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1997 Tables

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1 SUMMARY

The main purpose of this report is to present the findings from the 1997 data in the ACT Maternal Perinatal Data Collection. The report has been produced in consultation with the ACT Maternal Perinatal Information Network. It is the twenty fifth publication in the Health Series. This report was produced for the Department of Health and Community Care by the Clinical Epidemiology and Health Outcomes Centre, Population Health.

1.1 Women giving birth in the ACT

There were 4708 women who gave birth to 4785 babies in the ACT during 1997. The ACT accounted for 1.8% of women giving birth in Australia. There has been some fluctuation of the number of women giving birth in the ACT from 1994 to 1997 from 4731 and 4830 in 1994 and 1995 respectively to 4701 and 4708 in 1996 and 1997 respectively. The crude birth rate for ACT livebirths to ACT residents was 13.4 per 1000 women.

1.2 Fertility rates in the ACT

The total fertility rates for the ACT resident population in 1997 was 1589 per 1000 women. This means that each woman has on average 1.6 children. There has been a fall in the fertility rates for the 25 to 29 year age group and an increase for the 40 to 44 year age group. These changes indicate that women in the ACT are delaying child bearing.

1.3 All mothers in the ACT

There were 4.1% of teenagers giving birth in the ACT for 1997, which is lower than the Australian percentage of 5.2%⁴. There has been a fall in the percentage (21.3% in 1994 compared with 18.7% in 1997) of women under 25 years giving birth and a rise in the percentage (14.0% in 1994 compared with 15.8% in 1997) of women 35 years and over giving birth in the ACT.

Of women who gave birth in the ACT in 1997, 80.5% were Australian born, 7.2% were born in Asia and 6.7% were born in Europe.

The percentage of non ACT residents giving birth in the ACT has risen from 10.7% in 1996 to 12.8% in 1997.

1.4 Indigenous mothers

There were 58 (1.2%) Indigenous women who gave birth in the ACT for 1997. This figure is consistent with the 1997 ABS projections for the ACT from the 1996 census of approximately 60². A comparison between Indigenous and non Indigenous women who gave birth in the ACT is presented in Table 5 on page 12 and Table 59 on page 41.

1.5 Antenatal care

The majority of pregnant women in the ACT have seven or more antenatal visits.

Women in the ACT are accessing a variety of models of antenatal care. There was a fall in the use of General Practitioners and Obstetricians and an increase in the use of Antenatal clinics and the Birth Centre/Canberra Midwifery Program for 1997 compared with 1996 data.

1.6 Antenatal procedures

Ninety-one percent of pregnant women were reported to have had an ultrasound examination.

1.7 Multiple births

The ACT has the highest percentage of multiple births (1.6%) in Australia for 1997. The Australian percentage for multiple births for 1997 was 1.4%.¹

The Canberra Hospital is the referral centre for multiple births for the surrounding New South Wales area. Of the 599 (12.7%) NSW residents who gave birth in the ACT in 1997, 4.0% of these women had a multiple birth.

1.8 Place of birth

Ninety nine percent of women gave birth in hospital (includes 7.9% from the Birth Centre at The Canberra Hospital). The percentage of women who gave birth in the Birth Centre has risen from 5.7% in 1995 to 7.9% in 1997. Over a quarter (26.5%) of women in the ACT choose to give birth in a private hospital.

1.9 The birth

Sixty five percent of women giving birth in the ACT had a normal birth and 20% had a caesarean section. The ACT hospital morbidity data has shown significant caesarean section rate falls for the last four years, especially for public hospitals. For further details see Table 50 and Table 51 on page 37.

1.10 Baby characteristics

The ACT followed the national trend with male births (50.2%) exceeding female births (49.8%).

The majority (67.1%) of babies born in the ACT for 1997 were between 3,000 and 3,999 grams, with an average birthweight of 3358 grams. The ACT had a high percentage (7.6%) of babies with a birthweight of less than 2,500 grams. This was due to referrals from NSW to the Centre for Newborn Care at The Canberra Hospital. For more detail see Table 32 on page 27.

The majority (88.0%) of babies born in the ACT for 1997 were between 37 and 41 weeks gestation, with an average gestational age of 39 weeks. The ACT had a high percentage (8.4%) of preterm infants again due to referrals from NSW to the Centre for Newborn Care at The Canberra Hospital. For more detail see Table 32 on page 27.

1.11 Congenital anomalies and perinatal mortality

There were 5.5% of babies born in the ACT for 1997 that were reported to have a congenital anomaly. Of these reported congenital anomalies, 3.5% were for certain musculo-skeletal deformities, and those pertaining to the skin, the urinary system and genital tract.

There were less than 1% (42) stillbirths, and 0.5% (26) neonatal or postneonatal deaths reported in this report.

2 INTRODUCTION

The main purpose of this report is to present the findings from the 1997 data in the ACT Maternal Perinatal Data Collection. The report has been produced in consultation with the ACT Maternal Perinatal Information Network. This report was produced for the Department of Health and Community Care by the Clinical Epidemiology and Health Outcomes Centre, Population Health.

This report aims to provide information to service providers, policy makers, researchers and consumers of the maternal and perinatal health status in the ACT for 1997. It is expected the findings will assist the ACT Government and in particular the ACT Department of Health and Community Care in its commitment to maximising 'both community and individual health and well-being' by developing an overview of maternal and perinatal health status and the services provided.



2.1 Women giving birth and babies born in the ACT

There were 4708 women who gave birth to 4785 babies in the ACT during 1997. Table 1 presents data from 1994 to 1997.

Table 1: Women giving birth and babies born, ACT, 1994-1997

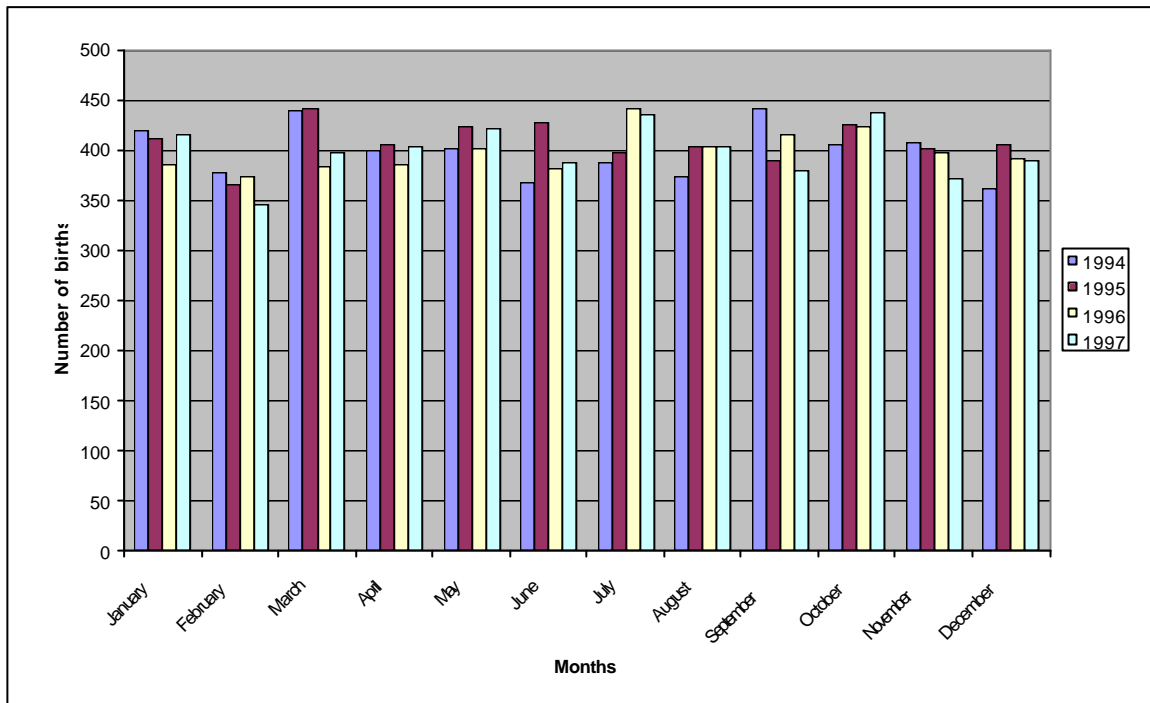
	1994	1995	1996	1997
Women giving birth	4731	4830	4701	4708
Babies born	4784	4899	4788	4785
All ACT livebirths	4748	4853	4750	4743
Crude birth rates per 1,000	15.8	16.0	15.4	15.4
ACT livebirths to ACT residents	4246	4346	4231	4123
Crude birth rates per 1,000	14.1	14.3	13.8	13.4

Source: ACT Maternal/Perinatal Data Collection and ABS: Population by age and sex, ACT, Cat no 3201.0

The Australian Bureau of Statistics (ABS) 1997 crude birth rate for ACT is 13.6.² The ABS reports on the number of livebirths to ACT residents irrespective of where the birth occurs, which accounts for the slight difference in rates. The ABS estimated population figure used to calculate the crude birth rate for the ACT, as at 30 June 1997 was 308,011 persons.³

A question of interest to midwives working within ACT birth facilities as well as other service providers is “when are most babies born?” There was an even spread of births throughout the year in 1997, varying from 7.2% to 9.1% of all births per month.

Figure 1: Months of birth, ACT, 1994-1997



Source: ACT Maternal/Perinatal Data Collection

Table 2: Months of birth, ACT, 1994-1997

	1994		1995		1996		1997	
	No.	%	No.	%	No.	%	No.	%
January	420	8.8	411	8.4	386	8.1	416	8.7
February	378	7.9	366	7.5	373	7.8	345	7.2
March	439	9.2	442	9.0	384	8.0	397	8.3
April	400	8.4	405	8.3	386	8.1	403	8.4
May	402	8.4	423	8.6	402	8.4	421	8.8
June	368	7.7	428	8.7	382	8.0	388	8.1
July	388	8.1	398	8.1	441	9.2	435	9.1
August	373	7.8	404	8.2	404	8.4	403	8.4
September	442	9.2	389	7.9	416	8.7	379	7.9
October	406	8.5	426	8.7	424	8.9	437	9.1
November	407	8.5	401	8.2	398	8.3	371	7.8
December	361	7.5	406	8.3	392	8.2	390	8.2
Total	4784	100.0	4899	100.0	4788	100.0	4785	100.0

Source: ACT Maternal/Perinatal Data Collection

2.2 Fertility rates in the ACT

The total fertility rates for the ACT resident population is gradually declining. The total fertility rate for 1997 was 1589 per 1,000 women in the 15 to 49 age groups. This means that each woman within these age groups has an average of 1.6 children.

Table 3: Age specific fertility rates and total fertility rates for all live births, ACT residents, 1995-1997

Age Group	1995		1996		1997	
	No.	ASFR	No.	ASFR	No.	ASFR
15 - 19*	173	14.49	159	10.64	167	13.91
20 - 24	777	49.79	674	48.61	593	43.48
25 - 29	1438	114.07	1443	114.86	1370	103.44
30 - 34	1358	106.05	1285	101.16	1346	106.94
35 - 39	570	45.93	620	52.15	561	43.03
40 - 44	29	2.43	47	3.89	83	6.66
45 - 49**	1	0.09	5	0.55	3	0.25
Total	4346	332.81	4232	331.98	4123	157.74
TFR per 1,000 women		1664		1660		1589

ASFR - Age Specific Fertility Rates

TFR - Total Fertility Rates

* All births for mothers aged less than 15 years are included in the 15-19 age group.

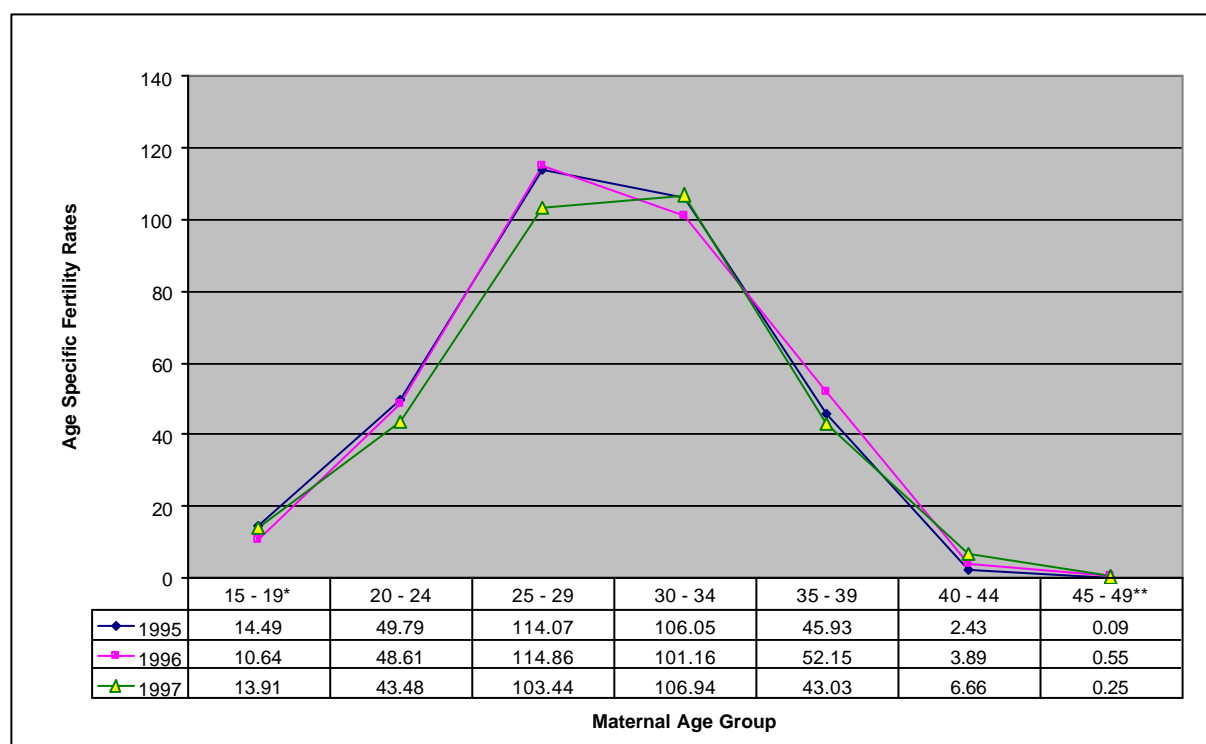
** All births for mothers aged 50 years or more are included in the 45-49 age group.

All births where the age of the mother was not stated have been proportionately distributed.

Source: ACT Maternal/Perinatal Data Collection and Estimated Residential Population by sex and age, 1997, ABS Cat. No: 3201.0

The graph below highlights the fall from 114.86 to 103.44 over the period for the 25 to 29 year age group and the increase from 2.43 to 6.66 over the period for the 40 to 44 year age group. These changes indicate that women in the ACT are delaying child bearing.

Figure 2: Age specific fertility rates for all livebirths, ACT residents per 1,000 women, 1995-1997



3 MOTHERS' CHARACTERISTICS

3.1 All mothers in the ACT

Table 4: Mothers' demographic characteristics, ACT, 1997

		No.	%	
Maternal Age Group	Less than 20years	195	4.1	
	20 - 24 years	686	14.6	
	25 - 29 years	1555	33.0	
	30 - 34 years	1524	32.4	
	35 - 39 years	647	13.7	
	40 - 44 years	94	2.0	
	45 years or more	5	0.1	
	Not stated	2	0.0	
	Total	4708	100.0	
Mother's country of birth	Australia	3792	80.5	
	Other Oceania	113	2.4	
	Europe	316	6.7	
	Africa inc. Mid East	57	1.2	
	Asia	338	7.2	
	Americas	82	1.7	
	Not stated	10	0.2	
		Total	4708	100.0
Indigenous status	Aboriginal/Torres Strait Is.	58	1.2	
	Non-Aboriginal	4650	98.8	
	Not stated	0	0.0	
		Total	4708	100.0
Usual place of residence for ACT residents by statistical subdivision	North Side	1774	43.3	
	North Canberra	379	9.2	
	Belconnen	1011	24.7	
	Gungahlin – Hall	384	9.4	
	South Side	2327	56.7	
	South Canberra	238	5.8	
	Woden Valley	367	8.9	
	Weston Creek	224	5.5	
	Tuggeranong	1498	36.5	
		Total	4101	100.0
	Usual state of residence	ACT residents	4101	87.1
Non ACT residents		604	12.8	
New South Wales		599	12.7	
Other states		5	0.1	
Not stated		3	0.1	
		Total	4708	100.0
Marital status	Never married	434	9.2	
	Widowed	4	0.1	
	Divorced	17	0.4	
	Separated	43	0.9	
	Married (inc de facto)	4202	89.3	
	Not Stated	8	0.2	
		Total	4708	100.0

Source: ACT Maternal/Perinatal Data Collection, 1997 data

The median age of all women giving birth in the ACT for 1997 remained constant at 29 years. The median age of women in the ACT having their first child was slightly lower at 27 years. The minimum age was 13 years and the maximum age was 46 years.

Women whose usual area of residence was New South Wales accounted for 12.7% of women giving birth in the ACT for 1997, an increase of 2.1% from the previous year.

3.2 Indigenous mothers in the ACT

In Table 4 the reported number of Indigenous women giving birth in the ACT for 1997 was 58 (1.2%). This figure is consistent with the 1997 ABS projections from the 1996 census of approximately 60². The reported number of Indigenous women giving birth in the ACT for 1996 was reported to be 80 (1.7%), which was well above the ABS projected number.

