

4. TRENDS IN NEW SOUTH WALES

Confinements and births by plurality

There were 85,626 births to 84,288 women reported in 2004 (Table 1). This is the lowest number of births in the last 5 years. The number of twin pregnancies has declined slightly since 2001, while the number of triplet pregnancies varied between 22 and 30 per year.

TABLE 1

PLURALITY, NSW 2000–2004

Plurality	2000		2001		Year 2002		2003		2004	
	No.	%	No.	%	No.	%	No.	%	No.	%
Pregnancies										
Singleton	85027	98.3	82926	98.3	83190	98.3	83677	98.4	82983	98.5
Twins	1404	1.6	1428	1.7	1375	1.6	1330	1.6	1274	1.5
Triplets	29	0.0	24	0.0	22	0.0	23	0.0	30	0.0
Quadruplets	0	0.0	1	0.0	0	0.0	2	0.0	1	0.0
Total	86460	100.0	84379	100.0	84587	100.0	85032	100.0	84288	100.0
Births										
Singleton	85027	96.7	82926	96.6	83190	96.7	83677	96.8	82983	96.9
Twins	2808	3.2	2856	3.3	2749	3.2	2660	3.1	2549	3.0
Triplets	87	0.1	72	0.1	66	0.1	69	0.1	90	0.1
Quadruplets	0	0.0	4	0.0	0	0.0	8	0.0	4	0.0
Total	87922	100.0	85858	100.0	86005	100.0	86414	100.0	85626	100.0

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

Health area of residence

In 2004, the largest number of births occurred in the Sydney South West Area, followed by Sydney West and South Eastern Sydney & Illawarra Areas (Table 2). Declines in numbers of births were most apparent in the Greater Southern and Greater Western Areas.

TABLE 2

MATERNAL HEALTH AREA OF RESIDENCE, NSW 2000–2004

Health Area	2000		2001		Year 2002		2003		2004	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney South West	19316	22.3	18775	22.3	19105	22.6	19485	22.9	18720	22.2
South Eastern Sydney & Illawarra	14104	16.3	13589	16.1	13699	16.2	13898	16.3	14121	16.8
Sydney West	15967	18.5	15763	18.7	15883	18.8	15942	18.7	15834	18.8
Northern Sydney & Central Coast	13204	15.3	12856	15.2	12818	15.2	13142	15.5	13032	15.5
Hunter & New England	10105	11.7	9753	11.6	10004	11.8	9694	11.4	9672	11.5
North Coast	4709	5.4	4762	5.6	4656	5.5	4587	5.4	4690	5.6
Greater Southern	4283	5.0	4209	5.0	3969	4.7	3834	4.5	3838	4.6
Greater Western	4135	4.8	4110	4.9	3855	4.6	3898	4.6	3784	4.5
Other—not stated	637	0.7	562	0.7	598	0.7	552	0.6	597	0.7
TOTAL	86460	100.0	84379	100.0	84587	100.0	85032	100.0	84288	100.0

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

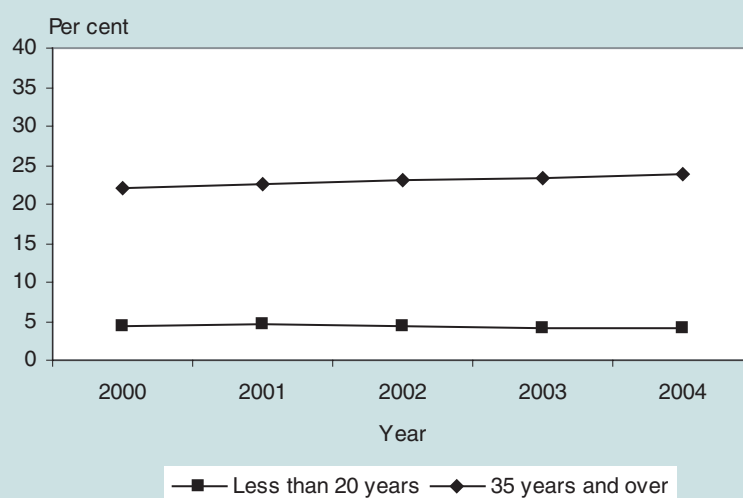
Maternal age

The number of teenage mothers decreased from 3,853 in 2000 to 3,387 in 2004, a fall from 4.4 to 4.0 per cent of all mothers; while the number of mothers 35 years of age or over increased from 15,334 in 2000 to 16,769 in 2004, an increase from 17.7 to 19.9 per cent of all confinements (Figure 1, Table 3). The mean maternal age rose from 29.8 to 30.3 years over the 5 year period.

