

5. Local Health Districts

Information on the health of Aboriginal and Torres Strait Islander mothers and mothers born in non-English speaking countries is shown in Chapters 7 and 8 respectively.

Confinements

The largest numbers of mothers who gave birth in 2009 were resident in the Western Sydney Local Health District ($n = 13,573$, 14.3%), followed by the South Western Sydney Local Health District ($n = 12,743$, 13.4%) and the South Eastern Sydney Local Health District ($n = 11,278$, 11.9%) (Table 20).

Maternal age

The proportion of women giving birth at less than 20 years of age varied from 0.5% in the Northern Sydney Local Health District to 11.9% in the Far West Local Health District, while the proportion of mothers giving birth at 35 years of age or more ranged from 10.7% in the Greater Far West Local Health District to 39.5% in the Northern Sydney Local Health District (Table 20).

Maternal country of birth

Seventy-six per cent of women who gave birth in NSW in 2009 were born in English speaking countries, 14.7% were born in Asian countries, and 4.8% were born in the Middle East or Africa (Table 21). The highest proportions of mothers born in non-English speaking countries were resident in the Western Sydney, South Western Sydney and Sydney Local Health Districts.

Aboriginal and Torres Strait Islander mothers

In 2009, 3.1% of mothers were reported to be Aboriginal or Torres Strait Islander (Table 22). The proportion of mothers who were Aboriginal or Torres Strait Islander varied from 0.3% in the Northern Sydney Local Health District to 14.9% in the Western NSW Local Health District.

Table 20. Maternal age by Local Health District of residence, NSW 2009

Local Health District	Maternal age (years)																TOTAL	
	12-19		20-24		25-29		30-34		35-39		40-44		45 +		Not stated			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
Sydney	99	1.2	610	7.2	1833	21.6	3120	36.8	2316	27.3	475	5.6	20	0.2	0	0.0	8473	100.0
South Western Sydney	417	3.3	2117	16.6	3988	31.3	3827	30.0	1945	15.3	422	3.3	27	0.2	0	0.0	12743	100.0
South Eastern Sydney	120	1.1	694	6.2	2490	22.1	4291	38.0	3066	27.2	590	5.2	27	0.2	0	0.0	11278	100.0
Illawarra Shoalhaven	196	4.4	714	16.2	1311	29.7	1347	30.5	712	16.1	133	3.0	6	0.1	1	0.0	4420	100.0
Western Sydney	397	2.9	1881	13.9	4304	31.7	4382	32.3	2172	16.0	420	3.1	16	0.1	1	0.0	13573	100.0
Nepean Blue Mountains	237	4.9	823	17.1	1474	30.6	1430	29.7	704	14.6	140	2.9	11	0.2	0	0.0	4819	100.0
Northern Sydney	57	0.5	302	2.9	1673	16.1	4246	40.9	3367	32.5	695	6.7	31	0.3	1	0.0	10372	100.0
Central Coast	175	4.4	646	16.4	1183	30.0	1129	28.6	679	17.2	126	3.2	11	0.3	0	0.0	3949	100.0
Hunter New England	631	6.0	1942	18.4	3136	29.7	2931	27.8	1593	15.1	308	2.9	18	0.2	0	0.0	10559	100.0
Northern NSW	180	6.1	576	19.6	800	27.2	760	25.9	504	17.1	117	4.0	3	0.1	0	0.0	2940	100.0
Mid North Coast	172	7.6	485	21.5	630	28.0	578	25.7	318	14.1	66	2.9	2	0.1	1	0.0	2252	100.0
Southern NSW	82	5.8	265	18.6	412	29.0	411	28.9	218	15.3	32	2.3	1	0.1	0	0.0	1421	100.0
Murrumbidgee	156	6.0	482	18.4	846	32.3	710	27.1	352	13.5	64	2.4	5	0.2	1	0.0	2616	100.0
Western NSW	293	7.9	801	21.6	1106	29.8	927	25.0	475	12.8	97	2.6	9	0.2	0	0.0	3708	100.0
Far West	29	11.9	59	24.3	76	31.3	53	21.8	24	9.9	2	0.8	0	0.0	0	0.0	243	100.0
Other-not stated	53	3.2	252	15.0	574	34.2	448	26.7	281	16.8	56	3.3	3	0.2	10	0.6	1677	100.0
TOTAL	3294	3.5	12649	13.3	25836	27.2	30590	32.2	18726	19.7	3743	3.9	190	0.2	15	0.0	95043	100.0

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

Table 21 Maternal country of birth by Local Health District of residence, NSW 2009#

