

# 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 or Torres Strait Islander mothers was obtained and compared with the number of babies born to Aboriginal or Torres Strait Islander mothers as reported to the MDC (Table 69). An estimate of the total number of babies born to Aboriginal or Torres Strait Islander mothers or fathers was also obtained and compared with the number of babies born to Aboriginal or Torres Strait Islander mothers as reported to the MDC (Table 70). The method used here is described in Chapter 3 (page 11).

For NSW overall, the percentage of births to Aboriginal or Torres Strait Islander mothers reported to the MDC was 68% to 71% between 2005 and 2007. In 2007, reporting varied markedly between area health services, ranging from 37% in the Sydney South West Area to 88% in the Greater Western Area, with reporting generally better in rural compared to urban areas (Table 69, Figure 2).

Under-reporting means that numbers of births presented in this chapter should be interpreted with caution. The total number of babies born to Aboriginal or Torres Strait Islander mothers in 2007 is estimated to be 4,299, about one-and-a-half times higher than the number reported to the MDC.

Table 70 shows the number of babies born to Aboriginal or Torres Strait Islander mothers as reported to the MDC and the number of babies born to Aboriginal or Torres Strait Islander mothers or fathers as reported to the NSW Registry of Births, Deaths and Marriages between 2005 and 2007. Using capture–recapture methods, an estimate of the total number of babies born to Aboriginal or Torres Strait Islander mothers or fathers was obtained from both data sources. For NSW overall, the percentage of births to Aboriginal or Torres Strait Islander mothers or fathers was 44% to 46% between 2005 and 2007. In 2007, reporting ranged from 28% in the Sydney South West Area to 63% in the Greater Western Area. There are therefore a substantial number of babies with non-Aboriginal or Torres Strait Islander mothers and Aboriginal or Torres Strait Islander fathers who are not represented in the numbers reported in this chapter.

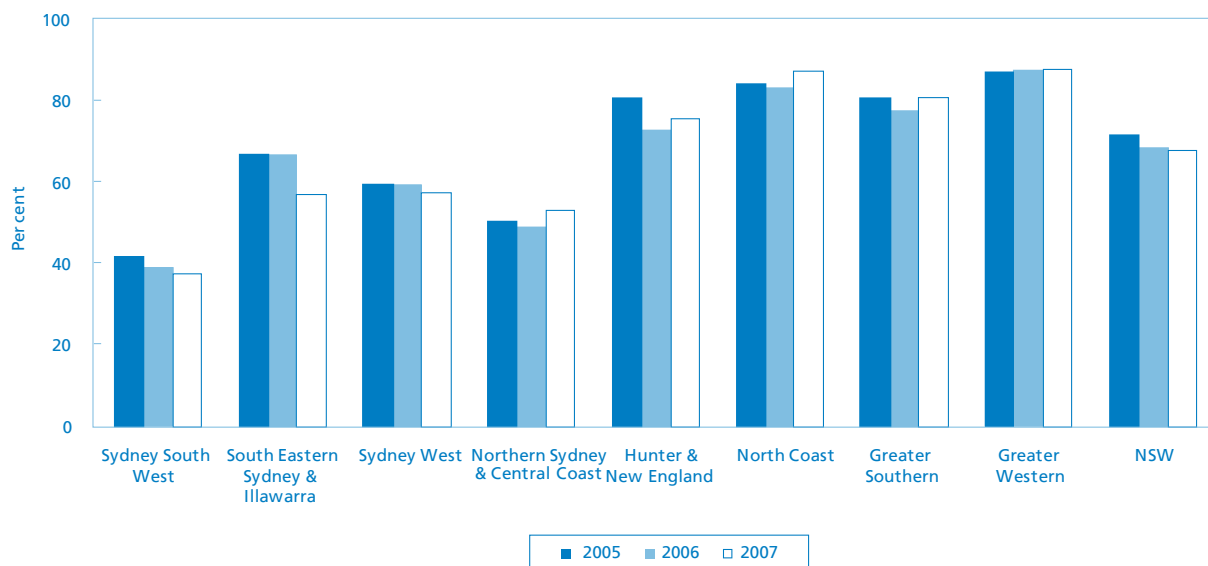
**Table 69. Births to Aboriginal mothers by source of birth report, year of birth and health area of residence, NSW 2005–2007**

