

3.01 Antenatal care

Number, rate and percentage of Indigenous women who used antenatal care provided by skilled birth attendants for reasons related to pregnancy at least once during pregnancy among all women who gave birth, whether resulting in a live or stillbirth, if the birthweight was at least 400 grams or the gestational age was 20 weeks or more

Data sources

State/territory perinatal collections

Data for this measure come from the state/territory-based perinatal collections ('midwives collections').

Each state and territory has a perinatal collection based on birth notification forms completed by midwives, and other staff, using information obtained from mothers and other hospital records. All jurisdictions record some aspects of most antenatal care, but the data collected vary by jurisdiction.

The Northern Territory, Queensland and South Australia collect data on the number of antenatal visits attended during pregnancy and the type of health-care professional consulted. New South Wales and the Northern Territory record the duration of pregnancy at the first antenatal session. Data on the use of antenatal care services were not available for the Australian Capital Territory, Victoria, Western Australia or Tasmania.

The World Health Organization (WHO) defines low birth weight as less than 2,500 grams.

Healthy for Life Program

The Healthy for Life (HfL) program is an ongoing program funded by the Office for Aboriginal and Torres Strait Islander Health (OATSIH) of the Australian Government Department of Health and Ageing (DoHA). The program aims to improve the capacity and performance of primary health-care services to deliver high-quality maternal, children's and chronic disease care to Aboriginal and Torres Strait Islander peoples. This is carried out through population health approaches using best practice and quality improvement principles.

Services participating in the HfL program are required to submit de-identified, aggregate service data for 11 essential indicators. These indicators cover maternal health, child health and chronic disease care on a regular basis (6 and 12 months), as well as information about the characteristics of their service and organisational infrastructure. For the reporting period ending June 2009, 72 HfL services submitted data to the AIHW.

Analyses

Data on the use of antenatal care services are available for New South Wales, Queensland, South Australia, the Australian Capital Territory and the Northern Territory. Data for the year 2007 are presented for all of these states and territories except for the Australian Capital Territory, which reported that the quality of antenatal care data in the Territory for the year 2007 was poor and was not reliable enough to publish.

Use of antenatal care services

- In 2007, in New South Wales, Queensland, South Australia and the Northern Territory, approximately 97% of Indigenous mothers, and 98% of non-Indigenous mothers, attended at least one antenatal care session.

Use of antenatal care services by state/territory

- In 2007, in New South Wales, Queensland, South Australia and the Northern Territory, the rate at which Indigenous mothers attended at least one antenatal care session during pregnancy was similar to non-Indigenous mothers (Table 3.01.1). This rate ranged from 905 per 1,000 in South Australia to 983 per 1,000 in Queensland.
- In the two jurisdictions where data are collected on the duration of pregnancy (New South Wales and the Northern Territory), Indigenous mothers were 2.3 to 5.4 times as likely as non-Indigenous mothers to be in their third trimester of pregnancy at their first antenatal session and less likely to be in their first trimester (0.8 and 0.6, respectively).
- In Queensland, South Australia and the Northern Territory, Indigenous mothers were less likely to have attended five or more antenatal sessions during pregnancy than non-Indigenous mothers (all 0.8 times as likely).

Table 3.01.1: Use of antenatal services by mothers, by Indigenous status, NSW, Qld, SA and NT, 2007^{(a)(b)(c)}

		NSW			Qld			SA			NT		
		Number	Number per 1,000 ^(d)	Rate ratio ^(e)	Number	Number per 1,000 ^(d)	Rate ratio ^(e)	Number	Number per 1,000 ^(d)	Rate ratio ^(e)	Number	Number per 1,000 ^(d)	Rate ratio ^(e)
Total attended at least one antenatal session													
	Indigenous	2,782	963.3	1.0	3,115	982.6	1.0	523	904.8	1.0	1,444	971.1	1.0
	Non-Indigenous	90,210	985.7		55,874	997.4		17,711	937.7		2,245	991.6	
No. sessions attended^(f)													
1	Indigenous	n.a.	n.a.	n.a.	150	47.3	7.2*	21	36.3	18.2*	61	41.0	9.3*
	Non-Indigenous	n.a.	n.a.		368	6.6		38	2.0		10	4.4	
2-4	Indigenous	n.a.	n.a.	n.a.	539	170.0	3.1*	100	173.0	8.7*	240	161.4	3.2*
	Non-Indigenous	n.a.	n.a.		3,119	55.7		377	20.0		114	50.4	
5 or more	Indigenous	n.a.	n.a.	n.a.	2,427	765.6	0.8*	402	695.5	0.8*	1,111	747.1	0.8*
	Non-Indigenous	n.a.	n.a.		52,386	935.2		17,296	915.7		2,116	934.6	
Duration of pregnancy at first antenatal visit^(g)													
First trimester (<13 weeks)	Indigenous	1,748	605.3	0.8*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	632	425.0	0.6*
	Non-Indigenous	66,218	723.5		n.a.	n.a.		n.a.	n.a.		1,651	729.2	
Second trimester (13-20 weeks)	Indigenous	548	189.8	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	351	236.0	1.2*
	Non-Indigenous	17,114	187.0		n.a.	n.a.		n.a.	n.a.		463	204.5	
Third trimester (20 or more weeks)	Indigenous	461	159.6	2.3*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	461	310.0	5.4*
	Non-Indigenous	6,343	69.3		n.a.	n.a.		n.a.	n.a.		131	57.9	

(continued)

Table 3.01.1 (continued): Use of antenatal services by mothers, by Indigenous status, NSW, Qld, SA, and NT, 2007^{(a)(b)(c)}

*Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons at the $p < 0.05$ level.

- (a) Indigenous and non-Indigenous data exclude births where the mother's Indigenous status is not stated.
- (b) Jurisdiction-level data are based on place where birth occurred, not place of usual residence. Cross-border issues need to be considered here; e.g. a high proportion of births in ACT hospitals are for NSW mothers.
- (c) Data not available from the Australian Capital Territory, Victoria, Western Australia and Tasmania.
- (d) Number per 1,000 women who gave birth in the period, whether resulting in a live or stillbirth, if the birthweight is at least 400 grams or the gestational age is 20 weeks or more.
- (e) Rate ratio—Indigenous rate divided by the non-Indigenous rate.
- (f) Data for Qld, SA and NT only. Data not collected in NSW.
- (g) Data for NSW and NT only. Data not collected in Qld or SA.

Source: AIHW analysis of state/territory perinatal collections.