Local Health District	Country of birth group																				TOTAL	
	English speaking		Central and South America		Melanesia, Micronesia, and Polynesia		Southern Europe		Western and Northern Europe		Eastern Europe, Russia, Central Asian and Baltic States		Middle East and Africa		South East Asia		North East Asia		Southern Asia		No.	%
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
Sydney	5160	61.2	98	1.2	108	1.3	115	1.4	94	1.1	87	1.0	556	6.6	669	7.9	887	10.5	664	7.9	8438	100.0
South Western Sydney	7596	59.9	172	1.4	479	3.8	256	2.0	46	0.4	58	0.5	1593	12.6	1731	13.6	292	2.3	466	3.7	12689	100.0
South Eastern Sydney	7966	71.2	186	1.7	101	0.9	172	1.5	213	1.9	207	1.9	419	3.7	709	6.3	839	7.5	373	3.3	11185	100.0
Illawarra Shoalhaven	4032	91.4	25	0.6	14	0.3	55	1.2	24	0.5	19	0.4	82	1.9	81	1.8	47	1.1	34	0.8	4413	100.0
Western Sydney	7393	54.6	121	0.9	408	3.0	102	0.8	34	0.3	102	0.8	1322	9.8	1046	7.7	1014	7.5	2004	14.8	13546	100.0
Nepean Blue Mountains	4351	90.6	19	0.4	45	0.9	35	0.7	15	0.3	15	0.3	91	1.9	116	2.4	41	0.9	74	1.5	4802	100.0
Northern Sydney	7546	73.0	161	1.6	82	0.8	72	0.7	242	2.3	173	1.7	210	2.0	516	5.0	958	9.3	373	3.6	10333	100.0
Central Coast	3727	94.6	20	0.5	15	0.4	8	0.2	25	0.6	22	0.6	19	0.5	47	1.2	32	0.8	24	0.6	3939	100.0
Hunter New England	10087	95.6	17	0.2	31	0.3	27	0.3	51	0.5	24	0.2	75	0.7	101	1.0	70	0.7	72	0.7	10555	100.0
Northern NSW	2785	94.7	11	0.4	10	0.3	5	0.2	28	1.0	4	0.1	20	0.7	43	1.5	17	0.6	17	0.6	2940	100.0
Mid North Coast	2126	94.5	5	0.2	6	0.3	2	0.1	9	0.4	10	0.4	13	0.6	37	1.6	11	0.5	30	1.3	2249	100.0
Southern NSW	1356	95.6	0	0.0	7	0.5	2	0.1	7	0.5	3	0.2	9	0.6	21	1.5	8	0.6	6	0.4	1419	100.0
Murrumbidgee	2473	94.6	0	0.0	17	0.7	1	0.0	9	0.3	2	0.1	27	1.0	21	0.8	17	0.7	48	1.8	2615	100.0
Western NSW	3587	96.8	7	0.2	8	0.2	2	0.1	7	0.2	7	0.2	20	0.5	36	1.0	16	0.4	15	0.4	3705	100.0
Far West	235	96.7	2	0.8	1	0.4	0	0.0	0	0.0	0	0.0	0	0.0	3	1.2	0	0.0	2	0.8	243	100.0
Other-not stated	1223	73.2	23	1.4	19	1.1	11	0.7	30	1.8	16	1.0	47	2.8	109	6.5	84	5.0	108	6.5	1670	100.0
TOTAL	71643	75.6	867	0.9	1351	1.4	865	0.9	834	0.9	749	0.8	4503	4.8	5286	5.6	4333	4.6	4310	4.5	94741	100.0

Source: NSW Perinatal Data Collection (HOIST). Centre for Epidemiology and Research, NSW Ministry of Health.
Excludes 302 mothers for which country of birth was not stated. Maternal countries of birth and country of birth groups are shown in Appendix 3.

Table 22. Aboriginal and Torres Strait Islander mothers by Local Health District of residence, NSW 2009

Local Health District	Aboriginality								TOTAL	
	Aboriginal – Torres Strait Islander		Non-Aboriginal or Torres Strait Islander		Not Stated		No.	%	No.	%
	No.	%	No.	%	No.	%				
Sydney	105	1.2	8364	98.7	4	0.0	8473	100.0		
South Western Sydney	170	1.3	12552	98.5	21	0.2	12743	100.0		
South Eastern Sydney	64	0.6	11210	99.4	4	0.0	11278	100.0		
Illawarra Shoalhaven	170	3.8	4242	96.0	8	0.2	4420	100.0		
Western Sydney	203	1.5	13358	98.4	12	0.1	13573	100.0		
Nepean Blue Mountains	113	2.3	4696	97.4	10	0.2	4819	100.0		
Northern Sydney	28	0.3	10295	99.3	49	0.5	10372	100.0		
Central Coast	110	2.8	3798	96.2	41	1.0	3949	100.0		
Hunter New England	654	6.2	9892	93.7	13	0.1	10559	100.0		
Northern NSW	203	6.9	2735	93.0	2	0.1	2940	100.0		
Mid North Coast	234	10.4	2013	89.4	5	0.2	2252	100.0		
Southern NSW	68	4.8	1351	95.1	2	0.1	1421	100.0		
Murrumbidgee	156	6.0	2460	94.0	0	0.0	2616	100.0		
Western NSW	553	14.9	3155	85.1	0	0.0	3708	100.0		
Far West	35	14.4	208	85.6	0	0.0	243	100.0		
Other-not stated	38	2.3	1634	97.4	5	0.3	1677	100.0		
TOTAL	2904	3.1	91963	96.8	176	0.2	95043	100.0		

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

Duration of pregnancy at first antenatal visit

In 2009, 91.9% of mothers commenced antenatal care prior to 20 weeks gestation and 78.9% commenced antenatal care prior to 14 weeks gestation. The percentage of mothers commencing

antenatal care prior to 20 weeks gestation varied from 82.6% in the South Western Sydney Local Health District to 97.7% in the Northern Sydney Local Health District (Table 23).