Year of birth – 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
<b>2005</b>						
Sydney South West	163	259	107	394	41.4	36.5 - 46.3
South Eastern Sydney & Illawarra	201	187	124	303	66.4	61.1 - 71.7
Sydney West	270	292	173	455	59.3	54.8 - 63.8
Northern Sydney & Central Coast	88	122	61	176	50.1	42.7 - 57.5
Hunter & New England	611	452	363	761	80.3	77.5 - 83.2
North Coast	357	223	187	426	83.9	80.4 - 87.4
Greater Southern	212	151	121	264	80.2	75.4 - 85.0
Greater Western	565	379	330	649	87.1	84.5 - 89.7
Other-not stated	39	34	30	44	88.3	78.8 - 97.8
NSW	2506	2099	1496	3516	71.3	69.8 - 72.8
<b>2006</b>						
Sydney South West	188	311	121	482	39.0	34.6 - 43.3
South Eastern Sydney & Illawarra	229	241	160	345	66.4	61.4 - 71.4
Sydney West	285	302	179	480	59.3	54.9 - 63.7
Northern Sydney & Central Coast	104	144	70	213	48.7	42.0 - 55.4
Hunter & New England	598	499	361	826	72.4	69.3 - 75.4
North Coast	396	255	212	476	83.2	79.8 - 86.5
Greater Southern	191	127	98	247	77.3	72.0 - 82.5
Greater Western	571	414	361	655	87.2	84.7 - 89.8
Other-not stated	85	62	49	107	79.2	71.5 - 86.9
NSW	2647	2355	1611	3869	68.4	66.9 - 69.9

**Table 69. (Continued)**

Year of birth – Health area of residence	MDC births	RBDM births	Births reported to both MDC/RBDM	Total estimated Aboriginal births	Estimated Aboriginal births reported to MDC	95% confidence interval of estimated births reported
	No.	No.	No.	No.	%	
<b>2007</b>						
Sydney South West	219	338	126	586	37.4	33.4 - 41.3
South Eastern Sydney & Illawarra	249	227	129	437	56.9	52.3 - 61.6
Sydney West	365	346	199	634	57.6	53.7 - 61.4
Northern Sydney & Central Coast	139	156	83	261	53.3	47.3 - 59.4
Hunter & New England	661	506	383	873	75.7	72.9 - 78.6
North Coast	423	264	231	483	87.5	84.6 - 90.5
Greater Southern	236	166	134	292	80.8	76.3 - 85.3
Greater Western	555	386	339	632	87.8	85.3 - 90.4
Other-not stated	76	51	35	110	69.0	60.3 - 77.6
NSW	2923	2440	1659	4299	68.0	66.6 - 69.4

Source: Linked records of the NSW Midwives Data Collection and Registry of Births, Deaths and Marriages birth registration data.  
 # Information for 2005 and 2006 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 hospital, NSW 2005–2007**

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

**Table 70. Births to Aboriginal mothers and fathers by source of birth report, year of birth and health area of residence, NSW 2005–2007**

Year of birth – Health area of residence	MDC births	RBDM births	Births reported to both MDC/RBDM	Total estimated Aboriginal births	Estimated Aboriginal births reported to MDC	95% confidence interval of estimated births reported
	No.	No.	No.	No.	%	
<b>2005</b>						
Sydney South West	163	407	110	602	27.1	23.5 - 30.6
South Eastern Sydney & Illawarra	201	331	127	523	38.4	34.3 - 42.6
Sydney West	270	472	178	715	37.8	34.2 - 41.3
Northern Sydney & Central Coast	88	217	62	307	28.7	23.6 - 33.7
Hunter & New England	611	737	378	1191	51.3	48.5 - 54.2
North Coast	357	362	196	659	54.2	50.4 - 58.0
Greater Southern	212	236	128	390	54.3	49.4 - 59.3
Greater Western	565	550	339	916	61.7	58.5 - 64.8
Other-not stated	39	43	30	56	69.9	57.9 - 82.0
NSW	2506	3355	1548	5431	46.1	44.8 - 47.5
<b>2006</b>						
Sydney South West	188	439	122	675	27.8	24.5 - 31.2
South Eastern Sydney & Illawarra	229	394	162	556	41.2	37.1 - 45.2
Sydney West	285	511	184	791	36.1	32.7 - 39.4
Northern Sydney & Central Coast	104	240	73	341	30.5	25.6 - 35.4
Hunter & New England	598	835	372	1342	44.6	41.9 - 47.2
North Coast	396	390	214	721	54.9	51.3 - 58.6
Greater Southern	191	230	102	430	44.5	39.8 - 49.2
Greater Western	571	566	363	890	64.2	61.0 - 67.3
Other-not stated	85	98	53	157	54.3	46.5 - 62.1
NSW	2647	3703	1645	5958	44.4	43.2 - 45.7
<b>2007</b>						
Sydney South West	219	489	135	792	27.7	24.5 - 30.8
South Eastern Sydney & Illawarra	249	375	135	690	36.1	32.5 - 39.7
Sydney West	365	544	206	963	37.9	34.9 - 41.0
Northern Sydney & Central Coast	139	263	86	424	32.8	28.3 - 37.3
Hunter & New England	661	811	394	1360	48.6	46.0 - 51.3
North Coast	423	437	244	757	55.9	52.3 - 59.4
Greater Southern	236	255	145	415	56.9	52.2 - 61.7
Greater Western	555	560	354	878	63.2	60.0 - 66.4
Other-not stated	76	79	38	157	48.4	40.6 - 56.2
NSW	2923	3813	1737	6416	45.6	44.3 - 46.8

