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ACT Maternal and Perinatal 1998 Tables

Maureen Bourne

Clinical Epidemiology and Health Outcomes Centre

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Enquires about this publication should be directed to Maureen Bourne, Clinical Epidemiology and Health Outcomes Centre, The Canberra Hospital, PO Box 11 Woden ACT 2606 or via email maureen.bourne@act.gov.au.

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LIST OF CONTENTS

FIGURES

TABLES

1 SUMMARY

This report is the third in the series of reports produced by the Clinical Epidemiology and Health Outcomes Centre, Population Health Group, for the Department of Health, Housing and Community Care in consultation with the ACT Maternal Perinatal Information Network. This report aims to provide information on the maternal and perinatal health status in the ACT for 1998 from the ACT Maternal Perinatal Data Collection.

1.1 Women giving birth in the ACT

There were 4645 women who gave birth to 4737 babies in the ACT during 1998. The ACT accounted for 1.8% of women giving birth in Australia. The number of women giving birth in the ACT that were reported to the ACT Maternal Perinatal Data Collection between 1994 and 1998 were 4731, 4830, 4701, 4708 and 4645 respectively. The crude birth rate for ACT live births to ACT residents was 13.2 per 1000 women for 1998.

1.2 Fertility rates in the ACT

The total fertility rate for the ACT resident population in 1998 was 1593 per 1000 women, with an average of 1.6 children for each woman. There has been a continued fall in the fertility rates for the 25 to 29 year age group and an increase in 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 3.7% of teenagers giving birth in the ACT in 1998, which is lower than in 1997 (4.1%) and the 1998 Australian percentage of 5.1%[4]. There has been a fall in the percentage (21.3% in 1994 compared with 17.6% in 1998) of women under 25 years giving birth, and a rise in the percentage (14.0% in 1994 compared with 18.1% in 1998) of women 35 years and over giving birth in the ACT. The average age of women in the ACT having their first child was 28 years.

Of women who gave birth in the ACT in 1998, 81.1% were Australian born, 7.2% were born in Asia and 6.5% were born in Europe.

The percentage of non ACT residents giving birth in the ACT has risen from 10.7% in 1996 to 12.7% in 1998.

1.4 Indigenous mothers

There were 63 (1.4%) Indigenous women who gave birth in the ACT for 1998. This figure is consistent with the 1997 ABS projections for the ACT from the 1996 census of approximately 60[2] women. A comparison between Indigenous and non Indigenous women who gave birth in the ACT is presented in Table 5 on page 13 and Table 60 on page 43.

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 1998, compared with 1996 data.

1.6 Multiple birth

The ACT had the highest percentage of multiple births (1.9%) in Australia for 1998. The Australian percentage for multiple births for 1998 was 1.4%.[1] This is because The Canberra Hospital is the referral centre for multiple births for the surrounding New South Wales area. Of the 592 (12.7%) NSW residents who gave birth in the ACT in 1998, 4.6% had a multiple birth. For further details see the Multiple births section on pages 16 and 17.

1.7 Place of birth

Ninety nine per cent of women gave birth in hospital (includes 8.4% 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 8.4% in 1998. Over a quarter (26.1%) of women in the ACT chose to give birth in a private hospital. One per cent (0.9%) of women gave birth at home.

1.8 The birth

Sixty eight per cent of women giving birth in the ACT had a normal birth and 18.8% had a caesarean section. This is an increase of 4.3% in normal births and a decrease of 2.2% in caesarean sections since 1994. The caesarean section rate in the ACT for 1998 was the lowest in Australia, with the Australian caesarean section rate being 21.1%. The ACT hospital morbidity data has shown significant caesarean section rate falls for the last six years, especially for public hospitals. For further details see Table 52 and Table 53 on page 39.

1.9 Baby characteristics

The ACT followed the national trend with male births (50.9%) exceeding female births (49.1%).

The majority (65.3%) of babies born in the ACT for 1998 were between 3000 and 3999 grams, with an average birthweight of 3354 grams. The ACT had a high percentage (7.8%) of babies with a birthweight of less than 2500 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 29.

The majority (88.6%) of babies born in the ACT in 1998 were between 37 and 41 weeks gestation, with an average gestational age of 39 weeks. The ACT had a high percentage (8.6%) 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 29.

1.10 Birth defects and perinatal mortality

There were 4.7% of babies born in the ACT for 1998 that were reported to have a congenital anomaly. Of these reported birth defects, 3.7% were for certain musculo-skeletal deformities, and defects of the skin, urinary system and genital tract.

There were 1.0% (46) stillbirths, 0.5% (24) neonatal deaths and 0.1% (7) postneonatal deaths reported for ACT births in 1998. Of the 24 neonatal deaths, 13 (0.27%) were less than a 1000 grams in birthweight and 12 (0.25%) were between 20 to 27 weeks gestation.

2 INTRODUCTION

This report is the third in the series of reports produced by the Clinical Epidemiology and Health Outcomes Centre, Population Health Group, for the Department of Health, Housing and Community Care in consultation with the ACT Maternal Perinatal Information Network.

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 1998 from the ACT Maternal Perinatal Data Collection. It is expected the findings will assist the ACT Government, and in particular the ACT Department of Health, Housing and Community Care, in its commitment to maximising 'both community and individual health and well-being' by providing 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 4645 women who gave birth to 4737 babies in the ACT during 1998. Table 1 presents the trend from 1994 to 1998.

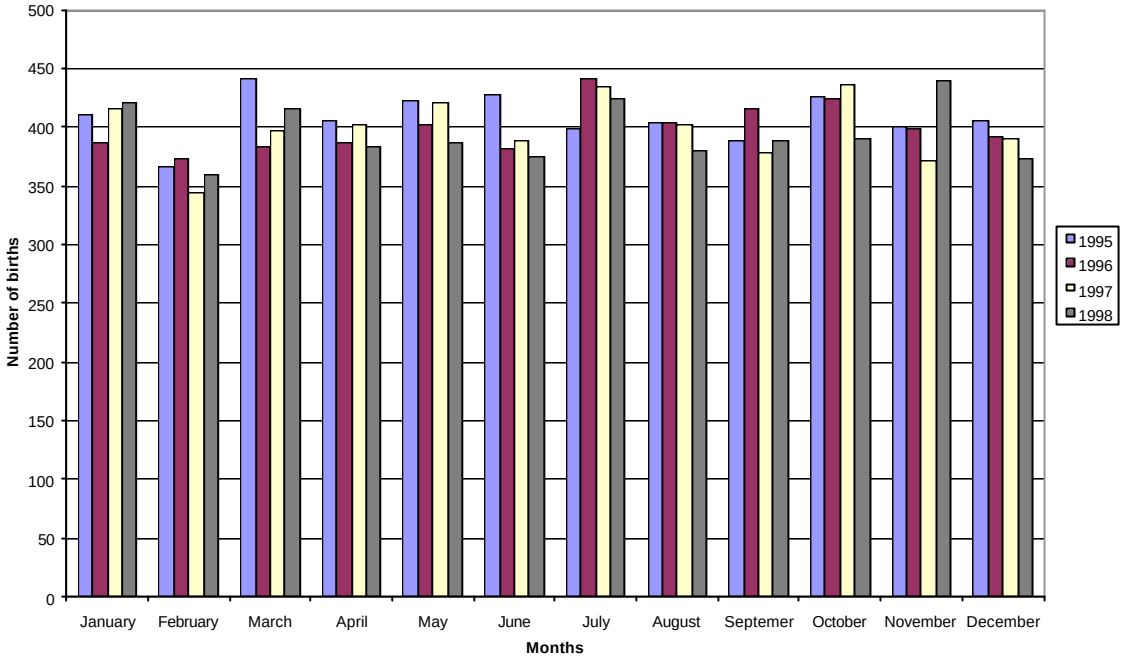
Table 1: Women giving birth and babies born, ACT, 1994 - 1998

	1994	1995	1996	1997	1998
Women giving birth	4731	4830	4701	4708	4645
Babies born (live births & stillbirths)	4784	4899	4788	4785	4737
All ACT live births	4748	4853	4750	4743	4691
Crude birth rates per 1,000	15.8	16.0	15.4	15.4	15.2
ACT live births to ACT residents	4246	4346	4231	4123	4078
Crude birth rates per 1,000	14.1	14.3	13.8	13.4	13.2

Note: The Australian Bureau of Statistics (ABS) 1998 crude birth rate for ACT is 13.3[2]. The ABS reports on the number of live births 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 1998, was 308,411 persons.[3]
Source: ACT Maternal/Perinatal Data Collection and ABS: Population by age and sex, ACT, Cat no 3201.0

A question of interest to midwives working within ACT birth facilities as well as other service providers is "what time of the year are most babies born?" There was an even spread of births throughout the year in 1998, with births per month ranging from 7.6% in February to 9.3% in November.

Figure 1: Months of birth, ACT, 1995 - 1998



Source: ACT Maternal/Perinatal Data Collection

Table 2: Months of birth, ACT, 1995 - 1998

	1995		1996		1997		1998	
	No.	**%**	**No.**	**%**			**No.**	**%**
January	411	8.4	386	8.1	416	8.7	421	8.9
February	366	7.5	373	7.8	345	7.2	359	7.6
March	442	9.0	384	8.0	397	8.3	415	8.8
April	405	8.3	386	8.1	403	8.4	383	8.1
May	423	8.6	402	8.4	421	8.8	386	8.1
June	428	8.7	382	8.0	388	8.1	375	7.9
July	398	8.1	441	9.2	435	9.1	425	9.0
August	404	8.2	404	8.4	403	8.4	380	8.0
September	389	7.9	416	8.7	379	7.9	388	8.2
October	426	8.7	424	8.9	437	9.1	391	8.3
November	401	8.2	398	8.3	371	7.8	440	9.3
December	406	8.3	392	8.2	390	8.2	374	7.9
Total	**4899**	**100.0**	**4788**	**100.0**	**4785**	**100.0**	**4737**	**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 1998 was 1593 per 1,000 women in the 15 to 49 age groups, an average of 1.6 children for each woman.

Table 3: Age specific fertility rates and total fertility rates for all live births, ACT residents, 1995 - 1998

	1995		1996		1997		1998	
Age Group	**No.**	**ASFR**	**No.**	**ASFR**	**No.**	**ASFR**	**No.**	**ASFR**
15 - 19*	173	14.49	159	10.64	167	13.91	140	11.92
20 – 24	777	49.79	674	48.61	593	43.48	563	42.45
25 – 29	1438	114.07	1443	114.86	1370	103.44	1337	100.34
30 – 34	1358	106.05	1285	101.16	1346	106.94	1317	107.19
35 – 39	570	45.93	620	52.15	561	43.03	609	47.56
40 – 44	29	2.43	47	3.89	83	6.66	108	8.75
45 - 49**	1	0.09	5	0.55	3	0.25	4	0.33
Total	**4346**	**332.81**	**4232**	**331.98**	**4123**	**317.71**	**4078**	**318.53**
TFR per 1,000 women		**1664**		**1660**		**1589**		**1593**

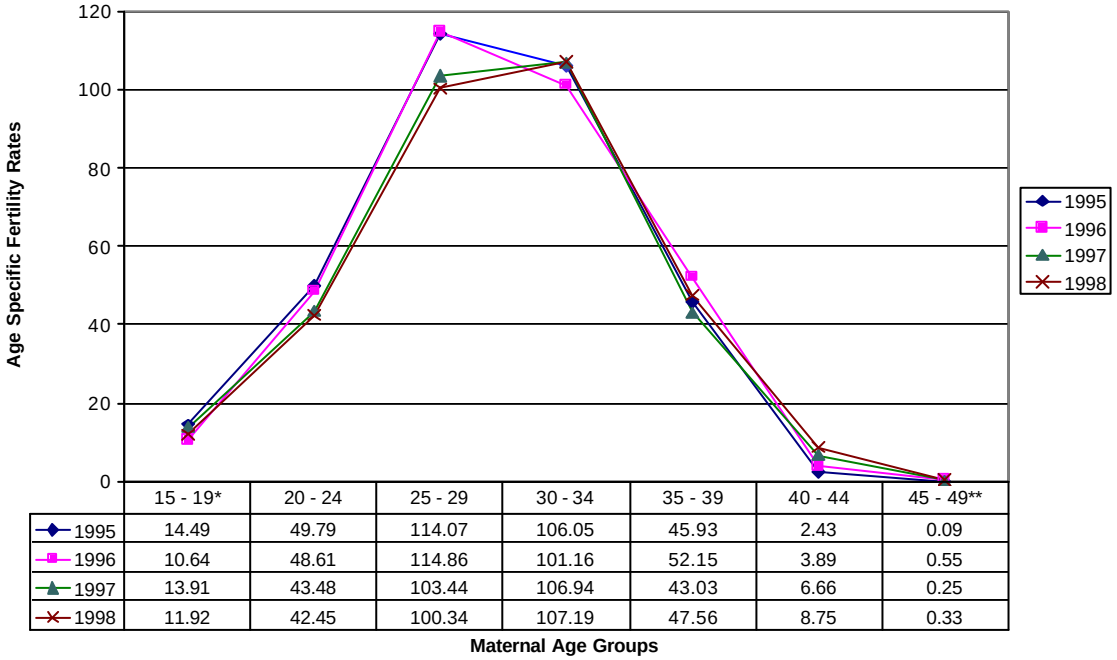
ASFR - Age Specific Fertility Rates TFR - Total Fertility Rates

* By definition, all births for mothers aged less than 15 years are included in the 15-19 age group. ** By definition, 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. Correction to the 1997 total TSFR published in the ACT Maternal Perinatal 1997 Tables.

Source: ACT Maternal/Perinatal Data Collection and Estimated Residential Population by sex and age, 1998, ABS Cat. No: 3201.0

The graph below highlights the fall from 114.07 to 100.34 over the period for the 25 to 29 year age group, and the increase from 2.43 to 8.75 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 live births, ACT residents per 1000 women, 1995 - 1998



Source: ACT Maternal/Perinatal Data Collection and Estimated Residential Population by sex and age, 1998, ABS Cat. No: 3201.0

3 MOTHERS' CHARACTERISTICS

3.1 All mothers in the ACT

Table 4: Mothers' demographic characteristics, ACT, 1998

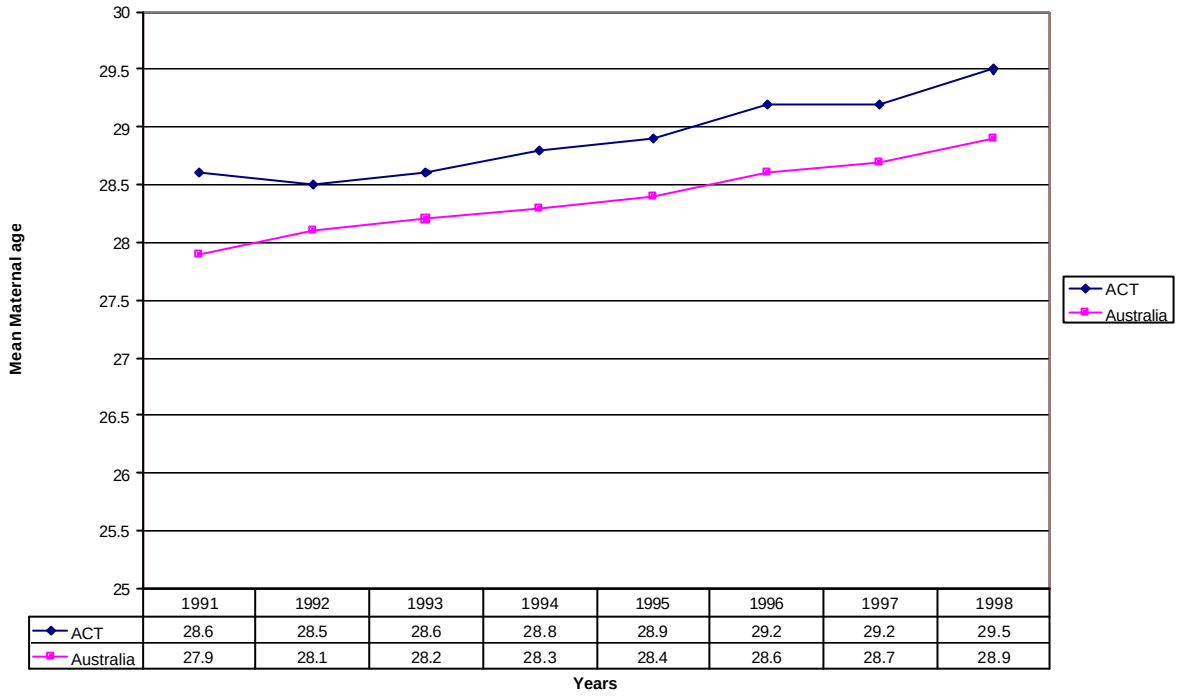
		No.	%
Maternal age group	Less than 20years	171	3.7
	20 - 24 years	645	13.9
	25 - 29 years	1495	32.2
	30 - 34 years	1494	32.2
	35 - 39 years	709	15.3
	40 - 44 years	125	2.7
	45 years or more	6	0.1
	Not stated	0	0.0
	Total	**4645**	**100.0**
Maternal country of birth	Australia	3765	81.1
	Other Oceania	108	2.3
	Europe	302	6.5
	Africa inc. Mid East	47	1.0
	Asia	334	7.2
	Americas	75	1.6
	Not stated	14	0.3
	Total	**4645**	**100.0**
Indigenous status	Aboriginal/Torres Strait Is.	63	1.4
	Non-Aboriginal	4582	98.6
	Not stated	0	0.0
	Total	**4645**	**100.0**
Usual place of residence	**North Side**	**1757**	**43.4**
for ACT residents	North Canberra	374	9.2
by statistical subdivision	Belconnen	981	24.2
	Gungahlin – Hall	402	9.9
	South Side	**2295**	**56.6**
	South Canberra	246	6.1
	Woden Valley	368	9.1
	Weston Creek	249	6.1
	Tuggeranong	1430	35.3
	Total	**4050**	**100.0**
Usual state of residence	**ACT residents**	**4050**	**87.2**
	Non ACT residents	**595**	**12.7**
	New South Wales	592	12.7
	Other states	2	0.0
	Not stated / Overseas	1	0.0
	Total	**4645**	**100.0**
Marital status	Never married	416	9.0
	Widowed	6	0.1
	Divorced	12	0.3
	Separated	40	0.9
	Married (inc de facto)	4167	89.7
	Not Stated	4	0.1
	Total	**4645**	**100.0**

Source: ACT Maternal/Perinatal Data Collection, 1998 data

The average (mean) age of women in the ACT having their first child was 28 years. The average age of all women giving birth in the ACT for 1998 was 29.5 years. The minimum age was 14 years and the maximum age was 47 years. ACT women are following the Australian trend to be older when having their first child.