Table 5: Indigenous mothers' demographic characteristics, ACT, 1997

		Indigenous		Non Indigenous		Total		
		No.	%	No.	%	No.	%	
Maternal age groups	Less than 20 years	9	15.5	186	4.0	195	4.1	
	20 - 24 years	16	27.6	670	14.4	686	14.6	
	25 - 29 years	11	19.0	1544	33.2	1555	33.0	
	30 - 34 years	16	27.6	1508	32.4	1524	32.4	
	35 - 39 years	6	10.3	641	13.8	647	13.7	
	40 years or more	0	0.0	99	2.1	99	2.1	
	Total		58	100.0	4648	100.0	4706	100.0
Usual place of residence for ACT residents by statistical subdivision	North Side	27	53.0	1747	43.1	1774	43.3	
	North Canberra	10	19.6	369	9.1	379	9.2	
	Belconnen	14	27.5	997	24.6	1011	24.7	
	Gungahlin - Hall	3	5.9	381	9.4	384	9.4	
	South Side	24	47.0	2303	56.9	2327	56.7	
	South Canberra	6	11.8	232	5.7	238	5.8	
	Woden Valley	4	7.8	363	9.0	367	8.9	
	Weston Creek	3	5.9	221	5.5	224	5.5	
	Tuggeranong	11	21.6	1487	36.7	1498	36.5	
	Total		51	100.0	4050	100.0	4101	100.0
	Usual state of residence	ACT residents	51	87.9	4050	87.1	4101	87.1
Non ACT residents		7	12.1	597	12.8	604	12.8	
New South Wales		7	12.1	592	12.7	599	12.7	
Other states		0	0.0	5	0.1	5	0.1	
Total			58	100.0	4647	100.0	4705	100.0

Note: 2 records where maternal age groups and 3 records where usual state of residence were 'not stated' have been excluded.

Due to the rounding of percentages some totals may not equal 100.0.

Source: ACT Maternal/Perinatal Data Collection, 1997 data

The median age of Indigenous women giving birth in the ACT for 1997 was 25.5 years, which is slightly lower than that reported for 1994 to 1996. The median age of Indigenous women having their first child was 20 years. The minimum age was 16 years and the maximum age was 39 years.

Indigenous mothers are dispersed throughout the ACT subdivisions although there were more Indigenous women giving birth in 1997 who were usual residents on the Northside of Canberra (53.0%) than on the Southside (47.0%).

3.3 Maternal country of birth

The maternal country of birth percentages, for all ACT mothers, is presented in Table 4.

Table 6: Maternal country of birth by age group, ACT, 1997

	Australian	Other Oceania	Europe	Africa Mid East	Asia	Americas
Maternal age group	Number					
Less than 20 years	176	4	2	1	8	3
20 – 24 years	605	13	30	4	29	5
25 – 29 years	1315	38	73	24	86	17
30 – 34 years	1169	40	131	16	132	31
35 – 39 years	461	15	67	11	68	23
40 years or more	65	3	12	1	15	3
Total	3791	113	315	57	338	82
Maternal age group	Percent					
Less than 20 years	4.6	3.5	0.6	1.8	2.4	3.7
20 – 24 years	16.0	11.5	9.5	7.0	8.6	6.1
25 – 29 years	34.7	33.6	23.2	42.1	25.4	20.7
30 – 34 years	30.8	35.4	41.6	28.1	39.1	37.8
35 – 39 years	12.2	13.3	21.3	19.3	20.1	28.0
40 years or more	1.7	2.7	3.8	1.8	4.4	3.7
Total	100.0	100.0	100.0	100.0	100.0	100.0

Note: Other Oceania includes New Zealand, Melanesia, Micronesia, Polynesia (excluding Hawaii) and Antarctica. 10 records where maternal country of birth and 2 records where maternal age were 'not stated' have been excluded.

Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 7: Maternal country of birth by age group for primigravida women, ACT, 1997

	Australian	Other Oceania	Europe	Africa Mid East	Asia	Americas
Maternal age group	Number					
Less than 20 years	115	3	1	1	7	3
20 – 24 years	276	5	14	2	15	2
25 – 29 years	475	14	32	6	38	9
30 – 34 years	265	5	28	1	44	6
35 – 39 years	69	4	15	1	7	7
40 years or more	8	2	1	1	1	0
Total	1208	33	91	12	112	27
Maternal age group	Percent					
Less than 20 years	9.5	9.1	1.1	8.3	6.3	11.1
20 – 24 years	22.8	15.2	15.4	16.7	13.4	7.4
25 – 29 years	39.3	42.4	35.2	50.0	33.9	33.3
30 – 34 years	21.9	15.2	30.8	8.3	39.3	22.2
35 – 39 years	5.7	12.1	16.5	8.3	6.3	25.9
40 years or more	0.7	6.1	1.1	8.3	0.9	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

Note: *Primigravida* refers to a woman pregnant for the first time. Other Oceania includes New Zealand, Melanesia, Micronesia, Polynesia (excluding Hawaii) and Antarctica. 10 records where maternal country of birth and 2 records where maternal age were 'not stated' have been excluded.

Source: ACT Maternal/Perinatal Data Collection, 1997 data

3.4 Pregnancy profile

Table 8: Pregnancy profile characteristic, ACT, 1997

		No.	%
Parity	No previous births	2004	42.6
	One previous birth	1638	34.8
	Two previous births	713	15.1
	Three previous births	218	4.6
	Four or more previous births	135	2.9
	Total	4708	100.0
Previous pregnancies	No previous pregnancy	1485	31.5
	One previous pregnancy	1478	31.4
	Two previous pregnancies	902	19.2
	Three previous pregnancies	437	9.3
	Four or more previous pregnancies	406	8.6
	Total	4708	100.0

Note: Parity refers to the number of children a woman has borne that are either livebirths or stillbirths, it does not include pregnancies where the fetus is delivered before 20 weeks gestation.

Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 9: Selected maternal characteristics by pregnancy status, ACT, 1997

		Primigravida		Multigravida	
		No.	%	No.	%
Maternal age group	Less than 20 years	131	8.8	64	2.0
	20 - 24 years	314	21.1	372	11.5
	25 - 29 years	575	38.7	980	30.4
	30 - 34 years	349	23.5	1175	36.5
	35 - 39 years	103	6.9	544	16.9
	40 years or more	13	0.9	86	2.7
	Total	1485	100.0	3221	100.0
Mother's country of birth	Australian	1208	81.5	2584	80.4
	Other Oceania	33	2.2	80	2.5
	Europe	91	6.1	225	7.0
	Africa inc. Mid East	12	0.8	45	1.4
	Asia	112	7.6	226	7.0
	Americas	27	1.8	55	1.7
	Total	1483	100.0	3215	100.0
Usual place of residence	North Side	611	41.2	1163	36.1
	South Side	680	45.9	1647	51.1
	ACT residents	1291	87.1	2810	87.2
	Non ACT residents	191	12.9	413	12.8
	Total	1482	100.0	3223	100.0
Marital status	Never married	198	13.4	236	7.3
	Widowed, Divorced or Separated	7	0.5	57	1.8
	Married (inc de facto)	1278	86.2	2924	90.9
	Total	1483	100.0	3217	100.0

Note: Primigravida refers to a woman pregnant for the first time and Multigravida refers to a woman who has been pregnant more than once. Records for each of the data items where the value was 'not stated' have been excluded from the crosstabulation.

Source: ACT Maternal/Perinatal Data Collection, 1997 data

3.5 Previous pregnancy outcomes

Mothers report their previous pregnancy outcomes to the midwife. It is expected that there would be some inaccuracies due to recall omissions or the desire not to report for a variety of reasons. However it is believed the data does give a general overview of previous pregnancy outcome for women in the ACT.

Table 10: Previous pregnancy outcomes for multigravida women, ACT, 1997

		No.	%
Previous livebirths	No previous livebirths	545	16.9
	One previous livebirth	1657	51.4
	Two previous livebirths	698	21.7
	Three previous livebirths	208	6.5
	Four or more previous livebirths	115	3.6
	Total	3223	100.0
Previous stillbirths	No previous stillbirths	3143	97.5
	One previous stillbirth	73	2.3
	Two or more previous stillbirths	7	0.2
	Total	3223	100.0
Spontaneous abortions	No previous spontaneous abortions	2164	67.1
	One previous spontaneous abortion	779	24.2
	Two previous spontaneous abortions	187	5.8
	Three previous spontaneous abortions	64	2.0
	Four or more spontaneous abortions	29	0.9
	Total	3223	100.0
Previous ectopic pregnancies	No previous ectopic pregnancies	3163	98.1
	One previous ectopic pregnancy	54	1.7
	Two previous ectopic pregnancies	6	0.2
	Total	3223	100.0
Previous neonatal deaths	No previous neonatal death	3188	98.9
	One neonatal death	33	1.0
	Two or more previous neonatal deaths	2	0.0
	Total	3223	100.0

Source: ACT Maternal/Perinatal Data Collection, 1997 data

3.6 Multiple births

The ACT has the highest percentage of multiple births (1.6%) in Australia for 1997. The Australian percentage for multiple births for 1997 was 1.4%.⁴

Table 11: Number of women having a multiple birth, ACT, 1997

		No.	%
Plurality	Singleton	4631	98.4
	Twins	77	1.6
	Triplets	0	0.0
	Total	4708	100.0

Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 12: Selected mothers' characteristics for multiple birth, ACT, 1997

		Singleton		Multiple		Total	
		No.	%	No.	%	No.	%
Maternal Age Group	Less than 20years	194	4.2	1	1.3	195	4.1
	20 - 24 years	683	14.7	3	3.9	686	14.6
	25 - 29 years	1526	33.0	29	37.7	1555	33.0
	30 - 34 years	1495	32.3	29	37.7	1524	32.4
	35 - 39 years	632	13.6	15	19.5	647	13.7
	40 years or more	99	2.1	0	0.0	99	2.1
	Not stated	2	0.0	0	0.0	2	0.0
	Total	4631	100.0	77	100.0	4708	100.0
Mothers' Indigenous status	Indigenous	58	1.3	0	0.0	58	1.2
	Non Indigenous	4573	98.7	77	100.0	4650	98.8
	Not stated	0	0.0	0	0.0	0	0.0
	Total	4631	100.0	77	100.0	4708	100.0
Mothers' usual state of residence	ACT residents	4048	87.4	53	68.8	4101	87.1
	New South Wales	575	12.4	24	31.2	599	12.7
	Other states	5	0.1	0	0.0	5	0.1
	Not stated	3	0.1	0	0.0	3	0.1
	Total	4631	100.0	77	100.0	4708	100.0

Note: Annual rates fluctuate due to the small numbers. Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1997 data

The Canberra Hospital is the referral centre for multiple births for the surrounding New South Wales area. Of the 599 (12.7%) NSW residents who gave birth in the ACT in 1997, 4.0% of these women had a multiple birth.

3.7 Antenatal care

3.7.1 Antenatal visits

The majority of pregnant women in the ACT have seven or more antenatal visits. Currently the ACT Maternal Perinatal Data Collection has two sets of codes for this data item, presented in Table 13. The sets of codes will be compatible for 2000 data.

Table 13: Antenatal visits, ACT, 1997

		No.	%
As collected in OBICARE at The Canberra Hospital	No antenatal care	3	0.1
	Less than two visits	16	0.7
	2 to 4 visits	67	2.8
	5 to 7 visits	217	9.2
	8 or more visits	2067	87.2
	Total	2370	100.0
As collected on ACT MDCF for Calvary and John James Memorial Hospitals and Homebirths	No visits	5	0.2
	One to three visits	14	0.6
	Four to six visits	103	4.4
	Seven or more visits	2132	91.2
	Not stated	84	3.6
Total	2338	100.0	

Note: OBICARE is an Access database used to collect data for the ACT Maternal Perinatal Data Collection at The Canberra Hospital. ACT MDCF stands for ACT midwives data collection form.
Source: ACT Maternal/Perinatal Data Collection, 1997 data

3.7.2 Responsibility for antenatal care

Women in the ACT are accessing a variety of models of antenatal care. There was a fall in the use of General Practitioners and Obstetricians and an increase in the use of Antenatal clinics and the Birth Centre/Canberra Midwifery Program, compared with 1996 data (see Table 14).

Shared care in the following tables refers to antenatal care where more than one professional clinician or clinic has been involved in a woman's antenatal care. It is possible the Birth Centre/Canberra Midwifery Program and Shared Care categories are not mutually exclusive.

Table 14: Responsibility for antenatal care, ACT, 1997

		1996		1997	
		No.	%	No.	%
Responsibility for antenatal care	GP	634	13.5	285	6.1
	Obstetrician	2132	45.4	1914	40.7
	Midwife	72	1.5	64	1.4
	Antenatal clinic	773	16.4	1154	24.5
	BC/CMP	n/a	n/a	418	8.9
	Shared Care	983	20.9	842	17.9
	Not Stated	107	2.3	31	0.7
	Total	4701	100.0	4708	100.0

Note: BC/CMP refers to the Birth Centre/Community Midwifery Program. The Community Midwives Program (now the Canberra Midwifery Program) provides continuity of midwifery care by a team of midwives to women throughout pregnancy, birth and up to two weeks after birth., that program commenced in 1997.

Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 15: Responsibility for antenatal care by hospital accommodation status, ACT, 1997

	Public		Private		Not stated		Total	
	No.	%	No.	%	No.	%	No.	%
GP	245	7.7	38	2.6	2	5.9	285	6.1
Obstetrician	562	17.6	1349	91.3	3	8.8	1914	40.7
Midwife	56	1.8	1	0.1	7	20.6	64	1.4
Antenatal clinic	1131	35.4	18	1.2	5	14.7	1154	24.5
Shared Care	787	24.6	42	2.8	13	38.2	842	17.9
BC/ CMP	393	12.3	23	1.6	2	5.9	418	8.9
Not Stated	22	0.7	7	0.5	2	5.9	31	0.7
Total	3196	100.0	1478	100.0	34	100.0	4708	100.0

Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 16: Responsibility for antenatal care by age groups, ACT, 1997

	Less than 20yrs		20- 24 years		25 – 29 years		30- 34 years		35 –39 years		40 yrs or more	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
GP	11	5.6	58	8.5	100	6.4	79	5.2	32	4.9	4	4.0
Obstetrician	25	12.8	131	19.1	616	39.6	744	48.8	339	52.4	59	59.6
Midwife	4	2.1	18	2.6	17	1.1	12	0.8	12	1.9	1	1.0
Antenatal clinic	93	47.7	243	35.4	383	24.6	294	19.3	123	19.0	18	18.2
Shared Care	44	22.6	179	26.1	298	19.2	239	15.7	74	11.4	7	7.1
BC/CMP	13	6.7	53	7.7	133	8.6	149	9.8	62	9.6	8	8.1
Not Stated	5	2.6	4	0.6	8	0.5	7	0.5	5	0.8	2	2.0
Total	195	100.0	686	100.0	1555	100.0	1524	100.0	647	100.0	99	100.0

Source: ACT Maternal/Perinatal Data Collection, 1997 data

Figure 3: Responsibility for antenatal care by age groups, ACT, 1997

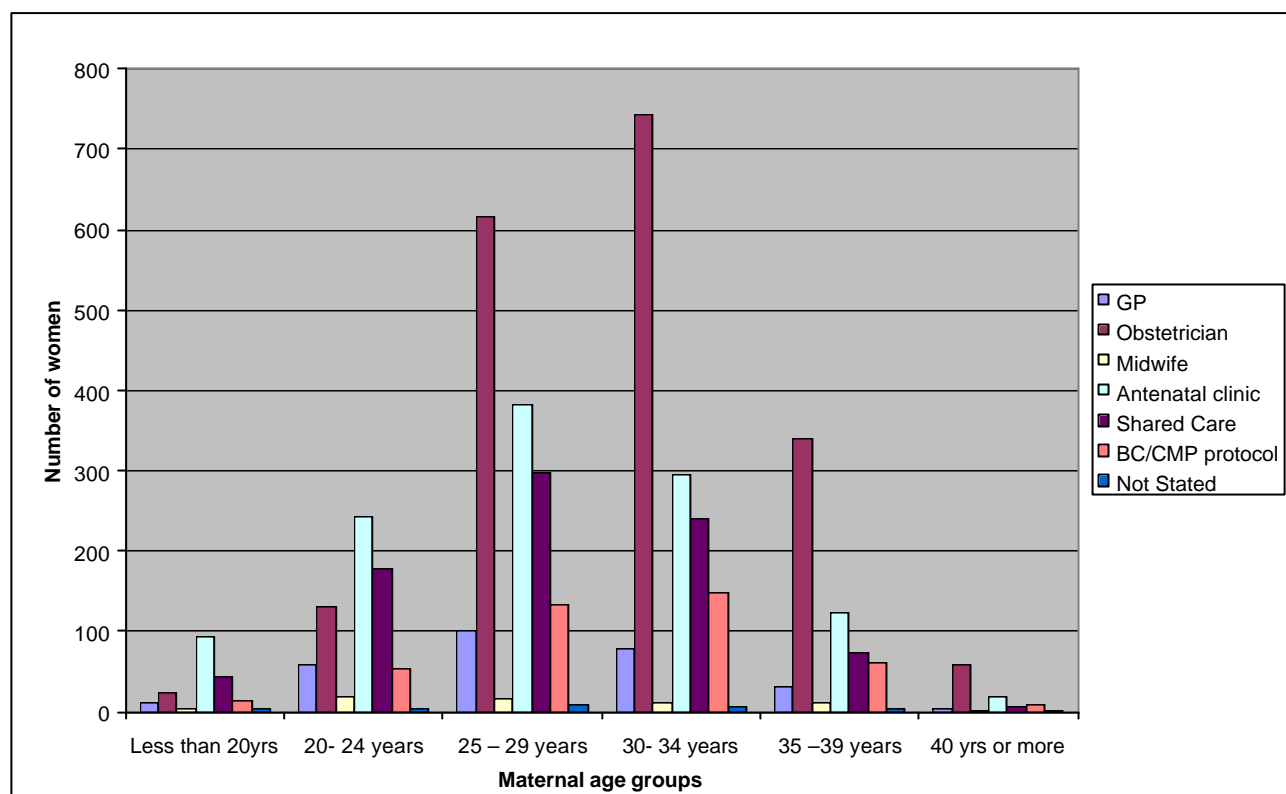
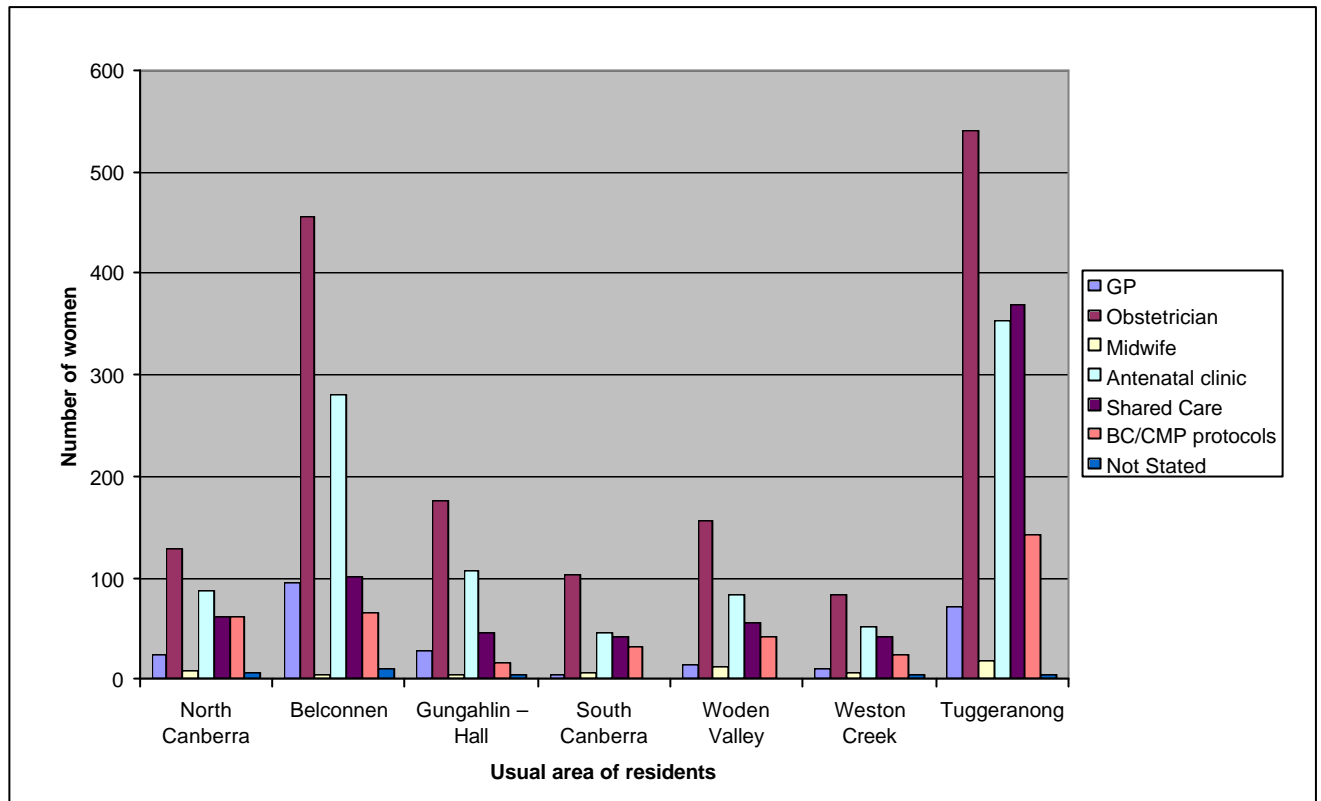


