4. TRENDS IN NEW SOUTH WALES

Confinements and births by plurality

There were 86,414 births to 85,032 women reported in 2003 (Table 1). Over the last five years the number of births has ranged from about 86,000 to 88,000. Between 1999 and 2003, the number of twin pregnancies remained fairly stable while the number of triplet pregnancies has declined by about one quarter.

Plurality	1	999	2	2000		Year 2001		2002	2003	
	No.			%	No. %		No. %		No.	%
Confinements										
Singleton	84676	98.5	85027	98.3	82926	98.3	83190	98.3	83677	98.4
Twins	1261	1.5	1404	1.6	1428	1.7	1375	1.6	1330	1.6
Triplets	30	0.0	29	0.0	24	0.0	22	0.0	23	0.0
Quadruplets	0	0.0	0	0.0	1	0.0	0	0.0	2	0.0
Total	85967	100.0	86460	100.0	84379	100.0	84587	100.0	85032	100.0
Births										
Singleton	84676	97.0	85027	96.7	82926	96.6	83190	96.7	83677	96.8
Twins	2523	2.9	2808	3.2	2856	3.3	2749	3.2	2660	3.1
Triplets	90	0.1	87	0.1	72	0.1	66	0.1	69	0.1
Quadruplets	0	0.0	0	0.0	4	0.0	0	0.0	8	0.0
Total	87289	100.0	87922	100.0	85858	100.0	86005	100.0	86414	100.0

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

Health area of residence

In 2003, the largest number of births occurred in the Sydney South West Area, followed by Sydney West and South Eastern Sydney & Illawarra Areas (Table 2). Over the period 1999 to 2003, there has been a slight decrease in the numbers of births reported in the Hunter & New England, North Coast, and Greater Southern Areas. There has been little change in the number of births reported annually for other health areas.

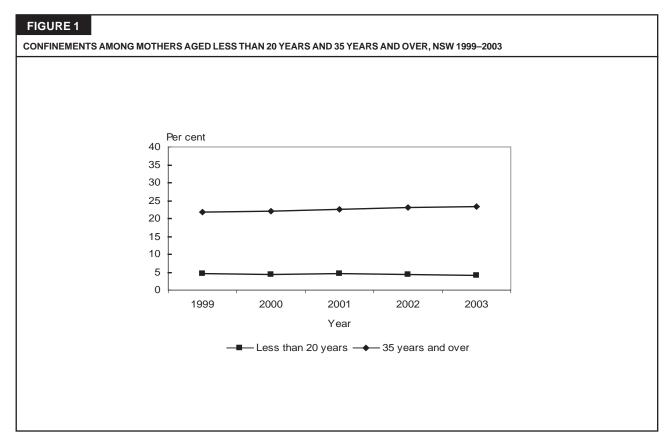
Health Area	1	999	2	2000	Year 2001		2002		2003	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney South West Northern Sydney &	18844	21.9	19316	22.3	18775	22.3	19105	22.6	19485	22.9
Central Coast	12907	15.0	13204	15.3	12856	15.2	12818	15.2	13142	15.5
Sydney West	15822	18.4	15967	18.5	15763	18.7	15883	18.8	15942	18.7
Hunter & New England	10168	11.8	10105	11.7	9753	11.6	10004	11.8	9694	11.4
South Eastern Sydney 8	t .									
Illawarra	13841	16.1	14104	16.3	13589	16.1	13699	16.2	13898	16.3
North Coast	4954	5.8	4709	5.4	4762	5.6	4656	5.5	4587	5.4
Greater Western	4167	4.8	4135	4.8	4110	4.9	3855	4.6	3898	4.6
Greater Southern	4448	5.2	4283	5.0	4209	5.0	3969	4.7	3834	4.5
Other/Not stated	816	0.9	637	0.7	562	0.7	598	0.7	552	0.6
TOTAL	85967	100.0	86460	100.0	84379	100.0	84587	100.0	85032	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 4,099 in 1999 to 3,386 in 2003, a fall from 4.8 to 4.0 per cent of all confinements; while the number of mothers 35 years of age or over increased from 14,668 in 1999 to 16,447 in 2003, an increase from 17.1 to 19.3 per cent of all confinements (Figure 1, Table 3). The mean maternal age rose from 29.6 to 30.2 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 10.4 to 12.3 per cent over the 5-year period, and the proportion of multiparous mothers who were aged 35 years or more increased from 21.7 to 24.5 per cent. The mean maternal age rose from 27.9 to 28.5 years for primiparous mothers and from 30.8 to 31.4 years for multiparous mothers.