The graph below compares the differences in average maternal age between the ACT and Australia from 1991 to 1998.

Figure 3: Average maternal age, ACT and Australia, 1991 - 1998



	1991	1992	1993	1994	1995	1996	1997	1998
ACT	28.6	28.5	28.6	28.8	28.9	29.2	29.2	29.5
Australia	27.9	28.1	28.2	28.3	28.4	28.6	28.7	28.9

Source: AIHW, NPSU Perinatal Series, Australia's Mothers and Babies, 1991 to 1998

Women residing in **New South Wales** accounted for **12.7%** of women giving birth in the ACT for 1998, maintaining the percentage from the previous year and an increase of 2.5% from the 1994 figures (10.2%).

Women residing on the **Northside** of Canberra accounted for **43.4%** of women giving birth in the ACT for 1998, an increase of 4.2% from the 1994 figures (39.2%). There has been an annual increase in the percentages of women giving birth from Gungahlin – Hall from 3.5% in 1994 to 9.9% in 1998.

Women residing on the **Southside** of Canberra accounted for **56.6%** of women giving birth in the ACT for 1998, a decrease of 4.2% from the 1994 figures (60.8%).

3.2 Indigenous mothers in the ACT

In Table 4 on page 11 the reported number of Indigenous women giving birth in the ACT for 1998 was 63 (1.4%). This figure is consistent with the 1997 ABS projections from the 1996 census of approximately 60[2] women.

The average (mean) age of Indigenous women giving birth in the ACT for 1998 was 25 years, which is sightly lower than that reported for 1994 to 1997. The minimum age was 14 years and the maximum age was 45 years. The average age of Indigenous women who had their first child remained at 22 years.

Indigenous mothers are dispersed throughout the ACT subdivisions although there were more Indigenous women giving birth in 1998 who were usual residents on the Southside of Canberra (55.3%) than on the Northside (44.7%). This is the reverse of 1997 percentages. There was an increase (16, 25.4%) of Indigenous women giving birth in 1998 who were non ACT residents compared with 1997 data (7, 12.1%).

Table 5: Indigenous mothers' demographic characteristics, ACT, 1998

		Indigenous		Non Indigenous		Total	
		No.	%	No.	%	No.	%
Maternal age groups	Less than 20 years	10	15.9	161	3.5	171	3.7
	20 - 24 years	19	30.2	626	13.7	645	13.9
	25 - 29 years	23	36.5	1472	32.1	1495	32.2
	30 - 34 years	8	12.7	1486	32.4	1494	32.2
	35 - 39 years	2	3.2	707	15.4	709	15.3
	40 years or more	1	1.6	130	2.8	131	2.8
	Total	**63**	**100.0**	**4582**	**100.0**	**4645**	**100.0**
Usual place of residence	**North Side**	**21**	**44.7**	**1736**	**43.4**	**1757**	**43.4**
for ACT residents	North Canberra	8	17.0	366	9.1	374	9.2
by statistical subdivision	Belconnen	10	21.3	971	24.3	981	24.2
	Gungahlin – Hall	3	6.4	399	10.0	402	9.9
	South Side	**26**	**55.3**	**2267**	**56.6**	**2293**	**56.6**
	South Canberra	4	8.5	242	6.0	246	6.1
	Woden Valley	1	2.1	367	9.2	368	9.1
	Weston Creek	9	19.1	240	6.0	249	6.1
	Tuggeranong	12	25.5	1418	35.4	1430	35.3
	Total	**47**	**100.0**	**4003**	**100.0**	**4050**	**100.0**
Usual state of residence	**ACT residents**	**47**	**74.6**	**4003**	**87.4**	**4050**	**87.2**
	Non ACT residents	**16**	**25.4**	**579**	**12.7**	**595**	**12.7**
	New South Wales	16	25.4	576	12.6	592	12.7
	Other states / Overseas	0	0.0	3	0.1	3	0.1
	Total	**63**	**100.0**	**4582**	**100.0**	**4645**	**100.0**

Note: Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

3.3 Maternal country of birth

The maternal country of birth percentages, for all ACT mothers, is presented in Table 4 on page 11.

Table 6: Maternal country of birth by age group, ACT, 1998

	Australia		Other Oceania		Europe		Africa Mid East		Asia		Americas	
	No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Less than 20 yrs	149	4.0	4	3.7	3	1.0	2	4.3	10	3.0	3	4.0
20 – 24 years	576	15.3	14	13.0	19	6.3	2	4.3	30	9.0	3	4.0
25 – 29 years	1259	33.4	37	34.3	68	22.5	16	34.0	88	26.3	19	25.3
30 – 34 years	1164	30.9	31	28.7	127	42.1	13	27.7	119	35.6	36	48.0
35 – 39 years	530	14.1	18	16.7	69	22.8	12	25.5	70	21.0	9	12.0
40 years or more	87	2.3	4	3.7	16	5.3	2	4.3	17	5.1	5	6.7
Total	**3765**	**100.0**	**108**	**100.0**	**302**	**100.0**	**47**	**100.0**	**334**	**100.0**	**75**	**100.0**

Note: Other Oceania includes New Zealand, Melanesia, Micronesia, Polynesia (excluding Hawaii) and Antarctica. Forteen records where maternal country of birth was 'not stated' have been excluded.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

Table 7: Maternal country of birth by age group for primigravida women, ACT, 1998

	Australia		Other Oceania		Europe		Africa Mid East		Asia		Americas	
	No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Less than 20 yrs	111	9.8	1	3.0	2	2.6	1	9.1	5	4.7	2	6.7
20 – 24 years	243	21.4	8	24.2	12	15.6	1	9.1	16	15.1	2	6.7
25 – 29 years	437	38.4	12	36.4	26	33.8	3	27.3	38	35.8	9	30.0
30 – 34 years	245	21.5	8	24.2	26	33.8	4	36.4	36	34.0	16	53.3
35 – 39 years	94	8.3	4	12.1	8	10.4	2	18.2	8	7.5	1	3.3
40 years or more	8	0.7	0	0.0	3	3.9	0	0.0	3	2.8	0	0.0
Total	**1138**	**100.0**	**33**	**100.0**	**77**	**100.0**	**11**	**100.0**	**106**	**100.0**	**30**	**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. Fourteen records where maternal country of birth was 'not stated" have been excluded.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

3.4 Pregnancy profile

Table 8: Pregnancy profile characteristic, ACT, 1998

		No.	%
Parity	No previous births	1897	40.8
	One previous birth	1654	35.6
	Two previous births	714	15.4
	Three previous births	257	5.5
	Four or more previous births	123	2.6
	Total	**4645**	**100.0**
Previous pregnancies	No previous pregnancy	1398	30.1
	One previous pregnancy	1472	31.7
	Two previous pregnancies	888	19.1
	Three previous pregnancies	479	10.3
	Four or more previous pregnancies	408	8.8
	Total	**4645**	**100.0**

Note: Parity refers to the number of children a woman has borne that are either live births or stillbirths, it does not include pregnancies where the fetus is delivered before 20 weeks gestation. The information contained in this table is reported to the midwife at the time of admission.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

Table 9: Selected maternal characteristics by pregnancy status, ACT, 1998

		Primigravida		Multigravida	
		No.	%	No.	%
Maternal age group	Less than 20 years	122	8.7	49	1.5
	20 - 24 years	282	20.2	363	11.2
	25 - 29 years	527	37.7	968	29.8
	30 - 34 years	336	24.0	1158	35.7
	35 - 39 years	117	8.4	592	18.2
	40 years or more	14	1.0	117	3.6
	Total	**1398**	**100.0**	**3247**	**100.0**
Maternal country of birth	Australia	1138	81.6	2627	81.2
	Other Oceania	33	2.4	75	2.3
	Europe	77	5.5	225	7.0
	Africa inc. Mid East	11	0.8	36	1.1
	Asia	106	7.6	228	7.0
	Americas	30	2.2	45	1.4
	Total	**1395**	**100.0**	**3236**	**100.0**
Usual place of residence	**ACT residents**	**1221**	**87.3**	**2829**	**87.2**
	North Side	564	40.3	1193	36.7
	South Side	657	47.0	1636	50.4
	Non ACT residents	**177**	**12.7**	**418**	**12.9**
	Total	**1398**	**100.0**	**3247**	**100.0**
Marital status	Never married	207	14.8	209	6.4
	Widowed, Divorced or Separated	7	0.5	51	1.6
	Married (inc. de facto)	1182	84.7	2985	92.0
	Total	**1396**	**100.0**	**3245**	**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. Fourteen records where maternal country of birth was 'not stated" have been excluded and four records where marital status was 'not stated' have been excluded.
Source: ACT Maternal/Perinatal Data Collection, 1998 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 outcomes for women in the ACT.

Table 10: Previous pregnancy outcomes for multigravida women, ACT, 1998

		No.	%
Previous live births	No previous live births	557	17.2
	One previous live birth	1631	50.2
	Two previous live births	701	21.6
	Three previous live births	249	7.7
	Four or more previous live births	109	3.4
	Total	**3247**	**100.0**
Previous stillbirths	No previous stillbirths	3141	96.7
	One previous stillbirth	96	3.0
	Two or more previous stillbirths	10	0.3
	Total	**3247**	**100.0**
Previous fetal loss	No previous fetal loss	1763	54.3
	One previous fetal loss	978	30.1
	Two previous fetal losses	332	10.2
	Three previous fetal losses	111	3.4
	Four or more fetal losses	63	1.9
	Total	**3247**	**100.0**
Previous neonatal deaths	No previous neonatal death	3228	99.4
	One neonatal death	19	0.6
	Two or more previous neonatal deaths	0	0.0
	Total	**3247**	**100.0**

Note: Previous fetal loss includes spontaneous abortions, induced abortions and ectopic pregnancies. The information contained in this table is reported to the midwife at the time of admission.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

3.6 Multiple births

The ACT has the highest percentage of multiple births (1.9%) in Australia for 1998. The Australian percentage for multiple births for 1998 was 1.4%.[4]

Table 11: Number of women having a multiple birth, ACT, 1998

		No.	%
Plurality	Singleton	4555	98.1
	Twins	88	1.9
	Triplets	2	0.0
	Total	**4645**	**100.0**

Source: ACT Maternal/Perinatal Data Collection, 1998 data

The Canberra Hospital is the referral centre for multiple births for the surrounding New South Wales area. Of the 592 (12.7%) NSW residents who gave birth in the ACT in 1998, 4.6% of these women had a multiple birth.

In Table 12 multiple births in the ACT are compared with Australian figures for the eight year period 1991 to 1998. In general the ACT has had higher multiple births than Australia (except for 1991 and 1994). This reflects the changes to maternity services in the ACT and surrounding NSW after 1995, with more non ACT residents coming to the Territory for their multiple births for 1997 and 1998.

Table 12: Women having a multiple birth, ACT and Australia, 1991 - 1998

	ACT residents		Non ACT residents		All ACT		Australia	
Year	No.	%	No.	%	No.	%	No.	%
1991	42	1.04	9	2.09	51	1.14	3397	1.34
1992	50	1.19	16	3.68	66	1.42	3455	1.33
1993	65	1.54	14	3.10	79	1.68	3520	1.37
1994	41	0.97	11	2.26	52	1.10	3585	1.39
1995	58	1.34	11	2.44	69	1.43	3570	1.39
1996	66	1.57	17	3.38	83	1.77	3569	1.41
1997	53	1.29	24	3.97	77	1.64	3709	1.47
1998	63	1.56	27	4.54	90	1.94	3754	1.49

Note: Multiple birth includes all multiple births. ACT's Annual rates fluctuate due to the small numbers.
Source: ACT Maternal Perinatal Data Collection and AIHW, NPSU Perinatal Series, Australia's Mothers and Babies, 1991 to 1998

Table 13: Selected mothers' characteristics for multiple birth, ACT, 1998

		Singleton		Multiple		Total	
		No.	%	No.	%	No.	%
Maternal Age Group	Less than 20years	169	3.7	2	2.2	171	3.7
	20 - 24 years	635	13.9	10	11.1	645	13.9
	25 - 29 years	1463	32.1	32	35.6	1495	32.2
	30 - 34 years	1467	32.2	27	30.0	1494	32.2
	35 - 39 years	692	15.2	17	18.9	709	15.3
	40 years or more	129	2.8	2	2.2	131	2.8
	Not stated	0	0.0	0	0.0	0	0.0
	Total	**4555**	**100.0**	**90**	**100.0**	**4645**	**100.0**
Mothers' Indigenous Status	Indigenous	63	1.4	0	0.0	63	1.4
	Non Indigenous	4492	98.6	90	100.0	4582	98.6
	Not stated	0	0.0	0	0.0	0	0.0
	Total	**4555**	**100.0**	**90**	**100.0**	**4645**	**100.0**
Mothers' usual state of residence	ACT residents	3987	87.5	63	70.0	4050	87.2
	New South Wales	565	12.4	27	30.0	592	12.7
	Other states / Overseas	3	0.1	0	0.0	3	0.1
	Not stated	0	0.0	0	0.0	0	0.0
	Total	**4555**	**100.0**	**90**	**100.0**	**4645**	**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, 1998 data

3.7 Antenatal care

3.7.1 Antenatal visits

The majority of pregnant women in the ACT had seven or more antenatal visits. Currently the ACT Maternal Perinatal Data Collection has two sets of codes for this data item, presented in Table 14. The sets of codes will be compatible for 2000 data with additional categories to identify those using more than seven or eight visits.

Table 14: Antenatal visits, ACT, 1998

		No.	%
As collected in OBICARE	No antenatal care	9	0.4
at The Canberra Hospital	Less than two visits	10	0.4
	2 to 4 visits	75	3.2
	5 to 7 visits	123	5.2
	8 or more visits	2155	90.9
	Total	**2372**	**100.0**
As collected on ACT MDCF	No visits	5	0.2
for Calvary and John James	1 to 3 visits	21	0.9
Memorial Hospitals and	4 to 6 visits	107	4.7
Homebirths	7 or more visits	2124	93.4
	Not stated	16	0.7
	Total	**2273**	**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.
Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

3.7.2 Responsibility for antenatal care

Women in the ACT are accessing a variety of models of antenatal care. When comparing the data over the four year period (see Table 15), 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.

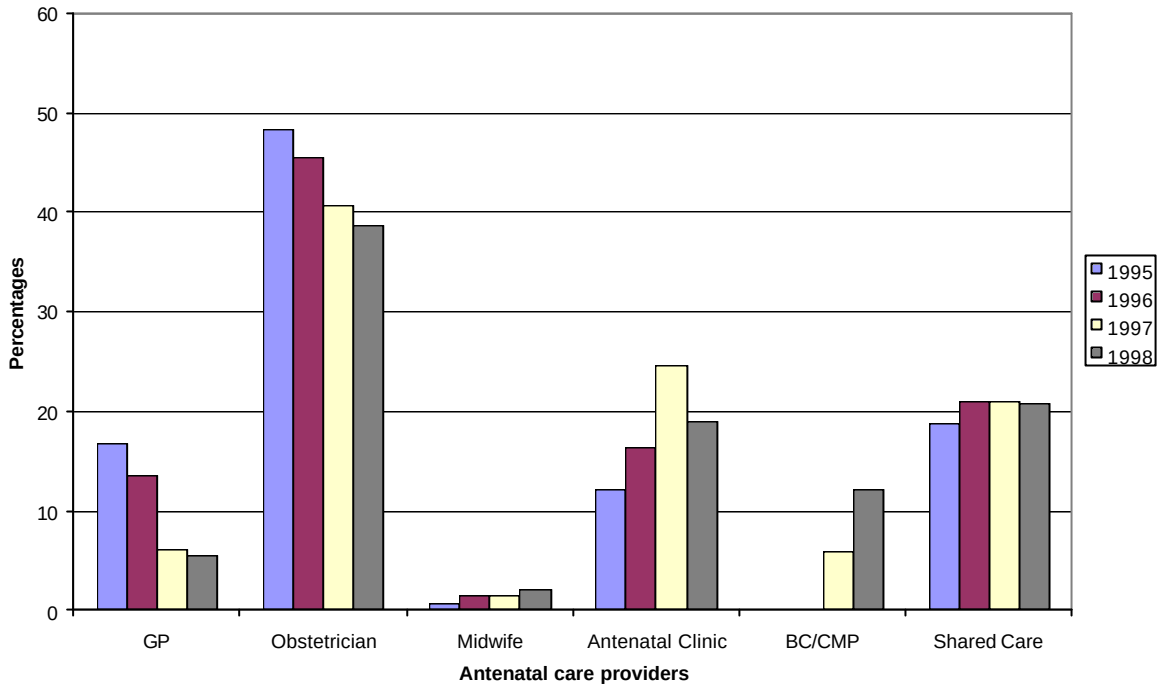
Shared care in the following tables refers to antenatal care where more than one professional clinician or clinic has been involved in a woman's antenatal care. Birth Centre/Canberra Midwifery Program and Shared Care categories were incorrectly recoded for the 1997 data. Table 15 has the corrected figures for 1997 and corrections for other tables relating to the responsibility for antenatal care from the 1997 report[5] are included in section 6.1 on page 45.