Use of antenatal care services by remoteness

- In 2007, there was little difference in the proportion of Indigenous mothers who attended at least one antenatal care session by remoteness (around 96% in *Major cities*, 97% in *Inner regional and Outer regional* areas and 96–97% in *Remote and Very remote* areas) (Table 3.01.2).
- Over 50% of Indigenous mothers in *Major cities, Inner regional and Outer regional* areas had their first antenatal visit during the first trimester of pregnancy while 46% in *Remote* and 40% in *Very remote* areas did so.
- Women in *Remote* and *Very remote* areas were more likely to have their first antenatal check during second trimester (23%) and third trimester (28%) than women in non-remote locations. Smaller proportions of non-Indigenous mothers in *Remote and Very remote* areas had their first antenatal visit during the second and third trimesters (14% and 5.1%, respectively).
- Indigenous mothers in *Very remote* areas were most likely to attend five or more antenatal sessions (82%), although Indigenous mothers in *Remote* areas were least likely to attend five or more antenatal sessions (71%).
- Indigenous mothers living in *Outer regional* areas were most likely to attend their first antenatal session in their first trimester (54%) and Indigenous mothers living in *Very remote* areas were least likely to attend their first antenatal session in their first trimester (40%).

Table 3.01.2: Use of antenatal services by mothers, by remoteness and Indigenous status, NSW, Qld, SA and NT combined, 2007 ^{(a)(b)(c)}

	Major Cities		Inner Regional		Outer Regional		Sub-total Non-remote		Remote		Very Remote		Sub-total remote		Total	
	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.
	Per cent															
Total attended at least one antenatal session	96.0	98.2	97.4	99.0	97.3	98.9	97.0	98.5	96.7	96.4	95.9	96.2	96.5	96.3	96.8	98.4
Number of sessions attended^(d)																
0	2.3*	0.2*	1.2*	0.2*	1.1*	0.1*	1.4*	0.2*	1.0*	n.p.	1.8	2.1	1.2*	0.4*	1.3*	0.2*
1	3.3*	0.5*	3.9*	0.7*	5.5*	0.6*	4.7*	0.5*	4.2*	n.p.	2.4	n.p.	3.7*	0.4*	4.4*	0.5*
2–4	16.5*	4.4*	16.5*	5.9*	16.9*	4.5*	16.7*	4.7*	19.0*	3.6*	11.8*	2.1*	17.1*	3.3*	16.8*	4.7*
5+	76.7*	93.2*	77.9*	92.4*	74.8*	93.5*	75.8*	93.1*	71.2*	91.0*	81.6	90.5	74.0*	90.9*	75.3*	93.0*
No sessions not stated	1.1	1.7	n.p.	0.8	1.8	1.3	1.4	1.5	4.6	5.2	2.4	3.9	4.0	5.0	2.2*	1.6*
Duration of pregnancy at first antenatal visit^(e)																
First trimester (<13 weeks)	57.5*	69.6*	62.6*	78.1*	53.9*	76.2*	57.7*	72.2*	46.3*	81.3*	39.7*	69.4*	44.9*	79.2*	54.4*	72.4*
Second trimester (13 to <20 weeks)	22.2	20.9	16.7	14.4	20.4*	15.9*	19.7	18.9	22.3*	12.5*	25.6	23.8	23.0*	14.6*	20.5*	18.7*
Third trimester (20 or more weeks)	15.2*	7.4*	17.0*	5.7*	22.0*	6.3*	18.5*	6.9*	28.0*	4.8*	29.9*	6.8*	28.4*	5.1*	21.1*	6.9*
Gestation not stated	0.6	0.4	0.5	0.9	2.3*	0.9*	1.2*	0.6*	2.5*	1.1*	2.6	0.0	2.5*	0.9*	1.6*	0.6*
Total women who gave birth^(f)	1,790	107,390	1,662	37,612	2,952	19,663	6,404	164,665	1,202	1,892	460	417	1,662	2,309	8,123	168,689

(continued)

Table 3.01.2(continued): Use of antenatal services by mothers, by remoteness and Indigenous status, NSW, Qld, SA and NT combined, 2007 (a)(b)(c)

*Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons at the $p < 0.05$ level.

- (a) Indigenous and non-Indigenous data exclude births where the mother's Indigenous status is not stated.
- (b) Jurisdiction-level data are based on place where birth occurred, not place of usual residence. Cross-border issues need to be considered here; e.g. a high proportion of births in ACT hospitals are for NSW mothers.
- (c) Data not available from the Australian Capital Territory, Victoria, Western Australia and Tasmania.
- (d) Data for Qld, SA and NT only. Data not collected in NSW.
- (e) Data for NSW and NT only. Data not collected in Qld or SA.
- (f) Total women who gave birth in the period, whether resulting in a live or stillbirth, if the birthweight is at least 400 grams or the gestational age is 20 weeks or more

Source: AIHW analysis of state/territory perinatal collections.

Use of antenatal care services by age

- Across all age groups in 2007, the percentage of Indigenous mothers who attended at least one antenatal care session during pregnancy was similar to non-Indigenous mothers (between 97% and 98%) for New South Wales, Queensland, South Australia and the Northern Territory combined (Table 3.01.3).
- The largest difference between the number of Indigenous and non-Indigenous mothers attending at least one antenatal session was observed for mothers aged 40 years and over. In this age group 93% of Indigenous mothers attended one session compared with 98% of non-Indigenous mothers
- For New South Wales and Northern Territory combined, Indigenous mothers were more likely than non-Indigenous mothers to have attended their first antenatal session during their second or third trimester of pregnancy. For all age groups, Indigenous mothers were also more likely to attend their first antenatal session during their third trimester compared with non-Indigenous mothers.
- Indigenous mothers were most likely to attend their first antenatal visit during their third trimester of pregnancy when they were aged 40 years or older (28%) and if they were less than 20 years of age (25%). Indigenous mothers were least likely to attend their first antenatal visit during their third trimester of pregnancy when they were aged 30–34 years old (17%).

Table 3.01.3: Use of antenatal services by mothers, by age of mother and Indigenous status, NSW, Qld, SA and NT combined, 2007^{(a)(b)(c)}

	<20		20–24		25–29		30–34		35–39		40+		Total	
	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.
	Per cent													
Total attended at least one antenatal session	96.9	98.0	97.1	98.4	97.1	98.3	96.2	98.5	96.4	98.7	92.6	98.3	96.8	98.4
Number of sessions attended^(d)														
0	1.5*	0.5*	1.0*	0.3*	1.4*	0.2*	1.3*	0.1*	1.3*	0.1*	n.p.	n.p.	1.3*	0.2*
1	3.6*	1.4*	4.3*	0.9*	4.7*	0.5*	4.8*	0.4*	5.3*	0.3*	n.p.	0.4*	4.4*	0.5*
2–4	19.0*	9.5*	17.5*	6.6*	16.3*	4.5*	14.1*	3.7*	15.5*	3.7*	12.5*	4.1*	16.8*	4.7*
5+	73.3*	87.6*	74.9*	91.3*	76.1*	93.2*	77.2*	93.9*	75.9*	94.3*	73.4	93.0	75.3*	93.0*
No sessions not stated	2.6*	1.0*	2.3*	1.0*	1.5	1.6	2.6	1.9	2.0	1.6	n.p.	2.3	2.2*	1.6*
Duration of pregnancy at first antenatal visit^(e)														
First trimester (<13 weeks)	47.4*	61.0*	54.8*	69.4*	56.3*	72.6*	58.5*	73.7*	57.4*	73.9*	55.8	71.1	54.4*	72.4*
Second trimester (13 to <20 weeks)	24.0*	19.3*	20.5	18.5	19.2	18.2	19.8	19.0	18.5	18.6	11.6	20.5	20.5*	18.7*
Third trimester (20 or more weeks)	25.0*	16.4*	21.2*	9.5*	20.8*	7.1*	16.5*	5.6*	18.8*	5.7*	27.9*	6.5*	21.1*	6.9*
Gestation not stated	2.1*	0.7*	1.5*	0.6*	1.2*	0.5*	1.8*	0.6*	n.p.	0.7	0.0	0.8	1.6*	0.6*
Total women who gave birth^(f)	1,597	6,350	2,620	24,754	1,931	46,311	1,247	54,490	632	30,826	95	5,944	8,123	168,689

(continued)

Table 3.01.3 (continued): Use of antenatal services by mothers, by age of mother and Indigenous status, NSW, Qld, SA and NT combined 2007^{(a)(b)(c)}

*Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons at the $p < 0.05$ level.