Table 17: Responsibility for antenatal care by subdivision, ACT, 1997

	North Canberra		Belconnen		Gungahlin - Hall		South Canberra		Woden Valley		Weston Creek		Tuggeranong	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
GP	25	6.6	95	9.4	28	7.3	5	2.1	14	3.8	11	4.9	71	4.7
Obstetrician	129	34.0	456	45.1	176	45.8	103	43.3	157	42.8	83	37.1	541	36.1
Midwife	8	2.1	4	0.4	4	1.0	7	2.9	13	3.5	7	3.1	18	1.2
Antenatal clinic	87	23.0	280	27.7	108	28.1	47	19.7	84	22.9	53	23.7	353	23.6
Shared Care	62	16.4	101	10.0	47	12.2	42	17.6	56	15.3	42	18.8	369	24.6
BC/CMP	62	16.4	65	6.4	17	4.4	33	13.9	43	11.7	24	10.7	142	9.5
Not Stated	6	1.6	10	1.0	4	1.0	1	0.4	0	0.0	4	1.8	4	0.3
Total	379	100.0	1011	100.0	384	100.0	238	100.0	367	100.0	224	100.0	1498	100.0

Source: ACT Maternal/Perinatal Data Collection, 1997 data

Figure 4: Responsibility for antenatal care by subdivision, ACT, 1997



3.7.3 Antenatal procedures

The types of antenatal procedures performed give an indication of the antenatal care delivered. Data for women having antenatal procedures during their antenatal care are presented in Table 18. The percentages are for all women giving birth in the ACT for 1997.

Ultrasound examination is a routine procedure during pregnancy with 90.7% (4272) of pregnant women in 1997 having a least one. 1999 data contains the number of ultrasound examinations for each pregnant woman.

There has been an increase from 34.2% to 48.2% in the use of cardiotocography (CTG) since 1996. The most likely reason for this increase was improved reporting using the OBICARE database at The Canberra Hospital.

Table 18: Antenatal procedures, ACT, 1997

	No.	%
Antenatal procedures		
Cervical suture	16	0.3
X-ray	27	0.6
Cardiotocography (CTG)	2267	48.2
CT Scan	11	0.2
Ultrasound	4272	90.7
Chorionic Villus Sampling	41	0.9
Amniocentesis <20 weeks	134	2.8
Amniocentesis 20 weeks or more	33	0.7

Source: ACT Maternal/Perinatal Data Collection, 1997 data

These data for amniocentesis reported in the ACT Maternal Perinatal Data Collection appear to be under reported when compared with the Fetal Medicine Unit figures, especially considering that this procedure is performed at other clinics in the ACT.

Data presented in Table 19 are the number of procedures performed in the Fetal Medicine Unit at The Canberra Hospital in 1997, not the number of women having the procedures as in Table 18.

Table 19: Procedures performed in the Fetal Medicine Unit, TCH, 1997

	OUTPATIENTS			INPATIENTS			ALL PATIENTS
	ACT	Non ACT	SubTotal	ACT	Non ACT	SubTotal	Total
Ultrasound	1932	509	2441	149	125	274	2715
Amniocentesis	161	54	215	4	1	5	220
Chorionic Villus Sampling	35	16	51	0	0	0	51
Other procedure	9	15	24	0	0	0	24
TOTAL	2137	594	2731	153	126	279	3010

Source: Fetal Medicine Unit, The Canberra Hospital (TCH)

3.8 Medical conditions

Table 20: Medical conditions reported in Hospital Morbidity Data for mothers, ACT, 1997

		No.	%
Number of medical Conditions	No reported conditions	4260	90.5
	One reported condition	339	7.2
	Multiple reported conditions	33	0.7
	Records not linked	76	1.6
Total		4708	100.0
Medical Conditions reported	Diabetes Mellitus (648.0)	30	0.6
	Genital herpes (054.1)	13	0.3
	Asthma, unspecified (493.9)	62	1.3
	Infections of genitourinary tract in pregnancy (646.6)	158	3.4
	Anaemia (648.2)	85	1.8
	Epilepsy, unspecified (345.9)	17	0.4
	Essential hypertension (642.0-2)	21	0.4
	Renal disease (642.1, 646.2)	8	0.2
Cardiac disease (648.5-6)	14	0.3	

Note: Figures are based on patients not separations, if a woman has more than one admission for the same condition only one condition is counted. One woman may have more than one condition. Definitions and standards as per the ICD-9-CM manuals, codes are provided. Source: ACT Hospital Morbidity Data, 1997 data

Of the 33 (0.7%) women where multiple conditions were reported in the hospital morbidity data, 31 (0.7%) women had two conditions reported. The maximum number of medical conditions reported for one woman was three (3).

Table 21: Medical conditions reported on ACT MDCF for mothers, ACT, 1997

		No.	%
Number of medical Conditions reported	No reported conditions	4455	94.6
	One reported condition	244	5.2
	Multiple reported conditions	9	0.2
Total		4708	100.0
Medical Conditions reported	Gestational Diabetes	137	2.9
	Diabetes Mellitus	23	0.5
	Chronic Renal Disease	6	0.1
	Epilepsy	30	0.6
	Cardiac Disease	19	0.4
	Essential Hypertension	50	1.1

Note: ACT MDCF refers to ACT midwives data collection form.
Source: ACT Maternal/Perinatal Data Collection, 1997 data

3.9 Obstetric complications

The percentage of obstetric complications has increased by 8.3% compared with 1996 data. This is most likely due to the improved reporting of diagnosis in the ACT Hospital Morbidity Data Collection. During the 1996/1997 financial year, five additional diagnosis data items were added to the ACT Hospital Morbidity Data Collection.

Table 22: Number of reported obstetric complications, ACT, 1997

		No.	%
Number of obstetric complications reported	No complication	3512	74.6
	One reported complication	903	19.2
	Multiple reported complications	217	4.6
	Records not linked	76	1.6
Total		4708	100.0

Note: Figures are based on patients not separations, if a woman has more than one admission for the same complication only one complication is counted. One woman may have more than one complication.
Source: ACT Hospital Morbidity Data Collection, 1997 data

Of the 217 (4.6%) women where multiple complications were reported in the hospital morbidity data, 177 (3.8%) women had two complications reported. The maximum number of obstetric complications reported for one woman was four (4).

The most common obstetric complications were premature (preterm) rupture of membranes, mild or unspecified pre-eclampsia and infections of genitourinary tract in pregnancy. These three diagnoses accounted for 18.1% (849) of the total percentage of obstetric complications.

Table 23: Obstetric complications, ACT, 1997

	No.	%
Threatened abortion (640.0)	6	0.1
Placenta praevia without haemorrhage (641.0)	12	0.3
Haemorrhage from placenta praevia (641.1)	26	0.6
Premature separation of placenta (641.2)	33	0.7
Antepartum haemorrhage associated with coagulation defects (641.3)	1	0.0
Other antepartum haemorrhage (641.8)	10	0.2
Unspecified antepartum haemorrhage (641.9)	88	1.9
Benign essential hypertension (642.0)	14	0.3
Hypertension secondary to renal disease (642.1)	1	0.0
Other pre-existing hypertension (642.2)	6	0.1
Transient hypertension of pregnancy (642.3)	60	1.3
Mild or unspecified pre-eclampsia ((642.4)	339	7.2
Severe pre-eclampsia (642.5)	39	0.8
Eclampsia (642.6)	1	0.0
Pre-eclampsia or eclampsia superimposed on pre-existing hypertension (642.7)	7	0.1
Unspecified hypertension (642.9)	35	0.7
Other threatened labour (644.1)	137	2.9
Cervical incompetence (654.5)	24	0.5
Premature (Preterm) rupture of membranes (658.1)	352	7.5
Infections of genitourinary tract in pregnancy (646.6)	158	3.4
Total of obstetric complications	1349	28.7

Note: Figures are based on patients not separations, if a woman has more than one admission for the same complication only one complication is counted. One woman may have more than one complication. Definitions and standards as per the ICD-9-CM manuals, codes are provided.

Source: ACT Hospital Morbidity Data Collection, 1997 data

3.10 Labour and birth

Table 24: Labour characteristics, ACT, 1997

		No.	%
Onset of labour	Spontaneous	3125	66.4
	Induced	1019	21.6
	No labour	560	11.9
	Not stated	4	0.1
	Total	4708	100.0
Type of labour	Spontaneous	2308	49.0
	Augmentation	811	17.2
	Augmentation – Medical	281	6.0
	Augmentation – Surgical	412	8.8
	Augmentation – Combined	118	2.5
	Induced	1012	21.5
	Induced – Medical	383	8.1
	Induced – Surgical	81	1.7
	Induced – Combined	548	11.6
	No labour	560	11.9
	Not stated	17	0.4
Total	4708	100.0	

Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 25: Method of birth, ACT, 1997

		No.	%
Method of birth	Normal birth	3077	65.4
	Forceps	370	7.9
	Vaginal breech	48	1.0
	Caesarean section	953	20.2
	Vacuum extraction	237	5.0
	Other	21	0.4
	Not stated	2	0.0
	Total	4708	100.0

Note: Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 26: Method of birth for mothers by type of labour, ACT, 1997

	Spontaneous		Augmentation		Induced		No labour	
	No.	%	No.	%	No.	%	No.	%
Normal birth	1910	82.8	488	60.3	667	65.9	0	0.0
Vaginal breech	27	1.2	6	0.7	15	1.5	0	0.0
Instrumental birth	205	8.9	223	27.6	198	19.6	0	0.0
Caesarean section	166	7.2	92	11.4	132	13.0	*560	100.0
Total	2308	100.0	809	100.0	1012	100.0	560	100.0

Note: Instrumental birth includes forceps and vacuum extraction for cephalic presentations. * Women who have an Elective Caesarean section have no labour (11.9%). 17 records were excluded where Type of labour was not stated and 2 records were excluded where method of birth was not stated. Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection

3.11 Procedures during birth

The majority of procedures during labour and birthing have been reported in their own sections. For example, there are sections on type of labour and method of birth.

There has been an increase of 6.5% in women not requiring perineal repair from 1995 to 1997. Episiotomy rates have decreased (10.0%) and sutured perineal lacerations have increased (3.6%) during the same period. A perineal repair was reported following homebirths for 17.4% (8 of 46) of women during 1997 (15.2% of sutured perineal lacerations and 2.2% of episiotomy rates).

Table 27: Perineal repair for vaginal births, ACT, 1997

	No.	%
Perineal repair	No repair	42.4
	Sutured perineal laceration	35.9
	Episiotomy	21.7
	Total	100.0

Source: ACT Hospital Morbidity Data 1997 data

In 1997, 0.2% had an episiotomy or sutured laceration followed by an emergency caesarean section (3 women of the 935 women having a caesarean section). This was half the number for 1996. Compared with all women giving birth, the percentage was 0.06% (3 of 4708 women).

Manual removal of a retained placenta was performed for 2.0% (75 of 3755 women) of vaginal deliveries, during 1997. This is compared with 2.1% and 1.9% of vaginal deliveries during 1996 and 1995 respectively (source: ACT Hospital Morbidity Data).

3.12 Caesarean section

Table 28: Selected characteristics for caesarean section, ACT, 1997

		No.	% of Caesareans	% of all women giving birth
Accommodation status	Public	566	59.4	12.0
	Private	387	40.6	8.2
	Total	953	100.0	20.2
Parity	Primipara	292	30.6	6.2
	Multipara	661	69.4	14.0
	Total	953	100.0	20.2
Plurality	Singleton births	917	96.2	19.5
	Twins	36	3.8	0.8
	Triplets	0	0.0	0.0
	Total	953	100.0	20.2
Mothers' Indigenous status	Indigenous	12	1.3	0.2
	Non Indigenous	941	98.7	20.0
	Total	953	100.0	20.2
Maternal age groups	Less than 20 years	24	2.5	0.5
	20 - 24 years	98	10.3	2.1
	25 - 29 years	273	28.6	5.8
	30 - 34 years	357	37.5	7.6
	35 - 39 years	160	16.8	3.4
	40 years or more	41	4.3	0.9
	Total	953	100.0	20.2
Presentation	Vertex	767	80.5	16.3
	Breech	143	15.0	3.0
	Other	21	2.2	0.4
	Not stated	22	2.3	0.5
	Total	953	100.0	20.2
Birthweight in grams (for first born)	Less than 2500	121	12.7	2.6
	500 to 999	9	0.9	0.2
	1000 to 1499	24	2.5	0.5
	1500 to 1999	34	3.6	0.7
	2000 to 2499	54	5.7	1.1
	2500 to 2999	144	15.1	3.1
	3000 to 3499	296	31.1	6.3
	3500 to 3999	265	27.8	5.6
	4000 to 4499	99	10.4	2.1
	4500 or more	28	2.9	0.6
	Total	953	100.0	20.2
Gestational age in weeks	20 to 27	8	0.8	0.2
	28 to 31	32	3.4	0.7
	32 to 36	81	8.5	1.7
	37 to 41	782	82.1	16.6
	42 or more	34	3.6	0.7
	Not stated	16	1.7	0.3
	Total	953	100.0	20.2

Source: ACT Maternal/Perinatal Data Collection, 1997 data

Breech presentation accounted for 3% of all births by caesarean section. If all breeches were delivered vaginally there would be a further decrease in the caesarean section rate of 3%.

3.13 Complications of labour and birth

Table 29: Number of complications of labour and birth for mothers, ACT, 1997

		No.	%
Complications of labour and birth	No complication	2144	45.5
	One reported complication	1689	35.9
	Multiple reported complications	799	17.0
	Records not linked	76	1.6
	Total	4708	100.0

Note: Figures are based on patients not separations, if a woman has more than one admission for the same condition only one condition is counted. Due to the rounding of percentages some totals may not equal 100.0.

Source: ACT Hospital Morbidity, 1997 data

Of the 799 (17.0%) women where multiple complications were reported in the hospital morbidity data, 601 (12.8%) women had two complications reported and 160 (3.4%) had three complications reported. The maximum number of complications for labour, birth and the puerperium reported for one woman was six (6).

Table 30: Complications of labour and birth for mothers, ACT, 1997

	No.	%
Obstructed labour (660)	236	5.0
Uterine inertia (661.0-2)	238	5.1
Precipitate labour (661.3)	23	0.5
Hypertonic, incoordinate, or prolonged uterine contractions (661.4)	71	1.5
Long labour (662)	576	12.2
Prolapse of cord (663.0)	8	0.2
Cord entanglement with or without mention of compression (663.1-3)	247	5.2
Other umbilical cord complications (661.4-9)	15	0.3
Fetal distress (656.3)	536	11.2
First-degree perineal laceration (664.0)	605	12.9
Second-degree perineal laceration (664.1)	819	17.4
Third-degree perineal laceration (664.2)	31	0.7
Fourth-degree perineal laceration (664.3)	2	0.0
Vulval and perineal haematoma (664.5)	7	0.2
Other trauma to perineum and vulva during delivery (664)	2	0.0
Other obstetrical trauma (665)	82	1.7
Postpartum haemorrhage (666)	425	9.0
Retained placenta or membranes, without haemorrhage (667)	63	1.3
Complications of the administration of anaesthetic or other sedation in labour and delivery (668)	79	1.7

Note: Figures are based on patients not separations, if a woman has more than one admission for the same complication only one complication is counted. One woman may have more than one complication. Definitions and standards as per the ICD-9-CM manuals, codes are provided.