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 11.1 to 13.1 per cent over the 5 year period, and the proportion of multiparous mothers who were aged 35 years or more increased from 22.5 to 24.9 per cent. The mean maternal age rose from 28.1 to 28.7 years for primiparous mothers and from 31.0 to 31.5 years for multiparous mothers.

FIGURE 1

MOTHERS AGED LESS THAN 20 YEARS AND 35 YEARS AND OVER, NSW 2000–2004



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

TABLE 3

MATERNAL AGE, NSW 2000–2004

Maternal age (years)	2000		2001		Year 2002		2003		2004	
	No.	%	No.	%	No.	%	No.	%	No.	%
Under 15	31	0.0	19	0.0	28	0.0	23	0.0	22	0.0
15–19	3822	4.4	3778	4.5	3624	4.3	3363	4.0	3365	4.0
20–24	13316	15.4	13036	15.4	12674	15.0	12529	14.7	12095	14.3
25–29	27293	31.6	25528	30.3	24523	29.0	24138	28.4	23113	27.4
30–34	26640	30.8	26707	31.7	27810	32.9	28522	33.5	28906	34.3
35–39	12894	14.9	12640	15.0	13107	15.5	13582	16.0	13808	16.4
40–44	2342	2.7	2488	2.9	2645	3.1	2752	3.2	2819	3.3
45+	98	0.1	122	0.1	120	0.1	113	0.1	142	0.2
Not stated	24	0.0	61	0.1	56	0.1	10	0.0	18	0.0
TOTAL	86460	100.0	84379	100.0	84587	100.0	85032	100.0	84288	100.0

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

Maternal country of birth

In the period 2000–2004, about 72 per cent of mothers were born in Australia. In 2004, mothers born in the United Kingdom, New Zealand, Vietnam, China and Lebanon together accounted for 10.9 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 2000–2004#

