

# NSW Mothers and Babies 2019



## **NSW MINISTRY OF HEALTH**

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## 2. EXECUTIVE SUMMARY

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

- The number of births in NSW fell from 96,391 in 2015 to 95,133 in 2019, an overall decrease of 1.3%. The largest percentage decrease occurred in the Sydney Local Health District, where the number of births decreased by 9.1% between 2015 and 2019.
- In 2019, 40.3% of mothers were overweight or obese: 56.0% of mothers were in the healthy weight range, 25.5% were overweight and 14.8% were obese.
- The percentage of mothers that reported any smoking during pregnancy has remained stable in recent years at around 9%. Of mothers who smoked during pregnancy in 2019, 19.0% stopped smoking in the first half of pregnancy.
- The percentage of mothers who were teenagers fell from 2.5% in 2015 to 1.7% in 2019. Over the same period the percentage of mothers aged 35 years and over rose from 23.4% to 25.9%.
- The rate of normal vaginal birth decreased from 56.0% in 2015 to 53.0% in 2019. The caesarean section rate increased from 32.4% to 35.1% 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 2015 to 41.0% in 2019 and the caesarean section rate increased from 41.6% to 45.5%. Among publicly insured mothers the rate of normal vaginal birth decreased from 62.1% to 58.8% and the caesarean section rate increased from 27.5% to 30.2%.
- In 2019, the majority of mothers planned to give birth in a hospital labour ward, and 7.9% of mothers planned to give birth in a birth centre. Fifty-six 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 203 in 2015 to 286 in 2019, and the percentage of planned homebirths that occurred at home decreased from 92.1% in 2015 to 82.9% in 2019.
- The percentage of babies born prematurely (less than 37 weeks gestation) has been stable for the last five years. In 2019, 7.4% of babies were born prematurely.
- The percentage of babies born with a low birthweight (less than 2,500 grams) has remained stable in recent years. In 2019, 6.7% of babies were low birthweight.
- Between 2015 and 2019, the reported number of Aboriginal or Torres Strait Islander mothers giving birth increased from 3,823 to 4,416, an increase from 4.0% to 4.7% of all mothers.
- The percentage of Aboriginal or Torres Strait Islander mothers who were teenagers decreased from 15.4% in 2015 to 10.5% in 2019. The percentage of Aboriginal or Torres Strait Islander mothers giving birth at 35 years of age or more has remained stable and was 9.5% in 2019.
- In 2019, 43.2% of Aboriginal or Torres Strait Islander mothers reported smoking at some time during pregnancy, compared to 45.0% in 2015.
- In 2019, 10.7% of Aboriginal or Torres Strait Islander babies were low birthweight and 10.6% were premature.
- The perinatal mortality rate of 10.3 per 1,000 births in Aboriginal or Torres Strait Islander mothers in 2019 is higher than the rate of 7.9 per 1,000 births experienced among babies born to non-Aboriginal or Torres Strait Islander mothers.
- In 2018, there were 595 stillbirths and 220 neonatal deaths recorded on the Maternal and Child Health Register. The most common cause of perinatal death was congenital abnormalities (29.3%), followed by maternal conditions (12.5%). The most common cause of neonatal death was extreme prematurity (40.0%), followed by congenital abnormalities (36.4%).

# 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 homebirths. It encompasses all live births, and stillbirths of at least 20 weeks gestation or at least 400 grams birthweight.

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 2019, 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 58.1% of all PDC records. Cerner systems supplied 18.8% 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 7.8% 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 7.7% of all PDC records. The Mater Hospital, North Sydney, database supplied 2.3% of PDC records, 1.8% of PDC records were supplied from the Sydney Adventist Hospital database and 1.8% of PDC records were supplied from the Northern Beaches 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)
- Australian Bureau of Statistics Cause of Perinatal Death Unit Record File for the period 2017 onwards
- 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 birthweight. 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.

### Reporting on perinatal causes of death in 2017 and 2018

Information on causes of death were obtained from the NSW Maternal and Child Health Register (MCHR) for 2017 and 2018. The MCHR includes information on all perinatal deaths, including deaths that occurred after discharge or transfer from the hospital of birth; however, the MCHR does not include death information for babies who were born in NSW and died interstate. Information on causes of death is reported on the basis of the year of birth.

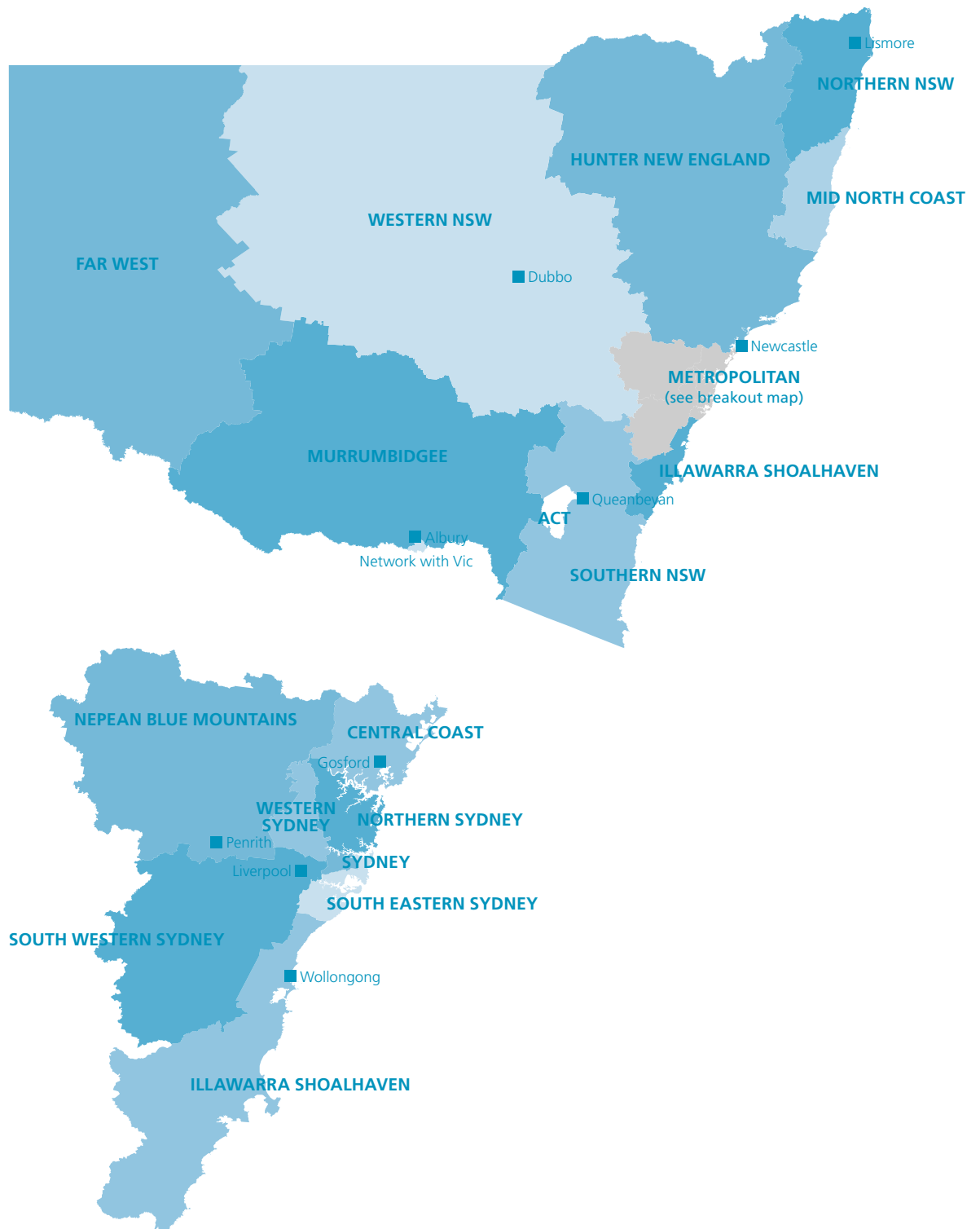
Where a stillbirth was recorded on the Perinatal Data Collection, information from the Perinatal Cause of Death Unit Record File (PCODURF) and the mother’s Admitted Patient Data Collection (APDC) record for the birth were used to classify the perinatal cause of death to the Perinatal Society of Australia and New Zealand (PSANZ) Perinatal Death Classification.<sup>3</sup>

Where a livebirth was recorded on the Perinatal Data Collection and there was evidence that the baby died in the first 28 days of life, the death was classified to the PSANZ Perinatal Death Classification and the PSANZ Neonatal Death Classification. This included neonates that were discharged or transferred according to the Perinatal Data Collection. To classify deaths in accordance with the PSANZ Perinatal Death Classification, information from the PCODURF, the Cause of Death Unit Record File (CODURF), and both the mother’s and baby’s APDC records were used. To classify deaths in accordance with the PSANZ Neonatal Death Classification, information from the CODURF record and the APDC record when the infant was reported to have died were used.

### References

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## 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 96,391 in 2015 to a peak of 98,727 in 2016 and then fell to 95,133 in 2019. In 2019, 95,133 births to 93,758 mothers were reported (Table 1). The percentage of multiple (twin, triplet and quadruplet) pregnancies has remained stable over recent years at 1.4%.

TABLE 1: PLURALITY, NSW 2015–2019

Plurality		Year									
		2015		2016		2017		2018		2019	
		No.	%	No.	%	No.	%	No.	%	No.	%
<b>Confinements</b>	Singleton	93609	98.5	95906	98.6	93098	98.6	92805	98.6	92406	98.6
	Twins	1358	1.4	1379	1.4	1326	1.4	1348	1.4	1330	1.4
	Triplets	22	0.0	21	0.0	25	0.0	17	0.0	21	0.0
	Quadruplets	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
	<b>TOTAL</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>	<b>93758</b>	<b>100.0</b>
<b>Births</b>	Singleton	93609	97.1	95906	97.1	93098	97.2	92805	97.1	92406	97.1
	Twins	2716	2.8	2758	2.8	2652	2.8	2696	2.8	2660	2.8
	Triplets	66	0.1	63	0.1	75	0.1	51	0.1	63	0.1
	Quadruplets	0	0.0	0	0.0	0	0.0	0	0.0	4	0.0
	<b>TOTAL</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>	<b>95133</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 in births occurred in the South Western Sydney Local Health District, where the number increased by 8.1% between 2015 and 2019. The largest decrease in births occurred in the Sydney Local Health District, where the number decreased by 9.1% between 2015 and 2019. In 2019, 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 2015–2019

Local Health District	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	8249	8.7	8345	8.6	8008	8.5	7725	8.2	7501	8.0
South Western Sydney	12996	13.7	13750	14.1	13554	14.4	14258	15.1	14054	15.0
South Eastern Sydney	11077	11.7	11318	11.6	10644	11.3	10216	10.8	10243	10.9
Illawarra Shoalhaven	4507	4.7	4534	4.7	4475	4.7	4584	4.9	4486	4.8
Western Sydney	14640	15.4	14667	15.1	14479	15.3	14982	15.9	15046	16.0
Nepean Blue Mountains	4929	5.2	5042	5.2	4908	5.2	4878	5.2	5000	5.3
Northern Sydney	10270	10.8	10804	11.1	10146	10.7	9659	10.3	9557	10.2
Central Coast	3813	4.0	3816	3.9	3832	4.1	3834	4.1	3731	4.0
Hunter New England	10797	11.4	10690	11.0	10543	11.2	10407	11.1	10480	11.2
Northern NSW	2557	2.7	2327	2.4	2526	2.7	2623	2.8	2611	2.8
Mid North Coast	2183	2.3	1900	2.0	2163	2.3	2096	2.2	2207	2.4
Southern NSW	1360	1.4	1372	1.4	1363	1.4	1403	1.5	1432	1.5
Murrumbidgee	2377	2.5	2370	2.4	2345	2.5	2390	2.5	2365	2.5
Western NSW	3678	3.9	3740	3.8	3581	3.8	3524	3.7	3460	3.7
Far West	222	0.2	234	0.2	205	0.2	196	0.2	217	0.2
Other-not stated	1334	1.4	2397	2.5	1677	1.8	1395	1.5	1368	1.5
<b>TOTAL</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>	<b>93758</b>	<b>100.0</b>

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

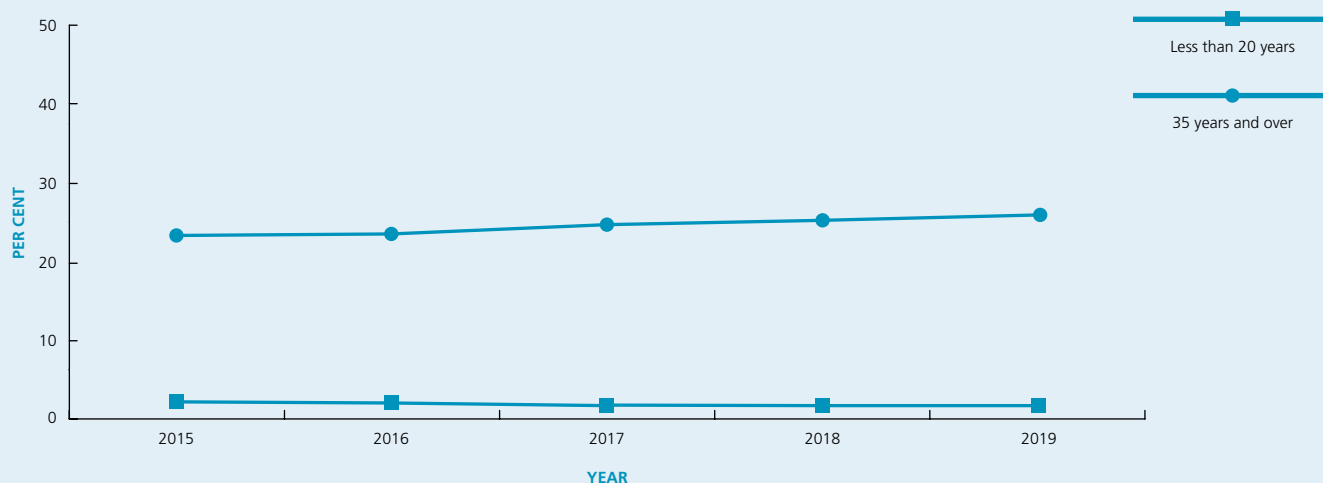
## Maternal age

The percentage of mothers who were teenagers fell from 2.5% in 2015 to 1.7% in 2019. Between 2015 and 2019, the percentage of mothers aged 35 years and over rose from 23.4% to 25.9% (Figure 1, Table 3).

The mean maternal age rose from 30.5 to 31.0 years between 2015 and 2019. The mean maternal age rose from 29.1 to 29.6 years for primiparous mothers and rose from 31.6 to 32.0 years for multiparous mothers.

The percentage of mothers giving birth for the first time who were aged 35 years or more was 15.6% in 2015 and 17.8% in 2019. The percentage of multiparous mothers who were aged 35 years or more was 29.4% in 2015 and 32.0% in 2019.

FIGURE 1: MOTHERS AGED LESS THAN 20 YEARS AND 35 YEARS AND OVER, NSW 2015–2019



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

TABLE 3: MATERNAL AGE, NSW 2015–2019

Maternal age (years)	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
Less than 15	15	0.0	8	0.0	8	0.0	9	0.0	9	0.0
15–19	2362	2.5	2106	2.2	1859	2.0	1783	1.9	1595	1.7
20–24	11358	12.0	11007	11.3	10541	11.2	9971	10.6	9833	10.5
25–29	25476	26.8	25926	26.6	25036	26.5	24581	26.1	24080	25.7
30–34	33569	35.3	35126	36.1	33642	35.6	34129	36.2	33951	36.2
35–39	17776	18.7	18627	19.1	19043	20.2	19320	20.5	19801	21.1
40–44	4163	4.4	4142	4.3	4011	4.2	4022	4.3	4153	4.4
45+	268	0.3	328	0.3	285	0.3	339	0.4	329	0.4
Not stated	2	0.0	36	0.0	24	0.0	16	0.0	7	0.0
<b>TOTAL</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>	<b>93758</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 2015 and 2019, from 64.0% to 61.5%. In 2019, mothers born in India, China, the United Kingdom, New Zealand, the Philippines, Vietnam, Nepal, and Iraq together accounted for 19.4% of all mothers (Table 4).

**TABLE 4: MATERNAL COUNTRY OF BIRTH, NSW 2015–2019<sup>#</sup>**

Country of birth	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
Australia	60769	64.0	60429	62.1	58187	61.6	58189	61.8	57690	61.5
India	3860	4.1	4247	4.4	4393	4.7	4489	4.8	4654	5.0
China	3830	4.0	5079	5.2	4385	4.6	3920	4.2	4151	4.4
United Kingdom	1704	1.8	1825	1.9	1805	1.9	1817	1.9	1907	2.0
New Zealand	2060	2.2	2081	2.1	2008	2.1	1905	2.0	1795	1.9
Philippines	1513	1.6	1626	1.7	1624	1.7	1727	1.8	1734	1.8
Vietnam	1478	1.6	1499	1.5	1391	1.5	1393	1.5	1462	1.6
Nepal	824	0.9	1059	1.1	1094	1.2	1283	1.4	1360	1.5
Iraq	1021	1.1	1152	1.2	1112	1.2	1195	1.3	1145	1.2
Pakistan	800	0.8	902	0.9	992	1.1	1098	1.2	1106	1.2
Lebanon	1159	1.2	1081	1.1	1049	1.1	1052	1.1	967	1.0
Bangladesh	846	0.9	901	0.9	943	1.0	911	1.0	917	1.0
South Korea	768	0.8	747	0.8	745	0.8	692	0.7	696	0.7
Indonesia	787	0.8	796	0.8	749	0.8	733	0.8	685	0.7
United States of America	514	0.5	504	0.5	555	0.6	597	0.6	584	0.6
Thailand	528	0.6	606	0.6	563	0.6	562	0.6	576	0.6
South Africa	580	0.6	587	0.6	572	0.6	618	0.7	570	0.6
Hong Kong	441	0.5	500	0.5	515	0.5	452	0.5	504	0.5
Ireland	455	0.5	514	0.5	476	0.5	563	0.6	503	0.5
Afghanistan	415	0.4	423	0.4	471	0.5	455	0.5	496	0.5
Iran	425	0.4	512	0.5	531	0.6	533	0.6	484	0.5
Brazil	282	0.3	317	0.3	354	0.4	395	0.4	474	0.5
Malaysia	440	0.5	426	0.4	447	0.5	469	0.5	441	0.5
Fiji	582	0.6	552	0.6	486	0.5	480	0.5	431	0.5
Sri Lanka	432	0.5	448	0.5	484	0.5	467	0.5	422	0.5
Japan	363	0.4	382	0.4	348	0.4	362	0.4	330	0.4
Syria	177	0.2	214	0.2	258	0.3	314	0.3	307	0.3
Canada	307	0.3	334	0.3	279	0.3	320	0.3	300	0.3
Egypt	263	0.3	260	0.3	274	0.3	256	0.3	271	0.3
Germany	304	0.3	293	0.3	306	0.3	303	0.3	268	0.3
France	223	0.2	221	0.2	256	0.3	259	0.3	264	0.3
Russian Federation	240	0.3	244	0.3	248	0.3	233	0.2	241	0.3
Western Samoa	217	0.2	250	0.3	232	0.2	224	0.2	240	0.3
Taiwan	182	0.2	244	0.3	224	0.2	216	0.2	226	0.2
Cambodia	290	0.3	256	0.3	269	0.3	208	0.2	220	0.2
Sudan	250	0.3	236	0.2	208	0.2	177	0.2	193	0.2
Poland	182	0.2	199	0.2	186	0.2	191	0.2	190	0.2
Colombia	157	0.2	151	0.2	148	0.2	188	0.2	185	0.2
Mongolia	32	0.0	44	0.0	85	0.1	129	0.1	172	0.2
Turkey	173	0.2	147	0.2	152	0.2	166	0.2	171	0.2
Italy	116	0.1	120	0.1	169	0.2	137	0.1	145	0.2
Nigeria	74	0.1	100	0.1	105	0.1	165	0.2	140	0.1
Burma (Myanmar)	116	0.1	102	0.1	143	0.2	124	0.1	136	0.1
Tonga	176	0.2	158	0.2	139	0.1	147	0.2	133	0.1
Saudi Arabia	139	0.1	138	0.1	153	0.2	146	0.2	129	0.1
Bosnia and Herzegovina	137	0.1	126	0.1	142	0.2	132	0.1	127	0.1
Serbia (includes Kosovo)	83	0.1	133	0.1	134	0.1	129	0.1	126	0.1
Jordan	112	0.1	105	0.1	125	0.1	110	0.1	123	0.1
Chile	130	0.1	137	0.1	125	0.1	124	0.1	119	0.1
Singapore	154	0.2	147	0.2	124	0.1	148	0.2	118	0.1
Former Yugoslavia	116	0.1	125	0.1	121	0.1	104	0.1	113	0.1
Zimbabwe	107	0.1	111	0.1	98	0.1	106	0.1	110	0.1
North Macedonia	114	0.1	128	0.1	116	0.1	82	0.1	102	0.1
Other/Not stated	3542	3.7	3388	3.5	3351	3.5	2975	3.2	2805	3.0
<b>TOTAL</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>	<b>93758</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 2019.



## Aboriginal and Torres Strait Islander mothers

The reported number of Aboriginal or Torres Strait Islander mothers giving birth increased from 3,823 to 4,416 between 2015 and 2019, an increase from 4.0% to 4.7% 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 2015–2019**

Aboriginal or Torres Strait Islander	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander	3823	4.0	4118	4.2	4183	4.4	4213	4.5	4416	4.7
Non-Aboriginal or Torres Strait Islander	91166	96.0	92623	95.2	89836	95.1	89671	95.2	88957	94.9
Not stated	0	0.0	565	0.6	430	0.5	286	0.3	385	0.4
<b>TOTAL</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>	<b>93758</b>	<b>100.0</b>

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

## Previous pregnancies

The distribution of previous pregnancies has been stable with about 43% of mothers giving birth for the first time and about 57% of mothers giving birth to a subsequent baby (Table 6).

**TABLE 6: PREVIOUS PREGNANCIES, NSW 2015–2019**

No. previous pregnancies (>20 weeks gestation)	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
0	41547	43.7	42272	43.4	40469	42.8	40362	42.9	40376	43.1
1–4	52034	54.8	53486	55.0	52447	55.5	52403	55.6	52072	55.5
5+	1390	1.5	1426	1.5	1387	1.5	1323	1.4	1302	1.4
Not stated	18	0.0	122	0.1	146	0.2	82	0.1	8	0.0
<b>TOTAL</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>	<b>93758</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 2015 and 2019, the percentage of mothers starting antenatal care at less than 14 weeks gestation substantially increased from 64.3% to 79.6% (Table 7). In 2019, 92.8% of mothers commenced antenatal care at less than 20 weeks gestation.

**TABLE 7: DURATION OF PREGNANCY AT FIRST ANTENATAL VISIT, NSW 2015–2019**

Duration of pregnancy (weeks)	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
0–13	61073	64.3	65988	67.8	69062	73.1	73110	77.6	74652	79.6
14–19	21869	23.0	20404	21.0	16473	17.4	13546	14.4	12318	13.1
20+	11685	12.3	10033	10.3	8324	8.8	6932	7.4	6111	6.5
Not stated	362	0.4	881	0.9	590	0.6	582	0.6	677	0.7
<b>TOTAL</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>	<b>93758</b>	<b>100.0</b>

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

## Smoking in pregnancy

The percentage of mothers that reported any smoking during pregnancy has remained stable in recent years at around 9% (Table 8). In 2019, 8.8% of mothers reported any smoking during pregnancy. Of those mothers who smoked during pregnancy in 2019, 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 2015–2019**

Smoking in pregnancy	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
Did not smoke	86547	91.1	88000	90.4	85189	90.2	84518	89.8	84736	90.4
Smoked	8442	8.9	8083	8.3	8279	8.8	8563	9.1	8257	8.8
Not stated	0	0.0	1223	1.3	981	1.0	1089	1.2	765	0.8
<b>TOTAL</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>	<b>93758</b>	<b>100.0</b>

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 2015–2019**

Cigarettes smoked in the second half of pregnancy	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
None	2292	27.1	2156	26.7	2053	24.8	1626	19.0	1570	19.0
1–10 per day	4691	55.6	4738	58.6	5090	61.5	5796	67.7	5700	69.0
>10 per day	1202	14.2	1065	13.2	1012	12.2	1006	11.7	886	10.7
Smoked, amount not stated	257	3.0	15	0.2	13	0.2	1	0.0	1	0.0
Not stated	0	0.0	109	1.3	111	1.3	134	1.6	100	1.2
<b>TOTAL</b>	<b>8442</b>	<b>100.0</b>	<b>8083</b>	<b>100.0</b>	<b>8279</b>	<b>100.0</b>	<b>8563</b>	<b>100.0</b>	<b>8257</b>	<b>100.0</b>

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

## Place of birth

In 2019, the majority of mothers planned to give birth in a hospital labour ward, and 7.9% planned to give birth in a birth centre. The percentage of mothers who planned to give birth in a birth centre and actually did so decreased from 86.6% in 2015 to 55.6% in 2019. The total number of reported planned homebirths increased from 203 in 2015 to 286 in 2019, and the percentage of planned homebirths that occurred at home decreased from 92.1% in 2015 to 82.9% in 2019 (Table 10).

**TABLE 10: MATERNAL PLACE OF BIRTH, NSW 2015–2019**

Place of birth	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
Hospital	91830	96.7	94025	96.6	87687	92.8	84030	89.2	85560	91.3
Birth centre	2095	2.2	2128	2.2	4043	4.3	5351	5.7	4103	4.4
Planned birth centre–hospital admission	323	0.3	341	0.4	1913	2.0	3861	4.1	3282	3.5
Planned homebirth	187	0.2	196	0.2	198	0.2	235	0.2	237	0.3
Planned homebirth–hospital admission	16	0.0	23	0.0	41	0.0	66	0.1	49	0.1
Born before arrival	538	0.6	542	0.6	544	0.6	539	0.6	505	0.5
Not stated	0	0.0	51	0.1	23	0.0	88	0.1	22	0.0
<b>TOTAL</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>	<b>93758</b>	<b>100.0</b>

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

## Diabetes

The reported rate of gestational diabetes rose from 8.3% in 2015 to 13.9% in 2019, 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>1</sup> The rate of pre-existing diabetes mellitus was around 1.0% (Table 11) over the 5-year period.

**TABLE 11: MATERNAL DIABETES, NSW 2015–2019**

Condition	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
Pre-existing diabetes mellitus	1398	1.5	886	0.9	900	1.0	804	0.9	869	0.9
Type 1 <sup>†</sup>	-	-	281	0.3	256	0.3	232	0.2	292	0.3
Type 2 <sup>†</sup>	-	-	332	0.3	377	0.4	424	0.5	428	0.5
Gestational diabetes mellitus	7918	8.3	12260	12.6	12375	13.1	12893	13.7	13020	13.9
<b>TOTAL DIABETES*</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>	<b>13889</b>	<b>14.8</b>

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

<sup>†</sup> Types of diabetes mellitus reported from 2016.

\* Total diabetes includes mothers where the type of diabetes was not further defined.

## Hypertension

In 2019, the overall rate of hypertension in pregnancy was 4.8%. Around 1.5% of mothers developed pre-eclampsia, 2.6% developed gestational hypertension, and 0.9% had pre-existing hypertension. This pattern is similar to previous years (Table 12).

**TABLE 12: MATERNAL HYPERTENSION, NSW 2015–2019**

Condition	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
Chronic hypertension	731	0.8	716	0.7	694	0.7	761	0.8	845	0.9
Pre-eclampsia	1463	1.5	1557	1.6	1352	1.4	1333	1.4	1385	1.5
Eclampsia <sup>†</sup>	-	-	27	0.0	35	0.0	34	0.0	49	0.1
Gestational hypertension	2909	3.1	2860	2.9	2592	2.7	2258	2.4	2399	2.6
<b>TOTAL HYPERTENSION*</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>	<b>4469</b>	<b>4.8</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 49.7% in 2015 to 43.0% in 2019 and the rate of induction of labour rose from 30.5% in 2015 to 34.3% in 2019 (Table 13). The most common reported reason for induction of labour in 2019 was diabetes (14.2%), followed by prelabour rupture of membranes (13.9%), prolonged pregnancy (41 or more weeks) (10.6%), hypertensive disease (5.8%), suspected intrauterine growth restriction (5.6%), fetal distress (3.5%), fetal death (0.6%) and chorioamnionitis (0.2%).

**TABLE 13: ONSET AND AUGMENTATION OF LABOUR, NSW 2015–2019**

Onset of labour	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
Spontaneous	34176	36.0	33947	34.9	31411	33.3	29513	31.3	28782	30.7
Spontaneous augmented with ARM	5533	5.8	5932	6.1	5286	5.6	4858	5.2	4640	4.9
Spontaneous augmented with oxytocics <sup>#</sup>	7501	7.9	7311	7.5	7060	7.5	7078	7.5	6920	7.4
No labour	18827	19.8	19710	20.3	20132	21.3	20951	22.2	21255	22.7
Induced–oxytocics/prostaglandins	9971	10.5	9673	9.9	10473	11.1	12040	12.8	12025	12.8
Induced–ARM only	1869	2.0	3335	3.4	2797	3.0	2437	2.6	2561	2.7
Induced–ARM + oxytocics/prostaglandins	16719	17.6	16879	17.3	16957	18.0	16872	17.9	17119	18.3
Induced–other <sup>‡</sup>	390	0.4	384	0.4	266	0.3	396	0.4	441	0.5
Not stated	3	0.0	135	0.1	67	0.1	25	0.0	15	0.0
<b>TOTAL</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>	<b>93758</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.

<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 56.0% in 2015 to 53.0% in 2019 (Table 14). The caesarean section rate increased from 32.4% to 35.1%. The elective caesarean section rate increased from 19.8% to 22.7% 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 2015 to 41.0% in 2019 and the caesarean section rate increased from 41.6% to 45.5%. Among publicly insured mothers the rate of normal vaginal birth decreased from 62.1% in 2015 to 58.8% in 2019 and the caesarean section rate increased from 27.5% to 30.2%.

TABLE 14: TYPE OF BIRTH, NSW 2015–2019

Type of birth	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
Normal vaginal	53203	56.0	53740	55.2	51434	54.5	50451	53.6	49716	53.0
Forceps	4488	4.7	4536	4.7	4435	4.7	4386	4.7	4208	4.5
Vacuum extraction	6122	6.4	6649	6.8	6338	6.7	6549	7.0	6612	7.1
Vaginal breech	363	0.4	339	0.3	336	0.4	333	0.4	328	0.3
Elective caesarean section	18826	19.8	19692	20.2	20115	21.3	20951	22.2	21255	22.7
Emergency caesarean section <sup>†</sup>	11984	12.6	12321	12.7	11764	12.5	11498	12.2	11639	12.4
Not stated	3	0.0	29	0.0	27	0.0	2	0.0	0	0.0
<b>TOTAL</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>	<b>93758</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 2015–2019<sup>#</sup>

Insurance status–type of birth		Year									
		2015		2016		2017		2018		2019	
		No.	%	No.	%	No.	%	No.	%	No.	%
<b>Public</b>	Normal vaginal	37706	62.1	38037	61.4	36962	60.4	36840	59.0	36472	58.8
	Forceps	2853	4.7	2952	4.8	2914	4.8	2927	4.7	2827	4.6
	Vacuum extraction	3182	5.2	3437	5.5	3542	5.8	3774	6.0	3728	6.0
	Vaginal breech	275	0.5	262	0.4	260	0.4	261	0.4	261	0.4
	Elective caesarean section	9252	15.2	9477	15.3	10030	16.4	11134	17.8	11192	18.0
	Emergency caesarean section <sup>†</sup>	7431	12.2	7776	12.5	7513	12.3	7472	12.0	7527	12.1
	Not stated	3	0.0	23	0.0	16	0.0	1	0.0	0	0.0
	<b>TOTAL</b>	<b>60702</b>	<b>100.0</b>	<b>61964</b>	<b>100.0</b>	<b>61237</b>	<b>100.0</b>	<b>62409</b>	<b>100.0</b>	<b>62007</b>	<b>100.0</b>
<b>Private</b>	Normal vaginal	14959	44.7	15316	44.1	14155	43.2	13214	42.5	12251	41.0
	Forceps	1611	4.8	1568	4.5	1505	4.6	1432	4.6	1284	4.3
	Vacuum extraction	2884	8.6	3170	9.1	2771	8.5	2732	8.8	2709	9.1
	Vaginal breech	87	0.3	72	0.2	71	0.2	63	0.2	62	0.2
	Elective caesarean section	9474	28.3	10147	29.2	10021	30.6	9706	31.2	9704	32.5
	Emergency caesarean section <sup>†</sup>	4433	13.3	4474	12.9	4204	12.8	3957	12.7	3887	13.0
	Not stated	0	0.0	5	0.0	9	0.0	0	0.0	0	0.0
	<b>TOTAL</b>	<b>33448</b>	<b>100.0</b>	<b>34752</b>	<b>100.0</b>	<b>32736</b>	<b>100.0</b>	<b>31104</b>	<b>100.0</b>	<b>29897</b>	<b>100.0</b>
<b>TOTAL*</b>	Normal vaginal	53203	56.0	53740	55.2	51434	54.5	50451	53.6	49716	53.0
	Forceps	4488	4.7	4536	4.7	4435	4.7	4386	4.7	4208	4.5
	Vacuum extraction	6122	6.4	6649	6.8	6338	6.7	6549	7.0	6612	7.1
	Vaginal breech	363	0.4	339	0.3	336	0.4	333	0.4	328	0.3
	Elective caesarean section	18826	19.8	19692	20.2	20115	21.3	20951	22.2	21255	22.7
	Emergency caesarean section <sup>†</sup>	11984	12.6	12321	12.7	11764	12.5	11498	12.2	11639	12.4
	Not stated	3	0.0	29	0.0	27	0.0	2	0.0	0	0.0
	<b>TOTAL</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>	<b>93758</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 2015 to 2018 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.

\* 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 2015, with slightly more male babies born than females in each year. In 2019, 48,927 (51.4%) babies were male, 46,154 (48.5%) were female, and 17 were of indeterminate sex. This compares with babies born in 2015, when 49,442 (51.3%) babies were male, 46,934 (48.7%) were female, and 12 were of indeterminate sex.

## Gestational age

In 2019, 7.4% of babies were born prematurely (less than 37 weeks gestation), similar to 7.9% reported in 2015 (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 2015 and 0.7% in 2019.

TABLE 16: GESTATIONAL AGE, NSW 2015–2019

Gestational age (weeks)	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
<28	733	0.8	696	0.7	713	0.7	705	0.7	709	0.7
28–31	690	0.7	619	0.6	642	0.7	608	0.6	590	0.6
32–36	6200	6.4	5865	5.9	5754	6.0	6011	6.3	5778	6.1
37–41	88397	91.7	90270	91.4	87768	91.6	87407	91.5	87313	91.8
42+	367	0.4	1065	1.1	885	0.9	755	0.8	630	0.7
Not stated	4	0.0	212	0.2	63	0.1	66	0.1	113	0.1
<b>TOTAL</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>	<b>95133</b>	<b>100.0</b>

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

## Birthweight

Since 2015, the pattern of birthweight has remained stable, with the rate of low birthweight (less than 2,500 grams) ranging from 6.5% to 6.8% (Table 17). In 2019, the rate of low birthweight was 6.7%.

TABLE 17: BIRTHWEIGHT, NSW 2015–2019

Birthweight (grams)	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
Less than 500	283	0.3	326	0.3	341	0.4	234	0.2	218	0.2
500–999	411	0.4	411	0.4	455	0.5	424	0.4	439	0.5
1,000–1,499	545	0.6	534	0.5	503	0.5	488	0.5	514	0.5
1,500–1,999	1193	1.2	1191	1.2	1154	1.2	1224	1.3	1132	1.2
2,000–2,499	3918	4.1	3931	4.0	3952	4.1	4163	4.4	4046	4.3
2,500–2,999	15931	16.5	16272	16.5	16011	16.7	15945	16.7	16404	17.2
3,000–3,499	36122	37.5	37290	37.8	36263	37.8	36575	38.3	36400	38.3
3,500–3,999	28315	29.4	29171	29.5	28051	29.3	27577	28.9	27287	28.7
4,000–4,499	8330	8.6	8348	8.5	7942	8.3	7671	8.0	7423	7.8
4,500+	1276	1.3	1182	1.2	1106	1.2	1066	1.1	1012	1.1
Not stated	67	0.1	71	0.1	47	0.0	185	0.2	258	0.3
<b>TOTAL</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>	<b>95133</b>	<b>100.0</b>

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

## Apgar score

In 2019, 1.8% of liveborn babies were born with an Apgar score of less than seven at 5 minutes and 0.5% 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 2015–2019

Apgar score	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
0–4	422	0.4	538	0.5	423	0.4	399	0.4	445	0.5
5–6	1196	1.2	1209	1.2	1083	1.1	1167	1.2	1237	1.3
7+	93840	98.0	95844	97.6	93156	97.8	92819	97.7	92316	97.6
Not stated	300	0.3	593	0.6	572	0.6	572	0.6	568	0.6
<b>TOTAL</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>	<b>94566</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 2015 and 2019 (Table 19).

**TABLE 19: HEPATITIS B DOSE GIVEN TO LIVEBORN BABIES, NSW 2015–2019**

Hepatitis B dose given	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
No	5366	5.6	4956	5.0	5220	5.5	5353	5.6	5157	5.5
Yes	90378	94.4	92013	93.7	89070	93.5	88907	93.6	88498	93.6
Not stated	14	0.0	1215	1.2	944	1.0	697	0.7	911	1.0
<b>TOTAL</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>	<b>94566</b>	<b>100.0</b>

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

## Infant feeding at discharge from hospital of birth

The percentage of babies fully breastfed at the time of discharge from hospital decreased from 78.9% to 71.1% between 2015 and 2019. The percentage of babies that received any breastfeeding rose from 10.5% in 2015 to 17.7% in 2019. In the same period, the percentage of babies receiving infant formula only fell from 9.7% to 8.3% (Table 20).

**TABLE 20: LIVE BIRTHS BY TYPE OF INFANT FEEDING, NSW 2015–2019**

Infant feeding	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
Full breastfeeding	75562	78.9	73524	74.9	70234	73.7	68916	72.6	67258	71.1
Any breastfeeding	10047	10.5	13177	13.4	14031	14.7	15287	16.1	16765	17.7
Infant formula only	9270	9.7	8305	8.5	7921	8.3	7979	8.4	7864	8.3
Not stated	879	0.9	3178	3.2	3048	3.2	2775	2.9	2679	2.8
<b>TOTAL</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>	<b>94566</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 2015–2019 the perinatal mortality rate varied from 7.5 to 8.4 per 1,000 births and was 8.0 per 1,000 in 2019 (Table 21). In 2019, 74.1% of all reported perinatal deaths were stillbirths and 25.9% were neonatal deaths.

Of the 765 perinatal deaths in 2019 in NSW, 661 (86.4%) were reported among planned hospital births, 89 (11.6%) among planned birth centre births and 15 deaths were among babies born before arrival at hospital (2.0%). There were no perinatal deaths reported among planned or actual homebirths.

**TABLE 21: PERINATAL OUTCOMES, NSW 2015–2019<sup>#</sup>**

Year	Perinatal outcome												
	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.	%	
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
2019	94368	99.2	567	0.6	198	0.2	0	0.0	0	0.0	<b>95133</b>	<b>100.0</b>	8.0

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 1990–2018, 247 deaths were reported among pregnant women or women who gave birth less than 6 weeks previously. Of these, 72 (29.4%) died of incidental causes not related to the pregnancy or its management, 105 (42.3%) deaths were found to be directly due to pregnancy or its management, and 66 (26.6%) 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 causes of maternal deaths in NSW for 2018.

**TABLE 22: MATERNAL DEATHS BY CLASSIFICATION, NSW 1990–2018<sup>a</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>b</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>c</sup>	2	2.3	2	2.3	4	4.7	2	2.3	7	8.2
2005 <sup>d</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>e</sup>	3	3.2	0	0.0	4	4.2	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
2018	2	2.1	0	0.0	2	2.1	1	1.1	3	3.2

Source: NSW Maternal and Perinatal Mortality Review Committee.

# 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>

f Totals for the year include one death that was unable to be classified.

**TABLE 23: MATERNAL DEATHS BY CAUSE, NSW 2018<sup>a</sup>**

Classification	Cause	No.
Direct	Acute liver failure – probable acute fatty liver of pregnancy	1
Direct	Amniotic fluid embolism	1
Incidental	Brain injury associated with motor vehicle accident	1
<b>TOTAL</b>		<b>3</b>

Source: NSW Maternal and Perinatal Mortality Review Committee.

# 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 27 October 2020.
2. Australian Institute of Health and Welfare. *Maternal deaths in Australia* [Internet]. Canberra: Australian Institute of Health and Welfare, 2019. Available at <https://www.aihw.gov.au/reports/mothers-babies/maternal-deaths-in-australia>. Accessed 27 October 2020.

# 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 2019 were resident in the Western Sydney Local Health District ( $n = 15,046$ , 16.1%), followed by the South Western Sydney Local Health District ( $n = 14,054$ , 15.0%) and the Hunter New England Local Health District ( $n = 10,480$ , 11.2%).

## Maternal age

In 2019, the percentage of women giving birth at less than 20 years of age varied from 0.1% in the Northern Sydney Local Health District to 5.5% in the Far West Local Health District, while the percentage of mothers giving birth at 35 years of age or more ranged from 11.5% in the Far West Local Health District to 41.9% in the Northern Sydney Local Health District (Table 24).

