

# NSW Mothers and Babies 2018





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## NSW Perinatal Data Collection

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## Record linkage

Centre for Health Record Linkage

## Report preparation

Sarah Pont, Suhasini Sumithra

## Editors

Dr Lee Taylor, Tim Harrold, Kristy Goldsworthy

## NSW Maternal and Perinatal Mortality Review Committee 2018

Professor Jonathan Morris (Chair), Dr Susan Arbuckle, Professor Marie-Paule Austin, Dr Andrew Berry AM, Professor Hannah Dahlen, Ms Kate Dyer AM, Ms Alison Goodfellow, Associate Professor Elisabeth Murphy, Professor Michael Nicholl, Dr Jane Raymond, Professor John Smoleniec, Dr Lee Taylor

## 2. EXECUTIVE SUMMARY

This is the twenty-first annual report on mothers and babies in NSW. The key findings are:

- The number of births in NSW fell from 97,325 in 2014 to 95,552 in 2018, an overall decrease of 1.8%. The largest percentage decrease occurred in the Far West Local Health District, where the number of births decreased by 14.8% between 2014 and 2018.
- This report provides information on maternal overweight and obesity for the first time. In 2018, 56.6% of mothers were in the healthy weight range, 25.0% were overweight and 14.6% were obese. The rate of overweight and obesity among mothers was 39.6%.
- The percentage of mothers who were teenagers fell from 2.7% in 2014 to 1.9% in 2018. Over the same period the percentage of mothers aged 35 years and over rose from 23.2% in 2014 to 25.1% in 2018.
- The rate of normal vaginal birth decreased from 56.3% in 2014 to 53.6% in 2018. The caesarean section rate increased from 32.2% to 34.5% while the rate of instrumental birth remained steady at just under 12%.
- Operative and instrumental births were more common among privately than publicly insured mothers. Among privately insured mothers the rate of normal vaginal birth decreased from 44.7% in 2014 to 42.5% in 2018 and the caesarean section rate increased from 41.6% to 43.9%. Among publicly insured mothers the rate of normal vaginal birth decreased from 62.4% to 59.0% and the caesarean section rate increased from 27.3% to 29.8%.
- The proportion of mothers that reported any smoking during pregnancy has remained stable in recent years at around 9%. Of mothers who smoked during pregnancy in 2018, 19.0% stopped smoking in the first half of pregnancy.
- In 2018, the majority of mothers planned to give birth in a hospital labour ward, and 9.8% of mothers planned to give birth in a birth centre. Fifty-eight per cent of mothers who planned to give birth in a birth centre actually did so. There were 301 planned homebirths in NSW reported in 2018.
- The percentage of babies born prematurely (less than 37 weeks gestation) has been stable for the last five years. In 2018, 7.7% of babies were born prematurely.
- Since 2014, the rate of low birth weight (less than 2,500 grams) has remained stable, ranging from 6.3% in 2014 to 6.8% in 2018.
- Between 2014 and 2018, the reported number of Aboriginal or Torres Strait Islander mothers giving birth increased from 3,756 to 4,213, an increase from 3.9% to 4.5% of all mothers.
- The percentage of Aboriginal or Torres Strait Islander mothers who were teenagers decreased from 15.8% in 2014 to 11.5% in 2018. The percentage of Aboriginal or Torres Strait Islander mothers giving birth at 35 years of age or more has remained stable and was 9.9% in 2018.
- In 2018, 43.2% of Aboriginal or Torres Strait Islander mothers reported smoking at some time during pregnancy.
- In 2018, 9.9% of Aboriginal or Torres Strait Islander babies were low birth weight and 11.1% were premature.
- The perinatal mortality rate of 11.7 per 1,000 births in Aboriginal or Torres Strait Islander mothers in 2018 is higher than the rate of 7.9 per 1,000 births experienced among babies born to non-Aboriginal or Torres Strait Islander mothers.

# 3. METHODS

## Data sources

### NSW Perinatal Data Collection

The New South Wales Perinatal Data Collection (PDC) is a population-based surveillance system covering all births in NSW public and private hospitals, as well as home births. It encompasses all live births, and stillbirths of at least 20 weeks gestation or at least 400 grams birth weight.

The PDC relies on the attending midwife or doctor to complete an electronic notification when a birth occurs. The electronic notification captures items described in *PD2015\_025 NSW Perinatal Data Collection (PDC) Reporting and Submission Requirements from 1 January 2016*.<sup>1</sup> These items include demographic, maternal health, pregnancy, labour, birth, and perinatal outcomes. Completed notifications are transferred electronically to the state database, which is managed by System Information and Analytics Branch within the Patient Experience and System Performance Division of the NSW Ministry of Health. The PDC data dictionary can be found at <http://www.cherel.org.au/data-dictionaries>.

In 2018, all PDC records were received electronically from public and private hospitals' information systems. There are several source systems that generate the PDC data. The largest source of PDC records was eMaternity, which supplied 59.0% of all PDC records. Cerner systems supplied 19.2% of PDC records (public hospitals in Sydney and South Western Sydney Local Health Districts). Healthscope Hospitals (Prince of Wales Private Hospital, Norwest Private Hospital, Sydney South West Private Hospital, Nepean Private Hospital and Newcastle Private Hospital) supplied 8.0% of PDC records. Meditech, which includes five Ramsay Private Hospitals (North Shore Private Hospital, Westmead Private Hospital, St George Private Hospital, Kareena Private Hospital and Wollongong Private Hospital), supplied 7.6% of all PDC records. The Mater Hospital, North Sydney, database supplied 2.2% of PDC records, and 1.8% of PDC records were supplied from the Sydney Adventist Hospital database.

The PDC receives notifications of women whose usual place of residence is outside NSW but who give birth in NSW. However, the PDC does not receive notifications of births outside NSW to women usually resident in NSW.

### Maternal and Child Health Register

The Maternal and Child Health Register is a dataset of linked de-identified records that has been established under the Public Health and Disease Registers provisions of the *NSW Public Health Act 2010*. It includes records from the following data collections for children and young people aged less than 16 years and women aged 12 to 55 years:

- NSW PDC for the period 1994 onwards (all records)
- NSW Admitted Patient Data Collection (public hospitals) and the NSW Private Hospital Inpatient Statistics Collection for the period 1 July 2001 onwards (children and young people aged less than 16 years and women aged 12 to 55 years)
- NSW Emergency Department Data Collection for the period 1 July 2005 onwards (children and young people aged less than 16 years and women aged 12 to 55 years)
- NSW Register of Congenital Conditions for the most recently available 5-year period (all records)
- NSW Perinatal Death Review database for the period 1 January 2000 onwards (all records)
- Notifiable Conditions Information Management System for the period 1994 onwards (children and young people aged less than 16 years and women aged 12 to 55 years)
- NSW Registry of Births, Deaths and Marriages death registrations for the period 1994 onwards (children and young people aged less than 16 years and women aged 12 to 55 years)
- Australian Coordinating Registry Cause of Death Unit Record File for the period 1994 onwards (children and young people aged less than 16 years and women aged 12 to 55 years).

An Enhanced Reporting of Aboriginality (ERA) variable is available on the Maternal and Child Health Register. This variable uses linkage with routinely collected population-based health and health-related data collections in NSW to obtain more accurate information about Aboriginal people than is currently available in individual collections, and thus is able to more accurately identify and monitor risk factors for diseases and conditions that are different for Aboriginal people compared to non-Aboriginal people.

(Continued on next page)

Enhanced reporting relies on having independent sources of information on whether a person is Aboriginal or Torres Strait Islander.<sup>2</sup> Each independent report is counted as a “unit of information” that contributed to the weight of evidence as to whether a person is reported as Aboriginal or Torres Strait Islander. ERA uses the following algorithm to determine whether a person is reported as Aboriginal:

1. If a person is consistently reported as Aboriginal or Torres Strait Islander on all contributing sources of data, then the person is reported as Aboriginal or Torres Strait Islander.
2. If the person is not consistently reported as Aboriginal or Torres Strait Islander, then:
  - i) if the person has three or more units of information across all contributing data sets, at least two indicating that the person is Aboriginal or Torres Strait Islander are required to report the person as Aboriginal or Torres Strait Islander
  - ii) otherwise, if the person has one or two units of information in all contributing data sets, one is sufficient to report the person as Aboriginal or Torres Strait Islander.
3. If a person is consistently reported as unknown, not stated or the information is missing on all contributing data sets, then the person’s Aboriginality is reported as “missing”.

For mothers and babies, ERA is based on the weight of evidence from linked records of the PDC, Admitted Patient Data Collection (APDC), Emergency Department Data Collection, Australian Coordinating Registry Cause of Death Unit Record File, and Register of Births, Deaths and Marriages (RBDM) birth registration data. In this report, APDC records do not contribute to the mother’s or baby’s ERA where there is a corresponding linked PDC birth record. This is because, from 2012, information on a person’s Aboriginality as reported on the PDC is usually obtained from the hospital’s patient administration system and is not an independent source of information.

The Maternal and Child Health Register linkage is updated regularly for all years of data. Reported numbers of Aboriginal mothers and babies according to ERA for a particular birth year may vary when subsequently reported.

## NSW Maternal and Perinatal Mortality Review Committee

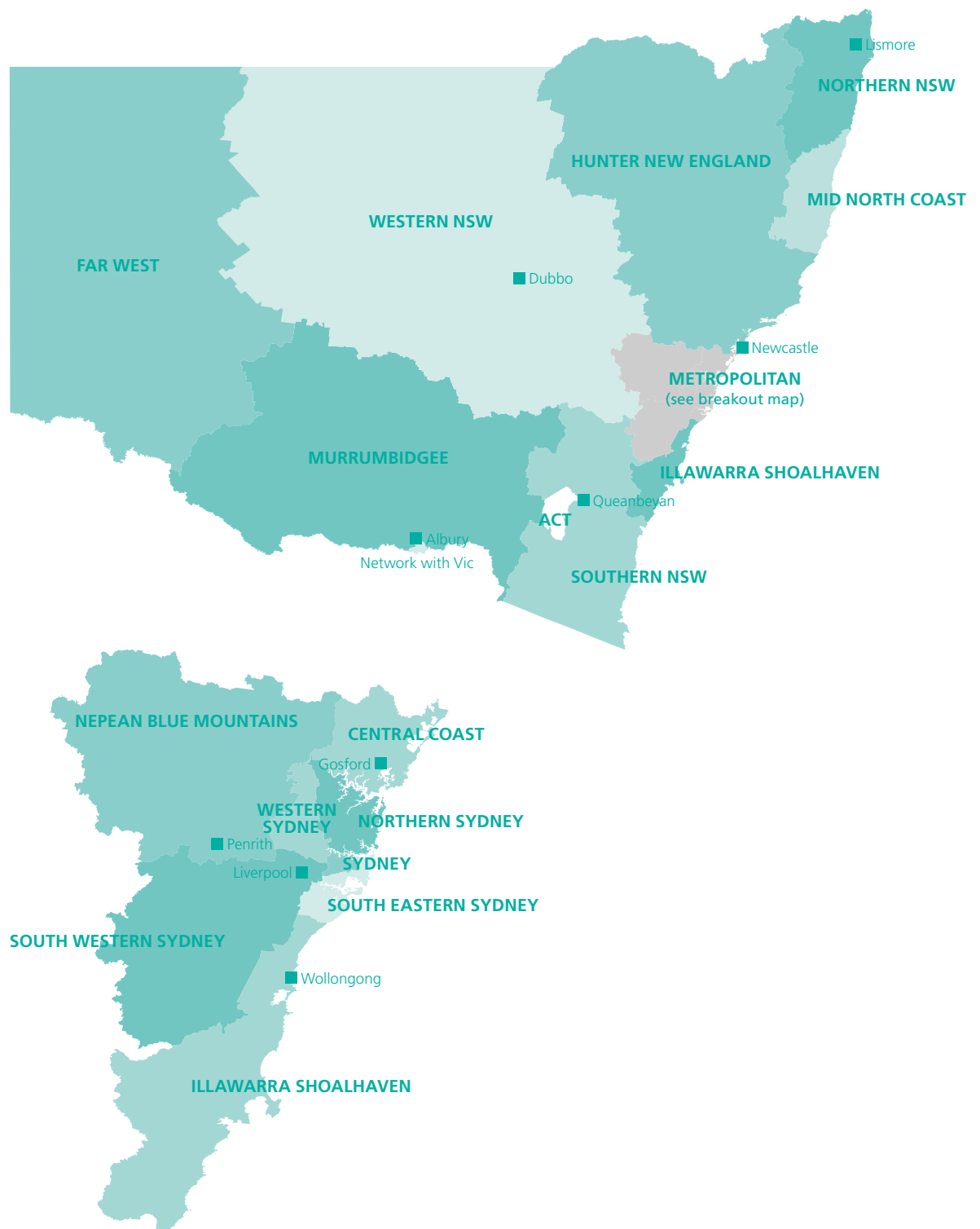
The NSW Maternal and Perinatal Mortality Review Committee is established under the *NSW Health Administration Act 1982*, and is privileged under the Act to carry out confidential reviews of both maternal and perinatal deaths. Members are appointed by the Minister for Health.

The Committee reviews each maternal death to classify the death, identify the cause of death, ascertain any possible avoidable factors and identify lessons to be learnt. The Committee also reviews perinatal deaths among liveborn babies, and stillbirths of at least 20 weeks gestation or at least 400 grams birth weight. The information obtained from these reviews assists in the development of policies aimed at improving the health of mothers and newborns in NSW. Information considered by the Committee is confidential.

## References

1. NSW Ministry of Health. *NSW Perinatal Data Collection (PDC) Reporting and Submission Requirements from 1 January 2016*. Available at [https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2015\\_025.pdf](https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2015_025.pdf). Accessed 30 August 2019.
2. Population and Public Health Division. *Improved reporting of Aboriginal and Torres Strait Islander peoples on population datasets in New South Wales using record linkage – a feasibility study*. Sydney: NSW Ministry of Health, 2012.

## Map of NSW Local Health Districts



## 4. TRENDS IN NEW SOUTH WALES

### Confinements and births by plurality

The number of births in NSW rose from 97,325 in 2014 to a peak of 98,727 in 2016 and then fell to 95,552 in 2018. In 2018, 95,552 births to 94,170 mothers were reported (Table 1). The percentage of multiple (twin and triplet) pregnancies has remained stable over recent years at 1.4%.

TABLE 1: PLURALITY, NSW 2014–2018

Plurality		Year									
		2014		2015		2016		2017		2018	
		No.	%	No.	%	No.	%	No.	%	No.	%
Confinements	Singleton	94543	98.6	93609	98.5	95906	98.6	93098	98.6	92805	98.6
	Twins	1367	1.4	1358	1.4	1379	1.4	1326	1.4	1348	1.4
	Triplets	16	0.0	22	0.0	21	0.0	25	0.0	17	0.0
	<b>TOTAL</b>	<b>95926</b>	<b>100.0</b>	<b>94989</b>	<b>100.0</b>	<b>97306</b>	<b>100.0</b>	<b>94449</b>	<b>100.0</b>	<b>94170</b>	<b>100.0</b>
Births	Singleton	94543	97.1	93609	97.1	95906	97.1	93098	97.2	92805	97.1
	Twins	2734	2.8	2716	2.8	2758	2.8	2652	2.8	2696	2.8
	Triplets	48	0.0	66	0.1	63	0.1	75	0.1	51	0.1
	<b>TOTAL</b>	<b>97325</b>	<b>100.0</b>	<b>96391</b>	<b>100.0</b>	<b>98727</b>	<b>100.0</b>	<b>95825</b>	<b>100.0</b>	<b>95552</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

### Local Health District of residence

The largest percentage increase occurred in the South Western Sydney Local Health District, where the number of births increased by 7.9% between 2014 and 2018. The largest percentage decrease occurred in the Far West Local Health District, where the number of births decreased by 14.8% between 2014 and 2018. In 2018, 31.0% of mothers giving birth were residents in the South Western Sydney and Western Sydney Local Health Districts, similar to previous years (Table 2).

TABLE 2: MATERNAL LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2014–2018

Local Health District	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	8401	8.8	8249	8.7	8345	8.6	8008	8.5	7725	8.2
South Western Sydney	13220	13.8	12996	13.7	13750	14.1	13554	14.4	14258	15.1
South Eastern Sydney	11460	11.9	11077	11.7	11318	11.6	10644	11.3	10216	10.8
Illawarra Shoalhaven	4363	4.5	4507	4.7	4534	4.7	4475	4.7	4584	4.9
Western Sydney	14877	15.5	14640	15.4	14667	15.1	14479	15.3	14982	15.9
Nepean Blue Mountains	4820	5.0	4929	5.2	5042	5.2	4908	5.2	4878	5.2
Northern Sydney	10454	10.9	10270	10.8	10804	11.1	10146	10.7	9659	10.3
Central Coast	3738	3.9	3813	4.0	3816	3.9	3832	4.1	3834	4.1
Hunter New England	10717	11.2	10797	11.4	10690	11.0	10543	11.2	10407	11.1
Northern NSW	2631	2.7	2557	2.7	2327	2.4	2526	2.7	2623	2.8
Mid North Coast	2151	2.2	2183	2.3	1900	2.0	2163	2.3	2096	2.2
Southern NSW	1339	1.4	1360	1.4	1372	1.4	1363	1.4	1403	1.5
Murrumbidgee	2435	2.5	2377	2.5	2370	2.4	2345	2.5	2390	2.5
Western NSW	3805	4.0	3678	3.9	3740	3.8	3581	3.8	3524	3.7
Far West	230	0.2	222	0.2	234	0.2	205	0.2	196	0.2
Other-not stated	1285	1.3	1334	1.4	2397	2.5	1677	1.8	1395	1.5
<b>TOTAL</b>	<b>95926</b>	<b>100.0</b>	<b>94989</b>	<b>100.0</b>	<b>97306</b>	<b>100.0</b>	<b>94449</b>	<b>100.0</b>	<b>94170</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

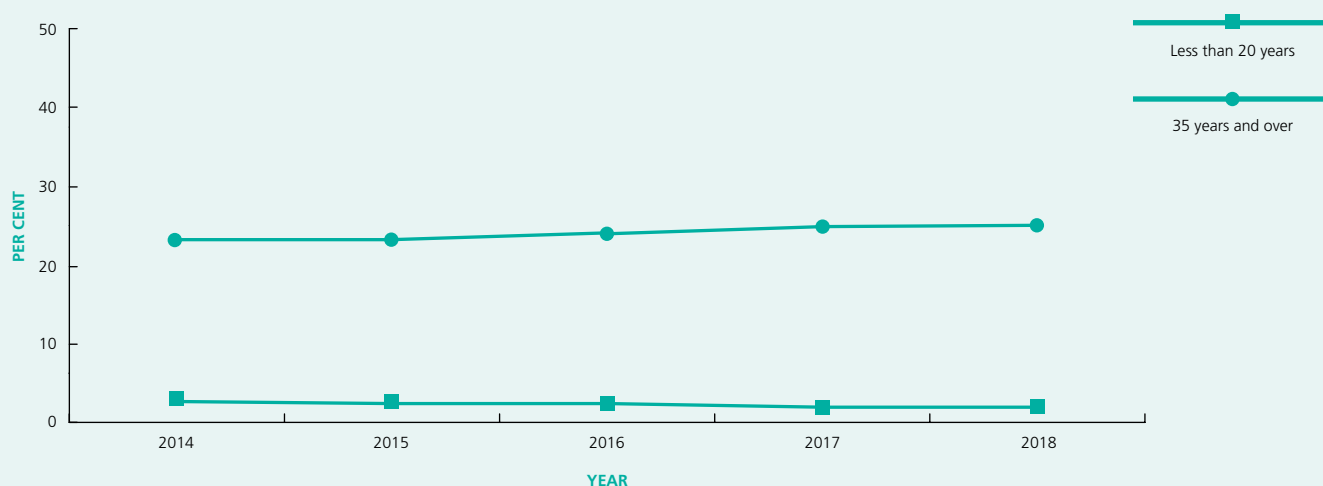
## Maternal age

The percentage of mothers who were teenagers fell from 2.7% in 2014 to 1.9% in 2018. Between 2014 and 2018, the percentage of mothers aged 35 years and over rose from 23.2% to 25.1% (Figure 1, Table 3).

The mean maternal age rose from 30.4 to 30.9 years between 2014 and 2018. The mean maternal age rose from 29.0 to 29.5 years for primiparous mothers and rose from 31.5 to 31.9 years for multiparous mothers.

The proportion of mothers giving birth for the first time who were aged 35 years or more was 15.5% in 2014 and 17.2% in 2018. The proportion of multiparous mothers who were aged 35 years or more was 29.3% in 2014 and 31.1% in 2018.

FIGURE 1: MOTHERS AGED LESS THAN 20 YEARS AND 35 YEARS AND OVER, NSW 2014–2018



Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

TABLE 3: MATERNAL AGE, NSW 2014–2018

Maternal age (years)	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
Less than 15	14	0.0	15	0.0	8	0.0	8	0.0	9	0.0
15–19	2616	2.7	2362	2.5	2106	2.2	1859	2.0	1783	1.9
20–24	11699	12.2	11358	12.0	11007	11.3	10541	11.2	9971	10.6
25–29	25995	27.1	25476	26.8	25926	26.6	25036	26.5	24581	26.1
30–34	33300	34.7	33569	35.3	35126	36.1	33642	35.6	34129	36.2
35–39	17939	18.7	17776	18.7	18627	19.1	19043	20.2	19320	20.5
40–44	4115	4.3	4163	4.4	4142	4.3	4011	4.2	4022	4.3
45+	241	0.3	268	0.3	328	0.3	285	0.3	339	0.4
Not stated	7	0.0	2	0.0	36	0.0	24	0.0	16	0.0
<b>TOTAL</b>	<b>95926</b>	<b>100.0</b>	<b>94989</b>	<b>100.0</b>	<b>97306</b>	<b>100.0</b>	<b>94449</b>	<b>100.0</b>	<b>94170</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

## Maternal country of birth

The percentage of mothers born in Australia decreased between 2014 and 2018, from 63.3% to 61.8%. In 2018, mothers born in India, China, New Zealand, the United Kingdom, the Philippines, Vietnam, Nepal, and Iraq together accounted for 18.8% of all mothers (Table 4).

TABLE 4: MATERNAL COUNTRY OF BIRTH, NSW 2014–2018<sup>#</sup>

Country of birth	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
Australia	60761	63.3	60769	64.0	60429	62.1	58187	61.6	58189	61.8
India	3634	3.8	3860	4.1	4247	4.4	4393	4.7	4489	4.8
China	4753	5.0	3830	4.0	5079	5.2	4385	4.6	3920	4.2
New Zealand	2128	2.2	2060	2.2	2081	2.1	2008	2.1	1905	2.0
United Kingdom	1816	1.9	1704	1.8	1825	1.9	1805	1.9	1817	1.9
Philippines	1450	1.5	1513	1.6	1626	1.7	1624	1.7	1727	1.8
Vietnam	1537	1.6	1478	1.6	1499	1.5	1391	1.5	1393	1.5
Nepal	766	0.8	824	0.9	1059	1.1	1094	1.2	1283	1.4
Iraq	1092	1.1	1021	1.1	1152	1.2	1112	1.2	1195	1.3
Pakistan	733	0.8	800	0.8	902	0.9	992	1.1	1098	1.2
Lebanon	1289	1.3	1159	1.2	1081	1.1	1049	1.1	1052	1.1
Bangladesh	827	0.9	846	0.9	901	0.9	943	1.0	911	1.0
Indonesia	778	0.8	787	0.8	796	0.8	749	0.8	733	0.8
South Korea	690	0.7	768	0.8	747	0.8	745	0.8	692	0.7
South Africa	598	0.6	580	0.6	587	0.6	572	0.6	618	0.7
United States of America	498	0.5	514	0.5	504	0.5	555	0.6	597	0.6
Ireland	471	0.5	455	0.5	514	0.5	476	0.5	563	0.6
Thailand	535	0.6	528	0.6	606	0.6	563	0.6	562	0.6
Iran	369	0.4	425	0.4	512	0.5	531	0.6	533	0.6
Fiji	590	0.6	582	0.6	552	0.6	486	0.5	480	0.5
Malaysia	441	0.5	440	0.5	426	0.4	447	0.5	469	0.5
Sri Lanka	452	0.5	432	0.5	448	0.5	484	0.5	467	0.5
Afghanistan	405	0.4	415	0.4	423	0.4	471	0.5	455	0.5
Hong Kong	456	0.5	441	0.5	500	0.5	515	0.5	452	0.5
Brazil	267	0.3	282	0.3	317	0.3	354	0.4	395	0.4
Japan	404	0.4	363	0.4	382	0.4	348	0.4	362	0.4
Canada	290	0.3	307	0.3	334	0.3	279	0.3	320	0.3
Syria	192	0.2	177	0.2	214	0.2	258	0.3	314	0.3
Germany	349	0.4	304	0.3	293	0.3	306	0.3	303	0.3
France	233	0.2	223	0.2	221	0.2	256	0.3	259	0.3
Egypt	242	0.3	263	0.3	260	0.3	274	0.3	256	0.3
Russian Federation	243	0.3	240	0.3	244	0.3	248	0.3	233	0.2
Western Samoa	222	0.2	217	0.2	250	0.3	232	0.2	224	0.2
Taiwan	191	0.2	182	0.2	244	0.3	224	0.2	216	0.2
Cambodia	274	0.3	290	0.3	256	0.3	269	0.3	208	0.2
Poland	181	0.2	182	0.2	199	0.2	186	0.2	191	0.2
Colombia	136	0.1	157	0.2	151	0.2	148	0.2	188	0.2
Sudan	265	0.3	250	0.3	236	0.2	208	0.2	177	0.2
Turkey	176	0.2	173	0.2	147	0.2	152	0.2	166	0.2
Nigeria	43	0.0	74	0.1	100	0.1	105	0.1	165	0.2
Singapore	137	0.1	154	0.2	147	0.2	124	0.1	148	0.2
Tonga	148	0.2	176	0.2	158	0.2	139	0.1	147	0.2
Saudi Arabia	120	0.1	139	0.1	138	0.1	153	0.2	146	0.2
Italy	74	0.1	116	0.1	120	0.1	169	0.2	137	0.1
Bosnia and Herzegovina	134	0.1	137	0.1	126	0.1	142	0.2	132	0.1
Serbia (includes Kosovo)	75	0.1	83	0.1	133	0.1	134	0.1	129	0.1
Mongolia	30	0.0	32	0.0	44	0.0	85	0.1	129	0.1
Burma (Myanmar)	146	0.2	116	0.1	102	0.1	143	0.2	124	0.1
Chile	135	0.1	130	0.1	137	0.1	125	0.1	124	0.1
Jordan	116	0.1	112	0.1	105	0.1	125	0.1	110	0.1
Zimbabwe	129	0.1	107	0.1	111	0.1	98	0.1	106	0.1
Former Yugoslavia	121	0.1	116	0.1	125	0.1	121	0.1	104	0.1
Other/Not stated	3784	3.9	3656	3.8	3516	3.6	3467	3.7	3057	3.2
<b>TOTAL</b>	<b>95926</b>	<b>100.0</b>	<b>94989</b>	<b>100.0</b>	<b>97306</b>	<b>100.0</b>	<b>94449</b>	<b>100.0</b>	<b>94170</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI), Centre for Epidemiology and Evidence, NSW Ministry of Health.

<sup>#</sup> Countries of birth for which 100 or more women gave birth in 2018.



## Aboriginal and Torres Strait Islander mothers

The reported number of Aboriginal or Torres Strait Islander mothers giving birth increased from 3,756 to 4,213, an increase from 3.9% to 4.5% of all mothers (Table 5). Further information on Aboriginal and Torres Strait Islander mothers and babies is shown in Chapter 8.

**TABLE 5: ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS, NSW 2014–2018**

Aboriginal or Torres Strait Islander	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander	3756	3.9	3823	4.0	4118	4.2	4183	4.4	4213	4.5
Non-Aboriginal or Torres Strait Islander	92158	96.1	91166	96.0	92623	95.2	89836	95.1	89671	95.2
Not stated	12	0.0	0	0.0	565	0.6	430	0.5	286	0.3
<b>TOTAL</b>	<b>95926</b>	<b>100.0</b>	<b>94989</b>	<b>100.0</b>	<b>97306</b>	<b>100.0</b>	<b>94449</b>	<b>100.0</b>	<b>94170</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

## Previous pregnancies

In recent years there has been a slight decrease in the percentage of mothers giving birth for the first time, from 44.1% in 2014 to 42.9% in 2018 (Table 6), and an increase in the proportion of mothers giving birth to a subsequent baby, from 55.8% in 2014 to 57.1% in 2018.

**TABLE 6: PREVIOUS PREGNANCIES, NSW 2014–2018**

No. previous pregnancies (>20 weeks gestation)	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
0	42338	44.1	41547	43.7	42272	43.4	40469	42.8	40362	42.9
1–4	52070	54.3	52034	54.8	53486	55.0	52447	55.5	52403	55.6
5+	1491	1.6	1390	1.5	1426	1.5	1387	1.5	1323	1.4
Not stated	27	0.0	18	0.0	122	0.1	146	0.2	82	0.1
<b>TOTAL</b>	<b>95926</b>	<b>100.0</b>	<b>94989</b>	<b>100.0</b>	<b>97306</b>	<b>100.0</b>	<b>94449</b>	<b>100.0</b>	<b>94170</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

## Duration of pregnancy at first antenatal visit

Between 2014 and 2018, the proportion of mothers starting antenatal care at less than 14 weeks gestation substantially increased from 59.7% to 77.6% (Table 7). In 2018, 92.0% of mothers commenced antenatal care at less than 20 weeks gestation.

**TABLE 7: DURATION OF PREGNANCY AT FIRST ANTENATAL VISIT, NSW 2014–2018**

Duration of pregnancy (weeks)	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
0–13	57293	59.7	61073	64.3	65988	67.8	69062	73.1	73110	77.6
14–19	24062	25.1	21869	23.0	20404	21.0	16473	17.4	13546	14.4
20+	14164	14.8	11685	12.3	10033	10.3	8324	8.8	6932	7.4
Not stated	407	0.4	362	0.4	881	0.9	590	0.6	582	0.6
<b>TOTAL</b>	<b>95926</b>	<b>100.0</b>	<b>94989</b>	<b>100.0</b>	<b>97306</b>	<b>100.0</b>	<b>94449</b>	<b>100.0</b>	<b>94170</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

## Smoking in pregnancy

The proportion of mothers that reported any smoking during pregnancy has remained stable in recent years at around 9% (Table 8). In 2018, 9.1% of mothers reported any smoking during pregnancy. Of those mothers who smoked during pregnancy in 2018, 19.0% stopped smoking in the first half of pregnancy. Over the 5-year period, among those who smoked in the second half of pregnancy, there was a trend towards smoking fewer cigarettes per day (Table 9).

**TABLE 8: SMOKING IN PREGNANCY, NSW 2014–2018**

Smoking in pregnancy	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
Did not smoke	87041	90.7	86547	91.1	88000	90.4	85189	90.2	84518	89.8
Smoked	8883	9.3	8442	8.9	8083	8.3	8279	8.8	8563	9.1
Not stated	2	0.0	0	0.0	1223	1.3	981	1.0	1089	1.2
TOTAL	95926	100.0	94989	100.0	97306	100.0	94449	100.0	94170	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

**TABLE 9: MOTHERS WHO SMOKED AT ALL DURING PREGNANCY BY NUMBER OF CIGARETTES SMOKED IN THE SECOND HALF OF PREGNANCY, NSW 2014–2018**

Cigarettes smoked in the second half of pregnancy	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
None	2306	26.0	2292	27.1	2156	26.7	2053	24.8	1626	19.0
1–10 per day	4948	55.7	4691	55.6	4738	58.6	5090	61.5	5796	67.7
> 10 per day	1319	14.8	1202	14.2	1065	13.2	1012	12.2	1006	11.7
Smoked, amount not stated	310	3.5	257	3.0	15	0.2	13	0.2	1	0.0
Not stated	0	0.0	0	0.0	109	1.3	111	1.3	134	1.6
TOTAL	8883	100.0	8442	100.0	8083	100.0	8279	100.0	8563	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

## Place of birth

In 2018, the majority of mothers planned to give birth in a hospital labour ward, and 9.8% planned to give birth in a birth centre (Table 10). Fifty-eight per cent of mothers who planned to give birth in a birth centre actually did so. The total number of reported planned homebirths increased from 258 in 2014 to 301 in 2018, and the reported number of planned homebirths that occurred at home has remained stable.

**TABLE 10: MATERNAL PLACE OF BIRTH, NSW 2014–2018**

Place of birth	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
Hospital	92596	96.5	91830	96.7	94025	96.6	87687	92.8	84030	89.2
Birth centre	2202	2.3	2095	2.2	2128	2.2	4043	4.3	5351	5.7
Planned birth centre-hospital admission	381	0.4	323	0.3	341	0.4	1913	2.0	3861	4.1
Planned homebirth	228	0.2	187	0.2	196	0.2	198	0.2	235	0.2
Planned homebirth-hospital admission	30	0.0	16	0.0	23	0.0	41	0.0	66	0.1
Born before arrival	488	0.5	538	0.6	542	0.6	544	0.6	539	0.6
Not stated	1	0.0	0	0.0	51	0.1	23	0.0	88	0.1
TOTAL	95926	100.0	94989	100.0	97306	100.0	94449	100.0	94170	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

## Diabetes

The reported rate of gestational diabetes rose from 7.5% in 2014 to 13.7% in 2018, following widespread implementation of the *Australasian Diabetes in Pregnancy Society (ADIPS) Consensus Guidelines for the Testing and Diagnosis of Gestational Diabetes Mellitus* during 2016.<sup>†</sup> The rate of pre-existing diabetes mellitus was around 1.0% (Table 11) over the 5-year period.

**TABLE 11: MATERNAL DIABETES, NSW 2014–2018**

Condition	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
Pre-existing diabetes mellitus	1358	1.4	1398	1.5	886	0.9	900	1.0	804	0.9
Type 1 <sup>†</sup>	-	-	-	-	281	0.3	256	0.3	232	0.2
Type 2 <sup>†</sup>	-	-	-	-	332	0.3	377	0.4	424	0.5
Gestational diabetes mellitus	7242	7.5	7918	8.3	12260	12.6	12375	13.1	12893	13.7
Other <sup>†</sup>	-	-	-	-	273	0.3	267	0.3	148	0.2
<b>TOTAL DIABETES</b>	<b>8600</b>	<b>9.0</b>	<b>9316</b>	<b>9.8</b>	<b>13146</b>	<b>13.5</b>	<b>13275</b>	<b>14.1</b>	<b>13697</b>	<b>14.5</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

<sup>†</sup> Pre-existing diabetes mellitus type 1, 2 and other reported from 2016.

## Hypertension

The reported rate of gestational hypertension was 2.4% in 2018, similar to previous years. The overall rate of hypertension in pregnancy remained steady at about 5% over the 5-year period (Table 12).

**TABLE 12: MATERNAL HYPERTENSION, NSW 2014–2018**

Condition	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
Chronic hypertension	745	0.8	731	0.8	716	0.7	694	0.7	761	0.8
Pre-eclampsia	1458	1.5	1463	1.5	1557	1.6	1352	1.4	1333	1.4
Eclampsia <sup>†</sup>	-	-	-	-	27	0.0	35	0.0	34	0.0
Gestational hypertension	2810	2.9	2909	3.1	2860	2.9	2592	2.7	2258	2.4
<b>TOTAL HYPERTENSION*</b>	<b>4925</b>	<b>5.1</b>	<b>5018</b>	<b>5.3</b>	<b>5062</b>	<b>5.2</b>	<b>4526</b>	<b>4.8</b>	<b>4193</b>	<b>4.5</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

<sup>†</sup> Eclampsia reported from 2016.

\* Total hypertension refers to the number of women with a diagnosis of any type of hypertension.

## Labour

The rate of spontaneous onset of labour fell from 50.8% in 2014 to 44.0% in 2018 and the rate of induction of labour rose from 29.6% in 2014 to 33.7% in 2018 (Table 13). The most common reported reason for induction of labour in 2018 was diabetes (14.3%), followed by prelabour rupture of membranes (14.1%), prolonged pregnancy (41 or more weeks) (11.8%), suspected intrauterine growth restriction (6.1%), hypertensive disease (5.9%), fetal distress (3.0%), fetal death (0.7%) and chorioamnionitis (0.2%).

**TABLE 13: ONSET AND AUGMENTATION OF LABOUR, NSW 2014–2018**

Onset of labour	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
Spontaneous	35398	36.9	34176	36.0	33947	34.9	31411	33.3	29513	31.3
Spontaneous augmented with ARM	5645	5.9	5533	5.8	5932	6.1	5286	5.6	4858	5.2
Spontaneous augmented with oxytocins <sup>#</sup>	7680	8.0	7501	7.9	7311	7.5	7060	7.5	7078	7.5
No labour	18812	19.6	18827	19.8	19710	20.3	20132	21.3	20951	22.2
Induced – oxytocins/prostaglandins	10343	10.8	9971	10.5	9673	9.9	10473	11.1	12040	12.8
Induced – ARM only	1887	2.0	1869	2.0	3335	3.4	2797	3.0	2437	2.6
Induced – ARM + oxytocins/prostaglandins	15940	16.6	16719	17.6	16879	17.3	16957	18.0	16872	17.9
Induced – other <sup>†</sup>	216	0.2	390	0.4	384	0.4	266	0.3	396	0.4
Not stated	5	0.0	3	0.0	135	0.1	67	0.1	25	0.0
<b>TOTAL</b>	<b>95926</b>	<b>100.0</b>	<b>94989</b>	<b>100.0</b>	<b>97306</b>	<b>100.0</b>	<b>94449</b>	<b>100.0</b>	<b>94170</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

ARM: Artificial Rupture of Membranes.

<sup>#</sup> May include prostaglandins for 2015 and earlier.

<sup>†</sup> May include artificial rupture of membranes.

<sup>‡</sup> This category includes other forms of induction such as Foley's catheter.

## Type of birth

Among NSW mothers, the rate of normal vaginal birth decreased from 56.3% in 2014 to 53.6% in 2018 (Table 14). The caesarean section rate increased from 32.2% to 34.5%. The elective caesarean section rate increased from 19.6% to 22.2% while the emergency section rate was stable at around 12% over the 5-year period. The rate of instrumental birth (forceps and vacuum extraction) remained steady at just under 12%.

Operative and instrumental births are more common among privately than publicly insured mothers (Table 15). Among privately insured mothers the rate of normal vaginal birth decreased from 44.7% in 2014 to 42.5% in 2018 and the caesarean section rate increased from 41.6% to 43.9%. Among publicly insured mothers the rate of normal vaginal birth decreased from 62.4% in 2014 to 59.0% in 2018 and the caesarean section rate increased from 27.3% to 29.8%.

**TABLE 14: TYPE OF BIRTH, NSW 2014–2018**

Type of birth	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
Normal vaginal	53988	56.3	53203	56.0	53740	55.2	51434	54.5	50451	53.6
Forceps	4489	4.7	4488	4.7	4536	4.7	4435	4.7	4386	4.7
Vacuum extraction	6160	6.4	6122	6.4	6649	6.8	6338	6.7	6549	7.0
Vaginal breech	367	0.4	363	0.4	339	0.3	336	0.4	333	0.4
Elective caesarean section	18812	19.6	18826	19.8	19692	20.2	20115	21.3	20951	22.2
Emergency caesarean section <sup>†</sup>	12103	12.6	11984	12.6	12321	12.7	11764	12.5	11498	12.2
Not stated	7	0.0	3	0.0	29	0.0	27	0.0	2	0.0
<b>TOTAL</b>	<b>95926</b>	<b>100.0</b>	<b>94989</b>	<b>100.0</b>	<b>97306</b>	<b>100.0</b>	<b>94449</b>	<b>100.0</b>	<b>94170</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

<sup>†</sup> Emergency caesarean section includes caesarean sections where the onset of labour was not stated.

**TABLE 15: MATERNAL HEALTH INSURANCE BY TYPE OF BIRTH, NSW 2014–2018<sup>#</sup>**

Insurance status–type of birth		Year									
		2014		2015		2016		2017		2018	
		No.	%	No.	%	No.	%	No.	%	No.	%
<b>Public</b>	Normal vaginal	38635	62.4	37677	62.1	38084	61.4	37004	60.4	36852	59.0
	Forceps	2825	4.6	2853	4.7	2957	4.8	2916	4.8	2932	4.7
	Vacuum extraction	3338	5.4	3175	5.2	3438	5.5	3543	5.8	3776	6.0
	Vaginal breech	251	0.4	275	0.5	262	0.4	261	0.4	260	0.4
	Elective caesarean section	9279	15.0	9249	15.2	9483	15.3	10037	16.4	11134	17.8
	Emergency caesarean section <sup>†</sup>	7615	12.3	7424	12.2	7786	12.6	7514	12.3	7481	12.0
	Not stated	3	0.0	3	0.0	23	0.0	16	0.0	1	0.0
	<b>TOTAL</b>	<b>61946</b>	<b>100.0</b>	<b>60656</b>	<b>100.0</b>	<b>62033</b>	<b>100.0</b>	<b>61291</b>	<b>100.0</b>	<b>62436</b>	<b>100.0</b>
<b>Private</b>	Normal vaginal	14831	44.7	14942	44.7	15290	44.0	14130	43.2	13203	42.5
	Forceps	1650	5.0	1611	4.8	1566	4.5	1503	4.6	1428	4.6
	Vacuum extraction	2778	8.4	2882	8.6	3174	9.1	2770	8.5	2734	8.8
	Vaginal breech	113	0.3	87	0.3	72	0.2	70	0.2	62	0.2
	Elective caesarean section	9444	28.5	9469	28.3	10145	29.2	10017	30.6	9707	31.2
	Emergency caesarean section <sup>†</sup>	4366	13.2	4433	13.3	4474	12.9	4211	12.9	3947	12.7
	Not stated	4	0.0	0	0.0	5	0.0	9	0.0	0	0.0
	<b>TOTAL</b>	<b>33186</b>	<b>100.0</b>	<b>33424</b>	<b>100.0</b>	<b>34726</b>	<b>100.0</b>	<b>32710</b>	<b>100.0</b>	<b>31081</b>	<b>100.0</b>
<b>Not stated</b>	Normal vaginal	522	65.7	584	64.2	366	66.9	300	67.0	396	60.6
	Forceps	14	1.8	24	2.6	13	2.4	16	3.6	26	4.0
	Vacuum extraction	44	5.5	65	7.2	37	6.8	25	5.6	39	6.0
	Vaginal breech	3	0.4	1	0.1	5	0.9	5	1.1	11	1.7
	Elective caesarean section	89	11.2	108	11.9	64	11.7	61	13.6	110	16.8
	Emergency caesarean section <sup>†</sup>	122	15.4	127	14.0	61	11.2	39	8.7	70	10.7
	Not stated	0	0.0	0	0.0	1	0.2	2	0.4	1	0.2
	<b>TOTAL</b>	<b>794</b>	<b>100.0</b>	<b>909</b>	<b>100.0</b>	<b>547</b>	<b>100.0</b>	<b>448</b>	<b>100.0</b>	<b>653</b>	<b>100.0</b>
<b>TOTAL<sup>*</sup></b>	Normal vaginal	53988	56.3	53203	56.0	53740	55.2	51434	54.5	50451	53.6
	Forceps	4489	4.7	4488	4.7	4536	4.7	4435	4.7	4386	4.7
	Vacuum extraction	6160	6.4	6122	6.4	6649	6.8	6338	6.7	6549	7.0
	Vaginal breech	367	0.4	363	0.4	339	0.3	336	0.4	333	0.4
	Elective caesarean section	18812	19.6	18826	19.8	19692	20.2	20115	21.3	20951	22.2
	Emergency caesarean section <sup>†</sup>	12103	12.6	11984	12.6	12321	12.7	11764	12.5	11498	12.2
	Not stated	7	0.0	3	0.0	29	0.0	27	0.0	2	0.0
	<b>TOTAL</b>	<b>95926</b>	<b>100.0</b>	<b>94989</b>	<b>100.0</b>	<b>97306</b>	<b>100.0</b>	<b>94449</b>	<b>100.0</b>	<b>94170</b>	<b>100.0</b>

Source: Maternal and Child Health Register (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

<sup>#</sup> Figures for 2014 to 2017 differ to those reported previously as the linkage has been updated.

<sup>†</sup> Emergency caesarean section includes cases where caesarean section was reported but type of onset of labour was not reported.

<sup>\*</sup> Total includes mothers where type of health insurance was not stated.

## Baby sex

There has been no significant change in the pattern of baby sex since 2014, with slightly more male babies born than females in each year. In 2018, 49,372 (51.7%) babies were male, 46,167 (48.3%) were female, and seven were of indeterminate sex. This compares with babies born in 2014, when 50,011 (51.4%) babies were male, 47,281 (48.6%) were female, and 10 were of indeterminate sex.

## Gestational age

2018, 7.7% of babies were born prematurely (less than 37 weeks gestation), similar to 7.7% reported in 2014 (Table 16). Over the 5-year period, around 92% of babies were born at term (37–41 weeks gestation). The percentage of post-term babies (42-plus weeks gestation) was 0.4% in 2014 and 0.8% in 2018.

**TABLE 16: GESTATIONAL AGE, NSW 2014–2018**

Gestational age (weeks)	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
< 28	659	0.7	733	0.8	696	0.7	713	0.7	705	0.7
28–31	696	0.7	690	0.7	619	0.6	642	0.7	608	0.6
32–36	6140	6.3	6200	6.4	5865	5.9	5754	6.0	6011	6.3
37–41	89435	91.9	88397	91.7	90270	91.4	87768	91.6	87407	91.5
42+	391	0.4	367	0.4	1065	1.1	885	0.9	755	0.8
Not stated	4	0.0	4	0.0	212	0.2	63	0.1	66	0.1
<b>TOTAL</b>	<b>97325</b>	<b>100.0</b>	<b>96391</b>	<b>100.0</b>	<b>98727</b>	<b>100.0</b>	<b>95825</b>	<b>100.0</b>	<b>95552</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

## Birth weight

Since 2014, the pattern of birth weight has remained stable, with the rate of low birth weight (less than 2,500 grams) ranging from 6.3% to 6.8% (Table 17).

**TABLE 17: BIRTH WEIGHT, NSW 2014–2018**

Birth weight (grams)	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
Less than 500	225	0.2	283	0.3	326	0.3	341	0.4	234	0.2
500–999	433	0.4	411	0.4	411	0.4	455	0.5	424	0.4
1,000–1,499	552	0.6	545	0.6	534	0.5	503	0.5	488	0.5
1,500–1,999	1096	1.1	1193	1.2	1191	1.2	1154	1.2	1224	1.3
2,000–2,499	3839	3.9	3918	4.1	3931	4.0	3952	4.1	4163	4.4
2,500–2,999	15598	16.0	15931	16.5	16272	16.5	16011	16.7	15945	16.7
3,000–3,499	36528	37.5	36122	37.5	37290	37.8	36263	37.8	36575	38.3
3,500–3,999	28986	29.8	28315	29.4	29171	29.5	28051	29.3	27577	28.9
4,000–4,499	8606	8.8	8330	8.6	8348	8.5	7942	8.3	7671	8.0
4,500+	1393	1.4	1276	1.3	1182	1.2	1106	1.2	1066	1.1
Not stated	69	0.1	67	0.1	71	0.1	47	0.0	185	0.2
<b>TOTAL</b>	<b>97325</b>	<b>100.0</b>	<b>96391</b>	<b>100.0</b>	<b>98727</b>	<b>100.0</b>	<b>95825</b>	<b>100.0</b>	<b>95552</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

## Apgar score

In 2018, 1.6% of liveborn babies were born with an Apgar score of less than seven at 5 minutes and 0.4% were born with an Apgar score of less than five (Table 18). These rates are similar to those of previous years.

**TABLE 18: APGAR SCORE AT 5 MINUTES, LIVE BIRTHS, NSW 2014–2018**

Apgar score	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
0–4	516	0.5	422	0.4	538	0.5	423	0.4	399	0.4
5–6	1206	1.2	1196	1.2	1209	1.2	1083	1.1	1167	1.2
7+	94847	98.0	93840	98.0	95844	97.6	93156	97.8	92819	97.7
Not stated	207	0.2	300	0.3	593	0.6	572	0.6	572	0.6
<b>TOTAL</b>	<b>96776</b>	<b>100.0</b>	<b>95758</b>	<b>100.0</b>	<b>98184</b>	<b>100.0</b>	<b>95234</b>	<b>100.0</b>	<b>94957</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

## Hepatitis B

The percentage of babies given a hepatitis B vaccination at birth remained stable at about 94% between 2014 and 2018 (Table 19).

**TABLE 19: HEPATITIS B DOSE GIVEN TO LIVEBORN BABIES, NSW 2014–2018**

Hepatitis B dose given	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
No	5207	5.4	5366	5.6	4956	5.0	5220	5.5	5353	5.6
Yes	91538	94.6	90378	94.4	92013	93.7	89070	93.5	88907	93.6
Not stated	31	0.0	14	0.0	1215	1.2	944	1.0	697	0.7
<b>TOTAL</b>	<b>96776</b>	<b>100.0</b>	<b>95758</b>	<b>100.0</b>	<b>98184</b>	<b>100.0</b>	<b>95234</b>	<b>100.0</b>	<b>94957</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

## Infant feeding

The percentage of babies fully breastfed at the time of discharge from hospital decreased from 78.6% to 72.6% between 2014 and 2018. The percentage of babies that received any breastfeeding rose from 10.5% in 2014 to 16.1% in 2018. In the same period, the percentage of babies receiving infant formula only fell from 9.9% to 8.4% (Table 20).

**TABLE 20: LIVE BIRTHS BY TYPE OF INFANT FEEDING, NSW 2014–2018**

Infant feeding	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
Full breastfeeding	76018	78.6	75562	78.9	73524	74.9	70234	73.7	68916	72.6
Any breastfeeding	10132	10.5	10047	10.5	13177	13.4	14031	14.7	15287	16.1
Infant formula only	9577	9.9	9270	9.7	8305	8.5	7921	8.3	7979	8.4
Not stated	1049	1.1	879	0.9	3178	3.2	3048	3.2	2775	2.9
<b>TOTAL</b>	<b>96776</b>	<b>100.0</b>	<b>95758</b>	<b>100.0</b>	<b>98184</b>	<b>100.0</b>	<b>95234</b>	<b>100.0</b>	<b>94957</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

## Perinatal outcome

Across the period 2014–2018 the perinatal mortality rate varied from 7.5 to 8.4 per 1,000 births and was 8.1 per 1,000 in 2018 (Table 21). In 2018, 77.2% of all reported perinatal deaths were stillbirths and 22.8% were neonatal deaths.

Of the 771 perinatal deaths in 2018 in NSW, 652 (84.6%) were reported among planned hospital births, 107 (13.9%) among planned birth centre births and 10 deaths were among babies born before arrival at hospital (1.3%).

**TABLE 21: PERINATAL OUTCOMES, NSW 2014–2018<sup>#</sup>**

Year	Liveborn surviving		Stillborn		Neonatal death		Death—age not stated		Not stated		Total births		Perinatal death rate/1,000 births <sup>†</sup>	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
2014	96553	99.2	534	0.5	221	0.2	2	0.0	15	0.0	<b>97325</b>	<b>100.0</b>		7.8
2015	95571	99.1	602	0.6	186	0.2	1	0.0	31	0.0	<b>96391</b>	<b>100.0</b>		8.2
2016	97983	99.2	543	0.6	201	0.2	0	0.0	0	0.0	<b>98727</b>	<b>100.0</b>		7.5
2017	95023	99.2	591	0.6	211	0.2	0	0.0	0	0.0	<b>95825</b>	<b>100.0</b>		8.4
2018	94781	99.2	595	0.6	176	0.2	0	0.0	0	0.0	<b>95552</b>	<b>100.0</b>		8.1

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

<sup>#</sup> Perinatal deaths include deaths reported to the PDC only. As the PDC form is completed at discharge or transfer of the baby, deaths occurring after this time may not be reported to the PDC.

<sup>†</sup> The perinatal death rate excludes deaths where the age at death was not stated.

## Maternal deaths

In the period 1990–2017, 244 deaths were reported among pregnant women or women who gave birth less than 6 weeks previously. Of these, 71 (29.1%) died of incidental causes not related to the pregnancy or its management, 103 (42.2%) deaths were found to be directly due to pregnancy or its management, and 66 (27.0%) were found to result from pre-existing disease or disease which developed during pregnancy (not due to direct obstetric causes), but which may have been aggravated by the physiological effects of pregnancy (Table 22). Table 23 shows maternal deaths by cause in NSW for 2017.

