

Births in Victoria

2005 and 2006



Consultative Council on Obstetric and
Paediatric Mortality and Morbidity

Births in Victoria 2005 and 2006

Consultative Council on Obstetric and Paediatric Mortality and Morbidity

Perinatal Data Collection Unit
Statewide Quality Branch
Victorian Department of Human Services
2008

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Summary

- The number of births in Victoria continued to rise to 66,340 in 2005 and 69,550 in 2006 (compared with 62,555 in 2000) (Table 1).
- The fertility rate also increased to 61.0 per 1,000 estimated female resident population aged 15–44 years in 2005 and 63.4 per 1,000 in 2006 (compared with 59.0 in 2000) (Table 3).
- Women aged younger than 20 years continued to make up a small proportion of all women giving birth—2.7% in 2005 and 2.8% in 2006 (Table 4).
- The increase in the proportion of women giving birth who were 35 years or older continued—24.4% of all confinements in 2006 compared with 7.8% in 1985 (Figure 3).
- In 2006, 47.5% of women who had an unassisted vaginal birth stayed in hospital two days or less following the birth, while 81.8% of those who had a caesarean section stayed four or more days (Table 20).
- First births made up a slowly increasing proportion of all births—43.2% of all births in 2006 compared with 40.8% in 1990 (Table 36).
- Over one-quarter (26.5%) of multiparous women who gave birth in 2006 had had one or more prior caesarean section; up from one-fifth (19.7%) in 2000 (Table 37).
- The rate of caesarean section continues to rise. In 2006, 30.6% of women gave birth by caesarean section—twice the rate in 1985 (Figure 9).
- Women admitted as private patients were more likely than those admitted as public patients to have labour induced (35.2% and 19.6% respectively), and to have an instrumental vaginal birth (17.3% and 10.8% respectively) or a caesarean section (36.8% and 26.9% respectively) (Figure 8, Table 46).
- Postpartum haemorrhages were reported for 12.4% of primiparous women and 8.9% of multiparous women in 2006 (Table 56).
- 7.8% of babies were born preterm (before 37 weeks) (Table 59).
- 6.6% of babies had a low birthweight (<2,500 grams) (Table 64).
- Twins made up 3.6% of all births in 2005 and 2006 (Table 72).
- There was an increasing number of births to indigenous women, making up 0.8% of all births (568 babies) in 2006. Indigenous women giving birth were younger than other women, and more likely to have an entirely spontaneous labour (47.3% compared with 37.1% of non-indigenous women) and an unassisted vaginal birth (72.4% and 55.9% respectively) (Tables 78 to 81).
- Babies born to indigenous mothers were more likely to be born preterm (Table 83) and with a low birthweight (Table 82) than other babies (11.8% compared with 7.7%, and 13.6% compared with 6.8% respectively).

Introduction

Background

The Victorian Perinatal Data Collection Unit (VPDCU) was established in 1982, by an amendment to the Health Act. It is a population-based mandatory surveillance system designed to collect information on, and in relation to, the health of mothers and babies. The midwife attending the birth of every baby in Victoria at 20 or more weeks gestation (or weighing at least 400 g if gestation is unknown) provides information that includes maternal medical conditions, complications of pregnancy, management of labour and birth, maternal and neonatal morbidity, birth defects and demographic factors. The hospital (or private practitioner in cases of homebirths) where the birth occurs is responsible for sending the data to the VPDCU.

The VPDCU reports to the Consultative Council on Obstetric and Paediatric Mortality and Morbidity (CCOPMM), which is the advisory body to the Minister of Health on maternal, perinatal and paediatric mortality and morbidity. Council encourages the use of the data to inform clinical practice, while carefully protecting the confidentiality of the information.

Functions of CCOPMM and VPDCU

- Collect, collate, analyse and interpret information on all births in Victoria;
- Provide data to the Consultative Council on Obstetric and Paediatric Mortality and Morbidity to assist in their process of monitoring all perinatal, infant, child (up to 18 years of age), and maternal deaths in Victoria;
- Provide annual feedback to individual hospitals and homebirth practitioners allowing for statewide comparisons of practice and outcomes;
- Maintain a register of birth defects diagnosed in children up to 15 years of age who were born in Victoria;
- Identify risk factors contributing to adverse outcomes of Victorian mothers, their pregnancies, and the health status of their babies;
- Identify and monitor trends in perinatal health and birth defects;
- Provide Victorian data, compliant with the National Perinatal Statistics Unit (NPSU), to enable analysis of national data, and comparison of characteristics and birth outcomes between States and Territories (<http://www.aihw.gov.au/npsu>) and production of *Australia's Mothers and Babies*;
- Describe for all Victorian births the demographic, medical and pregnancy history of mothers, and the characteristics of their babies;
- Conduct epidemiological studies related to the health of pregnant women and infants;
- Respond to requests for perinatal and birth defect data from people involved in research, service provision and the study and maintenance of health of mothers and babies in Victoria; and
- Assist in the planning, implementation and evaluation of health services for Victorian pregnant women and their babies.

Data Source

Midwives complete and submit to VPDCU a standardised Perinatal Morbidity Statistics Form (either manual or computer generated) for every Victorian birth (Figure 1). This includes births that occur in hospitals or elsewhere.

Figures in this report may differ slightly from the CCOPMM reports, *Annual Survey on Perinatal Deaths*, due to different inclusion or exclusion criteria.

Data Quality

Data submitted to VPDCU are checked for completeness and accuracy. Inconsistent or incomplete data are rectified by sending a query to the hospital of birth. Data are double entered into a database that includes range and logical checks. Extensive data cleaning is carried out when all data for the calendar year have been entered.

Validation activities to assess, maintain and improve the quality of data provided to VPDCU by hospitals are an integral part of our work. This complements and extends the checks built into the system.

1. Validation of number of births reported to the VPDCU (to ensure a form is received for each birth)

Each year a validation is undertaken to compare the number of births that are reported to the VPDCU with the number of births recorded at each hospital in the State. The most recent study (of births in 2006) showed that 98.8% of all births in Victorian hospitals were reported to VPDCU without prompting, while the remainder were submitted after the validation process identified their omission.

2. Statewide validation of perinatal data (to determine the quality and reliability of data)

Projects designed to determine the accuracy of VPDCU data are undertaken regularly. These projects compare the data in the VPDCU dataset with that recorded in the medical record. They have been conducted in 1984, 1985, 1992, 1998, 1999 and 2003. The most recent study found that the accuracy of most items is excellent, although some morbidity items are under-reported.

3. Education and liaison program

VPDCU staff includes a part-time midwife who liaises with the midwives who provide the data. She provides guidance on definitions and completion of items, and gives an overview of the use of the data so as to motivate the provision of complete and accurate data. She gives lectures to post-graduate students of midwifery at a number of universities.

Differences from previous reports

Data presented in this report may differ slightly from those presented in previous reports due to a continual updating of data in the files as new information becomes available.

There are a number of changes from the format of the previous report following internal review of the content. The order of presentation has changed. Extra tables have been added to a number of sections, and the layout of many tables has been revised.

Mortality is reported in detail in the publication, *CCOPMM, Annual Report for the Year 2006, incorporating the 45rd survey of Perinatal Deaths in Victoria, Melbourne, 2008* and is not duplicated here.

Feedback regarding the content is welcome.

Figure 1: Perinatal morbidity statistics form

Appendix A: Perinatal Morbidity Statistics Form A

<p>UR Number: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Admission Date: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Suburb/Town: Postcode: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Public/Private Patient: Public <input checked="" type="checkbox"/> Private <input type="checkbox"/></p> <p>Country (State) of Birth: (Mother) <input type="text"/></p> <p>Aboriginal: (Mother) No <input checked="" type="checkbox"/> Aboriginal <input type="checkbox"/> Torres Strait Islander <input type="checkbox"/></p>		<p>Hospital:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">Intended Place of Birth:</td> <td colspan="2">Actual Place of Birth:</td> </tr> <tr> <td>Hospital <input checked="" type="checkbox"/></td> <td>Other <input type="checkbox"/></td> <td>Hospital <input checked="" type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td colspan="2">Birth Centre <input checked="" type="checkbox"/> (Specify)</td> <td colspan="2">Birth Centre <input checked="" type="checkbox"/> (Specify)</td> </tr> <tr> <td colspan="2">Home <input checked="" type="checkbox"/></td> <td colspan="2">Home <input checked="" type="checkbox"/></td> </tr> </table> <p>If place of birth changes, specify if change occurred: before onset of labour <input checked="" type="checkbox"/> or during labour <input checked="" type="checkbox"/></p> <p>Marital Status: (Mother) Single <input checked="" type="checkbox"/> Married <input type="checkbox"/> Widowed <input type="checkbox"/> Defacto <input checked="" type="checkbox"/> Divorced <input checked="" type="checkbox"/> Separated <input type="checkbox"/> Unknown <input checked="" type="checkbox"/></p> <p>Birthdate: (Mother) <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>		Intended Place of Birth:		Actual Place of Birth:		Hospital <input checked="" type="checkbox"/>	Other <input type="checkbox"/>	Hospital <input checked="" type="checkbox"/>	Other <input type="checkbox"/>	Birth Centre <input checked="" type="checkbox"/> (Specify)		Birth Centre <input checked="" type="checkbox"/> (Specify)		Home <input checked="" type="checkbox"/>		Home <input checked="" type="checkbox"/>	
Intended Place of Birth:		Actual Place of Birth:																	
Hospital <input checked="" type="checkbox"/>	Other <input type="checkbox"/>	Hospital <input checked="" type="checkbox"/>	Other <input type="checkbox"/>																
Birth Centre <input checked="" type="checkbox"/> (Specify)		Birth Centre <input checked="" type="checkbox"/> (Specify)																	
Home <input checked="" type="checkbox"/>		Home <input checked="" type="checkbox"/>																	
<p>PREVIOUS PREGNANCIES: (Excluding this Pregnancy)</p> <p>Total no. previous pregnancies: <input type="text"/> <input type="text"/></p> <p>Total Number of:</p> <p>Livebirths..... <input type="text"/> <input type="text"/></p> <p>Stillbirths..... <input type="text"/> <input type="text"/></p> <p>Neonatal deaths..... <input type="text"/> <input type="text"/></p> <p>Abortions – spontaneous..... <input type="text"/> <input type="text"/></p> <p> – induced..... <input type="text"/> <input type="text"/></p> <p>Ectopic..... <input type="text"/> <input type="text"/></p> <p>Unknown..... <input type="text"/> <input type="text"/></p> <p>Date of Completion of Last Pregnancy: (Month/year) <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Outcome of Last Pregnancy:</p> <p>Livebirth <input checked="" type="checkbox"/> Abortion–spontaneous <input type="checkbox"/></p> <p>Stillbirth <input checked="" type="checkbox"/> Abortion–induced <input type="checkbox"/></p> <p>Neonatal death <input checked="" type="checkbox"/> Ectopic <input type="checkbox"/></p> <p>Unknown <input type="checkbox"/></p> <p>Was last birth a caesarean section? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/></p> <p>Total no. of previous caesarean sections <input type="text"/></p>		<p>LABOUR, BIRTH AND POSTNATAL</p> <p>Labour: Spontaneous <input checked="" type="checkbox"/> Augmented <input type="checkbox"/> Induced – medical <input checked="" type="checkbox"/> No labour <input type="checkbox"/> – surgical <input checked="" type="checkbox"/></p> <p>If labour induced or augmented (circle one or more):</p> <p>Oxytocin <input checked="" type="checkbox"/> ARM <input type="checkbox"/> Prostaglandins <input checked="" type="checkbox"/> Other <input type="checkbox"/> specify</p> <p>Specify indication for induction:</p> <p>Presentation: Vertex <input checked="" type="checkbox"/> Brow <input type="checkbox"/> Breech <input checked="" type="checkbox"/> Other <input type="checkbox"/> Face <input checked="" type="checkbox"/> specify</p> <p>Type of Birth: Spontaneous cephalic <input checked="" type="checkbox"/> Elective caesarean – no labour <input type="checkbox"/> labour <input checked="" type="checkbox"/> Emergency caesarean – no labour <input type="checkbox"/> labour <input checked="" type="checkbox"/> Forceps <input checked="" type="checkbox"/> Other <input type="checkbox"/> Vaginal breech <input checked="" type="checkbox"/> Unknown <input type="checkbox"/></p> <p>If operative birth, state indications:</p> <p>Analgesia for Labour: No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Specify.....</p> <p>Anaesthesia for Delivery: No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Specify.....</p> <p>Complications of Labour, Birth or Postnatal: PPH - primary <input checked="" type="checkbox"/> Other</p> <p>Perineal Status Episiotomy No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Tear (sutured) No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Specify Degree.....</p> <p>Admitted to ICU: (Mother) No <input type="checkbox"/> Yes <input checked="" type="checkbox"/></p>		<p>BABY (Complete a separate form in full for each baby of a multiple birth)</p> <p>Birthdate: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Sex: Male <input type="checkbox"/> Female <input checked="" type="checkbox"/> Indeterminate <input type="checkbox"/></p> <p>Plurality (eg. Single 1 Twins 2 etc.) <input type="text"/> (this record refers to <input type="text"/> born)</p> <p>Condition: Liveborn <input checked="" type="checkbox"/> Stillborn <input type="checkbox"/></p> <p>Birthweight (grams): <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Apgar: 1 minute: <input type="text"/> <input type="text"/> 5 minutes: <input type="text"/> <input type="text"/></p> <p>Time to Established Respiration (mins.) <input type="text"/> <input type="text"/></p> <p>Resuscitation: None <input checked="" type="checkbox"/> IPPR bag & mask <input type="checkbox"/> Suction only <input checked="" type="checkbox"/> Endotracheal Intubation & IPPR <input type="checkbox"/> O₂ therapy only <input checked="" type="checkbox"/> External cardiac massage & ventilation <input type="checkbox"/> Suction & O₂ <input checked="" type="checkbox"/> Other <input type="checkbox"/></p> <p>Congenital Anomalies: No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> (specify): Cardiovascular CNS Musculoskeletal Gastrointestinal Urogenital Respiratory Skin Other</p> <p>Neonatal Morbidity: No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> (specify): </p> <p>Admitted: SCN <input checked="" type="checkbox"/> NICU <input checked="" type="checkbox"/></p> <p>Date of discharge from place of birth: Mother <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Baby <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Discharge status: Mother Baby Discharged <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Died <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Transferred to: (specify) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p> <p>Mother:..... Baby:.....</p> <p>Referred to DOM: No <input type="checkbox"/> Yes <input checked="" type="checkbox"/></p>															
<p>THIS PREGNANCY</p> <p>Date of LMP: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Estimated Gestation (weeks): <input type="text"/> <input type="text"/></p> <p>Maternal Medical Conditions: Pre-existing diabetes <input checked="" type="checkbox"/> Cardiac disease <input checked="" type="checkbox"/> Mental Illness <input checked="" type="checkbox"/> Hypertension <input checked="" type="checkbox"/> Other</p> <p>Obstetric Complications: APH – placenta praevia <input type="checkbox"/> – abruptio placentae <input checked="" type="checkbox"/> Other APH <input type="checkbox"/> Pre-labour rupture of membranes <input checked="" type="checkbox"/> Pre-eclampsia <input checked="" type="checkbox"/> Gestational diabetes <input checked="" type="checkbox"/> Other</p> <p>Procedures and Operations: Ultrasound <13 weeks (specify no.) <input type="text"/> <input type="text"/> Ultrasound 13–26 weeks (specify no.) <input type="text"/> <input type="text"/> Cervical suture <input checked="" type="checkbox"/> ART (Specify)..... <input checked="" type="checkbox"/> Other.....</p> <p>Occasional Data</p>		<p>Signature at Delivery Date / /</p> <p>Signature at Discharge Date / /</p>																	

PERINATAL MORBIDITY STATISTICS
HOSPITAL/MEDICAL PRACTITIONER/
MIDWIFE COPY

Births

Table 1: Total births in Victoria, 2005 and 2006

	2005	2006
Total births (unadj)	66,654	69,856
Terminations of pregnancy*	314	306
Other stillbirths	347	364
Livebirths	65,993	69,186
Adjusted births	66,340	69,550

* Terminations at 20 or more weeks gestation because of congenital anomalies or for psychosocial reasons

There were a total of 66,654 births in Victoria in 2005 and 69,856 in 2006. This includes 314 terminations of pregnancy at 20 or more weeks gestation in 2005, and 306 in 2006. A further 347 babies were stillborn in 2005 and 364 in 2006 (Table 1).