- (a) Indigenous and non-Indigenous data exclude births where the mother's Indigenous status is not stated.
- (b) Jurisdiction-level data are based on place where birth occurred, not place of usual residence. Cross-border issues need to be considered here; e.g. a high proportion of births in ACT hospitals are for NSW mothers.
- (c) Data not available from the Australian Capital Territory, Victoria, Western Australia and Tasmania.
- (d) Data for Qld, SA and NT only. Data not collected in NSW.
- (e) Data for NSW and NT only. Data not collected in Qld or SA.
- (f) Total women who gave birth in the period, whether resulting in a live or stillbirth, if the birthweight is at least 400 grams or the gestational age is 20 weeks or more.

Source: AIHW analysis of state/territory perinatal collections.

Use of antenatal care services by smoking status

- In 2007, in New South Wales, Queensland, South Australia and the Northern Territory combined, 51% of Indigenous mothers who attended at least one antenatal session smoked, compared to 15% of non-Indigenous mothers who attended one antenatal session (Table 3.01.4).
- In Queensland, South Australia and the Northern Territory combined, the proportion of Indigenous mothers who smoked and attended 1 (62%), 2-4 (59%) or 5 or more (50%) antenatal sessions was higher than the proportion of non-Indigenous mothers who smoked and attended 1 (46%), 2-4 (35%) or 5 or more (17%) antenatal sessions (Table 3.01.4).
- In New South Wales and the Northern Territory combined, a slightly lower proportion of Indigenous mothers who smoked attended their first antenatal session in the first trimester of pregnancy (45%) than Indigenous mothers who attended their first antenatal session in their second or third trimester of pregnancy (50-52%) (Table 3.01.4).

Table 3.01.4: Use of antenatal services by mothers, by smoking status and Indigenous status, NSW, Qld, SA and NT combined, 2007^{(a)(b)(c)}

	Smoked			Did not smoke			Total ^(d)	
	Indigenous	Non-Indigenous	Ratio	Indigenous	Non-Indigenous	Ratio	Indigenous	Non-Indigenous
	%	%		%	%		No.	No.
Attended at least one antenatal session	51.1	14.5	3.5*	46.5	85.1	0.5*	7,872	167,192
Attended no antenatal sessions	59.2	29.1	2.0*	28.9	68.4	0.4*	218	1,088
Number of sessions attended^(e)								
0	50.4	42.3	1.2	28.9	48.1	0.6*	121	156
1	62.1	46.4	1.3*	28.0	50.2	0.6*	232	416
2–4	59.0	34.8	1.7*	33.8	62.7	0.5*	879	3,610
5+	49.8	17.2	2.9*	47.8	82.3	0.6*	3,941	71,802
Duration of pregnancy at first antenatal visit^(f)								
First trimester (<13 weeks)	45.3	10.7	4.2*	52.9	89.2	0.6*	2,382	67,878
Second trimester (13 to <20 weeks)	50.2	11.3	4.4*	44.7	88.5	0.5*	894	17,575
Third trimester (20 or more weeks)	52.0	21.0	2.5*	37.0	78.6	0.5*	968	6,492

*Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons at the $p < 0.05$ level.

(a) Indigenous and non-Indigenous data exclude births where the mother's Indigenous status is not stated.

(b) Jurisdiction-level data are based on place where birth occurred, not place of usual residence. Cross-border issues need to be considered here; e.g. a high proportion of births in ACT hospitals are for NSW mothers.

(c) Data not available from the Australian Capital Territory, Victoria, Western Australia and Tasmania.

(d) Includes smoking status not stated.

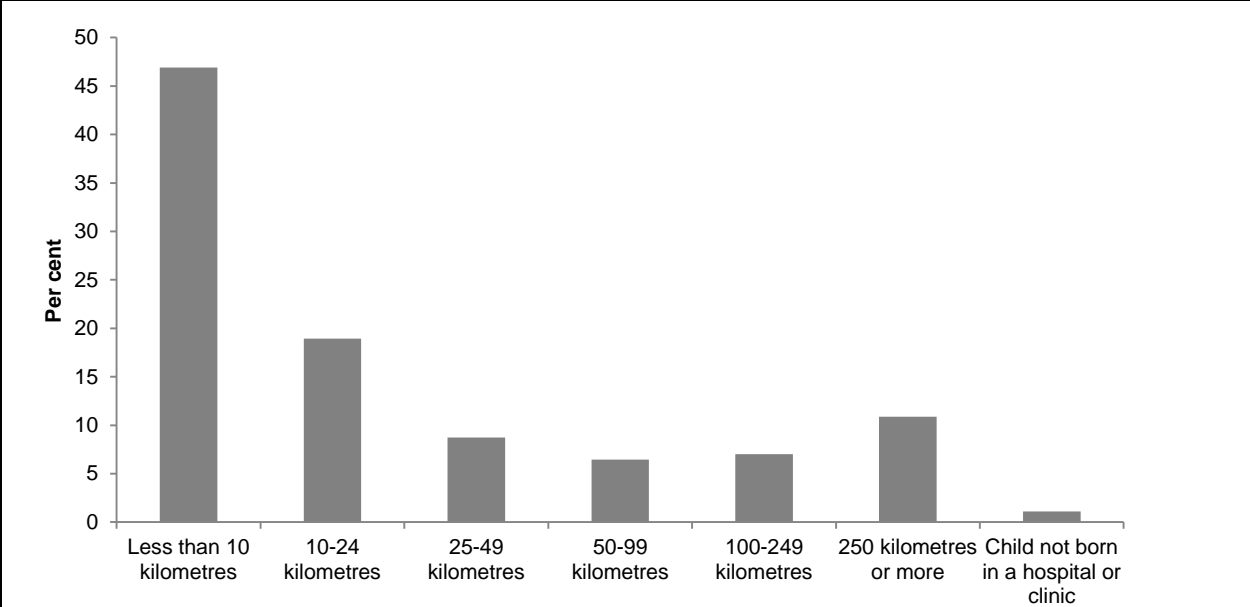
(e) Data for Qld, SA and NT. Data not collected in NSW.