**TABLE 22: MATERNAL DEATHS BY CLASSIFICATION, NSW 1990–2017<sup>#</sup>**

Year	Classification									
	Direct		Indirect		Total Direct & Indirect		Incidental		TOTAL	
	No.	Ratio/100,000	No.	Ratio/100,000	No.	Ratio/100,000	No.	Ratio/100,000	No.	Ratio/100,000
1990	4	4.6	6	6.9	10	11.6	2	2.3	12	13.9
1991	4	4.7	1	1.2	5	5.8	1	1.2	6	7.0
1992	5	5.7	1	1.1	6	6.8	5	5.7	11	12.5
1993	6	6.9	1	1.2	7	8.1	6	6.9	13	15.0
1994	8	9.2	1	1.2	9	10.4	3	3.5	12	13.8
1995	7	8.1	2	2.3	9	10.4	6	7.0	15	17.4
1996	6	7.0	1	1.2	7	8.2	5	5.9	12	14.1
1997	7	8.1	2	2.3	9	10.5	5	5.8	14	16.1
1998	4	4.7	4	4.7	8	9.4	3	3.5	11	12.9
1999 <sup>†</sup>	4	4.7	1	1.2	5	5.8	6	7.0	12	14.0
2000	4	4.7	5	5.9	9	10.7	1	1.2	10	11.9
2001	4	4.7	4	4.7	8	9.5	1	1.2	9	10.7
2002	2	2.4	2	2.4	4	4.7	1	1.2	5	5.9
2003	1	1.2	3	3.5	4	4.7	3	3.5	7	8.2
2004 <sup>†</sup>	2	2.3	2	2.3	4	4.7	2	2.3	7	8.2
2005 <sup>†</sup>	4	4.5	4	4.5	8	9.0	2	2.2	11	12.3
2006	4	4.4	3	3.3	7	7.7	3	3.3	10	11.0
2007	1	1.1	0	0.0	1	1.1	0	0.0	1	1.1
2008	0	0.0	4	4.2	4	4.2	1	1.1	5	5.3
2009	5	5.3	2	2.1	7	7.4	3	3.2	10	10.5
2010	4	4.2	2	2.1	6	6.3	2	2.1	8	8.4
2011	3	3.1	5	5.2	8	8.3	2	2.1	10	10.4
2012	3	3.1	2	2.0	5	5.1	2	2.0	7	7.1
2013	2	2.1	1	1.0	3	3.1	2	2.1	5	5.2
2014	4	4.2	1	1.0	5	5.2	2	2.1	7	7.3
2015 <sup>†</sup>	3	3.2	0	0.0	3	3.2	0	0.0	4	4.2
2016	2	2.1	3	3.1	5	5.1	0	0.0	5	5.1
2017	0	0.0	3	3.2	3	3.2	2	2.1	5	5.3

Source: NSW Maternal and Perinatal Mortality Review Committee.

<sup>#</sup> Includes all deaths of women who were pregnant at the time of death, or who died within 42 days of childbirth. Direct deaths include those resulting from obstetric complications of the pregnant state, including its management. Indirect deaths include those resulting from pre-existing disease or disease which developed during pregnancy and was not due to direct obstetric causes but which may have been aggravated by the physiological effects of pregnancy. Incidental deaths are those where the pregnancy is unlikely to have contributed significantly to the death.<sup>2</sup>

<sup>†</sup> Totals for the year include one death that was unable to be classified.

**TABLE 23: MATERNAL DEATHS BY CAUSE, NSW 2017<sup>#</sup>**

Classification	Cause	No.
Indirect	Stroke	1
Indirect	Suicide by hanging	1
Indirect	Hypoxic ischaemic encephalopathy complicating epilepsy	1
Incidental	Hepatocellular carcinoma	1
Incidental	Metastatic adenocarcinoma of gastrointestinal tract	1
<b>TOTAL</b>		<b>5</b>

Source: NSW Maternal and Perinatal Mortality Review Committee.

<sup>#</sup> Includes all deaths of women who were pregnant at the time of death, or who died within 42 days of childbirth. Direct deaths include those resulting from obstetric complications of the pregnant state, including its management. Indirect deaths include those resulting from pre-existing disease or disease which developed during pregnancy and was not due to direct obstetric causes but which may have been aggravated by the physiological effects of pregnancy. Incidental deaths are those where the pregnancy is unlikely to have contributed significantly to the death.<sup>2</sup>

## References

1. Australasian Diabetes in Pregnancy Society. *ADIPS Consensus Guidelines for the Testing and Diagnosis of Gestational Diabetes Mellitus in Australia 2014*. Available at <http://www.adips.org>. Accessed 30 August 2019.
2. Australian Institute of Health and Welfare. *Maternal deaths in Australia 2016*. Cat. No. PER 99. Canberra: AIHW, 2018.

## 5. LOCAL HEALTH DISTRICTS

Information on the health of Aboriginal and Torres Strait Islander mothers and babies by local health district is shown in Chapter 8.

### Confinements

The largest numbers of mothers who gave birth in 2018 were resident in the Western Sydney Local Health District ( $n = 14,982$ , 15.9%), followed by the South Western Sydney Local Health District ( $n = 14,258$ , 15.1%) and the Hunter New England Local Health District ( $n = 10,407$ , 11.1%).

### Maternal age

In 2018, the proportion of women giving birth at less than 20 years of age varied from 0.1% in the Northern Sydney Local Health District to 4.8% in the Western NSW Local Health District, while the proportion of mothers giving birth at 35 years of age or more ranged from 13.8% in the Far West Local Health District to 41.1% in the Northern Sydney Local Health District (Table 24).

TABLE 24: MATERNAL AGE BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2018

Local Health District	Maternal age (years)																	
	12–19		20–24		25–29		30–34		35–39		40–44		45+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	34	0.4	363	4.7	1423	18.4	3118	40.4	2249	29.1	491	6.4	46	0.6	1	0.0	7725	100.0
South Western Sydney	262	1.8	1951	13.7	4226	29.6	4885	34.3	2368	16.6	526	3.7	39	0.3	1	0.0	14258	100.0
South Eastern Sydney	41	0.4	408	4.0	1955	19.1	4143	40.6	2925	28.6	672	6.6	68	0.7	4	0.0	10216	100.0
Illawarra Shoalhaven	108	2.4	553	12.1	1365	29.8	1622	35.4	787	17.2	141	3.1	8	0.2	0	0.0	4584	100.0
Western Sydney	200	1.3	1422	9.5	4156	27.7	5686	38.0	2957	19.7	517	3.5	43	0.3	1	0.0	14982	100.0
Nepean Blue Mountains	138	2.8	663	13.6	1555	31.9	1656	33.9	703	14.4	150	3.1	11	0.2	2	0.0	4878	100.0
Northern Sydney	13	0.1	190	2.0	1389	14.4	4099	42.4	3196	33.1	711	7.4	61	0.6	0	0.0	9659	100.0
Central Coast	101	2.6	489	12.8	1113	29.0	1305	34.0	678	17.7	130	3.4	13	0.3	5	0.1	3834	100.0
Hunter New England	390	3.7	1644	15.8	3145	30.2	3350	32.2	1538	14.8	316	3.0	24	0.2	0	0.0	10407	100.0
Northern NSW	75	2.9	430	16.4	737	28.1	836	31.9	449	17.1	88	3.4	8	0.3	0	0.0	2623	100.0
Mid North Coast	85	4.1	374	17.8	607	29.0	692	33.0	277	13.2	56	2.7	5	0.2	0	0.0	2096	100.0
Southern NSW	51	3.6	203	14.5	455	32.4	442	31.5	212	15.1	40	2.9	0	0.0	0	0.0	1403	100.0
Murrumbidgee	104	4.4	422	17.7	764	32.0	743	31.1	310	13.0	43	1.8	4	0.2	0	0.0	2390	100.0
Western NSW	169	4.8	674	19.1	1133	32.2	1029	29.2	421	11.9	92	2.6	5	0.1	1	0.0	3524	100.0
Far West	7	3.6	41	20.9	69	35.2	52	26.5	24	12.2	3	1.5	0	0.0	0	0.0	196	100.0
Other-not stated	14	1.0	144	10.3	489	35.1	471	33.8	226	16.2	46	3.3	4	0.3	1	0.1	1395	100.0
TOTAL	1792	1.9	9971	10.6	24581	26.1	34129	36.2	19320	20.5	4022	4.3	339	0.4	16	0.0	94170	100.0

Source: NSW Perinatal Data Collection (SAPHaRI), Centre for Epidemiology and Evidence, NSW Ministry of Health.



## Maternal country of birth

Sixty-eight per cent of women who gave birth in NSW in 2018 were born in English speaking countries, 20.7% were born in Asian countries, and 5.4% were born in the Middle East or Africa (Table 25). The highest proportions of mothers born in non-English speaking countries were in the Western Sydney, Sydney and South Western Sydney Local Health Districts.

**TABLE 25: MATERNAL COUNTRY OF BIRTH BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2018**

Local Health District	Country of birth group																					
	English speaking		Central & South America		Melanesia, Micronesia & Polynesia		Southern Europe		Western & Northern Europe		Eastern Europe, Russia, Central Asian & Baltic States		Middle East & Africa		South East Asia		North East Asia		Southern Asia		TOTAL†	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	4239	54.9	106	1.4	62	0.8	135	1.7	109	1.4	126	1.6	374	4.8	645	8.3	1011	13.1	902	11.7	7725	100.0
South Western Sydney	8194	57.5	134	0.9	383	2.7	209	1.5	57	0.4	113	0.8	2183	15.3	1547	10.9	346	2.4	1079	7.6	14258	100.0
South Eastern Sydney	6644	65.0	255	2.5	56	0.5	200	2.0	230	2.3	242	2.4	307	3.0	673	6.6	917	9.0	633	6.2	10216	100.0
Illawarra Shoalhaven	4050	88.4	33	0.7	13	0.3	40	0.9	27	0.6	20	0.4	126	2.7	109	2.4	63	1.4	96	2.1	4584	100.0
Western Sydney	6366	42.5	100	0.7	309	2.1	99	0.7	53	0.4	427	2.9	1387	9.3	989	6.6	1568	10.5	3642	24.3	14982	100.0
Nepean Blue Mountains	4158	85.2	17	0.3	68	1.4	20	0.4	17	0.3	27	0.6	111	2.3	142	2.9	54	1.1	252	5.2	4878	100.0
Northern Sydney	5559	57.6	304	3.1	43	0.4	155	1.6	216	2.2	205	2.1	298	3.1	605	6.3	1475	15.3	722	7.5	9659	100.0
Central Coast	3468	90.5	22	0.6	9	0.2	10	0.3	28	0.7	26	0.7	30	0.8	86	2.2	59	1.5	85	2.2	3834	100.0
Hunter New England	9617	92.4	29	0.3	26	0.2	22	0.2	51	0.5	37	0.4	99	1.0	195	1.9	105	1.0	216	2.1	10407	100.0
Northern NSW	2399	91.5	28	1.1	9	0.3	7	0.3	30	1.1	15	0.6	18	0.7	44	1.7	30	1.1	32	1.2	2623	100.0
Mid North Coast	1880	89.7	6	0.3	6	0.3	1	0.0	13	0.6	8	0.4	33	1.6	54	2.6	22	1.0	69	3.3	2096	100.0
Southern NSW	1267	90.3	6	0.4	3	0.2	9	0.6	9	0.6	6	0.4	9	0.6	22	1.6	10	0.7	61	4.3	1403	100.0
Murrumbidgee	2131	89.2	2	0.1	24	1.0	1	0.0	5	0.2	9	0.4	36	1.5	63	2.6	19	0.8	100	4.2	2390	100.0
Western NSW	3274	92.9	5	0.1	2	0.1	0	0.0	13	0.4	6	0.2	26	0.7	37	1.0	26	0.7	124	3.5	3524	100.0
Far West	186	94.9	0	0.0	1	0.5	0	0.0	0	0.0	0	0.0	2	1.0	2	1.0	2	1.0	3	1.5	196	100.0
Other-not stated	584	41.9	41	2.9	28	2.0	18	1.3	22	1.6	22	1.6	78	5.6	192	13.8	152	10.9	247	17.7	1395	100.0
TOTAL	64016	68.0	1088	1.2	1042	1.1	926	1.0	880	0.9	1289	1.4	5117	5.4	5405	5.7	5859	6.2	8263	8.8	94170	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

† Includes 285 mothers in NSW for whom country of birth was not stated. Maternal countries of birth and birth groups are shown in Appendix 3.

## Aboriginal and Torres Strait Islander mothers

In 2018, 4.5% of mothers were reported to be Aboriginal or Torres Strait Islander (Table 26). The reported proportion of Aboriginal or Torres Strait Islander mothers varied from 0.4% in the Northern Sydney Local Health District to 17.0% in the Western NSW Local Health District.

**TABLE 26: ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2018**

Local Health District	Aboriginal and Torres Strait Islander mothers							
	Aboriginal or Torres Strait Islander		Non-Aboriginal or Torres Strait Islander		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Sydney	110	1.4	7591	98.3	24	0.3	7725	100.0
South Western Sydney	351	2.5	13889	97.4	18	0.1	14258	100.0
South Eastern Sydney	122	1.2	10048	98.4	46	0.5	10216	100.0
Illawarra Shoalhaven	262	5.7	4321	94.3	1	0.0	4584	100.0
Western Sydney	287	1.9	14667	97.9	28	0.2	14982	100.0
Nepean Blue Mountains	234	4.8	4603	94.4	41	0.8	4878	100.0
Northern Sydney	36	0.4	9566	99.0	57	0.6	9659	100.0
Central Coast	242	6.3	3586	93.5	6	0.2	3834	100.0
Hunter New England	1086	10.4	9290	89.3	31	0.3	10407	100.0
Northern NSW	228	8.7	2391	91.2	4	0.2	2623	100.0
Mid North Coast	266	12.7	1823	87.0	7	0.3	2096	100.0
Southern NSW	97	6.9	1301	92.7	5	0.4	1403	100.0
Murrumbidgee	233	9.7	2156	90.2	1	0.0	2390	100.0
Western NSW	599	17.0	2919	82.8	6	0.2	3524	100.0
Far West	31	15.8	165	84.2	0	0.0	196	100.0
Other-not stated	29	2.1	1355	97.1	11	0.8	1395	100.0
<b>TOTAL</b>	<b>4213</b>	<b>4.5</b>	<b>89671</b>	<b>95.2</b>	<b>286</b>	<b>0.3</b>	<b>94170</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

## Duration of pregnancy at first antenatal visit

In 2018, 92.0% of mothers commenced antenatal care prior to 20 weeks gestation and 77.6% commenced antenatal care prior to 14 weeks gestation. The percentage of mothers commencing antenatal care prior to 20 weeks gestation varied from 80.0% in the Southern NSW Local Health District to 96.4% in the Northern Sydney Local Health District (Table 27).

**TABLE 27: DURATION OF PREGNANCY AT FIRST ANTENATAL VISIT BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2018**

Local Health District	Duration of pregnancy at first antenatal visit (weeks)									
	0–13		14–19		20+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	6310	81.7	1033	13.4	324	4.2	58	0.8	7725	100.0
South Western Sydney	10215	71.6	2439	17.1	1455	10.2	149	1.0	14258	100.0
South Eastern Sydney	7506	73.5	2142	21.0	508	5.0	60	0.6	10216	100.0
Illawarra Shoalhaven	3201	69.8	985	21.5	384	8.4	14	0.3	4584	100.0
Western Sydney	10807	72.1	2438	16.3	1670	11.1	67	0.4	14982	100.0
Nepean Blue Mountains	3892	79.8	709	14.5	255	5.2	22	0.5	4878	100.0
Northern Sydney	8202	84.9	1113	11.5	253	2.6	91	0.9	9659	100.0
Central Coast	3191	83.2	475	12.4	151	3.9	17	0.4	3834	100.0
Hunter New England	9115	87.6	700	6.7	558	5.4	34	0.3	10407	100.0
Northern NSW	2272	86.6	199	7.6	144	5.5	8	0.3	2623	100.0
Mid North Coast	1807	86.2	136	6.5	150	7.2	3	0.1	2096	100.0
Southern NSW	869	61.9	253	18.0	277	19.7	4	0.3	1403	100.0
Murrumbidgee	1864	78.0	251	10.5	258	10.8	17	0.7	2390	100.0
Western NSW	2731	77.5	442	12.5	333	9.4	18	0.5	3524	100.0
Far West	114	58.2	67	34.2	14	7.1	1	0.5	196	100.0
Other-not stated	1014	72.7	164	11.8	198	14.2	19	1.4	1395	100.0
TOTAL	73110	77.6	13546	14.4	6932	7.4	582	0.6	94170	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

## Smoking in pregnancy

In 2018, 9.1% of mothers reported smoking at all during pregnancy. The percentage of mothers that reported smoking at all during pregnancy varied from 1.4% in the Northern Sydney Local Health District to 31.1% in the Far West Local Health District (Table 28). A total of 7.2% of mothers reported smoking in the second half of pregnancy. The lowest rate was reported among mothers living in the Northern Sydney Local Health District (0.7%) and the highest rate was reported among residents of the Far West Local Health District (28.1%).

**TABLE 28: SMOKING IN PREGNANCY BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2018**

Local Health District	Smoking during pregnancy							
	Smoked in first half of pregnancy		Smoked in second half of pregnancy		Smoked at all during pregnancy		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Sydney	205	2.7	132	1.7	215	2.8	7725	100.0
South Western Sydney	1145	8.0	816	5.7	1203	8.4	14258	100.0
South Eastern Sydney	348	3.4	239	2.3	355	3.5	10216	100.0
Illawarra Shoalhaven	527	11.5	450	9.8	555	12.1	4584	100.0
Western Sydney	974	6.5	841	5.6	1010	6.7	14982	100.0
Nepean Blue Mountains	593	12.2	529	10.8	615	12.6	4878	100.0
Northern Sydney	135	1.4	69	0.7	138	1.4	9659	100.0
Central Coast	488	12.7	418	10.9	518	13.5	3834	100.0
Hunter New England	1600	15.4	1381	13.3	1676	16.1	10407	100.0
Northern NSW	350	13.3	296	11.3	373	14.2	2623	100.0
Mid North Coast	367	17.5	337	16.1	396	18.9	2096	100.0
Southern NSW	217	15.5	176	12.5	223	15.9	1403	100.0
Murrumbidgee	420	17.6	393	16.4	444	18.6	2390	100.0
Western NSW	666	18.9	615	17.5	703	19.9	3524	100.0
Far West	59	30.1	55	28.1	61	31.1	196	100.0
Other-not stated	71	5.1	56	4.1	78	5.6	1395	100.0
TOTAL	8165	8.7	6803	7.2	8563	9.1	94170	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

## Maternal overweight and obesity

In 2018, 56.6% of mothers were in the healthy weight range, 25.0% were overweight and 14.6% were obese. The percentage of mothers that were overweight or obese varied from 24.2% in the Northern Sydney Local Health District to 52.6% in the Far West Local Health District (Table 29).

**TABLE 29: MATERNAL BMI CATEGORIES BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2018**

Local Health District	Body Mass Index*											
	Underweight		Healthy weight		Overweight		Obese		Overweight or obese		TOTAL*	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	334	4.7	4609	65.3	1533	21.7	578	8.2	2111	29.9	7054	100.0
South Western Sydney	412	3.2	6294	49.3	3669	28.7	2403	18.8	6072	47.5	12778	100.0
South Eastern Sydney	380	4.2	6103	67.9	1796	20.0	707	7.9	2503	27.9	8986	100.0
Illawarra Shoalhaven	145	3.8	2145	55.7	980	25.4	584	15.2	1564	40.6	3854	100.0
Western Sydney	494	3.6	7439	54.1	3793	27.6	2037	14.8	5830	42.4	13763	100.0
Nepean Blue Mountains	134	3.1	1975	45.4	1317	30.2	929	21.3	2246	51.6	4355	100.0
Northern Sydney	443	5.0	6260	70.8	1599	18.1	539	6.1	2138	24.2	8841	100.0
Central Coast	110	3.2	1874	54.1	899	26.0	580	16.7	1479	42.7	3463	100.0
Hunter New England	310	3.5	4335	48.8	2465	27.8	1772	20.0	4237	47.7	8882	100.0
Northern NSW	133	5.5	1455	60.4	443	18.4	378	15.7	821	34.1	2409	100.0
Mid North Coast	58	3.1	1026	54.4	470	24.9	333	17.6	803	42.6	1887	100.0
Southern NSW	32	2.5	696	53.6	368	28.3	203	15.6	571	44.0	1299	100.0
Murrumbidgee	45	2.1	1005	47.1	611	28.6	472	22.1	1083	50.8	2133	100.0
Western NSW	111	3.5	1587	50.5	807	25.7	638	20.3	1445	46.0	3143	100.0
Far West	5	2.9	78	44.6	54	30.9	38	21.7	92	52.6	175	100.0
Other-not stated	61	4.8	814	63.5	291	22.7	115	9.0	406	31.7	1281	100.0
TOTAL	3207	3.8	47695	56.6	21095	25.0	12306	14.6	33401	39.6	84303	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Mothers under the age of 18 were assigned BMI categories using the Cole et al method. See Appendix 2: Explanatory notes for further information.

\* Biologically implausible and missing height, weight, or BMI values (10.5% of all records) were excluded from the analysis.

## Place of birth

Eighty-nine per cent of mothers chose to give birth in a hospital birthing suite in 2018, compared to 9.8% who planned a birth centre birth and 0.3% who planned a home birth (Table 30). Planned birth centre births were most commonly reported in the Southern NSW Local Health District (18.7%).

**TABLE 30: PLACE OF BIRTH BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2018**

Local Health District	Place of birth													
	Hospital		Birth centre		Planned birth centre-hospital admission		Planned homebirth		Planned homebirth-hospital admission		Born before arrival		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	7445	96.4	215	2.8	34	0.4	9	0.1	0	0.0	21	0.3	7725	100.0
South Western Sydney	14004	98.2	70	0.5	82	0.6	14	0.1	1	0.0	87	0.6	14258	100.0
South Eastern Sydney	9266	90.7	681	6.7	201	2.0	26	0.3	3	0.0	38	0.4	10216	100.0
Illawarra Shoalhaven	4278	93.3	136	3.0	133	2.9	14	0.3	2	0.0	21	0.5	4584	100.0
Western Sydney	12963	86.5	1084	7.2	823	5.5	9	0.1	15	0.1	87	0.6	14982	100.0
Nepean Blue Mountains	4259	87.3	358	7.3	222	4.6	13	0.3	3	0.1	21	0.4	4878	100.0
Northern Sydney	8778	90.9	328	3.4	392	4.1	27	0.3	9	0.1	46	0.5	9659	100.0
Central Coast	3196	83.4	404	10.5	186	4.9	5	0.1	1	0.0	41	1.1	3834	100.0
Hunter New England	8469	81.4	1140	11.0	661	6.4	52	0.5	8	0.1	77	0.7	10407	100.0
Northern NSW	2162	82.4	234	8.9	148	5.6	38	1.4	8	0.3	30	1.1	2623	100.0
Mid North Coast	1801	85.9	86	4.1	196	9.4	0	0.0	2	0.1	11	0.5	2096	100.0
Southern NSW	1125	80.2	117	8.3	145	10.3	5	0.4	2	0.1	9	0.6	1403	100.0
Murrumbidgee	1959	82.0	177	7.4	230	9.6	0	0.0	6	0.3	18	0.8	2390	100.0
Western NSW	2917	82.8	250	7.1	332	9.4	0	0.0	6	0.2	19	0.5	3524	100.0
Far West	160	81.6	19	9.7	16	8.2	1	0.5	0	0.0	0	0.0	196	100.0
Other-not stated	1248	89.5	52	3.7	60	4.3	22	1.6	0	0.0	13	0.9	1395	100.0
TOTAL	84030	89.2	5351	5.7	3861	4.1	235	0.2	66	0.1	539	0.6	94170	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

## Labour

In 2018, the onset of labour was spontaneous in 44.0% of confinements (Table 31). Labour was induced in 33.7% of confinements and no labour (elective caesarean section) was reported in 22.2%. The rate of spontaneous onset of labour was highest among residents of the Far West Local Health District (56.6%). The highest rate of induction of labour was among residents of the Illawarra Shoalhaven Local Health District (37.8%).

**TABLE 31: ONSET AND AUGMENTATION OF LABOUR BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2018**

Local Health District	Onset of labour																			
	Spontaneous		Spontaneous augmented with ARM		Spontaneous augmented with oxytocics†		No labour		Induced – oxytocics/ prostaglandins		Induced – ARM only		Induced – ARM + oxytocics/ prostaglandins		Induced – other‡		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	1982	25.7	366	4.7	811	10.5	1892	24.5	1115	14.4	364	4.7	1153	14.9	41	0.5	1	0.0	7725	100.0
South Western Sydney	4773	33.5	1097	7.7	1103	7.7	2717	19.1	2564	18.0	581	4.1	1281	9.0	136	1.0	6	0.0	14258	100.0
South Eastern Sydney	2914	28.5	547	5.4	826	8.1	2466	24.1	1219	11.9	249	2.4	1980	19.4	14	0.1	1	0.0	10216	100.0
Illawarra Shoalhaven	1381	30.1	162	3.5	288	6.3	1019	22.2	459	10.0	79	1.7	1181	25.8	15	0.3	0	0.0	4584	100.0
Western Sydney	4633	30.9	855	5.7	1195	8.0	3368	22.5	1543	10.3	168	1.1	3166	21.1	53	0.4	1	0.0	14982	100.0
Nepean Blue Mountains	1464	30.0	203	4.2	233	4.8	1133	23.2	771	15.8	78	1.6	973	19.9	17	0.3	6	0.1	4878	100.0
Northern Sydney	2800	29.0	456	4.7	869	9.0	2575	26.7	1041	10.8	210	2.2	1675	17.3	31	0.3	2	0.0	9659	100.0
Central Coast	1202	31.4	161	4.2	256	6.7	883	23.0	455	11.9	57	1.5	814	21.2	6	0.2	0	0.0	3834	100.0
Hunter New England	3309	31.8	411	3.9	560	5.4	2254	21.7	1312	12.6	310	3.0	2214	21.3	31	0.3	6	0.1	10407	100.0
Northern NSW	1142	43.5	103	3.9	178	6.8	357	13.6	302	11.5	55	2.1	483	18.4	2	0.1	1	0.0	2623	100.0
Mid North Coast	735	35.1	93	4.4	120	5.7	477	22.8	219	10.4	41	2.0	408	19.5	3	0.1	0	0.0	2096	100.0
Southern NSW	631	45.0	55	3.9	95	6.8	236	16.8	137	9.8	42	3.0	205	14.6	2	0.1	0	0.0	1403	100.0
Murrumbidgee	847	35.4	106	4.4	153	6.4	554	23.2	310	13.0	51	2.1	358	15.0	11	0.5	0	0.0	2390	100.0
Western NSW	1192	33.8	150	4.3	209	5.9	782	22.2	354	10.0	99	2.8	721	20.5	17	0.5	0	0.0	3524	100.0
Far West	80	40.8	16	8.2	15	7.7	22	11.2	20	10.2	4	2.0	39	19.9	0	0.0	0	0.0	196	100.0
Other-not stated	428	30.7	77	5.5	167	12.0	216	15.5	219	15.7	49	3.5	221	15.8	17	1.2	1	0.1	1395	100.0
TOTAL	29513	31.3	4858	5.2	7078	7.5	20951	22.2	12040	12.8	2437	2.6	16872	17.9	396	0.4	25	0.0	94170	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

ARM: Artificial Rupture of Membranes.

<sup>†</sup> May include artificial rupture of membranes.

<sup>‡</sup> This category includes other forms of induction such as Foley's catheter.

## Type of birth

Fifty-four per cent of births were normal vaginal births in 2018, 11.6% were instrumental and 34.4% were by caesarean section (Table 32). The highest rate of normal vaginal birth was 70.4% among residents of the Far West Local Health District, while the highest rate of instrumental birth was 15.9% among residents of the Sydney Local Health District. The caesarean section rate varied from 23.5% among mothers resident in the Far West Local Health District to 39.2% in the Northern Sydney Local Health District.

TABLE 32: TYPE OF BIRTH BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2018

Local Health District	Type of birth															
	Normal vaginal		Forceps		Vacuum extraction		Vaginal breech		Elective caesarean section		Emergency caesarean section†		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	3507	45.4	495	6.4	733	9.5	19	0.2	1892	24.5	1079	14.0	0	0.0	7725	100.0
South Western Sydney	8555	60.0	482	3.4	966	6.8	58	0.4	2717	19.1	1480	10.4	0	0.0	14258	100.0
South Eastern Sydney	4715	46.2	690	6.8	901	8.8	29	0.3	2466	24.1	1415	13.9	0	0.0	10216	100.0
Illawarra Shoalhaven	2503	54.6	176	3.8	303	6.6	12	0.3	1019	22.2	571	12.5	0	0.0	4584	100.0
Western Sydney	8311	55.5	662	4.4	895	6.0	80	0.5	3368	22.5	1666	11.1	0	0.0	14982	100.0
Nepean Blue Mountains	2600	53.3	121	2.5	342	7.0	16	0.3	1133	23.2	666	13.7	0	0.0	4878	100.0
Northern Sydney	4529	46.9	617	6.4	705	7.3	22	0.2	2575	26.7	1211	12.5	0	0.0	9659	100.0
Central Coast	2021	52.7	225	5.9	232	6.1	8	0.2	883	23.0	465	12.1	0	0.0	3834	100.0
Hunter New England	5861	56.3	382	3.7	563	5.4	30	0.3	2254	21.7	1317	12.7	0	0.0	10407	100.0
Northern NSW	1715	65.4	119	4.5	152	5.8	14	0.5	357	13.6	264	10.1	2	0.1	2623	100.0
Mid North Coast	1177	56.2	64	3.1	100	4.8	11	0.5	477	22.8	267	12.7	0	0.0	2096	100.0
Southern NSW	843	60.1	48	3.4	108	7.7	2	0.1	236	16.8	166	11.8	0	0.0	1403	100.0
Murrumbidgee	1305	54.6	56	2.3	166	6.9	5	0.2	554	23.2	304	12.7	0	0.0	2390	100.0
Western NSW	1959	55.6	153	4.3	221	6.3	13	0.4	782	22.2	396	11.2	0	0.0	3524	100.0
Far West	138	70.4	6	3.1	4	2.0	2	1.0	22	11.2	24	12.2	0	0.0	196	100.0
Other-not stated	712	51.0	90	6.5	158	11.3	12	0.9	216	15.5	207	14.8	0	0.0	1395	100.0
TOTAL	50451	53.6	4386	4.7	6549	7.0	333	0.4	20951	22.2	11498	12.2	2	0.0	94170	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

† Emergency caesarean section includes caesarean sections where the onset of labour was not stated.

## Birth weight

In 2018, 6.8% of babies were low birth weight (less than 2,500 grams). These comprised 0.7% of babies with a birth weight less than 1,000 grams, 0.5% in the 1,000 to 1,499 gram range and 5.6% in the 1,500 to 2,499 gram range (Table 33). Rates of low birth weight ranged from 3.4% in the Southern NSW Local Health District to 7.5% in the Mid North Coast and Hunter New England Local Health Districts.

TABLE 33: BIRTH WEIGHT BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2018

Local Health District	Birth weight (grams)																							
	Less than 500		500–999		1,000–1,499		1,500–1,999		2,000–2,499		2,500–2,999		3,000–3,499		3,500–3,999		4,000–4,499		4,500+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	20	0.3	42	0.5	31	0.4	110	1.4	368	4.7	1579	20.2	3180	40.6	2031	25.9	427	5.4	31	0.4	16	0.2	7835	100.0
South Western Sydney	32	0.2	77	0.5	69	0.5	190	1.3	651	4.5	2530	17.5	5551	38.4	4037	27.9	1111	7.7	177	1.2	25	0.2	14450	100.0
South Eastern Sydney	26	0.2	41	0.4	52	0.5	134	1.3	445	4.3	1717	16.5	4247	40.8	2939	28.3	708	6.8	72	0.7	21	0.2	10402	100.0
Illawarra Shoalhaven	11	0.2	21	0.5	31	0.7	45	1.0	211	4.5	683	14.7	1705	36.6	1473	31.6	431	9.3	44	0.9	1	0.0	4656	100.0
Western Sydney	45	0.3	82	0.5	95	0.6	208	1.4	693	4.6	2863	18.8	6040	39.8	3987	26.2	982	6.5	172	1.1	24	0.2	15191	100.0
Nepean Blue Mountains	12	0.2	18	0.4	27	0.5	65	1.3	205	4.1	776	15.7	1768	35.7	1527	30.8	466	9.4	78	1.6	10	0.2	4952	100.0
Northern Sydney	18	0.2	38	0.4	38	0.4	99	1.0	375	3.8	1640	16.7	4014	40.9	2754	28.1	713	7.3	97	1.0	25	0.3	9811	100.0
Central Coast	6	0.2	20	0.5	18	0.5	49	1.3	184	4.7	552	14.1	1387	35.5	1211	31.0	402	10.3	69	1.8	5	0.1	3903	100.0
Hunter New England	27	0.3	46	0.4	79	0.7	164	1.6	479	4.5	1538	14.6	3670	34.8	3346	31.7	1059	10.0	136	1.3	17	0.2	10561	100.0
Northern NSW	6	0.2	5	0.2	7	0.3	36	1.4	89	3.4	368	13.9	918	34.6	878	33.1	296	11.2	41	1.5	10	0.4	2654	100.0
Mid North Coast	4	0.2	7	0.3	12	0.6	23	1.1	113	5.3	345	16.2	744	35.0	625	29.4	219	10.3	25	1.2	7	0.3	2124	100.0
Southern NSW	3	0.2	3	0.2	3	0.2	2	0.1	37	2.6	190	13.5	505	35.8	495	35.1	143	10.1	29	2.1	2	0.1	1412	100.0
Murrumbidgee	6	0.2	2	0.1	0	0.0	19	0.8	103	4.2	340	14.0	900	37.1	763	31.5	245	10.1	38	1.6	10	0.4	2426	100.0
Western NSW	9	0.3	10	0.3	19	0.5	63	1.8	142	4.0	569	15.9	1316	36.9	1066	29.9	325	9.1	43	1.2	9	0.3	3571	100.0
Far West	2	1.0	1	0.5	0	0.0	0	0.0	8	4.1	29	14.7	68	34.5	63	32.0	23	11.7	3	1.5	0	0.0	197	100.0
Other—not stated	7	0.5	11	0.8	7	0.5	17	1.2	60	4.3	226	16.1	562	39.9	382	27.1	121	8.6	11	0.8	3	0.2	1407	100.0
TOTAL	234	0.2	424	0.4	488	0.5	1224	1.3	4163	4.4	15945	16.7	36575	38.3	27577	28.9	7671	8.0	1066	1.1	185	0.2	95552	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

## Gestational age

The majority of births (91.5%) were at term, and 0.8% were post-term (42-plus weeks). The 7.7% of preterm births comprised 0.7% born at less than 28 weeks, 0.6% at 28–31 weeks, and 6.3% at 32–36 weeks. The highest rate of preterm birth was 8.6% in the Sydney Local Health District, while the lowest was 3.5% in the Southern NSW Local Health District (Table 34).

**TABLE 34: GESTATIONAL AGE BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2018**

Local Health District	Gestational age (weeks)													
	< 28		28–31		32–36		37–41		42+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	66	0.8	54	0.7	557	7.1	7140	91.1	12	0.2	6	0.1	7835	100.0
South Western Sydney	116	0.8	89	0.6	1002	6.9	13219	91.5	19	0.1	5	0.0	14450	100.0
South Eastern Sydney	72	0.7	56	0.5	631	6.1	9566	92.0	73	0.7	4	0.0	10402	100.0
Illawarra Shoalhaven	27	0.6	36	0.8	330	7.1	4230	90.9	33	0.7	0	0.0	4656	100.0
Western Sydney	142	0.9	109	0.7	817	5.4	14034	92.4	87	0.6	2	0.0	15191	100.0
Nepean Blue Mountains	32	0.6	30	0.6	352	7.1	4504	91.0	27	0.5	7	0.1	4952	100.0
Northern Sydney	58	0.6	47	0.5	524	5.3	9084	92.6	75	0.8	23	0.2	9811	100.0
Central Coast	27	0.7	21	0.5	268	6.9	3497	89.6	85	2.2	5	0.1	3903	100.0
Hunter New England	78	0.7	96	0.9	722	6.8	9512	90.1	149	1.4	4	0.0	10561	100.0
Northern NSW	11	0.4	13	0.5	132	5.0	2415	91.0	77	2.9	6	0.2	2654	100.0
Mid North Coast	17	0.8	14	0.7	149	7.0	1922	90.5	22	1.0	0	0.0	2124	100.0
Southern NSW	6	0.4	2	0.1	41	2.9	1336	94.6	27	1.9	0	0.0	1412	100.0
Murrumbidgee	9	0.4	1	0.0	157	6.5	2229	91.9	29	1.2	1	0.0	2426	100.0
Western NSW	21	0.6	30	0.8	252	7.1	3244	90.8	24	0.7	0	0.0	3571	100.0
Far West	2	1.0	0	0.0	6	3.0	189	95.9	0	0.0	0	0.0	197	100.0
Other-not stated	21	1.5	10	0.7	71	5.0	1286	91.4	16	1.1	3	0.2	1407	100.0
TOTAL	705	0.7	608	0.6	6011	6.3	87407	91.5	755	0.8	66	0.1	95552	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

## Hepatitis B

Ninety-four per cent of babies born in NSW in 2018 were given a hepatitis B vaccination at birth. The highest rate of hepatitis B vaccinations at birth was 97.3% in the Murrumbidgee Local Health District, while the lowest was 77.6% in the Northern NSW Local Health District (Table 35).

**TABLE 35: HEPATITIS B DOSE GIVEN TO LIVEBORN BABIES BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2018**

Local Health District	Hepatitis B dose given							
	No		Yes		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Sydney	450	5.8	7276	93.4	61	0.8	7787	100.0
South Western Sydney	404	2.8	13415	93.4	539	3.8	14358	100.0
South Eastern Sydney	990	9.6	9340	90.3	19	0.2	10349	100.0
Illawarra Shoalhaven	201	4.3	4428	95.6	1	0.0	4630	100.0
Western Sydney	530	3.5	14529	96.4	13	0.1	15072	100.0
Nepean Blue Mountains	198	4.0	4718	95.7	12	0.2	4928	100.0
Northern Sydney	738	7.6	9019	92.3	10	0.1	9767	100.0
Central Coast	222	5.7	3655	94.2	2	0.1	3879	100.0
Hunter New England	420	4.0	10052	95.9	14	0.1	10486	100.0
Northern NSW	584	22.1	2048	77.6	7	0.3	2639	100.0
Mid North Coast	212	10.0	1899	90.0	0	0.0	2111	100.0
Southern NSW	103	7.3	1302	92.6	1	0.1	1406	100.0
Murrumbidgee	64	2.7	2348	97.3	2	0.1	2414	100.0
Western NSW	102	2.9	3445	97.0	3	0.1	3550	100.0
Far West	6	3.1	188	96.9	0	0.0	194	100.0
Other-not stated	129	9.3	1245	89.8	13	0.9	1387	100.0
TOTAL	5353	5.6	88907	93.6	697	0.7	94957	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

## Infant feeding

In 2018, infant feeding on discharge from hospital was reported for 94,957 liveborn babies (Table 36). The majority of babies (72.6%) were reported to be fully breastfed, 8.4% were receiving infant formula only, and a further 16.1% were being partially breastfed. Rates of full breastfeeding varied from 60.0% in the South Western Sydney Local Health District to 86.8% in the Northern NSW Local Health District.

**TABLE 36: LIVE BIRTHS BY INFANT FEEDING ON DISCHARGE AND LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2018**

Local Health District	Infant feeding									
	Full breastfeeding		Any breastfeeding		Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	5573	71.6	1747	22.4	324	4.2	143	1.8	7787	100.0
South Western Sydney	8616	60.0	3362	23.4	1584	11.0	796	5.5	14358	100.0
South Eastern Sydney	7897	76.3	1830	17.7	451	4.4	171	1.7	10349	100.0
Illawarra Shoalhaven	3518	76.0	443	9.6	624	13.5	45	1.0	4630	100.0
Western Sydney	10545	70.0	2845	18.9	1139	7.6	543	3.6	15072	100.0
Nepean Blue Mountains	3457	70.2	656	13.3	621	12.6	194	3.9	4928	100.0
Northern Sydney	7558	77.4	1586	16.2	333	3.4	290	3.0	9767	100.0
Central Coast	3079	79.4	362	9.3	375	9.7	63	1.6	3879	100.0
Hunter New England	7942	75.7	1189	11.3	1109	10.6	246	2.3	10486	100.0
Northern NSW	2291	86.8	143	5.4	139	5.3	66	2.5	2639	100.0
Mid North Coast	1716	81.3	213	10.1	160	7.6	22	1.0	2111	100.0
Southern NSW	1131	80.4	115	8.2	114	8.1	46	3.3	1406	100.0
Murrumbidgee	1729	71.6	251	10.4	405	16.8	29	1.2	2414	100.0
Western NSW	2690	75.8	290	8.2	490	13.8	80	2.3	3550	100.0
Far West	153	78.9	12	6.2	26	13.4	3	1.5	194	100.0
Other-not stated	1021	73.6	243	17.5	85	6.1	38	2.7	1387	100.0
TOTAL	68916	72.6	15287	16.1	7979	8.4	2775	2.9	94957	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

## Perinatal outcome

The perinatal mortality rate in 2018 was 8.1 per 1,000 births. This rate includes all live births, and stillbirths of at least 400 grams birth weight or at least 20 weeks gestation (Table 37). The perinatal mortality rate varied from 5.8 per 1,000 births in the Murrumbidgee and Northern Sydney Local Health Districts to 15.2 per 1,000 births in the Far West Local Health District.

**TABLE 37: PERINATAL OUTCOMES BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2018\***

Local Health District	Perinatal outcomes												
	Liveborn surviving		Stillborn		Neonatal death		Death–age not stated		Not stated		Total births		Perinatal death rate/1,000 births <sup>1</sup>
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.
Sydney	7766	99.1	48	0.6	21	0.3	0	0.0	0	0.0	7835	100.0	8.8
South Western Sydney	14334	99.2	92	0.6	24	0.2	0	0.0	0	0.0	14450	100.0	8.0
South Eastern Sydney	10328	99.3	53	0.5	21	0.2	0	0.0	0	0.0	10402	100.0	7.1
Illawarra Shoalhaven	4623	99.3	26	0.6	7	0.2	0	0.0	0	0.0	4656	100.0	7.1
Western Sydney	15039	99.0	119	0.8	33	0.2	0	0.0	0	0.0	15191	100.0	10.0
Nepean Blue Mountains	4921	99.4	24	0.5	7	0.1	0	0.0	0	0.0	4952	100.0	6.3
Northern Sydney	9754	99.4	44	0.4	13	0.1	0	0.0	0	0.0	9811	100.0	5.8
Central Coast	3875	99.3	24	0.6	4	0.1	0	0.0	0	0.0	3903	100.0	7.2
Hunter New England	10463	99.1	75	0.7	23	0.2	0	0.0	0	0.0	10561	100.0	9.3
Northern NSW	2637	99.4	15	0.6	2	0.1	0	0.0	0	0.0	2654	100.0	6.4
Mid North Coast	2107	99.2	13	0.6	4	0.2	0	0.0	0	0.0	2124	100.0	8.0
Southern NSW	1403	99.4	6	0.4	3	0.2	0	0.0	0	0.0	1412	100.0	6.4
Murrumbidgee	2412	99.4	12	0.5	2	0.1	0	0.0	0	0.0	2426	100.0	5.8
Western NSW	3544	99.2	21	0.6	6	0.2	0	0.0	0	0.0	3571	100.0	7.6
Far West	194	98.5	3	1.5	0	0.0	0	0.0	0	0.0	197	100.0	15.2
Other-not stated	1381	98.2	20	1.4	6	0.4	0	0.0	0	0.0	1407	100.0	18.5
TOTAL	94781	99.2	595	0.6	176	0.2	0	0.0	0	0.0	95552	100.0	8.1

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

\* Perinatal deaths include deaths reported to the PDC only. As the PDC form is completed at discharge or transfer of the baby, deaths occurring after this time may not be reported to the PDC.

† The perinatal death rate excludes deaths where the age at death was not stated.

## Live births by statistical area of residence

TABLE 38: LIVE BIRTHS BY LOCAL HEALTH DISTRICT AND STATISTICAL AREA OF RESIDENCE, NSW 2018<sup>#</sup>

Local Health District–Statistical Area 3 <sup>1</sup>		No.	%
Sydney	Bankstown*	27	0.3
	Canada Bay	1016	13.0
	Canterbury*	1819	23.4
	Hurstville*	82	1.1
	Leichhardt	851	10.9
	Marrickville–Sydenham–Petersham	627	8.1
	Strathfield–Burwood–Ashfield	1564	20.1
	Sydney Inner City*	1436	18.4
	<b>TOTAL</b>	<b>7787</b>	<b>100.0</b>
South Western Sydney	Auburn*	15	0.1
	Bankstown*	2516	17.5
	Bringelly–Green Valley	1947	13.6
	Camden	1008	7.0
	Campbelltown	2544	17.7
	Canterbury*	118	0.8
	Fairfield*	2115	14.7
	Liverpool*	2015	14.0
	Merrylands–Guildford*	474	3.3
	Penrith*	92	0.6
	Southern Highlands*	415	2.9
	Wollondilly	592	4.1
	<b>TOTAL</b>	<b>14358</b>	<b>100.0</b>
South Eastern Sydney	Botany	657	6.3
	Cronulla–Miranda–Caringbah	1257	12.1
	Eastern Suburbs–North	1662	16.1
	Eastern Suburbs–South	1729	16.7
	Hurstville*	1248	12.1
	Kogarah–Rockdale	1818	17.6
	Liverpool*	8	0.1
	Lord Howe Island	2	0.0
	Sutherland–Menai–Heathcote	1189	11.5
	Sydney Inner City*	537	5.2
	<b>TOTAL</b>	<b>10349</b>	<b>100.0</b>
Illawarra Shoalhaven	Dapto–Port Kembla	939	20.3
	Kiama–Shellharbour	1086	23.5
	Shoalhaven	1031	22.3
	South Coast*	2	0.0
	Wollongong	1421	30.7
	<b>TOTAL</b>	<b>4630</b>	<b>100.0</b>
Western Sydney	Auburn*	1531	10.2
	Baulkham Hills*	1163	7.7
	Blacktown	2104	14.0
	Blacktown–North	1652	11.0
	Carlingford*	768	5.1
	Dural–Wisemans Ferry*	148	1.0
	Merrylands–Guildford*	2206	14.6
	Mount Drutt	2006	13.3
	Parramatta	2394	15.9
	Pennant Hills–Epping*	62	0.4
	Rouse Hill–McGraths Hill*	384	2.5
	Ryde–Hunters Hill*	36	0.2
	<b>TOTAL</b>	<b>15072</b>	<b>100.0</b>
Nepean Blue Mountains			
Blue Mountains	Blue Mountains	683	13.9
	Dural–Wisemans Ferry*	1	0.0
	Fairfield*	13	0.3
	Hawkesbury	310	6.3
	Lithgow–Mudgee*	197	4.0
	Penrith*	1881	38.2
	Richmond–Windsor	481	9.8
	Rouse Hill–McGraths Hill*	145	2.9
	St Marys	860	17.5
	<b>TOTAL</b>	<b>4928</b>	<b>100.0</b>
Northern Sydney	Baulkham Hills*	131	1.3
	Carlingford*	65	0.7
	Chatswood–Lane Cove	1332	13.6
	Dural–Wisemans Ferry*	99	1.0
	Hornsby	980	10.0
	Ku-ring-gai	946	9.7
	Manly	567	5.8
	North Sydney–Mosman	1241	12.7
	Pennant Hills–Epping*	328	3.4
	Pittwater	549	5.6
	Ryde–Hunters Hill*	1503	15.4
	Warringah	1789	18.3
	<b>TOTAL</b>	<b>9767</b>	<b>100.0</b>
Central Coast	Gosford	1889	48.7
	Wyong	1967	50.7
	<b>TOTAL</b>	<b>3879</b>	<b>100.0</b>
Hunter New England	Armidale	419	4.0
	Great Lakes	232	2.2
	Inverell–Tenterfield*	357	3.4
	Kempsey–Nambucca*	1	0.0
	Lake Macquarie–East	1297	12.4
	Lake Macquarie–West	886	8.4
	Lower Hunter	1229	11.7
	Maitland	1027	9.8
	Moree–Narrabri	315	3.0
	Newcastle	1909	18.2
	Port Stephens	657	6.3
	Tamworth–Gunnedah	1120	10.7
	Taree–Gloucester	501	4.8
	Upper Hunter	376	3.6
	<b>TOTAL</b>	<b>10486</b>	<b>100.0</b>
Northern NSW	Clarence Valley	496	18.8
	Coffs Harbour*	6	0.2
	Inverell–Tenterfield*	4	0.2
	Richmond Valley–Coastal	704	26.7
	Richmond Valley–Hinterland	663	25.1
	Tweed Valley	749	28.4
	<b>TOTAL</b>	<b>2639</b>	<b>100.0</b>
Mid North Coast	Coffs Harbour*	874	41.4
	Kempsey–Nambucca*	522	24.7
	Port Macquarie	689	32.6
	<b>TOTAL</b>	<b>2111</b>	<b>100.0</b>

(Continued on next page)



TABLE 38: (Continued)

Local Health District–Statistical Area 3 <sup>†</sup>	No.	%
<b>Southern NSW</b>		
Goulburn–Mulwaree	295	21.0
Queanbeyan	371	26.4
Snowy Mountains	139	9.9
South Coast*	534	38.0
Young–Yass*	41	2.9
<b>TOTAL</b>	<b>1406</b>	<b>100.0</b>
<b>Murrumbidgee</b>		
Albury**	10	0.4
Griffith–Murrumbidgee (West)	646	26.8
Lachlan Valley*	98	4.1
Lower Murray*	20	0.8
Tumut–Tumbarumba	160	6.6
Upper Murray excluding Albury	88	3.6
Wagga Wagga	1205	49.9
Young–Yass*	175	7.2
<b>TOTAL</b>	<b>2414</b>	<b>100.0</b>
<b>Western NSW</b>		
Bathurst	529	14.9
Bourke–Cobar–Coonamble	311	8.8
Dubbo	972	27.4
Lachlan Valley*	588	16.6
Lithgow–Mudgee*	299	8.4
Orange	790	22.3
<b>TOTAL</b>	<b>3550</b>	<b>100.0</b>
<b>Far West</b>		
Broken Hill and Far West	188	96.9
Lower Murray*	6	3.1
<b>TOTAL</b>	<b>194</b>	<b>100.0</b>
<b>Other-not stated</b>		
<b>TOTAL</b>	<b>1387</b>	<b>100.0</b>
<b>TOTAL</b>	<b>94957</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Statistical Area assigned according to the Australian Bureau of Statistics Australian Statistical Geographical Standard, 2016 (Cat No. 1270.0.55.001).

† Totals include live births where Statistical Area was unknown.

\* Geographical boundaries of Statistical Area Level 3 (SA3) occur within two Local Health Districts.

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## 6. NSW HOSPITALS

### Onset and augmentation of labour

Table 39 shows onset or augmentation of labour for local health districts, and Table 40 for individual hospitals by peer group where at least 200 mothers gave birth in 2018.

**TABLE 39: ONSET AND AUGMENTATION OF LABOUR BY LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2018**

Hospital sector– Local Health District	Onset and augmentation of labour																	
	Spontaneous		Spontaneous augmented with ARM		Spontaneous augmented with oxytocics†		No labour		Induced – oxytocics/ prostaglandins		Induced – ARM only		Induced – ARM + oxytocics/ prostaglandins		Induced – other†		TOTAL††	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Public																		
Sydney	1624	25.0	347	5.3	793	12.2	1287	19.8	1117	17.2	404	6.2	883	13.6	54	0.8	6509	100.0
South Western Sydney	4185	36.1	942	8.1	967	8.3	1940	16.7	2263	19.5	510	4.4	652	5.6	139	1.2	11598	100.0
South Eastern Sydney	2432	33.0	426	5.8	663	9.0	1229	16.7	977	13.3	138	1.9	1493	20.3	12	0.2	7370	100.0
Illawarra Shoalhaven	1067	31.6	155	4.6	194	5.7	658	19.5	383	11.3	56	1.7	858	25.4	7	0.2	3378	100.0
Western Sydney	3577	34.0	571	5.4	908	8.6	2048	19.5	1102	10.5	71	0.7	2200	20.9	31	0.3	10508	100.0
Nepean Blue Mountains	1693	33.6	214	4.2	274	5.4	1110	22.0	824	16.3	46	0.9	860	17.0	23	0.5	5044	100.0
Northern Sydney	1905	34.1	294	5.3	496	8.9	1088	19.5	787	14.1	86	1.5	916	16.4	11	0.2	5583	100.0
Central Coast	1110	37.0	128	4.3	196	6.5	551	18.3	397	13.2	44	1.5	574	19.1	3	0.1	3003	100.0
Hunter New England	3076	35.3	328	3.8	563	6.5	1615	18.5	1172	13.5	156	1.8	1779	20.4	24	0.3	8713	100.0
Northern NSW	1246	42.8	118	4.1	210	7.2	378	13.0	342	11.7	62	2.1	549	18.9	5	0.2	2911	100.0
Mid North Coast	746	35.3	93	4.4	116	5.5	477	22.6	221	10.4	43	2.0	415	19.6	4	0.2	2115	100.0
Southern NSW	679	44.3	64	4.2	105	6.8	258	16.8	152	9.9	45	2.9	229	14.9	2	0.1	1534	100.0
Murrumbidgee	817	38.8	103	4.9	142	6.7	397	18.8	271	12.9	43	2.0	325	15.4	10	0.5	2108	100.0
Western NSW	1142	34.3	140	4.2	204	6.1	699	21.0	338	10.2	94	2.8	690	20.8	18	0.5	3325	100.0
Far West	79	41.1	13	6.8	15	7.8	21	10.9	21	10.9	4	2.1	39	20.3	0	0.0	192	100.0
TOTAL	25378	34.3	3936	5.3	5846	7.9	13756	18.6	10367	14.0	1802	2.4	12462	16.9	343	0.5	73891	100.0
Private																		
TOTAL	3992	19.8	918	4.6	1232	6.1	7195	35.7	1673	8.3	635	3.2	4409	21.9	53	0.3	20129	100.0
TOTAL NSW*	29513	31.3	4858	5.2	7078	7.5	20951	22.2	12040	12.8	2437	2.6	16872	17.9	396	0.4	94170	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

ARM: Artificial Rupture of Membranes.