Source: ACT Hospital Morbidity, 1997 data

4 BABIES' CHARACTERISTICS

4.1 All babies born in the ACT

Table 31: Babies' characteristics, ACT, 1997

		No.	%
Birth condition	Livebirths	4743	99.1
	Stillborn	42	0.9
	Total	4785	100.0
Plurality	Singleton births	4631	96.8
	Twins	154	3.2
	Triplets	0	0.0
	Total	4785	100.0
Sex	Male	2402	50.2
	Female	2381	49.8
	Indeterminate	2	0.0
	Total	4785	100.0
Birthweight in grams	Less than 2500	361	7.6
	Less than 500	12	0.3
	500 to 999	35	0.7
	1000 to 1499	51	1.1
	1500 to 1999	73	1.5
	2000 to 2499	190	4.0
	2500 to 2999	641	13.4
	3000 to 3499	1680	35.1
	3500 to 3999	1531	32.0
	4000 to 4499	477	10.0
	4500 or more	92	1.9
	Not stated	3	0.1
	Total	4785	100.0
Gestational age in weeks	20 to 27	48	1.0
	28 to 31	59	1.2
	32 to 36	295	6.2
	37 to 41	4209	88.0
	42 or more	128	2.7
	Not stated	46	1.0
Total	4785	100.0	

Source: ACT Maternal/Perinatal Data Collection, 1997 data

The ACT followed the national trend with male births (50.2%) exceeding female births (49.8%).

The majority (67.1%) of babies born in the ACT for 1997 were between 3,000 and 3,999 grams, with an average birthweight of 3358 grams. There were 7.6% of babies born in the ACT for 1997 that were less than 2,500 grams in birthweight. This was significantly more than the national percentage of 6.6%¹. The reason for the difference was that 18.4% of births by mothers not from the ACT were less than 2,500 grams in birthweight, with the births by mothers from the ACT accounting for 5.9%.

The majority (88.0%) of babies born in the ACT for 1997 were between 37 and 41 weeks gestation, with an average gestational age of 39 weeks. There were 8.4% of babies born in the ACT in 1997 classified as preterm infants. This was significantly more than the national percentage of 7.3%¹. The reason for the difference was that 19.7% of births by mothers not from the ACT were 36 weeks gestation or less, with the births by mothers from the ACT accounting for 6.8%.

Table 32: Birthweight and gestational age by mother's usual state of residence, ACT, 1997

		ACT residents		Non ACT residents		All ACT Births	
		No.	%	No.	%	No.	%
Birthweight	Less than 1500 grams	52	1.3	46	7.3	98	2.1
	1500 to 2499 grams	193	4.6	70	11.1	263	5.5
	2500 grams or more	3906	94.1	512	81.5	4418	92.4
	Total	4151	100.0	628	100.0	4779	100.0
Gestational age	20 to 27 weeks	24	0.6	24	3.9	48	1.0
	28 to 31 weeks	30	0.7	29	4.7	59	1.2
	32 to 36 weeks	226	5.5	69	11.1	295	6.2
	37 to 41 weeks	3717	90.4	489	78.6	4206	88.8
	42 weeks or more	117	2.8	11	1.8	128	2.7
	Total	4114	100.0	622	100.0	4736	100.0

Note: 3 records where mother's usual state of residence, 46 records where gestational age and 3 records where birthweight were 'not stated' have been excluded. Due to the rounding of percentages some totals may not equal 100.0.

Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 33: Gestational age by birthweight, ACT, 1997

	20-27 weeks	28-31 weeks	32-36 weeks	37-41 weeks	42 weeks or more
Birthweight	Number				
Less than 500	12	0	0	0	0
500 to 999	29	5	1	0	0
1000 to 1499	6	36	9	0	0
1500 to 1999	0	14	51	6	0
2000 to 2499	0	4	100	82	1
2500 to 2999	0	0	85	543	7
3000 to 3499	0	0	37	1592	29
3500 to 3999	0	0	6	1461	54
4000 to 4499	0	0	4	443	28
4500 or more	0	0	2	80	9
Not stated	1	0	0	2	0
Total	48	59	295	4209	128
Birthweight	Percent				
Less than 500	25.0	0.0	0.0	0.0	0.0
500 to 999	60.4	8.5	0.3	0.0	0.0
1000 to 1499	12.5	61.0	3.1	0.0	0.0
1500 to 1999	0.0	23.7	17.3	0.1	0.0
2000 to 2499	0.0	6.8	33.9	1.9	0.8
2500 to 2999	0.0	0.0	28.8	12.9	5.5
3000 to 3499	0.0	0.0	12.5	37.8	22.7
3500 to 3999	0.0	0.0	2.0	34.7	42.2
4000 to 4499	0.0	0.0	1.4	10.5	21.9
4500 or more	0.0	0.0	0.7	1.9	7.0
Not stated	2.1	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0

Note: 46 records have been excluded where gestational age was not stated.

Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 34: Birthweight and gestational age by maternal country of birth, ACT, 1997

	Australian		Other Oceania		Europe		Africa Mid East		Asia		Americas	
	Pre-term	Term plus	Pre-term	Term plus	Pre-term	Term plus	Pre-term	Term plus	Pre-term	Term plus	Pre-term	Term plus
Birthweight	Number											
Less than 1500 grams	81	0	1	0	6	0	2	0	6	0	2	0
1500 to 2499 grams	144	71	2	2	10	3	2	4	9	8	2	1
2500 grams or greater	115	3404	2	104	7	292	0	50	7	309	3	77
Total	340	3475	5	106	23	295	4	54	22	317	7	78
Birthweight	Percent											
Less than 1500 grams	23.8	0.0	20.0	0.0	26.1	0.0	50.0	0.0	27.3	0.0	28.6	0.0
1500 to 2499 grams	42.4	2.0	40.0	1.9	43.5	1.0	50.0	7.4	40.9	2.5	28.6	1.3
2500 grams or greater	33.8	98.0	40.0	98.1	30.4	99.0	0.0	92.6	31.8	97.5	42.9	98.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: 10 records where maternal country of birth, 3 records where birthweight and 2 records where maternal age were 'not stated' have been excluded. Due to the rounding of percentages some totals may not equal 100.0.

Source: ACT Maternal/Perinatal Data Collection, 1997 data

4.2 Babies' usual area of residence

Table 35: Babies born by mother's usual place of residence, ACT, 1997

		No.	%
Usual place of residence	North Side	1796	37.5
by statistical subdivision	North Canberra	385	8.0
	Belconnen	1023	21.4
	Gungahlin – Hall	388	8.1
	South Side	2358	49.3
	South Canberra	241	5.0
	Woden Valley	372	7.8
	Weston Creek	226	4.7
	Tuggeranong	1519	31.8
Usual state of residence	ACT residents	4154	86.8
	Non ACT residents	628	13.1
	New South Wales	623	13.0
	Other states	5	0.1
	Not stated	3	0.1
	Total	4785	100.0

Source: ACT Maternal/Perinatal Data Collection, 1997 data

The Australian Bureau of Statistics (ABS) Births 1997 reported that in the ACT there were 2,132 male births and 2,076 female births, a total of 4,208 births. The ABS reports on births to women whose usual area of residence is the ACT irrespective of where the birth occurs. For 1994 to 1996 there were between 80 and 96 reported births in NSW to mothers usually resident in the ACT. The table below is useful to compare with the ABS Birth 1997 report to give an indication of the completeness of the ACT Maternal Perinatal Data Collection.

Table 36: Sex of babies born in the ACT by mother's usual residence, ACT, 1997

Sex of baby	ACT Resident		Non ACT Resident	
	No.	%	No.	%
Male	2097	50.5	303	48.2
Female	2055	49.5	325	51.8
Indeterminate	2	0.0	0	0.0
Total	4154	100.0	628	100.0

Note: 3 records where usual state of residence were 'not stated' have been excluded.

Source: ACT Maternal/Perinatal Data Collection, 1997 data

4.3 Apgar scores and resuscitation

The apgar score is a measure of the condition of the baby at birth (detailed definition in glossary). The closer the apgar score is to 10 the better the baby's condition. The majority of babies have apgar scores between 7 and 10, 83.5% at one minute and 97.0% at five minutes after birth. An apgar score between 7 and 10 at one minute corresponds with the 85.8% of babies not requiring resuscitation. An apgar score of less than 7 at one minute indicates that the baby needs some assistance with breathing. The decrease in the number of babies with scores less than 7 at five minutes indicates success with resuscitation in the majority.

Table 37: Babies' apgar scores and resuscitation procedures for live births, ACT, 1997

		No.	%
Apgar scores at 1 minute	0	2	0.0
	1 to 3	129	2.7
	4 to 6	599	12.6
	7 to 10	3995	84.2
	Not stated	18	0.4
	Total	4743	100.0
Apgar scores at 5 minutes	0	1	0.0
	1 to 3	22	0.5
	4 to 6	61	1.3
	7 to 10	4641	97.8
	Not stated	18	0.4
	Total	4743	100.0
Resuscitation	No assisted ventilation	4066	85.7
	Bag and mask IPP	581	12.2
	Intubation	75	1.6
	Bag and mask and intubation	21	0.4
	Total	4743	100.0

Note: Due to the rounding of percentages some totals may not equal 100.0.

Source: ACT Maternal/Perinatal Data Collection, 1997 data

4.4 Congenital anomalies

There were 5.5% of babies born in the ACT for 1997 that were reported to have a congenital anomaly. Of these reported congenital anomalies, 3.5% were for certain musculo-skeletal deformities, and those pertaining to the skin, the urinary system and genital tract.

Table 38: Number of congenital anomalies reported in Hospital Morbidity Data, ACT, 1997

		No.	%
Number of congenital anomalies reported	No anomalies	4524	94.5
	One reported anomaly	224	4.7
	Multiple reported anomalies	37	0.8
	Total	4785	100.0

Note: Figures are based on patients not separations, if a baby has more than one admission for the same anomaly only one anomaly is counted. One baby may have more than one anomaly. Data includes stillbirths but excludes pre twenty week fetuses. Definitions and standards as per the ICD-9-CM manuals, codes are provided. Due to the rounding of percentages some totals may not equal 100.0.

Source: ACT Hospital Morbidity Data Collection, 1997 data

The maximum number of reported anomalies for one baby was five (5).

Table 39: Congenital anomalies, ACT, 1997

	1995 to 1997		1997 only	
	No.	Rate per 10,000	No.	Rate per 10,000
Anencephalus and similar anomalies (740)	1	0.7	1	2.1
Spina bifida (741)	3	2.1	0	0.0
Other congenital anomalies of nervous system (742)	19	13.1	10	20.9
Congenital anomalies of eye (743)	16	11.1	3	6.3
Congenital anomalies of ear, face, and neck (744)	23	15.9	8	16.7
Bulbus cordis anomalies and anomalies of cardiac septal closure (745)	58	40.1	16	33.4
Other congenital anomalies of heart (746)	33	22.8	12	25.1
Other congenital anomalies of circulatory system (747)	18	12.4	10	20.9
Congenital anomalies of respiratory system (748)	22	15.2	8	16.7
Cleft palate and cleft lip (749)	27	18.7	13	27.2
Other congenital anomalies of upper alimentary tract (750)	27	18.7	10	20.9
Other congenital anomalies of digestive system (751)	12	8.3	7	14.6
Congenital anomalies of genital organs (752)	113	78.1	53	110.8
Congenital anomalies of urinary system (753)	68	47.0	16	33.4
Certain congenital musculo-skeletal deformities (754)	159	109.9	46	96.1
Other congenital anomalies of limbs (755)	63	43.5	16	33.4
Other congenital musculo-skeletal anomalies (756)	34	23.5	8	16.7
Congenital anomalies of the integument (skin) (757)	118	81.5	51	106.6
Chromosomal anomalies (758)	25	17.3	10	20.9
Other and unspecified Congenital anomalies (759)	3	2.1	3	6.3
Total Congenital anomalies as reported in Hospital Morbidity Data (* Rate per 100)	842	*5.8	331	*6.3

Note: Annual rates fluctuate due to the small numbers. Figures are based on patients not separations, if a baby has more than one admission for the same anomaly only one anomaly is counted. One baby may have more than one anomaly. Data includes stillbirths but excludes pre twenty week fetuses. Definitions and standards as per the ICD-9-CM manuals, codes are provided.

For chromosomal anomalies (758) 5 were for Downs Syndrome.

Source: ACT Hospital Morbidity data Collection, 1997 data

There are a few congenital anomalies that are reported in the ACT Hospital Morbidity Data collection (ACT HMD), but not reported in Table 39, these are:

- Patent ductus arteriosus where the gestational age is less than 37 weeks or the birthweight is less than 2,500 grams (12 cases);
- Undescended testicles where the gestational age is less than 37 weeks or the birthweight is less than 2,500 grams (3 cases);
- Tongue tie (28 cases); and
- Talipes equinovarus (16 cases), calcaneovarus (10 cases), unspecified or other deformities of the feet (90 cases). Unspecified deformities of the feet could possibly be the coding of positional talipes; plan to review a percentage of these cases in the medical records.

Data checks were done on a number of records with unspecified ICD-9-CM codes that were allocated in the ACT HMD. These records were edited based on those findings.

4.5 Perinatal mortality

Table 40: Survival and birth status, ACT, 1997

		No.	%
Survival Status	Livebirth – Survived to one year	4717	98.6
	Livebirths - Neonatal Deaths	19	0.4
	Livebirth - Post Neonatal Deaths	7	0.1
Birth Status	Total Livebirths	4743	99.1
	Stillbirths	42	0.9
	Total	4785	100.0

Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 41: Babies characteristics for perinatal and postneonatal deaths, ACT, 1997

		Stillbirths		Neonatal Deaths		Post neonatal Deaths	
		No.	%	No.	%	No.	%
Plurality	Singleton	36	85.7	16	84.2	6	85.7
	Multiple	6	14.3	3	15.8	1	14.3
	Total	42	100.0	19	100.0	7	100.0
Sex	Male	26	61.9	7	36.8	3	42.9
	Female	16	38.1	11	57.9	4	57.1
	Indeterminate	0	0.0	1	5.3	0	0.0
	Total	42	100.0	19	100.0	7	100.0
Birthweight	Less than 500 grams	10	23.8	2	10.5	0	0.0
	500 – 999 grams	12	28.6	8	42.1	2	28.6
	1000 – 1499 grams	6	14.3	3	15.8	0	0.0
	1500 - 1999 grams	2	4.8	1	5.3	1	14.3
	2000 – 2499 grams	2	4.8	1	5.3	1	14.3
	2500 grams or more	9	21.4	4	21.1	3	42.9
	Not stated	1	2.4	0	0.0	0	0.0
Total	42	100.0	19	100.0	7	100.0	
Gestational Age	20 - 27 weeks	20	47.6	9	47.4	2	28.6
	28 - 31 weeks	6	14.3	4	21.1	0	0.0
	32 - 36 weeks	7	16.7	3	15.8	2	28.6
	37 - 41 weeks	9	21.4	3	15.8	3	42.9
	42 weeks or more	0	0.0	0	0.0	0	0.0
	Total	42	100.0	19	100.0	7	100.0
Method of birth	Normal birth	28	66.7	4	21.1	6	85.7
	Vaginal Breech	6	14.3	7	36.8	0	0.0
	Instrumental birth	2	4.8	1	5.3	0	0.0
	Caesarean section	6	14.3	7	36.8	1	14.3
	Total	42	100.0	19	100.0	7	100.0
Number of congenital anomalies reported	No anomalies	34	81.0	13	68.4	6	85.7
	One reported anomaly	7	16.7	2	10.5	0	0.0
	Multiple reported anomalies	1	2.4	4	21.1	1	14.3
	Total	42	100.0	19	100.0	7	100.0

Note: Annual rates fluctuate due to the small numbers. Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 42: Selected mothers' characteristics for perinatal mortality, ACT, 1997

		Stillbirths		Neonatal Deaths		Post neonatal Deaths	
		No.	%	No.	%	No.	%
Maternal Age Group	Less than 20years	4	10.0	5	27.8	0	0.0
	20 - 24 years	10	25.0	4	22.2	4	57.1
	25 - 29 years	7	17.5	3	16.7	1	14.3
	30 - 34 years	10	25.0	4	22.2	1	14.3
	35 - 39 years	9	22.5	2	11.1	1	14.3
	40 years or more	0	0.0	0	0.0	0	0.0
	Total		40	100.0	18	100.0	7
Plurality	Singleton	36	90.0	16	88.9	6	85.7
	Multiple	4	10.0	2	11.1	1	14.3
	Total	40	100.0	18	100.0	7	100.0
Parity	No previous births	18	45.0	6	33.3	2	28.6
	One previous birth	11	27.5	7	38.9	3	42.9
	Two previous births	5	12.5	4	22.2	1	14.3
	Three previous births	3	7.5	0	0.0	1	14.3
	Four or more previous births	3	7.5	1	5.6	0	0.0
	Total	40	100.0	18	100.0	7	100.0
Mothers' Indigenous Status	Indigenous	1	2.5	0	0.0	0	0.0
	Non Indigenous	39	97.5	18	100.0	7	100.0
	Total	40	100.0	18	100.0	7	100.0
Marital Status	Married, de facto	32	80.0	12	66.7	5	71.4
	Never married	7	17.5	6	33.3	2	28.6
	Other	1	2.5	0	0.0	0	0.0
	Total	40	100.0	18	100.0	7	100.0
Country of birth	Australia	34	85.0	12	66.7	7	100.0
	Other Oceania	1	2.5	2	11.1	0	0.0
	Europe	2	5.0	1	5.6	0	0.0
	Africa including Mid East	2	5.0	1	5.6	0	0.0
	Asia	0	0.0	2	11.1	0	0.0
	Americas	1	2.5	0	0.0	0	0.0
	Total	40	100.0	18	100.0	7	100.0
Mother's usual place of residence	ACT residents	30	75.0	13	72.2	6	85.7
	Northside	11	27.5	3	16.7	2	28.6
	Southside	19	47.5	10	55.6	4	57.1
	Non ACT residents	10	25.0	5	27.8	1	14.3
	New South Wales	10	25.0	5	27.8	1	14.3
	Other states	0	0.0	0	0.0	0	0.0
	Total	40	100.0	18	100.0	7	100.0

Note: Annual rates fluctuate due to the small numbers.
Source: ACT Maternal/Perinatal Data Collection, 1997 data

5 BIRTH FACILITY PROFILES

5.1 Accommodation status

Table 43: Accommodation status for women giving birth, ACT, 1997

		No.	%
Accommodation status	Public	3196	67.9
	Private	1478	31.4
	Not stated	34	0.7
Total		4708	100.0

Note: Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1997 data

5.2 Place of birth

From 1995 to 1997, women in the ACT have had a choice of giving birth in one of the two public hospitals, the birth centre, two private hospitals or at home.

