

4. TRENDS IN NEW SOUTH WALES

Confinements and births by plurality

There were 92,781 births to 91,315 women reported in 2006 (Table 1). This represents a 2.4 per cent increase in births compared to 2005, and a 8.4 per cent increase

compared to 2004. The number of multiple (twin and triplet) pregnancies has remained stable compared to 2002.

TABLE 1

PLURALITY, NSW 2002–2006

Plurality	Year									
	2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%
Confinements										
Singleton	83190	98.3	83677	98.4	82983	98.5	87699	98.4	89890	98.4
Twins	1375	1.6	1330	1.6	1274	1.5	1413	1.6	1386	1.5
Triplets	22	0.0	23	0.0	30	0.0	27	0.0	37	0.0
Quadruplets	0	0.0	2	0.0	1	0.0	1	0.0	2	0.0
Total	84587	100.0	85032	100.0	84288	100.0	89140	100.0	91315	100.0
Births										
Singleton	83190	96.7	83677	96.8	82983	96.9	87699	96.8	89890	96.9
Twins	2749	3.2	2660	3.1	2549	3.0	2826	3.1	2772	3.0
Triplets	66	0.1	69	0.1	90	0.1	81	0.1	111	0.1
Quadruplets	0	0.0	8	0.0	4	0.0	4	0.0	8	0.0
Total	86005	100.0	86414	100.0	85626	100.0	90610	100.0	92781	100.0

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

Health area of residence

In 2006, the largest number of births occurred in the Sydney South West Area, followed by Sydney West and South Eastern Sydney and Illawarra Areas (Table 2).

Compared to 2005, there were increases in the numbers of births in all health areas.

TABLE 2

MATERNAL HEALTH AREA OF RESIDENCE, NSW 2002–2006

Plurality	Year									
	2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney South West	19105	22.6	22.9	19485	18720	22.2	19713	22.1	20426	22.4
South Eastern Sydney and Illawarra	13699	16.2	13898	16.3	14121	16.8	14619	16.4	15020	16.4
Sydney West	15883	18.8	15942	18.7	15834	18.8	17019	19.1	17210	18.8
Northern Sydney and Central Coast	12818	15.2	13142	15.5	13032	15.5	13697	15.4	14139	15.5
Hunter and New England	10004	11.8	9694	11.4	9672	11.5	10381	11.6	10579	11.6
North Coast	4656	5.5	4587	5.4	4690	5.6	4973	5.6	5100	5.6
Greater Southern	3969	4.7	3834	4.5	3838	4.6	3993	4.5	4059	4.4
Greater Western	3855	4.6	3898	4.6	3784	4.5	3985	4.5	4052	4.4
Other/Not stated	598	0.7	552	0.6	597	0.7	760	0.9	730	0.8
TOTAL	84587	100.0	85032	100.0	84288	100.0	89140	100.0	91315	100.0

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

Maternal age

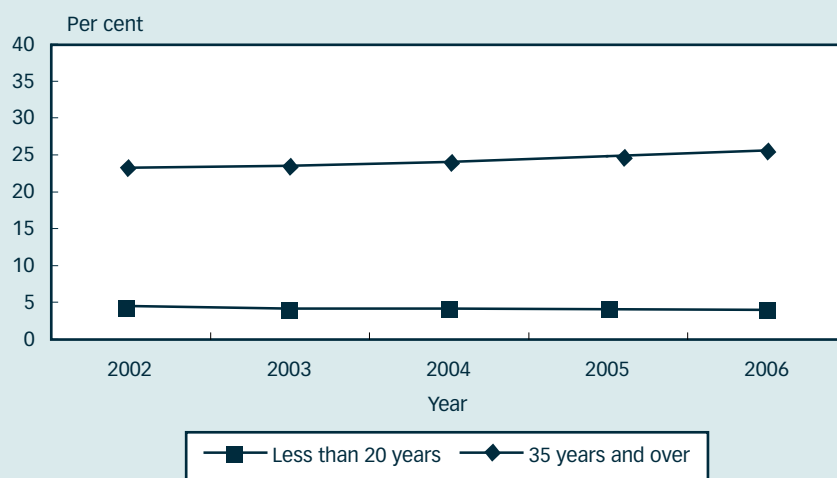
The number of mothers giving birth increased across all age groups in 2006 compared to previous years. The largest increase was among mothers aged 35–39 years.

