

## 8. Maternal Country of Birth

In this section maternal countries of birth are combined into English-speaking and other regional groups. The country groups and individual countries are listed in Appendix 3. Recent trends in confinements for individual maternal countries of birth are shown in Table 4 (page 17).

### Trends in confinements

Between 2004 and 2008, the percentage of mothers who were born in non-English speaking countries rose slightly from 20.7% to 23.5% (Table 89). The increase was mainly among mothers born in North East Asian and Southern Asian countries. There was a decline in the percentage of mothers born in Southern European countries.

**Table 89. Births and confinements by country of birth group, NSW 2004–2008**

Country of birth group	2004		2005		Year		2007		2008	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Confinements</b>										
English speaking	66621	79.0	70354	78.9	71515	78.3	73109	77.3	72361	76.3
Central & South America	675	0.8	726	0.8	765	0.8	793	0.8	830	0.9
Melanesia, Micronesia & Polynesia	1584	1.9	1485	1.7	1538	1.7	1518	1.6	1424	1.5
Southern Europe	926	1.1	927	1.0	901	1.0	843	0.9	847	0.9
Western & Northern Europe	649	0.8	688	0.8	725	0.8	782	0.8	844	0.9
Eastern Europe, Russia, Central Asian & Baltic States	518	0.6	578	0.6	564	0.6	688	0.7	676	0.7
Middle East & Africa	3876	4.6	4080	4.6	4216	4.6	4343	4.6	4635	4.9
South East Asia	4445	5.3	4571	5.1	4698	5.1	5166	5.5	5255	5.5
North East Asia	2884	3.4	3117	3.5	3143	3.4	3966	4.2	4023	4.2
Southern Asia	1930	2.3	2396	2.7	2759	3.0	3191	3.4	3759	4.0
Other-not stated	180	0.2	218	0.2	491	0.5	203	0.2	210	0.2
<b>TOTAL</b>	<b>84288</b>	<b>100.0</b>	<b>89140</b>	<b>100.0</b>	<b>91315</b>	<b>100.0</b>	<b>94602</b>	<b>100.0</b>	<b>94864</b>	<b>100.0</b>
<b>Births</b>										
English speaking	67735	79.1	71558	79.0	72699	78.4	74266	77.3	73562	76.4
Central & South America	683	0.8	743	0.8	779	0.8	809	0.8	842	0.9
Melanesia, Micronesia & Polynesia	1600	1.9	1508	1.7	1564	1.7	1546	1.6	1441	1.5
Southern Europe	939	1.1	945	1.0	920	1.0	858	0.9	866	0.9
Western & Northern Europe	663	0.8	700	0.8	737	0.8	795	0.8	861	0.9
Eastern Europe, Russia, Central Asian & Baltic States	525	0.6	593	0.7	573	0.6	701	0.7	689	0.7
Middle East & Africa	3941	4.6	4142	4.6	4287	4.6	4410	4.6	4707	4.9
South East Asia	4488	5.2	4626	5.1	4746	5.1	5206	5.4	5304	5.5
North East Asia	2910	3.4	3144	3.5	3172	3.4	4006	4.2	4058	4.2
Southern Asia	1953	2.3	2428	2.7	2801	3.0	3225	3.4	3798	3.9
Other-not stated	189	0.2	223	0.2	503	0.5	208	0.2	215	0.2
<b>TOTAL</b>	<b>85626</b>	<b>100.0</b>	<b>90610</b>	<b>100.0</b>	<b>92781</b>	<b>100.0</b>	<b>96030</b>	<b>100.0</b>	<b>96343</b>	<b>100.0</b>

