	302	44.5	3.04	524	34.1	5.27	213	25.8	2.16	1,039	34.2	10.45
Other European	25,956	8.6	23	3.4	0.89	62	4.0	2.39	13	1.6	0.50	98	3.2	3.78

* Includes 3,178 unknown baby's ethnicity total births and 5 unknown baby's ethnicity perinatal related deaths (total).

MELAA = Middle Eastern, Latin American, or African.

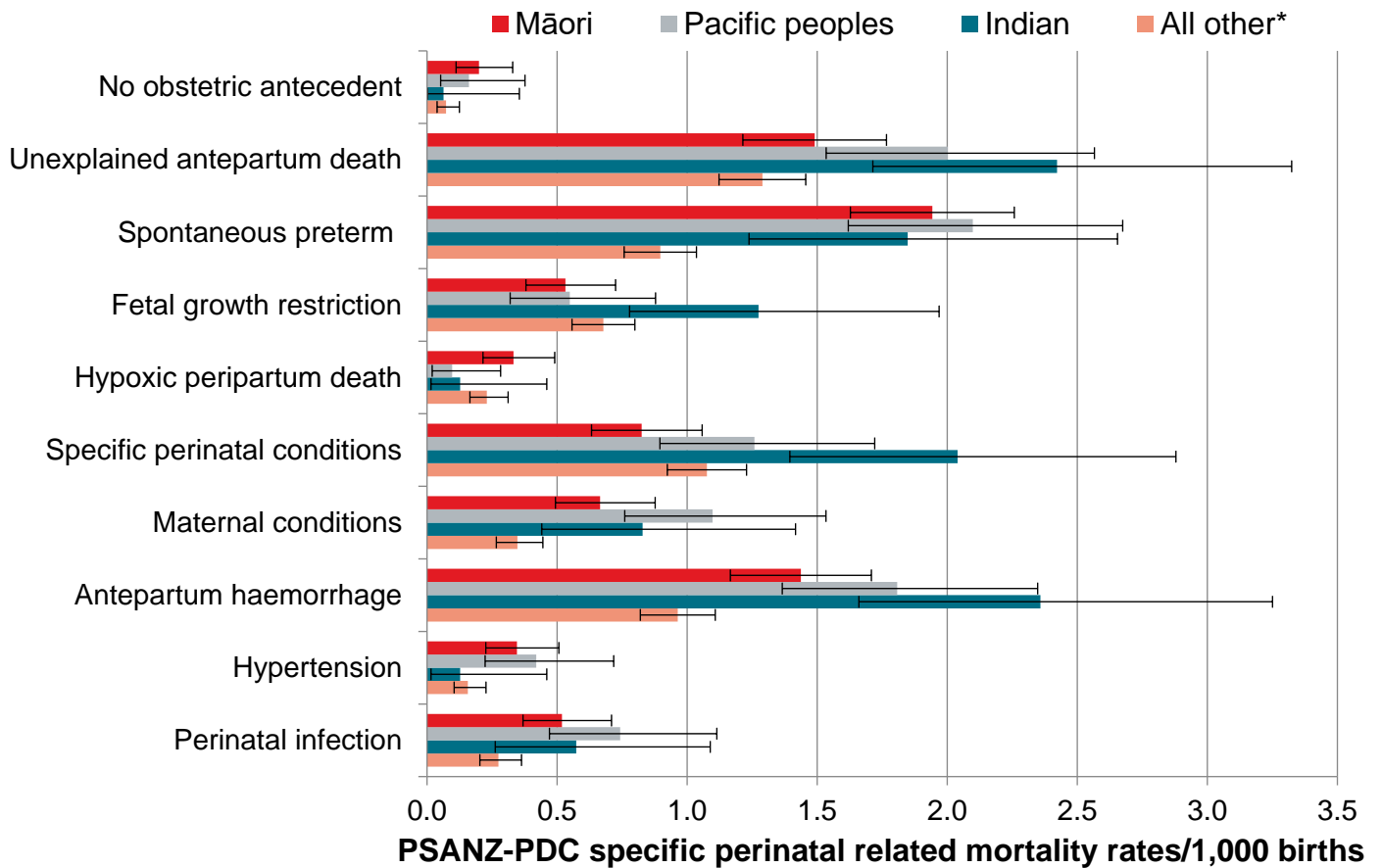
Sources: Numerator: PMMRC's perinatal data extract 2013–2017; Denominator: MAT births 2013–2017.