Table 15: Responsibility for antenatal care, ACT, 1994 - 1998

Responsibility for	1995		1996		1997		1998	
antenatal care	No.	%	No.	%	No.	%	No.	%
GP	813	16.8	634	13.5	285	6.1	256	5.5
Obstetrician	2333	48.3	2132	45.4	1914	40.7	1790	38.6
Midwife	29	0.6	72	1.5	64	1.4	95	2.1
Antenatal clinic	587	12.2	773	16.4	1154	24.5	876	18.9
BC/CMP	Birth centre & CMP commenced 1997				271	5.8	544	11.7
Shared Care	908	18.8	983	20.9	989	21.0	985	21.3
Not Stated	160	3.3	107	2.3	24	0.5	86	1.9
Total	**4830**	**100.0**	**4701**	**100.0**	**4701**	**100.0**	**4632**	**100.0**

Note: BC/CMP refers to the Birth Centre/ Canberra Midwifery Program. The Canberra Midwives Program (previously the Community Midwifery Program) provides continuity of midwifery care by teams of midwives to women throughout pregnancy, birth and up to two weeks after birth. The program commenced in 1997. In the 1998 midwife category 74 of the 95 records were from the public hospital midwives clinic. Thirteen records where "no antenatal care" was recorded were excluded. Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

Figure 4: Responsibility for antenatal care, ACT, 1995 - 1998



Source: ACT Maternal/Perinatal Data Collection, 1998 data

Ninety per cent of women who chose private accommodation in hospital had their antenatal care provided by an obstetrician (see Table 16).

Table 16: Responsibility for antenatal care by accommodation status, ACT, 1998

	Public		Private		Total	
	No.	**%**	**No.**	**%**	**No.**	**%**
GP	225	7.0	30	2.1	255	5.5
Obstetrician	514	16.0	1275	90.3	1789	38.7
Midwife	77	2.4	17	1.2	94	2.0
Antenatal Clinic	865	26.9	10	0.7	875	18.9
Shared Care	946	29.5	35	2.5	981	21.2
BC/ CMP	525	16.4	18	1.3	543	11.7
Not Stated	59	1.8	27	1.9	86	1.9
Total	**3211**	**100.0**	**1412**	**100.0**	**4623**	**100.0**

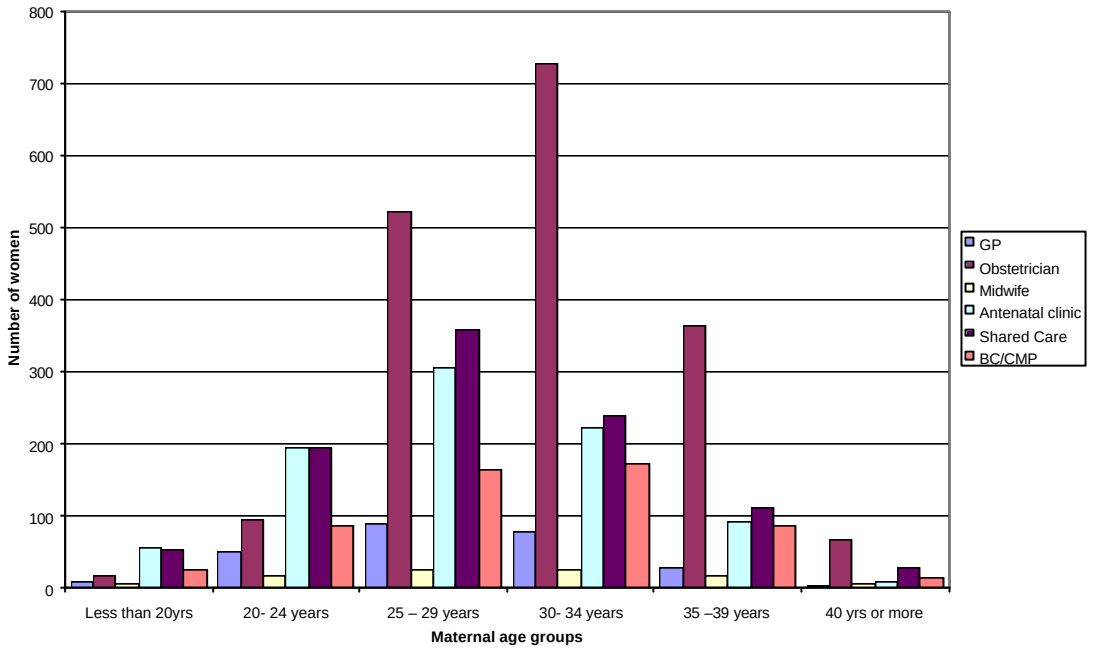
Note: Thirteen records where responsibility for antenatal care was "no antenatal care" and nine records where hospital accommodation status was "not stated" were excluded. Women giving birth at home have private accommodation status.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

Table 17: Responsibility for antenatal care by age groups, ACT, 1998

	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	9	5.3	49	7.6	90	6.0	77	5.2	27	3.8	4	3.1
Obstetrician	17	10.1	95	14.7	521	34.9	726	48.7	363	51.4	68	51.9
Midwife	6	3.6	16	2.5	24	1.6	25	1.7	18	2.5	6	4.6
Antenatal Clinic	56	33.1	193	29.9	304	20.4	221	14.8	93	13.2	9	6.9
Shared Care	54	32.0	195	30.2	358	24.0	240	16.1	110	15.6	28	21.4
BC/CMP	25	14.8	85	13.2	165	11.1	171	11.5	85	12.0	13	9.9
Not Stated	2	1.2	12	1.9	29	1.9	30	2.0	10	1.4	3	2.3
Total	**169**	**100.0**	**645**	**100.0**	**1491**	**100.0**	**1490**	**100.0**	**706**	**100.0**	**131**	**100.0**

Note: Four records where responsibility for antenatal care was "no antenatal care" were excluded.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

Figure 5: Responsibility for antenatal care by age groups, ACT, 1998



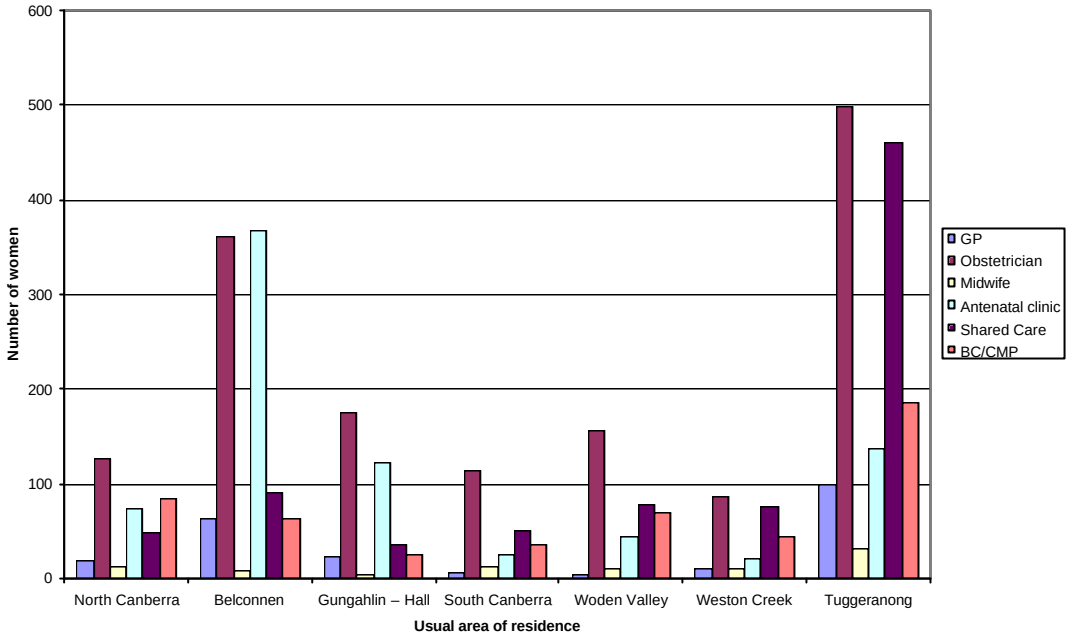
Source: ACT Maternal/Perinatal Data Collection, 1998 data

Table 18: Responsibility for antenatal care by subdivision, ACT, 1998

	North Canberra		Belconnen		Gungahlin – Hall		South Canberra		Woden Valley		Weston Creek		Tuggeranong	
	No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
GP	18	4.8	64	6.6	23	5.7	5	2.0	3	0.8	10	4.0	98	6.9
Obstetrician	127	34.0	362	37.1	176	43.8	114	46.7	157	42.9	87	34.9	499	35.0
Midwife	12	3.2	9	0.9	3	0.7	13	5.3	10	2.7	10	4.0	31	2.2
Antenatal Clinic	73	19.5	368	37.7	123	30.6	24	9.8	44	12.0	20	8.0	137	9.6
Shared Care	49	13.1	90	9.0	35	8.7	50	20.5	78	21.3	75	30.1	461	32.3
BC/CMP	84	22.5	64	6.6	24	6.0	35	14.3	69	18.9	43	17.3	185	13.0
Not Stated	11	2.9	20	2.0	18	4.5	3	1.2	5	1.4	4	1.6	16	1.1
Total	**374**	**100.0**	**977**	**100.0**	**402**	**100.0**	**244**	**100.0**	**366**	**100.0**	**249**	**100.0**	**1427**	**100.0**

Source: ACT Maternal/Perinatal Data Collection, 1998 data

Figure 6: Responsibility for antenatal care by subdivision, ACT, 1998



Source: ACT Maternal/Perinatal Data Collection, 1998 data

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 19. The percentages are for all women giving birth in the ACT for 1998.

Ultrasound examination is a routine procedure during pregnancy with 84.8% (3940) of pregnant women in 1998 reported to have had at least one. Ultrasound for 1998 appear to have been under reported. A possible reason for this under reporting, is that a number of obstetricians have ultrasound facilities in their rooms and the women may not be reporting these ultrasounds. There were more ultrasounds performed in the Fetal Medicine Unit, one of the ACT venues for ultrasounds, in 1998 (2824) than in 1997 (2715)[6].

There has been an increase from 34.2% to 42.9% 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 19: Antenatal procedures, ACT, 1998

		No.	%
Antenatal procedures	Cervical Suture	10	0.2
	X-ray	22	0.5
	Cardiotocography (CTG)	1993	42.9
	CT Scan	29	0.6
	Ultrasound	3940	84.8
	Chorionic Villus Sampling	31	0.7
	Amniocentesis <20 weeks	241	5.2
	Amniocentesis 20 weeks or more	21	0.5

Source: ACT Maternal/Perinatal Data Collection, 1998 data

Data for amniocentesis reported in the ACT Maternal Perinatal Data have been supplemented with data from the Fetal Medicine Unit. It may also be useful to obtain data from other clinics in the ACT that performed this procedure in order to accurately identify the number of amniocentesis performed.

Data presented in Table 20 are the number of procedures performed in the Fetal Medicine Unit at The Canberra Hospital in 1998, not the number of women having the procedures as in Table 19.

Table 20: Procedures performed in the Fetal Medicine Unit, TCH, 1998

	OUTPATIENTS			INPATIENTS			ALL PATIENTS
	ACT	Non ACT	**Total**	ACT	Non ACT	**Total**	**Total**
Ultrasound	2077	470	**2547**	171	106	**277**	**2824**
Amniocentesis	180	81	**261**	0	0	**0**	**261**
Chorionic Villus Sampling	41	27	**68**	0	0	**0**	**26**
Other procedure	17	18	**35**	0	0	**0**	**35**
TOTAL	**2315**	**596**	**2911**	**171**	**106**	**277**	**3188**

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

3.8 Medical conditions

Table 21: Medical conditions reported for women giving birth, ACT, 1998

		No.	%
Number of Medical Conditions	No reported conditions	4381	94.3
	One reported condition	222	4.8
	Multiple reported conditions (max reported 3)	10	0.3
	Records not linked	30	0.6
	Total	**4645**	**100.0**
Medical Conditions	Gestational Diabetes	143	3.1
	Diabetes Mellitus (648.0)	19	0.4
	Epilepsy, unspecified (345.9)	27	0.6
	Essential Hypertension (642.0 - 642.2)	40	0.9
	Renal disease (642.1, 646.2)	10	0.2
	Cardiovascular disease (648.5 - 648.6)	38	0.8
Medical Conditions reported in ACT HMDC during a hospital admission	Genital Herpes (054.1)	9	0.2
	Asthma, unspecified (493.9)	71	1.5
	Infections of genitourinary tract in pregnancy (646.6)	141	3.0
	Anaemia (648.2)	116	2.3

Note: Percentages for the specified medical conditions are for all women giving birth in the ACT. Data reported from three sources: these are the ACT Midwives Data Collection, OBICARE database and ACT Hospital Morbidity Data Collection (ACT HMDC). Figures from ACT HMDC 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 Maternal Perinatal Data Collection, 1998 data

3.9 Obstetric complications

The percentage of obstetric complications has fallen in 1998 (22.3%) compared with 1997 data (23.8%). This follows two years of reporting diagnosis from the ACT Hospital Morbidity Data Collection, even though additional diagnoses data items were added to the collection.

Table 22: Number of reported obstetric complications, ACT, 1998

		No.	%
Number of obstetric	No complication	3578	77.0
Complications reported	One reported complication	888	19.1
	Multiple reported complications	149	3.2
	Records not linked	30	0.6
	Total	**4645**	**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.
Source: ACT Hospital Morbidity Data Collection, 1998 data

Of the 149 (3.2%) women where multiple complications were reported in the hospital morbidity data, 121 (2.6%) women had two complications reported. The maximum number of obstetric complications reported for a woman was four.

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 16.8% (780) of the total percentage of obstetric complications.

Table 23: Obstetric complications reported during a hospital admission, ACT, 1998

	No.	%
Threatened abortion (640.0)	12	0.3
Placenta praevia without haemorrhage (641.0)	11	0.2
Haemorrhage from placenta praevia (641.1)	28	0.6
Premature separation of placenta (641.2)	14	0.3
Antepartum haemorrhage associated with coagulation defects (641.3)	1	0.0
Other antepartum haemorrhage (641.8)	13	0.3
Unspecified antepartum haemorrhage (641.9)	64	1.4
Benign essential hypertension (642.0)	17	0.4
Hypertension secondary to renal disease (642.1)	1	0.0
Other pre-existing hypertension (642.2)	3	0.1
Transient hypertension of pregnancy (642.3)	65	1.4
Mild or unspecified pre-eclampsia ((642.4)	292	6.3
Severe pre-eclampsia (642.5)	45	1.0
Eclampsia (642.6)	6	0.1
Pre-eclampsia or eclampsia superimposed on pre-existing hypertension (642.7)	2	0.0
Unspecified hypertension (642.9)	9	0.2
Other threatened labour (644.1)	109	2.3
Cervical incompetence (654.5)	18	0.4
Premature (Pre labour) rupture of membranes (658.1)	347	7.5
Infections of genitourinary tract in pregnancy (646.6)	141	3.0

Note: Percentages for the specified obstetric complications are for all women giving birth in the ACT. Reported 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. Percentages are based on all women giving birth in the ACT.
Source: ACT Hospital Morbidity Data Collection, 1998 data

3.10 Labour and birth

Table 24: Labour characteristics, ACT, 1998

		No.	%
Onset of labour	Spontaneous	3091	66.5
	Induced	1023	22.0
	No labour	531	11.4
	Not stated	0	0.0
	Total	**4645**	**100.0**
Type of labour	**Spontaneous**	**2272**	**48.9**
	Augmentation	**819**	**17.6**
	Augmentation – Medical	291	6.3
	Augmentation – Surgical	353	7.6
	Augmentation – Combined	175	3.8
	Induced	**1023**	**22.0**
	Induced – Medical	399	8.6
	Induced – Surgical	82	1.8
	Induced – Combined	542	11.7
	No labour	**531**	**11.4**
	Not stated	**0**	**0.0**
	Total	**4645**	**100.0**

Note: Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

Table 25: Method of birth, ACT, 1998

		No.	%
Method of birth	Normal birth	3158	68.0
	Forceps	366	7.9
	Vaginal breech	32	0.7
	Caesarean section	872	18.8
	Vacuum extraction	207	4.5
	Other	10	0.2
	Total	**4645**	**100.0**

Note: Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

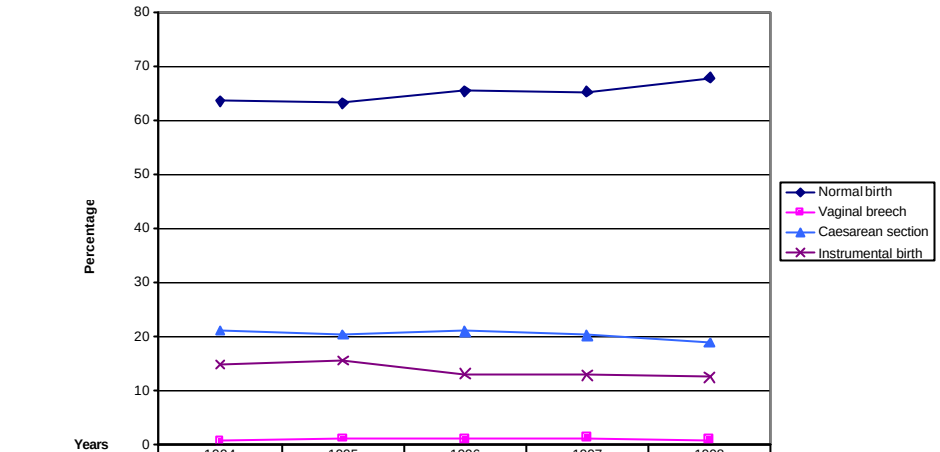
Table 26: Method of birth by type of labour, ACT, 1998

	Spontaneous		Augmentation		Induced		No labour	
	No.	%	No.	%	No.	%	No.	%
Normal birth	1903	83.8	528	64.5	727	71.1	0	0.0
Vaginal breech	20	0.9	8	1.0	4	0.4	0	0.0
Instrumental birth	176	7.7	215	26.3	192	18.8	0	0.0
Caesarean section	173	7.6	68	8.3	100	9.8	*531	100.0
Total	**2272**	**100.0**	**819**	**100.0**	**1023**	**100.0**	**531**	**100.0**

Note: Instrumental birth includes forceps and vacuum extraction for cephalic presentations. * Women who have an elective caesarean section have no labour (11.4%). Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

The following graph shows an increase of 4.3% in normal births from 1994 to 1998, with a subsequent decrease of 2.2% in Caesarean section and 2.4% in instrumental births.