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

## Maternal age

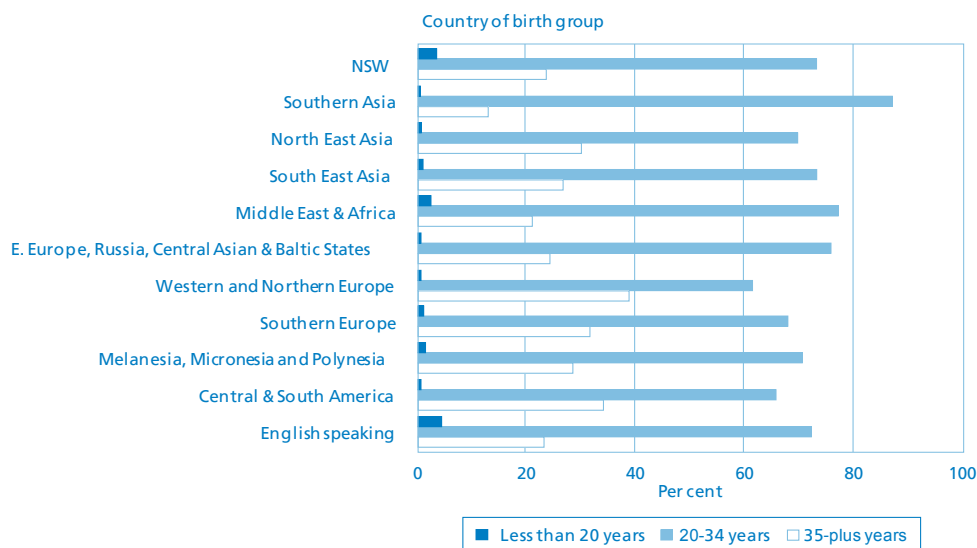
In 2008 births to teenage mothers were more common among mothers born in English-speaking countries than non-English speaking countries (Table 90, Figure 4), while

the largest proportions of mothers aged 35 years and over were among mothers born in Western and Northern Europe (38.4%) and Central and South America (33.9%).

**Table 90. Maternal age by country of birth group, NSW 2008**

Country of birth group	Maternal age (years)									
	12–19		20–34		35+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
English speaking	3138	4.3	52417	72.4	16797	23.2	9	0.0	72361	100.0
Central & South America	5	0.6	544	65.5	281	33.9	0	0.0	830	100.0
Melanesia, Micronesia & Polynesia	19	1.3	1003	70.4	402	28.2	0	0.0	1424	100.0
Southern Europe	9	1.1	572	67.5	266	31.4	0	0.0	847	100.0
Western & Northern Europe	3	0.4	517	61.3	324	38.4	0	0.0	844	100.0
Eastern Europe, Russia, Central Asian & Baltic States	2	0.3	511	75.6	162	24.0	1	0.1	676	100.0
Middle East & Africa	108	2.3	3562	76.9	965	20.8	0	0.0	4635	100.0
South East Asia	37	0.7	3833	72.9	1385	26.4	0	0.0	5255	100.0
North East Asia	21	0.5	2800	69.6	1202	29.9	0	0.0	4023	100.0
Southern Asia	14	0.4	3264	86.8	481	12.8	0	0.0	3759	100.0
Other-not stated	4	1.9	149	71.0	56	26.7	1	0.5	210	100.0
<b>TOTAL</b>	<b>3360</b>	<b>3.5</b>	<b>69172</b>	<b>72.9</b>	<b>22321</b>	<b>23.5</b>	<b>11</b>	<b>0.0</b>	<b>94864</b>	<b>100.0</b>

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



**Figure 4. Maternal age by country of birth group, NSW 2008**

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research. NSW Department of Health.

## Health area of residence

In 2008, the proportion of mothers born in non-English speaking countries was highest in the Sydney South West Area (39.0%), followed by the Sydney West Area (34.6%). Six per cent of mothers were born in South East Asian countries, 47.0% of whom were resident in the Sydney South West Area. Almost 5% of mothers were born in

Middle Eastern and African countries and 79.4% of these mothers were resident in the Sydney South West or Sydney West Areas. A further 4.2% of mothers were born in North East Asian countries and 4.0% in Southern Asian countries, with the majority living in metropolitan areas (Table 91).