The remainder of this report excludes terminations of pregnancy, and uses adjusted births (i.e. total births minus terminations of pregnancy) as the denominator.

The 66,340 births in 2005 represent a 4.5% increase over 2004, and the 69,550 in 2006 represent a 4.8% increase over 2005.

Table 2: Crude birth rate, Victoria, 2005 and 2006

	2005	2006
Livebirths	65,993	69,186
Estimated female resident population aged 15–44 years	1,082,355	1,091,465
Crude birth rate per 1,000 EFRP*	60.1	63.4

* EFRP—Estimated female resident population aged 15–44 years. ABS Website : 3218.0 Regional Population Growth Australia

Table 3: Trends in births, Victoria, 1985–2006

	1985	1990	1995	2000	2003	2004	2005	2006
Total births (adj)	61,189	66,878	64,717	62,555	63,450	63,503	66,340	69,550
Total live births	60,784	66,374	63,247	62,148	63,018	63,082	65,993	69,186
Total confinements	60,468	66,004	62,734	61,562	62,305	62,348	65,115	68,244
EFRP*	974,347	1,044,969	1,033,818	1,053,114	1,079,082	1,083,669	1,082,355	1,091,465
Live births per 1,000 EFRP	62.4	63.5	61.2	59.0	58.4	58.2	61.0	63.4
Total births per 1,000 EFRP#	62.8	64.0	62.6	59.4	58.8	58.6	n/a	n/a

* EFRP—Estimated female resident population aged 15–44 years. Births to women aged younger than 15 have been included in the 15–19 age group, and those to women aged 45 or older are included in the 40–44 age group.

Total births per 1,000 EFRP were reported in earlier editions of Births in Victoria, and are repeated here to indicate the small difference between reporting on all births and livebirths.

The number of livebirths per 1,000 estimated female resident population aged 15–44 years decreased from 63.5 in 1990 to 58.2 in 2004. It rose again to 61.0 in 2005 and reached 63.4 in 2006 (Table 3).

Livebirths are reported here in common with Australian Bureau of Statistics reporting methods.

Maternal characteristics

In this section, the number of *women* who gave birth is the primary interest, regardless of whether they had a singleton or a multiple birth, so the women are counted once only (also known as a *confinement*). This differs from the number of *births*, which counts all babies, including multiple births.

Maternal age

Table 4: Maternal age group, all confinements, 2005 and 2006

	2005		2006	
	n	%	n	%
Younger than 15 years	10	0.0	9	0.0
15–19 years	1,762	2.7	1,902	2.8
20–24 years	7,352	11.3	7,764	11.4
25–29 years	16,549	25.4	17,081	25.0
30–34 years	24,099	37.0	24,810	36.4
35–39 years	12,934	19.9	13,997	20.5
40–44 years	2,316	3.6	2,555	3.7
45+ years	91	0.1	126	0.2
Unknown	2	0.0	0	0.0
	65,115	100.0	68,244	100.0

Table 5: Trends in maternal age group, all confinements, 1985–2006

	1985	1990	1995	2000	2001	2002	2003	2004	2005	2006
Younger than 20 years	4.4	4.3	3.5	3.3	3.2	3.1	2.9	2.8	2.7	2.8
20–24 years	23.1	18.3	15.7	12.4	12.4	12.1	11.9	11.3	11.3	11.4
25–29 years	40.2	37.6	33.6	30.7	28.9	27.2	26.6	25.8	25.4	25.0
30–34 years	24.4	29.0	32.7	34.6	36	37.1	37.6	37.6	37.0	36.4
35–39 years	6.9	9.3	12.5	16.2	16.4	17.3	17.6	18.8	19.9	20.5
40+ years	0.9	1.3	2.1	2.9	3.1	3.2	3.4	3.6	3.7	3.9
Median age—overall (years)	27	28	29	30	30	30	31	31	31	31
Median age—primiparae (years)	25	26	27	28	29	29	29	30	29	29
Mean age—overall (years)	27.5	28.2	29.1	29.9	30.0	30.2	30.3	31.0	30.6	30.6
Mean age—primiparae (years)	25.4	26.2	27.2	28.2	28.3	28.6	28.7	29.4	29.1	29.1

The typical woman giving birth in 2006 was 4 years older than her counterpart in 1985. The median age at first birth has risen from 25 years in 1985 to 29 years in 2006. The median age for all births has risen from 27 years in 1985 to 31 years in 2003 and appears to have reached a plateau.

Figure 2: Median age at first birth in Victoria, 1985–2006

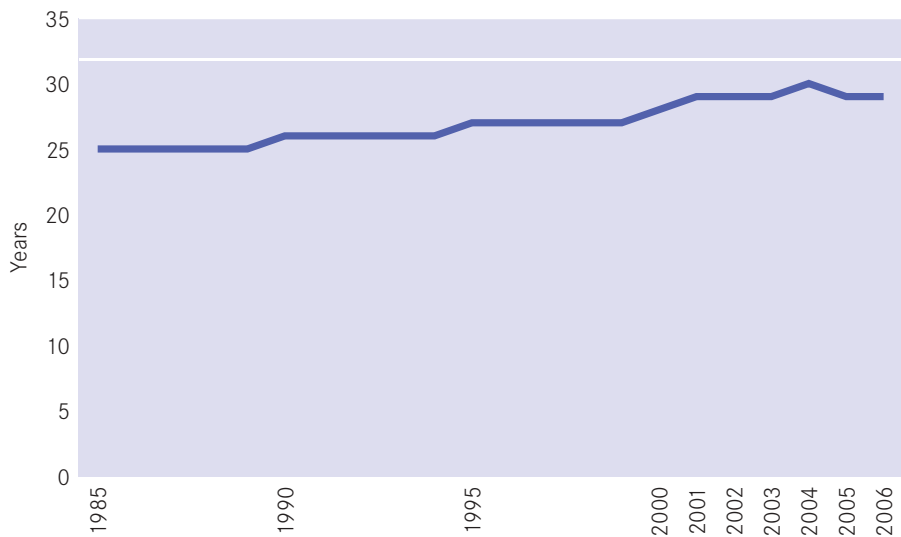
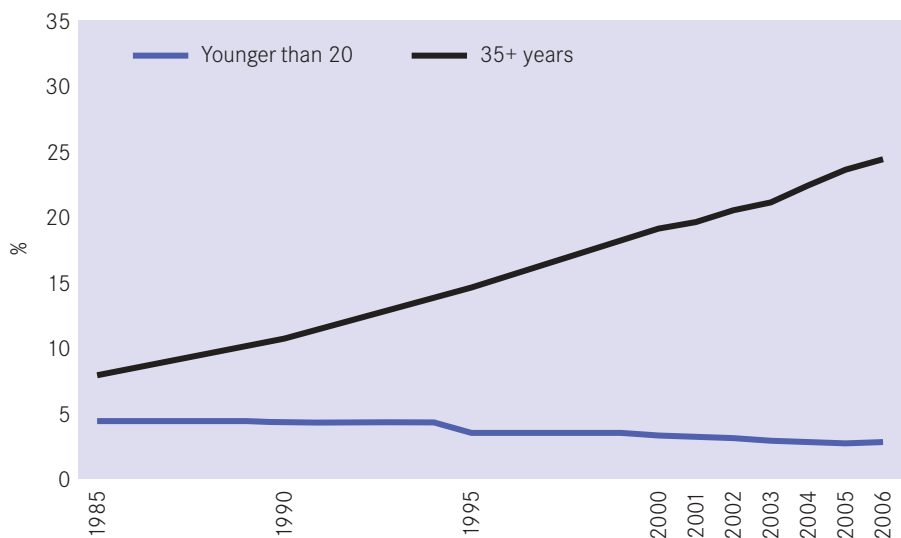


Figure 3: Trends in maternal age group, all confinements, 2005 and 2006



Women younger than 20 years of age continue to make up a small proportion of all women giving birth. They accounted for 4.4% of all confinements in 1985, decreasing to 2.8% in 2006 (Table 5).

On the other hand, those aged 35 years or older have increased steadily from 7.8% of all women giving birth in 1985 to 24.4% in 2006 (Table 5, Figure 3).

Table 6: Maternal age group by DHS region of residence, all confinements, pooled data, 2005 and 2006

Health Region	Maternal age groups (years)												Total
	Younger than 20	%	20-24	%	25-29	%	30-34	%	35-39	%	40+	%	
Barwon S W	324	3.9	1,125	13.5	2,309	27.7	2,926	35.1	1,390	16.7	258	3.1	8,332
Grampians	220	4.4	758	15.0	1,456	28.9	1,676	33.2	788	15.6	148	2.9	5,046
Loddon Mallee	451	6.2	1,190	16.3	2,049	28.1	2,335	32.0	1,061	14.5	210	2.9	7,296
Hume	277	4.4	970	15.5	1,812	29.0	2,041	32.6	987	15.8	172	2.7	6,259
Gippsland	333	6.0	1,033	18.7	1,644	29.7	1,607	29.1	774	14.0	140	2.5	5,531
Western Metro	448	2.2	2,285	11.3	5,424	26.9	7,522	37.3	3,789	18.8	674	3.3	20,143
Northern Metro	479	2.1	2,468	10.7	5,492	23.9	8,727	37.9	4,895	21.3	952	4.1	23,013
Eastern Metro	304	1.3	1,481	6.5	4,895	21.5	9,380	41.3	5,655	24.9	1,013	4.5	22,729
Southern Metro	684	2.1	3,299	10.3	7,710	24.0	11,793	36.7	7,164	22.3	1,443	4.5	32,093
Other*	163	5.6	507	17.4	839	28.8	902	30.9	428	14.7	78	2.7	2,917

* Refers to women who live in a postcode outside Victoria, but who gave birth at a Victorian hospital

Excludes 2 cases where maternal age or region of residence is unknown

A higher proportion of rural residents giving birth were younger than 20 years compared with metropolitan residents. The converse was true for those aged 35 or older.

Table 7: Trends in DHS region of residence (rural versus metropolitan), all confinements, 1990-2006

Place of residence	1990	1995	2000	2003	2004	2005	2006
	n=66,004 %	n= 62,734 %	n= 61,562 %	n=62,305 %	n=62,348 %	n=65,115 %	n=68,244 %
Rural	27.9	27.0	25.9	25.0	24.8	24.4	24.3
Metropolitan	71.4	72.0	72.2	72.9	73.2	73.5	73.4
Outside Victoria	0.8	1.0	1.9	2.1	1.9	2.1	2.3

Rural Victorian residents made up a slightly smaller proportion of childbearing women than during the 1990s. However the number of women who lived outside Victoria has increased. Many of these women are likely to live near the Victorian border, in rural or regional areas.

Table 8: DHS region of residence and crude birth rates, all livebirths, 2005 and 2006

Region	Total livebirths				EFRP aged 15–44yrs, 2005 and 2006	
	2005	%	2006	%	Number ^	Births/ 1000 E.F.R.P
Barwon S W	4,175	6.3	4,259	6.2	138,013	61.1
Grampians	2,519	3.8	2,612	3.8	83,600	61.4
Loddon Mallee	3,556	5.4	3,816	5.5	115,528	63.8
Hume	3,128	4.7	3,210	4.6	98,806	64.1
Gippsland	2,701	4.1	2,907	4.2	90,052	62.3
<i>Rural (subtotal)</i>	<i>16,079</i>	<i>24.4</i>	<i>16,804</i>	<i>24.3</i>	<i>525,999</i>	<i>62.5</i>
Western Metro	9,998	15.2	10,396	15.0	340,767	59.8
Northern Metro	11,406	17.3	11,912	17.2	377,430	61.8
Eastern Metro	11,413	17.3	11,679	16.9	417,752	55.3
Southern Metro	15,738	23.8	16,799	24.3	529,193	61.5
<i>Metro (subtotal)</i>	<i>48,555</i>	<i>73.6</i>	<i>50,786</i>	<i>73.4</i>	<i>1,665,142</i>	<i>59.7</i>
Other*	1,359	2.1	1,596	2.3	N/A	
Total	65,993	100	69,186	100	2,191,141	61.7

^ These denominator figures have been obtained from the ABS, and summed for 2005 and 2006

* Refers to women who live in a postcode outside Victoria, but who gave birth at a Victorian hospital

Marital status

Table 9: Marital status, all confinements, 2005 and 2006

	2005		2006	
	n	%	n	%
Married	46,782	71.8	48,406	70.9
De facto	9,502	14.6	10,734	15.7
Single	8,078	12.4	8,357	12.2
Separated	333	0.5	368	0.5
Divorced	220	0.3	239	0.4
Widowed	28	0.0	16	0.0
Unknown	172	0.3	124	0.2
	65,115	100	68,244	100

Table 10: Trends in marital status, all confinements 1985–2006 (%)

	1985	1990	1995	2000	2001	2002	2003	2004	2005	2006
Married	89.3	83.4	78.3	75.3	74.3	73.5	73.1	72.4	71.8	70.9
De facto	2.3	6.2	9.4	11.8	13.2	13.8	13.9	14.1	14.6	15.7
Single	7.1	9.2	10.6	11.7	11.3	11.4	11.9	12.3	12.4	12.2
Separated/Divorced/Widowed	1.2	1.1	1.3	1.1	1.1	1.1	1	0.9	0.9	0.9

A decreasing majority of all women who gave birth in 2005 and 2006 were married, with a steady increase in de facto relationships from 2.3% in 1985 to 15.7% in 2006. The proportion of single women appears to have plateaued at around 12% (Table 10).

Reproductive history

Gravidity

Gravidity is the number of pregnancies a woman has had, including the index pregnancy, regardless of outcome or number of fetuses.

Table 11: Gravidity, all confinements, 2005 and 2006

Gravida	2005	%	2006	%
One (index pregnancy)	20,992	32.2	22,368	32.8
Two	19,931	30.6	20,741	30.4
Three	12,206	18.1	12,504	18.3
Four	6,111	9.4	6,451	9.5
Five	3,057	4.7	3,093	4.5
Six or more	2,818	4.3	3,087	4.5
Total	65,115	100	68,244	100

Parity

Parity is the number of previous pregnancies that have ended at 20 or more weeks gestation, regardless of the number of fetuses, and regardless of whether the baby survived.

Table 12: Parity prior to the index birth, all confinements 2005 and 2006

Para	2005	%	2006	%
None	27,962	42.9	29,466	43.2
One or more	37,153	57.0	38,778	56.8
	65,115	100	68,244	100

Table 13: Trends in parity, all confinements, 1990 to 2006

	1990 n=66,004	1995 n=62,734	2000 n=61,562	2002 n=61,964	2003 n=62,305	2004 n=62347*	2005 n=65,115	2006 n=68,244
Parity	%	%	%	%	%	%	%	%
None	40.8	40.1	41.7	41.9	42.6	42.8	42.9	43.2
One	33.3	34.4	34.6	35.2	35.0	34.5	34.3	34.2
Two	17.0	16.6	15.7	15.2	14.9	15.0	15.0	14.7
Three	5.9	5.8	5.2	5.0	4.8	4.8	4.9	4.9
Four	1.9	1.8	1.7	1.7	1.5	1.7	1.6	1.7
Five or more	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.3

First confinements have steadily increased as a proportion of all confinements from 40.8% in 1990 to 43.2% in 2006 (Table 13). There were relatively fewer women in 2006 than in 1990 who have had two or three prior births. There was little change in the proportion who had four or more prior births.

Previous caesarean sections

Table 14: Number of previous caesarean sections, of all women who had one or more prior birth, 2000, 2005 and 2006

	2000	%	2005	%	2006	%
None	28,806	80.3	27,653	74.4	28,492	73.5
One	5,572	15.5	7,488	20.2	8,172	21.1
Two	1,241	3.5	1,678	4.5	1,725	4.4
Three	231	0.6	276	0.7	328	0.8
Four	32	0.1	47	0.1	50	0.1
Five or more	9	0	10	0	10	0
Total*	35,891	100	37,152	100	38,777	100

* excludes 2 cases with unknown previous caesarean history

The rising rate of caesarean section resulted in 26.5% of all multiparous women having had at least one caesarean prior to their 2006 birth, compared with 19.7% in 2000.