Source: Linked records of the NSW Midwives Data Collection and Registry of Births, Deaths and Marriages birth registration data.  
# Figures for 2005 and 2006 differ slightly to those reported previously as the linkage has been updated..

## Trends in births

Between 2004 and 2008, the number of reported births to Aboriginal or Torres Strait Islander mothers rose from 2,333 to 3,015, representing 2.7% and 3.1% respectively of all babies born in NSW. In 2008, 2,836 babies were born to

Aboriginal mothers, 61 babies were born to Torres Strait Islander mothers and 118 babies were born to mothers of both Aboriginal and Torres Strait Islander background (Table 71).

**Table 71. Aboriginal and Torres Strait Islander mothers and babies, NSW 2004–2008#**

Aboriginality	2004		2005		Year 2006		2007		2008	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Confinements</b>										
Aboriginal but not Torres Strait Islander	2161	93.6	2347	94.9	2429	93.0	2700	93.5	2801	94.1
Torres Strait Islander but not Aboriginal	48	2.1	30	1.2	50	1.9	53	1.8	61	2.0
Both Aboriginal and Torres Strait Islander	99	4.3	97	3.9	132	5.1	135	4.7	114	3.8
TOTAL	2308	100.0	2474	100.0	2611	100.0	2888	100.0	2976	100.0
<b>Births</b>										
Aboriginal but not Torres Strait Islander	2184	93.6	2376	94.8	2463	93.0	2736	93.5	2836	94.1
Torres Strait Islander but not Aboriginal	48	2.1	31	1.2	51	1.9	54	1.8	61	2.0
Both Aboriginal and Torres Strait Islander	101	4.3	100	4.0	135	5.1	136	4.6	118	3.9
TOTAL	2333	100.0	2507	100.0	2649	100.0	2926	100.0	3015	100.0

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

# Due to 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 numbers of births are about two times higher than shown.

## Plurality

Between 2004 and 2008 multiple pregnancies (twins, triplets etc.) were reported for about 1% of all pregnancies.

In 2008, 2.6% of babies born to Aboriginal or Torres Strait Islander mothers were twins (Table 72)

**Table 72. Aboriginal and Torres Strait Islander mothers and babies by plurality, NSW 2004–2008#**

Plurality	2004		2005		Year 2006		2007		2008	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Confinements</b>										
Singleton	2283	98.9	2443	98.7	2574	98.6	2851	98.7	2937	98.7
Twins	25	1.1	29	1.2	36	1.4	36	1.2	39	1.3
Triplets	0.0	0.0	2	0.1	1	0.0	1	0.0	0	0.0
TOTAL	2308	100.0	2474	100.0	2611	100.0	2888	100.0	2976	100.0
<b>Births</b>										
Singleton	2283	97.9	2443	97.4	2574	97.2	2851	97.4	2937	97.4
Twins	50	2.1	58	2.3	72	2.7	72	2.5	78	2.6
Triplets	0.0	0.0	6	0.2	3	0.1	3	0.1	0	0.0
TOTAL	2333	100.0	2507	100.0	2649	100.0	2926	100.0	3015	100.0

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

# Due to 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 numbers of births are about two times higher than shown.

## Previous pregnancies

In 2008, one-third of Aboriginal or Torres Strait Islander mothers gave birth for the first time (Table 73), 58.3% of mothers reported between one and four previous births and

8.5% of mothers had previously given birth to 5 or more babies. This pattern has not changed substantially since 2004.