**Table 91. Health area of residence by maternal country of birth group, NSW 2008#**

Health Area	Country of birth group																				TOTAL			
	English speaking		Central & South America		Melanesia, Micronesia, Polynesia		Southern Europe		Western & Northern Europe		Eastern Europe, Russia, Central Asian & Baltic States		Middle East & Africa		South East Asia		North East Asia		Southern Asia		Other-not stated		No.	%
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney South West	12972	60.8	299	1.4	587	2.7	356	1.7	141	0.7	137	0.6	2230	10.4	2471	11.6	1077	5.0	1021	4.8	56	0.3	21347	100.0
South Eastern Sydney & Illawarra	12042	77.0	192	1.2	130	0.8	232	1.5	220	1.4	203	1.3	508	3.2	774	5.0	902	5.8	393	2.5	36	0.2	15632	100.0
Sydney West	11889	65.3	127	0.7	507	2.8	131	0.7	91	0.5	112	0.6	1450	8.0	1110	6.1	929	5.1	1837	10.1	30	0.2	18213	100.0
Northern Sydney & Central Coast	11484	80.0	155	1.1	92	0.6	84	0.6	261	1.8	170	1.2	226	1.6	569	4.0	914	6.4	343	2.4	55	0.4	14353	100.0
Hunter & New England	10299	96.0	14	0.1	35	0.3	20	0.2	50	0.5	18	0.2	59	0.6	120	1.1	62	0.6	44	0.4	5	0.0	10726	100.0
North Coast	5069	95.1	9	0.2	20	0.4	5	0.1	42	0.8	9	0.2	39	0.7	71	1.3	34	0.6	27	0.5	7	0.1	5332	100.0
Greater Southern	3804	94.5	9	0.2	27	0.7	10	0.2	10	0.2	7	0.2	61	1.5	40	1.0	19	0.5	33	0.8	4	0.1	4024	100.0
Greater Western	3962	97.2	-	-	11	0.3	-	-	11	0.3	7	0.2	19	0.5	35	0.9	8	0.2	12	0.3	6	0.1	4078	100.0
Other-not stated	840	72.5	-	-	15	1.3	-	-	18	1.6	13	1.1	43	3.7	65	5.6	78	6.7	49	4.2	11	0.9	1159	100.0
<b>TOTAL</b>	<b>72361</b>	<b>76.3</b>	<b>830</b>	<b>0.9</b>	<b>1424</b>	<b>1.5</b>	<b>847</b>	<b>0.9</b>	<b>844</b>	<b>0.9</b>	<b>676</b>	<b>0.7</b>	<b>4635</b>	<b>4.9</b>	<b>5255</b>	<b>5.5</b>	<b>4023</b>	<b>4.2</b>	<b>3759</b>	<b>4.0</b>	<b>210</b>	<b>0.2</b>	<b>94864</b>	<b>100.0</b>

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.  
# Data not shown for country of birth groups with less than five in a group.

## Duration of pregnancy at first antenatal visit

In 2008, 93.3% of all mothers commenced antenatal care before 20 weeks gestation and 81.9% commenced antenatal care before 14 weeks gestation. There was some variation between country of birth groups, with 94.0% of mothers

born in English speaking countries commencing antenatal care before 20 weeks gestation, compared with 82.2% of mothers born in Melanesia, Micronesia, and Polynesia, and 89.7% of mothers born in North East Asia (Table 92).

**Table 92. Duration of pregnancy at first antenatal visit by country of birth group, NSW 2008**

Country of birth group	Duration of pregnancy at first antenatal visit (weeks)									
	0–13		14–19		20–plus		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
English-speaking	60188	83.2	7860	10.9	3651	5.0	662	0.9	72361	100.0
Central & South America	664	80.0	114	13.7	38	4.6	14	1.7	830	100.0
Melanesia, Micronesia & Polynesia	969	68.0	201	14.1	209	14.7	45	3.2	1424	100.0
Southern Europe	689	81.3	107	12.6	41	4.8	10	1.2	847	100.0
Western & Northern Europe	683	80.9	116	13.7	42	5.0	3	0.4	844	100.0
Eastern Europe, Russia, Central Asian & Baltic States	533	78.8	106	15.7	34	5.0	3	0.4	676	100.0
Middle East & Africa	3573	77.1	606	13.1	370	8.0	86	1.9	4635	100.0
South East Asia	3986	75.9	756	14.4	432	8.2	81	1.5	5255	100.0
North East Asia	3030	75.3	578	14.4	374	9.3	41	1.0	4023	100.0
Southern Asia	3175	84.5	390	10.4	165	4.4	29	0.8	3759	100.0
Other-not stated	157	74.8	19	9.0	18	8.6	16	7.6	210	100.0
<b>TOTAL</b>	<b>77647</b>	<b>81.9</b>	<b>10853</b>	<b>11.4</b>	<b>5374</b>	<b>5.7</b>	<b>990</b>	<b>1.0</b>	<b>94864</b>	<b>100.0</b>

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

## Smoking in pregnancy

In 2008, smoking at any time during pregnancy was more common among mothers born in English speaking countries than mothers born in non-English speaking countries (Table 93). About one in six mothers born in English speaking countries smoked at some time during pregnancy, compared to fewer than one in nine mothers born in other country of birth groups.