<sup>†</sup> May include artificial rupture of membranes.

<sup>‡</sup> This category includes other forms of induction such as Foley's catheter.

<sup>††</sup> Total includes births where the onset and augmentation of labour was unknown.

\* Total includes births at home assisted by independent midwives.

**TABLE 40: ONSET AND AUGMENTATION OF LABOUR BY HOSPITAL AND PEER GROUP, NSW 2018\***

Peer Group–Hospital	Onset and augmentation of labour																	
	Spontaneous		Spontaneous augmented with ARM		Spontaneous augmented with oxytocics <sup>†</sup>		No labour		Induced – oxytocics/ prostaglandins		Induced – ARM only		Induced – ARM + oxytocics/ prostaglandins		Induced – other <sup>‡</sup>		TOTAL <sup>††</sup>	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Peer Group A																		
Royal Prince Alfred	1166	23.9	241	4.9	648	13.3	1022	20.9	766	15.7	308	6.3	689	14.1	44	0.9	4884	100.0
Gosford	1035	35.4	125	4.3	196	6.7	551	18.8	397	13.6	44	1.5	574	19.6	3	0.1	2925	100.0
Royal North Shore	848	31.0	134	4.9	215	7.9	624	22.8	387	14.2	41	1.5	484	17.7	1	0.0	2734	100.0
St. George	609	26.4	145	6.3	198	8.6	371	16.1	356	15.4	32	1.4	594	25.8	1	0.0	2306	100.0
Royal Hospital for Women	1395	37.3	199	5.3	294	7.9	651	17.4	448	12.0	81	2.2	660	17.7	8	0.2	3736	100.0
Liverpool	1255	33.4	339	9.0	338	9.0	708	18.8	631	16.8	168	4.5	281	7.5	40	1.1	3760	100.0
Nepean	1283	32.7	163	4.2	223	5.7	863	22.0	694	17.7	28	0.7	643	16.4	22	0.6	3919	100.0
Westmead	1692	31.5	288	5.4	461	8.6	1165	21.7	585	10.9	35	0.7	1133	21.1	12	0.2	5371	100.0
Bankstown- Lidcombe	659	33.8	167	8.6	151	7.8	320	16.4	373	19.2	134	6.9	120	6.2	23	1.2	1947	100.0
Wollongong	764	30.3	115	4.6	147	5.8	517	20.5	256	10.1	38	1.5	681	27.0	7	0.3	2525	100.0
John Hunter	1206	29.9	161	4.0	295	7.3	811	20.1	572	14.2	71	1.8	907	22.5	13	0.3	4036	100.0
TOTAL	11912	31.2	2077	5.4	3166	8.3	7603	19.9	5465	14.3	980	2.6	6766	17.7	174	0.5	38143	100.0
Peer Group B																		
Canterbury	458	28.2	105	6.5	145	8.9	265	16.3	351	21.6	96	5.9	194	11.9	10	0.6	1624	100.0
Hornsby	465	37.8	69	5.6	134	10.9	199	16.2	166	13.5	22	1.8	172	14.0	4	0.3	1231	100.0
Manly	199	27.9	33	4.6	80	11.2	108	15.1	122	17.1	11	1.5	158	22.2	2	0.3	713	100.0
Mona Vale	235	42.6	25	4.5	38	6.9	96	17.4	77	13.9	7	1.3	74	13.4	0	0.0	552	100.0

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TABLE 40: (CONTINUED)

Peer Group–Hospital	Onset and augmentation of labour																	
	Spontaneous		Spontaneous augmented with ARM		Spontaneous augmented with oxytocics†		No labour		Induced – oxytocics/ prostaglandins		Induced – ARM only		Induced – ARM + oxytocics/ prostaglandins		Induced – other‡		TOTAL††	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Northern Beaches	78	28.7	32	11.8	29	10.7	61	22.4	35	12.9	5	1.8	28	10.3	4	1.5	272	100.0
Sutherland	428	32.2	82	6.2	171	12.9	207	15.6	173	13.0	25	1.9	239	18.0	3	0.2	1328	100.0
Auburn	603	41.1	75	5.1	138	9.4	221	15.1	160	10.9	3	0.2	262	17.9	4	0.3	1466	100.0
Blacktown	1282	34.9	208	5.7	309	8.4	662	18.0	357	9.7	33	0.9	805	21.9	15	0.4	3671	100.0
Fairfield	521	32.8	179	11.3	149	9.4	275	17.3	226	14.2	105	6.6	131	8.2	2	0.1	1588	100.0
Campbelltown	1596	40.9	214	5.5	296	7.6	586	15.0	986	25.2	74	1.9	80	2.0	74	1.9	3906	100.0
Coffs Harbour	333	31.6	49	4.6	66	6.3	259	24.5	112	10.6	25	2.4	211	20.0	0	0.0	1055	100.0
Lismore Base	484	42.3	47	4.1	83	7.3	136	11.9	152	13.3	29	2.5	209	18.3	3	0.3	1143	100.0
Tweed Heads	415	34.8	51	4.3	113	9.5	162	13.6	134	11.2	26	2.2	290	24.3	2	0.2	1194	100.0
Port Macquarie Base	254	32.7	29	3.7	38	4.9	187	24.1	81	10.4	13	1.7	172	22.2	2	0.3	776	100.0
Tamworth Base	334	32.0	37	3.5	67	6.4	229	22.0	143	13.7	18	1.7	210	20.1	5	0.5	1043	100.0
Manning Base	228	37.6	20	3.3	35	5.8	95	15.7	41	6.8	20	3.3	166	27.3	2	0.3	607	100.0
Dubbo Base	355	29.3	43	3.5	87	7.2	278	22.9	151	12.5	30	2.5	265	21.9	3	0.2	1212	100.0
Orange Base	266	27.1	40	4.1	52	5.3	247	25.2	71	7.2	29	3.0	266	27.1	11	1.1	982	100.0
Shoalhaven	303	35.5	40	4.7	47	5.5	141	16.5	127	14.9	18	2.1	177	20.8	0	0.0	853	100.0
Maitland	579	38.3	49	3.2	93	6.2	206	13.6	256	16.9	14	0.9	311	20.6	4	0.3	1512	100.0
Wagga Wagga Base	365	31.1	45	3.8	88	7.5	258	22.0	164	14.0	19	1.6	226	19.3	9	0.8	1174	100.0
Other hospitals	75	96.2	3	3.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	78	100.0
TOTAL	9856	35.2	1475	5.3	2258	8.1	4878	17.4	4085	14.6	622	2.2	4646	16.6	159	0.6	27980	100.0
Peer Group C																		
Blue Mountains	98	48.5	13	6.4	15	7.4	37	18.3	23	11.4	3	1.5	13	6.4	0	0.0	202	100.0
Hawkesbury	263	34.5	30	3.9	32	4.2	171	22.4	75	9.8	13	1.7	178	23.3	1	0.1	763	100.0
Grafton Base	166	43.1	12	3.1	14	3.6	80	20.8	56	14.5	7	1.8	50	13.0	0	0.0	385	100.0
Kempsey	121	49.8	13	5.3	11	4.5	31	12.8	28	11.5	5	2.1	32	13.2	2	0.8	243	100.0
Armidale	158	37.3	12	2.8	28	6.6	101	23.8	56	13.2	8	1.9	61	14.4	0	0.0	424	100.0
Inverell	56	24.8	5	2.2	24	10.6	63	27.9	34	15.0	3	1.3	41	18.1	0	0.0	226	100.0
Mudgee	105	46.1	9	3.9	6	2.6	34	14.9	22	9.6	9	3.9	43	18.9	0	0.0	228	100.0
Bathurst Base	239	48.0	14	2.8	25	5.0	90	18.1	60	12.0	12	2.4	54	10.8	4	0.8	498	100.0
Bega	96	38.4	5	2.0	8	3.2	45	18.0	37	14.8	5	2.0	54	21.6	0	0.0	250	100.0
Goulburn Base	153	56.0	15	5.5	28	10.3	43	15.8	18	6.6	6	2.2	10	3.7	0	0.0	273	100.0
Goulburn Base	143	45.1	16	5.0	12	3.8	60	18.9	35	11.0	14	4.4	37	11.7	0	0.0	317	100.0
Queanbeyan	210	37.6	25	4.5	50	9.0	99	17.7	54	9.7	10	1.8	108	19.4	2	0.4	558	100.0
Bowral	154	38.8	43	10.8	33	8.3	51	12.8	47	11.8	29	7.3	40	10.1	0	0.0	397	100.0
Griffith Base	217	42.9	30	5.9	37	7.3	79	15.6	72	14.2	17	3.4	53	10.5	1	0.2	506	100.0
Other hospitals	1174	56.5	120	5.8	84	4.0	236	11.4	173	8.3	51	2.5	240	11.5	0	0.0	2078	100.0
TOTAL	3353	45.6	362	4.9	407	5.5	1220	16.6	790	10.8	192	2.6	1014	13.8	10	0.1	7348	100.0
Peer Group D																		
TOTAL	257	61.3	21	5.0	15	3.6	55	13.1	27	6.4	8	1.9	36	8.6	0	0.0	419	100.0
Public§																		
TOTAL	25378	34.3	3936	5.3	5846	7.9	13756	18.6	10367	14.0	1802	2.4	12462	16.9	343	0.5	73891	100.0
Private																		
Mater, North Sydney	403	19.1	94	4.5	190	9.0	890	42.1	126	6.0	72	3.4	337	16.0	0	0.0	2112	100.0
North Shore Private	625	27.3	0	0.0	183	8.0	898	39.3	143	6.3	66	2.9	362	15.8	9	0.4	2287	100.0
Sydney Adventist	306	17.9	147	8.6	194	11.3	556	32.5	96	5.6	30	1.8	374	21.9	7	0.4	1710	100.0
North Gosford Private	48	7.5	25	3.9	45	7.1	268	42.1	35	5.5	8	1.3	204	32.1	3	0.5	636	100.0
Hurstville Community	147	23.7	46	7.4	101	16.3	169	27.3	39	6.3	4	0.6	111	17.9	2	0.3	620	100.0
Kareena Private	85	15.1	0	0.0	46	8.2	242	42.9	26	4.6	11	2.0	154	27.3	0	0.0	564	100.0
St. George Private	316	22.9	0	0.0	145	10.5	433	31.3	230	16.6	83	6.0	173	12.5	2	0.1	1382	100.0
Prince of Wales Private	420	19.5	165	7.7	0	0.0	941	43.6	158	7.3	64	3.0	405	18.8	1	0.0	2156	100.0
Norwest Private	336	17.4	209	10.8	0	0.0	549	28.4	159	8.2	40	2.1	628	32.5	8	0.4	1930	100.0
Sydney Southwest Private	214	21.4	104	10.4	0	0.0	268	26.8	137	13.7	17	1.7	257	25.7	0	0.0	1001	100.0
Nepean Private	93	12.5	36	4.9	0	0.0	256	34.5	100	13.5	44	5.9	206	27.8	0	0.0	742	100.0
Westmead Private	483	23.7	0	0.0	241	11.8	668	32.7	183	9.0	22	1.1	436	21.4	9	0.4	2042	100.0
Wollongong Private	229	24.6	0	0.0	75	8.0	274	29.4	53	5.7	13	1.4	281	30.2	7	0.8	932	100.0
Newcastle Private	241	14.0	90	5.2	0	0.0	633	36.7	148	8.6	153	8.9	450	26.1	4	0.2	1725	100.0
Calvary, Wagga Wagga	46	15.9	2	0.7	12	4.1	150	51.7	40	13.8	8	2.8	31	10.7	1	0.3	290	100.0
TOTAL	3992	19.8	918	4.6	1232	6.1	7195	35.7	1673	8.3	635	3.2	4409	21.9	53	0.3	20129	100.0
TOTAL NSW*	29513	31.3	4858	5.2	7078	7.5	20951	22.2	12040	12.8	2437	2.6	16872	17.9	396	0.4	94170	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

ARM: Artificial Rupture of Membranes.

# Hospitals with more than 200 births in 2018 are identified individually. Peer group levels are described on page 84 in *Appendix 2: Explanatory notes*.

† May include artificial rupture of membranes.

‡ This category includes other forms of induction such as Foley's catheter.

§ Public total includes public hospitals with a peer group other than those specified in the table.

†† Total includes births where the onset and augmentation of labour was unknown.

\* Total NSW includes births at home assisted by independent midwives.

## Type of birth

Table 41 shows type of birth for local health districts, and Table 42 for individual hospitals by peer group where at least 200 mothers gave birth in 2018.

**TABLE 41: TYPE OF BIRTH BY LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2018**

Hospital sector– Local Health District	Type of birth															
	Normal vaginal		Forceps		Vacuum extraction		Vaginal breech		Elective caesarean section		Emergency caesarean section†		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Public																
Sydney	3164	48.6	471	7.2	634	9.7	21	0.3	1287	19.8	932	14.3	0	0.0	6509	100.0
South Western Sydney	7333	63.2	335	2.9	751	6.5	48	0.4	1940	16.7	1191	10.3	0	0.0	11598	100.0
South Eastern Sydney	3833	52.0	649	8.8	571	7.7	39	0.5	1229	16.7	1049	14.2	0	0.0	7370	100.0
Illawarra Shoalhaven	1953	57.8	146	4.3	183	5.4	12	0.4	658	19.5	426	12.6	0	0.0	3378	100.0
Western Sydney	6183	58.8	507	4.8	531	5.1	78	0.7	2048	19.5	1161	11.0	0	0.0	10508	100.0
Nepean Blue Mountains	2778	55.1	109	2.2	329	6.5	16	0.3	1110	22.0	702	13.9	0	0.0	5044	100.0
Northern Sydney	2963	53.1	448	8.0	375	6.7	12	0.2	1088	19.5	697	12.5	0	0.0	5583	100.0
Central Coast	1736	57.8	196	6.5	162	5.4	8	0.3	551	18.3	350	11.7	0	0.0	3003	100.0
Hunter New England	5169	59.3	350	4.0	404	4.6	29	0.3	1615	18.5	1146	13.2	0	0.0	8713	100.0
Northern NSW	1900	65.3	131	4.5	186	6.4	16	0.5	378	13.0	298	10.2	2	0.1	2911	100.0
Mid North Coast	1200	56.7	66	3.1	100	4.7	9	0.4	477	22.6	263	12.4	0	0.0	2115	100.0
Southern NSW	900	58.7	54	3.5	131	8.5	3	0.2	258	16.8	188	12.3	0	0.0	1534	100.0
Murrumbidgee	1235	58.6	57	2.7	142	6.7	5	0.2	397	18.8	272	12.9	0	0.0	2108	100.0
Western NSW	1877	56.5	147	4.4	214	6.4	11	0.3	699	21.0	377	11.3	0	0.0	3325	100.0
Far West	136	70.8	5	2.6	4	2.1	2	1.0	21	10.9	24	12.5	0	0.0	192	100.0
TOTAL	42360	57.3	3671	5.0	4717	6.4	309	0.4	13756	18.6	9076	12.3	2	0.0	73891	100.0
Private																
TOTAL	7945	39.5	715	3.6	1832	9.1	20	0.1	7195	35.7	2422	12.0	0	0.0	20129	100.0
TOTAL NSW*	50451	53.6	4386	4.7	6549	7.0	333	0.4	20951	22.2	11498	12.2	2	0.0	94170	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

† Emergency caesarean section includes caesarean sections where the onset of labour was not stated.

\* Total NSW includes births at home assisted by independent midwives.

**TABLE 42: TYPE OF BIRTH BY HOSPITAL AND PEER GROUP, NSW 2018\***

Peer Group–Hospital	Type of birth															
	Normal vaginal		Forceps		Vacuum extraction		Vaginal breech		Elective caesarean section		Emergency caesarean section†		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Peer Group A																
Royal Prince Alfred	2280	46.7	365	7.5	482	9.9	20	0.4	1022	20.9	715	14.6	0	0.0	4884	100.0
Gosford	1659	56.7	196	6.7	162	5.5	7	0.2	551	18.8	350	12.0	0	0.0	2925	100.0
Royal North Shore	1376	50.3	256	9.4	152	5.6	6	0.2	624	22.8	320	11.7	0	0.0	2734	100.0
St. George	1147	49.7	174	7.5	254	11.0	6	0.3	371	16.1	354	15.4	0	0.0	2306	100.0
Royal Hospital for Women	1874	50.2	399	10.7	237	6.3	29	0.8	651	17.4	546	14.6	0	0.0	3736	100.0
Liverpool	2304	61.3	179	4.8	231	6.1	29	0.8	708	18.8	309	8.2	0	0.0	3760	100.0
Nepean	2163	55.2	89	2.3	228	5.8	15	0.4	863	22.0	561	14.3	0	0.0	3919	100.0
Westmead	2991	55.7	300	5.6	285	5.3	67	1.2	1165	21.7	563	10.5	0	0.0	5371	100.0
Bankstown-Lidcombe	1215	62.4	59	3.0	108	5.5	4	0.2	320	16.4	241	12.4	0	0.0	1947	100.0
Wollongong	1432	56.7	106	4.2	127	5.0	8	0.3	517	20.5	335	13.3	0	0.0	2525	100.0
John Hunter	2224	55.1	204	5.1	193	4.8	22	0.5	811	20.1	582	14.4	0	0.0	4036	100.0
TOTAL	20665	54.2	2327	6.1	2459	6.4	213	0.6	7603	19.9	4876	12.8	0	0.0	38143	100.0
Peer Group B																
Canterbury	883	54.4	106	6.5	152	9.4	1	0.1	265	16.3	217	13.4	0	0.0	1624	100.0
Hornsby	703	57.1	97	7.9	67	5.4	2	0.2	199	16.2	163	13.2	0	0.0	1231	100.0
Manly	375	52.6	57	8.0	72	10.1	1	0.1	108	15.1	100	14.0	0	0.0	713	100.0
Mona Vale	305	55.3	18	3.3	53	9.6	1	0.2	96	17.4	79	14.3	0	0.0	552	100.0
Northern Beaches	124	45.6	20	7.4	31	11.4	1	0.4	61	22.4	35	12.9	0	0.0	272	100.0
Sutherland	812	61.1	76	5.7	80	6.0	4	0.3	207	15.6	149	11.2	0	0.0	1328	100.0
Auburn	995	67.9	48	3.3	61	4.2	1	0.1	221	15.1	140	9.5	0	0.0	1466	100.0
Blacktown	2197	59.8	159	4.3	185	5.0	10	0.3	662	18.0	458	12.5	0	0.0	3671	100.0
Fairfield	1030	64.9	15	0.9	92	5.8	5	0.3	275	17.3	171	10.8	0	0.0	1588	100.0
Campbelltown	2516	64.4	60	1.5	306	7.8	10	0.3	586	15.0	428	11.0	0	0.0	3906	100.0
Coffs Harbour	584	55.4	30	2.8	44	4.2	4	0.4	259	24.5	134	12.7	0	0.0	1055	100.0
Lismore Base	771	67.5	63	5.5	51	4.5	10	0.9	136	11.9	112	9.8	0	0.0	1143	100.0

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TABLE 42: (CONTINUED)

Peer Group–Hospital	Type of birth															
	Normal vaginal		Forceps		Vacuum extraction		Vaginal breech		Elective caesarean section		Emergency caesarean section†		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Tweed Heads	716	60.0	56	4.7	114	9.5	5	0.4	162	13.6	140	11.7	1	0.1	1194	100.0
Port Macquarie Base	414	53.4	32	4.1	43	5.5	2	0.3	187	24.1	98	12.6	0	0.0	776	100.0
Tamworth Base	579	55.5	31	3.0	64	6.1	0	0.0	229	22.0	140	13.4	0	0.0	1043	100.0
Manning Base	363	59.8	31	5.1	41	6.8	0	0.0	95	15.7	77	12.7	0	0.0	607	100.0
Dubbo Base	623	51.4	93	7.7	84	6.9	5	0.4	278	22.9	129	10.6	0	0.0	1212	100.0
Orange Base	512	52.1	27	2.7	75	7.6	3	0.3	247	25.2	118	12.0	0	0.0	982	100.0
Shoalhaven	521	61.1	40	4.7	56	6.6	4	0.5	141	16.5	91	10.7	0	0.0	853	100.0
Maitland	1013	67.0	42	2.8	47	3.1	4	0.3	206	13.6	200	13.2	0	0.0	1512	100.0
Wagga Wagga Base	630	53.7	44	3.7	74	6.3	4	0.3	258	22.0	164	14.0	0	0.0	1174	100.0
Other hospitals	77	98.7	0	0.0	0	0.0	1	1.3	0	0.0	0	0.0	0	0.0	78	100.0
TOTAL	16743	59.8	1145	4.1	1792	6.4	78	0.3	4878	17.4	3343	11.9	1	0.0	27980	100.0
Peer Group C																
Blue Mountains	133	65.8	3	1.5	13	6.4	0	0.0	37	18.3	16	7.9	0	0.0	202	100.0
Hawkesbury	390	51.1	16	2.1	84	11.0	0	0.0	171	22.4	102	13.4	0	0.0	763	100.0
Grafton Base	227	59.0	12	3.1	18	4.7	1	0.3	80	20.8	46	11.9	1	0.3	385	100.0
Kempsey	162	66.7	3	1.2	13	5.3	3	1.2	31	12.8	31	12.8	0	0.0	243	100.0
Armidale	221	52.1	27	6.4	5	1.2	2	0.5	101	23.8	68	16.0	0	0.0	424	100.0
Inverell	133	58.8	9	4.0	11	4.9	0	0.0	63	27.9	10	4.4	0	0.0	226	100.0
Mudgee	148	64.9	4	1.8	16	7.0	1	0.4	34	14.9	25	11.0	0	0.0	228	100.0
Bathurst Base	312	62.7	17	3.4	19	3.8	1	0.2	90	18.1	59	11.8	0	0.0	498	100.0
Bega	132	52.8	20	8.0	15	6.0	1	0.4	45	18.0	37	14.8	0	0.0	250	100.0
Goulburn Base	185	67.8	8	2.9	12	4.4	0	0.0	43	15.8	25	9.2	0	0.0	273	100.0
Moruya	205	64.7	7	2.2	15	4.7	1	0.3	60	18.9	29	9.1	0	0.0	317	100.0
Queanbeyan	274	49.1	18	3.2	83	14.9	1	0.2	99	17.7	83	14.9	0	0.0	558	100.0
Bowral	268	67.5	22	5.5	14	3.5	0	0.0	51	12.8	42	10.6	0	0.0	397	100.0
Griffith Base	309	61.1	7	1.4	42	8.3	1	0.2	79	15.6	68	13.4	0	0.0	506	100.0
Other hospitals	1544	74.3	21	1.0	94	4.5	5	0.2	236	11.4	178	8.6	0	0.0	2078	100.0
TOTAL	4643	63.2	194	2.6	454	6.2	17	0.2	1220	16.6	819	11.1	1	0.0	7348	100.0
Peer Group D																
TOTAL	308	73.5	5	1.2	12	2.9	1	0.2	55	13.1	38	9.1	0	0.0	419	100.0
Public§																
TOTAL	42360	57.3	3671	5.0	4717	6.4	309	0.4	13756	18.6	9076	12.3	2	0.0	73891	100.0
Private																
Mater, North Sydney	699	33.1	68	3.2	194	9.2	0	0.0	890	42.1	261	12.4	0	0.0	2112	100.0
North Shore Private	801	35.0	100	4.4	166	7.3	2	0.1	898	39.3	320	14.0	0	0.0	2287	100.0
Sydney Adventist	755	44.2	67	3.9	141	8.2	1	0.1	556	32.5	190	11.1	0	0.0	1710	100.0
North Gosford Private	187	29.4	27	4.2	67	10.5	0	0.0	268	42.1	87	13.7	0	0.0	636	100.0
Hurstville Community	250	40.3	22	3.5	76	12.3	0	0.0	169	27.3	103	16.6	0	0.0	620	100.0
Kareena Private	195	34.6	31	5.5	34	6.0	0	0.0	242	42.9	62	11.0	0	0.0	564	100.0
St. George Private	565	40.9	55	4.0	157	11.4	0	0.0	433	31.3	172	12.4	0	0.0	1382	100.0
Prince of Wales Private	649	30.1	55	2.6	230	10.7	1	0.0	941	43.6	280	13.0	0	0.0	2156	100.0
Norwest Private	955	49.5	69	3.6	161	8.3	6	0.3	549	28.4	190	9.8	0	0.0	1930	100.0
Sydney Southwest Private	484	48.4	54	5.4	125	12.5	1	0.1	268	26.8	69	6.9	0	0.0	1001	100.0
Nepean Private	313	42.2	12	1.6	67	9.0	1	0.1	256	34.5	93	12.5	0	0.0	742	100.0
Westmead Private	893	43.7	110	5.4	116	5.7	4	0.2	668	32.7	251	12.3	0	0.0	2042	100.0
Wollongong Private	414	44.4	15	1.6	109	11.7	1	0.1	274	29.4	119	12.8	0	0.0	932	100.0
Newcastle Private	700	40.6	30	1.7	164	9.5	3	0.2	633	36.7	195	11.3	0	0.0	1725	100.0
Calvary, Wagga Wagga	85	29.3	0	0.0	25	8.6	0	0.0	150	51.7	30	10.3	0	0.0	290	100.0
TOTAL	7945	39.5	715	3.6	1832	9.1	20	0.1	7195	35.7	2422	12.0	0	0.0	20129	100.0
TOTAL NSW*	50451	53.6	4386	4.7	6549	7.0	333	0.4	20951	22.2	11498	12.2	2	0.0	94170	100.0

Source: NSW Perinatal Data Collection (SAPHaRI), Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Hospitals with more than 200 births in 2018 are identified individually. Peer group levels are described on page 84 in Appendix 2: Explanatory notes.

† Emergency caesarean section includes caesarean sections where the onset of labour was not stated.

§ Public total includes public hospitals with a peer group other than those specified in the table.

\* Total NSW includes births at home assisted by independent midwives and unassigned peer groups.

## Pain relief

Table 43 shows type of pain relief provided to women during labour or delivery for local health districts, and Table 44 for individual hospitals by peer group where at least 200 mothers gave birth in 2018.

In addition to the types of pain relief shown in the tables, in 2018 a further 17,385 (18.5%) women were reported to have received local anaesthetic to the perineum, and 573 (0.6%) received a pudendal block.

**TABLE 43: PAIN RELIEF BY LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2018**

Hospital sector– Local Health District	Pain relief											
	Epidural-spinal†		General anaesthetic		IM narcotics		Nitrous oxide		Nil		TOTAL‡	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Public												
Sydney	3281	50.4	283	4.3	244	3.7	2989	45.9	653	10.0	6509	100.0
South Western Sydney	4754	41.0	385	3.3	1685	14.5	5570	48.0	1486	12.8	11598	100.0
South Eastern Sydney	4317	58.6	162	2.2	873	11.8	3240	44.0	367	5.0	7370	100.0
Illawarra Shoalhaven	1723	51.0	105	3.1	294	8.7	1511	44.7	276	8.2	3378	100.0
Western Sydney	5394	51.3	262	2.5	836	8.0	4505	42.9	747	7.1	10508	100.0
Nepean Blue Mountains	2576	51.1	253	5.0	636	12.6	2133	42.3	401	8.0	5044	100.0
Northern Sydney	3008	53.9	113	2.0	377	6.8	2171	38.9	419	7.5	5583	100.0
Central Coast	1413	47.1	99	3.3	293	9.8	1168	38.9	346	11.5	3003	100.0
Hunter New England	3845	44.1	409	4.7	939	10.8	3806	43.7	870	10.0	8713	100.0
Northern NSW	1186	40.7	96	3.3	330	11.3	1187	40.8	410	14.1	2911	100.0
Mid North Coast	1049	49.6	70	3.3	175	8.3	792	37.4	221	10.4	2115	100.0
Southern NSW	657	42.8	38	2.5	124	8.1	684	44.6	202	13.2	1534	100.0
Murrumbidgee	850	40.3	55	2.6	326	15.5	911	43.2	261	12.4	2108	100.0
Western NSW	1565	47.1	117	3.5	511	15.4	1494	44.9	275	8.3	3325	100.0
Far West	70	36.5	3	1.6	26	13.5	80	41.7	42	21.9	192	100.0
TOTAL	35688	48.3	2450	3.3	7669	10.4	32241	43.6	6976	9.4	73891	100.0
Private												
TOTAL	16086	79.9	238	1.2	1080	5.4	4680	23.3	1002	5.0	20129	100.0
TOTAL NSW*	51774	55.0	2688	2.9	8749	9.3	36922	39.2	8060	8.6	94170	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

IM: Intramuscular.

<sup>†</sup> The category 'Epidural-spinal' includes epidural, spinal, combined epidural and spinal, and caudal pain relief.

<sup>‡</sup> Row percentages do not sum to 100 per cent as one woman may have more than one type of analgesia.

\* Total includes births at home assisted by independent midwives.

**TABLE 44: PAIN RELIEF BY HOSPITAL AND PEER GROUP, NSW 2018\***

Peer Group–Hospital	Pain relief											
	Epidural–spinal†		General anaesthetic		IM narcotics		Nitrous oxide		Nil		TOTAL†	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Peer Group A												
Royal Prince Alfred	2547	52.1	210	4.3	158	3.2	2139	43.8	501	10.3	4884	100.0
Gosford	1413	48.3	98	3.4	293	10.0	1144	39.1	310	10.6	2925	100.0
Royal North Shore	1612	59.0	57	2.1	169	6.2	1011	37.0	156	5.7	2734	100.0
St. George	1354	58.7	60	2.6	325	14.1	1075	46.6	102	4.4	2306	100.0
Royal Hospital for Women	2279	61.0	73	2.0	451	12.1	1543	41.3	192	5.1	3736	100.0
Liverpool	1792	47.7	123	3.3	602	16.0	1604	42.7	349	9.3	3760	100.0
Nepean	2076	53.0	212	5.4	479	12.2	1715	43.8	261	6.7	3919	100.0
Westmead	3041	56.6	154	2.9	419	7.8	2105	39.2	356	6.6	5371	100.0
Bankstown- Lidcombe	778	40.0	82	4.2	235	12.1	1045	53.7	204	10.5	1947	100.0
Wollongong	1340	53.1	87	3.4	163	6.5	1076	42.6	190	7.5	2525	100.0
John Hunter	2001	49.6	240	5.9	421	10.4	1750	43.4	286	7.1	4036	100.0
TOTAL	20233	53.0	1396	3.7	3715	9.7	16207	42.5	2907	7.6	38143	100.0
Peer Group B												
Canterbury	734	45.2	73	4.5	86	5.3	849	52.3	152	9.4	1624	100.0
Hornsby	617	50.1	23	1.9	108	8.8	600	48.7	68	5.5	1231	100.0
Manly	395	55.4	17	2.4	52	7.3	232	32.5	50	7.0	713	100.0
Mona Vale	262	47.5	15	2.7	17	3.1	204	37.0	61	11.1	552	100.0
Northern Beaches	122	44.9	1	0.4	31	11.4	107	39.3	35	12.9	272	100.0
Sutherland	684	51.5	29	2.2	97	7.3	622	46.8	73	5.5	1328	100.0
Auburn	563	38.4	23	1.6	87	5.9	777	53.0	131	8.9	1466	100.0
Blacktown	1790	48.8	85	2.3	330	9.0	1623	44.2	260	7.1	3671	100.0
Fairfield	502	31.6	57	3.6	250	15.7	876	55.2	200	12.6	1588	100.0
Campbelltown	1542	39.5	117	3.0	509	13.0	1876	48.0	663	17.0	3906	100.0

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TABLE 44: (CONTINUED)

Peer Group–Hospital	Pain relief											
	Epidural–spinal <sup>†</sup>		General anaesthetic		IM narcotics		Nitrous oxide		Nil		TOTAL <sup>‡</sup>	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Coffs Harbour	559	53.0	26	2.5	75	7.1	346	32.8	105	10.0	1055	100.0
Lismore Base	472	41.3	40	3.5	118	10.3	466	40.8	157	13.7	1143	100.0
Tweed Heads	563	47.2	39	3.3	130	10.9	507	42.5	118	9.9	1194	100.0
Port Macquarie Base	414	53.4	30	3.9	41	5.3	303	39.0	67	8.6	776	100.0
Tamworth Base	517	49.6	48	4.6	106	10.2	451	43.2	75	7.2	1043	100.0
Manning Base	249	41.0	28	4.6	131	21.6	319	52.6	52	8.6	607	100.0
Dubbo Base	618	51.0	40	3.3	229	18.9	559	46.1	82	6.8	1212	100.0
Orange Base	545	55.5	48	4.9	118	12.0	379	38.6	55	5.6	982	100.0
Shoalhaven	383	44.9	18	2.1	131	15.4	435	51.0	86	10.1	853	100.0
Maitland	602	39.8	66	4.4	93	6.2	711	47.0	203	13.4	1512	100.0
Wagga Wagga Base	580	49.4	34	2.9	161	13.7	493	42.0	99	8.4	1174	100.0
Other hospitals	0	0.0	1	1.3	0	0.0	24	30.8	36	46.2	78	100.0
TOTAL	12713	45.4	858	3.1	2900	10.4	12759	45.6	2828	10.1	27980	100.0
Peer Group C												
Blue Mountains	74	36.6	1	0.5	14	6.9	73	36.1	38	18.8	202	100.0
Hawkesbury	354	46.4	33	4.3	124	16.3	279	36.6	90	11.8	763	100.0
Grafton Base	149	38.7	16	4.2	82	21.3	167	43.4	45	11.7	385	100.0
Kempsey	76	31.3	13	5.3	56	23.0	127	52.3	35	14.4	243	100.0
Armidale	201	47.4	8	1.9	76	17.9	156	36.8	29	6.8	424	100.0
Inverell	71	31.4	5	2.2	40	17.7	101	44.7	30	13.3	226	100.0
Mudgee	71	31.1	10	4.4	12	5.3	100	43.9	38	16.7	228	100.0
Bathurst Base	212	42.6	11	2.2	58	11.6	238	47.8	46	9.2	498	100.0
Bega	123	49.2	5	2.0	32	12.8	121	48.4	22	8.8	250	100.0
Goulburn Base	93	34.1	4	1.5	30	11.0	142	52.0	24	8.8	273	100.0
Moruya	114	36.0	8	2.5	22	6.9	129	40.7	69	21.8	317	100.0
Queanbeyan	298	53.4	17	3.0	28	5.0	225	40.3	53	9.5	558	100.0
Bowral	140	35.3	6	1.5	89	22.4	169	42.6	70	17.6	397	100.0
Griffith Base	167	33.0	13	2.6	89	17.6	222	43.9	74	14.6	506	100.0
Other hospitals	496	23.9	43	2.1	271	13.0	825	39.7	502	24.2	2078	100.0
TOTAL	2639	35.9	193	2.6	1023	13.9	3074	41.8	1165	15.9	7348	100.0
Peer Group D												
TOTAL	103	24.6	3	0.7	31	7.4	200	47.7	76	18.1	419	100.0
Public <sup>§</sup>												
TOTAL	35688	48.3	2450	3.3	7669	10.4	32241	43.6	6976	9.4	73891	100.0
Private												
Mater, North Sydney	1686	79.8	12	0.6	57	2.7	468	22.2	101	4.8	2112	100.0
North Shore Private	1906	83.3	19	0.8	33	1.4	458	20.0	76	3.3	2287	100.0
Sydney Adventist	1352	79.1	28	1.6	137	8.0	379	22.2	63	3.7	1710	100.0
North Gosford Private	513	80.7	10	1.6	9	1.4	130	20.4	10	1.6	636	100.0
Hurstville Community	484	78.1	10	1.6	38	6.1	146	23.5	15	2.4	620	100.0
Kareena Private	516	91.5	5	0.9	6	1.1	73	12.9	12	2.1	564	100.0
St. George Private	1145	82.9	12	0.9	39	2.8	281	20.3	51	3.7	1382	100.0
Prince of Wales Private	1885	87.4	15	0.7	75	3.5	549	25.5	90	4.2	2156	100.0
Norwest Private	1469	76.1	22	1.1	144	7.5	494	25.6	147	7.6	1930	100.0
Sydney Southwest Private	663	66.2	17	1.7	207	20.7	240	24.0	109	10.9	1001	100.0
Nepean Private	537	72.4	11	1.5	110	14.8	248	33.4	51	6.9	742	100.0
Westmead Private	1632	79.9	24	1.2	55	2.7	494	24.2	35	1.7	2042	100.0
Wollongong Private	775	83.2	21	2.3	1	0.1	223	23.9	35	3.8	932	100.0
Newcastle Private	1311	76.0	30	1.7	144	8.3	437	25.3	170	9.9	1725	100.0
Calvary, Wagga Wagga	212	73.1	2	0.7	25	8.6	60	20.7	37	12.8	290	100.0
TOTAL	16086	79.9	238	1.2	1080	5.4	4680	23.3	1002	5.0	20129	100.0
TOTAL NSW*	51774	55.0	2688	2.9	8749	9.3	36922	39.2	8060	8.6	94170	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

\* Hospitals with more than 200 births in 2018 are identified individually. Peer group levels are described on page 84 in Appendix 2: Explanatory notes.

† The category 'Epidural–spinal' includes epidural, spinal, combined epidural and spinal, and caudal pain relief.

‡ Row percentages do not sum to 100 per cent as one woman may have more than one type of analgesia.

§ Public total includes public hospitals with a peer group other than those specified in the table.

\* Total NSW includes births at home assisted by independent midwives and unassigned peer groups.



## Perineal status

Table 45 shows the perineal status in vaginal births for local health districts, and Table 46 for individual hospitals by peer group where at least 200 mothers gave birth in 2018.

In 2018, there were 1,827 cases of third degree tear and 66 cases of fourth degree tear reported among women who gave birth vaginally, including tears associated with an episiotomy.

**TABLE 45: PERINEAL STATUS AMONG VAGINAL BIRTHS BY LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2018**

Hospital sector– Local Health District	Perineal status																	
	Intact		1st degree tear/graze		2nd degree tear		3rd or 4th degree tear		Episiotomy		Combined tear and episiotomy		Other		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Public																		
Sydney	533	12.4	853	19.9	1537	35.8	148	3.4	867	20.2	217	5.1	135	3.1	0	0.0	4290	100.0
South Western Sydney	1767	20.9	2037	24.1	2483	29.3	225	2.7	1395	16.5	209	2.5	351	4.1	0	0.0	8467	100.0
South Eastern Sydney	640	12.6	915	18.0	1566	30.8	183	3.6	1298	25.5	200	3.9	290	5.7	0	0.0	5092	100.0
Illawarra Shoalhaven	425	18.5	572	24.9	664	28.9	57	2.5	310	13.5	31	1.4	235	10.2	0	0.0	2294	100.0
Western Sydney	922	12.6	1414	19.4	2229	30.5	183	2.5	1761	24.1	275	3.8	515	7.1	0	0.0	7299	100.0
Nepean Blue Mountains	435	13.5	960	29.7	935	28.9	76	2.4	484	15.0	76	2.4	266	8.2	0	0.0	3232	100.0
Northern Sydney	367	9.7	822	21.6	1346	35.4	105	2.8	817	21.5	95	2.5	211	5.6	35	0.9	3798	100.0
Central Coast	277	13.2	590	28.1	631	30.0	52	2.5	279	13.3	43	2.0	230	10.9	0	0.0	2102	100.0
Hunter New England	1039	17.5	1704	28.6	1581	26.6	178	3.0	884	14.9	112	1.9	454	7.6	0	0.0	5952	100.0
Northern NSW	388	17.4	652	29.2	644	28.8	75	3.4	273	12.2	37	1.7	164	7.3	0	0.0	2233	100.0
Mid North Coast	257	18.7	402	29.2	383	27.9	37	2.7	162	11.8	16	1.2	118	8.6	0	0.0	1375	100.0
Southern NSW	211	19.4	318	29.2	285	26.2	29	2.7	129	11.9	28	2.6	88	8.1	0	0.0	1088	100.0
Murrumbidgee	295	20.5	467	32.5	348	24.2	31	2.2	203	14.1	20	1.4	75	5.2	0	0.0	1439	100.0
Western NSW	374	16.6	729	32.4	524	23.3	45	2.0	371	16.5	57	2.5	149	6.6	0	0.0	2249	100.0
Far West	37	25.2	50	34.0	29	19.7	2	1.4	10	6.8	1	0.7	18	12.2	0	0.0	147	100.0
TOTAL	7967	15.6	12485	24.5	15185	29.7	1426	2.8	9243	18.1	1417	2.8	3299	6.5	35	0.1	51057	100.0
Private																		
TOTAL	1566	14.9	1902	18.1	3364	32.0	74	0.7	2707	25.8	251	2.4	646	6.1	2	0.0	10512	100.0
TOTAL NSW*	9596	15.5	14433	23.4	18583	30.1	1502	2.4	11952	19.4	1669	2.7	3947	6.4	37	0.1	61719	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

\* Total includes births at home assisted by independent midwives.

**TABLE 46: PERINEAL STATUS AMONG VAGINAL BIRTHS BY HOSPITAL AND PEER GROUP, NSW 2018\***

Peer Group–Hospital	Perineal status																	
	Intact		1st degree tear/graze		2nd degree tear		3rd or 4th degree tear		Episiotomy		Combined tear and episiotomy		Other		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Peer Group A																		
Royal Prince Alfred	352	11.2	613	19.5	1177	37.4	119	3.8	639	20.3	168	5.3	79	2.5	0	0.0	3147	100.0
Gosford	262	12.9	550	27.2	615	30.4	52	2.6	278	13.7	43	2.1	224	11.1	0	0.0	2024	100.0
Royal North Shore	126	7.0	329	18.4	690	38.5	56	3.1	441	24.6	50	2.8	98	5.5	0	0.0	1790	100.0
St. George	200	12.7	229	14.5	470	29.7	48	3.0	473	29.9	93	5.9	68	4.3	0	0.0	1581	100.0
Royal Hospital for Women	318	12.5	486	19.1	762	30.0	105	4.1	623	24.5	76	3.0	169	6.7	0	0.0	2539	100.0
Liverpool	533	19.4	649	23.7	788	28.7	90	3.3	438	16.0	103	3.8	142	5.2	0	0.0	2743	100.0
Nepean	307	12.3	744	29.8	726	29.1	59	2.4	371	14.9	69	2.8	219	8.8	0	0.0	2495	100.0
Westmead	467	12.8	642	17.6	1101	30.2	83	2.3	956	26.2	170	4.7	224	6.1	0	0.0	3643	100.0
Bankstown-Lidcombe	267	19.3	333	24.0	379	27.3	43	3.1	256	18.5	47	3.4	61	4.4	0	0.0	1386	100.0
Wollongong	289	17.3	377	22.5	538	32.2	36	2.2	231	13.8	29	1.7	173	10.3	0	0.0	1673	100.0
John Hunter	400	15.1	675	25.5	771	29.2	97	3.7	441	16.7	62	2.3	197	7.5	0	0.0	2643	100.0
TOTAL	3521	13.7	5627	21.9	8017	31.2	788	3.1	5147	20.1	910	3.5	1654	6.4	0	0.0	25664	100.0
Peer Group B																		
Canterbury	181	15.8	240	21.0	359	31.4	29	2.5	228	20.0	49	4.3	56	4.9	0	0.0	1142	100.0
Hornsby	102	11.7	150	17.3	326	37.5	22	2.5	197	22.7	33	3.8	39	4.5	0	0.0	869	100.0
Manly	50	9.9	110	21.8	185	36.6	13	2.6	98	19.4	9	1.8	40	7.9	0	0.0	505	100.0
Mona Vale	54	14.3	117	31.0	118	31.3	13	3.4	43	11.4	3	0.8	29	7.7	0	0.0	377	100.0
Northern Beaches	20	11.4	79	44.9	3	1.7	1	0.6	38	21.6	0	0.0	0	0.0	35	19.9	176	100.0
Sutherland	122	12.6	200	20.6	334	34.4	30	3.1	202	20.8	31	3.2	53	5.5	0	0.0	972	100.0
Auburn	185	16.7	240	21.7	326	29.5	15	1.4	224	20.3	42	3.8	73	6.6	0	0.0	1105	100.0
Blacktown	270	10.6	532	20.9	802	31.4	85	3.3	581	22.8	63	2.5	218	8.5	0	0.0	2551	100.0
Fairfield	316	27.7	245	21.5	306	26.8	28	2.5	213	18.7	18	1.6	16	1.4	0	0.0	1142	100.0
Campbelltown	579	20.0	725	25.1	914	31.6	60	2.1	458	15.8	39	1.3	117	4.0	0	0.0	2892	100.0
Coffs Harbour	114	17.2	191	28.9	204	30.8	12	1.8	76	11.5	7	1.1	58	8.8	0	0.0	662	100.0

(Continued on next page)



TABLE 46: (CONTINUED)

Peer Group–Hospital	Perineal status																	
	Intact		1st degree tear/graze		2nd degree tear		3rd or 4th degree tear		Episiotomy		Combined tear and episiotomy		Other		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Lismore Base	151	16.9	275	30.7	233	26.0	36	4.0	120	13.4	13	1.5	67	7.5	0	0.0	895	100.0
Tweed Heads	138	15.5	213	23.9	295	33.1	31	3.5	127	14.3	22	2.5	65	7.3	0	0.0	891	100.0
Port Macquarie Base	85	17.3	128	26.1	144	29.3	17	3.5	75	15.3	6	1.2	36	7.3	0	0.0	491	100.0
Tamworth Base	112	16.6	214	31.8	168	24.9	16	2.4	93	13.8	10	1.5	61	9.1	0	0.0	674	100.0
Manning Base	78	17.9	130	29.9	114	26.2	11	2.5	51	11.7	10	2.3	41	9.4	0	0.0	435	100.0
Dubbo Base	150	18.6	228	28.3	145	18.0	11	1.4	178	22.1	23	2.9	70	8.7	0	0.0	805	100.0
Orange Base	81	13.1	198	32.1	160	25.9	12	1.9	112	18.2	21	3.4	33	5.3	0	0.0	617	100.0
Shoalhaven	136	21.9	195	31.4	126	20.3	21	3.4	79	12.7	2	0.3	62	10.0	0	0.0	621	100.0
Maitland	190	17.2	348	31.5	285	25.8	44	4.0	141	12.7	22	2.0	76	6.9	0	0.0	1106	100.0
Wagga Wagga Base	102	13.6	248	33.0	197	26.2	19	2.5	123	16.4	15	2.0	48	6.4	0	0.0	752	100.0
Other hospitals	15	19.2	40	51.3	16	20.5	0	0.0	1	1.3	0	0.0	6	7.7	0	0.0	78	100.0
TOTAL	3231	16.4	5046	25.5	5760	29.2	526	2.7	3458	17.5	438	2.2	1264	6.4	35	0.2	19758	100.0
Peer Group C																		
Blue Mountains	19	12.8	55	36.9	51	34.2	1	0.7	8	5.4	4	2.7	11	7.4	0	0.0	149	100.0
Hawkesbury	92	18.8	129	26.3	130	26.5	16	3.3	94	19.2	1	0.2	28	5.7	0	0.0	490	100.0
Grafton Base	67	26.0	74	28.7	71	27.5	5	1.9	22	8.5	2	0.8	17	6.6	0	0.0	258	100.0
Kempsey	50	27.6	63	34.8	28	15.5	5	2.8	10	5.5	3	1.7	22	12.2	0	0.0	181	100.0
Armidale	41	16.1	72	28.2	59	23.1	2	0.8	52	20.4	2	0.8	27	10.6	0	0.0	255	100.0
Inverell	36	23.5	42	27.5	17	11.1	0	0.0	48	31.4	3	2.0	7	4.6	0	0.0	153	100.0
Mudgee	43	25.4	50	29.6	48	28.4	2	1.2	17	10.1	3	1.8	6	3.6	0	0.0	169	100.0
Bathurst Base	36	10.3	135	38.7	97	27.8	17	4.9	35	10.0	4	1.1	25	7.2	0	0.0	349	100.0
Bega	32	19.0	37	22.0	51	30.4	2	1.2	27	16.1	1	0.6	18	10.7	0	0.0	168	100.0
Goulburn Base	51	24.9	36	17.6	68	33.2	3	1.5	26	12.7	2	1.0	19	9.3	0	0.0	205	100.0
Moruya	48	21.1	81	35.5	53	23.2	6	2.6	9	3.9	2	0.9	29	12.7	0	0.0	228	100.0
Queanbeyan	51	13.6	128	34.0	85	22.6	16	4.3	60	16.0	23	6.1	13	3.5	0	0.0	376	100.0
Bowral	72	23.7	85	28.0	96	31.6	4	1.3	30	9.9	2	0.7	15	4.9	0	0.0	304	100.0
Griffith Base	94	26.2	114	31.8	88	24.5	6	1.7	43	12.0	3	0.8	11	3.1	0	0.0	359	100.0
Other hospitals	402	24.2	588	35.3	402	24.2	20	1.2	126	7.6	13	0.8	113	6.8	0	0.0	1664	100.0
TOTAL	1134	21.4	1689	31.8	1344	25.3	105	2.0	607	11.4	68	1.3	361	6.8	0	0.0	5308	100.0
Peer Group D																		
TOTAL	81	24.8	123	37.7	63	19.3	7	2.1	31	9.5	1	0.3	20	6.1	0	0.0	326	100.0
Public <sup>§</sup>																		
TOTAL	7967	15.6	12485	24.5	15185	29.7	1426	2.8	9243	18.1	1417	2.8	3299	6.5	35	0.1	51057	100.0
Private																		
Mater, North Sydney	135	14.0	230	23.9	299	31.1	7	0.7	263	27.4	21	2.2	6	0.6	0	0.0	961	100.0
North Shore Private	140	13.1	224	21.0	405	37.9	11	1.0	252	23.6	7	0.7	30	2.8	0	0.0	1069	100.0
Sydney Adventist	181	18.8	245	25.4	274	28.4	0	0.0	231	24.0	0	0.0	33	3.4	0	0.0	964	100.0
North Gosford Private	54	19.2	64	22.8	99	35.2	2	0.7	54	19.2	7	2.5	1	0.4	0	0.0	281	100.0
Hurstville Community	63	18.1	85	24.4	106	30.5	1	0.3	91	26.1	1	0.3	1	0.3	0	0.0	348	100.0
Kareena Private	33	12.7	66	25.4	98	37.7	5	1.9	56	21.5	0	0.0	2	0.8	0	0.0	260	100.0
St. George Private	124	16.0	132	17.0	313	40.3	10	1.3	178	22.9	3	0.4	17	2.2	0	0.0	777	100.0
Prince of Wales Private	118	12.6	125	13.4	269	28.8	2	0.2	244	26.1	47	5.0	129	13.8	1	0.1	935	100.0
Norwest Private	184	15.4	159	13.4	382	32.1	4	0.3	298	25.0	56	4.7	108	9.1	0	0.0	1191	100.0
Sydney Southwest Private	103	15.5	123	18.5	179	27.0	3	0.5	156	23.5	26	3.9	73	11.0	1	0.2	664	100.0
Nepean Private	61	15.5	45	11.5	94	23.9	3	0.8	135	34.4	21	5.3	34	8.7	0	0.0	393	100.0
Westmead Private	107	9.5	192	17.1	278	24.8	5	0.4	494	44.0	8	0.7	39	3.5	0	0.0	1123	100.0
Wollongong Private	74	13.7	82	15.2	219	40.6	6	1.1	129	23.9	0	0.0	29	5.4	0	0.0	539	100.0
Newcastle Private	157	17.5	106	11.8	312	34.8	14	1.6	111	12.4	54	6.0	143	15.9	0	0.0	897	100.0
Calvary, Wagga Wagga	32	29.1	24	21.8	37	33.6	1	0.9	15	13.6	0	0.0	1	0.9	0	0.0	110	100.0
TOTAL	1566	14.9	1902	18.1	3364	32.0	74	0.7	2707	25.8	251	2.4	646	6.1	2	0.0	10512	100.0
TOTAL NSW*	9596	15.5	14433	23.4	18583	30.1	1502	2.4	11952	19.4	1669	2.7	3947	6.4	37	0.1	61719	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Hospitals with more than 200 births in 2018 are identified epidemically. Peer group levels are described on page 84 in Appendix 2: Explanatory notes.

§ Public total includes public hospitals with a peer group other than those specified in the table.

\* Total NSW includes births at home assisted by independent midwives and unassigned peer groups.

## Birth weight

Table 47 shows the birth weight of babies for local health districts, and Table 48 for individual hospitals by peer group where at least 200 mothers gave birth in 2018.