**Table 73. Previous pregnancies among Aboriginal and Torres Strait Islander mothers, NSW 2004–2008<sup>#</sup>**

No. previous pregnancies (>20 weeks)	Year									
	2004		2005		2006		2007		2008	
	No.	%	No.	%	No.	%	No.	%	No.	%
0	759	32.9	787	31.8	844	32.3	952	33.0	986	33.1
1–4	1327	57.5	1472	59.5	1551	59.4	1683	58.3	1735	58.3
5+	221	9.6	214	8.6	199	7.6	237	8.2	253	8.5
Not stated	1	0.0	1	0.0	17	0.7	16	0.6	2	0.1
TOTAL	2308	100.0	2474	100.0	2611	100.0	2888	100.0	2976	100.0

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

<sup>#</sup> Due to 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 reported number of Aboriginal or Torres Strait Islander mothers giving birth has increased at all ages over recent years. The percentage of Aboriginal or Torres Strait Islander

mothers who were teenagers fell from 21.4% in 2004 to 19.8% in 2008. The percentage of mothers giving birth at 35 years of age or more has been stable at about 9% (Table 74).

**Table 74. Age of Aboriginal and Torres Strait Islander mothers, NSW 2004–2008<sup>#</sup>**

Maternal age (years)	Year									
	2004		2005		2006		2007		2008	
	No.	%	No.	%	No.	%	No.	%	No.	%
12–19	493	21.4	504	20.4	534	20.5	543	18.8	589	19.8
20–34	1594	69.1	1739	70.3	1851	70.9	2080	72.0	2109	70.9
35+	221	9.6	231	9.3	222	8.5	264	9.1	278	9.3
Not stated	0.0	0.0	0.0	0.0	4	0.2	1	0.0	0	0.0
TOTAL	2308	100.0	2474	100.0	2611	100.0	2888	100.0	2976	100.0

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

<sup>#</sup> Due to 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

Between 2004 and 2008, the reported number of Aboriginal or Torres Strait Islander mothers rose in all area health services. The reported number of Aboriginal or Torres Strait Islander mothers who gave birth in 2008 ranged from 143 in

the Northern Sydney and Central Coast Area to 732 in the Hunter and New England Area (Table 75). The proportion of mothers who were teenagers varied from 16.3% in South Eastern Sydney and Illawarra Area to 26.9% in the Greater Western Area (Table 76).

**Table 75. Health area of residence of Aboriginal and Torres Strait Islander mothers, NSW 2004–2008#**

Health area	Year									
	2004		2005		2006		2007		2008	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney South West	164	7.1	181	7.3	213	8.2	253	8.8	275	9.2
South Eastern Sydney & Illawarra	221	9.6	198	8.0	228	8.7	246	8.5	251	8.4
Sydney West	238	10.3	269	10.9	284	10.9	363	12.6	346	11.6
Northern Sydney & Central Coast	93	4.0	88	3.6	105	4.0	137	4.7	143	4.8
Hunter & New England	508	22.0	600	24.3	594	22.7	655	22.7	732	24.6
North Coast	390	16.9	350	14.1	406	15.5	420	14.5	416	14.0
Greater Southern	173	7.5	209	8.4	193	7.4	235	8.1	206	6.9
Greater Western	505	21.9	560	22.6	561	21.5	550	19.0	581	19.5
Other-not stated	16	0.7	19	0.8	27	1.0	29	1.0	26	0.9
<b>TOTAL</b>	<b>2308</b>	<b>100.0</b>	<b>2474</b>	<b>100.0</b>	<b>2611</b>	<b>100.0</b>	<b>2888</b>	<b>100.0</b>	<b>2976</b>	<b>100.0</b>

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

# Due to 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 between health areas (Table 69).

**Table 76. Health area of residence of Aboriginal and Torres Strait Islander mothers by age, NSW 2008#**

Health area	Maternal age (years)					
	Under 20		20-plus		TOTAL	
	No.	%	No.	%	No.	%
Sydney South West	47	17.1	228	82.9	275	100.0
South Eastern Sydney & Illawarra	41	16.3	210	83.7	251	100.0
Sydney West	58	16.8	288	83.2	346	100.0
Northern Sydney & Central Coast	24	16.8	119	83.2	143	100.0
Hunter & New England	152	20.8	580	79.2	732	100.0
North Coast	74	17.8	342	82.2	416	100.0
Greater Southern	34	16.5	172	83.5	206	100.0
Greater Western	156	26.9	425	73.1	581	100.0
Other/Not stated	3	11.5	23	88.5	26	100.0
<b>TOTAL</b>	<b>589</b>	<b>19.8</b>	<b>2387</b>	<b>80.2</b>	<b>2976</b>	<b>100.0</b>

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

# Due to 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 between health areas (Table 69).

## Duration of pregnancy at first antenatal visit

Between 2004 and 2008, the proportion of Aboriginal or Torres Strait Islander mothers who commenced antenatal care at less than 14 weeks gestation rose from 50.4% to 68.7%, and the proportion who commenced antenatal care at less than 20 weeks gestation rose from 70.1% to 83.4% (Table 77). This compares with 82.3% of non-Aboriginal or Torres Strait Islander mothers who commenced antenatal care at less than 14 weeks gestation, and 93.7% who

commenced antenatal care at less than 20 weeks gestation, in 2008.

