



# Maternal and Perinatal Health in the ACT 1999 - 2008

Health Series
Number 51

Epidemiology Branch
Population Health Division
ACT Health

January 2011

# **Acknowledgements**

The report author, Louise Freebairn and managers of the ACT Maternal Perinatal Data Collection, Maureen Bourne and Rosalind Sexton, from the ACT Health Epidemiology Branch (EB), would like to acknowledge the assistance of the staff from the Epidemiology Branch. The report was authorised by the ACT Chief Health Officer, Dr Charles Guest.

The authors acknowledge the assistance of the ACT Maternal Perinatal Information Network (ACT MPIN) for their support and expert advice in the development of this report. The network members are Professor David Ellwood (Chairperson), Dr Alison Kent, Dr Sue Packer, Dr David Knight, Ms Christine Falez, Ms Liz Bishop, Ms Dianne Deer, Ms Liz Sharpe, Ms Deborah Schaler, Ms Josephine Smith, Ms Louise Edmonds, Ms Alison Chandra, Ms Margie Perkins, Ms Joanne Baumgartner, Ms Sue Byrnes, Ms Louise Freebairn, Ms Linda Halliday, Ms Tracey Docherty and Ms Rosalind Sexton.

Many thanks to the midwives in the ACT for providing most of the information contained in this report by completing the ACT Midwives Data Collection Form or by entering the data directly into a computer information system.

This publication has drawn on the expertise and knowledge of several individuals and sections within ACT Health including The Canberra Hospital, Calvary Hospital, Community Health and Calvary John James Hospital.

The authors are particularly grateful to colleagues in the Medical Records Department of each of the ACT's hospitals for their timely responses to data requests and to the Communications and Marketing Unit within ACT Health for assistance with publishing.

ISSN 1325-1090

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Produced for ACT Health by the Epidemiology Branch and printed by Communications and Marketing Unit on recycled paper. Publications in the Health Series can be accessed from the ACT Health Internet Homepage by using the link to publications and ACT Health publications index.

Enquiries about this publication should be directed to Epidemiology Branch, Building 5 Level 1, The Canberra Hospital PO Box 11, Woden ACT 2606 or via email to louise.freebairn@act.gov.au or healthinfo@act.gov.au.

Suggested citation: Epidemiology Branch, ACT Health (2011) Maternal and Perinatal Health in the ACT, 1999-2008, ACT Government, Canberra ACT.

ACT Government telephone: Canberra 13ACT1 or 132281. Homepage at http://www.act.gov.au

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# **ABBREVIATIONS**

ABS Australian Bureau of Statistics
ACT Australian Capital Territory

ACT MPIN ACT Maternal Perinatal Information Network
AHMAC Australian Health Ministers' Advisory Council
AIHW Australian Institute of Health and Welfare

ASCCSS Australian Standard Classification of Countries for Social Statistics

ASGC Australian Standard Geographical Classification

BOS Birth Outcomes System

CMIP Core Maternity Indicator Project

CNC Centre for Newborn Care

EWG Expert Working Group (Core Maternity Indicator Project)

HDSC Health Data Standards Committee

ICD-10-AM International Statistical Classification of Diseases and Related Health Problems,

10th Revision, Australian modification

LSAC Longitudinal Study of Australian Children

METeOR Metadata online registry

NHDD National Health Data Dictionary

NHIMPC National Health Information Management Principal Committee

NICU Neonatal Intensive Care Unit NMDS National Minimum Data Set

NPDC National Perinatal Data Collection

NPDDC National Perinatal Data Development Committee

NPSU AIHW National Perinatal Statistics Unit

NSW New South Wales
NT Northern Territory

OBICARE Obstetric Care Information Database
PANDA Perinatal And Newborn Data Access

PSANZ-NDC Perinatal Society of Australia and New Zealand Neonatal Death Classification
PSANZ-PDC Perinatal Society of Australia and New Zealand Perinatal Death Classification

Qld Queensland SA South Australia

SACC Standard Australian Classification of Countries
SIMC Statistical Information Management Committee

Tas Tasmania

TCH The Canberra Hospital

UNSW University of New South Wales

Vic Victoria

WA Western Australia

WHO World Health Organization

## **EXECUTIVE SUMMARY**

This report provides an overview of maternal and perinatal health trends in the ACT primarily from 1999 to 2008. The data presented are primarily sourced from the ACT Maternal Perinatal Data Collection (ACT MPDC). A detailed description of the collection and methodology used is provided in Section 6.

This is the seventh report in a series on Maternal and Perinatal Health in the ACT produced by the Epidemiology Branch of the Population Health Division, ACT Health in consultation with the ACT Maternal Perinatal Information Network.

# Women who gave birth and babies born in the ACT

The total number of babies born increased by 22% between 1999 and 2008. The largest increases were seen between 2005 and 2008. In 2008, 5,589 women gave birth to 5,705 babies in the ACT.

# **Fertility rates in the ACT**

Changes in the age-specific fertility rates (ASFR) over time indicate that women in the ACT are increasingly delaying child bearing. Fertility rates peaked among women aged 25 to 29 years until the mid 1990's, when the peak moved to the 30 to 34 year age group.

The total fertility rates (TFR) and crude birth rates for the ACT resident population decreased until 2001, however it has increased steadily since 2004. The 2008 rates indicate that ACT women give birth to an average of 1.7 babies during their lives. The ACT rate remains slightly lower than the Australian rate (2.0).

Geographical changes in fertility patterns indicate that the Tuggeranong and Gungahlin Hall subdivisions experienced higher TFR than the older subdivisions of North Canberra/Belconnen and Woden/Weston Creek/South Canberra. A shift in ASFR for the subdivisions of Tuggeranong and Gungahlin/Hall has occurred and fertility now peaks in the 30 to 34 year age group across the ACT.

#### Place of birth

Almost all women gave birth in a hospital or birth centre between 1999 and 2008 (2008: 99.5%). Between 1999 and 2008 the percentage of women who gave birth in private hospitals in the ACT increased from 22% to 35%.

#### **Maternal characteristics**

The majority of women who gave birth in the ACT were ACT residents (84% in 2008). However, the percentage of non-ACT resident women who gave birth in the ACT increased from 12% in 1999 to 16% in 2008. Over 99% of these women were from NSW, many of whom access specialist obstetric services in the ACT for high-risk and multi-fetal pregnancies.

The average age of women who gave birth in the ACT has increased over time from 28.6 years in 1991 to 30.8 years in 2008. Births to teenagers accounted for 2% of ACT resident in 2008. This was significantly lower than Australia.

The percentage of women who reported smoking during pregnancy decreased slightly from 15% in 2000 to 13% in 2008. Women in younger age groups were significantly more likely report smoking during pregnancy, with smoking rates for teenage women who gave birth approaching 50%. This suggests that the slight decrease in smoking rates may be attributed to the increase in the proportion of women in older age groups (with lower smoking rates) giving birth.

# Multiple births

The ACT had the highest percentage of multiple births in Australia in 2007, 2.1% compared with 1.6% for Australia. Higher percentages of multiple births were evident among non-ACT resident women who gave birth in the ACT reflecting obstetric service models in the surrounding areas of NSW with non-ACT residents accessing specialist ACT services for multi-fetal pregnancies. The percentage of multiple births for ACT residents was 1.8%.

#### Labour and birth

There was a significant decrease in the percentage of women having a spontaneous onset of labour in the ACT between 1997 (66%) and 2008 (60%). Over the same period there was a significant increase in the percentage of women who had no labour.

Although the majority of women who gave birth in the ACT from 1997 to 2008 had a normal (vaginal) birth, the proportion has decreased significantly over time. Over the same period the percentage of women who had a caesarean section birth has increased significantly (from 20% to 30%). Women aged 35 years or more had the highest percentage of caesarean section births between 1997 and 2008. This age group also experienced the largest increase (from 27% to 39%).

# Postnatal stay in hospital

Average postnatal stay in hospital has decreased over the past 10 years from 4 days in 1999 to 3 days in 2008. Method of birth contributes to the length of postnatal stay needed with women who have had a caesarean section staying on average for 4 days in 2008 and women who had a normal birth staying for an average of 2 days.

# **Baby characteristics**

The ACT continues to follow the national trend with male births slightly exceeding female births.

The majority of babies born in the ACT each year were between 2,500 and 3,999 grams birthweight. The percentage of babies within each birthweight category has remained stable over time. The percentage of ACT resident live born babies of low-birthweight in 2008 (less than 2,500 grams) (4.9%) was significantly lower than the Australian percentage (6.1%).

#### Perinatal deaths

Between 1995 and 2008, the perinatal death rate fluctuated from a low of 8.2 per 1,000 births in 2002 to a high of 13.9 in 1998. The ACT perinatal death rate neither increased significantly between 1999 and 2008 nor differed significantly from the Australian rate.

# Maternal and perinatal health of Aboriginal and Torres Strait Islander women

Aboriginal and Torres Strait Islander women accounted for 1.5% of all births in the ACT. Approximately one quarter of these women were not usual residents of the ACT.

Aboriginal and Torres Strait Islander women have higher fertility in younger age groups than non-Aboriginal women with ASFR peaking in the 25 to 29 year age group. The teenage fertility rate for Aboriginal and Torres Strait Islander women was four times higher than the teenage fertility rate for non-Aboriginal women in the ACT.

Almost half of Aboriginal and Torres Strait Islander women reported smoking during pregnancy. This was significantly higher than the percentage of non-Aboriginal women who reported smoking during pregnancy (12%). Approximately three quarters of Aboriginal and Torres Strait Islander teenage women who gave birth reported smoking during pregnancy.

The percentage of low-birthweight babies born to Aboriginal and Torres Strait Islander women was significantly higher than the percentage of low-birthweight babies born to non-Aboriginal women in the ACT between 2000 and 2008. The percentage of low-birthweight babies born to Aboriginal and Torres Strait Islander women who smoked during pregnancy was significantly higher compared to the percentage of low-birthweight babies born to Aboriginal and Torres Strait Islander women who did not smoke during pregnancy.

# 1. TRENDS IN ACT MATERNAL AND PERINATAL HEALTH, 1999 - 2008

This report provides information on fertility trends, maternal and perinatal health and service utilisation in the ACT for the years 1999 to 2008. Earlier years of data have been included where appropriate and available. Where possible comparisons have been made with national figures and trends given over a ten-year period. Comparisons have also been made between ACT residents and non-ACT residents, public and private hospitals.

This report is the seventh in the series on maternal and perinatal health produced by the Population Health Division, ACT Health, in consultation with the ACT Maternal Perinatal Information Network. The data presented were primarily sourced from the ACT Maternal and Perinatal Data Collection, which is maintained by the Epidemiology Branch (EB). See Section 6 for more information on the collection.

This report examines the characteristics of women who gave birth and babies born in the ACT. It includes information about women who do not reside in the ACT but gave birth within its geographic boundary. The report does not include information on ACT women who gave birth outside the ACT. However during 2008, 99.0% of ACT resident women who gave birth did so in the ACT. Forty six women gave birth in other jurisdictions. [1]

Where population rates are presented, these represent ACT residents who have given birth in the ACT. Unless otherwise specified, all other statistics represent all births in the ACT, including those to usual residents of the surrounding Australian Capital Region.

# 1.1. Women who gave birth and babies born

ACT births accounted for 1.9% of all births nationally in 2007.[2] Table 1 presents the number of women who gave birth and babies born in the ACT from 1995 to 2008. The total number of babies born increased by 16% over this time period.

Table 1: Women who gave birth and babies born, ACT, 1995 - 2008

	Women giving birth	Babies born
1995	4,830	4,899
1996	4,701	4,788
1997	4,708	4,785
1998	4,645	4,737
1999	4,586	4,675
2000	4,684	4,774
2001	4,414	4,513
2002	4,708	4,804
2003	4,784	4,876
2004	4,799	4,926
2005	4,995	5,088
2006	5,354	5,485
2007	5,420	5,536
2008	5,589	5,705

Note: Babies born includes live births and fetal deaths to both ACT and non-ACT resident women.

Source: ACT Maternal and Perinatal Data Collection, 1995 - 2008

Figure 1 presents the number of babies born each year from 1995 to 2008. The number of babies born decreased steadily from 4,899 babies born in 1995 to 4,513 in 2001. Since 2001 the number of babies born per year has increased by over 1,200 to 5,705 in 2008. An increase of almost 400 births occurred in 2006.

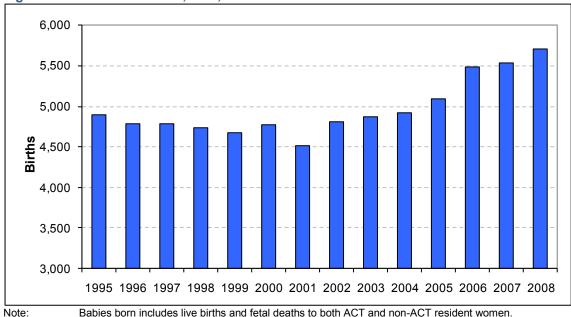


Figure 1: Number of births, ACT, 1995 - 2008

Source:

Babies born includes live births and fetal deaths to both ACT and non-ACT resident women. ACT Maternal and Perinatal Data Collection, 1995 - 2008

# 1.2. Fertility rates

The total fertility rate (TFR) for the ACT resident population has increased slightly over time with 1,605 births per 1,000 women in 2004 and 1,738 in 2008 (Table 2). The 2008 rates indicate that ACT women give birth to an average of 1.7 babies during their lives.

Table 2: Number of births, age-specific fertility rates and total fertility rates for all live births, ACT residents, 2004 - 08

	2	004	2	2005	2	006	2	2007	2	800
Age Groups	No.	ASFR								
15 - 19 years*	107	9.1	114	9.5	105	8.8	121	10.1	92	7.7
20 - 24 years	451	32.9	470	32.8	489	33.8	498	34.1	488	33.9
25 - 29 years	1,086	86.3	1,110	84.4	1,202	87.9	1,256	87.7	1,237	83.6
30 - 34 years	1,520	117.7	1,566	117.8	1,647	125.6	1,625	123.8	1,677	128.3
35 - 39 years	758	62.2	830	66.5	935	73.5	910	68.8	1,055	77.8
40 - 44 years	154	12.1	150	11.8	158	12.5	170	13.6	197	15.8
45 - 49 years	9	0.7	6	0.5	6	0.5	11	0.9	7	0.5
Total	4,085	321.0	4,246	323.3	4,542	342.6	4,591	339.0	4,753	347.7
TFR births per 1,000 women		1,605		1,617		1,713		1,695		1,738

Notes:

ASFR - Age-specific Fertility Rates per 1,000 women .

TFR - Total Fertility Rates per 1,000 women .

\*By definition, all births for women aged less than 15 years are included in the 15-19 age group.

Two records in 2007, for whom maternal age was not stated have been allocated to other age groups.

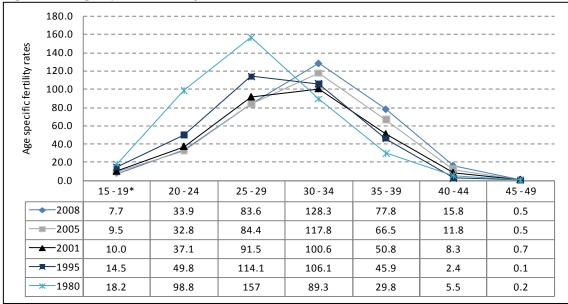
Sources: ACT Maternal Perinatal Data Collection, 2004 - 08

Estimated Residential Population by sex and age, 2004 - 08, ABS Cat. No: 3201.0

The ACT TFR remains slightly lower than that for Australia. Australia's TFR in 2008 was 1.97 babies per woman, up from 1.92 babies per woman in 2007 and the highest since 1977 (2.01). The increase in the Australian TFR between 2007 and 2008 was largely due to births to women aged 30 to 39 years, who accounted for 55% of the increase.[3]

Since 1980 there has been a notable movement in the age-specific fertility rate in the ACT with a shift to higher fertility rates in older age groups. Fertility rates peaked among women aged 25 to 29 years until the mid 1990's, when the peak moved to the 30 to 34 years age group by 2000 (Figure 2).

Age-specific fertility rates, ACT, 1980, 1995, 2001, 2005 and 2008



Notes:

ASFR - Age-specific Fertility Rates per 1,000 women.

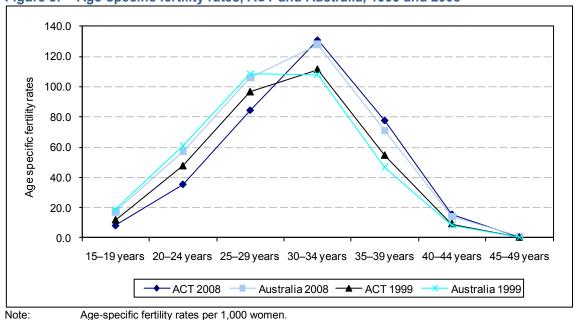
\*By definition, all births for women aged less than 15 years are included in the 15-19 age group.

ACT Maternal Perinatal Data Collection, 1995 - 2008 Sources:

Estimated Residential Population by sex and age, 1995 - 2008, ABS Cat. No: 3201.0 Australian Historical Population Statistics (1980 rates), 2008, ABS Cat No. 3105.0.65.001

The age-specific fertility rates shown in Figure 3 indicate that, while the ACT and Australia have similar rates for women aged 30 years and over, the rates for ACT resident women aged less than 30 years were lower than for Australian women in the same age groups.

Age-specific fertility rates, ACT and Australia, 1999 and 2008 Figure 3:



Source:

Age-specific fertility rates per 1,000 women.

ABS 2009, Births Australia, 2008, Cat. No. 3301.0

#### 1.3. Crude birth rates

Crude birth rates per 1,000 estimated ACT resident population (ERP) have increased steadily since 2004.

Crude birth rates, ACT residents, 2004 - 08 Table 3:

	2004	2005	2006	2007	2008
Livebirths in the ACT	4,893	5,041	5,435	5,495	5,650
Livebirths to ACT residents	4,085	4,246	4,542	4,591	4,753
Estimated resident population	327,475	330,164	334,119	341,054	345,551
Crude birth rate for ACT residents	12.5	12.9	13.6	13.5	13.8

Notes: Livebirths to ACT residents reported refer to births occurring in the ACT for ACT residents.

The crude birth rate for 2000 differs from the previously published rate due to revised population figures.

ACT Maternal Perinatal Data Collection, 2004 - 08 Sources:

ABS 2008, Australian Historical Population Statistics, 2008, Cat. No. 3105.0.65.001

The ACT crude birth rates fluctuate more than the Australian rates from year to year due to the small number of births each year in the ACT (Figure 4). However, ACT crude birth rates follow the same general trend as Australian rates with rates decreasing each year until 2001 when rates plateau and then increase from 2004.

14.0 13.5 13.0 **Crude birthrate** 12.5 12.0 11.5 11.0 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 -Australia 13.3 13.1 13.0 12.7 12.8 12.6 12.6 12.7 12.8 13.5 13.8 ——— ACT 13.2 13.1 13.1 12.1 12.5 12.5 12.5 12.9 13.6 13.5 13.8

Crude birth rates, ACT and Australia 1998 - 2008 Figure 4:

Note: Sources:

Crude birth rate per 1,000 estimated resident population. ACT Maternal Perinatal Data Collection, 1998 - 2008

ABS 2009, Births Australia, 2008. Cat. No. 3301.0

# 1.4. Fertility by subdivision

Geographical changes in fertility patterns are monitored as they have important implications for service planning. Total fertility rates (TFR) for ACT subdivisions are presented in Figure 5.

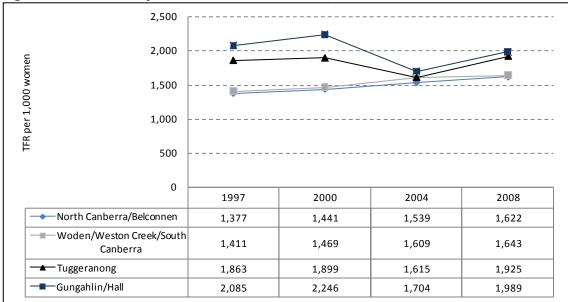


Figure 5: Total fertility rates for ACT subdivisions, 1997 - 2008

Note:

TFR means Total Fertility Rates per 1,000 women.

e: ACT Maternal Perinatal Data Collection, 1997, 2001, 2004 and 2008;

ABS 2010, Population by Age and Sex, 2009, Cat. No. 3235.0

The TFR of older subdivisions of North Canberra/Belconnen and Woden/Weston Creek/South Canberra have increased steadily from around 1,400 births per 1,000 women in 1997 to around 1,600 per 1,000 women in 2008. The newer subdivisions of Tuggeranong and Gungahlin/Hall experienced higher TFR than the older subdivisions, however the TFR has fluctuated from a low of around 1,600 per 1,000 women to a high of around 2,200 per 1,000 women.

Age-specific fertility rates (ASFR) for ACT subdivisions for 2008 are presented in Figure 6. In 2001 the ASFR for the subdivisions of Tuggeranong and Gungahlin/Hall reflected a peak in fertility in the 25-29 year age group, whereas in Woden/Weston Creek and North Canberra/Belconnen subdivisions the peak occurred in the 30-34 year age group. In 2008, the peak in fertility for all subdivisions occurred in the 30-34 year age group. However, the distribution still reflects higher fertility rates in younger age groups for the Tuggeranong and Gungahlin/Hall subdivisions when compared with the other subdivisions. Whilst fertility rates in the older age groups are lower for Tuggeranong, they are similar for the three other subdivisions.

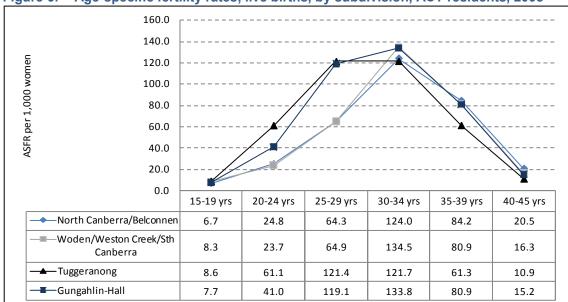


Figure 6: Age-specific fertility rates, live births, by subdivision, ACT residents, 2008

Notes:

By definition, all births for women aged less than 15 years are included in the 15 - 19 year age group. All births for women aged 45 years and over have been included in the 40-45 year age group due to small numbers.

Sources:

ACT Maternal Perinatal Data Collection, 2008

ABS 2009, Population by Age and Sex, 2008, Cat. No. 3235.0

#### 1.5. Place of birth

Between 1999 and 2008, women in the ACT had the option of giving birth in one of four ACT hospitals (two public and two private hospitals), the Birth Centre or at home. In 1999, over three quarters of women gave birth in ACT public hospitals compared to 65% in 2008 (Table 4). Over the same time period the percentage of women giving birth in ACT private hospitals increased from 22% to 35%. The shift from public hospitals to private hospitals occurred between 2000 and 2001 (around the time the Australian Government introduced private health insurance reform). The percentage of women giving birth in each sector has remained stable since that time.

Table 4: Place of birth, ACT, 1999 - 2008

	1999		2	2003		800
	No.	%	No.	%	No.	%
TCH Delivery Suite	1,963	42.8	1,707	35.7	2,045	36.6
TCH Birth Centre	346	7.5	277	5.8	333	6.0
Calvary Public	1,216	26.5	1,092	22.8	1,253	22.4
Public hospitals	3,525	76.9	3,076	64.3	3,631	65.0
Calvary Private	269	5.9	632	13.2	755	13.5
Calvary John James	753	16.4	1,050	21.9	1,175	21.0
Private hospitals	1,022	22.3	1,682	35.2	1,930	34.5
Homebirths	22	0.5	6	0.1	<5	n.p
Born before arrival	17	0.4	20	0.4	28	0.5
Total	4,586	100.0	4,784	100.0	5,589	100.0

Notes: There were less than five homebirths in 2008, these have been included in 'Born before arrival'.

TCH means The Canberra Hospital.

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

Source: ACT Maternal Perinatal Data Collection, 1999 - 2008

#### 1.6. Maternal characteristics

#### 1.6.1. Maternal age

Consistent with the Australian trend, the average age of women who gave birth in the ACT has increased over time from 28.6 years in 1991 to 30.8 years in 2008. The average age of ACT women who gave birth was consistently slightly older than for Australian women giving birth (Figure 7).

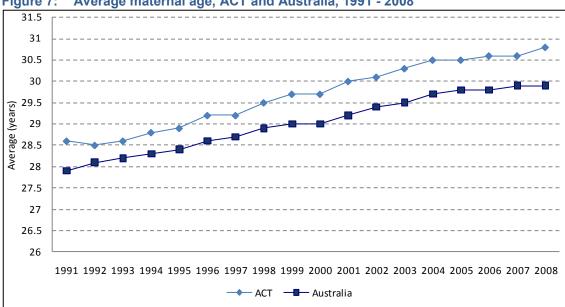


Figure 7: Average maternal age, ACT and Australia, 1991 - 2008

Source:

AIHW, NPSU Perinatal Series, Australia's Mothers and Babies, 1991 - 2008

## 1.6.2. Smoking during pregnancy

Smoking during pregnancy is an important risk factor for adverse perinatal outcomes. Self reported data on cigarette smoking were collected from women who gave birth in the ACT from 2000 to 2008 (Figure 8). The percentage of women who reported smoking during pregnancy fluctuated from year to year, however over the nine-year period there was a modest decrease in tobacco use from 14.7% in 2000 to 12.8% in 2008. The average birthweight for babies of women who smoked during pregnancy in 2008 was significantly lower (3,244 grams) compared with babies of women who did not smoke (3,429 grams) (p<0.05).

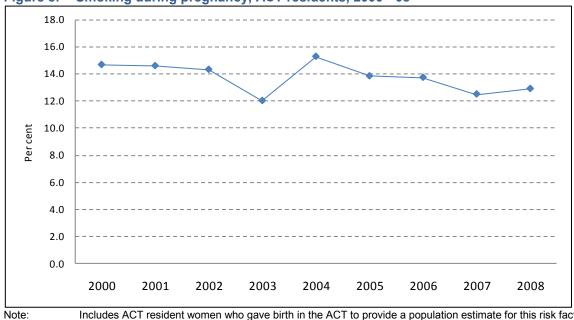


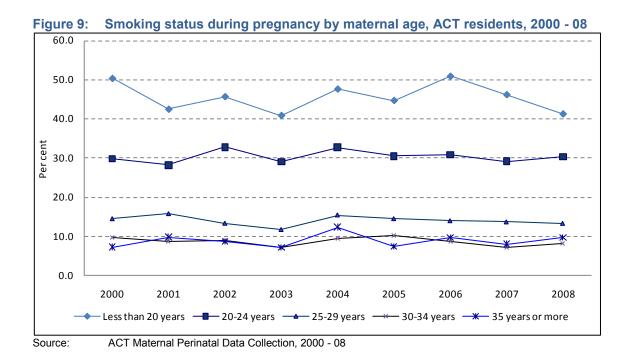
Figure 8: Smoking during pregnancy, ACT residents, 2000 - 08

Source:

Includes ACT resident women who gave birth in the ACT to provide a population estimate for this risk factor.