While the number of teenage mothers increased marginally from 3,440 in 2005 to 3,471 in 2006, the percentage mothers who were teenagers fell marginally from 3.9 to 3.8 per cent. The number of mothers aged 35 years and over increased from 18,441 in 2005 to 19,762 in 2006, an increase from 20.7 to 21.6 per cent of all confinements (Figure 1, Table 3).

The mean maternal age rose from 29.9 to 30.4 years over the 5 years 2002 to 2006. The trend towards later childbirth is evident among both primiparous and multiparous mothers: the proportion of mothers giving birth for the first time who were aged 35 years or more increased from 11.8 to 14.7 per cent over the 5 year period, and the proportion of multiparous mothers who were aged 35 years or more increased from 23.7 to 26.6 per cent. The mean maternal age rose from 28.4 to 29.0 years for primiparous mothers and from 31.3 to 31.6 years for multiparous mothers.

FIGURE 1

MOTHERS AGED LESS THAN 20 YEARS AND 35 YEARS AND OVER, NSW 2002–2006



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

TABLE 3

MATERNAL AGE, NSW 2002–2006

Maternal age (years)	Year									
	2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%
Under 15	28	0.0	23	0.0	22	0.0	30	0.0	18	0.0
15–19	3624	4.3	3363	4.0	3365	4.0	3410	3.8	3453	3.8
20–24	12674	15.0	12529	14.7	12095	14.3	12739	14.3	12686	13.9
25–29	24523	29.0	24138	28.4	23113	27.4	24006	26.9	24553	26.9
30–34	27810	32.9	28522	33.5	28906	34.3	30502	34.2	30785	33.7
35–39	13107	15.5	13582	16.0	13808	16.4	15275	17.1	16526	18.1
40–44	2645	3.1	2752	3.2	2819	3.3	3017	3.4	3073	3.4
45+	120	0.1	113	0.1	142	0.2	149	0.2	163	0.2
Not stated	56	0.1	10	0.0	18	0.0	12	0.0	58	0.1
Total	84587	100.0	85032	100.0	84288	100.0	89140	100.0	91315	100.0

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

Maternal country of birth

In the period 2002–2006, 71 per cent of mothers were born in Australia. In 2006, mothers born in the New Zealand, United Kingdom, China, Vietnam and Lebanon together

accounted for 10.6 per cent of all mothers (Table 4). Further information on maternal country of birth is shown in Chapter 7.