In 2008, the proportion of Aboriginal or Torres Strait Islander mothers who commenced antenatal care at less than 14 weeks gestation varied from 60.7% in the Sydney South West Area to 81.8% in the Northern Sydney and Central Coast Area (Table 78).

**Table 77. Duration of pregnancy at first antenatal visit among Aboriginal and Torres Strait Islander mothers, NSW 2004–2008#**

Duration of pregnancy (weeks)	Year									
	2004		2005		2006		2007		2008	
	No.	%	No.	%	No.	%	No.	%	No.	%
0-13	1163	50.4	1396	56.4	1531	58.6	1840	63.7	2045	68.7
14-19	455	19.7	458	18.5	421	16.1	456	15.8	437	14.7
20-plus	573	24.8	561	22.7	550	21.1	461	16.0	404	13.6
Not stated	117	5.1	59	2.4	109	4.2	131	4.5	90	3.0
TOTAL	2308	100.0	2474	100.0	2611	100.0	2888	100.0	2976	100.0

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

# Due to 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 78. Duration of pregnancy at first antenatal visit among Aboriginal and Torres Strait Islander mothers by health area of residence, NSW 2008#**

Health area	Duration of pregnancy (weeks)									
	0-13		14-19		20-plus		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney South West	167	60.7	41	14.9	53	19.3	14	5.1	275	100.0
South Eastern Sydney & Illawarra	179	71.3	44	17.5	26	10.4	2	0.8	251	100.0
Sydney West	277	80.1	26	7.5	31	9.0	12	3.5	346	100.0
Northern Sydney & Central Coast	117	81.8	17	11.9	6	4.2	3	2.1	143	100.0
Hunter & New England	497	67.9	109	14.9	111	15.2	15	2.0	732	100.0
North Coast	287	69.0	72	17.3	52	12.5	5	1.2	416	100.0
Greater Southern	133	64.6	36	17.5	28	13.6	9	4.4	206	100.0
Greater Western	366	63.0	90	15.5	95	16.4	30	5.2	581	100.0
Other-not stated	22	84.6	2	7.7	2	7.7	0	0.0	26	100.0
TOTAL	2045	68.7	437	14.7	404	13.6	90	3.0	2976	100.0

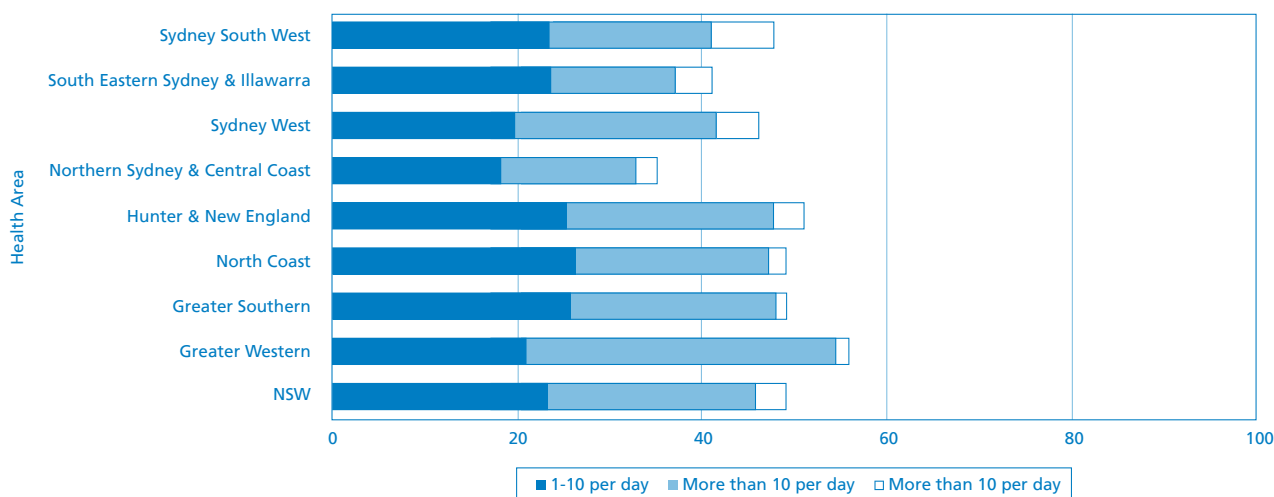
Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Due to 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 between health areas (Table 69).