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

TABLE 3										
CONFINEMENTS BY MATI	ERNAL AGE, NSW 19	99–2003								
Maternal age						Year				
(years)	No.	1999 %	No.	2000 %	No.	2001 %	No.	2 002 %	No.	2003 %
	140.	70	140.	70	140.	70	140.	70	140.	/0
Under 15	27	0.0	31	0.0	19	0.0	28	0.0	23	0.0
15–19	4072	4.7	3822	4.4	3778	4.5	3624	4.3	3363	4.0
20–24	13790	16.0	13316	15.4	13036	15.4	12674	15.0	12529	14.7
25–29	27678	32.2	27293	31.6	25528	30.3	24523	29.0	24138	28.4
30–34	25703	29.9	26640	30.8	26707	31.7	27810	32.9	28522	33.5
35–39	12372	14.4	12894	14.9	12640	15.0	13107	15.5	13582	16.0
40–44	2199	2.6	2342	2.7	2488	2.9	2645	3.1	2752	3.2
45+	97	0.1	98	0.1	122	0.1	120	0.1	113	0.1
Not stated	29	0.0	24	0.0	61	0.1	56	0.1	10	0.0
TOTAL	85967	100.0	86460	100.0	84379	100.0	84587	100.0	85032	100.0

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

Maternal country of birth

In the period 1999–2003, about 73 per cent of confinements were to mothers who were born in Australia. In 2003, mothers born in the United Kingdom, New Zealand, Vietnam, Lebanon and China together accounted for 11.3 per cent of all confinements (Table 4). Further information on maternal country of birth is shown in Chapter 7.

TABLE 4

CONFINEMENTS BY MATERNAL COUNTRY OF BIRTH, NSW 1999–2003**

Country of birth						ear				
	-	999		2000		001		2002		2003
	No.	%								
Australia	62555	72.8	62368	72.1	61655	73.1	61631	72.9	61430	72.2
United Kingdom	2627	3.1	2557	3.0	2331	2.8	2344	2.8	2368	2.8
New Zealand	1966	2.3	1962	2.3	2009	2.4	1998	2.4	2121	2.5
Vietnam	1804	2.1	2053	2.4	1691	2.0	1773	2.1	1863	2.2
Lebanon	1788	2.1	1766	2.0	1667	2.0	1663	2.0	1696	2.0
China	2015	2.3	2163	2.5	1791	2.1	1830	2.2	1586	1.9
Philippines	1319	1.5	1315	1.5	1243	1.5	1156	1.4	1192	1.4
India	635	0.7	643	0.7	612	0.7	747	0.9	810	1.0
Fiji	604	0.7	688	0.8	652	0.8	655	0.8	691	0.8
Iraq	414	0.5	455	0.5	577	0.7	545	0.6	648	0.8
Former Yugoslavia	662	0.8	627	0.7	607	0.7	531	0.6	571	0.7
Indonesia	460	0.5	566	0.7	494	0.6	494	0.6	489	0.6
South Africa	386	0.4	387	0.4	450	0.5	486	0.6	486	0.6
United States of America	372	0.4	377	0.4	332	0.4	346	0.4	355	0.4
Ireland	287	0.3	273	0.3	291	0.3	267	0.3	333	0.4
South Korea	370	0.4	426	0.5	358	0.4	301	0.4	328	0.4
Western Samoa	318	0.4	320	0.4	319	0.4	310	0.4	303	0.4
Hong Kong	409	0.5	357	0.4	332	0.4	307	0.4	301	0.4
Sri Lanka	295	0.3	304	0.4	291	0.3	324	0.4	299	0.4
Cambodia	303	0.4	326	0.4	285	0.3	279	0.3	295	0.3
Japan	264	0.3	252	0.3	293	0.3	283	0.3	293	0.3
Malaysia	286	0.3	319	0.4	251	0.3	262	0.3	271	0.3
Turkey	314	0.4	335	0.4	317	0.4	266	0.3	265	0.3
Pakistan	192	0.2	224	0.3	276	0.3	266	0.3	260	0.3
Thailand	207	0.2	199	0.2	221	0.3	268	0.3	253	0.3
Germany	226	0.3	204	0.2	192	0.2	188	0.2	237	0.3
Canada	185	0.2	177	0.2	203	0.2	192	0.2	225	0.3
Tonga	308	0.4	296	0.3	278	0.3	271	0.3	219	0.3
North Korea	90	0.1	140	0.2	102	0.1	151	0.2	206	0.2
Bangladesh	134	0.2	179	0.2	183	0.2	212	0.3	198	0.2
Iran	140	0.2	153	0.2	169	0.2	137	0.2	192	0.2
Chile	224	0.3	202	0.2	206	0.2	250	0.3	187	0.2
Egypt	218	0.3	196	0.2	176	0.2	160	0.2	173	0.2
Syria	145	0.2	138	0.2	150	0.2	151	0.2	154	0.2
Papua New Guinea	136	0.2	132	0.2	133	0.2	135	0.2	148	0.2
Afghanistan	120	0.1	96	0.1	147	0.2	133	0.2	143	0.2
Singapore	101	0.1	104	0.1	119	0.1	117	0.1	129	0.2
Sudan	51	0.1	57	0.1	65	0.1	69	0.1	117	0.1
Poland	123	0.1	104	0.1	92	0.1	106	0.1	116	0.1
Laos	118	0.1	136	0.2	118	0.1	128	0.2	114	0.1
Italy	221	0.3	191	0.2	139	0.2	70	0.1	106	0.1
Russian Federation	33	0.0	56	0.1	63	0.1	105	0.1	106	0.1
Argentina	87	0.1	89	0.1	89	0.1	81	0.1	106	0.1
Other/Not stated	2455	2.9	2548	2.9	2410	2.9	2599	3.1	2649	3.1
TOTAL	85967	100.0	86460	100.0	84379	100.0	84587	100.0	85032	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 2003.