Figure 7: Method of birth, ACT, 1994 - 1998



Years	1994	1995	1996	1997	1998
Normal birth	63.7	63.3	65.5	65.4	68.0
Vaginal breech	0.5	0.9	0.8	1.0	0.7
Caesarean section	21.0	20.3	20.9	20.2	18.8
Instrumental birth	14.7	15.4	12.9	12.8	12.3

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. The episiotomy rate has fallen from 21.7% in 1997 to 17.9% in 1998.

A perineal laceration was reported following homebirths for 31.8% (14 of 44) of women during 1998 (29.5% for first degree and 2.3% for second degree lacerations) No episiotomies were reported following homebirths during 1998.

Table 27: Perineal status for vaginal births, ACT, 1998

		No.	%
Perineal Status	Intact	1448	38.4
	First degree laceration	688	18.2
	Second degree laceration	921	24.4
	Third degree laceration	22	0.6
	Fourth degree laceration	0	0.0
	Episiotomy	630	16.7
	Laceration and Episiotomy	*59	1.2
	Other (unspecified trauma)	5	0.1
	Total	**3773**	**100.0**

Note: The reporting of Perineal status for vaginal births has changed in 1998 to be consistent with the National Health Data Dictionary. * Fourteen of the fifty nine women had a third degree laceration and an episiotomy. When referring to the Episiotomy Rate, women having both a Laceration and Episiotomy are included in the overall rate (17.9%).
Source: ACT Hospital Morbidity Data 1998 data linked to ACT Maternal Perinatal Data Collection

In 1998, 0.3% had an episiotomy or sutured laceration followed by an emergency caesarean section (3 women of the 872 women having a caesarean section). This was half the number for 1996 and the same number reported for 1997. Compared with all women giving birth, the percentage was 0.06% (3 of 4645 women). Manual removal of a retained placenta was performed for 1.6% (61 of 3773 women) of vaginal deliveries, during 1998. (Source: ACT Hospital Morbidity Data).

3.12 Caesarean section

The ACT caesarean section rate (18.8%) in 1998 was lower than the National rate of 21.1%.

Table 28: Selected characteristics for Caesarean section, ACT, 1998

		No.	% of Caesareans	% of all women giving birth
Accommodation status	Public	522	59.9	11.3
	Private	348	39.9	7.5
	Not stated	2	0.2	0.0
	Total	**872**	**100.0**	**18.8**
Parity	Primipara	258	29.6	5.6
	Multipara	614	70.4	13.2
	Total	**872**	**100.0**	**18.8**
Plurality	Singleton births	835	95.8	18.0
	Twins	36	4.1	0.8
	Triplets	1	0.1	0.0
	Total	**872**	**100.0**	**18.8**
Mothers' Indigenous	Indigenous	9	1.0	0.2
Status	Non Indigenous	863	99.0	18.6
	Total	**872**	**100.0**	**18.8**
Maternal age groups	Less than 20 years	13	1.5	0.3
	20 - 24 years	84	9.6	1.8
	25 - 29 years	243	27.9	5.2
	30 - 34 years	313	35.9	6.7
	35 - 39 years	181	20.8	3.9
	40 years or more	38	4.4	0.8
	Total	**872**	**100.0**	**18.8**
Presentation	Vertex	656	75.2	14.1
	Breech	188	21.6	4.0
	Other	13	1.5	0.3
	Not stated	15	1.7	0.3
	Total	**872**	**100.0**	**18.8**
Birthweight in grams	Less than 2500	104	11.9	2.2
(for first born)	500 to 999	11	1.3	0.2
	1000 to 1499	22	2.5	0.5
	1500 to 1999	32	3.7	0.7
	2000 to 2499	39	4.5	0.8
	2500 to 2999	143	16.4	3.1
	3000 to 3499	266	30.5	5.7
	3500 to 3999	229	26.3	4.9
	4000 to 4499	105	12.0	2.3
	4500 or more	25	2.9	0.5
	Total	**872**	**100.0**	**18.8**
Gestational age in weeks	20 to 27	9	1.0	0.2
	28 to 31	29	3.3	0.6
	32 to 36	75	8.6	1.6
	37 to 41	739	84.7	15.9
	42 or more	20	2.3	0.4
	Not stated	0	0.0	0.0
	Total	**872**	**100.0**	**18.8**

Source: ACT Maternal/Perinatal Data Collection, 1998 data

3.13 Complications of labour and birth

Table 29: Number of complications of labour and birth reported during a hospital birth, ACT, 1998

		No.	%
Complications of labour and birth	No complication	2090	45.0
	One reported complication	1733	37.3
	Multiple reported complications	792	17.1
	Records not linked	30	0.6
	Total	**4645**	**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, 1998 data

Fifty four per cent of women giving birth in the ACT had one or more complications of labour and birth. The most commonly reported complications were first or second degree perineal laceration (1507, 32.4%), fetal distress (540, 11.6%), long labour (503, 10.8%) and postpartum haemorrhage (427, 9.2%).

Of the 792 (17.1%) women where multiple complications were reported in the hospital morbidity data, 600 (12.9%) women had two complications reported and 143 (3.1%) had three complications reported. The maximum number of complications for labour, birth and the puerperium reported for a woman was six.

Table 30: Complications of labour and birth reported during a hospital birth, ACT, 1998

	No.	%
Obstructed labour (660)	221	4.8
Uterine inertia (661.0-2)	251	5.4
Precipitate labour (661.3)	23	0.5
Hypertonic, incoordinate, or prolonged uterine contractions (661.4)	116	2.5
Long labour (662)	503	10.8
Prolapse of cord (663.0)	10	0.2
Cord entanglement with or without mention of compression (663.1-3)	290	6.2
Other umbilical cord complications (661.4-9)	18	0.4
Fetal distress (656.3)	540	11.6
First-degree perineal laceration (664.0)	554	11.9
Second-degree perineal laceration (664.1)	953	20.5
Third-degree perineal laceration (664.2)	35	0.8
Fourth-degree perineal laceration (664.3)	0	0.0
Vulval and perineal haematoma (664.5)	2	0.0
Other trauma to perineum and vulva during delivery (664.8)	12	0.3
Rupture of uterus before onset of labour or during labour (665.0-665.1)	2	0.0
Other obstetrical trauma (665.3-665.8)	66	1.4
Postpartum haemorrhage (666)	427	9.2
Retained placenta or membranes, without haemorrhage (667)	30	0.6
Complications of the administration of anaesthetic or other sedation in labour and delivery (668)	55	1.2

Note: Percentages for the specified complications of labour and birth are for all women giving birth in the ACT. Reported 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, 1998 data

4 BABIES' CHARACTERISTICS

4.1 All babies born in the ACT

Table 31: Babies' characteristics, ACT, 1998

		No.	%
Birth condition	Live births	4691	99.0
	Stillborn	46	1.0
	Total	**4737**	**100.0**
Plurality	Singleton births	4555	96.2
	Twins	176	3.7
	Triplets	6	0.1
	Total	**4737**	**100.0**
Sex	Male	2409	50.9
	Female	2328	49.1
	Indeterminate	0	0.0
	Total	**4737**	**100.0**
Birthweight in grams	**Less than 2500**	**372**	**7.9**
	Less than 500	14	0.3
	500 to 999	44	0.9
	1000 to 1499	41	0.9
	1500 to 1999	77	1.6
	2000 to 2499	196	4.1
	2500 to 2999	683	14.4
	3000 to 3499	1586	33.5
	3500 to 3999	1507	31.8
	4000 to 4499	494	10.4
	4500 or more	95	2.0
	Not stated	0	0.0
	Total	**4737**	**100.0**
Gestational age in weeks	20 to 27	51	1.1
	28 to 31	65	1.4
	32 to 36	290	6.1
	37 to 41	4199	88.6
	42 or more	132	2.8
	Not stated	0	0.0
	Total	**4737**	**100.0**

Source: ACT Maternal/Perinatal Data Collection, 1998 data

The ACT followed the national trend with male births (50.9%) exceeding female births (49.1%).

The majority (65.3%) of babies born in the ACT for 1998 were between 3000 and 3999 grams, with an average birthweight of 3354 grams. There were 7.9% of babies born in the ACT in 1998 that were less than 2500 grams in birthweight. This was significantly more than the national percentage of 6.6%[1]. The reason for this difference was that 17.1% of births by women not usually resident in the ACT were less than 2500 grams in birthweight, while the births by women from the ACT accounted for 6.5% in the same weight category.

The majority (88.6%) of babies born in the ACT for 1998 were between 37 and 41 weeks gestation, with an average gestational age of 39 weeks. There were 8.6% of babies born in the ACT in1998 classified as preterm infants. This was significantly more than the national percentage of 6.8%[1]. The reason for this difference was that 19.7% of births by women not usually resident in ACT were 36 weeks gestation or less, while the births by women from the ACT accounted for 6.9%.

Table 32: Birthweight and gestational age by mother's usual state of residence, ACT, 1998

		ACT residents		Non ACT residents		All ACT births	
		No.	%	No.	%	No.	%
Birthweight	Less than 1500 grams	62	1.5	37	6.0	99	2.1
	1500 to 2499 grams	204	5.0	69	11.1	273	5.8
	2500 grams or more	3849	93.5	515	82.9	4364	92.1
	Total	**4115**	**100.0**	**621**	**100.0**	**4736**	**100.0**
Gestational age	20 to 27 weeks	35	0.9	16	2.6	51	1.1
	28 to 31 weeks	33	0.8	32	5.2	65	1.4
	32 to 36 weeks	216	5.2	74	11.9	290	6.1
	37 to 41 weeks	3711	90.2	487	78.4	4198	88.6
	42 weeks or more	120	2.9	12	1.9	132	2.8
	Total	**4115**	**100.0**	**621**	**100.0**	**4736**	**100.0**

Note: One record where mother's usual state of residence was 'overseas' has been excluded.
Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

Table 33: Gestational age by birthweight, ACT, 1998

	20-27 weeks	28-31 weeks	32-36 weeks	37-41 weeks	42 weeks or more
Birthweight			**Number**		
Less than 500	13	1	0	0	0
500 to 999	31	12	1	0	0
1000 to 1499	7	27	7	0	0
1500 to 1999	0	25	48	4	0
2000 to 2499	0	0	100	96	0
2500 to 2999	0	0	84	593	6
3000 to 3499	0	0	40	1511	35
3500 to 3999	0	0	8	1443	56
4000 to 4499	0	0	2	463	29
4500 or more	0	0	0	89	6
Total	**51**	**65**	**290**	**4199**	**132**
Birthweight			**Percent**		
Less than 500	25.5	1.5	0.0	0.0	0.0
500 to 999	60.8	18.5	0.3	0.0	0.0
1000 to 1499	13.7	41.5	2.4	0.0	0.0
1500 to 1999	0.0	38.5	16.6	0.1	0.0
2000 to 2499	0.0	0.0	34.5	2.3	0.0
2500 to 2999	0.0	0.0	29.0	14.1	4.5
3000 to 3499	0.0	0.0	13.8	36.0	26.5
3500 to 3999	0.0	0.0	2.8	34.4	42.4
4000 to 4499	0.0	0.0	0.7	11.0	22.0
4500 or more	0.0	0.0	0.0	2.1	4.5
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: ACT Maternal/Perinatal Data Collection, 1998 data

Table 34: Birthweight and gestational age by maternal country of birth, ACT, 1998

	Australia		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	89	0	3	0	4	0	3	0	0	0	0	0
1500 to 2499 grams	148	78	4	2	11	7	0	1	8	12	2	0
2500 grams or greater	111	3420	3	97	10	275	1	42	9	308	0	73
Total	**348**	**3498**	**10**	**99**	**25**	**282**	**4**	**43**	**17**	**320**	**2**	**73**
Birthweight						**Percent**						
Less than 1500 grams	25.6	0.0	30.0	0.0	16.0	0.0	75.0	0.0	0.0	0.0	0.0	0.0
1500 to 2499 grams	42.5	2.2	40.0	2.0	44.0	2.5	0.0	2.3	47.1	3.8	100.0	0.0
2500 grams or greater	31.9	97.8	30.0	98.0	40.0	97.5	25.0	97.7	52.9	96.3	0.0	100.0
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: Forteen records where maternal country of birth 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, 1998 data

4.2 Babies' usual area of residence

Table 35: Babies born by mother's usual place of residence, ACT, 1998

		No.	%
Usual place of residence	**North Side**	**1777**	**37.5**
by statistical subdivision	North Canberra	380	8.0
	Belconnen	992	20.9
	Gungahlin – Hall	405	8.5
	South Side	**2338**	**49.4**
	South Canberra	248	5.2
	Woden Valley	372	7.9
	Weston Creek	254	5.4
	Tuggeranong	1464	30.9
Usual state of residence	**ACT residents**	**4115**	**86.8**
	Non ACT residents	**622**	**13.1**
	New South Wales	619	13.1
	Other states	3	0.1
	Not stated	0	0.0
	Total	**4737**	**100.0**

Source: ACT Maternal/Perinatal Data Collection, 1998 data

The Australian Bureau of Statistics (ABS) Births 1998[2] reported that in the ACT there were 2006 male births and 1976 female births, a total of 3982 births registered in 1998. The ABS reports on births to women whose usual area of residence is the ACT irrespective of where the birth occurs. The table below is useful to compare with the ABS Birth 1998 report in providing 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, 1998

Sex of baby	ACT Resident No.	ACT Resident %	Non ACT Resident No.	Non ACT Resident %
Male	2081	50.6	328	52.8
Female	2034	49.4	293	47.2
Indeterminate	0	0.0	0	0.0
Total	**4115**	**100.0**	**621**	**100.0**

Note: One record where usual state of residence was 'overseas' has been excluded.
Source: ACT Maternal/Perinatal Data Collection, 1998 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 (83.9%) have apgar scores between 7 and 10 at one minute after birth, with 97.3% attaining those scores at five minutes after birth. An apgar score between 7 and 10 at one minute corresponds with the 87.0% 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 of less than 7 at five minutes indicates successful resuscitation in the majority of these births.

Table 37: Babies' apgar scores and resuscitation procedures for live births, ACT, 1998

		No.	%
Apgar scores at 1 minute	0	5	0.1
	1 to 3	158	3.4
	4 to 6	570	12.2
	7 to 10	3936	83.9
	Not stated	22	0.5
	Total	**4691**	**100.0**
Apgar scores at 5 minutes	0	4	0.1
	1 to 3	23	0.5
	4 to 6	75	1.6
	7 to 10	4563	97.3
	Not stated	26	0.6
	Total	**4691**	**100.0**
Resuscitation	No assisted ventilation	4082	87.0
	Bag and mask IPP	503	10.7
	Intubation	63	1.3
	Bag and mask and intubation	43	0.9
	Total	**4691**	**100.0**

Note: Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

4.4 Neonatal morbidity

Details of neonatal morbidity are published in the Centre for Newborn Care, The Canberra Hospital, Australian Capital Territory, Annual Clinical Report 1999. The ACT Centre for Newborn Care data is also included in Part 5, Neonatal Intensive Care of the NSW Mothers and Babies 1998 report by NSW Health Department and the Australian Institute of Health and Welfare (AIHW), Australian and New Zealand Neonatal Network reports by Deborah Donoghue.

4.5 Birth defects

There were 4.7% of babies born in the ACT for 1998 that were reported to have a birth defect (congenital anomaly). Of these reported birth defects, 3.7% were for musculo-skeletal deformities and defects of the skin, urinary system and genital tract.

Table 38: Reported number of birth defects, ACT, 1998

		No.	%
Number of birth defects reported	No reported birth defects	4510	95.2
	One reported birth defect	187	3.9
	Multiple reported birth defects	40	0.8
	Total	**4737**	**100.0**

Note: Figures are based on patients not separations, if a baby has more than one admission for the same birth defect only one birth defect is counted. One baby may have more than one birth defect. Data includes stillbirths but excludes pre twenty week fetuses. Definitions and standards as per the ICD-9-CM manuals, codes are provided.
Source: ACT Hospital Morbidity Data Collection, 1998 data

The maximum number of reported birth defects for a baby was seven.