TABLE 4

MATERNAL COUNTRY OF BIRTH, NSW 2002–2006#

Country of birth	Year									
	2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%
Australia	61640	72.9	61432	72.2	60961	72.3	64246	72.1	65226	71.4
New Zealand	1998	2.4	2121	2.5	1989	2.4	2233	2.5	2343	2.6
United Kingdom	2344	2.8	2368	2.8	2229	2.6	2172	2.4	2288	2.5
China	1830	2.2	1586	1.9	1672	2.0	1767	2.0	1787	2.0
Vietnam	1773	2.1	1863	2.2	1684	2.0	1652	1.9	1720	1.9
Lebanon	1663	2.0	1696	2.0	1594	1.9	1608	1.8	1547	1.7
India	747	0.9	810	1.0	888	1.1	1094	1.2	1294	1.4
Philippines	1156	1.4	1192	1.4	1083	1.3	1160	1.3	1220	1.3
Iraq	545	0.6	648	0.8	621	0.7	681	0.8	743	0.8
Fiji	655	0.8	691	0.8	686	0.8	670	0.8	697	0.8
South Africa	486	0.6	486	0.6	547	0.6	579	0.6	598	0.7
Indonesia	494	0.6	489	0.6	519	0.6	541	0.6	578	0.6
South Korea	301	0.4	328	0.4	389	0.5	419	0.5	485	0.5
United States of America	346	0.4	355	0.4	372	0.4	359	0.4	428	0.5
Pakistan	266	0.3	260	0.3	291	0.3	345	0.4	396	0.4
Hong Kong	307	0.4	301	0.4	314	0.4	332	0.4	338	0.4
Afghanistan	133	0.2	143	0.2	159	0.2	263	0.3	335	0.4
Bangladesh	212	0.3	198	0.2	233	0.3	293	0.3	327	0.4
Sri Lanka	324	0.4	299	0.4	310	0.4	320	0.4	324	0.4
Malaysia	262	0.3	271	0.3	283	0.3	339	0.4	315	0.3
Thailand	268	0.3	253	0.3	277	0.3	290	0.3	309	0.3
Ireland	267	0.3	333	0.4	281	0.3	325	0.4	299	0.3
Western Samoa	310	0.4	303	0.4	289	0.3	306	0.3	298	0.3
Japan	283	0.3	293	0.3	260	0.3	339	0.4	288	0.3
Sudan	69	0.1	117	0.1	154	0.2	226	0.3	283	0.3
Cambodia	279	0.3	295	0.3	274	0.3	268	0.3	276	0.3
Turkey	266	0.3	265	0.3	268	0.3	251	0.3	269	0.3
Canada	192	0.2	225	0.3	237	0.3	227	0.3	262	0.3
Germany	188	0.2	237	0.3	205	0.2	211	0.2	240	0.3
Tonga	271	0.3	219	0.3	246	0.3	222	0.2	212	0.2
Chile	250	0.3	187	0.2	172	0.2	194	0.2	189	0.2
Iran	137	0.2	192	0.2	159	0.2	176	0.2	181	0.2
Serbia and Montenegro	0	0.0	0	0.0	0	0.0	168	0.2	163	0.2
Poland	106	0.1	116	0.1	130	0.2	127	0.1	163	0.2
Egypt	160	0.2	173	0.2	159	0.2	177	0.2	162	0.2
France	109	0.1	96	0.1	119	0.1	122	0.1	138	0.2
Former Yugoslavia	531	0.6	571	0.7	464	0.6	135	0.2	132	0.1
Syria	151	0.2	154	0.2	159	0.2	147	0.2	132	0.1
Papua New Guinea	135	0.2	148	0.2	156	0.2	106	0.1	126	0.1
North Korea	151	0.2	206	0.2	153	0.2	140	0.2	124	0.1
Russian Federation (not USSR)	105	0.1	106	0.1	115	0.1	151	0.2	121	0.1
Singapore	117	0.1	129	0.2	119	0.1	146	0.2	121	0.1
Macedonia	0	0.0	0	0.0	0	0.0	106	0.1	105	0.1
Taiwan	78	0.1	96	0.1	80	0.1	107	0.1	102	0.1
Other/Not stated	2682	3.2	2781	3.3	2988	3.5	3400	3.8	3631	4.0
TOTAL	84587	100.0	85032	100.0	84288	100.0	89140	100.0	91315	100.0

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

#Countries of birth for which there were 100 or more confinements in 2006.

Maternal Aboriginality

The reported number of Aboriginal or Torres Strait Islander mothers giving birth increased from 2,155 in 2002 to 2,611

in 2006, an increase from 2.5 to 2.9 per cent of all mothers (Table 5). Further information on maternal Aboriginality and reporting of Aboriginality is shown in Chapter 7.

TABLE 5

MATERNAL ABORIGINALITY, NSW 2002–2006

Plurality	Year									
	2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander	2155	2.5	2161	2.5	2308	2.7	2474	22.1	20426	22.4
Non-Aboriginal or Torres Strait Islander	82383	97.4	13898	97.4	81948	97.2	86570	97.1	88176	96.6
Not stated	49	0.1	40	0.0	32	0.0	96	0.1	52	0.8
TOTAL	84587	100.0	85032	100.0	84288	100.0	89140	100.0	91315	100.0

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

Previous pregnancies

In recent years there were no substantial changes in the reported number of previous pregnancies greater than 20 weeks gestation (Table 6). The proportion of mothers giving birth for the first time has been stable at 41 to 42 per cent, while the proportion of mothers giving birth to a

second to fifth baby has been stable at about 56 to 58 per cent. The number of women giving birth for the sixth or subsequent time rose by 22.3 per cent from 1,290 in 2002 to 1,579 in 2006—however, these mothers comprised only 1.7 per cent of all mothers in 2006.