Maternal Aboriginality

The reported number of Aboriginal or Torres Strait Islander mothers giving birth increased marginally from 2,059 in 1999 (2.4 per cent of all mothers) to 2,161 in

2003 (2.5 per cent of all mothers) (Table 5). Further information on maternal Aboriginality and reporting of Aborginality is shown in Chapter 6.

CONFINEMENTS BY MA	TERNAL AE	BORIGINAL	ITY, NSW 19	99–2003						
Aboriginality	1	999	2	2000		ear 001	2	002		2003
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres										
Strait Islander Non-Aboriginal or	2059	2.4	2105	2.4	2110	2.5	2155	2.5	2161	2.5
Torres Strait Islander	83899	97.6	84306	97.5	82223	97.4	82383	97.4	82831	97.4
Not stated	9	0.0	49	0.1	46	0.1	49	0.1	40	0.0
TOTAL	85967	100.0	86460	100.0	84379	100.0	84587	100.0	85032	100.0

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

Number of 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 57 per cent. Less than 2 per cent of mothers have previously given birth 5 times or more.

Number of previous pregnancies	1	999	2	2000		ear 101	2	002		2003
(>20 weeks gestation)	No.	%	No.	%	No.	%	No.	%	No.	%
0	35311	41.1	35953	41.6	35153	41.7	35035	41.4	35879	42.2
1–4	49432	57.5	49146	56.8	47850	56.7	48169	56.9	47847	56.3
5+	1206	1.4	1331	1.5	1329	1.6	1290	1.5	1258	1.5
Not stated	18	0.0	30	0.0	47	0.1	93	0.1	48	0.1
TOTAL	85967	100.0	86460	100.0	84379	100.0	84587	100.0	85032	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 1999, the proportion of mothers starting antenatal care at 20-plus weeks gestation has been stable at 12–13 per cent (Table 7).

TABLE 7 CONFINEMENTS BY DURATE	ION OF PREGNAN	CY AT FIRS	T ANTENAT	AL VISIT, NS	W 1999–200	03				
Duration of pregnancy (weeks)	1	999		2000		/ear 2001	2	2002		2003
	No.	%	No.	%	No.	%	No.	%	No.	%
0–19	74077	86.2	74803	86.5	72704	86.2	73116	86.4	73615	86.6
20-plus Not stated	10979 911	12.8 1.1	10748 909	12.4 1.1	10878 797	12.9 0.9	10614 857	12.5 1.0	10929 488	12.9 0.6
TOTAL	85967	100.0	86460	100.0	84379	100.0	84587	100.0	85032	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 1999 and 2003: in 1999, 16,302 (19.0 per cent) mothers reported smoking in pregnancy, compared to 15,001 (17.4 per cent) in 2000, 14,424 (17.1 per cent) in 2001, 13,829 (16.3 per cent) in 2002 and 12,875 (15.1 per cent) in 2003.