Smoking in the second half of pregnancy poses the greatest risk to the health of both mother and baby. Ten per cent of

mothers who smoked during pregnancy quit before the second half of pregnancy. Mothers born in non-English speaking countries were more likely to quit before the second half of pregnancy compared to mothers born in English speaking countries. Of mothers who did smoke in the second half of pregnancy, mothers born in English speaking countries were more likely to smoke more than 10 cigarettes per day compared to mothers born in other country of birth groups (Table 94).

**Table 93. Smoking in pregnancy by country of birth group, NSW 2008**

Country of birth group	Smoking in pregnancy							
	No		Yes		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
English speaking	61124	84.5	11204	15.5	33	0.0	72361	100.0
Central & South America	802	96.6	28	3.4	0	0.0	830	100.0
Melanesia, Micronesia & Polynesia	1270	89.2	154	10.8	0	0.0	1424	100.0
Southern Europe	757	89.4	90	10.6	0	0.0	847	100.0
Western & Northern Europe	803	95.1	41	4.9	0	0.0	844	100.0
Eastern Europe, Russia, Central Asian & Baltic States	662	97.9	14	2.1	0	0.0	676	100.0
Middle East & Africa	4366	94.2	269	5.8	0	0.0	4635	100.0
South East Asia	5066	96.4	189	3.6	0	0.0	5255	100.0
North East Asia	3970	98.7	52	1.3	1	0.0	4023	100.0
Southern Asia	3722	99.0	36	1.0	1	0.0	3759	100.0
Other-not stated	192	91.4	17	8.1	1	0.5	210	100.0
<b>TOTAL</b>	<b>82734</b>	<b>87.2</b>	<b>12094</b>	<b>12.7</b>	<b>36</b>	<b>0.0</b>	<b>94864</b>	<b>100.0</b>

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

**Table 94. Mothers who smoked at all during pregnancy by number of cigarettes smoked in the second half of pregnancy and country of birth group, NSW 2008**

Country of birth group	Cigarettes per day in the second half of pregnancy										TOTAL	
	None		1–10 per day		More than 10 per day		Smoked – amount not stated		Not stated		No.	%
	No.	%	No.	%	No.	%	No.	%	No.	%		
English-speaking	929	8.3	5576	49.8	3980	35.5	716	6.4	3	0.0	11204	100.0
Central & South America	7	25.0	15	53.6	2	7.1	4	14.3	0	0.0	28	100.0
Melanesia, Micronesia & Polynesia	26	16.9	68	44.2	27	17.5	33	21.4	0	0.0	154	100.0
Southern Europe	18	20.0	45	50.0	15	16.7	12	13.3	0	0.0	90	100.0
Western & Northern Europe	5	12.2	18	43.9	10	24.4	8	19.5	0	0.0	41	100.0
Eastern Europe, Russia, Central Asian & Baltic States	3	21.4	3	21.4	4	28.6	4	28.6	0	0.0	14	100.0
Middle East & Africa	85	31.6	116	43.1	48	17.8	20	7.4	0	0.0	269	100.0
South East Asia	99	52.4	60	31.7	17	9.0	13	6.9	0	0.0	189	100.0
North East Asia	33	63.5	11	21.2	2	3.8	6	11.5	0	0.0	52	100.0
Southern Asia	19	52.8	7	19.4	4	11.1	6	16.7	0	0.0	36	100.0
Other-not stated	3	17.6	10	58.8	1	5.9	3	17.6	0	0.0	17	100.0
<b>TOTAL</b>	<b>1227</b>	<b>10.1</b>	<b>5929</b>	<b>49.0</b>	<b>4110</b>	<b>34.0</b>	<b>825</b>	<b>6.8</b>	<b>3</b>	<b>0.0</b>	<b>12094</b>	<b>100.0</b>

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

## Medical conditions and obstetric complications

In 2008, 1.8% of mothers born in Melanesia, Micronesia, and Polynesia were reported to have diabetes mellitus—three times the rate for all mothers in NSW, though the number of mothers is small (Table 95). The rates of gestational diabetes in mothers born in North East Asia and Southern Asia were over twice the rate for all mothers in NSW.

