

7. Aboriginal and Torres Strait Islander mothers and babies

Reporting of Aboriginality

Maternal Aboriginality is under-reported on the MDC. One method of assessing the extent of under-reporting and monitoring changes over time is to compare the reporting of maternal Aboriginality to the MDC with reporting of maternal Aboriginality on birth registrations held by the NSW Registry of Births, Deaths and Marriages. Using capture–recapture methods, an estimate of the total number of babies born to Aboriginal mothers was obtained and compared with the number of babies born to Aboriginal mothers as reported to the MDC (Table 67). An estimate of the total number of babies born to Aboriginal mothers or fathers was also obtained and compared with the number of babies born to Aboriginal mothers as

reported to the MDC (Table 69). The method used here is described in Chapter 3 (p. 13).

For NSW overall, the percentage of births to Aboriginal and Torres Strait Islander mothers reported to the MDC was stable at about 68–70% between 2004 and 2006. In 2006, reporting varied markedly among health areas, ranging from 38.0% in the Sydney South West Area to 87.0% in the Greater Western Area, with reporting generally better in rural than in urban areas (Table 67, Figure 2). Under-reporting of Aboriginality on the MDC means that numbers of births presented in this chapter should be interpreted with caution. The total number of babies born to Aboriginal mothers in 2006 is estimated to be 3896, about one and a half times higher than the number reported to the MDC.

Table 67. Births to Aboriginal mothers by source of birth report, year of birth and health area of residence, NSW, 2004–2006[#]

Year of birth and health area of residence	MDC births No.	RBDM births No.	Births reported to both MDC/RBDM No.	Total estimated Aboriginal births No.	Estimated Aboriginal births reported to MDC %	95% confidence interval of estimated births reported
2004						
Sydney South West	164	274	107	419	39.1	34.5–43.8
South-Eastern Sydney and Illawarra	224	214	145	330	67.8	62.8–72.8
Sydney West	242	287	162	428	56.5	51.8–61.2
Northern Sydney and Central Coast	94	119	54	206	45.6	38.8–52.4
Hunter and New England	514	450	337	686	74.9	71.7–78.2
North Coast	398	257	222	461	86.4	83.3–89.5
Greater Southern	175	152	102	260	67.2	61.5–72.9
Greater Western	506	317	283	567	89.3	86.7–91.8
Other/Not stated	16	16	11	23	69.3	50.5–88.1
TOTAL	2333	2086	1423	3420	68.2	66.7–69.8
2005						
Sydney South West	163	251	103	396	41.1	36.3–46.0
South-Eastern Sydney and Illawarra	201	183	121	304	66.2	60.9–71.5
Sydney West	270	283	166	460	58.7	54.2–63.2
Northern Sydney and Central Coast	88	119	59	177	49.7	42.4–57.1
Hunter and New England	611	438	351	762	80.2	77.3–83.0
North Coast	357	209	173	431	82.8	79.3–86.4
Greater Southern	212	147	118	264	80.3	75.5–85.1
Greater Western	565	361	314	649	87.0	84.4–89.6
Other/Not stated	39	33	29	44	88.0	78.4–97.5
TOTAL	2506	2024	1434	3537	70.9	69.4–72.4

(Continued)

Table 67. (Continued)

Year of birth and health area of residence	MDC births No.	RBDM births No.	Births reported to both MDC/RBDM No.	Total estimated Aboriginal births No.	Estimated Aboriginal births reported to MDC %	95% confidence interval of estimated births reported
2006						
Sydney South West	188	293	111	495	38.0	33.7–42.2
South-Eastern Sydney and Illawarra	229	226	150	345	66.4	61.4–71.4
Sydney West	285	284	164	493	57.8	53.4–62.2
Northern Sydney and Central Coast	104	140	67	217	48.0	41.3–54.6
Hunter and New England	598	472	338	835	71.6	68.6–74.7
North Coast	395	245	203	477	82.9	79.5–86.3
Greater Southern	191	125	97	246	77.7	72.5–82.9
Greater Western	571	393	342	656	87.0	84.5–89.6
Other/Not stated	85	59	47	107	79.8	72.2–87.4
TOTAL	2646	2237	1519	3896	67.9	66.4–69.4

Source: Linked records of the NSW Midwives Data Collection (MDC) and Registry of Births, Deaths and Marriages (RBDM) birth registration data.
 *Figures for 2004 and 2005 differ slightly from those reported previously because the linkage has been updated.