**TABLE 47: BIRTHS BY BIRTH WEIGHT AND LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2018**

Hospital sector– Local Health District	Birth weight (grams)											
	Less than 1,000		1,000–1,499		1,500–2,499		2,500+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Public												
Sydney	76	1.2	50	0.8	466	7.1	5999	90.8	15	0.2	6606	100.0
South Western Sydney	100	0.9	51	0.4	677	5.8	10889	92.8	18	0.2	11735	100.0
South Eastern Sydney	90	1.2	73	1.0	481	6.4	6864	91.1	23	0.3	7531	100.0
Illawarra Shoalhaven	16	0.5	7	0.2	197	5.8	3201	93.6	0	0.0	3421	100.0
Western Sydney	110	1.0	103	1.0	705	6.6	9739	91.2	22	0.2	10679	100.0
Nepean Blue Mountains	46	0.9	37	0.7	345	6.7	4688	91.4	14	0.3	5130	100.0
Northern Sydney	52	0.9	41	0.7	311	5.5	5265	92.5	23	0.4	5692	100.0
Central Coast	16	0.5	7	0.2	177	5.8	2853	93.4	1	0.0	3054	100.0
Hunter New England	81	0.9	90	1.0	582	6.6	8081	91.4	12	0.1	8846	100.0
Northern NSW	11	0.4	4	0.1	129	4.4	2786	94.8	9	0.3	2939	100.0
Mid North Coast	7	0.3	7	0.3	120	5.6	2004	93.4	7	0.3	2145	100.0
Southern NSW	7	0.5	1	0.1	34	2.2	1497	97.1	2	0.1	1541	100.0
Murrumbidgee	7	0.3	0	0.0	107	5.0	2016	94.2	10	0.5	2140	100.0
Western NSW	13	0.4	5	0.1	159	4.7	3180	94.5	7	0.2	3364	100.0
Far West	3	1.6	0	0.0	5	2.6	184	95.8	0	0.0	192	100.0
TOTAL	635	0.8	476	0.6	4495	6.0	69246	92.3	163	0.2	75015	100.0
Private												
TOTAL	23	0.1	12	0.1	889	4.4	19444	95.4	19	0.1	20387	100.0
TOTAL NSW*	658	0.7	488	0.5	5387	5.6	88834	93.0	185	0.2	95552	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

\* Total includes births at home assisted by independent midwives.

**TABLE 48: BIRTHS BY BIRTH WEIGHT, HOSPITAL AND PEER GROUP, NSW 2018<sup>a</sup>**

Peer Group–Hospital	Birth weight (grams)											
	Less than 1,000		1,000–1,499		1,500–2,499		2,500+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Peer Group A												
Royal Prince Alfred	70	1.4	49	1.0	374	7.5	4466	89.9	11	0.2	4970	100.0
Gosford	16	0.5	7	0.2	176	5.9	2776	93.3	1	0.0	2976	100.0
Royal North Shore	45	1.6	38	1.4	210	7.5	2517	89.5	3	0.1	2813	100.0
St. George	13	0.6	3	0.1	182	7.7	2157	91.5	3	0.1	2358	100.0
Royal Hospital for Women	72	1.9	68	1.8	283	7.4	3405	88.6	16	0.4	3844	100.0
Liverpool	70	1.8	46	1.2	325	8.5	3385	88.4	5	0.1	3831	100.0
Nepean	45	1.1	36	0.9	321	8.0	3587	89.7	11	0.3	4000	100.0
Westmead	88	1.6	90	1.6	444	8.1	4865	88.4	14	0.3	5501	100.0
Bankstown-Lidcombe	8	0.4	0	0.0	100	5.1	1859	94.4	3	0.2	1970	100.0
Wollongong	11	0.4	6	0.2	172	6.7	2375	92.6	0	0.0	2564	100.0
John Hunter	68	1.6	82	2.0	352	8.5	3622	87.7	8	0.2	4132	100.0
TOTAL	506	1.3	425	1.1	2939	7.5	35014	89.9	75	0.2	38959	100.0
Peer Group B												
Canterbury	6	0.4	1	0.1	92	5.6	1532	93.7	4	0.2	1635	100.0
Hornsby	3	0.2	2	0.2	49	3.9	1197	95.5	2	0.2	1253	100.0
Manly	3	0.4	0	0.0	21	2.9	692	96.6	0	0.0	716	100.0
Mona Vale	1	0.2	1	0.2	17	3.1	536	96.6	0	0.0	555	100.0
Northern Beaches	0	0.0	0	0.0	12	4.4	244	89.1	18	6.6	274	100.0
Sutherland	5	0.4	2	0.2	16	1.2	1302	98.0	4	0.3	1329	100.0
Auburn	7	0.5	1	0.1	41	2.8	1421	96.6	1	0.1	1471	100.0
Blacktown	15	0.4	12	0.3	220	5.9	3453	93.1	7	0.2	3707	100.0
Fairfield	10	0.6	1	0.1	54	3.4	1524	95.8	2	0.1	1591	100.0
Campbelltown	12	0.3	4	0.1	193	4.9	3729	94.5	7	0.2	3945	100.0
Coffs Harbour	2	0.2	3	0.3	53	5.0	1005	94.0	6	0.6	1069	100.0
Lismore Base	6	0.5	1	0.1	58	5.0	1085	93.9	5	0.4	1155	100.0
Tweed Heads	4	0.3	3	0.2	49	4.1	1150	95.3	1	0.1	1207	100.0
Port Macquarie Base	2	0.3	2	0.3	60	7.6	727	91.8	1	0.1	792	100.0
Tamworth Base	1	0.1	1	0.1	66	6.2	986	93.2	4	0.4	1058	100.0

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TABLE 48: (CONTINUED)

Peer Group–Hospital	Birth weight (grams)											
	Less than 1,000		1,000–1,499		1,500–2,499		2,500+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Manning Base	0	0.0	1	0.2	44	7.2	566	92.6	0	0.0	611	100.0
Dubbo Base	7	0.6	3	0.2	82	6.7	1137	92.3	3	0.2	1232	100.0
Orange Base	2	0.2	1	0.1	45	4.5	946	94.9	3	0.3	997	100.0
Shoalhaven	5	0.6	1	0.1	25	2.9	826	96.4	0	0.0	857	100.0
Maitland	6	0.4	4	0.3	70	4.6	1445	94.8	0	0.0	1525	100.0
Wagga Wagga Base	7	0.6	0	0.0	71	5.9	1110	92.9	7	0.6	1195	100.0
Other hospitals	0	0.0	0	0.0	1	1.3	77	98.7	0	0.0	78	100.0
TOTAL	104	0.4	44	0.2	1339	4.7	26690	94.5	75	0.3	28252	100.0
Peer Group C												
Blue Mountains	0	0.0	0	0.0	0	0.0	200	99.0	2	1.0	202	100.0
Hawkesbury	0	0.0	1	0.1	17	2.2	750	97.7	0	0.0	768	100.0
Grafton Base	1	0.3	0	0.0	21	5.4	364	93.8	2	0.5	388	100.0
Kempsey	3	1.2	2	0.8	7	2.9	231	95.1	0	0.0	243	100.0
Armidale	4	0.9	0	0.0	27	6.3	398	92.8	0	0.0	429	100.0
Inverell	1	0.4	1	0.4	9	4.0	215	95.1	0	0.0	226	100.0
Mudgee	1	0.4	0	0.0	6	2.6	222	96.9	0	0.0	229	100.0
Bathurst Base	3	0.6	1	0.2	17	3.4	480	95.8	0	0.0	501	100.0
Bega	2	0.8	0	0.0	8	3.2	239	95.6	1	0.4	250	100.0
Goulburn Base	2	0.7	0	0.0	7	2.5	266	96.4	1	0.4	276	100.0
Moruya	2	0.6	0	0.0	8	2.5	310	96.9	0	0.0	320	100.0
Queanbeyan	1	0.2	1	0.2	8	1.4	548	98.2	0	0.0	558	100.0
Bowral	0	0.0	0	0.0	5	1.3	392	98.5	1	0.3	398	100.0
Griffith Base	0	0.0	0	0.0	29	5.6	485	94.0	2	0.4	516	100.0
Other hospitals	5	0.2	1	0.0	42	2.0	2028	97.5	4	0.2	2080	100.0
TOTAL	25	0.3	7	0.1	211	2.9	7128	96.5	13	0.2	7384	100.0
Peer Group D												
TOTAL	0	0.0	0	0.0	6	1.4	413	98.6	0	0.0	419	100.0
Public <sup>§</sup>												
TOTAL	635	0.8	476	0.6	4495	6.0	69246	92.3	163	0.2	75015	100.0
Private												
Mater, North Sydney	3	0.1	3	0.1	101	4.7	2029	94.9	1	0.0	2137	100.0
North Shore Private	3	0.1	2	0.1	118	5.1	2200	94.7	1	0.0	2324	100.0
Sydney Adventist	1	0.1	0	0.0	75	4.3	1654	95.6	1	0.1	1731	100.0
North Gosford Private	0	0.0	1	0.2	30	4.7	609	94.6	4	0.6	644	100.0
Hurstville Community	0	0.0	0	0.0	12	1.9	611	97.8	2	0.3	625	100.0
Kareena Private	0	0.0	0	0.0	8	1.4	560	98.6	0	0.0	568	100.0
St. George Private	0	0.0	1	0.1	68	4.9	1332	95.1	0	0.0	1401	100.0
Prince of Wales Private	1	0.0	0	0.0	115	5.2	2085	94.7	0	0.0	2201	100.0
Norwest Private	7	0.4	2	0.1	72	3.7	1864	95.8	1	0.1	1946	100.0
Sydney Southwest Private	0	0.0	1	0.1	25	2.5	982	97.2	2	0.2	1010	100.0
Nepean Private	1	0.1	0	0.0	38	5.1	712	94.8	0	0.0	751	100.0
Westmead Private	4	0.2	1	0.0	108	5.2	1950	94.5	1	0.0	2064	100.0
Wollongong Private	0	0.0	0	0.0	35	3.7	912	96.3	0	0.0	947	100.0
Newcastle Private	3	0.2	1	0.1	70	4.0	1665	95.4	6	0.3	1745	100.0
Calvary, Wagga Wagga	0	0.0	0	0.0	14	4.8	279	95.2	0	0.0	293	100.0
TOTAL	23	0.1	12	0.1	889	4.4	19444	95.4	19	0.1	20387	100.0
TOTAL NSW*	658	0.7	488	0.5	5387	5.6	88834	93.0	185	0.2	95552	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

<sup>#</sup> Hospitals with more than 200 births in 2018 are identified individually. Peer group levels are described on page 84 in *Appendix 2: Explanatory notes*.<sup>§</sup> Public total includes public hospitals with a peer group other than those specified in the table.<sup>\*</sup> Total NSW includes births at home assisted by independent midwives and unassigned peer groups.

## Gestational age

Table 49 shows the gestational age of babies for local health districts, and Table 50 for individual hospitals by peer group where at least 200 mothers gave birth in 2018

**TABLE 49: BIRTHS BY GESTATIONAL AGE AND LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2018**

Hospital sector– Local Health District	Gestational age (weeks)											
	<32		32–33		34–36		37+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Public												
Sydney	151	2.3	61	0.9	448	6.8	5946	90.0	0	0.0	6606	100.0
South Western Sydney	176	1.5	110	0.9	696	5.9	10751	91.6	2	0.0	11735	100.0
South Eastern Sydney	179	2.4	87	1.2	372	4.9	6890	91.5	3	0.0	7531	100.0
Illawarra Shoalhaven	21	0.6	33	1.0	209	6.1	3158	92.3	0	0.0	3421	100.0
Western Sydney	230	2.2	128	1.2	476	4.5	9843	92.2	2	0.0	10679	100.0
Nepean Blue Mountains	100	1.9	58	1.1	337	6.6	4634	90.3	1	0.0	5130	100.0
Northern Sydney	119	2.1	54	0.9	217	3.8	5298	93.1	4	0.1	5692	100.0
Central Coast	21	0.7	18	0.6	169	5.5	2846	93.2	0	0.0	3054	100.0
Hunter New England	192	2.2	127	1.4	479	5.4	8044	90.9	4	0.0	8846	100.0
Northern NSW	20	0.7	23	0.8	119	4.0	2774	94.4	3	0.1	2939	100.0
Mid North Coast	20	0.9	4	0.2	130	6.1	1991	92.8	0	0.0	2145	100.0
Southern NSW	7	0.5	2	0.1	34	2.2	1498	97.2	0	0.0	1541	100.0
Murrumbidgee	9	0.4	14	0.7	110	5.1	2006	93.7	1	0.0	2140	100.0
Western NSW	23	0.7	12	0.4	192	5.7	3137	93.3	0	0.0	3364	100.0
Far West	2	1.0	1	0.5	4	2.1	185	96.4	0	0.0	192	100.0
TOTAL	1270	1.7	732	1.0	3992	5.3	69001	92.0	20	0.0	75015	100.0
Private												
TOTAL	43	0.2	59	0.3	1226	6.0	19028	93.3	31	0.2	20387	100.0
TOTAL NSW*	1313	1.4	791	0.8	5220	5.5	88162	92.3	66	0.1	95552	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

\* Total includes births at home assisted by independent midwives.

**TABLE 50: BIRTHS BY GESTATIONAL AGE, HOSPITAL AND PEER GROUP, NSW 2018\***

Peer Group–Hospital	Gestational age (weeks)											
	<32		32–33		34–36		37+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Peer Group A												
Royal Prince Alfred	144	2.9	59	1.2	362	7.3	4405	88.6	0	0.0	4970	100.0
Gosford	21	0.7	18	0.6	168	5.6	2769	93.0	0	0.0	2976	100.0
Royal North Shore	108	3.8	50	1.8	131	4.7	2524	89.7	0	0.0	2813	100.0
St. George	17	0.7	24	1.0	131	5.6	2186	92.7	0	0.0	2358	100.0
Royal Hospital for Women	155	4.0	61	1.6	212	5.5	3413	88.8	3	0.1	3844	100.0
Liverpool	135	3.5	78	2.0	310	8.1	3308	86.3	0	0.0	3831	100.0
Nepean	97	2.4	58	1.5	294	7.4	3551	88.8	0	0.0	4000	100.0
Westmead	196	3.6	102	1.9	276	5.0	4926	89.5	1	0.0	5501	100.0
Bankstown-Lidcombe	10	0.5	7	0.4	94	4.8	1859	94.4	0	0.0	1970	100.0
Wollongong	14	0.5	33	1.3	192	7.5	2325	90.7	0	0.0	2564	100.0
John Hunter	166	4.0	112	2.7	257	6.2	3596	87.0	1	0.0	4132	100.0
TOTAL	1063	2.7	602	1.5	2427	6.2	34862	89.5	5	0.0	38959	100.0
Peer Group B												
Canterbury	7	0.4	2	0.1	86	5.3	1540	94.2	0	0.0	1635	100.0
Hornsby	5	0.4	1	0.1	45	3.6	1202	95.9	0	0.0	1253	100.0
Manly	4	0.6	0	0.0	21	2.9	691	96.5	0	0.0	716	100.0
Mona Vale	2	0.4	0	0.0	12	2.2	541	97.5	0	0.0	555	100.0
Northern Beaches	0	0.0	3	1.1	8	2.9	259	94.5	4	1.5	274	100.0
Sutherland	7	0.5	2	0.2	29	2.2	1291	97.1	0	0.0	1329	100.0
Auburn	9	0.6	1	0.1	20	1.4	1441	98.0	0	0.0	1471	100.0
Blacktown	25	0.7	25	0.7	180	4.9	3476	93.8	1	0.0	3707	100.0
Fairfield	11	0.7	2	0.1	64	4.0	1513	95.1	1	0.1	1591	100.0
Campbelltown	20	0.5	23	0.6	218	5.5	3683	93.4	1	0.0	3945	100.0
Coffs Harbour	8	0.7	1	0.1	52	4.9	1008	94.3	0	0.0	1069	100.0
Lismore Base	11	1.0	13	1.1	45	3.9	1086	94.0	0	0.0	1155	100.0
Tweed Heads	7	0.6	8	0.7	50	4.1	1140	94.4	2	0.2	1207	100.0
Port Macquarie Base	7	0.9	2	0.3	70	8.8	713	90.0	0	0.0	792	100.0
Tamworth Base	5	0.5	9	0.9	58	5.5	983	92.9	3	0.3	1058	100.0

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TABLE 50: (CONTINUED)

Peer Group–Hospital	Gestational age (weeks)											
	<32		32–33		34–36		37+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Tamworth Base	5	0.5	9	0.9	58	5.5	983	92.9	3	0.3	1058	100.0
Manning Base	3	0.5	2	0.3	45	7.4	561	91.8	0	0.0	611	100.0
Dubbo Base	14	1.1	9	0.7	97	7.9	1112	90.3	0	0.0	1232	100.0
Orange Base	4	0.4	1	0.1	59	5.9	933	93.6	0	0.0	997	100.0
Shoalhaven	7	0.8	0	0.0	17	2.0	833	97.2	0	0.0	857	100.0
Maitland	10	0.7	1	0.1	67	4.4	1447	94.9	0	0.0	1525	100.0
Wagga Wagga Base	8	0.7	11	0.9	66	5.5	1110	92.9	0	0.0	1195	100.0
Other hospitals	0	0.0	0	0.0	1	1.3	77	98.7	0	0.0	78	100.0
TOTAL	174	0.6	116	0.4	1310	4.6	26640	94.3	12	0.0	28252	100.0
Peer Group C												
Blue Mountains	0	0.0	0	0.0	0	0.0	202	100.0	0	0.0	202	100.0
Hawkesbury	2	0.3	0	0.0	38	4.9	727	94.7	1	0.1	768	100.0
Grafton Base	2	0.5	2	0.5	24	6.2	359	92.5	1	0.3	388	100.0
Kempsey	5	2.1	1	0.4	7	2.9	230	94.7	0	0.0	243	100.0
Armidale	4	0.9	1	0.2	32	7.5	392	91.4	0	0.0	429	100.0
Inverell	2	0.9	1	0.4	7	3.1	216	95.6	0	0.0	226	100.0
Mudgee	1	0.4	0	0.0	5	2.2	223	97.4	0	0.0	229	100.0
Bathurst Base	4	0.8	2	0.4	24	4.8	471	94.0	0	0.0	501	100.0
Bega	2	0.8	0	0.0	4	1.6	244	97.6	0	0.0	250	100.0
Goulburn Base	2	0.7	0	0.0	11	4.0	263	95.3	0	0.0	276	100.0
Moruya	2	0.6	1	0.3	8	2.5	309	96.6	0	0.0	320	100.0
Queanbeyan	1	0.2	1	0.2	9	1.6	547	98.0	0	0.0	558	100.0
Bowral	0	0.0	0	0.0	10	2.5	388	97.5	0	0.0	398	100.0
Griffith Base	1	0.2	2	0.4	36	7.0	477	92.4	0	0.0	516	100.0
Other hospitals	5	0.2	2	0.1	36	1.7	2037	97.9	0	0.0	2080	100.0
TOTAL	33	0.4	13	0.2	251	3.4	7085	96.0	2	0.0	7384	100.0
Peer Group D												
TOTAL	0	0.0	1	0.2	4	1.0	413	98.6	1	0.2	419	100.0
Public <sup>§</sup>												
TOTAL	1270	1.7	732	1.0	3992	5.3	69001	92.0	20	0.0	75015	100.0
Private												
Mater, North Sydney	6	0.3	7	0.3	126	5.9	1974	92.4	24	1.1	2137	100.0
North Shore Private	8	0.3	15	0.6	150	6.5	2151	92.6	0	0.0	2324	100.0
Sydney Adventist	2	0.1	5	0.3	82	4.7	1642	94.9	0	0.0	1731	100.0
North Gosford Private	4	0.6	1	0.2	57	8.9	577	89.6	5	0.8	644	100.0
Hurstville Community	1	0.2	0	0.0	18	2.9	604	96.6	2	0.3	625	100.0
Kareena Private	0	0.0	0	0.0	19	3.3	549	96.7	0	0.0	568	100.0
St. George Private	0	0.0	4	0.3	97	6.9	1300	92.8	0	0.0	1401	100.0
Prince of Wales Private	1	0.0	6	0.3	152	6.9	2042	92.8	0	0.0	2201	100.0
Norwest Private	7	0.4	4	0.2	91	4.7	1844	94.8	0	0.0	1946	100.0
Sydney Southwest Private	2	0.2	0	0.0	62	6.1	946	93.7	0	0.0	1010	100.0
Nepean Private	1	0.1	1	0.1	56	7.5	693	92.3	0	0.0	751	100.0
Westmead Private	7	0.3	9	0.4	103	5.0	1945	94.2	0	0.0	2064	100.0
Wollongong Private	0	0.0	1	0.1	64	6.8	882	93.1	0	0.0	947	100.0
Newcastle Private	4	0.2	5	0.3	120	6.9	1616	92.6	0	0.0	1745	100.0
Calvary, Wagga Wagga	0	0.0	1	0.3	29	9.9	263	89.8	0	0.0	293	100.0
TOTAL	43	0.2	59	0.3	1226	6.0	19028	93.3	31	0.2	20387	100.0
TOTAL NSW*	1313	1.4	791	0.8	5220	5.5	88162	92.3	66	0.1	95552	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Hospitals with more than 200 births in 2018 are identified individually. Peer group levels are described on page 84 in *Appendix 2: Explanatory notes*.

§ Public total includes public hospitals with a peer group other than those specified in the table.

\* Total NSW includes births at home assisted by independent midwives and unassigned peer groups.

## Neonatal resuscitation

Table 51 shows the type of neonatal resuscitation for local health districts, and Table 52 for individual hospitals by peer group where at least 200 mothers gave birth in 2018.

**TABLE 51: BIRTHS BY TYPE OF RESUSCITATION AND LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2018**

Hospital sector– Local Health District	Resuscitation of baby															
	None/Minimal		Suction		O2 Therapy		IPPR by mask		Intubation and IPPR		External cardiac massage and ventilation		CPAP ventilation		TOTAL†	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Public																
Sydney	5442	82.4	135	2.0	168	2.5	596	9.0	39	0.6	22	0.3	202	3.1	6606	100.0
South Western Sydney	10308	87.8	294	2.5	258	2.2	607	5.2	30	0.3	41	0.3	195	1.7	11735	100.0
South Eastern Sydney	5927	78.7	418	5.6	135	1.8	147	2.0	43	0.6	36	0.5	825	11.0	7531	100.0
Illawarra Shoalhaven	2938	85.9	77	2.3	67	2.0	75	2.2	1	0.0	12	0.4	251	7.3	3421	100.0
Western Sydney	8412	78.8	875	8.2	90	0.8	154	1.4	105	1.0	28	0.3	1014	9.5	10679	100.0
Nepean Blue Mountains	4160	81.1	272	5.3	98	1.9	143	2.8	37	0.7	9	0.2	411	8.0	5130	100.0
Northern Sydney	4635	81.4	211	3.7	57	1.0	106	1.9	24	0.4	13	0.2	631	11.1	5692	100.0
Central Coast	2490	81.5	74	2.4	72	2.4	135	4.4	7	0.2	8	0.3	268	8.8	3054	100.0
Hunter New England	7180	81.2	142	1.6	81	0.9	224	2.5	16	0.2	36	0.4	1167	13.2	8846	100.0
Northern NSW	2395	81.5	62	2.1	32	1.1	79	2.7	3	0.1	7	0.2	359	12.2	2939	100.0
Mid North Coast	1833	85.5	36	1.7	12	0.6	47	2.2	1	0.0	3	0.1	213	9.9	2145	100.0
Southern NSW	1290	83.7	16	1.0	9	0.6	34	2.2	2	0.1	4	0.3	186	12.1	1541	100.0
Murrumbidgee	1878	87.8	28	1.3	30	1.4	58	2.7	3	0.1	16	0.7	127	5.9	2140	100.0
Western NSW	2797	83.1	59	1.8	51	1.5	96	2.9	8	0.2	13	0.4	340	10.1	3364	100.0
Far West	168	87.5	8	4.2	0	0.0	10	5.2	0	0.0	1	0.5	5	2.6	192	100.0
TOTAL	61853	82.5	2707	3.6	1160	1.5	2511	3.3	319	0.4	249	0.3	6194	8.3	75015	100.0
Private																
TOTAL	18609	91.3	373	1.8	478	2.3	605	3.0	7	0.0	17	0.1	259	1.3	20387	100.0
TOTAL NSW*	80595	84.3	3081	3.2	1644	1.7	3120	3.3	326	0.3	267	0.3	6453	6.8	95552	100.0

Source: NSW Perinatal Data Collection (SAPHaRI), Centre for Epidemiology and Evidence, NSW Ministry of Health.

IPPR: Intermittent Positive Pressure Respiration. CPAP: Continuous Positive Airway Pressure.

<sup>†</sup> Total includes births where resuscitation type was not stated.

\* Total includes births at home assisted by independent midwives.

**TABLE 52: BIRTHS BY TYPE OF RESUSCITATION, HOSPITAL AND PEER GROUP, NSW 2018<sup>†</sup>**

Peer Group–Hospital	Resuscitation of baby															
	None/Minimal		Suction		O2 Therapy		IPPR by mask		Intubation and IPPR		External cardiac massage and ventilation		CPAP ventilation		TOTAL†	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Peer Group A																
Royal Prince Alfred	4053	81.5	71	1.4	115	2.3	502	10.1	38	0.8	15	0.3	176	3.5	4970	100.0
Gosford	2419	81.3	71	2.4	72	2.4	133	4.5	7	0.2	8	0.3	266	8.9	2976	100.0
Royal North Shore	2212	78.6	130	4.6	20	0.7	53	1.9	21	0.7	9	0.3	368	13.1	2813	100.0
St. George	1953	82.8	30	1.3	21	0.9	31	1.3	0	0.0	12	0.5	311	13.2	2358	100.0
Royal Hospital for Women	2821	73.4	334	8.7	105	2.7	96	2.5	41	1.1	17	0.4	430	11.2	3844	100.0
Liverpool	3216	83.9	175	4.6	107	2.8	234	6.1	20	0.5	10	0.3	69	1.8	3831	100.0
Nepean	3157	78.9	243	6.1	63	1.6	121	3.0	34	0.9	7	0.2	375	9.4	4000	100.0
Westmead	4222	76.7	387	7.0	33	0.6	69	1.3	98	1.8	17	0.3	674	12.3	5501	100.0
Bankstown-Lidcombe	1770	89.8	30	1.5	39	2.0	89	4.5	1	0.1	4	0.2	37	1.9	1970	100.0
Wollongong	2179	85.0	60	2.3	53	2.1	58	2.3	1	0.0	4	0.2	209	8.2	2564	100.0
John Hunter	3192	77.3	68	1.6	16	0.4	87	2.1	12	0.3	15	0.4	742	18.0	4132	100.0
TOTAL	31194	80.1	1599	4.1	644	1.7	1473	3.8	273	0.7	118	0.3	3657	9.4	38959	100.0
Peer Group B																
Canterbury	1388	84.9	64	3.9	53	3.2	94	5.7	1	0.1	7	0.4	26	1.6	1635	100.0
Hornsby	1017	81.2	57	4.5	11	0.9	17	1.4	2	0.2	3	0.2	146	11.7	1253	100.0
Manly	621	86.7	12	1.7	16	2.2	11	1.5	1	0.1	0	0.0	55	7.7	716	100.0
Mona Vale	477	85.9	10	1.8	4	0.7	10	1.8	0	0.0	1	0.2	53	9.5	555	100.0
Northern Beaches	236	86.1	2	0.7	2	0.7	10	3.6	0	0.0	0	0.0	9	3.3	274	100.0
Sutherland	1153	86.8	54	4.1	9	0.7	20	1.5	2	0.2	7	0.5	84	6.3	1329	100.0
Auburn	1345	91.4	56	3.8	32	2.2	19	1.3	0	0.0	3	0.2	16	1.1	1471	100.0
Blacktown	2845	76.7	432	11.7	25	0.7	66	1.8	7	0.2	8	0.2	324	8.7	3707	100.0
Fairfield	1438	90.4	53	3.3	32	2.0	38	2.4	3	0.2	4	0.3	23	1.4	1591	100.0
Campbelltown	3530	89.5	33	0.8	71	1.8	225	5.7	6	0.2	19	0.5	59	1.5	3945	100.0
Coffs Harbour	928	86.8	22	2.1	10	0.9	20	1.9	0	0.0	0	0.0	89	8.3	1069	100.0

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TABLE 52: (CONTINUED)

Peer Group–Hospital	Resuscitation of baby															
	None/Minimal		Suction		O2 Therapy		IPPR by mask		Intubation and IPPR		External cardiac massage and ventilation		CPAP ventilation		TOTAL†	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Lismore Base	898	77.7	32	2.8	19	1.6	34	2.9	1	0.1	2	0.2	169	14.6	1155	100.0
Tweed Heads	1013	83.9	25	2.1	11	0.9	27	2.2	2	0.2	4	0.3	124	10.3	1207	100.0
Port Macquarie Base	655	82.7	13	1.6	1	0.1	16	2.0	0	0.0	1	0.1	106	13.4	792	100.0
Tamworth Base	869	82.1	34	3.2	14	1.3	21	2.0	2	0.2	4	0.4	114	10.8	1058	100.0
Manning Base	500	81.8	8	1.3	7	1.1	24	3.9	1	0.2	4	0.7	67	11.0	611	100.0
Dubbo Base	977	79.3	44	3.6	14	1.1	22	1.8	3	0.2	4	0.3	168	13.6	1232	100.0
Orange Base	849	85.2	4	0.4	16	1.6	37	3.7	3	0.3	4	0.4	84	8.4	997	100.0
Shoalhaven	759	88.6	17	2.0	14	1.6	17	2.0	0	0.0	8	0.9	42	4.9	857	100.0
Maitland	1350	88.5	8	0.5	2	0.1	34	2.2	0	0.0	9	0.6	122	8.0	1525	100.0
Wagga Wagga Base	1016	85.0	25	2.1	15	1.3	40	3.3	3	0.3	7	0.6	89	7.4	1195	100.0
Other hospitals	71	91.0	3	3.8	0	0.0	2	2.6	0	0.0	0	0.0	2	2.6	78	100.0
TOTAL	23935	84.7	1008	3.6	378	1.3	804	2.8	37	0.1	99	0.4	1971	7.0	28252	100.0
Peer Group C																
Blue Mountains	176	87.1	1	0.5	1	0.5	7	3.5	0	0.0	1	0.5	16	7.9	202	100.0
Hawkesbury	686	89.3	25	3.3	31	4.0	7	0.9	1	0.1	1	0.1	17	2.2	768	100.0
Grafton Base	314	80.9	5	1.3	1	0.3	18	4.6	0	0.0	1	0.3	48	12.4	388	100.0
Kempsey	211	86.8	1	0.4	0	0.0	10	4.1	1	0.4	2	0.8	18	7.4	243	100.0
Armidale	333	77.6	1	0.2	12	2.8	10	2.3	0	0.0	0	0.0	73	17.0	429	100.0
Inverell	163	72.1	10	4.4	15	6.6	30	13.3	0	0.0	1	0.4	7	3.1	226	100.0
Mudgee	209	91.3	0	0.0	4	1.7	8	3.5	1	0.4	1	0.4	6	2.6	229	100.0
Bathurst Base	396	79.0	7	1.4	9	1.8	17	3.4	1	0.2	1	0.2	70	14.0	501	100.0
Bega	212	84.8	3	1.2	2	0.8	5	2.0	1	0.4	1	0.4	26	10.4	250	100.0
Goulburn Base	228	82.6	7	2.5	4	1.4	10	3.6	0	0.0	1	0.4	26	9.4	276	100.0
Moruya	297	92.8	2	0.6	0	0.0	11	3.4	0	0.0	0	0.0	10	3.1	320	100.0
Queanbeyan	436	78.1	3	0.5	3	0.5	6	1.1	0	0.0	1	0.2	109	19.5	558	100.0
Bowral	354	88.9	3	0.8	9	2.3	21	5.3	0	0.0	4	1.0	7	1.8	398	100.0
Griffith Base	470	91.1	1	0.2	10	1.9	12	2.3	0	0.0	2	0.4	21	4.1	516	100.0
Other hospitals	1854	89.1	30	1.4	33	1.6	55	2.6	4	0.2	14	0.7	90	4.3	2080	100.0
TOTAL	6339	85.8	99	1.3	134	1.8	227	3.1	9	0.1	31	0.4	544	7.4	7384	100.0
Peer Group D																
TOTAL	384	91.6	1	0.2	4	1.0	7	1.7	0	0.0	1	0.2	22	5.3	419	100.0
Public§																
TOTAL	61853	82.5	2707	3.6	1160	1.5	2511	3.3	319	0.4	249	0.3	6194	8.3	75015	100.0
Private																
Mater, North Sydney	1957	91.6	31	1.5	61	2.9	85	4.0	2	0.1	1	0.0	0	0.0	2137	100.0
North Shore Private	2097	90.2	88	3.8	73	3.1	37	1.6	3	0.1	0	0.0	5	0.2	2324	100.0
Sydney Adventist	1617	93.4	8	0.5	20	1.2	39	2.3	0	0.0	3	0.2	44	2.5	1731	100.0
North Gosford Private	584	90.7	7	1.1	12	1.9	40	6.2	0	0.0	0	0.0	0	0.0	644	100.0
Hurstville Community	595	95.2	1	0.2	17	2.7	12	1.9	0	0.0	0	0.0	0	0.0	625	100.0
Kareena Private	485	85.4	18	3.2	34	6.0	25	4.4	0	0.0	0	0.0	3	0.5	568	100.0
St. George Private	1141	81.4	61	4.4	129	9.2	33	2.4	0	0.0	2	0.1	32	2.3	1401	100.0
Prince of Wales Private	2075	94.3	11	0.5	20	0.9	71	3.2	1	0.0	1	0.0	22	1.0	2201	100.0
Norwest Private	1847	94.9	3	0.2	14	0.7	68	3.5	0	0.0	1	0.1	13	0.7	1946	100.0
Sydney Southwest Private	982	97.2	1	0.1	4	0.4	21	2.1	0	0.0	1	0.1	1	0.1	1010	100.0
Nepean Private	706	94.0	1	0.1	14	1.9	20	2.7	0	0.0	4	0.5	6	0.8	751	100.0
Westmead Private	1869	90.6	71	3.4	46	2.2	54	2.6	1	0.0	0	0.0	14	0.7	2064	100.0
Wollongong Private	820	86.6	64	6.8	30	3.2	27	2.9	0	0.0	1	0.1	3	0.3	947	100.0
Newcastle Private	1568	89.9	5	0.3	3	0.2	50	2.9	0	0.0	3	0.2	116	6.6	1745	100.0
Calvary, Wagga Wagga	266	90.8	3	1.0	1	0.3	23	7.8	0	0.0	0	0.0	0	0.0	293	100.0
TOTAL	18609	91.3	373	1.8	478	2.3	605	3.0	7	0.0	17	0.1	259	1.3	20387	100.0
TOTAL NSW*	80595	84.3	3081	3.2	1644	1.7	3120	3.3	326	0.3	267	0.3	6453	6.8	95552	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

IPPR: Intermittent Positive Pressure Respiration. CPAP: Continuous Positive Airway Pressure.

# Hospitals with more than 200 births in 2018 are identified individually. Peer group levels are described on page 84 in *Appendix 2: Explanatory notes*.

† Total includes births where resuscitation type was not stated.

§ Public total includes public hospitals with a peer group other than those specified in the table.

\* Total NSW includes births at home assisted by independent midwives and unassigned peer groups.

## Infant feeding

Table 53 shows infant feeding at discharge from the hospital of birth for local health districts, and Table 54 for individual hospitals by peer group where at least 200 mothers gave birth in 2018.

**TABLE 53: LIVE BIRTHS BY TYPE OF INFANT FEEDING AND LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2018**

Hospital sector– Local Health District	Infant feeding									
	Full breastfeeding		Any breastfeeding		Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Public										
Sydney	4751	72.7	1407	21.5	270	4.1	111	1.7	6539	100.0
South Western Sydney	6900	59.2	2731	23.4	1449	12.4	577	4.9	11657	100.0
South Eastern Sydney	5990	80.2	1029	13.8	353	4.7	99	1.3	7471	100.0
Illawarra Shoalhaven	2621	77.0	275	8.1	479	14.1	28	0.8	3403	100.0
Western Sydney	7583	71.7	1799	17.0	758	7.2	431	4.1	10571	100.0
Nepean Blue Mountains	3468	67.9	616	12.1	888	17.4	132	2.6	5104	100.0
Northern Sydney	4789	84.6	581	10.3	195	3.4	98	1.7	5663	100.0
Central Coast	2384	78.5	286	9.4	332	10.9	34	1.1	3036	100.0
Hunter New England	6619	75.4	933	10.6	1120	12.8	107	1.2	8779	100.0
Northern NSW	2559	87.5	140	4.8	156	5.3	68	2.3	2923	100.0
Mid North Coast	1752	82.1	200	9.4	163	7.6	18	0.8	2133	100.0
Southern NSW	1252	81.6	123	8.0	115	7.5	44	2.9	1534	100.0
Murrumbidgee	1494	70.2	214	10.1	397	18.6	24	1.1	2129	100.0
Western NSW	2564	76.7	264	7.9	459	13.7	58	1.7	3345	100.0
Far West	151	79.9	10	5.3	25	13.2	3	1.6	189	100.0
TOTAL	54877	73.7	10608	14.2	7159	9.6	1832	2.5	74476	100.0
Private										
TOTAL	13899	68.4	4676	23.0	820	4.0	937	4.6	20332	100.0
TOTAL NSW*	68916	72.6	15287	16.1	7979	8.4	2775	2.9	94957	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

\* Total includes births at home assisted by independent midwives.

**TABLE 54: LIVE BIRTHS BY TYPE OF INFANT FEEDING, HOSPITAL AND PEER GROUP, NSW 2018<sup>a</sup>**

Peer Group–Hospital	Infant feeding									
	Full breastfeeding		Any breastfeeding		Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Peer Group A										
Royal Prince Alfred	3582	73.0	1055	21.5	193	3.9	80	1.6	4910	100.0
Gosford	2310	78.1	283	9.6	331	11.2	34	1.1	2958	100.0
Royal North Shore	2372	84.9	322	11.5	85	3.0	15	0.5	2794	100.0
St. George	1710	73.0	450	19.2	135	5.8	49	2.1	2344	100.0
Royal Hospital for Women	3136	82.5	491	12.9	138	3.6	38	1.0	3803	100.0
Liverpool	2114	55.7	1092	28.8	433	11.4	156	4.1	3795	100.0
Nepean	2585	65.0	551	13.9	741	18.6	100	2.5	3977	100.0
Westmead	4047	74.6	706	13.0	291	5.4	384	7.1	5428	100.0
Bankstown-Lidcombe	1230	62.8	464	23.7	212	10.8	53	2.7	1959	100.0
Wollongong	1898	74.4	242	9.5	393	15.4	19	0.7	2552	100.0
John Hunter	3047	74.5	505	12.4	507	12.4	30	0.7	4089	100.0
TOTAL	28031	72.6	6161	16.0	3459	9.0	958	2.5	38609	100.0
Peer Group B										
Canterbury	1169	71.8	352	21.6	77	4.7	30	1.8	1628	100.0
Hornsby	1054	84.3	141	11.3	42	3.4	13	1.0	1250	100.0
Manly	602	84.7	76	10.7	28	3.9	5	0.7	711	100.0
Mona Vale	491	88.8	40	7.2	20	3.6	2	0.4	553	100.0
Northern Beaches	192	70.1	0	0.0	19	6.9	63	23.0	274	100.0
Sutherland	1144	86.4	88	6.6	80	6.0	12	0.9	1324	100.0
Auburn	911	62.4	440	30.1	96	6.6	13	0.9	1460	100.0
Blacktown	2625	71.3	653	17.7	371	10.1	34	0.9	3683	100.0
Fairfield	809	51.2	543	34.4	200	12.7	27	1.7	1579	100.0
Campbelltown	2423	61.7	612	15.6	569	14.5	323	8.2	3927	100.0
Coffs Harbour	869	81.8	121	11.4	66	6.2	6	0.6	1062	100.0
Lismore Base	986	85.9	66	5.7	52	4.5	44	3.8	1148	100.0
Tweed Heads	1088	90.7	42	3.5	61	5.1	8	0.7	1199	100.0
Port Macquarie Base	647	81.9	71	9.0	67	8.5	5	0.6	790	100.0
Tamworth Base	737	70.0	122	11.6	162	15.4	32	3.0	1053	100.0

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TABLE 54: (CONTINUED)

Peer Group–Hospital	Infant feeding									
	Full breastfeeding		Any breastfeeding		Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Manning Base	470	77.0	65	10.7	65	10.7	10	1.6	610	100.0
Dubbo Base	898	73.5	97	7.9	197	16.1	30	2.5	1222	100.0
Orange Base	755	76.1	98	9.9	127	12.8	12	1.2	992	100.0
Shoalhaven	723	85.0	33	3.9	86	10.1	9	1.1	851	100.0
Maitland	1126	74.4	144	9.5	227	15.0	16	1.1	1513	100.0
Wagga Wagga Base	811	68.3	151	12.7	216	18.2	9	0.8	1187	100.0
Other hospitals	74	94.9	3	3.8	1	1.3	0	0.0	78	100.0
TOTAL	20604	73.3	3958	14.1	2829	10.1	703	2.5	28094	100.0
Peer Group C										
Blue Mountains	172	85.1	10	5.0	13	6.4	7	3.5	202	100.0
Hawkesbury	589	76.9	45	5.9	110	14.4	22	2.9	766	100.0
Grafton Base	299	77.3	31	8.0	43	11.1	14	3.6	387	100.0
Kempsey	200	83.0	8	3.3	26	10.8	7	2.9	241	100.0
Armidale	364	85.4	30	7.0	26	6.1	6	1.4	426	100.0
Inverell	160	71.4	24	10.7	36	16.1	4	1.8	224	100.0
Mudgee	196	86.0	3	1.3	26	11.4	3	1.3	228	100.0
Bathurst Base	400	80.0	35	7.0	56	11.2	9	1.8	500	100.0
Bega	194	77.9	30	12.0	20	8.0	5	2.0	249	100.0
Goulburn Base	210	76.9	27	9.9	32	11.7	4	1.5	273	100.0
Moruya	279	87.5	8	2.5	23	7.2	9	2.8	319	100.0
Queanbeyan	455	81.8	50	9.0	27	4.9	24	4.3	556	100.0
Bowral	324	81.6	20	5.0	35	8.8	18	4.5	397	100.0
Griffith Base	359	69.8	48	9.3	103	20.0	4	0.8	514	100.0
Other hospitals	1704	82.2	106	5.1	241	11.6	22	1.1	2073	100.0
TOTAL	5905	80.3	475	6.5	817	11.1	158	2.1	7355	100.0
Peer Group D										
TOTAL	337	80.8	14	3.4	54	12.9	12	2.9	417	100.0
Public <sup>§</sup>										
TOTAL	54877	73.7	10608	14.2	7159	9.6	1832	2.5	74476	100.0
Private										
Mater, North Sydney	1425	66.8	611	28.6	88	4.1	10	0.5	2134	100.0
North Shore Private	1647	71.0	572	24.7	93	4.0	7	0.3	2319	100.0
Sydney Adventist	1053	61.0	399	23.1	53	3.1	222	12.9	1727	100.0
North Gosford Private	548	85.6	52	8.1	36	5.6	4	0.6	640	100.0
Hurstville Community	363	58.1	198	31.7	62	9.9	2	0.3	625	100.0
Kareena Private	451	79.5	60	10.6	55	9.7	1	0.2	567	100.0
St. George Private	773	55.3	510	36.5	109	7.8	6	0.4	1398	100.0
Prince of Wales Private	1673	76.1	432	19.7	0	0.0	93	4.2	2198	100.0
Norwest Private	1371	70.8	358	18.5	0	0.0	208	10.7	1937	100.0
Sydney Southwest Private	605	60.1	258	25.6	0	0.0	144	14.3	1007	100.0
Nepean Private	494	66.0	183	24.4	0	0.0	72	9.6	749	100.0
Westmead Private	1262	61.4	598	29.1	181	8.8	15	0.7	2056	100.0
Wollongong Private	665	70.4	142	15.0	134	14.2	4	0.4	945	100.0
Newcastle Private	1321	76.1	267	15.4	0	0.0	149	8.6	1737	100.0
Calvary, Wagga Wagga	248	84.6	36	12.3	9	3.1	0	0.0	293	100.0
TOTAL	13899	68.4	4676	23.0	820	4.0	937	4.6	20332	100.0
TOTAL NSW*	68916	72.6	15287	16.1	7979	8.4	2775	2.9	94957	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Hospitals with more than 200 births in 2018 are identified individually. Peer group levels are described on page 84 in Appendix 2: Explanatory notes.

§ Public total includes public hospitals with a peer group other than those specified in the table.

\* Total NSW includes births at home assisted by independent midwives and unassigned peer groups.

## Baby discharge status

Table 55 shows the discharge status of babies for local health districts, and Table 56 for individual hospitals by peer group where at least 200 mothers gave birth in 2018.

**TABLE 55: BABY DISCHARGE STATUS BY HOSPITAL AND LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2018**

Hospital sector– Local Health District	Baby discharge status											
	Discharged		Stillborn		Neonatal death		Transferred		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Public												
Sydney	6376	96.5	67	1.0	19	0.3	139	2.1	5	0.1	6606	100.0
South Western Sydney	11299	96.3	78	0.7	27	0.2	326	2.8	5	0.0	11735	100.0
South Eastern Sydney	7263	96.4	60	0.8	28	0.4	130	1.7	50	0.7	7531	100.0
Illawarra Shoalhaven	3352	98.0	18	0.5	4	0.1	47	1.4	0	0.0	3421	100.0
Western Sydney	10006	93.7	108	1.0	33	0.3	299	2.8	233	2.2	10679	100.0
Nepean Blue Mountains	4829	94.1	26	0.5	12	0.2	166	3.2	97	1.9	5130	100.0
Northern Sydney	5518	96.9	29	0.5	13	0.2	132	2.3	0	0.0	5692	100.0
Central Coast	2989	97.9	18	0.6	2	0.1	45	1.5	0	0.0	3054	100.0
Hunter New England	8391	94.9	67	0.8	29	0.3	336	3.8	23	0.3	8846	100.0
Northern NSW	2845	96.8	16	0.5	3	0.1	39	1.3	36	1.2	2939	100.0
Mid North Coast	2059	96.0	12	0.6	3	0.1	71	3.3	0	0.0	2145	100.0
Southern NSW	1463	94.9	7	0.5	3	0.2	53	3.4	15	1.0	1541	100.0
Murrumbidgee	2024	94.6	11	0.5	1	0.0	94	4.4	10	0.5	2140	100.0
Western NSW	3233	96.1	19	0.6	3	0.1	101	3.0	8	0.2	3364	100.0
Far West	185	96.4	3	1.6	0	0.0	3	1.6	1	0.5	192	100.0
TOTAL	71832	95.8	539	0.7	180	0.2	1981	2.6	483	0.6	75015	100.0
Private												
TOTAL	20168	98.9	55	0.3	2	0.0	159	0.8	3	0.0	20387	100.0
TOTAL NSW*	92148	96.4	594	0.6	182	0.2	2140	2.2	488	0.5	95552	100.0
Source: NSW Perinatal Data Collection (SAPHaRI), Centre for Epidemiology and Evidence, NSW Ministry of Health. * Total includes births at home assisted by independent midwives.												

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

\* Total includes births at home assisted by independent midwives.

**TABLE 56: BABY DISCHARGE STATUS BY HOSPITAL AND PEER GROUP, NSW 2018<sup>#</sup>**

Peer Group–Hospital	Baby discharge status											
	Discharged		Stillborn		Neonatal death		Transferred		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Peer Group A												
Royal Prince Alfred	4773	96.0	60	1.2	17	0.3	119	2.4	1	0.0	4970	100.0
Gosford	2914	97.9	18	0.6	2	0.1	42	1.4	0	0.0	2976	100.0
Royal North Shore	2681	95.3	19	0.7	12	0.4	101	3.6	0	0.0	2813	100.0
St. George	2285	96.9	14	0.6	6	0.3	16	0.7	37	1.6	2358	100.0
Royal Hospital for Women	3666	95.4	41	1.1	22	0.6	108	2.8	7	0.2	3844	100.0
Liverpool	3553	92.7	36	0.9	22	0.6	218	5.7	2	0.1	3831	100.0
Nepean	3738	93.5	23	0.6	12	0.3	152	3.8	75	1.9	4000	100.0
Westmead	4929	89.6	73	1.3	26	0.5	240	4.4	233	4.2	5501	100.0
Bankstown-Lidcombe	1922	97.6	11	0.6	3	0.2	34	1.7	0	0.0	1970	100.0
Wollongong	2510	97.9	12	0.5	3	0.1	39	1.5	0	0.0	2564	100.0
John Hunter	3870	93.7	43	1.0	27	0.7	189	4.6	3	0.1	4132	100.0
TOTAL	36841	94.6	350	0.9	152	0.4	1258	3.2	358	0.9	38959	100.0
Peer Group B												
Canterbury	1603	98.0	7	0.4	2	0.1	20	1.2	3	0.2	1635	100.0
Hornsby	1235	98.6	3	0.2	1	0.1	14	1.1	0	0.0	1253	100.0
Manly	703	98.2	5	0.7	0	0.0	8	1.1	0	0.0	716	100.0
Mona Vale	549	98.9	2	0.4	0	0.0	4	0.7	0	0.0	555	100.0
Northern Beaches	271	98.9	0	0.0	0	0.0	3	1.1	0	0.0	274	100.0
Sutherland	1312	98.7	5	0.4	0	0.0	6	0.5	6	0.5	1329	100.0
Auburn	1441	98.0	11	0.7	1	0.1	18	1.2	0	0.0	1471	100.0
Blacktown	3636	98.1	24	0.6	6	0.2	41	1.1	0	0.0	3707	100.0
Fairfield	1562	98.2	12	0.8	0	0.0	15	0.9	2	0.1	1591	100.0
Campbelltown	3872	98.1	18	0.5	2	0.1	52	1.3	1	0.0	3945	100.0
Coffs Harbour	1035	96.8	7	0.7	2	0.2	25	2.3	0	0.0	1069	100.0
Lismore Base	1101	95.3	7	0.6	2	0.2	16	1.4	29	2.5	1155	100.0
Tweed Heads	1185	98.2	8	0.7	1	0.1	12	1.0	1	0.1	1207	100.0
Port Macquarie Base	759	95.8	2	0.3	0	0.0	31	3.9	0	0.0	792	100.0
Tamworth Base	1003	94.8	5	0.5	0	0.0	30	2.8	20	1.9	1058	100.0

(Continued on next page)

TABLE 56: (CONTINUED)

Peer Group–Hospital	Baby discharge status											
	Discharged		Stillborn		Neonatal death		Transferred		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Manning Base	597	97.7	1	0.2	0	0.0	13	2.1	0	0.0	611	100.0
Dubbo Base	1181	95.9	10	0.8	1	0.1	32	2.6	8	0.6	1232	100.0
Orange Base	952	95.5	5	0.5	1	0.1	39	3.9	0	0.0	997	100.0
Shoalhaven	842	98.2	6	0.7	1	0.1	8	0.9	0	0.0	857	100.0
Maitland	1453	95.3	12	0.8	2	0.1	58	3.8	0	0.0	1525	100.0
Wagga Wagga Base	1132	94.7	8	0.7	1	0.1	52	4.4	2	0.2	1195	100.0
Other hospitals	75	96.2	0	0.0	0	0.0	3	3.8	0	0.0	78	100.0
TOTAL	27499	97.3	158	0.6	23	0.1	500	1.8	72	0.3	28252	100.0
Peer Group C												
Blue Mountains	195	96.5	0	0.0	0	0.0	1	0.5	6	3.0	202	100.0
Hawkesbury	741	96.5	2	0.3	0	0.0	9	1.2	16	2.1	768	100.0
Grafton Base	373	96.1	1	0.3	0	0.0	9	2.3	5	1.3	388	100.0
Kempsey	227	93.4	2	0.8	1	0.4	13	5.3	0	0.0	243	100.0
Armidale	415	96.7	3	0.7	0	0.0	11	2.6	0	0.0	429	100.0
Inverell	218	96.5	2	0.9	0	0.0	6	2.7	0	0.0	226	100.0
Mudgee	220	96.1	1	0.4	0	0.0	8	3.5	0	0.0	229	100.0
Bathurst Base	490	97.8	1	0.2	1	0.2	9	1.8	0	0.0	501	100.0
Bega	242	96.8	1	0.4	1	0.4	6	2.4	0	0.0	250	100.0
Goulburn Base	264	95.7	3	1.1	0	0.0	9	3.3	0	0.0	276	100.0
Moruya	304	95.0	1	0.3	1	0.3	14	4.4	0	0.0	320	100.0
Queanbeyan	520	93.2	2	0.4	1	0.2	20	3.6	15	2.7	558	100.0
Bowral	390	98.0	1	0.3	0	0.0	7	1.8	0	0.0	398	100.0
Griffith Base	493	95.5	2	0.4	0	0.0	19	3.7	2	0.4	516	100.0
Other hospitals	2012	96.7	7	0.3	0	0.0	59	2.8	2	0.1	2080	100.0
TOTAL	7104	96.2	29	0.4	5	0.1	200	2.7	46	0.6	7384	100.0
Peer Group D												
TOTAL	388	92.6	2	0.5	0	0.0	23	5.5	6	1.4	419	100.0
Public <sup>§</sup>												
TOTAL	71832	95.8	539	0.7	180	0.2	1981	2.6	483	0.6	75015	100.0
Private												
Mater, North Sydney	2122	99.3	3	0.1	1	0.0	10	0.5	1	0.0	2137	100.0
North Shore Private	2304	99.1	5	0.2	1	0.0	14	0.6	0	0.0	2324	100.0
Sydney Adventist	1718	99.2	4	0.2	0	0.0	9	0.5	0	0.0	1731	100.0
North Gosford Private	631	98.0	4	0.6	0	0.0	9	1.4	0	0.0	644	100.0
Hurstville Community	623	99.7	0	0.0	0	0.0	1	0.2	1	0.2	625	100.0
Kareena Private	566	99.6	1	0.2	0	0.0	1	0.2	0	0.0	568	100.0
St. George Private	1386	98.9	3	0.2	0	0.0	12	0.9	0	0.0	1401	100.0
Prince of Wales Private	2186	99.3	3	0.1	0	0.0	12	0.5	0	0.0	2201	100.0
Norwest Private	1927	99.0	9	0.5	0	0.0	10	0.5	0	0.0	1946	100.0
Sydney Southwest Private	1000	99.0	3	0.3	0	0.0	7	0.7	0	0.0	1010	100.0
Nepean Private	741	98.7	2	0.3	0	0.0	8	1.1	0	0.0	751	100.0
Westmead Private	2030	98.4	8	0.4	0	0.0	26	1.3	0	0.0	2064	100.0
Wollongong Private	924	97.6	2	0.2	0	0.0	21	2.2	0	0.0	947	100.0
Newcastle Private	1721	98.6	8	0.5	0	0.0	15	0.9	1	0.1	1745	100.0
Calvary, Wagga Wagga	289	98.6	0	0.0	0	0.0	4	1.4	0	0.0	293	100.0
TOTAL	20168	98.9	55	0.3	2	0.0	159	0.8	3	0.0	20387	100.0
TOTAL NSW*	92148	96.4	594	0.6	182	0.2	2140	2.2	488	0.5	95552	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

<sup>#</sup> Hospitals with more than 200 births in 2018 are identified individually. Peer group levels are described on page 84 in *Appendix 2: Explanatory notes*.<sup>§</sup> Public total includes public hospitals with a peer group other than those specified in the table.<sup>\*</sup> Total NSW includes births at home assisted by independent midwives and unassigned peer groups.