Table 23. Duration of pregnancy at first antenatal visit by Local Health District of residence, NSW 2009

Local Health District	Duration of pregnancy at first antenatal visit (weeks)									
	0–13		14–19		20–plus		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	5150	60.8	1918	22.6	1250	14.8	155	1.8	8473	100.0
South Western Sydney	7225	56.7	3296	25.9	1815	14.2	407	3.2	12743	100.0
South Eastern Sydney	8369	74.2	2139	19.0	732	6.5	38	0.3	11278	100.0
Illawarra Shoalhaven	3516	79.5	611	13.8	286	6.5	7	0.2	4420	100.0
Western Sydney	12474	91.9	645	4.8	402	3.0	52	0.4	13573	100.0
Nepean Blue Mountains	4291	89.0	376	7.8	140	2.9	12	0.2	4819	100.0
Northern Sydney	9453	91.1	683	6.6	214	2.1	22	0.2	10372	100.0
Central Coast	3478	88.1	290	7.3	162	4.1	19	0.5	3949	100.0
Hunter New England	8723	82.6	1026	9.7	740	7.0	70	0.7	10559	100.0
Northern NSW	2550	86.7	256	8.7	117	4.0	17	0.6	2940	100.0
Mid North Coast	1835	81.5	272	12.1	126	5.6	19	0.8	2252	100.0
Southern NSW	1161	81.7	139	9.8	113	8.0	8	0.6	1421	100.0
Murrumbidgee	2267	86.7	199	7.6	136	5.2	14	0.5	2616	100.0
Western NSW	3039	82.0	348	9.4	283	7.6	38	1.0	3708	100.0
Far West	178	73.3	49	20.2	15	6.2	1	0.4	243	100.0
Other—not stated	1238	73.8	190	11.3	213	12.7	36	2.1	1677	100.0
TOTAL	74947	78.9	12437	13.1	6744	7.1	915	1.0	95043	100.0

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

Smoking in pregnancy

In 2009, 10.1% of mothers reported smoking in the second half of pregnancy (Table 24). The lowest rate was reported among mothers resident in the Northern Sydney Local Health

District (1.5%) and the highest rate was reported among residents of the Far West Local Health District (31.3%).

Table 24. Cigarettes smoked in the second half of pregnancy by Local Health District of residence, NSW 2009

Local Health District	Cigarettes smoked in the second half of pregnancy											
	None		1–10 per day		More than 10 per day		Smoked – amount not stated		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	8208	96.9	128	1.5	62	0.7	75	0.9	0	0.0	8473	100.0
South Western Sydney	11532	90.5	427	3.4	348	2.7	436	3.4	0	0.0	12743	100.0
South Eastern Sydney	10925	96.9	223	2.0	96	0.9	34	0.3	0	0.0	11278	100.0
Illawarra Shoalhaven	3840	86.9	300	6.8	213	4.8	67	1.5	0	0.0	4420	100.0
Western Sydney	12532	92.3	582	4.3	368	2.7	90	0.7	1	0.0	13573	100.0
Nepean Blue Mountains	4129	85.7	378	7.8	251	5.2	61	1.3	0	0.0	4819	100.0
Northern Sydney	10216	98.5	104	1.0	26	0.3	26	0.3	0	0.0	10372	100.0
Central Coast	3392	85.9	301	7.6	218	5.5	38	1.0	0	0.0	3949	100.0
Hunter New England	8723	82.6	1061	10.0	675	6.4	100	0.9	0	0.0	10559	100.0
Northern NSW	2401	81.7	314	10.7	216	7.3	6	0.2	3	0.1	2940	100.0
Mid North Coast	1792	79.6	233	10.3	200	8.9	27	1.2	0	0.0	2252	100.0
Southern NSW	1119	78.7	155	10.9	143	10.1	4	0.3	0	0.0	1421	100.0
Murrumbidgee	2136	81.7	247	9.4	223	8.5	9	0.3	1	0.0	2616	100.0
Western NSW	2844	76.7	398	10.7	429	11.6	36	1.0	1	0.0	3708	100.0
Far West	167	68.7	31	12.8	43	17.7	2	0.8	0	0.0	243	100.0
Other—not stated	1491	88.9	113	6.7	69	4.1	4	0.2	0	0.0	1677	100.0
TOTAL	85447	89.9	4995	5.3	3580	3.8	1015	1.1	6	0.0	95043	100.0

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

Place of birth

Ninety-five per cent of mothers chose to give birth in a hospital birthing suite in 2009, compared to 3.9% who planned a birth centre birth and 0.3% who planned a home birth (Table 25). Planned birth centre births were most commonly reported in the Hunter New England and Western Sydney Local Health Districts.

Labour

In 2009, the onset of labour was spontaneous in 56.7% of confinements (Table 26). Labour was induced in 25.8% of confinements and no labour (elective caesarean section) was reported in 17.5%. The rate of spontaneous onset of labour was highest among residents of the Northern NSW Local Health District (66.6%). The highest rate of induction of labour was among residents of the Illawarra Shoalhaven Local Health District (32.7%).