ACT Maternal Perinatal Data Collection, 2000 - 08 ACT Admitted Patient Care Data, 2000 - 08

Smoking during pregnancy decreases significantly with increasing maternal age. Women in younger age groups are significantly more likely to use tobacco during pregnancy, with smoking rates for teenage women who gave birth approaching 50% (Figure 9). There has been little change in smoking rates for each age group over the past nine years. This suggests that the slight decrease in smoking rates seen in Figure 8 may be attributed to the increase in the proportion of women in the older age groups (with lower smoking rates) giving birth.



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#### 1.6.3. Usual place of residence

The majority of women who gave birth in the ACT between 1999 and 2008 were ACT residents (Table 5). Over this time there was a decrease in women giving birth from the South side of Canberra (particularly from Tuggeranong) from 48% in 1999 to 39% in 2008 and an increase in the percentage of women giving birth from the North side of Canberra from 40% in 1999 to 46% in 2008.

The percentage of non-ACT resident women who gave birth in the ACT increased from 12% in 1999 to 16% in 2008. Over 99% of these women were from NSW, many of whom access specialist obstetric services in the ACT for high-risk and multi-fetal pregnancies.

Table 5: Usual place of residence, ACT, 1999, 2003 and 2008

	1999		2003		2008	
	No.	%	No.	%	No.	%
ACT residents	4,047	88.2	4,055	84.8	4,710	84.3
North Canberra	388	8.5	419	8.8	544	9.7
Belconnen	1,000	21.8	1,094	22.9	1,265	22.6
Gungahlin-Hall	452	9.9	578	12.1	734	13.1
Total North Side	1,840	40.1	2,092	43.7	2,543	45.5
Woden Valley	328	7.2	338	7.1	365	6.5
Weston Creek	245	5.3	253	5.3	307	5.5
Tuggeranong	1,414	30.8	1,114	23.3	1,208	21.6
South Canberra	220	4.8	258	5.4	289	5.2
Total South Side	2,207	48.1	1,963	41.0	2,169	38.8
Non-ACT residents	539	11.8	730	15.3	877	15.7
Total	4,586	100.0	4,784	100.0	5,589	100.0

Note: Due to the rounding of percentages some totals may not equal 100.0. Source: ACT Maternal Perinatal Data Collection, 1999, 2003 and 2008

# 1.7. Multiple births

ACT maternity services had the highest percentage of multiple births in Australia in 2008.[1-2] This percentage included all women who gave birth in the ACT (both ACT and non-ACT residents). Higher percentages of multiple births are evident among non-ACT residents (Table 6), which reflects maternity service models in the surrounding areas of NSW with non-ACT residents accessing specialist ACT services for multi-fetal pregnancies. The percentage of women having a multiple birth in the ACT peaked in 2004 at 2.6% (ACT residents 2.2%) and decreased slightly to 2.1% in 2008 (ACT residents 1.8%).

Most multiple births in the ACT are twins with less than five sets of triplets born each year. One woman gave birth to quadruplets in 2005.

Table 6: Women having a multiple birth, ACT and Australia, 1999 - 2008

'	Non ACT								
	ACT resid	ents	reside	residents		Total - ACT		1	
	No.	%	No.	%	No.	%	No.	%	
1999	62	1.5	25	4.7	87	1.9	3,929	1.6	
2000	57	1.4	29	5.0	86	1.8	4,077	1.6	
2001	76	2.0	22	3.6	98	2.2	4,157	1.7	
2002	64	1.6	30	4.1	94	2.0	4,259	1.7	
2003	55	1.4	33	4.5	88	1.8	4,259	1.7	
2004	90	2.2	34	4.4	124	2.6	4,253	1.7	
2005	58	1.4	29	3.7	87	1.7	4,529	1.7	
2006	96	2.1	35	4.0	131	2.4	4,622	1.7	
2007	75	1.6	39	4.5	114	2.1	4,634	1.6	
2008	81	1.8	34	3.8	115	2.1	n.a.	n.a.	

Notes: n.a. - Not available.

Multiple birth includes twins and higher order multiples.

ACT multiple birth rates fluctuate from year to year due to small numbers.

Sources: ACT Maternal Perinatal Data Collection, 1999 - 2008

AIHW, NPSU Perinatal Series, Australia's Mothers and Babies, 1999 - 2007

A clear association between multiple pregnancy and advanced maternal age has been reported in *Australia's Mothers and Babies* since 1991. This trend has also been seen in the ACT over the past ten years. The average age of ACT resident women having a multiple birth in 2008 (32.0 years) was significantly higher than the average age for women having a singleton birth (30.8 years) (p<0.05).

The proportion of women aged over 35 years was consistently higher for women who had a multiple birth than for those who had a singleton birth between 1998 and 2008. Over 35% of women who had a multiple birth were aged more than 35 years in 2008 (Figure 10) compares with 26% of women who had a singleton birth.

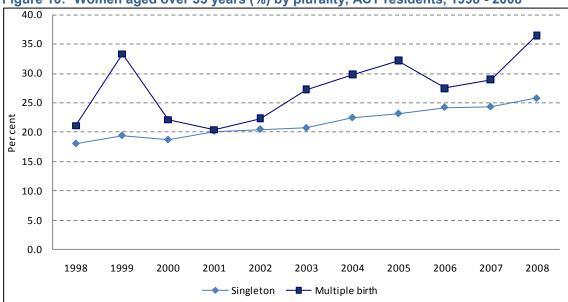


Figure 10: Women aged over 35 years (%) by plurality, ACT residents, 1998 - 2008

Source:

ACT Maternal Perinatal Data Collection, 1998 - 2008

#### 1.8. Labour and birth

#### 1.8.1. Onset of labour

Labour onset may be spontaneous or induced, with the management of the labour being directly affected by the type of onset. In some cases there will be no labour if an elective caesarean section is planned. In most cases, the labour progress (or lack of progress) affects the level of intervention and method of birth.

There was a significant decrease in the percentage of women having a spontaneous onset of labour in the ACT between 1997 and 2008 (p<0.05) (Figure 11). Over the same time period there was a significant increase in the percentage of women who had no labour (p<0.05) (Figure 11).

The induction rate fluctuated slightly from year to year between 1997 and 2008 however remained around 21% (2008, 21.9%). The ACT induction rate is consistently lower than the induction rate for Australia, for example, in 2008 the ACT rate (21.9%) was significantly lower than the Australian rate (24.8%) (p<0.05).[1]

80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0.0 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 -Spontaneous 59.9 66.4 66.5 67.7 65.5 65.9 64.4 64.0 65.7 61.3 61.6 61.3

12.9

Figure 11: Onset of labour, ACT, 1997 - 2008

Notes:

In 1997, four records where 'labour' and 17 records where 'type of labour' was 'not stated' were recoded as 'spontaneous'. In 2004, eight records and in 2007, one record where onset of labour and type of labour were 'not stated' were recoded to 'spontaneous'.

14.1

15.9

18.5

19.5

18.0

18.2

13.4

ACT Admitted Patient Care data were used to improve 'type of labour' data.

12.1

ACT Maternal Perinatal Data Collection, 2005 - 08 Source:

11.4

11.8

11.9

#### 1.8.2. **Method of birth**

No Labour

Although the majority of women who gave birth in the ACT from 1997 to 2008 had a normal birth, the proportion has decreased significantly over time (1997: 66%, 2008: 57%) (p<0.05). Over the same time period the percentage of women who had a caesarean section birth increased significantly (1997: 20%, 2008: 30%) (p<0.05).

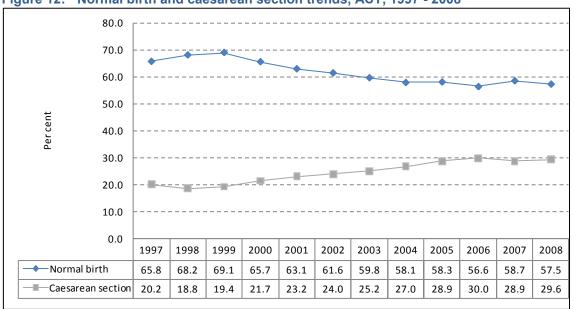


Figure 12: Normal birth and caesarean section trends, ACT, 1997 - 2008

Notes:

In 1997, four records where 'method of birth' was 'not stated' were recoded as 'normal birth'.

Source:

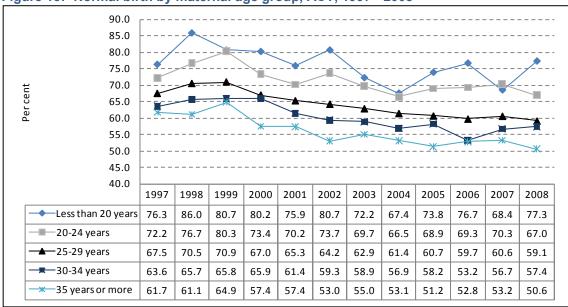
After medical record review, birth method that was originally coded as 'other' was recoded as 'normal birth'.

ACT Maternal Perinatal Data Collection, 1997 - 2008

Trends in method of birth by maternal age group are presented in Figure 13 and Figure 14. Women in the younger age groups remain significantly more likely to have a normal birth, however the decrease

in the percentage of women having a normal birth is seen across all age groups. The largest decrease was seen in the 35 years and over age group which decreased from 62% to 51%.

Figure 13: Normal birth by maternal age group, ACT, 1997 - 2008



Notes:

There were two women for whom maternal age was not stated in 2007. These have been randomly assigned to other categories.

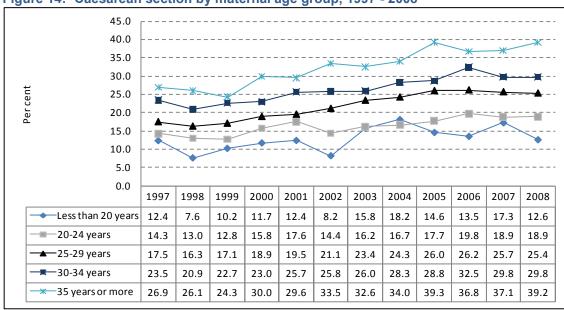
In the case of multiple births, the method of birth of the first-born baby is presented.

Source:

ACT Maternal Perinatal Data Collection, 1997 - 2008

Women aged 35 years or more had the highest percentage of caesarean section births between 1997 and 2008. This age group also experienced the largest increase, from 27% in 1997 to 39% in 2008. However, the percentage of caesarean section births increased across all age groups (Figure 14).

Figure 14: Caesarean section by maternal age group, 1997 - 2008



Notes:

There were two women for whom maternal age was not stated in 2007. These have been randomly assigned to other categories.

In the case of multiple births, the method of birth of the first-born baby is presented.

Source: ACT Maternal Perinatal Data Collection, 1997 - 2008

Trends in caesarean section births by hospital sector for 1997 to 2008 are presented in Figure 15. Caesarean sections are presented as elective (no labour) or emergency (with labour). The largest increase in the percentage of caesarean section births is for private hospital elective caesarean sections which increased from 17% to 26% between 1997 and 2008. A smaller increase was seen for

public hospital elective caesarean section births from 10% to 14%. Small increases were also observed in the emergency caesarean section rates for public and private hospitals.

30 25 Per cent 20 15 10 5 0 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 1997 ACT Public Hospital - Elective 10.4 10.1 10.1 10.2 10.1 10.0 11.4 12.9 14.3 13.8 14.1 14.3 Caesarean ACT Public Hospital - Emergency 7.9 6.7 7.1 9.0 10.1 9.9 10.5 11.0 10.1 11.0 10.0 10.5 Caesarean ACT Private Hospital - Elective 15.6 18.2 17.8 18.7 19.4 19.1 21.4 25.5 28.9 26.6 26.2 16.6 Caesarean ACT Private Hospital - Emergency 9.8 9.5 9.6 11.5 11.1 12.3 12.5 11.5 11.0 9.9 13.0 13.1 Caesarean

Figure 15: Caesarean section by public and private hospitals, ACT, 1997 - 2008

Note:

Percentages are for total hospital births.

Source:

ACT Maternal Perinatal Data Collection, 1997 - 2008

#### 1.8.3. Perineal status

Perineal status for vaginal births over time is presented in Table 7. The episiotomy rate decreased from 14% in 1999 to 11% in 2008, with a corresponding increase in all perineal lacerations from 46% in 1999 to 57% in 2008. The largest increase occurred for second degree lacerations which increased by 11% over this time period from 27% in 1999 to 38% in 2008. The percentage of women with an intact perineum following a vaginal birth decreased from 40% in 1999 to 32% in 2008.

Women who gave birth in 2008 were significantly more likely to have an intact perineum following a normal vaginal birth (37%) compared to women who had an instrumental birth (13%) (p<0.05).

Table 7: Perineal status for vaginal births, ACT, 1999, 2003 and 2008

	1999		2003		2008	
Perineum	No.	%	No.	%	No.	%
Intact	1,472	39.8	1,176	32.9	1,274	32.4
1st degree laceration	648	17.5	613	17.1	628	16.0
2nd degree laceration	994	26.9	1,103	30.8	1,509	38.3
3rd or 4th degree laceration	54	1.5	33	0.9	92	2.4
Episiotomy	458	12.4	551	15.4	363	9.2
Laceration and episiotomy	52	1.4	96	2.7	68	1.7
Other	0	0.0	1	0.0	3	0.1
Not Stated	17	0.5	5	0.1	0	0.0
Total	3,695	100.0	3,578	100.0	3,937	100.0

Source:

ACT Maternal Perinatal Data Collection, 1999, 2003 and 2008

# 1.9. Postnatal stay in hospital

The postnatal length of stay in hospital is calculated using the woman's date of discharge minus the baby's date of birth for the birth event. Average postnatal stay in hospital has decreased over the past 10 years from 4 days in 1999 to 3 days in 2008 (Table 8). The percentage of women having a postnatal length of stay of 3 days or less has increased from 50% to 59% over this ten-year period.

Table 8: Postnatal length of stay in hospital, ACT, 1999, 2003 and 2008

	1999		2003		2008	
	No.	%	No.	%	No.	%
less than 1 day	160	3.6	198	4.3	348	6.4
1 day	440	10.0	500	10.8	792	14.5
2 days	712	16.2	672	14.5	975	17.8
3 days	898	20.5	782	16.9	1,107	20.2
4 days	745	17.0	841	18.2	1,177	21.5
5 days	561	12.8	818	17.7	762	13.9
6 days	425	9.7	458	9.9	210	3.8
7 days and over	447	10.2	358	7.7	101	1.8
Not stated	0	0	0	0	0	0.0
Total	4,388	100.0	4,627	100.0	5,472	100.0
Average postnatal stay	;	3.8 days	3.7 day	ys	3.1 day	/S

Notes: Postnatal length of stay includes only hospital admissions not transferred for further care to another hospital.

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

Source: ACT Maternal Perinatal Data Collection, 1999, 2003 and 2008

The method of birth contributes to the length of stay needed in hospital with women who have had a caesarean section staying on average for 4 days in 2008 and women who had a normal birth staying for an average of 2 days. Postnatal length of stay also varies by maternal age with older women having a longer average length of stay (Table 54).

# 1.10. Maternal discharge destination

A range of support services is available to assist families after leaving hospital following the birth of a baby or babies. The maternity support services offered in the ACT include Midcall (an early discharge program) and the Canberra Midwifery Program (CMP).

The percentage of women who were discharged on Midcall or CMP for additional midwifery care at home increased from 41% in 1999 to 58% in 2008 (Table 9). Correspondingly the percentage of women reported to be discharged home without additional services reduced from 55% to 40% over the same time period. The percentage of women transferred to another ACT hospital reduced from 3% to 1% over the ten-year period. Three maternal deaths occurred in the ACT during the ten-year period 1999 to 2008.

Table 9: Maternal discharge destination from hospital, ACT, 1999, 2003 and 2008

	1999		2003		2008	
Maternal discharge status	No.	%	No.	%	No.	%
Discharged home	2,487	54.7	2,343	49.2	2,225	40.0
Discharged on Midcall or CMP	1,884	41.4	2,284	48.0	3,247	58.4
Transferred to ACT hospital	142	3.1	69	1.5	42	0.8
Transferred to interstate hospital	17	0.4	61	1.3	47	0.8
Not stated	17	0.4	0	0.0	0	0.0
Total	4.547	100.0	4.758	100.0	5.561	100.0

Notes: Midcall is an early discharge program with follow up at home by a registered midwife for antenatal or postnatal

care. CMP means Canberra Midwifery Program.

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

Source: ACT Maternal Perinatal Data Collection, 1999, 2003 and 2008

# 1.11. Babies

#### 1.11.1. Birthweight

The majority of babies born in the ACT each year were between 2,500 and 3,999 grams birthweight (1999: 79%, 2008: 81%). The percentage of babies within each birthweight category has remained stable over time (Table 10).

Table 10: Birthweight, ACT, 1999, 2003 and 2008

	1999		2003		2008	
	No.	%	No.	%	No.	%
Less than 500 grams	17	0.4	37	0.8	27	0.4
500 to 999 grams	38	8.0	39	8.0	35	0.6
1,000 to 1,499 grams	43	0.9	21	0.4	41	0.7
1,500 to 1,999 grams	56	1.2	76	1.6	90	1.6
2,000 to 2,499 grams	179	3.8	183	3.8	217	3.8
2,500 to 2,999 grams	649	13.9	675	13.8	801	14.0
3,000 to 3,499 grams	1,585	33.9	1,690	34.7	2,007	35.2
3,500 to 3,999 grams	1,454	31.1	1,462	30.0	1,795	31.5
4,000 to 4,499 grams	561	12.0	580	11.9	575	10.1
4,500 grams or more	91	1.9	111	2.3	115	2.0
Not Stated	2	0.0	2	0.0	2	0.0
Total	4,675	100.0	4,876	100.0	5,705	100.0

Note: Due to the rounding of percentages some totals may not equal 100.0. Source: ACT Maternal Perinatal Data Collection, 1999, 2003 and 2008

#### 1.11.2. Perinatal deaths

The rate of perinatal deaths reflects the risk in the population of a fetus being stillborn or not surviving beyond 28 days of life.

While perinatal death rates are a useful performance indicator for perinatal services in developing countries, in developed countries the rates have fallen to the point that their usefulness as an indicator of the performance of perinatal services has diminished. This is because a large proportion of the perinatal deaths that do occur are the result of serious congenital anomalies or extreme prematurity, and as such may be unavoidable.

It is also important to note that perinatal death rates in the ACT fluctuate from year to year due to the small number of perinatal deaths each year (Figure 16). With such small numbers a single event, for example the fetal death of triplets, can substantially elevate mortality rates.

Between 1995 and 2008, the perinatal death rate fluctuated from a low of 8.2 per 1,000 births in 2002 to a high of 13.9 in 1998. There was no clear increasing or decreasing trend in death rates over this time.

16 14 12 Rate per 1,000 10 8 6 4 2 0 1999 2000 2001 2002 2003 2004 2005 2008 1995 1996 1997 1998 2006 2007 Infant Deaths 4.6 3.8 4.6 6.4 3.7 3.9 2.9 3.5 4.9 5.6 4.0 5.5 3.9 5.0 Neonatal deaths 3.5 4.9 2.7 2.2 3.1 3.3 3.4 3.2 1.6 3.7 Stillbirths - fetal deaths 8.4 7.5 5.9 7.0 9.0 6.8 6.7 7.5 9.7 6.1 8.4 7.4 7.1 8.6 -Perinatal Deaths 10.6 13.9 9.5 11.9 11.9 9.9 9.6 9.3 8.2 13.4 10.7 11.4 11.1 10.4

Figure 16: Birth status and survival, ACT residents' births, 1995 - 2008

Notes:

This table includes ACT residents who have given birth in the ACT with the exception of infant deaths which

includes all ACT resident post-neonatal deaths.

Refer to the glossary for definitions

Rate per 1,000 ACT residents' livebirths for neonatal, and infant deaths.

Rate per 1,000 ACT residents births for perinatal and fetal deaths.

Annual rates fluctuate due to small numbers.

Data corrections account for slight differences from previously reported deaths.

2008 post neonatal death numbers are preliminary. ACT Maternal Perinatal Data Collection, 1995 - 2008

Sources:

ABS Deaths, Confidentialised Unit Record File 1995 - 07

ABS, Deaths, Australia, 2008 Cat no. 3302.0

The perinatal death rate and confidence intervals for the ACT and Australia are shown in Figure 17. Five year rolling averages have been used to smooth the annual fluctuations in perinatal death rates. The ACT perinatal death rate neither increased significantly between 1998 and 2008 nor differed significantly from the Australian rate.

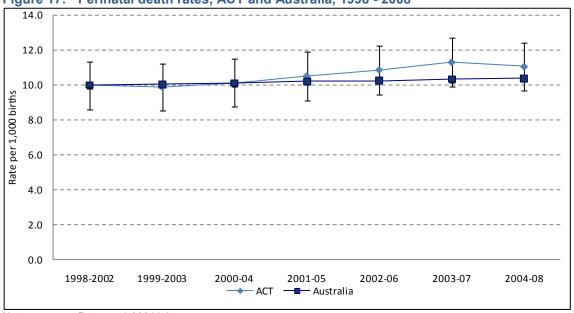


Figure 17: Perinatal death rates, ACT and Australia, 1998 - 2008

Notes:

Sources:

Rate per 1,000 births.

ACT rates include ACT residents who gave birth in the ACT.

ACT Maternal Perinatal Data Collection, 1998 - 2008

AIHW Perinatal Statistics Reports 1998 - 2008

# Maternal and perinatal health of Aboriginal and Torres Strait Islander women

Between 1997 and 2008, there were 908 women who gave birth in the ACT who identified as Aboriginal or Torres Strait Islander, accounting for 1.5% of all births in the ACT. Approximately one quarter (26%) of these women were not usual residents of ACT. Over this time period the number of Aboriginal and Torres Strait Islander women who gave birth each year has increased from 58 in 1997 to 103 in 2008 (Figure 18). This increase may be due to an increase in the number of Aboriginal and Torres Strait Islander women giving birth or it may be due to an increased propensity to identify as Aboriginal and Torres Strait Islander.

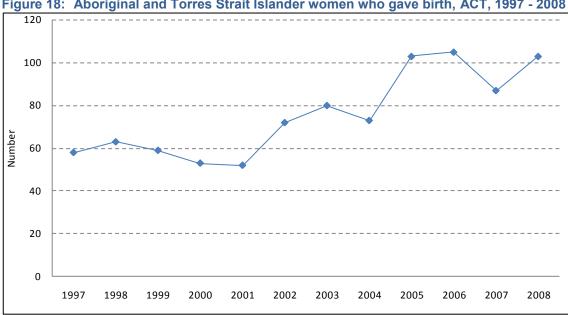


Figure 18: Aboriginal and Torres Strait Islander women who gave birth, ACT, 1997 - 2008

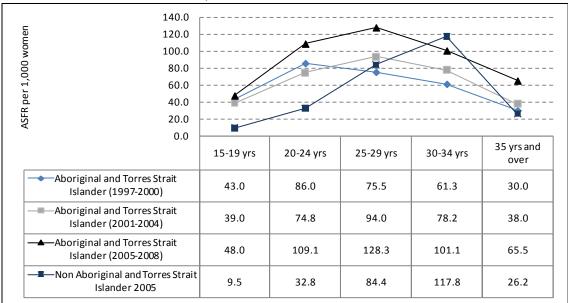
Source:

ACT Maternal and Perinatal Data Collection, 1997 - 2008

Age-specific fertility rates for Aboriginal and Torres Strait Islander ACT resident women are presented in Figure 19. Rates are presented using four years of pooled data to remove annual fluctuations and provide an indication of changes over time. During 1997-2000, fertility rates for Aboriginal and Torres Strait Islander women peaked in the 20-24 year age group. The fertility rate peak shifted to the 25-29 year age group in subsequent years. The fertility rate curve for Aboriginal and Torres Strait Islander women varies from the curve for non-Aboriginal women, with Aboriginal and Torres Strait Islander women having higher fertility in the younger age groups.

The teenage fertility rate for Aboriginal and Torres Strait Islander women was consistently around four times higher than the teenage fertility rate for non-Aboriginal women in the ACT. The fertility rate for Aboriginal and Torres Strait Islander women aged 20 to 24 years was over twice as high as the fertility rate for non-Aboriginal women in the same age group.

Figure 19: Age-specific fertility rates by Aboriginal and Torres Strait Islander identification, ACT resident women, 1997 - 2008



Notes:

2001 Census population figures were used to calculate rates for Aboriginal and Torres Strait Islander women for 1997-2000 and 2001-2004. 2006 Census population figures were used to calculate rates for Aboriginal and Torres Strait Islander women for 2005-2008. Four year pooled data were used to calculate rates for Aboriginal and Torres Strait Islander women. Non-Aboriginal rates are for 2005.

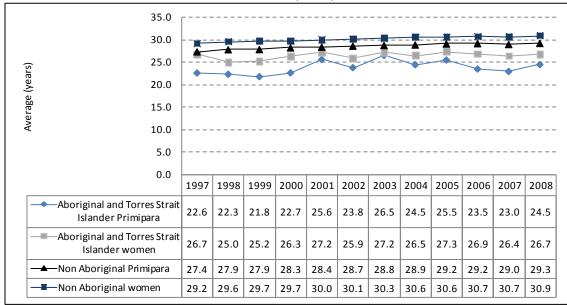
Sources:

ACT Maternal and Perinatal Data Collection, 1997 - 2008

ABS 2006 Census Tables, Cat. no. 2068.0

The average age of Aboriginal and Torres Strait Islander women who gave birth to their first child between 1997 and 2008 was significantly younger (24 years) than the average age of non-Aboriginal women who gave birth to their first child (29 years) (p<0.05). This difference was also observed for all women who gave birth between 1997 and 2008 (Aboriginal and Torres Strait Islander women 27 years, non-Aboriginal women 30 years) (p<0.05).