(f) Data for NSW and NT. Data not collected in Qld or SA.

Source: AIHW analysis of state/territory perinatal collections.

Distance to hospital or clinic where child was born

- Approximately 47% of the Indigenous children aged 0–3 years in 2008 were born in a hospital or clinic less than 10 kilometres from where the child’s birth mother lived when the child was born (Figure 3.01.1).
- About 19% of Indigenous children aged 0–3 years in 2008 were born in a hospital or clinic 10–24 kilometres away.
- Around one in ten (11%) children were born in a hospital or clinic 250 kilometres or more away.
- Only a small proportion (1%) of the Indigenous children was not born in a hospital or clinic.



Source: AIHW analysis of 2008 NATSISS.

Figure 3.01.1: Distance to hospital or clinic where child was born, Indigenous children aged 0–3 years, 2008

Use of antenatal care services and birth outcomes

Tables 3.01.5, 3.01.6 and 3.01.7 present information on babies with specific birth outcomes by the number of antenatal sessions the mother attended and duration of pregnancy at first visit. Table 3.01.4 presents information on birthweight, Table 3.01.5 presents information on pre-term (less than 37 weeks gestation) and non-pre-term births and Tables 3.01.6 presents information on perinatal deaths.

In 2007, in New South Wales, Queensland, South Australia and the Northern Territory combined, the proportion of live births that were of low birthweight to Indigenous mothers was:

- much higher among mothers who attended no antenatal sessions than among mothers who attended at least one antenatal session (25% compared with 12%). (Table 3.01.5);
- higher among mothers who attended no antenatal sessions or one antenatal session (36% and 27%, respectively) than among mothers who attended five or more antenatal sessions (9.4%) (Table 3.01.5).
- In New South Wales and the Northern Territory combined, a lower proportion of live births who were of low birthweight to Indigenous mothers were born to mothers who attended their first antenatal session in the first trimester of pregnancy (9.9%) than mothers who attended their first antenatal session in their second or third trimester of pregnancy (12–14%) (Table 3.01.5).
- Similar patterns to those described above were evident for pre-term births to Indigenous mothers (Table 3.01.6).
- The proportion of babies that died in the perinatal period born to Indigenous mothers (the perinatal period commences at 20 completed weeks, or 140 days, of gestation and ends 28 completed days after birth) was much higher for mothers who attended no antenatal sessions compared with mothers who attended five or more antenatal sessions (13% compared with 0.8%) (Table 3.01.7).

Table 3.01.5: Low birthweight babies by use of antenatal services by mothers and Indigenous status, NSW, Qld, SA and NT combined, 2007^{(a)(b)(c)}

	Low birthweight			Non-low birthweight			Total live births	
	Indigenous	Non-Indigenous	Ratio	Indigenous	Non-Indigenous	Ratio	Indigenous	Non-Indigenous
	%	%		%	%		No.	No.
Attended at least one antenatal session	11.7	5.8	2.0*	88.5	94.2	0.9*	7,850	167,449
Attended no antenatal sessions	24.8	12.7	1.9*	47.7	87.0	0.5*	158	1,045
Number of sessions attended^(d)								
0	35.9	31.3	1.2	64.1	68.8	0.93	64	128
1	26.9	30.2	0.9	73.5	69.8	1.05	223	377
2–4	22.9	20.0	1.1	78.3	80.1	0.98	860	3,474
5+	9.4	5.5	1.7*	90.8	94.6	0.96*	3,969	72,744
Duration of pregnancy at first antenatal visit^(e)								
First trimester (<13 weeks)	9.9	5.2	1.9*	90.2	94.8	0.95*	2,382	68,414
Second trimester (13 to <20 weeks)	12.4	5.5	2.2*	88.4	94.5	0.94	898	17,674
Third trimester (20 or more weeks)	13.5	6.3	2.1*	87.4	93.7	0.93	905	6,488

* Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons at the $p < 0.05$ level.

(a) Indigenous and non-Indigenous data exclude births where the mother's Indigenous status is not stated.

(b) Jurisdiction-level data are based on place where birth occurred, not place of usual residence. Cross-border issues need to be considered here; e.g. a high proportion of births in ACT hospitals are for NSW mothers.

(c) Data not available from the Australian Capital Territory, Victoria, Western Australia and Tasmania.

(d) Data for Qld, SA and NT only. Data not collected in NSW.

(e) Data for NSW and NT only. Data not collected in Qld or SA.

Source: AIHW analysis of state/territory perinatal collections.

Table 3.01.6: Pre-term babies by use of antenatal services by mothers, and Indigenous status, NSW, Qld, SA and NT combined, 2007^{(a)(b)(c)}

	Pre-term			Non-pre-term			Total births	
	Indigenous	Non-Indigenous	Ratio	Indigenous	Non-Indigenous	Ratio	Indigenous	Non-Indigenous
	Per cent			Per cent			Number	
Attended at least one antenatal session	25.5	8.7	2.9*	74.5	91.3	0.8*	7,963	168,644
Attended no antenatal sessions	36.3	16.4	2.2*	63.7	83.3	0.8*	168	1,084
Number of sessions attended^(d)								
0	37.1	32.1	1.2	62.9	67.9	0.9	70	140
1	34.9	30.7	1.1	65.1	69.3	0.9	232	423
2–4	34.6	24.4	1.4*	65.3	75.6	0.9*	887	3,656
5+	32.2	9.8	3.3*	67.8	90.2	0.8*	3,994	72,982
Duration of pregnancy at first antenatal visit^(e)								
First trimester (<13 weeks)	30.4	9.1	3.3*	69.6	90.9	0.8*	2,414	68,945
Second trimester (13 to <20 weeks)	40.9	9.2	4.4*	59.1	90.8	0.7*	915	17,811
Third trimester (20 or more weeks)	49.1	9.8	5.0*	50.8	90.2	0.6*	925	6,548

* Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons at the $p < 0.05$ level.

(a) Indigenous and non-Indigenous data exclude births where the mother's Indigenous status is not stated.

(b) Jurisdiction-level data are based on place where birth occurred, not place of usual residence. Cross-border issues need to be considered here; e.g. a high proportion of births in ACT hospitals are for NSW mothers.

(c) Data not available from the Australian Capital Territory, Victoria, Western Australia and Tasmania.

(d) Data for Qld, SA and NT only. Data not collected in NSW.

(e) Data for NSW and NT only. Data not collected in Qld or SA.

Source: AIHW analysis of state/territory perinatal collections.