## Smoking in pregnancy

In 2008, 50.2% of Aboriginal or Torres Strait Islander mothers reported smoking at some time during pregnancy, compared to 56.6% in 2004. This compares with 11.5% of non-Aboriginal or Torres Strait Islander mothers who reported smoking at some time during pregnancy in 2008.

Smoking in the second half of pregnancy poses the greatest risk to the health of both mother and baby. In 2008, 48.9% of Aboriginal or 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 55.8% 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 2008\***

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

# Due to under-reporting of Aboriginality at the MDC, it is likely that the true numbers for NSW are about one-and-a-half times higher than shown. The level of reporting varies between health areas (Table 69).

## Medical conditions and obstetric complications

In 2008, there was a lower rate of gestational diabetes and pregnancy-induced hypertension and a higher rate of diabetes mellitus reported among Aboriginal or Torres Strait Islander mothers compared with non-Aboriginal or

Torres Strait Islander mothers, (Table 79). The number of Aboriginal or 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. The low numbers may be due to under-detection and/or under-reporting.

**Table 79. Maternal medical conditions and obstetric complications by Aboriginality, NSW 2008\***

Condition	Aboriginality							TOTAL	
	Aboriginal/ Torres Strait islander		Non-Aboriginal/ Torres Strait islander		Not stated				
	No.	%	No.	%	No.	%	No.	%	
Diabetes mellitus	36	1.2	565	0.6	0	0	601	0.6	
Gestational diabetes	108	3.6	4394	4.8	7	3.3	4509	4.8	
Essential hypertension	33	1.1	799	0.9	1	0.5	833	0.9	
Pregnancy-induced hypertension	157	5.3	5813	6.3	12	5.6	5982	6.3	
TOTAL CONFINEMENTS	2976	100.0	91675	100.0	213	100.0	94864	100.0	

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

# Due to 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 fell from 68.5% in 2004 to 66.1% in 2008 (Table 80), while the rate of induction of labour among Aboriginal or Torres Strait Islander mothers increased from 20.2% to 22.5%. The rate of induction of labour among Aboriginal or Torres Strait Islander mothers was slightly lower than the rate of 25.4% reported among non-Aboriginal or Torres Strait Islander mothers in 2008.

Between 2004 and 2008, the rate of normal vaginal birth fell from 71.4 to 69.7%. The caesarean section rate rose from 22.1% to 22.7% (Table 81). The rate of instrumental delivery rose slightly from 5.8% to 6.7%, and about 1% of all births were vaginal breech births.

**Table 80. Labour onset for Aboriginal and Torres Strait Islander mothers, NSW 2004–2008<sup>#</sup>**

Labour onset	Year									
	2004		2005		2006		2007		2008	
	No.	%	No.	%	No.	%	No.	%	No.	%
Spontaneous	1581	68.5	1613	65.2	1728	66.2	1884	65.2	1966	66.1
No labour <sup>##</sup>	260	11.3	277	11.2	329	12.6	315	10.9	339	11.4
Induced	467	20.2	584	23.6	552	21.1	688	23.8	669	22.5
Not stated	0	0.0	0	0.0	2	0.1	1	0.0	2	0.1
TOTAL	2308	100.0	2474	100.0	2611	100.0	2888	100.0	2976	100.0

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.  
<sup>#</sup> Due to under-reporting of Aboriginality to the MDC, it is likely that the true numbers are about one-and-a-half times higher than shown.  
<sup>##</sup> No labour indicates elective caesarean section.

**Table 81. Type of birth among Aboriginal and Torres Strait Islander mothers, NSW 2004–2008<sup>#</sup>**

Labour onset	Year									
	2004		2005		2006		2007		2008	
	No.	%	No.	%	No.	%	No.	%	No.	%
Normal vaginal	1647	71.4	1741	70.4	1868	71.5	2015	69.8	2074	69.7
Forceps	60	2.6	42	1.7	46	1.8	42	1.5	75	2.5
Vacuum extraction	74	3.2	91	3.7	84	3.2	121	4.2	124	4.2
Vaginal breech	16	0.7	24	1.0	17	0.7	27	0.9	25	0.8
Elective caesarean section	260	11.3	277	11.2	329	12.6	315	10.9	339	11.4
Emergency caesarean section <sup>##</sup>	251	10.9	299	12.1	259	9.9	365	12.6	336	11.3
Not stated	0	0.0	0	0.0	8	0.3	3	0.1	3	0.1
TOTAL	2308	100.0	2474	100.0	2611	100.0	2888	100.0	2976	100.0

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.  
<sup>#</sup> Due to under-reporting of Aboriginality to the MDC, it is likely that the true numbers for the total are about one-and-a-half times higher than shown.  
<sup>##</sup> Emergency caesarean section includes caesarean section where the onset of labour was not stated.