## Postnatal length of stay

Table 57 shows the mother's postnatal length of stay in the hospital of birth for hospitals where at least 200 mothers gave birth in 2018.

**TABLE 57: AVERAGE MATERNAL POSTNATAL LENGTH OF STAY IN HOSPITAL OF BIRTH, NSW 2014–2018\***

Local Health District–Hospital		Average postnatal length of stay (days)				
		2014	2015	2016	2017	2018
<b>Sydney</b>	Canterbury	2.6	2.7	2.6	2.5	2.3
	Royal Prince Alfred	3.1	3.1	3.2	3.2	3.2
	Other hospitals	0.0	0.0	0.0	0.0	6.0
	<b>TOTAL</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>
<b>South Western Sydney</b>	Fairfield	2.3	2.5	2.5	2.5	2.3
	Liverpool	2.9	2.7	2.6	2.5	2.4
	Campbelltown	2.3	2.3	2.1	2.1	2.0
	Bankstown–Lidcombe	2.4	2.4	2.4	2.4	2.4
	Bowral	2.8	2.8	2.7	2.6	2.3
	<b>TOTAL</b>	<b>2.5</b>	<b>2.5</b>	<b>2.4</b>	<b>2.4</b>	<b>2.3</b>
<b>South Eastern Sydney</b>	St. George	2.5	2.4	2.2	2.3	2.4
	Sutherland	2.6	2.2	2.0	2.1	2.0
	Royal Hospital for Women	2.9	2.9	3.0	3.0	3.0
	<b>TOTAL</b>	<b>2.7</b>	<b>2.7</b>	<b>2.6</b>	<b>2.6</b>	<b>2.6</b>
<b>Illawarra Shoalhaven</b>	Shoalhaven	2.0	2.2	2.3	2.2	2.1
	Wollongong	2.5	2.4	2.4	2.4	2.4
	Other hospitals	1.7	1.7	1.4	2.0	0.0
	<b>TOTAL</b>	<b>2.3</b>	<b>2.3</b>	<b>2.3</b>	<b>2.3</b>	<b>2.4</b>
<b>Western Sydney</b>	Auburn	1.9	1.9	1.9	1.9	1.9
	Blacktown	2.2	2.2	2.1	2.1	2.1
	Westmead	2.0	2.1	2.1	2.1	2.2
	<b>TOTAL</b>	<b>2.0</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>
<b>Nepean Blue Mountains</b>	Blue Mountains	2.0	2.2	2.5	2.1	2.2
	Nepean	2.0	2.2	2.0	2.1	1.9
	Hawkesbury	3.0	3.0	2.9	2.8	2.3
	Other hospitals	2.8	2.8	2.7	2.8	3.2
	<b>TOTAL</b>	<b>2.2</b>	<b>2.3</b>	<b>2.2</b>	<b>2.3</b>	<b>2.0</b>
<b>Northern Sydney</b>	Hornsby	2.0	2.0	2.1	2.2	2.3
	Manly	2.2	2.4	2.4	2.4	2.5
	Mona Vale	2.5	2.4	2.3	2.3	2.3
	Royal North Shore	2.7	2.9	2.8	2.8	2.8
	Northern Beaches†	-	-	-	-	2.6
	Other hospitals	0.2	0.1	0.1	0.2	0.4
	<b>TOTAL</b>	<b>2.4</b>	<b>2.5</b>	<b>2.5</b>	<b>2.5</b>	<b>2.5</b>
	<b>TOTAL</b>	<b>2.4</b>	<b>2.5</b>	<b>2.5</b>	<b>2.5</b>	<b>2.5</b>
<b>Central Coast</b>	Gosford	2.1	2.1	2.1	2.1	2.2
	Other hospitals	0.2	0.1	0.2	0.3	0.4
	<b>TOTAL</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>	<b>2.1</b>	<b>2.1</b>
<b>Hunter New England</b>	Armidale	2.4	2.4	2.5	2.8	3.0
	Inverell	3.3	2.8	2.9	3.1	3.0
	Tamworth Base	2.3	2.5	2.4	2.8	2.7
	Manning Base	2.6	2.7	2.7	2.6	2.7
	Maitland	2.2	2.0	2.0	2.1	2.0
	John Hunter	2.5	2.4	2.4	2.4	2.4
	Other hospitals	2.3	2.3	2.3	2.3	2.2
	<b>TOTAL</b>	<b>2.4</b>	<b>2.4</b>	<b>2.4</b>	<b>2.4</b>	<b>2.4</b>
<b>Northern NSW</b>	Grafton Base	3.3	3.0	3.0	3.1	3.1
	Lismore Base	2.6	2.3	2.3	2.4	2.2
	Tweed Heads	2.6	2.5	2.5	2.4	2.5
	Other hospitals	3.2	1.8	1.8	1.2	1.9
	<b>TOTAL</b>	<b>2.7</b>	<b>2.5</b>	<b>2.4</b>	<b>2.4</b>	<b>2.4</b>

Local Health District–Hospital		Average postnatal length of stay (days)				
		2014	2015	2016	2017	2018
<b>Mid North Coast</b>	Coffs Harbour	2.5	2.6	2.7	2.7	2.7
	Kempsey	2.5	2.3	2.4	2.8	2.8
	Port Macquarie Base	2.6	2.6	2.4	2.4	2.6
	Other hospitals	2.6	2.0	2.3	2.1	2.3
	<b>TOTAL</b>	<b>2.6</b>	<b>2.6</b>	<b>2.6</b>	<b>2.6</b>	<b>2.7</b>
	<b>TOTAL</b>	<b>2.6</b>	<b>2.6</b>	<b>2.6</b>	<b>2.6</b>	<b>2.7</b>
<b>Southern NSW</b>	Bega	2.3	2.4	2.3	2.4	2.7
	Goulburn Base	2.6	2.5	2.4	2.8	2.3
	Moruya	2.2	2.2	2.2	2.1	2.0
	Queanbeyan	2.8	2.8	2.8	2.7	2.5
	Other hospitals	3.3	3.6	2.9	3.6	3.0
	<b>TOTAL</b>	<b>2.6</b>	<b>2.6</b>	<b>2.5</b>	<b>2.6</b>	<b>2.4</b>
<b>Murrumbidgee</b>	Griffith Base	2.9	2.8	2.9	2.6	2.3
	Wagga Wagga Base	2.5	2.5	2.4	2.7	2.5
	Other hospitals	3.0	2.7	2.8	3.0	2.6
	<b>TOTAL</b>	<b>2.8</b>	<b>2.6</b>	<b>2.6</b>	<b>2.7</b>	<b>2.5</b>
<b>Western NSW</b>	Dubbo Base	2.2	2.2	2.2	2.2	2.3
	Mudgee	2.8	2.5	2.4	2.3	2.3
	Bathurst Base	2.5	2.7	2.3	2.5	2.5
	Orange Base	2.5	2.3	2.5	2.5	2.4
	Other hospitals	2.6	2.6	3.0	2.7	2.6
	<b>TOTAL</b>	<b>2.4</b>	<b>2.4</b>	<b>2.4</b>	<b>2.4</b>	<b>2.4</b>
<b>Far West</b>	<b>TOTAL</b>	<b>2.8</b>	<b>2.3</b>	<b>2.1</b>	<b>2.4</b>	<b>2.2</b>
<b>Public Hospitals</b>	<b>TOTAL</b>	<b>2.5</b>	<b>2.5</b>	<b>2.4</b>	<b>2.4</b>	<b>2.4</b>
<b>Private Hospitals</b>	Mater, North Sydney	4.7	4.4	4.5	4.6	4.4
	North Shore Private	4.5	4.5	4.5	4.5	4.5
	Sydney Adventist	4.7	4.7	4.7	4.8	4.4
	North Gosford Private	4.9	4.3	4.3	4.3	4.5
	Hurstville Community	4.4	4.2	4.5	4.3	4.3
	Kareena Private	4.4	4.4	4.4	4.4	4.4
	St. George Private	4.4	4.4	4.3	4.4	4.3
	Prince of Wales Private	4.6	4.5	4.5	4.6	4.5
	Norwest Private	4.5	4.3	4.2	4.2	4.2
	Sydney Southwest Private	4.2	4.0	3.8	3.8	3.9
	Nepean Private	4.3	4.1	4.2	4.3	4.2
	Westmead Private	4.3	4.3	4.2	4.0	4.0
	Wollongong Private†	-	-	5.3	5.3	5.2
	Newcastle Private	4.3	4.2	4.3	4.2	4.2
	Calvary, Wagga Wagga	4.8	4.6	4.5	4.4	4.4
	Other hospitals	5.2	5.2	4.5	4.4	0.0
	<b>TOTAL</b>	<b>4.5</b>	<b>4.4</b>	<b>4.4</b>	<b>4.4</b>	<b>4.3</b>
<b>TOTAL NSW*</b>		<b>3.0</b>	<b>2.9</b>	<b>2.9</b>	<b>2.9</b>	<b>2.9</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Hospitals with more than 200 births in 2018 are identified individually.

† Northern Beaches opened in 2018.

† Wollongong Private opened in 2016.

\* Total NSW includes births at home assisted by independent midwives.

# 7. CLINICAL INDICATORS

Selected clinical indicators for obstetrics are reported in this section. The definitions of the clinical indicators follow those described in Version 8 (2017) of the Australian Council on Healthcare Standards *Clinical Indicator User Manual*.<sup>1</sup>

## Outcome of selected primipara

### Indicator 1.1

Definition: The total number of selected primipara who have a spontaneous vaginal birth as a percentage of the total number of selected primipara who give birth.

A selected primipara is defined as a woman who is 20–34 years of age at the time of giving birth; giving birth for the first time at 20 weeks or greater gestation; singleton pregnancy; cephalic presentation; and at 37<sup>0</sup> to 40<sup>6</sup> weeks gestation. Spontaneous vaginal birth is defined as a vaginal birth (regardless of onset of labour) that is not assisted by forceps or vacuum and not a vaginal breech delivery.

Table 58 shows information for hospitals where at least 200 mothers gave birth in 2018, totals for hospitals for each local health district, sector, and the NSW total.

**TABLE 58: 1.1 SELECTED PRIMIPARA WHO HAVE A SPONTANEOUS VAGINAL BIRTH BY LOCAL HEALTH DISTRICT AND HOSPITAL, NSW 2014–2018<sup>a</sup>**

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
<b>Sydney</b>	Canterbury	54.1	51.9	43.5	38.3	43.5
	Royal Prince Alfred	55.2	54.1	53.4	52.5	44.3
	<b>TOTAL</b>	<b>54.9</b>	<b>53.5</b>	<b>51.2</b>	<b>48.9</b>	<b>44.1</b>
<b>South Western Sydney</b>	Fairfield	79.1	71.9	65.4	63.9	57.6
	Liverpool	60.7	62.5	56.9	54.8	58.1
	Campbelltown	62.6	62.7	59.7	60.6	58.4
	Bankstown–Lidcombe	66.9	61.8	49.7	58.5	52.0
	Bowral	47.3	49.5	37.0	50.9	64.6
	<b>TOTAL</b>	<b>65.0</b>	<b>63.4</b>	<b>57.1</b>	<b>58.6</b>	<b>57.4</b>
<b>South Eastern Sydney</b>	St. George	53.7	47.1	47.9	45.5	39.0
	Sutherland	60.1	58.2	61.2	56.5	55.6
	Royal Hospital for Women	50.2	49.3	53.2	46.8	50.6
	<b>TOTAL</b>	<b>52.9</b>	<b>49.9</b>	<b>52.7</b>	<b>47.8</b>	<b>47.2</b>
<b>Illawarra Shoalhaven</b>	Shoalhaven	58.7	49.0	56.9	51.5	54.8
	Wollongong	52.8	53.6	54.5	49.1	51.7
	Other hospitals	92.9	100.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>55.1</b>	<b>52.5</b>	<b>55.1</b>	<b>49.6</b>	<b>52.5</b>
<b>Western Sydney</b>	Auburn	69.8	66.1	67.1	66.3	63.9
	Blacktown	51.6	52.3	54.4	53.8	56.8
	Westmead	55.9	54.8	56.9	56.9	52.9
	<b>TOTAL</b>	<b>56.6</b>	<b>55.8</b>	<b>57.6</b>	<b>57.3</b>	<b>56.0</b>
<b>Nepean Blue Mountains</b>	Blue Mountains	84.8	52.9	60.8	64.1	56.8
	Nepean	50.0	45.0	48.5	49.0	47.6
	Hawkesbury	45.2	50.0	50.7	50.3	45.4
	Other hospitals	55.0	60.0	58.1	55.3	58.8
	<b>TOTAL</b>	<b>51.0</b>	<b>47.0</b>	<b>49.8</b>	<b>50.0</b>	<b>48.0</b>
<b>Northern Sydney</b>	Hornsby	61.6	56.8	53.5	53.6	52.8
	Manly	50.4	50.4	50.7	50.0	44.4
	Mona Vale	58.0	66.1	57.6	54.7	57.8
	Royal North Shore	52.6	54.2	49.5	50.0	51.5
	Northern Beaches <sup>b</sup>	-	-	-	-	48.1
	Other hospitals	97.1	100.0	100.0	100.0	100.0
	<b>TOTAL</b>	<b>55.5</b>	<b>56.3</b>	<b>52.1</b>	<b>51.9</b>	<b>52.0</b>
	<b>Central Coast</b>	<b>48.5</b>	<b>56.2</b>	<b>52.7</b>	<b>50.3</b>	<b>51.2</b>
	Other hospitals	100.0	100.0	100.0	100.0	100.0
	<b>TOTAL</b>	<b>50.6</b>	<b>58.1</b>	<b>54.5</b>	<b>51.9</b>	<b>52.5</b>

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
<b>Hunter New England</b>	Armidale	39.0	47.0	55.6	52.3	50.6
	Inverell	48.1	42.3	53.5	65.4	52.6
	Tamworth Base	61.8	55.2	56.4	46.6	45.5
	Manning Base	56.5	53.2	53.8	49.2	50.9
	Maitland	64.4	62.1	67.1	62.3	61.9
	John Hunter	55.5	55.3	53.1	56.7	51.3
	Other hospitals	69.9	72.0	73.5	66.1	65.5
	<b>TOTAL</b>	<b>58.4</b>	<b>57.2</b>	<b>58.2</b>	<b>57.1</b>	<b>53.8</b>
<b>Northern NSW</b>	Grafton Base	66.7	52.4	61.8	63.4	50.7
	Lismore Base	63.8	68.9	58.4	70.6	63.4
	Tweed Heads	57.8	62.8	68.7	61.6	55.6
	Other hospitals	98.0	97.7	89.1	100.0	97.1
	<b>TOTAL</b>	<b>64.3</b>	<b>66.2</b>	<b>65.8</b>	<b>67.1</b>	<b>60.5</b>
<b>Mid North Coast</b>	Coffs Harbour	56.0	59.2	50.3	54.0	58.4
	Kempsey	58.7	64.4	73.0	78.9	54.2
	Port Macquarie Base	48.9	54.9	52.4	58.8	53.7
	Other hospitals	62.5	100.0	100.0	75.0	100.0
	<b>TOTAL</b>	<b>54.1</b>	<b>59.3</b>	<b>53.8</b>	<b>58.4</b>	<b>57.4</b>
<b>Southern NSW</b>	Bega	52.9	63.0	59.6	55.1	56.9
	Goulburn Base	49.1	39.3	45.8	39.6	61.1
	Moruya	60.5	55.3	60.8	58.1	76.9
	Queanbeyan	44.9	51.4	53.6	45.4	38.4
	Other hospitals	80.0	87.5	88.6	85.2	54.5
	<b>TOTAL</b>	<b>53.5</b>	<b>56.4</b>	<b>58.3</b>	<b>51.3</b>	<b>52.2</b>
<b>Murrumbidgee</b>	Griffith Base	46.1	53.3	51.0	64.1	52.0
	Wagga Wagga Base	53.1	43.1	50.5	49.1	48.2
	Other hospitals	63.7	68.4	54.5	68.8	67.5
	<b>TOTAL</b>	<b>54.5</b>	<b>51.5</b>	<b>51.5</b>	<b>56.9</b>	<b>52.6</b>
<b>Western NSW</b>	Dubbo Base	49.2	53.2	52.0	51.0	39.3
	Mudgee	60.5	60.3	63.8	52.3	63.6
	Bathurst Base	50.0	67.6	62.1	61.8	65.9
	Orange Base	49.8	53.1	51.9	47.3	44.8
	Other hospitals	59.7	70.1	68.0	62.3	56.7
	<b>TOTAL</b>	<b>51.4</b>	<b>57.7</b>	<b>55.9</b>	<b>52.7</b>	<b>47.6</b>

(Continued on next page)

TABLE 58: (Continued)

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
<b>Far West</b>	<b>TOTAL</b>	<b>69.0</b>	<b>69.1</b>	<b>64.3</b>	<b>50.0</b>	<b>62.5</b>
<b>Public Hospitals</b>	<b>TOTAL</b>	<b>56.8</b>	<b>56.1</b>	<b>55.0</b>	<b>53.9</b>	<b>52.3</b>
<b>Private Hospitals</b>	Mater, North Sydney	35.9	35.9	28.1	27.6	27.4
	North Shore Private	31.6	31.3	30.5	29.1	31.2
	Sydney Adventist	51.9	51.6	44.6	44.5	37.0
	North Gosford Private	30.0	34.3	27.6	22.5	16.7
	Hurstville Community	38.4	46.2	47.9	45.0	33.3
	Kareena Private	27.6	34.7	29.9	31.6	27.4
	St. George Private	27.6	33.2	33.4	28.6	36.0

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
	Norwest Private	46.1	39.5	43.3	42.0	41.4
	Sydney Southwest Private	48.0	35.2	40.5	40.4	37.8
	Nepean Private	40.7	42.7	38.1	41.8	36.4
	Westmead Private	36.2	38.0	40.8	39.5	41.5
	Wollongong Private†	-	-	32.1	40.0	39.8
	Newcastle Private	39.0	41.5	35.7	34.9	34.6
	Calvary, Wagga Wagga	23.0	26.6	35.2	31.1	21.0
	Other hospitals	33.8	34.8	0.0	0.0	0.0
	<b>TOTAL</b>	<b>36.8</b>	<b>37.3</b>	<b>35.9</b>	<b>34.8</b>	<b>34.0</b>
<b>TOTAL NSW*</b>		<b>51.4</b>	<b>51.2</b>	<b>49.9</b>	<b>49.0</b>	<b>47.8</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Hospitals with more than 200 births in 2018 are identified individually.

‡ Northern Beaches opened in 2018.

† Wollongong Private opened in 2016.

\* Total NSW includes births at home assisted by independent midwives.

## Indicator 1.2

Definition: The total number of selected primipara who undergo induction of labour as a percentage of the total number of selected primipara who give birth.

A selected primipara is defined as a woman who is 20–34 years of age at the time of giving birth; giving birth for the first time at 20 weeks or greater gestation; singleton pregnancy; cephalic presentation; and at 37<sup>0</sup> to 40<sup>6</sup> weeks gestation. Induction of labour is defined as surgical and/or medical induction.

Table 59 shows information for hospitals where at least 200 mothers gave birth in 2018, totals for hospitals for each local health district, sector, and the NSW total.

**TABLE 59: 1.2 SELECTED PRIMIPARA WHO UNDERGO INDUCTION OF LABOUR BY LOCAL HEALTH DISTRICT AND HOSPITAL, NSW 2014–2018#**

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
<b>Sydney</b>	Canterbury	40.0	44.4	43.3	52.5	51.6
	Royal Prince Alfred	32.8	34.1	35.9	40.3	43.2
	<b>TOTAL</b>	<b>34.5</b>	<b>36.8</b>	<b>37.6</b>	<b>43.4</b>	<b>45.2</b>
<b>South Western Sydney</b>	Fairfield	23.0	25.2	26.9	36.1	35.0
	Liverpool	27.4	27.0	35.7	38.4	38.7
	Campbelltown	33.3	33.9	34.5	39.2	37.6
	Bankstown–Lidcombe	26.8	35.2	36.4	38.2	46.8
	Bowral	26.4	19.6	27.2	16.1	34.2
	<b>TOTAL</b>	<b>28.3</b>	<b>30.3</b>	<b>33.6</b>	<b>37.3</b>	<b>39.0</b>
<b>South Eastern Sydney</b>	St. George	43.4	47.7	44.0	51.4	59.6
	Sutherland	33.0	34.5	36.2	39.5	40.1
	Royal Hospital for Women	36.2	32.8	33.3	40.8	39.0
	<b>TOTAL</b>	<b>38.1</b>	<b>38.1</b>	<b>37.5</b>	<b>44.5</b>	<b>46.6</b>
<b>Illawarra Shoalhaven</b>	Shoalhaven	34.1	37.3	45.4	40.5	44.7
	Wollongong	41.7	39.9	41.3	48.3	51.7
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>38.9</b>	<b>39.1</b>	<b>42.3</b>	<b>46.5</b>	<b>49.9</b>
<b>Western Sydney</b>	Auburn	29.3	34.6	37.3	47.5	43.5
	Blacktown	39.2	41.4	42.6	46.5	48.6
	Westmead	43.1	41.3	45.0	44.7	47.1
	<b>TOTAL</b>	<b>40.1</b>	<b>40.3</b>	<b>43.2</b>	<b>45.7</b>	<b>47.0</b>
<b>Nepean Blue Mountains</b>	Blue Mountains	19.6	23.5	5.9	17.9	18.2
	Nepean	43.0	42.5	41.5	45.7	48.6
	Hawkesbury	42.8	37.8	50.7	44.2	44.8
	Other hospitals	50.0	60.0	51.2	52.6	58.8
	<b>TOTAL</b>	<b>42.1</b>	<b>41.7</b>	<b>41.5</b>	<b>44.7</b>	<b>47.0</b>
<b>Northern Sydney</b>	Hornsby	30.6	25.7	31.6	38.2	38.9
	Manly	37.7	44.3	37.9	37.9	47.5
	Mona Vale	22.3	26.7	28.8	31.4	34.5
	Royal North Shore	39.1	40.1	43.0	45.9	43.0
	Northern Beaches <sup>‡</sup>	-	-	-	-	37.7
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>34.4</b>	<b>35.7</b>	<b>37.9</b>	<b>40.8</b>	<b>41.0</b>
	<b>TOTAL</b>	<b>34.4</b>	<b>35.7</b>	<b>37.9</b>	<b>40.8</b>	<b>41.0</b>
<b>Central Coast</b>	Gosford	38.6	39.9	42.1	42.0	46.5
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>37.0</b>	<b>38.1</b>	<b>40.5</b>	<b>40.7</b>	<b>45.3</b>
<b>Hunter New England</b>	Armidale	25.6	24.0	25.0	35.2	38.6
	Inverell	40.7	32.7	44.2	42.3	63.2
	Tamworth Base	41.8	43.4	41.1	50.0	52.0
	Manning Base	31.3	39.5	49.6	58.9	50.0
	Maitland	38.0	39.4	43.5	46.3	53.6
	John Hunter	41.1	44.3	49.8	49.3	49.9
	Other hospitals	20.2	14.3	22.7	22.6	18.8
	<b>TOTAL</b>	<b>36.9</b>	<b>38.5</b>	<b>43.3</b>	<b>46.0</b>	<b>47.6</b>
	<b>TOTAL</b>	<b>36.9</b>	<b>38.5</b>	<b>43.3</b>	<b>46.0</b>	<b>47.6</b>
<b>Northern NSW</b>	Grafton Base	32.2	31.7	33.8	39.4	40.0
	Lismore Base	29.4	30.1	37.6	37.1	42.9
	Tweed Heads	32.5	38.5	34.3	41.7	38.2
	Other hospitals	0.0	0.0	17.4	0.0	0.0
	<b>TOTAL</b>	<b>28.8</b>	<b>32.3</b>	<b>34.1</b>	<b>37.6</b>	<b>38.1</b>
	<b>TOTAL</b>	<b>28.8</b>	<b>32.3</b>	<b>34.1</b>	<b>37.6</b>	<b>38.1</b>

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
<b>Mid North Coast</b>	Coffs Harbour	31.1	31.2	41.6	37.5	42.1
	Kempsey	19.6	24.4	16.2	21.1	29.2
	Port Macquarie Base	39.1	38.2	46.9	44.4	51.0
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>31.8</b>	<b>32.1</b>	<b>40.8</b>	<b>37.8</b>	<b>42.6</b>
<b>Southern NSW</b>	Bega	23.5	19.6	38.3	49.0	53.4
	Goulburn Base	34.0	26.8	25.4	18.9	20.4
	Moruya	20.9	21.3	23.5	24.2	26.9
	Queanbeyan	28.3	22.0	33.6	37.5	34.4
	Other hospitals	22.5	25.0	14.3	25.9	31.8
	<b>TOTAL</b>	<b>26.8</b>	<b>22.8</b>	<b>28.8</b>	<b>32.9</b>	<b>34.1</b>
<b>Murrumbidgee</b>	Griffith Base	37.3	40.0	33.3	28.2	30.0
	Wagga Wagga Base	38.7	45.5	42.6	43.0	45.0
	Other hospitals	23.4	24.2	14.8	22.5	18.2
	<b>TOTAL</b>	<b>33.8</b>	<b>39.1</b>	<b>33.9</b>	<b>35.0</b>	<b>36.6</b>
<b>Western NSW</b>	Dubbo Base	48.8	51.2	50.4	42.9	50.9
	Mudgee	25.6	22.4	21.3	34.1	34.1
	Bathurst Base	32.4	24.3	33.7	41.6	42.0
	Orange Base	40.8	45.6	46.2	50.2	46.2
	Other hospitals	16.9	20.8	28.0	24.7	25.4
	<b>TOTAL</b>	<b>38.8</b>	<b>39.8</b>	<b>42.3</b>	<b>42.3</b>	<b>44.7</b>
<b>Far West</b>	<b>TOTAL</b>	<b>35.7</b>	<b>23.6</b>	<b>28.6</b>	<b>25.0</b>	<b>27.1</b>
<b>Public Hospitals</b>	<b>TOTAL</b>	<b>35.4</b>	<b>36.6</b>	<b>38.8</b>	<b>42.3</b>	<b>44.1</b>
<b>Private Hospitals</b>	Mater, North Sydney	27.2	24.3	26.0	25.2	29.1
	North Shore Private	25.9	24.4	22.9	25.1	27.8
	Sydney Adventist	24.6	26.9	26.2	31.3	30.5
	North Gosford Private	41.6	42.9	43.9	51.7	48.1
	Hurstville Community	27.6	30.1	23.7	26.9	28.5
	Kareena Private	28.6	26.9	32.6	32.1	36.3
	St. George Private	32.9	40.3	36.3	38.6	41.4
	Prince of Wales Private	24.7	28.1	29.8	31.1	37.0
	Norwest Private	47.4	49.5	54.2	50.6	50.5
	Sydney Southwest Private	34.9	46.8	44.2	45.7	48.0
	Nepean Private	51.4	55.5	61.9	63.7	68.7
	Westmead Private	34.0	39.8	38.7	41.3	42.3
	Wollongong Private <sup>†</sup>	-	-	43.9	44.1	48.7
	Newcastle Private	37.3	43.0	47.8	47.9	56.1
	Calvary, Wagga Wagga	36.0	39.8	37.5	37.8	37.1
	Other hospitals	48.6	48.2	0.0	0.0	0.0
	<b>TOTAL</b>	<b>33.5</b>	<b>36.3</b>	<b>36.5</b>	<b>37.9</b>	<b>40.9</b>
<b>TOTAL NSW*</b>		<b>34.9</b>	<b>36.5</b>	<b>38.1</b>	<b>41.1</b>	<b>43.2</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Hospitals with more than 200 births in 2018 are identified individually.

‡ Northern Beaches opened in 2018.

† Wollongong Private opened in 2016.

\* Total NSW includes births at home assisted by independent midwives.

### Indicator 1.3

Definition: The total number of selected primipara who undergo an instrumental vaginal birth as a percentage of the total number of selected primipara who give birth.

A selected primipara is defined as a woman who is 20–34 years of age at the time of giving birth; giving birth for the first time at 20 weeks or greater gestation; singleton pregnancy; cephalic presentation; and at 37<sup>0</sup> to 40<sup>6</sup> weeks gestation. Instrumental vaginal birth is defined as a vaginal birth assisted by forceps or vacuum.

Table 60 shows information for hospitals where at least 200 mothers gave birth in 2018, totals for hospitals for each local health district, sector, and the NSW total.

**TABLE 60: 1.3 SELECTED PRIMIPARA WHO UNDERGO AN INSTRUMENTAL VAGINAL BIRTH BY LOCAL HEALTH DISTRICT AND HOSPITAL, NSW 2014–2018\***

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
<b>Sydney</b>	Canterbury	23.1	23.5	27.6	31.4	35.2
	Royal Prince Alfred	24.6	25.0	20.7	26.2	27.8
	<b>TOTAL</b>	<b>24.2</b>	<b>24.6</b>	<b>22.3</b>	<b>27.5</b>	<b>29.6</b>
<b>South Western Sydney</b>	Fairfield	7.9	10.3	14.4	15.5	17.9
	Liverpool	21.6	19.7	21.7	24.4	24.2
	Campbelltown	14.5	15.8	19.5	19.0	18.5
	Bankstown–Lidcombe	14.3	19.6	17.3	18.9	20.6
	Bowral	21.7	26.8	26.1	22.3	20.3
	<b>TOTAL</b>	<b>15.7</b>	<b>17.2</b>	<b>19.1</b>	<b>20.2</b>	<b>20.7</b>
<b>South Eastern Sydney</b>	St. George	27.5	27.3	29.3	30.3	33.0
	Sutherland	22.3	24.3	20.2	21.9	24.7
	Royal Hospital for Women	30.9	30.8	26.6	29.2	29.3
	<b>TOTAL</b>	<b>28.4</b>	<b>28.6</b>	<b>26.5</b>	<b>28.5</b>	<b>29.9</b>
<b>Illawarra Shoalhaven</b>	Shoalhaven	17.3	15.7	16.1	21.5	24.4
	Wollongong	21.1	21.5	25.4	23.1	20.2
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>19.7</b>	<b>19.9</b>	<b>23.1</b>	<b>22.8</b>	<b>21.3</b>
<b>Western Sydney</b>	Auburn	13.2	14.4	13.0	15.4	15.7
	Blacktown	21.3	22.0	22.1	23.5	18.9
	Westmead	21.7	21.1	21.7	23.4	25.0
	<b>TOTAL</b>	<b>20.4</b>	<b>20.4</b>	<b>20.6</b>	<b>22.2</b>	<b>21.4</b>
<b>Nepean Blue Mountains</b>	Blue Mountains	8.7	19.6	23.5	10.3	18.2
	Nepean	20.0	21.7	18.8	19.5	20.4
	Hawkesbury	17.5	21.5	16.7	20.0	25.3
	Other hospitals	7.5	10.9	11.6	7.9	2.9
	<b>TOTAL</b>	<b>18.5</b>	<b>21.0</b>	<b>18.5</b>	<b>18.8</b>	<b>20.6</b>
<b>Northern Sydney</b>	Hornsby	21.8	26.1	23.6	26.2	23.1
	Manly	26.5	28.3	26.0	30.6	31.9
	Mona Vale	24.5	16.4	21.8	25.0	20.7
	Royal North Shore	27.4	25.0	25.6	26.8	27.1
	Northern Beaches <sup>‡</sup>	-	-	-	-	23.4
	Other hospitals	2.9	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>25.3</b>	<b>24.3</b>	<b>24.5</b>	<b>26.8</b>	<b>25.7</b>
<b>Central Coast</b>	Gosford	28.1	23.8	24.8	26.7	25.8
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>26.9</b>	<b>22.8</b>	<b>23.9</b>	<b>25.9</b>	<b>25.1</b>
<b>Hunter New England</b>	Armidale	25.6	15.0	12.5	20.5	18.1
	Inverell	13.0	23.1	20.9	13.5	23.7
	Tamworth Base	24.2	20.8	18.3	22.7	24.2
	Manning Base	27.8	26.6	24.8	32.3	25.0
	Maitland	14.0	19.6	17.1	10.2	11.6
	John Hunter	21.6	22.0	23.4	18.1	19.8
	Other hospitals	11.9	12.7	14.2	11.3	9.7
	<b>TOTAL</b>	<b>19.7</b>	<b>20.5</b>	<b>20.3</b>	<b>17.5</b>	<b>18.3</b>
<b>Northern NSW</b>	Grafton Base	12.2	25.4	22.1	11.3	18.7
	Lismore Base	15.6	14.3	22.3	16.5	20.2
	Tweed Heads	19.1	21.6	17.0	19.4	25.3
	Other hospitals	0.0	0.0	4.3	0.0	2.9
	<b>TOTAL</b>	<b>15.4</b>	<b>18.1</b>	<b>18.5</b>	<b>16.2</b>	<b>21.1</b>

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
<b>Mid North Coast</b>	Coffs Harbour	16.9	15.6	18.3	18.3	12.7
	Kempsey	13.0	6.7	10.8	5.3	18.8
	Port Macquarie Base	24.8	23.6	17.0	23.5	21.8
	Other hospitals	37.5	0.0	0.0	25.0	0.0
	<b>TOTAL</b>	<b>19.4</b>	<b>17.0</b>	<b>16.9</b>	<b>19.1</b>	<b>16.2</b>
<b>Southern NSW</b>	Bega	19.6	17.4	19.1	20.4	27.6
	Goulburn Base	28.3	32.1	16.9	26.4	18.5
	Moruya	18.6	17.0	13.7	17.7	11.5
	Queanbeyan	31.5	22.0	28.2	27.0	32.5
	Other hospitals	7.5	2.5	8.6	11.1	18.2
	<b>TOTAL</b>	<b>24.2</b>	<b>19.8</b>	<b>19.9</b>	<b>23.0</b>	<b>25.2</b>
<b>Murrumbidgee</b>	Griffith Base	24.5	17.8	22.5	15.5	22.0
	Wagga Wagga Base	16.0	21.1	21.8	17.3	20.9
	Other hospitals	14.5	17.9	19.3	18.8	14.3
	<b>TOTAL</b>	<b>17.6</b>	<b>19.5</b>	<b>21.4</b>	<b>17.1</b>	<b>20.0</b>
<b>Western NSW</b>	Dubbo Base	22.4	19.0	24.6	22.4	34.9
	Mudgee	23.3	19.0	19.1	15.9	15.9
	Bathurst Base	19.6	18.9	18.9	21.3	11.4
	Orange Base	22.9	26.5	17.1	22.2	22.6
	Other hospitals	18.2	7.8	14.7	14.3	16.4
	<b>TOTAL</b>	<b>21.7</b>	<b>20.2</b>	<b>20.1</b>	<b>20.8</b>	<b>25.0</b>
<b>Far West</b>	<b>TOTAL</b>	<b>23.8</b>	<b>14.5</b>	<b>9.5</b>	<b>20.5</b>	<b>14.6</b>
<b>Public Hospitals</b>	<b>TOTAL</b>	<b>21.4</b>	<b>21.6</b>	<b>21.5</b>	<b>22.7</b>	<b>23.3</b>
<b>Private Hospitals</b>	Mater, North Sydney	23.3	23.1	24.6	21.6	24.3
	North Shore Private	23.6	26.0	22.0	20.8	20.9
	Sydney Adventist	15.9	15.2	24.1	23.4	23.4
	North Gosford Private	26.8	26.8	28.1	31.5	29.6
	Hurstville Community	25.9	20.2	22.8	25.7	31.7
	Kareena Private	32.4	22.2	27.1	27.4	21.2
	St. George Private	28.5	27.5	28.4	29.7	28.2
	Prince of Wales Private	21.7	24.4	24.0	23.2	23.2
	Norwest Private	26.8	26.4	26.9	24.9	24.1
	Sydney Southwest Private	23.2	35.8	32.7	30.7	36.5
	Nepean Private	27.1	19.1	22.7	25.4	24.9
	Westmead Private	24.6	25.4	21.6	24.4	20.9
	Wollongong Private <sup>†</sup>	-	-	-	29.3	26.9
	Newcastle Private	27.7	25.8	30.2	25.5	23.9
	Calvary, Wagga Wagga	23.0	23.4	20.5	17.6	22.6
	Other hospitals	24.6	25.4	0.0	0.0	0.0
	<b>TOTAL</b>	<b>24.5</b>	<b>24.6</b>	<b>25.7</b>	<b>24.9</b>	<b>24.7</b>
<b>TOTAL NSW*</b>		<b>22.2</b>	<b>22.4</b>	<b>22.6</b>	<b>23.2</b>	<b>23.6</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.  
<sup>#</sup> Hospitals with more than 200 births in 2018 are identified individually.  
<sup>‡</sup> Northern Beaches opened in 2018.  
<sup>†</sup> Wollongong Private opened in 2016.  
<sup>\*</sup> Total NSW includes births at home assisted by independent midwives.



## Indicator 1.4

Definition: The total number of selected primipara undergoing caesarean section as a percentage of the total number of selected primipara who give birth.

A selected primipara is defined as a woman who is 20–34 years of age at the time of giving birth; giving birth for the first time at 20 weeks or greater gestation; singleton pregnancy; cephalic presentation; and at 37<sup>0</sup> to 40<sup>6</sup> weeks gestation.

Table 61 shows information for hospitals where at least 200 mothers gave birth in 2018, totals for hospitals for each local health district, sector, and the NSW total.

**TABLE 61: 1.4 SELECTED PRIMIPARA UNDERGOING CAESAREAN SECTION BY LOCAL HEALTH DISTRICT AND HOSPITAL, NSW 2014–2018\***

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
<b>Sydney</b>	Canterbury	22.9	24.7	28.9	30.3	21.2
	Royal Prince Alfred	20.2	20.9	25.8	21.3	27.9
	<b>TOTAL</b>	<b>20.9</b>	<b>21.9</b>	<b>26.5</b>	<b>23.6</b>	<b>26.3</b>
<b>South Western Sydney</b>	Fairfield	12.9	17.8	19.9	20.5	24.5
	Liverpool	17.8	17.8	21.2	20.9	17.7
	Campbelltown	22.8	21.4	20.8	20.4	23.1
	Bankstown-Lidcombe	18.8	18.7	32.8	22.6	27.4
	Bowral	31.0	23.7	35.9	26.8	15.2
	<b>TOTAL</b>	<b>19.3</b>	<b>19.3</b>	<b>23.6</b>	<b>21.2</b>	<b>21.9</b>
<b>South Eastern Sydney</b>	St. George	18.8	25.6	22.8	24.2	28.0
	Sutherland	17.6	17.5	18.6	21.6	19.8
	Royal Hospital for Women	18.9	19.9	20.2	24.0	20.1
	<b>TOTAL</b>	<b>18.6</b>	<b>21.5</b>	<b>20.8</b>	<b>23.7</b>	<b>22.9</b>
<b>Illawarra Shoalhaven</b>	Shoalhaven	24.0	35.3	27.0	27.0	20.8
	Wollongong	26.2	24.9	20.1	27.8	28.1
	Other hospitals	7.1	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>25.2</b>	<b>27.6</b>	<b>21.8</b>	<b>27.6</b>	<b>26.1</b>
<b>Western Sydney</b>	Auburn	17.0	19.4	19.6	18.3	20.4
	Blacktown	27.1	25.7	23.5	22.8	24.4
	Westmead	22.4	24.0	21.4	19.7	22.1
	<b>TOTAL</b>	<b>23.0</b>	<b>23.8</b>	<b>21.8</b>	<b>20.4</b>	<b>22.6</b>
<b>Nepean Blue Mountains</b>	Blue Mountains	6.5	27.5	15.7	25.6	25.0
	Nepean	30.0	33.2	32.7	31.6	32.0
	Hawkesbury	37.3	28.5	32.7	29.7	29.3
	Other hospitals	37.5	29.1	30.2	36.8	38.2
	<b>TOTAL</b>	<b>30.5</b>	<b>32.0</b>	<b>31.8</b>	<b>31.2</b>	<b>31.5</b>
<b>Northern Sydney</b>	Hornsby	16.7	17.1	22.9	20.2	24.1
	Manly	23.1	21.3	23.3	19.4	23.8
	Mona Vale	17.6	17.6	20.6	20.3	21.6
	Royal North Shore	20.1	20.8	24.9	23.2	21.4
	Northern Beaches <sup>†</sup>	-	-	-	-	28.6
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>19.2</b>	<b>19.4</b>	<b>23.4</b>	<b>21.4</b>	<b>22.3</b>
	<b>TOTAL</b>	<b>19.2</b>	<b>19.4</b>	<b>23.4</b>	<b>21.4</b>	<b>22.3</b>
<b>Central Coast</b>	Gosford	23.4	20.0	22.5	22.9	23.0
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>22.4</b>	<b>19.2</b>	<b>21.6</b>	<b>22.2</b>	<b>22.4</b>
<b>Hunter New England</b>	Armidale	35.4	38.0	31.9	27.3	31.3
	Inverell	38.9	34.6	25.6	21.2	23.7
	Tamworth Base	13.9	24.1	25.2	30.7	30.3
	Manning Base	15.7	20.2	21.4	18.5	24.1
	Maitland	21.6	18.3	15.9	27.5	26.5
	John Hunter	22.9	22.7	23.5	25.2	28.9
	Other hospitals	18.1	15.3	12.3	22.6	24.8
	<b>TOTAL</b>	<b>21.9</b>	<b>22.3</b>	<b>21.5</b>	<b>25.4</b>	<b>28.0</b>
	<b>TOTAL</b>	<b>21.9</b>	<b>22.3</b>	<b>21.5</b>	<b>25.4</b>	<b>28.0</b>
<b>Northern NSW</b>	Grafton Base	21.1	22.2	16.2	25.4	30.7
	Lismore Base	20.6	16.8	19.3	12.9	16.4
	Tweed Heads	23.1	15.5	14.3	19.0	19.1
	Other hospitals	2.0	2.3	6.5	0.0	0.0
	<b>TOTAL</b>	<b>20.3</b>	<b>15.7</b>	<b>15.8</b>	<b>16.6</b>	<b>18.4</b>
	<b>TOTAL</b>	<b>20.3</b>	<b>15.7</b>	<b>15.8</b>	<b>16.6</b>	<b>18.4</b>

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
<b>Mid North Coast</b>	Coffs Harbour	27.1	25.2	31.5	27.7	29.0
	Kempsey	28.3	28.9	16.2	15.8	27.1
	Port Macquarie Base	26.3	21.5	30.6	17.6	24.5
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>26.5</b>	<b>23.7</b>	<b>29.4</b>	<b>22.5</b>	<b>26.5</b>
<b>Southern NSW</b>	Bega	27.5	19.6	21.3	24.5	15.5
	Goulburn Base	22.6	28.6	37.3	34.0	20.4
	Moruya	20.9	27.7	25.5	24.2	11.5
	Queanbeyan	23.6	26.6	18.2	27.6	29.1
	Other hospitals	12.5	10.0	2.9	3.7	27.3
	<b>TOTAL</b>	<b>22.3</b>	<b>23.8</b>	<b>21.9</b>	<b>25.7</b>	<b>22.6</b>
<b>Murrumbidgee</b>	Griffith Base	29.4	28.9	26.5	20.4	26.0
	Wagga Wagga Base	30.9	35.9	27.7	33.6	30.9
	Other hospitals	21.8	13.7	26.1	12.5	18.2
	<b>TOTAL</b>	<b>27.9</b>	<b>28.9</b>	<b>27.0</b>	<b>25.9</b>	<b>27.5</b>
<b>Western NSW</b>	Dubbo Base	28.4	27.8	23.4	26.5	25.8
	Mudgee	16.3	20.7	17.0	31.8	20.5
	Bathurst Base	30.4	13.5	18.9	16.9	22.7
	Orange Base	27.4	20.4	31.0	30.4	32.6
	Other hospitals	22.1	22.1	17.3	23.4	26.9
	<b>TOTAL</b>	<b>26.9</b>	<b>22.1</b>	<b>24.0</b>	<b>26.4</b>	<b>27.3</b>
<b>Far West</b>	<b>TOTAL</b>	<b>7.1</b>	<b>16.4</b>	<b>26.2</b>	<b>29.5</b>	<b>22.9</b>
<b>Public Hospitals</b>	<b>TOTAL</b>	<b>21.8</b>	<b>22.3</b>	<b>23.4</b>	<b>23.4</b>	<b>24.4</b>
<b>Private Hospitals</b>	Mater, North Sydney	40.3	40.9	47.2	50.9	48.3
	North Shore Private	44.8	42.5	47.6	50.1	47.9
	Sydney Adventist	32.2	33.1	31.1	32.1	39.6
	North Gosford Private	43.2	38.9	44.4	46.1	53.7
	Hurstville Community	35.7	33.5	29.3	29.2	34.9
	Kareena Private	40.0	43.1	43.0	41.0	51.4
	St. George Private	43.9	39.3	38.2	41.7	35.8
	Prince of Wales Private	49.5	44.6	45.3	48.9	50.2
	Norwest Private	26.8	34.1	29.8	33.1	34.5
	Sydney Southwest Private	28.9	29.0	26.8	28.8	25.7
	Nepean Private	32.2	38.2	39.3	32.8	38.7
	Westmead Private	39.3	36.5	37.6	36.1	37.6
	Wollongong Private <sup>†</sup>	-	-	32.9	30.7	33.3
	Newcastle Private	32.8	32.8	34.1	39.6	41.5
	Calvary, Wagga Wagga	53.2	50.0	44.3	51.4	56.5
	Other hospitals	41.5	39.9	100.0	0.0	0.0
	<b>TOTAL</b>	<b>38.5</b>	<b>38.1</b>	<b>38.4</b>	<b>40.3</b>	<b>41.3</b>
<b>TOTAL NSW*</b>		<b>26.3</b>	<b>26.4</b>	<b>27.5</b>	<b>27.8</b>	<b>28.6</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Hospitals with more than 200 births in 2018 are identified individually.

† Northern Beaches opened in 2018.

† Wollongong Private opened in 2016.

\* Total NSW includes births at home assisted by independent midwives.

## Vaginal birth following caesarean section

### Indicator 2.1

Definition: Total number of women delivering vaginally following a previous primary caesarean section at 20 weeks or greater gestation as a percentage of the total number of women delivering by any route who have had a previous primary caesarean section at 20 weeks or greater gestation and no intervening pregnancies.

Table 62 shows information for hospitals where at least 200 mothers gave birth in 2018, totals for hospitals for each local health district, sector, and the NSW total.

**TABLE 62: 2.1 VAGINAL DELIVERY AFTER PREVIOUS PRIMARY CAESAREAN SECTION BY LOCAL HEALTH DISTRICT AND HOSPITAL, NSW 2014–2018\***

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
Sydney	Canterbury	17.7	17.0	29.8	20.1	21.7
	Royal Prince Alfred	17.8	21.8	14.7	19.0	15.7
	<b>TOTAL</b>	<b>17.8</b>	<b>20.5</b>	<b>20.1</b>	<b>19.3</b>	<b>17.4</b>
South Western Sydney	Fairfield	4.6	2.7	1.0	3.4	1.6
	Liverpool	19.3	13.1	28.2	22.9	29.8
	Campbelltown	28.2	23.8	30.4	28.9	33.1
	Bankstown–Lidcombe	21.6	18.1	22.7	25.8	33.2
	Bowral	18.2	8.3	20.5	17.4	27.1
	<b>TOTAL</b>	<b>20.4</b>	<b>15.9</b>	<b>24.4</b>	<b>22.9</b>	<b>28.8</b>
South Eastern Sydney	St. George	23.3	22.3	21.1	23.0	23.4
	Sutherland	3.4	1.2	1.3	0.0	0.0
	Royal Hospital for Women	16.5	17.7	15.8	16.5	16.7
	<b>TOTAL</b>	<b>17.4</b>	<b>17.5</b>	<b>16.1</b>	<b>16.4</b>	<b>16.8</b>
Illawarra Shoalhaven	Shoalhaven	20.8	11.4	9.9	12.1	16.9
	Wollongong	17.4	16.8	20.8	22.3	18.3
	Other hospitals	33.3	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>18.6</b>	<b>15.4</b>	<b>18.2</b>	<b>19.3</b>	<b>18.0</b>
Western Sydney	Auburn	1.2	3.8	4.9	4.3	1.0
	Blacktown	14.2	13.8	19.3	18.9	15.9
	Westmead	21.7	19.3	17.4	19.7	15.6
	<b>TOTAL</b>	<b>17.6</b>	<b>16.4</b>	<b>17.1</b>	<b>18.3</b>	<b>14.5</b>
Nepean Blue Mountains	Blue Mountains	6.5	0.0	0.0	6.3	0.0
	Nepean	12.7	16.0	15.6	14.2	17.3
	Hawkesbury	10.2	17.5	16.5	12.4	15.6
	Other hospitals	10.0	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>11.9</b>	<b>14.9</b>	<b>14.4</b>	<b>13.4</b>	<b>16.1</b>
Northern Sydney	Hornsby	22.0	23.6	23.9	19.4	16.0
	Manly	15.8	15.6	20.0	7.2	9.6
	Mona Vale	11.0	18.1	20.3	22.2	34.5
	Royal North Shore	17.4	14.3	18.4	7.8	13.1
	Northern Beaches <sup>‡</sup>	-	-	-	-	20.8
	<b>TOTAL</b>	<b>17.4</b>	<b>16.8</b>	<b>19.9</b>	<b>12.5</b>	<b>15.9</b>
Central Coast	Gosford	22.2	21.0	19.1	20.7	16.4
	<b>TOTAL</b>	<b>22.2</b>	<b>21.0</b>	<b>19.1</b>	<b>20.7</b>	<b>16.4</b>
Hunter New England	Armidale	9.5	25.7	21.4	17.9	13.2
	Inverell	17.1	12.0	14.0	15.4	12.5
	Tamworth Base	10.9	18.0	22.9	15.2	13.1
	Manning Base	24.6	22.2	25.0	18.5	18.2
	Maitland	25.7	29.8	15.1	9.5	24.8
	John Hunter	25.8	22.4	20.7	22.3	17.8
	Other hospitals	14.1	10.0	6.1	9.3	10.0
	<b>TOTAL</b>	<b>21.9</b>	<b>21.7</b>	<b>18.8</b>	<b>17.8</b>	<b>17.1</b>
Northern NSW	Grafton Base	29.4	19.4	19.6	9.3	13.6
	Lismore Base	24.5	27.6	37.4	27.3	34.4
	Tweed Heads	41.8	19.8	21.7	36.9	21.2
	Other hospitals	0.0	0.0	25.0	0.0	0.0
	<b>TOTAL</b>	<b>29.2</b>	<b>21.6</b>	<b>28.3</b>	<b>28.3</b>	<b>25.1</b>

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
Mid North Coast	Coffs Harbour	7.4	10.0	9.8	15.6	11.6
	Kempsey	27.3	25.9	26.1	0.0	21.1
	Port Macquarie Base	23.1	13.2	15.9	16.5	13.7
	<b>TOTAL</b>	<b>14.9</b>	<b>13.0</b>	<b>13.4</b>	<b>14.9</b>	<b>13.2</b>
Southern NSW	Bega	25.0	21.7	13.3	3.8	8.7
	Goulburn Base	50.0	26.7	17.2	32.0	25.8
	Moruya	8.6	20.0	13.8	20.0	17.1
	Queanbeyan	23.5	2.6	12.2	6.1	5.5
	Other hospitals	16.7	15.8	50.0	8.3	20.0
	<b>TOTAL</b>	<b>27.5</b>	<b>17.2</b>	<b>17.5</b>	<b>13.4</b>	<b>13.4</b>
Murrumbidgee	Griffith Base	25.0	19.6	22.0	32.8	28.6
	Wagga Wagga Base	7.4	9.3	16.3	7.3	15.4
	Other hospitals	12.2	16.3	19.0	5.6	10.3
	<b>TOTAL</b>	<b>13.0</b>	<b>14.1</b>	<b>18.3</b>	<b>13.4</b>	<b>17.8</b>
Western NSW	Dubbo Base	10.7	18.3	18.4	20.9	13.1
	Mudgee	4.3	4.8	7.7	26.1	5.9
	Bathurst Base	8.8	22.4	15.6	18.0	19.6
	Orange Base	16.7	16.9	24.2	15.8	22.8
	Other hospitals	28.9	20.0	24.4	20.5	27.3
	<b>TOTAL</b>	<b>14.3</b>	<b>17.8</b>	<b>20.4</b>	<b>19.1</b>	<b>18.4</b>
Far West	<b>TOTAL</b>	<b>10.0</b>	<b>21.1</b>	<b>8.7</b>	<b>11.8</b>	<b>15.4</b>
Public Hospitals	<b>TOTAL</b>	<b>18.4</b>	<b>17.6</b>	<b>18.9</b>	<b>18.0</b>	<b>18.7</b>
Private Hospitals	Mater, North Sydney	4.6	7.4	6.1	5.5	3.5
	North Shore Private	5.8	8.8	5.2	7.7	4.0
	Sydney Adventist	8.8	6.9	10.8	9.0	6.6
	North Gosford Private	11.5	9.4	8.8	4.8	6.9
	Hurstville Community	9.5	7.9	9.7	5.1	6.9
	Kareena Private	6.3	7.5	8.5	8.4	3.9
	St. George Private	6.6	6.4	6.2	5.2	9.3
	Prince of Wales Private	5.7	3.6	3.0	2.4	2.7
	Norwest Private	9.8	8.6	7.3	9.7	9.2
	Sydney Southwest Private	1.4	0.0	0.9	0.0	0.9
	Nepean Private	9.0	7.3	9.5	5.3	7.6
	Westmead Private	7.4	6.8	6.0	4.4	7.4
	Wollongong Private <sup>†</sup>	-	-	5.6	5.1	7.8
	Newcastle Private	12.2	8.3	8.8	7.9	6.8
	Calvary, Wagga Wagga	4.0	4.4	2.3	4.2	5.2
	Other hospitals	4.8	8.1	0.0	0.0	0.0
	<b>TOTAL</b>	<b>7.3</b>	<b>6.9</b>	<b>6.5</b>	<b>6.1</b>	<b>5.8</b>
<b>TOTAL NSW*</b>		<b>14.7</b>	<b>14.0</b>	<b>14.8</b>	<b>14.3</b>	<b>14.9</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Hospitals with more than 200 births in 2018 are identified individually.