**TABLE 24: MATERNAL AGE BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2019**

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	22	0.3	352	4.7	1328	17.7	3034	40.4	2184	29.1	534	7.1	47	0.6	0	0.0	<b>7501</b>	<b>100.0</b>
South Western Sydney	226	1.6	1739	12.4	4256	30.3	4824	34.3	2432	17.3	539	3.8	37	0.3	1	0.0	<b>14054</b>	<b>100.0</b>
South Eastern Sydney	43	0.4	399	3.9	1883	18.4	4202	41.0	3003	29.3	643	6.3	68	0.7	2	0.0	<b>10243</b>	<b>100.0</b>
Illawarra Shoalhaven	96	2.1	597	13.3	1249	27.8	1583	35.3	792	17.7	154	3.4	15	0.3	0	0.0	<b>4486</b>	<b>100.0</b>
Western Sydney	186	1.2	1402	9.3	4016	26.7	5767	38.3	3102	20.6	535	3.6	38	0.3	0	0.0	<b>15046</b>	<b>100.0</b>
Nepean Blue Mountains	114	2.3	672	13.4	1529	30.6	1672	33.4	839	16.8	168	3.4	6	0.1	0	0.0	<b>5000</b>	<b>100.0</b>
Northern Sydney	13	0.1	181	1.9	1424	14.9	3933	41.2	3181	33.3	762	8.0	63	0.7	0	0.0	<b>9557</b>	<b>100.0</b>
Central Coast	85	2.3	477	12.8	1055	28.3	1267	34.0	690	18.5	141	3.8	13	0.3	3	0.1	<b>3731</b>	<b>100.0</b>
Hunter New England	314	3.0	1636	15.6	3075	29.3	3491	33.3	1637	15.6	308	2.9	18	0.2	1	0.0	<b>10480</b>	<b>100.0</b>
Northern NSW	90	3.4	399	15.3	780	29.9	790	30.3	445	17.0	98	3.8	9	0.3	0	0.0	<b>2611</b>	<b>100.0</b>
Mid North Coast	86	3.9	424	19.2	666	30.2	651	29.5	316	14.3	62	2.8	2	0.1	0	0.0	<b>2207</b>	<b>100.0</b>
Southern NSW	51	3.6	211	14.7	431	30.1	488	34.1	218	15.2	33	2.3	0	0.0	0	0.0	<b>1432</b>	<b>100.0</b>
Murrumbidgee	96	4.1	426	18.0	775	32.8	715	30.2	297	12.6	54	2.3	2	0.1	0	0.0	<b>2365</b>	<b>100.0</b>
Western NSW	149	4.3	702	20.3	1071	31.0	1023	29.6	427	12.3	79	2.3	9	0.3	0	0.0	<b>3460</b>	<b>100.0</b>
Far West	12	5.5	59	27.2	74	34.1	47	21.7	20	9.2	3	1.4	2	0.9	0	0.0	<b>217</b>	<b>100.0</b>
Other—not stated	21	1.5	157	11.5	468	34.2	464	33.9	218	15.9	40	2.9	0	0.0	0	0.0	<b>1368</b>	<b>100.0</b>
<b>TOTAL</b>	<b>1604</b>	<b>1.7</b>	<b>9833</b>	<b>10.5</b>	<b>24080</b>	<b>25.7</b>	<b>33951</b>	<b>36.2</b>	<b>19801</b>	<b>21.1</b>	<b>4153</b>	<b>4.4</b>	<b>329</b>	<b>0.4</b>	<b>7</b>	<b>0.0</b>	<b>93758</b>	<b>100.0</b>

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 2019 were born in English speaking countries, 21.4% were born in Asian countries, and 5.3% were born in the Middle East or Africa (Table 25). The highest percentages of mothers born in non-English speaking countries were in the Western Sydney, Sydney, Northern Sydney and South Western Sydney Local Health Districts.

**TABLE 25: MATERNAL COUNTRY OF BIRTH BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2019**

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 <sup>†</sup>	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	4075	54.3	131	1.7	52	0.7	148	2.0	101	1.3	111	1.5	368	4.9	667	8.9	1001	13.3	840	11.2	<b>7501</b>	<b>100.0</b>
South Western Sydney	8013	57.0	124	0.9	372	2.6	216	1.5	43	0.3	119	0.8	2045	14.6	1591	11.3	346	2.5	1172	8.3	<b>14054</b>	<b>100.0</b>
South Eastern Sydney	6641	64.8	301	2.9	41	0.4	190	1.9	238	2.3	229	2.2	272	2.7	663	6.5	1013	9.9	622	6.1	<b>10243</b>	<b>100.0</b>
Illawarra Shoalhaven	4026	89.7	27	0.6	17	0.4	33	0.7	17	0.4	19	0.4	106	2.4	90	2.0	67	1.5	77	1.7	<b>4486</b>	<b>100.0</b>
Western Sydney	6351	42.2	108	0.7	257	1.7	80	0.5	53	0.4	454	3.0	1355	9.0	971	6.5	1603	10.7	3792	25.2	<b>15046</b>	<b>100.0</b>
Nepean Blue Mountains	4122	82.4	25	0.5	76	1.5	21	0.4	25	0.5	36	0.7	170	3.4	154	3.1	72	1.4	290	5.8	<b>5000</b>	<b>100.0</b>
Northern Sydney	5439	56.9	278	2.9	32	0.3	128	1.3	220	2.3	214	2.2	298	3.1	550	5.8	1640	17.2	717	7.5	<b>9557</b>	<b>100.0</b>
Central Coast	3362	90.1	25	0.7	11	0.3	16	0.4	21	0.6	27	0.7	28	0.8	98	2.6	52	1.4	78	2.1	<b>3731</b>	<b>100.0</b>
Hunter New England	9621	91.8	27	0.3	25	0.2	22	0.2	56	0.5	51	0.5	129	1.2	211	2.0	118	1.1	212	2.0	<b>10480</b>	<b>100.0</b>
Northern NSW	2382	91.2	27	1.0	6	0.2	11	0.4	43	1.6	9	0.3	18	0.7	52	2.0	26	1.0	24	0.9	<b>2611</b>	<b>100.0</b>
Mid North Coast	1980	89.7	7	0.3	6	0.3	9	0.4	22	1.0	11	0.5	25	1.1	63	2.9	17	0.8	62	2.8	<b>2207</b>	<b>100.0</b>
Southern NSW	1291	90.2	8	0.6	7	0.5	8	0.6	4	0.3	2	0.1	14	1.0	25	1.7	21	1.5	50	3.5	<b>1432</b>	<b>100.0</b>
Murrumbidgee	2104	89.0	4	0.2	26	1.1	6	0.3	6	0.3	6	0.3	30	1.3	62	2.6	20	0.8	101	4.3	<b>2365</b>	<b>100.0</b>
Western NSW	3217	93.0	3	0.1	2	0.1	7	0.2	9	0.3	5	0.1	23	0.7	43	1.2	18	0.5	131	3.8	<b>3460</b>	<b>100.0</b>
Far West	203	93.5	0	0.0	1	0.5	0	0.0	1	0.5	0	0.0	1	0.5	2	0.9	3	1.4	6	2.8	<b>217</b>	<b>100.0</b>
Other-not stated	525	38.4	55	4.0	35	2.6	16	1.2	20	1.5	15	1.1	82	6.0	185	13.5	129	9.4	299	21.9	<b>1368</b>	<b>100.0</b>
<b>TOTAL</b>	<b>63352</b>	<b>67.6</b>	<b>1150</b>	<b>1.2</b>	<b>966</b>	<b>1.0</b>	<b>911</b>	<b>1.0</b>	<b>879</b>	<b>0.9</b>	<b>1308</b>	<b>1.4</b>	<b>4964</b>	<b>5.3</b>	<b>5427</b>	<b>5.8</b>	<b>6146</b>	<b>6.6</b>	<b>8473</b>	<b>9.0</b>	<b>93758</b>	<b>100.0</b>

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

<sup>†</sup> Includes 182 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 2019, 4.7% of mothers were reported to be Aboriginal or Torres Strait Islander (Table 26). The percentage of Aboriginal or Torres Strait Islander mothers varied from 0.5% in the Northern Sydney Local Health District to 19.8% in the Far West Local Health District.

**TABLE 26: ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2019**

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	107	1.4	7369	98.2	25	0.3	7501	100.0
South Western Sydney	301	2.1	13700	97.5	53	0.4	14054	100.0
South Eastern Sydney	132	1.3	10059	98.2	52	0.5	10243	100.0
Illawarra Shoalhaven	264	5.9	4219	94.0	3	0.1	4486	100.0
Western Sydney	275	1.8	14708	97.8	63	0.4	15046	100.0
Nepean Blue Mountains	281	5.6	4630	92.6	89	1.8	5000	100.0
Northern Sydney	51	0.5	9481	99.2	25	0.3	9557	100.0
Central Coast	220	5.9	3504	93.9	7	0.2	3731	100.0
Hunter New England	1144	10.9	9296	88.7	40	0.4	10480	100.0
Northern NSW	275	10.5	2329	89.2	7	0.3	2611	100.0
Mid North Coast	317	14.4	1887	85.5	3	0.1	2207	100.0
Southern NSW	98	6.8	1327	92.7	7	0.5	1432	100.0
Murrumbidgee	223	9.4	2141	90.5	1	0.0	2365	100.0
Western NSW	648	18.7	2809	81.2	3	0.1	3460	100.0
Far West	43	19.8	174	80.2	0	0.0	217	100.0
Other-not stated	37	2.7	1324	96.8	7	0.5	1368	100.0
<b>TOTAL</b>	<b>4416</b>	<b>4.7</b>	<b>88957</b>	<b>94.9</b>	<b>385</b>	<b>0.4</b>	<b>93758</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 2019, 92.8% of mothers commenced antenatal care prior to 20 weeks gestation and 79.6% commenced antenatal care prior to 14 weeks gestation. The percentage of mothers commencing antenatal care prior to 20 weeks gestation varied from 83.9% in the Southern NSW Local Health District to 95.9% 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 2019**

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	5783	77.1	1271	16.9	378	5.0	69	0.9	7501	100.0
South Western Sydney	10524	74.9	2108	15.0	1269	9.0	153	1.1	14054	100.0
South Eastern Sydney	7369	71.9	2241	21.9	561	5.5	72	0.7	10243	100.0
Illawarra Shoalhaven	3637	81.1	601	13.4	235	5.2	13	0.3	4486	100.0
Western Sydney	12195	81.1	1537	10.2	1206	8.0	108	0.7	15046	100.0
Nepean Blue Mountains	4240	84.8	511	10.2	219	4.4	30	0.6	5000	100.0
Northern Sydney	7728	80.9	1439	15.1	326	3.4	64	0.7	9557	100.0
Central Coast	3130	83.9	415	11.1	170	4.6	16	0.4	3731	100.0
Hunter New England	9228	88.1	654	6.2	550	5.2	48	0.5	10480	100.0
Northern NSW	2301	88.1	153	5.9	136	5.2	21	0.8	2611	100.0
Mid North Coast	1902	86.2	153	6.9	136	6.2	16	0.7	2207	100.0
Southern NSW	915	63.9	287	20.0	227	15.9	3	0.2	1432	100.0
Murrumbidgee	1883	79.6	267	11.3	204	8.6	11	0.5	2365	100.0
Western NSW	2636	76.2	486	14.0	307	8.9	31	0.9	3460	100.0
Far West	147	67.7	58	26.7	11	5.1	1	0.5	217	100.0
Other-not stated	1034	75.6	137	10.0	176	12.9	21	1.5	1368	100.0
<b>TOTAL</b>	<b>74652</b>	<b>79.6</b>	<b>12318</b>	<b>13.1</b>	<b>6111</b>	<b>6.5</b>	<b>677</b>	<b>0.7</b>	<b>93758</b>	<b>100.0</b>

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

## Smoking in pregnancy

In 2019, 8.8% of mothers reported smoking at all during pregnancy. The percentage of mothers that reported smoking at all during pregnancy varied from 1.2% in the Northern Sydney Local Health District to 26.3% in the Far West Local Health District (Table 28). Overall, 7.0% 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 (0.6%) and the highest rate was reported among residents of the Far West Local Health District (24.4%).

**TABLE 28: SMOKING IN PREGNANCY BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2019**

Local Health District	Smoking during pregnancy						TOTAL MOTHERS	
	Smoked in first half of pregnancy		Smoked in second half of pregnancy		Smoked at all during pregnancy			
	No.	%	No.	%	No.	%	No.	%
Sydney	199	2.7	106	1.4	200	2.7	7501	100.0
South Western Sydney	1092	7.8	795	5.7	1145	8.1	14054	100.0
South Eastern Sydney	342	3.3	224	2.2	347	3.4	10243	100.0
Illawarra Shoalhaven	517	11.5	441	9.8	543	12.1	4486	100.0
Western Sydney	946	6.3	774	5.1	980	6.5	15046	100.0
Nepean Blue Mountains	572	11.4	521	10.4	596	11.9	5000	100.0
Northern Sydney	107	1.1	59	0.6	110	1.2	9557	100.0
Central Coast	440	11.8	375	10.1	473	12.7	3731	100.0
Hunter New England	1537	14.7	1359	13.0	1611	15.4	10480	100.0
Northern NSW	348	13.3	295	11.3	364	13.9	2611	100.0
Mid North Coast	391	17.7	330	15.0	411	18.6	2207	100.0
Southern NSW	211	14.7	186	13.0	217	15.2	1432	100.0
Murrumbidgee	401	17.0	382	16.2	429	18.1	2365	100.0
Western NSW	661	19.1	631	18.2	703	20.3	3460	100.0
Far West	53	24.4	53	24.4	57	26.3	217	100.0
Other—not stated	65	4.8	56	4.2	71	5.3	1368	100.0
<b>TOTAL</b>	<b>7882</b>	<b>8.4</b>	<b>6587</b>	<b>7.0</b>	<b>8257</b>	<b>8.8</b>	<b>93758</b>	<b>100.0</b>

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

## Maternal overweight and obesity

In 2019, 56.0% of mothers were in the healthy weight range, 25.5% were overweight and 14.8% were obese. The percentage of mothers that were overweight or obese varied from 25.4% in the Northern Sydney Local Health District to 54.7% in the Far West Local Health District (Table 29).

**TABLE 29: MATERNAL BMI CATEGORIES BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2019**

Local Health District	Body Mass Index*											
	Underweight		Healthy weight		Overweight		Obese		Overweight or obese		TOTAL MOTHERS*	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	292	4.3	4460	65.1	1464	21.4	634	9.3	2098	30.6	6850	100.0
South Western Sydney	388	3.1	6148	48.7	3640	28.8	2441	19.3	6081	48.2	12617	100.0
South Eastern Sydney	400	4.4	6154	67.4	1868	20.5	712	7.8	2580	28.2	9134	100.0
Illawarra Shoalhaven	139	3.4	2280	55.8	1031	25.2	634	15.5	1665	40.8	4084	100.0
Western Sydney	486	3.5	7375	53.5	3891	28.3	2021	14.7	5912	42.9	13773	100.0
Nepean Blue Mountains	132	3.0	2081	46.7	1307	29.4	932	20.9	2239	50.3	4452	100.0
Northern Sydney	398	4.6	6096	70.0	1647	18.9	566	6.5	2213	25.4	8707	100.0
Central Coast	106	3.2	1792	53.8	871	26.1	564	16.9	1435	43.1	3333	100.0
Hunter New England	313	3.5	4363	49.0	2455	27.6	1779	20.0	4234	47.5	8910	100.0
Northern NSW	140	5.9	1359	57.1	554	23.3	327	13.7	881	37.0	2380	100.0
Mid North Coast	75	3.7	1044	52.1	559	27.9	324	16.2	883	44.1	2002	100.0
Southern NSW	48	3.6	671	50.6	353	26.6	254	19.2	607	45.8	1326	100.0
Murrumbidgee	71	3.3	1017	47.8	592	27.8	447	21.0	1039	48.8	2127	100.0
Western NSW	100	3.3	1452	47.5	862	28.2	643	21.0	1505	49.2	3057	100.0
Far West	6	3.2	80	42.1	63	33.2	41	21.6	104	54.7	190	100.0
Other—not stated	60	4.7	781	61.4	295	23.2	135	10.6	430	33.8	1271	100.0
<b>TOTAL</b>	<b>3154</b>	<b>3.7</b>	<b>47153</b>	<b>56.0</b>	<b>21452</b>	<b>25.5</b>	<b>12454</b>	<b>14.8</b>	<b>33906</b>	<b>40.3</b>	<b>84213</b>	<b>100.0</b>

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 age-specific thresholds.<sup>1,2</sup> See Appendix 2: Explanatory notes for further information.

\* Biologically implausible and missing height, weight, or BMI values (10.2% of all records) were excluded from the analysis.

## Place of birth

Ninety-one per cent of mothers chose to give birth in a hospital birthing suite in 2019, compared to 7.9% who planned a birth centre birth and 0.3% who planned a homebirth (Table 30). Planned birth centre births were most commonly reported in the Far West Local Health District (19.4%). The greatest number of planned birth centre births was to mothers living in Western Sydney Local Health District ( $n = 1,554$ ), followed by Hunter New England Local Health District ( $n = 1,530$ ).

TABLE 30: PLACE OF BIRTH BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2019

Local Health District	Place of birth												TOTAL	
	Hospital		Birth centre		Planned birth centre-hospital admission		Planned homebirth		Planned homebirth-hospital admission		Born before arrival			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	7260	96.8	162	2.2	34	0.5	12	0.2	2	0.0	28	0.4	7501	100.0
South Western Sydney	13777	98.0	69	0.5	89	0.6	20	0.1	3	0.0	83	0.6	14054	100.0
South Eastern Sydney	9477	92.5	520	5.1	171	1.7	37	0.4	7	0.1	28	0.3	10243	100.0
Illawarra Shoalhaven	4229	94.3	82	1.8	132	2.9	17	0.4	4	0.1	22	0.5	4486	100.0
Western Sydney	13412	89.1	780	5.2	774	5.1	4	0.0	7	0.0	69	0.5	15046	100.0
Nepean Blue Mountains	4429	88.6	297	5.9	218	4.4	24	0.5	2	0.0	29	0.6	5000	100.0
Northern Sydney	9087	95.1	194	2.0	210	2.2	30	0.3	3	0.0	32	0.3	9557	100.0
Central Coast	3268	87.6	260	7.0	162	4.3	4	0.1	1	0.0	35	0.9	3731	100.0
Hunter New England	8823	84.2	1010	9.6	520	5.0	42	0.4	9	0.1	76	0.7	10480	100.0
Northern NSW	2138	81.9	227	8.7	181	6.9	33	1.3	2	0.1	30	1.1	2611	100.0
Mid North Coast	1970	89.3	79	3.6	136	6.2	0	0.0	3	0.1	19	0.9	2207	100.0
Southern NSW	1269	88.6	43	3.0	108	7.5	4	0.3	0	0.0	8	0.6	1432	100.0
Murrumbidgee	2037	86.1	149	6.3	160	6.8	0	0.0	4	0.2	15	0.6	2365	100.0
Western NSW	2951	85.3	162	4.7	324	9.4	0	0.0	1	0.0	22	0.6	3460	100.0
Far West	170	78.3	28	12.9	14	6.5	3	1.4	0	0.0	2	0.9	217	100.0
Other-not stated	1263	92.3	41	3.0	49	3.6	7	0.5	1	0.1	7	0.5	1368	100.0
<b>TOTAL</b>	<b>85560</b>	<b>91.3</b>	<b>4103</b>	<b>4.4</b>	<b>3282</b>	<b>3.5</b>	<b>237</b>	<b>0.3</b>	<b>49</b>	<b>0.1</b>	<b>505</b>	<b>0.5</b>	<b>93758</b>	<b>100.0</b>

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

## Labour

In 2019, the onset of labour was spontaneous in 43.0% of confinements (Table 31). Labour was induced in 34.3% of confinements and no labour (elective caesarean section) was reported in 22.7%. The rate of spontaneous onset of labour was highest among residents of the Far West Local Health District (56.2%). The highest rate of induction of labour was among residents of the Illawarra Shoalhaven Local Health District (39.4%).

TABLE 31: ONSET AND AUGMENTATION OF LABOUR BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2019

Local Health District	Onset of labour														TOTAL					
	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>		Not stated	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
Sydney	1857	24.8	350	4.7	726	9.7	1956	26.1	979	13.1	332	4.4	1247	16.6	51	0.7	3	0.0	7501	100.0
South Western Sydney	4714	33.5	974	6.9	1121	8.0	2751	19.6	2450	17.4	588	4.2	1313	9.3	139	1.0	4	0.0	14054	100.0
South Eastern Sydney	2898	28.3	483	4.7	826	8.1	2472	24.1	1268	12.4	259	2.5	2017	19.7	18	0.2	2	0.0	10243	100.0
Illawarra Shoalhaven	1297	28.9	169	3.8	271	6.0	982	21.9	438	9.8	92	2.1	1215	27.1	22	0.5	0	0.0	4486	100.0
Western Sydney	4451	29.6	816	5.4	1348	9.0	3382	22.5	1622	10.8	169	1.1	3206	21.3	51	0.3	1	0.0	15046	100.0
Nepean Blue Mountains	1391	27.8	227	4.5	217	4.3	1241	24.8	784	15.7	90	1.8	1031	20.6	18	0.4	1	0.0	5000	100.0
Northern Sydney	2576	27.0	493	5.2	765	8.0	2752	28.8	1102	11.5	296	3.1	1544	16.2	29	0.3	0	0.0	9557	100.0
Central Coast	1254	33.6	135	3.6	251	6.7	825	22.1	443	11.9	62	1.7	750	20.1	11	0.3	0	0.0	3731	100.0
Hunter New England	3395	32.4	414	4.0	544	5.2	2210	21.1	1288	12.3	332	3.2	2267	21.6	28	0.3	2	0.0	10480	100.0
Northern NSW	1131	43.3	95	3.6	172	6.6	396	15.2	301	11.5	53	2.0	453	17.3	9	0.3	1	0.0	2611	100.0
Mid North Coast	781	35.4	84	3.8	103	4.7	458	20.8	270	12.2	47	2.1	456	20.7	8	0.4	0	0.0	2207	100.0
Southern NSW	607	42.4	50	3.5	84	5.9	247	17.2	163	11.4	38	2.7	238	16.6	5	0.3	0	0.0	1432	100.0
Murrumbidgee	824	34.8	100	4.2	136	5.8	543	23.0	306	12.9	63	2.7	378	16.0	15	0.6	0	0.0	2365	100.0
Western NSW	1068	30.9	169	4.9	197	5.7	787	22.7	402	11.6	79	2.3	740	21.4	18	0.5	0	0.0	3460	100.0
Far West	98	45.2	11	5.1	13	6.0	41	18.9	23	10.6	3	1.4	28	12.9	0	0.0	0	0.0	217	100.0
Other-not stated	440	32.2	70	5.1	146	10.7	212	15.5	186	13.6	58	4.2	236	17.3	19	1.4	1	0.1	1368	100.0
<b>TOTAL</b>	<b>28782</b>	<b>30.7</b>	<b>4640</b>	<b>4.9</b>	<b>6920</b>	<b>7.4</b>	<b>21255</b>	<b>22.7</b>	<b>12025</b>	<b>12.8</b>	<b>2561</b>	<b>2.7</b>	<b>17119</b>	<b>18.3</b>	<b>441</b>	<b>0.5</b>	<b>15</b>	<b>0.0</b>	<b>93758</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 artificial rupture of membranes.

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

## Type of birth

Fifty-three per cent of births were normal vaginal births in 2019, 11.5% were instrumental and 35.1% were by caesarean section (Table 32). The highest rate of normal vaginal birth was 65.3% among residents of the Northern NSW Local Health District, while the highest rate of instrumental birth was 15.9% among residents of the South Eastern Sydney Local Health District. The caesarean section rate varied from 26.0% among mothers resident in the Northern NSW Local Health District to 41.6% in the Northern Sydney Local Health District.

TABLE 32: TYPE OF BIRTH BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2019

Local Health District	Type of birth												TOTAL	
	Normal vaginal		Forceps		Vacuum extraction		Vaginal breech		Elective caesarean section		Emergency caesarean section†		No.	%
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
Sydney	3329	44.4	390	5.2	772	10.3	29	0.4	1956	26.1	1025	13.7	7501	100.0
South Western Sydney	8373	59.6	465	3.3	965	6.9	51	0.4	2751	19.6	1449	10.3	14054	100.0
South Eastern Sydney	4746	46.3	683	6.7	948	9.3	29	0.3	2472	24.1	1365	13.3	10243	100.0
Illawarra Shoalhaven	2355	52.5	181	4.0	315	7.0	10	0.2	982	21.9	643	14.3	4486	100.0
Western Sydney	8223	54.7	672	4.5	860	5.7	80	0.5	3382	22.5	1829	12.2	15046	100.0
Nepean Blue Mountains	2535	50.7	149	3.0	339	6.8	16	0.3	1241	24.8	720	14.4	5000	100.0
Northern Sydney	4290	44.9	560	5.9	699	7.3	31	0.3	2752	28.8	1225	12.8	9557	100.0
Central Coast	1966	52.7	228	6.1	286	7.7	14	0.4	825	22.1	412	11.0	3731	100.0
Hunter New England	5927	56.6	385	3.7	614	5.9	27	0.3	2210	21.1	1317	12.6	10480	100.0
Northern NSW	1706	65.3	93	3.6	123	4.7	9	0.3	396	15.2	284	10.9	2611	100.0
Mid North Coast	1303	59.0	87	3.9	109	4.9	4	0.2	458	20.8	246	11.1	2207	100.0
Southern NSW	881	61.5	56	3.9	87	6.1	2	0.1	247	17.2	159	11.1	1432	100.0
Murrumbidgee	1269	53.7	56	2.4	188	7.9	3	0.1	543	23.0	306	12.9	2365	100.0
Western NSW	1960	56.6	110	3.2	164	4.7	12	0.3	787	22.7	427	12.3	3460	100.0
Far West	137	63.1	11	5.1	3	1.4	0	0.0	41	18.9	25	11.5	217	100.0
Other—not stated	716	52.3	82	6.0	140	10.2	11	0.8	212	15.5	207	15.1	1368	100.0
<b>TOTAL</b>	<b>49716</b>	<b>53.0</b>	<b>4208</b>	<b>4.5</b>	<b>6612</b>	<b>7.1</b>	<b>328</b>	<b>0.3</b>	<b>21255</b>	<b>22.7</b>	<b>11639</b>	<b>12.4</b>	<b>93758</b>	<b>100.0</b>

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.

## Birthweight

In 2019, 6.7% of babies were low birthweight (less than 2,500 grams). These comprised 0.7% of babies with a birthweight less than 1,000 grams, 0.5% in the 1,000 to 1,499 gram range and 5.4% in the 1,500 to 2,499 gram range (Table 33). Rates of low birthweight ranged from 3.3% in the Southern NSW Local Health District to 8.2% in the Western NSW Local Health District.

TABLE 33: BIRTHWEIGHT BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2019

Local Health District	Birthweight (grams)																TOTAL							
	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+		No.	%		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%				
Sydney	22	0.3	37	0.5	44	0.6	108	1.4	355	4.7	1521	20.0	3076	40.4	1964	25.8	433	5.7	38	0.5	19	0.2	7617	100.0
South Western Sydney	34	0.2	73	0.5	82	0.6	173	1.2	578	4.0	2499	17.5	5508	38.6	3993	28.0	1094	7.7	173	1.2	66	0.5	14273	100.0
South Eastern Sydney	21	0.2	40	0.4	44	0.4	125	1.2	397	3.8	1945	18.7	4170	40.1	2858	27.5	696	6.7	79	0.8	34	0.3	10409	100.0
Illawarra Shoalhaven	6	0.1	19	0.4	20	0.4	47	1.0	201	4.4	665	14.7	1681	37.1	1427	31.5	410	9.0	58	1.3	1	0.0	4535	100.0
Western Sydney	39	0.3	80	0.5	86	0.6	196	1.3	646	4.2	3033	19.9	6007	39.4	3971	26.0	1035	6.8	133	0.9	34	0.2	15260	100.0
Nepean Blue Mountains	9	0.2	32	0.6	28	0.6	69	1.4	229	4.5	785	15.4	1848	36.4	1597	31.4	406	8.0	68	1.3	10	0.2	5081	100.0
Northern Sydney	16	0.2	36	0.4	40	0.4	92	0.9	410	4.2	1646	17.0	3977	41.0	2722	28.1	651	6.7	85	0.9	16	0.2	9691	100.0
Central Coast	11	0.3	17	0.4	25	0.7	50	1.3	165	4.4	548	14.5	1352	35.7	1165	30.8	395	10.4	51	1.3	9	0.2	3788	100.0
Hunter New England	31	0.3	56	0.5	75	0.7	126	1.2	456	4.3	1663	15.6	3743	35.2	3301	31.0	1001	9.4	153	1.4	36	0.3	10641	100.0
Northern NSW	4	0.2	2	0.1	12	0.5	18	0.7	110	4.2	367	13.9	924	34.9	867	32.8	293	11.1	40	1.5	9	0.3	2646	100.0
Mid North Coast	2	0.1	10	0.4	14	0.6	38	1.7	112	5.0	297	13.2	812	36.1	717	31.9	211	9.4	26	1.2	8	0.4	2247	100.0
Southern NSW	4	0.3	3	0.2	4	0.3	4	0.3	33	2.3	203	14.1	532	37.0	472	32.9	156	10.9	20	1.4	5	0.3	1436	100.0
Murrumbidgee	5	0.2	4	0.2	9	0.4	21	0.9	87	3.6	375	15.7	852	35.7	771	32.3	232	9.7	29	1.2	2	0.1	2387	100.0
Western NSW	11	0.3	23	0.7	19	0.5	48	1.4	189	5.4	585	16.6	1325	37.6	983	27.9	300	8.5	37	1.0	4	0.1	3524	100.0
Far West	0	0.0	1	0.5	0	0.0	4	1.8	6	2.7	36	16.4	77	35.2	71	32.4	17	7.8	7	3.2	0	0.0	219	100.0
Other—not stated	3	0.2	6	0.4	12	0.9	13	0.9	72	5.2	236	17.1	516	37.4	408	29.6	93	6.7	15	1.1	5	0.4	1379	100.0
<b>TOTAL</b>	<b>218</b>	<b>0.2</b>	<b>439</b>	<b>0.5</b>	<b>514</b>	<b>0.5</b>	<b>1132</b>	<b>1.2</b>	<b>4046</b>	<b>4.3</b>	<b>16404</b>	<b>17.2</b>	<b>36400</b>	<b>38.3</b>	<b>27287</b>	<b>28.7</b>	<b>7423</b>	<b>7.8</b>	<b>1012</b>	<b>1.1</b>	<b>258</b>	<b>0.3</b>	<b>95133</b>	<b>100.0</b>

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

## Gestational age

The majority of births (91.8%) were at term, and 0.7% were post-term (42-plus weeks). The 7.4% of preterm births comprised 0.7% born at less than 28 weeks, 0.6% at 28–31 weeks, and 6.1% at 32–36 weeks. The highest rate of preterm birth was 9.1% in the Western NSW Local Health District, while the lowest was 2.8% in the Southern NSW Local Health District (Table 34).

**TABLE 34: GESTATIONAL AGE BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2019**

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	69	0.9	48	0.6	523	6.9	6944	91.2	16	0.2	17	0.2	7617	100.0
South Western Sydney	116	0.8	107	0.7	947	6.6	13066	91.5	13	0.1	24	0.2	14273	100.0
South Eastern Sydney	71	0.7	50	0.5	556	5.3	9605	92.3	85	0.8	42	0.4	10409	100.0
Illawarra Shoalhaven	25	0.6	22	0.5	306	6.7	4156	91.6	24	0.5	2	0.0	4535	100.0
Western Sydney	120	0.8	101	0.7	833	5.5	14131	92.6	70	0.5	5	0.0	15260	100.0
Nepean Blue Mountains	40	0.8	40	0.8	341	6.7	4629	91.1	24	0.5	7	0.1	5081	100.0
Northern Sydney	57	0.6	45	0.5	556	5.7	8999	92.9	32	0.3	2	0.0	9691	100.0
Central Coast	35	0.9	33	0.9	252	6.7	3387	89.4	80	2.1	1	0.0	3788	100.0
Hunter New England	92	0.9	73	0.7	659	6.2	9696	91.1	119	1.1	2	0.0	10641	100.0
Northern NSW	10	0.4	9	0.3	147	5.6	2402	90.8	73	2.8	5	0.2	2646	100.0
Mid North Coast	12	0.5	13	0.6	152	6.8	2047	91.1	23	1.0	0	0.0	2247	100.0
Southern NSW	8	0.6	3	0.2	29	2.0	1368	95.3	27	1.9	1	0.1	1436	100.0
Murrumbidgee	7	0.3	10	0.4	128	5.4	2229	93.4	12	0.5	1	0.0	2387	100.0
Western NSW	32	0.9	28	0.8	260	7.4	3178	90.2	24	0.7	2	0.1	3524	100.0
Far West	0	0.0	2	0.9	8	3.7	209	95.4	0	0.0	0	0.0	219	100.0
Other—not stated	15	1.1	6	0.4	81	5.9	1267	91.9	8	0.6	2	0.1	1379	100.0
<b>TOTAL</b>	<b>709</b>	<b>0.7</b>	<b>590</b>	<b>0.6</b>	<b>5778</b>	<b>6.1</b>	<b>87313</b>	<b>91.8</b>	<b>630</b>	<b>0.7</b>	<b>113</b>	<b>0.1</b>	<b>95133</b>	<b>100.0</b>

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 2019 were given a hepatitis B vaccination at birth. The highest rate of hepatitis B vaccinations at birth was 98.1% in the Far West Local Health District, while the lowest was 76.6% 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 2019**

Local Health District	Hepatitis B dose given									
	Yes		No		Not stated		TOTAL			
	No.	%	No.	%	No.	%	No.	%		
Sydney	7091	93.7	290	3.8	185	2.4	7566	100.0		
South Western Sydney	13270	93.5	368	2.6	552	3.9	14190	100.0		
South Eastern Sydney	9455	91.4	869	8.4	26	0.3	10350	100.0		
Illawarra Shoalhaven	4321	95.6	199	4.4	0	0.0	4520	100.0		
Western Sydney	14630	96.5	506	3.3	20	0.1	15156	100.0		
Nepean Blue Mountains	4847	96.0	198	3.9	4	0.1	5049	100.0		
Northern Sydney	8688	90.0	928	9.6	33	0.3	9649	100.0		
Central Coast	3541	94.1	217	5.8	5	0.1	3763	100.0		
Hunter New England	10095	95.6	420	4.0	49	0.5	10564	100.0		
Northern NSW	2015	76.6	611	23.2	4	0.2	2630	100.0		
Mid North Coast	2040	90.9	203	9.1	0	0.0	2243	100.0		
Southern NSW	1343	94.0	82	5.7	3	0.2	1428	100.0		
Murrumbidgee	2305	97.1	70	2.9	0	0.0	2375	100.0		
Western NSW	3393	97.1	99	2.8	3	0.1	3495	100.0		
Far West	212	98.1	4	1.9	0	0.0	216	100.0		
Other—not stated	1252	91.3	93	6.8	27	2.0	1372	100.0		
<b>TOTAL</b>	<b>88498</b>	<b>93.6</b>	<b>5157</b>	<b>5.5</b>	<b>911</b>	<b>1.0</b>	<b>94566</b>	<b>100.0</b>		

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

## Infant feeding at discharge from hospital of birth

In 2019, infant feeding on discharge from hospital was reported for 94,566 liveborn babies (Table 36). The majority of babies (71.1%) were reported to be fully breastfed at hospital discharge, 8.3% were receiving infant formula only, and a further 17.7% were being partially breastfed. Rates of full breastfeeding varied from 59.0% in the South Western Sydney Local Health District to 84.1% in the Northern NSW Local Health District.

**TABLE 36: LIVE BIRTHS BY INFANT FEEDING ON DISCHARGE AND LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2019**

Local Health District	Infant feeding									
	Full breastfeeding		Any breastfeeding		Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	5277	69.7	1828	24.2	305	4.0	156	2.1	7566	100.0
South Western Sydney	8372	59.0	3575	25.2	1563	11.0	680	4.8	14190	100.0
South Eastern Sydney	7784	75.2	1902	18.4	504	4.9	160	1.5	10350	100.0
Illawarra Shoalhaven	3392	75.0	476	10.5	613	13.6	39	0.9	4520	100.0
Western Sydney	10488	69.2	3206	21.2	1149	7.6	313	2.1	15156	100.0
Nepean Blue Mountains	3420	67.7	826	16.4	629	12.5	174	3.4	5049	100.0
Northern Sydney	7077	73.3	1790	18.6	305	3.2	477	4.9	9649	100.0
Central Coast	2935	78.0	445	11.8	331	8.8	52	1.4	3763	100.0
Hunter New England	7902	74.8	1284	12.2	1101	10.4	277	2.6	10564	100.0
Northern NSW	2213	84.1	166	6.3	127	4.8	124	4.7	2630	100.0
Mid North Coast	1768	78.8	245	10.9	196	8.7	34	1.5	2243	100.0
Southern NSW	1160	81.2	113	7.9	112	7.8	43	3.0	1428	100.0
Murrumbidgee	1752	73.8	248	10.4	341	14.4	34	1.4	2375	100.0
Western NSW	2555	73.1	378	10.8	489	14.0	73	2.1	3495	100.0
Far West	157	72.7	11	5.1	41	19.0	7	3.2	216	100.0
Other—not stated	1006	73.3	272	19.8	58	4.2	36	2.6	1372	100.0
<b>TOTAL</b>	<b>67258</b>	<b>71.1</b>	<b>16765</b>	<b>17.7</b>	<b>7864</b>	<b>8.3</b>	<b>2679</b>	<b>2.8</b>	<b>94566</b>	<b>100.0</b>

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

## Perinatal outcome

The perinatal mortality rate in 2019 was 8.0 per 1,000 births. This rate includes all live births, and stillbirths of at least 400 grams birthweight or at least 20 weeks gestation (Table 37). The perinatal mortality rate varied from 2.2 per 1,000 births in the Mid North Coast Local Health District to 13.7 per 1,000 births in the Far West Local Health District.