Maternal place of birth

Table 15: Maternal place of birth, all confinements, 2005 and 2006

Country of birth	2005	%	2006	%
Australia	49,231	75.6	51,321	75.2
Asia	6,403	9.8	7,139	10.5
Europe	1,935	3.0	1,982	2.9
Oceania incl New Zealand	1,706	2.6	1,856	2.7
United Kingdom incl Eire	1,708	2.6	1,758	2.6
Africa	1,550	2.4	1,643	2.4
Mid East	1,493	2.3	1,483	2.2
Nth America	397	0.6	420	0.6
Sth America	414	0.6	421	0.6
Unknown	278	0.4	221	0.3
Total	65,115	100	68,244	100

Table 16: Ten most common countries of birth, for women born in non-English speaking countries, confinements in 1990 and 2006

	1990	Number of confinements	2006	Number of confinements
1	Vietnam	1,068	Vietnam	1,561
2	Former Yugoslavia	971	India	1,116
3	Lebanon	721	China	809
4	Italy	712	Other Africa [#]	579
5	Philippines	609	Philippines	568
6	Turkey	584	Former Yugoslavia	535
7	Malaysia	502	Sri Lanka	491
8	Greece	489	Lebanon	463
9	India	385	Iraq	419
10	Sri Lanka	346	North Africa	386

[#] Other Africa excludes South, North and Central Africa

Amongst women giving birth in Victoria in 2006 who were born in a non-English speaking country, Vietnam continues to be the most common country of birth. Other countries that were in the top 10 non-English speaking countries of birth in both 1990 and 2006 were the former Yugoslavia, Lebanon, the Philippines, India and Sri Lanka. The relatively large number of women giving birth in 1990 who were born in Italy, Turkey, Malaysia and Greece has fallen, along with an increase in the number born in China, 'other' African countries, Iraq and North Africa.

Table 17: Trends in maternal place of birth, all confinements, 1990 to 2006

	1990 n=66,044 %	1995 n=62,734 %	2000 n=61,562 %	2002 n=61,964 %	2003 n=62,305 %	2004 n=62,348 %	2005 n=65,115 %	2006 n=68,244 %
Australia	75.4	75.1	75.7	76.6	76.1	76.0	75.6	75.2
Asia	6.7	9.3	10.1	9.3	9.6	9.8	9.8	10.5
Europe	5.7	4.1	3.5	3.2	3.2	3.0	3.0	2.9
Oceania incl NZ	2.4	2.3	2.5	2.6	2.7	2.7	2.6	2.7
UK incl Eire	5.2	4.3	3.2	2.9	2.8	2.7	2.6	2.6
Africa	1.1	1.2	1.5	1.7	1.8	2.0	2.4	2.4
Middle East	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.2
Nth America	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6
Sth America	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6

Excludes 1,291 cases with unknown maternal country of birth

Three-quarters of women who gave birth in Victoria in 2005 and 2006 were born in Australia. Around one in ten was born in Asia. These rates have been relatively stable since 1995.

Considerably fewer women were born in other regions of the world. Since 1990 there has been a small increase in the number born in Africa, as well as a decrease in the number born in the UK and Europe (Table 17).

Table 18: Maternal place of birth by DHS region of residence, all confinements, 2005 and 2006 pooled

	Barwon SW n=8,332 %	Grampians n=5,046 %	Loddon Mallee n=7,296 %	Hume n=6,259 %	Gippsland n=5,531 %	Western Metro n=20,143 %	Northern Metro n=23,013 %	Eastern Metro n=22,729 %	Southern Metro n=32,093 %	Other n=2,917 %
Australia	91.7	93.0	93.0	91.0	93.3	62.8	69.9	74.8	69.1	91.6
Oceania incl NZ	1.5	1.4	2.1	1.5	1.4	3.6	2.6	2.1	3.7	2.2
UK incl Eire	1.7	1.7	1.5	1.5	1.4	2.2	2.3	3.1	3.9	1.6
Europe	1.4	0.9	0.7	1.3	1.0	4.1	3.4	2.6	4.2	0.7
Middle East	0.2	0.0	0.4	1.9	0.1	2.0	7.8	0.7	1.3	0.5
Nth America	0.4	0.5	0.2	0.3	0.3	0.5	0.6	0.7	1.0	0.3
Sth America	0.1	0.1	0.1	0.1	0.2	1.2	0.6	0.5	0.9	0.1
Africa	0.6	0.5	0.4	0.4	0.5	5.3	2.4	1.7	3.1	0.6
Asia	1.6	1.2	1.5	1.7	1.9	17.5	9.7	13.7	12.8	2.3

Excludes 499 women for whom country of birth was not recorded

The overwhelming majority of rural women giving birth in 2005 and 2006 were born in Australia (more than 90% in all rural regions), with only a small proportion from the Middle East and Africa.

Around two-thirds of metropolitan residents who gave birth were born in Australia, with a substantial minority born in Asia. Smaller numbers were born in all other regions of the world.

Table 19: Maternal age group by maternal place of birth, all confinements, pooled data 2005 and 2006 (row %)

	Younger than 20 yrs	20–24 yrs	25–29 yrs	30–34 yrs	35–39 yrs	40+ yrs	Mean age (years)	Total
Australia	3.6	11.4	24.8	37.3	19.9	3.4	30.5	100,552
Oceania incl NZ	3.7	13.5	25.3	32.4	20.0	4.9	30.4	3,562
UK incl Eire	0.7	3.9	15.6	39.1	31.7	8.9	33.2	3,466
Europe	1.0	9.8	24.5	34.1	24.2	6.6	31.5	3,917
Middle East	2.7	21.8	28.2	27.6	15.5	4.3	29.2	2,976
Nth America	0.5	6.4	17.1	38.2	29.9	8.0	32.7	817
Sth America	0.7	7.9	24.3	39.3	21.8	6.0	31.6	835
Africa	2.6	12.8	26.7	34.7	19.1	4.1	30.4	3,193
Asia	0.8	10.0	30.4	35.9	18.8	4.0	30.7	13,542

Excludes 499 women for whom country of birth or maternal age was not recorded

Table 19 reports the age distribution of women giving birth in 2005 and 2006, who were born in various regions of the world e.g. 3.6% of women born in Australia who gave birth in Victoria in 2005 or 2006 were aged younger than 20 years; and 12.8% of women born in Africa who gave birth in Victoria in 2005 or 2006 were aged 20–24 years.

Parturients born in Australia, Oceania, the Middle East and Africa were more likely than others to be younger than 20 years; and those born in the United Kingdom and Ireland, Europe and North America were more likely to be 35 years or older.

Table 20: Parity prior to index birth by maternal place of birth, all confinements, pooled data 2005 and 2006

	Nulliparous	%	Para 1–2	%	Para 3+	%	Total
Australia	43,422	43.2	49,968	49.7	7,162	7.1	100,552
Oceania incl NZ	1,324	37.2	1,605	45.1	633	17.8	3,562
UK incl Eire	1,476	42.6	1,731	49.9	259	7.5	3,466
Europe	1,761	45.0	1,940	49.5	216	5.5	3,917
Middle East	942	31.7	1,431	48.1	603	20.3	2,976
Nth America	371	45.4	377	46.1	69	8.4	817
Sth America	349	41.8	427	51.1	59	7.1	835
Africa	1,093	34.2	1,373	43.0	727	22.8	3,193
Asia	6,429	47.5	6,417	47.4	696	5.1	13,542

Excludes 499 women for whom country of birth was not recorded

More than 40% of parturients born in Australia, the United Kingdom, Europe, North America, South America and Asia who gave birth in Victoria in 2005 or 2006 did so for the first time. More than 20% of those born in Africa and the Middle East gave birth to a fourth or subsequent baby.

Organisational factors

Admission status

Table 21: Admission status, all confinements, 2005 and 2006

	2005		2006	
	n	%	n	%
Public	41,328	63.5	43,796	64.2
Private in public hospital	3,810	5.9	3,755	5.5
Private in private hospital	19,790	30.4	20,495	30.0
Private—planned home birth	187	0.3	198	0.3
	65,115	100	68,244	100

* note this includes 4 women in public care and 6 women in private care who were not recorded as planning a home birth, but who were reported as changing their plan during labour and giving birth at home. These 10 have been excluded from subsequent home birth analyses because it is not clear that they were not more accurately described as BBAs (born before arrival).

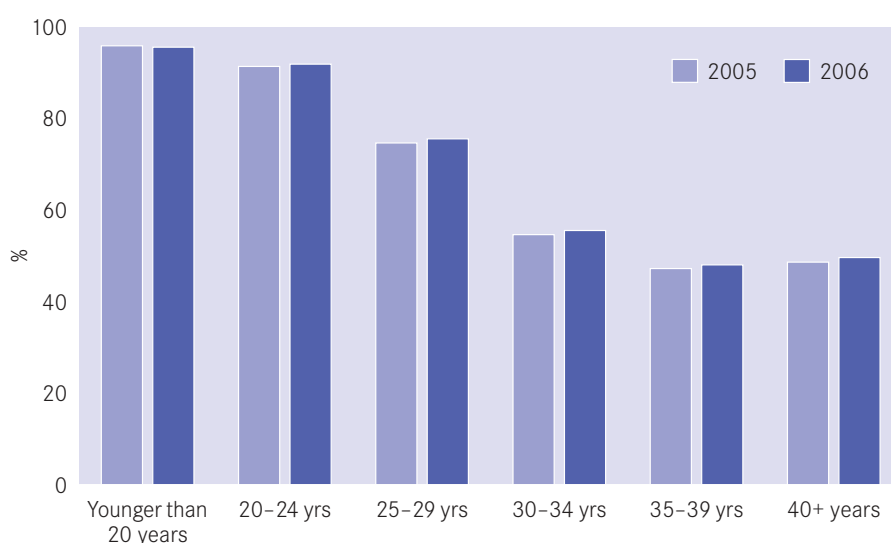
Just under two-thirds of women who gave birth in 2005 and 2006 were admitted for the birth as public patients. The remainder were treated as private patients, most commonly in private hospitals, with just under 6% treated as private patients in public hospitals. Planned home births accounted for 0.3% of confinements.

Table 22: Trends in admission status, all confinements, 2000 to 2006 (%)

	2000	2001	2002	2003	2004	2005	2006
Public	69.6	64.9	62.7	63.9	63.7	63.5	64.2
Private	30.4	35.1	37.3	36.1	36.3	36.5	35.8

Overall, 35.8% of women were cared for as private patients in 2006 compared with 30.4% in 2000. Following a 7% rise between 2000 and 2002, there has been a small decline of 1.5% between 2002 and 2006 in the percentage of women treated as private patients.

Figure 4: Admission for the birth as a public patient by maternal age group, all confinements, 2005 and 2006



2005	96.0	91.5	74.8	54.8	47.4	48.8
2006	95.7	92.0	75.7	55.7	48.2	49.8

Younger women were substantially more likely to give birth under public care than older women.

Postnatal length of stay

Postnatal length of stay is calculated by subtracting the birth date from the mother's discharge date. Women who were discharged on the day they gave birth were reported as staying less than one day; those who went home on the day after the birth were counted as having a one day stay. This is unavoidably imprecise because time of birth and time of discharge are not collected. Before 2005, same day discharges were included in the one day category.

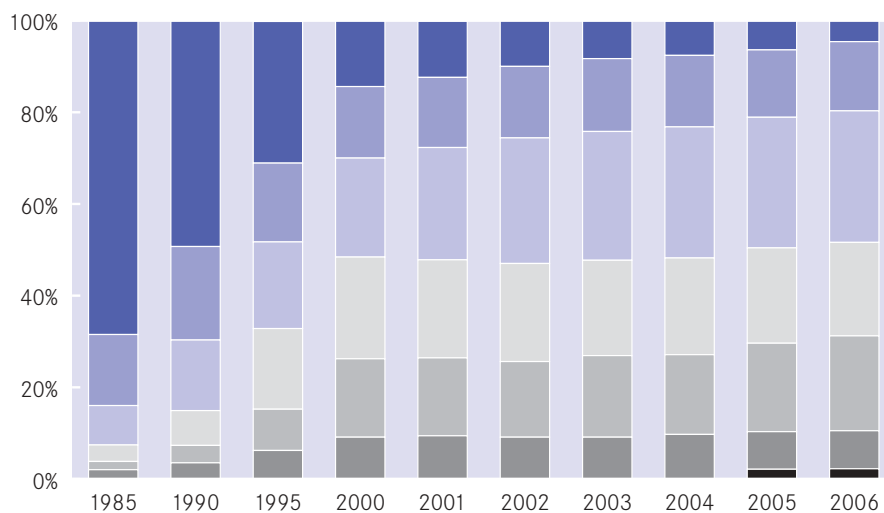
Table 23: Postnatal length of stay*, all confinements, 2005 and 2006

	2005		2006	
	n	%	n	%
<1 day	1,397	2.1	1,512	2.2
1 day	5,355	8.2	5,691	8.3
2 days	12,580	19.3	14,130	20.7
3 days	13,551	20.8	13,890	20.4
4 days	18,528	28.5	19,572	28.7
5 days	9,552	14.7	10,274	15.1
6 days or longer	4,150	6.4	3,175	4.7
	65,113	100	68,244	100

* excludes time spent in a second hospital following transfer e.g. to an external intensive care unit or a hospital closer to home; and excludes cases for whom length of stay is unknown.

One-third of all women stayed in hospital 2 days or less in 2006 compared with 4% in 1985. The proportion staying 3–5 days has changed little in recent years, but the number staying 6 or more days continued to decrease (Figure 5).

Figure 5: Trends in postnatal length of stay, all confinements 1985 to 2006



6 days or longer	68.6	49.3	30.9	14.4	12.3	10.1	8.3	7.5	6.4	4.7
5 days	15.5	20.4	17.2	15.6	15.3	15.6	15.9	15.6	14.7	15.1
4 days	8.6	15.4	18.9	21.6	24.5	27.4	28.1	28.6	28.5	28.7
3 days	3.6	7.6	17.6	22.2	21.4	21.4	20.8	21.1	20.8	20.4
2 days	1.8	3.8	9.0	17.1	17.0	16.5	17.8	17.4	19.3	20.7
1 day	2.0	3.5	6.2	9.1	9.4	9.1	9.1	9.7	8.2	8.3
<1 day									2.1	2.2

Table 24: Postnatal length of stay by type of birth, 2005 and 2006 (confinements)

	2005		2006	
	n	%	n	%
Unassisted cephalic birth				
<1 day	1,253	3.4	1,344	3.5
1 day	4,715	12.9	5,039	13.2
2 days	10,572	28.9	11,730	30.8
3 days	8,874	24.3	8,816	23.1
4 days	8,864	24.3	9,129	23.9
5 days	1,558	4.3	1,348	3.5
6 days or longer	712	1.9	714	1.9
	36,548		38,120	
Caesarean section				
<1 day	30	0.2	56	0.3
1 day	238	1.2	226	1.1
2 days	653	3.3	765	3.7
3 days	2,376	12.0	2,735	13.1
4 days	6,279	31.7	6,862	32.8
5 days	7,136	36.1	8,161	39.0
6 days or longer	3,066	15.5	2,099	10.0
	19,778	100	20,904	100

Excludes cases for whom length of stay is unknown

The impact of caesarean section on the length of stay is apparent, with 82.6% of women who had a caesarean section in the years 2005 and 2006 staying 4 or more days compared with 29.9% of those who had an unassisted vaginal birth.