Table 39: Birth defects, ACT, 1995 - 1998

	1998 only		1995 to 1998	
	No.	Rate per 10,000	No.	Rate per 10,000
Anencephalus and similar anomalies (740)	1	2.1	4	2.1
Spina bifida (741)	0	0.0	5	2.6
Other birth defects of nervous system (742)	7	14.8	26	13.5
Birth defects of eye (743)	1	2.1	17	8.9
Birth defects of ear, face, and neck (744)	10	21.1	33	17.2
Bulbus cordis anomalies and anomalies of cardiac septal closure (745)	25	52.8	83	43.2
Other birth defects of heart (746)	11	23.2	44	22.9
Other birth defects of circulatory system (747)	5	10.6	23	12.0
Birth defects of respiratory system (748)	6	12.7	28	14.6
Cleft palate and cleft lip (749)	11	23.2	38	19.8
Other birth defects of upper alimentary tract (750)	5	10.6	32	16.7
Other birth defects of digestive system (751)	8	16.9	20	10.4
Birth defects of genital organs (752)	36	76.0	149	77.6
Birth defects of urinary system (753)	26	54.9	94	48.9
Certain congenital musculo-skeletal deformities (754)	52	109.8	211	109.8
Other birth defects of limbs (755)	26	54.9	89	46.3
Other congenital musculo-skeletal anomalies (756)	12	25.3	46	23.9
Birth defects of the integument (skin) (757)	23	48.6	141	73.4
Chromosomal anomalies (758)	15	31.7	40	20.8
Other and unspecified Birth defects (759)	0	0.0	3	1.6
Total Birth defects as reported in Hospital Morbidity Data (* Rate per 100)	**280**	***5.9**	**1126**	***5.9**

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 defect only one defect is counted. One baby may have more than one defect. Data includes stillbirths but excludes pre twenty week fetuses. Definitions and standards as per the ICD-9-CM manuals, codes are provided. ICD-9-CM descriptions with the words "Congenital anomalies" have been replaced with "Birth defects" in this publication. For chromosomal birth defects (758) ten were for Downs Syndrome. Nine of these cases of Downs Syndrome were to women over 30 years old.
Source: ACT Hospital Morbidity Data Collection, 1995 - 1998 data

There are some birth defects reported in the ACT Hospital Morbidity Data collection (ACT HMD), that are 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 2500 grams (11 cases);
- Undescended testicles where the gestational age is less than 37 weeks or the birthweight is less than 2500 grams (3 cases);
- Tongue tie (8 cases);
- Other specified anomalies of the skin (14 cases, mostly skin tags); and
- Talipes equinovarus (15 cases), calcaneovarus (16 cases), unspecified talipes or other deformities of the feet (71 cases).

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

4.6 Perinatal mortality

There were 1.0% (46) stillbirths, 0.5% (24) neonatal deaths and 0.1% (7) postneonatal deaths reported for ACT births in 1998. Of the 24 neonatal deaths, 13 (0.27%) were less than a 1000 grams in birthweight and 12 (0.25%) were between 20 to 27 weeks gestation.

The infant deaths (neonatal deaths and post neonatal deaths), perinatal deaths (neonatal deaths and fetal deaths) and fetal death rates reported below are based on the birth cohort of all ACT births for a calendar year, not on the year of death or year of death registration. These figures will vary from those published by Australian Bureau of Statistics due to the different method of collection based on population and usual area of residence data.

Table 40: Birth status and survival, All ACT births, 1995 – 1998

		1995		1996		1997		1998	
	All ACT Births	**No.**	**Rate**	**No.**	**Rate**	**No.**	**Rate**	**No.**	**Rate**
Birth Status	**Births**	**4893**	**1000.0**	**4788**	**1000.0**	**4785**	**1000.0**	**4737**	**1000.0**
	Stillbirths – Fetal deaths	45	9.2	38	7.9	42	8.8	46	9.7
	Total Livebirths	**4848**	**990.8**	**4750**	**992.1**	**4743**	**991.2**	**4691**	**990.3**
Survival Status	Survived to one year	4824	985.9	4731	996.0	4717	994.5	4660	993.4
	Perinatal Deaths	**64**	**13.1**	**52**	**10.9**	**61**	**12.7**	**70**	**14.8**
	Neonatal Deaths	19	3.9	14	2.9	19	4.0	24	5.1
	Post Neonatal Deaths	5	1.0	5	1.0	7	1.5	7	1.5
	Infant Deaths	**24**	**4.9**	**19**	**4.0**	**26**	**5.5**	**31**	**6.6**

Note: 1995 to 1998 Birth Cohort Data includes reported mortality for ACT births. Refer to the glossary for definitions. Rate per 1000 ACT livebirths for neonatal deaths, post neonatal deaths and infant mortality. Rate per 1000 ACT births for fetal deaths. Data corrections account for slight differences from previously reported mortality. Annual rates fluctuate due to small numbers.
Source: ACT Maternal/Perinatal Data Collection

The figures in Table 40 and Table 41 show an apparent increase in perinatal mortality in 1998 for both all ACT births and births to ACT residents (excluding NSW residents). This is due to small increases in the numbers of both fetal and neonatal deaths. However, examination of the figures for the last 4 years (1995 - 1998) shows significant fluctuations in the numbers in each category and it is difficult to draw any conclusions from this due to the small numbers of deaths occurring in each year. There is no obvious trend evident over time and it would be necessary to examine rates over a longer period to provide a better analysis of this measure of perinatal outcome.

Table 41: Birth status and survival, ACT residents' births, 1995 - 1998

		1995		1996		1997		1998	
	ACT residents'	**No.**	**Rate**	**No.**	**Rate**	**No.**	**Rate**	**No.**	**Rate**
Birth Status	**Births**	**4383**	**1000.0**	**4261**	**1000.0**	**4154**	**1000.0**	**4115**	**1000.0**
	Stillbirths – Fetal deaths	37	8.4	30	7.0	31	7.5	37	9.0
	Total Livebirths	**4346**	**991.6**	**4231**	**993.0**	**4123**	**992.5**	**4078**	**991.0**
Survival Status	Survived to one year	4326	995.4	4215	996.2	4104	995.4	4052	993.6
	Perinatal Deaths	**52**	**11.9**	**42**	**9.9**	**44**	**10.6**	**57**	**13.9**
	Neonatal Deaths	15	3.5	12	2.8	13	3.2	20	4.9
	Post Neonatal Deaths	5	1.2	4	0.9	6	1.5	6	1.5
	Infant Deaths	**20**	**4.6**	**16**	**3.8**	**19**	**4.6**	**26**	**6.4**

Note: 1995 to 1998 Birth Cohort Data includes reported mortality for ACT residents' births. Refer to the glossary for definitions. Rate per 1000 ACT residents' livebirths for neonatal deaths, post neonatal deaths and infant mortality. Rate per 1000 ACT residents' births for fetal deaths. Data corrections account for slight differences from previously reported mortality. Annual rates fluctuate due to small numbers.
Source: ACT Maternal/Perinatal Data Collection

The sources of death data checked to present this information are the:

- ABS death data and tables for the same year as the birth and following year;
- ACT hospital morbidity (inpatient) data collection for the same year as the birth and either the following six months or twelve months depending on data availability;
- Post mortem data from the ACT Anatomical Laboratory;
- Centre for Newborn Care's database;
- Obicare database for The Canberra Hospital births and the ACT Midwives Data Collection for other ACT hospitals;
- Medical record by request to Medical Record Department where inconsistencies occur; and
- Registrar General for Births and Deaths Registry if unable to identify a previously reported infant death.

Table 42: Birth outcome for women giving birth in ACT hospitals, ACT, July 1997 - June 2000

	1997 - 1998		1998 - 1999		1999 - 2000	
	No.	**%**	**No.**	**%**	**No.**	**%**
Single livebirth	4498	97.2	4458	96.9	4408	97.2
Single stillbirth	41	0.9	36	0.8	43	0.9
Twins both livebirths	69	1.5	75	1.6	70	1.5
Twins one livebirth one stillborn	4	0.1	3	0.1	6	0.1
Other multiple births all livebirths	1	0.0	2	0.0	2	0.0
Birth outcome unspecified	15	0.3	26	0.6	8	0.2
Total	**4628**	**100.0**	**4600**	**100.0**	**4537**	**100.0**

Note: Financial year data includes ACT and Non ACT resident women that were reported to have given birth in an ACT hospital.
Source: ACT Hospital Morbidity Data Collection (ACT Inpatient Data Collection)

Table 43: Babies characteristics for perinatal and post neonatal deaths, ACT, 1998

		Stillbirths		Neonatal Deaths		Post Neonatal Deaths	
		No.	%	No.	%	No.	%
Plurality	Singleton	45	97.8	20	83.3	7	100.0
	Multiple	1	2.2	4	16.7	0	0.0
	Total	**46**	**100.0**	**24**	**100.0**	**7**	**100.0**
Sex	Male	26	56.5	16	66.7	2	28.6
	Female	20	43.5	8	33.3	5	71.4
	Indeterminate	0	0.0	0	0.0	0	0.0
	Total	**46**	**100.0**	**24**	**100.0**	**7**	**100.0**
Birthweight	Less than 500 grams	7	15.2	6	25.0	0	0.0
	500 – 999 grams	15	32.6	7	29.2	2	28.6
	1000 – 1499 grams	5	10.9	1	4.2	0	0.0
	1500 - 1999 grams	3	6.5	3	12.5	1	14.3
	2000 – 2499 grams	3	6.5	1	4.2	1	14.3
	2500 grams or more	13	28.3	6	25.0	3	42.9
	Not stated	0	0.0	0	0.0	0	0.0
	Total	**46**	**100.0**	**24**	**100.0**	**7**	**100.0**
Gestational Age	20 - 27 weeks	18	39.1	12	50.0	2	28.6
	28 - 31 weeks	8	17.4	4	16.7	1	14.3
	32 - 36 weeks	8	17.4	3	12.5	3	42.9
	37 - 41 weeks	11	23.9	5	20.8	1	14.3
	42 weeks or more	1	2.2	0	0.0	0	0.0
	Total	**46**	**100.0**	**24**	**100.0**	**7**	**100.0**
Method of birth	Normal birth	38	82.6	16	66.7	4	57.1
	Vaginal Breech	4	8.7	4	16.7	1	14.3
	Instrumental birth	2	4.3	0	0.0	1	14.3
	Caesarean section	2	4.3	4	16.7	1	14.3
	Total	**46**	**100.0**	**24**	**100.0**	**7**	**100.0**
Apgar at 5 minutes	0	46	100.0	2	8.3	0	0.0
	1 to 3	0	0.0	13	54.2	0	0.1
	4 to 6	0	0.0	2	8.3	2	28.6
	7 to 10	0	0.0	7	29.2	5	71.4
	Not stated	0	0.0	0	0.0	0	0.0
	Total	**46**	**100.0**	**24**	**100.0**	**7**	**100.0**
Number of birth defects reported	No reported birth defects	40	87.0	14	58.3	3	42.9
	One reported birth defect	6	13.0	6	25.0	0	0.0
	Multiple reported birth defects	0	0.0	4	16.7	4	57.1
	Total	**46**	**100.0**	**24**	**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, 1998 data

Table 44: Mothers' characteristics for perinatal and post neonatal deaths, ACT, 1998

		Stillbirths		Neonatal Deaths		Post Neonatal Deaths	
		No.	%	No.	%	No.	%
Maternal Age Group	Less than 20years	4	8.7	2	8.3	2	28.6
	20 - 24 years	9	19.6	5	20.8	0	0.0
	25 - 29 years	16	34.8	5	20.8	2	28.6
	30 - 34 years	8	17.4	7	29.2	1	14.3
	35 - 39 years	9	19.6	5	20.8	2	28.6
	40 years or more	0	0.0	0	0.0	0	0.0
	Total	**46**	**100.0**	**24**	**100.0**	**7**	**100.0**
Plurality	Singleton	45	97.8	20	83.3	7	100.0
	Multiple	1	2.2	4	16.7	0	0.0
	Total	**46**	**100.0**	**24**	**100.0**	**7**	**100.0**
Parity	No previous births	21	45.7	5	20.8	3	42.9
	One previous birth	15	32.6	10	41.7	2	28.6
	Two previous births	4	8.7	7	29.2	1	14.3
	Three previous births	3	6.5	2	8.3	0	0.0
	Four or more previous births	3	6.5	0	0.0	1	14.3
	Total	**46**	**100.0**	**24**	**100.0**	**7**	**100.0**
Mothers' Indigenous Status	Indigenous	2	4.3	1	4.2	0	0.0
	Non Indigenous	44	95.7	23	95.8	7	100.0
	Total	**46**	**100.0**	**24**	**100.0**	**7**	**100.0**
Marital Status	Married, de facto	39	84.8	18	75.0	4	57.1
	Never married	7	15.2	6	25.0	3	42.9
	Other	0	0.0	0	0.0	0	0.0
	Total	**46**	**100.0**	**24**	**100.0**	**7**	**100.0**
Country of birth	Australia	37	80.4	23	95.8	6	85.7
	Other Oceania	2	4.3	0	0.0	0	0.0
	Europe	3	6.5	1	4.2	0	0.0
	Africa including Mid East	2	4.3	0	0.0	0	0.0
	Asia	2	4.3	0	0.0	1	0.0
	Americas	0	0.0	0	0.0	0	0.0
	Total	**46**	**100.0**	**24**	**100.0**	**7**	**100.0**
Mother's usual place of residence	**ACT residents**	**37**	**80.4**	**20**	**83.4**	**6**	**84.8**
	Northside	15	32.6	7	29.2	3	42.9
	Southside	22	47.8	13	54.2	3	42.9
	Non ACT residents	**9**	**19.6**	**4**	**16.7**	**1**	**14.3**
	New South Wales	9	19.6	4	16.7	1	14.3
	Other states	0	0.0	0	0.0	0	0.0
	Total	**46**	**100.0**	**24**	**100.0**	**7**	**100.0**

Note: Annual rates fluctuate due to the small numbers.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

5 BIRTH FACILITY PROFILES

5.1 Accommodation status

Table 45: Accommodation status for women giving birth, ACT, 1998

		No.	%
Accommodation status	Public	3222	69.4
	Private	1414	30.4
	Not stated	9	0.2
	Total	**4645**	**100.0**

Note: Women giving birth at home have an accommodation status of Private.
Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

5.2 Place of birth

From 1995 to 1998, 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 46: Place of birth, ACT, 1995 - 1998

	1995		1996		1997		1998	
	No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Women giving birth at:								
Public Hospitals	**3528**	**73.1**	**3401**	**72.3**	**3409**	**72.4**	**3390**	**73.0**
TCH-Delivery suite	2234	46.3	2047	43.5	1998	42.4	1963	42.3
TCH-Birth Centre	276	5.7	364	7.7	372	7.9	389	8.4
Calvary Public	1018	21.1	990	21.1	1039	22.1	1038	22.3
Private Hospitals	**1260**	**26.1**	**1275**	**27.1**	**1250**	**26.5**	**1211**	**26.1**
Calvary Private	356	7.4	345	7.3	307	6.5	307	6.6
John James Memorial	904	18.7	930	19.8	943	20.0	904	19.5
Homebirth	**35**	**0.7**	**24**	**0.5**	**46**	**1.0**	**41**	**0.9**
Born before arrival	**7**	**0.1**	**1**	**0.0**	**3**	**0.1**	**3**	**0.1**
Total	**4830**	**100.0**	**4701**	**100.0**	**4708**	**100.0**	**4645**	**100.0**
Babies born at:								
Public Hospitals	**3582**	**73.1**	**3464**	**72.3**	**3467**	**72.5**	**3463**	**73.0**
TCH-Delivery suite	2283	46.6	2099	43.8	2044	42.7	2024	42.7
TCH-Birth Centre	276	5.6	364	7.6	372	7.8	390	8.2
Calvary Public	1023	20.9	1001	20.9	1051	22.0	1049	22.1
Private Hospitals	**1275**	**26.0**	**1299**	**27.1**	**1268**	**26.5**	**1230**	**26.0**
Calvary Private	362	7.4	349	7.3	309	6.5	312	6.6
John James Memorial	913	18.6	950	19.8	959	20.0	918	19.4
Homebirth	**35**	**0.7**	**24**	**0.5**	**47**	**1.0**	**41**	**0.9**
Born before arrival	**7**	**0.1**	**1**	**0.0**	**3**	**0.1**	**3**	**0.1**
Total	**4899**	**100.0**	**4788**	**100.0**	**4785**	**100.0**	**4737**	**100.0**

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. Previously published data for 1995 and 1996 has been corrected in this report.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

Table 47: Type of birth facility where women gave birth, ACT, 1998

		No.	%
Type of birth facility	Hospital	4212	90.7
	Birth Centre	389	8.4
	Home	41	0.9
	Other – Born before arrival	3	0.1
	Total	**4645**	**100.0**

Note: Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

Ninety nine per cent of women in ACT gave birth in a hospital or birth centre. Homebirths accounted for 41 (0.9%) of women giving birth in the ACT in 1998. Women who booked into the Canberra Midwifery Program intending to have their baby at the Birth Centre but giving birth at home without a subsequent admission to hospital, have been classified for this report as homebirths.