Mothers born in English speaking countries were more likely to have pregnancy-induced hypertension compared to mothers born in non-English speaking countries. Rates of essential hypertension were higher among mothers born in European countries, Russia, Central Asian & Baltic States than other country of birth groups.

**Table 95. Maternal medical conditions and obstetric complications by country of birth group, NSW 2008**

Country of birth group	Condition								TOTAL	
	Diabetes mellitus		Gestational diabetes		Essential hypertension		Pregnancy-induced hypertension		No.	%
	No.	%	No.	%	No.	%	No.	%		
English-speaking	464	0.6	2559	3.5	664	0.9	5236	7.2	72361	100.0
Central & South America	4	0.5	44	5.3	6	0.7	36	4.3	830	100.0
Melanesia, Micronesia & Polynesia	26	1.8	129	9.1	12	0.8	64	4.5	1424	100.0
Southern Europe	4	0.5	52	6.1	11	1.3	33	3.9	847	100.0
Western & Northern Europe	3	0.4	32	3.8	11	1.3	40	4.7	844	100.0
Eastern Europe, Russia, Central Asian & Baltic States	0	0.0	39	5.8	8	1.2	19	2.8	676	100.0
Middle East & Africa	30	0.6	323	7.0	41	0.9	131	2.8	4635	100.0
South East Asia	35	0.7	468	8.9	47	0.9	174	3.3	5255	100.0
North East Asia	6	0.1	424	10.5	7	0.2	92	2.3	4023	100.0
Southern Asia	29	0.8	430	11.4	24	0.6	145	3.9	3759	100.0
Other-not stated	0	0.0	9	4.3	2	1.0	12	5.7	210	100.0
<b>TOTAL#</b>	<b>601</b>	<b>0.6</b>	<b>4509</b>	<b>4.8</b>	<b>833</b>	<b>0.9</b>	<b>5982</b>	<b>6.3</b>	<b>94864</b>	<b>100.0</b>

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.  
# Total refers to total mothers giving birth in NSW.

## Labour and birth

Mothers born in non-English speaking countries, except mothers born in Southern Asia, were more likely to have a spontaneous onset of labour than mothers born in English speaking countries (Table 96). Rates of induction of labour varied from 18.2% among mothers born in South East Asia to 28.1% among mothers born in Southern Asia.

Mothers born in the Middle East and Africa and Melanesia, Micronesia and Polynesia were more likely to have a normal vaginal birth than mothers in other country of birth groups (Table 97). The highest caesarean section rate was among mothers born in Central and South America (40.0%).

**Table 96. Labour onset by country of birth group, NSW 2008**

Country of birth group	Onset of labour									
	Spontaneous		No labour#		Induced		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
English-speaking	40718	56.3	12646	17.5	18989	26.2	8	0.0	72361	100.0
Central & South America	473	57.0	175	21.1	182	21.9	0	0.0	830	100.0
Melanesia, Micronesia & Polynesia	873	61.3	200	14.0	351	24.6	0	0.0	1424	100.0
Southern Europe	485	57.3	151	17.8	211	24.9	0	0.0	847	100.0
Western & Northern Europe	524	62.1	138	16.4	182	21.6	0	0.0	844	100.0
Eastern Europe, Russia, Central Asian & Baltic States	417	61.7	112	16.6	147	21.7	0	0.0	676	100.0
Middle East & Africa	2969	64.1	648	14.0	1018	22.0	0	0.0	4635	100.0
South East Asia	3505	66.7	794	15.1	956	18.2	0	0.0	5255	100.0
North East Asia	2554	63.5	606	15.1	861	21.4	2	0.0	4023	100.0
Southern Asia	2089	55.6	613	16.3	1056	28.1	1	0.0	3759	100.0
Other-not stated	129	61.4	37	17.6	44	21.0	0	0.0	210	100.0
<b>TOTAL#</b>	<b>54736</b>	<b>57.7</b>	<b>16120</b>	<b>17.0</b>	<b>23997</b>	<b>25.3</b>	<b>11</b>	<b>0.0</b>	<b>94864</b>	<b>100.0</b>

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.  
# No labour indicates elective caesarean section.