Figure 20: Average age for first time mothers and all women who gave birth by Aboriginal and Torres Strait Islander identification, ACT, 1997 - 2008



Note:

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

Source: ACT Maternal and Perinatal Data Collection, 1997 - 2008

The increase in maternal age seen for non-Aboriginal women between 1997 and 2008 was not observed for Aboriginal and Torres Strait Islander women (Figure 20). A slight increase was observed in 2008 for Aboriginal and Torres Strait Islander women who gave birth to their first child (primiparas), however the average age of all Aboriginal and Torres Strait Islander women who gave birth has remained relatively stable between 25 and 27 years.

The majority of Aboriginal and Torres Strait Islander women who gave birth in the ACT between 1997 and 2008 had a normal birth (Figure 21). However the percentage of women having a normal birth decreased from 75% to 65% over this time period. During the same time, the percentage of women having a caesarean section increased from 18% to 29%.

70.0 60.0 50.0 40.0 30.0 20.0 10.0 0.0 1997-1999 2000-2002 2003-2005 2006-2008 Normal birth 75.0 67.8 64.5 65.4 Instrumental birth 6.7 7.3 10.2 6.1 Caesarean Section 17.8 24.9 25.4 28.5

Figure 21: Method of birth, Aboriginal and Torres Strait Islander women (%), ACT, 1997 - 2008

Notes:

Vaginal breech births were included in the normal birth category for years prior to 2007 when the coding of method of birth was changed . Vaginal breech births are now coded as per type of birth eg. Normal birth and Breech is recorded as a type of presentation.

For multiple births, the birth method of the first born baby is presented.

Source:

ACT Maternal and Perinatal Data Collection, 1997 - 2008

The percentage of Aboriginal and Torres Strait Islander women who reported smoking during pregnancy increased from 41% to 49% between 2000 and 2008 (Figure 22). While this increase was not statistically significant, rates of smoking during pregnancy were significantly higher for Aboriginal and Torres Strait Islander women compared with non-Aboriginal women.

60.0 50.0 40.0 Per cent 30.0 20.0 10.0 0.0 2000-02 2003-05 2006-08 Aboriginal and Torres Strait 41.4 44.0 48.8 Islander Non Aboriginal 14.2 13.2 12.4

Figure 22: Smoking status by Aboriginal and Torres Strait Islander identification, ACT, 2000 - 08

Source:

ACT Maternal and Perinatal Data Collection, 2000 - 08

Smoking rates by maternal age for Aboriginal and Torres Strait Islander women follow similar trends to non-Aboriginal women with younger age groups having significantly higher smoking rates. Approximately three quarters of Aboriginal and Torres Strait Islander women aged less than 20 years of age who gave birth between 2000 and 2008 smoked during pregnancy (Figure 23). Smoking rates for Aboriginal and Torres Strait Islander women aged 20 to 34 years increased consistently from 40% to 49% between 2000 and 2008.

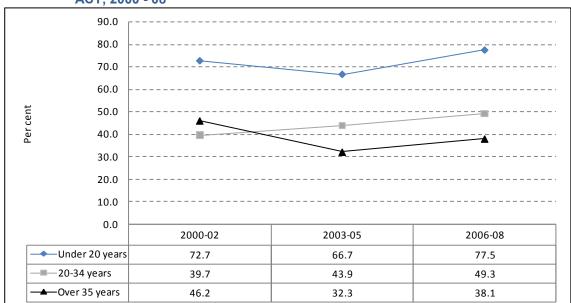


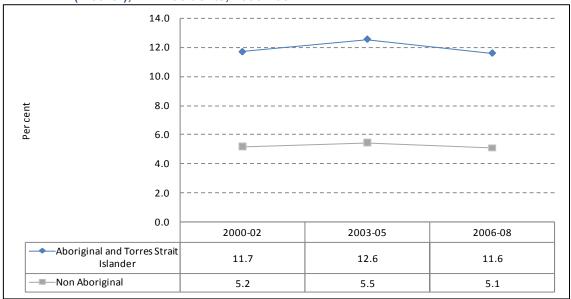
Figure 23: Smoking status by maternal age, Aboriginal and Torres Strait Islander women, ACT, 2000 - 08

Source:

ACT Maternal and Perinatal Data Collection, 2000 - 08

The percentage of babies born to Aboriginal and Torres Strait Islander women who were low-birthweight (less than 2,500 grams) was significantly higher for each three year period between 2000 and 2008 (Figure 24) than the percentage of low-birthweight babies born to non-Aboriginal women. The percentage has remained stable at around 12% over time.

Figure 24: Low-birthweight babies by Aboriginal and Torres Strait Islander identification (mother), ACT residents, 2000 - 08



Notes:

Aboriginal and Torres Strait Islander identification is based on the mother's identification. Therefore underreporting may occur. Excludes babies born to women for whom Aboriginal and Torres Strait Islander identification was not stated.

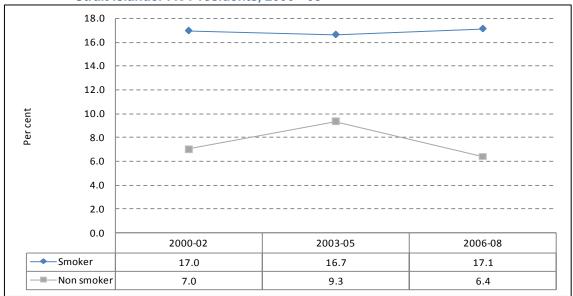
Source:

ACT Maternal and Perinatal Data Collection, 2000 - 08

The percentage of low-birthweight babies born to Aboriginal and Torres Strait Islander women who smoked during pregnancy remained stable at around 17% between 2000 and 2008 (Figure 25). The percentage of low-birthweight babies born to Aboriginal and Torres Strait Islander women who did not smoke during pregnancy fluctuated slightly between 6% and 9%.

The average birthweight of babies born to Aboriginal and Torres Strait Islander women who smoked during pregnancy (2,983 grams) was significantly lower than the average birthweight of babies born to Aboriginal and Torres Strait Islander women who did not smoke during pregnancy (3,320 grams) (p<0.05). The average birthweight for babies born to non-Aboriginal women who did not smoke during pregnancy was 3,428 grams.

Figure 25: Low-birthweight babies by mothers' smoking status (%), Aboriginal and Torres Strait Islander ACT residents, 2000 - 08



Notes:

Aboriginal and Torres Strait Islander identification is based on the mother's identification. Therefore underreporting may occur. Excludes babies born to women for whom Aboriginal and Torres Strait Islander identification was not stated.

Source:

ACT Maternal and Perinatal Data Collection, 2000 - 08

# 1.13. Breastfeeding

The benefits of breastfeeding for infants and mothers are well established. The National Health and Medical Research Council (NHMRC) recommend exclusive breastfeeding for at least the first six months of life. The NHMRC has suggested a goal of 90% initiation rate, with 80% of infants continuing to be breastfed at six months of age. Breastfeeding outcomes are improved if promoted and supported by family members including the father, community health, hospitals and workplaces.[4]

ACT Health has committed to facilitating a whole of government approach to protect, promote and support breastfeeding through a five year Strategic Framework, 2010 - 15.[5] A strategy identified within the framework is to develop a system for collection of accurate ACT Health breastfeeding data while ensuring collaboration and consistency with the *Australian National Breastfeeding Strategy 2010-2015*. This would include developing the capacity for the ACT to report on breastfeeding indicators.

Breastfeeding data are included on the ACT Midwives Data Collection Form with items including mother's intention to breastfeed, whether the baby was ever breastfed, whether the baby was breastfed at discharge and whether the baby ever received breastmilk substitutes, water-based drinks or oral medications. These questions give some insight into the initiation of breastfeeding during the first day(s) post birth. Unfortunately, these data items are not well completed and cannot be considered reliable enough for reporting. For example in 2008, 14% of forms had no response for "Baby ever breastfed" and in 2006 this percentage was 33%.

In 2009, Child Youth and Women's Program, ACT Health, implemented a simple data collection among Maternal and Child Health Nurses (MACH Nurses) in the ACT. When a baby presents for immunisation at 2, 4, 6 and 12 months, the MACH Nurse asks if the baby is breastfed. Due to software limitations, responses are currently limited to "Yes" only. Therefore it is not possible to determine whether a non-response indicates that the baby is not currently being breastfed or if the question was not asked. Given the success of initial implementation, further development of the data collection is continuing.

Results from the first nine months of breastfeeding data collection indicate that 73% of babies were still breastfed at 2 months, 63% at 4 months, 50% at 6 months and 23% at 12 months (Figure 26).

2000 1800 1600 1400 1200 Number 1000 800 600 400 200 2 MONTHS 4 MONTHS 6 MONTHS 12 MONTHS STILL BREASTFEEDING ■ TOTAL CLIENTS SEEN

Figure 26: Babies breastfed at 2, 4, 6, and 12 months, Child Youth and Women's Program Clients, ACT Health, 2009 - 10

Notes:

Includes babies presented to ACT Child Youth and Women's Program Immunisation service. It is not possible to determine whether a non-response indicates that the baby was not currently being

breastfed or that the question was not asked.

Source:

Child Youth and Women's Program, Community Health, ACT Health, 2009 - 10

These results are consistent with those from the ACT General Health Survey 2007-08 which indicated that 91% of infants (aged 0 to 2 years) had ever been breastfed. Of these, 63% were breastfed up until 3 months of age, 41% up to 6 months and 19% were breastfed for 12 months or more.[6]

# 2. ACT and Australia comparisons 2008

Summary perinatal health information for the ACT and Australia in 2008 is presented in Table 11. Summary information for ACT residents from 2005 to 2008 is presented in Table 12.

Key points for the ACT include:

- The ACT was significantly less likely to have teenagers who gave birth during 2008.
- The percentage of women aged over 35 years giving birth for the first time was significantly higher than the Australian percentage.
- The percentage of women who smoked tobacco during pregnancy was significantly lower in the ACT.
- ACT resident women who gave birth in the ACT were significantly more likely to have a spontaneous onset of labour and an instrumental birth. They were significantly less likely to have a caesarean section.
- The ACT had significantly fewer pre-term babies and low-birthweight babies than Australia.

Table 11: Summary measures of maternal and perinatal health, ACT residents and Australia,

Variable	Description of measure	ACT	Australia
Maternal age	Percentage of teenagers who gave birth (less than 20 years)	2.0	4.2*
Maternal age	Percentage of women aged 35 years and over who gave birth for the first time	17.0	14.5*
Smoking	Percentage of women who smoked during pregnancy	12.8	16.2*
Aboriginal Status	Percentage of women who identified as Aboriginal or Torres Strait Islander	1.5	3.8*
Maternal country of birth	Percentage of women born in Australia	77.0	74.3*
Hospital sector	Percentage of women who gave birth in public hospitals	64.9	69.8*
Multiple pregnancy	Percentage of women who had a multiple pregnancy	1.7	1.7
Onset of labour	Percentage of women who had a spontaneous onset of labour	61.5	57.0*
Induction of labour	Percentage of women who had an induced onset of labour	21.4	24.8*
Instrumental vaginal birth	Percentage of women who had an instrumental (forceps or vacuum extraction) birth	12.9	11.5*
Caesarean section	Percentage of women who had a caesarean section	28.5	31.1*
Maternal postnatal stay	Median length of hospital stay (days) for women who were discharged home	4.0	3.0
Preterm birth	Percentage of births that were less than 37 weeks gestation	6.8	8.2*
Low-birthweight	Percentage of liveborn babies weighing less than 2,500 grams at birth	4.9	6.1*
Apgar scores	Percentage of liveborn babies with an Apgar score of less than 7 at 5 minutes	2.1	1.4*
Perinatal death rate	Perinatal deaths per 1,000 births	11.9	10.2

Notes: For multiple births, the method of birth of the first born baby was used.

\*Significantly different at p<0.05.

Data for 2005 to 2008 ACT residents are contained in Table 12.

Sources: ACT Maternal and Perinatal Data Collection, 2008

Australia's Mothers and Babies, 2008, AIHW

### 3. Maternal and Perinatal Health, ACT, 2005 - 08

The following tables provide an overview of maternal and perinatal health in the ACT from 2005 to 2008. The data presented are primarily sourced from the ACT Maternal Perinatal Data Collection (ACT MPDC). A detailed description of the data collection and methodology used is provided in Section 6.

### **Summary indicators** 3.1.

Table 12: Summary measures of maternal and perinatal health, ACT residents, 2005 - 08

	, modeline of material and permater neutrin, see	2005	2006	2007	2008
	Description of measure	Value	Value	Value	Value
Maternal age	Percentage of mothers who were teenagers (less than 20 years)	2.7	2.4	2.6	2.0
Maternal age	Percentage of first-time mothers aged 35 years and over	15.5	16.3	14.6	17.0
Smoking	Percentage of women smoking during pregnancy	13.8	13.7	12.5	12.8
Aboriginal status	Percentage of women who identified as Aboriginal or Torres Strait Islander	1.9	1.7	1.5	1.5
Mother's country of birth	Percentage of women born in Australia	79.7	78.7	79.2	77.0
Hospital sector	Percentage of women who gave birth in public hospitals	59.9	62.8	64.6	64.9
Multiple pregnancy	Percentage of women who had a multiple pregnancy	1.4	2.1	1.6	1.7
Onset of labour	Percentage of women who had a spontaneous onset of labour	63.0	63.2	62.9	61.5
Induction of labour	Percentage of women who had an induced onset of labour	19.6	18.7	20.4	21.4
Instrumental vaginal birth	Percentage of women who had an instrumental (forceps or vacuum extraction) birth	12.4	13.0	12.7	12.9
Caesarean section	Percentage of women who had a caesarean section	27.8	28.9	27.5	28.5
Maternal postnatal stay	Average length of hospital stay (days) for women who were discharged home	4.3	4.2	4.2	4.0
Preterm birth	Percentage of all births that were less than 37 weeks gestation	7.3	7.6	6.7	6.8
Low-birthweight	Percentage of liveborn babies weighing less than 2,500 grams at birth	6.1	5.9	5.7	4.9
Apgar scores	Percentage of liveborn babies with an Apgar score of less than 7 at 5 minutes	0.9	1.4	1.5	2.1
Perinatal death rate	Perinatal deaths per 1,000 births	11.4	11.1	10.4	11.9

For multiple births, the method of birth of the first born baby was used. ACT Maternal and Perinatal Data Collection, 2005 - 08 Note:

Table 13: Core Maternity Indicator Project indicators, ACT residents, 2005 - 08

	2005	2006	2007	2008
Indicators	%	%	%	%
Caesarean sections for selected first births (a)	21.4	23.0	22.3	21.6
Episiotomies performed during first births (b)	25.6	23.6	21.0	17.6
Induction of labour for selected first births (a)	24.2	22.8	23.0	26.4
Major perineal tears during first births (b)(c)	3.0	4.4	4.1	4.3
Infant wellbeing at birth (low Apgar score at 5 minutes) (d)	0.6	0.9	1.1	1.4

Denominator includes women who were 20-34 years of age and gave birth for the first time to a singleton baby at 37-41 completed weeks gestation with a vertex presentation at birth. (a)

Source: ACT Maternal and Perinatal Data Collection, 2005 - 08

#### 3.2. Place of birth

Table 14: Type of birth facility where women gave birth, ACT, 2005 - 08

	20	005	20	006	20	007	2008		
Type of birth facility	No.	%	No.	%	No.	%	No.	%	
Hospital	4,740	94.9	5,117	95.6	5,155	95.1	5,253	94.0	
Birth centre	245	4.9	224	4.2	255	4.7	333	6.0	
Home	10	0.2	13	0.2	10	0.2	<5	n.p.	
Not stated	0	0.0	0	0.0	0	0.0	<5	n.p.	
Total	4,995	100.0	5,354	100.0	5,420	100.0	5,589	100.0	

Babies 'born before arrival' at hospital have been included with hospital numbers. ACT Maternal Perinatal Data Collection, 2005 - 08 Notes:

<sup>(</sup>b) Denominator includes women who gave birth for the first time and gave birth vaginally.

Numerator includes third and fourth degree tears.

Numerator includes babies born at 37-41 completed weeks gestation with an Apgar score of less than 7 at 5 minutes after birth. Denominator includes liveborn babies born at 37-41 completed weeks gestation. (c) (d)

Table 15: Actual place of birth by intended place of birth at onset of labour, ACT 2005 - 08

# Intended birth place at labour onset

	Hospita	al	Birth centre		Hom	е
Actual place of birth	No.	%	No.	%	No.	%
2005						
Hospital	4,565	99.6	146	36.9	12	80.0
Birth centre	0	0.0	245	61.9	0	0.0
Home	<5	n.p	<5	n.p.	<5	n.p.
Born before arrival	15	0.3	<5	n.p.	0	0.0
2006						
Hospital	4,948	99.8	151	39.8	6	37.5
Birth centre	0	0.0	224	59.1	0	0.0
Home	0	0.0	<5	n.p.	9	56.3
Born before arrival	11	0.2	0	0.0	<5	n.p.
2007						
Hospital	5,005	99.6	124	32.6	7	43.8
Birth centre	6	0.1	249	65.5	0	0.0
Home	0	0.0	<5	n.p.	9	56.3
Born before arrival	13	0.3	6	1.6	0	0.0
2008						
Hospital	4,882	99.5	172	34.2	9	75.0
Birth centre	12	0.2	319	63.4	0	0.0
Home	0	0.0	0	0.0	<5	n.p.
Born before arrival	13	0.3	12	2.4	0	0.0

n.p. not publishable due to small numbers. ACT Maternal Perinatal Data Collection, 2005 - 08 Note: Source:

Table 16: Place of birth, ACT, 2005 - 08

	2005		2006	2006		2007		3
	No.	%	No.	%	No.	%	No.	%
TCH Delivery Suite	1,675	33.5	1,904	35.6	2,042	37.7	2,045	36.6
TCH Birth Centre	245	4.9	224	4.2	255	4.7	333	6.0
Calvary Public	1,162	23.3	1,283	24.0	1,281	23.6	1,253	22.4
Public Hospitals	3,082	61.7	3,411	63.7	3,578	66.0	3,631	65.0
Calvary Private	688	13.8	784	14.6	770	14.2	755	13.5
Calvary John James	1,198	24.0	1,134	21.2	1,043	19.2	1,175	21.0
Private Hospitals	1,886	37.8	1,918	35.8	1,813	33.5	1,930	34.5
Homebirths	10	0.2	13	0.2	10	0.2	<5	n.p.
Born before arrival	17	0.3	12	0.2	19	0.4	25	0.4
Not stated	0	0.0	0	0.0	0	0.0	<5	n.p.
Total	4,995	100.0	5,354	100.0	5,420	100.0	5,589	100.0

Due to the rounding of percentages some totals may not equal 100.0.
n.p. not publishable due to small numbers.
ACT Maternal Perinatal Data Collection, 2005 - 08 Notes:

Table 17: ACT hospitals where women gave birth by state of residence, ACT, 2005 - 08

		ence				
	ACT res	idents	Non ACT res	sidents	To	tal
2005	No.	%	No.	%	No.	%
The Canberra Hospital	1,558	37.1	362	46.8	1,920	38.6
Calvary Public	1,042	24.8	120	15.5	1,162	23.4
ACT Public Hospitals	2,600	62.0	482	62.3	3,082	62.0
Calvary Private	612	14.6	76	9.8	688	13.8
Calvary John James	982	23.4	216	27.9	1,198	24.1
ACT Private Hospitals	1,594	38.0	292	37.7	1,886	38.0
Total	4,194	100.0	774	100.0	4,968	100.0
	ACT res	ACT residents Non ACT residents		To	tal	
2006	No.	%	No. %		No.	%
The Canberra Hospital	1,712	38.4	416	47.8	2,128	39.9
Calvary Public	1,160	26.0	123	14.1	1,283	24.1
ACT Public Hospitals	2,872	64.4	539	61.9	3,411	64.0
Calvary Private	683	15.3	101	11.6	784	14.7
Calvary John James	903	20.3	231	26.5	1,134	21.3
ACT Private Hospitals	1,586	35.6	332	38.1	1,918	36.0
Total	4,458	100.0	871	100.0	5,329	100.0
	ACT res	idents	Non ACT res	sidents	To	tal
2007	No.	%	No.	%	No.	%
The Canberra Hospital	1,845	40.5	452	52.0	2,297	42.6
Calvary Public	1,160	25.7	121	13.9	1,281	23.8
ACT Public Hospitals	3,005	66.5	573	65.9	3,578	66.4
Calvary Private	677	15.0	93	10.7	770	14.3
Calvary John James	840	18.6	203	23.4	1,043	19.3
ACT Private Hospitals	1,517	33.5	296	34.1	1,813	33.6
Total	4,522	100.0	869	100.0	5,391	100.0
	ACT res	idents	Non ACT res	sidents	To	tal
2008	No.	%	No.	%	No.	%
The Canberra Hospital	1,896	40.5	482	55.1	2,378	42.8
Calvary Public	1,145	24.4	108	12.4	1,253	22.5
ACT Public Hospitals	3,041	64.9	590	67.5	3,631	65.3
Calvary Private	675	14.4	80	9.2	755	13.6
Calvary John James	971	20.7	204	23.3	1,175	21.1
ACT Private Hospitals	1,646	35.1	284	32.5	1,930	34.7
Total	4,687	100.0	874	100.0	5,561	100.0

Women who did not give birth in an ACT Hospital have been excluded from this table. ACT Maternal Perinatal Data Collection, 2005 - 08 Note:

Table 18: Accommodation status by hospital of birth, ACT public hospitals, 2005 - 08

	20	2005		2006		07	2008	
Accommodation status	No.	%	No.	%	No.	%	No.	%
The Canberra Hospital								
Public	1,861	96.9	2,025	95.2	2,164	94.3	2,219	93.3
Private	59	3.1	103	4.8	132	5.7	159	6.7
Total	1,920	100.0	2,128	100.0	2,296	100.0	2,378	100.0
Calvary Public								
Public	1,139	98.0	1,230	95.9	1,231	96.1	1,200	95.8
Private	23	2.0	53	4.1	50	3.9	53	4.2
Total	1,162	100.0	1,283	100.0	1,281	100.0	1,253	100.0

In 2008, three records had accommodation status not stated, these have been allocated to public. ACT Maternal Perinatal Data Collection, 2005 - 08 Notes:

Source:

### 3.3. Seasonality of birth

Table 19: Month of birth, 2005 - 08

	2	:005	2	2006		2007	2008	
Month of birth	No.	%	No.	%	No.	%	No.	%
January	429	8.4	455	8.3	461	8.3	483	8.5
February	401	7.9	443	8.1	386	7.0	448	7.9
March	434	8.5	491	9.0	488	8.8	475	8.3
April	417	8.2	445	8.1	452	8.2	447	7.8
May	426	8.4	411	7.5	454	8.2	475	8.3
June	379	7.4	432	7.9	459	8.3	427	7.5
July	423	8.3	482	8.8	461	8.3	503	8.8
August	427	8.4	484	8.8	478	8.6	486	8.5
September	430	8.5	476	8.7	484	8.7	513	9.0
October	452	8.9	495	9.0	459	8.3	499	8.7
November	424	8.3	436	7.9	480	8.7	444	7.8
December	446	8.8	435	7.9	473	8.5	505	8.9
Total	5,088	100.0	5,485	100.0	5,535	100.0	5,705	100.0

ACT Maternal Perinatal Data Collection, 2005 - 08 Source:

### 3.4. Maternal characteristics

### 3.4.1. **Demographic characteristics**

Maternal demographic characteristics, ACT, 2005 - 08 Table 20:

		200	)5	20	06	20	07	20	08
		No.	%	No.	%	No.	%	No.	%
Age groups	Less than 20 years	130	2.6	133	2.5	133	2.5	119	2.1
	20-24 years	570	11.4	592	11.1	610	11.3	597	10.7
	25-29 years	1,315	26.3	1,396	26.1	1,459	26.9	1,471	26.3
	30-34 years	1,815	36.3	1,931	36.1	1,892	34.9	1,945	34.8
	35-39 years	978	19.6	1,095	20.5	1,106	20.4	1,223	21.9
	40 years or more	187	3.7	207	3.9	218	4.0	234	4.2
	Not stated	0	0.0	0	0.0	2	0.0	0	0.0
	Total	4,995	100.0	5,354	100.0	5,420	100.0	5,589	100.0
Country of	Australia	4,063	81.3	4,290	80.1	4,368	80.6	4,390	78.5
birth	Other Oceania	110	2.2	159	3.0	118	2.2	115	2.1
	Europe	241	4.8	267	5.0	244	4.5	284	5.1
	Africa inc Middle East	102	2.0	108	2.0	118	2.2	137	2.5
	Asia	397	7.9	439	8.2	476	8.8	559	10.0
	America	82	1.6	91	1.7	92	1.7	97	1.7
	Not stated	0	0.0	0	0.0	4	0.1	7	0.1
	Total	4,995	100.0	5,354	100.0	5,420	100.0	5,589	100.0
Aboriginal and Torres	Aboriginal and Torres Strait Women	103	2.1	105	2.0	87	1.6	103	1.8
Strait Islander	Non Aboriginal	4,892	97.9	5,227	97.6	5,325	98.2	5,461	97.7
status	Not stated	4,092	0.0	22	0.4	8	0.1	25	0.4
Status	Total	4,995	100.0	5,354	100.0	<b>5,420</b>	100.0	5,589	100.0
Usual place of	ACT residents	4,221	84.5	4,480	83.7	4,547	83.9	4,712	84.3
residence	North Canberra	441	8.8	476	8.9	490	9.0	544	9.7
residence	Belconnen	1,170	23.4	1,246	23.3	1,280	23.6	1,265	22.6
	Gungahlin-Hall	597	12.0	672	12.6	680	12.5	734	13.1
	North Side	2,208	44.2	2,394	44.7	2,450	45.2	2,543	45.5
	Woden Valley	339	6.8	345	6.4	347	6.4	365	6.5
	Weston Creek	284	5.7	289	5.4	302	5.6	307	5.5
	Tuggeranong	1,128	22.6	1,171	21.9	1,171	21.6	1,208	21.6
	South Canberra	262	5.2	281	5.2	277	5.1	289	5.1
	South Side	2,013	40.3	2,086	39.0	2,097	38.7	2,169	38.8
	Non-ACT residents	774	15.5	874	16.3	873	16.1	877	15.7
	Total	4,995	100.0	5,354	100.0	5,420	100.0	5,589	100.0
Marital status	Married/defacto	4,615	92.4	4,990	93.2	5,090	93.9	5,283	94.5
	Never married	324	6.5	330	6.2	275	5.1	250	4.5
	Other	56	1.1	34	0.6	55	1.0	56	1.0
	Total	4,995	100.0	5,354	100.0	5,420	100.0	5,589	100.0

Notes:

Data presented in this table may differ slightly from that previously published due to data edits.