Table 44: Place of birth, ACT, 1995-1997

		1995		1996		1997	
		No.	%	No.	%	No.	%
Women giving birth at:	Public Hospitals	3528	73.1	3401	72.3	3409	72.4
	TCH-Delivery suite	2234	46.3	2047	43.5	1998	42.4
	TCH-Birth Centre	276	5.7	364	7.7	372	7.9
	Calvary Public	1018	21.1	990	21.1	1039	22.1
	Private Hospitals	1260	26.1	1275	27.1	1250	26.5
	Calvary Private	356	7.4	345	7.3	307	6.5
	John James Memorial	904	18.7	930	19.8	943	20.0
	Homebirth	35	0.7	24	0.5	46	1.0
	Born before arrival	7	0.1	1	0.0	3	0.1
	Total	4830	100.0	4701	100.0	4708	100.0
Babies born at:	Public Hospitals	3582	73.1	3464	72.3	3467	72.5
	TCH-Delivery suite	2283	46.6	2099	43.8	2044	42.7
	TCH-Birth Centre	276	5.6	364	7.6	372	7.8
	Calvary Public	1023	20.9	1001	20.9	1051	22.0
	Private Hospitals	1275	26.0	1299	27.1	1268	26.5
	Calvary Private	362	7.4	349	7.3	309	6.5
	John James Memorial	913	18.6	950	19.8	959	20.0
	Homebirth	35	0.7	24	0.5	47	1.0
	Born before arrival	7	0.1	1	0.0	3	0.1
	Total	4899	100.0	4788	100.0	4785	100.01

Note: Born before arrival refers to babies born before the mother arrives at the planned birth facility, where the mother and baby are subsequently admitted to that facility. Due to the rounding of percentages some totals may not equal 100.0. Correction to the previously published data for 1995 and 1996 due to an error in the report.

Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 45: Type of birth facility where women gave birth, ACT, 1997

		No.	%
Type of birth facility	Hospital	4287	91.1
	Birth Centre	372	7.9
	Home	46	1.0
	Other	3	0.1
	Total	4708	100.0

Note: Due to the rounding of percentages some totals may not equal 100.0.

Source: ACT Maternal/Perinatal Data Collection, 1997 data

Ninety-nine percent of women in ACT gave birth in a hospital. The Birth Centre was included in this figure as it is part of The Canberra Hospital's Maternity Unit.

Homebirths accounted for 46 (1.0%) of women giving birth in ACT. Women booked into the Canberra Midwifery Program, who intended to have their baby at the Birth Centre but had their baby at home, have been classified for this report as homebirths.

5.3 Selected characteristics by place of birth

Table 46: Accommodation status by hospital of birth, ACT, 1997

	The Canberra Hospital	Calvary Public Hospital	Calvary Private Hospital	John James Memorial Hospital
Accommodation status	Number			
Public	2171	997	0	0
Private	189	38	307	943
Not stated	10	4	0	0
Total	2370	1039	307	943
Accommodation status	Percent			
Public	91.6	96.0	0.0	0.0
Private	8.0	3.7	100.0	100.0
Not stated	0.4	0.4	0.0	0.0
Total	100.0	100.0	100.0	100.0

Note: Due to the rounding of percentages some totals may not equal 100.0.

Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 47: Maternal age by hospital of birth, ACT, 1997

	The Canberra Hospital	Calvary Public Hospital	Calvary Private Hospital	John James Memorial Hospital
Maternal age	Number			
Less than 20 years	137	53	0	3
20 – 24 years	437	187	14	42
25 – 29 years	774	386	110	273
30 – 34 years	687	282	134	402
35 – 39 years	293	113	42	190
40 years or more	42	18	7	32
Total	2370	1039	307	943
Maternal age	Percent			
Less than 20 years	5.8	5.1	0.0	0.3
20 – 24 years	18.4	18.0	4.6	4.5
25 – 29 years	32.7	37.2	35.8	29.0
30 – 34 years	29.0	27.1	43.6	42.6
35 – 39 years	12.4	10.9	13.7	20.1
40 years or more	1.8	1.7	2.3	3.4
Total	100.0	100.0	100.0	100.0

Note: Due to the rounding of percentages some totals may not equal 100.0.

Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 47 highlights the differences in age groups between the birth facilities. Women less than thirty are more likely to use the public hospitals. There were 56.9% in this age group who gave birth at The Canberra Hospital and 60.3% at Calvary Public, compared with 40.4% at Calvary Private and 33.8% at John James Memorial Hospital. Women thirty years or over are more likely to use the private hospitals. There were 43.2% at The Canberra Hospital and 39.7% at Calvary Public, compared with 59.6% at Calvary Private and 66.1% at John James Memorial Hospital.

Table 48: Plurality by hospital of birth, ACT, 1997

	The Canberra Hospital	Calvary Public Hospital	Calvary Private Hospital	John James Memorial Hospital
Plurality	Number			
Singleton	2324	1027	305	927
Multiple births	46	12	2	16
Total	2370	1039	307	943
Plurality	Percent			
Singleton	98.1	98.8	99.3	98.3
Multiple births	1.9	1.2	0.7	1.7
Total	100.0	100.0	100.0	100.0

Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 49: Parity by hospital of birth, ACT, 1997

	The Canberra Hospital	Calvary Public Hospital	Calvary Private Hospital	John James Memorial Hospital
Parity	Number			
No previous births	998	468	128	399
One previous birth	784	330	126	377
Two previous births	380	155	38	132
Three previous births	133	45	10	26
Four or more previous births	75	41	5	9
Total	2370	1039	307	943
Parity	Percent			
No previous births	42.1	45.0	41.7	42.3
One previous birth	33.1	31.8	41.0	40.0
Two previous births	16.0	14.9	12.4	14.0
Three previous births	5.6	4.3	3.3	2.8
Four or more previous births	3.2	3.9	1.6	1.0
Total	100.0	100.0	100.0	100.0

Note: Parity refers to the number of children a woman has borne that are either livebirths or stillbirths, it does not include pregnancies where the fetus is delivered before 20 weeks gestation. Due to the rounding of percentages some totals may not equal 100.0.

Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 50: Method of birth by hospital of birth, ACT, 1997

	The Canberra Hospital	Calvary Public Hospital	Calvary Private Hospital	John James Memorial Hospital
Method of birth	Number			
Normal birth	1620	733	202	475
Vaginal breech	43	2	0	3
Instrumental birth	288	99	44	197
Caesarean section	419	205	61	268
Total	2370	1039	307	943
Method of birth	Percent			
Normal birth	68.3	70.5	65.8	50.4
Vaginal breech	1.8	0.2	0.0	0.3
Instrumental birth	12.2	9.5	14.3	20.9
Caesarean section	17.7	19.7	19.9	28.4
Total	100.0	100.0	100.0	100.0

Note: One woman giving birth at The Canberra Hospital and one at John James Memorial Hospital where method of birth were 'not stated' have been counted as normal births. Note: Due to the rounding of percentages some totals may not equal 100.0.

Source: ACT Maternal/Perinatal Data Collection, 1997 data

Also refer to Table 25: Method of birth, ACT, 1997 for overall information. Figures from the hospital morbidity data collection in Table 51 show a fall in the rate of caesarean sections in the ACT over the last four years.

Table 51: Caesarean section rates by type of hospital, ACT, July 1994 - June 1998

	Public		Private		Public & Private	
	No.	%	No.	%	No.	%
1994-1995	825	21.3	203	23.1	1028	21.6
1995-1996	640	18.9	284	27.4	924	20.9
1996-1997	615	17.8	342	27.0	957	20.3
1997-1998	584	17.2	310	25.0	894	19.3

Source: ACT Hospital Morbidity Data Collection, July 1994 - June 1998 data

The most significant factor in the decline in caesarean section rates in public hospitals was the changed staffing structure of maternity services at The Canberra Hospital (more registrars and staff specialists). This allowed changes in clinical practice towards more VBACs (vaginal birth after caesarean section), increased vaginal breeches and fewer caesarean sections for lack of progress, and fetal distress.

Another significant change was the separation of private and public patients, leading to an artificial reduction in caesarean section rates at The Canberra Hospital.

The Canberra Midwifery Program (CMP) has also had an impact by increasing the options of care for pregnant women, and actively involving them in all decision making related to their care.

The caesarean section rate from The Canberra Hospital for the 1998-1999 financial year was reported by the hospital as 15.5%. Calvary Hospital reported the caesarean section rate for 1998 as 19.4% for Calvary Private and 18.3% for Calvary Public.

Table 52: Birth status by hospital of birth, ACT, 1997

	The Canberra Hospital	Calvary Public Hospital	Calvary Private Hospital	John James Memorial Hospital
Birth status	Number			
Livebirth	2382	1045	308	958
Stillbirth	34	6	1	1
Total	2416	1051	309	959
Birth status	Percent			
Livebirth	98.6	99.4	99.7	99.9
Stillbirth	1.4	0.6	0.3	0.1
Total	100.0	100.0	100.0	100.0

Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 53: Birthweight by hospital of birth, ACT, 1997

	The Canberra Hospital	Calvary Public Hospital	Calvary Private Hospital	John James Memorial Hospital
Birthweight	Number			
Less than 1500 grams	92	2	2	2
1500 to 2499 grams	183	45	8	25
Greater than 2500 grams	2141	1003	298	932
Not stated	0	1	1	0
Total	2416	1051	309	959
Birthweight	Percent			
Less than 1500 grams	3.8	0.2	0.6	0.2
1500 to 2499 grams	7.6	4.3	2.6	2.6
Greater than 2500 grams	88.6	95.4	96.4	97.2
Not stated	0	0.1	0.3	0
Total	100.0	100.0	100.0	100.0

Note: Due to the rounding of percentages some totals may not equal 100.0.

Source: ACT Maternal/Perinatal Data Collection, 1997 data

The Canberra Hospital has a tertiary level neonatal intensive care unit in the Centre for Newborn Care. Babies with a very low birthweight or gestational age are in a high risk group. In Table 53, The Canberra Hospital had 3.8% of babies with a birthweight of 1500grams or less compared with 0.2% to 0.6% at the other hospitals. Also in Table 54, The Canberra Hospital had 4.3% of babies with a gestational age of 31 weeks or less compared with 0.1% to 0.3% at the other hospitals.

Table 54: Gestational age by hospital of birth, ACT, 1997

	The Canberra Hospital	Calvary Public Hospital	Calvary Private Hospital	John James Memorial Hospital
Gestational age (weeks)	Number			
20 to 27	45	1	1	1
28 to 31	58	0	0	1
32 to 36	184	52	14	41
37 to 41	2065	932	283	885
42 or more	64	38	8	16
Not stated	0	28	3	15
Total	2416	1051	309	959
Gestational age (weeks)	Percent			
20 to 27	1.9	0.1	0.3	0.1
28 to 31	2.4	0.0	0.0	0.1
32 to 36	7.6	4.9	4.5	4.3
37 to 41	85.5	88.7	91.6	92.3
42 or more	2.6	3.6	2.6	1.7
Not stated	0.0	2.7	1.0	1.6
Total	100.0	100.0	100.0	100.0

Note: Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1997 data

5.4 Length of stay in hospital

An antenatal stay of one day or less indicates that these women (91.5%) are admitted to hospital for the labour and birth, not for antenatal complications.

Table 55: Antenatal length of stay in hospital, ACT, 1997

		No.	%
Antenatal length of stay	Less than 1 day	2804	60.2
	1 day	1459	31.3
	2 – 6 days	307	6.6
	7 – 13 days	54	1.2
	14 – 20 days	17	0.4
	21 – 27 days	9	0.2
	28 days or more	8	0.2
	Not Stated	1	0.0
Total		4659	100.0

Note: Antenatal length of stay only includes hospital births. Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 56: Postnatal length of stay in hospital, ACT, 1997

		No.	%
Postnatal length of stay	Less than 1 day	143	3.1
	1 day	453	9.9
	2 days	602	13.2
	3 days	846	18.6
	4 days	731	16.1
	5 days	680	14.9
	6 days	507	11.1
	7 – 13 days	576	12.6
	14 – 20 days	15	0.3
	21 – 27 days	1	0.0
	28 days or more	0	0.0
	Total	4554	100.0

Average postnatal stay **4.03 days**

Note: Postnatal length of stay includes only hospital admissions not transferred for further care to another hospital.
Source: ACT Maternal/Perinatal Data Collection, 1997 data

Overall 34.8% of women giving birth in the ACT for 1997 stayed in hospital postnatally for 3 days or less.

Table 57: Postnatal length of stay by hospital of birth, ACT, 1997

	The Canberra Hospital	Calvary Public Hospital	Calvary Private Hospital	John James Memorial Hospital
Average length of stay	3.20 days	3.53 days	5.22 days	6.21 days
Postnatal length of stay	Number			
Less than 3 days	915	250	13	20
3 days	468	316	22	40
4 to 6 days	795	412	210	501
7 days or more	118	38	58	378
Total	2296	1016	303	939
Post natal length of stay	Percent			
Less than 3 days	39.9	24.6	4.3	2.1
3 days	20.4	31.1	7.3	4.3
4 to 6 days	34.6	40.6	69.3	53.4
7 days or more	5.1	3.7	19.1	40.3
Total	100.0	100.0	100.0	100.0

Source: ACT Maternal/Perinatal Data Collection, 1997 data

Women giving birth in the ACT for 1997 stayed in hospital on average longer in the private hospitals (5.22 days at Calvary Private and 6.21 at John James Memorial) compared with those women in the public hospitals (3.20 days at The Canberra Hospital and 3.53 days at Calvary Public).

Table 58: Babies' length of stay in hospital, for live births ACT, 1997

		No.	%
Babies' length of stay	Less than 1 day	165	3.7
	1 day	447	9.9
	2 days	596	13.2
	3 days	833	18.4
	4 days	682	15.1
	5 days	634	14.0
	6 days	464	10.3
	7 – 13 days	571	12.6
	14 – 20 days	46	1.0
	21 – 27 days	26	0.6
	28 days or more	51	1.1
	Not Stated	0	0.0
	Total	4515	100.0

Note: Babies' length of stay for hospital births with transfers excluded.
Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 59: Indigenous mothers' length of stay in hospital, ACT, 1997

		Indigenous		Non Indigenous		Total	
		No.	%	No.	%	No.	%
Antenatal length of stay	Less than 1 day	30	52.6	2774	60.3	2804	60.2
	1 day	19	33.3	1440	31.3	1459	31.3
	2 – 6 days	6	10.5	301	6.5	307	6.6
	7 – 13 days	0	0.0	54	1.2	54	1.2
	14 – 20 days	1	1.8	16	0.3	17	0.4
	21 – 27 days	0	0.0	9	0.2	9	0.2
	28 days or more	1	1.8	7	0.2	8	0.2
	Not Stated	0	0.0	1	0.0	1	0.0
	Total	57	100.0	4602	100.0	4659	100.0
	Postnatal length of stay	Less than 1 day	3	5.5	140	3.1	143
1 day		8	14.5	445	9.9	453	9.9
2 days		11	20.0	591	13.1	602	13.2
3 days		11	20.0	835	18.6	846	18.6
4 days		5	9.1	726	16.1	731	16.1
5 days		9	16.4	671	14.9	680	14.9
6 days		3	5.5	504	11.2	507	11.1
7 – 13 days		5	9.1	571	12.7	576	12.6
14 – 20 days		0	0.0	15	0.3	15	0.3
21 – 27 days		0	0.0	1	0.0	1	0.0
28 days or more		0	0.0	0	0.0	0	0.0
Not Stated	0	0.0	0	0.0	0	0.0	
Total	55	100.0	4499	100.0	4554	100.0	

Note: For antenatal and postnatal length of stay only hospital births are included; transfers are also excluded for postnatal length of stay.
11 records where Indigenous status was not stated have also been excluded. Due to the rounding of percentages some totals may not equal 100.0
Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 60: Discharge status from hospital, ACT, 1997

		No.	%
Mother's discharge status	Discharged	2944	63.2
	Midcall	1610	34.6
	Transferred	105	2.3
	Total	4659	100.0
Baby's discharge status	Discharged	2930	62.4
	Midcall	1565	33.3
	Transferred	178	3.8
	Died	20	0.4
	Total	4693	100.0

Note: Midcall is an early discharge program with daily follow up at home by a registered midwife for antenatal or postnatal care. Homebirths have been excluded. Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 61: Discharge status for baby by hospital of birth, ACT, 1997

	The Canberra Hospital	Calvary Public Hospital	Calvary Private Hospital	John James Memorial Hospital
Baby discharge status	Number			
Discharged	1032	683	276	939
Midcall	1196	333	21	15
Transferred	134	29	11	4
Died	20	0	0	0
Total	2382	1045	308	958
Baby discharge status	Percent			
Discharged	43.3	65.4	89.6	98.0
Midcall	50.2	31.9	6.8	1.6
Transferred	5.6	2.8	3.6	0.4
Died	0.8	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0

Note: Homebirths have been excluded. Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 62: Midcall statistics, ACT, 1997

		The Canberra Hospital		Calvary Hospital	
		No.	%	No.	%
Women giving birth from ACT MPDC and % using Midcall		2370	45.3	1346	48.1
Midcall Clients	Midcall Clients from own Hospital	1073	94.8	647	72.2
	Transferred from other Midcall service	59	5.2	249	27.8
Clients registered on Midcall		1132	100.0	896	100.0
	Transferred to other Midcall service*	288	0.3	35	0.1
Clients attended by Midcall service **		844	17.9	861	18.3
Additional care	Referred to Community Services ***	61	7.2	46	5.3
	Total Readmissions	27	3.2	10	1.2
Types of visits	Total Visits Postnatal Clients	3712	90.7	1893	91.4
	Antenatal visits check and interviews	382	9.3	177	8.6
	Total	4094	100.0	2070	100.0
Hospital and Midcall Usage data	Average Hospital days		2.7		2.6
	Average Midcall days		4.0		4.0
	Average visits to Midcall		3.8		n/a

Note: ACT MPDC refers to the ACT Maternal Perinatal Data Collection. * % of clients from own hospital being transferred to other Midcall service. ** % of clients attended by Midcall service for all ACT women giving birth. *** % of clients attended by Midcall service requiring additional care.
Source: The Canberra Hospital and Calvary Hospital Midcall, 1997

6 ACT MATERNAL PERINATAL DATA COLLECTION

The Clinical Health Outcomes Centre, Epidemiology assumed responsibility for The ACT Maternal Perinatal Data Collection (MPDC) from the Performance Information Section in August 1996. In May 1999 the Clinical Health Outcomes Centre changed its name to Clinical Epidemiology and Health Outcomes Centre (CEHOC). The MPDC is one of the responsibilities of the Centre's Data Manager.