Table 25: Postnatal length of stay by admission status, pooled data 2005 and 2006

	Public		Private	
	n	%	n	%
<1 day	2,204	2.6	705	1.5
1 day	10,260	12.1	786	1.6
2 days	24,812	29.1	1,898	3.9
3 days	22,751	26.7	4,690	9.7
4 days	15,988	18.8	22,112	45.8
5 days	5,847	6.9	13,979	29.0
6 days or longer	3,260	3.8	4,065	8.4
	85,122	100	48,235	100

Includes time spent in 'medi-hotels'

Figure 6: Postnatal length of stay by admission status, all confinements 2005 and 2006

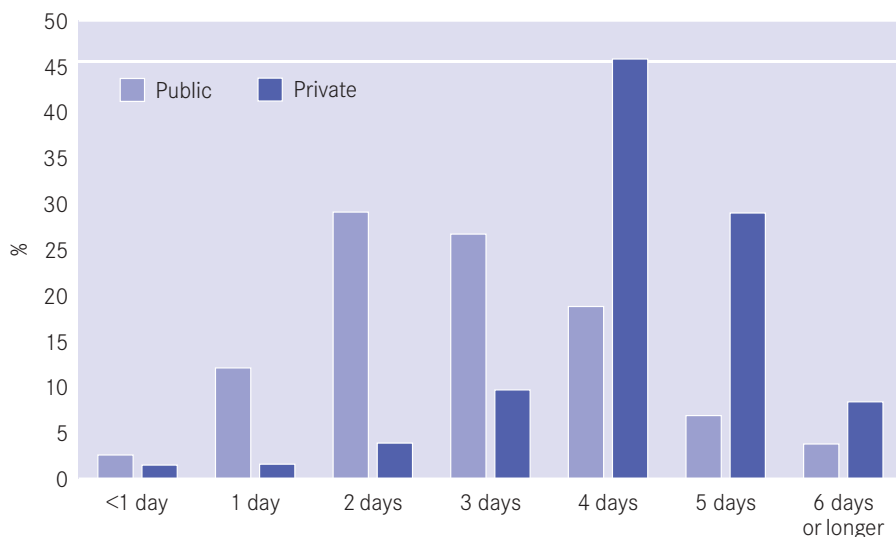


Table 26: Median and mean length of postnatal stay (days) by admission status and type of birth, 2005 and 2006 (confinements)

	2005				2006			
	Public median	Public mean	Private median	Private mean	Public median	Public mean	Private median	Private mean
All confinements	3	2.9	3	4.2	3	2.8	4	4.2
Vaginal birth*	2	2.5	4	3.8	2	2.4	4	3.7
Caesarean section	4	4.1	5	5.1	4	4	5	5.0

* includes spontaneous and instrumental vaginal births

In 2005 and 2006, women stayed in hospital longer if they gave birth by caesarean section (Table 26), and if they were admitted as a private patient (Figure 6).

The median length of stay following caesarean section has fallen from 8 days in 1985 to 4 days in 2006. The corresponding change following vaginal birth has been from 6 days to 3 days (Table 27).

Table 27: Trends in median and mean postnatal length of stay (days) by type of birth, 1985 to 2006 (confinements)

	1985	1990	1995	2000	2001	2002	2003	2004	2005	2006
All confinements										
median	6	5	4	4	4	4	4	4	3	3
mean	6.5	5.6	4.6	3.7	3.6	3.6	3.6	3.5	3.4	3.3
Vaginal births*										
median	6	5	4	3	3	3	3	3	3	3
mean	6.1	5.2	4.2	3.2	3.1	3.1	3	3	2.9	2.8
Caesarean sections										
median	8	7	6	5	5	5	5	5	5	4
mean	8.5	7.5	6.3	5.1	5.0	4.8	4.7	4.7	4.5	4.4

* includes spontaneous and instrumental vaginal births

Place of birth

The perinatal form reports the planned place of birth as well as the actual place of birth. These can differ for social or clinical reasons. The change in plans can occur many weeks before the birth, or any time before birth including during labour.

Table 28: Actual place of birth, all confinements, 2005 and 2006

	2005		2006	
	n	%	n	%
Hospital	63,456	97.5	66,401	97.3
Birth centre	1,225	1.9	1,296	1.9
Planned home births	182	0.3	197	0.3
Unplanned out-of-hospital births	252	0.4	350	0.5
	65,115	100	68,244	100

Fewer than 2% of women gave birth in birth centres (units that provide care for low risk women, and have a philosophy of continuity of care and minimal intervention). A small number of women planned to give birth in a hospital birth suite, but in fact gave birth in a birth centre (18 in 2005, and 36 in 2006).

Even fewer women gave birth at home as planned (0.3%) or unexpectedly (0.4% in 2005 and 0.5% in 2006).

Births planned to occur in birth centres

In 2005 and 2006, five hospitals provided birth centre care: Mercy Hospital for Women, Royal Women's Hospital, Monash Medical Centre, Barwon Health and Angliss Hospital.

Table 29: Place of birth for women who initially intended to give birth in a birth centre, 2005 and 2006

	2005		2006	
	n	%	n	%
Birth centre	1,207	60.7	1,260	60.1
Hospital	750	37.7	821	39.2
Home	19	1.0	12	0.6
In transit	11	0.6	4	0.2
	1,987		2,097	

More than one-third of women who planned to give birth in a birth centre changed their plan to a hospital birth.

Table 30: Place of birth for planned birth centre confinements by maternal age, 2005 and 2006

	2005						2006*					
	Birth centre		Hospital		Home/In transit		Birth centre		Hospital		Home/In transit	
	n	%	n	%	n	%	n	%	n	%	n	%
Younger than 20 years	13	65.0	6	30.0	1	5.0	22	73.3	8	30.0	0	0.0
20–24 years	149	64.8	79	34.3	2	0.9	134	63.2	76	34.3	2	0.9
25–29 years	278	55.7	216	43.3	5	1.0	324	57.4	235	43.3	5	0.9
30–34 years	482	62.8	271	35.3	15	2.0	482	60.3	312	35.3	6	0.8
35–39 years	234	59.1	156	39.4	6	1.5	264	61.7	161	39.4	3	0.7
40+ years	51	68.9	22	30.6	1	1.4	34	54.0	29	46.8	0	0.0
	1,207	60.7	750	37.7	30	1.6	1,260	60.1	821	39.2	16	0.8

Table 31: Onset of labour for planned birth centre confinements by actual place of birth, 2005 and 2006

	2005 and 2006			
	Birth centre		Hospital	
	n	%	n	%
Spontaneous	2,308	93.6	467	29.7
Augmented	120	4.9	471	30.0
Induced	39	1.6	535	34.1
No labour	0	0.0	98	6.2
	2,467	100	1,571	100

Table 32: Method of birth for planned birth centre confinements by actual place of birth, 2005 and 2006

	2005 and 2006			
	Birth centre		Hospital	
	n	%	n	%
Unassisted vaginal-cephalic	2,437	98.8	768	48.9
Vaginal breech	5	0.2	13	0.8
Vacuum	21	0.9	177	11.3
Forceps	4	0.2	167	10.6
Caesarean section	0	0.0	446	28.4
	2,467	100	1,571	100

Thirty percent of women who changed their care from birth centre care to hospital care had a spontaneous labour without augmentation.

Nearly half of those who changed their care went on to an unassisted vaginal birth. Their caesarean section rate was slightly lower than the overall Victorian rate (Table 32, Table 44).

Planned home births

A small number of women in Victoria plan to give birth at home, usually under the care of an independent midwife (a total of 448 in 2005 and 2006).

Table 33: Age of women planning home confinements, 2005 and 2006

	2005		2006	
	n	%	n	%
Younger than 20 years	2	0.9	0	0
20–24 years	5	2.3	5	2.2
25–29 years	53	24.3	50	21.7
30–34 years	80	36.7	85	37.0
35–39 years	62	28.4	80	34.8
40+ years	16	7.3	10	4.3
	218	100	230	100

Table 34: Place of birth for planned home confinements by maternal age, 2005 and 2006

	2005				2006*			
	Home		Hospital		Home		Hospital	
	n	%	n	%	n	%	n	%
Younger than 20 years	2	100.0	0	0.0	0	0.0	0	0.0
20–24 years	4	80.0	1	20.0	3	60.0	2	40.0
25–29 years	45	84.9	8	15.1	42	85.7	7	14.3
30–34 years	65	81.3	15	18.7	78	91.8	7	8.2
35–39 years	54	87.1	8	12.9	66	82.5	14	17.5
40+ years	12	75.0	4	25.0	8	80.0	2	20.0
	182		36		197		32	

* excludes one woman who planned to give birth at home and in fact gave birth in-transit to hospital

Table 35: Time of change in plan for women who planned home confinements and gave birth in hospital, 2005 and 2006

	2005		2006	
	n	%	n	%
Before onset of labour	15	41.7	13	40.6
During labour	21	58.3	19	59.4
	36		32	

Sixty-eight of the 448 women (15.2%) who planned to give birth at home in 2005 or 2006 changed their plan and gave birth in hospital: 28 of them before labour began, and 40 were transferred during labour.

Table 36: Trend in number of women having planned home confinements, 1985–2006

	1985	1990	1995	2000	2001	2002	2003	2004	2005	2006
Number	144	181	110	114	128	163	152	181	182	197
% of all confinements	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.3

Table 37: Method of birth for planned home confinements by actual place of birth, 2005 and 2006

	2005				2006			
	Home		Hospital		Home		Hospital	
	n	%	n	%	n	%	n	%
Unassisted vaginal-cephalic	177	97.3	16	44.4	192	97.5	13	40.6
Vaginal breech	3	1.6	0	0.0	3	1.5	0	0.0
Vacuum	2	1.1	6	16.7	2	1.0	4	12.5
Forceps	0	0.0	5	13.9	0	0	2	6.3
Caesarean section	0	0.0	9	25.0	0	0	13	40.6
	182	100	36	100	197	100	32	100

* in 2006 one woman had an unassisted birth in transit

Nearly all of the planned home births that in fact occurred at home in 2005 and 2006 were unassisted, although they included 4 vacuum extractions and 6 vaginal breech births (which are reported separately from vaginal cephalic births).

Those women who changed their plan and gave birth in hospital would be expected to have a relatively high intervention rate. Twenty-two of these 68 women had a caesarean section and 17 had an instrumental vaginal birth. Fewer than half had an unassisted vaginal birth.

Labour and birth

Gestation

Table 38: Gestation at time of giving birth, all confinements 2005 and 2006

Gestation (completed weeks)	2005	%	2006	%
20–27 wks	401	0.6	389	0.6
28–31 wks	415	0.6	453	0.7
32–36 wks	3,601	5.5	3,828	5.6
37–41 wks	59,824	91.9	62,609	91.7
42+ wks	874	1.3	963	1.4
Unknown	0	0	2	0
Total	65,115	100	68,244	100

In 2005 and 2006 respectively, 6.7% and 6.9% of confinements were preterm (before 37 weeks).

Table 39: Trends in gestation, all confinements 1990 to 2006

Gestation (weeks)	1990 n=66,004 %	1995 n=62,734 %	2000 n=61,562 %	2002 n=61,964 %	2003 n=62,305 %	2004 n=62,348 %	2005 n=65,115 %	2006 n=68,244 %
20–27 wks	0.6	0.7	0.7	0.7	0.8	0.8	0.6	0.6
28–31 wks	0.6	0.7	0.7	0.7	0.6	0.6	0.6	0.7
32–36 wks	5.0	5.1	5.5	5.5	5.6	5.6	5.5	5.6
37–41 wks	88.1	89.9	91.8	91.8	91.8	91.8	91.9	91.7
42+ wks	4.5	3.0	1.3	1.2	1.2	1.3	1.3	1.4
Unknown	1.1	0.7	0	0	0	0	0	0

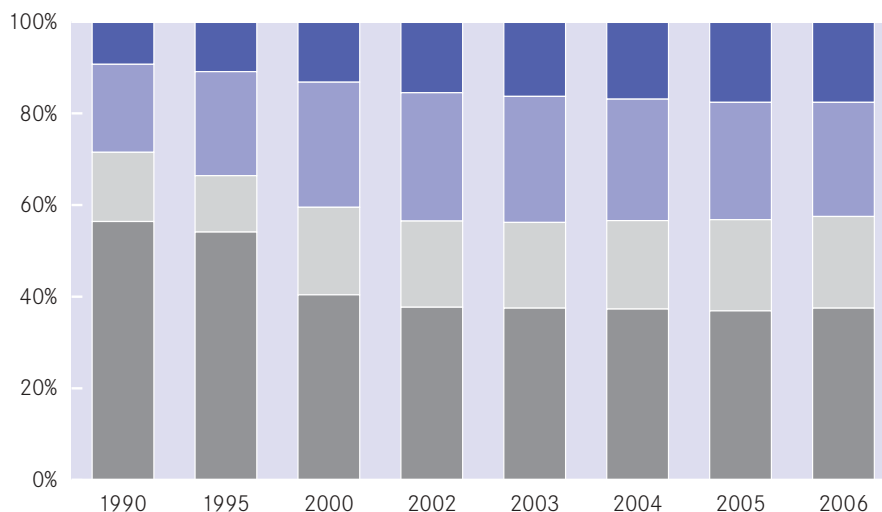
The proportion of confinements that occurred at 42 or more completed weeks gestation reduced markedly between 1990 and 2000, and has remained steady for the last six years (Table 39).

Onset of labour

Table 40: Onset of labour, all confinements, 2005 and 2006

Onset of Labour	2005	%	2006	%
Spontaneous	24,007	36.9	25,570	37.5
Spontaneous & augmented	12,959	19.9	13,620	20.0
Induced	16,683	25.6	16,979	24.9
No labour	11,466	17.6	12,075	17.7
Total	65,115	100	68,244	100

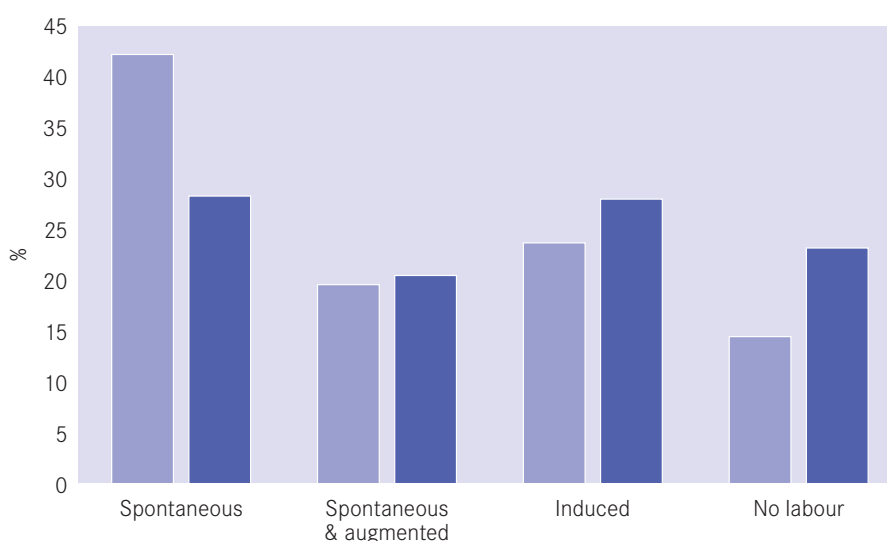
Figure 7: Trends in onset of labour, all confinements, 1990 to 2006 (%)



No labour	9.2	11.0	13.2	15.5	16.3	16.9	17.6	17.7
Induced	19.2	22.7	27.3	28.0	27.5	26.5	25.6	24.9
Spon & augmented	15.1	12.3	19.1	18.8	18.7	19.3	19.9	20.0
Spontaneous	56.4	54.1	40.4	37.7	37.5	37.3	36.9	37.5

After decreasing in the late 1990s, the proportion of all confinements in which labour is neither induced nor augmented appears to have levelled at around 37%. After a large increase in the 1990s, the rate of induction of labour has reduced from 28% in 2002 to 24.9% in 2006. The rate of augmentation has changed little in recent years, but the proportion of women who experience no labour (and have a pre-labour caesarean section) has nearly doubled since 1990 (Figure 7).

Figure 8: Onset of labour by admission status, all confinements, 2005 and 2006



Public	42.2	19.6	23.7	14.5
Private	28.3	20.5	28.0	23.2

Women admitted for the birth as private patients were nearly twice as likely to have labour induced as those admitted as public patients. They were also substantially more likely to have a pre-labour caesarean section.

Table 41: Agents used to induce labour, 2005 and 2006

Induction Agent(s)	2005		2006	
	Number induced	% of inductions	Number induced	% of inductions
Oxytocin	2,160	12.9	2,375	14.0
Prostaglandin only	2,769	16.6	2,976	17.5
ARM* only	1,053	6.3	1,149	6.8
Oxytocin & prostaglandin	597	3.6	618	3.6
Oxytocin & ARM	5,703	34.2	5,672	33.4
Prostaglandin & ARM	1,476	8.8	1,397	8.2
Prostaglandin, oxytocin & ARM	2,924	17.5	2,790	16.4
Other	1	0	2	0.01
Total number induced	16,683	100	16,979	100

* ARM = Artificial Rupture of Membranes

Amongst labours that were induced, the most common strategy was a combination of artificial rupture of the membranes (ARM) and an oxytocin infusion, with or without cervical ripening with prostaglandin gel. Overall, prostaglandins were administered in 32.1% of cases.