**TABLE 37: PERINATAL OUTCOMES BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2019\***

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>†</sup>
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.
Sydney	7546	99.1	51	0.7	20	0.3	0	0.0	0	0.0	7617	100.0	9.3
South Western Sydney	14154	99.2	83	0.6	36	0.3	0	0.0	0	0.0	14273	100.0	8.3
South Eastern Sydney	10337	99.3	59	0.6	13	0.1	0	0.0	0	0.0	10409	100.0	6.9
Illawarra Shoalhaven	4516	99.6	15	0.3	4	0.1	0	0.0	0	0.0	4535	100.0	4.2
Western Sydney	15118	99.1	104	0.7	38	0.2	0	0.0	0	0.0	15260	100.0	9.3
Nepean Blue Mountains	5042	99.2	32	0.6	7	0.1	0	0.0	0	0.0	5081	100.0	7.7
Northern Sydney	9632	99.4	42	0.4	17	0.2	0	0.0	0	0.0	9691	100.0	6.1
Central Coast	3754	99.1	25	0.7	9	0.2	0	0.0	0	0.0	3788	100.0	9.0
Hunter New England	10528	98.9	77	0.7	36	0.3	0	0.0	0	0.0	10641	100.0	10.6
Northern NSW	2628	99.3	16	0.6	2	0.1	0	0.0	0	0.0	2646	100.0	6.8
Mid North Coast	2242	99.8	4	0.2	1	0.0	0	0.0	0	0.0	2247	100.0	2.2
Southern NSW	1426	99.3	8	0.6	2	0.1	0	0.0	0	0.0	1436	100.0	7.0
Murrumbidgee	2374	99.5	12	0.5	1	0.0	0	0.0	0	0.0	2387	100.0	5.4
Western NSW	3486	98.9	29	0.8	9	0.3	0	0.0	0	0.0	3524	100.0	10.8
Far West	216	98.6	3	1.4	0	0.0	0	0.0	0	0.0	219	100.0	13.7
Other—not stated	1369	99.3	7	0.5	3	0.2	0	0.0	0	0.0	1379	100.0	7.3
<b>TOTAL</b>	<b>94368</b>	<b>99.2</b>	<b>567</b>	<b>0.6</b>	<b>198</b>	<b>0.2</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>95133</b>	<b>100.0</b>	<b>8.0</b>

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 2019\*

Local Health District–Statistical Area 3 <sup>1</sup>		No.	%	Local Health District–Statistical Area 3 <sup>1</sup>		No.	%			
<b>Sydney</b>	Bankstown*	26	0.3	<b>Nepean Blue Mountains</b>	Blue Mountains	713	14.1			
	Canada Bay	1034	13.7		Dural–Wisemans Ferry*	1	0.0			
	Canterbury*	1785	23.6		Fairfield*	17	0.3			
	Hurstville*	102	1.3		Hawkesbury	288	5.7			
	Leichhardt	757	10.0		Lithgow–Mudgee*	185	3.7			
	Marrickville–Sydenham–Petersham	602	8.0		Penrith*	1924	38.1			
	Strathfield–Burwood–Ashfield	1510	20.0		Richmond–Windsor	492	9.7			
	Sydney Inner City*	1345	17.8		Rouse Hill–McGraths Hill*	126	2.5			
	<b>TOTAL</b>	<b>7566</b>	<b>100.0</b>		St Marys	881	17.4			
<b>South Western Sydney</b>	Auburn*	10	0.1	<b>TOTAL</b>	<b>5049</b>	<b>100.0</b>	<b>Northern Sydney</b>	Baulkham Hills*	140	1.5
	Bankstown*	2416	17.0	Carlingford*	61	0.6				
	Bringelly–Green Valley	1902	13.4	Chatswood–Lane Cove	1359	14.1				
	Camden	982	6.9	Dural–Wisemans Ferry*	88	0.9				
	Campbelltown	2537	17.9	Hornsby	1013	10.5				
	Canterbury*	115	0.8	Ku-ring-gai	847	8.8				
	Fairfield*	2066	14.6	Manly	537	5.6				
	Liverpool*	1960	13.8	North Sydney–Mosman	1178	12.2				
	Merrylands–Guildford*	425	3.0	Pennant Hills–Epping*	354	3.7				
	Penrith*	92	0.6	Pittwater	569	5.9				
	Southern Highlands*	452	3.2	Ryde–Hunters Hill*	1502	15.6				
	Wollondilly	598	4.2	Warringah	1721	17.8				
	<b>TOTAL</b>	<b>14190</b>	<b>100.0</b>	<b>TOTAL</b>	<b>9649</b>	<b>100.0</b>				
<b>South Eastern Sydney</b>	Botany	616	6.0	<b>Central Coast</b>	Gosford	1805	48.0			
	Cronulla–Miranda–Caringbah	1292	12.5		Wyong	1938	51.5			
	Eastern Suburbs–North	1628	15.7		<b>TOTAL</b>	<b>3763</b>	<b>100.0</b>			
	Eastern Suburbs–South	1614	15.6	<b>Hunter New England</b>	Armidale	402	3.8			
	Hurstville*	1246	12.0		Great Lakes	232	2.2			
	Kogarah–Rockdale	1890	18.3		Inverell–Tenterfield*	351	3.3			
	Liverpool*	6	0.1		Kempsey–Nambucca*	1	0.0			
	Sutherland–Menai–Heathcote	1199	11.6		Lake Macquarie–East	1315	12.4			
	Sydney Inner City*	518	5.0		Lake Macquarie–West	943	8.9			
	<b>TOTAL</b>	<b>10350</b>	<b>100.0</b>		Lower Hunter	1197	11.3			
<b>Illawarra Shoalhaven</b>	Dapto — Port Kembla	910	20.1		Maitland	1043	9.9			
	Kiama–Shellharbour	1029	22.8		Moree–Narrabri	321	3.0			
	Shoalhaven	1010	22.3		Newcastle	1964	18.6			
	Southern Highlands*	1	0.0	Port Stephens	667	6.3				
	Wollongong	1382	30.6	Tamworth–Gunnedah	1068	10.1				
	<b>TOTAL</b>	<b>4520</b>	<b>100.0</b>	Taree–Gloucester	501	4.7				
<b>Western Sydney</b>	Auburn*	1420	9.4	Upper Hunter	372	3.5				
	Baulkham Hills*	1190	7.9	<b>TOTAL</b>	<b>10564</b>	<b>100.0</b>				
	Blacktown	2012	13.3	<b>Northern NSW</b>	Clarence Valley	469	17.8			
	Blacktown–North	1817	12.0		Coffs Harbour*	2	0.1			
	Carlingford*	780	5.1		Inverell–Tenterfield*	6	0.2			
	Dural–Wisemans Ferry*	134	0.9		Richmond Valley–Coastal	717	27.3			
	Merrylands–Guildford*	2284	15.1		Richmond Valley–Hinterland	721	27.4			
	Mount Druitt	1830	12.1		Tweed Valley	690	26.2			
	Parramatta	2324	15.3	<b>TOTAL</b>	<b>2630</b>	<b>100.0</b>				
	Pennant Hills–Epping*	64	0.4	<b>Mid North Coast</b>	Coffs Harbour*	937	41.8			
	Rouse Hill–McGraths Hill*	493	3.3		Kempsey–Nambucca*	561	25.0			
	Ryde–Hunters Hill*	43	0.3		Port Macquarie	703	31.3			
	<b>TOTAL</b>	<b>15156</b>	<b>100.0</b>		<b>TOTAL</b>	<b>2243</b>	<b>100.0</b>			

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TABLE 38: (Continued)

Local Health District–Statistical Area 3 <sup>†</sup>	No.	%
<b>Southern NSW</b>		
Goulburn–Mulwaree	317	22.2
Queanbeyan	388	27.2
Snowy Mountains	160	11.2
South Coast*	500	35.0
Young–Yass*	34	2.4
<b>TOTAL</b>	<b>1428</b>	<b>100.0</b>
<b>Murrumbidgee</b>		
Albury*	7	0.3
Griffith–Murrumbidgee (West)	652	27.5
Lachlan Valley*	92	3.9
Lower Murray*	26	1.1
Tumut–Tumbarumba	151	6.4
Upper Murray excluding Albury	85	3.6
Wagga Wagga	1164	49.0
Young–Yass*	177	7.5
<b>TOTAL</b>	<b>2375</b>	<b>100.0</b>
<b>Western NSW</b>		
Bathurst	494	14.1
Bourke–Cobar–Coonamble	324	9.3
Dubbo	1004	28.7
Lachlan Valley*	542	15.5
Lithgow–Mudgee*	283	8.1
Orange	787	22.5
<b>TOTAL</b>	<b>3495</b>	<b>100.0</b>
<b>Far West</b>		
Broken Hill and Far West	211	97.7
Lower Murray*	4	1.9
<b>TOTAL</b>	<b>216</b>	<b>100.0</b>
<b>Other–not stated</b>		
<b>TOTAL</b>	<b>1372</b>	<b>100.0</b>
<b>TOTAL</b>	<b>94566</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 maternity service level where at least 200 mothers gave birth in 2019.

**TABLE 39: ONSET AND AUGMENTATION OF LABOUR BY LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2019**

Hospital sector– Local Health District	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.	%	
<b>Public</b>																			
Sydney	1496	24.2	327	5.3	700	11.3	1309	21.2	941	15.2	344	5.6	997	16.1	56	0.9	<b>6174</b>	<b>100.0</b>	
South Western Sydney	4181	36.6	833	7.3	969	8.5	1926	16.8	2177	19.0	527	4.6	684	6.0	137	1.2	<b>11434</b>	<b>100.0</b>	
South Eastern Sydney	2458	32.6	382	5.1	696	9.2	1294	17.2	1017	13.5	138	1.8	1537	20.4	10	0.1	<b>7532</b>	<b>100.0</b>	
Illawarra Shoalhaven	1036	31.1	162	4.9	196	5.9	643	19.3	364	10.9	67	2.0	850	25.5	11	0.3	<b>3329</b>	<b>100.0</b>	
Western Sydney	3445	32.9	594	5.7	1038	9.9	1948	18.6	1098	10.5	84	0.8	2223	21.2	39	0.4	<b>10469</b>	<b>100.0</b>	
Nepean Blue Mountains	1590	31.2	231	4.5	259	5.1	1191	23.4	831	16.3	50	1.0	923	18.1	18	0.4	<b>5094</b>	<b>100.0</b>	
Northern Sydney	1744	30.4	353	6.1	445	7.7	1267	22.1	895	15.6	176	3.1	848	14.8	16	0.3	<b>5744</b>	<b>100.0</b>	
Central Coast	1186	38.9	118	3.9	211	6.9	527	17.3	418	13.7	47	1.5	537	17.6	7	0.2	<b>3051</b>	<b>100.0</b>	
Hunter New England	3097	35.4	282	3.2	537	6.1	1640	18.8	1143	13.1	149	1.7	1864	21.3	25	0.3	<b>8737</b>	<b>100.0</b>	
Northern NSW	1249	43.0	113	3.9	192	6.6	415	14.3	329	11.3	70	2.4	526	18.1	11	0.4	<b>2906</b>	<b>100.0</b>	
Mid North Coast	780	35.8	83	3.8	107	4.9	428	19.6	268	12.3	44	2.0	461	21.2	8	0.4	<b>2179</b>	<b>100.0</b>	
Southern NSW	669	43.5	50	3.2	93	6.0	260	16.9	170	11.0	37	2.4	251	16.3	9	0.6	<b>1539</b>	<b>100.0</b>	
Murrumbidgee	784	37.3	91	4.3	125	5.9	413	19.7	276	13.1	47	2.2	353	16.8	12	0.6	<b>2101</b>	<b>100.0</b>	
Western NSW	1014	31.0	166	5.1	191	5.8	714	21.8	392	12.0	76	2.3	707	21.6	16	0.5	<b>3276</b>	<b>100.0</b>	
Far West	95	44.0	11	5.1	13	6.0	41	19.0	23	10.6	3	1.4	30	13.9	0	0.0	<b>216</b>	<b>100.0</b>	
<b>TOTAL</b>	<b>24824</b>	<b>33.6</b>	<b>3796</b>	<b>5.1</b>	<b>5772</b>	<b>7.8</b>	<b>14016</b>	<b>19.0</b>	<b>10342</b>	<b>14.0</b>	<b>1859</b>	<b>2.5</b>	<b>12791</b>	<b>17.3</b>	<b>375</b>	<b>0.5</b>	<b>73781</b>	<b>100.0</b>	
<b>Private</b>																			
<b>TOTAL</b>	<b>3823</b>	<b>19.3</b>	<b>836</b>	<b>4.2</b>	<b>1147</b>	<b>5.8</b>	<b>7239</b>	<b>36.5</b>	<b>1683</b>	<b>8.5</b>	<b>702</b>	<b>3.5</b>	<b>4328</b>	<b>21.8</b>	<b>66</b>	<b>0.3</b>	<b>19833</b>	<b>100.0</b>	
<b>TOTAL NSW*</b>	<b>28782</b>	<b>30.7</b>	<b>4640</b>	<b>4.9</b>	<b>6920</b>	<b>7.4</b>	<b>21255</b>	<b>22.7</b>	<b>12025</b>	<b>12.8</b>	<b>2561</b>	<b>2.7</b>	<b>17119</b>	<b>18.3</b>	<b>441</b>	<b>0.5</b>	<b>93758</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 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 NSW includes births at home assisted by independent midwives.

**TABLE 40: ONSET AND AUGMENTATION OF LABOUR BY MATERNITY SERVICE LEVEL AND HOSPITAL, NSW 2019<sup>‡</sup>**

Maternity service level– 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.	%	
<b>Level 6</b>																			
Royal Prince Alfred	1104	23.7	225	4.8	532	11.4	1018	21.9	679	14.6	280	6.0	767	16.5	49	1.1	<b>4654</b>	<b>100.0</b>	
Royal North Shore	761	27.8	138	5.0	221	8.1	672	24.5	433	15.8	53	1.9	458	16.7	4	0.1	<b>2740</b>	<b>100.0</b>	
Royal Hospital for Women	1372	36.0	166	4.4	325	8.5	675	17.7	495	13.0	86	2.3	692	18.1	5	0.1	<b>3816</b>	<b>100.0</b>	
Liverpool	1247	34.1	299	8.2	301	8.2	733	20.0	585	16.0	183	5.0	254	6.9	58	1.6	<b>3660</b>	<b>100.0</b>	
Nepean	1217	30.4	172	4.3	212	5.3	946	23.7	695	17.4	40	1.0	701	17.5	17	0.4	<b>4000</b>	<b>100.0</b>	
Westmead	1679	31.4	317	5.9	527	9.9	1090	20.4	564	10.6	48	0.9	1095	20.5	19	0.4	<b>5339</b>	<b>100.0</b>	
John Hunter	1207	30.4	124	3.1	270	6.8	827	20.9	521	13.1	60	1.5	948	23.9	8	0.2	<b>3965</b>	<b>100.0</b>	
<b>TOTAL</b>	<b>8587</b>	<b>30.5</b>	<b>1441</b>	<b>5.1</b>	<b>2388</b>	<b>8.5</b>	<b>5961</b>	<b>21.2</b>	<b>3972</b>	<b>14.1</b>	<b>750</b>	<b>2.7</b>	<b>4915</b>	<b>17.4</b>	<b>160</b>	<b>0.6</b>	<b>28174</b>	<b>100.0</b>	
<b>Level 5</b>																			
Gosford	1103	37.3	110	3.7	211	7.1	527	17.8	418	14.1	47	1.6	537	18.1	7	0.2	<b>2960</b>	<b>100.0</b>	
Northern Beaches	494	28.6	135	7.8	109	6.3	382	22.1	272	15.7	101	5.8	226	13.1	9	0.5	<b>1728</b>	<b>100.0</b>	
St. George	676	27.7	137	5.6	204	8.4	413	16.9	365	15.0	36	1.5	603	24.7	5	0.2	<b>2439</b>	<b>100.0</b>	
Blacktown	1254	33.6	205	5.5	364	9.7	668	17.9	363	9.7	30	0.8	834	22.3	16	0.4	<b>3734</b>	<b>100.0</b>	
Lismore Base	526	41.4	47	3.7	73	5.7	198	15.6	165	13.0	29	2.3	225	17.7	6	0.5	<b>1270</b>	<b>100.0</b>	
Tweed Heads	360	33.5	54	5.0	98	9.1	145	13.5	118	11.0	36	3.3	259	24.1	5	0.5	<b>1075</b>	<b>100.0</b>	
Dubbo Base	384	30.6	36	2.9	62	4.9	280	22.3	190	15.1	20	1.6	283	22.5	1	0.1	<b>1256</b>	<b>100.0</b>	
Wollongong	713	28.8	122	4.9	143	5.8	495	20.0	250	10.1	52	2.1	690	27.9	11	0.4	<b>2476</b>	<b>100.0</b>	

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TABLE 40: (Continued)

Maternity service level–Hospital	Onset and augmentation of labour														TOTAL††			
	Spontaneous		Spontaneous augmented with ARM		Spontaneous augmented with oxytocics‡		No labour		Induced–oxytocics/prostaglandins		Induced–ARM only		Induced–ARM + oxytocics/prostaglandins				Induced–other‡	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Wagga Wagga Base	374	30.8	50	4.1	80	6.6	285	23.5	164	13.5	16	1.3	239	19.7	6	0.5	1214	100.0
<b>TOTAL</b>	<b>5884</b>	<b>32.4</b>	<b>896</b>	<b>4.9</b>	<b>1344</b>	<b>7.4</b>	<b>3393</b>	<b>18.7</b>	<b>2305</b>	<b>12.7</b>	<b>367</b>	<b>2.0</b>	<b>3896</b>	<b>21.5</b>	<b>66</b>	<b>0.4</b>	<b>18152</b>	<b>100.0</b>
<b>Level 4</b>																		
Canterbury	392	25.8	102	6.7	168	11.1	291	19.1	262	17.2	64	4.2	230	15.1	7	0.5	1520	100.0
Hornsby	420	34.9	77	6.4	115	9.6	213	17.7	190	15.8	22	1.8	164	13.6	3	0.2	1204	100.0
Sutherland	410	32.1	79	6.2	167	13.1	206	16.1	157	12.3	16	1.3	242	19.0	0	0.0	1277	100.0
Fairfield	534	34.3	166	10.7	159	10.2	256	16.4	230	14.8	104	6.7	101	6.5	7	0.4	1557	100.0
Campbelltown	1621	40.4	194	4.8	342	8.5	590	14.7	954	23.8	117	2.9	151	3.8	47	1.2	4016	100.0
Bankstown-Lidcombe	617	34.6	123	6.9	132	7.4	285	16.0	349	19.6	102	5.7	148	8.3	25	1.4	1781	100.0
Hawkesbury	221	30.5	42	5.8	31	4.3	168	23.2	82	11.3	7	1.0	171	23.6	1	0.1	724	100.0
Coffs Harbour	384	35.1	55	5.0	59	5.4	213	19.5	124	11.3	27	2.5	227	20.7	5	0.5	1094	100.0
Grafton Base	170	47.0	6	1.7	21	5.8	72	19.9	46	12.7	5	1.4	42	11.6	0	0.0	362	100.0
Port Macquarie Base	233	29.3	23	2.9	43	5.4	179	22.5	115	14.4	9	1.1	192	24.1	2	0.3	796	100.0
Armidale	186	43.9	13	3.1	23	5.4	85	20.0	52	12.3	7	1.7	57	13.4	1	0.2	424	100.0
Tamworth Base	313	31.0	46	4.6	69	6.8	220	21.8	120	11.9	17	1.7	219	21.7	6	0.6	1010	100.0
Manning Base	237	38.0	23	3.7	32	5.1	106	17.0	61	9.8	5	0.8	151	24.2	9	1.4	624	100.0
Bathurst Base	193	41.0	20	4.2	32	6.8	101	21.4	63	13.4	13	2.8	49	10.4	0	0.0	471	100.0
Orange Base	196	19.8	67	6.8	71	7.2	257	25.9	65	6.6	29	2.9	293	29.6	13	1.3	991	100.0
Maitland	626	37.0	40	2.4	83	4.9	246	14.5	279	16.5	37	2.2	380	22.5	1	0.1	1692	100.0
Griffith Base	190	37.5	20	3.9	34	6.7	91	17.9	77	15.2	14	2.8	76	15.0	5	1.0	507	100.0
<b>TOTAL</b>	<b>6943</b>	<b>34.6</b>	<b>1096</b>	<b>5.5</b>	<b>1581</b>	<b>7.9</b>	<b>3579</b>	<b>17.9</b>	<b>3226</b>	<b>16.1</b>	<b>595</b>	<b>3.0</b>	<b>2893</b>	<b>14.4</b>	<b>132</b>	<b>0.7</b>	<b>20050</b>	<b>100.0</b>
<b>Level 3</b>																		
Auburn	512	36.7	72	5.2	147	10.5	190	13.6	171	12.2	6	0.4	294	21.1	4	0.3	1396	100.0
Blue Mountains	99	46.3	11	5.1	10	4.7	40	18.7	27	12.6	1	0.5	26	12.1	0	0.0	214	100.0
Kempsey	127	50.2	5	2.0	5	2.0	36	14.2	29	11.5	8	3.2	42	16.6	1	0.4	253	100.0
Inverell	63	27.6	4	1.8	31	13.6	51	22.4	31	13.6	5	2.2	43	18.9	0	0.0	228	100.0
Mudgee	80	37.0	12	5.6	3	1.4	39	18.1	33	15.3	3	1.4	46	21.3	0	0.0	216	100.0
Bega	91	38.1	5	2.1	14	5.9	49	20.5	31	13.0	4	1.7	45	18.8	0	0.0	239	100.0
Goulburn Base	143	48.6	18	6.1	22	7.5	53	18.0	37	12.6	4	1.4	17	5.8	0	0.0	294	100.0
Moruya	155	49.7	4	1.3	14	4.5	52	16.7	31	9.9	13	4.2	43	13.8	0	0.0	312	100.0
Queanbeyan	204	38.3	13	2.4	32	6.0	86	16.1	64	12.0	9	1.7	117	22.0	8	1.5	533	100.0
Bowral	162	38.6	51	12.1	35	8.3	62	14.8	59	14.0	21	5.0	30	7.1	0	0.0	420	100.0
Shoalhaven	321	37.7	40	4.7	53	6.2	148	17.4	114	13.4	15	1.8	160	18.8	0	0.0	851	100.0
Broken Hill Base	95	44.0	11	5.1	13	6.0	41	19.0	23	10.6	3	1.4	30	13.9	0	0.0	216	100.0
Other hospitals	694	48.0	83	5.7	70	4.8	207	14.3	164	11.3	49	3.4	176	12.2	3	0.2	1446	100.0
<b>TOTAL</b>	<b>2746</b>	<b>41.5</b>	<b>329</b>	<b>5.0</b>	<b>449</b>	<b>6.8</b>	<b>1054</b>	<b>15.9</b>	<b>814</b>	<b>12.3</b>	<b>141</b>	<b>2.1</b>	<b>1069</b>	<b>16.2</b>	<b>16</b>	<b>0.2</b>	<b>6618</b>	<b>100.0</b>
<b>Level 2</b>																		
<b>TOTAL</b>	<b>639</b>	<b>85.7</b>	<b>32</b>	<b>4.3</b>	<b>9</b>	<b>1.2</b>	<b>27</b>	<b>3.6</b>	<b>19</b>	<b>2.5</b>	<b>5</b>	<b>0.7</b>	<b>15</b>	<b>2.0</b>	<b>0</b>	<b>0.0</b>	<b>746</b>	<b>100.0</b>
<b>Public hospitals§</b>																		
<b>TOTAL</b>	<b>24824</b>	<b>33.6</b>	<b>3796</b>	<b>5.1</b>	<b>5772</b>	<b>7.8</b>	<b>14016</b>	<b>19.0</b>	<b>10342</b>	<b>14.0</b>	<b>1859</b>	<b>2.5</b>	<b>12791</b>	<b>17.3</b>	<b>375</b>	<b>0.5</b>	<b>73781</b>	<b>100.0</b>
<b>Private</b>																		
Mater, North Sydney	380	17.7	75	3.5	192	9.0	977	45.6	104	4.9	61	2.8	354	16.5	0	0.0	2143	100.0
North Shore Private	522	25.6	0	0.0	143	7.0	861	42.2	129	6.3	76	3.7	302	14.8	7	0.3	2040	100.0
Sydney Adventist	317	18.5	138	8.1	163	9.5	566	33.0	115	6.7	38	2.2	369	21.5	7	0.4	1713	100.0
North Gosford Private	49	8.7	15	2.7	37	6.6	219	39.0	23	4.1	13	2.3	203	36.1	3	0.5	562	100.0
Hurstville Community	152	21.9	38	5.5	91	13.1	211	30.4	37	5.3	12	1.7	152	21.9	1	0.1	694	100.0
Kareena Private	133	21.0	0	0.0	43	6.8	235	37.1	32	5.1	20	3.2	169	26.7	1	0.2	633	100.0
St. George Private	302	21.8	0	0.0	127	9.2	445	32.1	252	18.2	61	4.4	190	13.7	8	0.6	1385	100.0
Prince of Wales Private	381	18.5	150	7.3	0	0.0	909	44.1	172	8.4	64	3.1	381	18.5	0	0.0	2059	100.0
Norwest Private	322	18.2	158	8.9	1	0.1	554	31.3	161	9.1	56	3.2	516	29.1	3	0.2	1772	100.0
Sydney Southwest Private	188	19.5	95	9.8	0	0.0	295	30.5	125	12.9	34	3.5	221	22.9	4	0.4	966	100.0
Nepean Private	95	13.2	34	4.7	0	0.0	224	31.0	100	13.9	40	5.5	226	31.3	3	0.4	722	100.0
Westmead Private	476	21.4	0	0.0	280	12.6	729	32.8	220	9.9	5	0.2	499	22.4	14	0.6	2223	100.0
Wollongong Private	160	17.8	0	0.0	60	6.7	279	31.0	45	5.0	19	2.1	330	36.7	7	0.8	900	100.0
Newcastle Private	304	17.2	128	7.2	3	0.2	609	34.5	139	7.9	186	10.5	393	22.2	3	0.2	1767	100.0
Calvary, Wagga Wagga	42	16.5	5	2.0	7	2.8	126	49.6	29	11.4	17	6.7	23	9.1	5	2.0	254	100.0
<b>TOTAL</b>	<b>3823</b>	<b>19.3</b>	<b>836</b>	<b>4.2</b>	<b>1147</b>	<b>5.8</b>	<b>7239</b>	<b>36.5</b>	<b>1683</b>	<b>8.5</b>	<b>702</b>	<b>3.5</b>	<b>4328</b>	<b>21.8</b>	<b>66</b>	<b>0.3</b>	<b>19833</b>	<b>100.0</b>
<b>TOTAL NSW*</b>	<b>28782</b>	<b>30.7</b>	<b>4640</b>	<b>4.9</b>	<b>6920</b>	<b>7.4</b>	<b>21255</b>	<b>22.7</b>	<b>12025</b>	<b>12.8</b>	<b>2561</b>	<b>2.7</b>	<b>17119</b>	<b>18.3</b>	<b>441</b>	<b>0.5</b>	<b>93758</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.

# Hospitals with more than 200 births in 2019 are identified individually. Maternity service levels are described on page 91 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 maternity service level 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 and births at level 1 hospitals.

## Type of birth

Table 41 shows type of birth for local health districts, and Table 42 for individual hospitals by maternity service level where at least 200 mothers gave birth in 2019.

**TABLE 41: TYPE OF BIRTH BY LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2019**

Hospital sector- Local Health District	Type of birth										TOTAL			
	Normal vaginal		Forceps		Vacuum extraction		Vaginal breech		Elective caesarean section				Emergency caesarean section <sup>†</sup>	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Public</b>														
Sydney	2932	47.5	354	5.7	660	10.7	29	0.5	1309	21.2	890	14.4	<b>6174</b>	<b>100.0</b>
South Western Sydney	7225	63.2	341	3.0	733	6.4	44	0.4	1926	16.8	1165	10.2	<b>11434</b>	<b>100.0</b>
South Eastern Sydney	3868	51.4	623	8.3	653	8.7	38	0.5	1294	17.2	1056	14.0	<b>7532</b>	<b>100.0</b>
Illawarra Shoalhaven	1841	55.3	155	4.7	187	5.6	5	0.2	643	19.3	498	15.0	<b>3329</b>	<b>100.0</b>
Western Sydney	6165	58.9	488	4.7	537	5.1	88	0.8	1948	18.6	1243	11.9	<b>10469</b>	<b>100.0</b>
Nepean Blue Mountains	2671	52.4	148	2.9	331	6.5	18	0.4	1191	23.4	735	14.4	<b>5094</b>	<b>100.0</b>
Northern Sydney	2920	50.8	432	7.5	370	6.4	26	0.5	1267	22.1	729	12.7	<b>5744</b>	<b>100.0</b>
Central Coast	1784	58.5	196	6.4	212	6.9	8	0.3	527	17.3	324	10.6	<b>3051</b>	<b>100.0</b>
Hunter New England	5191	59.4	339	3.9	419	4.8	30	0.3	1640	18.8	1118	12.8	<b>8737</b>	<b>100.0</b>
Northern NSW	1918	66.0	105	3.6	150	5.2	8	0.3	415	14.3	310	10.7	<b>2906</b>	<b>100.0</b>
Mid North Coast	1305	59.9	89	4.1	109	5.0	2	0.1	428	19.6	246	11.3	<b>2179</b>	<b>100.0</b>
Southern NSW	945	61.4	62	4.0	94	6.1	2	0.1	260	16.9	176	11.4	<b>1539</b>	<b>100.0</b>
Murrumbidgee	1186	56.4	56	2.7	169	8.0	3	0.1	413	19.7	274	13.0	<b>2101</b>	<b>100.0</b>
Western NSW	1877	57.3	104	3.2	158	4.8	7	0.2	714	21.8	416	12.7	<b>3276</b>	<b>100.0</b>
Far West	135	62.5	11	5.1	3	1.4	1	0.5	41	19.0	25	11.6	<b>216</b>	<b>100.0</b>
<b>TOTAL</b>	<b>41963</b>	<b>56.9</b>	<b>3503</b>	<b>4.7</b>	<b>4785</b>	<b>6.5</b>	<b>309</b>	<b>0.4</b>	<b>14016</b>	<b>19.0</b>	<b>9205</b>	<b>12.5</b>	<b>73781</b>	<b>100.0</b>
<b>Private</b>														
<b>TOTAL</b>	<b>7609</b>	<b>38.4</b>	<b>705</b>	<b>3.6</b>	<b>1827</b>	<b>9.2</b>	<b>19</b>	<b>0.1</b>	<b>7239</b>	<b>36.5</b>	<b>2434</b>	<b>12.3</b>	<b>19833</b>	<b>100.0</b>
<b>TOTAL NSW*</b>	<b>49716</b>	<b>53.0</b>	<b>4208</b>	<b>4.5</b>	<b>6612</b>	<b>7.1</b>	<b>328</b>	<b>0.3</b>	<b>21255</b>	<b>22.7</b>	<b>11639</b>	<b>12.4</b>	<b>93758</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.

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

**TABLE 42: TYPE OF BIRTH BY MATERNITY SERVICE LEVEL AND HOSPITAL, NSW 2019<sup>#</sup>**

Maternity service level- Hospital	Type of birth										TOTAL			
	Normal vaginal		Forceps		Vacuum extraction		Vaginal breech		Elective caesarean section				Emergency caesarean section <sup>†</sup>	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Level 6</b>														
Royal Prince Alfred	2160	46.4	267	5.7	520	11.2	26	0.6	1018	21.9	663	14.2	<b>4654</b>	<b>100.0</b>
Royal North Shore	1326	48.4	244	8.9	129	4.7	18	0.7	672	24.5	351	12.8	<b>2740</b>	<b>100.0</b>
Royal Hospital for Women	1898	49.7	370	9.7	288	7.5	25	0.7	675	17.7	560	14.7	<b>3816</b>	<b>100.0</b>
Liverpool	2195	60.0	161	4.4	210	5.7	18	0.5	733	20.0	343	9.4	<b>3660</b>	<b>100.0</b>
Nepean	2097	52.4	123	3.1	232	5.8	17	0.4	946	23.7	585	14.6	<b>4000</b>	<b>100.0</b>
Westmead	3025	56.7	249	4.7	312	5.8	65	1.2	1090	20.4	598	11.2	<b>5339</b>	<b>100.0</b>
John Hunter	2180	55.0	199	5.0	202	5.1	24	0.6	827	20.9	533	13.4	<b>3965</b>	<b>100.0</b>
<b>TOTAL</b>	<b>14881</b>	<b>52.8</b>	<b>1613</b>	<b>5.7</b>	<b>1893</b>	<b>6.7</b>	<b>193</b>	<b>0.7</b>	<b>5961</b>	<b>21.2</b>	<b>3633</b>	<b>12.9</b>	<b>28174</b>	<b>100.0</b>
<b>Level 5</b>														
Gosford	1693	57.2	196	6.6	212	7.2	8	0.3	527	17.8	324	10.9	<b>2960</b>	<b>100.0</b>
Northern Beaches	816	47.2	97	5.6	205	11.9	4	0.2	382	22.1	224	13.0	<b>1728</b>	<b>100.0</b>
St. George	1213	49.7	174	7.1	281	11.5	10	0.4	413	16.9	348	14.3	<b>2439</b>	<b>100.0</b>
Blacktown	2192	58.7	194	5.2	168	4.5	19	0.5	668	17.9	493	13.2	<b>3734</b>	<b>100.0</b>
Lismore Base	815	64.2	47	3.7	53	4.2	3	0.2	198	15.6	154	12.1	<b>1270</b>	<b>100.0</b>
Tweed Heads	680	63.3	43	4.0	89	8.3	3	0.3	145	13.5	115	10.7	<b>1075</b>	<b>100.0</b>
Dubbo Base	721	57.4	59	4.7	46	3.7	6	0.5	280	22.3	144	11.5	<b>1256</b>	<b>100.0</b>
Wollongong	1335	53.9	116	4.7	127	5.1	1	0.0	495	20.0	402	16.2	<b>2476</b>	<b>100.0</b>
Wagga Wagga Base	600	49.4	41	3.4	99	8.2	2	0.2	285	23.5	187	15.4	<b>1214</b>	<b>100.0</b>
<b>TOTAL</b>	<b>10065</b>	<b>55.4</b>	<b>967</b>	<b>5.3</b>	<b>1280</b>	<b>7.1</b>	<b>56</b>	<b>0.3</b>	<b>3393</b>	<b>18.7</b>	<b>2391</b>	<b>13.2</b>	<b>18152</b>	<b>100.0</b>
<b>Level 4</b>														
Canterbury	772	50.8	87	5.7	140	9.2	3	0.2	291	19.1	227	14.9	<b>1520</b>	<b>100.0</b>
Hornsby	707	58.7	91	7.6	36	3.0	3	0.2	213	17.7	154	12.8	<b>1204</b>	<b>100.0</b>
Sutherland	757	59.3	79	6.2	84	6.6	3	0.2	206	16.1	148	11.6	<b>1277</b>	<b>100.0</b>
Fairfield	1054	67.7	16	1.0	86	5.5	4	0.3	256	16.4	141	9.1	<b>1557</b>	<b>100.0</b>
Campbelltown	2572	64.0	66	1.6	316	7.9	14	0.3	590	14.7	458	11.4	<b>4016</b>	<b>100.0</b>

(Continued on next page)

TABLE 42: (Continued)

Maternity service level–Hospital	Type of birth													
	Normal vaginal		Forceps		Vacuum extraction		Vaginal breech		Elective caesarean section		Emergency caesarean section†		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Bankstown-Lidcombe	1140	64.0	72	4.0	96	5.4	8	0.4	285	16.0	180	10.1	1781	100.0
Hawkesbury	370	51.1	19	2.6	71	9.8	1	0.1	168	23.2	95	13.1	724	100.0
Coffs Harbour	687	62.8	25	2.3	59	5.4	1	0.1	213	19.5	109	10.0	1094	100.0
Grafton Base	226	62.4	15	4.1	6	1.7	2	0.6	72	19.9	41	11.3	362	100.0
Port Macquarie Base	414	52.0	55	6.9	39	4.9	1	0.1	179	22.5	108	13.6	796	100.0
Armidale	224	52.8	13	3.1	19	4.5	1	0.2	85	20.0	82	19.3	424	100.0
Tamworth Base	589	58.3	39	3.9	43	4.3	1	0.1	220	21.8	118	11.7	1010	100.0
Manning Base	371	59.5	27	4.3	45	7.2	1	0.2	106	17.0	74	11.9	624	100.0
Bathurst Base	278	59.0	17	3.6	21	4.5	0	0.0	101	21.4	54	11.5	471	100.0
Orange Base	507	51.2	24	2.4	56	5.7	0	0.0	257	25.9	147	14.8	991	100.0
Maitland	1123	66.4	45	2.7	46	2.7	1	0.1	246	14.5	231	13.7	1692	100.0
Griffith Base	308	60.7	9	1.8	37	7.3	0	0.0	91	17.9	62	12.2	507	100.0
<b>TOTAL</b>	<b>12099</b>	<b>60.3</b>	<b>699</b>	<b>3.5</b>	<b>1200</b>	<b>6.0</b>	<b>44</b>	<b>0.2</b>	<b>3579</b>	<b>17.9</b>	<b>2429</b>	<b>12.1</b>	<b>20050</b>	<b>100.0</b>
<b>Level 3</b>														
Auburn	948	67.9	45	3.2	57	4.1	4	0.3	190	13.6	152	10.9	1396	100.0
Blue Mountains	114	53.3	5	2.3	20	9.3	0	0.0	40	18.7	35	16.4	214	100.0
Kempsey	169	66.8	9	3.6	10	4.0	0	0.0	36	14.2	29	11.5	253	100.0
Inverell	128	56.1	10	4.4	19	8.3	1	0.4	51	22.4	19	8.3	228	100.0
Mudgee	123	56.9	3	1.4	21	9.7	1	0.5	39	18.1	29	13.4	216	100.0
Bega	143	59.8	9	3.8	12	5.0	0	0.0	49	20.5	26	10.9	239	100.0
Goulburn Base	180	61.2	14	4.8	19	6.5	1	0.3	53	18.0	27	9.2	294	100.0
Moruya	217	69.6	10	3.2	8	2.6	1	0.3	52	16.7	24	7.7	312	100.0
Queanbeyan	289	54.2	23	4.3	52	9.8	0	0.0	86	16.1	83	15.6	533	100.0
Bowral	264	62.9	26	6.2	25	6.0	0	0.0	62	14.8	43	10.2	420	100.0
Shoalhaven	504	59.2	39	4.6	60	7.1	4	0.5	148	17.4	96	11.3	851	100.0
Broken Hill Base	135	62.5	11	5.1	3	1.4	1	0.5	41	19.0	25	11.6	216	100.0
Other hospitals	993	68.7	19	1.3	86	5.9	1	0.1	207	14.3	140	9.7	1446	100.0
<b>TOTAL</b>	<b>4207</b>	<b>63.6</b>	<b>223</b>	<b>3.4</b>	<b>392</b>	<b>5.9</b>	<b>14</b>	<b>0.2</b>	<b>1054</b>	<b>15.9</b>	<b>728</b>	<b>11.0</b>	<b>6618</b>	<b>100.0</b>
<b>Level 2</b>														
<b>TOTAL</b>	<b>680</b>	<b>91.2</b>	<b>1</b>	<b>0.1</b>	<b>19</b>	<b>2.5</b>	<b>1</b>	<b>0.1</b>	<b>27</b>	<b>3.6</b>	<b>18</b>	<b>2.4</b>	<b>746</b>	<b>100.0</b>
<b>Public hospital<sup>§</sup></b>														
<b>TOTAL</b>	<b>41963</b>	<b>56.9</b>	<b>3503</b>	<b>4.7</b>	<b>4785</b>	<b>6.5</b>	<b>309</b>	<b>0.4</b>	<b>14016</b>	<b>19.0</b>	<b>9205</b>	<b>12.5</b>	<b>73781</b>	<b>100.0</b>
<b>Private</b>														
Mater, North Sydney	632	29.5	69	3.2	205	9.6	3	0.1	977	45.6	257	12.0	2143	100.0
North Shore Private	679	33.3	66	3.2	148	7.3	3	0.1	861	42.2	283	13.9	2040	100.0
Sydney Adventist	736	43.0	49	2.9	149	8.7	3	0.2	566	33.0	210	12.3	1713	100.0
North Gosford Private	167	29.7	23	4.1	67	11.9	2	0.4	219	39.0	84	14.9	562	100.0
Hurstville Community	295	42.5	18	2.6	80	11.5	2	0.3	211	30.4	88	12.7	694	100.0
Kareena Private	249	39.3	45	7.1	40	6.3	0	0.0	235	37.1	64	10.1	633	100.0
St. George Private	535	38.6	52	3.8	174	12.6	1	0.1	445	32.1	178	12.9	1385	100.0
Prince of Wales Private	655	31.8	63	3.1	191	9.3	1	0.0	909	44.1	240	11.7	2059	100.0
Norwest Private	807	45.5	62	3.5	158	8.9	2	0.1	554	31.3	189	10.7	1772	100.0
Sydney Southwest Private	423	43.8	62	6.4	118	12.2	0	0.0	295	30.5	68	7.0	966	100.0
Nepean Private	310	42.9	19	2.6	66	9.1	0	0.0	224	31.0	103	14.3	722	100.0
Westmead Private	948	42.6	123	5.5	99	4.5	1	0.0	729	32.8	323	14.5	2223	100.0
Wollongong Private	372	41.3	10	1.1	113	12.6	1	0.1	279	31.0	125	13.9	900	100.0
Newcastle Private	726	41.1	44	2.5	199	11.3	0	0.0	609	34.5	189	10.7	1767	100.0
Calvary, Wagga Wagga	75	29.5	0	0.0	20	7.9	0	0.0	126	49.6	33	13.0	254	100.0
<b>TOTAL</b>	<b>7609</b>	<b>38.4</b>	<b>705</b>	<b>3.6</b>	<b>1827</b>	<b>9.2</b>	<b>19</b>	<b>0.1</b>	<b>7239</b>	<b>36.5</b>	<b>2434</b>	<b>12.3</b>	<b>19833</b>	<b>100.0</b>
<b>TOTAL NSW*</b>	<b>49716</b>	<b>53.0</b>	<b>4208</b>	<b>4.5</b>	<b>6612</b>	<b>7.1</b>	<b>328</b>	<b>0.3</b>	<b>21255</b>	<b>22.7</b>	<b>11639</b>	<b>12.4</b>	<b>93758</b>	<b>100.0</b>

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

# Hospitals with more than 200 births in 2019 are identified individually. Maternity service levels are described on page 91 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 maternity service level other than those specified in the table.

\* Total NSW includes births at home assisted by independent midwives and births at level 1 hospitals.

## 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 maternity service level where at least 200 mothers gave birth in 2019.

In addition to the types of pain relief shown in the tables, in 2019 a further 16,916 (18.0%) women were reported to have received local anaesthetic to the perineum, and 571 (0.6%) received a pudendal block.

**TABLE 43: PAIN RELIEF BY LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2019**

Hospital sector– Local Health District	Pain relief											
	Epidural-spinal <sup>†</sup>		General anaesthetic		IM narcotics		Nitrous oxide		Nil		TOTAL <sup>‡</sup>	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Public</b>												
Sydney	3446	55.8	225	3.6	234	3.8	2567	41.6	617	10.0	<b>6174</b>	<b>100.0</b>
South Western Sydney	4680	40.9	408	3.6	1512	13.2	5554	48.6	1462	12.8	<b>11434</b>	<b>100.0</b>
South Eastern Sydney	4591	61.0	149	2.0	854	11.3	3109	41.3	434	5.8	<b>7532</b>	<b>100.0</b>
Illawarra Shoalhaven	1798	54.0	123	3.7	262	7.9	1492	44.8	256	7.7	<b>3329</b>	<b>100.0</b>
Western Sydney	5428	51.8	280	2.7	968	9.2	4597	43.9	736	7.0	<b>10469</b>	<b>100.0</b>
Nepean Blue Mountains	2715	53.3	259	5.1	679	13.3	2143	42.1	359	7.0	<b>5094</b>	<b>100.0</b>
Northern Sydney	3313	57.7	94	1.6	439	7.6	2271	39.5	398	6.9	<b>5744</b>	<b>100.0</b>
Central Coast	1449	47.5	103	3.4	227	7.4	1290	42.3	345	11.3	<b>3051</b>	<b>100.0</b>
Hunter New England	3892	44.5	443	5.1	914	10.5	3969	45.4	811	9.3	<b>8737</b>	<b>100.0</b>
Northern NSW	1245	42.8	67	2.3	231	7.9	1176	40.5	419	14.4	<b>2906</b>	<b>100.0</b>
Mid North Coast	1042	47.8	66	3.0	156	7.2	925	42.5	205	9.4	<b>2179</b>	<b>100.0</b>
Southern NSW	653	42.4	48	3.1	151	9.8	736	47.8	173	11.2	<b>1539</b>	<b>100.0</b>
Murrumbidgee	921	43.8	55	2.6	303	14.4	941	44.8	228	10.9	<b>2101</b>	<b>100.0</b>
Western NSW	1653	50.5	103	3.1	427	13.0	1439	43.9	266	8.1	<b>3276</b>	<b>100.0</b>
Far West	101	46.8	9	4.2	16	7.4	76	35.2	40	18.5	<b>216</b>	<b>100.0</b>
<b>TOTAL</b>	<b>36927</b>	<b>50.0</b>	<b>2432</b>	<b>3.3</b>	<b>7373</b>	<b>10.0</b>	<b>32285</b>	<b>43.8</b>	<b>6749</b>	<b>9.1</b>	<b>73781</b>	<b>100.0</b>
<b>Private</b>												
<b>TOTAL</b>	<b>16239</b>	<b>81.9</b>	<b>213</b>	<b>1.1</b>	<b>951</b>	<b>4.8</b>	<b>4597</b>	<b>23.2</b>	<b>870</b>	<b>4.4</b>	<b>19833</b>	<b>100.0</b>
<b>TOTAL NSW*</b>	<b>53166</b>	<b>56.7</b>	<b>2645</b>	<b>2.8</b>	<b>8324</b>	<b>8.9</b>	<b>36883</b>	<b>39.3</b>	<b>7713</b>	<b>8.2</b>	<b>93758</b>	<b>100.0</b>

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

IM: Intramuscular.