Data presented include all women who gave birth in the ACT, including women who normally reside interstate

Other marital status includes widowed, divorced, separated and not stated.

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

Source: ACT Maternal Perinatal Data Collection, 2005 - 08 Table 21: Maternal age by hospital of birth, ACT, 2005 - 08

		The Can Hospi		Calvary Hosp		Calvary F Hosp		Calvary Jam	
		No.	%	No.	%	No.	%	No.	%
2005	Less than 20 years	92	4.8	35	3.0	<5	n.p.	<5	n.p.
	20-24 years	322	16.8	195	16.8	23	3.3	30	2.5
	25-29 years	527	27.4	378	32.5	167	24.3	238	19.9
	30-34 years	614	32.0	377	32.4	294	42.7	518	43.2
	35-39 years	293	15.3	149	12.8	178	25.9	352	29.4
	40 years or more	72	3.8	28	2.4	26	3.8	60	5.0
	Total	1,920	100.0	1,162	100.0	688	100.0	1,198	100.0
	Average age	29.4	ļ	29	.1	32.	.2	32	.7
2006	Less than 20 years	93	4.4	36	2.8	0	0.0	<5	n.p.
	20-24 years	350	16.4	189	14.7	22	2.8	31	2.8
	25-29 years	586	27.5	400	31.2	184	23.5	216	19.0
	30-34 years	658	30.9	430	33.5	336	42.9	501	44.2
	35-39 years	365	17.2	201	15.7	209	26.7	317	28.0
	40 years or more	76	3.6	27	2.1	33	4.2	69	6.1
	Total	2,128	100.0	1,283	100.0	784	100.0	1,134	100.0
	Average age	29.6	6	29	.6	32.	.3	32	.7
2007	Less than 20 years	90	3.9	39	3.0	0	0.0	<5	n.p.
	20-24 years	353	15.4	214	16.7	19	2.5	27	2.5
	25-29 years	669	29.1	421	32.9	172	22.3	194	18.6
	30-34 years	675	29.4	390	30.4	363	47.1	446	42.8
	35-39 years	427	18.6	182	14.2	177	23.0	316	30.3
	40 years or more	83	3.6	35	2.7	39	5.1	60	5.8
	Total	2,297	100.0	1,281	100.0	770	100.0	1,043	100.0
	Average age	29.7	7	29	.3	32.	.4	32	.9
2008	Less than 20 years	88	3.7	27	2.2	0	0.0	<5	n.p.
	20-24 years	360	15.1	191	15.2	10	1.3	36	3.0
	25-29 years	678	28.5	405	32.3	152	20.1	228	19.4
	30-34 years	729	30.7	374	29.8	335	44.4	497	42.3
	35-39 years	436	18.3	221	17.6	218	28.9	342	29.1
	40 years or more	87	3.7	35	2.8	40	5.3	72	6.1
	Total	2,378	100.0	1,253	100.0	755	100.0	1,175	100.0
	Average age	29.8	3	29	.7	32.	.8	32	.8

There were less than five women aged less than 20 years who gave birth in Calvary Private Hospital and Calvary John James, these have been included in the 20-24 year age group for all years. Notes:

Due to the rounding of percentages some totals may not equal 100.0. ACT Maternal Perinatal Data Collection, 2005 - 08

Source:

### 3.4.2. **Smoking during pregnancy**

**Table 22:** Smoking status and number of cigarettes smoked during pregnancy, ACT residents. 2005 - 08

	2005	5	2000	6	200	7	200	В
Smoking status	No.	%	No.	%	No.	%	No.	%
Smokers	584	13.8	615	13.7	568	12.5	606	12.9
Less than 10 cigarettes per day	180	4.3	188	4.2	184	4.0	217	4.6
10 or more cigarettes per day	257	6.1	275	6.1	219	4.8	189	4.0
No. of cigarettes not stated	147	3.5	152	3.4	165	3.6	200	4.3
Non smoker	3,637	86.2	3,865	86.3	3,979	87.5	4,081	86.6
Not stated	0	0.0	0	0.0	0	0.0	25	0.5
Total	4,221	100.0	4,480	100.0	4,547	100.0	4,713	100.0

Source: ACT Maternal Perinatal Data Collection, 2005 - 08

Table 23: Birthweight by smoking status during pregnancy, ACT residents, 2005 - 08

		S	moker	Non s	smoker
		No.	%	No.	%
2005	Less than 2,500 grams	77	13.2	184	5.1
	2,500 grams or more	507	86.8	3,453	94.9
	Total	584	100.0	3,637	100.0
	Average birthweight		3,146.8		3,422.8
2006	Less than 2,500 grams	70	11.4	176	4.6
	2,500 grams or more	545	88.6	3,689	95.4
	Total	615	100.0	3,865	100.0
	Average birthweight		3,160.1		3,429.7
2007	Less than 2,500 grams	60	10.6	196	4.9
	2,500 grams or more	508	89.4	3,782	95.0
	Not Stated	0	0.0	1	0.0
	Total	568	100.0	3,979	100.0
	Average birthweight		3,201.9		3,424.1
2008	Less than 2,500 grams	61	10.1	164	4.0
	2,500 grams or more	545	89.9	3,917	96.0
	Total	606	100.0	4,081	100.0
	Average birthweight		3,242.0		3,428.9

Source:

ACT Maternal Perinatal Data Collection, 2005 - 08

#### 3.4.3. **Pregnancy profile**

Pregnancy profile characteristics, ACT, 2005 - 08

	200	05	200	06	2007		2008	
	No.	%	No.	%	No.	%	No.	%
Previous pregnancies								
No previous pregnancies	1,604	32.1	1,774	33.1	1,789	33.0	1,778	31.8
One previous pregnancy	1,690	33.8	1,766	33.0	1,709	31.5	1,829	32.7
Two previous pregnancies	885	17.7	914	17.1	1,002	18.5	1,020	18.3
Three previous pregnancies	375	7.5	472	8.8	464	8.6	482	8.6
Four or more previous pregnancies	436	8.7	428	8.0	455	8.4	480	8.6
Not stated	5	0.1	0	0.0	1	0.0	0	0.0
Total	4,995	100.0	5,354	100.0	5,420	100.0	5,589	100.0
Parity								
No previous births	2,156	43.2	2,357	44.0	2,375	43.8	2,429	43.5
One previous birth	1,812	36.3	1,892	35.3	1,895	35.0	1,982	35.5
Two previous births	672	13.5	708	13.2	774	14.3	744	13.3
Three previous births	223	4.5	269	5.0	238	4.4	261	4.7
Four or more previous births	127	2.5	128	2.4	137	2.5	173	3.1
Not stated	5	0.1	0	0.0	1	0.0	0	0.0
Total	4,995	100.0	5,354	100.0	5,420	100.0	5,589	100.0

Note:

The number of pregnancies and a woman's parity may differ depending on the birth outcome for each

Parity refers to the number of children a woman has borne that are either live births or fetal deaths. Due to the rounding of percentages, some totals may not equal 100.0.

ACT Maternal Perinatal Data Collection, 2005 - 08

Table 25: Parity by hospital of birth, ACT, 2005 - 08

	The Can						Calv	
No. of previous	Hospi		Calvary		-	Private	John J	
births	No.	%	No.	%	No.	<u></u> %	No.	%
2005								
None	805	41.9	490	42.2	317	46.1	543	45.3
One	678	35.3	410	35.3	275	40.0	439	36.6
Two	266	13.9	176	15.1	70	10.2	151	12.6
Three	93	4.8	56	4.8	22	3.2	50	4.2
Four or more	77	4.0	29	2.5	<5	n.p.	12	1.0
Not stated	1	0.1	1	0.1	<5	n.p.	3	0.3
Total	1,920	100.0	1,162	100.0	688	100.0	1,198	100.0
2006								
None	911	42.8	533	41.5	373	47.6	538	47.4
One	727	34.2	414	32.3	314	40.1	425	37.5
Two	288	13.5	209	16.3	79	10.1	127	11.2
Three	130	6.1	87	6.8	15	1.9	33	2.9
Four or more	72	3.4	40	3.1	<5	n.p.	11	1.0
Not stated	0	0.0	0	0.0	<5	n.p.	0	0.0
Total	2,128	100.0	1,283	100.0	784	100.0	1,134	100.0
2007								
None	991	43.1	579	45.2	328	42.6	473	45.3
One	762	33.2	418	32.6	313	40.6	387	37.1
Two	337	14.7	186	14.5	102	13.2	140	13.4
Three	115	5.0	68	5.3	20	2.6	34	3.3
Four or more	92	4.0	30	2.3	7	0.9	8	8.0
Not stated	0	0.0	0	0.0	0	0.0	1	0.1
Total	2,297	100.0	1,281	100.0	770	100.0	1,043	100.0
2008								
None	1,038	43.7	545	43.5	306	40.5	537	45.7
One	776	32.6	409	32.6	322	42.6	466	39.7
Two	325	13.7	186	14.8	99	13.1	124	10.6
Three	130	5.5	75	6.0	22	2.9	31	2.6
Four or more	109	4.6	38	3.0	6	0.8	17	1.4
Not stated	0	0.0	0	0.0	0	0.0	0	0.0
Total	2,378	100.0	1,253	100.0	755	100.0	1,175	100.0

Parity refers to the number of children a woman has borne that are either live births or fetal deaths; it does not include pregnancies where the fetus was born before 20 weeks gestation.

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

ACT Maternal Perinatal Data Collection, 2005 - 08 Note:

Selected maternal characteristics by pregnancy status, ACT, 2008 Table 26:

		Primig	ıravida	Multig	ravida
		No.	%	No.	%
Maternal age	Less than 20 years	78	4.4	41	1.1
	20-24 years	268	15.1	329	8.6
	25-29 years	636	35.8	835	21.9
	30-34 years	546	30.7	1,399	36.7
	35-39 years	222	12.5	1,001	26.3
	40 years or more	28	1.6	206	5.4
	Total	1,778	100.0	3,811	100.0
Usual place of	ACT residents	1,501	84.4	3,211	84.3
residence	North side	820	46.1	1,723	45.2
	South side	681	38.3	1,488	39.0
	Non ACT residents	277	15.6	600	15.7
	Total	1,778	100.0	3,811	100.0
Marital status	Married/defacto	1,633	91.8	3,650	95.8
	Never married	134	7.5	116	3.0
	Widowed/divorced/separated	8	0.4	41	1.1
	Not stated	3	0.2	4	0.1
	Total	1,778	100.0	3,811	100.0

Due to the rounding of percentages, some totals may not equal 100.0. ACT Maternal Perinatal Data Collection, 2008 Note:

Source:

Table 27: Previous pregnancy outcomes for multigravida women, ACT, 2005 - 08

	20	05	200	06	200	07	200	08
	No.	%	No.	%	No.	%	No.	%
Previous live births								
No previous live births	577	17.0	604	16.9	622	17.1	674	17.7
One previous live birth	1,818	53.7	1,887	52.7	1,903	52.4	1,998	52.4
Two previous live births	665	19.6	714	19.9	751	20.7	743	19.5
Three previous live births	208	6.1	259	7.2	229	6.3	246	6.4
Four or more previous live births	118	3.5	116	3.2	125	3.4	150	3.9
Total	3,386	100.0	3,580	100.0	3,630	100.0	3,811	100.0
Previous neonatal deaths								
No previous neonatal deaths	3,352	99.0	3,558	99.4	3,578	98.6	3,758	98.6
One or more previous neonatal deaths	34	1.0	22	0.6	52	1.4	53	1.4
Total	3,386	100.0	3,580	100.0	3,630	100.0	3,811	100.0
Previous fetal deaths								
No previous fetal deaths	3,330	98.3	3,512	98.1	3,567	98.3	3,732	97.9
One or more previous fetal deaths	56	1.7	68	1.9	63	1.7	79	2.1
Total	3,386	100.0	3,580	100.0	3,630	100.0	3,811	100.0
Previous fetal loss								
No previous fetal loss	1,942	57.4	2,063	57.6	2,011	55.4	2,078	54.5
One previous fetal loss	910	26.9	968	27.0	1,031	28.4	1,127	29.6
Two previous fetal losses	336	9.9	328	9.2	357	9.8	410	10.8
Three previous fetal losses	115	3.4	130	3.6	143	3.9	113	3.0
Four or more previous fetal losses	83	2.5	91	2.5	88	2.4	83	2.2
Total	3,386	100.0	3,580	100.0	3,630	100.0	3,811	100.0

Notes: 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.

Due to the rounding of percentages, some totals may not equal 100.0. ACT Maternal Perinatal Data Collection, 2005 - 08

### 3.4.4. **Multiple births**

Table 28: Women having a multiple birth, ACT, 2005 - 08

	200	2005		2006		2007		2008	
Plurality	No.	%	No.	%	No.	%	No.	%	
Singleton	4,908	98.3	5,223	97.6	5,306	97.9	5,474	97.9	
Multiple	87	1.7	131	2.4	114	2.1	116	2.1	
Total	4,995	100.0	5,354	100.0	5,420	100.0	5,589	100.0	

There were less than five sets of triplets born in each of the years presented. One set of quads was born in 2005. The table includes births in the ACT to both ACT and non-ACT residents accounting for the relatively Note:

high percentage of multiple births. ACT Maternal Perinatal Data Collection, 2005 - 08 Source:

Women having a multiple birth by hospital of birth, ACT, 2005 - 08 Table 29:

	The Can	berra	_				Calvary .	lohn
	Hospi	tal	Calvary P	ublic	Calvary F	Private	Jame	s
Plurality	No.	%	No.	%	No.	%	No.	%
2005								
Singleton	1,868	97.3	1,157	99.6	677	98.4	1,179	98.4
Multiple	52	2.7	5	0.4	11	1.6	19	1.6
Total	1,920	100.0	1,162	100.0	688	100.0	1,198	100.0
2006								
Singleton	2,053	96.5	1,263	98.4	775	98.9	1,107	97.6
Multiple	75	3.5	20	1.6	9	1.1	27	2.4
Total	2,128	100.0	1,283	100.0	784	100.0	1,134	100.0
2007								
Singleton	2,239	97.5	1,262	98.5	759	98.6	1,018	97.6
Multiple	58	2.5	19	1.5	11	1.4	25	2.4
Total	2,297	100.0	1,281	100.0	770	100.0	1,043	100.0
2008								
Singleton	2,313	97.3	1,235	98.6	743	98.4	1,155	98.3
Multiple	65	2.7	18	1.4	12	1.6	20	1.7
Total	2,378	100.0	1,253	100.0	755	100.0	1,175	100.0

No multiple births were homebirths or born before arrival at hospital during 2005 - 08. ACT Maternal Perinatal Data Collection, 2005 - 08 Note:

Table 30: Plurality by maternal age, ACT, 2005 - 08

	Sing	leton	Multip	ole birth
	No.	%	No.	%
2005				
Less than 20 years	130	2.6	0	0.0
20-24 years	562	11.5	8	9.2
25-29 years	1,297	26.4	18	20.7
30-34 years	1,782	36.3	33	37.9
35 years or more	1,137	23.2	28	32.
Not stated	0	0.0	0	0.0
Total	4,908	100.0	87	100.
2006				
Less than 20 years	132	2.5	1	0.
20-24 years	583	11.2	9	6.
25-29 years	1,365	26.1	31	23.
30-34 years	1,877	35.9	54	41.
35 years or more	1,266	24.2	36	27.
Not stated	0	0.0	0	0.
Total	5,223	100.0	131	100.
2007				
Less than 20 years	129	2.4	4	3.
20-24 years	604	11.4	6	5.
25-29 years	1,422	26.8	37	32.
30-34 years	1,858	35.0	34	29.
35 years or more	1,291	24.3	33	28.
Not stated	2	0.0	0	0.
Total	5,306	100.0	114	100.
2008				
Less than 20 years	117	2.1	2	1.
20-24 years	592	10.8	5	4.
25-29 years	1,443	26.4	28	24.
30-34 years	1,907	34.9	38	33.
35 years or more	1,415	25.8	42	36.
Not stated	0	0.0	0	0.
Total	5,474	100.0	115	100.

Source:

ACT Maternal Perinatal Data Collection, 2005 - 08

### 3.5. **Antenatal Care**

Table 31: Antenatal length of stay in hospital, ACT, 2005 - 08

	200	5	2006		20	07	2008		
	No.	%	No.	%	No.	%	No.	%	
< 1 day	3,163	63.7	3,400	63.8	3,524	65.4	3,624	65.2	
1 day	1,511	30.4	1,593	29.9	1,525	28.3	1,579	28.4	
2-6 days	229	4.6	275	5.2	295	5.5	330	5.9	
7 days or more	65	1.3	61	1.1	47	0.9	28	0.5	
Total	4,968	100.0	5,329	100.0	5,391	100.0	5,561	100.0	

Note:

Antenatal length of stay only includes hospital births.

There were seven records in 2008 for whom antenatal length of stay was not stated, these have been included in < 1 day.

Due to the rounding of percentages some totals may not equal 100.0. ACT Maternal Perinatal Data Collection, 2005 - 08

Antenatal length of stay in hospital by state of residence, ACT, 2005 - 08 Table 32:

	ACT resid	lents	Non ACT	esidents
	No.	%	No.	%
2005				
Less than 1 day	2,733	65.2	430	55.6
1 day	1,243	29.6	268	34.6
2 - 6 days	178	4.2	51	6.6
7 or more days	40	1.0	25	3.2
Total	4,194	100.0	774	100.0
2006				
Less than 1 day	2,882	64.6	518	59.5
1 day	1,335	29.9	258	29.6
2 - 6 days	206	4.6	69	7.9
7 or more days	35	8.0	26	3.0
Total	4,458	100.0	871	100.0
2007				
Less than 1 day	2,972	65.7	552	63.5
1 day	1,308	28.9	217	25.0
2 - 6 days	216	4.8	79	9.1
7 or more days	26	0.6	21	2.4
Total	4,522	100.0	869	100.0
2008				
Less than 1 day	3,089	65.9	535	61.2
1 day	1,333	28.4	246	28.1
2 - 6 days	247	5.3	83	9.5
7 or more days	18	0.4	10	1.1
Total	4,687	100.0	874	100.0

Antenatal length of stay only includes hospital births. Note:

There were seven records in 2008 for whom antenatal length of stay was not stated, these have been included

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

ACT Maternal Perinatal Data Collection, 2005 - 08 Source:

Table 33: Antenatal diagnostic procedures, ACT 2005 - 08

	20	005	2	2006	2	2007	20	800
Antenatal procedures	No.	%	No.	%	No.	%	No.	%
Ultrasound	4,118	82.4	4,496	84.0	4,616	85.2	5,110	91.4
Cardiotocography	2,370	47.4	2,349	43.9	2,372	43.8	2,056	36.8
Amniocentesis less than 20 weeks	60	1.2	58	1.1	59	1.1	56	1.0
Amniocentesis 20 weeks or more	11	0.2	9	0.2	11	0.2	6	0.1
CT-scan	9	0.2	7	0.1	6	0.1	<5	n.p.
Chorionic villi sampling	17	0.3	18	0.3	35	0.6	26	0.5
Cervical suture	10	0.2	6	0.1	7	0.1	7	0.1
X-ray	5	0.1	<5	n.p.	<5	n.p.	<5	n.p.

Percentages for the specified antenatal procedures are for all women who gave birth in the ACT in a given year. A woman may have more than one procedure. Notes:

n.p. not publishable due to small numbers. ACT Maternal Perinatal Data Collection, 2005 - 08 Source:

### Obstetric complications 3.6.

Table 34: Obstetric complications, ACT, 2005 - 08

	2005		20	06	2	007	2008		
	No.	%	No.	%	No.	%	No.	%	
No complications	2,294	45.9	3,229	60.3	2,530	46.7	2,484	44.4	
One complication	2,022	40.5	1,647	30.8	2,123	39.2	2,267	40.4	
Multiple complications	679	13.6	478	8.9	767	14.2	841	15.0	
Total	4,995	100.0	5,354	100.0	5,420	100.0	5,589	100.0	

Note:

Less than one per cent of women giving birth in the ACT gave birth outside a hospital. Complications for these women are reported from a single source using the ACT Midwives Data Collection Form.

Sources:

ACT Maternal Perinatal Data Collection, 2005 - 08

ACT Admitted Patient Care Data, 2005 - 08

Obstetric complications by usual state of residence, ACT, 2005 - 08 **Table 35:** 

	ACT res	idents	Non ACT	residents	Total		
	No.	%	No.	%	No.	%	
2005							
No complications	2,002	47.4	292	37.7	2,294	45.9	
One complication	1,692	40.1	330	42.6	2,022	40.5	
Multiple complications	527	12.5	152	19.6	679	13.6	
Total	4,221	100.0	774	100.0	4,995	100.0	
2006							
No complications	2,761	61.6	468	53.5	3,229	60.3	
One complication	1,342	30.0	305	34.9	1,647	30.8	
Multiple complications	377	8.4	101	11.6	478	8.9	
Total	4,480	100.0	874	100.0	5,354	100.0	
2007							
No complications	2,192	48.2	338	38.7	2,530	46.7	
One complication	1,768	38.9	355	40.7	2,123	39.2	
Multiple complications	587	12.9	180	20.6	767	14.2	
Total	4,547	100.0	873	100.0	5,420	100.0	
2008							
No complications	2,161	45.9	320	36.5	2,481	44.4	
One complication	1,898	40.3	369	42.1	2,267	40.6	
Multiple complications	654	13.9	187	21.4	841	15.0	
Total	4,713	100.0	876	100.0	5,589	100.0	

Note:

Less than one per cent of women giving birth in the ACT gave birth outside a hospital. Complications for these

women are reported from a single source using the ACT Midwives Data Collection Form.

Source:

ACT Maternal Perinatal Data Collection, 2005 - 08

ACT Admitted Patient Care Data, 2005 - 08

Table 36: Obstetric complications by maternal age, ACT, 2005 - 08

	Less tl			i							-	ears or
	yea No.	ars %	20-24 No.	years %	25-29 No.	years %	30-34 No.	years %	35- 39 No.	years %	Mo.	ore %
2005	110.	70	110.	/0	140.	/0	110.	70	110.	/0	110.	
No complications	71	54.6	269	47.2	616	46.8	839	46.2	420	42.9	79	42.2
·										_		
One complication	45	34.6	236	41.4	542	41.2	743	40.9	392	40.1	64	34.2
Multiple complications	14	10.8	65	11.4	157	11.9	233	12.8	166	17.0	44	23.5
Total	130	100.0	570	100.0	1,315	100.0	1,815	100.0	978	100.0	187	100.0
2006												
No complications	79	59.4	348	58.8	862	61.7	1,175	60.8	657	60.0	108	52.2
One complication	40	30.1	201	34.0	423	30.3	588	30.5	324	29.6	71	34.3
Multiple complications	14	10.5	43	7.3	111	8.0	168	8.7	114	10.4	28	13.5
Total	133	100.0	592	100.0	1,396	100.0	1,931	100.0	1,095	100.0	207	100.0
2007												
No complications	73	54.9	310	50.8	739	50.7	900	47.6	438	39.6	68	31.2
One complication	51	38.3	225	36.9	564	38.7	730	38.6	450	40.7	103	47.2
Multiple complications	9	6.8	75	12.3	156	10.7	262	13.8	218	19.7	47	21.6
Total	133	100.0	610	100.0	1,459	100.0	1,892	100.0	1,106	100.0	218	100.0
2008												
No complications	64	53.8	288	48.2	697	47.4	877	45.1	470	38.4	85	36.3
One complication	40	33.6	224	37.5	576	39.2	784	40.3	539	44.1	104	44.4
Multiple complications	15	12.6	85	14.2	198	13.5	284	14.6	214	17.5	45	19.2
Total	119	100.0	597	100.0	1,471	100.0	1,945	100.0	1,223	100.0	234	100.0

Notes:

Less than one per cent of women giving birth in the ACT gave birth outside of a hospital. Complications for these women are reported from a single source using the ACT Midwives Data Collection Form.

There were two women in 2007 for whom maternal age was 'not stated', these have been excluded.

Due to the rounding of percentages some totals may not equal 100.0.
ACT Maternal Perinatal Data Collection, 2005 - 08
ACT Admitted Patient Care Data, 2005 - 08

Obstetric complications, ACT, 2005 - 08 **Table 37:** 

		05	200		20	007	2008	
	No.	%	No.	%	No.	%	No.	%
Superimposed pre-eclampsia and Gestational oedema proteinuria (O11 - O12)	10	0.2	12	0.2	9	0.2	14	0.2
Mild pre-eclampsia (O13)	172	3.4	102	1.9	209	3.8	191	3.3
Moderate and severe pre-eclampsia (O14)	124	2.4	119	2.2	142	2.6	140	2.5
Eclampsia (O15)	0	0.0	<5	n.p.	<5	n.p.	5	0.1
Unspecified maternal hypertension (O16)	52	1.0	29	0.5	68	1.2	73	1.3
Haemorrhage in early pregnancy (O20)	19	0.4	21	0.4	17	0.3	22	0.4
Excessive vomiting in pregnancy (O21)	64	1.3	55	1.0	55	1.0	59	1.0
Venous complications in pregnancy (O22)	22	0.4	12	0.2	15	0.3	17	0.3
Infections of genitourinary tract in pregnancy (O23)	59	1.2	24	0.4	31	0.6	29	0.5
Diabetes mellitus arising in pregnancy (gestational diabetes) (O24.4 & O24.8)	223	4.4	258	4.7	314	5.7	337	5.9
Malnutrition in pregnancy (O25–O25)	0	0.0	<5	n.p.	0	0.0	0	0.0
Maternal care for other conditions predominantly related to pregnancy (O26)	66	1.3	37	0.7	63	1.1	43	0.8
Abnormal findings on antenatal screening of mother (O28)	<5	n.p.	<5	n.p.	0	0.0	<5	n.p.
Multiple gestation & complications specific to multiple gestation (O30 - O31)	74	1.5	82	1.5	88	1.6	91	1.6
Maternal care for known or suspected malpresentation of fetus (O32)	216	4.2	160	2.9	268	4.8	319	5.6
Maternal care for known or suspected disproportion (O33)	42	0.8	26	0.5	39	0.7	49	0.9
Maternal care for congenital malformation of pelvic organs (O34)	585	11.5	376	6.9	640	11.6	716	12.6
Maternal care for known or suspected fetal abnormality and damage (O35)	43	0.8	40	0.7	33	0.6	26	0.5
Maternal care for other known or suspected fetal problems (O36)	266	5.2	187	3.4	263	4.8	314	5.5
Disorders of amniotic fluid and membranes (O40 - O41)	96	1.9	67	1.2	99	1.8	84	1.5
Premature (pre-labour) rupture of membranes (O42)	495	9.7	428	7.8	541	9.8	612	10.7
Placental disorders (O43)	66	1.3	47	0.9	42	8.0	55	1.0
Placenta praevia (O44)	79	1.6	52	0.9	62	1.1	89	1.6
Abruptio placentae (O45)	21	0.4	35	0.6	25	0.5	23	0.4
Antepartum haemorrhage, not elsewhere classified (O46)	88	1.7	95	1.7	110	2.0	113	2.0
False labour (O47)	169	3.3	123	2.2	179	3.2	177	3.1
Prolonged pregnancy (O48)	536	10.5	339	6.2	563	10.2	621	10.9

Notes:

Percentages for the specified obstetric complications are for all women who gave 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 are as per the ICD-10-AM manuals.