Of mothers who smoked during pregnancy in 2003, 3.3 per cent stopped smoking before the second half of pregnancy. Over the five 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 1999–2003

Cigarettes smoked in the second half of pregnancy		999				Year 2001		2002		2003
second half of pregnancy	No.	%	No.	%	No.	%	No.	%	No.	2003 %
None	739	4.5	622	4.1	576	4.0	556	4.0	427	3.3
1-10 per day	7303	44.8	7092	47.3	6834	47.4	6639	48.0	6451	50.1
More than ten per day	7966	48.9	7005	46.7	6725	46.6	6347	45.9	5680	44.1
Smoked, amount not stated	294	1.8	282	1.9	289	2.0	279	2.0	317	2.5
Not stated	0	0.0	0	0.0	0	0.0	8	0.1	0	0.0
TOTAL	16302	100.0	15001	100.0	14424	100.0	13829	100.0	12875	100.0

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

Place of birth

In 2003, 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 number of reported planned homebirths declined from 182 in 1999 to 132 in 2003.

TΔ	RI	E	q

CONFINEMENTS BY PLACE OF BIRTH, NSW 1999-2003

Place of birth					Y	ear					
	1	999	2	2000	20	001	2	002		2003	
	No.	%									
Hospital	82103	95.5	82782	95.7	80984	96.0	81230	96.0	81441	95.8	
Birth centre	2249	2.6	2205	2.6	2038	2.4	2030	2.4	2075	2.4	
Planned birth centre/											
hospital admission	1070	1.2	959	1.1	822	1.0	881	1.0	1029	1.2	
Planned homebirth	139	0.2	108	0.1	144	0.2	99	0.1	109	0.1	
Planned homebirth/											
hospital admission	43	0.1	38	0.0	38	0.0	31	0.0	23	0.0	
Born before arrival	363	0.4	366	0.4	353	0.4	316	0.4	355	0.4	
Not stated	0	0.0	2	0.0	0	0.0	0	0.0	0	0.0	
TOTAL	85967	100.0	86460	100.0	84379	100.0	84587	100.0	85032	100.0	

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

Hypertension and diabetes

In 2003, pre-eclampsia was reported in 5.5 per cent of mothers, a slight fall from 7.2 per cent in 1999. Essential hypertension was reported in about 1 per cent of mothers, a rate that has not changed substantially over the last five years (Table 10).

In 2003, gestational diabetes was reported in 4.5 per cent of mothers, rising from 3.8 per cent reported in 1999, while rates of diabetes mellitus have remained stable at about 0.5 per cent over the five-year period.

TABLE 10

CONFINEMENTS BY PRESENCE OF HYPERTENSION OR DIABETES, NSW 1999-2003

Condition					Y	ear					
	1	999	2	2000	20	001	2	2002		2003	
	No.	%									
Diabetes mellitus	363	0.4	392	0.5	404	0.5	462	0.5	505	0.6	
Gestational diabetes	3254	3.8	3386	3.9	3213	3.8	3693	4.4	3792	4.5	
Essential hypertension	816	0.9	858	1.0	823	1.0	940	1.1	879	1.0	
Pre-eclampsia	6194	7.2	6082	7.0	5360	6.4	4839	5.7	4645	5.5	
TOTAL CONFINEMENTS	85967	100.0	86460	100.0	84379	100.0	84587	100.0	85032	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 65.4 per cent in 1999 to 60.4 per cent in 2003 (Table 11). Nine per cent of labours were augmented with oxytocics or prostaglandins in 2003. The rate of induction of labour was 24.5 per cent in 2003, similar to previous years. The

most common reported reason for induction of labour in 2003 was prolonged pregnancy (41 or more weeks) (34.7 per cent), followed by hypertensive disease (11.1 per cent), prelabour rupture of membranes (10.7 per cent), suspected intrauterine growth retardation (4.0 per cent), diabetes (3.9 per cent) and fetal death (0.9 per cent).