Country of birth	2000		2001		Year 2002		2003		2004	
	No.	%	No.	%	No.	%	No.	%	No.	%
Australia	62368	72.1	61655	73.1	61631	72.9	61430	72.2	60961	72.3
United Kingdom	2557	3.0	2331	2.8	2344	2.8	2368	2.8	2229	2.6
New Zealand	1962	2.3	2009	2.4	1998	2.4	2121	2.5	1989	2.4
Vietnam	2053	2.4	1691	2.0	1773	2.1	1863	2.2	1684	2.0
China	2163	2.5	1791	2.1	1830	2.2	1586	1.9	1672	2.0
Lebanon	1766	2.0	1667	2.0	1663	2.0	1696	2.0	1594	1.9
Philippines	1315	1.5	1243	1.5	1156	1.4	1192	1.4	1083	1.3
India	643	0.7	612	0.7	747	0.9	810	1.0	888	1.1
Fiji	688	0.8	652	0.8	655	0.8	691	0.8	686	0.8
Iraq	455	0.5	577	0.7	545	0.6	648	0.8	621	0.7
South Africa	387	0.4	450	0.5	486	0.6	486	0.6	547	0.6
Indonesia	566	0.7	494	0.6	494	0.6	489	0.6	519	0.6
Former Yugoslavia	627	0.7	607	0.7	531	0.6	571	0.7	464	0.6
South Korea	426	0.5	358	0.4	301	0.4	328	0.4	389	0.5
United States of America	377	0.4	332	0.4	346	0.4	355	0.4	372	0.4
Hong Kong	357	0.4	332	0.4	307	0.4	301	0.4	314	0.4
Sri Lanka	304	0.4	291	0.3	324	0.4	299	0.4	310	0.4
Pakistan	224	0.3	276	0.3	266	0.3	260	0.3	291	0.3
Western Samoa	320	0.4	319	0.4	310	0.4	303	0.4	289	0.3
Malaysia	319	0.4	251	0.3	262	0.3	271	0.3	283	0.3
Ireland	273	0.3	291	0.3	267	0.3	333	0.4	281	0.3
Thailand	199	0.2	221	0.3	268	0.3	253	0.3	277	0.3
Cambodia	326	0.4	285	0.3	279	0.3	295	0.3	274	0.3
Turkey	335	0.4	317	0.4	266	0.3	265	0.3	268	0.3
Japan	252	0.3	293	0.3	283	0.3	293	0.3	260	0.3
Tonga	296	0.3	278	0.3	271	0.3	219	0.3	246	0.3
Canada	177	0.2	203	0.2	192	0.2	225	0.3	237	0.3
Bangladesh	179	0.2	183	0.2	212	0.3	198	0.2	233	0.3
Germany	204	0.2	192	0.2	188	0.2	237	0.3	205	0.2
Chile	202	0.2	206	0.2	250	0.3	187	0.2	172	0.2
Iran	153	0.2	169	0.2	137	0.2	192	0.2	159	0.2
Syria	138	0.2	150	0.2	151	0.2	154	0.2	159	0.2
Egypt	196	0.2	176	0.2	160	0.2	173	0.2	159	0.2
Afghanistan	96	0.1	147	0.2	133	0.2	143	0.2	159	0.2
Papua New Guinea	132	0.2	133	0.2	135	0.2	148	0.2	156	0.2
Sudan	57	0.1	65	0.1	69	0.1	117	0.1	154	0.2
North Korea	140	0.2	102	0.1	151	0.2	206	0.2	153	0.2
Poland	104	0.1	92	0.1	106	0.1	116	0.1	130	0.2
Laos	136	0.2	118	0.1	128	0.2	114	0.1	124	0.1
France	113	0.1	99	0.1	109	0.1	96	0.1	119	0.1
Singapore	104	0.1	119	0.1	117	0.1	129	0.2	119	0.1
Russian Federation	56	0.1	63	0.1	105	0.1	106	0.1	115	0.1
Italy	191	0.2	139	0.2	70	0.1	106	0.1	107	0.1
Other/Not stated	2524	2.9	2400	2.8	2571	3.0	2659	3.1	2837	3.4
TOTAL	86460	100.0	84379	100.0	84587	100.0	85032	100.0	84288	100.0

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

Countries of birth for which 100 or more mothers gave birth in 2004.

Maternal Aboriginality

The reported number of Aboriginal or Torres Strait Islander mothers giving birth increased from 2,105 in 2000 to 2,308

in 2004, an increase from 2.4 to 2.7 per cent of all mothers (Table 5). Further information on maternal Aboriginality and reporting of Aboriginality is shown in Chapter 6.

TABLE 5

MATERNAL ABORIGINALITY, NSW 2000–2004

Aboriginality	2000		2001		Year 2002		2003		2004	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander	2105	2.4	2110	2.5	2155	2.5	2161	2.5	2308	2.7
Non-Aboriginal or Torres Strait Islander	84306	97.5	82223	97.4	82383	97.4	82831	97.4	81948	97.2
Not stated	49	0.1	46	0.1	49	0.1	40	0.0	32	0.0
TOTAL	86460	100.0	84379	100.0	84587	100.0	85032	100.0	84288	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 57 per cent. Less than 2 per cent of mothers have previously given birth 5 times or more.

TABLE 6

PREVIOUS PREGNANCIES, NSW 2000–2004

Number of previous pregnancies (>20 weeks gestation)	2000		2001		Year 2002		2003		2004	
	No.	%	No.	%	No.	%	No.	%	No.	%
0	35953	41.6	35153	41.7	35035	41.4	35879	42.2	35796	42.5
1–4	49146	56.8	47850	56.7	48169	56.9	47847	56.3	47136	55.9
5+	1331	1.5	1329	1.6	1290	1.5	1258	1.5	1312	1.6
Not stated	30	0.0	47	0.1	93	0.1	48	0.1	44	0.1
TOTAL	86460	100.0	84379	100.0	84587	100.0	85032	100.0	84288	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 2000, the proportion of mothers starting antenatal care at 20-plus weeks gestation has been stable at 12–13 per cent (Table 7).