Table 25. Place of birth by Local Health District of residence, NSW 2009

Local Health District	Place of birth												TOTAL	
	Hospital		Birth Centre		Planned birth centre/hospital admission		Planned homebirth		Planned homebirth / hospital admission		Born before arrival			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	7908	93.3	497	5.9	15	0.2	12	0.1	1	0.0	40	0.5	8473	100.0
South Western Sydney	12490	98.0	137	1.1	14	0.1	19	0.1	0	0.0	83	0.7	12743	100.0
South Eastern Sydney	10571	93.7	505	4.5	119	1.1	30	0.3	3	0.0	50	0.4	11278	100.0
Illawarra Shoalhaven	4328	97.9	58	1.3	8	0.2	7	0.2	0	0.0	19	0.4	4420	100.0
Western Sydney	12842	94.6	363	2.7	298	2.2	13	0.1	2	0.0	55	0.4	13573	100.0
Nepean Blue Mountains	4699	97.5	53	1.1	20	0.4	16	0.3	1	0.0	30	0.6	4819	100.0
Northern Sydney	10167	98.0	139	1.3	11	0.1	21	0.2	4	0.0	30	0.3	10372	100.0
Central Coast	3851	97.5	45	1.1	19	0.5	2	0.1	0	0.0	32	0.8	3949	100.0
Hunter New England	9144	86.6	873	8.3	417	3.9	36	0.3	3	0.0	86	0.8	10559	100.0
Northern NSW	2833	96.4	7	0.2	24	0.8	37	1.3	15	0.5	24	0.8	2940	100.0
Mid North Coast	2210	98.1	1	0.0	19	0.8	11	0.5	1	0.0	10	0.4	2252	100.0
Southern NSW	1399	98.5	1	0.1	4	0.3	3	0.2	2	0.1	12	0.8	1421	100.0
Murrumbidgee	2576	98.5	10	0.4	8	0.3	9	0.3	0	0.0	13	0.5	2616	100.0
Western NSW	3648	98.4	17	0.5	17	0.5	3	0.1	2	0.1	21	0.6	3708	100.0
Far West	240	98.8	1	0.4	0	0.0	0	0.0	0	0.0	2	0.8	243	100.0
Other-not stated	1619	96.5	29	1.7	11	0.7	12	0.7	1	0.1	5	0.3	1677	100.0
TOTAL	90525	95.2	2736	2.9	1004	1.1	231	0.2	35	0.0	512	0.5	95043	100.0

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

Table 26. Onset and augmentation of labour by Local Health District of residence, NSW 2009

Local Health District	Onset of labour																TOTAL	
	Spontaneous		Spontaneous augmented with ARM*		Spontaneous augmented with oxytocics prostaglandins#		No labour		Induced oxytocics/prostaglandins		Induced -ARM* only		Induced - ARM* + oxytocics/prostaglandins		Induced - other##			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	3517	41.5	362	4.3	1227	14.5	1530	18.1	712	8.4	128	1.5	989	11.7	8	0.1	8473	100.0
South Western Sydney	5330	41.8	1149	9.0	1266	9.9	2040	16.0	1102	8.6	155	1.2	1666	13.1	35	0.3	12743	100.0
South Eastern Sydney	4041	35.8	864	7.7	1133	10.0	2308	20.5	1055	9.4	191	1.7	1672	14.8	14	0.1	11278	100.0
Illawarra Shoalhaven	1638	37.1	322	7.3	298	6.7	719	16.3	376	8.5	117	2.6	937	21.2	13	0.3	4420	100.0
Western Sydney	5272	38.8	1038	7.6	1212	8.9	2083	15.3	1282	9.4	155	1.1	2518	18.6	13	0.1	13573	100.0
Nepean Blue Mountains	2009	41.7	308	6.4	274	5.7	828	17.2	478	9.9	88	1.8	826	17.1	8	0.2	4819	100.0
Northern Sydney	3803	36.7	644	6.2	897	8.6	2396	23.1	871	8.4	228	2.2	1521	14.7	12	0.1	10372	100.0
Central Coast	1471	37.2	200	5.1	336	8.5	868	22.0	397	10.1	64	1.6	605	15.3	8	0.2	3949	100.0
Hunter New England	4894	46.3	477	4.5	665	6.3	1548	14.7	1006	9.5	253	2.4	1671	15.8	45	0.4	10559	100.0
Northern NSW	1480	50.3	257	8.7	221	7.5	403	13.7	289	9.8	45	1.5	236	8.0	9	0.3	2940	100.0
Mid North Coast	987	43.8	281	12.5	186	8.3	333	14.8	189	8.4	44	2.0	228	10.1	4	0.2	2252	100.0
Southern NSW	716	50.4	152	10.7	109	7.7	186	13.1	129	9.1	26	1.8	103	7.2	0	0.0	1421	100.0
Murrumbidgee	1176	45.0	209	8.0	140	5.4	493	18.8	319	12.2	72	2.8	204	7.8	3	0.1	2616	100.0
Western NSW	1551	41.8	416	11.2	218	5.9	640	17.3	281	7.6	110	3.0	487	13.1	5	0.1	3708	100.0
Far West	121	49.8	21	8.6	18	7.4	37	15.2	35	14.4	2	0.8	9	3.7	0	0.0	243	100.0
Other-not stated	691	41.2	140	8.3	182	10.9	237	14.1	159	9.5	32	1.9	232	13.8	4	0.2	1677	100.0
TOTAL	38697	40.7	6840	7.2	8382	8.8	16649	17.5	8680	9.1	1710	1.8	13904	14.6	181	0.2	95043	100.0

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

*ARM: artificial rupture of membranes.

May include artificial rupture of membranes.

This category includes other forms of induction such as Foley's catheter.

Birth

Fifty-eight percent of births were normal vaginal births, 11.2% were instrumental and 30.2% were by caesarean section (Table 27). The highest rate of normal vaginal birth was among residents of the Northern NSW Local Health District (68.0%), while the highest rates of instrumental birth were among residents of the South Eastern Sydney Local Health District (15.0%). The caesarean section rate varied from 23.2% among mothers resident in the Southern NSW Local Health District to 37.7% in the Northern Sydney Local Health District.

Birth weight

In 2009, 6.0% of births were low birth weight (less than 2,500 grams). These comprised 0.7% of birth weight less than 1,000 grams, 0.5% in the 1,000 to 1,499 gram range and 4.8% in the 1,500 to 2,499 gram range (Table 28). Rates of low birth weight ranged from 3.7% in the Southern NSW Local Health District to 6.6% in the Nepean Blue Mountains Local Health District.