TABLE 11

CONFINEMENTS BY ONSET AND AUGMENTATION OF LABOUR, NSW 1999-2003

Onset of labour	1	999	2	2000		ear 001	2	2002		2003	
	No.	%	No.	%	No.	%	No.	%	No.	%	
Spontaneous Spontaneous	39706	46.2	40042	46.3	37492	44.4	37615	44.5	38110	44.8	
augmented with ARM Spontaneous augmented with oxytocics-	7844	9.1	7014	8.1	6684	7.9	6422	7.6	5992	7.0	
prostaglandins	8657	10.1	9050	10.5	8297	9.8	7644	9.0	7258	8.5	
No labour Induced– oxytocics–	9147	10.6	9926	11.5	10986	13.0	11720	13.9	12820	15.1	
prostaglandins	7626	8.9	7493	8.7	7422	8.8	7414	8.8	7265	8.5	
Induced-ARM only Induced- ARM+oxytocics-	1305	1.5	1196	1.4	1181	1.4	1193	1.4	1331	1.6	
prostaglandins	11527	13.4	11516	13.3	12033	14.3	12262	14.5	11965	14.1	
Induced-other#	154	0.2	215	0.2	277	0.3	305	0.4	289	0.3	
Not stated	1	0.0	8	0.0	7	0.0	12	0.0	2	0.0	
TOTAL	85967	100.0	86460	100.0	84379	100.0	84587	100.0	85032	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 at Foley's catheter.

Delivery

The rate of normal vaginal birth decreased from 68.6 per cent in 1999 to 62.8 per cent in 2003 (Table 12). The caesarean section rate increased from 19.7 to 26.5 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 6.0 to 6.8 per cent and the rate of forceps delivery declined from 4.9 to 3.4 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 58.7 to 52.4 per cent and the caesarean section rate increased from 24.9 to 32.2 per cent. Among publicly insured mothers the rate of normal vaginal birth fell from 73.8 to 70.4 per cent and the caesarean section rate rose from 16.8 to 20.9 per cent.

TABLE 12

CONFINEMENTS BY TYPE OF DELIVERY, NSW 1999-2003

Type of delivery						ear				
	1	1999 2		000 2001			2	002	2003	
	No.	%	No.	%	No.	%	No.	%	No.	%
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#	7765	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: 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

CONFINEMENTS BY HEALTH INSURANCE STATUS AND TYPE OF DELIVERY, NSW 1998-2002

Insurance status-				Υ	'ear					
type of delivery	1	1998	1	999	2	2000	20	001	2	002
	No.	%								
Public										
Normal vaginal	43988	73.8	44683	72.8	43462	71.8	39541	71.3	38228	70.4
Forceps	2358	4.0	2437	4.0	2191	3.6	1673	3.0	1430	2.6
Vacuum extraction	2644	4.4	3173	5.2	3100	5.1	2868	5.2	2995	5.5
Vaginal breech	615	1.0	601	1.0	505	0.8	286	0.5	253	0.5
Elective caesarean section	5030	8.4	5242	8.5	5594	9.2	5658	10.2	5854	10.8
Emergency caesarean section#	4987	8.4	5263	8.6	5627	9.3	5438	9.8	5512	10.2
Not stated	13	0.0	0	0.0	12	0.0	3	0.0	7	0.0
TOTAL	59635	100.0	61399	100.0	60491	100.0	55467	100.0	54279	100.0
Private										
Normal vaginal	14304	58.7	13674	57.6	13652	55.5	14715	53.6	15261	52.4
Forceps	2077	8.5	1728	7.3	1669	6.8	1684	6.1	1578	5.4
Vacuum extraction	1767	7.2	1953	8.2	2199	8.9	2558	9.3	2801	9.6
Vaginal breech	158	0.6	134	0.6	135	0.5	76	0.3	82	0.3
Elective caesarean section	3695	15.2	3810	16.0	4159	16.9	5114	18.6	5689	19.5
Emergency caesarean section#	2365	9.7	2443	10.3	2762	11.2	3300	12.0	3683	12.7
Not stated	10	0.0	0	0.0	3	0.0	10	0.0	12	0.0
TOTAL	24376	100.0	23742	100.0	24579	100.0	27457	100.0	29106	100.0
TOTAL##										
Normal vaginal	59097	69.5	58951	68.6	58049	67.1	55206	65.4	54271	64.2
Forceps	4478	5.3	4190	4.9	3904	4.5	3398	4.0	3034	3.6
Vacuum extraction	4453	5.2	5152	6.0	5367	6.2	5499	6.5	5855	6.9
Vaginal breech	805	0.9	762	0.9	669	0.8	383	0.5	353	0.4
Elective caesarean section	8800	10.3	9147	10.6	9926	11.5	10986	13.0	11720	13.9
Emergency caesarean section#	7416	8.7	7765	9.0	8530	9.9	8894	10.5	9335	11.0
Not stated	23	0.0	0	0.0	15	0.0	13	0.0	19	0.0
TOTAL	85072	100.0	85967	100.0	86460	100.0	84379	100.0	84587	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 4.9 per cent in 1999 to 12.6 per cent in 2003. The proportion of mothers having no pain relief during labour or delivery decreased from 13.3 per cent in 1999 to 10.5 per cent in 2003 (Table 14). In 2003, almost one half (46.5 per cent) of all mothers used nitrous oxide for pain relief, 27.7 per cent had an epidural anaesthetic, and 24.8 per cent received intra-muscular narcotics.