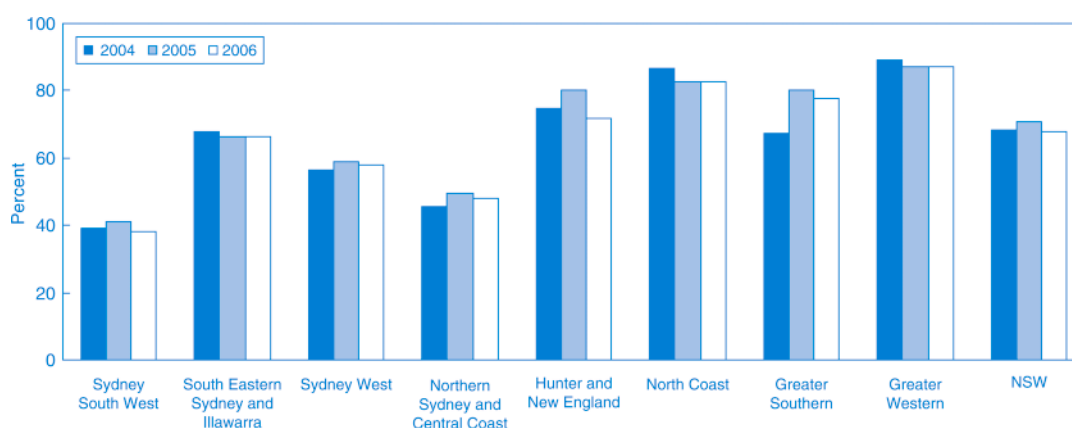


Figure 2. Level of reporting of maternal Aboriginality to the NSW Midwives Data Collection by year of birth and health area of residence, NSW, 2003–2006.

Source: Linked records of the NSW Midwives Data Collection and Registry of Births, Deaths and Marriages birth registration data.

Information on paternal Aboriginality is not collected by the MDC, but is reported to the NSW Registry of Births, Deaths and Marriages. Of the 86 988 births registered for residents of NSW in 2006, 3508 (4.0%) were reported to have an Aboriginal or Torres Strait Islander mother or father (Table 68). For 1290 babies, the father was reported

Table 68. Birth registrations by maternal and paternal Aboriginality, NSW, 2007

Mother	Father	No.	%
Aboriginal or Torres Strait Islander	Aboriginal or Torres Strait Islander	726	0.8
Non-Aboriginal	Aboriginal or Torres Strait Islander	119	0.1
Not stated	Aboriginal or Torres Strait Islander	1171	1.3
Aboriginal or Torres Strait Islander	Non-Aboriginal	164	0.2
Non-Aboriginal	Non-Aboriginal	81 120	93.3
Not stated	Non-Aboriginal	34	0.0
Aboriginal or Torres Strait Islander	Not stated	1328	1.5
Non-Aboriginal	Not stated	2275	2.6
Not stated	Not stated	51	0.1
TOTAL		86 988	100.0

Source: Australian Bureau of Statistics birth registration data (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

to be Aboriginal or Torres Strait Islander and either the mother was reported to be non-Aboriginal or Torres Strait Islander or the mother's Aboriginality was not stated.

Table 69 shows the number of babies born to Aboriginal mothers as reported to the MDC and the number of babies born to Aboriginal mothers or fathers as reported to the NSW Registry of Births, Deaths and Marriages between 2004 and 2006. Using capture–recapture methods, an estimate of the total number of babies born to Aboriginal

mothers or fathers was obtained from both data sources. For NSW overall, the percentage of births to Aboriginal and Torres Strait Islander mothers or fathers that were reported to the MDC was stable at about 44–46% between 2004 and 2006. In 2006, this percentage ranged from 27.0% in the Sydney South West Area to 63.5% in the Greater Western Area (Table 69). There are therefore a substantial number of babies with non-Aboriginal mothers and Aboriginal fathers who are not represented in the numbers reported in this chapter.

Table 69. Births to Aboriginal mothers and fathers by source of birth report, year of birth and health area of residence, NSW, 2004–2006[#]