‡ Northern Beaches opened in 2018.

† Wollongong Private opened in 2016.

\* Total NSW includes births at home assisted by independent midwives.

# Major perineal tears and surgical repair of the perineum

## Indicator 3.1

Definition: Total number of selected primipara with an intact perineum (other than superficial grazes) while giving birth vaginally as a percentage of the total number of selected primipara delivering vaginally.

A selected primipara is defined as a woman who is 20–34 years of age at the time of giving birth; giving birth for the first time at 20 weeks or greater gestation; singleton pregnancy; cephalic presentation; and at 37<sup>0</sup> to 40<sup>6</sup> weeks gestation.

Table 63 shows information for hospitals where at least 200 mothers gave birth in 2018, totals for hospitals for each local health district, sector, and the NSW total.

**TABLE 63: 3.1 SELECTED PRIMIPARA DELIVERING VAGINALLY WITH AN INTACT PERINEUM BY LOCAL HEALTH DISTRICT AND HOSPITAL, NSW 2014–2018\***

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
Sydney	Canterbury	6.4	6.8	6.2	5.0	6.7
	Royal Prince Alfred	8.9	8.1	8.1	7.9	7.7
	<b>TOTAL</b>	<b>8.3</b>	<b>7.8</b>	<b>7.6</b>	<b>7.2</b>	<b>7.4</b>
South Western Sydney	Fairfield	21.1	18.9	13.9	12.9	7.3
	Liverpool	15.2	12.6	11.3	8.9	6.1
	Campbelltown	20.5	21.0	11.5	9.8	11.2
	Bankstown–Lidcombe	15.7	14.6	7.4	10.7	8.1
	Bowral	23.6	17.6	15.5	22.0	14.9
	<b>TOTAL</b>	<b>18.2</b>	<b>16.7</b>	<b>11.3</b>	<b>10.7</b>	<b>8.6</b>
South Eastern Sydney	St. George	9.3	8.0	5.5	3.5	4.1
	Sutherland	11.9	11.7	5.9	7.9	5.8
	Royal Hospital for Women	10.1	12.1	10.8	9.8	9.9
	<b>TOTAL</b>	<b>10.2</b>	<b>10.8</b>	<b>8.1</b>	<b>7.2</b>	<b>7.2</b>
Illawarra Shoalhaven	Shoalhaven	36.8	38.6	23.6	28.6	18.6
	Wollongong	10.7	14.2	8.4	8.5	6.8
	Other hospitals	46.2	100.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>18.3</b>	<b>20.0</b>	<b>11.9</b>	<b>13.2</b>	<b>10.2</b>
Western Sydney	Auburn	10.4	11.7	6.2	8.6	10.2
	Blacktown	6.9	9.4	4.6	5.0	4.0
	Westmead	8.4	6.7	5.5	4.4	3.8
	<b>TOTAL</b>	<b>8.3</b>	<b>8.3</b>	<b>5.4</b>	<b>5.2</b>	<b>4.9</b>
Nepean Blue Mountains	Blue Mountains	23.3	29.7	11.6	3.4	9.1
	Nepean	11.2	12.4	7.0	8.0	6.0
	Hawkesbury	29.8	26.0	24.8	17.2	9.8
	Other hospitals	24.0	10.3	3.3	16.7	9.5
	<b>TOTAL</b>	<b>15.3</b>	<b>15.5</b>	<b>9.6</b>	<b>9.5</b>	<b>6.8</b>
Northern Sydney	Hornsby	11.8	9.5	6.1	6.6	6.5
	Manly	17.0	14.1	9.8	9.1	5.7
	Mona Vale	24.5	24.3	17.0	16.8	15.4
	Royal North Shore	7.6	8.5	6.1	5.1	5.1
	Northern Beaches <sup>‡</sup>	-	-	-	-	12.7
	Other hospitals	50.0	37.9	38.1	27.8	42.9
	<b>TOTAL</b>	<b>13.1</b>	<b>12.1</b>	<b>8.5</b>	<b>7.9</b>	<b>7.4</b>
Central Coast	Gosford	12.2	13.1	9.3	8.1	7.8
	Other hospitals	42.3	21.4	27.3	27.8	29.4
	<b>TOTAL</b>	<b>13.8</b>	<b>13.6</b>	<b>10.2</b>	<b>8.9</b>	<b>8.5</b>
Hunter New England	Armidale	17.0	30.6	18.4	20.3	15.8
	Inverell	33.3	35.3	37.5	41.5	13.8
	Tamworth Base	18.3	15.5	14.6	13.9	6.5
	Manning Base	18.6	23.2	21.7	8.9	10.6
	Maitland	24.4	19.8	13.5	13.7	13.1
	John Hunter	12.4	14.4	10.0	5.5	6.8
	Other hospitals	27.8	28.8	27.6	32.3	28.2
	<b>TOTAL</b>	<b>18.1</b>	<b>18.9</b>	<b>15.3</b>	<b>12.5</b>	<b>10.8</b>
Northern NSW	Grafton Base	42.3	34.7	40.4	35.8	26.9
	Lismore Base	31.2	29.4	13.5	17.8	11.1
	Tweed Heads	17.8	11.2	19.3	13.7	12.8
	Other hospitals	44.0	50.0	32.6	50.0	26.5
	<b>TOTAL</b>	<b>28.4</b>	<b>22.6</b>	<b>21.1</b>	<b>20.2</b>	<b>14.6</b>

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
Mid North Coast	Coffs Harbour	15.2	15.3	18.5	13.6	11.5
	Kempsey	30.3	31.3	29.0	21.9	25.7
	Port Macquarie Base	10.2	13.3	7.8	9.5	6.3
	Other hospitals	25.0	18.2	50.0	50.0	45.5
	<b>TOTAL</b>	<b>15.5</b>	<b>16.3</b>	<b>16.2</b>	<b>13.7</b>	<b>12.4</b>
Southern NSW	Bega	29.7	27.0	21.6	29.7	8.2
	Goulburn Base	14.6	12.5	13.5	14.3	16.3
	Moruya	29.4	35.3	23.7	27.7	30.4
	Queanbeyan	35.1	32.5	30.0	18.2	13.1
	Other hospitals	42.9	63.9	64.7	53.8	18.8
	<b>TOTAL</b>	<b>31.1</b>	<b>33.5</b>	<b>30.1</b>	<b>24.7</b>	<b>16.1</b>
Murrumbidgee	Griffith Base	27.8	32.8	25.3	28.0	14.9
	Wagga Wagga Base	26.9	18.7	16.4	11.3	12.8
	Other hospitals	34.0	30.5	33.8	35.7	25.4
	<b>TOTAL</b>	<b>29.4</b>	<b>25.4</b>	<b>22.7</b>	<b>21.8</b>	<b>15.9</b>
Western NSW	Dubbo Base	25.7	24.7	18.4	7.8	6.9
	Mudgee	27.8	26.1	23.1	10.0	17.1
	Bathurst Base	18.3	25.0	13.0	14.9	13.2
	Orange Base	11.6	15.6	12.4	12.5	9.4
	Other hospitals	23.3	35.0	21.0	25.4	18.4
	<b>TOTAL</b>	<b>20.3</b>	<b>23.0</b>	<b>16.6</b>	<b>12.5</b>	<b>10.3</b>
Far West	<b>TOTAL</b>	<b>46.2</b>	<b>43.5</b>	<b>45.2</b>	<b>29.0</b>	<b>18.9</b>
Public Hospitals	<b>TOTAL</b>	<b>14.8</b>	<b>14.6</b>	<b>10.9</b>	<b>10.0</b>	<b>8.6</b>
Private Hospitals	Mater, North Sydney	15.1	11.0	7.0	6.6	6.4
	North Shore Private	12.9	9.7	5.1	4.6	7.1
	Sydney Adventist	10.8	12.0	10.7	8.8	10.3
	North Gosford Private	10.2	10.7	9.2	6.3	8.0
	Hurstville Community	10.9	10.4	17.1	6.6	8.3
	Kareena Private	7.9	8.1	7.1	4.8	4.2
	St. George Private	8.1	10.7	7.2	5.7	5.9
	Prince of Wales Private	11.5	10.5	5.9	6.3	4.9
	Norwest Private	12.3	12.1	5.6	6.7	3.3
	Sydney Southwest Private	13.4	5.8	6.0	4.2	4.5
	Nepean Private	3.4	5.9	1.3	1.5	0.0
	Westmead Private	4.4	6.5	2.3	3.0	3.1
	Wollongong Private <sup>†</sup>	-	-	2.7	2.5	5.4
	Newcastle Private	17.4	8.9	5.0	7.0	6.3
	Calvary, Wagga Wagga	13.8	17.2	14.3	8.3	18.5
	Other hospitals	5.4	5.4	0.0	0.0	0.0
	<b>TOTAL</b>	<b>10.8</b>	<b>9.6</b>	<b>6.3</b>	<b>5.5</b>	<b>5.6</b>
<b>TOTAL NSW*</b>		<b>13.9</b>	<b>13.5</b>	<b>9.9</b>	<b>9.0</b>	<b>8.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Hospitals with more than 200 births in 2018 are identified individually.

‡ Northern Beaches opened in 2018.

† Wollongong Private opened in 2016.

\* Total NSW includes births at home assisted by independent midwives.

### Indicator 3.2

Definition: Total number of selected primipara undergoing episiotomy and no perineal tear (other than superficial grazes) while giving birth vaginally as a percentage of the total number of selected primipara delivering vaginally.

A selected primipara is defined as a woman who is 20–34 years of age at the time of giving birth; giving birth for the first time at 20 weeks or greater gestation; singleton pregnancy; cephalic presentation; and at 37<sup>0</sup> to 40<sup>6</sup> weeks gestation.

Table 64 shows information for hospitals where at least 200 mothers gave birth in 2018, totals for hospitals for each local health district, sector, and the NSW total.

**TABLE 64: 3.2 SELECTED PRIMIPARA UNDERGOING EPISIOTOMY AND NO PERINEAL TEAR BY LOCAL HEALTH DISTRICT AND HOSPITAL, NSW 2014–2018<sup>a</sup>**

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
<b>Sydney</b>	Canterbury	35.6	38.5	45.3	38.9	39.1
	Royal Prince Alfred	26.4	23.5	23.4	27.0	27.9
	<b>TOTAL</b>	<b>28.6</b>	<b>27.3</b>	<b>28.2</b>	<b>29.7</b>	<b>30.8</b>
<b>South Western Sydney</b>	Fairfield	30.2	30.1	30.9	39.4	43.4
	Liverpool	28.8	32.5	27.6	33.3	31.3
	Campbelltown	22.8	26.9	29.8	29.4	31.9
	Bankstown–Lidcombe	31.4	29.6	39.9	38.7	38.0
	Bowral	33.7	33.8	39.7	25.6	17.9
	<b>TOTAL</b>	<b>28.1</b>	<b>29.8</b>	<b>31.3</b>	<b>33.6</b>	<b>33.6</b>
<b>South Eastern Sydney</b>	St. George	31.6	31.9	33.3	34.2	48.7
	Sutherland	28.5	34.8	30.1	34.6	38.1
	Royal Hospital for Women	31.2	28.1	21.0	26.0	35.3
	<b>TOTAL</b>	<b>30.9</b>	<b>30.4</b>	<b>26.7</b>	<b>30.3</b>	<b>40.3</b>
<b>Illawarra Shoalhaven</b>	Shoalhaven	20.6	21.2	22.0	15.1	25.6
	Wollongong	25.1	24.9	25.6	23.8	26.3
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>23.3</b>	<b>24.0</b>	<b>24.8</b>	<b>21.8</b>	<b>26.1</b>
<b>Western Sydney</b>	Auburn	26.3	28.3	27.2	29.9	39.8
	Blacktown	39.3	39.6	31.1	32.5	40.7
	Westmead	40.9	42.6	38.5	38.8	45.1
	<b>TOTAL</b>	<b>38.3</b>	<b>39.5</b>	<b>34.7</b>	<b>35.6</b>	<b>42.8</b>
<b>Nepean Blue Mountains</b>	Blue Mountains	9.3	8.1	9.3	6.9	15.2
	Nepean	20.3	30.6	23.2	23.0	31.8
	Hawkesbury	24.0	31.7	17.8	24.1	37.4
	Other hospitals	12.0	33.3	13.3	12.5	28.6
	<b>TOTAL</b>	<b>19.9</b>	<b>29.8</b>	<b>21.3</b>	<b>22.2</b>	<b>31.9</b>
<b>Northern Sydney</b>	Hornsby	15.9	21.1	15.7	27.2	37.0
	Manly	19.0	24.0	24.1	27.3	33.6
	Mona Vale	11.0	8.8	17.0	20.4	15.4
	Royal North Shore	25.4	24.7	24.4	35.1	38.2
	Northern Beaches <sup>‡</sup>	-	-	-	-	32.7
	Other hospitals	2.9	0.0	0.0	5.6	0.0
	<b>TOTAL</b>	<b>20.2</b>	<b>21.5</b>	<b>21.4</b>	<b>30.0</b>	<b>34.5</b>
	<b>TOTAL</b>	<b>18.8</b>	<b>19.2</b>	<b>16.3</b>	<b>27.3</b>	<b>27.2</b>
<b>Central Coast</b>	Gosford	19.7	20.3	17.2	27.9	27.9
	Other hospitals	3.8	0.0	0.0	11.1	5.9
<b>Hunter New England</b>	Armidale	41.5	29.0	22.4	18.8	36.8
	Inverell	39.4	47.1	40.6	29.3	62.1
	Tamworth Base	25.4	26.7	22.5	22.1	34.1
	Manning Base	10.3	18.2	16.3	24.8	30.6
	Maitland	8.9	15.6	15.9	13.7	25.7
	John Hunter	21.5	17.9	18.5	22.6	30.7
	Other hospitals	12.7	14.4	12.4	12.3	16.9
	<b>TOTAL</b>	<b>18.9</b>	<b>19.2</b>	<b>18.2</b>	<b>20.1</b>	<b>29.8</b>
<b>Northern NSW</b>	Grafton Base	7.0	10.2	10.5	11.3	21.2
	Lismore Base	15.0	14.7	23.3	24.3	26.1
	Tweed Heads	16.4	21.2	10.7	21.7	25.6
	Other hospitals	2.0	0.0	7.0	0.0	5.9
	<b>TOTAL</b>	<b>13.2</b>	<b>16.3</b>	<b>14.8</b>	<b>20.2</b>	<b>24.0</b>
<b>Mid North Coast</b>	Coffs Harbour	18.9	15.3	26.7	24.7	19.7
	Kempsey	9.1	6.3	3.2	9.4	17.1
	Port Macquarie Base	23.5	24.8	20.6	24.6	28.8
	Other hospitals	0.0	0.0	0.0	12.5	0.0
	<b>TOTAL</b>	<b>18.8</b>	<b>17.2</b>	<b>21.3</b>	<b>22.9</b>	<b>22.0</b>
<b>Southern NSW</b>	Bega	13.5	10.8	16.2	10.8	30.6
	Goulburn Base	43.9	45.0	35.1	51.4	18.6
	Moruya	20.6	14.7	18.4	14.9	4.3
	Queanbeyan	15.5	15.0	23.3	21.8	20.6
	Other hospitals	11.4	0.0	2.9	7.7	18.8
	<b>TOTAL</b>	<b>20.1</b>	<b>17.2</b>	<b>20.3</b>	<b>21.6</b>	<b>19.2</b>
<b>Murrumbidgee</b>	Griffith Base	25.0	15.6	18.7	17.1	28.4
	Wagga Wagga Base	17.2	29.1	24.7	20.4	35.5
	Other hospitals	13.4	18.3	18.5	14.3	19.0
	<b>TOTAL</b>	<b>17.8</b>	<b>22.9</b>	<b>21.7</b>	<b>18.0</b>	<b>30.4</b>
<b>Western NSW</b>	Dubbo Base	32.4	28.6	24.5	33.9	47.1
	Mudgee	22.2	23.9	20.5	20.0	22.9
	Bathurst Base	25.4	16.7	15.6	21.6	19.1
	Orange Base	23.3	23.9	23.4	22.9	32.9
	Other hospitals	13.3	13.3	21.0	18.6	20.4
	<b>TOTAL</b>	<b>25.6</b>	<b>23.0</b>	<b>22.2</b>	<b>26.1</b>	<b>34.9</b>
<b>Far West</b>	<b>TOTAL</b>	<b>17.9</b>	<b>17.4</b>	<b>6.5</b>	<b>12.9</b>	<b>21.6</b>
<b>Public Hospitals</b>	<b>TOTAL</b>	<b>26.2</b>	<b>27.1</b>	<b>25.7</b>	<b>28.5</b>	<b>33.5</b>
<b>Private Hospitals</b>	Mater, North Sydney	37.9	38.7	46.3	41.2	42.8
	North Shore Private	36.2	32.1	34.8	37.6	33.0
	Sydney Adventist	39.8	32.5	43.4	41.0	38.4
	North Gosford Private	52.8	33.9	35.8	51.0	33.3
	Hurstville Community	38.7	33.9	28.3	25.6	43.0
	Kareena Private	29.4	23.6	33.3	29.6	29.6
	St. George Private	25.1	28.4	23.4	29.9	36.3
	Prince of Wales Private	44.9	41.0	34.3	36.1	33.4
	Norwest Private	35.7	44.5	34.1	41.7	40.2
	Sydney Southwest Private	48.7	56.3	48.1	43.2	35.9
	Nepean Private	60.0	52.9	51.3	53.3	58.6
	Westmead Private	65.1	67.1	63.8	65.1	64.3
	Wollongong Private <sup>†</sup>	-	-	59.0	47.8	34.9
	Newcastle Private	14.0	11.4	15.6	14.7	19.5
	Calvary, Wagga Wagga	35.4	26.6	28.6	33.3	18.5
	Other hospitals	48.8	52.4	0.0	0.0	0.0
	<b>TOTAL</b>	<b>40.3</b>	<b>39.2</b>	<b>39.2</b>	<b>40.2</b>	<b>39.6</b>
<b>TOTAL NSW<sup>*</sup></b>		<b>29.3</b>	<b>29.7</b>	<b>28.8</b>	<b>31.0</b>	<b>34.7</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Hospitals with more than 200 births in 2018 are identified individually.

‡ Northern Beaches opened in 2018.

† Wollongong Private opened in 2016.

\* Total NSW includes births at home assisted by independent midwives.

### Indicator 3.3

Definition: Total number of selected primipara sustaining a perineal tear and no episiotomy while giving birth vaginally as a percentage of the total number of selected primipara delivering vaginally.

A selected primipara is defined as a woman who is 20–34 years of age at the time of giving birth; giving birth for the first time at 20 weeks or greater gestation; singleton pregnancy; cephalic presentation; and at 37<sup>0</sup> to 40<sup>6</sup> weeks gestation.

Table 65 shows information for hospitals where at least 200 mothers gave birth in 2018, totals for hospitals for each local health district, sector, and the NSW total.

**TABLE 65: 3.3 SELECTED PRIMIPARA SUSTAINING A PERINEAL TEAR AND NO EPISIOTOMY BY LOCAL HEALTH DISTRICT AND HOSPITAL, NSW 2014–2018\***

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
<b>Sydney</b>	Canterbury	52.8	48.4	40.9	41.7	48.0
	Royal Prince Alfred	57.8	63.1	64.6	60.5	57.4
	<b>TOTAL</b>	<b>56.6</b>	<b>59.4</b>	<b>59.4</b>	<b>56.1</b>	<b>55.0</b>
<b>South Western Sydney</b>	Fairfield	52.5	54.6	54.1	48.0	46.7
	Liverpool	54.2	51.0	59.8	53.2	53.1
	Campbelltown	63.3	57.1	59.9	60.5	55.5
	Bankstown–Lidcombe	48.3	50.1	43.8	41.7	45.2
	Bowral	42.7	48.6	51.7	51.2	76.1
	<b>TOTAL</b>	<b>54.9</b>	<b>53.2</b>	<b>55.9</b>	<b>52.8</b>	<b>52.6</b>
<b>South Eastern Sydney</b>	St. George	51.1	52.8	48.6	46.7	35.1
	Sutherland	54.2	49.3	54.6	49.2	47.3
	Royal Hospital for Women	55.3	56.2	63.0	56.8	49.0
	<b>TOTAL</b>	<b>53.7</b>	<b>54.0</b>	<b>56.6</b>	<b>51.9</b>	<b>44.0</b>
<b>Illawarra Shoalhaven</b>	Shoalhaven	61.0	53.8	68.5	65.5	52.6
	Wollongong	62.7	59.0	62.0	63.1	53.2
	Other hospitals	76.9	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>62.6</b>	<b>57.7</b>	<b>63.5</b>	<b>63.7</b>	<b>53.0</b>
<b>Western Sydney</b>	Auburn	61.6	57.3	54.5	50.9	42.6
	Blacktown	45.7	45.0	46.8	46.9	43.9
	Westmead	38.1	40.3	39.5	38.8	36.6
	<b>TOTAL</b>	<b>43.6</b>	<b>44.3</b>	<b>43.8</b>	<b>42.9</b>	<b>40.0</b>
<b>Nepean Blue Mountains</b>	Blue Mountains	65.1	73.0	81.4	72.4	60.6
	Nepean	65.9	52.5	58.3	58.0	48.6
	Hawkesbury	60.6	52.0	65.3	63.8	48.8
	Other hospitals	68.0	56.4	70.0	58.3	57.1
	<b>TOTAL</b>	<b>65.1</b>	<b>53.7</b>	<b>61.1</b>	<b>59.5</b>	<b>49.5</b>
<b>Northern Sydney</b>	Hornsby	71.4	59.1	64.2	55.4	47.4
	Manly	59.5	54.7	60.3	55.1	53.3
	Mona Vale	70.3	72.1	64.4	60.6	69.2
	Royal North Shore	57.3	58.8	56.7	51.6	51.4
	Northern Beaches <sup>‡</sup>	-	-	-	-	45.5
	Other hospitals	79.4	89.7	85.7	83.3	76.2
	<b>TOTAL</b>	<b>62.5</b>	<b>60.5</b>	<b>60.1</b>	<b>54.6</b>	<b>52.4</b>
<b>Central Coast</b>	Gosford	63.3	63.2	67.3	56.5	52.0
	Other hospitals	88.5	89.3	100.0	72.2	76.5
	<b>TOTAL</b>	<b>64.7</b>	<b>64.7</b>	<b>68.9</b>	<b>57.1</b>	<b>52.8</b>
<b>Hunter New England</b>	Armidale	41.5	54.8	63.3	57.8	36.8
	Inverell	48.5	35.3	53.1	46.3	24.1
	Tamworth Base	57.0	57.1	61.6	59.0	46.4
	Manning Base	71.1	64.6	66.3	60.4	50.6
	Maitland	72.1	70.0	72.5	67.8	58.6
	John Hunter	63.3	67.0	66.8	61.7	52.8
	Other hospitals	68.4	67.5	70.3	71.5	66.1
	<b>TOTAL</b>	<b>64.2</b>	<b>65.0</b>	<b>67.1</b>	<b>62.7</b>	<b>52.9</b>
<b>Northern NSW</b>	Grafton Base	76.1	71.4	71.9	67.9	57.7
	Lismore Base	73.4	70.6	62.6	65.1	54.3
	Tweed Heads	64.8	66.0	74.1	56.0	56.9
	Other hospitals	90.0	78.6	86.0	87.5	79.4
	<b>TOTAL</b>	<b>71.8</b>	<b>69.0</b>	<b>70.9</b>	<b>62.9</b>	<b>57.5</b>

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
<b>Mid North Coast</b>	Coffs Harbour	69.5	71.8	61.5	56.2	65.6
	Kempsey	81.8	71.9	80.6	62.5	62.9
	Port Macquarie Base	61.2	52.2	70.6	53.2	49.5
	Other hospitals	100.0	81.8	100.0	75.0	72.7
	<b>TOTAL</b>	<b>69.0</b>	<b>65.2</b>	<b>67.6</b>	<b>56.1</b>	<b>59.9</b>
<b>Southern NSW</b>	Bega	56.8	67.6	64.9	64.9	44.9
	Goulburn Base	41.5	42.5	48.6	40.0	53.5
	Moruya	64.7	64.7	73.7	74.5	56.5
	Queanbeyan	50.5	73.8	61.1	59.1	56.1
	Other hospitals	65.7	72.2	58.8	69.2	56.3
	<b>TOTAL</b>	<b>54.1</b>	<b>62.6</b>	<b>61.4</b>	<b>61.2</b>	<b>53.6</b>
<b>Murrumbidgee</b>	Griffith Base	56.9	68.8	62.7	68.3	60.8
	Wagga Wagga Base	59.7	55.2	60.3	63.4	50.0
	Other hospitals	60.8	56.1	56.9	65.7	57.1
	<b>TOTAL</b>	<b>59.4</b>	<b>58.6</b>	<b>60.1</b>	<b>65.3</b>	<b>54.0</b>
<b>Western NSW</b>	Dubbo Base	46.4	56.6	62.2	47.8	32.4
	Mudgee	61.1	67.4	66.7	63.3	62.9
	Bathurst Base	63.4	67.7	68.8	63.5	73.5
	Orange Base	56.8	56.7	53.8	54.2	51.0
	Other hospitals	65.0	65.0	59.7	59.3	57.1
	<b>TOTAL</b>	<b>55.3</b>	<b>60.3</b>	<b>60.9</b>	<b>54.4</b>	<b>47.9</b>
<b>Far West</b>	<b>TOTAL</b>	<b>69.2</b>	<b>78.3</b>	<b>80.6</b>	<b>74.2</b>	<b>48.6</b>
<b>Public Hospitals</b>	<b>TOTAL</b>	<b>57.2</b>	<b>56.7</b>	<b>58.4</b>	<b>54.7</b>	<b>50.1</b>
<b>Private Hospitals</b>	Mater, North Sydney	38.5	43.9	46.7	52.6	47.7
	North Shore Private	45.3	55.8	50.0	53.2	56.5
	Sydney Adventist	47.3	53.6	46.2	49.6	49.8
	North Gosford Private	29.6	42.1	39.4	31.3	58.7
	Hurstville Community	45.4	50.4	58.6	65.3	50.4
	Kareena Private	57.9	68.3	53.2	55.2	64.8
	St. George Private	65.3	61.2	65.9	62.8	56.0
	Prince of Wales Private	35.2	36.6	40.8	41.1	40.7
	Norwest Private	39.6	34.2	39.8	35.3	38.5
	Sydney Southwest Private	27.6	27.4	30.2	35.3	40.5
	Nepean Private	25.5	27.2	27.3	29.6	21.1
	Westmead Private	25.5	22.4	27.6	26.7	25.8
	Wollongong Private <sup>†</sup>	-	-	33.5	42.8	52.2
	Newcastle Private	51.3	55.8	51.7	52.0	43.4
	Calvary, Wagga Wagga	47.7	48.4	51.0	55.6	66.7
	Other hospitals	44.0	39.2	0.0	0.0	0.0
	<b>TOTAL</b>	<b>41.4</b>	<b>43.6</b>	<b>43.8</b>	<b>44.8</b>	<b>44.3</b>
<b>TOTAL NSW*</b>		<b>53.6</b>	<b>53.8</b>	<b>55.0</b>	<b>52.5</b>	<b>48.9</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Hospitals with more than 200 births in 2018 are identified individually.

‡ Northern Beaches opened in 2018.

† Wollongong Private opened in 2016.

\* Total NSW includes births at home assisted by independent midwives.

### Indicator 3.4

Definition: Total number of selected primipara undergoing episiotomy and sustaining a perineal tear while giving birth vaginally as a percentage of the total number of selected primipara delivering vaginally.

A selected primipara is defined as a woman who is 20–34 years of age at the time of giving birth; giving birth for the first time at 20 weeks or greater gestation; singleton pregnancy; cephalic presentation; and at 37<sup>0</sup> to 40<sup>6</sup> weeks gestation.

Table 66 shows information for hospitals where at least 200 mothers gave birth in 2018, totals for hospitals for each local health district, sector, and the NSW total.

**TABLE 66: 3.4 SELECTED PRIMIPARA UNDERGOING EPISIOTOMY AND SUSTAINING A PERINEAL TEAR BY LOCAL HEALTH DISTRICT AND HOSPITAL, NSW 2014–2018<sup>a</sup>**

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
Sydney	Canterbury	7.22	7.65	9.12	13.73	7.28
	Royal Prince Alfred	9.32	8.32	5.92	6.72	9.41
	<b>TOTAL</b>	<b>8.82</b>	<b>8.15</b>	<b>6.62</b>	<b>8.33</b>	<b>8.85</b>
South Western Sydney	Fairfield	2.40	2.79	3.55	6.32	4.38
	Liverpool	4.64	5.26	4.15	4.44	7.31
	Campbelltown	1.47	1.44	1.58	2.02	2.90
	Bankstown–Lidcombe	6.20	8.39	7.69	9.82	8.41
	Bowral	1.12	1.35	3.45	0.00	0.00
	<b>TOTAL</b>	<b>3.52</b>	<b>4.19</b>	<b>3.81</b>	<b>4.64</b>	<b>5.38</b>
South Eastern Sydney	St. George	12.93	10.16	15.47	16.20	10.14
	Sutherland	9.83	8.16	12.09	7.50	4.62
	Royal Hospital for Women	8.33	8.52	11.01	10.87	4.31
	<b>TOTAL</b>	<b>10.10</b>	<b>8.99</b>	<b>12.72</b>	<b>12.30</b>	<b>6.32</b>
Illawarra Shoalhaven	Shoalhaven	1.47	5.30	3.94	5.88	1.28
	Wollongong	5.07	5.95	8.85	5.90	5.57
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>4.01</b>	<b>5.79</b>	<b>7.71</b>	<b>5.89</b>	<b>4.36</b>
Western Sydney	Auburn	6.92	8.47	15.52	13.06	6.17
	Blacktown	10.75	10.09	20.71	15.81	4.10
	Westmead	15.66	13.31	19.36	19.69	8.38
	<b>TOTAL</b>	<b>13.06</b>	<b>11.64</b>	<b>19.18</b>	<b>17.59</b>	<b>6.58</b>
Nepean Blue Mountains	Blue Mountains	2.33	8.11	4.65	3.45	9.09
	Nepean	8.66	10.20	16.52	15.02	6.87
	Hawkesbury	0.00	2.44	7.92	6.03	0.00
	Other hospitals	8.00	10.26	13.33	8.33	0.00
	<b>TOTAL</b>	<b>6.91</b>	<b>8.74</b>	<b>14.54</b>	<b>12.93</b>	<b>5.62</b>
Northern Sydney	Hornsby	4.49	12.50	17.47	7.04	6.52
	Manly	11.50	11.46	13.22	3.74	0.82
	Mona Vale	7.10	7.35	8.89	5.11	0.00
	Royal North Shore	13.56	12.71	16.56	7.09	3.66
	Northern Beaches <sup>†</sup>	-	-	-	-	0.00
	Other hospitals	2.94	0.00	4.76	0.00	0.00
	<b>TOTAL</b>	<b>10.41</b>	<b>11.54</b>	<b>15.14</b>	<b>6.15</b>	<b>3.39</b>
	<b>TOTAL</b>	<b>10.41</b>	<b>11.54</b>	<b>15.14</b>	<b>6.15</b>	<b>3.39</b>
Central Coast	Gosford	11.35	9.65	10.90	3.83	3.59
	Other hospitals	0.00	3.57	0.00	5.56	0.00
	<b>TOTAL</b>	<b>10.74</b>	<b>9.32</b>	<b>10.38</b>	<b>3.90</b>	<b>3.47</b>
Hunter New England	Armidale	11.32	3.23	6.12	12.50	3.51
	Inverell	3.03	2.94	3.13	7.32	3.45
	Tamworth Base	7.04	6.83	9.27	9.84	4.35
	Manning Base	4.12	5.05	7.61	10.89	4.71
	Maitland	8.14	8.75	7.73	10.13	3.15
	John Hunter	9.87	9.09	12.27	11.53	3.90
	Other hospitals	4.43	4.38	5.41	2.31	0.81
	<b>TOTAL</b>	<b>8.12</b>	<b>7.57</b>	<b>9.50</b>	<b>10.07</b>	<b>3.54</b>
	<b>TOTAL</b>	<b>8.12</b>	<b>7.57</b>	<b>9.50</b>	<b>10.07</b>	<b>3.54</b>
Northern NSW	Grafton Base	2.82	4.08	5.26	0.00	0.00
	Lismore Base	2.31	6.75	5.52	1.78	3.02
	Tweed Heads	9.39	5.60	5.08	3.43	5.13
	Other hospitals	0.00	2.38	0.00	0.00	0.00
	<b>TOTAL</b>	<b>5.13</b>	<b>5.56</b>	<b>4.78</b>	<b>2.14</b>	<b>3.33</b>
Mid North Coast	Coffs Harbour	7.32	6.13	5.19	3.09	1.91
	Kempsey	0.00	6.25	9.68	0.00	5.71
	Port Macquarie Base	9.18	13.27	6.86	6.35	2.70
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>6.93</b>	<b>8.46</b>	<b>6.25</b>	<b>3.96</b>	<b>2.55</b>
Southern NSW	Bega	10.81	10.81	5.41	8.11	0.00
	Goulburn Base	4.88	2.50	2.70	0.00	2.33
	Moruya	8.82	5.88	0.00	2.13	0.00
	Queanbeyan	9.28	3.75	10.00	11.82	14.02
	Other hospitals	0.00	0.00	2.94	3.85	0.00
	<b>TOTAL</b>	<b>7.38</b>	<b>4.41</b>	<b>5.51</b>	<b>7.06</b>	<b>6.13</b>
Murrumbidgee	Griffith Base	8.33	4.69	10.67	1.22	2.70
	Wagga Wagga Base	8.21	10.45	11.64	11.97	4.65
	Other hospitals	5.15	8.54	7.69	2.86	0.00
	<b>TOTAL</b>	<b>7.26</b>	<b>8.57</b>	<b>10.49</b>	<b>6.80</b>	<b>3.24</b>
Western NSW	Dubbo Base	4.47	4.95	7.14	10.00	7.35
	Mudgee	2.78	2.17	2.56	0.00	2.86
	Bathurst Base	1.41	6.25	9.09	2.70	1.47
	Orange Base	15.75	11.67	15.86	13.19	5.37
	Other hospitals	5.00	8.33	11.29	5.08	2.04
	<b>TOTAL</b>	<b>7.32</b>	<b>7.45</b>	<b>10.02</b>	<b>8.62</b>	<b>5.15</b>
Far West	<b>TOTAL</b>	<b>2.56</b>	<b>2.17</b>	<b>3.23</b>	<b>3.23</b>	<b>2.70</b>
Public Hospitals	<b>TOTAL</b>	<b>8.25</b>	<b>8.12</b>	<b>10.60</b>	<b>9.23</b>	<b>5.40</b>
Private Hospitals	Mater, North Sydney	6.04	4.91	1.27	1.04	3.89
	North Shore Private	1.89	0.79	1.96	0.00	1.54
	Sydney Adventist	1.75	1.42	0.00	0.00	0.00
	North Gosford Private	2.78	10.74	7.34	7.29	4.00
	Hurstville Community	2.52	4.35	1.32	0.83	0.00
	Kareena Private	0.79	0.00	0.79	0.00	0.00
	St. George Private	0.87	0.00	0.31	0.00	0.73
	Prince of Wales Private	5.61	5.54	8.72	5.63	8.20
	Norwest Private	4.98	3.60	7.06	5.88	8.03
	Sydney Southwest Private	1.92	4.33	6.81	6.32	6.82
	Nepean Private	4.83	5.88	12.00	5.19	12.78
	Westmead Private	0.63	0.44	0.68	0.70	1.69
	Wollongong Private <sup>†</sup>	-	-	0.00	0.00	0.00
	Newcastle Private	14.01	10.41	10.56	10.09	11.40
	Calvary, Wagga Wagga	4.62	3.13	0.00	5.56	0.00
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>3.82</b>	<b>3.56</b>	<b>3.94</b>	<b>3.00</b>	<b>4.33</b>
<b>TOTAL NSW<sup>*</sup></b>		<b>7.26</b>	<b>7.11</b>	<b>9.06</b>	<b>7.89</b>	<b>5.17</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Hospitals with more than 200 births in 2018 are identified individually.

† Northern Beaches opened in 2018.

† Wollongong Private opened in 2016.

\* Total NSW includes births at home assisted by independent midwives.



### Indicator 3.5

Definition: Total number of selected primipara undergoing surgical repair of the perineum for third degree tear while giving birth vaginally as a percentage of the total number of selected primipara delivering vaginally.

A selected primipara is defined as a woman who is 20–34 years of age at the time of giving birth; giving birth for the first time at 20 weeks or greater gestation; singleton pregnancy; cephalic presentation; and at 37<sup>0</sup> to 40<sup>6</sup> weeks gestation. Surgical repair is defined as suture of the perineum following delivery.

Table 67 shows information for hospitals where at least 200 mothers gave birth in 2018, totals for hospitals for each local health district, sector, and the NSW total.

**TABLE 67: 3.5 SELECTED PRIMIPARA UNDERGOING SURGICAL REPAIR OF THE PERINEUM FOR THIRD DEGREE TEAR BY LOCAL HEALTH DISTRICT AND HOSPITAL, NSW 2014–2018\***

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
Sydney	Canterbury	5.41	10.38	5.59	7.84	5.66
	Royal Prince Alfred	8.75	9.14	8.22	6.13	7.98
	<b>TOTAL</b>	<b>7.95</b>	<b>9.45</b>	<b>7.65</b>	<b>6.52</b>	<b>7.38</b>
South Western Sydney	Fairfield	6.95	6.41	9.02	9.48	6.93
	Liverpool	6.81	5.26	8.77	8.25	8.38
	Campbelltown	5.45	3.31	5.21	3.60	3.87
	Bankstown–Lidcombe	4.96	8.17	6.21	5.36	9.03
	Bowral	2.25	4.05	1.72	1.22	1.49
	<b>TOTAL</b>	<b>5.89</b>	<b>5.39</b>	<b>7.07</b>	<b>6.17</b>	<b>6.55</b>
South Eastern Sydney	St. George	10.64	7.13	10.15	5.99	7.30
	Sutherland	6.78	10.64	3.59	3.33	4.23
	Royal Hospital for Women	4.81	7.76	7.49	6.85	8.34
	<b>TOTAL</b>	<b>7.06</b>	<b>8.02</b>	<b>7.72</b>	<b>5.99</b>	<b>7.27</b>
Illawarra Shoalhaven	Shoalhaven	2.94	7.58	3.94	3.36	8.33
	Wollongong	4.27	3.43	5.26	4.62	6.08
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>3.82</b>	<b>4.39</b>	<b>4.95</b>	<b>4.32</b>	<b>6.72</b>
Western Sydney	Auburn	4.84	5.54	4.14	6.19	4.63
	Blacktown	4.61	5.41	6.07	9.24	6.69
	Westmead	4.81	6.24	4.45	5.24	5.01
	<b>TOTAL</b>	<b>4.76</b>	<b>5.89</b>	<b>4.87</b>	<b>6.53</b>	<b>5.51</b>
Nepean Blue Mountains	Blue Mountains	11.63	8.11	2.33	3.45	0.00
	Nepean	6.69	3.92	6.50	7.42	4.88
	Hawkesbury	2.88	0.81	7.92	4.31	6.50
	Other hospitals	4.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>6.32</b>	<b>3.39</b>	<b>6.19</b>	<b>6.53</b>	<b>4.79</b>
Northern Sydney	Hornsby	8.98	9.91	5.24	7.04	5.22
	Manly	7.50	10.42	10.34	8.56	5.74
	Mona Vale	9.03	11.76	8.15	7.30	1.10
	Royal North Shore	10.73	8.14	8.36	7.45	5.23
	Northern Beaches <sup>‡</sup>	-	-	-	-	0.00
	Other hospitals	2.94	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>9.46</b>	<b>9.08</b>	<b>7.87</b>	<b>7.42</b>	<b>4.57</b>
	<b>TOTAL</b>	<b>9.46</b>	<b>9.08</b>	<b>7.87</b>	<b>7.42</b>	<b>4.57</b>
Central Coast	Gosford	7.86	7.19	4.41	5.41	3.98
	Other hospitals	7.69	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>7.85</b>	<b>6.80</b>	<b>4.19</b>	<b>5.19</b>	<b>3.85</b>
Hunter New England	Armidale	3.77	3.23	4.08	1.56	5.26
	Inverell	3.03	0.00	0.00	2.44	0.00
	Tamworth Base	4.93	3.11	3.97	3.28	3.62
	Manning Base	5.15	7.07	2.17	8.91	4.71
	Maitland	6.59	8.37	7.73	3.96	9.91
	John Hunter	9.09	8.18	8.51	9.25	8.13
	Other hospitals	3.80	2.50	4.32	2.31	3.23
	<b>TOTAL</b>	<b>6.96</b>	<b>6.53</b>	<b>6.48</b>	<b>6.46</b>	<b>6.93</b>
	<b>TOTAL</b>	<b>6.96</b>	<b>6.53</b>	<b>6.48</b>	<b>6.46</b>	<b>6.93</b>
Northern NSW	Grafton Base	0.00	0.00	1.75	1.89	1.92
	Lismore Base	4.62	6.13	3.07	4.73	8.04
	Tweed Heads	5.63	5.60	5.58	4.00	8.72
	Other hospitals	0.00	0.00	0.00	0.00	5.88
	<b>TOTAL</b>	<b>3.94</b>	<b>4.76</b>	<b>3.70</b>	<b>3.80</b>	<b>7.50</b>

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
Mid North Coast	Coffs Harbour	7.32	3.07	4.44	0.62	4.46
	Kempsey	3.03	3.13	9.68	3.13	8.57
	Port Macquarie Base	6.12	5.31	6.86	11.11	5.41
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>6.27</b>	<b>3.76</b>	<b>5.88</b>	<b>4.88</b>	<b>5.10</b>
Southern NSW	Bega	5.41	5.41	0.00	8.11	2.04
	Goulburn Base	4.88	5.00	5.41	5.71	4.65
	Moruya	11.76	11.76	13.16	6.38	4.35
	Queanbeyan	4.12	3.75	6.67	8.18	9.35
	Other hospitals	5.71	5.56	0.00	7.69	0.00
	<b>TOTAL</b>	<b>5.74</b>	<b>5.73</b>	<b>5.51</b>	<b>7.45</b>	<b>5.75</b>
Murrumbidgee	Griffith Base	2.78	1.56	5.33	1.22	4.05
	Wagga Wagga Base	7.46	5.97	4.79	8.45	6.40
	Other hospitals	5.15	9.76	1.54	2.86	7.94
	<b>TOTAL</b>	<b>5.61</b>	<b>6.07</b>	<b>4.20</b>	<b>5.10</b>	<b>6.15</b>
Western NSW	Dubbo Base	3.35	4.40	4.59	6.67	4.90
	Mudgee	5.56	2.17	5.13	6.67	0.00
	Bathurst Base	4.23	7.29	5.19	9.46	7.35
	Orange Base	10.96	8.89	4.83	11.11	6.71
	Other hospitals	10.00	6.67	8.06	3.39	2.04
	<b>TOTAL</b>	<b>6.71</b>	<b>6.38</b>	<b>5.20</b>	<b>8.01</b>	<b>5.15</b>
Far West	<b>TOTAL</b>	<b>0.00</b>	<b>2.17</b>	<b>0.00</b>	<b>3.23</b>	<b>2.70</b>
Public Hospitals	<b>TOTAL</b>	<b>6.51</b>	<b>6.56</b>	<b>6.36</b>	<b>6.25</b>	<b>6.15</b>
Private Hospitals	Mater, North Sydney	2.20	4.62	1.27	1.73	0.71
	North Shore Private	1.26	1.84	2.21	2.01	2.16
	Sydney Adventist	1.00	1.99	0.00	0.00	0.00
	North Gosford Private	0.00	4.13	1.83	2.08	4.00
	Hurstville Community	1.68	0.87	0.66	0.00	0.83
	Kareena Private	2.38	1.63	2.38	0.80	5.63
	St. George Private	3.18	1.73	3.13	3.07	2.56
	Prince of Wales Private	0.93	1.94	2.18	1.99	1.97
	Norwest Private	3.46	2.06	2.82	2.41	2.22
	Sydney Southwest Private	1.92	3.37	2.13	4.21	4.55
	Nepean Private	0.69	3.68	6.00	5.19	6.02
	Westmead Private	0.63	0.65	0.91	1.17	1.20
	Wollongong Private <sup>†</sup>	-	-	1.06	1.49	2.69
	Newcastle Private	5.60	5.33	6.94	6.12	3.31
	Calvary, Wagga Wagga	4.62	0.00	0.00	2.78	3.70
	Other hospitals	0.60	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>2.08</b>	<b>2.41</b>	<b>2.33</b>	<b>2.30</b>	<b>2.27</b>
<b>TOTAL NSW*</b>		<b>5.51</b>	<b>5.64</b>	<b>5.43</b>	<b>5.40</b>	<b>5.35</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Hospitals with more than 200 births in 2018 are identified individually.

‡ Northern Beaches opened in 2018.

† Wollongong Private opened in 2016.

\* Total NSW includes births at home assisted by independent midwives.

### Indicator 3.6

Definition: Total number of selected primipara undergoing surgical repair of the perineum for fourth degree tear while giving birth vaginally as a percentage of the total number of selected primipara delivering vaginally.

A selected primipara is defined as a woman who is 20–34 years of age at the time of giving birth; giving birth for the first time at 20 weeks or greater gestation; singleton pregnancy; cephalic presentation; and at 37<sup>0</sup> to 40<sup>6</sup> weeks gestation. Surgical repair is defined as suture of the perineum following delivery.

Table 68 shows information for hospitals where at least 200 mothers gave birth in 2018, totals for hospitals for each local health district, sector, and the NSW total.

**TABLE 68: 3.6 SELECTED PRIMIPARA UNDERGOING SURGICAL REPAIR OF THE PERINEUM FOR FOURTH DEGREE TEAR BY LOCAL HEALTH DISTRICT AND HOSPITAL, NSW 2014–2018\***

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
Sydney	Canterbury	0.26	0.00	0.29	0.00	0.00
	Royal Prince Alfred	0.32	0.18	0.08	0.34	0.29
	<b>TOTAL</b>	<b>0.31</b>	<b>0.14</b>	<b>0.13</b>	<b>0.26</b>	<b>0.21</b>
South Western Sydney	Fairfield	0.24	0.00	0.27	1.44	0.00
	Liverpool	0.00	0.15	0.32	0.16	0.13
	Campbelltown	0.29	0.43	0.00	0.43	0.00
	Bankstown–Lidcombe	0.41	0.00	0.30	0.00	0.00
	Bowral	1.12	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>0.25</b>	<b>0.18</b>	<b>0.20</b>	<b>0.43</b>	<b>0.05</b>
South Eastern Sydney	St. George	0.16	0.53	0.50	0.00	0.20
	Sutherland	0.00	1.06	0.00	0.42	0.00
	Royal Hospital for Women	0.32	0.87	0.12	0.27	0.14
	<b>TOTAL</b>	<b>0.22</b>	<b>0.80</b>	<b>0.23</b>	<b>0.19</b>	<b>0.14</b>
Illawarra Shoalhaven	Shoalhaven	0.00	0.00	0.00	0.00	0.64
	Wollongong	0.00	0.92	0.00	0.00	0.00
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>0.00</b>	<b>0.70</b>	<b>0.00</b>	<b>0.00</b>	<b>0.18</b>
Western Sydney	Auburn	0.69	0.00	0.00	0.69	0.31
	Blacktown	1.34	0.36	0.18	0.18	0.00
	Westmead	0.52	0.28	0.36	0.09	0.51
	<b>TOTAL</b>	<b>0.77</b>	<b>0.26</b>	<b>0.26</b>	<b>0.20</b>	<b>0.31</b>
Nepean Blue Mountains	Blue Mountains	0.00	0.00	0.00	0.00	0.00
	Nepean	0.39	0.59	0.18	0.35	0.54
	Hawkesbury	0.00	0.00	0.00	0.86	0.00
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>0.29</b>	<b>0.42</b>	<b>0.13</b>	<b>0.41</b>	<b>0.41</b>
Northern Sydney	Hornsby	0.82	0.00	1.31	0.47	0.00
	Manly	0.50	0.00	0.00	0.00	0.00
	Mona Vale	0.00	0.00	0.00	1.46	1.10
	Royal North Shore	0.63	0.51	0.82	0.36	0.35
	Northern Beaches <sup>‡</sup>	-	-	-	-	0.00
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>0.55</b>	<b>0.25</b>	<b>0.68</b>	<b>0.45</b>	<b>0.27</b>
Central Coast	Gosford	1.09	0.21	0.00	0.00	0.00
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>1.03</b>	<b>0.19</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Hunter New England	Armidale	0.00	0.00	0.00	0.00	0.00
	Inverell	0.00	0.00	0.00	0.00	0.00
	Tamworth Base	0.70	0.00	1.32	0.00	0.00
	Manning Base	0.00	0.00	0.00	0.00	0.00
	Maitland	1.16	0.76	0.97	0.44	0.45
	John Hunter	0.63	0.76	0.16	0.16	0.33
	Other hospitals	1.27	0.00	0.54	0.00	0.00
	<b>TOTAL</b>	<b>0.73</b>	<b>0.49</b>	<b>0.45</b>	<b>0.15</b>	<b>0.24</b>
Northern NSW	Grafton Base	1.41	2.04	1.75	1.89	1.92
	Lismore Base	0.58	0.61	0.00	0.00	0.00
	Tweed Heads	0.00	0.40	0.51	0.00	0.51
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>0.39</b>	<b>0.60</b>	<b>0.43</b>	<b>0.24</b>	<b>0.42</b>

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
Mid North Coast	Coffs Harbour	0.00	0.61	0.00	0.00	0.64
	Kempsey	0.00	0.00	3.23	0.00	0.00
	Port Macquarie Base	0.00	0.00	0.00	0.79	0.00
	Other hospitals	0.00	0.00	0.00	0.00	18.18
	<b>TOTAL</b>	<b>0.00</b>	<b>0.31</b>	<b>0.37</b>	<b>0.30</b>	<b>0.96</b>
Southern NSW	Bega	0.00	0.00	0.00	2.70	0.00
	Goulburn Base	0.00	0.00	0.00	0.00	0.00
	Moruya	0.00	0.00	0.00	0.00	0.00
	Queanbeyan	1.03	0.00	0.00	0.00	1.87
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>0.41</b>	<b>0.00</b>	<b>0.00</b>	<b>0.39</b>	<b>0.77</b>
Murrumbidgee	Griffith Base	0.00	0.00	0.00	0.00	0.00
	Wagga Wagga Base	0.00	0.00	0.00	0.00	0.00
	Other hospitals	2.06	0.00	1.54	1.43	0.00
	<b>TOTAL</b>	<b>0.66</b>	<b>0.00</b>	<b>0.35</b>	<b>0.34</b>	<b>0.00</b>
Western NSW	Dubbo Base	0.00	0.55	0.00	0.00	0.49
	Mudgee	0.00	0.00	0.00	0.00	0.00
	Bathurst Base	0.00	2.08	0.00	1.35	0.00
	Orange Base	0.00	0.56	0.00	0.00	0.67
	Other hospitals	0.00	1.67	0.00	1.69	2.04
	<b>TOTAL</b>	<b>0.00</b>	<b>0.89</b>	<b>0.00</b>	<b>0.41</b>	<b>0.59</b>
Far West	<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Public Hospitals	<b>TOTAL</b>	<b>0.42</b>	<b>0.38</b>	<b>0.26</b>	<b>0.28</b>	<b>0.24</b>
Private Hospitals	Mater, North Sydney	0.27	0.00	0.32	0.00	0.35
	North Shore Private	0.31	0.00	0.49	0.00	0.00
	Sydney Adventist	0.00	0.28	0.26	0.00	0.00
	North Gosford Private	0.00	0.83	0.00	0.00	0.00
	Hurstville Community	0.00	0.00	0.00	0.83	0.00
	Kareena Private	0.00	0.00	0.00	0.00	0.00
	St. George Private	0.00	0.00	0.00	0.00	0.00
	Prince of Wales Private	0.31	0.00	0.00	0.00	0.00
	Norwest Private	0.00	0.00	0.24	0.00	0.00
	Sydney Southwest Private	0.00	0.00	0.00	0.53	0.00
	Nepean Private	0.00	0.00	0.67	0.00	0.00
	Westmead Private	0.00	0.00	0.00	0.00	0.00
	Wollongong Private <sup>†</sup>	-	-	0.00	0.00	0.00
	Newcastle Private	0.00	0.00	0.00	0.00	0.74
	Calvary, Wagga Wagga	0.00	0.00	0.00	0.00	0.00
	Other hospitals	0.60	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>0.10</b>	<b>0.05</b>	<b>0.15</b>	<b>0.06</b>	<b>0.09</b>
<b>TOTAL NSW*</b>		<b>0.35</b>	<b>0.31</b>	<b>0.23</b>	<b>0.23</b>	<b>0.21</b>

Source: NSW Perinatal Data Collection (SAPHaRI), Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Hospitals with more than 200 births in 2018 are identified individually.