## Birth weight

Since 2004, the rate of low birth weight (less than 2,500 grams) in Aboriginal or Torres Strait Islander babies has been over 10% and was 11.5% in 2008 (Table 82). This is about twice the rate for babies born to non-Aboriginal or

Torres Strait Islander mothers, which was 6.0% in 2008. In 2008, the largest number of low birth weight babies was in the Hunter and New England Area (Table 83).

**Table 82. Weight of Aboriginal and Torres Strait Islander babies, NSW 2004–2008#**

Birth weight (grams)	Year									
	2004		2005		2006		2007		2008	
	No.	%	No.	%	No.	%	No.	%	No.	%
Less than 1,000	23	1.0	36	1.4	26	1.0	57	1.9	39	1.3
1,000 – 1,499	34	1.5	20	0.8	29	1.1	23	0.8	36	1.2
1,500 – 2,499	244	10.5	257	10.3	273	10.3	276	9.4	272	9.0
2,500+	2032	87.1	2193	87.5	2318	87.5	2563	87.6	2665	88.4
Not stated	0	0.0	1	0.0	3	0.1	7	0.2	3	0.1
TOTAL	2333	100.0	2507	100.0	2649	100.0	2926	100.0	3015	100.0

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

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

**Table 83. Weight of Aboriginal and Torres Strait Islander babies by health area of residence, NSW 2004–2008#**

Health area	Birth weight (grams)							
	Less than 2500		2500-plus		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Sydney South West	45	16.2	232	83.8	0	0.0	277	100.0
South Eastern Sydney & Illawarra	27	10.5	229	89.5	0	0.0	256	100.0
Sydney West	28	8.0	323	92.0	0	0.0	351	100.0
Northern Sydney & Central Coast	12	8.3	132	91.7	0	0.0	144	100.0
Hunter & New England	90	12.1	652	87.9	0	0.0	742	100.0
North Coast	47	11.2	372	88.4	2	0.5	421	100.0
Greater Southern	26	12.4	183	87.1	1	0.5	210	100.0
Greater Western	69	11.7	519	88.3	0	0.0	588	100.0
Other-not stated	3	11.5	23	88.5	0	0.0	26	100.0
TOTAL	347	11.5	2665	88.4	3	0.1	3015	100.0

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

# Due to 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 between health areas (Table 70).

## Gestational age

Since 2004, over 10% of Aboriginal or Torres Strait Islander babies have been premature (less than 37 weeks gestation) (Table 84). The rate of prematurity was 12.2% in 2008—compared with a rate of 7.3% for babies born to non-

Aboriginal or Torres Strait Islander mothers. In 2008, the largest number of premature babies was born in the Hunter and New England Area (Table 85).

**Table 84. Gestational age of Aboriginal and Torres Strait Islander babies, NSW 2004–2008#**

Birth weight (grams)	2004		2005		Year		2007		2008	
					2006					
	No.	%	No.	%	No.	%	No.	%	No.	%
< 28	31	1.3	30	1.2	25	0.9	56	1.9	44	1.5
28-31	29	1.2	27	1.1	26	1.0	28	1.0	40	1.3
32-36	212	9.1	244	9.7	235	8.9	289	9.9	284	9.4
37-41	2038	87.4	2180	87.0	2330	88.0	2518	86.1	2622	87.0
42 +	23	1.0	26	1.0	31	1.2	32	1.1	24	0.8
Not stated	0	0.0	0	0.0	2	0.1	3	0.1	1	0.0
TOTAL	2333	100.0	2507	100.0	2649	100.0	2926	100.0	3015	100.0

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.  
# Due to under-reporting of Aboriginality to the MDC, it is likely that the true numbers are about two times higher than shown.

**Table 85. Gestational age of Aboriginal and Torres Strait Islander babies by health area of residence, NSW 2008#**

Health Area	Gestational age (weeks)							
	Less than 37		37-plus		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Sydney South West	43	15.5	234	84.5	0	0.0	277	100.0
South Eastern Sydney & Illawarra	29	11.3	227	88.7	0	0.0	256	100.0
Sydney West	40	11.4	311	88.6	0	0.0	351	100.0
Northern Sydney & Central Coast	17	11.8	127	88.2	0	0.0	144	100.0
Hunter & New England	90	12.1	652	87.9	0	0.0	742	100.0
North Coast	57	13.5	364	86.5	0	0.0	421	100.0
Greater Southern	23	11.0	187	89.0	0	0.0	210	100.0
Greater Western	68	11.6	519	88.3	1	0.2	588	100.0
Other-not stated	1	3.8	25	96.2	0	0.0	26	100.0
TOTAL	368	12.2	2646	87.8	1	0.0	3015	100.0

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.  
# Due to 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 between health areas (Table 70).