**Table 97. Type of birth by country of birth group, NSW 2008**

Health area	Type of birth														TOTAL	
	Normal vaginal		Forceps		Vacuum extraction		Vaginal breech		Elective caesarean section		Emergency caesarean section#		Not stated		No.	%
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
English-speaking	43014	59.4	2570	3.6	5023	6.9	305	0.4	12646	17.5	8790	12.1	13	0.0	72361	100.0
Central & South America	404	48.7	43	5.2	49	5.9	1	0.1	175	21.1	157	18.9	1	0.1	830	100.0
Melanesia, Micronesia & Polynesia	960	67.4	31	2.2	66	4.6	9	0.6	200	14.0	158	11.1	0	0.0	1424	100.0
Southern Europe	510	60.2	28	3.3	60	7.1	1	0.1	151	17.8	97	11.5	0	0.0	847	100.0
Western & Northern Europe	463	54.9	45	5.3	80	9.5	5	0.6	138	16.4	113	13.4	0	0.0	844	100.0
Eastern Europe, Russia, Central Asian & Baltic States	404	59.8	28	4.1	53	7.8	2	0.3	112	16.6	77	11.4	0	0.0	676	100.0
Middle East & Africa	3137	67.7	102	2.2	252	5.4	16	0.3	648	14.0	480	10.4	0	0.0	4635	100.0
South East Asia	3086	58.7	196	3.7	419	8.0	22	0.4	794	15.1	738	14.0	0	0.0	5255	100.0
North East Asia	2130	52.9	209	5.2	470	11.7	16	0.4	606	15.1	592	14.7	0	0.0	4023	100.0
Southern Asia	1940	51.6	229	6.1	345	9.2	9	0.2	613	16.3	623	16.6	0	0.0	3759	100.0
Other-not stated	125	59.5	5	2.4	13	6.2	1	0.5	37	17.6	29	13.8	0	0.0	210	100.0
<b>TOTAL</b>	<b>56173</b>	<b>59.2</b>	<b>3486</b>	<b>3.7</b>	<b>6830</b>	<b>7.2</b>	<b>387</b>	<b>0.4</b>	<b>16120</b>	<b>17.0</b>	<b>11854</b>	<b>12.5</b>	<b>14</b>	<b>0.0</b>	<b>94864</b>	<b>100.0</b>

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.  
# Emergency caesarean section includes caesarean sections where the onset of labour was not stated.

## Birth weight

The rate of low birth weight (less than 2,500 grams) in 2008 was 6.2% in NSW. The highest rates of low birth weight were in babies of mothers born in Southern Asia (8.9%) and

Melanesia, Micronesia and Polynesia (8.0%) (Table 98). Babies of mothers born in Eastern Europe, Russia, Central Asian and Baltic States were least likely to be low birth weight.

**Table 98. Birth weight by maternal country of birth group, NSW 2008**

Country of birth group	Birth weight (grams)							
	Less than 2500		2500+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
English-speaking	4535	6.2	68969	93.8	58	0.1	73562	100.0
Central & South America	39	4.6	803	95.4	0	0.0	842	100.0
Melanesia, Micronesia & Polynesia	116	8.0	1321	91.7	4	0.3	1441	100.0
Southern Europe	54	6.2	812	93.8	0	0.0	866	100.0
Western & Northern Europe	40	4.6	819	95.1	2	0.2	861	100.0
Eastern Europe, Russia, Central Asian & Baltic States	27	3.9	662	96.1	0	0.0	689	100.0
Middle East & Africa	287	6.1	4410	93.7	10	0.2	4707	100.0
South East Asia	335	6.3	4968	93.7	1	0.0	5304	100.0
North East Asia	201	5.0	3854	95.0	3	0.1	4058	100.0
Southern Asia	338	8.9	3455	91.0	5	0.1	3798	100.0
Other – not stated	22	10.2	192	89.3	1	0.5	215	100.0
<b>TOTAL</b>	<b>5994</b>	<b>6.2</b>	<b>90265</b>	<b>93.7</b>	<b>84</b>	<b>0.1</b>	<b>96343</b>	<b>100.0</b>

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

## Gestational age

The rate of prematurity (less than 37 weeks gestation) in 2008 was 7.5% in NSW. The highest rate of prematurity was among babies of mothers born in Melanesia, Micronesia

and Polynesia (8.8%). Babies of mothers born in North East Asia were least likely to be premature (Table 99).