Table 27. Type of birth by Local Health District of residence, NSW 2009

Local Health District	Type of birth													
	Normal vaginal		Forceps		Vacuum extraction		Vaginal breech		Elective caesarean section		Emergency caesarean section#		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	4548	53.7	400	4.7	755	8.9	23	0.3	1530	18.1	1217	14.4	8473	100.0
South Western Sydney	8259	64.8	229	1.8	951	7.5	43	0.3	2040	16.0	1221	9.6	12743	100.0
South Eastern Sydney	5685	50.4	558	4.9	1131	10.0	29	0.3	2308	20.5	1567	13.9	11278	100.0
Illawarra Shoalhaven	2693	60.9	79	1.8	370	8.4	15	0.3	719	16.3	544	12.3	4420	100.0
Western Sydney	8014	59.0	606	4.5	1038	7.6	66	0.5	2083	15.3	1766	13.0	13573	100.0
Nepean Blue Mountains	2783	57.8	127	2.6	368	7.6	20	0.4	828	17.2	693	14.4	4819	100.0
Northern Sydney	5063	48.8	455	4.4	919	8.9	23	0.2	2396	23.1	1516	14.6	10372	100.0
Central Coast	2078	52.6	150	3.8	263	6.7	18	0.5	868	22.0	572	14.5	3949	100.0
Hunter New England	6682	63.3	345	3.3	659	6.2	59	0.6	1548	14.7	1266	12.0	10559	100.0
Northern NSW	1998	68.0	89	3.0	106	3.6	16	0.5	403	13.7	328	11.2	2940	100.0
Mid North Coast	1458	64.7	54	2.4	149	6.6	10	0.4	333	14.8	248	11.0	2252	100.0
Southern NSW	953	67.1	74	5.2	65	4.6	0	0.0	186	13.1	143	10.1	1421	100.0
Murrumbidgee	1566	59.9	75	2.9	182	7.0	7	0.3	493	18.8	293	11.2	2616	100.0
Western NSW	2365	63.8	100	2.7	155	4.2	12	0.3	640	17.3	436	11.8	3708	100.0
Far West	144	59.3	8	3.3	6	2.5	0	0.0	37	15.2	48	19.8	243	100.0
Other—not stated	1070	63.8	34	2.0	115	6.9	14	0.8	237	14.1	207	12.3	1677	100.0
TOTAL	55359	58.2	3383	3.6	7232	7.6	355	0.4	16649	17.5	12065	12.7	95043	100.0

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

Table 28. Birth weight by Local Health District of residence, NSW 2009

Local Health District	Birth weight (grams)																							
	Less than 500		500–999		1000–1499		1500–1999		2000–2499		2500–2999		3000–3499		3500–3999		4000–4499		4500+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	18	0.2	29	0.3	44	0.5	90	1.0	295	3.4	1343	15.7	3231	37.7	2623	30.6	770	9.0	126	1.5	10	0.1	8579	100.0
South Western Sydney	37	0.3	57	0.4	83	0.6	131	1.0	499	3.9	2082	16.1	4828	37.3	3798	29.4	1204	9.3	208	1.6	10	0.1	12937	100.0
South Eastern Sydney	30	0.3	43	0.4	55	0.5	129	1.1	407	3.5	1708	14.9	4376	38.2	3490	30.4	1061	9.3	160	1.4	7	0.1	11466	100.0
Illawarra Shoalhaven	15	0.3	19	0.4	22	0.5	62	1.4	156	3.5	628	14.0	1582	35.2	1474	32.8	461	10.3	69	1.5	4	0.1	4492	100.0
Western Sydney	43	0.3	73	0.5	72	0.5	151	1.1	522	3.8	2323	16.8	5131	37.2	4039	29.3	1204	8.7	219	1.6	10	0.1	13787	100.0
Nepean Blue Mountains	18	0.4	16	0.3	35	0.7	67	1.4	189	3.9	725	14.8	1735	35.4	1496	30.5	517	10.6	99	2.0	2	0.0	4899	100.0
Northern Sydney	20	0.2	38	0.4	42	0.4	102	1.0	336	3.2	1406	13.3	3945	37.5	3373	32.0	1096	10.4	168	1.6	7	0.1	10533	100.0
Central Coast	11	0.3	23	0.6	28	0.7	46	1.1	144	3.6	514	12.8	1341	33.5	1339	33.4	469	11.7	82	2.0	6	0.1	4003	100.0
Hunter New England	22	0.2	57	0.5	55	0.5	149	1.4	421	3.9	1498	14.0	3578	33.4	3460	32.3	1234	11.5	223	2.1	9	0.1	10706	100.0
Northern NSW	9	0.3	5	0.2	8	0.3	24	0.8	115	3.9	389	13.1	1012	34.0	967	32.5	382	12.8	65	2.2	0	0.0	2976	100.0
Mid North Coast	6	0.3	8	0.4	14	0.6	31	1.4	84	3.7	300	13.2	731	32.1	765	33.6	283	12.4	52	2.3	2	0.1	2276	100.0
Southern NSW	1	0.1	3	0.2	4	0.3	6	0.4	39	2.7	207	14.6	488	34.3	450	31.6	180	12.7	44	3.1	0	0.0	1422	100.0
Murrumbidgee	6	0.2	5	0.2	6	0.2	26	1.0	80	3.0	342	12.9	909	34.3	891	33.7	327	12.4	54	2.0	1	0.0	2647	100.0
Western NSW	4	0.1	14	0.4	25	0.7	45	1.2	153	4.1	560	14.9	1332	35.4	1119	29.7	416	11.1	90	2.4	5	0.1	3763	100.0
Far West	0	0.0	1	0.4	0	0.0	3	1.2	12	4.9	47	19.0	84	34.0	82	33.2	16	6.5	2	0.8	0	0.0	247	100.0
Other—not stated	19	1.1	11	0.6	8	0.5	19	1.1	89	5.2	244	14.3	599	35.1	518	30.4	167	9.8	31	1.8	1	0.1	1706	100.0
TOTAL	259	0.3	402	0.4	501	0.5	1081	1.1	3541	3.7	14316	14.8	34902	36.2	29884	31.0	9787	10.1	1692	1.8	74	0.1	96439	100.0