TABLE 14	
CONFINEMENT	S BY TYPE OF PAIN RELIEF, NSW 1999–2003

Type of pain relief#					Y	ear				
	1	999	2	2000		2001		002	2003	
	No.	%								
Epidural	24289	28.3	25728	29.8	24572	29.1	23543	27.8	23569	27.7
General anaesthetic	4735	5.5	4753	5.5	4866	5.8	4811	5.7	4636	5.5
IM Narcotics	22800	26.5	22654	26.2	21451	25.4	21038	24.9	21083	24.8
Nitrous Oxide	42361	49.3	42303	48.9	40964	48.5	40729	48.2	39504	46.5
Spinal	4179	4.9	5248	6.1	6677	7.9	8672	10.3	10698	12.6
Nil	11468	13.3	10518	12.2	9674	11.5	9163	10.8	8896	10.5
TOTAL CONFINEMENTS	85967	100.0	86460	100.0	84379	100.0	84587	100.0	85032	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 1999, with slightly more male babies born than females in each year. In 2003, 44,623 (51.6 per cent) of babies were male, 41,722 (48.3 per cent) were female, 19 were of indeterminate sex, and sex was not reported for 50 babies. This compares with babies born in 1999, when 44,805 (51.3 per cent) of 87,289 babies were male, 42,473 (48.7 per cent) were female, 10 were of indeterminate sex, and sex was not reported for 1 baby.

Gestational age

In 2003, 7.0 per cent of babies were born prematurely (less than 37 weeks gestation), similar to the rate of 7.1 per cent in 1999 (Table 15). Over the five-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).

BIRTHS BY GESTATIONAL AGE, NSW 1999-2003

Gestational age (weeks)	1	1999		2000		Year 2001		2002	2003	
	No.	%	No.	%	No.	%	No.	%	No.	%
<20	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0
20–27	585	0.7	623	0.7	628	0.7	594	0.7	585	0.7
28–31	625	0.7	663	0.8	667	0.8	612	0.7	639	0.7
32-36	5026	5.8	5114	5.8	4890	5.7	4865	5.7	4810	5.6
37-41	79114	90.6	79368	90.3	77566	90.3	77865	90.5	78241	90.5
42+	1932	2.2	2148	2.4	2093	2.4	2047	2.4	2128	2.5
Not stated	7	0.0	6	0.0	14	0.0	21	0.0	10	0.0
TOTAL	87289	100.0	87922	100.0	85858	100.0	86005	100.0	86414	100.0

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

Birthweight

Since 1999, the rate of low birthweight (less than 2,500 grams) has been about six per cent (Table 16). The rate was 6.2 per cent in 2003.

TABLE 16

BIRTHS BY BIRTHWEIGHT, NSW 1999–2003

Birthweight					Ye	ear				
(grams)	1	999	2	2000		2001		002	2003	
	No.	%								
Less than 500	212	0.2	228	0.3	243	0.3	212	0.2	223	0.3
500-999	391	0.4	425	0.5	416	0.5	399	0.5	393	0.5
1000–1499	509	0.6	546	0.6	526	0.6	469	0.5	497	0.6
1500–1999	1076	1.2	1079	1.2	1043	1.2	1083	1.3	1049	1.2
2000–2499	3353	3.8	3383	3.8	3283	3.8	3344	3.9	3221	3.7
2500–2999	12942	14.8	12819	14.6	12783	14.9	12838	14.9	12877	14.9
3000–3499	30978	35.5	30647	34.9	30312	35.3	30504	35.5	30803	35.6
3500–3999	27173	31.1	27483	31.3	26542	30.9	26676	31.0	26982	31.2
4000–4499	9002	10.3	9454	10.8	9060	10.6	8921	10.4	8810	10.2
4500+	1629	1.9	1811	2.1	1607	1.9	1509	1.8	1507	1.7
Not stated	24	0.0	47	0.1	43	0.1	50	0.1	52	0.1
TOTAL	87289	100.0	87922	100.0	85858	100.0	86005	100.0	86414	100.0

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

Apgar score

In 2003, 2.0 per cent of babies were born with an Apgar score of less than seven at five minutes and 1.0 per cent were born with a score less than four (Table 17). These rates are similar to those of previous years.