**Table 99. Gestational age by maternal country of birth group, NSW 2008**

Country of birth group	Gestational age (weeks)							
	Less than 37		37+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
English-speaking	5623	7.6	67924	92.3	15	0.0	73562	100.0
Central & South America	50	5.9	792	94.1	0	0.0	842	100.0
Melanesia, Micronesia & Polynesia	127	8.8	1314	91.2	0	0.0	1441	100.0
Southern Europe	66	7.6	800	92.4	0	0.0	866	100.0
Western & Northern Europe	56	6.5	805	93.5	0	0.0	861	100.0
Eastern Europe, Russia, Central Asian & Baltic States	43	6.2	646	93.8	0	0.0	689	100.0
Middle East & Africa	327	6.9	4379	93.0	1	0.0	4707	100.0
South East Asia	397	7.5	4906	92.5	1	0.0	5304	100.0
North East Asia	223	5.5	3835	94.5	0	0.0	4058	100.0
Southern Asia	272	7.2	3526	92.8	0	0.0	3798	100.0
Other – not stated	25	11.6	190	88.4	0	0.0	215	100.0
<b>TOTAL</b>	<b>7209</b>	<b>7.5</b>	<b>89117</b>	<b>92.5</b>	<b>17</b>	<b>0.0</b>	<b>96343</b>	<b>100.0</b>

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

## Apgar score

In 2008, 2.1% of all babies (including stillborn babies) had an Apgar score of less than 7 at 5 minutes and 1.1% had a score of less than 4 (Table 100). The rates of Apgar scores of less

than 7 were highest among babies of mothers born in Melanesia, Micronesia and Polynesia (2.6%) and the Middle East and Africa (2.8%).

**Table 100. Apgar score at five minutes by country of birth group, NSW 2008#**

Country of birth group	Apgar Score									
	0-4		5-6		7+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
English-speaking	820	1.1	690	0.9	71843	97.7	209	0.3	73562	100.0
Central & South America	7	0.8	7	0.8	828	98.3	0	0.0	842	100.0
Melanesia, Micronesia & Polynesia	24	1.7	14	1.0	1397	96.9	6	0.4	1441	100.0
Southern Europe	8	0.9	4	0.5	853	98.5	1	0.1	866	100.0
Western & Northern Europe	10	1.2	6	0.7	844	98.0	1	0.1	861	100.0
Eastern Europe, Russia, Central Asian & Baltic States	5	0.7	6	0.9	676	98.1	2	0.3	689	100.0
Middle East & Africa	72	1.5	60	1.3	4558	96.8	17	0.4	4707	100.0
South East Asia	53	1.0	50	0.9	5182	97.7	19	0.4	5304	100.0
North East Asia	40	1.0	29	0.7	3982	98.1	7	0.2	4058	100.0
Southern Asia	50	1.3	32	0.8	3708	97.6	8	0.2	3798	100.0
Other – not stated	4	1.9	2	0.9	206	95.8	3	1.4	215	100.0
<b>TOTAL#</b>	<b>1093</b>	<b>1.1</b>	<b>900</b>	<b>0.9</b>	<b>94077</b>	<b>97.6</b>	<b>273</b>	<b>0.3</b>	<b>96343</b>	<b>100.0</b>

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.  
# Births include stillbirths.

## Infant feeding

The highest rates of full breastfeeding in 2008 were among babies of mothers born in Eastern Europe, Russia, Central Asian and Baltic States (89.3%) followed by babies of mothers born in Western and Northern Europe (87.6%).

The lowest rates of full breastfeeding were among babies of mothers born in South East Asia (70.5%) and Melanesia, Micronesia and Polynesia (72.3%) (Table 101).