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

Gestational age

The majority of births (91.9%) were at term, and 0.8% were post-term (42+ weeks). The 7.3% of preterm births comprised 0.7% born at less than 28 weeks, 0.7% at 28–31 weeks, and 5.9% at 32–36 weeks. The highest rate of preterm

birth was in the Far West Local Health District (8.5%), while the lowest was 4.4% in the Southern NSW Local Health District (Table 29).

Table 29. Gestational age by Local Health District of residence, NSW 2009

Local Health District	Gestational age (weeks)												TOTAL	
	< 28		28–31		32–36		37–41		42+		Not stated			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	54	0.6	51	0.6	451	5.3	7948	92.6	75	0.9	0	0.0	8579	100.0
South Western Sydney	96	0.7	113	0.9	752	5.8	11925	92.2	50	0.4	1	0.0	12937	100.0
South Eastern Sydney	75	0.7	75	0.7	705	6.1	10508	91.6	101	0.9	2	0.0	11466	100.0
Illawarra Shoalhaven	35	0.8	36	0.8	308	6.9	4075	90.7	37	0.8	1	0.0	4492	100.0
Western Sydney	118	0.9	91	0.7	782	5.7	12744	92.4	51	0.4	1	0.0	13787	100.0
Nepean Blue Mountains	44	0.9	39	0.8	322	6.6	4471	91.3	22	0.4	1	0.0	4899	100.0
Northern Sydney	64	0.6	54	0.5	549	5.2	9795	93.0	69	0.7	2	0.0	10533	100.0
Central Coast	37	0.9	29	0.7	265	6.6	3650	91.2	22	0.5	0	0.0	4003	100.0
Hunter New England	79	0.7	96	0.9	730	6.8	9649	90.1	152	1.4	0	0.0	10706	100.0
Northern NSW	15	0.5	7	0.2	165	5.5	2724	91.5	65	2.2	0	0.0	2976	100.0
Mid North Coast	15	0.7	17	0.7	136	6.0	2077	91.3	31	1.4	0	0.0	2276	100.0
Southern NSW	4	0.3	6	0.4	52	3.7	1337	94.0	23	1.6	0	0.0	1422	100.0
Murrumbidgee	8	0.3	13	0.5	139	5.3	2462	93.0	25	0.9	0	0.0	2647	100.0
Western NSW	28	0.7	23	0.6	227	6.0	3455	91.8	30	0.8	0	0.0	3763	100.0
Far West	0	0.0	0	0.0	21	8.5	224	90.7	2	0.8	0	0.0	247	100.0
Other-not stated	33	1.9	10	0.6	93	5.5	1552	91.0	18	1.1	0	0.0	1706	100.0
TOTAL	705	0.7	660	0.7	5697	5.9	88596	91.9	773	0.8	8	0.0	96439	100.0

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

Infant feeding

In 2009, infant feeding on discharge from hospital was reported for 95,835 liveborn babies (Table 30). The majority of babies (80.5%) were reported to be fully breastfed, 12.1% were receiving infant formula only, and a further 6.7% were

being partially breastfed. Rates of full breastfeeding varied from 71.3% in the South Western Sydney Local Health District to 87.7% in the Northern NSW Local Health District.

Table 30. Live births by infant feeding on discharge and Local Health District of residence, NSW 2009

Local Health District	Infant feeding									
	Full breast-feeding		Any breast-feeding		Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	7017	82.3	938	11.0	516	6.1	53	0.6	8524	100.0
South Western Sydney	9168	71.3	1335	10.4	2266	17.6	91	0.7	12860	100.0
South Eastern Sydney	9503	83.3	1010	8.9	826	7.2	67	0.6	11406	100.0
Illawarra Shoalhaven	3471	77.8	115	2.6	828	18.6	47	1.1	4461	100.0
Western Sydney	10752	78.5	1138	8.3	1669	12.2	131	1.0	13690	100.0
Nepean Blue Mountains	3707	76.1	307	6.3	819	16.8	39	0.8	4872	100.0
Northern Sydney	9154	87.3	681	6.5	593	5.7	55	0.5	10483	100.0
Central Coast	3283	82.5	141	3.5	505	12.7	51	1.3	3980	100.0
Hunter New England	8679	81.7	286	2.7	1595	15.0	69	0.6	10629	100.0
Northern NSW	2594	87.7	104	3.5	232	7.8	29	1.0	2959	100.0
Mid North Coast	1950	86.3	80	3.5	218	9.7	11	0.5	2259	100.0
Southern NSW	1212	85.8	33	2.3	160	11.3	7	0.5	1412	100.0
Murrumbidgee	2038	77.4	81	3.1	505	19.2	9	0.3	2633	100.0
Western NSW	2990	79.8	80	2.1	654	17.5	21	0.6	3745	100.0
Far West	188	76.4	12	4.9	46	18.7	0	0.0	246	100.0
Other-not stated	1449	86.4	82	4.9	127	7.6	20	1.2	1678	100.0
TOTAL	77155	80.5	6423	6.7	11559	12.1	700	0.7	95837	100.0

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

Perinatal outcomes

The perinatal mortality rate in 2009 was 8.7 per 1,000 births. This rate includes all live births, and stillbirths of at least 400 grams birth weight or at least 20 weeks gestation (Table 31).