Year of birth and health area of residence	MDC births No.	RBDM births No.	Births reported to both MDC/RBDM No.	Total estimated Aboriginal births No.	Estimated Aboriginal births reported to MDC %	95% confidence interval of estimated births reported
2004						
Sydney South West	164	420	111	619	26.5	23.0–30.0
South-Eastern Sydney and Illawarra	224	359	148	543	41.3	37.1–45.4
Sydney West	242	476	163	706	34.3	30.8–37.8
Northern Sydney and Central Coast	94	228	56	381	24.7	20.4–29.0
Hunter and New England	514	697	342	1047	49.1	46.1–52.1
North Coast	398	389	233	664	59.9	56.2–63.7
Greater Southern	175	243	105	404	43.3	38.5–48.1
Greater Western	506	472	293	815	62.1	58.8–65.4
Other/Not stated	16	25	11	36	44.7	28.4–60.9
TOTAL	2333	3309	1462	5280	44.2	42.8–45.5
2005						
Sydney South West	163	398	106	611	26.7	23.2–30.2
South-Eastern Sydney and Illawarra	201	325	124	526	38.2	34.1–42.4
Sydney West	270	457	171	721	37.5	33.9–41.0
Northern Sydney and Central Coast	88	207	60	302	29.1	24.0–34.2
Hunter and New England	611	718	365	1201	50.9	48.0–53.7
North Coast	357	344	182	674	53.0	49.2–56.7
Greater Southern	212	230	125	390	54.4	49.5–59.4
Greater Western	565	530	322	929	60.8	57.6–63.9
Other/Not stated	39	42	29	56	69.2	57.2–81.3
TOTAL	2506	3251	1484	5489	45.7	44.3–47.0
2006						
Sydney South West	188	416	112	696	27.0	23.7–30.3
South-Eastern Sydney and Illawarra	229	373	152	561	40.8	36.7–44.9
Sydney West	285	484	168	820	34.8	31.5–38.0
Northern Sydney and Central Coast	104	230	69	346	30.1	25.3–34.9
Hunter and New England	598	796	348	1367	43.7	41.1–46.4
North Coast	395	378	205	728	54.3	50.7–57.9
Greater Southern	191	226	101	426	44.8	40.1–49.5
Greater Western	571	542	344	899	63.5	60.3–66.6
Other/Not stated	85	93	49	161	52.9	45.2–60.6
TOTAL	2646	3538	1548	6047	43.8	42.5–45.0

Source: Linked records of the NSW Midwives Data Collection (MDC) and Registry of Births, Deaths and Marriages (RBDM) birth registration data.
[#]Figures for 2004 and 2005 differ from those reported previously because the linkage has been updated.

Trends in births

In 2007, 2736 babies were born to Aboriginal mothers, 136 babies were born to mothers of both Aboriginal and Torres Strait Islander background (Table 70). 54 babies were born to Torres Strait Islander mothers and

Table 70. Aboriginal and Torres Strait Islander mothers and babies by Aboriginality, NSW, 2003–2007[#]

Aboriginality	2003		2004		Year 2005		2006		2007	
	No.	%	No.	%	No.	%	No.	%	No.	%
Confinements										
Aboriginal but not Torres Strait Islander	2014	93.2	2161	93.6	2347	94.9	2429	93.0	2700	93.5
Torres Strait Islander but not Aboriginal	35	1.6	48	2.1	30	1.2	50	1.9	53	1.8
Both Aboriginal and Torres Strait Islander	112	5.2	99	4.3	97	3.9	132	5.1	135	4.7
TOTAL	2161	100.0	2308	100.0	2474	100.0	2611	100.0	2888	100.0
Births										
Aboriginal but not Torres Strait Islander	2039	93.1	2184	93.6	2376	94.8	2463	93.0	2736	93.5
Torres Strait Islander but not Aboriginal	37	1.7	48	2.1	31	1.2	51	1.9	54	1.8
Both Aboriginal and Torres Strait Islander	114	5.2	101	4.3	100	4.0	135	5.1	136	4.6
TOTAL	2190	100.0	2333	100.0	2507	100.0	2649	100.0	2926	100.0

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

[#]Because of under-reporting of Aboriginality to the MDC, it is likely that the true numbers of confinements are about one and a half times higher than shown, and the number of births are about two times higher than shown.

Plurality

Between 2003 and 2007, the reported number of babies born to Aboriginal and Torres Strait Islander mothers increased from 2190 to 2926 (Table 71), representing 2.5 and 3.0%, respectively, of all babies born in NSW. Multiple pregnancies (e.g. twins, triplets) were reported for about 1% of mothers.

Table 71. Aboriginal and Torres Strait Islander mothers and babies by plurality, NSW, 2003–2007[#]

Plurality	2003		2004		Year 2005		2006		2007	
	No.	%	No.	%	No.	%	No.	%	No.	%
Confinements										
Singleton	2134	98.8	2283	98.9	2443	98.7	2574	98.6	2851	98.7
Twins	26	1.2	25	1.1	29	1.2	36	1.4	36	1.2
Triplets	1	0.0	0	0.0	2	0.1	1	0.0	1	0.0
TOTAL	2161	100.0	2308	100.0	2474	100.0	2611	100.0	2888	100.0
Births										
Singleton	2134	97.4	2283	97.9	2443	97.4	2574	97.2	2851	97.4
Twins	53	2.4	50	2.1	58	2.3	72	2.7	72	2.5
Triplets	3	0.1	0	0.0	6	0.2	3	0.1	3	0.1
TOTAL	2190	100.0	2333	100.0	2507	100.0	2649	100.0	2926	100.0

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

[#]Because of under-reporting of Aboriginality to the MDC, it is likely that the true numbers of confinements are about one and a half times higher than shown, and the number of births are about two times higher than shown.