TABLE 6

PREVIOUS PREGNANCIES, NSW 2002–2006

No. previous pregnancies (>20 weeks gestation)	Year									
	2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%
0	35035	41.4	35879	42.2	35796	42.5	37073	41.6	37855	41.5
1–4	48169	56.9	47847	56.3	47136	55.9	50566	56.7	51443	56.3
5+	1290	1.5	1258	1.5	1312	1.6	1441	1.6	1579	1.7
Not stated	93	0.1	48	0.1	44	0.1	60	0.1	438	0.5
TOTAL	84587	100.0	85032	100.0	84288	100.0	89140	100.0	91315	100.0

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

Duration of pregnancy at first antenatal visit

Since 2002, the proportion of mothers starting antenatal care at 20-plus weeks gestation has declined slightly from 12.5 to 11.2 per cent. (Table 7)

TABLE 7

DURATION OF PREGNANCY AT FIRST ANTENATAL VISIT, NSW 2002–2006

Duration of pregnancy (weeks)	Year									
	2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%
0–19	73116	86.4	73615	86.6	73775	87.5	78456	88.0	79874	87.5
20+	10614	12.5	10929	12.9	9934	11.8	10169	11.4	10218	11.2
Not stated	857	1.0	488	0.6	579	0.7	515	0.6	1223	1.3
TOTAL	84587	100.0	85032	100.0	84288	100.0	89140	100.0	91315	100.0

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

Smoking in pregnancy

The proportion of mothers reporting any smoking during pregnancy declined between 2002 and 2006: in 2002, 13,829 (16.3 per cent) mothers reported smoking in pregnancy, 12,875 (15.1 per cent) in 2003, 12,472 (14.8 per cent) in 2004, 12,738 (14.3 per cent) in 2005 and 12,307 (13.5%) in 2006.

Of mothers who smoked during pregnancy in 2006, 4.2 per cent stopped smoking before the second half of pregnancy. Over the 5-year period, among those who smoked in the second half of pregnancy, there was a trend towards smoking fewer cigarettes per day (Table 8).

TABLE 8

MOTHERS WHO SMOKED AT ALL DURING PREGNANCY BY NUMBER OF CIGARETTES SMOKED IN THE SECOND HALF OF PREGNANCY, NSW 2002–2006

Cigarettes smoked in the second half of the pregnancy	Year									
	2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%
None	556	4.0	427	3.3	485	3.9	552	4.3	514	4.2
1–10 per day	6639	48.0	6451	50.1	6303	50.5	6483	50.9	6243	50.7
More than 10 per day	6347	45.9	5680	44.1	5378	43.1	5129	40.3	5016	40.8
Smoked, amount not stated	279	2.0	317	2.5	297	2.4	572	4.5	455	3.7
Not stated	8	0.1	0	0.0	9	0.1	2	0.0	79	0.6
TOTAL	13829	100.0	12875	100.0	12472	100.0	12738	100.0	12307	100.0

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

Place of birth

In 2006, the majority of mothers planned to give birth in a hospital labour ward, and 3.4 per cent of mothers planned to give birth in a birth centre (Table 9). About 60 per cent of mothers who planned to give birth in a birth centre

actually did so. The total number of reported planned homebirths rose slightly from 130 in 2002 to 172 in 2006, while the reported number of planned homebirths that occurred at home rose from 99 in 2002 to 125 in 2006.

TABLE 9

MATERNAL PLACE OF BIRTH, NSW 2002–2006

Place of birth	Year									
	2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%
Hospital	81230	96.0	81441	95.8	80701	95.7	85660	96.1	87567	95.9
Birth centre	2030	2.4	2075	2.4	2003	2.4	1830	2.1	1878	2.1
Planned birth centre/hospital admission	881	1.0	1029	1.2	1126	1.3	1128	1.3	1240	1.4
Planned homebirth	99	0.1	109	0.1	93	0.1	112	0.1	125	0.1
Planned homebirth/ hospital admission	31	0.0	23	0.0	21	0.0	40	0.0	47	0.1
Born before arrival	316	0.4	355	0.4	344	0.4	369	0.4	388	0.4
Not stated	0	0.0	0	0.0	0	0.0	1	0.0	70	0.1
TOTAL	84587	100.0	85032	100.0	84288	100.0	89140	100.0	91315	100.0

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

Hypertension and diabetes

In 2006, gestational diabetes was reported in 4.8 per cent of mothers, rising from 4.4 per cent in 2002, while rates of diabetes mellitus have remained stable at about 0.6 per cent over the 5-year period (Table 10). During 2006, there

was a change in the format for reporting hypertension in pregnancy. Overall, hypertension in pregnancy was reported among 5.7% of mothers in 2006, slightly lower than the rate of 6.8% reported in 2002.