Table 3.01.7: Perinatal deaths, by use of antenatal services by mothers and Indigenous status, NSW, Qld, SA and NT combined, 2007^{(a)(b)(c)}

	Perinatal deaths ^(d)			Non-perinatal deaths			Total births	
	Indigenous	Non-Indigenous	Ratio	Indigenous	Non-Indigenous	Ratio	Indigenous	Non-Indigenous
	Per cent			Per cent			Number	
Attended at least one antenatal session	1.8	0.8	2.1*	98.1	99.1	1.0	7,963	168,644
Attended no antenatal sessions	8.9	4.7	1.9*	90.5	95.1	1.0	168	1,084
Number of sessions attended^(e)								
0	12.9	10.0	1.3	87.1	90.0	1.0	70	140
1	6.5	13.7	0.5*	93.5	86.3	1.1	232	423
2–4	3.9	6.9	0.6*	96.1	93.1	1.0	887	3,656
5+	0.8	0.5	1.5*	99.2	99.5	1.0	3,994	72,982
Duration of pregnancy at first antenatal visit^(f)								
First trimester (<13 weeks)	1.4	0.8	1.8*	98.3	99.0	1.0	2,414	68,945
Second trimester (13 to <20 weeks)	2.5	0.9	2.9*	97.3	99.0	1.0	915	17,811
Third trimester (20 or more weeks)	2.3	1.0	2.2*	97.5	98.7	1.0	925	6,548

* Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons at the $p < 0.05$ level.

(a) Indigenous and non-Indigenous data exclude births where the mother's Indigenous status is not stated.

(b) Jurisdiction-level data are based on place where birth occurred, not place of usual residence. Cross-border issues need to be considered here; e.g. a high proportion of births in ACT hospitals are for NSW mothers.

(c) Data not available from the Australian Capital Territory, Victoria, Western Australia and Tasmania.

(d) Perinatal deaths data for NT only includes stillbirths.

(e) Data for Qld, SA and NT only. Data not collected in NSW.

(f) Data for NSW and NT only. Data not collected in Qld or SA.

Source: AIHW analysis of state/territory perinatal collections.

Time series analyses

Data on the antenatal care used by Indigenous mothers are available for 1998–2007 for New South Wales, South Australia and Queensland, and 2000–2007 for the Northern Territory.

- Over the period 1998–2007, there was a significant increase in the rate at which Indigenous mothers attended at least one antenatal care session during pregnancy. The fitted trend implies that the annual increase in the rate of mothers attending antenatal sessions was around 3.3 per 1,000 births, which is equivalent to a 3.1% increase in the rate over the period. Over the same period, there was also a significant increase in the rate at which non-Indigenous mothers attended at least one antenatal care session during pregnancy (1.6% increase) (Table 3.01.8; Figure 3.01.2).
- In New South Wales, over the period 1998–2007, there was a significant increase in the rate at which Indigenous mothers attended at least one antenatal care session during pregnancy. The fitted trend implies an average annual increase in the rate of around 3.3 per 1,000 which is equivalent to a 3.1% increase in the rate over the period. Over the same period, there was also a slight decrease in the rate at which non-Indigenous mothers attended at least one antenatal care session during pregnancy (0.2% decrease) (Table 3.01.8; Figure 3.01.3).
- In Queensland, over the period 1998–2007, there were no significant changes in the rates at which Indigenous mothers or non-Indigenous mothers attended at least one antenatal care session during pregnancy.
- In South Australia, over the period 1998–2007, there was a significant increase in the rate at which Indigenous mothers attended at least one antenatal care session during pregnancy. The fitted trend implies an average annual increase in the rate of around 22 per 1,000, which is equivalent to a 28% increase in the rate over the period. Over the same period, there was also a significant increase in the rate at which non-Indigenous mothers attended at least one antenatal care session during pregnancy (15% increase).
- In the Northern Territory, data were provided for 2000–2007. The data show that the Northern Territory had the highest rate of mothers attending antenatal visits (reaching 1,000 per 1,000 for non-Indigenous women and 999 per 1,000 for Indigenous women in 2005 and 2006) and also the least difference between Indigenous and non-Indigenous women. Northern Territory data are not presented for 1998, 1999 and 2002 because of a technical error.
- In New South Wales, Queensland and South Australia combined the proportion of Indigenous mothers who attended at least one antenatal care session increased from approximately 936 per 1,000 in 1998 to 963 in 2007. Non-Indigenous mothers who attended at least one antenatal care session increased from 967 per 1,000 in 1998 to 981 per 1,000 in 2007 (Table 3.01.9).

Table 3.01.8: Mothers who attended at least one antenatal care session, by Indigenous status, NSW, Qld, SA, ACT and NT, 1998–2007^{(a)(b)}

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Annual change ^(c)	Per cent change ^(d)
Number												
NSW^(e)												
Indigenous	1,909	1,947	1,968	1,980	2,008	2,073	2,191	2,415	2,502	2,757	87.6*	41.3*
Non-Indigenous	81,536	83,103	83,543	81,560	81,683	82,441	81,490	86,128	87,133	89,675	696.6*	7.7*
Qld												
Indigenous	2,657	2,783	2,735	2,636	2,644	2,808	2,696	2,986	2,897	3,115	39.5*	13.4*
Non-Indigenous	44,559	44,998	45,443	45,977	45,451	46,485	47,107	51,081	52,661	55,874	1,139.9*	23.0*
SA^(f)												
Indigenous	289	325	307	296	333	355	385	405	462	523	23.3*	72.6*
Non-Indigenous	14,418	15,160	14,588	14,920	14,974	15,329	15,444	15,723	16,754	17,711	293.3*	18.3*
NSW, Qld and SA combined												
Indigenous	4,855	5,055	5,010	4,912	4,985	5,236	5,272	5,806	5,861	6,395
Non-Indigenous	140,513	143,261	143,574	142,457	142,108	144,255	144,041	152,932	156,548	163,260
NT^{(g)(h)}												
Indigenous	n.p.	n.p.	1,282	1,426	n.p.	1,389	1,316	1,384	1,468	1,444
Non-Indigenous	n.p.	n.p.	2,173	2,212	n.p.	2,219	2,103	2,266	2,220	2,245
Number per 1,000⁽ⁱ⁾												
NSW^(e)												
Indigenous	934.4	945.6	934.9	938.4	931.8	959.3	949.3	976.2	958.3	954.6	3.3*	3.1*
Non-Indigenous	984.9	990.5	990.9	991.9	991.5	995.3	994.4	994.9	988.2	979.9	-0.2	-0.2

(continued)

Table 3.01.8 (continued): Mothers who attended at least one antenatal care session, by Indigenous status, NSW, Qld, SA, ACT and NT, 1998–2007^{(a)(b)}