Previous pregnancies

In 2007, one-third of Aboriginal and Torres Strait Islander mothers gave birth for the first time (Table 72), 58.3% of mothers reported between one and four previous births

and 8.2% of mothers had given birth to five or more babies. This pattern has not changed substantially since 2003.

Table 72. Previous pregnancies among Aboriginal and Torres Strait Islander mothers, NSW, 2003–2007[#]

No. of previous pregnancies (>20 weeks)	2003		2004		Year 2005		2006		2007	
	No.	%	No.	%	No.	%	No.	%	No.	%
0	668	30.9	759	32.9	787	31.8	844	32.3	952	33.0
1–4	1316	60.9	1327	57.5	1472	59.5	1551	59.4	1683	58.3
5+	177	8.2	221	9.6	214	8.6	199	7.6	237	8.2
Not stated	0	0.0	1	0.0	1	0.0	17	0.7	16	0.6
TOTAL	2161	100.0	2308	100.0	2474	100.0	2611	100.0	2888	100.0

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

[#]Because of under-reporting of Aboriginality to the MDC, it is likely that the true numbers are about one and a half times higher than shown.

Maternal age

The percentage of Aboriginal and Torres Strait Islander mothers who were teenagers fell from 21.1% in 2003 to 18.8% in 2007. Following state-wide trends, the number of

mothers giving birth at 35 years of age or more has increased during the last 5 years – from 153 in 2003 to 264 in 2007 (Table 73).

Table 73. Age of Aboriginal and Torres Strait Islander mothers, NSW, 2003–2007[#]

Maternal age (years)	2003		2004		Year 2005		2006		2007	
	No.	%	No.	%	No.	%	No.	%	No.	%
12–19	455	21.1	493	21.4	504	20.4	534	20.5	543	18.8
20–34	1553	71.9	1594	69.1	1739	70.3	1851	70.9	2080	72.0
35+	153	7.1	221	9.6	231	9.3	222	8.5	264	9.1
Not stated	0	0.0	0	0.0	0	0.0	4	0.2	1	0.0
TOTAL	2161	100.0	2308	100.0	2474	100.0	2611	100.0	2888	100.0

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

[#]Because of under-reporting of Aboriginality to the MDC, it is likely that the true numbers are about one and a half times higher than shown.

Health area of residence

The reported number of Aboriginal and Torres Strait Islander mothers has increased in all health areas between 2003 and 2007. The reported number of Aboriginal and Torres Strait Islander mothers who gave birth in 2007 ranged from 137 in the Northern Sydney and Central

Coast Area to 655 in the Hunter and New England Area (Table 74). The proportion of mothers who were teenagers varied from 12.4% in the Northern Sydney and Central Coast Area to 21.9% in the North Coast Area (Table 75).

Table 74. Health area of residence of Aboriginal and Torres Strait Islander mothers, NSW, 2003–2007#

Health area	2003		2004		Year 2005		2006		2007	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney South West	160	7.4	164	7.1	181	7.3	212	8.1	253	8.8
South-Eastern Sydney and Illawarra	178	8.2	221	9.6	198	8.0	226	8.7	246	8.5
Sydney West	237	11.0	238	10.3	269	10.9	284	10.9	363	12.6
Northern Sydney and Central Coast	82	3.8	93	4.0	88	3.6	104	4.0	137	4.7
Hunter and New England	514	23.8	508	22.0	600	24.3	596	22.8	655	22.7
North Coast	304	14.1	390	16.9	350	14.1	394	15.1	420	14.5
Greater Southern	170	7.9	173	7.5	209	8.4	190	7.3	235	8.1
Greater Western	493	22.8	505	21.9	560	22.6	570	21.8	550	19.0
Other/Not stated	23	1.1	16	0.7	19	0.8	35	1.3	29	1.0
TOTAL	2161	100.0	2308	100.0	2474	100.0	2611	100.0	2888	100.0

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

#Because of under-reporting of Aboriginality to the MDC, it is likely that the true numbers are about one and a half times higher than shown. The level of under-reporting varies among health areas (see Table 67).

Table 75. Health area of residence of Aboriginal and Torres Strait Islander mothers by age, NSW, 2007#

Health area	Maternal age (years)						TOTAL	
	<20		20+		Not stated		No.	%
	No.	%	No.	%	No.	%	No.	%
Sydney South West	36	14.2	217	85.8	0	0.0	253	100.0
South-Eastern Sydney and Illawarra	31	12.6	215	87.4	0	0.0	246	100.0
Sydney West	69	19.0	294	81.0	0	0.0	363	100.0
Northern Sydney and Central Coast	17	12.4	120	87.6	0	0.0	137	100.0
Hunter and New England	133	20.3	522	79.7	0	0.0	655	100.0
North Coast	92	21.9	328	78.1	0	0.0	420	100.0
Greater Southern	45	19.1	190	80.9	0	0.0	235	100.0
Greater Western	118	21.5	431	78.4	1	0.2	550	100.0
Other/Not stated	2	6.9	27	93.1	0	0.0	29	100.0
TOTAL	543	18.8	2344	81.2	1	0.0	2888	100.0

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

#Because of under-reporting of Aboriginality to the MDC, it is likely that the true numbers are about one and a half times higher than shown. The level of under-reporting varies among health areas (see Table 67).