Table 42: Indications for induction of labour, 2005 and 2006

Indication	2005		2006	
	n	%	n	%
Prolonged pregnancy (41 or more weeks)	4,314	25.9	4,387	25.8
Social induction*	2,896	17.4	2,792	16.4
Hypertensive disorders of pregnancy	2,091	12.5	1,992	11.7
Prelabour rupture of membranes/ prolonged rupture of membranes	1,653	9.9	1,746	10.3
Diabetes	1,009	6.0	1,130	6.7
Intrauterine growth restriction	713	4.3	779	4.6
Non-reassuring fetal status	373	2.2	399	2.3
Fetal death in utero (FDIU)	153	0.9	157	0.9
Blood group isoimmunisation	55	0.3	41	0.2
Chorioamnionitis	24	0.1	23	0.1
Other indications	3,402	20.4	3,533	20.8
Total	16,683	100	16,979	100

* "Social induction" includes cases designated as social or where the stated indication for induction was prolonged pregnancy but the gestation was less than 41 weeks (i.e. not prolonged) and there was no other medical or obstetric indication specified

The most common indication for induction of labour in 2005 and 2006 was prolonged pregnancy (defined as 41 or more weeks gestation or >286 days), followed by the 'social' inductions (e.g. 'maternal choice'). Complications of pregnancy or maternal medical conditions account for the remainder.

Table 43: Method of augmentation after spontaneous onset of labour, 2005 and 2006

Augmentation agent(s)	2005		2006	
	Number augmented	% of augmentations	Number augmented	% of augmentations
Oxytocin only	3,749	28.9	3,896	28.6
ARM only	6,905	53.3	7,324	53.8
Oxytocin & ARM	2,283	17.6	2,382	17.5
Other	22	0.2	18	0.1
Total	12,959	100	13,620	100

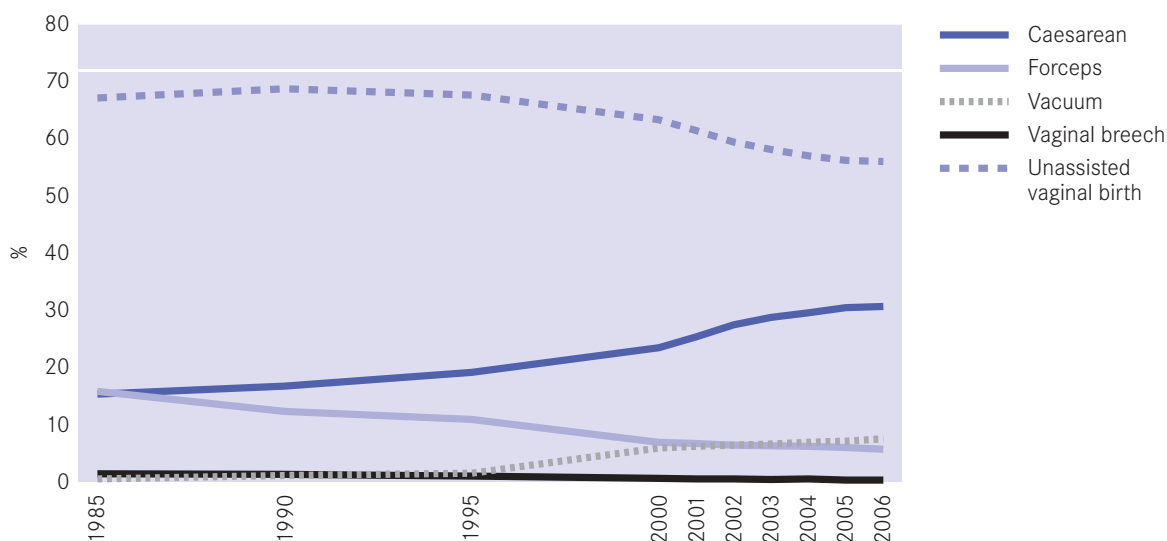
Artificial rupture of the membranes was the sole method of augmentation for more than half of labours that were augmented. An oxytocin infusion alone was used in a little under one-third of augmentations. The remainder employed both of these methods, while a very small number report 'other' methods

Method of birth

Table 44: Method of birth, all confinements, 2005 and 2006

	2005		2006	
	n	%	n	%
Unassisted cephalic	36,548	56.1	38,120	55.9
Vacuum	4,633	7.1	5,085	7.5
Forceps	3,930	6.0	3,906	5.7
Vaginal breech	224	0.3	229	0.3
Total caesarean	19,780	30.4	20,904	30.6
- <i>planned</i>	10,566	16.2	11,165	16.4
- <i>unplanned</i>	9,214	14.2	9,739	14.3
	65,115	100	68,244	100

Figure 9: Trends in method of birth, all confinements, 1985 to 2006



	1985	1990	1995	2000	2001	2002	2003	2004	2005	2006
Caesarean	15.3	16.7	19.1	23.4	25.3	27.4	28.7	29.5	30.4	30.6
Forceps	15.8	12.3	10.9	6.9	6.7	6.4	6.3	6.2	6.0	5.7
Vacuum	0.5	1.1	1.5	5.9	6.2	6.4	6.6	6.9	7.1	7.5
Vaginal breech	1.4	1.3	1.0	0.6	0.5	0.5	0.4	0.5	0.3	0.3
Unassisted vaginal (cephalic)	67.0	68.6	67.5	63.2	61.3	59.3	58.0	56.9	56.1	55.9

Caesarean sections accounted for more than 30% of all confinements in 2005 and 2006. This has doubled since 1985. Unassisted cephalic births continued to decline from 67% of all confinements in 1985 to 56% in 2006. Vacuum extractions continued to increase steadily, mirroring the decrease in forceps births. Vaginal breech births were rare.

Table 45: Method of birth by onset of labour, all confinements, 2005 and 2006

Onset of labour		Method of birth					Total
		Unassisted cephalic	Vacuum	Forceps	Vaginal breech	Caesarean	
Spontaneous (not augmented)	n	38,412	2,873	1,912	294	6,086	49,577
	%	77.5	5.8	3.9	0.6	12.3	100
Spontaneous & augmented	n	15,761	3,527	3,028	57	4,206	26,579
	%	59.3	13.3	11.4	0.2	15.8	100
Induced	n	20,495	3,318	2,896	102	6,851	33,662
	%	60.9	9.9	8.6	0.3	20.4	100
No labour	n	0	0	0	0	23,541	23,541
	%	0.0	0.0	0.0	0.0	100	100
Overall	n	74,668	9,718	7,836	453	40,684	133,359
	%	56.0	7.3	5.9	0.3	30.5	100

Unassisted cephalic birth was more common following a labour that was neither induced nor augmented. Conversely, both instrumental vaginal births and caesarean sections were more common following induction or augmentation of labour.

Table 46: Method of birth by admission status, all confinements, pooled data 2005 and 2006

Admission status		Type of birth					Total
		Unassisted cephalic	Vacuum	Forceps	Vaginal breech	Caesarean	
Public admission	n	52,649	5,384	3,821	336	22,934	85,124
	%	61.8	6.3	4.5	0.4	26.9	100
Private admission	n	22,019	4,334	4,015	117	17,750	48,235
	%	45.6	9.0	8.3	0.2	36.8	100
Total	n	74,668	9,718	7,836	453	40,684	133,359
	%	56.0	7.3	5.9	0.3	30.5	100

Women admitted as public patients were considerably less likely to have an instrumental vaginal birth or a caesarean section than those admitted as private patients. Fewer than half of all women admitted as private patients had an unassisted cephalic birth.

Figure 10: Method of birth by admission status, all confinements 2005 and 2006

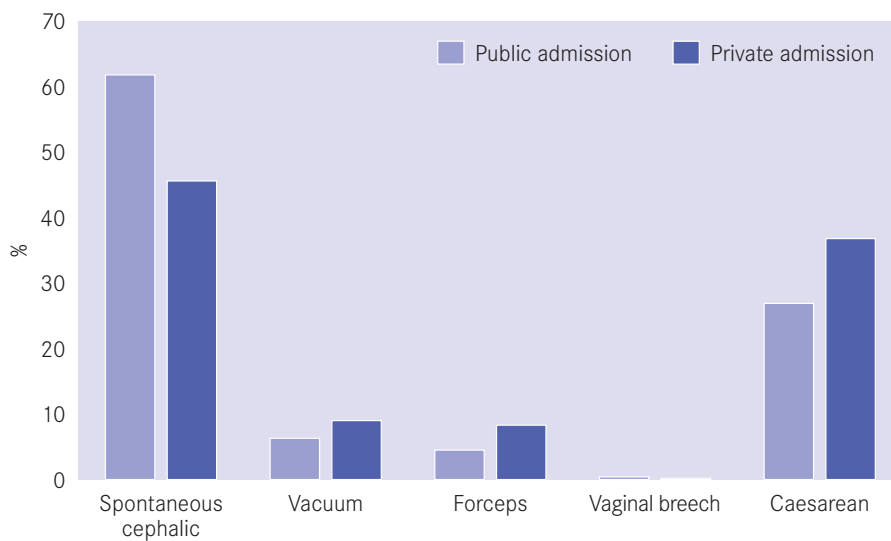


Table 47: Method of birth by maternal age and admission status, primiparous confinements 2005 and 2006

		Method of birth					Total
		Unassisted cephalic	Vacuum	Forceps	Vaginal breech	Caesarean	
Public admission							
Maternal age							
younger than 20 years	n	2,102	255	166	17	480	3,020
	%	69.6	8.4	5.5	0.6	15.9	100
20–34 years	n	14,744	3,409	2,659	97	7,906	28,815
	%	51.2	11.8	9.2	0.3	27.4	100
35 years or older	n	1,296	441	360	15	1,615	3,727
	%	34.8	11.8	9.7	0.4	43.3	100
Total	n	18,142	4,105	3,185	129	10,001	35,562
	%	51.0	11.5	9.0	0.4	28.1	100

Excludes 1 case in which age was unknown

Private admission							
Maternal age							
younger than 20 years	n	86	8	10	0	30	134
	%	64.2	6.0	7.5	0.0	22.4	100
20–34 years	n	5,730	2,326	2,555	34	5,659	16,304
	%	35.1	14.3	15.7	0.2	34.7	100
35 years or older	n	1,297	681	808	13	2,627	5,426
	%	23.9	12.6	14.9	0.2	48.4	100
Total	n	7,113	3,015	3,373	47	8,316	21,864
	%	32.5	13.8	15.4	0.2	38.0	100

Excludes 1 case in which age was unknown

In both the public and private sectors, younger primiparae were more likely than older primiparae to experience a spontaneous cephalic birth. In each age category, women were less likely to experience such a birth if they were admitted as private patients, although this difference was less pronounced in the youngest age group.

Forceps births and vacuum extractions were less frequent in women aged younger than 20 years, but did not differ markedly between the older age groups. The rate of caesarean section increased with each increase in maternal age. These patterns existed in both the public and private sectors, but women in each age group were more likely to have each type of operative birth if they were admitted as a private patient.

Table 48: Method of birth by maternal age and admission status, multiparous confinements 2005 and 2006

		Method of birth					Total
		Unassisted cephalic	Vacuum	Forceps	Vaginal breech	Caesarean	
Public admission							
Maternal age							
younger than 20 years	n	434	8	2	2	64	510
	%	85.1	1.6	0.4	0.4	12.5	100
20-34 years	n	26,759	953	461	152	9,060	37,385
	%	71.6	2.6	1.2	0.4	24.2	100
35 years or older	n	7,314	318	173	52	3,809	11,666
	%	62.7	2.7	1.5	0.4	32.7	100
Total	n	34,507	1,279	636	206	12,933	49,561
	%	69.6	2.6	1.3	0.4	26.1	100
Private admission							
Maternal age							
younger than 20 years	n	15	0	0	0	4	19
	%	78.9	0.0	0.0	0.0	21.1	100
20-34 years	n	8,966	764	387	32	5,002	15,151
	%	59.2	5.0	2.6	0.2	33.0	100
35 years or older	n	5,924	555	255	38	4,428	11,200
	%	52.9	5.0	2.3	0.3	39.5	100
Total	n	14,905	1,319	642	70	9,434	26,370
	%	56.5	5.0	2.4	0.3	35.8	100

Multiparous women demonstrated the same patterns regarding type of birth as did primiparae, with younger women more likely than older ones to experience an unassisted cephalic birth in both the public and private sectors. The converse was so for operative birth. In each age group, multiparae admitted as private patients were more likely to experience each type of operative birth than those admitted as public patients.

Table 49: Method of birth by presentation, all confinements, 2005 and 2006

		Unassisted cephalic	Vacuum	Forceps	Vaginal breech	Caesarean	Total
Vertex	n	74,080	9,652	7,797	0	34,486	126,015
	%	58.8	7.7	6.2	0.0	27.4	100.0
Breech	n	0	1#	2	453	5,431	5,887
	%	0.0	0.0	0.0	7.7	92.3	100.0
Other*	n	540	64	37	0	696	1,337
	%	40.4	4.8	2.8	0.0	52.1	100.0

* 'Other' includes all presentations other than vertex and breech e.g. face, brow, compound, shoulder etc.

undiagnosed breech presentation

NB There were an additional 120 confinements for whom the presentation was not reported.

The vast majority of breech presentations overall were delivered by caesarean section (92.3%), along with a little over half of 'other' presentations (Table 49). This includes multiple births, but only considers the presentation of the first fetus.

Table 50: Trends in method of birth for breech presentation at term, singleton confinements, 1985 to 2006

Type of birth	1985 n=1,658 %	1990 n=1,940 %	1995 n=1,948 %	2000 n=1,886 %	2001 n=1,982 %	2002 n=2,059 %	2003 n=2,070 %	2004 n=2,075 %	2005 n=2,067 %	2006 n=2,232 %
Vaginal*	35.8	27.3	19.4	10.0	7.4	5.2	4.6	4.9	4.0	4.3
Caesarean	64.2	72.8	80.6	90.0	92.6	94.8	95.4	95.1	96.0	95.7

* whether or not forceps applied to after-coming head

Term, singleton breech presentations were more likely than breech presentations overall to be delivered by caesarean section (Table 50).

Table 51: Indication for caesarean section, pooled data 2005 and 2006 (confinements)

Reported Indications	All caesarean sections (n=40,684) % of all CS	Planned caesarean sections# (n=18,953) % of planned CS	Unplanned caesarean sections* (n=21,731) % of unplanned CS
Previous caesarean/s	34.7	60.3	5.3
Malpresentation	14.2	16.1	12.0
Multiple pregnancy	2.2	2.6	1.8
Antepartum haemorrhage	3.5	3.1	3.9
Pre-eclampsia/HT	2.8	1.3	4.6
Fetal growth restriction	1.0	1.0	1.1
Non-reassuring fetal status	14.3	0.2	30.5
CPD/FTP*	16.8	3.0	33.0
Other	10.5	12.9	7.7

* CPD=cephalo-pelvic disproportion, FTP=failure to progress

planned caesarean with or without labour

* unplanned caesarean with or without labour

The most common indication for caesarean section overall was the occurrence of a prior section, followed by cephalo-pelvic disproportion or failure to progress (16.8%), non-reassuring fetal status (14.3%) and malpresentation (14.2%).

This picture differed between planned and unplanned caesarean sections with over 60% of planned caesareans being carried out because of a prior section; and more than 30% of unplanned caesarean sections carried out for each of non-reassuring fetal status, and failure to progress/cephalo-pelvic disproportion.

Analgesia and anaesthesia

The perinatal form asks separately about analgesia used to relieve pain during labour, and anaesthesia given to facilitate an operative birth. Several of the same procedures can be used for either. If epidural/spinal (also known as regional) analgesia is given for pain relief, and is still active or is topped up for an operative birth, it is reported as both analgesia and anaesthesia.