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Annual change ^(c)	Per cent change ^(d)
	Number											
Qld												
Indigenous	972.9	976.8	976.4	978.8	971.7	981.8	974.3	973.0	986.4	982.6	0.8	0.7
Non-Indigenous	996.6	995.7	994.1	995.0	996.9	996.6	996.3	996.4	998.0	997.4	0.2*	0.2*
SA^(f)												
Indigenous	694.7	727.1	688.3	741.9	748.3	758.5	795.5	831.6	843.1	904.8	21.8*	28.2*
Non-Indigenous	800.8	852.4	851.5	876.2	882.1	899.4	922.5	903.2	932.4	937.7	13.4*	15.0*
NSW, Qld and SA combined												
Indigenous	935.5	944.0	936.1	944.3	936.9	953.9	948.4	962.9	961.5	963.7	3.3*	3.1*
Non-Indigenous	965.7	975.4	975.7	979.4	980.4	984.5	986.8	985.1	985.1	981.0	1.7*	1.6*
NT^{(g)(h)}												
Indigenous	n.p.	n.p.	968.3	960.3	n.p.	996.4	988.0	999.3	999.3	971.1	-3.9	-3.6
Non-Indigenous	n.p.	n.p.	973.1	984.4	n.p.	998.2	999.0	1,000.0	1,000.0	991.6	-1.2	-1.1
Rate ratio⁽ⁱ⁾												
NSW ^(e)	0.9	1.0	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	0.0	3.3
Qld	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.5
SA ^(f)	0.9	0.9	0.8	0.8	0.8	0.8	0.9	0.9	0.9	1.0	0.0	11.6
NSW, Qld and SA combined	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	1.5
NT ^(f)	n.p.	n.p.	1.0	1.0	n.p.	1.0	1.0	1.0	1.0	1.0	0.0	-2.5

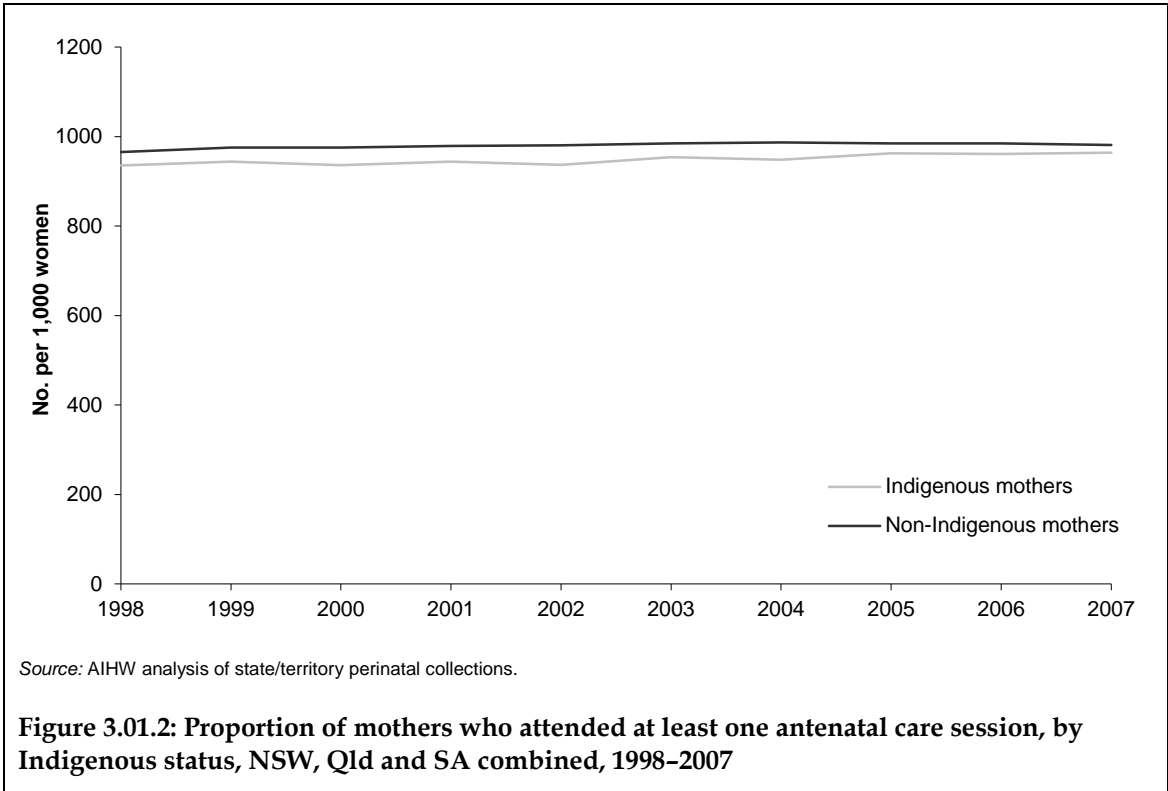
(continued)

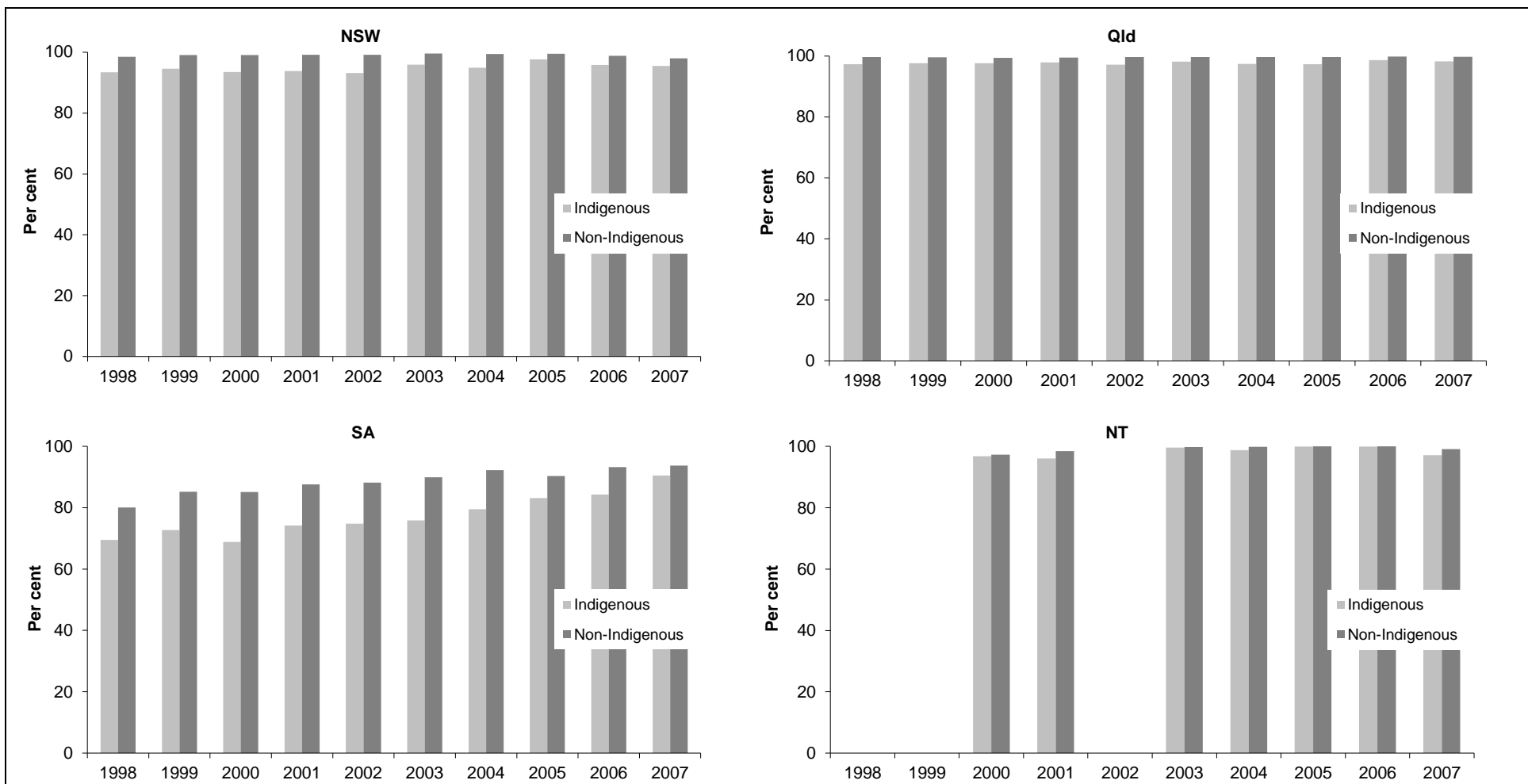
Table 3.01.8 (continued): Mothers who attended at least one antenatal care session, by Indigenous status, NSW, Qld, SA, ACT and NT, 1998–2007^{(a)(b)}