TABLE 10
MATERNAL HYPERTENSION OR DIABETES, NSW 2002–2006

Condition	Year									
	2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%
Diabetes	462	0.5	505	0.6	464	0.6	503	0.6	541	0.6
Gestational diabetes	3693	4.4	3792	4.5	3592	4.3	4165	4.7	4375	4.8
Essential hypertension	940	1.1	879	1.0	940	1.1	842	0.9	804	0.9
Pre-eclampsia #	4839	5.7	4645	5.5	4606	5.5	4553	5.1	3198	3.5
Pregnancy induced hypertension ##										
– proteinuric	–	–	–	–	–	–	–	–	612	0.7
– non-proteinuric	–	–	–	–	–	–	–	–	626	0.7
TOTAL	84587	100.0	85032	100.0	84288	100.0	89140	100.0	91315	100.0

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

Reported in the 2005 format, $n=55,078$

Reported in the 2006 format, $n=36,237$.

Labour

The rate of spontaneous onset of labour fell from 61.1 per cent in 2002 to 58.2 per cent in 2006 (Table 11). Nine per cent of spontaneous labours were augmented with oxytocics or prostaglandins in 2006. The rate of induction of labour was 24.7 per cent in 2006, similar to previous years. The most common reported reason for induction of labour in

2006 was prolonged pregnancy (41 or more weeks) (31.0 per cent), followed by prelabour rupture of membranes (10.7 per cent), hypertensive disease (10.2 per cent), diabetes (5.1 per cent), suspected intrauterine growth retardation (3.9 per cent), fetal death (1.1 per cent), and fetal distress (1.1 per cent).

TABLE 11
ONSET AND AUGMENTATION OF LABOUR, NSW 2002–2006

Onset of labour	Year									
	2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%
Spontaneous	37615	44.5	38110	44.8	37137	44.1	38027	42.7	38706	42.4
Spontaneous augmented with ARM	6422	7.6	5992	7.0	6090	7.2	6152	6.9	6318	6.9
Spontaneous augmented with oxytocics/ prostaglandins	7644	9.0	7258	8.5	7580	9.0	7812	8.8	8146	8.9
No labour	11720	13.9	12820	15.1	12930	15.3	14467	16.2	15516	17.0
Induced – oxytocics/ prostaglandins	7414	8.8	7265	8.5	7049	8.4	7417	8.3	7306	8.0
Induced – ARM only	1193	1.4	1331	1.6	1267	1.5	1595	1.8	1447	1.6
Induced – ARM+oxytocics/ prostaglandins	12262	14.5	11965	14.1	11912	14.1	13273	14.9	13389	14.7
Induced – other#	305	0.4	289	0.3	322	0.4	384	0.4	417	0.5
Not stated	12	0.0	2	0.0	1	0.0	13	0.0	70	0.1
TOTAL	84587	100.0	85032	100.0	84288	100.0	89140	100.0	91315	100.0

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

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

Birth

Among NSW mothers, the rate of normal vaginal birth decreased from 64.2 per cent in 2002 to 60.4 per cent in 2006 (Table 12). The caesarean section rate increased from 24.9 to 28.8 per cent. The rate of instrumental birth remained steady at 10 to 11 per cent. Operative and instrumental deliveries are more common among privately

than publicly insured mothers (Table 13). Among privately insured mothers the rate of normal vaginal birth fell from 53.6 in 2001 to 48.9 per cent in 2005 and the caesarean section rate increased from 30.7 to 36.4 per cent. Among publicly insured mothers the rate of normal vaginal birth fell from 71.1 to 67.1 per cent and the caesarean section rate rose from 20.1 to 24.2 per cent.

TABLE 12

TYPE OF BIRTH, NSW 2002–2006

Type of delivery	Year									
	2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%
Normal vaginal	54271	64.2	53424	62.8	52366	62.1	4568	61.2	55187	60.4
Forceps	3034	3.6	2875	3.4	2762	3.3	2801	3.1	2885	3.2
Vacuum extraction	5855	6.9	5788	6.8	5902	7.0	6372	7.1	6332	6.9
Vaginal breech	353	0.4	371	0.4	347	0.4	322	0.4	366	0.4
Elective caesarean section	11720	13.9	12820	15.1	12930	15.3	14467	16.2	15507	17.0
Emergency caesarean section#	9335	11.0	9744	11.5	9974	11.8	10610	11.9	10827	11.9
Not stated	19	0.0	10	0.0	7	0.0	0	0.0	211	0.2
TOTAL	84587	100.0	85032	100.0	84288	100.0	89140	100.0	91315	100.0

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.