Table 52: Analgesia used by women who experienced labour, 2005 and 2006

Analgesia for labour	2005		2006	
	n	%	n	%
No analgesia	14,057	26.4	14,948	26.8
Nitrous oxide only	13,052	24.5	13,601	24.4
IM opioids only	4,245	8.0	4,073	7.3
Nitrous oxide & IM opioids	7,883	14.8	7,871	14.1
Epidural/spinal/caudal with or without IM opioids	13,854	26.0	14,908	26.7
Other	238	0.4	377	0.7
Total*	53,329	100	55,778	100

* excludes 320 cases in 2005 and 391 cases in 2006 with failed inductions of labour

Around half of all women who experienced labour in 2005 and 2006 used no analgesia, or nitrous oxide and oxygen only. Another quarter used intramuscular opioids, with or without nitrous oxide and oxygen. Slightly more than one quarter used epidural/spinal analgesia alone or in combination with other methods (Table 52).

Looking only at women who went on to experience a spontaneous cephalic birth, fewer had used epidural/spinal analgesia (Table 53), although those who were admitted as a private patient were twice as likely to use regional analgesia as those admitted as a public patient (Figure 11).

Table 53: Analgesia used by women who had an unassisted vaginal birth, 2005 and 2006

Analgesia for labour	2005		2006	
	n	%	n	%
No analgesia	11,020	30.1	11,914	31.2
Nitrous oxide only	11,170	30.6	11,564	30.3
IM opioids only	3,283	9.0	3,077	8.1
Nitrous oxide & IM opioids	6,016	16.5	5,960	15.6
Epidural/spinal/caudal with/without IM opioids	4,872	13.3	5,310	13.9
Other	197	0.5	300	0.8
Total	36,558	100	38,125	100

Figure 11: Analgesia used by women who had an unassisted vaginal birth, by admission status, 2005 and 2006

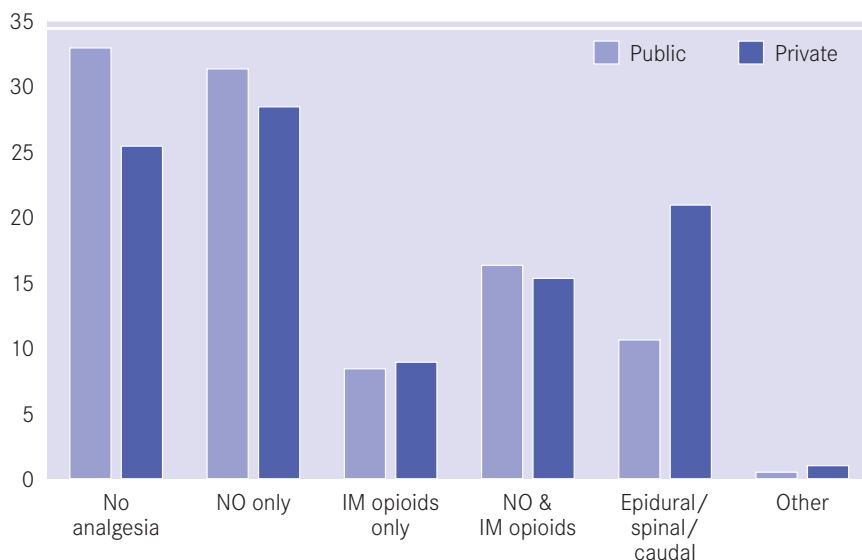


Table 54: Type of anaesthesia for operative birth, pooled data, 2005 and 2006 (confinements)

Type of anaesthesia	Operative vaginal birth (n=18,343) %	Caesarean section with labour (n=16,514) %	Caesarean section without labour (n=23,848) %
No anaesthesia	25.4	0	0
LA only	12.0	0	0
Pudendal only	8.2	0	0
Epidural/spinal/caudal	54.2	92.1	94.4
GA* only	0.1	6.4	4.9
GA with epidural/spinal/ caudal	0.1	1.4	0.7
Other	0	0	0
Unknown	0	0	0
Total	100	100	100

* GA=General anaesthesia

Around one-quarter of women who experienced operative vaginal birth did so with no anaesthesia, and a further one fifth used local anaesthesia (including pudendal). Over half of them gave birth with epidural/spinal anaesthesia.

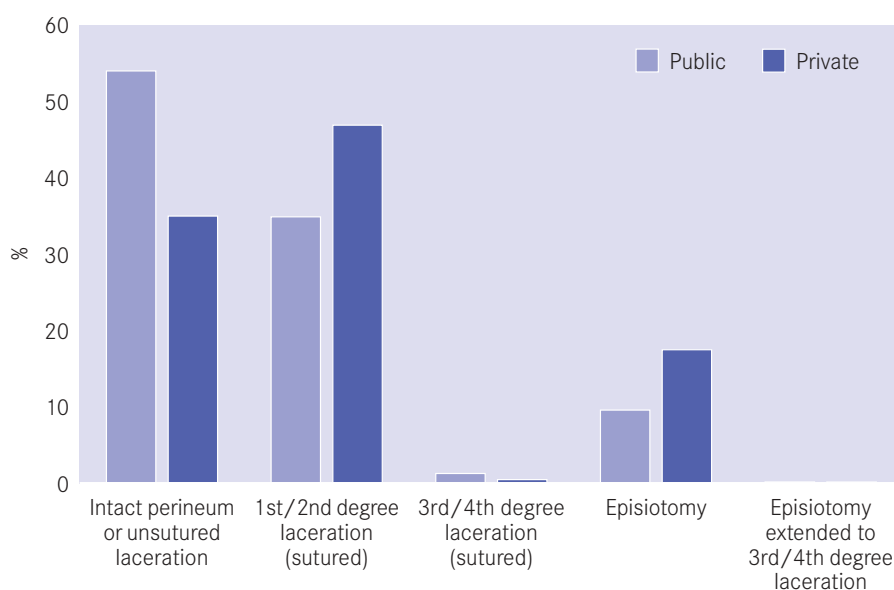
The vast majority of caesarean sections were carried out under epidural/spinal anaesthesia, with 8% of those in labour and 6% of those not in labour performed under general anaesthesia.

Perineal status

Table 55: Perineal status following vaginal birth (unassisted or instrumental), 2005 and 2006

	2005				2006			
	Primiparous women		Multiparous women		Primiparous women		Multiparous women	
	n	%	n	%	n	%	n	%
Intact perineum or unsutured laceration	4,732	24.9	13,998	53.2	4,885	24.3	14,480	53.2
1st/2nd degree laceration (sutured)	6,681	35.1	9,323	35.4	7,150	35.6	9,666	35.5
3rd/4th degree laceration (sutured)	355	1.9	128	0.5	457	2.3	190	0.7
Episiotomy	7,002	36.8	2,840	10.8	7,374	36.7	2,872	10.5
Episiotomy extended to 3rd/4th degree laceration	242	1.3	33	0.1	232	1.2	33	0.1
Total	19,012		26,322		20,098		27,241	

Figure 12: Perineal status following unassisted vaginal birth by admission status, pooled data 2005 and 2006



Public	54.0	34.9	1.3	9.6	0.2
Private	35.0	46.9	0.5	17.5	0.2

Looking only at women who experienced unassisted vaginal birth, those admitted as private patients were more likely to experience an episiotomy or a sutured laceration than those admitted as public patients. Third and fourth degree lacerations were relatively rare in this group, but were reported more frequently for women admitted as public patients. A small number of episiotomies extended to third or fourth degree lacerations in both sectors.

Postpartum haemorrhage

Table 56: Postpartum haemorrhage by parity, 2005 and 2006 (confinements)

	2005		2006	
	n	%	n	%
Primiparous women	3,203	11.5	3,657	12.4
Multiparous women	3,011	8.1	3,446	8.9

Postpartum haemorrhage occurred more frequently in primiparous women than multiparous women (11.5% versus 8.1% in 2005, and 12.4% versus 8.9% in 2006).

Infant factors

In this section, the number of babies (rather than the number of women giving birth) is the primary interest, so each baby in a multiple birth is counted separately unless otherwise specified.

Infant sex

Table 57: Sex of infants born in 2005 and 2006

	2005		2006	
	n	%	n	%
Male	33,894	51.1	35,886	51.6
Female	32,435	48.9	33,659	48.4
Indeterminate	2	0.0	2	0.0
Unknown	9	0.0	3	0.0
	66,340		69,550	

Table 58: Perinatal outcome by sex, all births 2005 and 2006

	Stillbirth		Neonatal death		Survived at least 28 days n	Total
	n	per thousand births	n	per thousand livebirths		
Male	362	5.2	202	2.9	69,216	69,780
Female	338	5.1	180	2.7	65,576	66,094
Indeterminate	0	0.0	0	0.0	4	4
Unknown	11	916.7	1	*	0	12

* 1 case only—rate not calculated

Gestation

Table 59: Trends in pre-term and post-term births, 1985 to 2006

	1985	1990	1995	2000	2001	2002	2003	2004	2005	2006
<37 weeks	6.0	6.7	7.1	7.6	7.5	7.8	7.8	7.8	7.7	7.8
>=42 weeks	3.8	4.5	2.9	1.3	1.2	1.2	1.2	1.2	1.3	1.4

The proportion of babies born before 37 weeks gestation has remained constant for the last 5 years, but is considerably higher than in 1985 (7.8% versus 6.0%).

There has been little change in the proportion of babies born at 42 or more weeks gestation in recent years, but it was substantially lower in 2006 than in 1985 (1.4% versus 3.8%).

Figure 13: Trends in preterm and post-term birth, 1985 to 2006

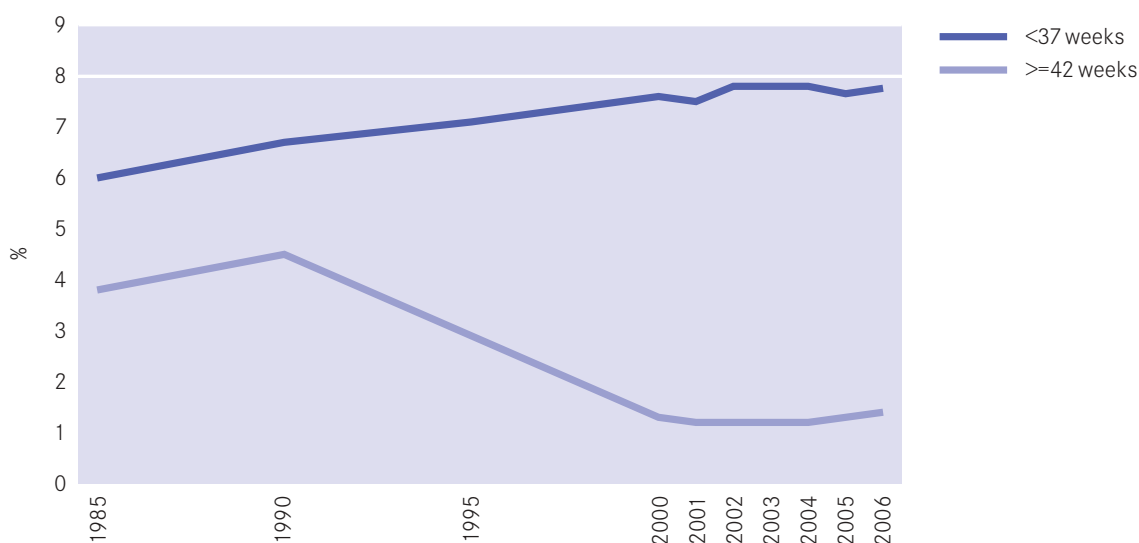


Table 60: Size of maternity service (annual births) for birth at various gestations (completed weeks) 2005 and 2006*

Gestation		< 100 births	100-999 births	1000-1999 births	2000+ births	Total
20-27 wks	n	5	90	139	673	907
	%	0.6	9.9	15.3	74.2	100
28-31 wks	n	1	40	144	861	1,046
	%	0.1	3.8	13.8	82.3	100
32-36 wks	n	31	1,332	2,232	4,925	8,520
	%	0.4	15.6	26.2	57.8	100
37-41 wks	n	1,768	25,067	34,744	61,590	123,169
	%	1.4	20.4	28.2	50.3	100
42+ wks	n	27	459	430	903	1,819
	%	1.5	25.2	23.6	49.6	100
Total	n	1,832	26,988	37,689	68,952	135,463
	%	1.4	19.9	27.8	50.9	

* excludes babies born at home or in non-maternity hospitals, and 2 babies with unknown gestation

More than 80% of babies born at 28 to 31 weeks gestation were born in large hospitals, with fewer than 4% of them born in hospitals with less than 1,000 births per year. A higher proportion of extremely preterm babies were born in small hospitals (10.5%), possibly reflecting a decision not to transfer those not considered potentially viable.

Table 61: Gestation by parity, all births 2005 and 2006 (%)

	2005			2006		
	1st birth n=28,565	2nd or 3rd birth n=32,607	4th or subsequent birth n=5,168	1st birth n=30,057	2nd or 3rd birth n=33,971	4th or subsequent birth n=5,522
20-27 wks	0.8	0.5	1.0	0.7	0.6	0.8
28-31 wks	0.8	0.6	1.0	1.0	0.6	0.9
32-36 wks	7.2	5.1	7.4	7.1	5.3	8.0
37-41 wks	89.4	92.8	89.0	89.3	92.6	89.0
42+ wks	1.7	0.9	1.6	1.9	1.0	1.4

First births, as well as 4th or subsequent births, were more likely to occur preterm and post-term than 2nd or 3rd births.

Table 62: Gestation by sex, all births 2005 and 2006 (%)

	2005		2006	
	Male n=33,894	Female n=32,435	Male n=35,886	Female n=33,659
20-27 wks	0.7	0.7	0.6	0.6
28-31 wks	0.8	0.7	0.9	0.7
32-36 wks	6.6	5.8	6.6	6
37-41 wks	90.6	91.5	90.5	91.2
42+ wks	1.3	1.3	1.4	1.4

Table 63: Type of birth by gestation, all births 2005 and 2006

		20-27 weeks		28-31 weeks		32-36 weeks		37+ weeks	
		2005	2006	2005	2006	2005	2006	2005	2006
Spontaneous cephalic	n	212	207	146	136	1,528	1,712	34,773	36,186
	%	46.1	46.3	29.9	24.4	37.0	39.0	56.8	56.4
Vacuum	n	0	5	1	3	163	78	4,515	4,922
	%	0	1.1	0.2	0.5	3.9	1.8	7.4	7.7
Forceps	n	5	6	11	22	204	222	3,765	3,708
	%	1.1	1.3	2.3	3.9	4.9	5.1	6.1	5.8
Vaginal breech	n	115	95	20	33	73	184	149	173
	%	25.0	21.3	4.1	5.9	1.8	4.2	0.2	0.3
Planned caesarean	n	7	15	29	39	735	705	10,301	10,924
	%	1.5	3.4	5.9	7.0	17.8	16.0	16.8	17.0
Unplanned caesarean	n	121	119	281	325	1,427	1,492	7,759	8,237
	%	26.3	26.6	57.6	58.2	34.6	34.0	12.7	12.8
Total		460	447	488	558	4,130	4,393	61,262	64,150

* excludes 2 babies born in 2006 with gestation unknown

More than one quarter of all births at 20 to 27 weeks, nearly two-thirds of those at 28 to 31 weeks, and one half of those at 32 to 36 weeks were by caesarean section.