Duration of pregnancy at first antenatal visit

Between 2003 and 2007, the proportion of Aboriginal or Torres Strait Islander mothers who commenced antenatal care at less than 20 weeks gestation rose from 70.6 to 79.5% (Table 76). This compares with 91.1% of non-Aboriginal or Torres Strait Islander mothers who commenced antenatal care at less than 20 weeks gestation in 2007.

In 2007, the proportion of Aboriginal and Torres Strait Islander mothers who commenced antenatal care at less than 20 weeks gestation varied from 69.6% in the Sydney South West Area to 86.9% in the Northern Sydney and Central Coast Area (Table 77).

Table 76. Duration of pregnancy at first antenatal visit among Aboriginal and Torres Strait Islander mothers, NSW, 2003–2007#

Duration of pregnancy (weeks)	2003		2004		Year 2005		2006		2007	
	No.	%	No.	%	No.	%	No.	%	No.	%
0–19	1526	70.6	1618	70.1	1854	74.9	1952	74.8	2296	79.5
20+	547	25.3	573	24.8	561	22.7	550	21.1	461	16.0
Not stated	88	4.1	117	5.1	59	2.4	109	4.2	131	4.5
TOTAL	2161	100.0	2308	100.0	2474	100.0	2611	100.0	2888	100.0

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

#Because of under-reporting of Aboriginality to the MDC, it is likely that the true numbers are about one and a half times higher than shown.

Table 77. Duration of pregnancy at first antenatal visit among Aboriginal and Torres Strait Islander mothers by health area of residence, NSW, 2007#

Health area	Duration of pregnancy (weeks)							
	0–19		20+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Sydney South West	176	69.6	47	18.6	30	11.9	253	100.0
South-Eastern Sydney and Illawarra	204	82.9	36	14.6	6	2.4	246	100.0
Sydney West	308	84.8	40	11.0	15	4.1	363	100.0
Northern Sydney and Central Coast	119	86.9	16	11.7	2	1.5	137	100.0
Hunter and New England	520	79.4	109	16.6	26	4.0	655	100.0
North Coast	332	79.0	77	18.3	11	2.6	420	100.0
Greater Southern	189	80.4	36	15.3	10	4.3	235	100.0
Greater Western	423	76.9	96	17.5	31	5.6	550	100.0
Other/Not stated	25	86.2	4	13.8	0	0.0	29	100.0
TOTAL	2296	79.5	461	16.0	131	4.5	2888	100.0

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

#Because of under-reporting of Aboriginality to the MDC, it is likely that the true numbers are about one and a half times higher than shown. The level of under-reporting varies among health areas (see Table 67).

Smoking in pregnancy

In 2007, 50.1% of Aboriginal and Torres Strait Islander mothers reported smoking at some time during pregnancy, compared with 56.8% in 2003. This compares with 11.2% of non-Aboriginal or Torres Strait Islander mothers who reported smoking at some time during pregnancy in 2007.

Smoking in the second half of pregnancy poses the greatest risk to the health of both mother and baby. In 2007, 48.6% of Aboriginal and Torres Strait Islander mothers reported smoking in the second half of pregnancy. This percentage varied from 35.0% in the Northern Sydney and Central Coast Area to 54.2% in the Greater Western Area (Figure 3).