ACT Maternal Perinatal Data Collection 2005 - 08

ACT Admitted Patient Care Data, 2005 - 08

### 3.7. Labour and birth

### 3.7.1. **Onset of labour**

Table 38: Labour characteristics, ACT, 2005 - 08

	2	005	20	006	20	007	20	08
	No.	%	No.	%	No.	%	No.	%
Onset of Labour								
Spontaneous	3,060	61.3	3,296	61.6	3,322	61.3	3,346	59.9
Induced	1,012	20.3	1,016	19.0	1,123	20.7	1,225	21.9
No Labour	923	18.5	1,042	19.5	975	18.0	1,018	18.2
Total	4,995	100.0	5,354	100.0	5,420	100.0	5,589	100.0
Type of Labour								
Augmentation - medical	379	7.6	427	8.0	366	6.8	370	6.6
Augmentation - surgical	706	14.1	763	14.3	795	14.7	641	11.5
Augmentation - combined	221	4.4	235	4.4	245	4.5	292	5.2
Total Augmentation	1,306	26.1	1,425	26.6	1,406	25.9	1,303	23.3
Induction - medical	269	5.4	231	4.3	256	4.7	434	7.8
Induction - surgical	358	7.2	101	1.9	104	1.9	121	2.2
Induction - combined	385	7.7	684	12.8	746	13.8	623	11.1
Induction - other	0	0.0	0	0.0	17	0.3	47	8.0
Total induction	1,012	20.3	1,016	19.0	1,123	20.7	1,225	21.9
Spontaneous	1,754	35.1	1,871	34.9	1,916	35.3	2,043	36.6
No labour	923	18.5	1,042	19.5	975	18.0	1,018	18.2
Total	4,995	100.0	5,354	100.0	5,420	100.0	5,589	100.0

Notes: In 2007, one record where onset of labour and type of labour were 'not stated' has been recoded to

'Spontaneous'.

ACT Admitted Patient Care data are used to improve 'type of labour' data. Due to the rounding of percentages some totals may not equal 100.0. ACT Maternal Perinatal Data Collection, 2005 - 08

Source:

Table 39: Labour characteristics by hospital, ACT, 2008

		The Canberra Hospital		Public	Calvary F	Private	Calvary John James	
	No.	%	No.	%	No.	%	No.	%
Onset of Labour								
Spontaneous	1,588	66.8	845	67.4	384	50.9	502	42.7
Induced	463	19.5	222	17.7	207	27.4	332	28.3
No Labour	327	13.8	186	14.8	164	21.7	341	29.0
Total	2,378	100.0	1,253	100.0	755	100.0	1,175	100.0
Type of Labour								
Augmentation - medical	149	6.3	99	7.9	55	7.3	67	5.7
Augmentation - surgical	340	14.3	149	11.9	81	10.7	71	6.0
Augmentation - combined	155	6.5	67	5.3	26	3.4	42	3.6
Total Augmentation	644	27.1	315	25.1	162	21.5	180	15.3
Induction - medical	163	6.9	73	5.8	81	10.7	116	9.9
Induction - surgical	47	2.0	15	1.2	14	1.9	45	3.8
Induction - combined	228	9.6	131	10.5	102	13.5	162	13.8
Induction - other	25	0.1	3	0.2	10	1.3	9	0.8
Total induction	463	19.5	222	17.7	207	27.4	332	28.3
Spontaneous	944	39.7	530	42.3	222	29.4	322	27.4
No labour	327	13.8	186	14.8	164	21.7	341	29.0
Total	2,378	100.0	1,253	100.0	755	100.0	1,175	100.0

Due to the rounding of percentages some totals may not equal 100.0. ACT Maternal Perinatal Data Collection, 2008 Note:

Labour characteristics by hospital, ACT, 2007 Table 40:

	The Car Hosp		Calvary	Public	Calvary F	Private	Calvary John James	
	No.	%	No.	%	No.	%	No.	%
Onset of Labour								
Spontaneous	1,583	68.9	876	68.4	392	50.9	442	42.4
Induced	405	17.6	222	17.3	195	25.3	301	28.9
No Labour	309	13.5	183	14.3	183	23.8	300	28.8
Total	2,297	100.0	1,281	100.0	770	100.0	1,043	100.0
Type of Labour								
Augmentation - medical	161	7.0	98	7.7	48	6.2	59	5.7
Augmentation - surgical	402	17.5	215	16.8	88	11.4	90	8.6
Augmentation - combined	116	5.1	62	4.8	32	4.2	35	3.4
Total Augmentation	679	29.6	375	29.3	168	21.8	184	17.6
Induction - medical	96	4.2	46	3.6	46	6.0	68	6.5
Induction - surgical	38	1.7	15	1.2	19	2.5	32	3.1
Induction - combined	264	11.5	157	12.3	125	16.2	200	19.2
Induction - other	7	0.3	4	0.3	5	0.6	1	0.1
Total induction	405	17.6	222	17.3	195	25.3	301	28.9
Spontaneous	904	39.4	500	39.0	224	29.1	258	24.7
No labour	309	13.5	183	14.3	183	23.8	300	28.8
Total	2,297	100.0	1,281	100.0	770	100.0	1,043	100.0

In 2007, one record where 'type of labour' and 'onset of labour' was 'not stated' were recoded as 'Spontaneous'. Due to the rounding of percentages some totals may not equal 100.0.

ACT Maternal Perinatal Data Collection, 2007 Note:

Source:

Labour characteristics by hospital, ACT, 2006 **Table 41:** 

	The Car Hosp		Calvary	Public	Calvary F	Private	Calvary Jam	
	No.	%	No.	%	No.	%	No.	%
Onset of Labour								
Spontaneous	1,438	67.6	915	71.3	442	56.4	476	42.0
Induced	385	18.1	185	14.4	177	22.6	269	23.7
No Labour	305	14.3	183	14.3	165	21.0	389	34.3
Total	2,128	100.0	1,283	100.0	784	100.0	1,134	100.0
Type of Labour								
Augmentation - medical	165	7.8	117	9.1	82	10.5	63	5.6
Augmentation - surgical	369	17.3	198	15.4	99	12.6	97	8.6
Augmentation - combined	92	4.3	77	6.0	40	5.1	26	2.3
Total Augmentation	626	29.4	392	30.6	221	28.2	186	16.4
Induction - medical	79	3.7	50	3.9	45	5.7	57	5.0
Induction - surgical	25	1.2	18	1.4	21	2.7	37	3.3
Induction - combined	281	13.2	117	9.1	111	14.2	175	15.4
Induction - other	0	0.0	0	0.0	0	0.0	0	0.0
Total induction	385	18.1	185	14.4	177	22.6	269	23.7
Spontaneous	812	38.2	523	40.8	221	28.2	290	25.6
No labour	305	14.3	183	14.3	165	21.0	389	34.3
Total	2,128	100.0	1,283	100.0	784	100.0	1,134	100.0

Due to the rounding of percentages some totals may not equal 100.0. ACT Maternal Perinatal Data Collection, 2006 Note:

Labour characteristics by hospital, ACT, 2005 Table 42:

	The Car Hosp		Calvary	Public	Calvary F	Calvary Private		John es
	No.	%	No.	%	No.	%	No.	%
Onset of Labour								
Spontaneous	1,283	66.8	810	69.7	390	56.7	551	46.0
Induced	362	18.9	185	15.9	159	23.1	305	25.5
No Labour	275	14.3	167	14.4	139	20.2	342	28.5
Total	1,920	100.0	1,162	100.0	688	100.0	1,198	100.0
Type of Labour								
Augmentation - medical	153	8.0	90	7.7	57	8.3	79	6.6
Augmentation - surgical	319	16.6	182	15.7	86	12.5	119	9.9
Augmentation - combined	70	3.6	66	5.7	46	6.7	39	3.3
Total Augmentation	542	28.2	338	29.1	189	27.5	237	19.8
Induction - medical	99	5.2	41	3.5	41	6.0	88	7.3
Induction - surgical	106	5.5	73	6.3	58	8.4	120	10.0
Induction - combined	157	8.2	71	6.1	60	8.7	97	8.1
Induction - other	0	0.0	0	0.0	0	0.0	0	0.0
Total induction	362	18.9	185	15.9	159	23.1	305	25.5
Spontaneous	741	38.6	472	40.6	201	29.2	314	26.2
No labour	275	14.3	167	14.4	139	20.2	342	28.5
Total	1,920	100.0	1,162	100.0	688	100.0	1,198	100.0

Note: Due to the rounding of percentages some totals may not equal 100.0. ACT Maternal Perinatal Data Collection, 2005

Source:

Table 43: Labour characteristics by hospital sector, ACT, 2008

		ACT Public Hosp	oital	ACT Private Hos	pital
		No.	%	No.	%
Onset of Labour	Spontaneous	2,433	67.0	886	45.9
	Induced	685	18.9	539	27.9
	No Labour	513	14.1	505	26.2
	Total	3,631	100.0	1,930	100.0
Type of Labour	Spontaneous	1,474	40.6	544	28.2
	Augmentation	959	26.4	342	17.7
	Induction	685	18.9	539	27.9
	No Labour	513	14.1	505	26.2
	Total	3,631	100.0	1,930	100.0

Notes: Two records where 'type of labour' and 'onset of labour' were 'not stated' were recoded as 'Spontaneous'.

Due to the rounding of percentages some totals may not equal 100.0. ACT Maternal Perinatal Data Collection, 2008

Source:

#### 3.7.2. **Method of birth**

Table 44: Method of birth, ACT, 2005 - 08

	200	5	2006		2007	•	2008	
Method of birth, ACT	No.	%	No.	%	No.	%	No.	%
Normal birth	2,912	58.3	3,030	56.6	3,184	58.7	3,215	57.5
Caesarean section	1,442	28.9	1,607	30.0	1,567	28.9	1,652	29.6
Forceps	272	5.4	305	5.7	338	6.2	359	6.4
Vacuum extraction	341	6.8	381	7.1	331	6.1	363	6.5
Vaginal breech	28	0.6	31	0.6	*		*	
Total	4,995	100.0	5,354	100.0	5,420	100.0	5,589	100.0

Notes: Following medical record review, birth method that was originally coded as 'other' were recoded as 'normal

\*In 2007, vaginal breech was removed as a method of birth from the data collection form. Breech is now coded as a type of presentation and method of birth is coded according to the relevant category.

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

Source: ACT Maternal Perinatal Data Collection, 2005 - 08

Table 45: Method of birth by type of labour, ACT, 2008

				Туре	of Labour			
	Sponta	aneous	Augmen	tation	Induc	tion	No Lal	oour
Method of birth	No.	%	No.	%	No.	%	No.	%
Normal birth	1,667	81.6	809	62.1	739	60.3	0	0.0
Caesarean section	196	9.6	180	13.8	258	21.1	1,018	100.0
Forceps	78	3.8	162	12.4	119	9.7	0	0.0
Vacuum extraction	102	5.0	152	11.7	109	8.9	0	0.0
Total	2,043	100.0	1,303	100.0	1,225	100.0	1,018	100.0

Notes: Women who have had no labour have had an elective caesarean section (18.0%).

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

The method of birth in the table above presents the number of women who gave birth, in the case of multiple births, the method of birth of the first-born baby is presented in this table.

Source: ACT Maternal Perinatal Data Collection, 2008

Method of birth by hospital, ACT, 2008 Table 46:

	The Car Hosp		Calvary Public Calvary Private				Calvary John James		
Method of birth	No.	%	No.	%	No.	%	No.	%	
Normal birth	1,553	65.3	799	63.8	377	49.9	458	39.0	
Caesarean Section	568	23.9	326	26.0	246	32.6	512	43.6	
Forceps	153	6.4	60	4.8	29	3.8	117	10.0	
Vacuum Extraction	104	4.4	68	5.4	103	13.6	88	7.5	
Total	2,378	100.0	1,253	100.0	755	100.0	1,175	100.0	

Notes: Women who did not give birth in an ACT hospital have been excluded from this table.

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

The method of birth in the figure above is for women who gave birth, in the case of multiple births, the method

of birth of the first-born baby is presented.

Source: ACT Maternal Perinatal Data Collection, 2008

Table 47: Selected characteristics for caesarean section, ACT, 2008

				Rate per
		No.	%	1,000
Accommodation	Public	831	50.3	241.4
	Private	821	49.7	382.9
	Total	1,652	100.0	
Parity	Primipara	705	42.7	290.2
	Multipara	947	57.3	299.7
	Total	1,652	100.0	
Plurality	Singleton	1,585	95.9	289.7
	Multiple birth	67	4.1	582.6
	Total	1,652	100.0	
Aboriginal and Torres Strait	Aboriginal and Torres Strait Islander	31	1.9	301.0
Islander Status	Non Aboriginal	1,608	97.3	294.5
	Not stated	13	0.8	
	Total	1,652	100.0	
Maternal age	Less than 20 yrs	15	0.9	126.1
	20-24 yrs	113	6.8	189.3
	25-29 yrs	373	22.6	253.6
	30-34 yrs	582	35.1	298.2
	35-39 yrs	464	28.1	379.4
	40 yrs or more	107	6.5	457.3
	Total	1,652	100.0	
Presentation (for first born)	Vertex	1,408	85.2	265.9
	Breech	222	13.4	870.6
	Other (including Face & Brow)	22	1.3	578.9
	Total	1,652	100.0	
Birth weight	Less than 1,500 grams	26	1.6	292.1
	1,500 to 2,499 grams	108	6.5	415.4
	2,500 to 3,999 grams	1,295	78.4	284.7
	4,000 grams and over	223	13.5	323.5
	Total	1,652	100.0	
Gestational age	20 to 36 weeks	165	10.0	392.9
-	37 to 41 weeks	1,454	88.0	287.0
	42 weeks or more	33	2.0	323.5
	Total	1,652	100.0	

Notes:

Where data that were 'not stated' were less than five they have been recoded to the group with the majority of records. Rates per 1,000 births are calculated using the total number of births in the category as the

denominator.

Source: ACT Maternal Perinatal Data Collection, 2008

# 3.8. Perineal status

Table 48: Perineal status for vaginal births by method of birth, ACT, 2008

	Normal bi	irth	Instrumental	birth
Perineal status	No.	%	No.	%
Intact	1,179	36.7	95	13.2
1st degree laceration	577	17.9	51	7.1
2nd degree laceration	1,240	38.6	269	37.3
3rd or 4th degree laceration	56	1.8	36	5.0
Episiotomy	140	4.4	223	30.9
Laceration and episiotomy	20	0.6	48	6.6
Not stated	3	0.1	0	0.0
Total	3,215	100.0	722	100.0

Source:

ACT Maternal Perinatal Data Collection, 2008

Table 49: Perineal status for vaginal births by hospital of birth, ACT, 2008

	The Car Hosp		Calvary P	ublic	Calvary	Private	Calvary Jame	
Perineal status	No.	%	No.	%	No.	%	No.	%
Intact	688	38.0	300	32.4	117	23.0	157	23.7
1st degree laceration	294	16.2	138	14.9	88	17.3	102	15.4
2nd degree laceration	657	36.3	392	42.3	248	48.7	202	30.5
3rd or 4th degree laceration	54	3.0	26	2.8	6	1.2	6	0.9
Episiotomy	94	5.2	58	6.3	37	7.3	174	26.2
Laceration and episiotomy	20	1.1	13	1.4	13	2.6	22	3.3
Not stated	3	0.2	0	0.0	0	0.0	0	0.0
				100.				100.
Total	1,810	100.0	927	0	509	100.0	663	0

Source: ACT Maternal Perinatal Data Collection, 2008

# 3.9. Complications of labour, birth and puerperium

Table 50: Complications of labour and birth, ACT, 2005 - 08

	2	005	2	2006	2	007	2	800
	No.	%	No.	%	No.	%	No.	%
No complications	1,654	33.1	3,060	57.2	1,875	34.6	1,779	31.8
One complication	3,172	63.5	2,191	40.9	3,383	62.4	3,628	64.9
Multiple complications	169	3.4	103	1.9	162	3.0	182	3.3
Total	4,995	100.0	5,354	100.0	5,420	100.0	5,589	100.0

Sources: ACT Maternal Perinatal Data Collection, 2005 - 08
ACT Admitted Patient Care Data, 2005 - 08

Table 51: Complications of puerperium, ACT, 2005 - 08

	2	2005	2	006	2	007	2	2008
	No.	%	No.	%	No.	%	No.	%
No complications	3,764	75.4	4,641	86.7	4,307	79.5	4,559	81.6
One complication	1,123	22.5	661	12.3	1,032	19.0	968	17.3
Multiple complications	108	2.2	52	1.0	81	1.5	62	1.1
Total	4,995	100.0	5,354	100.0	5,420	100.0	5,589	100.0

Sources: ACT Maternal Perinatal Data Collection, 2005 - 08 ACT Admitted Patient Care Data, 2005 - 08

Complications of labour and birth, ACT, 2005 - 08 **Table 52:** 

	2	005	20	006	2	007	2	008
	No.	%	No.	%	No.	%	No.	%
Preterm birth (O60)	315	6.2	264	4.8	352	6.4	322	5.6
Failed induction of labour (O61)	49	1.0	28	0.5	47	8.0	44	8.0
Abnormal forces of labour (O62)	477	9.4	326	5.9	509	9.2	488	8.6
Long labour (O63)	246	4.8	178	3.2	269	4.9	412	7.2
Obstructed labour (O64 – O66)	747	14.7	543	9.9	835	15.1	873	15.3
Intrapartum haemorrhage (O67)	15	0.3	6	0.1	4	0.1	2	0.0
Fetal stress [distress] (O68)	594	11.7	353	6.4	612	11.1	611	10.7
Umbilical cord complications (O69)	170	3.3	106	1.9	149	2.7	161	2.8
Perineal laceration while giving birth (O70)	1,821	35.8	1,249	22.8	2,002	36.2	2,243	39.3
Other obstetric trauma (O71)	285	5.6	158	2.9	244	4.4	303	5.3
Postpartum haemorrhage (O72)	463	9.1	268	4.9	472	8.5	513	9.0
Retained placenta or membranes, without haemorrhage (O73)	36	0.7	18	0.3	35	0.6	39	0.7
Complications of anaesthesia during labour and delivery (O74)	35	0.7	11	0.2	27	0.5	23	0.4
Other complications of labour and birth, NEC (O75)	213	4.2	166	3.0	231	4.2	277	4.9

Notes:

Percentages for the specified complications of labour are for all women who gave 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 are as per the ICD-10-AM manuals, ICD-10-AM codes are provided. NEC refers to

"not elsewhere classified".

Sources: ACT Maternal Perinatal Data Collection 2005 - 08

ACT Admitted Patient Care Data, 2005 - 08

Complications of puerperium, ACT, 2005 - 08 **Table 53:** 

-	20	05	20	06	20	07	20	08
	No.	%	No.	%	No.	%	No.	%
Puerperal sepsis (O85)	29	0.6	6	0.1	23	0.4	22	0.4
Other puerperal infections (O86)	52	1.0	17	0.3	47	8.0	53	0.9
Venous complication in the puerperium (O87)	125	2.5	60	1.1	82	1.5	64	1.1
Obstetric embolism (O88)	<5	n.p.	<5	n.p.	<5	n.p.	<5	n.p.
Complications of anaesthesia during the puerperium (O89)	10	0.2	7	0.1	11	0.2	15	0.3
Complications of the puerperium, NEC (O90)	43	8.0	18	0.3	50	0.9	57	1.0
Infections of breast associated with childbirth (O91)	25	0.5	<5	n.p.	28	0.5	28	0.5
Other disorders of breast and lactation associated with childbirth (O92)	598	11.8	323	5.9	402	7.3	271	4.8
Maternal infectious and parasitic diseases (O98)	19	0.4	8	0.1	17	0.3	19	0.3
Other maternal diseases and conditions classifiable elsewhere but complicating pregnancy, childbirth and the puerperium								
(O99)	675	13.3	438	8.0	701	12.7	712	12.5

Notes:

Percentages for the specified complications of labour are for all women who gave 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 are as per the ICD-10-AM manuals, ICD-10-AM codes are provided. NEC refers to

"not elsewhere classified".

Sources:

ACT Maternal Perinatal Data Collection 2005 - 08

ACT Admitted Patient Care Data, 2005 - 08

# 3.10. Postnatal length of stay in hospital

Average length of postnatal stay in hospital by method of birth and maternal age, Table 54: **ACT 2002 - 08** 

		2002	2003	2004	2005	2006	2007	2008
		(days)						
Method of	Normal birth	3.1	3.0	3.0	2.7	2.7	2.4	2.3
birth	Forceps	4.6	4.3	4.1	3.9	3.8	3.6	3.3
	Vaginal Breech	4.3	3.6	3.6	2.3	3.0	*	*
	Caesarean Section	5.3	5.2	5.1	4.7	4.5	4.4	4.3
	Vacuum extraction	4.3	4.4	4.1	4.0	3.7	3.4	3.4
Maternal	Less than 20 years	3.0	2.8	3.2	3.0	2.9	2.5	2.5
age	20-24 years	3.1	2.9	3.0	2.7	2.7	2.6	2.6
	25-29 years	3.6	3.4	3.5	3.3	3.2	3.0	2.9
	30-34 years	4.0	4.0	3.9	3.6	3.5	3.2	3.1
	35 years or more	4.3	4.3	4.1	4.0	3.7	3.5	3.4

Notes:

Postnatal length of stay includes only hospital admissions not transferred for further care to another hospital.

\*In 2007, vaginal breech was removed as a method of birth from the data collection form. Breech is now coded

as a type of presentation and method of birth is coded according to the relevant category.

ACT Maternal Perinatal Data Collection, 2002 - 08 Source:

Table 55: Postnatal length of stay by hospital of birth, ACT, 2008

	The Ca Hos		Calvary F	Public	Calvary	Private		Calvary John James		
Postnatal length of stay	No.	%	No.	%	No.	%	No.	%		
3 days or less	1,783	76.5	1,015	82.3	170	23.0	254	21.7		
4 to 6 days	516	22.1	206	16.7	527	71.4	900	76.9		
7 days or more	33	1.4	12	1.0	41	5.6	16	1.4		
Not stated	0	0.0	0	0.0	0	0.0	0	0.0		
Total	2,331	100.0	1,233	100.0	738	100.0	1,170	100.0		
Average postnatal stay	2.4 0	lays	2.4 days 4.4		4.4 c	lays	4.2 days			

Notes:

Postnatal length of stay includes only hospital admissions not transferred for further care to another hospital. ACT Maternal Perinatal Data Collection, 2008

Source:

### 3.11. Maternal discharge status from hospital

Table 56: Maternal discharge status, ACT, 2005 - 08

	200	5	200	)6	200	7	200	8
	No.	%	No.	%	No.	%	No.	%
Discharged home	2,490	50.1	2,622	49.2	2,299	42.7	2,224	40.0
Discharged on Midcall or CMP	2,393	48.2	2,586	48.5	3,018	56.0	3,247	58.4
Transferred to ACT hospital	34	0.7	65	1.2	32	0.6	42	8.0
Transferred to interstate hospital	51	1.0	55	1.0	38	0.7	47	8.0
Died	0	0.0	0	0.0	0	0.0	0	0.0
Not stated	0	0.0	0	0.0	3	0.1	0	0.0
Total	4,968	100	5,328	100	5,390	100	5,560	100

Notes:

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

CMP is Canberra Midwifery Program.

Homebirths have been excluded.