‡ Northern Beaches opened in 2018.

† Wollongong Private opened in 2016.

\* Total NSW includes births at home assisted by independent midwives.



# General anaesthesia for caesarean section

## Indicator 4.1

Definition: Total number of women having a general anaesthetic for a caesarean section as a percentage of women having a caesarean section.

Table 69 shows information for hospitals where at least 200 mothers gave birth in 2018, totals for hospitals for each local health district, sector, and the NSW total.

**TABLE 69: 4.1 GENERAL ANAESTHESIA FOR CAESAREAN SECTION BY LOCAL HEALTH DISTRICT AND HOSPITAL, NSW 2014–2018\***

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
<b>Sydney</b>	Canterbury	10.52	10.61	8.62	10.03	12.66
	Royal Prince Alfred	10.09	11.13	10.54	9.12	10.13
	<b>TOTAL</b>	<b>10.19</b>	<b>11.00</b>	<b>10.07</b>	<b>9.36</b>	<b>10.68</b>
<b>South Western Sydney</b>	Fairfield	11.82	12.43	12.65	10.28	8.97
	Liverpool	15.08	13.67	15.54	13.55	10.52
	Campbelltown	10.73	13.14	12.74	11.07	9.17
	Bankstown–Lidcombe	10.26	10.68	13.27	12.85	10.34
	Bowral	10.56	10.53	8.89	2.36	3.23
	<b>TOTAL</b>	<b>12.26</b>	<b>12.62</b>	<b>13.58</b>	<b>11.70</b>	<b>9.61</b>
<b>South Eastern Sydney</b>	St. George	7.01	7.47	6.22	6.29	5.38
	Sutherland	10.94	9.69	6.62	8.43	5.06
	Royal Hospital for Women	4.15	3.88	4.49	5.37	4.76
	<b>TOTAL</b>	<b>6.03</b>	<b>5.88</b>	<b>5.35</b>	<b>6.13</b>	<b>5.00</b>
<b>Illawarra Shoalhaven</b>	Shoalhaven	7.87	5.90	6.18	4.62	3.88
	Wollongong	9.54	7.26	9.72	9.22	8.10
	Other hospitals	20.00	0.00	50.00	0.00	0.00
	<b>TOTAL</b>	<b>9.15</b>	<b>6.81</b>	<b>8.87</b>	<b>8.05</b>	<b>7.20</b>
<b>Western Sydney</b>	Auburn	7.74	8.33	4.53	5.10	4.71
	Blacktown	12.73	11.89	10.27	9.87	6.25
	Westmead	9.95	8.40	8.96	8.43	7.29
	<b>TOTAL</b>	<b>10.67</b>	<b>9.53</b>	<b>8.91</b>	<b>8.52</b>	<b>6.64</b>
<b>Nepean Blue Mountains</b>	Blue Mountains	6.58	3.53	6.58	1.61	0.00
	Nepean	15.25	13.90	12.00	13.96	11.66
	Hawkesbury	7.94	8.49	8.20	4.84	7.33
	Other hospitals	6.15	4.69	1.52	3.85	8.06
	<b>TOTAL</b>	<b>13.45</b>	<b>12.34</b>	<b>10.93</b>	<b>12.03</b>	<b>10.54</b>
<b>Northern Sydney</b>	Hornsby	5.50	6.92	7.92	3.24	4.42
	Manly	7.43	7.43	6.69	6.74	4.81
	Mona Vale	8.42	8.25	9.01	2.31	5.71
	Royal North Shore	5.16	5.62	5.29	5.76	4.87
	Northern Beaches†	-	-	-	-	1.04
	<b>TOTAL</b>	<b>5.97</b>	<b>6.46</b>	<b>6.42</b>	<b>5.00</b>	<b>4.65</b>
<b>Central Coast</b>	Gosford	6.54	6.33	10.97	7.86	8.21
	<b>TOTAL</b>	<b>6.54</b>	<b>6.33</b>	<b>10.97</b>	<b>7.86</b>	<b>8.21</b>
<b>Hunter New England</b>	Armidale	4.84	5.84	5.30	5.11	3.55
	Inverell	3.09	1.27	2.53	0.00	4.11
	Tamworth Base	13.50	14.78	9.24	9.43	10.30
	Manning Base	11.88	11.11	14.57	12.66	10.47
	Maitland	10.74	6.78	14.25	9.19	10.59
	John Hunter	15.36	12.49	16.28	14.25	12.42
	Other hospitals	24.00	15.00	11.11	10.38	4.47
	<b>TOTAL</b>	<b>13.92</b>	<b>11.30</b>	<b>13.54</b>	<b>11.58</b>	<b>10.47</b>
<b>Northern NSW</b>	Grafton Base	8.49	11.40	6.90	7.38	10.32
	Lismore Base	6.44	4.92	6.72	5.43	9.68
	Tweed Heads	12.01	7.82	7.07	8.92	8.28
	Other hospitals	2.17	0.00	15.38	0.00	0.00
	<b>TOTAL</b>	<b>8.63</b>	<b>6.93</b>	<b>7.06</b>	<b>7.20</b>	<b>9.17</b>

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
<b>Mid North Coast</b>	Coffs Harbour	7.67	7.87	7.61	3.84	5.09
	Kempsey	15.38	0.00	15.52	9.23	11.29
	Port Macquarie Base	10.17	11.11	7.34	5.96	8.77
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>9.19</b>	<b>8.42</b>	<b>8.13</b>	<b>5.09</b>	<b>7.03</b>
<b>Southern NSW</b>	Bega	3.17	5.88	4.11	0.00	3.66
	Goulburn Base	2.94	7.78	7.69	6.41	4.41
	Moruya	6.25	4.05	6.10	11.27	4.49
	Queanbeyan	5.05	3.39	2.78	5.33	6.59
	Other hospitals	18.18	11.76	4.76	14.81	12.00
	<b>TOTAL</b>	<b>5.83</b>	<b>5.73</b>	<b>5.07</b>	<b>6.20</b>	<b>5.61</b>
<b>Murrumbidgee</b>	Griffith Base	10.53	5.96	7.06	6.12	8.16
	Wagga Wagga Base	8.33	12.72	7.62	7.08	6.64
	Other hospitals	4.40	3.54	1.75	3.88	7.00
	<b>TOTAL</b>	<b>7.85</b>	<b>9.30</b>	<b>6.40</b>	<b>6.38</b>	<b>7.03</b>
<b>Western NSW</b>	Dubbo Base	21.36	17.11	15.51	10.39	9.09
	Mudgee	1.61	8.57	3.51	9.23	11.86
	Bathurst Base	5.71	10.67	5.79	8.70	3.36
	Orange Base	11.05	5.98	11.83	12.93	9.59
	Other hospitals	0.93	7.45	7.14	5.83	3.13
	<b>TOTAL</b>	<b>11.89</b>	<b>11.01</b>	<b>11.54</b>	<b>10.42</b>	<b>8.09</b>
<b>Far West</b>	<b>TOTAL</b>	<b>8.33</b>	<b>8.00</b>	<b>7.58</b>	<b>5.00</b>	<b>2.22</b>
<b>Public Hospitals</b>	<b>TOTAL</b>	<b>10.14</b>	<b>9.51</b>	<b>9.75</b>	<b>8.95</b>	<b>8.12</b>
<b>Private Hospitals</b>	Mater, North Sydney	2.60	1.62	1.05	1.46	0.96
	North Shore Private	1.80	1.62	1.62	1.48	1.56
	Sydney Adventist	3.75	3.87	2.37	2.93	3.75
	North Gosford Private	2.61	2.85	2.26	1.17	2.82
	Hurstville Community	2.24	4.36	1.22	3.02	3.68
	Kareena Private	2.62	3.63	2.38	3.54	1.64
	St. George Private	4.04	3.42	3.53	3.07	1.82
	Prince of Wales Private	2.12	2.01	2.32	1.25	1.23
	Norwest Private	4.50	6.09	4.31	4.14	2.98
	Sydney Southwest Private	4.11	3.67	2.47	7.12	5.04
	Nepean Private	4.33	4.60	5.11	2.95	3.15
	Westmead Private	3.70	2.84	2.67	2.02	2.61
	Wollongong Private†	-	-	4.56	4.02	5.34
	Newcastle Private	1.78	2.59	2.25	2.58	3.62
	Calvary, Wagga Wagga	3.94	1.04	1.35	2.11	1.11
	Other hospitals	3.46	4.02	4.55	0.00	0.00
	<b>TOTAL</b>	<b>3.03</b>	<b>2.98</b>	<b>2.48</b>	<b>2.47</b>	<b>2.45</b>
<b>TOTAL NSW*</b>		<b>7.86</b>	<b>7.40</b>	<b>7.42</b>	<b>6.95</b>	<b>6.44</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Hospitals with more than 200 births in 2018 are identified individually.

† Northern Beaches opened in 2018.

† Wollongong Private opened in 2016.

\* Total NSW includes births at home assisted by independent midwives.

## Full breastfeeding

### Indicator 6.1

Definition: The total number of breastfeeding selected primipara who are discharged and their neonate has never received formula as a percentage of the total number of selected primipara who breastfed and are discharged.

The Perinatal Data Collection captures information on the feeding status of the infant, that is, whether the infant is breastfeeding, or consuming expressed breast milk or infant formula at discharge from the birth hospital.

A selected primipara is defined as a woman who is 20–34 years of age at the time of giving birth; giving birth for the first time at 20 weeks or greater gestation; singleton pregnancy; cephalic presentation; and at 37<sup>0</sup> to 40<sup>6</sup> weeks gestation.

Table 70 shows information for hospitals where at least 200 mothers gave birth in 2018, totals for hospitals for each local health district, sector, and the NSW total.

**TABLE 70: 6.1 SELECTED PRIMIPARA FULL BREASTFEEDING BY LOCAL HEALTH DISTRICT AND HOSPITAL, NSW 2014–2018\***

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
<b>Sydney</b>	Canterbury	87.4	85.6	75.6	78.6	74.2
	Royal Prince Alfred	86.9	83.1	81.1	78.5	76.4
	<b>TOTAL</b>	<b>87.1</b>	<b>83.7</b>	<b>79.8</b>	<b>78.5</b>	<b>75.8</b>
<b>South Western Sydney</b>	Fairfield	65.1	52.0	43.1	46.0	53.2
	Liverpool	76.7	75.7	71.9	72.4	65.1
	Campbelltown	83.0	82.7	82.4	80.4	79.6
	Bankstown–Lidcombe	81.8	73.9	71.1	77.5	69.5
	Bowral	95.5	94.5	90.5	94.8	97.0
	<b>TOTAL</b>	<b>78.5</b>	<b>74.5</b>	<b>70.4</b>	<b>72.5</b>	<b>69.8</b>
<b>South Eastern Sydney</b>	St. George	84.5	86.6	86.1	82.5	76.0
	Sutherland	93.3	92.4	93.5	94.1	90.7
	Royal Hospital for Women	89.2	90.2	89.5	88.9	87.7
	<b>TOTAL</b>	<b>88.3</b>	<b>89.4</b>	<b>89.0</b>	<b>87.3</b>	<b>84.1</b>
<b>Illawarra Shoalhaven</b>	Shoalhaven	97.1	95.3	96.3	95.8	94.5
	Wollongong	93.4	92.8	94.4	91.5	89.9
	Other hospitals	100.0	100.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>94.5</b>	<b>93.5</b>	<b>94.9</b>	<b>92.5</b>	<b>91.2</b>
<b>Western Sydney</b>	Auburn	74.0	63.2	67.6	67.4	59.9
	Blacktown	88.3	90.4	87.9	83.5	76.9
	Westmead	86.3	86.8	87.2	88.4	86.2
	<b>TOTAL</b>	<b>85.1</b>	<b>84.2</b>	<b>84.6</b>	<b>83.9</b>	<b>78.7</b>
<b>Nepean Blue Mountains</b>	Blue Mountains	97.7	96.0	93.5	97.1	90.9
	Nepean	86.0	88.3	87.0	83.1	84.1
	Hawkesbury	91.8	93.4	95.0	94.0	89.2
	Other hospitals	91.7	95.7	92.5	91.2	96.8
	<b>TOTAL</b>	<b>87.8</b>	<b>89.9</b>	<b>88.7</b>	<b>85.7</b>	<b>85.7</b>
<b>Northern Sydney</b>	Hornsby	86.5	86.9	90.7	90.3	87.1
	Manly	92.9	91.0	89.6	87.1	86.6
	Mona Vale	91.1	93.3	93.3	91.7	89.2
	Royal North Shore	92.0	92.6	89.3	89.3	89.8
	Northern Beaches <sup>†</sup>	-	-	-	-	100.0
	Other hospitals	100.0	100.0	100.0	100.0	100.0
	<b>TOTAL</b>	<b>91.2</b>	<b>91.5</b>	<b>90.2</b>	<b>89.5</b>	<b>89.3</b>
<b>Central Coast</b>	Gosford	91.7	89.7	92.6	83.3	88.0
	Other hospitals	100.0	100.0	100.0	93.8	94.1
	<b>TOTAL</b>	<b>92.0</b>	<b>90.2</b>	<b>92.9</b>	<b>83.6</b>	<b>88.2</b>

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
<b>Hunter New England</b>	Armidale	92.6	95.7	91.2	95.2	87.8
	Inverell	88.2	85.1	91.4	93.6	87.5
	Tamworth Base	93.0	89.5	89.9	84.2	79.4
	Manning Base	96.1	95.5	85.7	87.3	91.6
	Maitland	93.7	95.8	94.3	87.4	86.1
	John Hunter	94.3	91.5	89.0	89.4	91.4
	Other hospitals	94.5	97.8	93.5	88.1	94.8
	<b>TOTAL</b>	<b>94.0</b>	<b>93.0</b>	<b>90.4</b>	<b>88.7</b>	<b>89.3</b>
<b>Northern NSW</b>	Grafton Base	97.7	96.4	85.2	97.1	94.2
	Lismore Base	92.6	95.3	92.6	90.3	91.7
	Tweed Heads	97.7	95.9	97.3	93.2	96.6
	Other hospitals	100.0	100.0	97.6	100.0	100.0
	<b>TOTAL</b>	<b>96.2</b>	<b>96.0</b>	<b>94.2</b>	<b>92.9</b>	<b>94.6</b>
<b>Mid North Coast</b>	Coffs Harbour	97.2	92.8	84.6	82.3	81.8
	Kempsey	97.6	95.1	96.9	97.0	95.6
	Port Macquarie Base	95.3	98.5	93.9	92.4	90.4
	Other hospitals	100.0	100.0	100.0	100.0	100.0
	<b>TOTAL</b>	<b>96.7</b>	<b>95.2</b>	<b>89.3</b>	<b>87.5</b>	<b>86.8</b>
<b>Southern NSW</b>	Bega	91.3	95.2	93.2	80.4	87.3
	Goulburn Base	95.8	93.9	96.4	89.6	79.6
	Moruya	100.0	97.7	95.8	89.3	96.0
	Queanbeyan	93.4	95.0	92.4	95.2	84.1
	Other hospitals	91.7	89.2	96.9	96.2	90.0
	<b>TOTAL</b>	<b>94.2</b>	<b>94.5</b>	<b>94.4</b>	<b>91.3</b>	<b>86.3</b>
<b>Murrumbidgee</b>	Griffith Base	80.2	88.0	89.0	81.3	85.1
	Wagga Wagga Base	91.3	92.5	88.2	82.3	76.8
	Other hospitals	94.4	94.0	96.4	97.1	93.9
	<b>TOTAL</b>	<b>89.6</b>	<b>91.9</b>	<b>90.5</b>	<b>85.0</b>	<b>81.8</b>
<b>Western NSW</b>	Dubbo Base	94.7	94.7	93.1	90.7	86.8
	Mudgee	92.7	96.4	94.7	97.6	100.0
	Bathurst Base	94.6	94.2	97.6	95.2	88.9
	Orange Base	93.1	89.7	89.7	89.9	85.0
	Other hospitals	95.8	95.5	97.3	98.6	90.0
	<b>TOTAL</b>	<b>94.2</b>	<b>93.3</b>	<b>93.2</b>	<b>92.4</b>	<b>87.7</b>
<b>Far West</b>	<b>TOTAL</b>	<b>93.9</b>	<b>93.5</b>	<b>100.0</b>	<b>95.2</b>	<b>95.2</b>
<b>Public Hospitals</b>	<b>TOTAL</b>	<b>88.2</b>	<b>87.3</b>	<b>85.6</b>	<b>84.3</b>	<b>82.2</b>

(Continued on next page)

TABLE 70: (Continued)

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
<b>Private Hospitals</b>	Mater, North Sydney	74.6	67.4	64.9	62.7	63.4
	North Shore Private	74.9	73.2	71.3	71.5	71.2
	Sydney Adventist	100.0	98.5	75.9	71.1	65.8
	North Gosford Private	90.3	90.3	91.3	92.3	88.5
	Hurstville Community	72.4	77.1	68.0	60.6	59.6
	Kareena Private	94.0	91.4	88.4	94.1	91.2
	St. George Private	59.6	63.0	63.6	58.0	57.1
	Prince of Wales Private	89.5	100.0	79.9	79.3	81.5
	Norwest Private	88.7	100.0	79.8	75.8	77.0
	Sydney Southwest Private	100.0	100.0	64.8	66.7	66.9

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
	Nepean Private	87.2	100.0	77.5	77.3	70.0
	Westmead Private	61.9	69.3	71.0	73.6	65.3
	Wollongong Private <sup>†</sup>	-	-	89.9	85.8	82.8
	Newcastle Private	94.9	100.0	79.1	77.3	78.9
	Calvary, Wagga Wagga	100.0	99.2	92.0	95.8	93.5
	Other hospitals	91.4	89.8	100.0	0.0	0.0
	<b>TOTAL</b>	<b>82.5</b>	<b>85.9</b>	<b>74.7</b>	<b>73.6</b>	<b>71.8</b>
<b>TOTAL NSW*</b>		<b>86.6</b>	<b>86.9</b>	<b>82.6</b>	<b>81.5</b>	<b>79.6</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Hospitals with more than 200 births in 2018 are identified individually.

‡ Northern Beaches opened in 2018.

† Wollongong Private opened in 2016.

\* Total NSW includes births at home assisted by independent midwives.

# Postpartum haemorrhage and blood transfusion after vaginal birth

## Indicator 7.1

Definition: Total number of women who give birth vaginally who receive a blood transfusion during the same admission as a percentage of women who give birth vaginally.

Table 71 shows information for hospitals where at least 200 mothers gave birth in 2018, totals for hospitals for each local health district, sector, and the NSW total.

**TABLE 71: 7.1 POSTPARTUM HAEMORRHAGE AND BLOOD TRANSFUSION FOLLOWING VAGINAL BIRTH BY LOCAL HEALTH DISTRICT AND HOSPITAL, NSW 2014–2018\***

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
Sydney	Canterbury	1.52	0.99	1.13	1.95	1.31
	Royal Prince Alfred	0.93	0.96	1.69	1.15	1.02
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>1.09</b>	<b>0.97</b>	<b>1.54</b>	<b>1.36</b>	<b>1.10</b>
South Western Sydney	Fairfield	0.61	0.85	1.16	0.64	0.61
	Liverpool	0.82	0.48	0.65	1.14	0.87
	Campbelltown	1.01	1.07	0.94	0.72	0.55
	Bankstown–Lidcombe	1.35	0.84	0.78	1.01	0.79
	Bowral	0.61	1.39	0.00	0.00	0.66
	<b>TOTAL</b>	<b>0.94</b>	<b>0.82</b>	<b>0.83</b>	<b>0.87</b>	<b>0.71</b>
South Eastern Sydney	St. George	1.73	1.83	1.11	1.34	1.27
	Sutherland	1.46	1.75	1.12	0.77	0.72
	Royal Hospital for Women	1.53	1.24	0.81	1.30	1.30
	<b>TOTAL</b>	<b>1.58</b>	<b>1.52</b>	<b>0.96</b>	<b>1.22</b>	<b>1.18</b>
Illawarra Shoalhaven	Shoalhaven	1.46	1.58	1.32	1.00	1.45
	Wollongong	1.50	1.53	1.31	0.99	1.14
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>1.45</b>	<b>1.53</b>	<b>1.30</b>	<b>0.99</b>	<b>1.22</b>
Western Sydney	Auburn	1.43	0.81	1.34	0.71	0.54
	Blacktown	1.13	1.17	1.49	1.52	0.71
	Westmead	1.88	1.49	1.24	1.14	0.91
	<b>TOTAL</b>	<b>1.59</b>	<b>1.30</b>	<b>1.33</b>	<b>1.20</b>	<b>0.78</b>
Nepean Blue Mountains	Blue Mountains	2.81	2.35	0.63	0.62	0.00
	Nepean	2.18	1.49	1.13	1.69	1.00
	Hawkesbury	1.05	2.71	1.43	0.00	1.22
	Other hospitals	0.00	0.00	0.00	2.36	1.02
	<b>TOTAL</b>	<b>1.95</b>	<b>1.64</b>	<b>1.09</b>	<b>1.42</b>	<b>0.99</b>
Northern Sydney	Hornsby	0.89	1.14	0.88	0.45	0.92
	Manly	1.34	1.59	1.17	0.80	0.99
	Mona Vale	0.86	2.52	0.74	1.51	0.00
	Royal North Shore	1.17	1.03	1.68	0.33	0.95
	Northern Beaches <sup>‡</sup>	-	-	-	-	0.00
	Other hospitals	0.00	0.81	0.97	0.00	0.00
	<b>TOTAL</b>	<b>1.07</b>	<b>1.33</b>	<b>1.28</b>	<b>0.58</b>	<b>0.79</b>
	<b>TOTAL</b>	<b>1.07</b>	<b>1.33</b>	<b>1.28</b>	<b>0.58</b>	<b>0.79</b>
Central Coast	Gosford	1.08	1.36	0.96	0.49	0.84
	Other hospitals	0.70	0.00	0.00	0.00	1.28
	<b>TOTAL</b>	<b>1.05</b>	<b>1.26</b>	<b>0.90</b>	<b>0.47</b>	<b>0.86</b>
Hunter New England	Armidale	1.40	1.78	1.10	1.42	0.78
	Inverell	0.56	2.01	1.80	1.92	0.00
	Tamworth Base	2.54	2.17	0.43	1.27	1.93
	Manning Base	2.20	3.61	1.20	2.81	1.61
	Maitland	1.72	1.78	1.67	0.96	1.18
	John Hunter	1.87	2.77	0.85	1.30	1.02
	Other hospitals	1.08	1.73	0.34	0.53	0.87
	<b>TOTAL</b>	<b>1.78</b>	<b>2.39</b>	<b>0.94</b>	<b>1.28</b>	<b>1.14</b>
	<b>TOTAL</b>	<b>1.78</b>	<b>2.39</b>	<b>0.94</b>	<b>1.28</b>	<b>1.14</b>
Northern NSW	Grafton Base	1.85	1.02	0.33	1.97	1.55
	Lismore Base	2.19	1.89	0.69	1.63	0.89
	Tweed Heads	2.45	1.96	1.61	1.22	0.90
	Other hospitals	1.68	0.54	0.00	1.18	1.06
	<b>TOTAL</b>	<b>2.20</b>	<b>1.71</b>	<b>0.94</b>	<b>1.48</b>	<b>0.99</b>

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
Mid North Coast	Coffs Harbour	0.72	0.85	1.57	0.41	1.06
	Kempsey	1.92	3.50	0.00	1.52	3.87
	Port Macquarie Base	1.33	2.62	1.58	0.95	1.22
	Other hospitals	0.00	1.85	0.00	0.00	0.00
	<b>TOTAL</b>	<b>1.08</b>	<b>1.87</b>	<b>1.30</b>	<b>0.72</b>	<b>1.45</b>
Southern NSW	Bega	2.70	2.65	1.09	0.58	1.79
	Goulburn Base	1.97	1.38	0.00	1.03	0.49
	Moruya	1.01	2.20	3.21	1.80	1.75
	Queanbeyan	5.63	0.34	1.46	0.82	1.86
	Other hospitals	1.64	0.00	0.79	2.00	0.90
	<b>TOTAL</b>	<b>3.02</b>	<b>1.27</b>	<b>1.41</b>	<b>1.14</b>	<b>1.47</b>
Murrumbidgee	Griffith Base	3.29	1.19	1.41	1.02	0.56
	Wagga Wagga Base	1.68	1.91	2.38	1.57	1.60
	Other hospitals	1.68	2.04	1.36	0.56	0.61
	<b>TOTAL</b>	<b>2.08</b>	<b>1.77</b>	<b>1.87</b>	<b>1.16</b>	<b>1.11</b>
Western NSW	Dubbo Base	1.61	1.58	1.82	1.28	0.87
	Mudgee	1.10	2.27	1.58	0.60	2.96
	Bathurst Base	1.80	1.34	1.36	0.28	1.43
	Orange Base	1.64	0.85	0.70	0.51	0.81
	Other hospitals	0.55	1.73	1.61	0.32	1.29
	<b>TOTAL</b>	<b>1.45</b>	<b>1.40</b>	<b>1.38</b>	<b>0.74</b>	<b>1.16</b>
Far West	<b>TOTAL</b>	<b>2.92</b>	<b>1.78</b>	<b>0.61</b>	<b>2.10</b>	<b>2.72</b>
Public Hospitals	<b>TOTAL</b>	<b>1.47</b>	<b>1.44</b>	<b>1.15</b>	<b>1.08</b>	<b>0.99</b>
Private Hospitals	Mater, North Sydney	1.43	0.91	0.26	0.92	1.04
	North Shore Private	0.10	0.51	0.58	0.00	0.37
	Sydney Adventist	3.14	2.94	0.49	1.20	0.31
	North Gosford Private	3.86	1.09	0.83	0.31	0.71
	Hurstville Community	1.20	0.98	0.20	0.28	1.15
	Kareena Private	0.49	0.26	0.49	0.27	1.15
	St. George Private	0.44	0.46	0.35	0.13	0.13
	Prince of Wales Private	1.82	0.27	0.19	0.41	0.11
	Norwest Private	1.28	0.71	0.54	0.26	0.25
	Sydney Southwest Private	0.00	0.17	0.30	0.53	0.00
	Nepean Private	2.54	0.00	0.23	0.24	0.25
	Westmead Private	0.78	0.88	1.06	0.69	0.45
	Wollongong Private <sup>†</sup>	-	-	0.60	0.37	0.56
	Newcastle Private	1.81	0.34	0.35	0.20	0.22
	Calvary, Wagga Wagga	2.02	0.98	0.00	1.42	1.82
	Other hospitals	0.21	0.38	0.00	0.00	0.00
	<b>TOTAL</b>	<b>1.38</b>	<b>0.80</b>	<b>0.47</b>	<b>0.47</b>	<b>0.42</b>
<b>TOTAL NSW*</b>		<b>1.45</b>	<b>1.32</b>	<b>1.02</b>	<b>0.97</b>	<b>0.89</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Hospitals with more than 200 births in 2018 are identified individually.

‡ Northern Beaches opened in 2018.

† Wollongong Private opened in 2016.

\* Total NSW includes births at home assisted by independent midwives.

# Postpartum haemorrhage and blood transfusion after caesarean section

## Indicator 7.2

Definition: Total number of women who undergo caesarean section who receive a blood transfusion during the same admission as a percentage of women who undergo caesarean section.

Table 72 shows information for hospitals where at least 200 mothers gave birth in 2018, totals for hospitals for each local health district, sector, and the NSW total.

**TABLE 72: 7.2 POSTPARTUM HAEMORRHAGE AND BLOOD TRANSFUSION FOLLOWING CAESAREAN SECTION BY LOCAL HEALTH DISTRICT AND HOSPITAL, NSW 2014–2018\***

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
<b>Sydney</b>	Canterbury	1.24	1.02	1.15	0.69	1.24
	Royal Prince Alfred	0.81	0.73	1.18	1.22	0.92
	<b>TOTAL</b>	<b>0.91</b>	<b>0.80</b>	<b>1.18</b>	<b>1.08</b>	<b>0.99</b>
<b>South Western Sydney</b>	Fairfield	0.99	1.35	0.72	0.70	0.45
	Liverpool	1.66	0.43	0.73	1.31	1.08
	Campbelltown	0.54	1.24	0.88	0.22	0.69
	Bankstown–Lidcombe	1.21	0.89	1.42	2.36	2.50
	Bowral	0.70	0.00	1.48	0.79	0.00
	<b>TOTAL</b>	<b>1.12</b>	<b>0.86</b>	<b>0.95</b>	<b>1.03</b>	<b>1.09</b>
<b>South Eastern Sydney</b>	St. George	1.96	2.35	0.95	0.98	1.10
	Sutherland	2.19	0.94	0.32	1.12	1.12
	Royal Hospital for Women	2.41	1.77	0.90	1.79	1.67
	<b>TOTAL</b>	<b>2.24</b>	<b>1.84</b>	<b>0.83</b>	<b>1.43</b>	<b>1.40</b>
<b>Illawarra Shoalhaven</b>	Shoalhaven	3.15	2.80	2.32	1.15	2.16
	Wollongong	1.88	2.22	1.11	1.58	0.47
	Other hospitals	20.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>2.31</b>	<b>2.40</b>	<b>1.43</b>	<b>1.47</b>	<b>0.83</b>
<b>Western Sydney</b>	Auburn	1.35	1.92	0.97	0.64	1.11
	Blacktown	1.02	1.26	1.28	1.19	0.71
	Westmead	1.98	2.30	1.54	1.66	1.16
	<b>TOTAL</b>	<b>1.59</b>	<b>1.92</b>	<b>1.40</b>	<b>1.40</b>	<b>1.00</b>
<b>Nepean Blue Mountains</b>	Blue Mountains	1.32	1.18	0.00	0.00	0.00
	Nepean	2.57	2.88	1.17	0.61	1.12
	Hawkesbury	1.08	0.74	1.17	0.40	0.37
	Other hospitals	1.54	1.56	1.52	0.00	3.23
	<b>TOTAL</b>	<b>2.25</b>	<b>2.45</b>	<b>1.13</b>	<b>0.54</b>	<b>1.05</b>
<b>Northern Sydney</b>	Hornsby	2.27	0.38	1.32	1.18	2.21
	Manly	1.12	1.12	3.34	1.12	0.00
	Mona Vale	0.53	0.52	0.90	1.39	0.57
	Royal North Shore	1.12	1.49	1.53	1.28	1.17
	Northern Beaches <sup>‡</sup>	-	-	-	-	2.08
	<b>TOTAL</b>	<b>1.27</b>	<b>1.13</b>	<b>1.72</b>	<b>1.25</b>	<b>1.23</b>
<b>Central Coast</b>	Gosford	1.15	1.01	0.90	1.72	0.78
	<b>TOTAL</b>	<b>1.15</b>	<b>1.01</b>	<b>0.90</b>	<b>1.72</b>	<b>0.78</b>
<b>Hunter New England</b>	Armidale	0.81	2.92	0.76	0.00	0.00
	Inverell	2.06	2.53	0.00	0.00	0.00
	Tamworth Base	2.55	2.06	1.32	0.86	0.81
	Manning Base	2.50	3.17	1.32	3.16	1.74
	Maitland	2.39	1.41	1.61	0.88	0.99
	John Hunter	3.75	3.43	1.62	1.84	1.72
	Other hospitals	3.11	2.27	1.33	1.89	1.68
	<b>TOTAL</b>	<b>3.04</b>	<b>2.78</b>	<b>1.44</b>	<b>1.49</b>	<b>1.34</b>
<b>Northern NSW</b>	Grafton Base	0.94	1.75	2.59	1.64	1.59
	Lismore Base	2.03	0.38	1.49	0.36	0.81
	Tweed Heads	2.47	1.63	1.01	1.12	0.33
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>1.92</b>	<b>1.11</b>	<b>1.44</b>	<b>0.90</b>	<b>0.74</b>

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
<b>Mid North Coast</b>	Coffs Harbour	1.92	0.87	0.25	0.27	0.76
	Kempsey	1.92	1.64	3.45	3.08	4.84
	Port Macquarie Base	2.12	1.15	1.54	0.46	0.70
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>1.99</b>	<b>1.05</b>	<b>0.98</b>	<b>0.62</b>	<b>1.08</b>
<b>Southern NSW</b>	Bega	0.00	2.94	0.00	1.30	2.44
	Goulburn Base	0.00	1.11	3.30	0.00	1.47
	Moruya	3.75	0.00	1.22	0.00	1.12
	Queanbeyan	2.02	0.00	0.93	0.00	0.00
	Other hospitals	0.00	0.00	0.00	3.70	4.00
	<b>TOTAL</b>	<b>1.46</b>	<b>0.78</b>	<b>1.33</b>	<b>0.50</b>	<b>1.12</b>
<b>Murrumbidgee</b>	Griffith Base	1.32	0.66	0.59	1.36	0.68
	Wagga Wagga Base	1.74	2.66	1.17	0.71	0.47
	Other hospitals	5.66	5.31	1.75	1.94	2.00
	<b>TOTAL</b>	<b>2.67</b>	<b>2.66</b>	<b>1.12</b>	<b>1.04</b>	<b>0.75</b>
<b>Western NSW</b>	Dubbo Base	2.08	2.06	2.67	1.40	0.74
	Mudgee	1.61	2.86	0.00	4.62	1.69
	Bathurst Base	1.71	1.33	0.00	0.00	0.67
	Orange Base	0.58	1.66	0.85	0.57	0.00
	Other hospitals	0.00	1.06	0.00	0.00	0.00
	<b>TOTAL</b>	<b>1.27</b>	<b>1.78</b>	<b>1.29</b>	<b>0.97</b>	<b>0.46</b>
<b>Far West</b>	<b>TOTAL</b>	<b>0.00</b>	<b>2.00</b>	<b>0.00</b>	<b>3.33</b>	<b>0.00</b>
<b>Public Hospitals</b>	<b>TOTAL</b>	<b>1.78</b>	<b>1.68</b>	<b>1.22</b>	<b>1.19</b>	<b>1.06</b>
<b>Private Hospitals</b>	Mater, North Sydney	0.93	0.45	0.88	0.77	0.70
	North Shore Private	0.28	0.00	0.23	0.07	0.41
	Sydney Adventist	0.25	0.40	0.37	0.00	0.40
	North Gosford Private	0.58	0.32	0.85	0.59	0.00
	Hurstville Community	1.60	0.67	0.61	0.00	0.74
	Kareena Private	0.00	0.00	0.53	0.29	0.33
	St. George Private	0.48	0.71	0.71	0.44	0.33
	Prince of Wales Private	1.46	0.42	0.43	0.33	0.25
	Norwest Private	0.82	0.25	0.92	0.67	0.14
	Sydney Southwest Private	0.51	0.52	0.00	0.30	0.00
	Nepean Private	0.31	0.00	0.28	0.66	0.00
	Westmead Private	0.40	0.55	0.59	0.75	0.65
	Wollongong Private <sup>†</sup>	-	-	0.25	0.75	0.76
	Newcastle Private	0.63	0.13	0.35	0.25	0.36
	Calvary, Wagga Wagga	0.39	0.35	0.00	0.00	0.00
	Other hospitals	0.92	0.67	0.00	0.00	0.00
	<b>TOTAL</b>	<b>0.68</b>	<b>0.35</b>	<b>0.51</b>	<b>0.41</b>	<b>0.38</b>
<b>TOTAL NSW*</b>		<b>1.43</b>	<b>1.25</b>	<b>0.99</b>	<b>0.94</b>	<b>0.86</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Hospitals with more than 200 births in 2018 are identified individually.

‡ Northern Beaches opened in 2018.

† Wollongong Private opened in 2016.

\* Total NSW includes births at home assisted by independent midwives.

# Intrauterine growth restriction

## Indicator 8.1

Definition: Total number of babies born with birth weight less than 2,750 grams at 40<sup>0</sup> weeks gestation or beyond as a percentage of the total number of babies born at 40<sup>0</sup> weeks gestation or beyond.

Table 73 shows information for hospitals where at least 200 babies were born in 2018, totals for hospitals for each local health district, sector, and the NSW total.

**TABLE 73: 8.1 INTRAUTERINE GROWTH RESTRICTION AT 40 WEEKS GESTATION OR MORE BY LOCAL HEALTH DISTRICT AND HOSPITAL, NSW 2014–2018<sup>a</sup>**

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
<b>Sydney</b>	Canterbury	1.89	2.57	0.97	1.32	2.58
	Royal Prince Alfred	1.55	1.14	1.68	1.55	0.68
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>1.63</b>	<b>1.47</b>	<b>1.51</b>	<b>1.50</b>	<b>1.10</b>
<b>South Western Sydney</b>	Fairfield	3.04	1.92	2.52	2.51	1.83
	Liverpool	2.31	2.73	2.20	1.83	1.76
	Campbelltown	1.28	1.99	0.84	1.28	1.01
	Bankstown–Lidcombe	2.16	1.74	2.33	1.60	0.94
	Bowral	1.44	0.57	1.03	1.81	0.58
	<b>TOTAL</b>	<b>2.08</b>	<b>2.08</b>	<b>1.80</b>	<b>1.71</b>	<b>1.29</b>
<b>South Eastern Sydney</b>	St. George	2.04	2.16	1.80	2.92	2.45
	Sutherland	0.67	0.17	1.93	1.13	0.93
	Royal Hospital for Women	1.62	1.78	2.04	1.91	2.13
	<b>TOTAL</b>	<b>1.57</b>	<b>1.58</b>	<b>1.95</b>	<b>2.07</b>	<b>1.98</b>
<b>Illawarra Shoalhaven</b>	Shoalhaven	0.29	2.02	1.75	0.99	1.27
	Wollongong	0.74	0.94	1.00	1.26	1.25
	Other hospitals	2.86	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>0.67</b>	<b>1.25</b>	<b>1.19</b>	<b>1.18</b>	<b>1.25</b>
<b>Western Sydney</b>	Auburn	2.76	2.08	1.91	2.32	2.03
	Blacktown	1.72	1.70	2.98	2.47	2.67
	Westmead	2.44	2.12	3.46	2.72	3.07
	<b>TOTAL</b>	<b>2.26</b>	<b>1.99</b>	<b>3.08</b>	<b>2.59</b>	<b>2.79</b>
<b>Nepean Blue Mountains</b>	Blue Mountains	1.71	0.00	0.69	0.80	0.88
	Nepean	1.87	2.11	1.61	1.81	1.50
	Hawkesbury	0.69	2.27	1.45	0.34	0.34
	Other hospitals	2.74	1.64	9.09	2.67	0.00
	<b>TOTAL</b>	<b>1.70</b>	<b>1.97</b>	<b>1.77</b>	<b>1.55</b>	<b>1.24</b>
<b>Northern Sydney</b>	Hornsby	1.97	1.05	1.46	2.58	1.17
	Manly	1.57	1.18	1.02	1.61	0.00
	Mona Vale	1.48	0.60	0.66	0.74	1.63
	Royal North Shore	1.59	1.37	2.73	1.55	2.37
	Northern Beaches <sup>‡</sup>	-	-	-	-	0.00
	Other hospitals	0.00	0.00	1.61	0.00	2.27
	<b>TOTAL</b>	<b>1.61</b>	<b>1.10</b>	<b>1.83</b>	<b>1.64</b>	<b>1.58</b>
<b>Central Coast</b>	Gosford	1.86	1.15	0.71	1.23	1.06
	Other hospitals	1.64	0.00	0.00	1.49	0.00
	<b>TOTAL</b>	<b>1.85</b>	<b>1.07</b>	<b>0.66</b>	<b>1.25</b>	<b>1.02</b>
<b>Hunter New England</b>	Armidale	3.01	1.31	2.43	0.98	3.17
	Inverell	1.12	1.25	0.00	3.37	5.05
	Tamworth Base	0.93	3.12	1.37	1.63	1.45
	Manning Base	1.08	1.46	3.91	1.61	0.00
	Maitland	1.48	1.47	1.36	0.91	0.57
	John Hunter	1.31	1.17	1.51	1.01	1.24
	Other hospitals	1.49	1.61	1.44	0.75	1.61
	<b>TOTAL</b>	<b>1.38</b>	<b>1.53</b>	<b>1.64</b>	<b>1.11</b>	<b>1.32</b>
<b>Northern NSW</b>	Grafton Base	2.04	0.66	1.43	1.89	1.27
	Lismore Base	1.26	2.14	1.72	1.77	2.23
	Tweed Heads	0.52	0.50	1.08	0.74	0.51
	Other hospitals	0.69	1.61	2.29	0.78	0.00
	<b>TOTAL</b>	<b>1.01</b>	<b>1.19</b>	<b>1.48</b>	<b>1.29</b>	<b>1.20</b>

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
<b>Mid North Coast</b>	Coffs Harbour	1.30	0.00	0.86	1.92	2.33
	Kempsey	1.82	0.87	2.04	2.24	3.01
	Port Macquarie Base	0.65	1.70	1.22	0.64	1.39
	Other hospitals	3.57	4.35	0.00	0.00	0.00
	<b>TOTAL</b>	<b>1.21</b>	<b>0.88</b>	<b>1.13</b>	<b>1.47</b>	<b>2.04</b>
<b>Southern NSW</b>	Bega	1.54	0.00	3.25	0.85	0.00
	Goulburn Base	0.71	1.85	3.23	1.99	1.59
	Moruya	0.85	0.00	1.34	0.00	0.66
	Queanbeyan	1.33	1.81	0.40	0.37	0.66
	Other hospitals	1.37	1.41	3.53	0.00	1.23
	<b>TOTAL</b>	<b>1.17</b>	<b>1.16</b>	<b>1.97</b>	<b>0.66</b>	<b>0.78</b>
<b>Murrumbidgee</b>	Griffith Base	1.19	0.00	2.07	0.78	1.32
	Wagga Wagga Base	2.61	1.01	2.05	1.65	1.46
	Other hospitals	0.00	4.78	1.53	1.28	0.85
	<b>TOTAL</b>	<b>1.32</b>	<b>1.99</b>	<b>1.91</b>	<b>1.31</b>	<b>1.28</b>
<b>Western NSW</b>	Dubbo Base	2.49	2.20	2.92	1.08	2.22
	Mudgee	1.77	0.00	1.69	1.61	0.95
	Bathurst Base	1.15	0.81	2.14	0.41	0.81
	Orange Base	0.99	1.02	1.32	1.09	0.34
	Other hospitals	0.96	0.00	2.79	1.38	1.38
	<b>TOTAL</b>	<b>1.55</b>	<b>1.11</b>	<b>2.24</b>	<b>1.06</b>	<b>1.23</b>
<b>Far West</b>	<b>TOTAL</b>	<b>3.26</b>	<b>4.88</b>	<b>0.82</b>	<b>5.49</b>	<b>3.85</b>
<b>Public Hospitals</b>	<b>TOTAL</b>	<b>1.65</b>	<b>1.59</b>	<b>1.86</b>	<b>1.64</b>	<b>1.59</b>
<b>Private Hospitals</b>	Mater, North Sydney	2.02	1.21	1.16	1.02	1.94
	North Shore Private	1.54	0.93	1.22	2.16	1.83
	Sydney Adventist	1.39	2.17	1.23	0.99	1.89
	North Gosford Private	0.53	0.98	1.31	0.00	2.53
	Hurstville Community	1.30	1.52	0.94	2.80	1.54
	Kareena Private	0.00	0.58	1.13	0.61	0.00
	St. George Private	2.43	2.96	1.42	2.30	0.43
	Prince of Wales Private	0.86	1.86	1.73	1.79	1.40
	Norwest Private	1.13	1.44	2.46	0.46	0.78
	Sydney Southwest Private	1.63	0.35	0.72	0.87	0.90
	Nepean Private	0.50	0.00	0.00	1.16	0.00
	Westmead Private	1.56	2.60	1.75	4.00	3.50
	Wollongong Private <sup>†</sup>	-	-	1.67	0.50	1.61
	Newcastle Private	0.81	0.96	0.41	0.00	0.00
	Calvary, Wagga Wagga	0.00	0.00	0.00	2.56	2.00
	Other hospitals	3.73	2.37	0.00	0.00	0.00
	<b>TOTAL</b>	<b>1.39</b>	<b>1.53</b>	<b>1.31</b>	<b>1.49</b>	<b>1.51</b>
<b>TOTAL NSW<sup>*</sup></b>		<b>1.60</b>	<b>1.58</b>	<b>1.78</b>	<b>1.62</b>	<b>1.58</b>

Source: NSW Perinatal Data Collection (SAPHaRI), Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Hospitals with more than 200 births in 2018 are identified individually.

‡ Northern Beaches opened in 2018.

† Wollongong Private opened in 2016.

\* Total NSW includes births at home assisted by independent midwives.

# Apgar score

## Indicator 9.1

Definition: Total number of term babies born with an Apgar score of less than seven at 5 minutes post-delivery as a percentage of the total number of term babies born.

Table 74 shows information for hospitals where at least 200 babies were born in 2018, totals for hospitals for each local health district, sector, and the NSW total.

**TABLE 74: 9.1 APGAR SCORE OF SEVEN OR LESS IN TERM BABIES BY LOCAL HEALTH DISTRICT AND HOSPITAL, NSW 2014–2018\***

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
Sydney	Canterbury	1.43	1.40	1.42	0.87	1.37
	Royal Prince Alfred	2.08	1.94	1.15	1.27	1.05
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>1.91</b>	<b>1.79</b>	<b>1.22</b>	<b>1.16</b>	<b>1.13</b>
South Western Sydney	Fairfield	0.72	1.26	0.88	0.94	0.73
	Liverpool	1.38	1.12	0.90	0.73	0.39
	Campbelltown	1.41	1.32	1.46	1.29	1.01
	Bankstown–Lidcombe	0.73	0.93	1.02	0.91	1.19
	Bowral	1.54	0.26	1.43	1.30	1.81
	<b>TOTAL</b>	<b>1.14</b>	<b>1.13</b>	<b>1.11</b>	<b>1.00</b>	<b>0.84</b>
South Eastern Sydney	St. George	1.82	2.26	1.61	1.26	1.33
	Sutherland	0.93	0.88	1.64	1.47	1.24
	Royal Hospital for Women	1.98	1.63	1.88	1.74	1.35
	<b>TOTAL</b>	<b>1.74</b>	<b>1.71</b>	<b>1.75</b>	<b>1.54</b>	<b>1.32</b>
Illawarra Shoalhaven	Shoalhaven	1.55	1.17	1.92	1.68	2.04
	Wollongong	1.21	1.03	1.00	1.39	1.42
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>1.28</b>	<b>1.06</b>	<b>1.24</b>	<b>1.46</b>	<b>1.58</b>
Western Sydney	Auburn	0.54	0.40	0.46	0.86	0.83
	Blacktown	0.82	0.62	1.01	0.81	0.95
	Westmead	0.97	1.51	1.29	1.56	1.18
	<b>TOTAL</b>	<b>0.86</b>	<b>1.08</b>	<b>1.09</b>	<b>1.23</b>	<b>1.05</b>
Nepean Blue Mountains	Blue Mountains	0.00	1.61	1.69	1.79	2.97
	Nepean	0.92	1.19	1.22	1.17	1.55
	Hawkesbury	0.83	0.28	0.77	0.15	1.38
	Other hospitals	2.05	3.21	1.98	2.37	1.95
	<b>TOTAL</b>	<b>0.90</b>	<b>1.17</b>	<b>1.21</b>	<b>1.10</b>	<b>1.60</b>
Northern Sydney	Hornsby	1.64	1.56	2.13	1.42	1.50
	Manly	1.76	0.76	1.90	0.93	2.03
	Mona Vale	1.72	1.24	0.81	1.10	1.11
	Royal North Shore	1.58	1.39	1.95	1.55	1.98
	Northern Beaches <sup>‡</sup>	-	-	-	-	1.16
	Other hospitals	0.00	0.81	0.00	1.00	2.47
	<b>TOTAL</b>	<b>1.61</b>	<b>1.28</b>	<b>1.79</b>	<b>1.35</b>	<b>1.76</b>
Central Coast	Gosford	1.57	1.76	2.19	1.97	1.99
	Other hospitals	0.00	0.00	1.47	1.01	0.00
	<b>TOTAL</b>	<b>1.49</b>	<b>1.67</b>	<b>2.16</b>	<b>1.94</b>	<b>1.93</b>
Hunter New England	Armidale	1.57	1.06	1.84	0.78	2.81
	Inverell	0.40	0.00	1.72	0.45	0.46
	Tamworth Base	2.25	2.83	2.44	2.62	1.93
	Manning Base	1.82	2.59	1.59	1.34	2.14
	Maitland	2.40	2.16	1.79	1.40	1.87
	John Hunter	2.67	1.83	2.24	1.66	2.06
	Other hospitals	0.98	0.98	1.02	0.84	1.18
	<b>TOTAL</b>	<b>2.16</b>	<b>1.87</b>	<b>1.94</b>	<b>1.53</b>	<b>1.92</b>
Northern NSW	Grafton Base	1.44	1.06	1.97	1.95	1.11
	Lismore Base	1.21	1.82	2.03	1.90	1.48
	Tweed Heads	1.68	1.36	1.62	1.74	2.02
	Other hospitals	0.35	0.00	0.41	0.00	0.53
	<b>TOTAL</b>	<b>1.35</b>	<b>1.38</b>	<b>1.72</b>	<b>1.72</b>	<b>1.59</b>

Local Health District–Hospital		2014	2015	2016	2017	2018
		%	%	%	%	%
Mid North Coast	Coffs Harbour	1.81	1.74	1.08	0.95	1.49
	Kempsey	4.82	3.64	3.02	0.79	1.30
	Port Macquarie Base	1.82	1.48	1.27	0.86	1.54
	Other hospitals	0.00	0.00	2.08	0.00	0.00
	<b>TOTAL</b>	<b>2.14</b>	<b>1.84</b>	<b>1.42</b>	<b>0.87</b>	<b>1.46</b>
Southern NSW	Bega	0.84	0.94	1.61	0.82	0.82
	Goulburn Base	2.32	2.41	0.73	1.16	1.53
	Moruya	0.76	1.05	0.00	0.36	0.65
	Queanbeyan	1.21	1.74	1.13	1.57	1.47
	Other hospitals	1.40	2.56	2.04	0.00	0.00
	<b>TOTAL</b>	<b>1.29</b>	<b>1.70</b>	<b>1.00</b>	<b>0.99</b>	<b>1.07</b>
Murrumbidgee	Griffith Base	2.23	1.57	1.81	1.57	0.84
	Wagga Wagga Base	3.02	2.05	1.80	1.66	1.53
	Other hospitals	0.97	1.48	0.42	1.56	1.44
	<b>TOTAL</b>	<b>2.13</b>	<b>1.75</b>	<b>1.46</b>	<b>1.61</b>	<b>1.35</b>
Western NSW	Dubbo Base	1.46	1.23	2.01	2.39	2.07
	Mudgee	1.26	2.07	1.23	0.00	1.35
	Bathurst Base	1.85	2.00	1.08	1.26	0.64
	Orange Base	1.49	1.94	0.81	0.91	2.15
	Other hospitals	1.78	1.20	1.00	1.42	0.76
	<b>TOTAL</b>	<b>1.56</b>	<b>1.62</b>	<b>1.33</b>	<b>1.50</b>	<b>1.66</b>
Far West	<b>TOTAL</b>	<b>2.24</b>	<b>1.42</b>	<b>1.79</b>	<b>1.53</b>	<b>0.54</b>
Public Hospitals	<b>TOTAL</b>	<b>1.49</b>	<b>1.45</b>	<b>1.45</b>	<b>1.32</b>	<b>1.37</b>
Private Hospitals	Mater, North Sydney	0.32	0.38	0.18	0.20	0.25
	North Shore Private	0.57	0.66	0.25	0.52	0.84
	Sydney Adventist	1.19	1.07	4.94	1.23	1.16
	North Gosford Private	0.14	0.93	1.52	0.48	0.69
	Hurstville Community	1.01	1.19	1.16	1.06	0.33
	Kareena Private	1.15	1.25	1.22	1.91	1.09
	St. George Private	0.54	0.75	1.01	0.72	0.85
	Prince of Wales Private	0.54	0.36	0.48	0.29	0.39
	Norwest Private	0.25	0.36	0.36	0.27	0.22
	Sydney Southwest Private	0.42	0.53	0.60	0.58	0.95
	Nepean Private	0.13	0.40	0.68	0.30	0.00
	Westmead Private	0.78	0.77	0.33	0.40	0.46
	Wollongong Private <sup>†</sup>	-	-	0.58	0.44	1.02
	Newcastle Private	0.39	0.71	0.70	0.59	0.56
	Calvary, Wagga Wagga	0.65	0.90	0.85	0.98	0.76
	Other hospitals	0.80	0.22	0.00	0.00	0.00
	<b>TOTAL</b>	<b>0.58</b>	<b>0.65</b>	<b>0.96</b>	<b>0.57</b>	<b>0.60</b>
<b>TOTAL NSW*</b>		<b>1.28</b>	<b>1.26</b>	<b>1.33</b>	<b>1.16</b>	<b>1.21</b>

Source: NSW Perinatal Data Collection (SAPHaRI), Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Hospitals with more than 200 births in 2018 are identified individually.