TABLE 13

MATERNAL HEALTH INSURANCE STATUS BY TYPE OF BIRTH, NSW 2001–2005

Insurance status – type of birth	Year									
	2001		2002		2003		2004		2005	
	No.	%	No.	%	No.	%	No.	%	No.	%
Public										
Normal vaginal	39535	71.1	37301	70.0	38142	68.6	37323	67.8	38912	67.1
Forceps	1691	3.0	1435	2.7	1450	2.6	1382	2.5	1356	2.3
Vacuum extraction	2902	5.2	3005	5.6	3178	5.7	3177	5.8	3450	5.9
Vaginal breech	289	0.5	245	0.5	279	0.5	257	0.5	241	0.4
Elective caesarean section	5725	10.3	5782	10.8	6520	11.7	6629	12.0	7458	12.9
Emergency caesarean section#	5474	9.8	5519	10.4	6069	10.9	6264	11.4	6602	11.4
Not stated	3	0.0	7	0.0	0	0.0	0	0.0	0	0.0
TOTAL	55619	100.0	53294	100.0	55638	100.0	55032	100.0	58019	100.0
Private										
Normal vaginal	14729	53.6	15146	52.2	14105	50.7	13761	50.3	14130	48.9
Forceps	1688	6.1	1579	5.4	1404	5.0	1335	4.9	1388	4.8
Vacuum extraction	2556	9.3	2802	9.7	2567	9.2	2627	9.6	2788	9.7
Vaginal breech	75	0.3	82	0.3	70	0.3	62	0.2	65	0.2
Elective caesarean section	5118	18.6	5688	19.6	6102	21.9	6056	22.1	6743	23.3
Emergency caesarean section#	3309	12.0	3681	12.7	3559	12.8	3512	12.8	3777	13.1
Not stated	10	0.0	12	0.0	10	0.0	7	0.0	0	0.0
TOTAL	27485	100.0	28990	100.0	27817	100.0	27360	100.0	28891	100.0
TOTAL##										
Normal vaginal	55206	65.4	54271	64.2	53424	62.8	52366	62.1	54568	61.2
Forceps	3398	4.0	3034	3.6	2875	3.4	2762	3.3	2801	3.1
Vacuum extraction	5499	6.5	5855	6.9	5788	6.8	5902	7.0	6372	7.1
Vaginal breech	383	0.5	353	0.4	371	0.4	347	0.4	322	0.4
Elective caesarean section	10986	13.0	11720	13.9	12820	15.1	12930	15.3	14467	16.2
Emergency caesarean section#	8894	10.5	9335	11.0	9744	11.5	9974	11.8	10610	11.9
Not stated	13	0.0	19	0.0	10	0.0	7	0.0	0	0.0
TOTAL	84379	100.0	84587	100.0	85032	100.0	84288	100.0	89140	100.0

Source: Linked data of the NSW Midwives Data Collection and NSW Admitted Patient Data Collection. Centre for Epidemiology and Research, NSW Department of Health.

Emergency caesarean section includes caesarean sections where the onset of labour was not stated.

Total includes mothers where type of health insurance was not stated.

Baby sex

There were no significant changes in the pattern of baby sex since 2002, with slightly more male babies born than females in each year. In 2006, 47,985 (51.7 per cent) of babies were male, 44,702 (48.2 per cent) were female, 11 were of indeterminate sex, and sex was not reported for 83 babies. This compares with babies born in 2002, when 44,058 (51.2 per cent) of 86,005 babies were male, 41,858 (48.7 per cent) were female, 15 were of indeterminate sex, and sex was not reported for 74 babies.

Gestational age

In 2006, 7.4 per cent of babies were born prematurely (less than 37 weeks gestation), compared to 7.1 per cent in 2002 (Table 14). Over the 5 year period, about 90 per cent of babies were born at term (37–41 weeks gestation), and about 2 per cent were postmature (41-plus weeks gestation).