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

Source:

ACT Maternal Perinatal Data Collection, 2005 - 08

Table 57: Maternal discharge status by hospital of birth, 2008

		anberra pital	Calvary	Public	Calv Priv	•	Calvary Jam	
Maternal discharge status	No.	%	No.	%	No.	%	No.	%
Discharged home	306	12.9	132	10.5	639	84.6	1,148	97.7
Discharged on Midcall / CMP	2,025	85.2	1,101	87.9	99	13.1	22	1.9
Transferred or died	47	2.0	20	1.6	17	2.3	5	0.4
Not stated	0	0.0	0	0.0	0	0.0	0	0.0
Total	2,378	100.0	1,253	100.0	755	100.0	1,175	100.0

Midcall is an early discharge program with follow up at home by a registered midwife for antenatal or postnatal Notes:

care.
CMP is Canberra Midwifery Program.
Homebirths have been excluded.
Due to the rounding of percentages some totals may not equal 100.0.
ACT Maternal Perinatal Data Collection, 2008

### 4. **BABIES' CHARACTERISTICS**

**Table 58:** Babies' characteristics, ACT, 2005 - 08

		20	05	20	06	20	07	20	80
		No.	%	No.	%	No.	%	No.	%
<b>Birth Condition</b>	Liveborn	5,041	99.1	5,435	99.1	5,495	99.3	5,650	99.0
	Stillborn	47	0.9	50	0.9	41	0.7	55	1.0
	Total	5,088	100.0	5,485	100.0	5,536	100.0	5,705	100.0
Plurality	Singleton	4,908	96.5	5,223	95.2	5,306	95.8	5,474	95.9
	Twin	164	3.2	262	4.8	224	4.0	228	4.0
	Triplets	12	0.2	0	0.0	6	0.1	3	0.1
	Quadruplets	4	0.1	0	0	0	0	0	0.0
	Total	5,088	100.0	5,485	100.0	5,536	100.0	5,705	100.0
Sex	Male	2,579	50.7	2,840	51.8	2,841	51.3	2,983	52.3
	Female	2,509	49.3	2,645	48.2	2,695	48.7	2,722	47.7
	Total	5,088	100.0	5,485	100.0	5,536	100.0	5,705	100.0
Presentation	Vertex	4,750	93.4	5,112	93.2	5,193	93.8	5,369	94.1
	Breech	287	5.6	299	5.5	297	5.4	298	5.2
	Other (including Face & Brow)	51	1.0	74	1.3	46	8.0	38	0.7
	Not Stated	0	0.0	0	0.0	0	0.0	0	0.0
	Total	5,088	100.0	5,485	100.0	5,536	100.0	5,705	100.0
Birthweight	Less than 500 grams	30	0.6	33	0.6	21	0.4	27	0.5
	500 to 999 grams	35	0.7	28	0.5	38	0.7	35	0.6
	1,000 to 1,499 grams	43	8.0	49	0.9	37	0.7	41	0.7
	1,500 to 1,999 grams	80	1.6	85	1.5	105	1.9	90	1.6
	2,000 to 2,499 grams	224	4.4	245	4.5	230	4.2	217	3.8
	2,500 to 2,999 grams	718	14.1	796	14.5	809	14.6	801	14.0
	3,000 to 3,499 grams	1,794	35.3	1,889	34.4	1,916	34.6	2,007	35.2
	3,500 to 3,999 grams	1,527	30.0	1,740	31.7	1,674	30.2	1,795	31.5
	4,000 to 4,499 grams	534	10.5	517	9.4	595	10.7	575	10.1
	4,500 grams or more	103	2.0	103	1.9	110	2.0	115	2.0
	Not Stated	0	0.0	0	0.0	1	0.0	2	0.0
	Total	5,088	100.0	5,485	100.0	5,536	100.0	5,705	100.0
Gestational age	20 to 27 weeks	49	1.0	63	1.1	53	1.0	56	1.0
	28 to 31 weeks	74	1.5	67	1.2	49	0.9	70	1.2
	32 to 36 weeks	331	6.5	368	6.7	383	6.9	358	6.3
	37 to 41 weeks	4,542	89.3	4,903	89.4	4,973	89.8	5,119	89.7
	42 plus weeks	92	1.8	84	1.5	74	1.3	102	1.8
	Not stated	0	0.0	0	0.0	4	0.1	0	0.0
	Total	5,088	100.0	5,485	100.0	5,536	100.0	5,705	100.0

Note:

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

Data presented in this table may differ slightly from previously published data due to data corrections.

ACT Maternal Perinatal Data Collection, 2005 - 08

Table 59: Birthweight and gestational age for live births by maternal usual state of residence, **ACT, 2008** 

		ACT res	idents	Non ACT re	sidents	T	otal
2008		No.	%	No.	%	No.	%
Birth weight	Less than 1,500 grams	33	0.7	32	3.6	65	1.2
	1,500 to 2,499 grams	201	4.2	100	11.1	301	5.3
	2,500 to 3,999 grams	3,944	83.0	649	72.4	4,593	81.3
	4,000 grams and over	575	12.1	114	12.7	689	12.2
	Not stated	0	0.0	2	0.2	2	0.0
	Total	4,753	100.0	897	100.0	5,650	100.0
Gestational Age	20 to 27 weeks	15	0.3	11	1.2	26	0.5
	28 to 31 weeks	29	0.6	33	3.7	62	1.1
	32 to 36 weeks	258	5.4	98	10.9	356	6.3
	37 to 41 weeks	4,368	91.9	737	82.2	5,105	90.4
	42 plus weeks	83	1.7	18	2.0	101	1.8
	Total	4,753	100.0	897	100.0	5,650	100.0

Due to the rounding of percentages, some totals may not equal 100.0. ACT Maternal Perinatal Data Collection, 2008 Note:

Source:

Birthweight and gestational age for live births by hospital of birth, ACT, 2008

		The Car Hosp		Calvary	Public	Calv Priv	•	Calvar Jan	-
		No.	%	No.	%	No.	%	No.	%
Birthweight	Less than 2,500 grams	257	10.7	41	3.2	28	3.7	40	3.4
	2,500 to 4,499 grams	2,090	86.9	1,192	94.5	724	95.1	1,134	95.0
	4,500 grams	57	2.4	28	2.2	9	1.2	20	1.7
	Not stated	2	0.1	0	0.0	0	0.0	0	0.0
	Total	2,406	100.0	1,261	100.0	761	100.0	1,194	100.0
Gestational									
age	Less than 37 weeks	287	11.9	50	4.0	39	5.1	68	5.7
	37 to 41 weeks	2,057	85.5	1,186	94.1	714	93.8	1,120	93.8
	42 or more weeks	62	2.6	25	2.0	8	1.1	6	0.5
	Total	2,406	100.0	1,261	100.0	761	100.0	1,194	100.0

Notes: Less than five live births where the birthweight was less than 1,500 grams occurred in an ACT non-tertiary

hospital ie. Not at The Canberra Hospital.

Due to the rounding of percentages, some totals may not equal 100.0. ACT Maternal Perinatal Data Collection, 2008

Table 61: Apgar scores for live births, ACT, 2005 - 08

		2005		20	06	20	007		2008	
		No.	%	No.	%	No.	%	No.	%	
Apgar scores at 1	0 to 3	121	2.4	144	2.6	156	2.8	170	3.0	
minute	4 to 6	450	8.9	468	8.6	405	7.4	480	8.5	
	7 to 10	4,459	88.5	4,817	88.6	4,928	89.7	4,996	88.4	
	Not stated	11	0.2	6	0.1	6	0.1	4	0.1	
	Total	5,041	100.0	5,435	100.0	5,495	100.0	5,650	100.0	
Apgar scores at 5	0 to 3	15	0.3	28	0.5	29	0.5	31	0.5	
minutes	4 to 6	39	8.0	58	1.1	70	1.3	106	1.9	
	7 to 10	4,980	98.8	5,346	98.4	5,393	98.1	5,509	97.5	
	Not stated	7	0.1	3	0.1	3	0.1	4	0.1	
_	Total	5,041	100.0	5,435	100.0	5,495	100.0	5,650	100.0	

Source: ACT Maternal Perinatal Data Collection, 2005 - 08

Table 62: Resuscitation procedures for live births, ACT, 2005 - 08

		20	05	20	06	20	07	2008	
		No.	%	No.	%	No.	%	No.	%
Method of	None	3,040	60.3	3,603	66.3	4,085	74.3	4,221	74.8
resuscitation	Suction only	984	19.5	782	14.4	507	9.2	473	8.4
	Oxygen therapy	621	12.3	553	10.2	387	7.0	358	6.3
	IPPR - bag & mask IPPR - Endotracheal	297	5.9	406	7.5	404	7.4	437	7.7
	intubation	80	1.6	79	1.5	70	1.3	118	2.1
	External cardiac massage &	4.4	0.0	10	0.0	0.4	0.4	10	0.0
	ventilation	14	0.3	12	0.2	24	0.4	16	0.3
	Not stated	5	0.1	0	0.0	18	0.3	27	0.4
	Total	5,041	100.0	5,435	100.0	5,495	100.0	5,650	100.0
Resuscitation	No drug therapy reported	4,971	98.6	5,381	99.0	5,448	99.1	5,595	99.0
using drug	Narcotic antagonist	36	0.7	17	0.3	20	0.4	18	0.3
therapy	Other drugs or combinations	34	0.7	37	0.7	27	0.5	37	0.6
	Total	5,041	100.0	5,435	100.0	5,495	100.0	5,650	100.0

Due to the rounding of percentages some totals may not equal 100.0. ACT Maternal Perinatal Data Collection, 2005 - 08 Notes:

Birth status and survival. ACT residents' births. 2005 - 08 Table 63:

ACT residents	2005	2006	2007	2008
	No.	No.	No.	No.
Births	4,282	4,576	4,624	4,794
Livebirths	4,246	4,542	4,591	4,753
Survived to one year	4,229	4,517	4,573	4,729
Infant Deaths	17	25	18	24
Post neonatal deaths	4	8	3	8
Neonatal deaths	13	17	15	16
Stillbirths – fetal deaths	36	34	33	41
Perinatal Deaths	49	51	48	57
	Rate	Rate	Rate	Rate
Livebirths	991.6	992.6	992.9	991.4
Survived to one year	996.0	994.5	996.1	995.0
Infant Deaths	4.0	5.5	3.9	5.0
Post neonatal deaths	0.9	1.8	0.7	1.7
Neonatal deaths	3.1	3.7	3.3	3.4
Stillbirths – fetal deaths	8.4	7.4	7.1	8.6
Perinatal Deaths	11.4	11.1	10.4	11.9

Notes: 2005 to 2008 birth cohort data includes reported deaths for ACT residents' births only.

This table does not include ACT residents who have given birth in another jurisidiction, or non-ACT residents

who have given birth in the ACT. Refer to the glossary for definitions.

Rate per 1,000 ACT residents' livebirths for neonatal, post neonatal and infant deaths. Rate per 1,000 ACT residents births for perinatal and fetal deaths.

Annual rates fluctuate due to small numbers.

Data corrections account for slight differences from previously reported deaths.

Source:

ACT Maternal Perinatal Data Collection, 2005 - 08
ABS, ACT Causes of Death, Confidentialised Unit Record File, 2005 - 08

ABS, Deaths, Australia, 2008 Cat. no. 3302.0

Babies' length of stay in hospital for live births, ACT, 2005 - 08 Table 64:

	2005		200	)6	2007		7 2008	
	No.	%	No.	%	No.	%	No.	%
3 days or less	2,220	47.1	2,563	50.0	2,953	56.7	3,077	57.2
4 to 6 days	2,143	45.5	2,189	42.7	1,889	36.3	1,973	36.6
7 days or more	347	7.4	371	7.2	366	7.0	334	6.2
Total	4,710	100.0	5,123	100.0	5,208	100.0	5,384	100.0
Average length of stay		4.2		4.0		3.9		3.7

Source: ACT Maternal Perinatal Data Collection, 2005 - 08

Table 65: Babies' discharge status from hospital for live births, ACT, 2005 - 08

	2005	2005		6	2007		2008	
	No.	%	No.	%	No.	%	No.	%
Discharged home	4,711	94.0	5,123	94.7	5,208	95.3	5,378	95.7
Transferred	286	5.7	263	4.8	234	4.3	220	3.9
Stillborn or died	16	0.3	25	0.5	24	0.4	18	0.3
Not Stated	1	0.0	0	0.0	0	0.0	6	0.1
Total	5,014	100.0	5,411	100.0	5,466	100.0	5,622	100.0

Source: ACT Maternal Perinatal Data Collection, 2005 - 08

# 5. ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE

# 5.1. Maternal characteristics

Table 66: Age and usual place of residence by Aboriginal and Torres Strait Islander identification, ACT, 2005 - 08

Identin	Cation, AC1, 2005 - 06	Aboriginal an	d Torres		
		Strait Isla		Non Ab	original
2005		No.	%	No.	%
Age groups	Less than 20 years	10	9.7	120	2.5
	20-24 years	32	31.1	538	11.0
	25-29 years	21	20.4	1,294	26.5
	30-34 years	27	26.2	1,788	36.5
	35 years or more	13	12.6	1,152	23.5
	Total	103	100.0	4,892	100.0
Usual place of	ACT residents	79	76.7	4,142	84.7
residence	North side	32	31.1	2,176	44.5
	South side	47	45.6	1,966	40.2
	Non ACT residents	24	23.3	750	15.3
	Total	103	100.0	4,892	100.0
2006		No.	%	No.	%
Age groups	Less than 20 years	10	9.5	123	2.4
	20-24 years	27	25.7	564	10.8
	25-29 years	34	32.4	1,357	26.0
	30-34 years	19	18.1	1,901	36.4
	35 years or more	15	14.3	1,282	24.5
	Total	105	100.0	5,227	100.0
Usual place of	ACT residents	76	72.4	4,386	83.9
residence	North side	33	31.4	2,349	44.9
	South side	43	41.0	2,037	39.0
	Non ACT residents	29	27.6	841	16.1
	Total	105	100.0	5,227	100.0
2007		No.	%	No.	%
Age groups	Less than 20 years	16	18.4	117	2.2
	20-24 years	19	21.8	587	11.0
	25-29 years	22	25.3	1,437	27.0
	30-34 years	20	23.0	1,870	35.1
	35 years or more	10	11.5	1,311	24.6
	Total	87	100.0	5,323	100.0
Usual place of	ACT residents	66	75.9	4,476	84.1
residence	North side	29	33.3	2,418	45.4
	South side	37	42.5	2,058	38.7
	Non ACT residents	21	24.1	847	15.9
	Total	87	100.0	5,323	100.0
2008		No.	%	No.	%
Age groups	Less than 20 years	14	13.6	104	1.9
	20-24 years	30	29.1	565	10.3
	25-29 years	25	24.3	1,440	26.4
	30-34 years	17	16.5	1,920	35.2
	35 years or more	17	16.5	1,432	26.2
	Total	103	100.0	5,461	100.0
Usual place of	ACT residents	73	70.9	4,617	84.5
residence	North side	30	29.1	2,502	45.8
	South side	43	41.7	2,115	38.7
	Non ACT residents	30	29.1	844	15.5
	Total	103	100.0	5,461	100.0

Notes: Records where Aboriginal and Torres Strait Islander identification was 'not stated' have been excluded.

Aboriginal and Torres Strait Islander status is based on the identified status of the mother. Status of the father

and of the baby are not recorded at this time.

Source: ACT Maternal Perinatal Data Collection, 2005 - 08

Table 67: Type of birth facility where women gave birth, by Aboriginal and Torres Strait Islander identification by state of residence, ACT, 2005 - 08

	ACT resider	İs				otal	Non-Aborig Torres S Islander w Tota	trait romen
	No.	%	No.	%	No.	%	No.	%
ACT Public Hospital	241	82.0	92	88.5	333	83.7	13,338	63.8
ACT Private Hospital	49	16.7	11	10.6	60	15.1	7,465	35.7
Home birth/Born before arrival	4	1.4	1	1.0	5	1.3	102	0.5
Total	294	100.0	104	100.0	398	100.0	20,905	100.0

Notes: Records where Aboriginal and Torres Strait Islander identification was 'not stated' have been excluded.

Aboriginal and Torres Strait Islander status is based on the identified status of the mother. Status of the father

and of the baby are not recorded at this time.

Source: ACT Maternal Perinatal Data Collection, 2005 - 08

Table 68: Aboriginal and Torres Strait Islander women having a multiple birth by state of residence, ACT, 2005 - 08

	ACT r	esidents	Non ACT residents		
	No.	%	No.	%	
Singleton	288	98.0	98	94.2	
Multiple birth	6	2.0	6	5.8	
Total	294	100.0	104	100.0	

Notes: Records where Aboriginal and Torres Strait Islander identification was 'not stated' have been excluded.

Aboriginal and Torres Strait Islander status is based on the identified status of the mother. Status of the father

and of the baby are not recorded at this time.

Source: ACT Maternal Perinatal Data Collection, 2005 - 08

Table 69: Onset of labour by Aboriginal and Torres Strait Islander identification, ACT, 2005 - 08

	Aboriginal and To Islander		Non Aboriginal and Torres Strait Islander		
	No.	%	No.	%	
Spontaneous	255	64.1	12,744	61.0	
Induced	75	18.8	4,291	20.5	
No Labour	68	17.1	3,870	18.5	
Total	398	100.0	20,905	100.0	

Notes: One record for which onset of labour was not stated for Non-Aboriginal women was included in the

'Spontaneous' category.

Records where Aboriginal and Torres Strait Islander identification was 'not stated' have been excluded. Aboriginal and Torres Strait Islander status is based on the identified status of the mother. Status of the father

and of the baby are not recorded at this time.

Source: ACT Maternal Perinatal Data Collection, 2005 - 08

Table 70: Method of birth by Aboriginal and Torres Strait Islander identification, ACT, 2005 - 08

		Aboriginal and Torres Strait Islander		Non Aboriginal and Torres Strait Islander		
	No.	%	No.	%		
Normal birth	260	65.3	12,119	58.0		
Caesarean Section	114	28.6	6,127	29.3		
Instrumental birth	24	6.0	2,659	12.7		
Total	398	100.0	20,905	100.0		

Notes: Records where Aboriginal and Torres Strait Islander identification was 'not stated' have been excluded.

Aboriginal and Torres Strait Islander status is based on the identified status of the mother. Status of the father

and of the baby are not recorded at this time.

Source: ACT Maternal Perinatal Data Collection, 2005 - 08

### 5.2. Babies' characteristics

Table 71: Babies' characteristics by Aboriginal and Torres Strait Islander identification, ACT, 2005 - 08

·		Aboriginal an Strait Isla		Non Aborigin Torres Strait I	
		No.	%	No.	%
Sex of Baby	Male	203	51.0	10,770	51.5
	Female	195	49.0	10,135	48.5
	Total	398	100.0	20,905	100.0
Plurality	Singleton	386	97.0	20,474	97.9
	Multiple birth	12	3.0	431	2.0
	Total	398	100.0	20,905	100.0
Presentation	Vertex	372	93.5	19,738	94.4
	Breech	23	5.8	978	4.7
	Other (including Face & Brow)	3	0.8	189	0.9
	Total	398	100.0	20,905	100.0
Birthweight	Less than 1,500 grams	22	5.5	335	1.6
	1,500 to 2,499 grams	52	13.1	1,050	5.0
	Greater than 2,500 grams	324	81.4	19,518	93.4
	Not stated	0	0.0	2	0.0
	Total	398	100.0	20,905	100.0
Gestational Age	Less than 31 weeks	21	5.3	397	1.9
	32 to 36 weeks	57	14.3	1,204	5.8
	37 plus weeks	320	80.4	19,300	92.3
	Not stated	0	0.0	4	0.0
	Total	398	100.0	20,905	100.0

Notes:

Records where Aboriginal and Torres Strait Islander identification was 'not stated' have been excluded.

Aboriginal and Torres Strait Islander status is based on the identified status of the mother. Status of the father and of the baby are not recorded at this time.

ACT Maternal Perinatal Data Collection, 2005 - 08

# 6. ACT MATERNAL PERINATAL DATA COLLECTION

The Epidemiology Branch (EB) is responsible for data management, analysis and reporting of the ACT Maternal Perinatal Data Collection (ACT MPDC). The Epidemiology Branch is part of the Population Health Division of ACT Health.

The publication of reports in consultation with key stakeholders using data from the collection is a key performance indicator of EB. *Maternal and Perinatal Health in the ACT* reports have been developed in consultation with the ACT Maternal Perinatal Information Network (ACT MPIN) and published by ACT Health in the Health Series since 1998.

Computerisation of the collection continues to be a major goal of the EB and ACT MPIN.

# 6.1. Scope of the data

The scope of the ACT MPDC includes data on all births, both live births and fetal deaths, of at least 20 weeks gestation or at least 400 grams in birthweight, that occur in hospitals, birth centres and in the community within the ACT. Therefore the ACT MPDC includes births that occur in the ACT to both ACT residents and non-ACT residents. These data contain the Perinatal National Minimum Data Set[7] that is reported annually to the National Perinatal Statistics Unit. The data collection does not include births to ACT residents that occur outside the ACT.

### 6.1.1. Data completeness

The completeness of the records in the ACT MPDC is dependent on notification of births to the collection. To ensure that all hospital births are reported to the ACT MPDC, the collection is linked to the ACT Admitted Patient Care (ACT APC) data collection so that missing hospital records are identified. A request is then made to each of the ACT hospitals to provide an ACT Midwives Data Collection Form (ACT MDCF) for those missing records. The EB also liaises with home birth midwives to maximise the collection of births data.

Comparisons between the Australian Bureau of Statistics (ABS) birth reports and the figures obtained in this report provide an indication of the completeness of the ACT MPDC. The different methods of collection described in the following paragraphs will account for small differences in the numbers between the two collections. The difference between ABS reported registered births (4,804) and that ACT MPDC reported births (4789) for ACT residents in 2008 was 15 births.[3]

The ABS reports on births according to their calendar year of registration to women whose usual area of residence is the ACT, irrespective of where the birth occurs. For the ACT, the date of registration is the date at which the birth is entered into the registration system. There is usually a time lag between the birth event and date of registration, and as such some births are not registered until the following year or later. In 2008, 91.3% of the births registered occurred in 2008, 7.8% occurred in 2007, 0.2 occurred in 2006 and 0.6% occurred in 2005 or earlier.[3]

The ACT MPDC aims to collect information for all births that occur in the ACT during a calendar year. The ACT MPDC showed that there were a total of 5,703 births with 914 of those to non-ACT residents. The ABS reported 930 ACT birth registrations to non-ACT residents for 2008.[3]

### 6.2. Methods

This section describes the processes used to analyse or test data contained in this report and the conventions used to report on the statistics.

The analysis for this report was conducted using an SPSS 15.0 syntax file. Fertility rates and confidence intervals were calculated using Excel 2003.

Results described as statistically significant are significant at the p<0.05 level. Differences between estimates were assessed using 95% confidence intervals. A confidence interval is a computed interval with a given probability (for example, 95%) that a true value of a variable, such as a rate, mean or proportion is contained within the interval. When the confidence intervals of two estimated values do not overlap, the values are statistically different.

Differences between means (averages) were assessed using t-tests. The t-test assesses whether the means of two groups are statistically different from each other. Results were evaluated at the p<0.05 level.

A high percentage of non-ACT residents give birth in the ACT, therefore where population rates are presented, for example fertility rates, these rates include only ACT residents who have given birth in the ACT. It does not include ACT residents who have given birth in another jurisdiction. Unless otherwise specified, all other statistics represent all births that occur in the ACT, including those to non-ACT residents.

To protect confidentiality, it is ACT Health policy to suppress the value of cells where the number in a specific category is less than five. Where the suppressed number or percentage can be calculated from the totals the next lowest number is also suppressed. These practices have been implemented throughout the report. Categories may be aggregated or multiple years of data combined to avoid small numbers and to provide more reliable statistics.

Due to the rounding of percentages some percentage totals may not add up to 100.0. However, the total is still displayed in the table as 100.0. The table will also have a note to indicate where this occurs.

Fetal, neonatal and perinatal death rates are calculated using the definitions provided in the glossary and the following methodology:

- Fetal death rate (per 1,000 total births)
  - = Number of fetal deaths x 1,000/(total live births + fetal deaths)
- Neonatal death rate (per 1,000 live births)
  - = Number of neonatal deaths x 1,000/total live births
- Perinatal death rate (per 1,000 total births)
  - = (Number of neonatal deaths + fetal deaths) x 1,000/(total live births + fetal deaths)

It should be noted that differences in the perinatal death rates published by the ABS and the ACT MPDC reflect differences in the methods used by each organisation when reporting these rates:

- 1. The ABS reports deaths by the year of death registration, while the ACT MPDC reports deaths by year of birth.
- 2. The ABS has reviewed and changed their inclusion criteria for perinatal deaths. The ABS now applies the same criteria as the ACT MPDC such that it includes all fetuses and infants of at least 20 weeks gestation or 400 grams in birthweight. Previously the ABS criteria was such that fetuses or infants weighing less than 400 grams in birthweight that had reached 20 completed weeks of gestation would not be included.
- 3. The ABS reports perinatal deaths irrespective of the place of birth according to the usual state of residence of the mother, so that the ABS collection may include deaths to ACT residents where the birth occurred outside of the ACT. The ACT MPDC reports on perinatal deaths to ACT residents who gave birth in the ACT.

### 6.2.1. ACT Midwives Data Collection Form

Midwives complete the ACT Midwives Data Collection Form (ACT MDCF) in all ACT birth facilities. 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 from the birth facility. Following discharge of the mother and baby, the forms are sent to the Medical Records Department, and then sent to the Epidemiology Branch for data entry, cleaning, collation, analysis and reporting.

Copies of the forms used during the reporting period 1999 to 2008 are presented on the following pages.