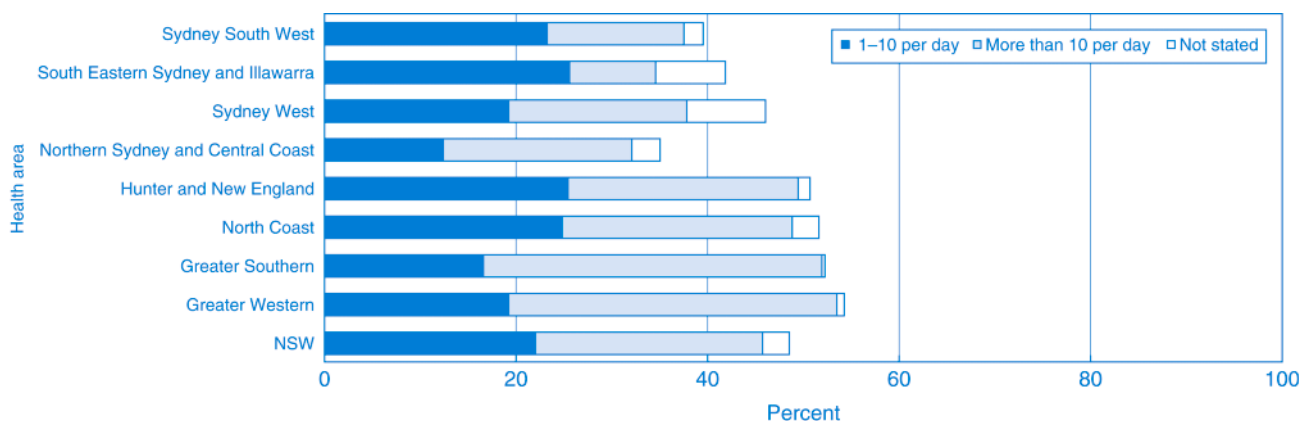


Figure 3. Smoking in the second half of pregnancy among Aboriginal and Torres Strait Islander mothers by amount smoked and health area of residence, NSW, 2007#.

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

#Because of under-reporting of Aboriginality of the MDC, it is likely that the true numbers are about one and a half times higher than shown. The level of reporting varies among health areas (see Table 67).

Medical conditions and obstetric complications

In 2007, there was a lower rate of gestational diabetes and pre-eclampsia reported among Aboriginal and Torres Strait Islander mothers than with non-Aboriginal or Torres Strait Islander mothers (Table 78). The number of Aboriginal and Torres Strait Islander mothers with medical conditions

and obstetric complications reported to the MDC is low, even after taking into account under-reporting of maternal Aboriginality. This is particularly the case for diabetes. The low numbers may be due to under-detection and/or under-reporting.

Table 78. Maternal medical conditions and obstetric complications by Aboriginality, NSW, 2007#

Condition	Aboriginality						TOTAL	
	Aboriginal or Torres Strait Islander		Non-Aboriginal		Not stated			
	No.	%	No.	%	No.	%	No.	%
Diabetes mellitus	17	0.6	526	0.6	3	1.5	546	0.6
Gestational diabetes	100	3.5	3985	4.4	6	3.1	4091	4.3
Essential hypertension	19	0.7	700	0.8	2	1.0	721	0.8
Pregnancy-induced hypertension	123	4.3	5387	5.9	12	6.2	5522	5.8
TOTAL	2888	100.0	91 519	100.0	195	100.0	94 602	100.0

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

#Because of under-reporting of Aboriginality to the MDC, it is likely that the true numbers are about one and a half times higher than shown.

Labour and birth

The rate of spontaneous onset of labour among Aboriginal and Torres Strait Islander mothers fell from 68.0% in 2003 to 65.2% in 2007 (Table 79), whereas the rate of induction of labour increased from 20.5 to 23.8%. The rate of induction of labour among Aboriginal and Torres Strait Islander mothers was slightly lower than the rate of 26.0% reported among non-Aboriginal and Torres Strait Islander mothers in 2007.

Between 2003 and 2007, the rate of normal vaginal birth fell from 73.3 to 69.8%. The caesarean section rate rose from 21.5 to 23.5% (Table 80). The rate of instrumental birth (forceps and vacuum extraction) rose slightly from 4.7 to 5.6%, and vaginal breech births contributed about 1% of all births.

Table 79. Labour onset for Aboriginal and Torres Strait Islander mothers, NSW, 2003–2007#

Labour onset	2003		2004		Year 2005		2006		2007	
	No.	%	No.	%	No.	%	No.	%	No.	%
Spontaneous	1469	68.0	1581	68.5	1613	65.2	1728	66.2	1884	65.2
No labour##	250	11.6	260	11.3	277	11.2	329	12.6	315	10.9
Induced	442	20.5	467	20.2	584	23.6	552	21.1	688	23.8
Not stated	0	0.0	0	0.0	0	0.0	2	0.1	1	0.0
TOTAL	2161	100.0	2308	100.0	2474	100.0	2611	100.0	2888	100.0

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

#Because of under-reporting of Aboriginality to the MDC, it is likely that the true numbers are about one and a half times higher than shown.

##No labour indicates elective caesarean section.

Table 80. Type of birth among Aboriginal and Torres Strait Islander mothers, NSW, 2003–2007#

Type of birth	2003		2004		Year 2005		2006		2007	
	No.	%	No.	%	No.	%	No.	%	No.	%
Normal vaginal	1585	73.3	1647	71.4	1741	70.4	1868	71.5	2015	69.8
Forceps	35	1.6	60	2.6	42	1.7	46	1.8	42	1.5
Vacuum extraction	67	3.1	74	3.2	91	3.7	84	3.2	121	4.2
Vaginal breech	9	0.4	16	0.7	24	1.0	17	0.7	27	0.9
Elective caesarean section	250	11.6	260	11.3	277	11.2	329	12.6	315	10.9
Emergency caesarean section##	215	9.9	251	10.9	299	12.1	259	9.9	365	12.6
Not stated	0	0.0	0	0.0	0	0.0	8	0.3	3	0.1
TOTAL	2161	100.0	2308	100.0	2474	100.0	2611	100.0	2888	100.0

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

#Because of under-reporting of Aboriginality to the MDC, it is likely that the true numbers are about one and a half times higher than shown.