5.3 Selected characteristics by place of birth

Table 48: Accommodation status by hospital of birth, ACT, 1998

	The Canberra Hospital		Calvary Public Hospital		Calvary Private Hospital		John James Memorial Hospital	
Accommodation status	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Public	2200	93.5	1003	96.6	0	0.0	0	0.0
Private	144	6.1	34	3.3	307	100.0	904	100.0
Not stated	8	0.3	1	0.1	0	0.0	0	0.0
Total	**2352**	**100.0**	**1038**	**100.0**	**307**	**100.0**	**904**	**100.0**

Note: Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

Table 49: Maternal age by hospital of birth, ACT, 1998

	The Canberra Hospital		Calvary Public Hospital		Calvary Private Hospital		John James Memorial Hospital	
Maternal age	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Less than 20 years	125	5.3	42	4.0	1	0.3	3	0.3
20 – 24 years	418	17.8	183	17.6	15	4.9	25	2.8
25 – 29 years	784	33.3	368	35.5	91	29.6	243	26.9
30 – 34 years	649	27.6	309	29.8	136	44.3	385	42.6
35 – 39 years	312	13.3	120	11.6	52	16.9	212	23.5
40 years or more	64	2.7	16	1.5	12	3.9	36	4.0
Total	**2352**	**100.0**	**1038**	**100.0**	**307**	**100.0**	**904**	**100.0**

Note: Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

Table 49 highlights the differences in age groups between the birth facilities. Women less than thirty are more likely to use the public hospitals (1920, 56.6%). There were 56.4% in this age group who gave birth at The Canberra Hospital and 57.1% at Calvary Public, compared with 34.8% at Calvary Private and 30.0% at John James Memorial Hospital. Women thirty years or over are more likely to use the private hospitals (833, 68.8%). There were 43.6% at The Canberra Hospital and 42.9% at Calvary Public, compared with 65.1% at Calvary Private and 70.1% at John James Memorial Hospital.

Table 50: Plurality by hospital of birth, ACT, 1998

	The Canberra Hospital		Calvary Public Hospital		Calvary Private Hospital		John James Memorial Hospital	
Plurality	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Singleton	2292	97.4	1027	98.9	302	98.4	890	98.5
Multiple births	60	2.6	11	1.1	5	1.6	14	1.5
Total	**2352**	**100.0**	**1038**	**100.0**	**307**	**100.0**	**904**	**100.0**

Source: ACT Maternal/Perinatal Data Collection, 1998 data

Table 51: Parity by hospital of birth, ACT, 1998

	The Canberra Hospital		Calvary Public Hospital		Calvary Private Hospital		John James Memorial Hospital	
Parity	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
No previous births	943	40.1	445	42.9	122	39.7	379	41.9
One previous birth	817	34.7	353	34.0	117	38.1	354	39.2
Two previous births	377	16.0	152	14.6	50	16.3	126	13.9
Three previous births	138	5.9	63	6.1	12	3.9	37	4.1
Four or more previous births	77	3.3	25	2.4	6	2.0	8	0.9
Total	**2352**	**100.0**	**1038**	**100.0**	**307**	**100.0**	**904**	**100.0**

Note: Parity refers to the number of children a woman has borne that are either live births 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, 1998 data

Table 52: Method of birth by hospital of birth, ACT, 1998

	The Canberra Hospital		Calvary Public Hospital		Calvary Private Hospital		John James Memorial Hospital	
Method of birth	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Normal birth	1706	72.5	739	71.2	196	63.8	473	52.3
Vaginal breech	21	0.9	6	0.6	1	0.3	4	0.4
Instrumental birth	249	10.6	101	9.7	50	16.3	183	20.2
Caesarean section	376	16.0	192	18.5	60	19.5	244	27.0
Total	**2352**	**100.0**	**1038**	**100.0**	**307**	**100.0**	**904**	**100.0**

Note: One woman who gave birth at The Canberra Hospital and one at John James Memorial Hospital where method of birth was 'not stated' have been counted as normal births. Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

Also refer to Table 25: Method of birth, ACT, 1998 for overall information. Figures from the hospital morbidity data collection in Table 53 show a fall in the rate of caesarean sections in the ACT over the last six years from 21.6% in 1994-1995 to 20.2 in 1999-2000.

Table 53: Caesarean section rates by type of hospital, ACT, July 1994 - June 2000

	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
1998-1999	606	17.4	301	26.9	907	19.7
1999-2000	606	17.6	309	28.4	915	20.2

Note: The percentages are calculated using the total number of births for each hospital reported in the hospital morbidity data.
Source: ACT Hospital Morbidity Data Collection, July 1994 - June 2000 data

Table 54: Birth status by hospital of birth, ACT, 1998

	The Canberra Hospital		Calvary Public Hospital		Calvary Private Hospital		John James Memorial Hospital	
Birth status	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Live birth	2382	98.7	1042	99.3	310	99.4	914	99.6
Stillbirth	32	1.3	7	0.7	2	0.6	4	0.4
Total	**2414**	**100.0**	**1049**	**100.0**	**312**	**100.0**	**918**	**100.0**

Source: ACT Maternal/Perinatal Data Collection, 1998 data

Table 55: Birthweight by hospital of birth, ACT, 1998

	The Canberra Hospital		Calvary Public Hospital		Calvary Private Hospital		John James Memorial Hospital	
Birthweight	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Less than 1500 grams	90	3.7	5	0.5	2	0.6	2	0.2
1500 to 2499 grams	189	7.8	42	4.0	9	2.9	29	3.2
2500 grams or more	2135	88.4	1002	95.5	301	96.5	887	96.6
Not stated	0	0.0	0	0.0	0	0.0	0	0.0
Total	**2414**	**100.0**	**1049**	**100.0**	**312**	**100.0**	**918**	**100.0**

Note: Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1998 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 55, The Canberra Hospital had 3.7% of babies with a birthweight of 1500grams or less compared with 0.2% to 0.6% at the other hospitals. Also in Table 56, The Canberra Hospital had 4.4% of babies with a gestational age of 31 weeks or less compared with 0.1% to 0.6% at the other hospitals.

Table 56: Gestational age by hospital of birth, ACT, 1998

	The Canberra Hospital		Calvary Public Hospital		Calvary Private Hospital		John James Memorial Hospital	
Gestational age (completed weeks)	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
20 to 27	46	1.9	3	0.3	1	0.3	1	0.1
28 to 31	60	2.5	3	0.3	1	0.3	1	0.1
32 to 36	180	7.5	40	3.8	22	7.1	47	5.1
37 to 41	2041	84.5	977	93.1	279	89.4	863	94.0
42 or more	87	3.6	26	2.5	9	2.9	6	0.7
Not stated	0	0.0	0	0.0	0	0.0	0	0.0
Total	**2414**	**100.0**	**1049**	**100.0**	**312**	**100.0**	**918**	**100.0**

Note: Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

5.4 Length of stay in hospital

An antenatal stay of one day or less indicates that these women were admitted to hospital for the labour and birth, not for antenatal complications. This percentage has remained stable over the past four years, 91.1% in 1995 compared with 92.7% in 1998.

Table 57: Antenatal length of stay in hospital, ACT, 1995 - 1998

	1995		1996		1997		1998	
Antenatal length of stay	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Less than 1 day	2871	60.0	2819	60.3	2804	60.2	2781	60.4
1 day	1489	31.1	1413	30.2	1459	31.3	1488	32.3
2 – 6 days	311	6.5	306	6.5	307	6.6	262	5.7
7 – 13 days	63	1.3	77	1.6	54	1.2	43	0.9
14 – 20 days	30	0.6	36	0.8	17	0.4	11	0.2
21 – 27 days	11	0.2	15	0.3	9	0.2	8	0.2
28 days or more	10	0.2	8	0.2	8	0.2	5	0.1
Not Stated	0	0.0	2	0.0	1	0.0	3	0.1
Total	**4788**	**100.0**	**4676**	**100.0**	**4659**	**100.0**	**4601**	**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

Table 58: Postnatal length of stay in hospital, ACT, 1995 - 1998

	1995		1996		1997		1998	
Postnatal length of stay	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Less than 1 day	86	1.8	112	2.5	143	3.1	142	3.2
1 day	428	9.1	415	9.1	453	9.9	470	10.5
2 days	560	11.9	629	13.8	602	13.2	574	13.2
3 days	730	15.5	840	18.4	846	18.6	874	19.5
4 days	765	16.3	752	16.5	731	16.1	734	16.3
5 days	764	16.3	646	14.2	680	14.9	610	13.6
6 days	634	13.5	540	11.8	507	11.1	474	10.6
7 – 13 days	720	15.3	611	13.4	576	12.6	577	12.8
14 days or more	13	0.3	20	0.4	16	0.4	17	0.4
Total	4700	100.0	4565	100.0	4554	100.0	4492	100.0
Average postnatal stay	**4.33 days**		**4.13 days**		**4.03 days**		**4.00 days**	

Note: Postnatal length of stay includes only hospital admissions not transferred for further care to another hospital.
Source: ACT Maternal/Perinatal Data Collection, 19988 data

Women are staying in hospital for a shorter period of time, with 46.4% of women giving birth in ACT hospitals in 1998 staying for three days or less after the birth, compared with 38.3% in 1995. The average length of postnatal stay in 1998 was 4.0 days, compared with 4.3 days for 1995.

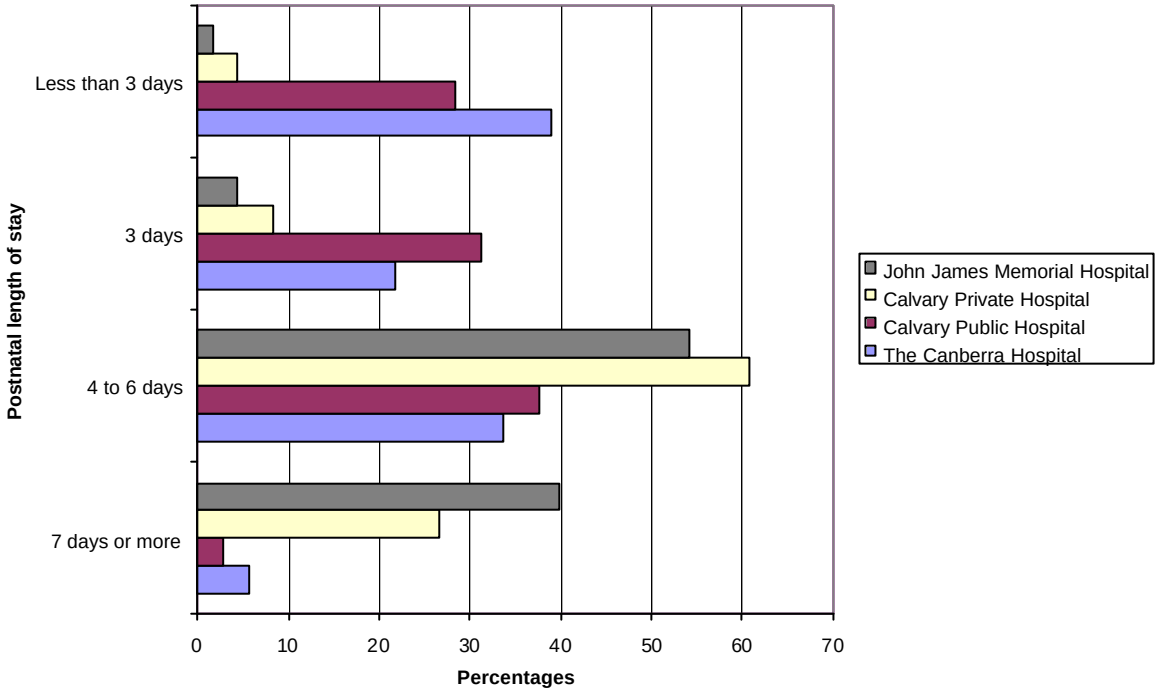
Women giving birth in ACT hospitals for 1998 stayed in hospital on average longer in the private hospitals (5.55 days at Calvary Private and 6.21 at John James Memorial) compared with those women in the public hospitals (3.20 days at The Canberra Hospital and 3.58 days at Calvary Public).

Table 59: Postnatal length of stay by hospital of birth, ACT, 1998

	The Canberra Hospital		Calvary Public Hospital		Calvary Private Hospital		John James Memorial Hospital	
Postnatal length of stay	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Less than 3 days	889	38.9	288	28.5	13	4.3	16	1.8
3 days	496	21.7	315	31.2	25	8.3	38	4.3
4 to 6 days	772	33.8	380	37.6	183	60.8	483	54.1
7 days or more	130	5.7	28	2.8	80	26.6	356	39.9
Total	**2287**	**100.0**	**1011**	**100.0**	**301**	**100.0**	**893**	**100.0**
Average length of stay	**3.20 days**		**3.38 days**		**5.55 days**		**6.21 days**	

Note: Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

Figure 8: Postnatal length of stay by hospital, ACT, 1998



Source: ACT Maternal/Perinatal Data Collection, 1998 data

Table 60: Indigenous mothers' length of stay in hospital, ACT, 1998

		Indigenous		Non Indigenous		Total	
		No.	%	No.	%	No.	%
Antenatal length of stay	Less than 1 day	36	58.1	2745	60.5	2781	60.4
	1 day	19	30.6	1469	32.4	1488	32.3
	2 – 6 days	6	9.7	256	5.6	262	5.7
	7 – 13 days	1	1.6	42	0.9	43	0.9
	14 – 20 days	0	0.0	11	0.2	11	0.2
	21 – 27 days	0	0.0	8	0.2	8	0.2
	28 days or more	0	0.0	5	0.1	5	0.1
	Not Stated	0	0.0	3	0.1	3	0.1
	Total	**62**	**100.0**	**4539**	**100.0**	**4601**	**100.0**
Postnatal length of stay	Less than 1 day	3	5.1	139	3.1	142	3.2
	1 day	12	20.3	458	10.3	470	10.5
	2 days	16	27.1	578	13.0	594	13.2
	3 days	11	18.6	863	19.5	874	19.5
	4 days	7	11.9	727	16.4	734	16.3
	5 days	3	5.1	607	13.7	610	13.6
	6 days	6	10.2	468	10.6	474	10.6
	7 – 13 days	1	1.7	576	13.0	577	12.8
	14 – 20 days	0	0.0	14	0.3	14	0.3
	21 – 27 days	0	0.0	1	0.0	1	0.0
	28 days or more	0	0.0	2	0.0	2	0.0
	Not Stated	0	0.0	0	0.0	0	0.0
	Total	**59**	**100.0**	**4433**	**100.0**	**4492**	**100.0**

Note: For antenatal and postnatal length of stay only hospital births are included; transfers are also excluded for postnatal length of stay.
Due to the rounding of percentages some totals may not equal 100.0
Source: ACT Maternal/Perinatal Data Collection, 1998 data

Table 61: Babies' length of stay in hospital, for live births ACT, 1998

		No.	%
Babies' length of stay	Less than 1 day	137	3.1
	1 day	418	9.6
	2 days	564	12.9
	3 days	850	19.5
	4 days	707	16.2
	5 days	568	13.0
	6 days	440	10.1
	7 – 13 days	582	13.3
	14 – 20 days	43	1.0
	21 – 27 days	19	0.4
	28 days or more	35	0.8
	Not Stated	0	0.0
	Total	**4363**	**100.0**

Note: Babies' length of stay for hospital births with transfers excluded.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

The majority of babies go home with their mothers. Forty five per cent of babies stayed in hospital after birth for 3 days or less compared with 46.4% of women who went home.

Table 62: Discharge status from hospital, ACT, 1998

		No.	%
Mother's discharge status	Discharged	2688	57.4
	Midcall / CMP	1804	39.2
	Transferred	109	2.4
	Total	**4601**	**100.0**
Baby's discharge status	Discharged	2580	55.5
	Midcall / CMP	1761	37.9
	Transferred	285	6.1
	Died	22	0.5
	Total	**4648**	**100.0**

Note: Midcall is an early discharge program with follow up at home by a registered midwife for antenatal or postnatal care. Homebirths and stillbirths have been excluded. Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

Of the 62 indigenous mothers discharged from hospital, 22 (35.5%) discharged home, 37 (59.7%) when on Midcall / CMP and 3 (4.8%) were transferred to another hospital.