TABLE 7

DURATION OF PREGNANCY AT FIRST ANTENATAL VISIT, NSW 2000–2004

Duration of pregnancy (weeks)	2000		2001		Year 2002		2003		2004	
	No.	%	No.	%	No.	%	No.	%	No.	%
0–19	74803	86.5	72704	86.2	73116	86.4	73615	86.6	73775	87.5
20–plus	10748	12.4	10878	12.9	10614	12.5	10929	12.9	9934	11.8
Not stated	909	1.1	797	0.9	857	1.0	488	0.6	579	0.7
TOTAL	86460	100.0	84379	100.0	84587	100.0	85032	100.0	84288	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 2000 and 2004: in 2000, 15,001 (17.4 per cent) mothers reported smoking in pregnancy, compared to 14,424 (17.1 per cent) in 2001, 13,829 (16.3 per cent) in 2002, 12,875 (15.1 per cent) in 2003, and 12,472 (14.8 per cent) in 2004.

Of mothers who smoked during pregnancy in 2004, 3.9 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 2000–2004

Cigarettes smoked in the second half of pregnancy	2000		2001		Year 2002		2003		2004	
	No.	%	No.	%	No.	%	No.	%	No.	%
None	622	4.1	576	4.0	556	4.0	427	3.3	485	3.9
More than 10 per day	7005	46.7	6725	46.6	6347	45.9	5680	44.1	5378	43.1
1–10 per day	7092	47.3	6834	47.4	6639	48.0	6451	50.1	6303	50.5
Smoked, amount not stated	282	1.9	289	2.0	279	2.0	317	2.5	297	2.4
Not stated	0	0.0	0	0.0	8	0.1	0	0.0	9	0.1
TOTAL	15001	100.0	14424	100.0	13829	100.0	12875	100.0	12472	100.0

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

Place of birth

In 2004, the majority of mothers planned to give birth in a hospital labour ward, and 3.7 per cent of mothers planned to give birth in a birth centre (Table 9). About two-thirds of mothers who planned to give birth in a birth centre actually did so. The total number of reported planned homebirths declined from 146 in 2000 to 114 in 2004, while the reported number of planned homebirths that occurred at home fell from 108 in 2000 to 93 in 2004.

TABLE 9

MATERNAL PLACE OF BIRTH, NSW 2000–2004

Place of birth	2000		2001		Year 2002		2003		2004	
	No.	%	No.	%	No.	%	No.	%	No.	%
Hospital	82782	95.7	80984	96.0	81230	96.0	81441	95.8	80701	95.7
Birth centre	2205	2.6	2038	2.4	2030	2.4	2075	2.4	2003	2.4
Planned birth centre– hospital admission	959	1.1	822	1.0	881	1.0	1029	1.2	1126	1.3
Planned homebirth	108	0.1	144	0.2	99	0.1	109	0.1	93	0.1
Planned homebirth– hospital admission	38	0.0	38	0.0	31	0.0	23	0.0	21	0.0
Born before arrival	366	0.4	353	0.4	316	0.4	355	0.4	344	0.4
Not stated	2	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	86460	100.0	84379	100.0	84587	100.0	85032	100.0	84288	100.0

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

Hypertension and diabetes

In 2004, pre-eclampsia was reported in 5.5 per cent of mothers, a slight fall from 7.0 per cent in 2000. Essential hypertension was reported in about one per cent of mothers, a rate that has not changed substantially over the last 5 years (Table 10).

In 2004, gestational diabetes was reported in 4.3 per cent of mothers, rising from 3.9 per cent reported in 2000, while rates of diabetes mellitus have remained stable at about 0.5 per cent over the 5-year period.