† 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.

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

**TABLE 44: PAIN RELIEF BY MATERNITY SERVICE LEVEL AND HOSPITAL, NSW 2019<sup>#</sup>**

Maternity service level– Hospital	Pain relief											
	Epidural-spinal <sup>†</sup>		General anaesthetic		IM narcotics		Nitrous oxide		Nil		TOTAL <sup>‡</sup>	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Level 6</b>												
Royal Prince Alfred	2672	57.4	160	3.4	144	3.1	1827	39.3	497	10.7	<b>4654</b>	<b>100.0</b>
Royal North Shore	1761	64.3	56	2.0	176	6.4	986	36.0	117	4.3	<b>2740</b>	<b>100.0</b>
Royal Hospital for Women	2424	63.5	67	1.8	407	10.7	1410	36.9	247	6.5	<b>3816</b>	<b>100.0</b>
Liverpool	1724	47.1	177	4.8	505	13.8	1544	42.2	332	9.1	<b>3660</b>	<b>100.0</b>
Nepean	2205	55.1	231	5.8	500	12.5	1719	43.0	243	6.1	<b>4000</b>	<b>100.0</b>
Westmead	3000	56.2	146	2.7	453	8.5	2187	41.0	332	6.2	<b>5339</b>	<b>100.0</b>
John Hunter	2036	51.3	247	6.2	446	11.2	1784	45.0	257	6.5	<b>3965</b>	<b>100.0</b>
<b>TOTAL</b>	<b>15822</b>	<b>56.2</b>	<b>1084</b>	<b>3.8</b>	<b>2631</b>	<b>9.3</b>	<b>11457</b>	<b>40.7</b>	<b>2025</b>	<b>7.2</b>	<b>28174</b>	<b>100.0</b>
<b>Level 5</b>												
Gosford	1449	49.0	103	3.5	226	7.6	1269	42.9	298	10.1	<b>2960</b>	<b>100.0</b>
Northern Beaches	889	51.4	20	1.2	173	10.0	702	40.6	194	11.2	<b>1728</b>	<b>100.0</b>
St. George	1469	60.2	59	2.4	368	15.1	1120	45.9	106	4.3	<b>2439</b>	<b>100.0</b>
Blacktown	1836	49.2	113	3.0	420	11.2	1643	44.0	280	7.5	<b>3734</b>	<b>100.0</b>
Lismore Base	580	45.7	32	2.5	87	6.9	517	40.7	161	12.7	<b>1270</b>	<b>100.0</b>
Tweed Heads	521	48.5	27	2.5	91	8.5	466	43.3	103	9.6	<b>1075</b>	<b>100.0</b>
Dubbo Base	631	50.2	28	2.2	199	15.8	589	46.9	91	7.2	<b>1256</b>	<b>100.0</b>
Wollongong	1388	56.1	97	3.9	134	5.4	1054	42.6	174	7.0	<b>2476</b>	<b>100.0</b>
Wagga Wagga Base	661	54.4	33	2.7	169	13.9	508	41.8	80	6.6	<b>1214</b>	<b>100.0</b>
<b>TOTAL</b>	<b>9424</b>	<b>51.9</b>	<b>512</b>	<b>2.8</b>	<b>1867</b>	<b>10.3</b>	<b>7868</b>	<b>43.3</b>	<b>1487</b>	<b>8.2</b>	<b>18152</b>	<b>100.0</b>
<b>Level 4</b>												
Canterbury	774	50.9	65	4.3	90	5.9	740	48.7	120	7.9	<b>1520</b>	<b>100.0</b>
Hornsby	663	55.1	17	1.4	90	7.5	559	46.4	62	5.1	<b>1204</b>	<b>100.0</b>
Sutherland	698	54.7	23	1.8	79	6.2	579	45.3	81	6.3	<b>1277</b>	<b>100.0</b>

(Continued on next page)

TABLE 44: (Continued)

Maternity service level–Hospital	Pain relief											
	Epidural-spinal <sup>†</sup>		General anaesthetic		IM narcotics		Nitrous oxide		Nil		TOTAL <sup>‡</sup>	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Fairfield	462	29.7	45	2.9	231	14.8	838	53.8	228	14.6	1557	100.0
Hawkesbury	351	48.5	14	1.9	134	18.5	287	39.6	68	9.4	724	100.0
Campbelltown	1606	40.0	120	3.0	508	12.6	2021	50.3	634	15.8	4016	100.0
Bankstown-Lidcombe	736	41.3	60	3.4	174	9.8	937	52.6	202	11.3	1781	100.0
Coffs Harbour	518	47.3	29	2.7	79	7.2	413	37.8	115	10.5	1094	100.0
Grafton Base	143	39.5	8	2.2	53	14.6	166	45.9	49	13.5	362	100.0
Port Macquarie Base	446	56.0	25	3.1	51	6.4	365	45.9	48	6.0	796	100.0
Armidale	195	46.0	13	3.1	50	11.8	162	38.2	40	9.4	424	100.0
Tamworth Base	483	47.8	41	4.1	95	9.4	454	45.0	76	7.5	1010	100.0
Manning Base	261	41.8	29	4.6	108	17.3	300	48.1	58	9.3	624	100.0
Bathurst Base	205	43.5	18	3.8	53	11.3	206	43.7	47	10.0	471	100.0
Orange Base	621	62.7	43	4.3	86	8.7	371	37.4	60	6.1	991	100.0
Maitland	652	38.5	89	5.3	106	6.3	841	49.7	173	10.2	1692	100.0
Griffith Base	188	37.1	20	3.9	77	15.2	242	47.7	74	14.6	507	100.0
<b>TOTAL</b>	<b>9002</b>	<b>44.9</b>	<b>659</b>	<b>3.3</b>	<b>2064</b>	<b>10.3</b>	<b>9481</b>	<b>47.3</b>	<b>2135</b>	<b>10.6</b>	<b>20050</b>	<b>100.0</b>
<b>Level 3</b>												
Auburn	592	42.4	21	1.5	95	6.8	767	54.9	124	8.9	1396	100.0
Blue Mountains	93	43.5	9	4.2	26	12.1	78	36.4	29	13.6	214	100.0
Kempsey	78	30.8	12	4.7	25	9.9	129	51.0	27	10.7	253	100.0
Inverell	69	30.3	1	0.4	40	17.5	102	44.7	38	16.7	228	100.0
Mudgee	96	44.4	6	2.8	12	5.6	80	37.0	27	12.5	216	100.0
Bega	110	46.0	3	1.3	36	15.1	109	45.6	21	8.8	239	100.0
Goulburn Base	124	42.2	10	3.4	50	17.0	171	58.2	15	5.1	294	100.0
Moruya	106	34.0	11	3.5	28	9.0	149	47.8	53	17.0	312	100.0
Queanbeyan	257	48.2	19	3.6	24	4.5	226	42.4	54	10.1	533	100.0
Bowral	152	36.2	6	1.4	94	22.4	214	51.0	66	15.7	420	100.0
Shoalhaven	410	48.2	26	3.1	128	15.0	437	51.4	82	9.6	851	100.0
Broken Hill Base	101	46.8	9	4.2	16	7.4	76	35.2	40	18.5	216	100.0
Other hospitals	425	29.4	32	2.2	201	13.9	706	48.8	223	15.4	1446	100.0
<b>TOTAL</b>	<b>2613</b>	<b>39.5</b>	<b>165</b>	<b>2.5</b>	<b>775</b>	<b>11.7</b>	<b>3244</b>	<b>49.0</b>	<b>799</b>	<b>12.1</b>	<b>6618</b>	<b>100.0</b>
<b>Level 2</b>												
<b>TOTAL</b>	<b>55</b>	<b>7.4</b>	<b>10</b>	<b>1.3</b>	<b>33</b>	<b>4.4</b>	<b>218</b>	<b>29.2</b>	<b>293</b>	<b>39.3</b>	<b>746</b>	<b>100.0</b>
<b>Public hospital<sup>§</sup></b>												
<b>TOTAL</b>	<b>36927</b>	<b>50.0</b>	<b>2432</b>	<b>3.3</b>	<b>7373</b>	<b>10.0</b>	<b>32285</b>	<b>43.8</b>	<b>6749</b>	<b>9.1</b>	<b>73781</b>	<b>100.0</b>
<b>Private</b>												
Mater, North Sydney	1837	85.7	16	0.7	38	1.8	404	18.9	81	3.8	2143	100.0
North Shore Private	1730	84.8	14	0.7	18	0.9	360	17.6	81	4.0	2040	100.0
Sydney Adventist	1406	82.1	28	1.6	109	6.4	359	21.0	50	2.9	1713	100.0
North Gosford Private	443	78.8	13	2.3	5	0.9	96	17.1	17	3.0	562	100.0
Hurstville Community	551	79.4	6	0.9	27	3.9	195	28.1	6	0.9	694	100.0
Kareena Private	552	87.2	3	0.5	0	0.0	97	15.3	13	2.1	633	100.0
St. George Private	1157	83.5	14	1.0	47	3.4	275	19.9	45	3.2	1385	100.0
Prince of Wales Private	1838	89.3	18	0.9	51	2.5	582	28.3	58	2.8	2059	100.0
Norwest Private	1386	78.2	23	1.3	91	5.1	453	25.6	136	7.7	1772	100.0
Sydney Southwest Private	678	70.2	12	1.2	185	19.2	200	20.7	101	10.5	966	100.0
Nepean Private	514	71.2	13	1.8	123	17.0	270	37.4	36	5.0	722	100.0
Westmead Private	1846	83.0	17	0.8	86	3.9	522	23.5	36	1.6	2223	100.0
Wollongong Private	752	83.6	13	1.4	2	0.2	241	26.8	32	3.6	900	100.0
Newcastle Private	1366	77.3	22	1.2	153	8.7	497	28.1	148	8.4	1767	100.0
Calvary, Wagga Wagga	183	72.0	1	0.4	16	6.3	46	18.1	30	11.8	254	100.0
<b>TOTAL</b>	<b>16239</b>	<b>81.9</b>	<b>213</b>	<b>1.1</b>	<b>951</b>	<b>4.8</b>	<b>4597</b>	<b>23.2</b>	<b>870</b>	<b>4.4</b>	<b>19833</b>	<b>100.0</b>
<b>TOTAL NSW*</b>	<b>53166</b>	<b>56.7</b>	<b>2645</b>	<b>2.8</b>	<b>8324</b>	<b>8.9</b>	<b>36883</b>	<b>39.3</b>	<b>7713</b>	<b>8.2</b>	<b>93758</b>	<b>100.0</b>

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

# Hospitals with more than 200 births in 2019 are identified individually. Maternity service levels are described on page 91 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 maternity service level other than those specified in the table.

\* Total NSW includes births at home assisted by independent midwives and births at level 1 hospitals.



## Perineal status

Table 45 shows the perineal status in vaginal births for local health districts, and Table 46 for individual hospitals by maternity service level where at least 200 mothers gave birth in 2019.

In 2019, there were 1,712 cases of third degree tear and 81 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 2019**

Hospital sector– Local Health District	Perineal status														TOTAL				
	Intact		1st degree tear/graze		2nd degree tear		3rd or 4th degree tear		Episiotomy		Combined tear and episiotomy		Other				Not stated		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
<b>Public</b>																			
Sydney	469	11.8	704	17.7	1415	35.6	136	3.4	911	22.9	166	4.2	174	4.4	0	0.0	<b>3975</b>	<b>100.0</b>	
South Western Sydney	1610	19.3	1966	23.6	2482	29.7	246	2.9	1467	17.6	226	2.7	346	4.1	0	0.0	<b>8343</b>	<b>100.0</b>	
South Eastern Sydney	596	11.5	894	17.3	1646	31.8	127	2.5	1427	27.5	200	3.9	292	5.6	0	0.0	<b>5182</b>	<b>100.0</b>	
Illawarra Shoalhaven	418	19.1	513	23.4	590	27.0	75	3.4	360	16.5	38	1.7	194	8.9	0	0.0	<b>2188</b>	<b>100.0</b>	
Western Sydney	934	12.8	1484	20.4	2103	28.9	164	2.3	1813	24.9	305	4.2	475	6.5	0	0.0	<b>7278</b>	<b>100.0</b>	
Nepean Blue Mountains	449	14.2	921	29.1	883	27.9	78	2.5	506	16.0	89	2.8	242	7.6	0	0.0	<b>3168</b>	<b>100.0</b>	
Northern Sydney	366	9.8	890	23.7	1346	35.9	109	2.9	822	21.9	98	2.6	117	3.1	0	0.0	<b>3748</b>	<b>100.0</b>	
Central Coast	276	12.5	643	29.2	644	29.3	50	2.3	380	17.3	28	1.3	179	8.1	0	0.0	<b>2200</b>	<b>100.0</b>	
Hunter New England	959	16.0	1717	28.7	1605	26.8	179	3.0	918	15.4	137	2.3	464	7.8	0	0.0	<b>5979</b>	<b>100.0</b>	
Northern NSW	360	16.5	700	32.1	630	28.9	62	2.8	252	11.6	25	1.1	152	7.0	0	0.0	<b>2181</b>	<b>100.0</b>	
Mid North Coast	236	15.7	431	28.6	437	29.0	47	3.1	216	14.4	32	2.1	106	7.0	0	0.0	<b>1505</b>	<b>100.0</b>	
Southern NSW	194	17.6	344	31.2	279	25.3	37	3.4	130	11.8	21	1.9	98	8.9	0	0.0	<b>1103</b>	<b>100.0</b>	
Murrumbidgee	293	20.7	443	31.3	341	24.1	34	2.4	197	13.9	25	1.8	81	5.7	0	0.0	<b>1414</b>	<b>100.0</b>	
Western NSW	381	17.8	698	32.5	482	22.5	53	2.5	331	15.4	43	2.0	158	7.4	0	0.0	<b>2146</b>	<b>100.0</b>	
Far West	30	20.0	51	34.0	35	23.3	2	1.3	16	10.7	0	0.0	16	10.7	0	0.0	<b>150</b>	<b>100.0</b>	
<b>TOTAL</b>	<b>7571</b>	<b>15.0</b>	<b>12399</b>	<b>24.5</b>	<b>14918</b>	<b>29.5</b>	<b>1399</b>	<b>2.8</b>	<b>9746</b>	<b>19.3</b>	<b>1433</b>	<b>2.8</b>	<b>3094</b>	<b>6.1</b>	<b>0</b>	<b>0.0</b>	<b>50560</b>	<b>100.0</b>	
<b>Private</b>																			
<b>TOTAL</b>	<b>1464</b>	<b>14.4</b>	<b>1764</b>	<b>17.4</b>	<b>3275</b>	<b>32.2</b>	<b>63</b>	<b>0.6</b>	<b>2686</b>	<b>26.4</b>	<b>239</b>	<b>2.4</b>	<b>658</b>	<b>6.5</b>	<b>11</b>	<b>0.1</b>	<b>10160</b>	<b>100.0</b>	
<b>TOTAL NSW*</b>	<b>9091</b>	<b>14.9</b>	<b>14201</b>	<b>23.3</b>	<b>18238</b>	<b>30.0</b>	<b>1467</b>	<b>2.4</b>	<b>12432</b>	<b>20.4</b>	<b>1672</b>	<b>2.7</b>	<b>3752</b>	<b>6.2</b>	<b>11</b>	<b>0.0</b>	<b>60864</b>	<b>100.0</b>	

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

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

**TABLE 46: PERINEAL STATUS AMONG VAGINAL BIRTHS BY MATERNITY SERVICE LEVEL AND HOSPITAL, NSW 2019\***

Maternity service level– Hospital	Perineal status														TOTAL			
	Intact		1st degree tear/graze		2nd degree tear		3rd or 4th degree tear		Episiotomy		Combined tear and episiotomy		Other				Not stated	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Level 6</b>																		
Royal Prince Alfred	322	10.8	493	16.6	1119	37.6	111	3.7	703	23.6	122	4.1	103	3.5	0	0.0	<b>2973</b>	<b>100.0</b>
Royal North Shore	140	8.2	312	18.2	677	39.4	59	3.4	395	23.0	58	3.4	76	4.4	0	0.0	<b>1717</b>	<b>100.0</b>
Royal Hospital for Women	302	11.7	503	19.5	785	30.4	65	2.5	683	26.5	91	3.5	152	5.9	0	0.0	<b>2581</b>	<b>100.0</b>
Liverpool	451	17.5	582	22.5	836	32.4	86	3.3	431	16.7	84	3.3	114	4.4	0	0.0	<b>2584</b>	<b>100.0</b>
Nepean	336	13.6	714	28.9	692	28.0	56	2.3	405	16.4	79	3.2	187	7.6	0	0.0	<b>2469</b>	<b>100.0</b>
Westmead	456	12.5	681	18.7	1091	29.9	85	2.3	950	26.0	169	4.6	219	6.0	0	0.0	<b>3651</b>	<b>100.0</b>
John Hunter	345	13.2	673	25.8	726	27.9	94	3.6	480	18.4	93	3.6	194	7.4	0	0.0	<b>2605</b>	<b>100.0</b>
<b>TOTAL</b>	<b>2352</b>	<b>12.7</b>	<b>3958</b>	<b>21.3</b>	<b>5926</b>	<b>31.9</b>	<b>556</b>	<b>3.0</b>	<b>4047</b>	<b>21.8</b>	<b>696</b>	<b>3.7</b>	<b>1045</b>	<b>5.6</b>	<b>0</b>	<b>0.0</b>	<b>18580</b>	<b>100.0</b>
<b>Level 5</b>																		
Gosford	258	12.2	599	28.4	624	29.6	49	2.3	380	18.0	28	1.3	171	8.1	0	0.0	<b>2109</b>	<b>100.0</b>
Northern Beaches	132	11.8	419	37.3	315	28.1	24	2.1	211	18.8	19	1.7	2	0.2	0	0.0	<b>1122</b>	<b>100.0</b>
St. George	197	11.7	233	13.9	552	32.9	35	2.1	497	29.6	81	4.8	83	4.9	0	0.0	<b>1678</b>	<b>100.0</b>
Blacktown	301	11.7	553	21.5	737	28.6	66	2.6	641	24.9	99	3.8	176	6.8	0	0.0	<b>2573</b>	<b>100.0</b>
Lismore Base	152	16.6	302	32.9	245	26.7	35	3.8	124	13.5	10	1.1	50	5.4	0	0.0	<b>918</b>	<b>100.0</b>
Tweed Heads	114	14.0	200	24.5	282	34.6	25	3.1	109	13.4	12	1.5	73	9.0	0	0.0	<b>815</b>	<b>100.0</b>
Dubbo Base	176	21.2	250	30.0	191	23.0	14	1.7	121	14.5	19	2.3	61	7.3	0	0.0	<b>832</b>	<b>100.0</b>
Wollongong	275	17.4	351	22.2	442	28.0	59	3.7	282	17.9	28	1.8	142	9.0	0	0.0	<b>1579</b>	<b>100.0</b>
Wagga Wagga Base	87	11.7	239	32.2	203	27.4	24	3.2	118	15.9	18	2.4	53	7.1	0	0.0	<b>742</b>	<b>100.0</b>
<b>TOTAL</b>	<b>1692</b>	<b>13.7</b>	<b>3146</b>	<b>25.4</b>	<b>3591</b>	<b>29.0</b>	<b>331</b>	<b>2.7</b>	<b>2483</b>	<b>20.1</b>	<b>314</b>	<b>2.5</b>	<b>811</b>	<b>6.6</b>	<b>0</b>	<b>0.0</b>	<b>12368</b>	<b>100.0</b>
<b>Level 4</b>																		
Canterbury	147	14.7	211	21.1	296	29.5	25	2.5	208	20.8	44	4.4	71	7.1	0	0.0	<b>1002</b>	<b>100.0</b>
Hornsby	84	10.0	129	15.4	326	38.9	26	3.1	216	25.8	21	2.5	35	4.2	0	0.0	<b>837</b>	<b>100.0</b>
Sutherland	97	10.5	158	17.1	309	33.5	27	2.9	247	26.8	28	3.0	57	6.2	0	0.0	<b>923</b>	<b>100.0</b>
Fairfield	256	22.1	305	26.3	293	25.3	24	2.1	232	20.0	33	2.8	17	1.5	0	0.0	<b>1160</b>	<b>100.0</b>

(Continued on next page)



TABLE 46: (Continued)

Maternity service level–Hospital	Perineal status														TOTAL			
	Intact		1st degree tear/graze		2nd degree tear		3rd or 4th degree tear		Episiotomy		Combined tear and episiotomy		Other		Not stated		No.	%
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Campbelltown	617	20.8	705	23.8	885	29.8	80	2.7	517	17.4	46	1.5	118	4.0	0	0.0	2968	100.0
Bankstown-Lidcombe	225	17.1	296	22.5	374	28.4	54	4.1	233	17.7	60	4.6	74	5.6	0	0.0	1316	100.0
Hawkesbury	79	17.1	128	27.8	124	26.9	14	3.0	80	17.4	7	1.5	29	6.3	0	0.0	461	100.0
Coffs Harbour	103	13.3	197	25.5	278	36.0	24	3.1	88	11.4	17	2.2	65	8.4	0	0.0	772	100.0
Grafton Base	59	23.7	114	45.8	41	16.5	1	0.4	17	6.8	3	1.2	14	5.6	0	0.0	249	100.0
Port Macquarie Base	88	17.3	141	27.7	112	22.0	18	3.5	113	22.2	10	2.0	27	5.3	0	0.0	509	100.0
Armidale	41	16.0	76	29.6	62	24.1	8	3.1	39	15.2	6	2.3	25	9.7	0	0.0	257	100.0
Tamworth Base	121	18.0	219	32.6	160	23.8	8	1.2	102	15.2	8	1.2	54	8.0	0	0.0	672	100.0
Manning Base	76	17.1	131	29.5	121	27.3	3	0.7	49	11.0	10	2.3	54	12.2	0	0.0	444	100.0
Bathurst Base	46	14.6	114	36.1	79	25.0	16	5.1	29	9.2	8	2.5	24	7.6	0	0.0	316	100.0
Orange Base	77	13.1	183	31.2	135	23.0	14	2.4	128	21.8	14	2.4	36	6.1	0	0.0	587	100.0
Maitland	180	14.8	364	30.0	359	29.5	46	3.8	155	12.8	16	1.3	95	7.8	0	0.0	1215	100.0
Griffith Base	104	29.4	107	30.2	74	20.9	6	1.7	48	13.6	4	1.1	11	3.1	0	0.0	354	100.0
<b>TOTAL</b>	<b>2400</b>	<b>17.1</b>	<b>3578</b>	<b>25.5</b>	<b>4028</b>	<b>28.7</b>	<b>394</b>	<b>2.8</b>	<b>2501</b>	<b>17.8</b>	<b>335</b>	<b>2.4</b>	<b>806</b>	<b>5.7</b>	<b>0</b>	<b>0.0</b>	<b>14042</b>	<b>100.0</b>
<b>Level 3</b>																		
Auburn	177	16.8	250	23.7	275	26.1	13	1.2	222	21.1	37	3.5	80	7.6	0	0.0	1054	100.0
Blue Mountains	15	10.8	48	34.5	44	31.7	6	4.3	9	6.5	3	2.2	14	10.1	0	0.0	139	100.0
Kempsey	33	17.6	77	41.0	42	22.3	4	2.1	14	7.4	5	2.7	13	6.9	0	0.0	188	100.0
Inverell	42	26.6	45	28.5	14	8.9	0	0.0	50	31.6	2	1.3	5	3.2	0	0.0	158	100.0
Mudgee	24	16.2	51	34.5	33	22.3	3	2.0	27	18.2	1	0.7	9	6.1	0	0.0	148	100.0
Bega	33	20.1	49	29.9	45	27.4	4	2.4	13	7.9	1	0.6	19	11.6	0	0.0	164	100.0
Goulburn Base	40	18.7	44	20.6	63	29.4	13	6.1	26	12.1	0	0.0	28	13.1	0	0.0	214	100.0
Moruya	44	18.6	93	39.4	43	18.2	6	2.5	19	8.1	1	0.4	30	12.7	0	0.0	236	100.0
Queanbeyan	44	12.1	110	30.2	103	28.3	10	2.7	63	17.3	17	4.7	17	4.7	0	0.0	364	100.0
Bowral	61	19.4	78	24.8	94	29.8	2	0.6	54	17.1	3	1.0	23	7.3	0	0.0	315	100.0
Shoalhaven	143	23.6	161	26.5	147	24.2	16	2.6	78	12.9	10	1.6	52	8.6	0	0.0	607	100.0
Broken Hill Base	30	20.0	51	34.0	35	23.3	2	1.3	16	10.7	0	0.0	16	10.7	0	0.0	150	100.0
Other hospitals	277	25.2	367	33.4	241	21.9	24	2.2	109	9.9	8	0.7	73	6.6	0	0.0	1099	100.0
<b>TOTAL</b>	<b>963</b>	<b>19.9</b>	<b>1424</b>	<b>29.4</b>	<b>1179</b>	<b>24.4</b>	<b>103</b>	<b>2.1</b>	<b>700</b>	<b>14.5</b>	<b>88</b>	<b>1.8</b>	<b>379</b>	<b>7.8</b>	<b>0</b>	<b>0.0</b>	<b>4836</b>	<b>100.0</b>
<b>Level 2</b>																		
<b>TOTAL</b>	<b>155</b>	<b>22.1</b>	<b>280</b>	<b>39.9</b>	<b>190</b>	<b>27.1</b>	<b>15</b>	<b>2.1</b>	<b>13</b>	<b>1.9</b>	<b>0</b>	<b>0.0</b>	<b>48</b>	<b>6.8</b>	<b>0</b>	<b>0.0</b>	<b>701</b>	<b>100.0</b>
<b>Public hospital<sup>§</sup></b>																		
<b>TOTAL</b>	<b>7571</b>	<b>15.0</b>	<b>12399</b>	<b>24.5</b>	<b>14918</b>	<b>29.5</b>	<b>1399</b>	<b>2.8</b>	<b>9746</b>	<b>19.3</b>	<b>1433</b>	<b>2.8</b>	<b>3094</b>	<b>6.1</b>	<b>0</b>	<b>0.0</b>	<b>50560</b>	<b>100.0</b>
<b>Private</b>																		
Mater, North Sydney	123	13.5	211	23.2	276	30.4	6	0.7	277	30.5	14	1.5	2	0.2	0	0.0	909	100.0
North Shore Private	109	12.2	208	23.2	342	38.2	6	0.7	198	22.1	5	0.6	28	3.1	0	0.0	896	100.0
Sydney Adventist	166	17.7	217	23.2	274	29.2	0	0.0	222	23.7	0	0.0	58	6.2	0	0.0	937	100.0
North Gosford Private	55	21.2	52	20.1	92	35.5	4	1.5	52	20.1	2	0.8	2	0.8	0	0.0	259	100.0
Hurstville Community	59	14.9	99	25.1	135	34.2	4	1.0	90	22.8	3	0.8	5	1.3	0	0.0	395	100.0
Kareena Private	36	10.8	67	20.1	125	37.4	3	0.9	91	27.2	2	0.6	10	3.0	0	0.0	334	100.0
St. George Private	120	15.7	117	15.4	302	39.6	8	1.0	192	25.2	4	0.5	19	2.5	0	0.0	762	100.0
Prince of Wales Private	126	13.8	108	11.9	253	27.8	1	0.1	253	27.8	65	7.1	101	11.1	3	0.3	910	100.0
Norwest Private	181	17.6	107	10.4	324	31.5	1	0.1	248	24.1	46	4.5	118	11.5	4	0.4	1029	100.0
Sydney Southwest Private	76	12.6	118	19.6	151	25.0	6	1.0	179	29.7	19	3.2	52	8.6	2	0.3	603	100.0
Nepean Private	42	10.6	45	11.4	113	28.6	2	0.5	138	34.9	20	5.1	35	8.9	0	0.0	395	100.0
Westmead Private	141	12.0	205	17.5	292	24.9	5	0.4	472	40.3	7	0.6	49	4.2	0	0.0	1171	100.0
Wollongong Private	77	15.5	68	13.7	201	40.5	9	1.8	114	23.0	0	0.0	27	5.4	0	0.0	496	100.0
Newcastle Private	134	13.8	121	12.5	364	37.6	8	0.8	144	14.9	51	5.3	146	15.1	1	0.1	969	100.0
Calvary, Wagga Wagga	19	20.0	21	22.1	31	32.6	0	0.0	16	16.8	1	1.1	6	6.3	1	1.1	95	100.0
<b>TOTAL</b>	<b>1464</b>	<b>14.4</b>	<b>1764</b>	<b>17.4</b>	<b>3275</b>	<b>32.2</b>	<b>63</b>	<b>0.6</b>	<b>2686</b>	<b>26.4</b>	<b>239</b>	<b>2.4</b>	<b>658</b>	<b>6.5</b>	<b>11</b>	<b>0.1</b>	<b>10160</b>	<b>100.0</b>
<b>TOTAL NSW*</b>	<b>9091</b>	<b>14.9</b>	<b>14201</b>	<b>23.3</b>	<b>18238</b>	<b>30.0</b>	<b>1467</b>	<b>2.4</b>	<b>12432</b>	<b>20.4</b>	<b>1672</b>	<b>2.7</b>	<b>3752</b>	<b>6.2</b>	<b>11</b>	<b>0.0</b>	<b>60864</b>	<b>100.0</b>

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

# Hospitals with more than 200 births in 2019 are identified individually. Maternity service levels are described on page 91 in Appendix 2: Explanatory notes.

§ Public total includes public hospitals with a maternity service level other than those specified in the table.

\* Total NSW includes births at home assisted by independent midwives and births at level 1 hospitals.



TABLE 48: (Continued)

Maternity service level–Hospital	Birthweight (grams)													
	Less than 1,000		1,000–1,499		1,500–2,499		2,500–3,999		4,000+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Grafton Base	1	0.3	0	0.0	19	5.2	296	81.3	47	12.9	1	0.3	364	100.0
Port Macquarie Base	1	0.1	0	0.0	52	6.4	659	81.4	96	11.9	2	0.2	810	100.0
Armidale	1	0.2	1	0.2	34	7.9	369	85.4	26	6.0	1	0.2	432	100.0
Tamworth Base	5	0.5	11	1.1	68	6.6	849	82.5	90	8.7	6	0.6	1029	100.0
Manning Base	0	0.0	0	0.0	34	5.4	544	86.9	47	7.5	1	0.2	626	100.0
Bathurst Base	1	0.2	1	0.2	33	6.9	381	79.7	62	13.0	0	0.0	478	100.0
Orange Base	3	0.3	2	0.2	64	6.3	855	84.8	84	8.3	0	0.0	1008	100.0
Maitland	2	0.1	3	0.2	68	4.0	1412	82.8	219	12.8	2	0.1	1706	100.0
Griffith Base	1	0.2	3	0.6	25	4.9	423	83.1	56	11.0	1	0.2	509	100.0
<b>TOTAL</b>	<b>60</b>	<b>0.3</b>	<b>39</b>	<b>0.2</b>	<b>958</b>	<b>4.7</b>	<b>17073</b>	<b>84.4</b>	<b>2041</b>	<b>10.1</b>	<b>51</b>	<b>0.3</b>	<b>20222</b>	<b>100.0</b>
<b>Level 3</b>														
Auburn	6	0.4	2	0.1	26	1.9	1239	88.6	123	8.8	3	0.2	1399	100.0
Blue Mountains	0	0.0	0	0.0	3	1.4	190	88.8	20	9.3	1	0.5	214	100.0
Kempsey	0	0.0	1	0.4	9	3.6	222	87.7	21	8.3	0	0.0	253	100.0
Inverell	2	0.9	0	0.0	9	3.9	190	83.0	28	12.2	0	0.0	229	100.0
Mudgee	0	0.0	0	0.0	4	1.9	185	85.6	27	12.5	0	0.0	216	100.0
Bega	2	0.8	0	0.0	4	1.7	196	82.0	37	15.5	0	0.0	239	100.0
Goulburn Base	1	0.3	2	0.7	8	2.7	244	82.2	42	14.1	0	0.0	297	100.0
Moruya	3	1.0	0	0.0	10	3.2	259	83.0	40	12.8	0	0.0	312	100.0
Queanbeyan	0	0.0	0	0.0	10	1.9	462	86.7	55	10.3	6	1.1	533	100.0
Bowral	0	0.0	0	0.0	5	1.2	364	86.1	52	12.3	2	0.5	423	100.0
Shoalhaven	2	0.2	1	0.1	32	3.7	721	84.2	100	11.7	0	0.0	856	100.0
Broken Hill Base	2	0.9	0	0.0	9	4.1	183	83.9	24	11.0	0	0.0	218	100.0
Other hospitals	2	0.1	3	0.2	28	1.9	1235	85.3	179	12.4	1	0.1	1448	100.0
<b>TOTAL</b>	<b>20</b>	<b>0.3</b>	<b>9</b>	<b>0.1</b>	<b>157</b>	<b>2.4</b>	<b>5690</b>	<b>85.7</b>	<b>748</b>	<b>11.3</b>	<b>13</b>	<b>0.2</b>	<b>6637</b>	<b>100.0</b>
<b>Level 2</b>														
<b>TOTAL</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>10</b>	<b>1.3</b>	<b>615</b>	<b>82.4</b>	<b>121</b>	<b>16.2</b>	<b>0</b>	<b>0.0</b>	<b>746</b>	<b>100.0</b>
<b>Public hospital<sup>§</sup></b>														
<b>TOTAL</b>	<b>622</b>	<b>0.8</b>	<b>504</b>	<b>0.7</b>	<b>4370</b>	<b>5.8</b>	<b>62028</b>	<b>82.8</b>	<b>7199</b>	<b>9.6</b>	<b>176</b>	<b>0.2</b>	<b>74899</b>	<b>100.0</b>
<b>Private</b>														
Mater, North Sydney	3	0.1	2	0.1	97	4.5	1947	89.8	118	5.4	1	0.0	2168	100.0
North Shore Private	8	0.4	3	0.1	96	4.6	1854	89.3	112	5.4	2	0.1	2075	100.0
Sydney Adventist	2	0.1	2	0.1	78	4.5	1551	89.8	93	5.4	1	0.1	1727	100.0
North Gosford Private	3	0.5	0	0.0	13	2.3	512	89.8	39	6.8	3	0.5	570	100.0
Hurstville Community	0	0.0	0	0.0	26	3.7	610	86.5	45	6.4	24	3.4	705	100.0
Kareena Private	0	0.0	0	0.0	12	1.9	576	90.4	49	7.7	0	0.0	637	100.0
St. George Private	5	0.4	0	0.0	66	4.7	1254	89.1	82	5.8	0	0.0	1407	100.0
Prince of Wales Private	0	0.0	0	0.0	90	4.3	1894	90.8	98	4.7	3	0.1	2085	100.0
Norwest Private	3	0.2	0	0.0	68	3.8	1595	89.0	119	6.6	7	0.4	1792	100.0
Sydney Southwest Private	0	0.0	0	0.0	36	3.7	866	88.6	58	5.9	17	1.7	977	100.0
Nepean Private	1	0.1	0	0.0	27	3.7	671	91.5	34	4.6	0	0.0	733	100.0
Westmead Private	6	0.3	2	0.1	98	4.3	2049	90.9	97	4.3	2	0.1	2254	100.0
Wollongong Private	2	0.2	1	0.1	27	3.0	813	89.2	68	7.5	0	0.0	911	100.0
Newcastle Private	2	0.1	0	0.0	62	3.5	1537	85.8	170	9.5	20	1.1	1791	100.0
Calvary, Wagga Wagga	0	0.0	0	0.0	10	3.9	230	89.1	18	7.0	0	0.0	258	100.0
<b>TOTAL</b>	<b>35</b>	<b>0.2</b>	<b>10</b>	<b>0.0</b>	<b>806</b>	<b>4.0</b>	<b>17959</b>	<b>89.4</b>	<b>1200</b>	<b>6.0</b>	<b>80</b>	<b>0.4</b>	<b>20090</b>	<b>100.0</b>
<b>TOTAL NSW*</b>	<b>657</b>	<b>0.7</b>	<b>514</b>	<b>0.5</b>	<b>5178</b>	<b>5.4</b>	<b>80091</b>	<b>84.2</b>	<b>8435</b>	<b>8.9</b>	<b>258</b>	<b>0.3</b>	<b>95133</b>	<b>100.0</b>

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

# Hospitals with more than 200 births in 2019 are identified individually. Maternity service levels are described on page 91 in Appendix 2: Explanatory notes.

§ Public total includes public hospitals with a maternity service level other than those specified in the table.

\* Total NSW includes births at home assisted by independent midwives and births at level 1 hospitals.

## Gestational age

Table 49 shows the gestational age of babies for local health districts, and Table 50 for individual hospitals by maternity service level where at least 200 mothers gave birth in 2019.