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

Birth weight

Since 2003, the rate of low birth weight (less than 2500 g) in Aboriginal and Torres Strait Islander babies has been over 10% and was 12.2% in 2007 (Table 81). This is about one and a half times the rate for babies born to

non-Aboriginal or Torres Strait Islander mothers, which was 5.9% in 2007. In 2007, the largest number of low birth weight babies was born in the Hunter and New England Area (Table 82).

Table 81. Weight of Aboriginal and Torres Strait Islander babies, NSW, 2003–2007#

Birth weight (g)	2003		2004		Year 2005		2006		2007	
	No.	%	No.	%	No.	%	No.	%	No.	%
<1000	31	1.4	23	1.0	36	1.4	26	1.0	57	1.9
1000–1499	19	0.9	34	1.5	20	0.8	29	1.1	23	0.8
1500–2499	221	10.1	244	10.5	257	10.3	273	10.3	276	9.4
2500+	1917	87.5	2032	87.1	2193	87.5	2318	87.5	2563	87.6
Not stated	2	0.1	0	0.0	1	0.0	3	0.1	7	0.2
TOTAL	2190	100.0	2333	100.0	2507	100.0	2649	100.0	2926	100.0

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

#Because of under-reporting of Aboriginality to the MDC, it is likely that the true numbers are about two times higher than shown.

Table 82. Weight of Aboriginal and Torres Strait Islander babies by health area of residence, NSW, 2007#

Health area	Birth weight (g)							
	<2500		2500+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Sydney South West	34	13.2	223	86.4	1	0.4	258	100.0
South-Eastern Sydney and Illawarra	18	7.2	232	92.8	0	0.0	250	100.0
Sydney West	49	13.4	315	86.3	1	0.3	365	100.0
Northern Sydney and Central Coast	17	12.2	121	87.1	1	0.7	139	100.0
Hunter and New England	91	13.7	572	86.1	1	0.2	664	100.0
North Coast	58	13.6	368	86.4	0	0.0	426	100.0
Greater Southern	18	7.6	219	92.4	0	0.0	237	100.0
Greater Western	70	12.5	486	87.1	2	0.4	558	100.0
Other/Not stated	1	3.4	27	93.1	1	3.4	29	100.0
TOTAL	356	12.2	2563	87.6	7	0.2	2926	100.0

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

#Because of under-reporting of Aboriginality to the MDC, it is likely that the true numbers are about two times higher than shown. The level of under-reporting varies among health areas (see Table 69).

Gestational age

Since 2003, over 10% of Aboriginal and Torres Strait Islander babies have been premature (less than 37 weeks gestation) (Table 83). The rate of prematurity was 12.8% in 2007, compared with a rate of 7.2% for babies born to

non-Aboriginal or Torres Strait Islander mothers. In 2007, the largest number of premature babies was born in the Hunter and New England Area (Table 84).

Table 83. Gestational age of Aboriginal and Torres Strait Islander babies, NSW, 2003–2007#

Gestational age (weeks)	2003		2004		Year 2005		2006		2007	
	No.	%	No.	%	No.	%	No.	%	No.	%
<28	29	1.3	31	1.3	30	1.2	25	0.9	56	1.9
28–31	30	1.4	29	1.2	27	1.1	26	1.0	28	1.0
32–36	206	9.4	212	9.1	244	9.7	235	8.9	289	9.9
37–41	1878	85.8	2038	87.4	2180	87.0	2330	88.0	2518	86.1
42+	47	2.1	23	1.0	26	1.0	31	1.2	32	1.1
Not stated	0	0.0	0	0.0	0	0.0	2	0.1	3	0.1
TOTAL	2190	100.0	2333	100.0	2507	100.0	2649	100.0	2926	100.0

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

#Because of under-reporting of Aboriginality to the MDC, it is likely that the true numbers are about two times higher than shown.