TABLE 10

MATERNAL HYPERTENSION OR DIABETES, NSW 2000–2004

Condition	2000		2001		Year 2002		2003		2004	
	No.	%	No.	%	No.	%	No.	%	No.	%
Diabetes mellitus	392	0.5	404	0.5	462	0.5	505	0.6	464	0.6
Gestational diabetes	3386	3.9	3213	3.8	3693	4.4	3792	4.5	3592	4.3
Essential hypertension	858	1.0	823	1.0	940	1.1	879	1.0	940	1.1
Pre-eclampsia	6082	7.0	5360	6.4	4839	5.7	4645	5.5	4606	5.5
TOTAL	86460	100.0	84379	100.0	84587	100.0	85032	100.0	84288	100.0

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

Labour

The rate of spontaneous onset of labour fell from 64.9 per cent in 2000 to 60.3 per cent in 2004 (Table 11). Nine per cent of labours were augmented with oxytocics or prostaglandins in 2004. The rate of induction of labour was 24.4 per cent in 2004, similar to previous years. The

most common reported reason for induction of labour in 2004 was prolonged pregnancy (41 or more weeks) (32.4 per cent), followed by hypertensive disease (11.9 per cent), prelabour rupture of membranes (10.6 per cent), suspected intrauterine growth retardation (3.9 per cent), diabetes (3.8 per cent) and fetal death (1.1 per cent).

TABLE 11

ONSET AND AUGMENTATION OF LABOUR, NSW 2000–2004

Onset of labour	2000		2001		Year 2002		2003		2004	
	No.	%	No.	%	No.	%	No.	%	No.	%
Spontaneous	40042	46.3	37492	44.4	37615	44.5	38110	44.8	37137	44.1
Spontaneous augmented with ARM	7014	8.1	6684	7.9	6422	7.6	5992	7.0	6090	7.2
Spontaneous augmented with oxytocics–prostaglandins	9050	10.5	8297	9.8	7644	9.0	7258	8.5	7580	9.0
No labour	9926	11.5	10986	13.0	11720	13.9	12820	15.1	12930	15.3
Induced–oxytocics–prostaglandins	7493	8.7	7422	8.8	7414	8.8	7265	8.5	7049	8.4
Induced–ARM only	1196	1.4	1181	1.4	1193	1.4	1331	1.6	1267	1.5
Induced–ARM+oxytocics–prostaglandins	11516	13.3	12033	14.3	12262	14.5	11965	14.1	11912	14.1
Induced–other#	215	0.2	277	0.3	305	0.4	289	0.3	322	0.4
Not stated	8	0.0	7	0.0	12	0.0	2	0.0	1	0.0
TOTAL	86460	100.0	84379	100.0	84587	100.0	85032	100.0	84288	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 at Foley's catheter.

Delivery

Among NSW mothers, the rate of normal vaginal birth decreased from 67.1 per cent in 2000 to 62.1 per cent in 2004 (Table 12). The caesarean section rate increased from 21.3 to 27.2 per cent. The rate of instrumental delivery remained steady at 10 to 11 per cent, accompanied by a change in the pattern of instrumental delivery: the rate of vacuum extraction rose from 6.2 to 7.0 per cent and the rate of forceps delivery declined from 4.5 to 3.3 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 57.6 in 1999 to 50.8 per cent in 2003 and the caesarean section rate increased from 26.3 to 34.7 per cent. Among publicly insured mothers the rate of normal vaginal birth fell from 72.8 to 68.7 per cent and the caesarean section rate rose from 17.1 to 22.5 per cent.

TABLE 12

TYPE OF DELIVERY, NSW 2000–2004

Type of delivery	2000		2001		Year 2002		2003		2004	
	No.	%	No.	%	No.	%	No.	%	No.	%
Normal vaginal	58049	67.1	55206	65.4	54271	64.2	53424	62.8	52366	62.1
Forceps	3904	4.5	3398	4.0	3034	3.6	2875	3.4	2762	3.3
Vacuum extraction	5367	6.2	5499	6.5	5855	6.9	5788	6.8	5902	7.0
Vaginal breech	669	0.8	383	0.5	353	0.4	371	0.4	347	0.4
Elective caesarean section	9926	11.5	10986	13.0	11720	13.9	12820	15.1	12930	15.3
Emergency caesarean section [#]	8530	9.9	8894	10.5	9335	11.0	9744	11.5	9974	11.8
Not stated	15	0.0	13	0.0	19	0.0	10	0.0	7	0.0
TOTAL	86460	100.0	84379	100.0	84587	100.0	85032	100.0	84288	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 DELIVERY, NSW 1999–2003