**TABLE 49: BIRTHS BY GESTATIONAL AGE AND LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2019**

Hospital sector– Local Health District	Gestational age (weeks)											
	<32		32–33		34–36		37+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Public</b>												
Sydney	135	2.2	85	1.4	424	6.8	5627	89.6	7	0.1	<b>6278</b>	<b>100.0</b>
South Western Sydney	191	1.6	92	0.8	607	5.2	10693	92.3	3	0.0	<b>11586</b>	<b>100.0</b>
South Eastern Sydney	156	2.0	85	1.1	347	4.5	7086	92.3	4	0.1	<b>7678</b>	<b>100.0</b>
Illawarra Shoalhaven	20	0.6	33	1.0	200	6.0	3107	92.5	0	0.0	<b>3360</b>	<b>100.0</b>
Western Sydney	213	2.0	105	1.0	464	4.4	9846	92.6	4	0.0	<b>10632</b>	<b>100.0</b>
Nepean Blue Mountains	127	2.4	79	1.5	284	5.5	4694	90.5	4	0.1	<b>5188</b>	<b>100.0</b>
Northern Sydney	120	2.1	55	0.9	276	4.7	5394	92.3	0	0.0	<b>5845</b>	<b>100.0</b>
Central Coast	26	0.8	27	0.9	148	4.8	2888	93.5	1	0.0	<b>3090</b>	<b>100.0</b>
Hunter New England	194	2.2	116	1.3	476	5.4	8108	91.2	1	0.0	<b>8895</b>	<b>100.0</b>
Northern NSW	18	0.6	11	0.4	143	4.9	2771	94.1	1	0.0	<b>2944</b>	<b>100.0</b>
Mid North Coast	4	0.2	5	0.2	101	4.6	2092	95.0	0	0.0	<b>2202</b>	<b>100.0</b>
Southern NSW	8	0.5	2	0.1	23	1.5	1508	97.8	1	0.1	<b>1542</b>	<b>100.0</b>
Murrumbidgee	12	0.6	11	0.5	96	4.5	1998	94.3	1	0.0	<b>2118</b>	<b>100.0</b>
Western NSW	18	0.5	15	0.5	195	5.9	3094	93.1	1	0.0	<b>3323</b>	<b>100.0</b>
Far West	3	1.4	3	1.4	5	2.3	207	95.0	0	0.0	<b>218</b>	<b>100.0</b>
<b>TOTAL</b>	<b>1245</b>	<b>1.7</b>	<b>724</b>	<b>1.0</b>	<b>3789</b>	<b>5.1</b>	<b>69113</b>	<b>92.3</b>	<b>28</b>	<b>0.0</b>	<b>74899</b>	<b>100.0</b>
<b>Private</b>												
<b>TOTAL</b>	<b>54</b>	<b>0.3</b>	<b>61</b>	<b>0.3</b>	<b>1203</b>	<b>6.0</b>	<b>18696</b>	<b>93.1</b>	<b>76</b>	<b>0.4</b>	<b>20090</b>	<b>100.0</b>
<b>TOTAL NSW*</b>	<b>1299</b>	<b>1.4</b>	<b>785</b>	<b>0.8</b>	<b>4993</b>	<b>5.2</b>	<b>87943</b>	<b>92.4</b>	<b>113</b>	<b>0.1</b>	<b>95133</b>	<b>100.0</b>

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

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

**TABLE 50: BIRTHS BY GESTATIONAL AGE, MATERNITY SERVICE LEVEL AND HOSPITAL, NSW 2019\***

Maternity service level– Hospital	Gestational age (weeks)											
	<32		32–33		34–36		37+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Level 6</b>												
Royal Prince Alfred	130	2.7	83	1.7	316	6.7	4214	88.7	6	0.1	<b>4749</b>	<b>100.0</b>
Royal North Shore	110	3.9	47	1.7	130	4.6	2519	89.8	0	0.0	<b>2806</b>	<b>100.0</b>
Royal Hospital for Women	129	3.3	56	1.4	186	4.7	3541	90.4	4	0.1	<b>3916</b>	<b>100.0</b>
Liverpool	141	3.8	65	1.7	244	6.5	3304	88.0	1	0.0	<b>3755</b>	<b>100.0</b>
Nepean	124	3.0	79	1.9	249	6.1	3635	88.9	0	0.0	<b>4087</b>	<b>100.0</b>
Westmead	173	3.2	74	1.4	298	5.5	4906	89.9	4	0.1	<b>5455</b>	<b>100.0</b>
John Hunter	167	4.1	103	2.5	262	6.4	3544	86.9	1	0.0	<b>4077</b>	<b>100.0</b>
<b>TOTAL</b>	<b>974</b>	<b>3.4</b>	<b>507</b>	<b>1.8</b>	<b>1685</b>	<b>5.8</b>	<b>25663</b>	<b>89.0</b>	<b>16</b>	<b>0.1</b>	<b>28845</b>	<b>100.0</b>
<b>Level 5</b>												
Gosford	25	0.8	27	0.9	148	4.9	2798	93.3	1	0.0	<b>2999</b>	<b>100.0</b>
Northern Beaches	5	0.3	6	0.3	102	5.8	1642	93.6	0	0.0	<b>1755</b>	<b>100.0</b>
St. George	22	0.9	28	1.1	132	5.3	2303	92.7	0	0.0	<b>2485</b>	<b>100.0</b>
Blacktown	31	0.8	30	0.8	145	3.8	3572	94.5	0	0.0	<b>3778</b>	<b>100.0</b>
Lismore Base	10	0.8	4	0.3	77	6.0	1201	92.9	1	0.1	<b>1293</b>	<b>100.0</b>
Tweed Heads	6	0.6	5	0.5	47	4.3	1030	94.7	0	0.0	<b>1088</b>	<b>100.0</b>
Dubbo Base	9	0.7	11	0.9	84	6.6	1174	91.8	1	0.1	<b>1279</b>	<b>100.0</b>
Wollongong	14	0.6	30	1.2	175	7.0	2283	91.2	0	0.0	<b>2502</b>	<b>100.0</b>
Wagga Wagga Base	7	0.6	7	0.6	71	5.8	1144	93.1	0	0.0	<b>1229</b>	<b>100.0</b>
<b>TOTAL</b>	<b>129</b>	<b>0.7</b>	<b>148</b>	<b>0.8</b>	<b>981</b>	<b>5.3</b>	<b>17147</b>	<b>93.1</b>	<b>3</b>	<b>0.0</b>	<b>18408</b>	<b>100.0</b>
<b>Level 4</b>												
Canterbury	5	0.3	2	0.1	108	7.1	1413	92.4	1	0.1	<b>1529</b>	<b>100.0</b>
Hornsby	5	0.4	2	0.2	44	3.6	1161	95.8	0	0.0	<b>1212</b>	<b>100.0</b>
Sutherland	5	0.4	1	0.1	29	2.3	1242	97.3	0	0.0	<b>1277</b>	<b>100.0</b>
Fairfield	8	0.5	1	0.1	52	3.3	1498	96.1	0	0.0	<b>1559</b>	<b>100.0</b>
Campbelltown	28	0.7	22	0.5	214	5.3	3786	93.4	2	0.0	<b>4052</b>	<b>100.0</b>
Bankstown-Lidcombe	13	0.7	3	0.2	88	4.9	1693	94.2	0	0.0	<b>1797</b>	<b>100.0</b>
Hawkesbury	2	0.3	0	0.0	31	4.2	695	95.1	3	0.4	<b>731</b>	<b>100.0</b>
Coffs Harbour	2	0.2	2	0.2	44	4.0	1055	95.6	0	0.0	<b>1103</b>	<b>100.0</b>
Grafton Base	2	0.5	2	0.5	19	5.2	341	93.7	0	0.0	<b>364</b>	<b>100.0</b>

(Continued on next page)

TABLE 50: (Continued)

Maternity service level– Hospital	Gestational age (weeks)										TOTAL	
	<32		32–33		34–36		37+		Not stated			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Port Macquarie Base	1	0.1	3	0.4	48	5.9	758	93.6	0	0.0	810	100.0
Armidale	3	0.7	3	0.7	31	7.2	395	91.4	0	0.0	432	100.0
Tamworth Base	17	1.7	5	0.5	62	6.0	945	91.8	0	0.0	1029	100.0
Manning Base	0	0.0	1	0.2	34	5.4	591	94.4	0	0.0	626	100.0
Bathurst Base	1	0.2	0	0.0	30	6.3	447	93.5	0	0.0	478	100.0
Orange Base	7	0.7	2	0.2	74	7.3	925	91.8	0	0.0	1008	100.0
Maitland	5	0.3	2	0.1	71	4.2	1628	95.4	0	0.0	1706	100.0
Griffith Base	2	0.4	4	0.8	20	3.9	483	94.9	0	0.0	509	100.0
<b>TOTAL</b>	<b>106</b>	<b>0.5</b>	<b>55</b>	<b>0.3</b>	<b>999</b>	<b>4.9</b>	<b>19056</b>	<b>94.2</b>	<b>6</b>	<b>0.0</b>	<b>20222</b>	<b>100.0</b>
<b>Level 3</b>												
Auburn	9	0.6	1	0.1	21	1.5	1368	97.8	0	0.0	1399	100.0
Blue Mountains	0	0.0	0	0.0	1	0.5	213	99.5	0	0.0	214	100.0
Kempsey	1	0.4	0	0.0	8	3.2	244	96.4	0	0.0	253	100.0
Inverell	2	0.9	1	0.4	4	1.7	222	96.9	0	0.0	229	100.0
Mudgee	0	0.0	1	0.5	3	1.4	212	98.1	0	0.0	216	100.0
Bega	2	0.8	0	0.0	4	1.7	232	97.1	1	0.4	239	100.0
Goulburn Base	2	0.7	1	0.3	6	2.0	288	97.0	0	0.0	297	100.0
Moruya	3	1.0	1	0.3	3	1.0	305	97.8	0	0.0	312	100.0
Queanbeyan	0	0.0	0	0.0	8	1.5	525	98.5	0	0.0	533	100.0
Bowral	1	0.2	1	0.2	9	2.1	412	97.4	0	0.0	423	100.0
Shoalhaven	6	0.7	3	0.4	25	2.9	822	96.0	0	0.0	856	100.0
Broken Hill Base	3	1.4	3	1.4	5	2.3	207	95.0	0	0.0	218	100.0
Other hospitals	4	0.3	0	0.0	19	1.3	1423	98.3	2	0.1	1448	100.0
<b>TOTAL</b>	<b>33</b>	<b>0.5</b>	<b>12</b>	<b>0.2</b>	<b>116</b>	<b>1.7</b>	<b>6473</b>	<b>97.5</b>	<b>3</b>	<b>0.0</b>	<b>6637</b>	<b>100.0</b>
<b>Level 2</b>												
<b>TOTAL</b>	<b>1</b>	<b>0.1</b>	<b>1</b>	<b>0.1</b>	<b>6</b>	<b>0.8</b>	<b>738</b>	<b>98.9</b>	<b>0</b>	<b>0.0</b>	<b>746</b>	<b>100.0</b>
<b>Public hospital<sup>§</sup></b>												
<b>TOTAL</b>	<b>1245</b>	<b>1.7</b>	<b>724</b>	<b>1.0</b>	<b>3789</b>	<b>5.1</b>	<b>69113</b>	<b>92.3</b>	<b>28</b>	<b>0.0</b>	<b>74899</b>	<b>100.0</b>
<b>Private</b>												
Mater, North Sydney	7	0.3	9	0.4	133	6.1	2018	93.1	1	0.0	2168	100.0
North Shore Private	10	0.5	15	0.7	117	5.6	1933	93.2	0	0.0	2075	100.0
Sydney Adventist	5	0.3	13	0.8	93	5.4	1616	93.6	0	0.0	1727	100.0
North Gosford Private	5	0.9	2	0.4	48	8.4	514	90.2	1	0.2	570	100.0
Hurstville Community	0	0.0	0	0.0	30	4.3	602	85.4	73	10.4	705	100.0
Kareena Private	0	0.0	0	0.0	27	4.2	610	95.8	0	0.0	637	100.0
St. George Private	6	0.4	2	0.1	96	6.8	1303	92.6	0	0.0	1407	100.0
Prince of Wales Private	1	0.0	6	0.3	102	4.9	1976	94.8	0	0.0	2085	100.0
Norwest Private	5	0.3	5	0.3	100	5.6	1682	93.9	0	0.0	1792	100.0
Sydney Southwest Private	0	0.0	0	0.0	72	7.4	905	92.6	0	0.0	977	100.0
Nepean Private	1	0.1	0	0.0	56	7.6	676	92.2	0	0.0	733	100.0
Westmead Private	9	0.4	7	0.3	134	5.9	2104	93.3	0	0.0	2254	100.0
Wollongong Private	3	0.3	0	0.0	56	6.1	852	93.5	0	0.0	911	100.0
Newcastle Private	2	0.1	1	0.1	117	6.5	1670	93.2	1	0.1	1791	100.0
Calvary, Wagga Wagga	0	0.0	1	0.4	22	8.5	235	91.1	0	0.0	258	100.0
<b>TOTAL</b>	<b>54</b>	<b>0.3</b>	<b>61</b>	<b>0.3</b>	<b>1203</b>	<b>6.0</b>	<b>18696</b>	<b>93.1</b>	<b>76</b>	<b>0.4</b>	<b>20090</b>	<b>100.0</b>
<b>TOTAL NSW*</b>	<b>1299</b>	<b>1.4</b>	<b>785</b>	<b>0.8</b>	<b>4993</b>	<b>5.2</b>	<b>87943</b>	<b>92.4</b>	<b>113</b>	<b>0.1</b>	<b>95133</b>	<b>100.0</b>

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

# Hospitals with more than 200 births in 2019 are identified individually. Maternity service levels are described on page 91 in Appendix 2: Explanatory notes.

§ Public total includes public hospitals with a maternity service level other than those specified in the table.

\* Total NSW includes births at home assisted by independent midwives and births at level 1 hospitals.

## Neonatal resuscitation

Table 51 shows the type of neonatal resuscitation for local health districts, and Table 52 for individual hospitals by maternity service level where at least 200 mothers gave birth in 2019.

**TABLE 51: BIRTHS BY TYPE OF RESUSCITATION AND LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2019**

Hospital sector– Local Health District	Resuscitation of baby												TOTAL <sup>†</sup>			
	None/Minimal		Suction		O <sub>2</sub> therapy		IPPR by mask		Intubation and IPPR		External cardiac massage and ventilation				CPAP ventilation	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Public</b>																
Sydney	5147	82.0	129	2.1	181	2.9	603	9.6	35	0.6	15	0.2	168	2.7	<b>6278</b>	<b>100.0</b>
South Western Sydney	10250	88.5	217	1.9	247	2.1	613	5.3	16	0.1	32	0.3	201	1.7	<b>11586</b>	<b>100.0</b>
South Eastern Sydney	6229	81.1	314	4.1	95	1.2	134	1.7	44	0.6	22	0.3	839	10.9	<b>7678</b>	<b>100.0</b>
Illawarra Shoalhaven	2844	84.6	67	2.0	43	1.3	62	1.8	3	0.1	13	0.4	328	9.8	<b>3360</b>	<b>100.0</b>
Western Sydney	8421	79.2	838	7.9	89	0.8	148	1.4	110	1.0	29	0.3	996	9.4	<b>10632</b>	<b>100.0</b>
Nepean Blue Mountains	4100	79.0	283	5.5	98	1.9	121	2.3	27	0.5	16	0.3	543	10.5	<b>5188</b>	<b>100.0</b>
Northern Sydney	4858	83.1	173	3.0	32	0.5	150	2.6	23	0.4	7	0.1	602	10.3	<b>5845</b>	<b>100.0</b>
Central Coast	2496	80.8	79	2.6	40	1.3	146	4.7	1	0.0	15	0.5	313	10.1	<b>3090</b>	<b>100.0</b>
Hunter New England	7033	79.1	142	1.6	55	0.6	198	2.2	8	0.1	31	0.3	1428	16.1	<b>8895</b>	<b>100.0</b>
Northern NSW	2459	83.5	69	2.3	24	0.8	57	1.9	1	0.0	11	0.4	320	10.9	<b>2944</b>	<b>100.0</b>
Mid North Coast	1883	85.5	29	1.3	6	0.3	32	1.5	3	0.1	4	0.2	245	11.1	<b>2202</b>	<b>100.0</b>
Southern NSW	1306	84.7	11	0.7	8	0.5	30	1.9	1	0.1	5	0.3	181	11.7	<b>1542</b>	<b>100.0</b>
Murrumbidgee	1823	86.1	37	1.7	31	1.5	60	2.8	2	0.1	9	0.4	156	7.4	<b>2118</b>	<b>100.0</b>
Western NSW	2804	84.4	63	1.9	55	1.7	96	2.9	4	0.1	18	0.5	283	8.5	<b>3323</b>	<b>100.0</b>
Far West	177	81.2	15	6.9	4	1.8	8	3.7	1	0.5	2	0.9	11	5.0	<b>218</b>	<b>100.0</b>
<b>TOTAL</b>	<b>61830</b>	<b>82.6</b>	<b>2466</b>	<b>3.3</b>	<b>1008</b>	<b>1.3</b>	<b>2458</b>	<b>3.3</b>	<b>279</b>	<b>0.4</b>	<b>229</b>	<b>0.3</b>	<b>6614</b>	<b>8.8</b>	<b>74899</b>	<b>100.0</b>
<b>Private</b>																
<b>TOTAL</b>	<b>18449</b>	<b>91.8</b>	<b>324</b>	<b>1.6</b>	<b>392</b>	<b>2.0</b>	<b>572</b>	<b>2.8</b>	<b>6</b>	<b>0.0</b>	<b>9</b>	<b>0.0</b>	<b>256</b>	<b>1.3</b>	<b>20090</b>	<b>100.0</b>
<b>TOTAL NSW*</b>	<b>80410</b>	<b>84.5</b>	<b>2790</b>	<b>2.9</b>	<b>1408</b>	<b>1.5</b>	<b>3034</b>	<b>3.2</b>	<b>285</b>	<b>0.3</b>	<b>238</b>	<b>0.3</b>	<b>6870</b>	<b>7.2</b>	<b>95133</b>	<b>100.0</b>

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 NSW includes births at home assisted by independent midwives.

**TABLE 52: BIRTHS BY TYPE OF RESUSCITATION, MATERNITY SERVICE LEVEL AND HOSPITAL, NSW 2019<sup>†</sup>**

Maternity service level– Hospital	Resuscitation of baby												TOTAL <sup>†</sup>			
	None/Minimal		Suction		O <sub>2</sub> Therapy		IPPR by mask		Intubation and IPPR		External cardiac massage and ventilation				CPAP ventilation	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Level 6</b>																
Royal Prince Alfred	3854	81.2	83	1.7	110	2.3	503	10.6	32	0.7	11	0.2	156	3.3	<b>4749</b>	<b>100.0</b>
Royal North Shore	2232	79.5	117	4.2	20	0.7	49	1.7	21	0.7	6	0.2	361	12.9	<b>2806</b>	<b>100.0</b>
Royal Hospital for Women	3017	77.0	241	6.2	68	1.7	95	2.4	42	1.1	14	0.4	439	11.2	<b>3916</b>	<b>100.0</b>
Liverpool	3168	84.4	124	3.3	114	3.0	265	7.1	13	0.3	7	0.2	62	1.7	<b>3755</b>	<b>100.0</b>
Nepean	3122	76.4	257	6.3	75	1.8	110	2.7	25	0.6	12	0.3	486	11.9	<b>4087</b>	<b>100.0</b>
Westmead	4292	78.7	344	6.3	21	0.4	73	1.3	105	1.9	14	0.3	605	11.1	<b>5455</b>	<b>100.0</b>
John Hunter	3031	74.3	46	1.1	11	0.3	81	2.0	5	0.1	13	0.3	890	21.8	<b>4077</b>	<b>100.0</b>
<b>TOTAL</b>	<b>22716</b>	<b>78.8</b>	<b>1212</b>	<b>4.2</b>	<b>419</b>	<b>1.5</b>	<b>1176</b>	<b>4.1</b>	<b>243</b>	<b>0.8</b>	<b>77</b>	<b>0.3</b>	<b>2999</b>	<b>10.4</b>	<b>28845</b>	<b>100.0</b>
<b>Level 5</b>																
Gosford	2410	80.4	78	2.6	39	1.3	144	4.8	1	0.0	15	0.5	312	10.4	<b>2999</b>	<b>100.0</b>
Northern Beaches	1516	86.4	18	1.0	3	0.2	87	5.0	1	0.1	0	0.0	130	7.4	<b>1755</b>	<b>100.0</b>
St. George	2099	84.5	43	1.7	14	0.6	25	1.0	2	0.1	7	0.3	294	11.8	<b>2485</b>	<b>100.0</b>
Blacktown	2859	75.7	438	11.6	35	0.9	57	1.5	4	0.1	15	0.4	370	9.8	<b>3778</b>	<b>100.0</b>
Lismore Base	1050	81.2	52	4.0	15	1.2	25	1.9	1	0.1	3	0.2	144	11.1	<b>1293</b>	<b>100.0</b>
Tweed Heads	910	83.6	12	1.1	6	0.6	26	2.4	0	0.0	5	0.5	129	11.9	<b>1088</b>	<b>100.0</b>
Dubbo Base	1084	84.8	55	4.3	17	1.3	30	2.3	1	0.1	4	0.3	88	6.9	<b>1279</b>	<b>100.0</b>
Wollongong	2094	83.7	61	2.4	39	1.6	46	1.8	3	0.1	8	0.3	251	10.0	<b>2502</b>	<b>100.0</b>
Wagga Wagga Base	1019	82.9	33	2.7	16	1.3	31	2.5	0	0.0	5	0.4	125	10.2	<b>1229</b>	<b>100.0</b>
<b>TOTAL</b>	<b>15041</b>	<b>81.7</b>	<b>790</b>	<b>4.3</b>	<b>184</b>	<b>1.0</b>	<b>471</b>	<b>2.6</b>	<b>13</b>	<b>0.1</b>	<b>62</b>	<b>0.3</b>	<b>1843</b>	<b>10.0</b>	<b>18408</b>	<b>100.0</b>
<b>Level 4</b>																
Canterbury	1293	84.6	46	3.0	71	4.6	100	6.5	3	0.2	4	0.3	12	0.8	<b>1529</b>	<b>100.0</b>
Hornsby	1044	86.1	38	3.1	6	0.5	12	1.0	1	0.1	1	0.1	110	9.1	<b>1212</b>	<b>100.0</b>
Sutherland	1113	87.2	30	2.3	13	1.0	14	1.1	0	0.0	1	0.1	106	8.3	<b>1277</b>	<b>100.0</b>
Fairfield	1422	91.2	38	2.4	35	2.2	35	2.2	1	0.1	5	0.3	23	1.5	<b>1559</b>	<b>100.0</b>

(Continued on next page)

TABLE 52: (Continued)

Maternity service level–Hospital	Resuscitation of baby															
	None/Minimal		Suction		O <sub>2</sub> Therapy		IPPR by mask		Intubation and IPPR		External cardiac massage and ventilation		CPAP ventilation		TOTAL†	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Campbelltown	3652	90.1	28	0.7	58	1.4	221	5.5	0	0.0	13	0.3	75	1.9	<b>4052</b>	<b>100.0</b>
Bankstown-Lidcombe	1643	91.4	24	1.3	26	1.4	67	3.7	1	0.1	4	0.2	31	1.7	<b>1797</b>	<b>100.0</b>
Hawkesbury	663	90.7	19	2.6	19	2.6	1	0.1	1	0.1	2	0.3	26	3.6	<b>731</b>	<b>100.0</b>
Coffs Harbour	975	88.4	17	1.5	3	0.3	14	1.3	1	0.1	0	0.0	93	8.4	<b>1103</b>	<b>100.0</b>
Grafton Base	312	85.7	5	1.4	2	0.5	5	1.4	0	0.0	2	0.5	38	10.4	<b>364</b>	<b>100.0</b>
Port Macquarie Base	657	81.1	11	1.4	0	0.0	14	1.7	1	0.1	3	0.4	124	15.3	<b>810</b>	<b>100.0</b>
Armidale	353	81.7	2	0.5	10	2.3	7	1.6	0	0.0	1	0.2	59	13.7	<b>432</b>	<b>100.0</b>
Tamworth Base	791	76.9	37	3.6	4	0.4	21	2.0	3	0.3	5	0.5	168	16.3	<b>1029</b>	<b>100.0</b>
Manning Base	525	83.9	7	1.1	4	0.6	20	3.2	0	0.0	4	0.6	66	10.5	<b>626</b>	<b>100.0</b>
Bathurst Base	345	72.2	4	0.8	9	1.9	19	4.0	2	0.4	2	0.4	97	20.3	<b>478</b>	<b>100.0</b>
Orange Base	865	85.8	4	0.4	18	1.8	37	3.7	1	0.1	7	0.7	76	7.5	<b>1008</b>	<b>100.0</b>
Maitland	1460	85.6	19	1.1	10	0.6	19	1.1	0	0.0	7	0.4	191	11.2	<b>1706</b>	<b>100.0</b>
Griffith Base	463	91.0	1	0.2	9	1.8	18	3.5	1	0.2	2	0.4	15	2.9	<b>509</b>	<b>100.0</b>
<b>TOTAL</b>	<b>17576</b>	<b>86.9</b>	<b>330</b>	<b>1.6</b>	<b>297</b>	<b>1.5</b>	<b>624</b>	<b>3.1</b>	<b>16</b>	<b>0.1</b>	<b>63</b>	<b>0.3</b>	<b>1310</b>	<b>6.5</b>	<b>20222</b>	<b>100.0</b>
<b>Level 3</b>																
Auburn	1270	90.8	56	4.0	33	2.4	18	1.3	1	0.1	0	0.0	21	1.5	<b>1399</b>	<b>100.0</b>
Blue Mountains	173	80.8	7	3.3	3	1.4	5	2.3	0	0.0	2	0.9	24	11.2	<b>214</b>	<b>100.0</b>
Kempsey	218	86.2	1	0.4	3	1.2	3	1.2	1	0.4	1	0.4	26	10.3	<b>253</b>	<b>100.0</b>
Inverell	161	70.3	16	7.0	7	3.1	30	13.1	0	0.0	0	0.0	15	6.6	<b>229</b>	<b>100.0</b>
Mudgee	198	91.7	0	0.0	2	0.9	2	0.9	0	0.0	2	0.9	12	5.6	<b>216</b>	<b>100.0</b>
Bega	208	87.0	3	1.3	1	0.4	1	0.4	1	0.4	0	0.0	25	10.5	<b>239</b>	<b>100.0</b>
Goulburn Base	252	84.8	3	1.0	7	2.4	11	3.7	0	0.0	1	0.3	23	7.7	<b>297</b>	<b>100.0</b>
Moruya	292	93.6	1	0.3	0	0.0	3	1.0	0	0.0	2	0.6	14	4.5	<b>312</b>	<b>100.0</b>
Queanbeyan	414	77.7	4	0.8	0	0.0	13	2.4	0	0.0	2	0.4	100	18.8	<b>533</b>	<b>100.0</b>
Bowral	365	86.3	3	0.7	14	3.3	25	5.9	1	0.2	3	0.7	10	2.4	<b>423</b>	<b>100.0</b>
Shoalhaven	749	87.5	6	0.7	4	0.5	16	1.9	0	0.0	5	0.6	76	8.9	<b>856</b>	<b>100.0</b>
Broken Hill Base	177	81.2	15	6.9	4	1.8	8	3.7	1	0.5	2	0.9	11	5.0	<b>218</b>	<b>100.0</b>
Other hospitals	1291	89.2	16	1.1	20	1.4	40	2.8	2	0.1	5	0.3	74	5.1	<b>1448</b>	<b>100.0</b>
<b>TOTAL</b>	<b>5768</b>	<b>86.9</b>	<b>131</b>	<b>2.0</b>	<b>98</b>	<b>1.5</b>	<b>175</b>	<b>2.6</b>	<b>7</b>	<b>0.1</b>	<b>25</b>	<b>0.4</b>	<b>431</b>	<b>6.5</b>	<b>6637</b>	<b>100.0</b>
<b>Level 2</b>																
<b>TOTAL</b>	<b>694</b>	<b>93.0</b>	<b>3</b>	<b>0.4</b>	<b>9</b>	<b>1.2</b>	<b>10</b>	<b>1.3</b>	<b>0</b>	<b>0.0</b>	<b>1</b>	<b>0.1</b>	<b>29</b>	<b>3.9</b>	<b>746</b>	<b>100.0</b>
<b>Public hospital<sup>§</sup></b>																
<b>TOTAL</b>	<b>61830</b>	<b>82.6</b>	<b>2466</b>	<b>3.3</b>	<b>1008</b>	<b>1.3</b>	<b>2458</b>	<b>3.3</b>	<b>279</b>	<b>0.4</b>	<b>229</b>	<b>0.3</b>	<b>6614</b>	<b>8.8</b>	<b>74899</b>	<b>100.0</b>
<b>Private</b>																
Mater, North Sydney	2051	94.6	17	0.8	46	2.1	54	2.5	0	0.0	0	0.0	0	0.0	<b>2168</b>	<b>100.0</b>
North Shore Private	1911	92.1	62	3.0	48	2.3	28	1.3	1	0.0	0	0.0	5	0.2	<b>2075</b>	<b>100.0</b>
Sydney Adventist	1647	95.4	6	0.3	20	1.2	26	1.5	0	0.0	0	0.0	28	1.6	<b>1727</b>	<b>100.0</b>
North Gosford Private	516	90.5	9	1.6	16	2.8	26	4.6	0	0.0	0	0.0	2	0.4	<b>570</b>	<b>100.0</b>
Hurstville Community	622	88.2	6	0.9	20	2.8	15	2.1	0	0.0	0	0.0	4	0.6	<b>705</b>	<b>100.0</b>
Kareena Private	568	89.2	13	2.0	21	3.3	24	3.8	1	0.2	1	0.2	6	0.9	<b>637</b>	<b>100.0</b>
St. George Private	1171	83.2	77	5.5	77	5.5	34	2.4	0	0.0	0	0.0	44	3.1	<b>1407</b>	<b>100.0</b>
Prince of Wales Private	1938	92.9	19	0.9	15	0.7	69	3.3	2	0.1	0	0.0	42	2.0	<b>2085</b>	<b>100.0</b>
Norwest Private	1687	94.1	1	0.1	12	0.7	76	4.2	0	0.0	3	0.2	13	0.7	<b>1792</b>	<b>100.0</b>
Sydney Southwest Private	948	97.0	1	0.1	6	0.6	20	2.0	0	0.0	0	0.0	2	0.2	<b>977</b>	<b>100.0</b>
Nepean Private	686	93.6	1	0.1	12	1.6	25	3.4	0	0.0	3	0.4	6	0.8	<b>733</b>	<b>100.0</b>
Westmead Private	2045	90.7	76	3.4	52	2.3	54	2.4	0	0.0	0	0.0	13	0.6	<b>2254</b>	<b>100.0</b>
Wollongong Private	805	88.4	22	2.4	42	4.6	32	3.5	2	0.2	0	0.0	6	0.7	<b>911</b>	<b>100.0</b>
Newcastle Private	1622	90.6	7	0.4	2	0.1	73	4.1	0	0.0	2	0.1	85	4.7	<b>1791</b>	<b>100.0</b>
Calvary, Wagga Wagga	232	89.9	7	2.7	3	1.2	16	6.2	0	0.0	0	0.0	0	0.0	<b>258</b>	<b>100.0</b>
<b>TOTAL</b>	<b>18449</b>	<b>91.8</b>	<b>324</b>	<b>1.6</b>	<b>392</b>	<b>2.0</b>	<b>572</b>	<b>2.8</b>	<b>6</b>	<b>0.0</b>	<b>9</b>	<b>0.0</b>	<b>256</b>	<b>1.3</b>	<b>20090</b>	<b>100.0</b>
<b>TOTAL NSW*</b>	<b>80410</b>	<b>84.5</b>	<b>2790</b>	<b>2.9</b>	<b>1408</b>	<b>1.5</b>	<b>3034</b>	<b>3.2</b>	<b>285</b>	<b>0.3</b>	<b>238</b>	<b>0.3</b>	<b>6870</b>	<b>7.2</b>	<b>95133</b>	<b>100.0</b>

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 2019 are identified individually. Maternity service levels are described on page 91 in Appendix 2: Explanatory notes.

† Total includes births where resuscitation type was not stated.

§ Public total includes public hospitals with a maternity service level other than those specified in the table.

\* Total NSW includes births at home assisted by independent midwives and births at level 1 hospitals.

## Infant feeding at discharge from hospital of birth

Table 53 shows infant feeding at discharge from the hospital of birth for local health districts, and Table 54 for individual hospitals by maternity service level where at least 200 mothers gave birth in 2019.

**TABLE 53: LIVE BIRTHS BY TYPE OF INFANT FEEDING AND LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2019**

Hospital sector– Local Health District	Infant feeding									
	Full breastfeeding		Any breastfeeding		Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Public</b>										
Sydney	4427	71.1	1416	22.7	226	3.6	161	2.6	<b>6230</b>	<b>100.0</b>
South Western Sydney	6744	58.6	2853	24.8	1420	12.3	497	4.3	<b>11514</b>	<b>100.0</b>
South Eastern Sydney	5990	78.7	1130	14.8	407	5.3	83	1.1	<b>7610</b>	<b>100.0</b>
Illawarra Shoalhaven	2533	75.6	310	9.3	485	14.5	21	0.6	<b>3349</b>	<b>100.0</b>
Western Sydney	7566	71.8	1942	18.4	794	7.5	238	2.3	<b>10540</b>	<b>100.0</b>
Nepean Blue Mountains	3424	66.6	787	15.3	867	16.9	66	1.3	<b>5144</b>	<b>100.0</b>
Northern Sydney	4598	79.0	650	11.2	172	3.0	398	6.8	<b>5818</b>	<b>100.0</b>
Central Coast	2400	78.2	344	11.2	295	9.6	29	0.9	<b>3068</b>	<b>100.0</b>
Hunter New England	6558	74.3	1019	11.6	1125	12.8	120	1.4	<b>8822</b>	<b>100.0</b>
Northern NSW	2498	85.3	169	5.8	136	4.6	125	4.3	<b>2928</b>	<b>100.0</b>
Mid North Coast	1766	80.3	214	9.7	191	8.7	29	1.3	<b>2200</b>	<b>100.0</b>
Southern NSW	1262	82.2	116	7.6	115	7.5	42	2.7	<b>1535</b>	<b>100.0</b>
Murrumbidgee	1524	72.3	219	10.4	335	15.9	31	1.5	<b>2109</b>	<b>100.0</b>
Western NSW	2440	73.9	350	10.6	457	13.8	53	1.6	<b>3300</b>	<b>100.0</b>
Far West	156	72.9	11	5.1	40	18.7	7	3.3	<b>214</b>	<b>100.0</b>
<b>TOTAL</b>	<b>53886</b>	<b>72.4</b>	<b>11530</b>	<b>15.5</b>	<b>7065</b>	<b>9.5</b>	<b>1900</b>	<b>2.6</b>	<b>74381</b>	<b>100.0</b>
<b>Private</b>										
<b>TOTAL</b>	<b>13234</b>	<b>66.0</b>	<b>5231</b>	<b>26.1</b>	<b>798</b>	<b>4.0</b>	<b>778</b>	<b>3.9</b>	<b>20041</b>	<b>100.0</b>
<b>TOTAL NSW*</b>	<b>67258</b>	<b>71.1</b>	<b>16765</b>	<b>17.7</b>	<b>7864</b>	<b>8.3</b>	<b>2679</b>	<b>2.8</b>	<b>94566</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.  
\* Total NSW includes births at home assisted by independent midwives.

**TABLE 54: LIVE BIRTHS BY TYPE OF INFANT FEEDING, MATERNITY SERVICE LEVEL AND HOSPITAL, NSW 2019\***

Maternity service level– Hospital	Infant feeding									
	Full breastfeeding		Any breastfeeding		Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Level 6</b>										
Royal Prince Alfred	3336	70.9	1098	23.3	153	3.3	117	2.5	<b>4704</b>	<b>100.0</b>
Royal North Shore	2288	82.1	388	13.9	86	3.1	25	0.9	<b>2787</b>	<b>100.0</b>
Royal Hospital for Women	3202	82.7	485	12.5	173	4.5	13	0.3	<b>3873</b>	<b>100.0</b>
Liverpool	2044	54.8	1051	28.2	515	13.8	118	3.2	<b>3728</b>	<b>100.0</b>
Nepean	2573	63.6	714	17.6	732	18.1	29	0.7	<b>4048</b>	<b>100.0</b>
Westmead	4133	76.6	733	13.6	353	6.5	178	3.3	<b>5397</b>	<b>100.0</b>
John Hunter	2945	73.2	531	13.2	501	12.5	45	1.1	<b>4022</b>	<b>100.0</b>
<b>TOTAL</b>	<b>20521</b>	<b>71.9</b>	<b>5000</b>	<b>17.5</b>	<b>2513</b>	<b>8.8</b>	<b>525</b>	<b>1.8</b>	<b>28559</b>	<b>100.0</b>
<b>Level 5</b>										
Gosford	2314	77.7	344	11.6	291	9.8	28	0.9	<b>2977</b>	<b>100.0</b>
Northern Beaches	1186	67.7	151	8.6	54	3.1	362	20.7	<b>1753</b>	<b>100.0</b>
St. George	1698	68.9	544	22.1	166	6.7	58	2.4	<b>2466</b>	<b>100.0</b>
Blacktown	2562	68.2	784	20.9	357	9.5	51	1.4	<b>3754</b>	<b>100.0</b>
Lismore Base	1034	80.4	95	7.4	58	4.5	99	7.7	<b>1286</b>	<b>100.0</b>
Tweed Heads	983	91.0	43	4.0	42	3.9	12	1.1	<b>1080</b>	<b>100.0</b>
Dubbo Base	886	69.9	116	9.1	251	19.8	15	1.2	<b>1268</b>	<b>100.0</b>
Wollongong	1820	72.9	277	11.1	384	15.4	15	0.6	<b>2496</b>	<b>100.0</b>
Wagga Wagga Base	874	71.5	141	11.5	197	16.1	10	0.8	<b>1222</b>	<b>100.0</b>
<b>TOTAL</b>	<b>13357</b>	<b>73.0</b>	<b>2495</b>	<b>13.6</b>	<b>1800</b>	<b>9.8</b>	<b>650</b>	<b>3.6</b>	<b>18302</b>	<b>100.0</b>
<b>Level 4</b>										
Canterbury	1091	71.5	318	20.8	73	4.8	44	2.9	<b>1526</b>	<b>100.0</b>
Hornsby	1056	87.6	111	9.2	30	2.5	9	0.7	<b>1206</b>	<b>100.0</b>
Sutherland	1090	85.8	101	7.9	68	5.4	12	0.9	<b>1271</b>	<b>100.0</b>
Fairfield	835	54.0	510	33.0	126	8.2	75	4.9	<b>1546</b>	<b>100.0</b>
Campbelltown	2451	60.8	776	19.3	566	14.0	238	5.9	<b>4031</b>	<b>100.0</b>
Bankstown-Lidcombe	1087	60.8	480	26.8	189	10.6	33	1.8	<b>1789</b>	<b>100.0</b>
Hawkesbury	546	75.0	60	8.2	107	14.7	15	2.1	<b>728</b>	<b>100.0</b>
Coffs Harbour	904	82.0	115	10.4	69	6.3	15	1.4	<b>1103</b>	<b>100.0</b>

(Continued on next page)



TABLE 54: (Continued)

Maternity service level–Hospital	Infant feeding									
	Full breastfeeding		Any breastfeeding		Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Grafton Base	285	78.5	31	8.5	36	9.9	11	3.0	363	100.0
Port Macquarie Base	632	78.1	81	10.0	87	10.8	9	1.1	809	100.0
Armidale	342	79.7	50	11.7	28	6.5	9	2.1	429	100.0
Tamworth Base	690	67.3	129	12.6	169	16.5	38	3.7	1026	100.0
Manning Base	479	76.8	66	10.6	70	11.2	9	1.4	624	100.0
Bathurst Base	376	78.8	46	9.6	44	9.2	11	2.3	477	100.0
Orange Base	717	71.6	153	15.3	116	11.6	15	1.5	1001	100.0
Maitland	1275	75.1	178	10.5	235	13.8	10	0.6	1698	100.0
Griffith Base	343	67.7	70	13.8	85	16.8	9	1.8	507	100.0
<b>TOTAL</b>	<b>14199</b>	<b>70.5</b>	<b>3275</b>	<b>16.3</b>	<b>2098</b>	<b>10.4</b>	<b>562</b>	<b>2.8</b>	<b>20134</b>	<b>100.0</b>
<b>Level 3</b>										
Auburn	871	62.7	425	30.6	84	6.0	9	0.6	1389	100.0
Blue Mountains	182	85.4	7	3.3	7	3.3	17	8.0	213	100.0
Kempsey	198	78.6	17	6.7	32	12.7	5	2.0	252	100.0
Inverell	162	71.4	27	11.9	35	15.4	3	1.3	227	100.0
Mudgee	176	81.9	9	4.2	20	9.3	10	4.7	215	100.0
Bega	194	81.5	20	8.4	20	8.4	4	1.7	238	100.0
Goulburn Base	231	78.0	19	6.4	41	13.9	5	1.7	296	100.0
Moruya	277	89.6	9	2.9	16	5.2	7	2.3	309	100.0
Queanbeyan	437	82.0	55	10.3	19	3.6	22	4.1	533	100.0
Bowral	327	77.9	36	8.6	24	5.7	33	7.9	420	100.0
Shoalhaven	711	83.5	33	3.9	101	11.9	6	0.7	851	100.0
Broken Hill Base	156	72.9	11	5.1	40	18.7	7	3.3	214	100.0
Other hospitals	1158	80.2	81	5.6	181	12.5	24	1.7	1444	100.0
<b>TOTAL</b>	<b>5080</b>	<b>77.0</b>	<b>749</b>	<b>11.3</b>	<b>620</b>	<b>9.4</b>	<b>152</b>	<b>2.3</b>	<b>6601</b>	<b>100.0</b>
<b>Level 2</b>										
<b>TOTAL</b>	<b>697</b>	<b>93.4</b>	<b>8</b>	<b>1.1</b>	<b>33</b>	<b>4.4</b>	<b>8</b>	<b>1.1</b>	<b>746</b>	<b>100.0</b>
<b>Public hospital<sup>§</sup></b>										
<b>TOTAL</b>	<b>53886</b>	<b>72.4</b>	<b>11530</b>	<b>15.5</b>	<b>7065</b>	<b>9.5</b>	<b>1900</b>	<b>2.6</b>	<b>74381</b>	<b>100.0</b>
<b>Private</b>										
Mater, North Sydney	1398	64.6	661	30.5	89	4.1	17	0.8	2165	100.0
North Shore Private	1409	68.3	559	27.1	90	4.4	5	0.2	2063	100.0
Sydney Adventist	1023	59.4	557	32.3	70	4.1	72	4.2	1722	100.0
North Gosford Private	461	81.2	63	11.1	35	6.2	9	1.6	568	100.0
Hurstville Community	434	61.6	202	28.7	61	8.7	8	1.1	705	100.0
Kareena Private	517	81.3	72	11.3	46	7.2	1	0.2	636	100.0
St. George Private	718	51.1	558	39.7	120	8.5	8	0.6	1404	100.0
Prince of Wales Private	1578	75.8	432	20.7	0	0.0	72	3.5	2082	100.0
Norwest Private	1234	69.1	367	20.5	0	0.0	185	10.4	1786	100.0
Sydney Southwest Private	529	54.2	322	33.0	0	0.0	125	12.8	976	100.0
Nepean Private	455	62.2	171	23.4	0	0.0	106	14.5	732	100.0
Westmead Private	1291	57.5	783	34.9	159	7.1	13	0.6	2246	100.0
Wollongong Private	637	70.1	144	15.8	121	13.3	7	0.8	909	100.0
Newcastle Private	1330	74.3	309	17.3	0	0.0	150	8.4	1789	100.0
Calvary, Wagga Wagga	220	85.3	31	12.0	7	2.7	0	0.0	258	100.0
<b>TOTAL</b>	<b>13234</b>	<b>66.0</b>	<b>5231</b>	<b>26.1</b>	<b>798</b>	<b>4.0</b>	<b>778</b>	<b>3.9</b>	<b>20041</b>	<b>100.0</b>
<b>TOTAL NSW*</b>	<b>67258</b>	<b>71.1</b>	<b>16765</b>	<b>17.7</b>	<b>7864</b>	<b>8.3</b>	<b>2679</b>	<b>2.8</b>	<b>94566</b>	<b>100.0</b>

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

# Hospitals with more than 200 births in 2019 are identified individually. Maternity service levels are described on page 91 in Appendix 2: Explanatory notes.

§ Public total includes public hospitals with a maternity service level other than those specified in the table.

\* Total NSW includes births at home assisted by independent midwives and births at level 1 hospitals.

## Baby discharge status

Table 55 shows the discharge status of babies for local health districts, and Table 56 for individual hospitals by maternity service level where at least 200 mothers gave birth in 2019.