Birthweight

Table 64: Birthweight categories, all births 2005 and 2006

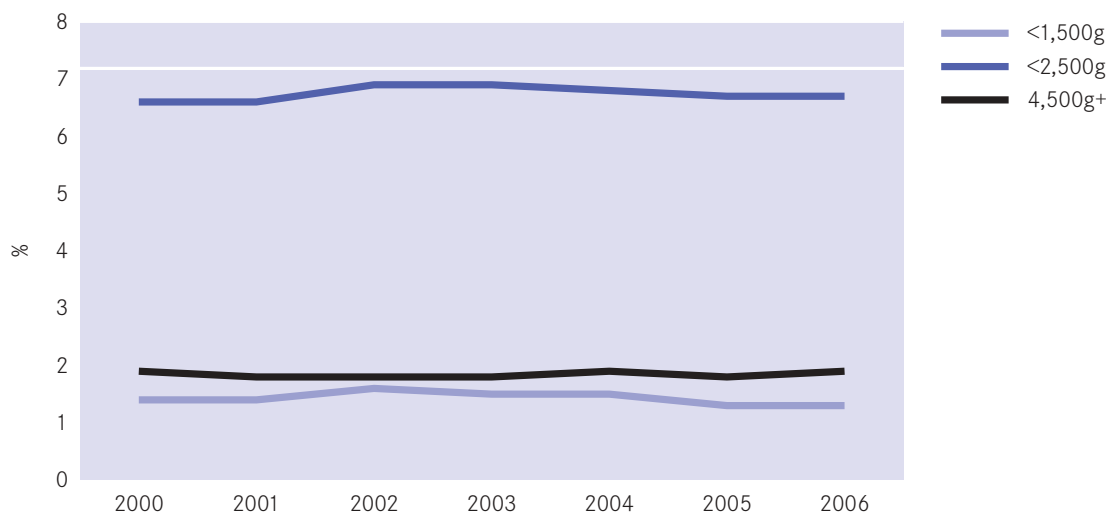
	2005		2006	
	n	%	n	%
Less than 500g	153	0.2	169	0.2
500-999g	318	0.5	303	0.4
1,000-1,499g	405	0.6	460	0.7
1,500-1,999g	832	1.3	924	1.3
2,000-2,499g	2,705	4.1	2,809	4.0
2,500-2,999g	10,145	15.3	10,507	15.1
3,000-3,499g	23,522	35.5	24,731	35.6
3,500-3,999g	20,308	30.6	21,166	30.4
4,000-4,499g	6,775	10.2	7,128	10.2
4,500g+	1,163	1.8	1,342	1.9
Unknown	14	0.0	11	0.0
	66,340	100	69,550	100

Table 65: Trends in birthweight 1985 to 2006 (%)

	1985 n= 61,189	1990 n= 66,878	1995 n= 63,717	2000 n= 62,555	2001 n= 62,105	2002 n= 63,074	2003 n= 63,450	2004 n= 63,503	2005 n= 66,340	2006 n= 69,550
Less than 500g	0.0	0.1	0.3	0.3	0.3	0.3	0.4	0.4	0.2	0.2
500-999g	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.4
1,000-1,499g	0.5	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.7
1,500-1,999g	1.1	1.2	1.2	1.3	1.3	1.2	1.3	1.2	1.3	1.3
2,000-2,499g	3.4	3.6	3.9	3.9	3.9	4.1	4.1	4.1	4.1	4.0
2,500-2,999g	15.2	15.1	15.5	15.4	15.4	15.4	15.3	15.1	15.3	15.1
3,000-3,499g	37.6	37.0	36.0	36.1	35.8	35.7	35.7	35.1	35.5	35.6
3,500-3,999g	30.8	30.7	30.5	30.1	30.2	30.2	30.2	30.7	30.6	30.4
4,000-4,499g	9.2	9.4	9.7	9.9	10.1	10.1	10.1	10.3	10.2	10.2
4,500g+	1.6	1.7	1.8	1.9	1.8	1.8	1.8	1.9	1.8	1.9
Unknown	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Between 1985 and 2006, the percentage of babies with a birthweight of 4,000g or more increased from 10.8% to 12.1%.

Figure 14: Trends in major birthweight categories, 2000 to 2006



There was little change in the proportion of babies with low birthweight, and very low birthweight over the period 2000 to 2006. Neither was there any change in the proportion weighing 4,500 g or more.

Table 66: Size of maternity service (annual births) for birth at various birthweights, 2005 and 2006*

		< 100 births	100-999 births	1000-1999 births	2000+ births	Total
Less than 500g	n	1	47	70	204	322
	%	0.3	14.6	21.7	63.4	100
500-999g	n	3	44	73	501	621
	%	0.5	7.1	11.8	80.7	100
1,000-1,499g	n	0	47	119	699	865
	%	0.0	5.4	13.8	80.8	100
1,500-1,999g	n	3	184	369	1,199	1,755
	%	0.2	10.5	21.0	68.3	100
2,000-2,499g	n	37	902	1491	3,083	5,513
	%	0.7	16.4	27.0	55.9	100
2,500-2,999g	n	246	3,747	5,665	10,973	20,631
	%	1.2	18.1	27.4	53.1	100
3,000-3,499g	n	678	9,589	13,457	24,411	48,135
	%	1.4	19.9	27.9	50.6	100
3,500-3,999g	n	600	8,763	11,851	20,094	41,308
	%	1.5	21.1	28.6	48.4	100
4,000-4,499g	n	229	3,121	3,852	6,616	13,818
	%	1.7	22.6	27.9	47.9	100
4,500g+	n	34	543	738	1,159	2,474
	%	1.4	21.9	29.8	46.8	100
Unknown	n	2	1	5	13	21
	%	9.5	4.8	23.8	61.9	100
Total	n	1,833	26,988	37,690	68,952	135,463
	%	1.4	19.9	27.8	50.9	100

* excludes babies born at home or in non-maternity hospitals

Table 67: Birthweight by parity, all births 2005 and 2006 (%)

	2005			2006		
	1st birth n=28,565	2nd or 3rd birth n=32,607	4th or subsequent birth n=5,168	1st birth n=30,057	2nd or 3rd birth n=33,971	4th or subsequent birth n=5,522
<500 g	0.3	0.2	0.3	0.3	0.2	0.3
500 to 999 g	0.6	0.4	0.6	0.5	0.3	0.6
1,000 to 1,499 g	0.8	0.4	0.9	0.8	0.5	0.8
1,500 to 1,999 g	1.6	0.9	1.8	1.7	1.0	1.4
2,000 to 2,499 g	4.9	3.2	4.7	4.7	3.3	4.9
2,500 to 2,999 g	17.3	13.5	15.7	16.7	13.6	15.8
3,000 to 3,499 g	36.3	35.3	31.9	36.8	35.0	31.9
3,500 to 3,999 g	28.5	32.7	29.4	28.3	32.5	29.4
4,000 to 4,499 g	8.5	11.4	12.2	8.6	11.4	12.0
4,500 g +	1.3	2.0	2.4	1.4	2.3	2.9
Unknown	0	0	0	0	0	0

Table 68: Birthweight by sex, all births 2005 and 2006 (%)

	2005		2006	
	Male n=33,894	Female n=32,435	Male n=35,886	Female n=33,659
<500 g	0.2	0.2	0.2	0.2
500 to 999 g	0.5	0.5	0.4	0.4
1,000 to 1,499 g	0.6	0.6	0.7	0.6
1,500 to 1,999 g	1.2	1.3	1.2	1.4
2,000 to 2,499 g	3.7	4.5	3.6	4.5
2,500 to 2,999 g	13.2	17.5	13.1	17.3
3,000 to 3,499 g	33.1	37.9	33.1	38.2
3,500 to 3,999 g	32.8	28.4	32.5	28.2
4,000 to 4,499 g	12.3	8.0	12.6	7.7
4,500 g +	2.4	1.1	2.5	1.3
Unknown	0	0	0	0

In 2006, 15.1% of male babies weighed 4,000 g or more compared with 9.0% of females.

Table 69: Type of birth by birthweight category, all births 2005 and 2006

		<1,500g		1,500–2,499g		2,500–4,499g		4,500g+	
		2005	2006	2005	2006	2005	2006	2005	2006
Spontaneous cephalic	n	311	290	1,384	1,482	34,353	35,751	600	712
	%	35.5	31.1	39.1	39.7	56.5	56.3	51.6	53.1
Vacuum	n	0	6	134	141	4,472	4,892	72	75
	%	0.0	0.6	3.8	3.8	7.4	7.7	6.2	5.6
Forceps	n	14	21	143	193	3,769	3,687	59	57
	%	1.6	2.3	4.0	5.2	6.2	5.8	5.1	4.2
Vaginal breech	n	132	122	78	81	146	174	0	0
	%	15.1	13.1	2.2	2.2	0.2	0.3	0.0	0.0
Planned caesarean	n	45	68	670	682	10,169	10,729	188	205
	%	5.1	7.3	18.9	18.3	16.7	16.9	16.2	15.3
Unplanned caesarean	n	374	425	1,128	1,154	7,841	8,299	244	293
	%	42.7	45.6	31.9	30.9	12.9	13.1	21.0	21.8
Total	n	876	932	3,537	3,733	60,750	63,532	1,163	1,342

* excludes 14 babies born in 2005 and 11 in 2006 with unknown birthweight

Babies with a birthweight of 2,500 to 4,499 g were less likely to be born by caesarean section (particularly unplanned caesarean) than heavier or lighter babies.

Table 70: Apgar score at 5 minutes, 2005 and 2006 (livebirths only)

Apgar	2005		2006	
	n	%	n	%
<4	186	0.3	165	0.2
4–6	620	0.9	712	1.0
7	879	1.3	969	1.4
8	2,914	4.4	2,989	4.3
9	44,737	67.9	48,129	69.6
10	16,591	25.2	16,141	23.4
Total	65,927	100	69,105	100

excludes 147 liveborn babies with unknown 5' Apgar score

Apgar scores reflect the baby's condition at birth, with a score of 10 being the optimal outcome. Few babies (1.2%) had scores lower than 7 at five minutes, while 93% had scores of 9 or 10.

Resuscitation at birth

Table 71: Most intensive method of resuscitation used, 2005 and 2006 (livebirths only)

	2005		2006	
	n	%	n	%
None	42,596	64.6	48,100	69.6
Suction and/or oxygen	18,423	27.9	15,869	23.0
Bag and mask	4,394	6.7	4,667	6.7
Endotracheal intubation	376	0.6	364	0.5
External cardiac massage & ventilation	130	0.2	143	0.2
Total	65,919	100	69,143	100

excludes 92 babies for whom resuscitation method was unknown, and 30 for whom medications alone were reported e.g. sodium bicarbonate, naloxone

Two thirds of all babies required no resuscitation at birth. A further quarter required oxygen and/or suction. Fewer than 1% needed intubation with or without external cardiac massage.

Multiple births

Table 72: Multiple births, 2005 and 2006

Year	Twins*	Sets	% of all births	Triplets*	Sets	% of all births	Quads	Sets	% of all births
2005	2,388	1,194	3.6	48	16	0.1	0	0	0
2006	2,493 [#]	1,247	3.6	81	27	0.1	8	2	0
Total	4,881			129			8		

* Figures relate to total number of births

[#] data on one baby excluded from this report

Table 73: Trends in multiple births, 1990 to 2006

Year	Twins*	Sets	% of all births	Triplets*	Sets	% of all births	Quads*	Sets	% of all births
1990	1,649	824.5	2.5	69	23	0.1	4	1	0.0
1995	1,850	925	2.9	87	29	0.1	0	0	0.0
2000	1,903	951.5 [#]	3.0	63	21	0.1	0	0	0.0
2002	2,144	1,072	3.4	57	19	0.1	0	0	0.0
2003	2,212	1,106	3.5	54	18	0.1	4	1	0.0
2004	2,246	1,123	3.5	48	16	0.1	0	0	0.0
2005	2,388	1,194	3.6	48	16	0.1	0	0	0.0
2006	2,493 ^{^^}	1,246.5	3.6	81	27	0.1	8	2	0.0

* Figures relate to total number of multiples

[^] First twin born 1990, second twin born 1991

[#] First twin born 1999, second twin born 2000

^{^^} One twin excluded from report

Twins made up 3.6% of all births in 2006 compared with 2.5% in 1990. Triplet and quadruplet births continue to be very rare events.

Table 74: Multiple birth by maternal age group, all confinements in 2005 and 2006

Maternal Age (years)	Twins (sets)	%	Triplets (sets)	%	Quads (sets)	%
younger than 15	0	0.0	0	0.0	0	0.0
15-19	30	0.8	0	0.0	0	0.0
20-24	150	1.0	2	0.0	0	0.0
25-29	510	1.5	10	0.0	1	0.0
30-34	966	2.0	17	0.0	0	0.0
35-39	656	2.4	12	0.0	1	0.0
40-44	117	2.4	2	0.0	0	0.0
45+	13	6.0	0	0.0	0	0.0
Total*	2,442		43		2	

* excludes 2 women with unknown maternal age

Twin pregnancies were more likely with increasing maternal age, with fewer than 1% of parturients aged 15 to 19 years having twins, increasing to 2.4% of women aged 35 to 44 years and 6% of those aged 45 years or older.

Table 75: Gestation by plurality, all confinements in 2005 and 2006

Gestation (wks)	Singletons	%	Twins (sets)	%	Triplets (sets)	%	Quads (sets)	%
20-27	677	0.5	107	4.4	6	14	0	0.0
28-31	705	0.5	149	6.1	12	27.9	2	100.0
32-36	6363	4.9	1,043	42.7	23	53.5	0	0.0
37-41	121,288	92.7	1,143	46.8	2	4.7	0	0.0
42+	1,837	1.4	0	0.0	0	0.0	0	0.0
Total	130,870	100	2,442	100	43	100	2	100

* excludes 2 unknown gestation

More than half of all sets of twins were born preterm (usually 32-36 weeks), compared with 6% of singletons.

Table 76: Method of birth for multiples, by presentation order (rank), 2005 and 2006

Type of Birth	Twin 1 (n=2,442) %	Twin 2 (n=2439*) %	Triplet 1 (n=43)	Triplet 2 (n=43)	Triplet 3 (n=43)
Unassisted cephalic	19.2	9.5	9.3	9.3	7.0
Vacuum	3.9	3.1	0	0	2.3
Forceps	5.4	4.4	0	0	0
Vaginal breech	1.0	11.1	2.3	2.3	2.3
Total Caesarean	70.5	71.8	88.4	88.4	88.4
<i>planned</i>	39.9	39.9	55.8	55.8	55.8
<i>unplanned</i>	30.1	31.9	32.6	32.6	32.6

* 3 second twins excluded from this report

More than 70% of twins were born by caesarean section. A small proportion of second twins were born by caesarean section after the vaginal birth of the first twin (1.8%). Considerably more second twins than first twins had a vaginal breech birth (11% versus 1%).

Table 77: Method of birth for singleton and multiple births, 2005 and 2006

Method of birth	Singleton % n = 130,873	Twin % n = 4,881
Unassisted cephalic	56.7	14.2
Vacuum	7.4	3.5
Forceps	5.9	4.9
Vaginal Breech	0.3	6.3
Total Caesarean	29.8	71.1
<i>planned</i>	15.9	39.9
<i>unplanned</i>	13.9	31.2

Indigenous mothers and their babies

The perinatal form asks whether the mother identifies as Aboriginal or Torres Strait Islander, or both. It does not ask about paternal indigenous status, so this section relates only to babies born to women who so identify.

There is likely to be under-ascertainment of maternal Aboriginal or Torres Strait Islander status.

Table 78: Trends in births and confinements to indigenous women, 1985 to 2006

Year	Births		Confinements	
	n	% of all births	n	% of all confinements
1985	323	0.5	321	0.5
1990	436	0.7	429	0.6
1995	423	0.7	417	0.7
2000	380	0.6	376	0.6
2001	419	0.7	414	0.7
2002	421	0.7	416	0.7
2003	372	0.6	364	0.6
2004	435	0.7	431	0.7
2005	534	0.8	525	0.8
2006	568	0.8	561	0.8

The number of women giving birth who identified as Aboriginal or Torres Strait Islander has steadily increased over the period 1985 to 2006 from 0.5% to 0.8% (Table 78).

Table 79: Maternal age by indigenous status, confinements 2005 and 2006

	Indigenous		Non-indigenous	
	n	%	n	%
Younger than 20 years	209	19.2	3,473	2.6
20–34 years	788	72.6	96,850	73.2
35 years or older	89	8.2	31,926	24.1
	1,086		132,249	

Table 80: Type of birth by indigenous status, confinements 2005 and 2006

	Indigenous		Non-indigenous	
	n	%	n	%
Unassisted vaginal cephalic	786	72.4	73,872	55.9
Vacuum	33	3.0	9,681	7.3
Forceps	19	1.7	7,816	5.9
Caesarean section	241	22.2	40,435	30.6
Vaginal breech	7	0.6	445	0.3
	1,086		132,249	

Table 81: Onset of labour by indigenous status, confinements 2005 and 2006

	Indigenous		Non-indigenous	
	n	%	n	%
Spontaneous	514	47.3	49,054	37.1
Augmented	225	20.7	26,350	19.9
Induced	219	20.2	33,439	25.3
No labour	128	11.8	23,406	17.7
	1,086		132,249	

Indigenous women were considerably more likely than other women to be aged younger than 20 years when they gave birth in 2005 and 2006, and conversely, were less likely to be aged 35 years or older (Table 79).

They were more likely than other women to have an unassisted vaginal birth, and less likely to have an instrumental vaginal birth or a caesarean section (Table 80).