Computerisation of the collection is one of the major goals of CEHOC. Since October 1996, The Canberra Hospital has collected its data for the MPDC in an Access database application called OBICARE. Data extracted from OBICARE has been used in this report although there are still some unresolved data collection issues with OBICARE. The Queensland Health Department has made considerable improvements to OBICARE. The Canberra Hospital will consider arranging for a demonstration of the new release of OBICARE, later this year.

Another goal of the Centre is to produce publications (this is the second in the series) in consultation with the key stakeholders in the area. This publication has been developed in consultation with the ACT Maternal Perinatal Information Network. For more information on the Network see Section 6.8, 'Committees related to the ACT Maternal Perinatal Data Collection'.

6.1 Data sources

The ACT Maternal and Perinatal Data Collection (MPDC) includes data from the ACT Midwives Data Collection Form/OBICARE, the ACT Hospital Morbidity Data Collection and the ACT Deaths Data.

6.1.1 ACT Midwives Collection Form

Midwives completed the ACT Midwives Data Collection Form in all ACT birth facilities except The Canberra Hospital. The midwife caring for the mother and baby completes sections of the form at the initial admission, when the baby is born, and on discharge. On discharge, the forms are sent to the Medical Records Department. The forms are then sent to the Clinical Epidemiology and Health Outcomes Centre for data entry. From 1995 to late 1996, The Canberra Hospital had a Maternity Audit Midwife to check the forms and improve data quality before sending them to the Medical Records Department.

The form used for the data collection for 1997 was introduced in May 1995. A revised form was prepared during 1998 and implemented for data collection in January 1999.

6.1.2 OBICARE Data

The OBICARE application is a Microsoft Access Version 2 database. It is used to collect data at the Canberra Hospital's Maternity Unit. The Maternity Audit Midwife trained midwives to use OBICARE. The midwives caring for the mother and baby enters the data into OBICARE as the mother progresses through the pre admission, antenatal clinic, delivery suite/birth centre and postnatal ward.

Data for the ACT Maternal Perinatal Data Collection is annually extracted from OBICARE and recoded. This task is the responsibility of the data manager from Clinical Epidemiology and Health Outcomes Centre. Data has been extracted from OBICARE for the first time for the 1997 data.

6.1.3 ACT Deaths Data

ACT Deaths Data, obtained from Births, Deaths and Marriages (BDM), is linked to the collection on date of birth and suburb to identify and provide information on ACT infant deaths. Babies born in the ACT who die outside the ACT are not identified at present. An agreement with BDM needs to be reassessed in order to obtain 1998 perinatal deaths data.

6.1.4 ACT Hospital Morbidity Data Collection


Data from the ACT Hospitals Morbidity Data Collection is obtained from the Department of Health and Community Care's Information Management Section. This data is converted into an Access database and linked to the data from the ACT Midwives Data Collection Forms.

The purposes of linking the data are fourfold:

- to correct Personal Identifier Numbers (PIN or UR Numbers) in the original data;
- to identify missing records in the collection (each hospital is requested to resubmit a ACT Midwives Data Collection Form for the missing records to ensure the collection is as complete as possible);
- to extract information on congenital anomalies, maternal and perinatal morbidity and mortality, and procedures occurring during hospitalisation; and
- to improve data completeness by replacing missing or not stated data values in the collection with values in the same or similar data item (field) from the ACT Hospitals Morbidity Data.

There have been considerable improvements in the availability of complete calendar year ACT Hospitals Morbidity Data since last year. The data is available from a shared directory that has restricted access.

Figure 5: ACT Midwives Data Collection Form for 1997 data



• 3 5 4 9 9 •

ACT Midwives Data Collection Form

Tick appropriate box or enter no. date

Mother's P.I.N.S.

Suburb/Town Postcode

Class of Patient Private Public Other

Language spoken at home English Other

Admission Date

Family Status (Mother) Married Single Divorced De facto Separated Widowed Unknown

Birthdate (Mother) Country of Birth (Mother) Ethnic Origin (Mother) Aboriginal Non-Aboriginal

PREVIOUS PREGNANCIES

Yes None

Total Number of Previous Live Births Still Births

Abortions - spontaneous - induced

Ectopic Neonatal Deaths Other

Date of completion of last pregnancy

Outcome of last pregnancy Livebirths Still birth Neonatal Death

Abortions - induced spontaneous Other

LABOUR, BIRTH AND PUERPERIUM

Labour Prostin Syntocin A.R.M.

Spontaneous No Labour Augmented Induction

Indication for induction

Presentation Vertex Breach

Unknown Other

Other Procedures Epidural Block Pudendal Block

Episiotomy

Type of Birth Spontaneous Cephalic Caesarean - elective - emergency

Forceps Vacuum Vaginal Breech Other

If operative or instrumental delivery, state indication

Complications of Labour, Birth or Puerperium Perineal Laceration 1° 2° 3°

PPH - primary (500mls +)

Other

BABY

COMPLETE A SEPARATE FORM IN FULL FOR EACH BABY OF A MULTIPLE BIRTH

Baby P.I.N.S.

Birthdate

Sex Male Female Indeterminate

Plurality Single Twin Other

This record refers to born

Condition Liveborn Stillborn

Birthweight (grams)

Head circumference at birth (cm)

APGAR: 1 min 5 min

Time to establish Respiration Mins Secs

Resuscitations Endotracheal Intubation Laryngoscopy

Narcotic Antagonistic Injection Bag and Mask

Neonatal Morbidity

THIS PREGNANCY

Date of LMP

Clinically estimated gestation (weeks)

Maternal medical conditions while pregnant: Diabetes Mellitus Chronic Renal Disease Epilepsy Other

Cardiac Disease Essential Hypertension Gestational Diabetes

Obstetric Complications APH - Premature rupture of membranes Pregnancy induced hypertension Other

Procedures and Operations Cervical Suture X-Ray CTG CT Scan

U/S C.V.S. Amniocentesis < 20 wks - or > 20 wks

Number of Antenatal visits 0 1-3 4-6 7+ Not Known

Duration of pregnancy at first visit Weeks

Responsibility for Antenatal Care G.P. Obstetrician

Reg. Midwife A.N.C.

DISCHARGE STATUS

Date of discharge Mother Baby

Discharged home Midcall Died Transferred

Baby transferred to: ACT Hosp GE11 Other Hosp

CONGENITAL ABNORMALITIES

briefly describe

Autopsy Yes No

Feeding on discharge

Signature at birth, Designation, Date

Signature at birth, Designation, Date

07813.PPC02-996(02/97)

Figure 6: New ACT Midwives Data Collection Form for 1999 data



ACT Midwives Data Collection Form

MOTHER		BABY'S PLACE OF BIRTH		BABY	
PIN (Mother's) <input type="text"/> Mother's Birthdate <input type="text"/> Suburb <input type="text"/> Postcode <input type="text"/> Admission Date <input type="text"/> Family Status Separated <input type="checkbox"/> 4 Married/Defacto <input type="checkbox"/> 5 Divorced <input type="checkbox"/> 3 Never Married <input type="checkbox"/> 1 Widowed <input type="checkbox"/> 2 Country of birth <input type="text"/> Indigenous Status Not Indigenous <input type="checkbox"/> 4 Aust. Aboriginal <input type="checkbox"/> 1 Torres Strait Islander <input type="checkbox"/> 2 Class of Patient Public <input type="checkbox"/> 1 Private <input type="checkbox"/> 2		The Canberra Hospital <input type="checkbox"/> 1 John James Memorial <input type="checkbox"/> 5 TCH Birth Centre <input type="checkbox"/> 2 National Capital Private <input type="checkbox"/> 6 Calvary Public <input type="checkbox"/> 3 Homebush <input type="checkbox"/> 7 Calvary Private <input type="checkbox"/> 4 Born before arrival <input type="checkbox"/> 8 Intended place of birth at onset of labour Hospital <input type="checkbox"/> 1 Birth Centre <input type="checkbox"/> 2 Home <input type="checkbox"/> 4 Was mother transferred Antenatally? No <input type="checkbox"/> 1 Prior to labour <input type="checkbox"/> 2 During labour <input type="checkbox"/> 3 Transferred FROM Planned Homebirth <input type="checkbox"/> 1 Another ACT hospital <input type="checkbox"/> 3 Birth Centre <input type="checkbox"/> 2 Interstate hospital <input type="checkbox"/> 4 Reason for transfer <input type="text"/> Did mother smoke during pregnancy? No <input type="checkbox"/> 2 Yes <input type="checkbox"/> 1 Average number of cigarettes per day during the second half of pregnancy <input type="text"/>		PIN (Baby's) <input type="text"/> Baby's Birthdate <input type="text"/> Birth Condition Live Birth <input type="checkbox"/> 1 Stillbirth <input type="checkbox"/> 2 Sex Male <input type="checkbox"/> 1 Female <input type="checkbox"/> 2 Indeterminate <input type="checkbox"/> 3 Plurality Single <input type="checkbox"/> 1 Twins <input type="checkbox"/> 2 Triplets <input type="checkbox"/> 3 Birth order (enter 1 if singleton birth) <input type="text"/> Birth weight (grams) <input type="text"/> Head circumference (cm) <input type="text"/> Length (cm) <input type="text"/> APGAR: 1 minute <input type="text"/> 5 minutes <input type="text"/> Resuscitation - Active Measures None <input type="checkbox"/> 1 Suction <input type="checkbox"/> 2 IPPV - bag & mask <input type="checkbox"/> 4 O ₂ Therapy <input type="checkbox"/> 3 IPPV - intubation <input type="checkbox"/> 5 Laryngoscopy <input type="checkbox"/> 7 External cardiac massage + ventilation <input type="checkbox"/> 6 Resuscitation - Drug Therapy None <input type="checkbox"/> 1 Narcotic antagonist <input type="checkbox"/> 2 Adrenalin <input type="checkbox"/> 4 Sodium Bicarbonate <input type="checkbox"/> 3 Other drugs related to resuscitation <input type="checkbox"/> 5 Admission to SCN / NICU No <input type="checkbox"/> 2 Yes <input type="checkbox"/> 1 length of stay in days <input type="text"/> Neonatal morbidity requiring treatment Nervous system <input type="checkbox"/> Circulatory system <input type="checkbox"/> Respiratory system <input type="checkbox"/> Digestive system <input type="checkbox"/> Musculoskeletal system <input type="checkbox"/> Skin & subcutaneous <input type="checkbox"/> Endocrine or Metabolic disease <input type="checkbox"/> Chromosomal <input type="checkbox"/> Does the baby have birth defect(s)? Yes <input type="checkbox"/> 1 Suspected <input type="checkbox"/> 3 No <input type="checkbox"/> 2 Describe briefly - Complete a more detailed form <input type="text"/> Autopsy Yes <input type="checkbox"/> 1 No <input type="checkbox"/> 2 N/A <input type="checkbox"/> 3	
PREVIOUS PREGNANCIES 0 <input type="checkbox"/> No previous pregnancies 1 <input type="checkbox"/> Yes Last pregnancy Number Outcome Live Births <input type="text"/> <input type="text"/> 1 Neonatal Deaths <input type="text"/> <input type="text"/> 2 Stillbirths <input type="text"/> <input type="text"/> 3 Spontaneous Abortions <input type="text"/> <input type="text"/> 4 Induced Abortions <input type="text"/> <input type="text"/> 5 Ectopic Pregnancies <input type="text"/> <input type="text"/> 6 Other <input type="text"/> <input type="text"/> 7 Date of completion of last pregnancy <input type="text"/> Plurality of last pregnancy: Single <input type="checkbox"/> 1 Multiple <input type="checkbox"/> 2		LABOUR, BIRTH AND PUERPERIUM Onset and type of Labour No Labour <input type="checkbox"/> 1 Method: Spontaneous <input type="checkbox"/> 2 A.R.M. <input type="checkbox"/> 1 Spontaneous + Augmented <input type="checkbox"/> 3 Oxytocin <input type="checkbox"/> 2 Induction <input type="checkbox"/> 4 Prostaglandins <input type="checkbox"/> 3 Reason for augmentation or induction <input type="text"/> Analgesia / Anaesthesia None <input type="checkbox"/> 1 Local <input type="checkbox"/> 2 Spinal <input type="checkbox"/> 5 Nitrous Oxide <input type="checkbox"/> 2 Pudendal <input type="checkbox"/> 3 General <input type="checkbox"/> 6 IMI Narcotic <input type="checkbox"/> 3 Epidural <input type="checkbox"/> 4 Other <input type="text"/> 8 Presentation Vertex <input type="checkbox"/> 1 Face <input type="checkbox"/> 3 Other (compound) <input type="checkbox"/> 8 Breech <input type="checkbox"/> 2 Brow <input type="checkbox"/> 4 Method of Birth Spontaneous <input type="checkbox"/> 1 Caesarean Section <input type="checkbox"/> 4 Forceps <input type="checkbox"/> 2 Vacuum Extraction <input type="checkbox"/> 5 Vaginal Breech <input type="checkbox"/> 3 Other <input type="text"/> 6 Perineal status Intact <input type="checkbox"/> 1 3° Laceration <input type="checkbox"/> 4 1° Laceration <input type="checkbox"/> 2 4° Laceration <input type="checkbox"/> 7 2° Laceration <input type="checkbox"/> 3 Episiotomy <input type="checkbox"/> 5 Was the vulva, vagina or perineum sutured? Yes <input type="checkbox"/> 1 No <input type="checkbox"/> 2 Complications of Labour & Birth None <input type="checkbox"/> PPH <input type="checkbox"/> Fetal Distress <input type="checkbox"/> Retained Placenta <input type="checkbox"/> Cord Prolapse <input type="checkbox"/> Major Infection <input type="checkbox"/> Obstructed Labour <input type="checkbox"/>		DISCHARGE STATUS Mother's Discharge <input type="text"/> Baby's Discharge <input type="text"/> Discharged home Mother <input type="checkbox"/> 1 Baby <input type="checkbox"/> 1 Midical <input type="checkbox"/> 2 <input type="checkbox"/> 2 Neonatal & Parent Support Service <input type="checkbox"/> 3 <input type="checkbox"/> 3 Canberra Midwifery Program <input type="checkbox"/> 4 <input type="checkbox"/> 4 Died <input type="checkbox"/> 5 <input type="checkbox"/> 5 Transferred to QEII <input type="checkbox"/> 6 <input type="checkbox"/> 6 Transferred to ACT Hospital <input type="checkbox"/> 7 <input type="checkbox"/> 7 Transferred to Interstate Hospital <input type="checkbox"/> 8 <input type="checkbox"/> 8 Midwife completing the form at birth (print surname & initial) (date) Midwife completing the form on discharge (print surname & initial) (date)	
THIS PREGNANCY Gravidity <input type="text"/> Parity <input type="text"/> Date of Last Menstrual Period <input type="text"/> Clinically estimated gestation (weeks) <input type="text"/> Maternal medical conditions while pregnant Diabetes Mellitus <input type="checkbox"/> Epilepsy <input type="checkbox"/> Chronic Renal Disease <input type="checkbox"/> Cardiac Disease <input type="checkbox"/> Essential Hypertension <input type="checkbox"/> Other Condition <input type="checkbox"/> Obstetric Complications APH - Placenta Praevia <input type="checkbox"/> Abruptio Placenta <input type="checkbox"/> APH - Other <input type="checkbox"/> Pre-eclampsia <input type="checkbox"/> Prelabour Ruptured Membranes <input type="checkbox"/> Gestational Diabetes <input type="checkbox"/> Threatened Abortion <input type="checkbox"/> Threatened Preterm Labour <input type="checkbox"/> Procedures and Operations Number of Ultrasounds <input type="text"/> Cardiotocography <input type="checkbox"/> Assisted Conception <input type="checkbox"/> Chorionic Villus Sampling <input type="checkbox"/> X-Ray <input type="checkbox"/> Amniocentesis < 20 wks <input type="checkbox"/> CT Scan <input type="checkbox"/> Amniocentesis > 20 wks <input type="checkbox"/> Cervical Suture <input type="checkbox"/> Responsibility for Antenatal Care No of visits Obstetrician <input type="checkbox"/> 1 None <input type="checkbox"/> 1 General Practitioner <input type="checkbox"/> 2 1 to 5 <input type="checkbox"/> 2 Midwife (with max 2 GP) <input type="checkbox"/> 3 6 to 10 <input type="checkbox"/> 3 Antenatal Clinic <input type="checkbox"/> 4 11 to 15 <input type="checkbox"/> 4 Antenatal Clinic & GP <input type="checkbox"/> 5 16 to 20 <input type="checkbox"/> 5 Other shared care <input type="checkbox"/> 6 More than 20 <input type="checkbox"/> 6 Duration of pregnancy at first visit (wks) <input type="text"/>		TYPE OF FEEDING at birth on discharge Breast <input type="checkbox"/> 1 <input type="checkbox"/> 1 Breast feeding problems EBM <input type="checkbox"/> 2 <input type="checkbox"/> 2 Yes <input type="checkbox"/> 1 No <input type="checkbox"/> 2 Formula <input type="checkbox"/> 3 <input type="checkbox"/> 3 (tick more than one type of feeding if needed) Return this page of the completed form to: Clinical Health Outcomes Centre The Canberra Hospital			

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6.2 Record linkage

Record linkage of the Maternal Perinatal Data Collection and Hospital Morbidity Data Collection is managed in an Access database. The key linking field is the Personal Identifying Number (PIN) combined with the Hospital Identification Number. The combined fields give a unique identifying number for linking to specific hospitals. Records are unable to be tracked if the patient discharges and is readmitted to another hospital, except where patients move between Calvary Public and Private hospitals. An ACT wide use of the Patient Master Index (PMI) would enable tracking between hospitals.