**TABLE 55: BABY DISCHARGE STATUS BY HOSPITAL AND LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2019**

Hospital sector– Local Health District	Baby discharge status											
	Discharged		Stillborn		Neonatal death		Transferred		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Public</b>												
Sydney	6042	96.2	48	0.8	28	0.4	155	2.5	5	0.1	<b>6278</b>	<b>100.0</b>
South Western Sydney	11124	96.0	72	0.6	28	0.2	355	3.1	7	0.1	<b>11586</b>	<b>100.0</b>
South Eastern Sydney	7424	96.7	68	0.9	14	0.2	125	1.6	47	0.6	<b>7678</b>	<b>100.0</b>
Illawarra Shoalhaven	3307	98.4	11	0.3	4	0.1	38	1.1	0	0.0	<b>3360</b>	<b>100.0</b>
Western Sydney	10110	95.1	92	0.9	41	0.4	389	3.7	0	0.0	<b>10632</b>	<b>100.0</b>
Nepean Blue Mountains	4898	94.4	44	0.8	15	0.3	209	4.0	22	0.4	<b>5188</b>	<b>100.0</b>
Northern Sydney	5647	96.6	27	0.5	19	0.3	151	2.6	1	0.0	<b>5845</b>	<b>100.0</b>
Central Coast	3028	98.0	22	0.7	3	0.1	36	1.2	1	0.0	<b>3090</b>	<b>100.0</b>
Hunter New England	8386	94.3	73	0.8	39	0.4	360	4.0	37	0.4	<b>8895</b>	<b>100.0</b>
Northern NSW	2797	95.0	16	0.5	1	0.0	34	1.2	96	3.3	<b>2944</b>	<b>100.0</b>
Mid North Coast	2098	95.3	2	0.1	0	0.0	95	4.3	7	0.3	<b>2202</b>	<b>100.0</b>
Southern NSW	1475	95.7	7	0.5	2	0.1	42	2.7	16	1.0	<b>1542</b>	<b>100.0</b>
Murrumbidgee	2005	94.7	9	0.4	1	0.0	95	4.5	8	0.4	<b>2118</b>	<b>100.0</b>
Western NSW	3194	96.1	23	0.7	2	0.1	104	3.1	0	0.0	<b>3323</b>	<b>100.0</b>
Far West	202	92.7	4	1.8	0	0.0	12	5.5	0	0.0	<b>218</b>	<b>100.0</b>
<b>TOTAL</b>	<b>71737</b>	<b>95.8</b>	<b>518</b>	<b>0.7</b>	<b>197</b>	<b>0.3</b>	<b>2200</b>	<b>2.9</b>	<b>247</b>	<b>0.3</b>	<b>74899</b>	<b>100.0</b>
<b>Private</b>												
<b>TOTAL</b>	<b>19893</b>	<b>99.0</b>	<b>49</b>	<b>0.2</b>	<b>8</b>	<b>0.0</b>	<b>137</b>	<b>0.7</b>	<b>3</b>	<b>0.0</b>	<b>20090</b>	<b>100.0</b>
<b>TOTAL NSW*</b>	<b>91774</b>	<b>96.5</b>	<b>567</b>	<b>0.6</b>	<b>205</b>	<b>0.2</b>	<b>2337</b>	<b>2.5</b>	<b>250</b>	<b>0.3</b>	<b>95133</b>	<b>100.0</b>

Source: NSW Perinatal Data Collection (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health.  
\* Total NSW includes births at home assisted by independent midwives.

**TABLE 56: BABY DISCHARGE STATUS BY MATERNITY SERVICE LEVEL AND HOSPITAL, NSW 2019\***

Maternity service level– Hospital	Baby discharge status											
	Discharged		Stillborn		Neonatal death		Transferred		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Level 6</b>												
Royal Prince Alfred	4542	95.6	45	0.9	27	0.6	130	2.7	5	0.1	<b>4749</b>	<b>100.0</b>
Royal North Shore	2657	94.7	19	0.7	16	0.6	114	4.1	0	0.0	<b>2806</b>	<b>100.0</b>
Royal Hospital for Women	3768	96.2	43	1.1	8	0.2	97	2.5	0	0.0	<b>3916</b>	<b>100.0</b>
Liverpool	3461	92.2	27	0.7	19	0.5	247	6.6	1	0.0	<b>3755</b>	<b>100.0</b>
Nepean	3848	94.2	39	1.0	15	0.4	181	4.4	4	0.1	<b>4087</b>	<b>100.0</b>
Westmead	5039	92.4	58	1.1	28	0.5	330	6.0	0	0.0	<b>5455</b>	<b>100.0</b>
John Hunter	3760	92.2	55	1.3	33	0.8	219	5.4	10	0.2	<b>4077</b>	<b>100.0</b>
<b>TOTAL</b>	<b>27075</b>	<b>93.9</b>	<b>286</b>	<b>1.0</b>	<b>146</b>	<b>0.5</b>	<b>1318</b>	<b>4.6</b>	<b>20</b>	<b>0.1</b>	<b>28845</b>	<b>100.0</b>
<b>Level 5</b>												
Gosford	2938	98.0	22	0.7	3	0.1	36	1.2	0	0.0	<b>2999</b>	<b>100.0</b>
Northern Beaches	1727	98.4	2	0.1	1	0.1	25	1.4	0	0.0	<b>1755</b>	<b>100.0</b>
St. George	2399	96.5	19	0.8	6	0.2	14	0.6	47	1.9	<b>2485</b>	<b>100.0</b>
Blacktown	3693	97.8	24	0.6	13	0.3	48	1.3	0	0.0	<b>3778</b>	<b>100.0</b>
Lismore Base	1184	91.6	7	0.5	0	0.0	14	1.1	88	6.8	<b>1293</b>	<b>100.0</b>
Tweed Heads	1067	98.1	8	0.7	0	0.0	7	0.6	6	0.6	<b>1088</b>	<b>100.0</b>
Dubbo Base	1239	96.9	11	0.9	0	0.0	29	2.3	0	0.0	<b>1279</b>	<b>100.0</b>
Wollongong	2463	98.4	6	0.2	4	0.2	29	1.2	0	0.0	<b>2502</b>	<b>100.0</b>
Wagga Wagga Base	1151	93.7	7	0.6	1	0.1	68	5.5	2	0.2	<b>1229</b>	<b>100.0</b>
<b>TOTAL</b>	<b>17861</b>	<b>97.0</b>	<b>106</b>	<b>0.6</b>	<b>28</b>	<b>0.2</b>	<b>270</b>	<b>1.5</b>	<b>143</b>	<b>0.8</b>	<b>18408</b>	<b>100.0</b>
<b>Level 4</b>												
Canterbury	1500	98.1	3	0.2	1	0.1	25	1.6	0	0.0	<b>1529</b>	<b>100.0</b>
Hornsby	1195	98.6	6	0.5	2	0.2	8	0.7	1	0.1	<b>1212</b>	<b>100.0</b>
Sutherland	1257	98.4	6	0.5	0	0.0	14	1.1	0	0.0	<b>1277</b>	<b>100.0</b>
Fairfield	1529	98.1	13	0.8	0	0.0	17	1.1	0	0.0	<b>1559</b>	<b>100.0</b>
Campbelltown	3965	97.9	21	0.5	6	0.1	56	1.4	4	0.1	<b>4052</b>	<b>100.0</b>
Bankstown-Lidcombe	1762	98.1	8	0.4	3	0.2	23	1.3	1	0.1	<b>1797</b>	<b>100.0</b>
Hawkesbury	710	97.1	3	0.4	0	0.0	12	1.6	6	0.8	<b>731</b>	<b>100.0</b>
Coffs Harbour	1058	95.9	0	0.0	0	0.0	43	3.9	2	0.2	<b>1103</b>	<b>100.0</b>

(Continued on next page)

TABLE 56: (Continued)

Maternity service level–Hospital	Baby discharge status											
	Discharged		Stillborn		Neonatal death		Transferred		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Grafton Base	352	96.7	1	0.3	1	0.3	9	2.5	1	0.3	364	100.0
Port Macquarie Base	774	95.6	1	0.1	0	0.0	31	3.8	4	0.5	810	100.0
Armidale	414	95.8	3	0.7	0	0.0	9	2.1	6	1.4	432	100.0
Tamworth Base	964	93.7	3	0.3	5	0.5	36	3.5	21	2.0	1029	100.0
Manning Base	610	97.4	2	0.3	0	0.0	14	2.2	0	0.0	626	100.0
Bathurst Base	464	97.1	1	0.2	1	0.2	12	2.5	0	0.0	478	100.0
Orange Base	958	95.0	7	0.7	1	0.1	42	4.2	0	0.0	1008	100.0
Maitland	1641	96.2	8	0.5	0	0.0	57	3.3	0	0.0	1706	100.0
Griffith Base	493	96.9	2	0.4	0	0.0	11	2.2	3	0.6	509	100.0
<b>TOTAL</b>	<b>19646</b>	<b>97.2</b>	<b>88</b>	<b>0.4</b>	<b>20</b>	<b>0.1</b>	<b>419</b>	<b>2.1</b>	<b>49</b>	<b>0.2</b>	<b>20222</b>	<b>100.0</b>
<b>Level 3</b>												
Auburn	1378	98.5	10	0.7	0	0.0	11	0.8	0	0.0	1399	100.0
Blue Mountains	196	91.6	1	0.5	0	0.0	5	2.3	12	5.6	214	100.0
Kempsey	232	91.7	1	0.4	0	0.0	19	7.5	1	0.4	253	100.0
Inverell	222	96.9	2	0.9	1	0.4	4	1.7	0	0.0	229	100.0
Mudgee	203	94.0	1	0.5	0	0.0	12	5.6	0	0.0	216	100.0
Bega	234	97.9	1	0.4	0	0.0	4	1.7	0	0.0	239	100.0
Goulburn Base	290	97.6	1	0.3	0	0.0	6	2.0	0	0.0	297	100.0
Moruya	301	96.5	3	1.0	2	0.6	6	1.9	0	0.0	312	100.0
Queanbeyan	497	93.2	0	0.0	0	0.0	20	3.8	16	3.0	533	100.0
Bowral	407	96.2	3	0.7	0	0.0	12	2.8	1	0.2	423	100.0
Shoalhaven	842	98.4	5	0.6	0	0.0	9	1.1	0	0.0	856	100.0
Broken Hill Base	202	92.7	4	1.8	0	0.0	12	5.5	0	0.0	218	100.0
Other hospitals	1393	96.2	4	0.3	0	0.0	48	3.3	3	0.2	1448	100.0
<b>TOTAL</b>	<b>6397</b>	<b>96.4</b>	<b>36</b>	<b>0.5</b>	<b>3</b>	<b>0.0</b>	<b>168</b>	<b>2.5</b>	<b>33</b>	<b>0.5</b>	<b>6637</b>	<b>100.0</b>
<b>Level 2</b>												
<b>TOTAL</b>	<b>725</b>	<b>97.2</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>19</b>	<b>2.5</b>	<b>2</b>	<b>0.3</b>	<b>746</b>	<b>100.0</b>
<b>Public hospital<sup>§</sup></b>												
<b>TOTAL</b>	<b>71737</b>	<b>95.8</b>	<b>518</b>	<b>0.7</b>	<b>197</b>	<b>0.3</b>	<b>2200</b>	<b>2.9</b>	<b>247</b>	<b>0.3</b>	<b>74899</b>	<b>100.0</b>
<b>Private</b>												
Mater, North Sydney	2145	98.9	3	0.1	3	0.1	17	0.8	0	0.0	2168	100.0
North Shore Private	2056	99.1	12	0.6	0	0.0	7	0.3	0	0.0	2075	100.0
Sydney Adventist	1711	99.1	5	0.3	0	0.0	11	0.6	0	0.0	1727	100.0
North Gosford Private	560	98.2	2	0.4	2	0.4	6	1.1	0	0.0	570	100.0
Hurstville Community	704	99.9	0	0.0	0	0.0	1	0.1	0	0.0	705	100.0
Kareena Private	632	99.2	1	0.2	0	0.0	4	0.6	0	0.0	637	100.0
St. George Private	1390	98.8	3	0.2	2	0.1	12	0.9	0	0.0	1407	100.0
Prince of Wales Private	2073	99.4	3	0.1	0	0.0	8	0.4	1	0.0	2085	100.0
Norwest Private	1770	98.8	6	0.3	0	0.0	15	0.8	1	0.1	1792	100.0
Sydney Southwest Private	973	99.6	1	0.1	0	0.0	3	0.3	0	0.0	977	100.0
Nepean Private	719	98.1	1	0.1	0	0.0	13	1.8	0	0.0	733	100.0
Westmead Private	2229	98.9	8	0.4	1	0.0	16	0.7	0	0.0	2254	100.0
Wollongong Private	899	98.7	2	0.2	0	0.0	10	1.1	0	0.0	911	100.0
Newcastle Private	1778	99.3	2	0.1	0	0.0	11	0.6	0	0.0	1791	100.0
Calvary, Wagga Wagga	254	98.4	0	0.0	0	0.0	3	1.2	1	0.4	258	100.0
<b>TOTAL</b>	<b>19893</b>	<b>99.0</b>	<b>49</b>	<b>0.2</b>	<b>8</b>	<b>0.0</b>	<b>137</b>	<b>0.7</b>	<b>3</b>	<b>0.0</b>	<b>20090</b>	<b>100.0</b>
<b>TOTAL NSW*</b>	<b>91774</b>	<b>96.5</b>	<b>567</b>	<b>0.6</b>	<b>205</b>	<b>0.2</b>	<b>2337</b>	<b>2.5</b>	<b>250</b>	<b>0.3</b>	<b>95133</b>	<b>100.0</b>

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

# Hospitals with more than 200 births in 2019 are identified individually. Maternity service levels are described on page 91 in Appendix 2: Explanatory notes.

§ Public total includes public hospitals with a maternity service level other than those specified in the table.

\* Total NSW includes births at home assisted by independent midwives and births at level 1 hospitals.

## 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 2019.

**TABLE 57: AVERAGE MATERNAL POSTNATAL LENGTH OF STAY IN HOSPITAL OF BIRTH, NSW 2015–2019\***

Local Health District–Hospital		Average postnatal length of stay (days)				
		2015	2016	2017	2018	2019
<b>Sydney</b>	Canterbury	2.7	2.6	2.5	2.3	2.0
	Royal Prince Alfred	3.1	3.2	3.2	3.2	3.2
	Other hospitals	0.0	0.0	0.0	6.0	0.0
	<b>TOTAL</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>2.9</b>
<b>South Western Sydney</b>	Fairfield	2.5	2.5	2.5	2.3	2.3
	Liverpool	2.7	2.6	2.5	2.4	2.4
	Campbelltown	2.3	2.1	2.1	2.0	1.9
	Bankstown-Lidcombe	2.4	2.4	2.4	2.4	2.5
	Bowral	2.8	2.7	2.6	2.3	2.4
	<b>TOTAL</b>	<b>2.5</b>	<b>2.4</b>	<b>2.4</b>	<b>2.3</b>	<b>2.2</b>
<b>South Eastern Sydney</b>	St. George	2.4	2.2	2.3	2.4	2.4
	Sutherland	2.2	2.0	2.1	2.0	2.2
	Royal Hospital for Women	2.9	3.0	3.0	3.0	2.9
	<b>TOTAL</b>	<b>2.7</b>	<b>2.6</b>	<b>2.6</b>	<b>2.6</b>	<b>2.6</b>
<b>Illawarra Shoalhaven</b>	Shoalhaven	2.2	2.3	2.2	2.1	2.2
	Wollongong	2.4	2.4	2.4	2.4	2.4
	Other hospitals	1.7	1.4	2.0	0.0	2.0
	<b>TOTAL</b>	<b>2.3</b>	<b>2.3</b>	<b>2.3</b>	<b>2.4</b>	<b>2.4</b>
<b>Western Sydney</b>	Auburn	1.9	1.9	1.9	1.9	1.9
	Blacktown	2.2	2.1	2.1	2.1	2.1
	Westmead	2.1	2.1	2.1	2.2	2.2
	<b>TOTAL</b>	<b>2.1</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	2.1	2.2	2.3	2.3
	Royal North Shore	2.9	2.8	2.8	2.8	2.8
	Northern Beaches <sup>†</sup>	-	-	-	2.6	2.7
	Other hospitals	2.2	2.2	2.2	2.3	0.2
	<b>TOTAL</b>	<b>2.5</b>	<b>2.5</b>	<b>2.5</b>	<b>2.5</b>	<b>2.7</b>
<b>Central Coast</b>	Gosford	2.1	2.1	2.1	2.2	2.0
	Other hospitals	0.1	0.2	0.3	0.4	0.4
	<b>TOTAL</b>	<b>2.0</b>	<b>2.0</b>	<b>2.1</b>	<b>2.1</b>	<b>2.0</b>
<b>Hunter New England</b>	Armidale	2.4	2.5	2.8	3.0	3.2
	Inverell	2.8	2.9	3.1	3.0	3.0
	Tamworth Base	2.5	2.4	2.8	2.7	2.6
	Manning Base	2.7	2.7	2.6	2.7	2.4
	Maitland	2.0	2.0	2.1	2.0	2.0
	John Hunter	2.4	2.4	2.4	2.4	2.3
	Other hospitals	2.3	2.3	2.3	2.2	2.2
	<b>TOTAL</b>	<b>2.4</b>	<b>2.4</b>	<b>2.4</b>	<b>2.4</b>	<b>2.3</b>
<b>Northern NSW</b>	Grafton Base	3.0	3.0	3.1	3.1	3.0
	Lismore Base	2.3	2.3	2.4	2.2	2.3
	Tweed Heads	2.5	2.5	2.4	2.5	2.4
	Other hospitals	1.8	1.8	1.2	1.9	0.3
	<b>TOTAL</b>	<b>2.5</b>	<b>2.4</b>	<b>2.4</b>	<b>2.4</b>	<b>2.3</b>

Local Health District–Hospital		Average postnatal length of stay (days)				
		2015	2016	2017	2018	2019
<b>Mid North Coast</b>	Coffs Harbour	2.6	2.7	2.7	2.7	2.5
	Kempsey	2.3	2.4	2.8	2.8	2.7
	Port Macquarie Base	2.6	2.4	2.4	2.6	2.7
	Other hospitals	2.0	2.3	2.1	2.3	2.4
	<b>TOTAL</b>	<b>2.6</b>	<b>2.6</b>	<b>2.6</b>	<b>2.7</b>	<b>2.6</b>
<b>Southern NSW</b>	Bega	2.4	2.3	2.4	2.7	2.5
	Goulburn Base	2.5	2.4	2.8	2.3	2.2
	Moruya	2.2	2.2	2.1	2.0	2.1
	Queanbeyan	2.8	2.8	2.7	2.5	2.6
	Other hospitals	3.6	2.9	3.6	3.0	2.8
	<b>TOTAL</b>	<b>2.6</b>	<b>2.5</b>	<b>2.6</b>	<b>2.4</b>	<b>2.4</b>
<b>Murrumbidgee</b>	Griffith Base	2.8	2.9	2.6	2.3	2.5
	Wagga Wagga Base	2.5	2.4	2.7	2.5	2.5
	Other hospitals	2.7	2.8	3.0	2.6	2.7
	<b>TOTAL</b>	<b>2.6</b>	<b>2.6</b>	<b>2.7</b>	<b>2.5</b>	<b>2.5</b>
<b>Western NSW</b>	Dubbo Base	2.2	2.2	2.2	2.3	2.1
	Mudgee	2.5	2.4	2.3	2.3	2.4
	Bathurst Base	2.7	2.3	2.5	2.5	2.5
	Orange Base	2.3	2.5	2.5	2.4	2.5
	Other hospitals	2.6	3.0	2.7	2.6	2.7
	<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>2.3</b>	<b>2.1</b>	<b>2.4</b>	<b>2.2</b>	<b>2.3</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	4.4	4.5	4.6	4.4	4.5
	North Shore Private	4.5	4.5	4.5	4.5	4.5
	Sydney Adventist	4.7	4.7	4.8	4.4	4.5
	North Gosford Private	4.3	4.3	4.3	4.5	4.4
	Hurstville Community	4.2	4.5	4.3	4.3	4.5
	Kareena Private	4.4	4.4	4.4	4.4	4.4
	St. George Private	4.4	4.3	4.4	4.3	4.4
	Prince of Wales Private	4.5	4.5	4.6	4.5	4.5
	Norwest Private	4.3	4.2	4.2	4.2	4.2
	Sydney Southwest Private	4.0	3.8	3.8	3.9	3.8
	Nepean Private	4.1	4.2	4.3	4.2	4.2
	Westmead Private	4.3	4.2	4.0	4.0	4.1
	Wollongong Private <sup>†</sup>	-	5.3	5.3	5.2	5.1
	Newcastle Private	4.2	4.3	4.2	4.2	4.1
	Calvary, Wagga Wagga	4.6	4.5	4.4	4.4	4.4
	Other hospitals	5.2	4.5	4.4	0.0	0.0
<b>TOTAL</b>	<b>4.4</b>	<b>4.4</b>	<b>4.4</b>	<b>4.3</b>	<b>4.4</b>	
<b>TOTAL NSW*</b>	<b>2.9</b>	<b>2.9</b>	<b>2.9</b>	<b>2.9</b>	<b>2.8</b>	

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

# Hospitals with more than 200 births in 2019 are identified individually.

† Wollongong Private Hospital opened in 2016.

‡ Northern Beaches Hospital opened in 2018.

\* 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 2019, 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 2015–2019<sup>a</sup>**

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
Sydney	Canterbury	51.9	43.5	38.3	43.5	40.1
	Royal Prince Alfred	54.1	53.4	52.5	44.3	45.1
	<b>TOTAL</b>	<b>53.5</b>	<b>51.2</b>	<b>48.9</b>	<b>44.1</b>	<b>43.9</b>
South Western Sydney	Fairfield	71.9	65.4	63.9	57.6	67.2
	Liverpool	62.5	56.9	54.8	58.1	54.9
	Campbelltown	62.7	59.7	60.6	58.4	56.3
	Bankstown-Lidcombe	61.8	49.7	58.5	52.0	59.0
	Bowral	49.5	37.0	50.9	64.6	59.3
<b>TOTAL</b>	<b>63.4</b>	<b>57.1</b>	<b>58.6</b>	<b>57.4</b>	<b>57.9</b>	
South Eastern Sydney	St. George	47.1	47.9	45.5	39.0	39.2
	Sutherland	58.2	61.2	56.5	55.6	53.1
	Royal Hospital for Women	49.3	53.2	46.8	50.6	46.4
	<b>TOTAL</b>	<b>49.9</b>	<b>52.7</b>	<b>47.8</b>	<b>47.2</b>	<b>44.9</b>
Illawarra Shoalhaven	Shoalhaven	49.0	56.9	51.5	54.8	52.3
	Wollongong	53.6	54.5	49.1	51.7	43.4
	Other hospitals	100.0	0.0	0.0	0.0	100.0
	<b>TOTAL</b>	<b>52.5</b>	<b>55.1</b>	<b>49.6</b>	<b>52.5</b>	<b>45.7</b>
Western Sydney	Auburn	66.1	67.1	66.3	63.9	63.2
	Blacktown	52.3	54.4	53.8	56.8	52.3
	Westmead	54.8	56.9	56.9	52.9	55.1
	<b>TOTAL</b>	<b>55.8</b>	<b>57.6</b>	<b>57.3</b>	<b>56.0</b>	<b>55.4</b>
Nepean Blue Mountains	Blue Mountains	52.9	60.8	64.1	56.8	52.1
	Nepean	45.0	48.5	49.0	47.6	46.9
	Hawkesbury	50.0	50.7	50.3	45.4	43.1
	Other hospitals	60.0	58.1	55.3	58.8	48.5
<b>TOTAL</b>	<b>47.0</b>	<b>49.8</b>	<b>50.0</b>	<b>48.0</b>	<b>46.6</b>	
Northern Sydney	Hornsby	56.8	53.5	53.6	52.8	52.0
	Royal North Shore	54.2	49.5	50.0	51.5	49.4
	Northern Beaches <sup>†</sup>	-	-	-	48.1	42.3
	Other hospitals	59.6	56.0	54.0	53.5	100.0
<b>TOTAL</b>	<b>56.3</b>	<b>52.1</b>	<b>51.9</b>	<b>52.0</b>	<b>48.5</b>	
Central Coast	Gosford	56.2	52.7	50.3	51.2	52.0
	Other hospitals	100.0	100.0	100.0	100.0	100.0
	<b>TOTAL</b>	<b>58.1</b>	<b>54.5</b>	<b>51.9</b>	<b>52.5</b>	<b>53.2</b>

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
Hunter New England	Armidale	47.0	55.6	52.3	50.6	38.7
	Inverell	42.3	53.5	65.4	52.6	29.7
	Tamworth Base	55.2	56.4	46.6	45.5	55.5
	Manning Base	53.2	53.8	49.2	50.9	46.3
	Maitland	62.1	67.1	62.3	61.9	62.2
	John Hunter	55.3	53.1	56.7	51.3	46.2
Other hospitals	72.0	73.5	66.1	65.5	62.3	
<b>TOTAL</b>	<b>57.2</b>	<b>58.2</b>	<b>57.1</b>	<b>53.8</b>	<b>51.1</b>	
Northern NSW	Grafton Base	52.4	61.8	63.4	50.7	61.5
	Lismore Base	68.9	58.4	70.6	63.4	62.5
	Tweed Heads	62.8	68.7	61.6	55.6	59.2
	Other hospitals	97.7	89.1	100.0	97.1	97.9
<b>TOTAL</b>	<b>66.2</b>	<b>65.8</b>	<b>67.1</b>	<b>60.5</b>	<b>64.0</b>	
Mid North Coast	Coffs Harbour	59.2	50.3	54.0	58.4	64.1
	Kempsey	64.4	73.0	78.9	54.2	63.3
	Port Macquarie Base	54.9	52.4	58.8	53.7	42.4
	Other hospitals	100.0	100.0	75.0	100.0	75.0
	<b>TOTAL</b>	<b>59.3</b>	<b>53.8</b>	<b>58.4</b>	<b>57.4</b>	<b>55.6</b>
Southern NSW	Bega	63.0	59.6	55.1	56.9	55.6
	Goulburn Base	39.3	45.8	39.6	61.1	47.6
	Moruya	55.3	60.8	58.1	76.9	66.0
	Queanbeyan	51.4	53.6	45.4	38.4	48.4
	Other hospitals	87.5	88.6	85.2	54.5	74.2
<b>TOTAL</b>	<b>56.4</b>	<b>58.3</b>	<b>51.3</b>	<b>52.2</b>	<b>54.2</b>	
Murrumbidgee	Griffith Base	53.3	51.0	64.1	52.0	56.4
	Wagga Wagga Base	43.1	50.5	49.1	48.2	43.9
	Other hospitals	68.4	54.5	68.8	67.5	61.4
<b>TOTAL</b>	<b>51.5</b>	<b>51.5</b>	<b>56.9</b>	<b>52.6</b>	<b>49.1</b>	
Western NSW	Dubbo Base	53.2	52.0	51.0	39.3	45.7
	Mudgee	60.3	63.8	52.3	63.6	34.0
	Bathurst Base	67.6	62.1	61.8	65.9	55.1
	Orange Base	53.1	51.9	47.3	44.8	41.7
	Other hospitals	70.1	68.0	62.3	56.7	69.6
	<b>TOTAL</b>	<b>57.7</b>	<b>55.9</b>	<b>52.7</b>	<b>47.6</b>	<b>47.2</b>

(Continued on next page)

TABLE 58: (Continued)

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
<b>Far West</b>	<b>TOTAL</b>	<b>69.1</b>	<b>64.3</b>	<b>50.0</b>	<b>62.5</b>	<b>62.5</b>
<b>Public Hospitals</b>	<b>TOTAL</b>	<b>56.1</b>	<b>55.0</b>	<b>53.9</b>	<b>52.3</b>	<b>51.1</b>
<b>Private Hospitals</b>	Mater, North Sydney	35.9	28.1	27.6	27.4	24.3
	North Shore Private	31.3	30.5	29.1	31.2	27.9
	Sydney Adventist	51.6	44.6	44.5	37.0	42.2
	North Gosford Private	34.3	27.6	22.5	16.7	19.0
	Hurstville Community	46.2	47.9	45.0	33.3	35.1
	Kareena Private	34.7	29.9	31.6	27.4	31.6
	St. George Private	33.2	33.4	28.6	36.0	37.4
	Prince of Wales Private	31.0	30.7	27.9	26.6	27.4

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
	Norwest Private	39.5	43.3	42.0	41.4	40.0
	Sydney Southwest Private	35.2	40.5	40.4	37.8	37.5
	Nepean Private	42.7	38.1	41.8	36.4	37.4
	Westmead Private	38.0	40.8	39.5	41.5	39.9
	Wollongong Private†	-	32.1	40.0	39.8	35.1
	Newcastle Private	41.5	35.7	34.9	34.6	35.6
	Calvary, Wagga Wagga	26.6	35.2	31.1	21.0	20.0
	Other hospitals	34.8	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>37.3</b>	<b>35.9</b>	<b>34.8</b>	<b>34.0</b>	<b>33.9</b>
<b>TOTAL NSW*</b>		<b>51.2</b>	<b>49.9</b>	<b>49.0</b>	<b>47.8</b>	<b>46.9</b>

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

# Hospitals with more than 200 births in 2019 are identified individually.

† Wollongong Private Hospital opened in 2016.

‡ Northern Beaches Hospital opened in 2018.

\* 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 2019, 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 2015–2019<sup>a</sup>**

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
Sydney	Canterbury	44.4	43.3	52.5	51.6	52.3
	Royal Prince Alfred	34.1	35.9	40.3	43.2	47.9
	<b>TOTAL</b>	<b>36.8</b>	<b>37.6</b>	<b>43.4</b>	<b>45.2</b>	<b>48.9</b>
South Western Sydney	Fairfield	25.2	26.9	36.1	35.0	38.2
	Liverpool	27.0	35.7	38.4	38.7	41.4
	Campbelltown	33.9	34.5	39.2	37.6	40.2
	Bankstown-Lidcombe	35.2	36.4	38.2	46.8	45.8
	Bowral	19.6	27.2	16.1	34.2	25.0
	<b>TOTAL</b>	<b>30.3</b>	<b>33.6</b>	<b>37.3</b>	<b>39.0</b>	<b>40.6</b>
South Eastern Sydney	St. George	47.7	44.0	51.4	59.6	60.1
	Sutherland	34.5	36.2	39.5	40.1	42.3
	Royal Hospital for Women	32.8	33.3	40.8	39.0	41.7
	<b>TOTAL</b>	<b>38.1</b>	<b>37.5</b>	<b>44.5</b>	<b>46.6</b>	<b>48.7</b>
Illawarra Shoalhaven	Shoalhaven	37.3	45.4	40.5	44.7	44.9
	Wollongong	39.9	41.3	48.3	51.7	52.9
	Other hospitals	0.0	0.0	0.0	0.0	0.0
<b>TOTAL</b>	<b>39.1</b>	<b>42.3</b>	<b>46.5</b>	<b>49.9</b>	<b>50.8</b>	
Western Sydney	Auburn	34.6	37.3	47.5	43.5	44.7
	Blacktown	41.4	42.6	46.5	48.6	46.0
	Westmead	41.3	45.0	44.7	47.1	46.7
	<b>TOTAL</b>	<b>40.3</b>	<b>43.2</b>	<b>45.7</b>	<b>47.0</b>	<b>46.1</b>
Nepean Blue Mountains	Blue Mountains	23.5	5.9	17.9	18.2	33.3
	Nepean	42.5	41.5	45.7	48.6	47.3
	Hawkesbury	37.8	50.7	44.2	44.8	50.0
	Other hospitals	60.0	51.2	52.6	58.8	39.4
	<b>TOTAL</b>	<b>41.7</b>	<b>41.5</b>	<b>44.7</b>	<b>47.0</b>	<b>46.8</b>
Northern Sydney	Hornsby	25.7	31.6	38.2	38.9	38.2
	Royal North Shore	40.1	43.0	45.9	43.0	45.2
	Northern Beaches <sup>†</sup>	-	-	-	37.7	43.9
	Other hospitals	34.7	32.3	33.6	39.1	0.0
<b>TOTAL</b>	<b>35.7</b>	<b>37.9</b>	<b>40.8</b>	<b>41.0</b>	<b>42.8</b>	
Central Coast	Gosford	39.9	42.1	42.0	46.5	45.7
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>38.1</b>	<b>40.5</b>	<b>40.7</b>	<b>45.3</b>	<b>44.5</b>
Hunter New England	Armidale	24.0	25.0	35.2	38.6	37.6
	Inverell	32.7	44.2	42.3	63.2	40.5
	Tamworth Base	43.4	41.1	50.0	52.0	49.5
	Manning Base	39.5	49.6	58.9	50.0	47.9
	Maitland	39.4	43.5	46.3	53.6	53.9
	John Hunter	44.3	49.8	49.3	49.9	51.9
	Other hospitals	14.3	22.7	22.6	18.8	17.8
	<b>TOTAL</b>	<b>38.5</b>	<b>43.3</b>	<b>46.0</b>	<b>47.6</b>	<b>48.0</b>
	Northern NSW	Grafton Base	31.7	33.8	39.4	40.0
Lismore Base		30.1	37.6	37.1	42.9	42.1
Tweed Heads		38.5	34.3	41.7	38.2	44.3
Other hospitals		0.0	17.4	0.0	0.0	0.0
<b>TOTAL</b>		<b>32.3</b>	<b>34.1</b>	<b>37.6</b>	<b>38.1</b>	<b>37.8</b>

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
Mid North Coast	Coffs Harbour	31.2	41.6	37.5	42.1	44.8
	Kempsey	24.4	16.2	21.1	29.2	40.8
	Port Macquarie Base	38.2	46.9	44.4	51.0	52.5
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>32.1</b>	<b>40.8</b>	<b>37.8</b>	<b>42.6</b>	<b>47.0</b>
Southern NSW	Bega	19.6	38.3	49.0	53.4	51.1
	Goulburn Base	26.8	25.4	18.9	20.4	27.0
	Moruya	21.3	23.5	24.2	26.9	20.8
	Queanbeyan	22.0	33.6	37.5	34.4	47.7
Other hospitals	25.0	14.3	25.9	31.8	25.8	
<b>TOTAL</b>	<b>22.8</b>	<b>28.8</b>	<b>32.9</b>	<b>34.1</b>	<b>38.3</b>	
Murrumbidgee	Griffith Base	40.0	33.3	28.2	30.0	47.3
	Wagga Wagga Base	45.5	42.6	43.0	45.0	49.1
	Other hospitals	24.2	14.8	22.5	18.2	21.1
<b>TOTAL</b>	<b>39.1</b>	<b>33.9</b>	<b>35.0</b>	<b>36.6</b>	<b>45.1</b>	
Western NSW	Dubbo Base	51.2	50.4	42.9	50.9	50.5
	Mudgee	22.4	21.3	34.1	34.1	51.1
	Bathurst Base	24.3	33.7	41.6	42.0	31.5
	Orange Base	45.6	46.2	50.2	46.2	53.1
	Other hospitals	20.8	28.0	24.7	25.4	29.1
<b>TOTAL</b>	<b>39.8</b>	<b>42.3</b>	<b>42.3</b>	<b>44.7</b>	<b>47.0</b>	
Far West	<b>TOTAL</b>	<b>23.6</b>	<b>28.6</b>	<b>25.0</b>	<b>27.1</b>	<b>35.4</b>
Public Hospitals	<b>TOTAL</b>	<b>36.6</b>	<b>38.8</b>	<b>42.3</b>	<b>44.1</b>	<b>45.5</b>
Private Hospitals	Mater, North Sydney	24.3	26.0	25.2	29.1	28.6
	North Shore Private	24.4	22.9	25.1	27.8	29.6
	Sydney Adventist	26.9	26.2	31.3	30.5	35.9
	North Gosford Private	42.9	43.9	51.7	48.1	59.2
	Hurstville Community	30.1	23.7	26.9	28.5	33.0
	Kareena Private	26.9	32.6	32.1	36.3	39.2
	St. George Private	40.3	36.3	38.6	41.4	49.2
	Prince of Wales Private	28.1	29.8	31.1	37.0	39.8
	Norwest Private	49.5	54.2	50.6	50.5	54.1
	Sydney Southwest Private	46.8	44.2	45.7	48.0	52.1
	Nepean Private	55.5	61.9	63.7	68.7	66.7
	Westmead Private	39.8	38.7	41.3	42.3	45.1
	Wollongong Private <sup>‡</sup>	-	43.9	44.1	48.7	56.0
	Newcastle Private	43.0	47.8	47.9	56.1	53.2
	Calvary, Wagga Wagga	39.8	37.5	37.8	37.1	33.3
Other hospitals	48.2	0.0	0.0	0.0	0.0	
<b>TOTAL</b>	<b>36.3</b>	<b>36.5</b>	<b>37.9</b>	<b>40.9</b>	<b>43.8</b>	
<b>TOTAL NSW<sup>*</sup></b>	<b>36.5</b>	<b>38.1</b>	<b>41.1</b>	<b>43.2</b>	<b>45.1</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 2019 are identified individually.  
<sup>†</sup> Wollongong Private Hospital opened in 2016.  
<sup>‡</sup> Northern Beaches Hospital opened in 2018.  
<sup>\*</sup> 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 2019, 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 2015–2019<sup>a</sup>**

Local Health District–Hospital		2015	2016	2017	2018	2019	
		%	%	%	%	%	
<b>Sydney</b>	Canterbury	23.5	27.6	31.4	35.2	31.4	
	Royal Prince Alfred	25.0	20.7	26.2	27.8	28.8	
	<b>TOTAL</b>	<b>24.6</b>	<b>22.3</b>	<b>27.5</b>	<b>29.6</b>	<b>29.4</b>	
<b>South Western Sydney</b>	Fairfield	10.3	14.4	15.5	17.9	16.0	
	Liverpool	19.7	21.7	24.4	24.2	26.1	
	Campbelltown	15.8	19.5	19.0	18.5	21.3	
	Bankstown-Lidcombe	19.6	17.3	18.9	20.6	20.6	
	Bowral	26.8	26.1	22.3	20.3	24.1	
	<b>TOTAL</b>	<b>17.2</b>	<b>19.1</b>	<b>20.2</b>	<b>20.7</b>	<b>22.1</b>	
<b>South Eastern Sydney</b>	St. George	27.3	29.3	30.3	33.0	35.2	
	Sutherland	24.3	20.2	21.9	24.7	23.3	
	Royal Hospital for Women	30.8	26.6	29.2	29.3	29.6	
	<b>TOTAL</b>	<b>28.6</b>	<b>26.5</b>	<b>28.5</b>	<b>29.9</b>	<b>30.6</b>	
<b>Illawarra Shoalhaven</b>	Shoalhaven	15.7	16.1	21.5	24.4	24.1	
	Wollongong	21.5	25.4	23.1	20.2	22.2	
	Other hospitals	0.0	0.0	0.0	0.0	0.0	
	<b>TOTAL</b>	<b>19.9</b>	<b>23.1</b>	<b>22.8</b>	<b>21.3</b>	<b>22.6</b>	
<b>Western Sydney</b>	Auburn	14.4	13.0	15.4	15.7	15.3	
	Blacktown	22.0	22.1	23.5	18.9	20.8	
	Westmead	21.1	21.7	23.4	25.0	23.2	
	<b>TOTAL</b>	<b>20.4</b>	<b>20.6</b>	<b>22.2</b>	<b>21.4</b>	<b>21.1</b>	
<b>Nepean Blue Mountains</b>	Blue Mountains	19.6	23.5	10.3	18.2	16.7	
	Nepean	21.7	18.8	19.5	20.4	21.1	
	Hawkesbury	21.5	16.7	20.0	25.3	26.9	
	Other hospitals	10.9	11.6	7.9	2.9	18.2	
	<b>TOTAL</b>	<b>21.0</b>	<b>18.5</b>	<b>18.8</b>	<b>20.6</b>	<b>21.7</b>	
<b>Northern Sydney</b>	Hornsby	26.1	23.6	26.2	23.1	20.3	
	Royal North Shore	25.0	25.6	26.8	27.1	23.6	
	Northern Beaches <sup>†</sup>	-	-	-	23.4	29.1	
	Other hospitals	21.9	23.0	27.0	25.3	0.0	
	<b>TOTAL</b>	<b>24.3</b>	<b>24.5</b>	<b>26.8</b>	<b>25.7</b>	<b>24.3</b>	
<b>Central Coast</b>	Gosford	23.8	24.8	26.7	25.8	26.7	
	Other hospitals	0.0	0.0	0.0	0.0	0.0	
	<b>TOTAL</b>	<b>22.8</b>	<b>23.9</b>	<b>25.9</b>	<b>25.1</b>	<b>26.0</b>	
<b>Hunter New England</b>	Armidale	15.0	12.5	20.5	18.1	18.3	
	Inverell	23.1	20.9	13.5	23.7	29.7	
	Tamworth Base	20.8	18.3	22.7	24.2	14.7	
	Manning Base	26.6	24.8	32.3	25.0	29.8	
	Maitland	19.6	17.1	10.2	11.6	10.3	
	John Hunter	22.0	23.4	18.1	19.8	24.6	
	Other hospitals	12.7	14.2	11.3	9.7	16.4	
	<b>TOTAL</b>	<b>20.5</b>	<b>20.3</b>	<b>17.5</b>	<b>18.3</b>	<b>20.0</b>	
	<b>Northern NSW</b>	Grafton Base	25.4	22.1	11.3	18.7	10.8
		Lismore Base	14.3	22.3	16.5	20.2	17.1
Tweed Heads		21.6	17.0	19.4	25.3	25.0	
Other hospitals		0.0	4.3	0.0	2.9	2.1	
<b>TOTAL</b>		<b>18.1</b>	<b>18.5</b>	<b>16.2</b>	<b>21.1</b>	<b>18.3</b>	

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
<b>Mid North Coast</b>	Coffs Harbour	15.6	18.3	18.3	12.7	14.3
	Kempsey	6.7	10.8	5.3	18.8	16.3
	Port Macquarie Base	23.6	17.0	23.5	21.8	29.4
	Other hospitals	0.0	0.0	25.0	0.0	25.0
	<b>TOTAL</b>	<b>17.0</b>	<b>16.9</b>	<b>19.1</b>	<b>16.2</b>	<b>20.5</b>
<b>Southern NSW</b>	Bega	17.4	19.1	20.4	27.6	24.4
	Goulburn Base	32.1	16.9	26.4	18.5	27.0
	Moruya	17.0	13.7	17.7	11.5	15.1
	Queanbeyan	22.0	28.2	27.0	32.5	25.2
	Other hospitals	2.5	8.6	11.1	18.2	6.5
<b>TOTAL</b>	<b>19.8</b>	<b>19.9</b>	<b>23.0</b>	<b>25.2</b>	<b>22.2</b>	
<b>Murrumbidgee</b>	Griffith Base	17.8	22.5	15.5	22.0	21.8
	Wagga Wagga Base	21.1	21.8	17.3	20.9	24.6
	Other hospitals	17.9	19.3	18.8	14.3	22.8
<b>TOTAL</b>	<b>19.5</b>	<b>21.4</b>	<b>17.1</b>	<b>20.0</b>	<b>23.7</b>	
<b>Western NSW</b>	Dubbo Base	19.0	24.6	22.4	34.9	17.9
	Mudgee	19.0	19.1	15.9	15.9	27.7
	Bathurst Base	18.9	18.9	21.3	11.4	13.5
	Orange Base	26.5	17.1	22.2	22.6	17.3
	Other hospitals	7.8	14.7	14.3	16.4	7.6
<b>TOTAL</b>	<b>20.2</b>	<b>20.1</b>	<b>20.8</b>	<b>25.0</b>	<b>16.7</b>	
<b>Far West</b>	<b>TOTAL</b>	<b>14.5</b>	<b>9.5</b>	<b>20.5</b>	<b>14.6</b>	<b>18.8</b>
<b>Public Hospitals</b>	<b>TOTAL</b>	<b>21.6</b>	<b>21.5</b>	<b>22.7</b>	<b>23.3</b>	<b>23.4</b>
<b>Private Hospitals</b>	Mater, North Sydney	23.1	24.6	21.6	24.3	24.9
	North Shore Private	26.0	22.0	20.8	20.9	18.6
	Sydney Adventist	15.2	24.1	23.4	23.4	18.3
	North Gosford Private	26.8	28.1	31.5	29.6	34.5
	Hurstville Community	20.2	22.8	25.7	31.7	26.7
	Kareena Private	22.2	27.1	27.4	21.2	27.2
	St. George Private	27.5	28.4	29.7	28.2	31.3
	Prince of Wales Private	24.4	24.0	23.2	23.2	21.4
	Norwest Private	26.4	26.9	24.9	24.1	26.1
	Sydney Southwest Private	35.8	32.7	30.7	36.5	36.5
	Nepean Private	19.1	22.7	25.4	24.9	25.8
	Westmead Private	25.4	21.6	24.4	20.9	18.4
	Wollongong Private <sup>†</sup>	-	35.0	29.3	26.9	26.8
	Newcastle Private	25.8	30.2	25.5	23.9	27.4
	Calvary, Wagga Wagga	23.4	20.5	17.6	22.6	25.0
Other hospitals	25.4	0.0	0.0	0.0	0.0	
<b>TOTAL</b>	<b>24.6</b>	<b>25.7</b>	<b>24.9</b>	<b>24.7</b>	<b>24.4</b>	
<b>TOTAL NSW<sup>a</sup></b>	<b>22.4</b>	<b>22.6</b>	<b>23.2</b>	<b>23.6</b>	<b>23.6</b>	

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

# Hospitals with more than 200 births in 2019 are identified individually.

<sup>†</sup> Wollongong Private Hospital opened in 2016.