## Apgar score

In 2008, 3.5% of Aboriginal or Torres Strait Islander babies had an Apgar score less than seven (Table 86), slightly

higher than the rate of 2.0% for babies born to non-Aboriginal or Torres Strait Islander mothers.

**Table 86. Apgar score of Aboriginal and Torres Strait Islander babies, NSW 2004–2008#**

Apgar score at 5 minutes	2004		2005		Year		2007		2008	
					2006					
	No.	%	No.	%	No.	%	No.	%	No.	%
0-4	34	1.5	42	1.7	36	1.4	73	2.5	62	2.1
5-6	34	1.5	33	1.3	24	0.9	42	1.4	45	1.5
7+	2256	96.7	2416	96.4	2571	97.1	2794	95.5	2886	95.7
Not stated	9	0.4	16	0.6	18	0.7	17	0.6	22	0.7
TOTAL	2333	100.0	2507	100.0	2649	100.0	2926	100.0	3015	100.0

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.  
# Due to under-reporting of Aboriginality to the MDC, it is likely that the true numbers are about two times higher than shown.

## Infant feeding

In 2008, 63.4% of babies born to Aboriginal or Torres Strait Islander mothers were fully breastfed, 4.2% were partially breastfed and 28.8% received infant formula only (Table 87). This compares with 79.8% of babies born to

non-Aboriginal or Torres Strait Islander mothers who were fully breastfed in 2008. Rates of full breastfeeding ranged from 53.1% in Sydney West Area to 74.6% in the North Coast Area.

**Table 87. Infant feeding among Aboriginal and Torres Strait Islander liveborn babies by health area of residence, NSW 2008<sup>#</sup>**

Health area	Infant feeding									
	Full breast-feeding		Any breast-feeding		Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney South West	147	53.1	22	7.9	92	33.2	16	5.8	277	100.0
South Eastern Sydney & Illawarra	169	66.0	12	4.7	69	27.0	6	2.3	256	100.0
Sydney West	199	56.7	11	3.1	125	35.6	16	4.6	351	100.0
Northern Sydney & Central Coast	106	73.6	4	2.8	32	22.2	2	1.4	144	100.0
Hunter & New England	485	65.4	31	4.2	203	27.4	23	3.1	742	100.0
North Coast	314	74.6	19	4.5	68	16.2	20	4.8	421	100.0
Greater Southern	123	58.6	7	3.3	73	34.8	7	3.3	210	100.0
Greater Western	348	59.2	20	3.4	201	34.2	19	3.2	588	100.0
Other-not stated	20	76.9	1	3.8	5	19.2	0	0.0	26	100.0
<b>TOTAL</b>	<b>1911</b>	<b>63.4</b>	<b>127</b>	<b>4.2</b>	<b>868</b>	<b>28.8</b>	<b>109</b>	<b>3.6</b>	<b>3015</b>	<b>100.0</b>

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

## Perinatal mortality

Since 2004, the perinatal mortality rate among Aboriginal or Torres Strait Islander babies has varied from 11.6 to 22.6 per 1,000 births (Table 88). The rate of 15.3 per 1,000 in

2008 is substantially higher than the rate of 8.5 per 1,000 experienced by babies born to non-Aboriginal or Torres Strait Islander mothers.

**Table 88. Perinatal deaths among Aboriginal and Torres Strait Islander babies, NSW 2004–2008<sup>#</sup>**

Perinatal deaths	Year									
	2004		2005		2006		2007		2008	
	No.	Rate/ 1,000	No.	Rate/ 1,000	No.	Rate/ 1,000	No.	Rate/ 1,000	No.	Rate/ 1,000
Stillbirth	20	8.6	22	8.8	16	6.0	41	14.0	34	11.3
Neonatal death	7	3.0	16	6.4	16	6.0	25	8.5	12	4.0
<b>TOTAL</b>	<b>27</b>	<b>11.6</b>	<b>38</b>	<b>15.2</b>	<b>32</b>	<b>12.1</b>	<b>66</b>	<b>22.6</b>	<b>46</b>	<b>15.3</b>

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

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