TABLE 14

BIRTHS BY GESTATIONAL AGE, NSW 2002–2006

Gestational age (weeks)	Year									
	2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%
20–27	594	0.7	585	0.7	605	0.7	622	0.7	669	0.7
28–31	612	0.7	639	0.7	667	0.8	654	0.7	675	0.7
32–36	4865	5.7	4810	5.6	4975	5.8	5248	5.8	5490	5.9
37–41	77865	90.5	78241	90.5	77614	90.6	82367	90.9	84424	91.0
42 +	2047	2.4	2128	2.5	1761	2.1	1709	1.9	1499	1.6
<20	1	0.0	1	0.0	0	0.0	0	0.0	5	0.0
Not stated	21	0.0	10	0.0	4	0.0	10	0.0	19	0.0
TOTAL	86005	100.0	86414	100.0	85626	100.0	90610	100.0	92781	100.0

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

Birth weight

Since 2002, the rate of low birth weight (less than 2,500 grams) has been about just over 6 per cent (Table 15). The rate was 6.4 per cent in 2006.

TABLE 15

BIRTHS BY BIRTH WEIGHT, NSW 2002–2006

Birth weight (grams)	Year									
	2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%
Less than 500	212	0.2	223	0.3	214	0.2	227	0.3	239	0.3
500–999	399	0.5	393	0.5	395	0.5	392	0.4	411	0.4
1000–1499	469	0.5	497	0.6	558	0.7	513	0.6	562	0.6
1500–1999	1083	1.3	1049	1.2	1059	1.2	1100	1.2	1167	1.3
2000–2499	3344	3.9	3221	3.7	3231	3.8	3452	3.8	3554	3.8
2500–2999	12838	14.9	12877	14.9	12797	14.9	13675	15.1	13906	15.0
3000–3499	30504	35.5	30803	35.6	30238	35.3	32451	35.8	33074	35.6
3500–3999	26676	31.0	26982	31.2	26570	31.0	27822	30.7	28705	30.9
4000–4499	8921	10.4	8810	10.2	8931	10.4	9298	10.3	9389	10.1
4500+	1509	1.8	1507	1.7	1584	1.8	1613	1.8	1649	1.8
Not stated	50	0.1	52	0.1	49	0.1	67	0.1	125	0.1
TOTAL	86005	100.0	86414	100.0	85626	100.0	90610	100.0	92781	100.0

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

Apgar score

In 2006, 2.0 per cent of babies were born with an Apgar score of less than 7 at 5 minutes and 1.1 per cent were

born with a score less than 4 (Table 16). These rates are similar to those of previous years.

TABLE 16
BIRTHS BY APGAR SCORE AT 5 MINUTES, NSW 2002–2006#

Apgar score	Year									
	2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%
0–4	902	1.0	899	1.0	921	1.1	963	1.1	1007	1.1
5–6	893	1.0	865	1.0	844	1.0	833	0.9	890	1.0
7+	84033	97.7	84473	97.8	83653	97.7	88621	97.8	90645	97.7
Not stated	177	0.2	177	0.2	208	0.2	193	0.2	239	0.3
TOTAL	86005	100.0	86414	100.0	85626	100.0	90610	100.0	92781	100.0

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

Includes stillbirths and live births.

Perinatal outcome

In the period 2002–2006 the perinatal mortality rate varied from 8.6 to 9.0 per 1,000 (Table 17). In 2006, 72.1 per cent of all reported perinatal deaths were stillbirths and 27.9 per cent were neonatal deaths.

In 2006, of the 821 perinatal deaths in NSW, 790 (96.2 per cent) were reported among planned hospital births, 13 (1.6 per cent) among planned birth centre births, 2 occurred in planned home births, and 15 were among babies born before arrival at hospital.

TABLE 17
BIRTHS BY PERINATAL OUTCOME, NSW 2002–2006#

Year	Liveborn surviving		Stillborn		Neonatal death		Death – age not stated		Not stated		Total births		Perinatal death rate/1,000 births
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
2002	85222	99.1	515	0.6	233	0.3	0	0.0	35	0.0	86005	100.0	8.7
2003	85669	99.1	523	0.6	221	0.3	0	0.0	1	0.0	86414	100.0	8.6
2004	84849	99.1	561	0.7	212	0.2	0	0.0	4	0.0	85626	100.0	9.0
2005	89786	99.1	535	0.6	257	0.3	0	0.0	32	0.0	90610	100.0	8.7
2006	91840	99.0	592	0.6	229	0.2	6	0.0	114	0.1	92781	100.0	8.8