Indigenous women were less likely than others to have labour induced, or to have a pre-labour caesarean section (Table 81).

Table 82: Birth weight by maternal indigenous status, births in 2005 and 2006

	Indigenous		Non-indigenous	
	n	%	n	%
<1,500g	24	2.2	1,782	1.3
1,500–2,499g	126	11.4	7,141	5.3
2,500–4,499g	938	85.1	123,327	91.5
4,500g+	14	1.3	2,491	1.8
	1,102		134,741	

excludes 23 cases with unknown birthweight

Table 83: Gestation by maternal indigenous status, births in 2005 and 2006

	Indigenous		Non-indigenous	
	n	%	n	%
20–27 weeks	17	1.5	889	0.7
28–31 weeks	11	1.0	1,034	0.8
32–36 weeks	103	9.3	8,415	6.2
37–41 weeks	955	86.7	122,603	91.0
42+ weeks	16	1.5	1,821	1.4
	1,102		134,762	

excludes 2 cases with unknown gestation

Babies born to indigenous mothers were more likely than others to have a low birthweight (<2,500 g) or very low birthweight (<1,500 g) (Table 82), and to be born preterm (11.8% versus 7.7%) (Table 83).

Comparisons between hospital types

This section compares a number of variables according to characteristics of the birth hospital—public or private, and the annual number of births.

Table 84: Confinements by hospital category, 2005 and 2006

Births per year	2005		2006	
	n	%	n	%
Public hospitals				
<1000	8,903	13.7	9,881	14.5
1000–1999	13,051	20.0	13,490	19.8
2000+	23,167	35.6	24,163	35.4
Private hospitals				
<1000	5,256	8.1	5,435	8.0
1000–1999	5,781	8.9	5,759	8.4
2000+	8,756	13.4	9,302	13.6
Home or non-maternity hospital	201	0.3	214	0.3
Total	65,115		68,244	

Table 85: Induction of labour by hospital category, 2005 and 2006

Births per year	2005		2006	
	n	%	n	%
Public hospitals				
<1000	2,131	23.9	2,203	22.3
1000–1999	3,365	25.8	3,395	25.2
2000+	5,518	23.8	5,670	23.5
Private hospitals				
<1000	1,541	29.3	1,550	28.5
1000–1999	1,702	29.4	1,604	27.9
2000+	2,425	27.7	2,557	27.5

Hospital size was not associated with the rate of induction of labour (Table 85), but women admitted to private hospitals were more likely to have labour induced than those admitted to public hospitals.

Table 86: Type of birth by hospital category, 2005 and 2006

Births per year	2005		2006	
	n	%	n	%
Unassisted vaginal birth				
Public				
<1000	5,912	66.4	6,699	67.8
1000-1999	7,833	60.0	7,967	59.1
2000+	13,790	59.5	14,231	58.9
Private				
<1000	2,601	49.5	2,562	47.1
1000-1999	2,677	46.3	2,624	45.6
2000+	3,542	40.5	3,831	41.2
Vacuum birth				
Public				
<1000	525	5.9	645	6.5
1000-1999	974	7.5	1,049	7.8
2000+	1,316	5.7	1,489	6.2
Private				
<1000	389	7.4	384	7.1
1000-1999	489	8.5	490	8.5
2000+	938	10.7	1,026	11.0
Forceps birth				
Public				
<1000	270	3.0	231	2.3
1000-1999	596	4.6	564	4.2
2000+	1,390	6.0	1,293	5.4
Private				
<1000	432	8.2	457	8.4
1000-1999	550	9.5	602	10.5
2000+	692	7.9	759	8.2
Caesarean section				
Public				
<1000	2,171	24.4	2,285	23.1
1000-1999	3,593	27.5	3,877	28.7
2000+	6,569	28.4	7,029	29.1
Private				
<1000	1,820	34.6	2,021	37.2
1000-1999	2,058	35.6	2,030	35.2
2000+	3,567	40.7	3,659	39.3

Women who gave birth in smaller hospitals were more likely to have an unassisted vaginal birth than those born in larger hospitals.

Women who gave birth in public hospitals were less likely to have operative deliveries than those in private hospitals (Table 86).

Table 87: Postnatal length of stay by hospital category, 2005 and 2006

Births per year	2005		2006	
	n	%	n	%
2 days or less				
Public hospitals				
<1000	3,028	34.0	3,732	37.8
1000-1999	5,416	41.5	5,981	44.3
2000+	10,177	43.9	10,925	45.2
Private hospitals				
<1000	150	2.9	154	2.8
1000-1999	195	3.4	175	3.0
2000+	170	1.9	158	1.7
6 days or more				
Public hospitals				
<1000	598	6.7	586	5.9
1000-1999	458	3.5	376	2.8
2000+	852	3.7	847	3.5
Private hospitals				
<1000	829	15.8	594	10.9
1000-1999	1,129	19.5	520	9.0
2000+	284	3.2	252	2.7

Women were much more likely to have a short stay in hospital following the birth (2 days or less) if they gave birth in a public hospital than a private hospital.

Residential information related to births

Table 88: Local Government Area and crude livebirth rates, all livebirths, 2002–2006

LGA	2002	2003	2004	2005	2006	EFRP aged 15–44yrs, 2005 & 2006	Livebirths/1,000 EFRP aged 15–44 yrs 2005 and 2006
Alpine	109	120	104	120	143	4,186	62.8
Ararat	117	126	111	126	136	3,698	70.8
Ballarat	1,082	1,019	1,013	1,146	1,199	38,257	61.3
Banyule	1,407	1,462	1,393	1,482	1,505	49,522	60.3
Bass Coast	266	242	230	243	270	9,108	56.3
Baw Baw	416	427	439	436	431	14,569	59.5
Bayside	1,054	1,076	1,070	1,095	1,180	34,344	66.2
Benalla		131	130	137	141	4,774	58.2
Boroondara	1,617	1,652	1,644	1,708	1,673	69,707	48.5
Brimbank	2,437	2,647	2,656	2,582	2,527	78,650	65.0
Buloke	66	71	69	71	75	2,077	70.3
Campaspe	441	482	476	431	466	13,410	66.9
Cardinia	689	670	682	772	888	24,913	66.6
Casey	3,000	3,134	3,274	3,479	3,722	102,649	70.2
Central Goldfields	142	116	148	124	138	4,024	65.1
Colac-Otway	255	242	249	251	267	7,500	69.1
Corangamite	196	184	197	206	221	5,820	73.4
Darebin	1,741	1,798	1,858	1,955	2,067	62,583	64.3
Delatite	207	N/A	N/A	N/A	N/A	N/A	N/A
East Gippsland	394	385	417	394	467	13,371	64.4
Frankston	1,486	1,517	1,483	1,637	1,702	52,120	64.1
French Island	0	2	0	1	2		N/A
Gannawarra	153	127	110	121	128	3,764	66.2
Glen Eira	1,613	1,603	1,590	1,696	1,765	55,088	62.8
Glenelg	233	245	213	216	209	7,285	58.3
Golden Plains	161	193	182	189	208	6,513	61.0
Greater Bendigo	1,114	1,096	1,092	1,169	1,248	39,982	60.5
Greater Dandenong	1,781	1,703	1,720	1,706	1,893	54,571	66.0
Greater Geelong	2,419	2,331	2,396	2,450	2,446	83,181	58.9
Greater Shepparton	789	813	802	790	903	24,318	69.6
Hepburn	165	142	136	129	184	5,060	61.9
Hindmarsh	76	69	64	43	53	1,957	49.1
Hobsons Bay	1,163	1,195	1,091	1,127	1,260	36,866	64.7
Horsham	239	247	223	255	233	7,211	67.7
Hume	2,168	2,226	2,253	2,369	2,490	70,958	68.5
Indigo	127	137	145	163	167	5,239	63.0
Kingston	1,653	1,656	1,667	1,672	1,856	58,330	60.5
Knox	1,970	1,943	1,834	1,882	1,845	65,979	56.5
Latrobe	925	927	847	893	898	29,090	61.6
Loddon	101	89	82	79	89	2,465	68.2
Macedon Ranges	471	425	511	453	499	15,698	60.6
Manningham	1,158	1,143	1,175	1,155	1,158	45,618	50.7

LGA	2002	2003	2004	2005	2006	EFRP aged 15–44yrs, 2005 & 2006	Livebirths/1,000 EFRP aged 15–44 yrs 2005 and 2006
Mansfield		62	69	60	84	2,479	58.1
Maribyrnong	960	998	985	1,062	1,128	31,334	69.9
Maroondah	1,292	1,341	1,267	1,341	1,349	43,454	61.9
Melbourne	519	523	617	696	688	49,825	27.8
Melton	925	848	931	1,142	1,405	38,867	65.5
Mildura	653	620	603	637	717	20,576	65.8
Mitchell	397	412	396	425	461	13,523	65.5
Moira	344	318	337	348	348	9,340	74.5
Monash	1,607	1,611	1,622	1,698	1,810	70,200	50.0
Moonee Valley	1,398	1,349	1,354	1,426	1,338	49,475	55.9
Moorabool	307	326	295	313	307	10,784	57.5
Moreland	1,906	1,930	1,939	2,102	2,177	66,337	64.5
Mornington Peninsula	1,494	1,423	1,513	1,475	1,540	50,110	60.2
Mount Alexander	223	206	192	168	174	5,558	61.5
Moyne	190	164	187	193	185	5,693	66.4
Murrindindi	188	163	170	162	158	5,026	63.7
Nillumbik	745	758	681	739	740	26,252	56.3
Northern Grampians	141	147	146	160	115	4,271	64.4
Port Phillip	1,017	1,053	1,093	1,168	1,214	50,342	47.3
Pyrenees	66	55	66	64	67	2,051	63.9
Queenscliffe	36	20	34	22	27	840	58.3
South Gippsland	295	281	291	272	314	9,059	64.7
Southern Grampians	193	205	192	176	208	5,882	65.3
Stonnington	995	1,052	1,077	1,038	1,039	46,726	44.5
Strathbogie	94	84	81	70	111	2,914	62.1
Surf Coast	245	253	250	277	292	8,852	64.3
Swan Hill	313	294	262	303	282	7,974	73.4
Towong	49	52	47	53	57	1,885	58.4
Wangaratta	355	320	298	316	334	9,803	66.3
Warrnambool	390	411	387	384	404	12,960	60.8
Wellington	492	479	448	462	525	14,855	66.4
West Wimmera	36	37	20	20	32	1,441	36.1
Whitehorse	1,831	1,821	1,778	1,849	1,975	62,558	61.1
Whittlesea	1,704	1,726	1,711	1,776	1,902	59,120	62.2
Wodonga	539	488	513	484	528	15,319	66.1
Wyndham	1,376	1,500	1,724	1,963	2,050	55,750	72.0
Yarra	986	969	988	983	1,031	42,658	47.2
Yarra Ranges	1,882	1,931	1,856	1,780	1,869	60,236	60.6
Yarriambiack	68	82	76	74	78	2,357	64.5
Outside Victoria	986	1,324	1,229	1,359	1,371	N/A	N/A
Total	62,838	63,449	63,501	65,993	69,186	2,191,141	61.7

Note this table is based on livebirths in contrast to previous reports that were based on all births.

Table 89: Confinements to women younger than 20 years, and proportion of all confinements by Local Government Area, 2005 and 2006

Local Government Area	2005			2006		
	Total confinements	Mothers younger than 20 yrs	%	Total confinements	Mothers younger than 20 yrs	%
Alpine	118	2	1.7	142	3	2.1
Ararat	124	11	8.9	132	7	5.3
Ballarat	1,123	48	4.3	1,181	59	5.0
Banyule	1,471	26	1.8	1,477	26	1.8
Bass Coast	241	7	2.9	269	9	3.3
Baw Baw	434	14	3.2	424	20	4.7
Bayside	1,074	3	0.3	1,149	5	0.4
Benalla	137	6	4.4	137	9	6.6
Boroondara	1,669	4	0.2	1,641	6	0.4
Brimbank	2,555	59	2.3	2,498	61	2.4
Buloke	70	1	1.4	73	2	2.7
Campaspe	426	19	4.5	458	28	6.1
Cardinia	765	16	2.1	875	22	2.5
Casey	3,432	105	3.1	3,682	109	3.0
Central Goldfields	124	16	12.9	132	19	14.4
Colac-Otway	251	11	4.4	264	18	6.8
Corangamite	203	9	4.4	217	11	5.1
Darebin	1,929	36	1.9	2,038	40	2.0
East Gippsland	385	27	7.0	456	38	8.3
Frankston	1,614	70	4.3	1,679	74	4.4
Gannawarra	118	7	5.9	126	9	7.1
Glen Eira	1,665	6	0.4	1,746	13	0.7
Glenelg	212	11	5.2	207	12	5.8
Golden Plains	185	4	2.2	204	5	2.5
Greater Bendigo	1,159	75	6.5	1,235	74	6.0
Greater Dandenong	1,694	52	3.1	1,879	65	3.5
Greater Geelong	2,430	98	4.0	2,417	84	3.5
Greater Shepparton	788	49	6.2	893	50	5.6
Hepburn	127	1	0.8	182	6	3.3
Hindmarsh	43	1	2.3	53	2	3.8
Hobsons Bay	1,108	33	3.0	1,252	35	2.8
Horsham	254	13	5.1	232	17	7.3
Hume	2,338	77	3.3	2,464	82	3.3
Indigo	160	5	3.1	165	6	3.6
Kingston	1,646	11	0.7	1,831	25	1.4
Knox	1,853	41	2.2	1,825	35	1.9
Latrobe	881	70	7.9	888	73	8.2
Loddon	79	3	3.8	88	3	3.4
Macedon Ranges	450	14	3.1	497	8	1.6
Manningham	1,139	5	0.4	1,145	6	0.5
Mansfield	60	1	1.7	84	2	2.4
Maribyrnong	1,050	19	1.8	1,102	19	1.7

Local Government Area	2005			2006		
	Total confinements	Mothers younger than 20 yrs	%	Total confinements	Mothers younger than 20 yrs	%
Maroondah	1,310	22	1.7	1,319	30	2.3
Melbourne	688	6	0.9	680	8	1.2
Melton	1,131	37	3.3	1,397	48	3.4
Mildura	634	49	7.7	706	61	8.6
Mitchell	416	8	1.9	452	19	4.2
Moira	344	12	3.5	340	17	5.0
Monash	1,671	15	0.9	1,790	15	0.8
Moonee Valley	1,406	19	1.4	1,318	5	0.4
Moorabool	311	13	4.2	300	7	2.3
Moreland	2,058	40	1.9	2,162	46	2.1
Mornington Peninsula	1,452	53	3.7	1,511	36	2.4
Mount Alexander	167	5	3.0	171	9	5.3
Moyne	191	8	4.2	179	5	2.8
Murrindindi	161	3	1.9	156	2	1.3
Nillumbik	730	6	0.8	723	9	1.2
Northern Grampians	156	5	3.2	112	8	7.1
Port Phillip	1,152	7	0.6	1,201	9	0.7
Pyrenees	63	0	0.0	67	1	1.5
Queenscliffe	22	0	0.0	27	0	0.0
South Gippsland	269	12	4.5	311	18	5.8
Southern Grampians	172	5	2.9	207	7	3.4
Stonnington	1,020	0	0.0	1,026	3	0.3
Strathbogie	68	3	4.4	107	1	0.9
Surf Coast	275	4	1.5	289	2	0.7
Swan Hill	303	21	6.9	280	28	10.0
Towong	53	4	7.5	55	1	1.8
Wangaratta	316	13	4.1	328	16	4.9
Warrnambool	376	21	5.6	393	18	4.6
Wellington	457	21	4.6	513	24	4.7
West Wimmera	20	2	10.0	32	1	3.1
Whitehorse	1,820	17	0.9	1,945	14	0.7
Whittlesea	1,753	40	2.3	1,883	29	1.5
Wodonga	483	31	6.4	517	25	4.8
Wyndham	1,936	51	2.6	2,022	48	2.4
Yarra	971	10	1.0	1,016	12	1.2
Yarra Ranges	1,762	38	2.2	1,840	56	3.0
Yarriambiack	73	8	11.0	72	1	1.4
Unincorporated— French Is	1	0	0.0	2	0	0.0
Outside Victoria	1,340	77	5.7	1,356	75	5.5
Total	65,115	1772	2.7	68,244	1911	5.4