The perinatal mortality rate varied from 4.0 per 1,000 in the Far West Local Health District to 10.5 per 1,000 in the Mid North Coast Local Health District.

Table 31. Perinatal outcomes by Local Health District of residence, NSW 2009#

Local Health District	Liveborn surviving		Stillborn		Neonatal death		Perinatal outcome				Total births		Perinatal mortality rate/1000 births
							Not stated		Death – age not stated				
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
Sydney	8506	99.1	55	0.6	18	0.2	0	0.0	0	0.0	8579	100.0	8.5
South Western Sydney	12818	99.1	77	0.6	42	0.3	0	0.0	0	0.0	12937	100.0	9.2
South Eastern Sydney	11372	99.2	58	0.5	34	0.3	2	0.0	0	0.0	11466	100.0	8.0
Illawarra Shoalhaven	4448	99.0	31	0.7	13	0.3	0	0.0	0	0.0	4492	100.0	9.8
Western Sydney	13655	99.0	97	0.7	35	0.3	0	0.0	0	0.0	13787	100.0	9.6
Nepean Blue Mountains	4862	99.2	27	0.6	9	0.2	0	0.0	1	0.0	4899	100.0	7.3
Northern Sydney	10467	99.4	50	0.5	16	0.2	0	0.0	0	0.0	10533	100.0	6.3
Central Coast	3968	99.1	23	0.6	12	0.3	0	0.0	0	0.0	4003	100.0	8.7
Hunter New England	10600	99.0	77	0.7	28	0.3	0	0.0	1	0.0	10706	100.0	9.8
Northern NSW	2951	99.2	15	0.5	8	0.3	2	0.1	0	0.0	2976	100.0	7.7
Mid North Coast	2252	98.9	17	0.7	7	0.3	0	0.0	0	0.0	2276	100.0	10.5
Southern NSW	1411	99.2	10	0.7	1	0.1	0	0.0	0	0.0	1422	100.0	7.7
Murrumbidgee	2631	99.4	14	0.5	2	0.1	0	0.0	0	0.0	2647	100.0	6.0
Western NSW	3738	99.3	18	0.5	7	0.2	0	0.0	0	0.0	3763	100.0	6.6
Far West	246	99.6	1	0.4	0	0.0	0	0.0	0	0.0	247	100.0	4.0
Other–not stated	1670	97.9	28	1.6	8	0.5	0	0.0	0	0.0	1706	100.0	–
TOTAL	95595	99.1	598	0.6	240	0.2	4	0.0	2	0.0	96439	100.0	8.7

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

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

Live births by statistical local areas

Table 32. Live births by Local Health District and statistical local area of residence, NSW 2009

Local Health District – statistical local area	No.	%	Local Health District – statistical local area	No.	%
Sydney			Holroyd	1945	14.2
Ashfield	574	6.7	Parramatta – Inner	1040	7.6
Burwood	388	4.6	Parramatta – North-East	642	4.7
Canada Bay – Concord	526	6.2	Parramatta – North-West	580	4.2
Canada Bay – Drummoyne	626	7.3	Parramatta – South	687	5.0
Canterbury	2320	27.2	TOTAL	13699	100.0
Leichhardt	1123	13.2	Blue Mountains	890	18.3
Marrickville	1285	15.1	Hawkesbury	892	18.3
Strathfield	431	5.1	Lithgow	240	4.9
Sydney – South	795	9.3	Penrith – East	1491	30.6
Sydney – West	458	5.4	Penrith – West	1359	27.9
TOTAL	8526	100.0	TOTAL	4872	100.0
South Western Sydney			Northern Sydney		
Bankstown – North-East	1199	9.3	Hornsby – North	729	7.0
Bankstown – North-West	988	7.7	Hornsby – South	1066	10.2
Bankstown – South	738	5.7	Hunters Hill	154	1.5
Camden	854	6.6	Ku-ring-gai	850	8.1
Campbelltown – North	1190	9.3	Lane Cove	470	4.5
Campbelltown – South	1176	9.1	Manly	698	6.7
Fairfield – East	1794	14.0	Mosman	357	3.4
Fairfield – West	814	6.3	North Sydney	1014	9.7
Liverpool – East	1900	14.8	Pittwater	724	6.9
Liverpool – West	1169	9.1	Ryde	1354	12.9
Wingecarribee	464	3.6	Warringah	2027	19.3
Wollondilly	571	4.4	Willoughby	1033	9.9
TOTAL	12857	100.0	TOTAL	10476	100.0
South Eastern Sydney			Central Coast		
Botany	611	5.4	Gosford – East	718	18.0
Hurstville	1076	9.4	Gosford – West	1313	33.0
Kogarah	758	6.6	Wyong – North-East	950	23.9
Randwick	1917	16.8	Wyong – South and West	1000	25.1
Rockdale	1547	13.6	TOTAL	3981	100.0
Sutherland Shire – East	1511	13.2	Hunter New England		
Sutherland Shire – West	1549	13.6	Armidale Dumaresq – City	240	2.3
Sydney – Inner	192	1.7	Armidale Dumaresq – Balance	25	0.2
Sydney (SESAHS)	427	3.7	Cessnock	729	6.9
Waverley	1084	9.5	Dungog	89	0.8
Woollahra	731	6.4	Glen Innes Severn	125	1.2
Other/Not stated	2	0.0	Gloucester	38	0.4
TOTAL	11405	100.0	Greater Taree	516	4.9
Illawarra Shoalhaven			Great Lakes	326	3.1
Kiama	175	3.9	Gunnedah	183	1.7
Shellharbour	864	19.4	Guyra	65	0.6
Shoalhaven – Pt A	457	10.2	Gwydir	53	0.5
Shoalhaven – Pt B	512	11.5	Inverell – Pt A	41	0.4
Wollongong – Inner	1244	27.9	Inverell – Pt B	167	1.6
Wollongong – Balance	1205	27.0	Lake Macquarie – East	682	6.4
Other/Not stated	4	0.1	Lake Macquarie – North	1011	9.5
TOTAL	4461	100.0	Lake Macquarie – West	571	5.4
Western Sydney			Liverpool Plains	97	0.9
Auburn	1378	10.1	Maitland	962	9.0
Baulkham Hills – Central	909	6.6	Moree Plains	181	1.7
Baulkham Hills – North	702	5.1	Muswellbrook	253	2.4
Baulkham Hills – South	428	3.1	Narrabri	225	2.1
Blacktown – North	1761	12.9	Newcastle – Inner City	627	5.9
Blacktown – South-East	1708	12.5	Newcastle – Outer West	573	5.4
Blacktown – South-West	1919	14.0	Newcastle – Throsby	702	6.6