<sup>‡</sup> Northern Beaches Hospital opened in 2018.

\* 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 2019, 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 2015–2019\***

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
Sydney	Canterbury	24.7	28.9	30.3	21.2	28.5
	Royal Prince Alfred	20.9	25.8	21.3	27.9	26.1
	<b>TOTAL</b>	<b>21.9</b>	<b>26.5</b>	<b>23.6</b>	<b>26.3</b>	<b>26.6</b>
South Western Sydney	Fairfield	17.8	19.9	20.5	24.5	16.8
	Liverpool	17.8	21.2	20.9	17.7	18.9
	Campbelltown	21.4	20.8	20.4	23.1	22.4
	Bankstown-Lidcombe	18.7	32.8	22.6	27.4	20.4
	Bowral	23.7	35.9	26.8	15.2	16.7
	<b>TOTAL</b>	<b>19.3</b>	<b>23.6</b>	<b>21.2</b>	<b>21.9</b>	<b>20.0</b>
South Eastern Sydney	St. George	25.6	22.8	24.2	28.0	25.6
	Sutherland	17.5	18.6	21.6	19.8	23.6
	Royal Hospital for Women	19.9	20.2	24.0	20.1	24.0
	<b>TOTAL</b>	<b>21.5</b>	<b>20.8</b>	<b>23.7</b>	<b>22.9</b>	<b>24.5</b>
Illawarra Shoalhaven	Shoalhaven	35.3	27.0	27.0	20.8	23.6
	Wollongong	24.9	20.1	27.8	28.1	34.5
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>27.6</b>	<b>21.8</b>	<b>27.6</b>	<b>26.1</b>	<b>31.6</b>
Western Sydney	Auburn	19.4	19.6	18.3	20.4	21.5
	Blacktown	25.7	23.5	22.8	24.4	26.9
	Westmead	24.0	21.4	19.7	22.1	21.7
	<b>TOTAL</b>	<b>23.8</b>	<b>21.8</b>	<b>20.4</b>	<b>22.6</b>	<b>23.5</b>
Nepean Blue Mountains	Blue Mountains	27.5	15.7	25.6	25.0	31.3
	Nepean	33.2	32.7	31.6	32.0	32.0
	Hawkesbury	28.5	32.7	29.7	29.3	30.0
	Other hospitals	29.1	30.2	36.8	38.2	33.3
	<b>TOTAL</b>	<b>32.0</b>	<b>31.8</b>	<b>31.2</b>	<b>31.5</b>	<b>31.7</b>
Northern Sydney	Hornsby	17.1	22.9	20.2	24.1	27.7
	Royal North Shore	20.8	24.9	23.2	21.4	26.9
	Northern Beaches <sup>†</sup>	-	-	-	28.6	28.4
	Other hospitals	18.5	21.1	19.0	21.2	0.0
	<b>TOTAL</b>	<b>19.4</b>	<b>23.4</b>	<b>21.4</b>	<b>22.3</b>	<b>27.2</b>
Central Coast	Gosford	20.0	22.5	22.9	23.0	21.3
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>19.2</b>	<b>21.6</b>	<b>22.2</b>	<b>22.4</b>	<b>20.8</b>
Hunter New England	Armidale	38.0	31.9	27.3	31.3	43.0
	Inverell	34.6	25.6	21.2	23.7	40.5
	Tamworth Base	24.1	25.2	30.7	30.3	29.8
	Manning Base	20.2	21.4	18.5	24.1	24.0
	Maitland	18.3	15.9	27.5	26.5	27.5
	John Hunter	22.7	23.5	25.2	28.9	29.2
	Other hospitals	15.3	12.3	22.6	24.8	21.2
	<b>TOTAL</b>	<b>22.3</b>	<b>21.5</b>	<b>25.4</b>	<b>28.0</b>	<b>28.9</b>
Northern NSW	Grafton Base	22.2	16.2	25.4	30.7	27.7
	Lismore Base	16.8	19.3	12.9	16.4	20.4
	Tweed Heads	15.5	14.3	19.0	19.1	15.8
	Other hospitals	2.3	6.5	0.0	0.0	0.0
	<b>TOTAL</b>	<b>15.7</b>	<b>15.8</b>	<b>16.6</b>	<b>18.4</b>	<b>17.8</b>

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
Mid North Coast	Coffs Harbour	25.2	31.5	27.7	29.0	21.5
	Kempsey	28.9	16.2	15.8	27.1	20.4
	Port Macquarie Base	21.5	30.6	17.6	24.5	28.2
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>23.7</b>	<b>29.4</b>	<b>22.5</b>	<b>26.5</b>	<b>23.8</b>
Southern NSW	Bega	19.6	21.3	24.5	15.5	20.0
	Goulburn Base	28.6	37.3	34.0	20.4	25.4
	Moruya	27.7	25.5	24.2	11.5	18.9
	Queanbeyan	26.6	18.2	27.6	29.1	26.5
	Other hospitals	10.0	2.9	3.7	27.3	19.4
<b>TOTAL</b>	<b>23.8</b>	<b>21.9</b>	<b>25.7</b>	<b>22.6</b>	<b>23.6</b>	
Murrumbidgee	Griffith Base	28.9	26.5	20.4	26.0	21.8
	Wagga Wagga Base	35.9	27.7	33.6	30.9	31.6
	Other hospitals	13.7	26.1	12.5	18.2	15.8
	<b>TOTAL</b>	<b>28.9</b>	<b>27.0</b>	<b>25.9</b>	<b>27.5</b>	<b>27.2</b>
Western NSW	Dubbo Base	27.8	23.4	26.5	25.8	36.4
	Mudgee	20.7	17.0	31.8	20.5	38.3
	Bathurst Base	13.5	18.9	16.9	22.7	31.5
	Orange Base	20.4	31.0	30.4	32.6	40.9
	Other hospitals	22.1	17.3	23.4	26.9	22.8
<b>TOTAL</b>	<b>22.1</b>	<b>24.0</b>	<b>26.4</b>	<b>27.3</b>	<b>36.1</b>	
Far West	<b>TOTAL</b>	<b>16.4</b>	<b>26.2</b>	<b>29.5</b>	<b>22.9</b>	<b>18.8</b>
Public Hospitals	<b>TOTAL</b>	<b>22.3</b>	<b>23.4</b>	<b>23.4</b>	<b>24.4</b>	<b>25.5</b>
Private Hospitals	Mater, North Sydney	40.9	47.2	50.9	48.3	50.8
	North Shore Private	42.5	47.6	50.1	47.9	53.4
	Sydney Adventist	33.1	31.1	32.1	39.6	39.3
	North Gosford Private	38.9	44.4	46.1	53.7	46.5
	Hurstville Community	33.5	29.3	29.2	34.9	37.2
	Kareena Private	43.1	43.0	41.0	51.4	41.1
	St. George Private	39.3	38.2	41.7	35.8	31.3
	Prince of Wales Private	44.6	45.3	48.9	50.2	51.2
	Norwest Private	34.1	29.8	33.1	34.5	33.9
	Sydney Southwest Private	29.0	26.8	28.8	25.7	26.0
	Nepean Private	38.2	39.3	32.8	38.7	36.9
	Westmead Private	36.5	37.6	36.1	37.6	41.8
	Wollongong Private <sup>‡</sup>	-	32.9	30.7	33.3	38.1
	Newcastle Private	32.8	34.1	39.6	41.5	37.1
	Calvary, Wagga Wagga	50.0	44.3	51.4	56.5	55.0
Other hospitals	39.9	100.0	0.0	0.0	0.0	
<b>TOTAL</b>	<b>38.1</b>	<b>38.4</b>	<b>40.3</b>	<b>41.3</b>	<b>41.6</b>	
<b>TOTAL NSW*</b>	<b>26.4</b>	<b>27.5</b>	<b>27.8</b>	<b>28.6</b>	<b>29.5</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 2019 are identified individually.  
<sup>†</sup> Wollongong Private Hospital opened in 2016.  
<sup>‡</sup> Northern Beaches Hospital opened in 2018.  
\* 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 2019, 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 2015–2019\***

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
<b>Sydney</b>	Canterbury	17.0	29.8	20.1	21.7	8.1
	Royal Prince Alfred	21.8	14.7	19.0	15.7	18.9
	<b>TOTAL</b>	<b>20.5</b>	<b>20.1</b>	<b>19.3</b>	<b>17.4</b>	<b>16.5</b>
<b>South Western Sydney</b>	Fairfield	2.7	1.0	3.4	1.6	5.4
	Liverpool	13.1	28.2	22.9	29.8	24.5
	Campbelltown	23.8	30.4	28.9	33.1	33.5
	Bankstown-Lidcombe	18.1	22.7	25.8	33.2	40.7
	Bowral	8.3	20.5	17.4	27.1	22.0
	<b>TOTAL</b>	<b>15.9</b>	<b>24.4</b>	<b>22.9</b>	<b>28.8</b>	<b>28.5</b>
<b>South Eastern Sydney</b>	St. George	22.3	21.1	23.0	23.4	20.5
	Sutherland	1.2	1.3	0.0	0.0	0.0
	Royal Hospital for Women	17.7	15.8	16.5	16.7	18.9
<b>TOTAL</b>	<b>17.5</b>	<b>16.1</b>	<b>16.4</b>	<b>16.8</b>	<b>17.3</b>	
<b>Illawarra Shoalhaven</b>	Shoalhaven	11.4	9.9	12.1	16.9	19.8
	Wollongong	16.8	20.8	22.3	18.3	14.4
	<b>TOTAL</b>	<b>15.4</b>	<b>18.2</b>	<b>19.3</b>	<b>18.0</b>	<b>15.8</b>
<b>Western Sydney</b>	Auburn	3.8	4.9	4.3	1.0	1.3
	Blacktown	13.8	19.3	18.9	15.9	19.7
	Westmead	19.3	17.4	19.7	15.6	15.8
	<b>TOTAL</b>	<b>16.4</b>	<b>17.1</b>	<b>18.3</b>	<b>14.5</b>	<b>16.2</b>
<b>Nepean Blue Mountains</b>	Blue Mountains	0.0	0.0	6.3	0.0	4.5
	Nepean	16.0	15.6	14.2	17.3	18.5
	Hawkesbury	17.5	16.5	12.4	15.6	9.4
	Other hospitals	0.0	0.0	0.0	0.0	6.3
<b>TOTAL</b>	<b>14.9</b>	<b>14.4</b>	<b>13.4</b>	<b>16.1</b>	<b>16.2</b>	
<b>Northern Sydney</b>	Hornsby	23.6	23.9	19.4	16.0	20.9
	Royal North Shore	14.3	18.4	7.8	13.1	9.6
	Northern Beaches†	-	-	-	20.8	7.7
	Other hospitals	16.7	20.1	15.0	22.7	0.0
<b>TOTAL</b>	<b>16.8</b>	<b>19.9</b>	<b>12.5</b>	<b>15.9</b>	<b>11.4</b>	
<b>Central Coast</b>	Gosford	21.0	19.1	20.7	16.4	16.6
	<b>TOTAL</b>	<b>21.0</b>	<b>19.1</b>	<b>20.7</b>	<b>16.4</b>	<b>16.6</b>
<b>Hunter New England</b>	Armidale	25.7	21.4	17.9	13.2	12.2
	Inverell	12.0	14.0	15.4	12.5	9.1
	Tamworth Base	18.0	22.9	15.2	13.1	12.7
	Manning Base	22.2	25.0	18.5	18.2	8.6
	Maitland	29.8	15.1	9.5	24.8	20.0
	John Hunter	22.4	20.7	22.3	17.8	19.0
	Other hospitals	10.0	6.1	9.3	10.0	14.3
	<b>TOTAL</b>	<b>21.7</b>	<b>18.8</b>	<b>17.8</b>	<b>17.1</b>	<b>16.8</b>
	<b>Northern NSW</b>	Grafton Base	19.4	19.6	9.3	13.6
Lismore Base		27.6	37.4	27.3	34.4	22.0
Tweed Heads		19.8	21.7	36.9	21.2	22.3
Other hospitals		0.0	25.0	0.0	0.0	0.0
<b>TOTAL</b>		<b>21.6</b>	<b>28.3</b>	<b>28.3</b>	<b>25.1</b>	<b>20.8</b>

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
<b>Mid North Coast</b>	Coffs Harbour	10.0	9.8	15.6	11.6	19.2
	Kempsey	25.9	26.1	0.0	21.1	17.6
	Port Macquarie Base	13.2	15.9	16.5	13.7	12.2
	<b>TOTAL</b>	<b>13.0</b>	<b>13.4</b>	<b>14.9</b>	<b>13.2</b>	<b>15.9</b>
<b>Southern NSW</b>	Bega	21.7	13.3	3.8	8.7	9.7
	Goulburn Base	26.7	17.2	32.0	25.8	30.3
	Moruya	20.0	13.8	20.0	17.1	34.2
	Queanbeyan	2.6	12.2	6.1	5.5	12.0
	Other hospitals	15.8	50.0	8.3	20.0	33.3
<b>TOTAL</b>	<b>17.2</b>	<b>17.5</b>	<b>13.4</b>	<b>13.4</b>	<b>22.2</b>	
<b>Murrumbidgee</b>	Griffith Base	19.6	22.0	32.8	28.6	23.6
	Wagga Wagga Base	9.3	16.3	7.3	15.4	13.8
	Other hospitals	16.3	19.0	5.6	10.3	25.9
<b>TOTAL</b>	<b>14.1</b>	<b>18.3</b>	<b>13.4</b>	<b>17.8</b>	<b>17.4</b>	
<b>Western NSW</b>	Dubbo Base	18.3	18.4	20.9	13.1	10.1
	Mudgee	4.8	7.7	26.1	5.9	21.7
	Bathurst Base	22.4	15.6	18.0	19.6	23.8
	Orange Base	16.9	24.2	15.8	22.8	13.2
	Other hospitals	20.0	24.4	20.5	27.3	21.7
<b>TOTAL</b>	<b>17.8</b>	<b>20.4</b>	<b>19.1</b>	<b>18.4</b>	<b>15.1</b>	
<b>Far West</b>	<b>TOTAL</b>	<b>21.1</b>	<b>8.7</b>	<b>11.8</b>	<b>15.4</b>	<b>0.0</b>
<b>Public Hospitals</b>	<b>TOTAL</b>	<b>17.6</b>	<b>18.9</b>	<b>18.0</b>	<b>18.7</b>	<b>18.3</b>
<b>Private Hospitals</b>	Mater, North Sydney	7.4	6.1	5.5	3.5	4.4
	North Shore Private	8.8	5.2	7.7	4.0	6.1
	Sydney Adventist	6.9	10.8	9.0	6.6	3.4
	North Gosford Private	9.4	8.8	4.8	6.9	7.1
	Hurstville Community	7.9	9.7	5.1	6.9	3.9
	Kareena Private	7.5	8.5	8.4	3.9	4.7
	St. George Private	6.4	6.2	5.2	9.3	7.9
	Prince of Wales Private	3.6	3.0	2.4	2.7	4.1
	Norwest Private	8.6	7.3	9.7	9.2	7.4
	Sydney Southwest Private	0.0	0.9	0.0	0.9	0.0
	Nepean Private	7.3	9.5	5.3	7.6	8.1
	Westmead Private	6.8	6.0	4.4	7.4	5.7
	Wollongong Private†	-	5.6	5.1	7.8	7.2
	Newcastle Private	8.3	8.8	7.9	6.8	5.9
Calvary, Wagga Wagga	4.4	2.3	4.2	5.2	6.0	
Other hospitals	8.1	0.0	0.0	0.0	0.0	
<b>TOTAL</b>	<b>6.9</b>	<b>6.5</b>	<b>6.1</b>	<b>5.8</b>	<b>5.4</b>	
<b>TOTAL NSW*</b>	<b>14.0</b>	<b>14.8</b>	<b>14.3</b>	<b>14.9</b>	<b>14.6</b>	

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

# Hospitals with more than 200 births in 2019 are identified individually.

† Wollongong Private Hospital opened in 2016.

‡ Northern Beaches Hospital opened in 2018.

\* 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 2019, 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 2015–2019<sup>a</sup>**

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
Sydney	Canterbury	6.8	6.2	5.0	6.7	5.3
	Royal Prince Alfred	8.1	8.1	7.9	7.7	5.1
	<b>TOTAL</b>	<b>7.8</b>	<b>7.6</b>	<b>7.2</b>	<b>7.4</b>	<b>5.2</b>
South Western Sydney	Fairfield	18.9	13.9	12.9	7.3	9.9
	Liverpool	12.6	11.3	8.9	6.1	5.7
	Campbelltown	21.0	11.5	9.8	11.2	8.9
	Bankstown-Lidcombe	14.6	7.4	10.7	8.1	8.3
	Bowral	17.6	15.5	22.0	14.9	13.3
<b>TOTAL</b>	<b>16.7</b>	<b>11.3</b>	<b>10.7</b>	<b>8.6</b>	<b>8.1</b>	
South Eastern Sydney	St. George	8.0	5.5	3.5	4.1	3.4
	Sutherland	11.7	5.9	7.9	5.8	3.1
	Royal Hospital for Women	12.1	10.8	9.8	9.9	6.2
<b>TOTAL</b>	<b>10.8</b>	<b>8.1</b>	<b>7.2</b>	<b>7.2</b>	<b>4.6</b>	
Illawarra Shoalhaven	Shoalhaven	38.6	23.6	28.6	18.6	22.4
	Wollongong	14.2	8.4	8.5	6.8	6.9
	Other hospitals	100.0	0.0	0.0	0.0	100.0
<b>TOTAL</b>	<b>20.0</b>	<b>11.9</b>	<b>13.2</b>	<b>10.2</b>	<b>11.6</b>	
Western Sydney	Auburn	11.7	6.2	8.6	10.2	5.0
	Blacktown	9.4	4.6	5.0	4.0	5.0
	Westmead	6.7	5.5	4.4	3.8	4.9
<b>TOTAL</b>	<b>8.3</b>	<b>5.4</b>	<b>5.2</b>	<b>4.9</b>	<b>5.0</b>	
Nepean Blue Mountains	Blue Mountains	29.7	11.6	3.4	9.1	18.2
	Nepean	12.4	7.0	8.0	6.0	7.7
	Hawkesbury	26.0	24.8	17.2	9.8	16.1
	Other hospitals	10.3	3.3	16.7	9.5	22.7
<b>TOTAL</b>	<b>15.5</b>	<b>9.6</b>	<b>9.5</b>	<b>6.8</b>	<b>9.9</b>	
Northern Sydney	Hornsby	9.5	6.1	6.6	6.5	2.3
	Royal North Shore	8.5	6.1	5.1	5.1	4.3
	Northern Beaches <sup>†</sup>	-	-	-	12.7	10.8
	Other hospitals	19.9	14.5	13.2	12.8	31.6
<b>TOTAL</b>	<b>12.1</b>	<b>8.5</b>	<b>7.9</b>	<b>7.4</b>	<b>6.3</b>	
Central Coast	Gosford	13.1	9.3	8.1	7.8	5.7
	Other hospitals	21.4	27.3	27.8	29.4	35.3
<b>TOTAL</b>	<b>13.6</b>	<b>10.2</b>	<b>8.9</b>	<b>8.5</b>	<b>6.6</b>	
Hunter New England	Armidale	30.6	18.4	20.3	15.8	11.3
	Inverell	35.3	37.5	41.5	13.8	18.2
	Tamworth Base	15.5	14.6	13.9	6.5	14.4
	Manning Base	23.2	21.7	8.9	10.6	17.4
	Maitland	19.8	13.5	13.7	13.1	14.9
	John Hunter	14.4	10.0	5.5	6.8	5.8
	Other hospitals	28.8	27.6	32.3	28.2	23.5
	<b>TOTAL</b>	<b>18.9</b>	<b>15.3</b>	<b>12.5</b>	<b>10.8</b>	<b>11.5</b>
Northern NSW	Grafton Base	34.7	40.4	35.8	26.9	34.0
	Lismore Base	29.4	13.5	17.8	11.1	12.6
	Tweed Heads	11.2	19.3	13.7	12.8	9.9
	Other hospitals	50.0	32.6	50.0	26.5	38.3
<b>TOTAL</b>	<b>22.6</b>	<b>21.1</b>	<b>20.2</b>	<b>14.6</b>	<b>16.1</b>	

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
Mid North Coast	Coffs Harbour	15.3	18.5	13.6	11.5	12.6
	Kempsey	31.3	29.0	21.9	25.7	20.5
	Port Macquarie Base	13.3	7.8	9.5	6.3	11.0
	Other hospitals	18.2	50.0	50.0	45.5	0.0
	<b>TOTAL</b>	<b>16.3</b>	<b>16.2</b>	<b>13.7</b>	<b>12.4</b>	<b>12.8</b>
Southern NSW	Bega	27.0	21.6	29.7	8.2	19.4
	Goulburn Base	12.5	13.5	14.3	16.3	6.4
	Moruya	35.3	23.7	27.7	30.4	18.6
	Queanbeyan	32.5	30.0	18.2	13.1	13.2
Other hospitals	63.9	64.7	53.8	18.8	52.0	
<b>TOTAL</b>	<b>33.5</b>	<b>30.1</b>	<b>24.7</b>	<b>16.1</b>	<b>17.4</b>	
Murrumbidgee	Griffith Base	32.8	25.3	28.0	14.9	26.7
	Wagga Wagga Base	18.7	16.4	11.3	12.8	7.2
	Other hospitals	30.5	33.8	35.7	25.4	20.8
<b>TOTAL</b>	<b>25.4</b>	<b>22.7</b>	<b>21.8</b>	<b>15.9</b>	<b>14.3</b>	
Western NSW	Dubbo Base	24.7	18.4	7.8	6.9	11.9
	Mudgee	26.1	23.1	10.0	17.1	6.9
	Bathurst Base	25.0	13.0	14.9	13.2	9.8
	Orange Base	15.6	12.4	12.5	9.4	8.0
	Other hospitals	35.0	21.0	25.4	18.4	26.2
<b>TOTAL</b>	<b>23.0</b>	<b>16.6</b>	<b>12.5</b>	<b>10.3</b>	<b>11.9</b>	
Far West	<b>TOTAL</b>	<b>43.5</b>	<b>45.2</b>	<b>29.0</b>	<b>18.9</b>	<b>17.9</b>
Public Hospitals	<b>TOTAL</b>	<b>14.6</b>	<b>10.9</b>	<b>10.0</b>	<b>8.6</b>	<b>8.3</b>
Private Hospitals	Mater, North Sydney	11.0	7.0	6.6	6.4	6.6
	North Shore Private	9.7	5.1	4.6	7.1	5.6
	Sydney Adventist	12.0	10.7	8.8	10.3	9.7
	North Gosford Private	10.7	9.2	6.3	8.0	9.2
	Hurstville Community	10.4	17.1	6.6	8.3	4.2
	Kareena Private	8.1	7.1	4.8	4.2	3.2
	St. George Private	10.7	7.2	5.7	5.9	10.7
	Prince of Wales Private	10.5	5.9	6.3	4.9	6.8
	Norwest Private	12.1	5.6	6.7	3.3	3.9
	Sydney Southwest Private	5.8	6.0	4.2	4.5	1.9
	Nepean Private	5.9	1.3	1.5	0.0	0.8
	Westmead Private	6.5	2.3	3.0	3.1	5.0
	Wollongong Private <sup>†</sup>	-	2.7	2.5	5.4	5.3
	Newcastle Private	8.9	5.0	7.0	6.3	1.8
Calvary, Wagga Wagga	17.2	14.3	8.3	18.5	3.7	
Other hospitals	5.4	0.0	0.0	0.0	0.0	
<b>TOTAL</b>	<b>9.6</b>	<b>6.3</b>	<b>5.5</b>	<b>5.6</b>	<b>5.5</b>	
<b>TOTAL NSW<sup>a</sup></b>		<b>13.5</b>	<b>9.9</b>	<b>9.0</b>	<b>8.0</b>	<b>7.8</b>

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

# Hospitals with more than 200 births in 2019 are identified individually.

† Wollongong Private Hospital opened in 2016.

‡ Northern Beaches Hospital opened in 2018.

\* 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 2019, 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 2015–2019<sup>a</sup>**

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
Sydney	Canterbury	38.5	45.3	38.9	39.1	36.9
	Royal Prince Alfred	23.5	23.4	27.0	27.9	34.4
	<b>TOTAL</b>	<b>27.3</b>	<b>28.2</b>	<b>29.7</b>	<b>30.8</b>	<b>35.0</b>
South Western Sydney	Fairfield	30.1	30.9	39.4	43.4	42.5
	Liverpool	32.5	27.6	33.3	31.3	34.7
	Campbelltown	26.9	29.8	29.4	31.9	37.4
	Bankstown-Lidcombe	29.6	39.9	38.7	38.0	34.5
	Bowral	33.8	39.7	25.6	17.9	31.1
<b>TOTAL</b>	<b>29.8</b>	<b>31.3</b>	<b>33.6</b>	<b>33.6</b>	<b>36.5</b>	
South Eastern Sydney	St. George	31.9	33.3	34.2	48.7	52.9
	Sutherland	34.8	30.1	34.6	38.1	43.9
	Royal Hospital for Women	28.1	21.0	26.0	35.3	40.5
	<b>TOTAL</b>	<b>30.4</b>	<b>26.7</b>	<b>30.3</b>	<b>40.3</b>	<b>45.6</b>
Illawarra Shoalhaven	Shoalhaven	21.2	22.0	15.1	25.6	22.4
	Wollongong	24.9	25.6	23.8	26.3	36.3
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>24.0</b>	<b>24.8</b>	<b>21.8</b>	<b>26.1</b>	<b>32.2</b>
Western Sydney	Auburn	28.3	27.2	29.9	39.8	42.5
	Blacktown	39.6	31.1	32.5	40.7	45.1
	Westmead	42.6	38.5	38.8	45.1	44.2
	<b>TOTAL</b>	<b>39.5</b>	<b>34.7</b>	<b>35.6</b>	<b>42.8</b>	<b>44.2</b>
Nepean Blue Mountains	Blue Mountains	8.1	9.3	6.9	15.2	6.1
	Nepean	30.6	23.2	23.0	31.8	33.6
	Hawkesbury	31.7	17.8	24.1	37.4	36.6
	Other hospitals	33.3	13.3	12.5	28.6	22.7
	<b>TOTAL</b>	<b>29.8</b>	<b>21.3</b>	<b>22.2</b>	<b>31.9</b>	<b>32.4</b>
Northern Sydney	Hornsby	21.1	15.7	27.2	37.0	44.4
	Royal North Shore	24.7	24.4	35.1	38.2	32.9
	Northern Beaches <sup>†</sup>	-	-	-	32.7	30.5
	Other hospitals	16.2	19.7	23.4	23.5	0.0
<b>TOTAL</b>	<b>21.5</b>	<b>21.4</b>	<b>30.0</b>	<b>34.5</b>	<b>33.9</b>	
Central Coast	Gosford	20.3	17.2	27.9	27.9	35.1
	Other hospitals	0.0	0.0	11.1	5.9	0.0
	<b>TOTAL</b>	<b>19.2</b>	<b>16.3</b>	<b>27.3</b>	<b>27.2</b>	<b>34.0</b>
Hunter New England	Armidale	29.0	22.4	18.8	36.8	32.1
	Inverell	47.1	40.6	29.3	62.1	59.1
	Tamworth Base	26.7	22.5	22.1	34.1	30.1
	Manning Base	18.2	16.3	24.8	30.6	28.3
	Maitland	15.6	15.9	13.7	25.7	23.8
	John Hunter	17.9	18.5	22.6	30.7	35.7
	Other hospitals	14.4	12.4	12.3	16.9	16.5
	<b>TOTAL</b>	<b>19.2</b>	<b>18.2</b>	<b>20.1</b>	<b>29.8</b>	<b>30.6</b>
Northern NSW	Grafton Base	10.2	10.5	11.3	21.2	12.8
	Lismore Base	14.7	23.3	24.3	26.1	26.2
	Tweed Heads	21.2	10.7	21.7	25.6	21.4
	Other hospitals	0.0	7.0	0.0	5.9	2.1
	<b>TOTAL</b>	<b>16.3</b>	<b>14.8</b>	<b>20.2</b>	<b>24.0</b>	<b>20.5</b>

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
Mid North Coast	Coffs Harbour	15.3	26.7	24.7	19.7	20.0
	Kempsey	6.3	3.2	9.4	17.1	15.4
	Port Macquarie Base	24.8	20.6	24.6	28.8	48.0
	Other hospitals	0.0	0.0	12.5	0.0	25.0
	<b>TOTAL</b>	<b>17.2</b>	<b>21.3</b>	<b>22.9</b>	<b>22.0</b>	<b>29.9</b>
Southern NSW	Bega	10.8	16.2	10.8	30.6	19.4
	Goulburn Base	45.0	35.1	51.4	18.6	31.9
	Moruya	14.7	18.4	14.9	4.3	23.3
	Queanbeyan	15.0	23.3	21.8	20.6	32.5
	Other hospitals	0.0	2.9	7.7	18.8	8.0
<b>TOTAL</b>	<b>17.2</b>	<b>20.3</b>	<b>21.6</b>	<b>19.2</b>	<b>26.8</b>	
Murrumbidgee	Griffith Base	15.6	18.7	17.1	28.4	26.7
	Wagga Wagga Base	29.1	24.7	20.4	35.5	28.7
	Other hospitals	18.3	18.5	14.3	19.0	29.2
<b>TOTAL</b>	<b>22.9</b>	<b>21.7</b>	<b>18.0</b>	<b>30.4</b>	<b>28.3</b>	
Western NSW	Dubbo Base	28.6	24.5	33.9	47.1	32.4
	Mudgee	23.9	20.5	20.0	22.9	48.3
	Bathurst Base	16.7	15.6	21.6	19.1	14.8
	Orange Base	23.9	23.4	22.9	32.9	40.0
	Other hospitals	13.3	21.0	18.6	20.4	19.7
<b>TOTAL</b>	<b>23.0</b>	<b>22.2</b>	<b>26.1</b>	<b>34.9</b>	<b>31.9</b>	
Far West	Broken Hill Base	17.4	6.5	12.9	21.6	23.1
	<b>TOTAL</b>	<b>17.4</b>	<b>6.5</b>	<b>12.9</b>	<b>21.6</b>	<b>23.1</b>
Public Hospitals	<b>TOTAL</b>	<b>27.1</b>	<b>25.7</b>	<b>28.5</b>	<b>33.5</b>	<b>35.9</b>
Private Hospitals	Mater, North Sydney	38.7	46.3	41.2	42.8	50.2
	North Shore Private	32.1	34.8	37.6	33.0	34.0
	Sydney Adventist	32.5	43.4	41.0	38.4	38.0
	North Gosford Private	33.9	35.8	51.0	33.3	43.4
	Hurstville Community	33.9	28.3	25.6	43.0	34.2
	Kareena Private	23.6	33.3	29.6	29.6	43.0
	St. George Private	28.4	23.4	29.9	36.3	35.8
	Prince of Wales Private	41.0	34.3	36.1	33.4	35.9
	Norwest Private	44.5	34.1	41.7	40.2	35.3
	Sydney Southwest Private	56.3	48.1	43.2	35.9	48.4
	Nepean Private	52.9	51.3	53.3	58.6	60.0
	Westmead Private	67.1	63.8	65.1	64.3	59.8
	Wollongong Private <sup>‡</sup>	-	59.0	47.8	34.9	38.5
	Newcastle Private	11.4	15.6	14.7	19.5	22.1
	Calvary, Wagga Wagga	26.6	28.6	33.3	18.5	37.0
Other hospitals	52.4	0.0	0.0	0.0	0.0	
<b>TOTAL</b>	<b>39.2</b>	<b>39.2</b>	<b>40.2</b>	<b>39.6</b>	<b>40.9</b>	
<b>TOTAL NSW<sup>*</sup></b>	<b>29.7</b>	<b>28.8</b>	<b>31.0</b>	<b>34.7</b>	<b>36.9</b>	

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

# Hospitals with more than 200 births in 2019 are identified individually.

† Wollongong Private Hospital opened in 2016.

‡ Northern Beaches Hospital opened in 2018.