Table 63: Discharge status by hospital of birth, ACT, 1998

	The Canberra Hospital		Calvary Public Hospital		Calvary Private Hospital		John James Memorial Hospital	
Mother discharge status	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Discharged	980	41.7	555	53.5	276	89.9	877	97.0
Midcall / CMP	1307	55.6	456	43.9	25	8.1	16	1.8
Transferred	65	2.8	27	2.6	6	2.0	11	1.2
Died	0	0.0	0	0.0	0	0.0	0	0.0
Total	**2352**	**100.0**	**1038**	**100.0**	**307**	**100.0**	**904**	**100.0**
Baby discharge status	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Discharged	920	38.6	552	53.0	225	72.6	883	96.6
Midcall / CMP	1265	53.1	456	43.8	24	7.7	16	1.8
Transferred	177	7.4	33	3.2	61	19.7	14	1.5
Died	20	0.8	1	0.1	0	0.0	1	0.1
Total	**2382**	**100.0**	**1042**	**100.0**	**310**	**100.0**	**914**	**100.0**

Note: Homebirths and stillbirths have been excluded. Due to the rounding of percentages some totals may not equal 100.0.
Source: ACT Maternal/Perinatal Data Collection, 1998 data

6 DATA CORRECTIONS

6.1 Correction to Responsibility for antenatal care tables for 1997 report

Table 64: Responsibility for antenatal care, ACT, 1996 - 1997

		1996		1997	
		No.	%	No.	%
Responsibility for	GP	634	13.5	285	6.1
antenatal care	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	271	5.8
	Shared Care	983	20.9	989	21.0
	Not Stated	107	2.3	24	0.5
	Total	**4701**	**100.0**	**4701**	**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. Previously reported for 1997 in Table 14 on page 17.
Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 65: Responsibility for antenatal care by hospital accommodation status, ACT, 1997

	Public		Private		Total	
	No.	%	No.	%	No.	%
GP	245	7.7	38	2.6	283	6.1
Obstetrician	562	17.6	1349	91.3	1911	40.9
Midwife	56	1.8	1	0.1	57	1.2
Antenatal clinic	1131	35.5	18	1.2	1149	24.6
Shared Care	927	29.1	48	3.2	975	20.9
BC/ CMP	253	7.9	17	1.2	270	5.8
Not Stated	16	0.5	7	0.5	23	0.5
Total	**3190**	**100.0**	**1478**	**100.0**	**4668**	**100.0**

Note: Previously reported for 1997 in Table 15 on page 17.
Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 66: 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	5.7	58	8.5	100	6.4	79	5.2	32	4.9	4	4.0
Obstetrician	25	13.0	131	19.2	616	39.6	744	48.9	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	48.2	243	35.6	383	24.6	294	19.3	123	19.0	18	18.2
Shared Care	51	26.4	202	29.6	346	22.3	290	19.0	90	13.9	9	9.1
BC/CMP	6	3.1	30	4.4	85	5.5	98	6.4	46	7.1	6	6.1
Not Stated	3	1.6	1	0.1	7	0.5	6	0.4	5	0.8	2	2.0
Total	**193**	**100.0**	**683**	**100.0**	**1554**	**100.0**	**1523**	**100.0**	**647**	**100.0**	**99**	**100.0**

Note: Previously reported for 1997 in Table 16 on page 17.
Source: ACT Maternal/Perinatal Data Collection, 1997 data

Table 67: 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	34.1	456	45.2	176	45.8	103	43.5	157	42.8	83	37.2	541	36.1
Midwife	8	2.1	4	0.4	4	1.0	7	3.0	13	3.5	7	3.1	18	1.2
Antenatal clinic	87	23.0	280	27.8	108	28.1	47	19.8	84	22.9	53	23.8	353	23.6
Shared Care	77	20.4	120	11.9	54	14.1	58	24.5	71	19.3	50	22.4	426	28.5
BC/CMP	47	12.4	46	4.6	10	2.6	17	7.2	28	7.6	16	7.2	85	5.7
Not Stated	5	1.3	7	0.7	4	1.0	0	0.0	0	0.0	3	1.3	3	0.2
Total	**378**	**100.0**	**1008**	**100.0**	**384**	**100.0**	**237**	**100.0**	**367**	**100.0**	**223**	**100.0**	**1497**	**100.0**

Note: Previously reported for 1997 in Table 17 on page 18.
Source: ACT Maternal/Perinatal Data Collection, 1997 data

7 ACT MATERNAL PERINATAL DATA COLLECTION

The Clinical Health Outcomes Centre, Epidemiology Unit 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 is negotiating with PRAXA, an international company that delivers Information Technology Solutions, to purchase the new version of OBICARE.

Another goal of the Centre is to produce publications (this is the third 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 7.8, *Committees related to the ACT Maternal Perinatal Data Collection*.

7.1 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.

7.1.1 ACT Midwives Collection Form

Midwives complete 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, collation, analysis and reporting.

The form used for the data collection for 1998 was introduced in May 1995. A revised form was prepared during 1998 and implemented for data collection in January 1999. The ACT Maternal Perinatal Information Network accepted a further revision of the form in November 2000. Layout changes were made and the "Neonatal morbidity requiring treatment" section was removed. Codes were changed for the method of induction and augmentation to comply with the National Health Data Dictionary (NHDD) Version 9. No other data items or codes were changed in the November 2000 revision.

7.1.2 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 midwives caring for the mother and baby enter 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 extracted annually from OBICARE and recoded. This task is the responsibility of the data manager from Clinical Epidemiology and Health Outcomes Centre. Data was extracted from OBICARE for the first time for the 1997 data.

7.1.3 ACT Deaths Data

Australian Bureau of Statistics' ACT Deaths Data was used to identify and provide information on ACT infant deaths (neonatal and post neonatal deaths). Babies born in the ACT who die outside the ACT may not always be identified. The original agreement for the ACT Deaths Data with the Registrar General's Office has expired. A new agreement to obtain identified ACT Deaths Data needs to be reorganised. A meeting with the Registrar General and the Operational Manager is planned for later this year. A submission to the Australian Institute of Health and Welfare's (AIHW) Ethics Committee will be required before a new agreement can be arranged.

7.1.4 ACT Hospital Morbidity Data Collection

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

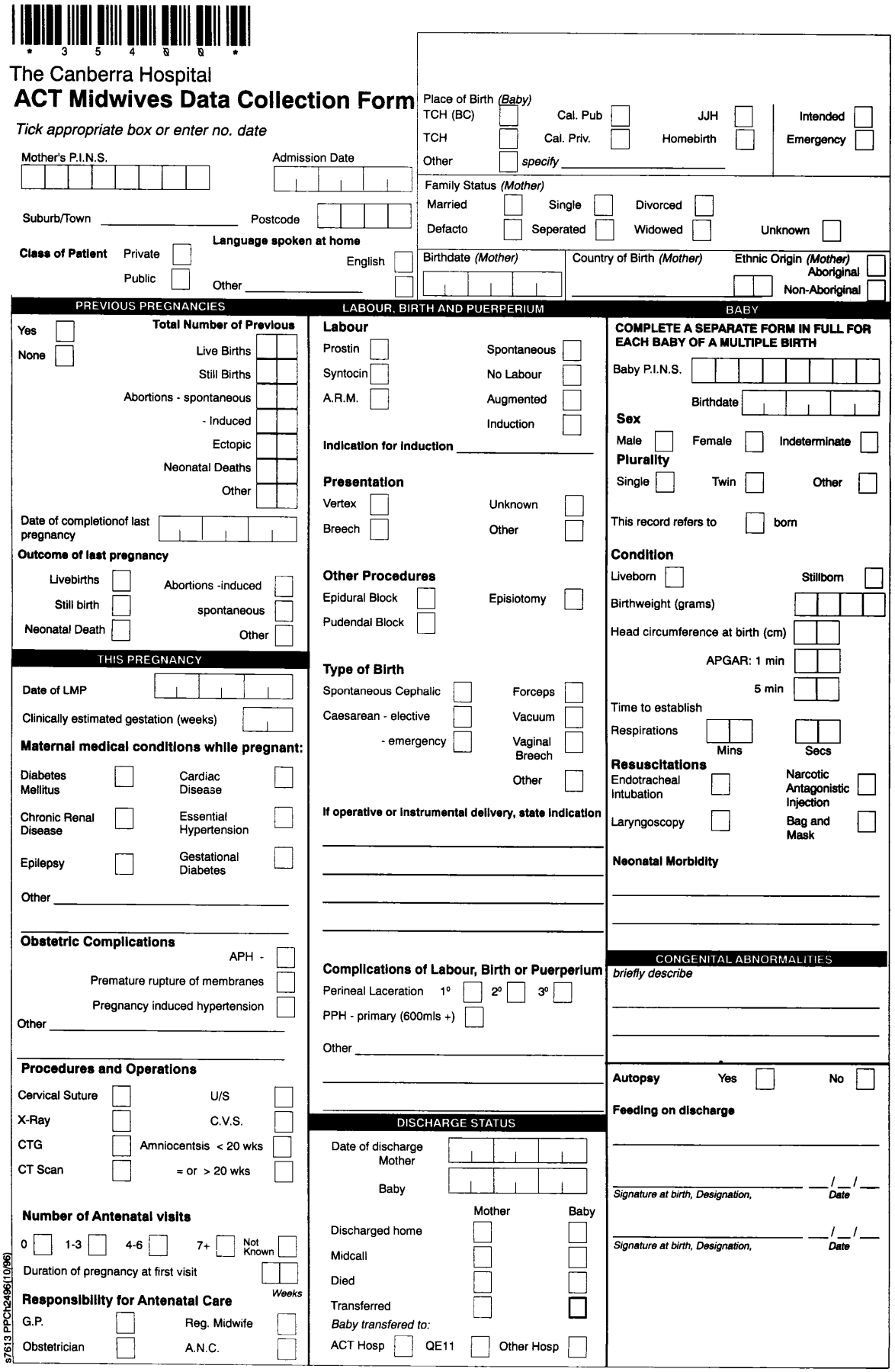
The purposes of linking the data are fourfold:

- 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 an ACT Midwives Data Collection Form for the missing records to ensure the collection is as complete as possible);
- to extract information on birth defects, 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.

The change of coding system from ICD-9-CM to ICD-10-AM occurred in the ACT Hospitals Morbidity Data as of 1 July 1998. The ICD-10-AM data for July to December 1998 was converted to ICD-9-CM codes using the code mapping files available from the National Centre for Classification in Health's Internet site. These files were imported into an Access database and linked to the data to complete the recode.

Figure 9: ACT Midwives Data Collection Form for 1995 - 1998 data



The Canberra Hospital

ACT Midwives Data Collection Form

Tick appropriate box or enter no. date

Mother's P.I.N.S. | Admission Date

Suburb/Town | Postcode

Class of Patient Private / Public

Language spoken at home English / Other

Place of Birth *(Baby)*: TCH (BC) / TCH / Other (specify) / Cal. Pub / Cal. Priv. / JJH / Homebirth / Intended / Emergency

Family Status *(Mother)*: Married / Defacto / Single / Seperated / Divorced / 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 completionof last pregnancy

Outcome of last pregnancy: Livebirths; Still birth; Neonatal Death; Abortions -induced; spontaneous; Other

THIS PREGNANCY

Date of LMP

Clinically estimated gestation (weeks)

Maternal medical conditions while pregnant:

Diabetes Mellitus; Cardiac Disease; Chronic Renal Disease; Essential Hypertension; Epilepsy; Gestational Diabetes; Other

Obstetric Complications

APH - ; Premature rupture of membranes; Pregnancy induced hypertension; Other

Procedures and Operations

Cervical Suture; U/S; X-Ray; C.V.S.; CTG; Amniocentsis < 20 wks; CT Scan; = 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.; Reg. Midwife; Obstetrician; A.N.C.

LABOUR, BIRTH AND PUERPERIUM

Labour

Prostin; Syntocin; A.R.M.; Spontaneous; No Labour; Augmented; Induction

Indication for Induction

Presentation

Vertex; Breech; 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 (600mls +)

Other

DISCHARGE STATUS

Date of discharge: Mother; Baby

	Mother	Baby
Discharged home		
Midcall		
Died		
Transferred		

Baby transfered to: ACT Hosp / QE11 / Other Hosp

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 Respirations: Mins / Secs

Resuscitations: Endotracheal Intubation; Laryngoscopy; Narcotic Antagonistic Injection; Bag and Mask

Neonatal Morbidity

CONGENITAL ABNORMALITIES

briefly describe

Autopsy Yes / No

Feeding on discharge

Signature at birth, Designation, __/__/__ *Date*

Signature at birth, Designation, __/__/__ *Date*

s7613 PPCh2496(10/96)

Figure 10: ACT Midwives Data Collection Form for 1999 - 2000 data

ACT Midwives Data Collection Form

MOTHER

PIN (Mother's)

Mother's Birthdate

Suburb

Postcode

Admission Date

Family Status

Separated 4

Married/Defacto 5

Divorced 3

Never Married 1

Widowed 2

Country of birth

Indigenous Status

Not Indigenous 4

Aust. Aboriginal 1

Torres Strait Islander 2

Class of Patient Public 1

Private 2

PREVIOUS PREGNANCIES

0 No previous pregnancies

1 Yes

	Number	Last pregnancy Outcome
Live Births		1
Neonatal Deaths		2
Stillbirths		3
Spontaneous Abortions		4
Induced Abortions		5
Ectopic Pregnancies		6
Other		7

Date of completion of last pregnancy

Plurality of last pregnancy: Single 1 Multiple 2

THIS PREGNANCY

Gravidity **Parity**

Date of Last Menstrual Period

Clinically estimated gestation (weeks)

Maternal medical conditions while pregnant

Diabetes Mellitus — Epilepsy

Chronic Renal Disease — Cardiac Disease

Essential Hypertension — Other Condition

Obstetric Complications

APH - Placenta Praevia — Abruptio Placenta

APH - Other — Pre-eclampsia

Prelabour Ruptured Membranes

Gestational Diabetes

Threatened Abortion

Threatened Preterm Labour

Procedures and Operations

Number of Ultrasounds

Cardiotocography — Assisted Conception

Chorionic Villus Sampling — X-Ray

Amniocentesis < 20 wks — CT Scan

Amniocentesis > 20 wks — Cervical Suture

Responsibility for Antenatal Care **No of visits**

Obstetrician	1	None	1
General Practitioner	2	1 to 5	2
Midwife (with max 2 GP)	3	6 to 10	3
Antenatal Clinic	4	11 to 15	4
Antenatal Clinic & GP	5	16 to 20	5
Other shared care	6	More than 20	6

Duration of pregnancy at first visit (wks)

s7613 PPCh2496(3/99)

BABY'S PLACE OF BIRTH

The Canberra Hospital 1 — John James Memorial 5

TCH Birth Centre 2 — National Capital Private 6

Calvary Public 3 — Homebirth 7

Calvary Private 4 — Born before arrival 8

Intended place of birth at onset of labour

Hospital 1 — Birth Centre 2 — Home 4

Was mother transferred Antenatally?

No 1 — Prior to labour 2 — During labour 3

Transferred FROM

Planned Homebirth 1 — Another ACT hospital 3

Birth Centre 2 — Interstate hospital 4

Reason for transfer

Did mother smoke during pregnancy? No 2

Yes 1 Average number of cigarettes per day during the second half of pregnancy

LABOUR, BIRTH AND PUERPERIUM

Onset and type of Labour

No Labour 1

Spontaneous 2

Spontaneous + Augmented 3

Induction 4

Method:

A.R.M. 1

Oxytocin 2

Prostaglandins 3

Reason for augmentation or induction

Analgesia / Anaesthesia None 1

Local 2 — Spinal 5 — Nitrous Oxide 2

Pudendal 3 — General 6 — IMI Narcotic 3

Epidural 4 — Other 8

Presentation

Vertex 1 — Face 3 — Other (compound) 8

Breech 2 — Brow 4

Method of Birth

Spontaneous 1 — Caesarean Section 4

Forceps 2 — Vacuum Extraction 5

Vaginal Breech 3 — Other 8

Perineal status

Intact 1 — 3° Laceration 4

1° Laceration 2 — 4° Laceration 7

2° Laceration 3 — Episiotomy 5

Was the vulva, vagina or perineum sutured?

Yes 1 — No 2

Complications of Labour & Birth None

PPH — Fetal Distress

Retained Placenta — Cord Prolapse

Major Infection — Obstructed Labour

TYPE OF FEEDING

	at birth	on discharge
Breast	1	1
EBM	2	2
Formula	3	3

Breast feeding problems

Yes 1 — No 2

(tick more than one type of feeding if needed)

Return this page of the completed form to:
Clinical Health Outcomes Centre
The Canberra Hospital

BABY

PIN (Baby's)

Baby's Birthdate

Birth Condition

Live Birth 1 — Stillbirth 2

Sex

Male 1 — Female 2 — Indeterminate 3

Plurality

Single 1 — Twins 2 — Triplets 3

Birth order (enter 1 if singleton birth)

Birth weight (grams)

Head circumference (cm)

Length (cm)

APGAR: 1 minute — 5 minutes

Resuscitation - Active Measures None 1

Suction 2 — IPPV - bag & mask 4

O_2 Therapy 3 — IPPV - intubation 5

Laryngoscopy 7 — External cardiac massage + ventilation 6

Resuscitation - Drug Therapy None 1

Narcotic antagonist 2 — Adrenalin 4

Sodium Bicarbonate 3 — Other drugs related to resuscitation 5

Admission to SCN / NICU

No 2 — Yes 1 — length of stay in days

Neonatal morbidity requiring treatment

Nervous system — Circulatory system

Respiratory system — Digestive system

Musculoskeletal system — Skin & subcutaneous

Endocrine or Metabolic disease — Chromosomal

Does the baby have birth defect(s)?