There was significant variation in the classification of perinatal death by prioritised ethnic group. For deaths due to spontaneous preterm delivery, maternal conditions and antepartum haemorrhage, mortality rates were statistically significantly higher in Indian, Pacific and Māori women, compared with all others ('Other Asian', MELAA, and all European). For unexplained antepartum death, rates were statistically significantly higher in Indian and Pacific mothers than others. There was no significant difference in mortality rates by prioritised ethnic category for deaths due to fetal growth restriction, hypoxic peripartum death, hypertension, and deaths where no obstetric antecedent was identified. Deaths due to perinatal infection were statistically significantly higher in babies of Pacific and Māori mothers than babies of 'Other' mothers (Figure 3.8).

While there is year-to-year variation in perinatal related mortality, there has been little change for most ethnic groups in the past 11 years. There was strong evidence that mortality rates have decreased in babies of New Zealand European mothers – however, there was no change for other ethnic groups. Mortality rates alone do not provide a complete picture of the burden of mortality in specific communities. For communities with high fertility rates, such as Pacific and Māori communities,¹ the burden of perinatal deaths is greater than in communities with lower fertility rates. Therefore, these deaths have a greater impact in the community (Table 3.15).

¹ Statistics New Zealand. 2016. National ethnic population projections. URL: http://archive.stats.govt.nz/browse_for_stats/population/estimates_and_projections/projections-overview/nat-ethnic-pop-proj.aspx (accessed 8 August 2019).

Figure 3.8: Perinatal death classification (PSANZ-PDC) specific perinatal related mortality rates (per 1,000 births) (excluding congenital abnormalities) by maternal prioritised ethnic category (with 95% CIs) 2013–2017



* 'All other' includes Other Asian, Middle Eastern, Latin American, or African (MELAA), Other European, New Zealand European, Unknown/Other.

Sources: Numerator: PMMRC's perinatal data extract (excluding congenital abnormalities) 2013–2017; Denominator: MAT births 2013–2017.

Table 3.15: Perinatal related mortality rates (per 1,000 births) by maternal prioritised ethnic group* and year 2007–2017

Maternal ethnic group	2007		2008		2009		2010		2011		2012		2013		2014		2015		2016		2017	
	n	N	n	N	n	N	n	N	n	N	n	N	n	N	n	N	n	N	n	N	n	N
Māori	179	17,053	170	17,254	209	17,096	193	16,973	176	16,414	163	16,273	156	15,141	166	14,791	143	15,016	181	15,252	152	15,128
Pacific peoples	87	8,007	98	7,843	106	7,568	109	7,650	79	7,250	94	7,069	84	6,526	83	6,294	71	6,179	74	5,969	81	6,087
Asian	61	5,953	69	6,116	75	6,414	88	7,035	86	7,250	100	8,596	83	8,247	95	9,359	96	9,332	106	10,669	121	10,706
Indian	25	1,838	30	1,921	33	1,936	34	2,088	35	2,169	38	2,378	37	2,458	45	2,776	43	3,126	52	3,506	58	3,872
Other Asian	36	4,115	39	4,195	42	4,478	54	4,947	51	5,081	62	6,218	46	5,789	50	6,583	53	6,206	54	7,163	63	6,834
MELAA	17	1,032	12	1,133	12	1,211	5	1,325	13	1,316	16	1,268	10	1,312	15	1,303	15	1,358	8	1,392	17	1,567
European	336	33,113	352	33,216	328	32,866	312	32,424	313	30,958	297	30,034	267	28,873	299	28,290	253	27,871	240	27,296	220	26,951
NZ European	300	27,087	312	27,000	292	26,647	271	26,228	263	24,943	250	24,155	230	22,990	262	22,389	224	21,997	208	21,480	182	21,031
Other European	36	6,026	40	6,216	36	6,219	41	6,196	50	6,015	47	5,879	37	5,883	37	5,901	29	5,874	32	5,816	38	5,920

Maternal ethnic group	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Chi-squared test for trend (p)
	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	
Māori	10.5	9.9	12.2	11.4	10.7	10.0	10.3	11.2	9.5	11.9	10.0	0.73
Pacific peoples	10.9	12.5	14.0	14.2	10.9	13.3	12.9	13.2	11.5	12.4	13.3	0.73
Asian	10.2	11.3	11.7	12.5	11.9	11.6	10.1	10.2	10.3	9.9	11.3	0.33
Indian	13.6	15.6	17.0	16.3	16.1	16.0	15.1	16.2	13.8	14.8	15.0	0.69
Other Asian	8.7	9.3	9.4	10.9	10.0	10.0	7.9	7.6	8.5	7.5	9.2	0.19
MELAA	16.5	10.6	9.9	3.8	9.9	12.6	7.6	11.5	11.0	5.7	10.8	0.41
European	10.1	10.6	10.0	9.6	10.1	9.9	9.2	10.6	9.1	8.8	8.2	0.002
NZ European	11.1	11.6	11.0	10.3	10.5	10.3	10.0	11.7	10.2	9.7	8.7	0.005
Other European	6.0	6.4	5.8	6.6	8.3	8.0	6.3	6.3	4.9	5.5	6.4	0.55

* Excludes 420 unknown maternal ethnicity total births and 2 unknown maternal ethnicity perinatal related deaths (total).