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

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

Maternal deaths

In the period 1990–2005, 167 deaths were reported among pregnant women or women who gave birth less than 6 weeks previously. Of these, 51 (30.7 per cent) died of incidental causes not related to the pregnancy or its management, 72 (43.4 per cent) deaths were found to be directly due to

pregnancy or its management, and 40 (24.1 per cent) deaths were found to result from pre-existing disease or disease which developed during pregnancy (not due to direct obstetric causes), but which may have been aggravated by the physiologic effects of pregnancy (Table 18). Table 19 shows maternal deaths by cause in NSW for 2005.

TABLE 18

MATERNAL DEATHS BY YEAR, NSW 2002–2006#

Year	Direct		Indirect		Classification Total direct and indirect		Incidental		TOTAL	
	No.	Ratio/ 100,000	No.	Ratio/ 100,000	No.	Ratio/ 100,000	No.	Ratio/ 100,000	No.	Ratio/ 100,000
	1990	4	4.6	6	6.9	10	11.6	2	2.3	12
1991	4	4.7	1	1.2	5	5.8	1	1.2	6	7.0
1992	5	5.7	1	1.1	6	6.8	5	5.7	11	12.5
1993	6	6.9	1	1.2	7	8.1	6	6.9	13	15.0
1994	8	9.2	1	1.2	9	10.4	3	3.5	12	13.8
1995	7	8.1	2	2.3	9	10.4	6	7.0	15	17.4
1996	6	7.0	1	1.2	7	8.2	5	5.9	12	14.1
1997	7	8.1	2	2.3	9	10.5	5	5.8	14	16.1
1998	4	4.7	4	4.7	8	9.4	3	3.5	11	12.9
1999##	4	4.7	1	1.2	5	5.8	6	7.0	12	14.0
2000	4	4.7	5	5.9	9	10.7	1	1.2	10	11.9
2001	4	4.7	4	4.7	8	9.5	1	1.2	9	10.7
2002	2	2.4	2	2.4	4	4.7	1	1.2	5	5.9
2003	1	1.2	3	3.5	4	4.7	3	3.5	7	8.2
2004###	2	2.3	2	2.3	4	4.7	2	2.3	7	8.2
2005*	4	4.5	4	4.5	8	9.0	1	1.1	11	12.0

Source: NSW Maternal and Perinatal Committee.

Includes all deaths of women who were pregnant at the time of death, or who died within 42 days of childbirth. Direct deaths include those resulting from obstetric complications of the pregnant state, including its management. Indirect deaths include those resulting from pre-existing disease or disease which developed during pregnancy and was not due to direct obstetric causes but which may have been aggravated by the physiological effects of pregnancy. Incidental deaths are those where the pregnancy is unlikely to have contributed significantly to the death.¹

Total for 1999 includes one death of undetermined cause.

Total for 2004 includes one open coronial case.

* Total for 2005 includes one death of undetermined cause.

TABLE 19

MATERNAL DEATHS BY CAUSE, NSW 2005#

Classification	Cause	No.
Direct	Suicide by hanging	2
Direct	Ruptured ectopic pregnancy	1
Direct	Thromboembolism	1
Indirect	Arrhythmia of unknown origin	1
Indirect	Suicide by hanging associated with pre-existing depression	1
Indirect	Heart failure	1
Indirect	Carcinoma of the stomach	1
Incidental	Bronchopneumonia associated with cystic fibrosis	1
Unclassifiable	Collapse – cause unknown	2
Total		11

Source: NSW Maternal and Perinatal Committee.

Includes all deaths of women who were pregnant at the time of death, or who died within 42 days of childbirth. Direct deaths include those resulting from obstetric complications of the pregnant state, including its management. Indirect deaths include those resulting from pre-existing disease or disease which developed during pregnancy and was not due to direct obstetric causes but which may have been aggravated by the physiological effects of pregnancy. Incidental deaths are those where the pregnancy is unlikely to have contributed significantly to the death.¹

Reference

1. Sullivan EA, Hall B and King, JF. *Maternal deaths in Australia 2003–2005*. Maternal deaths series no. 3 Cat. No. PER 42. Sydney: AIHW National Perinatal Statistics Unit, 2007.