Insurance status– type of delivery	1999		2000		Year 2001		2002		2003	
	No.	%	No.	%	No.	%	No.	%	No.	%
Public										
Normal vaginal	44683	72.8	43462	71.8	39541	71.3	38228	70.4	38976	68.7
Forceps	2437	4.0	2191	3.6	1673	3.0	1430	2.6	1464	2.6
Vacuum extraction	3173	5.2	3100	5.1	2868	5.2	2995	5.5	3205	5.7
Vaginal breech	601	1.0	505	0.8	286	0.5	253	0.5	283	0.5
Elective caesarean section	5242	8.5	5594	9.2	5658	10.2	5854	10.8	6630	11.7
Emergency caesarean section [#]	5263	8.6	5627	9.3	5438	9.8	5512	10.2	6143	10.8
Not stated	0	0.0	12	0.0	3	0.0	7	0.0	0	0.0
TOTAL	61399	100.0	60491	100.0	55467	100.0	54279	100.0	56701	100.0
Private										
Normal vaginal	13674	57.6	13652	55.5	14715	53.6	15261	52.4	14172	50.8
Forceps	1728	7.3	1669	6.8	1684	6.1	1578	5.4	1405	5.0
Vacuum extraction	1953	8.2	2199	8.9	2558	9.3	2801	9.6	2570	9.2
Vaginal breech	134	0.6	135	0.5	76	0.3	82	0.3	70	0.3
Elective caesarean section	3810	16.0	4159	16.9	5114	18.6	5689	19.5	6128	21.9
Emergency caesarean section [#]	2443	10.3	2762	11.2	3300	12.0	3683	12.7	3565	12.8
Not stated	0	0.0	3	0.0	10	0.0	12	0.0	10	0.0
TOTAL^{##}	23742	100.0	24579	100.0	27457	100.0	29106	100.0	27920	100.0
TOTAL^{##}										
Normal vaginal	58951	68.6	58049	67.1	55206	65.4	54271	64.2	53424	62.8
Forceps	4190	4.9	3904	4.5	3398	4.0	3034	3.6	2875	3.4
Vacuum extraction	5152	6.0	5367	6.2	5499	6.5	5855	6.9	5788	6.8
Vaginal breech	762	0.9	669	0.8	383	0.5	353	0.4	371	0.4
Elective caesarean section	9147	10.6	9926	11.5	10986	13.0	11720	13.9	12820	15.1
Emergency caesarean section [#]	9.0	8530	9.9	8894	10.5	9335	11.0	9744	11.5	
Not stated	0	0.0	15	0.0	13	0.0	19	0.0	10	0.0
TOTAL	85967	100.0	86460	100.0	84379	100.0	84587	100.0	85032	100.0

Source: Linked data of the NSW Midwives Data Collection and NSW Inpatient Statistics 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 confinements where type of health insurance was not stated.

Pain relief

There has been a trend towards increased use of spinal anaesthetics, from 6.1 per cent in 2000 to 14.6 per cent in 2004. The proportion of mothers having no pain relief during labour or delivery decreased from 12.2 per cent in 2000 to 10.2 per cent in 2004 (Table 14). In 2004, 45.7 per cent of mothers used nitrous oxide for pain relief, 27.9 per cent had an epidural anaesthetic, and 22.1 per cent received intramuscular narcotics.

TABLE 14

MATERNAL PAIN RELIEF, NSW 2000–2004

Type of pain relief [#]	2000		2001		Year 2002		2003		2004	
	No.	%	No.	%	No.	%	No.	%	No.	%
Epidural	25728	29.8	24572	29.1	23543	27.8	23569	27.7	23487	27.9
General anaesthetic	4753	5.5	4866	5.8	4811	5.7	4636	5.5	4213	5.0
IM Narcotics	22654	26.2	21451	25.4	21038	24.9	21083	24.8	18587	22.1
Nitrous Oxide	42303	48.9	40964	48.5	40729	48.2	39504	46.5	38518	45.7
Spinal	5248	6.1	6677	7.9	8672	10.3	10698	12.6	12336	14.6
Nil	10518	12.2	9674	11.5	9163	10.8	8896	10.5	8584	10.2
TOTAL CONFINEMENTS	86460	100.0	84379	100.0	84587	100.0	85032	100.0	84288	100.0

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.
More than one type of pain relief may be used.