‡ Northern Beaches opened in 2018.

† Wollongong Private opened in 2016.

\* Total NSW includes births at home assisted by independent midwives.

## Reference

1. Australian Council on Healthcare Standards. *Clinical Indicator User Manual. Maternity Version 8*. Sydney: ACHS, 2017.



## 8. ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS AND BABIES

### Reporting of Aboriginality

Aboriginal mothers and babies are under-reported on the Perinatal Data Collection. One method of assessing the extent of under-reporting and monitoring changes over time is to compare the reporting of Aboriginal mothers on the Perinatal Data Collection with reporting on other data collections. We used Enhanced Reporting of Aboriginality information on the Maternal and Child Health Register (see Methods) to give a “best estimate” of the true numbers of Aboriginal mothers and babies in NSW. We compared this estimate with the actual numbers of Aboriginal mothers and babies born to Aboriginal mothers reported on the Perinatal Data Collection and calculated the level of reporting of Aboriginal mothers and babies for NSW and for each local health district.

The estimated percentage of Aboriginal or Torres Strait Islander mothers in NSW that were reported to the Perinatal Data Collection was 86.2% in 2016, 88.6% in 2017 and 89.9% in 2018. In 2018, reporting varied between local health districts, ranging from 81.8% in the Northern Sydney Local Health District to 93.4% in the Central Coast Local Health District, with reporting generally better in rural compared to urban areas (Figure 2, Table 75).

Table 76 shows the number of babies born to Aboriginal or Torres Strait Islander mothers as reported to the Perinatal Data Collection and the number of Aboriginal or Torres Strait Islander babies born in NSW according to Enhanced Reporting of Aboriginality information on the Maternal and Child Health Register (see Methods). The estimated percentage of Aboriginal or Torres Strait Islander babies born in NSW that were reported to the Perinatal Data Collection was 66.4% in 2018. Reporting ranged from 49.3% in the Northern Sydney Local Health District to 79.6% in the Murrumbidgee Local Health District. There are therefore a substantial number of Aboriginal babies with non-Aboriginal or Torres Strait Islander mothers who are not represented in the numbers reported in this chapter.

Numbers of Aboriginal mothers and babies born to Aboriginal mothers shown in the tables and figures in this chapter are based on the actual numbers reported to the Perinatal Data Collection. The true numbers of Aboriginal mothers and babies are likely to be higher than shown and should therefore be interpreted with caution.

**FIGURE 2: ESTIMATED LEVEL OF REPORTING OF BIRTHS TO ABORIGINAL OR TORRES STRAIT ISLANDER MOTHERS BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2018**



Source: Maternal and Child Health Register (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.



**TABLE 75: ABORIGINAL OR TORRES STRAIT ISLANDER MOTHERS AND ESTIMATED LEVEL OF REPORTING BY YEAR OF BIRTH AND LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2016–2018**

Year of birth–Local Health District		PDC mothers	Estimated Aboriginal mothers	Level of reporting
		No.	No.	%
<b>2016</b>	Sydney	86	95	90.5
	South Western Sydney	318	387	82.2
	South Eastern Sydney	112	137	81.8
	Illawarra Shoalhaven	241	274	88.0
	Western Sydney	258	332	77.7
	Nepean Blue Mountains	232	281	82.6
	Northern Sydney	40	48	83.3
	Central Coast	226	250	90.4
	Hunter New England	1052	1204	87.4
	Northern NSW	225	250	90.0
	Mid North Coast	234	269	87.0
	Southern NSW	96	116	82.8
	Murrumbidgee	215	257	83.7
	Western NSW	630	701	89.9
	Far West	42	46	91.3
	Other-not stated	35	42	83.3
	<b>NSW</b>	<b>4118</b>	<b>4780</b>	<b>86.2</b>
<b>2017</b>	Sydney	99	103	96.1
	South Western Sydney	295	348	84.8
	South Eastern Sydney	113	132	85.6
	Illawarra Shoalhaven	276	327	84.4
	Western Sydney	289	337	85.8
	Nepean Blue Mountains	229	266	86.1
	Northern Sydney	36	54	66.7
	Central Coast	230	261	88.1
	Hunter New England	1100	1213	90.7
	Northern NSW	231	255	90.6
	Mid North Coast	262	285	91.9
	Southern NSW	91	106	85.8
	Murrumbidgee	204	235	86.8
	Western NSW	666	724	92.0
	Far West	35	39	89.7
	Other-not stated	26	34	76.5
	<b>NSW</b>	<b>4183</b>	<b>4721</b>	<b>88.6</b>
<b>2018</b>	Sydney	110	119	92.4
	South Western Sydney	351	402	87.3
	South Eastern Sydney	122	141	86.5
	Illawarra Shoalhaven	262	291	90.0
	Western Sydney	287	340	84.4
	Nepean Blue Mountains	234	269	87.0
	Northern Sydney	36	44	81.8
	Central Coast	242	259	93.4
	Hunter New England	1086	1185	91.6
	Northern NSW	228	261	87.4
	Mid North Coast	266	294	90.5
	Southern NSW	97	108	89.8
	Murrumbidgee	233	255	91.4
	Western NSW	599	648	92.4
	Far West	31	36	86.1
	Other-not stated	21	24	87.5
	<b>NSW</b>	<b>4213</b>	<b>4684</b>	<b>89.9</b>

Source: Maternal and Child Health Register (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

**TABLE 76: BABIES BORN TO ABORIGINAL OR TORRES STRAIT ISLANDER MOTHERS AND ESTIMATED LEVEL OF REPORTING BY YEAR OF BIRTH AND LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2016–2018\***

Year of birth–Local Health District		PDC babies*	Estimated Aboriginal babies#	Level of reporting
		No.	No.	%
<b>2016</b>	Sydney	86	118	72.9
	South Western Sydney	325	487	66.7
	South Eastern Sydney	113	194	58.2
	Illawarra Shoalhaven	247	378	65.3
	Western Sydney	263	408	64.5
	Nepean Blue Mountains	232	375	61.9
	Northern Sydney	41	65	63.1
	Central Coast	232	368	63.0
	Hunter New England	1062	1748	60.8
	Northern NSW	226	313	72.2
	Mid North Coast	237	320	74.1
	Southern NSW	97	150	64.7
	Murrumbidgee	218	296	73.6
	Western NSW	640	844	75.8
	Far West	42	52	80.8
	Other-not stated	36	49	73.5
	<b>NSW</b>	<b>4174</b>	<b>6265</b>	<b>66.6</b>
<b>2017</b>	Sydney	100	120	83.3
	South Western Sydney	297	457	65.0
	South Eastern Sydney	114	169	67.5
	Illawarra Shoalhaven	280	450	62.2
	Western Sydney	298	437	68.2
	Nepean Blue Mountains	231	336	68.8
	Northern Sydney	36	74	48.6
	Central Coast	233	362	64.4
	Hunter New England	1126	1761	63.9
	Northern NSW	232	322	72.0
	Mid North Coast	267	357	74.8
	Southern NSW	92	137	67.2
	Murrumbidgee	207	275	75.3
	Western NSW	676	877	77.1
	Far West	35	45	77.8
	Other-not stated	26	45	57.8
	<b>NSW</b>	<b>4251</b>	<b>6226</b>	<b>68.3</b>
<b>2018</b>	Sydney	112	141	79.4
	South Western Sydney	355	576	61.6
	South Eastern Sydney	124	215	57.7
	Illawarra Shoalhaven	266	460	57.8
	Western Sydney	289	425	68.0
	Nepean Blue Mountains	238	364	65.4
	Northern Sydney	36	73	49.3
	Central Coast	249	384	64.8
	Hunter New England	1102	1782	61.8
	Northern NSW	229	317	72.2
	Mid North Coast	267	381	70.1
	Southern NSW	97	141	68.8
	Murrumbidgee	238	299	79.6
	Western NSW	608	794	76.6
	Far West	31	40	77.5
	Other-not stated	21	31	67.7
	<b>NSW</b>	<b>4270</b>	<b>6431</b>	<b>66.4</b>

Source: Maternal and Child Health Register (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# PDC babies: babies recorded on the PDC as being born to Aboriginal mothers. Estimated Aboriginal babies: babies born in NSW according to Enhanced Reporting of Aboriginality information on the Maternal and Child Health Register.

## Confinements and births

Between 2014 and 2018, the number of reported births to Aboriginal or Torres Strait Islander mothers rose from 3,808 to 4,270, representing 3.9% and 4.5% respectively of all babies born in NSW. In 2018, 4,081 babies were born to Aboriginal mothers, 57 babies were born to Torres Strait Islander mothers and 132 babies were born to mothers of both Aboriginal and Torres Strait Islander background (Table 77).

**TABLE 77: ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS AND BABIES, NSW 2014–2018\***

Aboriginal and Torres Strait Islander		Year									
		2014		2015		2016		2017		2018	
		No.	%	No.	%	No.	%	No.	%	No.	%
<b>Confinements</b>	Aboriginal but not Torres Strait Islander	3596	95.7	3686	96.4	3938	95.6	3998	95.6	4028	95.6
	Torres Strait Islander but not Aboriginal	51	1.4	43	1.1	50	1.2	61	1.5	55	1.3
	Both Aboriginal and Torres Strait Islander	109	2.9	94	2.5	130	3.2	124	3.0	130	3.1
	<b>TOTAL</b>	<b>3756</b>	<b>100.0</b>	<b>3823</b>	<b>100.0</b>	<b>4118</b>	<b>100.0</b>	<b>4183</b>	<b>100.0</b>	<b>4213</b>	<b>100.0</b>
<b>Births</b>	Aboriginal but not Torres Strait Islander	3647	95.8	3735	96.5	3990	95.6	4063	95.6	4081	95.6
	Torres Strait Islander but not Aboriginal	51	1.3	43	1.1	51	1.2	62	1.5	57	1.3
	Both Aboriginal and Torres Strait Islander	110	2.9	94	2.4	133	3.2	126	3.0	132	3.1
	<b>TOTAL</b>	<b>3808</b>	<b>100.0</b>	<b>3872</b>	<b>100.0</b>	<b>4174</b>	<b>100.0</b>	<b>4251</b>	<b>100.0</b>	<b>4270</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers and babies are higher than shown (Table 75).

## Plurality

Between 2014 and 2018, multiple (twin and triplet) pregnancies were reported for about 1.4% of all pregnancies. In 2018, 2.7% of babies born to Aboriginal or Torres Strait Islander mothers were twins (Table 78)

**TABLE 78: ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS AND BABIES BY PLURALITY, NSW 2014–2018\***

Plurality		Year									
		2014		2015		2016		2017		2018	
		No.	%	No.	%	No.	%	No.	%	No.	%
<b>Confinements</b>	Singleton	3705	98.6	3774	98.7	4062	98.6	4117	98.4	4156	98.6
	Twins	50	1.3	49	1.3	56	1.4	64	1.5	57	1.4
	Triplets	1	0.0	0	0.0	0	0.0	2	0.0	0	0.0
	<b>TOTAL</b>	<b>3756</b>	<b>100.0</b>	<b>3823</b>	<b>100.0</b>	<b>4118</b>	<b>100.0</b>	<b>4183</b>	<b>100.0</b>	<b>4213</b>	<b>100.0</b>
<b>Births</b>	Singleton	3705	97.3	3774	97.5	4062	97.3	4117	96.8	4156	97.3
	Twins	100	2.6	98	2.5	112	2.7	128	3.0	114	2.7
	Triplets	3	0.1	0	0.0	0	0.0	6	0.1	0	0.0
	<b>TOTAL</b>	<b>3808</b>	<b>100.0</b>	<b>3872</b>	<b>100.0</b>	<b>4174</b>	<b>100.0</b>	<b>4251</b>	<b>100.0</b>	<b>4270</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers and babies are higher than shown (Table 75).

## Previous pregnancies

In 2018, one-third of Aboriginal or Torres Strait Islander mothers gave birth for the first time, 61.0% of mothers reported between one and four previous births and 5.0% of mothers had previously given birth to five or more babies (Table 79). Between 2014 and 2018, the percentage of mothers who had previously given birth to five or more babies declined from 6.7% to 5.0%.

**TABLE 79: PREVIOUS PREGNANCIES AMONG ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS, NSW 2014–2018\***

No. previous pregnancies (>20 weeks gestation)	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
0	1241	33.0	1322	34.6	1412	34.3	1412	33.8	1420	33.7
1–4	2262	60.2	2251	58.9	2441	59.3	2503	59.8	2568	61.0
5+	252	6.7	248	6.5	259	6.3	257	6.1	210	5.0
Not stated	1	0.0	2	0.1	6	0.1	11	0.3	15	0.4
<b>TOTAL</b>	<b>3756</b>	<b>100.0</b>	<b>3823</b>	<b>100.0</b>	<b>4118</b>	<b>100.0</b>	<b>4183</b>	<b>100.0</b>	<b>4213</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers are higher than shown (Table 75).

## Maternal age

The percentage of Aboriginal or Torres Strait Islander mothers who were teenagers fell substantially from 15.8% in 2014 to 11.5% in 2018. Between 2014 and 2018, the percentage of Aboriginal or Torres Strait Islander mothers giving birth at 35 years of age or more has remained stable and was 9.9% in 2018 (Table 80).

**TABLE 80: AGE OF ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS, NSW 2014–2018<sup>#</sup>**

Maternal age (years)	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
12–19	592	15.8	587	15.4	526	12.8	513	12.3	485	11.5
20–34	2850	75.9	2905	76.0	3198	77.7	3268	78.1	3313	78.6
35+	314	8.4	331	8.7	393	9.5	401	9.6	415	9.9
Not stated	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0
<b>TOTAL</b>	<b>3756</b>	<b>100.0</b>	<b>3823</b>	<b>100.0</b>	<b>4118</b>	<b>100.0</b>	<b>4183</b>	<b>100.0</b>	<b>4213</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

<sup>#</sup> Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers are higher than shown (Table 75).

## Local Health District of residence

The reported number of Aboriginal or Torres Strait Islander mothers who gave birth in 2018 ranged from 31 in the Far West Local Health District to 1,086 in the Hunter New England Local Health District (Table 81). The proportion of Aboriginal or Torres Strait Islander mothers who were teenagers varied from 6.6% in the South Eastern Sydney Local Health District to 18.6% in the Southern NSW Local Health District (Table 82).

**TABLE 81: LOCAL HEALTH DISTRICT OF RESIDENCE OF ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS, NSW 2014–2018<sup>#</sup>**

Local Health District	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	120	3.2	111	2.9	86	2.1	99	2.4	110	2.6
South Western Sydney	235	6.3	237	6.2	318	7.7	295	7.1	351	8.3
South Eastern Sydney	99	2.6	110	2.9	112	2.7	113	2.7	122	2.9
Illawarra Shoalhaven	212	5.6	220	5.8	241	5.9	276	6.6	262	6.2
Western Sydney	301	8.0	246	6.4	258	6.3	289	6.9	287	6.8
Nepean Blue Mountains	196	5.2	243	6.4	232	5.6	229	5.5	234	5.6
Northern Sydney	29	0.8	32	0.8	40	1.0	36	0.9	36	0.9
Central Coast	217	5.8	222	5.8	226	5.5	230	5.5	242	5.7
Hunter New England	932	24.8	975	25.5	1052	25.5	1100	26.3	1086	25.8
Northern NSW	235	6.3	241	6.3	225	5.5	231	5.5	228	5.4
Mid North Coast	251	6.7	248	6.5	234	5.7	262	6.3	266	6.3
Southern NSW	86	2.3	93	2.4	96	2.3	91	2.2	97	2.3
Murrumbidgee	190	5.1	172	4.5	215	5.2	204	4.9	233	5.5
Western NSW	583	15.5	610	16.0	630	15.3	666	15.9	599	14.2
Far West	46	1.2	43	1.1	42	1.0	35	0.8	31	0.7
Other-not stated	24	0.6	20	0.5	111	2.7	27	0.6	29	0.7
<b>TOTAL</b>	<b>3756</b>	<b>100.0</b>	<b>3823</b>	<b>100.0</b>	<b>4118</b>	<b>100.0</b>	<b>4183</b>	<b>100.0</b>	<b>4213</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

<sup>#</sup> Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers are higher than shown. The level of under-reporting varies between local health districts (Table 75).

**TABLE 82: LOCAL HEALTH DISTRICT OF RESIDENCE OF ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS BY AGE, NSW 2018<sup>#</sup>**

Local Health District	Maternal age (years)					
	Under 20		20-plus		TOTAL	
	No.	%	No.	%	No.	%
Sydney	8	7.3	102	92.7	110	100.0
South Western Sydney	32	9.1	319	90.9	351	100.0
South Eastern Sydney	8	6.6	114	93.4	122	100.0
Illawarra Shoalhaven	31	11.8	231	88.2	262	100.0
Western Sydney	38	13.2	249	86.8	287	100.0
Nepean Blue Mountains	30	12.8	204	87.2	234	100.0
Northern Sydney	-	-	-	-	36	100.0
Central Coast	21	8.7	221	91.3	242	100.0
Hunter New England	131	12.1	955	87.9	1086	100.0
Northern NSW	23	10.1	205	89.9	228	100.0
Mid North Coast	33	12.4	233	87.6	266	100.0
Southern NSW	18	18.6	79	81.4	97	100.0
Murrumbidgee	34	14.6	199	85.4	233	100.0
Western NSW	75	12.5	524	87.5	599	100.0
Far West	-	-	-	-	31	100.0
Other-not stated	-	-	-	-	29	100.0
<b>TOTAL</b>	<b>485</b>	<b>11.5</b>	<b>3728</b>	<b>88.5</b>	<b>4213</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

<sup>#</sup> Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers are higher than shown. The level of under-reporting varies between Local Health Districts (Table 75). Data not shown for cell counts less than five.

### Duration of pregnancy at first antenatal visit

Between 2014 and 2018, the proportion of Aboriginal or Torres Strait Islander mothers who commenced antenatal care at less than 14 weeks gestation increased from 54.4% to 73.6%, and the proportion that commenced antenatal care at less than 20 weeks gestation increased from 75.4% to 86.9% (Table 83). By contrast, 77.8% of non-Aboriginal or Torres Strait Islander mothers commenced antenatal care at less than 14 weeks gestation in 2018 and 92.3% at less than 20 weeks gestation. In 2018, the proportion of Aboriginal or Torres Strait Islander mothers who commenced antenatal care at less than 14 weeks gestation varied from 58.2% in the Western Sydney Local Health District to 82.2% in the Hunter New England Local Health District (Table 84).

**TABLE 83: DURATION OF PREGNANCY AT FIRST ANTENATAL VISIT AMONG ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS, NSW 2014–2018<sup>#</sup>**

Duration of pregnancy (weeks)	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
0–13	2044	54.4	2124	55.6	2662	64.6	2850	68.1	3102	73.6
14–19	788	21.0	781	20.4	704	17.1	661	15.8	561	13.3
20+	860	22.9	850	22.2	654	15.9	603	14.4	495	11.7
Not stated	64	1.7	68	1.8	98	2.4	69	1.6	55	1.3
<b>TOTAL</b>	<b>3756</b>	<b>100.0</b>	<b>3823</b>	<b>100.0</b>	<b>4118</b>	<b>100.0</b>	<b>4183</b>	<b>100.0</b>	<b>4213</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

<sup>#</sup> Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers are higher than shown (Table 75).

**TABLE 84: DURATION OF PREGNANCY AT FIRST ANTENATAL VISIT AMONG ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2018\***

Local Health District	Duration of pregnancy at first antenatal visit (weeks)									
	0–13		14–19		20+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	88	80.0	10	9.1	9	8.2	3	2.7	110	100.0
South Western Sydney	270	76.9	45	12.8	30	8.5	6	1.7	351	100.0
South Eastern Sydney	78	63.9	35	28.7	9	7.4	0	0.0	122	100.0
Illawarra Shoalhaven	182	69.5	47	17.9	31	11.8	2	0.8	262	100.0
Western Sydney	167	58.2	61	21.3	47	16.4	12	4.2	287	100.0
Nepean Blue Mountains	168	71.8	40	17.1	24	10.3	2	0.9	234	100.0
Northern Sydney	28	77.8	-	-	-	-	-	-	36	100.0
Central Coast	187	77.3	35	14.5	18	7.4	2	0.8	242	100.0
Hunter New England	893	82.2	94	8.7	91	8.4	8	0.7	1086	100.0
Northern NSW	183	80.3	22	9.6	19	8.3	4	1.8	228	100.0
Mid North Coast	202	75.9	30	11.3	33	12.4	1	0.4	266	100.0
Southern NSW	58	59.8	21	21.6	15	15.5	3	3.1	97	100.0
Murrumbidgee	175	75.1	16	6.9	39	16.7	3	1.3	233	100.0
Western NSW	378	63.1	91	15.2	122	20.4	8	1.3	599	100.0
Far West	21	67.7	7	22.6	-	-	-	-	31	100.0
Other-not stated	24	82.8	-	-	-	-	-	-	29	100.0
TOTAL	3102	73.6	561	13.3	495	11.7	55	1.3	4213	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

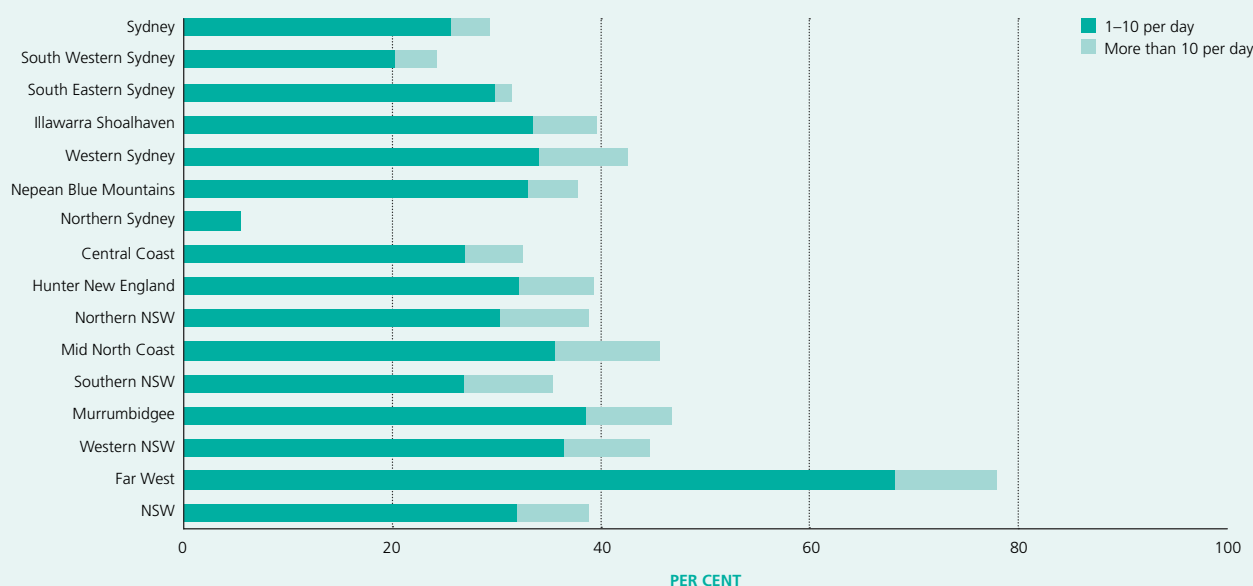
# Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers are higher than shown. The level of under-reporting varies between Local Health Districts (Table 75). Data not shown for cell counts less than five.

## Smoking in pregnancy

In 2018, 43.2% of Aboriginal or Torres Strait Islander mothers reported smoking at some time during pregnancy, compared to 45.2% in 2014. This compares with 7.5% of non-Aboriginal or Torres Strait Islander mothers who reported smoking at some time during pregnancy in 2018.

Smoking in the second half of pregnancy poses the greatest risk to the health of both mother and baby. In 2018, 38.5% of Aboriginal or Torres Strait Islander mothers reported smoking in the second half of pregnancy. This percentage varied from 5.6% in the Northern Sydney Local Health District to 77.4% in the Far West Local Health District (Figure 3).

**FIGURE 3: SMOKING IN THE SECOND HALF OF PREGNANCY AMONG ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS BY AMOUNT SMOKED AND LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2018**



Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

## Diabetes and hypertension

In 2018, there were similar reported rates of pre-existing diabetes mellitus reported among Aboriginal or Torres Strait Islander mothers compared with non-Aboriginal or Torres Strait Islander mothers. However, the reported rate of gestational diabetes was lower among Aboriginal or Torres Strait Islander mothers (10.4%) than non-Aboriginal or Torres Strait Islander mothers (13.9%) (Table 85).

In 2018, there were similar rates of chronic hypertension reported among Aboriginal or Torres Strait Islander mothers compared with non-Aboriginal or Torres Strait Islander mothers. Overall, the rate of hypertension in pregnancy was higher in Aboriginal or Torres Strait Islander mothers (5.2%) compared with non-Aboriginal or Torres Strait Islander mothers (4.4%) (Table 86).

The number of Aboriginal or Torres Strait Islander mothers with medical conditions and obstetric complications reported to the Perinatal Data Collection is low, even after taking into account under-reporting of Aboriginal mothers. The low numbers may be due to under-detection and/or under-reporting.

**TABLE 85: DIABETES AMONG ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2018<sup>#</sup>**

Condition	Diabetes among Aboriginal and Non-Aboriginal mothers							
	Aboriginal or Torres Strait Islander		Non-Aboriginal or Torres Strait Islander		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Pre-existing diabetes mellitus	51	1.2	751	0.8	2	0.7	<b>804</b>	<b>0.9</b>
Type 1	12	0.3	219	0.2	1	0.3	<b>232</b>	<b>0.2</b>
Type 2	39	0.9	384	0.4	1	0.3	<b>424</b>	<b>0.5</b>
Gestational diabetes mellitus	437	10.4	12425	13.9	31	10.8	<b>12893</b>	<b>13.7</b>
Other	0	0.0	148	0.2	0	0.0	<b>148</b>	<b>0.2</b>
<b>TOTAL DIABETES</b>	<b>488</b>	<b>11.6</b>	<b>13176</b>	<b>14.7</b>	<b>33</b>	<b>11.5</b>	<b>13697</b>	<b>14.5</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

<sup>#</sup> Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers are higher than shown (Table 75).

**TABLE 86: HYPERTENSION AMONG ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2018<sup>#</sup>**

Condition	Hypertension among Aboriginal and Non-Aboriginal mothers							
	Aboriginal or Torres Strait Islander		Non-Aboriginal or Torres Strait Islander		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Chronic hypertension	46	1.1	714	0.8	1	0.3	<b>761</b>	<b>0.8</b>
Pre-eclampsia	76	1.8	1255	1.4	2	0.7	<b>1333</b>	<b>1.4</b>
Eclampsia <sup>†</sup>	2	0.0	32	0.0	0	0.0	<b>34</b>	<b>0.0</b>
Gestational hypertension	104	2.5	2138	2.4	16	5.6	<b>2258</b>	<b>2.4</b>
<b>TOTAL HYPERTENSION*</b>	<b>221</b>	<b>5.2</b>	<b>3953</b>	<b>4.4</b>	<b>19</b>	<b>6.6</b>	<b>4193</b>	<b>4.5</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

<sup>#</sup> Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers are higher than shown (Table 75).

<sup>†</sup> Total hypertension refers to the number of women with a diagnosis of any type of hypertension.

## Labour and birth

The rate of spontaneous onset of labour among Aboriginal or Torres Strait Islander mothers fell from 54.0% in 2014 to 45.9% in 2018, while the rate of induction of labour increased from 30.7% to 34.4% (Table 87). The rate of spontaneous onset of labour was slightly higher among Aboriginal or Torres Strait Islander mothers (45.9%) compared to the rate of 43.9% reported among non-Aboriginal or Torres Strait Islander mothers in 2018.

Between 2014 and 2018, the rate of normal vaginal birth fell from 65.4% to 60.9%. The caesarean section rate rose from 27.7% to 31.7% (Table 88). The rate of instrumental delivery was stable at about 7.0%, as was the rate of vaginal breech births (0.5%).

**TABLE 87: LABOUR ONSET FOR ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS, NSW 2014–2018<sup>#</sup>**

Labour onset	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
Spontaneous	2028	54.0	2038	53.3	2157	52.4	2080	49.7	1935	45.9
Induced	1152	30.7	1202	31.4	1284	31.2	1399	33.4	1448	34.4
No labour*	575	15.3	583	15.2	671	16.3	702	16.8	830	19.7
Not stated	1	0.0	0	0.0	6	0.1	2	0.0	0	0.0
<b>TOTAL</b>	<b>3756</b>	<b>100.0</b>	<b>3823</b>	<b>100.0</b>	<b>4118</b>	<b>100.0</b>	<b>4183</b>	<b>100.0</b>	<b>4213</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI), Centre for Epidemiology and Evidence, NSW Ministry of Health.

<sup>#</sup> Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers are higher than shown (Table 75).

\* No labour indicates elective caesarean section.

**TABLE 88: TYPE OF BIRTH AMONG ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS, NSW 2014–2018<sup>#</sup>**

Type of birth	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
Normal vaginal	2456	65.4	2519	65.9	2642	64.2	2649	63.3	2565	60.9
Forceps	99	2.6	94	2.5	111	2.7	114	2.7	104	2.5
Vacuum extraction	145	3.9	160	4.2	178	4.3	173	4.1	190	4.5
Vaginal breech	16	0.4	16	0.4	19	0.5	14	0.3	19	0.5
Elective caesarean section	575	15.3	583	15.2	671	16.3	701	16.8	830	19.7
Emergency caesarean section*	464	12.4	451	11.8	496	12.0	530	12.7	504	12.0
Not stated	1	0.0	0	0.0	1	0.0	2	0.0	1	0.0
<b>TOTAL</b>	<b>3756</b>	<b>100.0</b>	<b>3823</b>	<b>100.0</b>	<b>4118</b>	<b>100.0</b>	<b>4183</b>	<b>100.0</b>	<b>4213</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI), Centre for Epidemiology and Evidence, NSW Ministry of Health.

<sup>#</sup> Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers are higher than shown (Table 75).

\* Emergency caesarean section includes caesarean section where the onset of labour was not stated.



## Birth weight

The rate of low birth weight (less than 2,500 grams) in Aboriginal or Torres Strait Islander babies was 9.9% in 2018 (Table 89). This is higher than the rate for babies born to non-Aboriginal or Torres Strait Islander mothers, which was 6.7% in 2018. The largest number of low birth weight babies in 2018 was in the Hunter New England Local Health District (Table 90).

**TABLE 89: WEIGHT OF BABIES BORN TO ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS, NSW 2014–2018#**

Birth weight (grams)	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
Less than 1,000	42	1.1	29	0.7	54	1.3	61	1.4	38	0.9
1,000–1,499	37	1.0	45	1.2	39	0.9	42	1.0	42	1.0
1,500–2,499	350	9.2	363	9.4	357	8.6	367	8.6	342	8.0
2,500+	3374	88.6	3431	88.6	3722	89.2	3780	88.9	3839	89.9
Not stated	5	0.1	4	0.1	2	0.0	1	0.0	9	0.2
<b>TOTAL</b>	<b>3808</b>	<b>100.0</b>	<b>3872</b>	<b>100.0</b>	<b>4174</b>	<b>100.0</b>	<b>4251</b>	<b>100.0</b>	<b>4270</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of babies are higher than shown (Table 75).

**TABLE 90: WEIGHT OF BABIES BORN TO ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2018#**

Local Health District	Birth weight (grams)							
	< 2,500		2,500+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Sydney	21	18.8	90	80.4	1	0.9	112	100.0
South Western Sydney	31	8.7	323	91.0	1	0.3	355	100.0
South Eastern Sydney	8	6.5	116	93.5	0	0.0	124	100.0
Illawarra Shoalhaven	41	15.4	225	84.6	0	0.0	266	100.0
Western Sydney	26	9.0	262	90.7	1	0.3	289	100.0
Nepean Blue Mountains	19	8.0	219	92.0	0	0.0	238	100.0
Northern Sydney	-	-	33	91.7	-	-	36	100.0
Central Coast	19	7.6	230	92.4	0	0.0	249	100.0
Hunter New England	96	8.7	1005	91.2	1	0.1	1102	100.0
Northern NSW	26	11.4	202	88.2	1	0.4	229	100.0
Mid North Coast	34	12.7	231	86.5	2	0.7	267	100.0
Southern NSW	12	12.4	85	87.6	0	0.0	97	100.0
Murrumbidgee	16	6.7	222	93.3	0	0.0	238	100.0
Western NSW	65	10.7	541	89.0	2	0.3	608	100.0
Far West	-	-	28	90.3	-	-	31	100.0
Other-not stated	-	-	27	93.1	-	-	29	100.0
<b>TOTAL</b>	<b>422</b>	<b>9.9</b>	<b>3839</b>	<b>89.9</b>	<b>9</b>	<b>0.2</b>	<b>4270</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

# Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of babies are higher than shown. The level of under-reporting varies between Local Health Districts (Table 75). Data not shown for cell counts less than five.

## Gestational age

Since 2014, over 11% of Aboriginal or Torres Strait Islander babies have been premature (less than 37 weeks gestation) (Table 91). The rate of prematurity was 11.1% in 2018, compared with a rate of 7.5% for babies born to non-Aboriginal or Torres Strait Islander mothers. In 2018, the largest number of premature babies was in the Hunter New England Local Health District (Table 92).

**TABLE 91: GESTATIONAL AGE OF BABIES BORN TO ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS, NSW 2014–2018<sup>#</sup>**

Gestational age (weeks)	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
< 28	39	1.0	36	0.9	49	1.2	58	1.4	36	0.8
28–31	54	1.4	60	1.5	53	1.3	52	1.2	49	1.1
32–36	400	10.5	396	10.2	364	8.7	387	9.1	387	9.1
37–41	3299	86.6	3361	86.8	3651	87.5	3714	87.4	3752	87.9
42 +	15	0.4	17	0.4	49	1.2	37	0.9	43	1.0
Not stated	1	0.0	2	0.1	8	0.2	3	0.1	3	0.1
TOTAL	3808	100.0	3872	100.0	4174	100.0	4251	100.0	4270	100.0

Source: NSW Perinatal Data Collection (SAPHaRI), Centre for Epidemiology and Evidence, NSW Ministry of Health.

<sup>#</sup> Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of babies are higher than shown (Table 75).

**TABLE 92: GESTATIONAL AGE OF BABIES BORN TO ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2018<sup>#</sup>**

Local Health District	Gestational age (weeks)							
	Less than 37		37+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Sydney	27	24.1	85	75.9	0	0.0	112	100.0
South Western Sydney	46	13.0	309	87.0	0	0.0	355	100.0
South Eastern Sydney	14	11.3	110	88.7	0	0.0	124	100.0
Illawarra Shoalhaven	44	16.5	222	83.5	0	0.0	266	100.0
Western Sydney	23	8.0	266	92.0	0	0.0	289	100.0
Nepean Blue Mountains	29	12.2	209	87.8	0	0.0	238	100.0
Northern Sydney	-	-	33	91.7	-	-	36	100.0
Central Coast	25	10.0	224	90.0	0	0.0	249	100.0
Hunter New England	110	10.0	991	89.9	1	0.1	1102	100.0
Northern NSW	21	9.2	207	90.4	1	0.4	229	100.0
Mid North Coast	31	11.6	236	88.4	0	0.0	267	100.0
Southern NSW	7	7.2	90	92.8	0	0.0	97	100.0
Murrumbidgee	14	5.9	224	94.1	0	0.0	238	100.0
Western NSW	76	12.5	532	87.5	0	0.0	608	100.0
Far West	-	-	30	96.8	-	-	31	100.0
Other-not stated	-	-	27	93.1	-	-	29	100.0
<b>TOTAL</b>	<b>472</b>	<b>11.1</b>	<b>3795</b>	<b>88.9</b>	<b>3</b>	<b>0.1</b>	<b>4270</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI), Centre for Epidemiology and Evidence, NSW Ministry of Health.

<sup>#</sup> Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of babies are higher than shown. The level of under-reporting varies between Local Health Districts (Table 75). Data not shown for cell counts less than five.

## Apgar score

In 2018, 2.5% of Aboriginal or Torres Strait Islander liveborn babies had an Apgar score less than seven at 5 minutes (Table 93), which is higher than the rate of 1.6% for liveborn babies born to non-Aboriginal or Torres Strait Islander mothers.

**TABLE 93: APGAR SCORE OF LIVEBORN BABIES OF ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS, NSW 2014–2018<sup>#</sup>**

Apgar score at 5 minutes	Year									
	2014		2015		2016		2017		2018	
	No.	%	No.	%	No.	%	No.	%	No.	%
0–4	28	0.7	24	0.6	30	0.7	34	0.8	27	0.6
5–6	75	2.0	75	2.0	82	2.0	60	1.4	79	1.9
7+	3654	96.9	3718	96.9	3977	96.1	4070	96.6	4082	96.3
Not stated	15	0.4	19	0.5	49	1.2	49	1.2	49	1.2
TOTAL	3772	100.0	3836	100.0	4138	100.0	4213	100.0	4237	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

<sup>#</sup> Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of babies are higher than shown (Table 75).

## Infant feeding

In 2018, 61.2% of babies born to Aboriginal or Torres Strait Islander mothers were fully breastfed at discharge from hospital, 10.3% were partially breastfed and 25.7% received infant formula only (Table 94). This compares with 73.1% of babies born to non-Aboriginal or Torres Strait Islander mothers who were fully breastfed in 2018. Rates of full breastfeeding ranged from 47.9% in the Murrumbidgee Local Health District to 74.9% in the Mid North Coast Local Health District.

**TABLE 94: INFANT FEEDING AMONG LIVEBORN BABIES OF ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2018<sup>#</sup>**

Local Health District	Infant feeding									
	Full breastfeeding		Any breastfeeding		Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	66	60.0	18	16.4	23	20.9	3	2.7	110	100.0
South Western Sydney	187	53.0	61	17.3	79	22.4	26	7.4	353	100.0
South Eastern Sydney	91	73.4	17	13.7	14	11.3	2	1.6	124	100.0
Illawarra Shoalhaven	172	65.6	23	8.8	63	24.0	4	1.5	262	100.0
Western Sydney	138	48.4	36	12.6	106	37.2	5	1.8	285	100.0
Nepean Blue Mountains	135	57.0	26	11.0	67	28.3	9	3.8	237	100.0
Northern Sydney	25	69.4	7	19.4	-	-	-	-	36	100.0
Central Coast	175	70.6	28	11.3	40	16.1	5	2.0	248	100.0
Hunter New England	684	62.3	112	10.2	282	25.7	20	1.8	1098	100.0
Northern NSW	166	72.8	15	6.6	37	16.2	10	4.4	228	100.0
Mid North Coast	197	74.9	19	7.2	41	15.6	6	2.3	263	100.0
Southern NSW	67	69.8	5	5.2	18	18.8	6	6.3	96	100.0
Murrumbidgee	113	47.9	17	7.2	104	44.1	2	0.8	236	100.0
Western NSW	339	56.4	50	8.3	197	32.8	15	2.5	601	100.0
Far West	17	54.8	-	-	9	29.0	-	-	31	100.0
Other-not stated	23	79.3	-	-	-	-	-	-	29	100.0
TOTAL	2595	61.2	438	10.3	1088	25.7	116	2.7	4237	100.0

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.

<sup>#</sup> Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of babies are higher than shown. The level of under-reporting varies between Local Health Districts (Table 75). Data not shown for cell counts less than five.

## Perinatal mortality

Between 2014 and 2018, the perinatal mortality rate among Aboriginal or Torres Strait Islander babies varied between 9.6 and 12.7 per 1,000 births (Table 95). The rate of 11.7 per 1,000 births in Aboriginal or Torres Strait Islander mothers in 2018 is higher than the rate of 7.9 per 1,000 births experienced among babies born to non-Aboriginal or Torres Strait Islander mothers.

**TABLE 95: PERINATAL DEATHS AMONG BABIES BORN TO ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS, NSW 2014–2018<sup>#</sup>**

Perinatal deaths	Year									
	2014		2015		2016		2017		2018	
	No.	Rate/ 1,000	No.	Rate/ 1,000	No.	Rate/ 1,000	No.	Rate/ 1,000	No.	Rate/ 1,000
Stillborn	33	8.7	34	8.8	36	8.6	38	8.9	33	7.7
Neonatal death	14	3.7	3	0.8	15	3.6	16	3.8	17	4.0
<b>TOTAL</b>	<b>47</b>	<b>12.3</b>	<b>37</b>	<b>9.6</b>	<b>51</b>	<b>12.2</b>	<b>54</b>	<b>12.7</b>	<b>50</b>	<b>11.7</b>

Source: NSW Perinatal Data Collection (SAPHaRI), Centre for Epidemiology and Evidence, NSW Ministry of Health.

<sup>#</sup> Perinatal deaths include deaths reported to the PDC only. As the PDC form record is completed at discharge or transfer of the baby, deaths occurring after this time may not be reported to the PDC. Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers are higher than shown (Table 75).

# 9. APPENDICES

## Appendix 1: Glossary of terms

### Aboriginal and Torres Strait Islander

Women who identify themselves as Australian Aboriginal or Torres Strait Islander.

### Apgar score

A numerical scoring system routinely administered 1 and 5 minutes after birth to evaluate the condition of the baby. The score ranges from zero to 10 (10 being perfect). It takes account of five physical signs, each of which is assigned a component score of zero, one or two: heart rate, respiration, muscle tone, reflexes, and colour.

### Augmentation

Artificial rupture of the membranes or use of oxytocic drugs after spontaneous onset of labour.

### Birth weight

The newborn infant's first bare weight in grams.

Low birth weight: birth weight less than 2,500 grams.

Very low birth weight: birth weight less than 1,500 grams.

Extremely low birth weight: birth weight less than 1,000 grams.

### Body Mass Index

A commonly used measure for monitoring overweight and obesity in the population. The Index is calculated as the ratio of a person's weight in kilograms divided by height in metres squared. In the PDC, weight is usually reported at the first antenatal visit comprising comprehensive booking or assessment by clinician; however, self-reported weight around the time of conception is acceptable if a measured weight is not available. The PDC does not include information on whether the reported weight was measured or self-reported.

### Caesarean section

Birth of the fetus through an abdominal incision. Elective caesarean section: a caesarean section (planned or unplanned) performed before the onset of labour. Emergency caesarean section: a caesarean section performed after the onset of labour, whether or not the onset of labour was spontaneous.

### Confinement

Refers to a woman having given birth. In a multiple pregnancy, one confinement will result in more than one birth.

### Epidural

Injection of analgesic agent outside the dura mater which covers the spinal canal; includes lumbar, spinal, and epidural anaesthetics.

### Episiotomy

An incision of the perineum and vagina to enlarge the vulval orifice.

### Gestational age

The duration of pregnancy in completed weeks from the first day of the last normal menstrual period. Where accurate information on the date of the last menstrual period is not

available, a clinical estimate of gestational age may be obtained from ultrasound during the first half of pregnancy or by examination of the newborn infant. The "best estimate" is used in this report.

### Induction of labour

*Oxytocics–prostaglandins*: the initiation of labour by the use of oxytocic agents, prostaglandins, or their derivatives (oral, intravaginal or intravenous).

*ARM only*: the initiation of labour by artificial rupture of membranes.

*Oxytocics–prostaglandins and ARM*: both medical and surgical induction as defined above (combined medical and surgical induction).

### Live birth

The complete expulsion or extraction from its mother of a baby who, after being born, breathes or shows any evidence of life such as a heartbeat.

### Parity

The total number of live births and stillbirths of the mother before the pregnancy or birth under consideration.

### Perinatal death

A stillbirth or neonatal death.

### Perinatal mortality rate

The number of perinatal deaths (stillbirths and neonatal deaths) per 1,000 total births in a year (live births and stillbirths combined).

### Perineal status

*1st degree tear*: a perineal graze / laceration or tear involving: the fourchette, hymen, labia, skin, vagina, or vulva.

*2nd degree tear*: a perineal laceration or tear involving the pelvic floor or perineal muscles or vaginal muscles.

*3rd degree tear*: a perineal laceration/tear involving the anal sphincter or rectovaginal septum.

*4th degree tear*: a third degree perineal laceration or tear which also involves the anal mucosa or rectal mucosa.

### Plurality

The number of fetuses in utero at 20 weeks gestation that are subsequently born separately. On this basis pregnancy may be classified as single or multiple.

### Premature infant

An infant born before 37 completed weeks gestation.

### Stillbirth

The complete expulsion or extraction from its mother of a product of conception of at least 20 weeks gestation or 400 grams birth weight who did not, at any time after birth, breathe, or show any evidence of life such as a heartbeat.

## Appendix 2: Explanatory notes

### Breastfeeding

Infant feeding is reported via three tick-box categories: breastfeeding, expressed breast milk and infant formula. More than one type of feeding may be reported by ticking multiple boxes. In this report, infant feeding is classified into three categories: full breastfeeding, which includes babies who were reported to be breastfed or to be receiving expressed breast milk; any breastfeeding, which includes babies who were reported to be receiving breast milk and infant formula; and infant formula only (no breastfeeding).

### Place of residence of mother

The mother's usual residence was the basis for coding to statistical areas of residence and NSW local health districts.

### Labour

The category *labour-spontaneous with oxytocics-prostaglandins* was used where labour was augmented with artificial rupture of membranes as well as oxytocics or prostaglandins.

### Peer group

Information on hospital peer group levels are applied to the data as a part of preparing the data collection for reporting purposes.

These are explained in the *NSW Health Information Bulletin, NSW Hospital Peer Groups 2016*, which provides a consistent language for describing clinical services delivered by public hospitals and health services. The aim of the peer grouping is to identify hospitals with similar characteristics, predominantly for comparative reporting and service planning.

For the purposes of this report, peer groups were collapsed into five reporting groupings as follows:

Peer group A: includes all births in Principal referral (A1), paediatric specialist (A2) and Ungrouped acute – tertiary referral (A3) hospitals.

Peer group B: includes all births in Major hospitals group 1 (B1) and Major hospitals group 2 (B2).

Peer group C: includes all births in District group 1 (C1) and District group 2 (C2) hospitals.

Peer group D: includes Community with surgery (D1a) and Community without surgery (D1b) hospitals.

Private hospitals: all private hospital births.

All births, including births in hospitals with a peer group other than those specified above, have been included in table totals.

### Type of birth

The “vaginal breech” category covers all forms of vaginal breech birth, including forceps to the after-coming head.

### Perinatal mortality rate

Perinatal deaths include deaths reported to the PDC only. As the PDC record is completed at discharge or transfer of the baby, deaths occurring after this time may not be reported to the PDC. Birth and perinatal death registration data held by the Australian Bureau of Statistics (ABS) give the most complete overall ascertainment of perinatal deaths for calculation of rates.

### Body Mass Index (BMI) categories

Values of height, weight and BMI were excluded if they were outside the 1st and 99th percentile of the United States Centers for Disease Control Growth Charts for girls.<sup>1</sup> For mothers aged over 18 years, the BMI score is classified using World Health Organization criteria.<sup>2</sup> For mothers aged less than 18 years, modified BMI thresholds are used, as described by Cole et al.<sup>3,4</sup> For more information see <http://www.healthstats.nsw.gov.au/Resources/maternal-oo.pdf>.

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3. Cole TJ, Flegal KM, Nicholls D, Jackson AA. *Body mass index cut offs to define thinness in children and adolescents: international survey*. BMJ 2007; 335(7612): 194. Available at <https://doi.org/10.1136/bmj.39238.399444.55>. Accessed 12 August 2019.
4. Cole TJ, Bellizzi MC, Flegal KM, Dietz WH. *Establishing a standard definition for child overweight and obesity worldwide: international survey*. BMJ. 2000; 320(7244): 1240-3. Available at <https://doi.org/10.1136/bmj.320.7244.1240>. Accessed 12 August 2019.

## Appendix 3: Maternal countries of birth and country of birth groups

### English speaking

Australia  
Australian External Territories, NEC\*  
Bermuda  
Canada  
England  
Guernsey  
Ireland  
Isle of Man  
Jersey  
New Zealand  
Norfolk Island  
Northern Ireland  
Scotland  
South Africa  
St Pierre and Miquelon  
United States of America  
Wales

### Melanesia, Micronesia & Polynesia

Cook Islands  
Fiji  
French Polynesia  
Guam  
Kiribati  
Marshall Islands  
Micronesia, Federated States of  
Nauru  
New Caledonia  
Niue  
Northern Mariana Islands  
Palau  
Papua New Guinea  
Pitcairn Islands  
Polynesia (excludes Hawaii), NEC\*  
Samoa  
Samoa, American  
Solomon Islands  
Tokelau  
Tonga  
Tuvalu  
Vanuatu  
Wallis and Futuna

### Southern Europe

Albania  
Andorra  
Bosnia and Herzegovina  
Bulgaria  
Croatia  
Cyprus  
Former Yugoslav Republic of Macedonia (FYROM)  
Gibraltar  
Greece  
Holy See  
Italy  
Kosovo  
Malta  
Moldova  
Montenegro  
Portugal  
Romania  
San Marino  
Serbia  
Slovenia  
Spain

### Western and Northern Europe

Aland Islands  
Austria  
Belgium  
Denmark  
Faroe Islands  
Finland  
France  
Germany  
Greenland  
Iceland  
Liechtenstein  
Luxembourg  
Monaco  
Netherlands  
Norway  
Sweden  
Switzerland

### Eastern Europe, Russia and Central Asian States

Afghanistan  
Armenia  
Azerbaijan  
Belarus

Czech Republic  
Estonia  
Georgia  
Hungary  
Kazakhstan  
Kyrgyzstan  
Latvia  
Lithuania  
Poland  
Russian Federation (not USSR)  
Slovakia  
Tajikistan  
Turkmenistan  
Ukraine  
Uzbekistan

### Middle East and Africa

Algeria  
Angola  
Bahrain  
Benin  
Botswana  
Burkina Faso  
Burundi  
Cameroon  
Cape Verde  
Central African Republic  
Chad  
Comoros  
Congo, Democratic Republic of  
Congo, Republic of  
Cote d'Ivoire  
Djibouti  
Egypt  
Equatorial Guinea  
Eritrea  
Ethiopia  
Gabon  
Gambia, Republic of  
Gaza Strip and West Bank  
Ghana  
Guinea  
Guinea-Bissau  
Iran  
Iraq  
Israel  
Jordan  
Kenya

Kuwait  
Lebanon  
Lesotho  
Liberia  
Libya  
Madagascar  
Malawi  
Mali  
Mauritania  
Mauritius  
Mayotte  
Morocco  
Mozambique  
Namibia  
Niger  
Nigeria  
Oman  
Qatar  
Reunion  
Rwanda  
Sao Tome and Principe  
Saudi Arabia  
Senegal  
Seychelles  
Sierra Leone  
Somalia  
South Sudan  
Southern and East Africa, NEC\*  
Spanish North Africa  
St Helena  
Sudan  
Swaziland  
Syria  
Tanzania  
Togo  
Tunisia  
Turkey  
Uganda  
United Arab Emirates  
Western Sahara  
Yemen  
Zambia  
Zimbabwe

### South East Asia

Brunei Darussalam  
Cambodia  
Indonesia  
Laos  
Malaysia

Myanmar, The Republic of the  
Union of  
Philippines  
Singapore  
Thailand  
Timor-Leste  
Vietnam

### North East Asia

China (excludes SARs and Taiwan)  
Hong Kong (SAR# of China)  
Japan  
Korea, Democratic People's Republic of (North)  
Korea, Republic of (South)  
Macau (SAR# of China)  
Mongolia  
Taiwan

### Southern Asia

Bangladesh  
Bhutan  
India  
Maldives  
Nepal  
Pakistan  
Sri Lanka

### Central and South America

Anguilla  
Antigua and Barbuda  
Argentina  
Aruba  
Bahamas  
Barbados  
Belize  
Bolivia, Plurinational State of  
Bonaire, Sint Eustatius and Saba  
Brazil  
Cayman Islands  
Chile  
Colombia  
Costa Rica  
Cuba

Curacao  
Dominica  
Dominican Republic  
Ecuador  
El Salvador  
Falkland Islands  
French Guiana  
Grenada  
Guadeloupe  
Guatemala  
Guyana  
Haiti  
Honduras  
Jamaica  
Martinique  
Mexico  
Montserrat  
Nicaragua  
Panama  
Paraguay  
Peru  
Puerto Rico  
Sint Maarten (Dutch part)  
South America, NEC\*

St Barthelemy  
St Kitts and Nevis  
St Lucia  
St Martin (French part)  
St Vincent and the Grenadines  
Suriname  
Trinidad and Tobago  
Turks and Caicos Islands  
Uruguay  
Venezuela, Bolivarian Republic of  
Virgin Islands, British  
Virgin Islands, United States

\* NEC = Not elsewhere classified  
#SAR = Special Administrative Region