Table 84. Gestational age of Aboriginal and Torres Strait Islander babies by health area of residence, NSW, 2007#

Health area	Gestational age (weeks)							
	<37		37+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Sydney South West	40	15.5	217	84.1	1	0.4	258	100.0
South-Eastern Sydney and Illawarra	29	11.6	221	88.4	0	0.0	250	100.0
Sydney West	50	13.7	314	86.0	1	0.3	365	100.0
Northern Sydney and Central Coast	17	12.2	122	87.8	0	0.0	139	100.0
Hunter and New England	99	14.9	564	84.9	1	0.2	664	100.0
North Coast	52	12.2	374	87.8	0	0.0	426	100.0
Greater Southern	13	5.5	224	94.5	0	0.0	237	100.0
Greater Western	72	12.9	486	87.1	0	0.0	558	100.0
Other/Not stated	1	3.4	28	96.6	0	0.0	29	100.0
TOTAL	373	12.7	2550	87.1	3	0.1	2926	100.0

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

#Because of under-reporting of Aboriginality to the MDC, it is likely that the true numbers are about two times higher than shown. The level of under-reporting varies among health areas (see Table 69).

Apgar score

In 2007, 3.9% of Aboriginal and Torres Strait Islander babies had an Apgar score less than seven (Table 85), slightly higher than the rate of 2.0% for babies born to non-Aboriginal or Torres Strait Islander mothers.

Table 85. Apgar score of Aboriginal and Torres Strait Islander babies, NSW, 2003–2007[#]

Apgar score at 5 min	2003		2004		Year 2005		2006		2007	
	No.	%	No.	%	No.	%	No.	%	No.	%
0–4	42	1.9	34	1.5	42	1.7	36	1.4	73	2.5
5–6	30	1.4	34	1.5	33	1.3	24	0.9	42	1.4
7+	2109	96.3	2256	96.7	2416	96.4	2571	97.1	2794	95.5
Not stated	9	0.4	9	0.4	16	0.6	18	0.7	17	0.6
TOTAL	2190	100.0	2333	100.0	2507	100.0	2649	100.0	2926	100.0

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

[#]Because of under-reporting of Aboriginality to the MDC, it is likely that the true numbers are about two times higher than shown.

Infant feeding

In 2007, 60.8% of babies born to Aboriginal and Torres Strait Islander mothers were fully breastfed, 4.4% were partially breastfed and 29.3% received infant formula only (Table 86). This compares with 78.8% of babies born to non-Aboriginal or Torres Strait Islander mothers who were fully breastfed in 2007. Rates of full breastfeeding ranged from 52.9% in Sydney West Area and Greater Western Area to 73.2% in the North Coast Area.

Table 86. Infant feeding among Aboriginal and Torres Strait Islander liveborn babies by health area of residence, NSW, 2007[#]

Health area	Full breast-feeding		Any breast-feeding		Infant feeding Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
	Sydney South West	144	55.8	16	6.2	82	31.8	16	6.2	258
South-Eastern Sydney and Illawarra	165	66.0	4	1.6	69	27.6	12	4.8	250	100.0
Sydney West	193	52.9	18	4.9	130	35.6	24	6.6	365	100.0
Northern Sydney and Central Coast	99	71.2	8	5.8	28	20.1	4	2.9	139	100.0
Hunter and New England	396	59.6	34	5.1	189	28.5	45	6.8	664	100.0
North Coast	312	73.2	17	4.0	79	18.5	18	4.2	426	100.0
Greater Southern	152	64.1	12	5.1	65	27.4	8	3.4	237	100.0
Greater Western	295	52.9	19	3.4	208	37.3	36	6.5	558	100.0
Other/Not stated	22	75.9	0	0.0	7	24.1	0	0.0	29	100.0
TOTAL	1778	60.8	128	4.4	857	29.3	163	5.6	2926	100.0

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

[#]Because of under-reporting of Aboriginality to the MDC, it is likely that the true numbers are about two times higher than shown. The level of under-reporting varies among health areas (Table 69).

Perinatal mortality

Since 2007, the perinatal mortality rate among Aboriginal and Torres Strait Islander babies has varied from 11.6 to 22.6 per 1000 births (Table 87). The rate of 22.6 per 1000

in 2007 is substantially higher than the rate of 8.6 per 1000 experienced by babies born to non-Aboriginal or Torres Strait Islander mothers.

Table 87. Perinatal deaths among Aboriginal and Torres Strait Islander babies, NSW, 2003–2007[#]

Perinatal deaths	Year									
	2003		2004		2005		2006		2007	
	No.	Rate/1000	No.	Rate/1000	No.	Rate/1000	No.	Rate/1000	No.	Rate/1000
Stillbirth	24	11.0	20	8.6	22	8.8	16	6.0	41	14.0
Neonatal death	9	4.1	7	3.0	16	6.4	16	6.0	25	8.5
TOTAL	33	15.1	27	11.6	38	15.2	32	12.1	66	22.6

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

[#]Perinatal deaths include deaths reported to the MDC only. Because the MDC form is completed at discharge or transfer of the baby, deaths occurring after this time may not be reported to the MDC. Because of under-reporting of Aboriginality to the MDC, it is likely that the true numbers are about two times higher than shown.