MELAA = Middle Eastern, Latin American, or African.

Sources: Numerator: PMMRC's perinatal data extract 2007–2017; Denominator: MAT births 2007–2017.

Unexplained antepartum death was a leading classification of cause of death regardless of maternal prioritised ethnic group. However, other leading causes varied by ethnic group. For babies of Māori and Pacific mothers, spontaneous preterm births were the leading cause. For babies of Indian mothers, antepartum haemorrhage was a frequent cause of death. For babies of mothers in the MELAA, New Zealand European and Other European prioritised ethnic groups, specific perinatal conditions were a leading cause of death (Table 3.16).

Table 3.16: Perinatal death classification (PSANZ-PDC) specific perinatal related mortality rates (excluding congenital abnormalities) by maternal prioritised ethnic group* 2013–2017

Perinatal death classification (PSANZ-PDC)	Māori			Pacific peoples			Asian								
	n=75,150			n=30,976			Indian n=15,690			Other Asian n=32,477			Total Asian n=48,167		
	n	%	Rate	n	%	Rate	n	%	Rate	n	%	Rate	n	%	Rate
Perinatal infection	39	6.3	0.52	23	7.3	0.74	9	4.9	0.57	9	5.6	0.28	18	5.2	0.37
Hypertension	26	4.2	0.35	13	4.1	0.42	<3	x	s	4	2.5	0.12	6	1.7	0.12
Antepartum haemorrhage	108	17.3	1.44	56	17.7	1.81	37	20.2	2.36	30	18.8	0.92	67	19.5	1.39
Maternal conditions	50	8.0	0.67	34	10.7	1.10	13	7.1	0.83	8	5.0	0.25	21	6.1	0.44
Specific perinatal conditions	62	10.0	0.83	39	12.3	1.26	32	17.5	2.04	21	13.1	0.65	53	15.5	1.10
Hypoxic peripartum death	25	4.0	0.33	3	0.9	0.10	<3	x	s	<3	x	s	4	1.2	0.08
Fetal growth restriction	40	6.4	0.53	17	5.4	0.55	20	10.9	1.27	17	10.6	0.52	37	10.8	0.77
Spontaneous preterm	146	23.4	1.94	65	20.5	2.10	29	15.8	1.85	23	14.4	0.71	52	15.2	1.08
Unexplained antepartum death	112	18.0	1.49	62	19.6	2.00	38	20.8	2.42	44	27.5	1.35	82	23.9	1.70
No obstetric antecedent	15	2.4	0.20	5	1.6	0.16	<3	x	s	<3	x	s	3	0.9	0.06

Perinatal death classification (PSANZ-PDC)	MELAA			European								
	n=6,906			NZ European n=109,574			Other European n=29,306			Total European n=138,880		
	n	%	Rate	n	%	Rate	n	%	Rate	n	%	Rate
Perinatal infection	<3	x	s	32	4.2	0.29	7	6.9	0.24	39	4.5	0.28
Hypertension	<3	x	s	21	2.8	0.19	<3	x	s	22	2.5	0.16
Antepartum haemorrhage	7	16.7	1.01	120	15.7	1.10	15	14.7	0.51	135	15.6	0.97
Maternal conditions	3	7.1	0.43	46	6.0	0.42	5	4.9	0.17	51	5.9	0.37
Specific perinatal conditions	10	23.8	1.45	137	18.0	1.25	24	23.5	0.82	161	18.6	1.16
Hypoxic peripartum death	3	7.1	0.43	34	4.5	0.31	<3	x	s	36	4.2	0.26
Fetal growth restriction	-	-	-	93	12.2	0.85	11	10.8	0.38	104	12.0	0.75
Spontaneous preterm	6	14.3	0.87	118	15.5	1.08	12	11.8	0.41	130	15.0	0.94
Unexplained antepartum death	10	23.8	1.45	150	19.7	1.37	25	24.5	0.85	175	20.3	1.26
No obstetric antecedent	-	-	-	11	1.4	0.10	-	-	-	11	1.3	0.08

* Excludes 134 unknown maternal ethnicity among total births (denominator) and 2 unknown maternal ethnicity perinatal related deaths (total) (numerator).

'x' indicates percentage suppressed due to small numbers.

's' indicates rate suppressed due to small numbers.

Sources: Numerator: PMMRC's perinatal data extract (excluding congenital abnormalities) 2013–2017; Denominator: MAT births 2013–2017