Figure 27: ACT Midwives Data Collection Form for 1999 and 2000 data



# **ACT Midwives Data Collection Form**

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

Figure 28: ACT Midwives Data Collection Form for 2001 data



## **ACT Midwives Data Collection Form**

MOTHER	BABY'S PLACE OF BIRTH	BABY
PIN (Mother's)	The Canberra Hospital 1 John James Memorial 5	
Mother's	TCH Birth Centre 2 National Capital Private 6	PIN (Baby's)
Birthdate	Calvary Public 3 Home 7	Baby's Birthdate
Suburb Postcode		Birth Condition
	Calvary Private Born before arrival 8	Live Birth 1 Stillbirth 2
Admission Date	Intended place of birth at onset of labour	Sex
Family Status Separated 4	Hospital 1 Birth Centre 2 Home 4  Was mother transferred Antenatally?	Male 1 Female 2 Indeterminate 3
Married/Defacto 5 Divorced 3	No 1 Prior to labour 2 During labour 3	Plurality
Never Married 1 Widowed 2	Transferred FROM	Single 1 Twins 2 Triplets 3
Country	Planned Homebirth 1 Another ACT hospital 3	Birth order (enter 1 if singleton birth)
of birth	Birth Centre 2 Interstate hospital 4	Birth weight (grams)
Indigenous Status Not Indigenous 4	Reason for transfer	Head circumference (cm)
Aust. Aboriginal 1 Torres Strait Islander 2		Length (cm)
Class of Patient Public 1 Private 2	Did mother smoke during pregnancy? No	APGAR: 1 minute 5 minutes
PREVIOUS PREGNANCIES	Yes 1 Average number of cigarettes per day	
0 No previous pregnancies  Last pregnancy Number Outcome	during the second half of pregnancy LABOUR, BIRTH AND PUERPERIUM	Resuscitation - Active Measures None 1
1 Yes Live Births 1	Onset and type of Labour Method:	Suction 2 IPPV - bag & mask 4
Neonatal Deaths 2	No Labour 3 Oxytocin 1	O <sub>2</sub> Therapy 3 IPPV - intubation 5
Stillbirths 3		Laryngoscopy 7 External cardiac 6
Spontaneous Abortions 4	Spontaneous 1 Prostaglandins 2	massage + ventilation
Induced Abortions 5	Spontaneous + Augmented 4 A.R.M. 3	Resuscitation - Drug Therapy None
	Induction 2 Other 4	Narcotic antagonist 2 Adrenalin 4
Ectopic Pregnancies 6	Reason for augmentation or induction	Sodium Bicarbonate 3 Other drugs related to resuscitation 5
Date of completion of last pregnancy		Admission to SCN / NICU
	Analgesia Anaesthesia	No 2 Yes 1 length of stay in days
Plurality of last pregnancy: Single 1 Multiple 2	None 1 None 1	Does the baby have birth defect(s)?
THIS PREGNANCY	Nitrous Oxide 2 Local 2	Yes 1 Suspected 3 No 2
Gravidity Parity (exclude this preg)	IMI Narcotic 3 Pudendal 3	Describe briefly - Complete a more detailed form
Date of Last Menstrual Period	Epidural 4 Epidural 4	
	Spinal 5 Spinal 5	
Clinically estimated gestation (weeks)	Other 8 General 6	
Maternal medical conditions while pregnant  Diabetes Mellitus Epilepsy	Other 8	TYPE OF FEEDING
	Presentation	at birth on discharge
Chronic Renal Disease Cardiac Disease	Vertex 1 Face 3 Other (compound) 8	Breast 1 1 Breast feeding problems
Essential Hypertension Other Condition	Breech 2 Brow 4	EBM 2 2 Yes 1 No 2
Obstetric Complications	Bleech Blow	Formula 3 3
APH - Placenta Praevia Abruptio Placenta	Method of Birth	(tick more than one type of feeding if needed)
APH - Other Pre-eclampsia	Spontaneous 1 Caesarean Section 4	DISCHARGE STATUS
Prelabour Ruptured Membranes	Forceps 2 Vacuum Extraction 5	Mother's
Gestational Diabetes	Vaginal Breech 3 Other	Discharge
Threatened Abortion		Baby's Discharge
Threatened Preterm Labour	Perineal status	Mother Baby
Procedures and Operations Number of Ultrasounds	Intact 1 3º Laceration 4	Discharged home 1 1
	1º Laceration 2 4º Laceration 7	Midcall 2 2
Cardiotocography Assisted Conception	2º Laceration 3 Episiotomy 5	Neonatal & Parent Support Service 3 3
Chorionic Villus Sampling X-Ray	Was the vulva, vagina or perineum sutured?	Canberra Midwifery Program 4 4
Amniocentesis < 20 wks CT Scan	Yes 1 No 2	Transferred to QEII 6
Amniocentesis > 20 wks Cervical Suture		Transferred to ACT Hospital 7
Responsibility for Antenatal Care No of visits	Complications of Labour & Birth None	Transferred to Interstate Hospital 8
Obstetrician 1 None 1	PPH Fetal Distress	Died 5 5
General Practitioner 2 1 to 5 2	Retained Placenta Cord Prolapse	Autopsy Yes 1 No 2 N/A 3
Midwife (with max 2 GP) 3 6 to 10 3	Major Infection Obstructed Labour	
Antenatal Clinic 4 11 to 15 4	Return this page of the	Midwife completing the form at birth
Antenatal Clinic & GP 5 16 to 20 5	completed form to:	(print surname & initial) (date)
Other shared care 6 More than 20 6	Clinical Epidemiology and Health	Midwife completing the form on discharge
Duration of pregnancy at first visit (wks)	Outcomes Centre	/ (ariet augustus 9 initial)
= a.a.a. o. p.oga.o, at mot violt (wito)	The Canberra Hospital	(print surname & initial) (date)

Figure 29: ACT Midwives Data Collection Form from June 2002 - 04



MOTHER	BABY'S PLACE OF BIRTH	BABY		
PIN (Mother's)	The Canberra Hospital 1 John James Memorial 5	PIN (Baby's)		
Mother's	TCH Birth Centre 2 National Capital Private 6			
Birthdate	Calvary Public 3 Home 7	Baby's Birthdate		
Suburb Postcode		Birth Condition		
	Calvary Private 4 Born before arrival	Live Birth 1 Stillbirth 2		
Admission Date	Intended place of birth at onset of labour	Sex		
Family Status Separated 4	Hospital 1 Birth Centre 2 Home 4	Male 1 Female 2 Indeterminate 3		
	Was mother transferred Antenatally?	Plurality		
	No 1 Prior to labour 2 During labour 3	Single 1 Twins 2 Triplets 3		
Never Married 1 Widowed 2 Country	Transferred FROM	Birth and an (optor 1 if singleton hirth)		
of birth	Planned Homebirth 1 Another ACT hospital 3	Birth order (enter 1 if singleton birth)		
Indigenous Status Not Indigenous 4	Birth Centre 2 Interstate hospital 4	Birth weight (grams)		
	Reason for transfer	Head circumference (cm)		
		Length (cm)		
Classification of Patient Public 1 Private 2	Did mother smoke during pregnancy? No	APGAR: 1 minute 5 minutes		
PREVIOUS PREGNANCIES	Yes Average number of cigarettes per day during the second half of pregnancy			
0 No previous pregnancies Last pregnancy Number Outcome	Alcohol consumption during pregnancy: No	Resuscitation - Active Measures None		
1 Yes Live Births 1		Suction 2 IPPV - bag & mask 4		
Neonatal Deaths 2	Yes 1 Number of standard drinks per week	O <sub>2</sub> Therapy 3 IPPV - intubation 5		
	Was substance abuse documented? Yes 1 No 2	External cardiac massage + ventilation 6		
Stillbirths 3	LABOUR, BIRTH AND PUERPERIUM	Laryngoscopy: Yes 1 No 2		
Spontaneous Abortions 4	Onset and type of Labour Method:	Laryingoscopy. Iso 140		
Induced Abortions 5	Spontaneous 1 Oxytocin 1	Resuscitation - Drug Therapy None		
Ectopic Pregnancies 6	Augmented: Yes 1 No 2 Prostaglandins 2	Narcotic antagonist 2 Adrenalin 4		
Plurality of last pregnancy: Single 1 Multiple 2	Induction 2 A.R.M. 3	laa* . H <sup>-</sup> a		
Was the last birth a caesarean section?	A.H.M.	Sodium Bicarbonate 3 Other drugs related to resuscitation 5		
Yes 1 No 2	No Labour	Admission to SCN / NICU		
	Reason for augmentation or induction	Yes 1 length of stay in days No 2		
Number of previous caesarean sections:	Analysis	Does the baby have birth defect(s)?		
THIS PREGNANCY	Analgesia Anaesthesia  None 1 None 1	Yes 1 Suspected 3 No 2		
Gravidity Parity (exclude this preg)		Describe briefly - Complete a more detailed form		
Date of Last				
Menstrual Period	IMI Narcotic 3 Pudendal 3			
Clinically estimated gestation (weeks)	Epidural 4 Epidural 4			
Maternal medical conditions while pregnant	Spinal 5 Spinal 5	TYPE OF FEEDING		
Diabetes Mellitus Epilepsy	Other 8 General 6	at birth on discharge		
Chronic Renal Disease Cardiac Disease	Other	Breast 1 Breast feeding problems		
Essential Hypertension Other Condition	Presentation	EBM 2 Yes 1 No 2		
	Vertex 1 Face 3 Other (compound) 8	Formula 3 3		
Obstetric Complications  APH - Placenta Praevia Pre-eclampsia	Breech 2 Brow 4	(tick more than one type of feeding if needed)		
		DISCHARGE STATUS		
Abruptio Placenta 2 Gestational Diabetes	Method of Birth	Mother's		
Other (unspecified) 3 Threatened Abortion	Spontaneous cephalic 1 Caesarean Section 4	Discharge		
Threatened Preterm Labour	Forceps 2 Vacuum Extraction 5	Baby's		
Prelabour Ruptured Membranes	Vaginal Breech 3 Other	Discharge Mother Baby		
Procedures and Operations		Discharged home 1 1		
Number of Ultrasounds	Perineal status	Midcall 2 2		
Cardiotocography Assisted Conception	Intact 1 3º Laceration 4	Neonatal & Parent Support Service 3 3		
Chorionic Villus Sampling X-Ray	1º Laceration 2 4º Laceration 7	Canberra Midwifery Program 4 4		
Amniocentesis < 20 wks CT Scan	2º Laceration 3 Episiotomy 5			
Amniocentesis > 20 wks Cervical Suture	Was the vulva, vagina or perineum sutured?	H_ H_		
		ITALISIEITEU IO ACT TIOSPILAI		
Responsibility for Antenatal Care No of visits	Yes 1 No 2	Transferred to Interstate Hospital 8		
Obstetrician 1 None 1	Complications of Labour & Birth None	Died or Stillborn 5 5		
General Practitioner 2 1 to 5 2 PPH Fetal Distress Autopsy Yes 1 No 2 N				
Midwife (with max 2 GP) 3 6 to 10 3	Retained Placenta Cord Prolapse			
Antenatal Clinic 4 11 to 15 4	Major Infection Obstructed Labour	Midwife completing the form at birth		
BC or CMP Protocols 7 16 to 20 5		(print surname & initial) (date)		
	Return completed form to	Midwife completing the form on discharge		
	Population Health Research Centre	/ /		
Duration of pregnancy at first visit (wks)	The Canberra Hospital	(print surname & initial) (date)		

Figure 30: ACT Midwives Data Collection Form for 2005 and 2006



MOTHER MOTHER	BABY'S PLACE OF BIRTH	BABY
	The Canberra Hospital 1 John James Memorial 5	
PIN (Mother's)		PIN (Baby's)
Mother's Birthdate	TCH Birth Centre 2 National Capital Private 6	Baby's Birthdate
Suburb Postcode	Calvary Public 3 Home 7	Birth Condition
	Calvary Private Born before arrival	Live Birth 1 Stillbirth 2
Admission Date	Intended place of birth at onset of labour	Sex
Family Status Separated 4	Hospital 1 Birth Centre 2 Home 4	Male 1 Female 2 Indeterminate 3
Married/Defacto 5 Divorced 3	Was mother transferred Antenatally?	Plurality
	No 1 Prior to labour 2 During labour 3	Single 1 Twins 2 Triplets 3
Never Married 1 Widowed 2 Country	Transferred FROM  Planned Homebirth 1 Another ACT hospital 3	Birth order (enter 1 if singleton birth)
of birth		
Indigenous Status Not Indigenous 4	Birth Centre 2 Interstate hospital 4 Reason for transfer	Gestational Age (weeks)
Aust. Aboriginal 1 Torres Strait Islander 2	Reason for transfer	Birth weight (grams)
Classification of Patient Public 1 Private 2	Did mosther amaka during programa 2. No	Head circumference (cm)
	Did mother smoke during pregnancy? No 2	Length (cm)
PREVIOUS PREGNANCIES  Last pregnancy	Yes 1 Average number of cigarettes per day during this pregnancy	APGAR: 1 minute 5 minutes
No previous pregnancies Number Outcome	Alcohol consumption during pregnancy: No 2	Breast Feeding:
1 Yes Live Births 1	Yes 1 Number of standard drinks per week	Mother Intends to BF:
Neonatal Deaths 2		Baby ever breastfed/EBM:
Stillbirths 3	Was substance use documented? Yes 1 No 2	Baby ever breastied/EBIVI.
Spontaneous Abortions	LABOUR, BIRTH AND PUERPERIUM  Onset and type of Labour Method:	Resuscitation - Active Measures None
Induced Abortions 5	7,111	Suction 2 IPPV - bag & mask 4
	Spontaneous 1 Oxytocin 1	O <sub>2</sub> Therapy 3 IPPV - intubation 5
Ectopic Pregnancies 6	No Labour 3 Prostaglandins 2	External cardiac massage + ventilation 6
Plurality of last pregnancy: Single 1 Multiple 2	Induction 2 A.R.M. 3	External dardide massage : ventulation
Was the last birth a caesarean section?	Augmented: Yes 1 No 2 Other 4	Resuscitation - Drug Therapy None 1
Yes No 2	Reason for augmentation or induction	Narcotic antagonist 2 Adrenalin 4
Number of previous caesarean sections:		
THIS PREGNANCY	Analgesia Anaesthesia	Sodium Bicarbonate 3 Other drugs related to resuscitation
Gravidity Parity (exclude this preg)	None 1 None 1	Admission to SCN / NICU
	Nitrous Oxide 2 Local to perineum 2	Yes 1 length of No 2
Date of Last Menstrual Period	IMI Narcotic 3 Pudendal 3	Does the baby have birth defect(s)?
Maternal medical conditions while pregnant	Epidural 4 Epidural 4	Yes 1 Suspected 3 No 2
Diabetes Mellitus Epilepsy	Spinal 5 Spinal 5	Describe briefly - Complete a more detailed form
Chronic Renal Disease Cardiac Disease	Other 8 General 6	
Essential Hypertension Other Condition	Other 8	HOSPITAL DISCHARGE STATUS
	Presentation	Mother's
Obstetric Complications	Vertex/POP 1 Face 3 Other (compound) 8	Discharge
APH - Placenta Praevia 1 Pre-eclampsia	Breech 2 Brow 4	Baby's Discharge
Abruptio Placenta 2 Gestational Diabetes	Breedi	Baby still BF/EBM at discharge: Yes No
Other (unspecified) 3 Threatened Abortion	Method of Birth	Has the baby ever had any of the following:
Threatened Preterm Labour	Spontaneous cephalic 1 Caesarean Section 4	Breastmilk substitute Water based drinks
Prelabour Ruptured Membranes	Forceps 2 Vacuum Extraction 5	Oral medications, vitamins or mineral suppliments
Procedures and Operations	Vaginal Breech 3 Other 8	Mother Baby
Number of Ultrasounds		Discharged home 1 1
Cardiotocography Assisted Conception	Perineal status	Midcall 2
Chorionic Villus Sampling X-Ray	Intact 1 3º Laceration 4	Neonatal & Parent Support Service 3 3
Amniocentesis < 20 wks CT Scan	1º Laceration 2 4º Laceration 7	Canberra Midwifery Program 4 4
Amniocentesis > 20 wks Cervical Suture	2º Laceration 3 Episiotomy 5	Transferred to QEII 6 6
Responsibility for Antenatal Care No of visits	Was the vulva, vagina or perineum sutured?	Transferred to ACT Hospital 7 7
Obstetrician None 1	Yes 1 No 2	Transiened to ACT Hospital
Concept Brookitioner 1		Transierred to interstate riospital
General Practitioner 2 1 to 5 2	Complications of Labour & Birth None	Died or Stillborn 5
Midwife (with max 2 GP) 3 6 to 10 3	PPH Fetal Distress	Autopsy Yes 1 No 2 N/A 3
Antenatal Clinic 4 11 to 15 4	Retained Placenta Cord Prolapse	Midwife completing the form at high
Canberra Midwifery Program 7 16 to 20 5	Major Infection Obstructed Labour	Midwife completing the form at birth
Shared care 6 More than 20 6		(print surname & initial) (date)
Aboriginal Health Service 8	Return completed form to	Midwife completing the form on discharge
Duration of pregnancy at first visit (wks)	Population Health Research Centre The Canberra Hospital	
= = = = = = = = = = = = = = = = = = =	i ne Canberra Huspital	(print surname & initial) (date)

Figure 31: ACT Midwives Data Collection Form for 2007



MOTHER	BABY'S PLACE OF BIRTH	BABY
PIN (Mother's)	The Canberra Hospital 1 John James Memorial 5	PIN (Baby's)
Mother's	TCH Birth Centre 2 National Capital Private 6	Baby's
Birthdate	Calvary Public 3 Home 7	Birthdate
Suburb	Calvary Private 4 Born before arrival 8	Birth Condition
Admission Date	Intended place of birth at onset of labour	Sex Live Birth 1 Stillbirth 2
	Hospital 1 Birth Centre 2 Home 4	Male 1 Female 2 Indeterminate 3
Family Status Separated 4	Was mother transferred Antenatally?	Plurality
Married/Defacto 5 Divorced 3	No 1 Prior to labour 2 During labour 3	Single 1 Twins 2 Triplets 3
Never Married 1 Widowed 2 Country	Transferred FROM Planned Homebirth 1 Another ACT hospital 3	Birth order (enter 1 if singleton birth)
of birth	Birth Centre 2 Interstate hospital 4	Gestational Age (weeks)
Indigenous Status Not Indigenous	Reason for transfer	Birth weight (grams)
Aust. Aboriginal 1 Torres Strait Islander 2		Head circumference (cm)
Accomodation Status Public 1 Private 2	Did mother smoke during pregnancy? No 2	Length (cm)
PREVIOUS PREGNANCIES	Yes Average number of cigarettes	APGAR: 1 minute 5 minutes 5
No previous pregnancies  Last pregnancy Number Outcome	per day during this pregnancy  Alcohol consumption during pregnancy:  No	Breast Feeding:
1 Yes Live Births 1	Yes 1 Number of standard drinks per week	Mother Intends to BF: Yes 1 No 2
Neonatal Deaths 2	Was substance use documented? Yes 1 No 2	Baby ever breastfed/EBM: Yes 1 No 2
Stillbirths 3	LABOUR, BIRTH AND PUERPERIUM	Resuscitation - Active Measures None
Spontaneous Abortions 4	Onset and type of Labour Method:	Suction 2 IPPV - bag/Neopuff 4
Induced Abortions 5	Spontaneous 1 Oxytocin 1	O <sub>2</sub> Therapy 3 IPPV - intubation 5
Ectopic Pregnancies 6	Induction 2 Prostaglandins 2	External cardiac massage + ventilation 6
Plurality of last pregnancy: Single 1 Multiple 2	No Labour 3 A.R.M. 3	Resuscitation - Drug Therapy None
Was the last birth a caesarean section?	Augmented: Yes 1 No 2 Other 4	Narcotic antagonist 2 Adrenalin 4
(exclude this birth) Yes 1 No 2	Reason for augmentation or induction	Sodium Bicarbonate 3 Other drugs related 5
Number of previous caesarean sections:		to resuscitation Admission to SCN / NICU
THIS PREGNANCY	Analgesia Anaesthesia  None 1 None 1	Ves 1 length of No 2
Gravidity Parity (exclude this preg)	I H.	Does the baby have birth defect(s)?
Date of Last Menstrual Period	Nitrous Oxide 2 Local to perineum 2  IMI Narcotic 3 Pudendal 3	Yes 1 Suspected 3 No 2
Maternal medical conditions while pregnant		Describe briefly - Complete a more detailed form
Diabetes Mellitus Epilepsy	Epidural 4 Epidural 4 Spinal 5 Spinal 5	
Chronic Renal Disease Cardiac Disease	Spinal 5 Spinal 6 Other 8 General 6	DISCHARGE STATUS
Essential Hypertension Other Condition	Other 8	Mother's
Edinburgh Depression Score at wks:	Presentation	Discharge Baby's Baby's
Obstetric Complications	Vertex/POP 1 Face 3 Other 8	Discharge
APH - Placenta Praevia 1 Pre-eclampsia	Breech 2 Brow 4 (e.g compound)	Baby still BF/EBM at discharge? Yes 1 No 2
Abruptio Placenta 2 Gestational Diabetes	Method of Birth	Has the baby ever had any of the following:
Other (unspecified) 3 Threatened Abortion	Normal birth (Vaginal - non instrumental birth)	Breastmilk substitue Water based drinks
Threatened Preterm Labour		Oral medications, vitamins or mineral suppliments
Prelabour Ruptured Membranes	Vaginal - forceps 2	Mother Baby
Procedures Number of Ultrasounds	Vaginal - vacuum extraction 5	Discharged home 1
Cardiotocography Assisted Conception	Caesarean Section Perineal status (May have more than one response)	Midcall 2 2
Chorionic Villus Sampling X-Ray	Perineal status (May have more than one response)  Intact 1 3° Laceration 4	Neonatal & Parent Support Service 3 3
Amniocentesis < 20 wks CT Scan	1º Laceration 2 4º Laceration 7	Canberra Midwifery Program 4 4
Amniocentesis > 20 wks Cervical Suture	2º Laceration 3 Episiotomy 5	Transferred to QEII 6 6
Responsibility for Antenatal Care No of visits	Was the vulva, vagina or perineum sutured?	Transferred to ACT Hospital 7 7
Obstetrician 1 None 1	Yes 1 No 2	Transferred to Interstate Hospital 8
General Practitioner 2 1 to 5 2		Died or Stillborn 5 5
Midwife (with max 2 GP) 3 6 to 10 3	Complications of Labour & Birth None	Autopsy Yes 1 No 2 N/A 3
Antenatal Clinic 4 11 to 15 4	PPH Fetal Distress Cord Prolonge	Midwife completing the form at birth
Canberra Midwifery Program 7 16 to 20 5	Retained Placenta Cord Prolapse	
Aboriginal Health Service 8 More than 20	Major Infection Obstructed Labour Return completed form to	(print surname & initial) (date)
Shared care 6	Population Health Research Centre	Midwife completing the form on discharge
Duration of pregnancy at first visit (wks)	The Canberra Hospital	(print surname & initial) (date)

Figure 32: ACT Midwives Data Collection Form for 2008



MOTHER MOTHER	BABY'S PLACE OF BIRTH	BABY
MOTHER	TOUR DE LE CONTROL DE LE CONTR	
PIN (Mother's)  Mother's	TCH Birth Centre 2 National Capital Private 6	PIN (Baby's)
Birthdate	Calvary Public 3 Home 7	Baby's Birthdate
Suburb Postcode	Calvary Private 4 Born before arrival 8	Birth Condition
	· · · · · · · · · · · · · · · · · · ·	Sex Live Birth 1 Stillbirth 2
Admission Date	Intended place of birth at onset of labour	Male 1 Female 2 Indeterminate 3
Family Status Separated 4	Hospital 1 Birth Centre 2 Home 4	Plurality
Married/Defacto 5 Divorced 3	Smoking, Alcohol Consumption & Substance use:	Single 1 Twins 2 Triplets 3
Never Married 1 Widowed 2	First 20 Wks After 20 Wks	Birth order (enter 1 if singleton birth)
of birth	Did the mother smoke No 2 No 2 during this pregnancy?	Gestational Age (weeks)
Indigenous Status Not Indigenous 4	Yes 1 Yes 1	Birth weight (grams)
Aust. Aboriginal 1 Torres Strait Islander 2	If yes: Number of cigarettes usually smoked per day:	Head circumference (cm)
Accommodation Status Public 1 Private 2	First 20 Wks After 20 Wks	Length (cm)
PREVIOUS PREGNANCIES		APGAR: 1 minute 5 minutes
Number of previous pregnancies  Last Pregnancy (if first pregnancy enter 0) Outcome	If less than one cigarette per day then enter 98	Breast Feeding:
	Alcohol consumption during pregnancy: No 2	Mother Intends to BF: Yes 1 No 2
Live Births (include Neonatal Death)	Yes 1 Number of standard drinks per week	Baby ever breastfed/EBM: Yes 1 No 2
(at least 20 wks gestation or 400g birthweight or more)	Was substance use documented? Yes 1 No 2	Resuscitation - Active Measures None
Miscarriage (<20 wks gestation or <400g birthweight)	LABOUR, BIRTH AND PUERPERIUM	Suction 2 IPPV - bag/Neopuff 4
Termination of Pregnancy (<20 wks gestation or <400g birthweight)  4	Onset and type of Labour Method:	O, Therapy 3 IPPV - Intubation 5
Ectopic Pregnancies 5	Spontaneous 1 Oxytocin 1	External cardiac massage + ventilation 6
Plurality of last pregnancy: Single 1 Multiple 2	Induction 2 Prostaglandins 2	
Was the last birth a caesarean section?	No Labour 3 A.R.M. 3	Resuscitation - Drug Therapy None
(exclude this birth) Yes 1 No 2	Augmented: Yes 1 No 2 Other 4	Narcotic antagonist 2 Adrenalin 4 Sodium Bicarbonate 3 Other drugs related 5
Number of previous caesarean sections:	Reason for augmentation or induction	to resuscitation
THIS PREGNANCY	Analgesia Anaesthe <u>sia</u>	Admission to SCN / NICU
Gravidity Parity (exclude this preg)	None 1 None 1	Yes stay in days NO 2
Date of Last	Nitrous Oxide 2 Local to perineum 2	Does the baby have a Congenital anomaly?
Menstrual Period Maternal medical conditions while pregnant	IMI Narcotic 3 Pudendal 3	Yes 1 Suspected 3 No 2  Describe briefly - Complete a more detailed form
Diabetes Mellitus Epilepsy	Epidural 4 Epidural 4	Describe briefly - Complete a more detailed form
Chronic Renal Disease Cardiac Disease	Spinal 5 Spinal 5	DISCHARGE STATUS
Essential Hypertension Other Condition	Other 8 General 6	Mother's
Edinburgh Depression Score of at wks	Other 8	Discharge
Obstetric Complications	Presentation	Baby's Discharge
APH - Placenta Praevia 1 Pre-eclampsia	Vertex/POP 1 Face 3 Other 8 (e.g compound)	Baby still BF/EBM at discharge? Yes 1 No 2
Abruptio Placenta 2 Gestational Diabetes	Breech 2 Brow 4	
Other (unspecified) 3 Threatened Abortion	Method of Birth	Has the baby ever had any of the following:  Breastmilk substitute Water based drinks
Threatened Preterm Labour	Normal birth (Vaginal - non instrumental birth)	
Prelabour Ruptured Membranes	Vaginal - forceps 2	Oral medications, vitamins or mineral suppliments  Mother Baby
Procedures Number of Ultrasounds	Vaginal - vacuum extraction 5	Mother Baby  Discharged home 1 1 1
	Caesarean Section 4	Midcall 2 2
Cardiotocography Assisted Conception	Perineal status (May have more than one response)	Neonatal & Parent Support Service 3 3
Chorionic Villus Sampling X-Ray	Intact 1 3º Laceration 4	Canberra Midwifery Program 4 4
Amniocentesis < 20 wks CT Scan  Amniocentesis > 20 wks Cervical Suture	1º Laceration 2 4º Laceration 7	Transferred to QEII 6 6
	2º Laceration 3 Episiotomy 5	Transferred to ACT Hospital 7 7
Primary Model of Antenatal Care No of visits Obstetrician 10 None 1	Was the vulva, vagina or perineum sutured?	Transferred to Interstate Hospital 8
Obstetrician 10 None 1 General Practitioner 11 1 to 5 2	Yes 1 No 2	Baby remains in nursery
Midwife led Clinic 12 6 to 10 3	Complications of Labour & Birth None	Died or Stillborn 5
Independent Midwife 13 11 to 15 4	PPH Fetal Distress Include Abormal CTG)	
Hospital Antental Clinic 14 16 to 20 5	Retained Placenta Cord Prolapse	Midwife completing the form at birth
Canberra Midwifery Program 15 More than 20 6	Major Infection Obstructed Labour	(print surname & initial) (date)
Aboriginal Health Service 16 Duration of preg at first visit (wks)	Return completed form to	Midwife completing the form on discharge
Shared care 17	Population Health Research Centre The Canberra Hospital	
	Calmerra DOSIIIIAI	(nrint surname & initial) (date)