Table 32. (Continued)

Local Health District – statistical local area	No.	%	Local Health District – statistical local area	No.	%
Port Stephens	746	7.0	Greater Hume Shire	27	1.0
Singleton	305	2.9	Griffith	363	13.9
Tamworth Regional – Pt A	645	6.1	Gundagai	34	1.3
Tamworth Regional – Pt B	126	1.2	Harden	26	1.0
Tenterfield	29	0.3	Hay	32	1.2
Upper Hunter Shire	193	1.8	Jerilderie	8	0.3
Uralla	70	0.7	Junee	80	3.1
Walcha	38	0.4	Leeton	145	5.6
Other/Not stated	2	0.0	Lockhart	37	1.4
TOTAL	10635	100.0	Murray	6	0.2
Northern NSW			Murrumbidgee	31	1.2
Ballina	381	12.9	Narrandera	87	3.3
Byron	287	9.7	Temora	60	2.3
Clarence Valley – Coast	175	5.9	Tumbarumba	29	1.1
Clarence Valley – Grafton	327	11.1	Tumut	164	6.3
Clarence Valley – Balance	65	2.2	Urana	9	0.3
Kyogle	131	4.4	Wagga Wagga – Pt A	868	33.3
Lismore – Pt A	437	14.8	Wagga Wagga – Pt B	53	2.0
Lismore – Pt B	104	3.5	Young	156	6.0
Richmond Valley – Casino	169	5.7	Other/Not stated	5	0.2
Richmond Valley Bal	109	3.7	TOTAL	2605	100.0
Tweed – Tweed-Heads	440	14.9	Western NSW		
Tweed – Tweed Coast	129	4.4	Bathurst Regional – Pt A	465	12.3
Tweed – Pt B	203	6.9	Bathurst Regional – Pt B	24	0.6
TOTAL	2957	100.0	Blayney	106	2.8
Mid North Coast			Bogan	48	1.3
Bellingen	106	4.7	Bourke	57	1.5
Coffs Harbour – Pt A	639	28.3	Brewarrina	45	1.2
Coffs Harbour – Pt B	182	8.1	Cabonne	151	4.0
Hastings – Pt A	446	19.8	Cobar	66	1.8
Hastings – Pt B	306	13.6	Coonamble	56	1.5
Kempsey	369	16.3	Cowra	157	4.2
Nambucca	209	9.3	Dubbo – Pt A	618	16.4
TOTAL	2257	100.0	Dubbo – Pt B	29	0.8
Southern NSW			Forbes	132	3.5
Bega Valley	299	21.2	Gilgandra	64	1.7
Bombala	21	1.5	Lachlan	98	2.6
Cooma-Monaro	99	7.0	Mid-Western Regional – Pt A	235	6.2
Eurobodalla	315	22.3	Mid-Western Regional – Pt B	29	0.8
Greater Argyle – Goulburn	231	16.3	Narromine	98	2.6
Greater Argyle – Balance	45	3.2	Oberon	59	1.6
Palerang – Pt A	37	2.6	Orange	602	16.0
Queanbeyan	215	15.2	Parkes	212	5.6
Snowy River	73	5.2	Walgett	113	3.0
Upper Lachlan	51	3.6	Warren	37	1.0
Yass Valley	9	0.6	Warrumbungle Shire	106	2.8
Other/Not stated	18	1.3	Weddin	38	1.0
TOTAL	1413	100.0	Wellington	124	3.3
Murrumbidgee			TOTAL	3769	100.0
Berrigan	14	0.5	Far West		
Bland	84	3.2	Broken Hill	215	87.4
Boorowa	19	0.7	Central Darling	21	8.5
Carrathool	38	1.5	Other/Not stated	10	4.1
Conargo	10	0.4	TOTAL	246	100.0
Coolamon	49	1.9	Other-not stated	1678	100.0
Cootamundra	74	2.8	TOTAL NSW	95837	100.0
Deniliquin	97	3.7			

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