Yes 1 — Suspected 3 — No 2

Describe briefly - Complete a more detailed form

Autopsy Yes 1 — No 2 — N/A 3

DISCHARGE STATUS

Mother's Discharge

Baby's Discharge

	Mother	Baby
Discharged home	1	1
Midcall	2	2
Neonatal & Parent Support Service	3	3
Canberra Midwifery Program	4	4
Died	5	5
Transferred to QEII	6	6
Transferred to ACT Hospital	7	7
Transferred to Interstate Hospital	8	8

Midwife completing the form at birth

(print surname & initial) (date)

Midwife completing the form on discharge

(print surname & initial) (date)

Figure 11: ACT Midwives Data Collection Form for 2001 data

ACT Midwives Data Collection Form

MOTHER

PIN (Mother's)

Mother's Birthdate

Suburb

Postcode

Admission Date

Family Status
Married/Defacto 5 | Never Married 1 | Separated 4 | Divorced 3 | Widowed 2

Country of birth _____

Indigenous Status
Aust. Aboriginal 1 | Torres Strait Islander 2 | Not Indigenous 4

Class of Patient Public 1 | Private 2

PREVIOUS PREGNANCIES

0 No previous pregnancies
1 Yes

	Number	Last pregnancy Outcome
Live Births		1
Neonatal Deaths		2
Stillbirths		3
Spontaneous Abortions		4
Induced Abortions		5
Ectopic Pregnancies		6

Date of completion of last pregnancy

Plurality of last pregnancy: Single 1 | Multiple 2

THIS PREGNANCY

Gravidity | **Parity** (exclude this preg)

Date of Last Menstrual Period

Clinically estimated gestation (weeks)

Maternal medical conditions while pregnant
Diabetes Mellitus | Epilepsy
Chronic Renal Disease | Cardiac Disease
Essential Hypertension | Other Condition

Obstetric Complications
APH - Placenta Praevia | Abruptio Placenta
APH - Other | Pre-eclampsia
Prelabour Ruptured Membranes
Gestational Diabetes
Threatened Abortion
Threatened Preterm Labour

Procedures and Operations
Number of Ultrasounds
Cardiotocography | Assisted Conception
Chorionic Villus Sampling | X-Ray
Amniocentesis < 20 wks | CT Scan
Amniocentesis > 20 wks | Cervical Suture

Responsibility for Antenatal Care — **No of visits**

Obstetrician	1	None	1
General Practitioner	2	1 to 5	2
Midwife (with max 2 GP)	3	6 to 10	3
Antenatal Clinic	4	11 to 15	4
Antenatal Clinic & GP	5	16 to 20	5
Other shared care	6	More than 20	6

Duration of pregnancy at first visit (wks)

F00103(1100) S7613 h2496

BABY'S PLACE OF BIRTH

The Canberra Hospital 1 | John James Memorial 5
TCH Birth Centre 2 | National Capital Private 6
Calvary Public 3 | Home 7
Calvary Private 4 | Born before arrival 8

Intended place of birth at onset of labour
Hospital 1 | Birth Centre 2 | Home 4

Was mother transferred Antenatally?
No 1 | Prior to labour 2 | During labour 3

Transferred FROM
Planned Homebirth 1 | Another ACT hospital 3
Birth Centre 2 | Interstate hospital 4

Reason for transfer

Did mother smoke during pregnancy? No 2
Yes 1 Average number of cigarettes per day during the second half of pregnancy

LABOUR, BIRTH AND PUERPERIUM

Onset and type of Labour
No Labour 3 | Spontaneous 1 | Spontaneous + Augmented 4 | Induction 2

Method:
Oxytocin 1 | Prostaglandins 2 | A.R.M. 3 | Other 4

Reason for augmentation or induction

Analgesia
None 1 | Nitrous Oxide 2 | IMI Narcotic 3 | Epidural 4 | Spinal 5 | Other 8

Anaesthesia
None 1 | Local 2 | Pudendal 3 | Epidural 4 | Spinal 5 | General 6 | Other 8

Presentation
Vertex 1 | Face 3 | Other (compound) 8
Breech 2 | Brow 4

Method of Birth
Spontaneous 1 | Forceps 2 | Vaginal Breech 3
Caesarean Section 4 | Vacuum Extraction 5 | Other 8

Perineal status
Intact 1 | 1° Laceration 2 | 2° Laceration 3
3° Laceration 4 | 4° Laceration 7 | Episiotomy 5

Was the vulva, vagina or perineum sutured?
Yes 1 | No 2

Complications of Labour & Birth None
PPH | Retained Placenta | Major Infection
Fetal Distress | Cord Prolapse | Obstructed Labour

Return this page of the completed form to:
Clinical Epidemiology and Health Outcomes Centre
The Canberra Hospital

BABY

PIN (Baby's)

Baby's Birthdate

Birth Condition
Live Birth 1 | Stillbirth 2

Sex
Male 1 | Female 2 | Indeterminate 3

Plurality
Single 1 | Twins 2 | Triplets 3

Birth order (enter 1 if singleton birth)

Birth weight (grams)

Head circumference (cm)

Length (cm)

APGAR: 1 minute | 5 minutes

Resuscitation - Active Measures None 1
Suction 2 | IPPV - bag & mask 4
O_2 Therapy 3 | IPPV - intubation 5
Laryngoscopy 7 | External cardiac massage + ventilation 6

Resuscitation - Drug Therapy None 1
Narcotic antagonist 2 | Adrenalin 4
Sodium Bicarbonate 3 | Other drugs related to resuscitation 5

Admission to SCN / NICU
No 2 | Yes 1 | length of stay in days

Does the baby have birth defect(s)?
Yes 1 | Suspected 3 | No 2
Describe briefly - Complete a more detailed form

TYPE OF FEEDING

	at birth	on discharge
Breast	1	1
EBM	2	2
Formula	3	3

Breast feeding problems: Yes 1 | No 2

(tick more than one type of feeding if needed)

DISCHARGE STATUS

Mother's Discharge

Baby's Discharge

	Mother	Baby
Discharged home	1	1
Midcall	2	2
Neonatal & Parent Support Service	3	3
Canberra Midwifery Program	4	4
Transferred to QEII	6	6
Transferred to ACT Hospital	7	7
Transferred to Interstate Hospital	8	8
Died	5	5

Autopsy Yes 1 | No 2 | N/A 3

Midwife completing the form at birth
_____ ___/___/___
(print surname & initial) (date)

Midwife completing the form on discharge
_____ ___/___/___
(print surname & initial) (date)

7.2 Record linkage

Record linkage of the ACT 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 cannot 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 98.3% for both. 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 the mother's record.

In 1998, the proportion of linked mothers and babies records from the available records was 99.0% and 99.9% respectively. As the percentage of linked records was high, no analysis was done to compare the linked and unlinked groups.

7.3 Data items

7.3.1 Current data items

Current data items from ACT Midwives Data Collection Form are listed below in Table 68. 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 by 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 birth defects ICD-9-CM codes.

Table 68: List of data items from ACT Midwives Data Collection Form, 1994 - 1998

NO.	DATA ITEM
1	Form number – stamped on form when received by CEHOC
2	Mother's PIN (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: Live births
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
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 PIN (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

7.3.2 Minimum data items set

Listed in Table 69 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) that 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 69: Minimum Perinatal Data Set

KnowledgebaseID NHDD version 9	Implementation Date in NHDD 9	ACT data to NPSU from:	New codes from:	Agreed Start Date for all state	NHDD Description
000050	Jul 1997	Jan 1991		Jan 1997	Establishment Identifier
000127	Jul 1997	Jan 1991		Jan 1996	Personal Identifier
000149	Jul 1997	Jan 1991		Jan 1997	Sex - Baby
000036	Jul 1997	Jan 1991		Jan 1996	Date of Birth - Baby
000036	Jul 1997	Jan 1991		Jan 1996	Date of Birth - Mother
000035	Jul 1997	Jan 1991	1* 1994	Jan 1997	Country of Birth - Mother
000001	Jul 1997	Jan 1991	2* 1999	Jan 1997	Indigenous Status - Mother
000089	Jul 2000	Jan 1991	1994	Jan 1998	Marital Status - Mother
000378	Jul 1997	Jan 1991	3* 1998	Jan 1998	Area of Usual Residence
000008	-	Jan 1991		Jan 1999	Admission Date - Mother
000043	-	Jan 1991		Jan 1999	Separation Date – Mother
000043	-	Jan 1991		Jan 1996	Separation Date – Baby
000148	-	4* Jan 1991		Jan 1997	Mode of Separation – Mother
000021	Jul 1997	Jan 1991		Jan 1996	Birthweight
000159	Jul 1997	Jan 1991	1999	Jan 1996	State or Territory of Birth
000003	Jul 2000	Jan 1991		Jan 1996	Actual Place of Birth
000056	Jul 1997	Jan 1991		Jan 1996	Date of Last Menstrual Period
000059	Jul 1997	Jan 1991		Jan 1996	Gestational Age
000113	Jul 2000	Jan 1991		Jan 1997	Onset of Labour
000133	-	Jan 1991	1999	Jan 2000	Presentation
000093	Jul 1997	Jan 1991	1999	Jan 1997	Method of Birth
000125	-	Jan 1998	2001	Jan 2000	Perineal status
000020	Jul 1997	Jan 1991		Jan 1997	Plurality
000019	Jul 1997	Jan 1991		Jan 1996	Birth Order
000159	Jul 1997	Jan 1991		Jan 1996	Birth Condition or Status
000344	-	Jan 1991		Jan 1998	Apgar at 1 minute

KnowledgebaseID NHDD version 9	Implementation Date in NHDD 9	ACT data to NPSU from:	New codes from:	Agreed Start Date for all state	NHDD Description
000345	-	Jan 1991		Jan 1998	Apgar at 5 minutes
000145	-	Jan 1991	1999	Jan 2000	Resuscitation of baby
000077	-	Jan 1991		Jan 1996	Intended place of birth
000171	-	Jan 1993	5* 2001	Jan 2000	Type of induction
000167	Jul 2000	Jan 1993	2001	Jan 2000	Type of augmentation
000014	-	Jan 1999		Jan 2000	Analgesia administered
000013	-	Jan 1999		Jan 2000	Anaesthesia administered
000078	-	Jan 1999		Jan 2000	Admission to SCN/NICU
000030	-	6* Jan 1994		Jan 2000	Congenital malformations

Note: 1* Maternal country of birth codes changed from ASCCSS 2 digit codes to 4 digit codes. 2* Will provide the new codes for 1999 data. 3* SLA codes provided from 1998 data. 4* NPSU codes provided. NPDDC working on NHDD submission. 5* Type of induction and Type of augmentation not requested by NPSU using NHDD codes. ACT has provided the requested codes since 1993 and has changed the form and data entry from 2001 to comply with the NHDD Version 9. 6* Birth defect data extracted from Hospital Morbidity Data Collection from 1994, previously provided as paper copy.
Source: National Perinatal Data Development Committee, National Health Data Dictionary (NHDD) and ACT Maternal Perinatal Data Collection

7.4 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 70: Recodes from OBICARE for the responsibility of antenatal care, ACT, 1997 - 1998

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
Private GP Obstetrician	GP
Public Hospital Midwives Clinic	Midwife
Private Midwifery Practitioner	Midwife
Private Specialist Obstetrician	Obstetrician
Shared Care with Birth Centre	Shared Care
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

Note: Shared care with Birth Centre was recoded to Birth Centre / CMP and reported on for 1997 data. Recoding error corrected for both 1997 and 1998 data.

Table 71: Recodes from ACT MDCF for responsibility of antenatal care, ACT, 1997 - 1998

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

7.5 The database

The Maternal Perinatal Data Collection (MPDC) is managed in an Access database. All data linkage and data quality issues are 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.

7.6 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 have been addressed on the new form that was implemented in January 1999.

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 the database. 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.

7.7 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 1998 are held in this collection.

7.8 Committees related to the ACT Maternal Perinatal Data Collection

7.8.1 General structure

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

Figure 12: Committee Structure for Maternal Perinatal Health Information, ACT, 2001

7.8.2 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 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;
   - regularly 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 for 1997 to 1999 data; and
   - 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, Housing and Community Care;
- report on the progress of the network and discuss data collection issues within each representative's area with both their supervisors and fellow workers.

7.8.3 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, Housing and Community Care.

The committee is currently chaired by the New South Wales representative with the National Perinatal Statistics Unit providing the secretarial support. The committee meets annually in Sydney. The next meeting has been set for August 2001.

7.8.4 National Health Data Committee

The National Health Data Committee[7] (NHDC) is a standing committee of the National Health Information Management Group http://www.aihw.gov.au/committees/health/healthmgmt.html (NHIMG). 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/nhdd09/index.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 from:

- 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.*

8 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 though the mother's abdomen.[8]

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 the 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 defects are the structural or anatomical defects that are present at or existing from the time of birth, usually resulting from abnormal development in the first trimester of pregnancy. Previously reported as Congenital abnormalities or anomalies or malformations.

Birth status is the condition of the baby immediately after birth. The status may be a live birth 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.

Breech birth – see Vaginal breech on page 63.

Caesarean section is an operative birth through an abdominal incision.

Canberra Midwifery Program (CMP) (previously the Community Midwives Program) 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)[9].

Chorionic villus sampling (CVS) is the aspiration of a sample of chorionic tissue for biochemical and chromosome analysis.[10]

Confinement refers to a pregnancy resulting in at least one birth. 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 anomalies or ***abnormalities*** are those malformations that are present at or existing from the time of birth. In this publication the term birth defects has been used instead of congenital anomalies.

Congenital malformations are the structural or anatomical abnormalities that are present at birth, usually resulting from abnormal development in the first trimester of pregnancy. In this publication the term birth defects has been used instead of congenital malformations.

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 though an abdominal incision performed before the onset of labour.

Emergency caesarean section refers to an operative birth though 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.

Forceps refers to a cephalic vaginal birth where forceps are applied to the head to assist with the birth.

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. The CM stands for Country Modification.

ICD 10 (or ICD-10-AM*)* refers to the International Classification of Diseases Tenth Revision as developed by the World Health Organisation. The AM stands for Australian Modification. In the ACT and most other states in Australia, ICD-10-AM codes were introduced to code hospital (morbidity) inpatient data in July 1998.

Incidence refers to the number of instances of illness commencing, or of persons falling ill, during a given period in a specified population[11].

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 the termination of 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 live birth 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 follow up at home by a registered midwife for antenatal or postnatal care.

Miscarriage is a common term used to mean spontaneous abortion. See definition for spontaneous abortion on page 63.

Morbidity is a diseased state or the ratio of sick to well in the community[12].

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 live birth or stillbirth.

Multiple birth refers to pregnancy resulting in more than one birth. For example twins, triplets etc.

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.

Normal birth refers to a spontaneous cephalic vaginal birth. The term only relates to the birth method excluding other methods of birth such as forceps, vacuum extraction or Caesarean section.

Parity refers to the number of children a woman has borne that are either live births 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 a pregnancy. On this basis a pregnancy may be classified as single or multiple[13].

Post neonatal 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 fetus[14] (a fetus of less than 400 grams birthweight or less than 20 weeks gestation). These may be classified as complete or incomplete.

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.

9 NATIONAL AND STATE PUBLICATIONS

9.1 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 1998
- 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 Natasha Nassar
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 is at: http://www.aihw.gov.au/publications/health/index.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 live births for the mother's usual state of residence.

9.2 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: ACT Maternal Perinatal 1997 Tables
http://136.153.4.27/healthinfo/healthseries/hs25.pdf

Maternal and Perinatal Status, ACT, 1994 - 96
http://136.153.4.27/healthinfo/healthseries/hs18.pdf

Perinatal Health Publications (use search topic option)
http://www.health.act.gov.au/healthinfo/index.html

New South Wales: 1999 Mothers and Babies Report
http://www.health.nsw.gov.au/public health/mdc/mdcrep99.html

1998 Mothers and Babies Report
http://www.health.nsw.gov.au/public health/mdc/mdcrep98.html

Internet site for a comprehensive list of NSW Health publications
http://www.health.nsw.gov.au/public_health/pubs.html

Victoria: Births in Victoria 1996 - 1998

Births in Victoria 1992 - 1996
http://hna.ffh.vic.gov.au/phb/hce/peri/biv/index.html

Birth Defects in Victoria, 1983 - 1998

The Consultative Council on Obstetrics and Paediatrics Mortality and Morbidity, Annual Report 1997
http://hna.ffh.vic.gov.au/phb/hce/peri/peri.html

Queensland: Perinatal Statistics, Queensland, 1998
http://www.health.qld.gov.au/hic/1998peri/home.htm

Perinatal Statistics, Queensland, 1997
http://www.health.qld.gov.au/publications/perinatal/3815_perinatal_stats.htm

Maternal, Perinatal and Paediatric Mortality in Queensland 1998
http://www.uq.net.au/qcopmm/pdf/qcopmm98.pdf

Western Australia:	Perinatal Statistics in Western Australia. Sixteenth Annual Report of the Western Australian Midwives' Notification System 1998 Health Department of Western Australia, Perth, WA 2000 The Birth Defects Registry of WA, 1980 – 1999, October 2000 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 1999 Pregnancy Outcomes in South Australia 1998 Maternal, Perinatal and Infant Mortality in SA 1999 Maternal, Perinatal and Infant Mortality in SA 1998
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Contacts for information on midwives data collections or publications from the states and territories are:

Australian Capital Territory:	Maureen Bourne Clinical Epidemiology and Health Outcomes Centre Population Health ACT Department of Health, Housing and Community Care
New South Wales:	Lee Taylor Epidemiology and Surveillance Branch NSW Health Margaret Pym Information Management and Clinical Systems Branch NSW Health
Victoria:	Jane Halliday and Odette Taylor Victorian Perinatal Data Collection Unit Victoria Health

Queensland:	Sue Cornes and Meegan Snell Data Services Unit Health Information Centre Queensland Department of Health
Western Australia:	Vivien Gee and Margo O'Neill Health Information Centre Health Department of Western Australia
South Australia:	Annabelle Chan, Joan Scott and Rosemary Keane Pregnancy Outcome Unit Epidemiology Branch Department of Human Services
Northern Territory:	Edouard d'Espaignet, Mary Anne Measey and Paul Gladigau Northern Territory Midwives Collection Epidemiology Branch Territory Health Services
Tasmania:	Maria Grandovec Department of Obstetrics and Gynaecology University of Tasmania

10 HEALTH SERIES PUBLICATIONS

The Population Information Unit of the Department of Health, Housing and Community Care maintains and adds to 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 to health status. Publications prepared after Health Series Number 13 are available on the Internet at

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, Carol Kee, 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 Phongkham, December 1999

Number 25 *ACT Maternal and Perinatal 1997 Tables,* Maureen Bourne, March 2000

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