Baby sex

There were no significant changes in the pattern of baby sex since 2000, with slightly more male babies born than females in each year. In 2004, 44,202 (51.6 per cent) of babies were male, 41,390 (48.3 per cent) were female, 19 were of indeterminate sex, and sex was not reported for 15 babies. This compares with babies born in 2000, when 45,346 (51.6 per cent) of 87,922 babies were male, 42,539 (48.4 per cent) were female, 15 were of indeterminate sex, and sex was not reported for 22 babies.

Gestational age

In 2004, 7.3 per cent of babies were born prematurely (less than 37 weeks gestation), the same rate as for 2000 (Table 15). 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 15

BIRTHS BY GESTATIONAL AGE, NSW 2000–2004

Gestational age (weeks)	2000		Year 2001		2002		2003		2004	
	No.	%	No.	%	No.	%	No.	%	No.	%
<20	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0
20–27	623	0.7	628	0.7	594	0.7	585	0.7	605	0.7
28–31	663	0.8	667	0.8	612	0.7	639	0.7	667	0.8
32–36	5114	5.8	4890	5.7	4865	5.7	4810	5.6	4975	5.8
37–41	79368	90.3	77566	90.3	77865	90.5	78241	90.5	77614	90.6
42+	2148	2.4	2093	2.4	2047	2.4	2128	2.5	1761	2.1
Not stated	6	0.0	14	0.0	21	0.0	10	0.0	4	0.0
TOTAL	87922	100.0	85858	100.0	86005	100.0	86414	100.0	85626	100.0

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

Birth weight

Since 2000, the rate of low birth weight (less than 2,500 grams) has been about just over 6 per cent (Table 16). The rate was 6.4 per cent in 2004.

TABLE 16

BIRTHS BY BIRTH WEIGHT, NSW 2000–2004

Birth weight (grams)	2000		2001		Year 2002		2003		2004	
	No.	%	No.	%	No.	%	No.	%	No.	%
Less than 500	228	0.3	243	0.3	212	0.2	223	0.3	214	0.2
500–999	425	0.5	416	0.5	399	0.5	393	0.5	395	0.5
1000–1499	546	0.6	526	0.6	469	0.5	497	0.6	558	0.7
1500–1999	1079	1.2	1043	1.2	1083	1.3	1049	1.2	1059	1.2
2000–2499	3383	3.8	3283	3.8	3344	3.9	3221	3.7	3231	3.8
2500–2999	12819	14.6	12783	14.9	12838	14.9	12877	14.9	12797	14.9
3000–3499	30647	34.9	30312	35.3	30504	35.5	30803	35.6	30238	35.3
3500–3999	27483	31.3	26542	30.9	26676	31.0	26982	31.2	26570	31.0
4000–4499	9454	10.8	9060	10.6	8921	10.4	8810	10.2	8931	10.4
4500+	1811	2.1	1607	1.9	1509	1.8	1507	1.7	1584	1.8
Not stated	47	0.1	43	0.1	50	0.1	52	0.1	49	0.1
TOTAL	87922	100.0	85858	100.0	86005	100.0	86414	100.0	85626	100.0

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

Apgar score

In 2004, 2.1 per cent of babies were born with an Apgar score of less than 7 at 5 minutes and 1.0 per cent were born with a score less than 4 (Table 17). These rates are similar to those of previous years.

TABLE 17

BIRTHS BY APGAR SCORE AT 5 MINUTES, NSW 2000–2004*

Apgar score	2000		2001		Year 2002		2003		2004	
	No.	%	No.	%	No.	%	No.	%	No.	%
0–4	1043	1.2	922	1.1	902	1.0	899	1.0	921	1.1
5–6	956	1.1	938	1.1	893	1.0	865	1.0	844	1.0
7+	85756	97.5	83797	97.6	84033	97.7	84473	97.8	83653	97.7
Not stated	167	0.2	201	0.2	177	0.2	177	0.2	208	0.2
TOTAL	87922	100.0	85858	100.0	86005	100.0	86414	100.0	85626	100.0

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

* Includes stillbirths and live births.