**Table 101. Infant feeding among liveborn babies by country of birth group, NSW 2008**

Country of birth group	Infant feeding									
	Full breast-feeding		Any breast-feeding		Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
English-speaking	58783	79.9	3163	4.3	10113	13.7	1503	2.0	73562	100.0
Central & South America	709	84.2	77	9.1	37	4.4	19	2.3	842	100.0
Melanesia, Micronesia & Polynesia	1042	72.3	164	11.4	186	12.9	49	3.4	1441	100.0
Southern Europe	690	79.7	69	8.0	92	10.6	15	1.7	866	100.0
Western & Northern Europe	754	87.6	48	5.6	43	5.0	16	1.9	861	100.0
Eastern Europe, Russia, Central Asian & Baltic States	615	89.3	41	6.0	24	3.5	9	1.3	689	100.0
Middle East & Africa	3775	80.2	426	9.1	360	7.6	146	3.1	4707	100.0
South East Asia	3738	70.5	926	17.5	537	10.1	103	1.9	5304	100.0
North East Asia	2970	73.2	712	17.5	307	7.6	69	1.7	4058	100.0
Southern Asia	3154	83.0	428	11.3	115	3.0	101	2.7	3798	100.0
Other – not stated	172	80.0	14	6.5	19	8.8	10	4.7	215	100.0
<b>TOTAL</b>	<b>76402</b>	<b>79.3</b>	<b>6068</b>	<b>6.3</b>	<b>11833</b>	<b>12.3</b>	<b>2040</b>	<b>2.1</b>	<b>96343</b>	<b>100.0</b>

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



## Perinatal outcomes

In 2008, 99% of babies born in NSW and reported to the MDC were born alive and survived until discharge from the hospital of birth (Table 102). The perinatal mortality rate was highest among babies of mothers born in Melanesia, Micronesia and Polynesia (12.5 per 1,000) and lowest among babies of mothers born in North East Asia (7.4 per 1,000). However, as the majority of births are to mothers

born in English-speaking countries, the majority of perinatal deaths occurred among these babies ( $n=626$ , 74.4%). There were further 56 deaths among babies of mothers born in Middle Eastern and African countries, and 42 deaths among babies of mothers born in South East Asia—comprising 6.7% and 5.0% respectively of all perinatal deaths reported to the MDC.

**Table 102. Perinatal outcomes by country of birth group, NSW 2008#**

Country of birth group	Perinatal outcome												Perinatal mortality rate/1000 births##
	Liveborn surviving		Stillborn		Neonatal death		Death – age not stated		Not stated		Total births		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
English-speaking	72891	99.1	440	0.6	186	0.3	5	0.0	40	0.1	73562	100.0	8.5
Central & South America	835	99.2	5	0.6	2	0.2	0	0.0	0	0.0	842	100.0	8.3
Melanesia, Micronesia & Polynesia	1423	98.8	14	1.0	4	0.3	0	0.0	0	0.0	1441	100.0	12.5
Southern Europe	858	99.1	4	0.5	3	0.3	0	0.0	1	0.1	866	100.0	8.1
Western & Northern Europe	853	99.1	5	0.6	3	0.3	0	0.0	0	0.0	861	100.0	9.3
Eastern Europe, Russia, Central Asian & Baltic States	685	99.4	2	0.3	2	0.3	0	0.0	0	0.0	689	100.0	–
Middle East & Africa	4647	98.7	36	0.8	20	0.4	1	0.0	3	0.1	4707	100.0	11.9
South East Asia	5258	99.1	28	0.5	14	0.3	1	0.0	3	0.1	5304	100.0	7.9
North East Asia	4024	99.2	20	0.5	10	0.2	0	0.0	4	0.1	4058	100.0	7.4
Southern Asia	3756	98.9	27	0.7	12	0.3	0	0.0	3	0.1	3798	100.0	10.3
Other – not stated	210	97.7	4	1.9	0	0.0	0	0.0	1	0.5	215	100.0	–
<b>TOTAL</b>	<b>95440</b>	<b>99.1</b>	<b>585</b>	<b>0.6</b>	<b>256</b>	<b>0.3</b>	<b>7</b>	<b>0.0</b>	<b>55</b>	<b>0.1</b>	<b>96343</b>	<b>100.0</b>	<b>8.7</b>

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Perinatal deaths include deaths reported to the MDC only. Because the MDC form is completed at discharge or transfer of the baby, deaths occurring after this time may not be reported to the MDC.

## Perinatal mortality rate not calculated for country of birth groups with less than 5 perinatal deaths.