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BIRTHS BY APGAR SCORE AT FIVE MINUTES, NSW 1999-2003#

Apgar score					Y	ear					
	1	999	2	2000	20	001	2	2002		2003	
	No.	%									
0–4	996	1.1	1043	1.2	922	1.1	902	1.0	899	1.0	
5–6	1098	1.3	956	1.1	938	1.1	893	1.0	865	1.0	
7+	85028	97.4	85756	97.5	83797	97.6	84033	97.7	84473	97.8	
Not stated	167	0.2	167	0.2	201	0.2	177	0.2	177	0.2	
TOTAL	87289	100.0	87922	100.0	85858	100.0	86005	100.0	86414	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 2003, 15.0 per cent of babies were admitted to special care units and 2.6 per cent were admitted to neonatal intensive care units (Table 18). These rates are similar to previous years.

TABLE 18 BIRTHS BY ADMISSION TO SPECIAL CARE OR NEONATAL INTENSIVE CARE UNITS, NSW 1999-2003 Unit of admission 1999 2000 2001 No. % No. No No Special care unit 14430 16.5 13842 15.7 12900 15.0 12740 14.8 12926 15.0 Neonatal intensive care unit 2306 2147 2190 2196 2.6 2277 **TOTAL** 87289 100.0 87922 100.0 85858 100.0 86005 100.0 86414 100.0

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

Perinatal outcome

In the period 1999–2003 the perinatal mortality rate varied from 8.6 to 9.6 per 1,000 (Table 19). In 2003, 70.3 per cent of all reported perinatal deaths were stillbirths and 29.7 per cent were neonatal deaths.

In 2003, of the 744 perinatal deaths in NSW, 718 (96.5 per cent) were reported among planned hospital births, 13 (1.7 per cent) among planned birth centre births, 2 occurred among planned home births, and 11 were among babies born before arrival at hospital.

TABLE	19										
BIRTHS B	PERINATAL OL	JTCOME, N	NSW 1999-2	2003#							
Year	Liveborn surviving		Stil	lborn	Ne	al Outcome onatal leath	Not s	tated	To bir		Perinatal mortality rate/1,000 births
	No.	%	No.	%	No.	%	No.	%	No.	%	
1999	86473	99.1	533	0.6	266	0.3	17	0.0	87289	100.0	9.2
2000	87076	99.0	595	0.7	247	0.3	4	0.0	87922	100.0	9.6
2001	85063	99.1	538	0.6	251	0.3	6	0.0	85858	100.0	9.2
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

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 1990–2001, 137 deaths were reported among pregnant women or women who gave birth less than six weeks previously. Of these, 44 (32.1 per cent) died of incidental causes not related to the pregnancy or its management; 63 (46.0 per cent) deaths were found to be directly due to pregnancy or its management; 29 (21.2

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 2001.

TABLE 20

MATERNAL DEATHS BY YEAR, NSW 1990-2002#

Year	ı	Direct	In	direct	Т	ification otal & Indirect	Inc	idental		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###									6	7.1	

Source: NSW Maternal and Perinatal Committee

Total for 1999 includes one death of undetermined cause

Classification incomplete for 2002.

TABLE 21

MATERNAL DEATHS BY CAUSE, NSW 2001#

Classification	Cause	No.
Direct	Pulmonary embolus following deep vein thrombosis	1
Direct	Suppurative basal meningitis	1
Direct	Strep. Pyogenes septicemia	1
Direct	Amniotic fluid embolism	1
Indirect	Intracerebral haemorrhage	1
Indirect	Myocarditis	1
Indirect	Aortic dissection	1
Indirect	Intra-cerebral haemorrhage due to rupture of vascular malformation	1
Incidental	Multiple injuries following motor vehicle accident	1
TOTAL		9

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.

Reference

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

[#] 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