Extensive checking and data cleaning was done on the PIN to improve accurate linking. The proportion of linked mothers and babies records from all records was 98.4% and 98.9% respectively. To accurately access the proportion of linked records of available records two exclusion criteria are required. These are homebirths for the mothers and babies records, as there is no hospital admission for the birth, and stillbirths for the baby records as the details of stillbirths are held in mother's record.

In 1997, the proportion of linked mothers and babies records from the available records was 99.1% and 99.6% respectively. As the percentage of linked records was so high, no analysis was done to compare the linked and unlinked groups.

6.3 Data items

6.3.1 Current data items

Current data items from ACT Midwives Data Collection Form are listed below in Table 63. About 20 per cent of the data items still require recoding or combining before they are sent to the National Perinatal Statistics Unit (NPSU). This issue is being addressed at the National Perinatal Data Development Committee and by the implementation of a new form for 1999 data. Data items that require ICD-9-CM coding on the forms are extracted where possible from the Hospital Morbidity Data Collection. An example of extracted data is the congenital anomalies ICD-9-CM codes.

Table 63: Current list of data items from ACT Midwives Data Collection Form

NO.	DATA ITEM
1	Month Count, used with POBB and month of birth
2	Mother's PINS (Personal Identifier Number)
3	Admission Date of mother
4	Suburb
5	Postcode
6	Class of Patient
7	Language spoken at home – English
8	Language spoken at home – Other
9	Place of Baby's birth
10	Intended or emergency admission
11	Marital Status of Mother
12	Birth date of Mother
13	Country of Birth of Mother
14	Indigenous status of Mother
15	Previous Pregnancies
16	Total Number of Previous: Livebirths
17	Total Number of Previous: Stillbirths

NO.	DATA ITEM
18	Total Number of Previous: Spontaneous Abortions
19	Total Number of Previous: Induced Abortions
20	Total Number of Previous: Ectopic Pregnancies
21	Total Number of Previous: Neonatal Deaths
22	Total Number of Previous: Others
23	Completion date of Last Pregnancy
24	Outcome of Last Pregnancy
25	Date of Last Menstrual Period
26	Clinically Estimated Gestation
27	Maternal Medical Condition while pregnant 1 Diabetes Mellitus
28	Maternal Medical Condition while pregnant 2 Chronic Renal Disease
29	Maternal Medical Condition while pregnant 3 Epilepsy
30	Maternal Medical Condition while pregnant 4 Cardiac Disease
31	Maternal Medical Condition while pregnant 5 Essential Hypertension
32	Maternal Medical Condition while pregnant 6 Gestational Diabetes
33	Obstetric Complication 1 APH
34	Obstetric Complication 2 Premature Rupture of membranes
35	Obstetric Complication 3 PIH/PE
36	Procedures and Operations 1 Cervical Suture
37	Procedures and Operations 2 X-Ray
38	Procedures and Operations 3 CTG
39	Procedures and Operations 4 CT Scan
40	Procedures and Operations 5 Ultrasound
41	Procedures and Operations 6 CVS
42	Procedures and Operations 7 Amniocentesis <20 weeks
43	Procedures and Operations 8 Amniocentesis >20 weeks
44	Number of Antenatal Visits
45	Duration of Pregnancy at First Visit
46	Responsibility for Antenatal Care
47	Labour 1 – Prostin
48	Labour 2 – Syntocin
49	Labour 3 – ARM
50	Labour 4 – Spontaneous
51	Labour 5 - No Labour
52	Labour 6 – Augmented
53	Labour 7 – Induced
54	Presentation
55	Other Procedures 1 - Epidural Block
56	Other Procedures 2 - Pudendal Block
57	Other Procedures 3 – Episiotomy
58	Type of Birth/Delivery
59	Complications of Labour, Birth or Puerperium 1 Perineal Laceration
60	Complications of Labour, Birth or Puerperium 2 Postpartum
61	Date of Discharge – Mother
62	Date of Discharge – Baby
63	Discharge Status – Mother
64	Discharge Status – Baby
65	Baby Transferred to:
66	Baby's PINS (Personal Identifier Number)
67	Birth date of Baby
68	Sex of Baby
69	Plurality
70	Rank
71	Birth Condition or Status
72	Birthweight
73	Head Circumference
74	Apgar at 1 minute

NO.	DATA ITEM
75	Apgar at 5 minutes
76	Time to Establish Respirations Minutes
77	Time to Establish Respirations Seconds
78	Resuscitation 1 Endotracheal Intubation
79	Resuscitation 2 Laryngoscopy
80	Resuscitation 3 Narcotic Antagonist Injection
81	Resuscitation 4 Bag and Mask
82	Autopsy

Source: ACT Maternal Perinatal Collection, Data specifications 1995 to 1998

6.3.2 Minimum data items set

Listed in Table 64 is the minimum perinatal data items set, as agreed by the National Perinatal Data Advisory Committee held on 1 April 1998 in Alice Springs. Currently the ACT provides data to the NPSU on the majority of these data items. There are six data items (Min data set 29 – 34 in the following table) have been added to the new form, which was implemented in January 1999.

Data items are developed by the National Perinatal Data Development Committee (NPDDC) with the agreement of all the States and Territories. Data items are submitted to the National Health Data Committee. Data items are added to the minimum data set after the data item has been published in the National Health Data Dictionary with a set date for implementation.

Table 64: Minimum Perinatal Data Set

Min data set	Data element number	Start Date for all state	NPSU Description
1	30	Jan-1997	Establishment Identifier
2	36	Jan-1996	Personal Identifier
3	39	Jan-1997	Sex - Baby
4	40	Jan-1996	Date of Birth - Baby
5	40	Jan-1996	Date of Birth - Mother
6	44	Jan-1997	Country of Birth - Mother
7	261	Jan-1997	Indigenous status - Mother
8	47	Jan-1998	Marital Status - Mother
9	259	Jan-1998	Area of usual residence
10	74	Jan-1999	Admission Date - Mother
11	277	Jan-1999	Date of Discharge – Mother
12	277	Jan-1996	Date of Discharge – Baby
13	94	Jan-1997	Discharge Status – Mother
14	278	Jan-1996	Birthweight
15	164	Jan-1996	State or territory of birth
16	166	Jan-1996	Actual place of birth
17	170	Jan-1996	Date of Last Menstrual Period
18	171	Jan-1996	Gestational age
19	174	Jan-1997	Onset of labour
20	179	Jan-2000	Presentation
21	180	Jan-1997	Method of Birth
22	181	Jan-2000	Perineal status
23	184	Jan-1997	Plurality
24	185	Jan-1996	Birth Order
25	186	Jan-1996	Birth Condition or Status
26	306	Jan-1998	Apgar at 1 minute

Min data set	Data element number	Start Date for all state	NPSU Description
27	307	Jan-1998	Apgar at 5 minutes
28	188	Jan-2000	Resuscitation of baby
29	165	Jan-1996	Intended place of birth
30	175	Jan-2000	Type of induction
31	176	Jan-2000	Type of augmentation
32	177	Jan-2000	Analgesia administered
33	178	Jan-2000	Anaesthesia administered
34	190	Jan-2000	Admission to SCN/NICU
35	192	Jan-2000	Congenital malformations

Source: National Perinatal Data Advisory Committee

The data element number in the above table is a reference number for the data item in the National Health Data Dictionary (NHDD) Version 6. All codes and definitions from the NHDD will apply to data items from 1997 data.

6.4 Recoding of data items

The data item for the responsibility for antenatal care is collected with different descriptions in the ACT Midwives Data Collection Form and the OBICARE program. The details of the data recodes from OBICARE are presented in the following tables.

Table 65: Recodes from OBICARE for the responsibility of antenatal care, 1997 data

OBICARE Description	Recoded for reporting
Public Hospital - High Risk Clinic	Antenatal Clinic
Public Hospital - Low Risk Clinic	Antenatal Clinic
Birthing Centre Protocols	Birthing Centre/Canberra Midwifery Program
Canberra Midwifery Program	Birthing Centre/Canberra Midwifery Program
Shared Care with Birth Centre	Birthing Centre/Canberra Midwifery Program
Private GP Obstetrician	GP
Public Hospital Midwives Clinic	Midwife
Private Midwifery Practitioner	Midwife
Private Specialist Obstetrician	Obstetrician
Shared Care between High Risk Clinic and Other	Shared Care
Shared Care between Hospital and Private Obstetrician	Shared Care
Shared Care between Hospital and GP	Shared Care
Shared Care between GP and Midwife	Shared Care
Private Midwife and Private Medical Practitioner	Shared Care

Table 66: Recodes from ACT MDCF for the responsibility of antenatal care, 1997 data

ACT MDCF Description	Recoded for reporting
Antenatal Clinic	Antenatal Clinic
General Practitioner	GP
Midwife	Midwife
Obstetrician	Obstetrician
Shared Care between two or more clinicians. For example Obstetrician and GP ticked on the form	Shared Care

6.5 The database

The Maternal Perinatal Data Collection (MPDC) is managed in an Access database. All data linkage and data quality issues are also managed in individual year databases. An overall database combines records from multiple years to facilitate reporting on the data over time. Records were exported from Access and analysed in SPSS for this report.

6.6 Data quality

Data quality is controlled at the data entry stage by validation on each item.

There are two problems with the forms; the readability of the form and the layout of certain data items. The Department's copy of the form is the last page of a triple carbonated form, which can make it very difficult to read. Any illegible data items are coded as 'not stated' or missing, depending on the item. The layout of some items on the current form leads to missing data. Both these issues will be addressed when developing the new form for 1999 data.

Extensive data cleaning of both mother's and baby's personal identifier numbers has improved data linkage dramatically. The data cleaning is managed by a series of queries and reports from both databases. Where possible, missing data is obtained from ACT Hospitals Morbidity Data or by direct request to the medical record departments or homebirth midwife.

When data on morbidity are extracted from the ACT Hospitals Morbidity Data Collection, duplicate conditions for the one person are deleted from the extracted records. This ensures that figures are based on patients, not hospital separations.

6.7 Data limitations

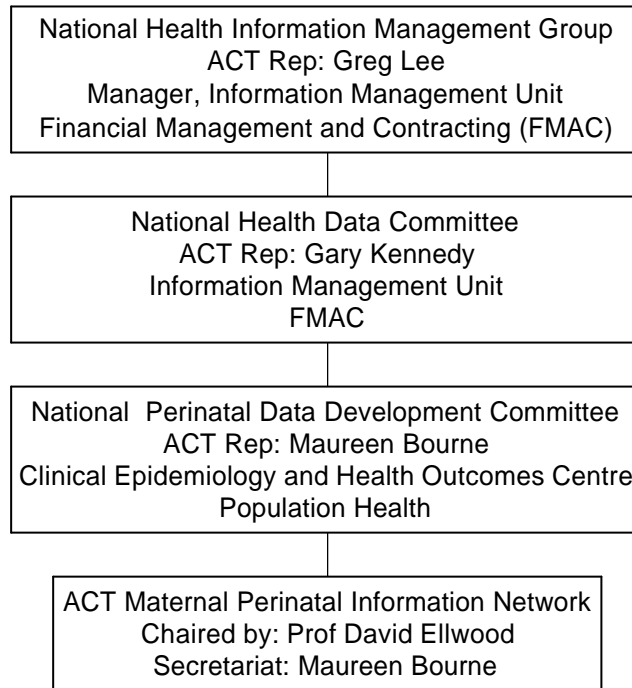
The completeness of the records is dependent on notification of births to the collection. Identification and retrieval of missing records is extensive. There is no guarantee that all records have been received, although it is estimated the vast majority of ACT births for 1997 are held in this collection.

6.8 Committees related to the ACT Maternal Perinatal Data Collection

6.8.1 General structure

The organisational chart below outlines the current committee structure and the ACT representatives.

Figure 7: Committee Structure for Maternal Perinatal Health Information, ACT, 2000



6.8.2 ACT Maternal Perinatal Information Network

The ACT Maternal Perinatal Information Network was formed in October 1998 following the successful work of the ACT Maternal Perinatal Status Working Group.

The membership includes a representative from each of the ACT Birthing Facilities, Queen Elizabeth II Family Centre, Child, Family and Youth Health Services, Health Outcomes & Policy Planning, Hospital Purchasing & Coordination Unit, Clinical Epidemiology and Health Outcomes Centre, a consumer representative and a homebirth midwife.

The chairperson of the network is Professor David Ellwood. Meetings are held quarterly in February, May, August and November each year.

The aims of the network are:

1. To encourage and facilitate communication about maternal and perinatal data information issues between service providers, policy makers, information managers, researchers and consumer representatives involved in Maternity and Perinatal Services in the ACT as well as nationally and internationally.
2. To improve the Maternal and Perinatal Data Collection and the reporting of the information within the ACT.

3. To promote the use of the ACT Maternal and Perinatal Data Collection for relevant research to guide policy development and underpin the development of evidence based policy and clinical decision making to improve Maternal and Perinatal outcomes in the ACT.

The objectives of the network are:

1. To contribute to the improvement of ACT Maternity and Perinatal Services based on sound evidence.
2. To improve the ACT Maternal and Perinatal Data Collection by:
 - using standardised definitions and codes that reflect clinical practice;
 - regular reviewing the relevance and coverage of data collected and the method of collection for the ACT Maternal Perinatal Data; and
 - computerising the ACT Maternal and Perinatal Data Collection by 2001 using Australian standardised definitions and codes.
3. To have regular, timely and relevant publications on the Maternal and Perinatal Status in ACT, including:
 - Triennial report, next due in the Year 2000;
 - Yearly report of a set of tables that are agreed to by the Network.

Terms of reference are to:

- influence data collection and reporting issues in the ACT and nationally;
- set the scope of the information collected to include pregnancy to one year after birth, except for specific subgroups eg. preterm infants where the time frame may be increased (this would include extending the collection to outcomes of pregnancy under 20 weeks and improving collection related to birth defects);
- interact nationally through the National Perinatal Data Development Committee which is organised by the National Perinatal Statistic Unit;
- report to the Chief Health Officer through the Clinical Epidemiology and Health Outcomes Centre and have a reporting structure through the Chief Health Officer to the Senior Executive of the Department of Health and Community Care;
- report on the progress of the network and discuss data collection issues within each representative's area to both their supervisors and fellow workers.

6.8.3 National Perinatal Data Development Committee

The role of the National Perinatal Data Development Committee (NPDDC) is to prepare submissions to the National Health Data Committee (NHDC) on perinatal health metadata standards. The NPDDC obtains information and assistance from the National Health Information Development Unit when preparing these submissions for the National Health Data Dictionary.

The membership of the NPDDC includes one representative from each State and Territory; the Australian Bureau of Statistics; the Perinatal Society of Australia and New Zealand; and the Director and Deputy Director of the National Perinatal Statistics Unit. The ACT representative is Maureen Bourne from Clinical Epidemiology and Health Outcomes Centre, Population Health, Department of Health and Community Care.

The committee is currently chaired by the South Australian representative with the National Perinatal Statistics Unit providing the secretarial support. The committee meets annually in Sydney. The next meeting has been set for 24 – 26 July 2000.

6.8.4 National Health Data Committee

The National Health Data Committee⁵ (NHDC) is a standing committee of the National Health Information Management Group (NHIMG - <http://www.aihw.gov.au/institute/groups/nhimg.html>). The primary role of the NHDC is to assess data definitions proposed for inclusion in the *National Health Data Dictionary* (<http://www.aihw.gov.au/publications/health/nhdd08.html>) and to make recommendations to the NHIMG on revisions and additions to each successive version of the dictionary. In particular, the Committee's role is to ensure that the *National Health Data Dictionary* definitions comply with endorsed standards for the definition of data elements and that all data definitions being considered for the dictionary have undergone sufficient national consultation with recognised experts and stakeholders in the relevant field.

The Chairperson of the NHDC, currently Geoff Sims from the Australian Institute of Health and Welfare, was appointed by the NHIMG.

The National Health Data Committee comprises representatives of:

- the Commonwealth Department of Health and Aged Care;
- each State and Territory government health authority;
- the Australian Institute of Health and Welfare;
- the Australian Bureau of Statistics;
- the Australian Private Hospitals' Association;
- Lysaght's Hospital and Medical Club (representing private health insurance);
- the Department of Veterans' Affairs;
- the National Centre for Classification in Health; and
- other members designated by the NHIMG.