Special care and neonatal intensive care

In 2004, 14.6 per cent of babies were admitted to special care units and 2.8 per cent were admitted to neonatal intensive care units (Table 18). Between 2000 and 2004, the percentage of babies reported as being admitted to neonatal intensive care increased slightly while the percentage of babies reported as being admitted to special care decreased. The overall percentage of babies admitted to either type of care was 17.4 per cent in 2004 compared to 18.1 per cent in 2000.

TABLE 18

BIRTHS BY ADMISSION TO SPECIAL CARE OR NEONATAL INTENSIVE CARE UNITS, NSW 2000–2004

Unit of admission	Year									
	2000		2001		2002		2003		2004	
	No.	%	No.	%	No.	%	No.	%	No.	%
Special care unit	13842	15.7	12900	15.0	12740	14.8	12926	15.0	12469	14.6
Neonatal intensive care unit	2147	2.4	2190	2.6	2196	2.6	2277	2.6	2416	2.8
TOTAL	87922	100.0	85858	100.0	86005	100.0	86414	100.0	85626	100.0

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

Perinatal outcome

In the period 2000–2004 the perinatal mortality rate varied from 8.6 to 9.6 per 1,000 (Table 19). In 2004, 72.6 per cent of all reported perinatal deaths were stillbirths and 27.4 per cent were neonatal deaths.

In 2004, of the 773 perinatal deaths in NSW, 751 (97.2 per cent) were reported among planned hospital births, 10 (1.3 per cent) among planned birth centre births, none occurred among planned home births, and 12 were among babies born before arrival at hospital.

TABLE 19

BIRTHS BY PERINATAL OUTCOME, NSW 2000–2004*

Year	Liveborn surviving		Stillborn		Perinatal Outcome Neonatal death		Not stated		Total births		Perinatal mortality rate/1,000 births
	No.	%	No.	%	No.	%	No.	%	No.	%	
2000	87076	99.0	595	0.7	247	0.3	4	0.0	87922	100.0	9.6
2001	85069	99.1	538	0.6	245	0.3	6	0.0	85858	100.0	9.1
2002	85222	99.1	515	0.6	233	0.3	35	0.0	86005	100.0	8.7
2003	85669	99.1	523	0.6	221	0.3	1	0.0	86414	100.0	8.6
2004	84849	99.1	561	0.7	212	0.2	4	0.0	85626	100.0	9.0

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 1990–2003, 149 deaths were reported among pregnant women or women who gave birth less than 6 weeks previously. Of these, 48 (32.2 per cent) died of incidental causes not related to the pregnancy or its management; 66 (44.3 per cent) deaths were found to be directly due to pregnancy or its management; 34 (22.8

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; and there was one death for which the cause was not determined (Table 20). Table 21 shows maternal deaths by cause in NSW for 2002 and 2003.

TABLE 20

MATERNAL DEATHS BY YEAR, NSW 1990–2003[#]

Year	Direct		Indirect		Classification Total Direct & 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	13.9
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

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 preexisting 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.

TABLE 21

MATERNAL DEATHS BY CAUSE, NSW 2002–2003[#]

Year–Classification	Cause	No.
2002		
Direct	<i>E. coli</i> septicaemia	1
Direct	Amniotic fluid embolism	1
Indirect	Pancytopenia	1
Indirect	Status asthmaticus	1
Incidental	Malaria	1
TOTAL		5
2003		
Direct	Amniotic fluid embolism	1
Indirect	Intrathoracic haemorrhage due to aortic dissection	1
Indirect	Haemorrhage from placenta praevia	1
Indirect	Idiopathic pulmonary haemosiderosis	1
Incidental	Blood loss–hypovolaemia	1
Incidental	Subdural empyema and left temporal lobe abscess	1
Incidental	Motor vehicle trauma	1
TOTAL		7

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 preexisting 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.

References

1. Slaytor EK, Sullivan EA, King JF. *Maternal deaths in Australia 1997–1999*. AIHW Catalogue no. PER 24. Sydney: AIHW National Perinatal Statistics Unit, 2004.