Figure 33: ACT Midwives Data Collection Form - current at time of publication



MOTHER	BABY'S PLACE OF BIRTH	BABY
MOTHER		
PIN (Mother's)		PIN (Baby's)
Mother's Birthdate	TCH Birth Centre 2 National Capital Private 6	Baby's Birthdate
Suburb Postcode	Calvary Public 3 Home 7	Birth Condition
	Calvary Private 4 Born before arrival 8	Live Birth 1 Stillbirth 2
Admission Date	Intended place of birth at onset of labour	Sex
Family Status Separated 4	Hospital 1 Birth Centre 2 Home 4	Male 1 Female 2 Indeterminate 3
	Smaking Alashal Consumption & Substance uses	Plurality
	Smoking, Alcohol Consumption & Substance use:  First 20 Wks After 20 Wks	Single 1 Twins 2 Triplets 3
Never Married 1 Widowed 2 Country	Did the mother smoke No 2 No 2	Birth order (enter 1 if singleton birth)
of birth	during this pregnancy?	Gestational Age (weeks)
Indigenous Status Not Indigenous 4	Yes 1 Yes 1	Birth weight (grams)
Aust. Aboriginal 1 Torres Strait Islander 2	If yes: Number of cigarettes usually smoked per day:	Head circumference (cm)
Accommodation Status Public 1 Private 2	First 20 Wks After 20 Wks	Length (cm)
PREVIOUS PREGNANCIES		APGAR: 1 minute 5 minutes
Number of previous pregnancies Last Pregnancy	If less than one cigarette per day then enter 98	
(if first pregnancy enter 0) Outcome	Alcohol consumption during pregnancy: No 2	Breast Feeding:  Mother Intends to BF: Yes 1 No 2
Live Births (include Neonatal Death)	Yes 1 Number of standard drinks per week	
Fetal death/Stillbirth (at least 20 wks gestation or 400g birthweight or more)	Was substance use documented? Yes 1 No 2	Baby ever breastfed/EBM: Yes 1 No 2
Miscarriage 3	LABOUR, BIRTH AND PUERPERIUM	Resuscitation - Active Measures None
(<20 wks gestation or <400g birthweight)	Onset and type of Labour Method:	Suction 2 IPPV - bag/Neopuff 4
Termination of Pregnancy (<20 wks gestation or <400g birthweight)  4	Spontaneous 1 Oxytocin 1	O <sub>2</sub> Therapy 3 IPPV - intubation 5
Ectopic Pregnancies 5		External cardiac massage + ventilation 6
Plurality of last pregnancy: Single 1 Multiple 2	Induction 2 Prostaglandins 2	
Was the last birth a caesarean section?	No Labour 3 A.R.M. 3	Resuscitation - Drug Therapy None
(exclude this birth) Yes 1 No 2	Augmented: Yes 1 No 2 Other 4	Narcotic antagonist 2 Adrenalin 4
Number of previous caesarean sections:	Reason for augmentation or induction	Sodium Bicarbonate 3 Other drugs related to resuscitation 5
THIS PREGNANCY	Analysais	Admission to SCN / NICU
	Analgesia Anaesthesia None 1 None 1	Yes 1 length of No 2
Gravidity Parity (exclude this preg)	Nitrous Oxide 2 Local to perineum 2	Does the baby have a Congenital anomaly?
Date of Last  Menstrual Period	IMI Narcotic 3 Pudendal 3	Yes 1 Suspected 3 No 2
Maternal medical conditions while pregnant		Describe briefly - Complete a more detailed form
Diabetes Mellitus Epilepsy	Epidural 4 Epidural 4	
Chronic Renal Disease Cardiac Disease	Spinal 5 Spinal 5	DISCHARGE STATUS
Essential Hypertension Other Condition	Other 8 General 6	Mother's
Edinburgh Depression Score of at wks	Other 8	Discharge
Obstetric Complications	Presentation	Baby's Discharge
APH - Placenta Praevia 1 Pre-eclampsia	Vertex/POP 1 Face 3 Other 8 (e.g compound)	
Abruptio Placenta 2 Gestational Diabetes	Breech 2 Brow 4	Baby still BF/EBM at discharge? Yes 1 No 2
Other (unspecified) 3 Threatened Abortion	Method of Birth	Has the baby ever had any of the following:
	N. Allen Official and Safe and Internal	Breastmilk substitute Water based drinks
Threatened Preterm Labour		Oral medications, vitamins or mineral suppliments
Prelabour Ruptured Membranes	Vaginal - forceps 2	Mother Baby
Procedures Number of Ultrasounds	Vaginal - vacuum extraction 5	Discharged home 1 1
Cardiotocography Assisted Conception	Caesarean Section 4	Midcall 2 2
	Perineal status (May have more than one response)	Neonatal & Parent Support Service 3 3
	Intact 1 3º Laceration 4	Canberra Midwifery Program 4 4
	1º Laceration 2 4º Laceration 7	Transferred to QEII 6 6
Amniocentesis ≥ 20 wks Cervical Suture	2º Laceration 3 Episiotomy 5	Transferred to ACT Hospital 7 7
Primary Model of Antenatal Care No of visits	Was the vulva, vagina or perineum sutured?	Transferred to Interstate Hospital 8 8
Obstetrician 10 10 Include Fetal Medicine Unit)	Yes 1 No 2	Baby remains in nursery 0
General Practitioner 11	Complications of Labour & Birth None	
Midwife led Clinic12		Died or Stillborn 5 5
Independent Midwife 13	(Include Abormal CTG)	Midwife completing the form at birth
Hospital Antenatal Clinic14		
Canberra Midwifery Program15	Major Infection Obstructed Labour	(print surname & initial) (date)
Aboriginal Health Service 16 Duration of preg at first visit (wks)	Return completed form to Epidemiology Branch	Midwife completing the form on discharge
Shared care (GP & Hospital ANC as per guidelines)	The Canberra Hospital	(print surname & initial) (date)
(C. C. Nospital Airo as pel guidelliles)		(uate)

#### 6.2.2. Current data items

Data items from the current ACT Midwives Data Collection Form are detailed below. Data items that require ICD-10-AM coding on the forms are extracted where possible from the ACT Admitted Patient Care Data Collection. Examples of extracted ICD-10-AM data are the maternal conditions, the obstetric complications and congenital anomalies.

Table 72: List of data items from the current ACT Midwives Data Collection Form, 2007

No.	Data Item	Requested by NPSU	ACT Collection period	Comments
1	Form number – stamped on form in the Epidemiology Branch		1995 - ongoing	Filing number that is used to find the physical location of the form.
2	Mother's PIN (Personal Identifier Number)	•	1991 - ongoing	
3	Mother's date of birth	•	1991 - ongoing	
4	Mother's suburb of usual residence	•	1991 - ongoing	
5	Mother's postcode of usual residence	•	1991 - ongoing	
6	Admission date of mother	•	1991 - ongoing	
7	Family status of mother	•	1991 - ongoing	Previously collected as marital status (mother) using a different set of codes.
8	Country of birth of mother	•	1991 - ongoing	Collected using 2 digit codes 1999 to 1993 (cob), ASCCSS codes from 1994 to 1998 (mcob) and SACC codes from 1999 (moth_cob).
9	Indigenous identification of mother	•	1999 - ongoing	From 1991 to 1993 collected as ethnic origin and from 1994 to 1998 collected as Aboriginal or non-Aboriginal. Since 1999 collected as Aboriginal and/or Torres Strait Islander identification of mother as per National Health Data Dictionary (NHDD) codes.
10	Accommodation status (Public/Private)	•	1991 - ongoing	Previously collected as classification of patient (Public/Private)
11	Previous pregnancies (Yes/No)	•	1991 - ongoing	
12	Total number of previous: Live births	•	1991 - ongoing	
13	Neonatal deaths		1991 - 2007	
14	Stillbirths (fetal deaths)	•	1991 - ongoing	
15	Spontaneous abortions	•	1991 - ongoing	
16	Induced abortions	•	1991 - ongoing	

No	. Data Item	Requested by NPSU	ACT Collection period	Comments
17	Ectopic pregnancies		1994 - ongoing	The total number of previous ectopic pregnancies was introduced in 1994. Other pregnancies was also added in 1994 but was discontinued in 2001.
18	Outcome of last pregnancy		1991 - ongoing	
19	Plurality of last pregnancy		1999 - ongoing	
20	Was the last birth a caesarean section? (exclude this birth)		2002 - ongoing	The exclusion note was added in 2007.
21	Number of previous caesarean sections		2002 - ongoing	
22	Gravidity		1999 - ongoing	
24	Parity (exclude this preg.)	•	1999 - ongoing	The "exclude current pregnancy" note was added in 2001.
25	Date of last menstrual period	•	1991 - ongoing	
26	Maternal medical conditions while pregnant:  Diabetes Mellitus	•	1991 - ongoing	
27	Chronic Renal Disease	•	1991 - ongoing	
28	Essential Hypertension	•	1991 - ongoing	
29	Epilepsy	•	1991 - ongoing	
30	Cardiac Disease	•	1991 - ongoing	
31	Other conditions	•	1991 - ongoing	
32	Edinburgh Depression Score		2007 - ongoing	Edinburgh Depression Score and the gestational age when tested.
33	Obstetric complications: APH	•	1991 - ongoing	
34	Pre-eclampsia	•	1991 - ongoing	Previously called Pregnancy Induced Hypertension changed in 1999.
35	Gestational Diabetes	•	1991 - ongoing	
36	Threatened abortion	•	1999 - ongoing	
37	Threatened preterm labour	•	1999 - ongoing	
38	Prelabour ruptured membranes	•	1991 - ongoing	Previously called Premature ruptured membranes (changed in 1999).
39	Procedures and operations: Number of ultrasounds		1999 - ongoing	Prior to 1999 ultrasound was collected as a yes or no field.

No.	Data Item	Requested by NPSU	ACT Collection period	Comments
40	Cardiotocography (CTG)		1991 - ongoing	
41	Chorionic villus sampling (CVS)		1991 - ongoing	
42	Amniocentesis <20 weeks		1991 - ongoing	
43	Amniocentesis =>20 wks		1991 - ongoing	
44	Assisted conception		1999 - ongoing	
45	X-Ray		1991 - ongoing	
46	CT Scan		1991 - ongoing	
47	Cervical Suture		1991 - ongoing	
48	Responsibility for antenatal care		1991 - ongoing	A more extensive set of options was introduced in 1999.
49	Number of antenatal visits		1991 - ongoing	A more extensive set of options was introduced in 1999.
50	Duration of pregnancy at first visit		1991 - ongoing	
51	Place of baby's birth	•	1991 - ongoing	
52	Intended place of birth at onset of labour	•	1999 - ongoing	Previously collected as emergency or intended admission.
53	Mother's transferred antenatally		1999 - 2007	
54	Mother's transferred from		1999 - 2007	
55	Mother smoked during pregnancy	•	1999 - ongoing	From 2007, smoking status collected for < 20 weeks and >=20 weeks gestation.
56	Average number smoked per day during this pregnancy	•	1999 - ongoing	1999 to 2004 collected as average number smoked per day during the second half of pregnancy. Wording changed in 2005.
57	Alcohol consumption during pregnancy		2002 - ongoing	
58	Number of standard drinks per week		2002 - ongoing	
59	Was substance use documented?		2002 - ongoing	Substance abuse changed to substance use in 2005.
60	Onset of labour	•	1991 - ongoing	Variety of changes in an attempt to improve data quality.
61	Augmented		1991 - ongoing	Variety of changes in an attempt to improve data quality.

No.	Data Item	Requested by NPSU	ACT Collection period	Comments
62	Method of augmentation or induction (multiple data items)	•	1991 - ongoing	Requested by the NPSU as two combined data items, one for method of augmentation and the other for method of induction.
63	Reason for augmentation or induction		1991 - ongoing	
64	Analgesia during labour	•	1999 - ongoing	Epidural and pudendal blocks were collected earlier as part of the "other procedure' section.
				Requested by NPSU but as yet not provided due to data quality issues.
				Revision of data item in 2005-07 to improve data quality.
65	Anaesthesia during labour	•	1999 - ongoing	Requested by NPSU but as yet not provided due to data quality issues.
				Revision of data item in 2005-07 to improve data quality.
66	Presentation	•	1991 - ongoing	Changes to data options in 1999.
67	Method of birth	•	1991 - ongoing	Changes to data options in 1999. Further changes to data options were introduced in 2007.
68	Perineal status	•	1991 - ongoing	Changes to data options in 1999.
69	Vulva, vaginal or perineal sutures		1999 - ongoing	
70	Complications of labour and birth: None		1999 - ongoing	
71	PPH	•	1991 - ongoing	
72	Retained placenta	•	1999 - ongoing	
73	Major infection	•	1999 - ongoing	
74	Fetal distress	<b>~</b>	1999 - ongoing	
75	Cord prolapse	<b>~</b>	1999 - ongoing	
76	Obstructed labour	<b>~</b>	1999 - ongoing	
77	Baby's PIN (Personal Identifier Number)	•	1991 - ongoing	
78	Baby's birth date	•	1991 - ongoing	
79	Birth condition	~	1991 - ongoing	
80	Sex of baby	~	1991 - ongoing	
81	Plurality	•	1991 - ongoing	
82	Birth order (rank)	•	1991 - ongoing	

No.	Data Item	Requested by NPSU	ACT Collection period	Comments
83	Gestational age (weeks)	•	1991 - ongoing	Position of data item moved to the baby section of the form in 2005.
84	Birthweight	•	1991 - ongoing	
85	Head circumference		1991 - ongoing	
86	Length		1999 - ongoing	
87	Apgar at 1 minute	•	1991 - ongoing	
88	Apgar at 5 minutes	•	1991 - ongoing	
89	Breast feeding: Mother intends to breast feed (yes/no) Baby ever breastfed/EBM (yes/no)		2005 - ongoing	Previously collected as type of feeding at birth (1999 - 2004).
90	Resuscitation: Active measures	•	1991 - ongoing	Changes to data options in 1999. Laryngoscopy collected as a yes/no option from 1999 to 2004.
91	Drug therapy	•	1991 - ongoing	Changes to data options in 1999.
92	Admission to SCN or NICU	•	1999 - ongoing	
93	Length of stay in SCN or NICU	•	1999 - ongoing	
94	Does the baby have birth defect(s)?	•	1991 - ongoing	Collected as Congenital anomalies 1991-98; the terminology changed in 1999.
95	Date of mother's discharge	•	1991 - ongoing	
96	Date of baby's discharge	•	1991 - ongoing	
97	Breast feeding: Baby still BF/EBM at discharge		2005 - ongoing	Previously collected as type of feeding on discharge (1999 - 2004).
98	Has the baby ever had any breastmilk substitutes; Water based drinks or oral medication, vitamins or mineral supplements.		2005 - ongoing	
99	Discharge status for mother	•	1991 - ongoing	Changes to data options in 1999.
100	Discharge status for baby	•	1991 - ongoing	Changes to data options in 1999.
101	Autopsy	~	1999 - 2008	

Note: NPSU is the National Perinatal Statistic Unit.
Data items on the current ACT Midwives Data Collection Form.
Source: ACT Maternal Perinatal Collection

## 6.3. 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, including the public and private ACT hospitals, Child, Youth and Women's Health Services, Information Management Services, the Epidemiology Branch, the Community Health Policy Unit, the Aboriginal and Torres Strait Islander Health Unit, a consumer representative and a homebirth midwife. The chairperson of the network is Professor David Ellwood.

#### The aims of the network are:

- 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 ACT Maternal and Perinatal Data Collection (ACT MPDC) and the reporting of the information from the collection within the ACT.
- 3. To promote the use of the ACT Maternal and Perinatal Data Collection for relevant research to guide policy development and underpin the development of evidence based policy and clinical decision making to improve Maternal and Perinatal outcomes in the ACT.

#### The objectives of the network are:

- 1. To contribute to the improvement of ACT Maternity and Perinatal Services based on sound evidence.
- 2. To improve the ACT Maternal and Perinatal Data Collection by:
  - using standardised definitions and codes that reflect clinical practice;
  - regular reviewing the relevance and coverage of data collected and the method of collection for the ACT Maternal Perinatal Data; and
  - computerising the ACT Maternal and Perinatal Data Collection using Australian standardised definitions and codes.
- 3. To have regular, timely and relevant publications on the Maternal and Perinatal Health in ACT, that includes:
  - Five yearly reports using the most currently available data;
  - Consultation with the network on the structure and content of reports; and
  - Relevant ad hoc reports by agreement with the Epidemiology Branch and the network.

## The terms of reference of the network 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. The time frame could be varied for specific subgroups, such as preterm infants or fetuses/infants with birth defects, to improve the collection of information;
- 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 Epidemiology Branch and have a reporting structure through the Chief Health Officer to the Portfolio Executive of ACT Health; and
- report on the progress of the network and discuss data collection issues within each representative's area to both their supervisors and fellow workers.

# **GLOSSARY**

**Aboriginal and Torres Strait Islander identification (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 in which he or she lives.

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

**Age-specific fertility rates** are the number of live births (occurring or registered) during the calendar year according to the age of women who gave birth, per 1,000 female resident population of the same age at 30 June. For calculating these rates, births to women under 15 are included in the 15-19 age group, and births to women aged 50 and over are included in the 45-49 age group. Pro rata adjustment is made for births for which the age of the woman is not given.[3]

**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 congenital anomaly.

Antenatal refers to the time period of pregnancy before birth.

**Apgar score** is a numerical scoring system (1-10) to indicate the condition of the baby after birth (usually measured at one minute and five minutes after birth). 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 birth or delivery of a child.

**Birth status** is the condition of the baby immediately after birth. The status may be a live birth or stillbirth (fetal death).

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

**Born before arrival** refers to a woman who gives birth before arrival at the birth facility, where the woman and baby are subsequently admitted to that facility.

Breech birth - see 'Vaginal breech'.

Caesarean section is an operative birth through an abdominal incision.

**Canberra Midwifery Program** (CMP) was formed by the amalgamation of the former Community Midwives Program and the Birth Centre. The Canberra Midwifery Program commenced in 1999 and provides continuity of midwifery care by caseloading and small group practice 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.[9]

**Community Midwives Program** was a pilot program to provide midwifery care by a team of midwives. The program commenced in 1997 and continued until 1999 when it amalgamated with the Birth Centre to form the Canberra Midwifery Program.

**Confidence interval** is a computed interval with a given probability (for example, 95%) that a true value of a variable, such as a rate, mean or proportion, is contained between the low and high values. When the confidence intervals of two estimated values do not overlap, the values are statistically significantly different.

**Confinement** refers to a pregnancy resulting in at least one birth. A multiple pregnancy refers to one confinement with more than one birth. This term has not been used in this publication, preferring instead to use 'women giving birth' or "women who gave birth".

**Congenital anomalies** are the structural or anatomical abnormalities 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 birth defects, congenital anomalies or 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 through an abdominal incision performed before the onset of labour.

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

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

Fertility rate - see 'Total fertility rate'.

**Fetal death** refers to death prior to the birth of a baby of at least 20 completed weeks gestation or at least 400 grams in birthweight who did not, at any time after birth, breathe or show any other evidence of life, such as a heartbeat. The following definition is used nationally. 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 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).

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

**Forceps** refers, in this publication, 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 sphincter complex and rectal mucosa.[10]

**Gestation** is the period of development of a baby from the time of conception (fertilisation of the ovum) to birth.

**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 pregnancy 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.

**Induced abortion** refers, in this publication, to an intervention undertaken to terminate a pregnancy before the completion of 20 weeks gestation.

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

**Instrumental birth** refers, in this publication, to an assisted cephalic vaginal birth using forceps or vacuum extraction.

**Live birth** refers, in this publication, to the complete expulsion or extraction from its mother a baby of 20 completed weeks gestation or more or at least 400 grams in birthweight and who after being born breathes or shows any other evidence of life, such as a heartbeat. The WHO defines live birth

differently, as 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.

**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 the definition for 'Spontaneous abortion'.

Morbidity is a diseased state or the ratio of sick to well in the community.[11]

**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 a pregnancy resulting in more than one birth. For example twins, triplets etc.

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

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

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

**Parity** refers to the total number of previous pregnancies experienced by the woman that have resulted in a live birth or a stillbirth. The definition of parity has been changed since the last publication to align with the revised National Perinatal Data Development Committee's accepted definition.

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

**Perinatal death** refers to a stillbirth or a neonatal death.

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.[8]

Post neonatal death refers to the death of a baby after 28 completed days and before 365 completed days.

**Preterm birth** refers to a birth before 36 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 37 weeks gestation.

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 18 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 heartbeat, 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).

**Shared care** refers to a model of antenatal care where more than one professional clinician or clinic is involved in a woman's antenatal care.

**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 (a fetus of less than 400 grams birthweight or less than 20 weeks gestation). These may be classified as complete or incomplete.

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

Stillbirth see 'Fetal death'.

Third degree tear is a perineal laceration or tear involving the anal sphincter complex.[10]

**Total fertility rate** is the sum of the age-specific fertility rates (live births at each age of mother per female population of that age). It represents the number of children a woman would bear during her lifetime if she experienced current age-specific fertility rates at each age of her reproductive life.[3]

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 after-coming head.

# **Health Series publications**

The Population Health Research Centre (PHRC) of ACT Health maintains and adds to an ongoing 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.

The Health Series publications are listed below: 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 The First Year of The Care Continuum and Health Outcomes Project, Bruce Shadbolt, Number 7: June 1996 Number 8: The Epidemiology of Cardiovascular Disease in the ACT, C Gilbert, U White, January 1997 Number 9: Health Related Quality of Life in the ACT: 1994 - 95, D Gannon, C Gordon, B Egloff, B Shadbolt, February 1997 Disability and Ageing in the ACT: An Epidemiological Review, C Gilbert, April 1997 Number 10: Mental Health in the ACT, Ursula White, C Gilbert, May 1997 Number 11: Number 12: Aboriginal and Torres Strait Islander Health in the ACT, N Briscoe, J McConnell, M Petersen, July 1997 Number 13: Health Indicators in the ACT: Measures of health status and health services in the ACT, C Kee (Gilbert), G Johansen, U White, J McConnell, January 1998 Number 14: Health status of the ACT by statistical sub divisions, C Kee, G Bodilson (Johansen), April 1998 Results from the 1996 ACT Secondary School Students' Survey, H Phung, A Webb, N Briscoe, Number 15: June 1998 Childhood immunisation & preventable diseases in the ACT 1993 - 1997, H Phung, M Petersen, Number 16: June 1998 Number 17: Health Related Quality of Life in the ACT 1994 - 97, H Phung, U White, B Egloff, June 1998 Number 18: Maternal and Perinatal Status, ACT, 1994 - 96, M Bourne, C Kee, September 1998 Number 19: Health risk factors in the ACT, C Kee, M Petersen, K Rockpool, October 1998 Number 20: Communicable diseases in the ACT, L Halliday, M Petersen, November 1998 Number 21: Illicit drug samples seized in the ACT, 1980 - 97, D Pianca, November 1998 Health Status of Young People in the A.C.T, L Halliday, J McConnell, October 1998 Number 22: Number 23: Health Status of Older People in the A.C.T, C Kee, G Bodilsen, October 1999 Number 24: Drug related health in the ACT, J Barac (McConnell), P Luke, O Phongkham, December 1999 Number 25: ACT Maternal and Perinatal 1997 Tables, M Bourne, March 2000 Number 26: ACT Maternal and Perinatal 1998 Tables, M Bourne, March 2001 Number 27: Cancer in the Australian Capital Territory 1994 - 1999, PHRC, February 2002 Number 28: Health of older people in the ACT, 1999, PHRC, May 2002 Number 29: Physical activity patterns of adults in the ACT, 2000, PHRC, November 2003

Number 30: Perinatal Deaths in the ACT 1991 - 2000, PHRC, June 2003

Number 32: Maternal and Perinatal Health in the ACT, 1999, PHRC, June 2003

Number 31: Breast Cancer in the ACT, PHRC, June 2003

Number 33:	Alcohol and Tobacco Use by ACT Secondary School Students 1996-2002, PHRC, September 2003
Number 34:	Cancer in the ACT 1996 - 2000, PHRC, November 2003
Number 35:	Preventing injury in older people: fear of falling and physical activity ACT 2003, PHRC, November 2003
Number 36:	Maternal and Perinatal Health in the ACT, 1997 - 2001, PHRC, September 2004
Number 37:	Substance use & other health related behaviours among ACT Secondary Students, PHRC, December 2004
Number 38:	Review of ACT child deaths, PHRC, June 2006
Number 39:	The results of the 2005 ACT secondary student drug and health risk survey, PHRC, February 2007
Number 40:	The Health of Aboriginal and Torres Strait Islander People in the ACT, 2000 – 2004, May 2007
Number 41:	Sustainable Healthy Development - the ACT way, June 2007
Number 42:	Cancer in the ACT 1998-2004, August 2007
Number 43:	Report on the 2006 ACT Year 6 Physical Activity and Nutrition Survey, August 2007
Number 44:	Maternal and Perinatal Health in the ACT, 2000 - 2004, December 2007
Number 45:	Perinatal Mortality in the ACT, 2001 - 2005, August 2008
Number 46:	Health Status of Women in the ACT, 2008, August 2008
Number 47:	Cancer in the ACT, Survival estimates, 2009, August 2009
Number 48:	Cancer in the ACT, Incidence and Mortality, 2009, August 2009
Number 49:	Review of breast cancer in ACT women, October 2010
Number 50:	ACT Secondary Student Drug and Health Risk Behaviours: results of the 2008 ACT Secondary Student Alcohol and Drug Survey, November 2010

Publications prepared after Health Series Number 13 are available online from:

http://www.health.act.gov.au/c/health?a=da&did=11032719&pid=1235348288

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Epidemiology Branch
Population Health Division
ACT Health
January 2011

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