* Represents results with statistically significant increases or declines at the $p < 0.05$ level over the period 1998–2007

- (a) Indigenous and non-Indigenous data exclude births where the mother's Indigenous status is not stated.
- (b) Jurisdiction-level data are based on place where birth occurred, not place of usual residence. Data not available from the Australian Capital Territory, Victoria, Western Australia and Tasmania.
- (c) Average annual change in rates and rate ratios determined using linear regression analysis.
- (d) Per cent change between 1998 and 2007 based on the average annual change over the period.
- (e) In 2007, NSW collected data for a new variable 'was antenatal care received', which provides a more accurate picture of the use of antenatal sessions. Prior to 2007, data for the number of women attending antenatal sessions in NSW was restricted to those whose 'duration of pregnancy at first antenatal session was recorded'. In order to maintain consistency in the time series data, the pre-2007 definition is used.
- (f) SA data excludes women where number of antenatal care sessions attended is unknown.
- (g) In the NT in 1998, 1999 and 2002, a system error occurred where a large number of women had birthing records created with no antenatal data attached. NT average annual change in rates and rate ratios and per cent change based on the period 2003 to 2007.
- (h) NT average annual change in rates and rate ratios and per cent change based on the period 2003 to 2007.
- (i) Number per 1,000 women who gave birth in the period, whether resulting in a live or stillbirth, if the birthweight is at least 400 grams or the gestational age was 20 weeks or more.
- (j) Rate ratio—Indigenous: non-Indigenous.

Source: AIHW analysis of state/territory perinatal collections.





Note: In the NT in 1998, 1999 and 2002, a system error occurred where a large number of women had birthing records created with no antenatal data attached.

Source: AIHW analysis of state/territory perinatal collections.

Figure 3.01.3: Percentage of mothers who attended at least one antenatal care session, by Indigenous status, NSW, Qld, SA and NT, 1998–2007

Table 3.01.9: Proportion of mothers who attended at least one antenatal care session, by Indigenous status, NSW, Qld and SA combined, 1998–2007

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	Number per 1,000 women									
Indigenous mothers	935.5	944.0	936.1	944.3	936.9	953.9	948.4	962.9	961.5	963.7
Non-Indigenous mothers	965.7	975.4	975.7	979.4	980.4	984.5	986.8	985.1	985.1	981.0

Source: AIHW analysis of state/territory perinatal collections.

Use of antenatal care services funded by the Healthy for Life Program

Information on the antenatal care of mothers who attended services funded through the Healthy for Life (HfL) Program is available from the AIHW HfL data collection.

- In the reporting period ending June 2009, 54 Indigenous primary health-care services which were part of the HfL Program provided valid data on antenatal care. Of the 1,704 women who gave birth to an Indigenous baby who were regular clients of these services, 48% attended their first antenatal visit before 13 weeks of pregnancy and 67% attended an antenatal visit before 20 weeks of pregnancy (Table 3.01.10).
- Of the women who gave birth to an Indigenous baby in the reporting period, a higher proportion of mothers from regional or remote areas attended their first antenatal visit in their first trimester of pregnancy (before 13 weeks) than mothers in urban areas (54% and 50% compared with 32%, respectively) (Table 3.01.10).
- The proportion of mothers who attended their first antenatal visit before 20 weeks of pregnancy was 50% in urban areas, 77% in regional areas and 68% in remote areas.

Table 3.01.10: Number and proportion of women^(a) who gave birth to an Indigenous baby^(b), by timing of the first antenatal visit, by region, 1 July 2008 to 30 June 2009

Timing of first antenatal visit	Urban		Regional		Remote		Total	
	Per cent	N/D ^(c)	Per cent	N/D ^(c)	Per cent	N/D ^(c)	Per cent	N/D ^(c)
Before 13 weeks of pregnancy	32.4	117/361	53.9	333/618	50.3	365/725	47.8	815/1,704
At 13 weeks or after, but before 20 weeks of pregnancy	18.0	65/361	23.1	143/618	17.4	126/725	19.6	334/1,704
<i>Before 20 weeks of pregnancy</i>	<i>50.4</i>	<i>182/361</i>	<i>77.0</i>	<i>476/618</i>	<i>67.7</i>	<i>491/725</i>	<i>67.4</i>	<i>1,149/1,704</i>
At 20 weeks of pregnancy or after	25.2	91/361	18.1	112/618	22.5	163/725	21.5	366/1,704
Did not attend/Not recorded antenatal visit	24.4	88/361	4.9	30/618	9.8	71/725	11.1	189/1,704
Total	100.0	361/361	100.0	618/618	100.0	725/725	100.0	1,704/1,704

(a) Women who were regular clients of the Healthy for Life service.

(b) Women who gave birth to an Indigenous baby in the current reporting period.

(c) N (numerator) is the number of women who attended an antenatal visit. D (denominator) is the total number of women who gave birth to an Indigenous baby.

Notes

1. Valid data for this indicator were provided by 54 services (10 urban services, 27 regional services and 17 remote services).

2. Services used their own definition of regular client.

Source: AIHW Healthy for Life data collection.

Pregnancy check-up and type of health professional consulted

Information on check-ups while pregnant along with the type of health professional consulted was collected in 2008 NATSISS.

- A total of 96% of women with children aged 0–3 years reported that they had check-ups during pregnancy: 92% reported having regular check-ups, while about 4.7% reported having check-ups but not regularly (Table 3.01.11).
- More than half of Indigenous mothers (61%) reported consulting a doctor or GP for pregnancy check-ups and almost half (48%) consulted a midwife or nurse. Obstetrician was consulted by 17% while 8.8% consulted an Aboriginal or Torres Strait Islander Health Worker.