More information about the National Health Data Committee and its processes is available in the *National Health Data Committee: Procedures and Business Plan, 1999*.

7 GLOSSARY

Abortion is a common term often used to mean induced abortion. See definition for 'induced abortion'.

Age-specific birth rates are the number of live births registered during the calendar year, according to the age of the mother, per 1,000 of the female estimated resident population of the same age as estimated for 30 June. For calculating these rates, births to mothers under 15 years of age are included in the 15-19 age group, and births to mothers over 50 years are included in 45-49 age group. Prorata adjustments are made in respect of births for which age of mother is not given (ABS definition).

Age specific fertility rates are live births registered during a specific calendar year according to the age of mother expressed per 1,000 of the estimated female resident population of the same age.

Amniocentesis is the sampling of the amniotic fluid to help determine fetal maturity or disease, by aspiration of the fluid through the mother's abdomen.⁶

Anomaly is a deviation from what is regarded as normal. An example would be a congenital malformation or birth defect.

Antenatal refers to the time period of pregnancy before birth.

Apgar Score is a numerical scoring system (1-10) applied after birth to evaluate the condition of the baby (usually assessed at one minute and five minutes). It is based on the clinical assessment of heart rate, respiration, muscle tone, reflex irritability and colour of baby. A low apgar score indicates poor adaptation to extrauterine life.

Augmentation is the artificial rupturing of membranes and/or use of oxytocin or other drugs to progress labour after spontaneous onset of labour.

Birth refers to the delivery of a child.

Birth status is the condition of the baby immediately after birth. The status may be a livebirth or stillbirth.

Birthweight is the first weight of the baby (stillborn or live born) obtained after birth. It is usually measured to the nearest five grams and obtained within one hour of birth.

Caesarean section is an operative birth through an abdominal incision.

Community Midwives Program (now the Canberra Midwifery Program CMP) provides continuity of midwifery care by a team of midwives to women throughout their pregnancy, birth and up to two weeks after the birth.

Chorionic relates to the outermost of the fetal membranes (chorion)⁷.

Chorionic villus sampling (CVS) is the aspiration of a sample of chorionic tissue for biochemical and chromosome analysis.⁸

Confinement refers to a pregnancy resulting in at least one birth. The outcome of a multiple pregnancy will be one confinement with more than one birth. This term has not been used in this publication, preferring instead to use 'women giving birth'.

Congenital abnormalities or anomalies are those malformations that are present at or existing from the time of birth.

Congenital malformations are the structural or anatomical abnormalities that are present at birth, usually resulting from abnormal development in the first trimester of pregnancy.

Crude birth rate is the number of live births registered during a calendar year per 1,000 estimated resident population at 30 June of that year (ABS definition).

Crude death rate is the number of deaths per 1,000 population (unless otherwise stipulated) in a given year (ABS definition).

Elective caesarean section refers to an operative birth through an abdominal incision performed before the onset of labour.

Emergency caesarean section refers to an operative birth through an abdominal incision performed after the onset of labour.

Episiotomy is an incision into the perineum and vagina to enlarge the vaginal opening for delivery.

Fertility rate refers to the number of children one woman would expect to bear if the age-specific rates of the year shown continued during her child bearing lifetime (ABS definition).

First degree tear or graze is a perineal graze or laceration or tear involving one of the following: the fourchette, hymen, labia, skin, vagina or vulva.

Fourth degree tear is a perineal laceration or tear involving the anal mucosa or rectal mucosa.

Gestation is the period of development of a baby from the time of conception (fertilisation of the ovum) to birth. In humans, this time is usually 37 to 40 weeks gestation.

Gestational age is the duration of the pregnancy in completed weeks from the first day of the last normal menstrual period. This is estimated from clinical assessment (including estimates from ultrasound examinations) when accurate information on the last menstrual period is not available or not consistent with the clinical assessment of gestational age.

Gravidity refers to a pregnancy; the state of being pregnant, it is unrelated to the outcome.

ICD-9 (or ICD-9-CM) refers to the International Classification of Diseases Ninth Revision as developed by the World Health Organisation.

Incidence refers to the number of instances of illness commencing, or of persons falling ill, during a given period in a specified population⁹.

Indigenous status refers to whether or not a person is of Aboriginal and/or Torres Strait Islander descent who self-identifies as an Aboriginal and/or Torres Strait Islander and is accepted as such by the community with which he or she is associated.

Induced abortion refers to a procedure to terminate a pregnancy before the completion of 20 weeks gestation.

Induction of labour refers to an intervention undertaken to stimulate the onset of labour by pharmacological or other means.

Instrumental birth refers to an assisted cephalic vaginal birth using forceps or vacuum extraction.

Live birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta attached, each product of such a birth is considered live born (WHO definition). The ACT definition for a livebirth differs from the WHO definition. In that it is not irrespective of the duration of the pregnancy, but on or after 20 completed weeks gestation or 400 grams or greater in birthweight. This is consistent with the definitions for spontaneous or induced abortions.

Median is a measure of central tendency. It refers to the point between the upper and lower halves of the set of measurements.

Midcall is an early discharge program with daily follow up at home by a registered midwife for antenatal or postnatal care.

Miscarriage is a common term used to mean spontaneous abortion.

Morbidity is a diseased state or the ratio of sick to well in the community¹⁰.

Mortality is a fatal outcome or the relative number of deaths (death rate) in a given population at a given time.

Multigravida refers to a woman who has been pregnant more than once.

Multipara refers to pregnant women who have had at least one previous pregnancy resulting in a livebirth or stillbirth.

Neonatal death is the death of a live born infant within 28 days of birth.

Neonatal morbidity refers to any condition or disease of the infant diagnosed within 28 days of birth.

Parity refers to the number of children a woman has borne that are either livebirths or stillbirths.

Perinatal death refers to a stillbirth or a neonatal death.

Perinatal refers to the period from 20 weeks gestation to within 28 days after birth.

Perineal repair is the surgical suturing of a perineal laceration or episiotomy.

Plurality refers to the number of fetuses or babies from the pregnancy. On this basis a pregnancy may be classified as single or multiple¹¹.

Postneonatal death refers to the death of an infant aged between 28 and 365 days.

Preterm birth refers to a birth before 37 completed weeks of gestation. Extremely preterm refers to births between 20 and 27 weeks gestation; moderately preterm refers to births between 28 and 31 weeks gestation; and mildly preterm refers to births between 32 and 36 weeks gestation.

Prevalence refers to the number of instances of a given disease or other condition in a given population at a designated time.

Primigravida refers to a woman pregnant for the first time.

Primipara refers to a pregnant woman who has had no previous pregnancy resulting in a live birth or stillbirth.

Prolonged rupture of membranes refers to the spontaneous rupture of membranes for at least 24 hours prior to the onset of regular contractions with cervical dilation.

Puerperium is the period from the end of the third stage of labour until the uterus returns to its normal size (approximately 6 weeks).

Resuscitation of a baby refers to active measures taken shortly after birth to assist the baby's ventilation and heart beat, or to treat depressed respiratory effort and to correct metabolic disturbances.

Second degree tear is a perineal laceration or tear involving the pelvic floor or perineal muscles or vaginal muscles.

Separation (from hospital) refers to when a patient is discharged from hospital, transferred to another hospital or other health care accommodation, or dies in hospital following formal admission (ABS definition).

Singleton birth refers to a pregnancy resulting in one birth.

Spontaneous abortion refers to the premature expulsion from the uterus of the products of conception, of the embryo, or of a nonviable fetus¹² (a fetus of less than 400 grams birthweight or less than 20 weeks gestation). These may be classified as complete or incomplete.

Spontaneous cephalic refers to a birth without intervention in which the baby's head is the presenting part, referred to as a normal birth.

Standardised death rate is the overall death rate that would have prevailed in a standard population, in this case the 1991 Australian population, if it had experienced at each stage the death rates of the population being studied (ABS definition).

Statistically significant infers that it can be concluded on the basis of statistical analysis that it is highly probable.

Stillbirth or Fetal death refers to death prior to the complete expulsion or extraction from its mother of a product of conception of 20 or more completed weeks of gestation or of 400g or more of birthweight; the death is indicated by the fact that after such separation the fetus does not breathe or show any other evidence of life, such as the beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles (WHO definition).

Third degree tear is a perineal laceration or tear involving the anal sphincter or recto vaginal septum.

Total fertility rate is the number of children 1,000 women would bear during their lifetime if they experienced the age specific fertility rates of the year shown. The rate is obtained by summing the 5 year age specific fertility rates and multiplying by 5.

Vacuum extraction refers to an assisted vaginal birth using a suction cap applied to the baby's head.

Vaginal breech refers to a birth in which the baby's buttocks or lower limbs are the presenting parts, also includes vaginal breech birth with forceps to the aftercoming head.

8 NATIONAL AND STATE PUBLICATIONS

8.1 National publications

The National Perinatal Statistics Unit (NPSU), Australian Institute of Health and Welfare (AIHW), publish national Australian data in a series of health reports. These series are:

- Perinatal Statistics Series
- Assisted Conception Series
- Birth Defects Series
- Neonatal Network Series

The most recent publications in these series are as follows:

- Australia's mothers and babies 1997
- Indigenous mothers and their babies, Australia 1994-1996
- Assisted conception Australia and New Zealand 1997
- Congenital malformations Australia 1995-1996
- Australia and New Zealand Neonatal Network 1996-1997

National contacts:

Elizabeth Sullivan and Peter Day
AIHW National Perinatal Statistics Unit
Sydney Children's Hospital
Randwick Hospitals Campus
Randwick, Sydney, NSW

A list of Australian Institute of Health and Welfare (AIHW) health publications are at:

<http://www.aihw.gov.au/publications/health.html>

The Australian Bureau of Statistics (ABS) publishes reports on Births and Causes of infant and child deaths. These two publications are annual reports that bring together statistics and indicators for births and perinatal deaths registration in Australia. The state figures are based on livebirths for the mother's usual state of residence.



8.2 State publications

The states and territories in Australia produce publications on maternal and perinatal health status from their midwives data collections. Recent states and territories publications on maternal and/or perinatal health status are:

- Australian Capital Territory:* Maternal and Perinatal Status, ACT, 1994-96
<http://www.health.act.gov.au/indicators/no18/index.html>
- New South Wales:* 1997 Mothers and Babies Report
<http://www.health.nsw.gov.au/public-health/mdc97/mdcindex.htm>
- Internet site for a comprehensive list of NSW Health publications
<http://www.health.nsw.gov.au/pubs/>
- Victoria:* Births in Victoria 1992-1996
<http://hna.ffh.vic.gov.au/phb/hce/peri/biv/index.html>
- Congenital Malformations in Victoria, 1983-1994
<http://hna.ffh.vic.gov.au/phb/hce/peri/conmal/index.htm>
- The Consultative Council on Obstetrics and Paediatrics Morbidity and Morbidity, Annual Report 1997
<http://hna.ffh.vic.gov.au/phb/hce/peri/peri.html>
- Queensland:* Perinatal Statistics, Queensland, 1997
http://www.health.qld.gov.au/publications/perinatal/3815_perinatal_stats.htm
- Maternal, Perinatal and Paediatric Mortality in Queensland 1997
<http://www.uq.net.au/qcopmm/pdf/qcopmm97.pdf>
- Western Australia:* Perinatal Statistics in Western Australia. Fifteenth Annual Report of the Western Australian Midwives' Notification System 1997. Health Department of Western Australia. Perth, WA 1999
- The 1995 Western Australian Birth Cohort, Perinatal and infant mortality identified by maternal race
- TVW Telethon Institute for Child Health Research, Perth, WA
<http://www.ichr.uwa.edu.au/>
- South Australia:* Pregnancy Outcomes in South Australia 1998
Pregnancy Outcomes in South Australia 1997
Maternal, Perinatal and Infant Mortality in SA 1998
Maternal, Perinatal and Infant Mortality in SA 1997
- Northern Territory:* Trends in the health of mothers and babies, Northern Territory 1986-95 <http://www.nt.gov.au/nths/epidemiology/trends.pdf>
- Northern Territory Midwives Collection, Mothers and Babies 1995

Contacts for information on midwives data collections or publications from the states and territories are:

<i>Australian Capital Territory:</i>	Maureen Bourne Clinical Epidemiology and Health Outcomes Centre Population Health ACT Department of Health and Community Care
<i>New South Wales:</i>	Lee Taylor and Margaret Pym Epidemiology and Surveillance Branch NSW Health
<i>Victoria:</i>	Jane Halliday and Odette Taylor Victorian Perinatal Data Collection Unit Victoria Health
<i>Queensland:</i>	Sue Corne and Megan Snell Data Services Unit Health Information Centre Queensland Department of Health
<i>Western Australia:</i>	Vivien Gee and Margo O'Neill Health Information Centre Health Department of Western Australia
<i>South Australia:</i>	Annabelle Chan, Joan Scott and Rosemary Keane Pregnancy Outcome Unit Epidemiology Branch Department of Human Services
<i>Northern Territory:</i>	Edouard d'Espaignet, Mary-Anne Measey and Paul Gladigau Northern Territory Midwives Collection Epidemiology Branch Territory Health Services
<i>Tasmania:</i>	Christine Douglas Department of Obstetrics and Gynaecology Queen Alexandra Hospital



9 HEALTH SERIES PUBLICATIONS

The Epidemiology Unit of the Department of Health and Community Care has developed an on-going health series of publications to inform health professionals, policy developers and the community on health status in the Territory. Information contained therein will assist in the development of appropriate policy and service delivery models, the evaluation of programs, and an understanding of how the ACT compares with Australia as a whole with regard health status. Publications prepared after Health Series Number 13 are available on the Internet at <http://www.health.act.gov.au/epidem/hps.html>

- Number 1: *ACT's Health: A report on the health status of ACT residents*, Carol Gilbert, Ursula White, October 1995
- Number 2: *The Epidemiology of Injury in the ACT*, Carol Gilbert, Chris Gordon, February 1996
- Number 3: *Cancer in the Australian Capital Territory 1983-1992*, Norma Briscoe, April 1996
- Number 4: *The Epidemiology of Asthma in the ACT*, Carol Gilbert, April 1996
- Number 5: *The Epidemiology of Diabetes Mellitus in the ACT*, Carol Gilbert, Chris Gordon, July 1996
- Number 6: *Developing a Strategic Plan for Cancer Services in the ACT*, Kate Burns, June 1996
- Number 7: *The First Year of The Care Continuum and Health Outcomes Project*, Bruce Shadbolt, June 1996
- Number 8: *The Epidemiology of Cardiovascular Disease in the ACT*, Carol Gilbert, Ursula White, January 1997
- Number 9: *Health Related Quality of Life in the ACT: 1994-95*, Darren Gannon, Chris Gordon, Brian Egloff, Bruce Shadbolt, February 1997
- Number 10: *Disability and Ageing in the ACT: An Epidemiological Review*, Carol Gilbert, April 1997
- Number 11: *Mental Health in the ACT*, Ursula White, Carol Gilbert, May 1997
- Number 12: *Aboriginal and Torres Strait Islander Health in the ACT*, Norma Briscoe, Josie McConnell, Michelle Petersen, July 1997
- Number 13: *Health Indicators in the ACT: Measures of health status and health services in the ACT*, Carol Kee (Gilbert), George Johansen, Ursula White, Josie McConnell, January 1998
- Number 14: *Health status of the ACT by statistical sub-divisions*, Carol Kee, George Bodilson (Johansen), April 1998
- Number 15: *Results from the 1996 ACT Secondary School Students' Survey*, Hai Phung, Allison Webb, Norma Briscoe, June 1998
- Number 16: *Childhood immunisation and preventable diseases in the ACT 1993-1997*, Hai Phung, Michelle Petersen, June 1998
- Number 17: *Health Related Quality of Life in the ACT 1994-97*, Hai Phung, Ursula White, Brian Egloff, June 1998
- Number 18: *Maternal and Perinatal Status, ACT, 1994-96*, Maureen Bourne, September 1998
- Number 19: *Health risk factors in the ACT*, Carol Kee, Michelle Petersen, Kate Rockpool, October 1998
- Number 20: *Communicable diseases in the ACT*, Linda Halliday, Michelle Petersen, November 1998
- Number 21: *Illicit drug samples seized in the ACT, 1980-97*, Dennis Pianca, November 1998
- Number 22: *Health Status of Young People in the A.C.T.*, Linda Halliday, Josie McConnell, October 1998
- Number 23: *Health Status of Older People in the A.C.T.*, Carol Kee, George Bodilsen, October 1999
- Number 24: *Drug related health in the ACT*, Josie Barac, Peter Luke, Olivia Phongham, December 1999

10 REFERENCES

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- ² ABS *Births Australia 1997* (Cat. No. 3301.0).
- ³ ABS *Australian Demographic Statistics* (Cat. No. 3101.0).
- ⁴ Day P, Sullivan EA, Ford J & Lancaster P 1999. *Australia's mothers and babies 1997*. AIHW Cat. No. PER 12. Sydney: Australian Institute of Health and Welfare National Perinatal Statistics Unit (Perinatal Statistics Series No. 9).
- ⁵ *National Health Data Dictionary Version 8*, Cat. No. HW1-18, Australian Institute of Health and Welfare.
- ⁶ Taylor L, Pym M, *New South Wales Data Collection 1995*, Vol 7/No. S-1.
- ⁷ Malloni BJ, Dox I, Eisner GM, 1985. *Melloni's Illustrated Medical Dictionary 2nd Edition*, Williams and Wilkins.
- ⁸ Taylor L, Pym M, *New South Wales Data Collection 1995*, Vol 7/No. S-1.
- ⁹ Last J, 1988. *A Dictionary of Epidemiology*, IEA.
- ¹⁰ *Stedman's Medical Dictionary 26th Edition*, 1995. Williams and Wilkins.
- ¹¹ Taylor L, Pym M, *New South Wales Data Collection 1995*, Vol 7/No. S-1.
- ¹² <http://www.mpip.org/frameset.shtml?tools/dict/dictindex.html>