Table 3.01.11: Use of antenatal service by Indigenous mothers, by type of service, children aged 0–3 years, 2008

	Number	Per cent
Whether child's mother had regular pregnancy check-ups		
Had regular check-ups while pregnant	47,014	91.5
Had check-ups while pregnant but not regular	2,390	4.7
<i>Total had check-ups while pregnant^(a)</i>	<i>49,404</i>	<i>96.2</i>
Did not have check-ups while pregnant	1,952	3.8
Total	51,356	100
Not known if had check-ups while pregnant	157	0.3
Type of health professional child's mother consulted for pregnancy check-ups		
Doctor or GP	30,185	61.1
Obstetrician	8,355	16.9
Midwife or nurse	23,684	47.9
Aboriginal or Torres Strait Islander health worker	4,363	8.8
Other	775	1.6
<i>Total had check-up while pregnant^{(a)(b)}</i>	<i>49,404</i>	<i>100</i>

(a) Includes had check-ups while pregnant but not known if regular.

(b) Sum of components may be more than total because respondent was able to provide more than one response.

Source: 2008 NATSISS.

Use of antenatal services by health issues

The 2008 NATSISS were cross-tabulated to examine whether women with a health issue had used an antenatal service during pregnancy.

- Of those women who reported that they had diabetes while pregnant, 96% had used an antenatal service during pregnancy and, of those with high blood pressure, 95% had used an antenatal service (Table 3.01.12).
- Almost all Indigenous women who took folate during pregnancy also sought antenatal services. About 93% of Indigenous women who did not use folate during pregnancy had check-ups while pregnant.

Table 3.01.12: Use of antenatal service by Indigenous mothers, by selected health issues, children aged 0–3 years, 2008

Selected health issue	Had check-ups while pregnant		Did not have check-ups while pregnant	
	No.	%	No.	%
Whether child's mother had diabetes or sugar problems during pregnancy				
Had diabetes or sugar problems	4,118	95.7	187	4.3
Did not have diabetes or sugar problems	45,389	96.4	1,703	3.6
Total	49,507	96.3	1,890	3.7
Whether child's mother had high blood pressure during pregnancy				
Did have high blood pressure	6,944	95.2	352	4.8
Did not have high blood pressure	42,174	96.5	1,520	3.5
Total	49,118	96.3	1,872	3.7
Whether child's mother took folate prior to or during pregnancy				
Took folate prior to and during pregnancy	8,226	99.6	31	0.4
Took folate prior to pregnancy only	517	100.0	0	0.0
Took folate during pregnancy only	17,407	99.4	112	0.6
Did not take folate	22,627	93.3	1,614	6.7
Total	48,777	96.5	1,757	3.5
Whether child's mother took other medications or supplements during pregnancy				
Took medications or supplements during pregnancy	22,181	99.1	200	0.9
Did not take medications or supplements during pregnancy	26,844	94.5	1,553	5.5
Total	49,025	96.5	1,753	3.5

(continued)

Table 3.01.12 (continued): Use of antenatal service by Indigenous mothers, by selected health issues, children aged 0-3 years, 2008

Selected health issue	Had check-ups while pregnant		Did not have check-ups while pregnant	
	Number	Per cent	Number	Per cent
Whether child's mother sought advice or information about pregnancy or child birth				
Sought advice/ information about pregnancy or child birth	18,923	98.9	207	1.1
Did not seek advice/ information about pregnancy or child birth	22,536	95.3	1,106	4.7
Total	41,459	96.9	1,313	3.1
Where child's mother sought advice or information about pregnancy or child birth				
Discussion/ advice from family or friends	9,862	99.6	43	0.4
Discussion/ advice from community elders/ traditional/ medicine women	1,276	100.0	0	0.0
Other	986	93.1	73	6.9
No advice sought	22,536	95.3	1,106	4.7
Total	34,660	96.6	1,222	3.4

Source: 2008 NATSISS

Data quality issues

Antenatal care data

All jurisdictions record self-reported information on some aspects of antenatal health status. The inventory of antenatal medical conditions reported on varies from jurisdiction to jurisdiction and they are not comparable.

Jurisdiction-level data are based on the state in which the birth has occurred, not the place of usual residence.

The current situation with regard to information on antenatal care visits is as follows:

Victoria, Tasmania and Western Australia and the Australian Capital Territory do not collect such information in their perinatal collections.

Data on the use of antenatal services by mothers was not collected in New South Wales. In 2007 NSW collected data for a new variable "was antenatal care received", which should provide a more accurate picture of the use of antenatal sessions.

Queensland and South Australia did not collect data on the duration of pregnancy at the first antenatal visit, while New South Wales and the Northern Territory do record the duration of pregnancy at first antenatal visit.

The Northern Territory, Queensland and South Australia collect data on the number of antenatal care visits during pregnancy and the type of health-care professional consulted. However, the categories for the latter are not comparable.

The Northern Territory has experienced IT problems which make reporting difficult (personal communication), and data suffers from under-recording in Aboriginal communities.

All jurisdictions are working towards improving the quality of the Indigenous status data.

Healthy for Life data

For the July 2008 to June 2009 reporting period, 72 services submitted data as part of the Healthy for Life Program.

Services started submitting their data through an electronic interface (OSCAR) for the February 2008 reporting period. This has improved the quality of data submitted.

Not all of the services were able to provide data for all of the essential indicators and service profile questions. The number of services who were able to provide data varies across the qualitative and quantitative indicators.

List of symbols used in tables

n.a.	not available
–	rounded to zero (including null cells)
0	zero
..	not applicable
n.e.c.	not elsewhere classified
n.f.d.	not further defined
n.p.	not available for publication but included in totals where applicable, unless otherwise indicated

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3.02 Immunisation (child and adult)

Vaccination coverage rates among Indigenous Australian children and adults

Data sources

Data for this measure come mainly from the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) and the Australian Childhood Immunisation Register (ACIR).

National Aboriginal and Torres Strait Islander Health Survey (NATSIHS)

The 2004–05 NATSIHS collected information from 10,439 Indigenous Australians of all ages. This sample was considerably larger than the supplementary Indigenous samples in the 1995 and 2001 National Health Surveys. The survey was conducted in remote and non-remote areas of Australia and collected a range of information from Indigenous Australians. This included information on health-related actions, health risk factors, health status, socioeconomic circumstances and women's health. The survey provides comparisons over time in the health of Indigenous Australians. It is planned to repeat the NATSIHS at 6-yearly intervals, with the next NATSIHS to be conducted in 2010–11. Selected non-Indigenous comparisons are available through the 2004–05 National Health Survey (NHS).

The Australian Childhood Immunisation Register (ACIR)

The ACIR is a national register that records details of vaccinations given to children under seven years of age who live in Australia. Immunisation coverage is produced at the national, state/territory and local level on a quarterly basis using the data recorded on the ACIR.

Coverage estimates for Aboriginal and Torres Strait Islander children include only those who identify as such and are registered on the ACIR. Children identified as Indigenous on the ACIR may not be representative of all Aboriginal and Torres Strait Islander children, and thus coverage estimates should be interpreted with caution.

Children for whom Indigenous status was not stated are included with the 'non-Indigenous' under the 'other' category.

Vaccination coverage is a measure of the proportion of people in a target population who have received the recommended course of vaccinations at a particular age.