\* 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 2019, 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 2015–2019<sup>a</sup>**

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
<b>Sydney</b>	Canterbury	48.4	40.9	41.7	48.0	45.8
	Royal Prince Alfred	63.1	64.6	60.5	57.4	54.1
	<b>TOTAL</b>	<b>59.4</b>	<b>59.4</b>	<b>56.1</b>	<b>55.0</b>	<b>52.2</b>
<b>South Western Sydney</b>	Fairfield	54.6	54.1	48.0	46.7	43.8
	Liverpool	51.0	59.8	53.2	53.1	53.7
	Campbelltown	57.1	59.9	60.5	55.5	51.1
	Bankstown-Lidcombe	50.1	43.8	41.7	45.2	48.6
	Bowral	48.6	51.7	51.2	76.1	60.0
<b>TOTAL</b>	<b>53.2</b>	<b>55.9</b>	<b>52.8</b>	<b>52.6</b>	<b>50.9</b>	
<b>South Eastern Sydney</b>	St. George	52.8	48.6	46.7	35.1	33.4
	Sutherland	49.3	54.6	49.2	47.3	43.5
	Royal Hospital for Women	56.2	63.0	56.8	49.0	42.2
<b>TOTAL</b>	<b>54.0</b>	<b>56.6</b>	<b>51.9</b>	<b>44.0</b>	<b>39.2</b>	
<b>Illawarra Shoalhaven</b>	Shoalhaven	53.8	68.5	65.5	52.6	56.4
	Wollongong	59.0	62.0	63.1	53.2	45.9
	Other hospitals	0.0	0.0	0.0	0.0	100.0
	<b>TOTAL</b>	<b>57.7</b>	<b>63.5</b>	<b>63.7</b>	<b>53.0</b>	<b>49.0</b>
<b>Western Sydney</b>	Auburn	57.3	54.5	50.9	42.6	38.1
	Blacktown	45.0	46.8	46.9	43.9	39.8
	Westmead	40.3	39.5	38.8	36.6	36.5
	<b>TOTAL</b>	<b>44.3</b>	<b>43.8</b>	<b>42.9</b>	<b>40.0</b>	<b>37.8</b>
<b>Nepean Blue Mountains</b>	Blue Mountains	73.0	81.4	72.4	60.6	69.7
	Nepean	52.5	58.3	58.0	48.6	46.0
	Hawkesbury	52.0	65.3	63.8	48.8	49.1
	Other hospitals	56.4	70.0	58.3	57.1	59.1
	<b>TOTAL</b>	<b>53.7</b>	<b>61.1</b>	<b>59.5</b>	<b>49.5</b>	<b>48.0</b>
<b>Northern Sydney</b>	Hornsby	59.1	64.2	55.4	47.4	46.3
	Royal North Shore	58.8	56.7	51.6	51.4	52.7
	Northern Beaches <sup>†</sup>	-	-	-	45.5	62.5
	Other hospitals	64.1	63.6	58.8	61.5	78.9
	<b>TOTAL</b>	<b>60.5</b>	<b>60.1</b>	<b>54.6</b>	<b>52.4</b>	<b>54.8</b>
<b>Central Coast</b>	Gosford	63.2	67.3	56.5	52.0	50.1
	Other hospitals	89.3	100.0	72.2	76.5	70.6
	<b>TOTAL</b>	<b>64.7</b>	<b>68.9</b>	<b>57.1</b>	<b>52.8</b>	<b>50.8</b>
<b>Hunter New England</b>	Armidale	54.8	63.3	57.8	36.8	50.9
	Inverell	35.3	53.1	46.3	24.1	27.3
	Tamworth Base	57.1	61.6	59.0	46.4	52.9
	Manning Base	64.6	66.3	60.4	50.6	50.0
	Maitland	70.0	72.5	67.8	58.6	58.6
	John Hunter	67.0	66.8	61.7	52.8	45.0
	Other hospitals	67.5	70.3	71.5	66.1	65.2
	<b>TOTAL</b>	<b>65.0</b>	<b>67.1</b>	<b>62.7</b>	<b>52.9</b>	<b>50.8</b>
<b>Northern NSW</b>	Grafton Base	71.4	71.9	67.9	57.7	63.8
	Lismore Base	70.6	62.6	65.1	54.3	60.7
	Tweed Heads	66.0	74.1	56.0	56.9	60.9
	Other hospitals	78.6	86.0	87.5	79.4	87.2
	<b>TOTAL</b>	<b>69.0</b>	<b>70.9</b>	<b>62.9</b>	<b>57.5</b>	<b>63.7</b>

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
<b>Mid North Coast</b>	Coffs Harbour	71.8	61.5	56.2	65.6	58.3
	Kempsey	71.9	80.6	62.5	62.9	61.5
	Port Macquarie Base	52.2	70.6	53.2	49.5	37.0
	Other hospitals	81.8	100.0	75.0	72.7	50.0
	<b>TOTAL</b>	<b>65.2</b>	<b>67.6</b>	<b>56.1</b>	<b>59.9</b>	<b>50.7</b>
<b>Southern NSW</b>	Bega	67.6	64.9	64.9	44.9	47.2
	Goulburn Base	42.5	48.6	40.0	53.5	53.2
	Moruya	64.7	73.7	74.5	56.5	48.8
	Queanbeyan	73.8	61.1	59.1	56.1	56.1
	Other hospitals	72.2	58.8	69.2	56.3	60.0
<b>TOTAL</b>	<b>65.6</b>	<b>61.4</b>	<b>61.2</b>	<b>53.6</b>	<b>53.6</b>	
<b>Murrumbidgee</b>	Griffith Base	68.8	62.7	68.3	60.8	52.3
	Wagga Wagga Base	55.2	60.3	63.4	50.0	56.9
	Other hospitals	56.1	56.9	65.7	57.1	54.2
<b>TOTAL</b>	<b>58.6</b>	<b>60.1</b>	<b>65.3</b>	<b>54.0</b>	<b>55.3</b>	
<b>Western NSW</b>	Dubbo Base	56.6	62.2	47.8	32.4	50.8
	Mudgee	67.4	66.7	63.3	62.9	41.4
	Bathurst Base	67.7	68.8	63.5	73.5	63.9
	Orange Base	56.7	53.8	54.2	51.0	48.0
	Other hospitals	65.0	59.7	59.3	57.1	62.3
<b>TOTAL</b>	<b>60.3</b>	<b>60.9</b>	<b>54.4</b>	<b>47.9</b>	<b>52.5</b>	
<b>Far West</b>	<b>TOTAL</b>	<b>78.3</b>	<b>80.6</b>	<b>74.2</b>	<b>48.6</b>	<b>61.5</b>
<b>Public Hospitals</b>	<b>TOTAL</b>	<b>56.7</b>	<b>58.4</b>	<b>54.7</b>	<b>50.1</b>	<b>48.5</b>
<b>Private Hospitals</b>	Mater, North Sydney	43.9	46.7	52.6	47.7	41.4
	North Shore Private	55.8	50.0	53.2	56.5	54.7
	Sydney Adventist	53.6	46.2	49.6	49.8	48.4
	North Gosford Private	42.1	39.4	31.3	58.7	48.7
	Hurstville Community	50.4	58.6	65.3	50.4	60.0
	Kareena Private	68.3	53.2	55.2	64.8	46.2
	St. George Private	61.2	65.9	62.8	56.0	53.1
	Prince of Wales Private	36.6	40.8	41.1	40.7	35.9
	Norwest Private	34.2	39.8	35.3	38.5	39.2
	Sydney Southwest Private	27.4	30.2	35.3	40.5	35.7
	Nepean Private	27.2	27.3	29.6	21.1	22.4
	Westmead Private	22.4	27.6	26.7	25.8	30.4
	Wollongong Private <sup>‡</sup>	-	33.5	42.8	52.2	49.2
	Newcastle Private	55.8	51.7	52.0	43.4	51.7
	Calvary, Wagga Wagga	48.4	51.0	55.6	66.7	33.3
Other hospitals	39.2	0.0	0.0	0.0	0.0	
<b>TOTAL</b>	<b>43.6</b>	<b>43.8</b>	<b>44.8</b>	<b>44.3</b>	<b>43.3</b>	
<b>TOTAL NSW<sup>*</sup></b>	<b>53.8</b>	<b>55.0</b>	<b>52.5</b>	<b>48.9</b>	<b>47.5</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 2019 are identified individually.  
<sup>†</sup> Wollongong Private Hospital opened in 2016.  
<sup>‡</sup> Northern Beaches Hospital opened in 2018.  
<sup>\*</sup> 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 2019, 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 2015–2019<sup>a</sup>**

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
Sydney	Canterbury	7.65	9.12	13.73	7.28	10.30
	Royal Prince Alfred	8.32	5.92	6.72	9.41	6.29
	<b>TOTAL</b>	<b>8.15</b>	<b>6.62</b>	<b>8.33</b>	<b>8.85</b>	<b>7.20</b>
South Western Sydney	Fairfield	2.79	3.55	6.32	4.38	6.51
	Liverpool	5.26	4.15	4.44	7.31	6.44
	Campbelltown	1.44	1.58	2.02	2.90	2.69
	Bankstown-Lidcombe	8.39	7.69	9.82	8.41	9.77
	Bowral	1.35	3.45	0.00	0.00	1.11
	<b>TOTAL</b>	<b>4.19</b>	<b>3.81</b>	<b>4.64</b>	<b>5.38</b>	<b>5.46</b>
South Eastern Sydney	St. George	10.16	15.47	16.20	10.14	7.76
	Sutherland	8.16	12.09	7.50	4.62	4.58
	Royal Hospital for Women	8.52	11.01	10.87	4.31	6.34
<b>TOTAL</b>	<b>8.99</b>	<b>12.72</b>	<b>12.30</b>	<b>6.32</b>	<b>6.56</b>	
Illawarra Shoalhaven	Shoalhaven	5.30	3.94	5.88	1.28	1.82
	Wollongong	5.95	8.85	5.90	5.57	3.21
	Other hospitals	0.00	0.00	0.00	0.00	0.00
<b>TOTAL</b>	<b>5.79</b>	<b>7.71</b>	<b>5.89</b>	<b>4.36</b>	<b>2.80</b>	
Western Sydney	Auburn	8.47	15.52	13.06	6.17	6.60
	Blacktown	10.09	20.71	15.81	4.10	5.95
	Westmead	13.31	19.36	19.69	8.38	9.27
<b>TOTAL</b>	<b>11.64</b>	<b>19.18</b>	<b>17.59</b>	<b>6.58</b>	<b>7.71</b>	
Nepean Blue Mountains	Blue Mountains	8.11	4.65	3.45	9.09	3.03
	Nepean	10.20	16.52	15.02	6.87	6.02
	Hawkesbury	2.44	7.92	6.03	0.00	4.46
	Other hospitals	10.26	13.33	8.33	0.00	0.00
<b>TOTAL</b>	<b>8.74</b>	<b>14.54</b>	<b>12.93</b>	<b>5.62</b>	<b>5.45</b>	
Northern Sydney	Hornsby	12.50	17.47	7.04	6.52	3.74
	Royal North Shore	12.71	16.56	7.09	3.66	5.86
	Northern Beaches <sup>†</sup>	-	-	-	0.00	2.86
	Other hospitals	8.96	10.91	4.09	0.43	0.00
<b>TOTAL</b>	<b>11.54</b>	<b>15.14</b>	<b>6.15</b>	<b>3.39</b>	<b>4.46</b>	
Central Coast	Gosford	9.65	10.90	3.83	3.59	2.34
	Other hospitals	3.57	0.00	5.56	0.00	0.00
	<b>TOTAL</b>	<b>9.32</b>	<b>10.38</b>	<b>3.90</b>	<b>3.47</b>	<b>2.26</b>
Hunter New England	Armidale	3.23	6.12	12.50	3.51	3.77
	Inverell	2.94	3.13	7.32	3.45	4.55
	Tamworth Base	6.83	9.27	9.84	4.35	3.27
	Manning Base	5.05	7.61	10.89	4.71	3.26
	Maitland	8.75	7.73	10.13	3.15	1.53
	John Hunter	9.09	12.27	11.53	3.90	8.12
	Other hospitals	4.38	5.41	2.31	0.81	0.87
	<b>TOTAL</b>	<b>7.57</b>	<b>9.50</b>	<b>10.07</b>	<b>3.54</b>	<b>4.97</b>
Northern NSW	Grafton Base	4.08	5.26	0.00	0.00	2.13
	Lismore Base	6.75	5.52	1.78	3.02	1.57
	Tweed Heads	5.60	5.08	3.43	5.13	2.08
	Other hospitals	2.38	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>5.56</b>	<b>4.78</b>	<b>2.14</b>	<b>3.33</b>	<b>1.68</b>

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
Mid North Coast	Coffs Harbour	6.13	5.19	3.09	1.91	5.14
	Kempsey	6.25	9.68	0.00	5.71	7.69
	Port Macquarie Base	13.27	6.86	6.35	2.70	2.36
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>8.46</b>	<b>6.25</b>	<b>3.96</b>	<b>2.55</b>	<b>4.35</b>
Southern NSW	Bega	10.81	5.41	8.11	0.00	0.00
	Goulburn Base	2.50	2.70	0.00	2.33	0.00
	Moruya	5.88	0.00	2.13	0.00	0.00
	Queanbeyan	3.75	10.00	11.82	14.02	5.26
	Other hospitals	0.00	2.94	3.85	0.00	0.00
<b>TOTAL</b>	<b>4.41</b>	<b>5.51</b>	<b>7.06</b>	<b>6.13</b>	<b>2.26</b>	
Murrumbidgee	Griffith Base	4.69	10.67	1.22	2.70	2.33
	Wagga Wagga Base	10.45	11.64	11.97	4.65	5.13
	Other hospitals	8.54	7.69	2.86	0.00	2.08
<b>TOTAL</b>	<b>8.57</b>	<b>10.49</b>	<b>6.80</b>	<b>3.24</b>	<b>3.95</b>	
Western NSW	Dubbo Base	4.95	7.14	10.00	7.35	7.03
	Mudgee	2.17	2.56	0.00	2.86	0.00
	Bathurst Base	6.25	9.09	2.70	1.47	3.28
	Orange Base	11.67	15.86	13.19	5.37	4.67
	Other hospitals	8.33	11.29	5.08	2.04	1.64
<b>TOTAL</b>	<b>7.45</b>	<b>10.02</b>	<b>8.62</b>	<b>5.15</b>	<b>4.73</b>	
Far West	<b>TOTAL</b>	<b>2.17</b>	<b>3.23</b>	<b>3.23</b>	<b>2.70</b>	<b>0.00</b>
Public Hospitals	<b>TOTAL</b>	<b>8.12</b>	<b>10.60</b>	<b>9.23</b>	<b>5.40</b>	<b>5.41</b>
Private Hospitals	Mater, North Sydney	4.91	1.27	1.04	3.89	1.83
	North Shore Private	0.79	1.96	0.00	1.54	1.05
	Sydney Adventist	1.42	0.00	0.00	0.00	0.00
	North Gosford Private	10.74	7.34	7.29	4.00	0.00
	Hurstville Community	4.35	1.32	0.83	0.00	1.67
	Kareena Private	0.00	0.79	0.00	0.00	1.08
	St. George Private	0.00	0.31	0.00	0.73	0.98
	Prince of Wales Private	5.54	8.72	5.63	8.20	9.96
	Norwest Private	3.60	7.06	5.88	8.03	8.08
	Sydney Southwest Private	4.33	6.81	6.32	6.82	5.16
	Nepean Private	5.88	12.00	5.19	12.78	9.60
	Westmead Private	0.44	0.68	0.70	1.69	0.46
	Wollongong Private <sup>†</sup>	-	0.00	0.00	0.00	0.00
	Newcastle Private	10.41	10.56	10.09	11.40	8.76
	Calvary, Wagga Wagga	3.13	0.00	5.56	0.00	3.70
Other hospitals	0.00	0.00	0.00	0.00	0.00	
<b>TOTAL</b>	<b>3.56</b>	<b>3.94</b>	<b>3.00</b>	<b>4.33</b>	<b>3.68</b>	
<b>TOTAL NSW<sup>a</sup></b>	<b>7.11</b>	<b>9.06</b>	<b>7.89</b>	<b>5.17</b>	<b>5.05</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 2019 are identified individually.

<sup>†</sup> Wollongong Private Hospital opened in 2016.

<sup>‡</sup> Northern Beaches Hospital opened in 2018.

<sup>\*</sup> 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 2019, 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 2015–2019\***

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
<b>Sydney</b>	Canterbury	10.38	5.59	7.84	5.66	6.98
	Royal Prince Alfred	9.14	8.22	6.13	7.98	5.70
	<b>TOTAL</b>	<b>9.45</b>	<b>7.65</b>	<b>6.52</b>	<b>7.38</b>	<b>5.99</b>
<b>South Western Sydney</b>	Fairfield	6.41	9.02	9.48	6.93	7.19
	Liverpool	5.26	8.77	8.25	8.38	7.34
	Campbelltown	3.31	5.21	3.60	3.87	4.58
	Bankstown-Lidcombe	8.17	6.21	5.36	9.03	7.76
	Bowral	4.05	1.72	1.22	1.49	2.22
	<b>TOTAL</b>	<b>5.39</b>	<b>7.07</b>	<b>6.17</b>	<b>6.55</b>	<b>6.21</b>
<b>South Eastern Sydney</b>	St. George	7.13	10.15	5.99	7.30	4.51
	Sutherland	10.64	3.59	3.33	4.23	5.34
	Royal Hospital for Women	7.76	7.49	6.85	8.34	5.76
	<b>TOTAL</b>	<b>8.02</b>	<b>7.72</b>	<b>5.99</b>	<b>7.27</b>	<b>5.23</b>
<b>Illawarra Shoalhaven</b>	Shoalhaven	7.58	3.94	3.36	8.33	6.67
	Wollongong	3.43	5.26	4.62	6.08	4.94
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>4.39</b>	<b>4.95</b>	<b>4.32</b>	<b>6.72</b>	<b>5.43</b>
<b>Western Sydney</b>	Auburn	5.54	4.14	6.19	4.63	2.20
	Blacktown	5.41	6.07	9.24	6.69	6.10
	Westmead	6.24	4.45	5.24	5.01	5.66
	<b>TOTAL</b>	<b>5.89</b>	<b>4.87</b>	<b>6.53</b>	<b>5.51</b>	<b>5.24</b>
<b>Nepean Blue Mountains</b>	Blue Mountains	8.11	2.33	3.45	0.00	3.03
	Nepean	3.92	6.50	7.42	4.88	5.84
	Hawkesbury	0.81	7.92	4.31	6.50	8.93
	<b>TOTAL</b>	<b>3.39</b>	<b>6.19</b>	<b>6.53</b>	<b>4.79</b>	<b>6.15</b>
<b>Northern Sydney</b>	Hornsby	9.91	5.24	7.04	5.22	4.67
	Royal North Shore	8.14	8.36	7.45	5.23	6.43
	Northern Beaches <sup>†</sup>	-	-	-	0.00	2.86
	<b>TOTAL</b>	<b>9.08</b>	<b>7.87</b>	<b>7.42</b>	<b>4.57</b>	<b>4.92</b>
<b>Central Coast</b>	Gosford	7.19	4.41	5.41	3.98	4.48
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>6.80</b>	<b>4.19</b>	<b>5.19</b>	<b>3.85</b>	<b>4.34</b>
<b>Hunter New England</b>	Armidale	3.23	4.08	1.56	5.26	11.32
	Inverell	0.00	0.00	2.44	0.00	0.00
	Tamworth Base	3.11	3.97	3.28	3.62	3.92
	Manning Base	7.07	2.17	8.91	4.71	1.09
	Maitland	8.37	7.73	3.96	9.91	9.20
	John Hunter	8.18	8.51	9.25	8.13	9.14
	Other hospitals	2.50	4.32	2.31	3.23	6.09
	<b>TOTAL</b>	<b>6.53</b>	<b>6.48</b>	<b>6.46</b>	<b>6.93</b>	<b>7.61</b>
<b>Northern NSW</b>	Grafton Base	0.00	1.75	1.89	1.92	2.13
	Lismore Base	6.13	3.07	4.73	8.04	5.76
	Tweed Heads	5.60	5.58	4.00	8.72	5.73
	Other hospitals	0.00	0.00	0.00	5.88	0.00
	<b>TOTAL</b>	<b>4.76</b>	<b>3.70</b>	<b>3.80</b>	<b>7.50</b>	<b>4.82</b>

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
<b>Mid North Coast</b>	Coffs Harbour	3.07	4.44	0.62	4.46	5.14
	Kempsey	3.13	9.68	3.13	8.57	2.56
	Port Macquarie Base	5.31	6.86	11.11	5.41	6.30
	Other hospitals	0.00	0.00	0.00	0.00	25.00
	<b>TOTAL</b>	<b>3.76</b>	<b>5.88</b>	<b>4.88</b>	<b>5.10</b>	<b>5.51</b>
<b>Southern NSW</b>	Bega	5.41	0.00	8.11	2.04	2.78
	Goulburn Base	5.00	5.41	5.71	4.65	14.89
	Moruya	11.76	13.16	6.38	4.35	4.65
	Queanbeyan	3.75	6.67	8.18	9.35	6.14
	<b>TOTAL</b>	<b>5.73</b>	<b>5.51</b>	<b>7.45</b>	<b>5.75</b>	<b>6.42</b>
<b>Murrumbidgee</b>	Griffith Base	1.56	5.33	1.22	4.05	2.33
	Wagga Wagga Base	5.97	4.79	8.45	6.40	6.15
	Other hospitals	9.76	1.54	2.86	7.94	6.25
	<b>TOTAL</b>	<b>6.07</b>	<b>4.20</b>	<b>5.10</b>	<b>6.15</b>	<b>5.17</b>
<b>Western NSW</b>	Dubbo Base	4.40	4.59	6.67	4.90	2.70
	Mudgee	2.17	5.13	6.67	0.00	3.45
	Bathurst Base	7.29	5.19	9.46	7.35	14.75
	Orange Base	8.89	4.83	11.11	6.71	3.33
	<b>TOTAL</b>	<b>6.38</b>	<b>5.20</b>	<b>8.01</b>	<b>5.15</b>	<b>4.73</b>
<b>Far West</b>	<b>TOTAL</b>	<b>2.17</b>	<b>0.00</b>	<b>3.23</b>	<b>2.70</b>	<b>5.13</b>
<b>Public Hospitals</b>	<b>TOTAL</b>	<b>6.56</b>	<b>6.36</b>	<b>6.25</b>	<b>6.15</b>	<b>5.70</b>
<b>Private Hospitals</b>	Mater, North Sydney	4.62	1.27	1.73	0.71	1.10
	North Shore Private	1.84	2.21	2.01	2.16	1.40
	Sydney Adventist	1.99	0.00	0.00	0.00	0.00
	North Gosford Private	4.13	1.83	2.08	4.00	2.63
	Hurstville Community	0.87	0.66	0.00	0.83	2.50
	Kareena Private	1.63	2.38	0.80	5.63	2.15
	St. George Private	1.73	3.13	3.07	2.56	1.95
	Prince of Wales Private	1.94	2.18	1.99	1.97	1.42
	Norwest Private	2.06	2.82	2.41	2.22	0.90
	Sydney Southwest Private	3.37	2.13	4.21	4.55	2.82
	Nepean Private	3.68	6.00	5.19	6.02	4.00
	Westmead Private	0.65	0.91	1.17	1.20	0.68
	Wollongong Private <sup>‡</sup>	-	1.06	1.49	2.69	3.74
	Newcastle Private	5.33	6.94	6.12	3.31	2.42
	Calvary, Wagga Wagga	0.00	0.00	2.78	3.70	3.70
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>2.41</b>	<b>2.33</b>	<b>2.30</b>	<b>2.27</b>	<b>1.69</b>
<b>TOTAL NSW*</b>	<b>5.64</b>	<b>5.43</b>	<b>5.40</b>	<b>5.35</b>	<b>4.88</b>	

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

# Hospitals with more than 200 births in 2019 are identified individually.

† Wollongong Private Hospital opened in 2016.

‡ Northern Beaches Hospital opened in 2018.

\* 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 2019, 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 2015–2019\***

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
<b>Sydney</b>	Canterbury	0.00	0.29	0.00	0.00	1.00
	Royal Prince Alfred	0.18	0.08	0.34	0.29	0.10
	<b>TOTAL</b>	<b>0.14</b>	<b>0.13</b>	<b>0.26</b>	<b>0.21</b>	<b>0.30</b>
<b>South Western Sydney</b>	Fairfield	0.00	0.27	1.44	0.00	0.00
	Liverpool	0.15	0.32	0.16	0.13	0.00
	Campbelltown	0.43	0.00	0.43	0.00	0.00
	Bankstown-Lidcombe	0.00	0.30	0.00	0.00	0.00
	Bowral	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>0.18</b>	<b>0.20</b>	<b>0.43</b>	<b>0.05</b>	<b>0.00</b>
<b>South Eastern Sydney</b>	St. George	0.53	0.50	0.00	0.20	0.18
	Sutherland	1.06	0.00	0.42	0.00	0.00
	Royal Hospital for Women	0.87	0.12	0.27	0.14	0.43
	<b>TOTAL</b>	<b>0.80</b>	<b>0.23</b>	<b>0.19</b>	<b>0.14</b>	<b>0.26</b>
<b>Illawarra Shoalhaven</b>	Shoalhaven	0.00	0.00	0.00	0.64	0.00
	Wollongong	0.92	0.00	0.00	0.00	0.00
	Other hospitals	0.00	0.00	0.00	0.00	0.00
<b>TOTAL</b>	<b>0.70</b>	<b>0.00</b>	<b>0.00</b>	<b>0.18</b>	<b>0.00</b>	
<b>Western Sydney</b>	Auburn	0.00	0.00	0.69	0.31	0.31
	Blacktown	0.36	0.18	0.18	0.00	0.30
	Westmead	0.28	0.36	0.09	0.51	0.51
	<b>TOTAL</b>	<b>0.26</b>	<b>0.26</b>	<b>0.20</b>	<b>0.31</b>	<b>0.41</b>
<b>Nepean Blue Mountains</b>	Blue Mountains	0.00	0.00	0.00	0.00	3.03
	Nepean	0.59	0.18	0.35	0.54	0.18
	Hawkesbury	0.00	0.00	0.86	0.00	0.89
	Other hospitals	0.00	0.00	0.00	0.00	0.00
<b>TOTAL</b>	<b>0.42</b>	<b>0.13</b>	<b>0.41</b>	<b>0.41</b>	<b>0.42</b>	
<b>Northern Sydney</b>	Hornsby	0.00	1.31	0.47	0.00	0.47
	Royal North Shore	0.51	0.82	0.36	0.35	0.19
	Northern Beaches <sup>‡</sup>	-	-	-	0.00	0.00
	Other hospitals	0.00	0.00	0.58	0.43	0.00
<b>TOTAL</b>	<b>0.25</b>	<b>0.68</b>	<b>0.45</b>	<b>0.27</b>	<b>0.19</b>	
<b>Central Coast</b>	Gosford	0.21	0.00	0.00	0.00	0.00
	Other hospitals	0.00	0.00	0.00	0.00	5.88
<b>TOTAL</b>	<b>0.19</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.19</b>	
<b>Hunter New England</b>	Armidale	0.00	0.00	0.00	0.00	0.00
	Inverell	0.00	0.00	0.00	0.00	0.00
	Tamworth Base	0.00	1.32	0.00	0.00	0.00
	Manning Base	0.00	0.00	0.00	0.00	0.00
	Maitland	0.76	0.97	0.44	0.45	0.00
	John Hunter	0.76	0.16	0.16	0.33	0.34
	Other hospitals	0.00	0.54	0.00	0.00	1.74
	<b>TOTAL</b>	<b>0.49</b>	<b>0.45</b>	<b>0.15</b>	<b>0.24</b>	<b>0.31</b>
<b>Northern NSW</b>	Grafton Base	2.04	1.75	1.89	1.92	0.00
	Lismore Base	0.61	0.00	0.00	0.00	0.52
	Tweed Heads	0.40	0.51	0.00	0.51	1.04
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>0.60</b>	<b>0.43</b>	<b>0.24</b>	<b>0.42</b>	<b>0.63</b>

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
<b>Mid North Coast</b>	Coffs Harbour	0.61	0.00	0.00	0.64	0.00
	Kempsey	0.00	3.23	0.00	0.00	0.00
	Port Macquarie Base	0.00	0.00	0.79	0.00	0.79
	Other hospitals	0.00	0.00	0.00	18.18	0.00
	<b>TOTAL</b>	<b>0.31</b>	<b>0.37</b>	<b>0.30</b>	<b>0.96</b>	<b>0.29</b>
<b>Southern NSW</b>	Bega	0.00	0.00	2.70	0.00	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	0.00	0.00	0.00	1.87	0.88
	Other hospitals	0.00	0.00	0.00	0.00	0.00
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>	<b>0.39</b>	<b>0.77</b>	<b>0.38</b>	
<b>Murrumbidgee</b>	Griffith Base	0.00	0.00	0.00	0.00	1.16
	Wagga Wagga Base	0.00	0.00	0.00	0.00	1.03
	Other hospitals	0.00	1.54	1.43	0.00	0.00
<b>TOTAL</b>	<b>0.00</b>	<b>0.35</b>	<b>0.34</b>	<b>0.00</b>	<b>0.91</b>	
<b>Western NSW</b>	Dubbo Base	0.55	0.00	0.00	0.49	0.00
	Mudgee	0.00	0.00	0.00	0.00	0.00
	Bathurst Base	2.08	0.00	1.35	0.00	0.00
	Orange Base	0.56	0.00	0.00	0.67	0.67
	Other hospitals	1.67	0.00	1.69	2.04	3.28
<b>TOTAL</b>	<b>0.89</b>	<b>0.00</b>	<b>0.41</b>	<b>0.59</b>	<b>0.62</b>	
<b>Far West</b>	<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Public Hospitals</b>	<b>TOTAL</b>	<b>0.38</b>	<b>0.26</b>	<b>0.28</b>	<b>0.24</b>	<b>0.28</b>
<b>Private Hospitals</b>	Mater, North Sydney	0.00	0.32	0.00	0.35	0.00
	North Shore Private	0.00	0.49	0.00	0.00	0.35
	Sydney Adventist	0.28	0.26	0.00	0.00	0.00
	North Gosford Private	0.83	0.00	0.00	0.00	0.00
	Hurstville Community	0.00	0.00	0.83	0.00	0.83
	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	0.00	0.00	0.00	0.00	0.00
	Norwest Private	0.00	0.24	0.00	0.00	0.60
	Sydney Southwest Private	0.00	0.00	0.53	0.00	0.00
	Nepean Private	0.00	0.67	0.00	0.00	0.80
	Westmead Private	0.00	0.00	0.00	0.00	0.00
	Wollongong Private <sup>†</sup>	-	0.00	0.00	0.00	0.00
	Newcastle Private	0.00	0.00	0.00	0.74	0.60
	Calvary, Wagga Wagga	0.00	0.00	0.00	0.00	0.00
	Other hospitals	0.00	0.00	0.00	0.00	0.00
<b>TOTAL</b>	<b>0.05</b>	<b>0.15</b>	<b>0.06</b>	<b>0.09</b>	<b>0.21</b>	
<b>TOTAL NSW*</b>	<b>0.31</b>	<b>0.23</b>	<b>0.23</b>	<b>0.21</b>	<b>0.27</b>	

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

# Hospitals with more than 200 births in 2019 are identified individually.

† Wollongong Private Hospital opened in 2016.

‡ Northern Beaches Hospital opened in 2018.

\* 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 2019, 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 2015–2019<sup>#</sup>**

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
Sydney	Canterbury	10.61	8.62	10.03	12.66	10.42
	Royal Prince Alfred	11.13	10.54	9.12	10.13	8.39
	<b>TOTAL</b>	<b>11.00</b>	<b>10.07</b>	<b>9.36</b>	<b>10.68</b>	<b>8.87</b>
South Western Sydney	Fairfield	12.43	12.65	10.28	8.97	7.30
	Liverpool	13.67	15.54	13.55	10.52	14.31
	Campbelltown	13.14	12.74	11.07	9.17	8.59
	Bankstown-Lidcombe	10.68	13.27	12.85	10.34	10.11
	Bowral	10.53	8.89	2.36	3.23	4.76
<b>TOTAL</b>	<b>12.62</b>	<b>13.58</b>	<b>11.70</b>	<b>9.61</b>	<b>10.51</b>	
South Eastern Sydney	St. George	7.47	6.22	6.29	5.38	5.78
	Sutherland	9.69	6.62	8.43	5.06	4.80
	Royal Hospital for Women	3.88	4.49	5.37	4.76	4.21
	<b>TOTAL</b>	<b>5.88</b>	<b>5.35</b>	<b>6.13</b>	<b>5.00</b>	<b>4.81</b>
Illawarra Shoalhaven	Shoalhaven	5.90	6.18	4.62	3.88	5.74
	Wollongong	7.26	9.72	9.22	8.10	8.58
	Other hospitals	0.00	50.00	0.00	0.00	0.00
<b>TOTAL</b>	<b>6.81</b>	<b>8.87</b>	<b>8.05</b>	<b>7.20</b>	<b>7.98</b>	
Western Sydney	Auburn	8.33	4.53	5.10	4.71	4.97
	Blacktown	11.89	10.27	9.87	6.25	7.41
	Westmead	8.40	8.96	8.43	7.29	6.81
	<b>TOTAL</b>	<b>9.53</b>	<b>8.91</b>	<b>8.52</b>	<b>6.64</b>	<b>6.83</b>
Nepean Blue Mountains	Blue Mountains	3.53	6.58	1.61	0.00	6.67
	Nepean	13.90	12.00	13.96	11.66	13.13
	Hawkesbury	8.49	8.20	4.84	7.33	3.80
	Other hospitals	4.69	1.52	3.85	8.06	7.02
<b>TOTAL</b>	<b>12.34</b>	<b>10.93</b>	<b>12.03</b>	<b>10.54</b>	<b>11.42</b>	
Northern Sydney	Hornsby	6.92	7.92	3.24	4.42	1.91
	Royal North Shore	5.62	5.29	5.76	4.87	4.40
	Northern Beaches <sup>†</sup>	-	-	-	1.04	3.30
	Other hospitals	7.78	7.68	4.76	5.22	0.00
<b>TOTAL</b>	<b>6.46</b>	<b>6.42</b>	<b>5.00</b>	<b>4.65</b>	<b>3.61</b>	
Central Coast	Gosford	6.33	10.97	7.86	8.21	9.99
	<b>TOTAL</b>	<b>6.33</b>	<b>10.97</b>	<b>7.86</b>	<b>8.21</b>	<b>9.99</b>
Hunter New England	Armidale	5.84	5.30	5.11	3.55	3.59
	Inverell	1.27	2.53	0.00	4.11	1.43
	Tamworth Base	14.78	9.24	9.43	10.30	10.36
	Manning Base	11.11	14.57	12.66	10.47	11.67
	Maitland	6.78	14.25	9.19	10.59	12.16
	John Hunter	12.49	16.28	14.25	12.42	12.72
	Other hospitals	15.00	11.11	10.38	4.47	6.63
	<b>TOTAL</b>	<b>11.30</b>	<b>13.54</b>	<b>11.58</b>	<b>10.47</b>	<b>11.06</b>
Northern NSW	Grafton Base	11.40	6.90	7.38	10.32	7.08
	Lismore Base	4.92	6.72	5.43	9.68	5.40
	Tweed Heads	7.82	7.07	8.92	8.28	7.31
	Other hospitals	0.00	15.38	0.00	0.00	0.00
	<b>TOTAL</b>	<b>6.93</b>	<b>7.06</b>	<b>7.20</b>	<b>9.17</b>	<b>6.34</b>

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
Mid North Coast	Coffs Harbour	7.87	7.61	3.84	5.09	5.28
	Kempsey	0.00	15.52	9.23	11.29	12.31
	Port Macquarie Base	11.11	7.34	5.96	8.77	7.67
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>8.42</b>	<b>8.13</b>	<b>5.09</b>	<b>7.03</b>	<b>6.97</b>
Southern NSW	Bega	5.88	4.11	0.00	3.66	0.00
	Goulburn Base	7.78	7.69	6.41	4.41	7.50
	Moruya	4.05	6.10	11.27	4.49	6.58
	Queanbeyan	3.39	2.78	5.33	6.59	7.69
<b>TOTAL</b>	<b>5.73</b>	<b>5.07</b>	<b>6.20</b>	<b>5.61</b>	<b>6.19</b>	
Murrumbidgee	Griffith Base	5.96	7.06	6.12	8.16	10.46
	Wagga Wagga Base	12.72	7.62	7.08	6.64	5.72
	Other hospitals	3.54	1.75	3.88	7.00	1.61
<b>TOTAL</b>	<b>9.30</b>	<b>6.40</b>	<b>6.38</b>	<b>7.03</b>	<b>6.40</b>	
Western NSW	Dubbo Base	17.11	15.51	10.39	9.09	5.90
	Mudgee	8.57	3.51	9.23	11.86	4.41
	Bathurst Base	10.67	5.79	8.70	3.36	9.03
	Orange Base	5.98	11.83	12.93	9.59	8.91
	Other hospitals	7.45	7.14	5.83	3.13	2.53
<b>TOTAL</b>	<b>11.01</b>	<b>11.54</b>	<b>10.42</b>	<b>8.09</b>	<b>7.08</b>	
Far West	<b>TOTAL</b>	<b>8.00</b>	<b>7.58</b>	<b>5.00</b>	<b>2.22</b>	<b>10.61</b>
Public Hospitals	<b>TOTAL</b>	<b>9.51</b>	<b>9.75</b>	<b>8.95</b>	<b>8.12</b>	<b>8.07</b>
Private Hospitals	Mater, North Sydney	1.62	1.05	1.46	0.96	1.30
	North Shore Private	1.62	1.62	1.48	1.56	1.14
	Sydney Adventist	3.87	2.37	2.93	3.75	3.61
	North Gosford Private	2.85	2.26	1.17	2.82	4.29
	Hurstville Community	4.36	1.22	3.02	3.68	2.01
	Kareena Private	3.63	2.38	3.54	1.64	1.00
	St. George Private	3.42	3.53	3.07	1.82	2.09
	Prince of Wales Private	2.01	2.32	1.25	1.23	1.48
	Norwest Private	6.09	4.31	4.14	2.98	3.10
	Sydney Southwest Private	3.67	2.47	7.12	5.04	3.03
	Nepean Private	4.60	5.11	2.95	3.15	3.98
	Westmead Private	2.84	2.67	2.02	2.61	1.62
	Wollongong Private <sup>†</sup>	-	4.56	4.02	5.34	3.22
	Newcastle Private	2.59	2.25	2.58	3.62	2.76
Calvary, Wagga Wagga	1.04	1.35	2.11	1.11	0.63	
Other hospitals	4.02	4.55	0.00	0.00	0.00	
<b>TOTAL</b>	<b>2.98</b>	<b>2.48</b>	<b>2.47</b>	<b>2.45</b>	<b>2.16</b>	
<b>TOTAL NSW<sup>*</sup></b>	<b>7.40</b>	<b>7.42</b>	<b>6.95</b>	<b>6.44</b>	<b>6.34</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 2019 are identified individually.

<sup>†</sup> Wollongong Private Hospital opened in 2016.

<sup>‡</sup> Northern Beaches Hospital opened in 2018.

<sup>\*</sup> 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 2019, 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 2015–2019\***

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
<b>Sydney</b>	Canterbury	85.6	75.6	78.6	74.2	74.6
	Royal Prince Alfred	83.1	81.1	78.5	76.4	74.0
	<b>TOTAL</b>	<b>83.7</b>	<b>79.8</b>	<b>78.5</b>	<b>75.8</b>	<b>74.1</b>
<b>South Western Sydney</b>	Fairfield	52.0	43.1	46.0	53.2	58.5
	Liverpool	75.7	71.9	72.4	65.1	62.8
	Campbelltown	82.7	82.4	80.4	79.6	72.0
	Bankstown-Lidcombe	73.9	71.1	77.5	69.5	70.2
	Bowral	94.5	90.5	94.8	97.0	83.2
	<b>TOTAL</b>	<b>74.5</b>	<b>70.4</b>	<b>72.5</b>	<b>69.8</b>	<b>67.4</b>
	<b>South Eastern Sydney</b>	St. George	86.6	86.1	82.5	76.0
Sutherland		92.4	93.5	94.1	90.7	88.0
Royal Hospital for Women		90.2	89.5	88.9	87.7	88.5
<b>TOTAL</b>		<b>89.4</b>	<b>89.0</b>	<b>87.3</b>	<b>84.1</b>	<b>82.1</b>
<b>Illawarra Shoalhaven</b>	Shoalhaven	95.3	96.3	95.8	94.5	95.0
	Wollongong	92.8	94.4	91.5	89.9	84.3
	Other hospitals	100.0	0.0	0.0	0.0	100.0
	<b>TOTAL</b>	<b>93.5</b>	<b>94.9</b>	<b>92.5</b>	<b>91.2</b>	<b>87.2</b>
<b>Western Sydney</b>	Auburn	63.2	67.6	67.4	59.9	64.2
	Blacktown	90.4	87.9	83.5	76.9	72.1
	Westmead	86.8	87.2	88.4	86.2	83.9
	<b>TOTAL</b>	<b>84.2</b>	<b>84.6</b>	<b>83.9</b>	<b>78.7</b>	<b>76.6</b>
<b>Nepean Blue Mountains</b>	Blue Mountains	96.0	93.5	97.1	90.9	95.2
	Nepean	88.3	87.0	83.1	84.1	74.2
	Hawkesbury	93.4	95.0	94.0	89.2	89.7
	Other hospitals	95.7	92.5	91.2	96.8	96.7
	<b>TOTAL</b>	<b>89.9</b>	<b>88.7</b>	<b>85.7</b>	<b>85.7</b>	<b>78.4</b>
<b>Northern Sydney</b>	Hornsby	86.9	90.7	90.3	87.1	91.4
	Royal North Shore	92.6	89.3	89.3	89.8	86.3
	Northern Beaches <sup>†</sup>	-	-	-	100.0	87.2
	Other hospitals	92.5	91.6	89.4	88.5	100.0
	<b>TOTAL</b>	<b>91.5</b>	<b>90.2</b>	<b>89.5</b>	<b>89.3</b>	<b>87.8</b>
<b>Central Coast</b>	Gosford	89.7	92.6	83.3	88.0	86.1
	Other hospitals	100.0	100.0	93.8	94.1	100.0
	<b>TOTAL</b>	<b>90.2</b>	<b>92.9</b>	<b>83.6</b>	<b>88.2</b>	<b>86.5</b>

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
<b>Hunter New England</b>	Armidale	95.7	91.2	95.2	87.8	86.5
	Inverell	85.1	91.4	93.6	87.5	71.0
	Tamworth Base	89.5	89.9	84.2	79.4	80.3
	Manning Base	95.5	85.7	87.3	91.6	85.7
	Maitland	95.8	94.3	87.4	86.1	84.4
	John Hunter	91.5	89.0	89.4	91.4	87.4
	Other hospitals	97.8	93.5	88.1	94.8	94.8
	<b>TOTAL</b>	<b>93.0</b>	<b>90.4</b>	<b>88.7</b>	<b>89.3</b>	<b>86.2</b>
<b>Northern NSW</b>	Grafton Base	96.4	85.2	97.1	94.2	96.6
	Lismore Base	95.3	92.6	90.3	91.7	92.4
	Tweed Heads	95.9	97.3	93.2	96.6	94.6
	Other hospitals	100.0	97.6	100.0	100.0	100.0
<b>TOTAL</b>	<b>96.0</b>	<b>94.2</b>	<b>92.9</b>	<b>94.6</b>	<b>94.4</b>	
<b>Mid North Coast</b>	Coffs Harbour	92.8	84.6	82.3	81.8	83.8
	Kempsey	95.1	96.9	97.0	95.6	93.3
	Port Macquarie Base	98.5	93.9	92.4	90.4	88.7
	Other hospitals	100.0	100.0	100.0	100.0	100.0
	<b>TOTAL</b>	<b>95.2</b>	<b>89.3</b>	<b>87.5</b>	<b>86.8</b>	<b>86.8</b>
<b>Southern NSW</b>	Bega	95.2	93.2	80.4	87.3	93.0
	Goulburn Base	93.9	96.4	89.6	79.6	89.1
	Moruya	97.7	95.8	89.3	96.0	92.0
	Queanbeyan	95.0	92.4	95.2	84.1	85.3
	Other hospitals	89.2	96.9	96.2	90.0	84.6
<b>TOTAL</b>	<b>94.5</b>	<b>94.4</b>	<b>91.3</b>	<b>86.3</b>	<b>88.0</b>	
<b>Murrumbidgee</b>	Griffith Base	88.0	89.0	81.3	85.1	78.6
	Wagga Wagga Base	92.5	88.2	82.3	76.8	84.2
	Other hospitals	94.0	96.4	97.1	93.9	94.1
	<b>TOTAL</b>	<b>91.9</b>	<b>90.5</b>	<b>85.0</b>	<b>81.8</b>	<b>84.1</b>
<b>Western NSW</b>	Dubbo Base	94.7	93.1	90.7	86.8	88.3
	Mudgee	96.4	94.7	97.6	100.0	93.0
	Bathurst Base	94.2	97.6	95.2	88.9	91.1
	Orange Base	89.7	89.7	89.9	85.0	78.1
	Other hospitals	95.5	97.3	98.6	90.0	91.9
	<b>TOTAL</b>	<b>93.3</b>	<b>93.2</b>	<b>92.4</b>	<b>87.7</b>	<b>85.8</b>
<b>Far West</b>	<b>TOTAL</b>	<b>93.5</b>	<b>100.0</b>	<b>95.2</b>	<b>95.2</b>	<b>90.7</b>

(Continued on next page)

TABLE 70: (Continued)

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
<b>Public Hospitals</b>	<b>TOTAL</b>	<b>87.3</b>	<b>85.6</b>	<b>84.3</b>	<b>82.2</b>	<b>80.3</b>
<b>Private Hospitals</b>	Mater, North Sydney	67.4	64.9	62.7	63.4	61.6
	North Shore Private	73.2	71.3	71.5	71.2	66.3
	Sydney Adventist	98.5	75.9	71.1	65.8	58.1
	North Gosford Private	90.3	91.3	92.3	88.5	87.6
	Hurstville Community	77.1	68.0	60.6	59.6	66.7
	Kareena Private	91.4	88.4	94.1	91.2	86.4
	St. George Private	63.0	63.6	58.0	57.1	50.8
	Prince of Wales Private	100.0	79.9	79.3	81.5	78.9
	Norwest Private	100.0	79.8	75.8	77.0	74.4
	Sydney Southwest Private	100.0	64.8	66.7	66.9	60.3

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
	Nepean Private	100.0	77.5	77.3	70.0	67.6
	Westmead Private	69.3	71.0	73.6	65.3	58.6
	Wollongong Private <sup>†</sup>	-	89.9	85.8	82.8	82.8
	Newcastle Private	100.0	79.1	77.3	78.9	78.2
	Calvary, Wagga Wagga	99.2	92.0	95.8	93.5	83.3
	Other hospitals	89.8	100.0	0.0	0.0	0.0
	<b>TOTAL</b>	<b>85.9</b>	<b>74.7</b>	<b>73.6</b>	<b>71.8</b>	<b>67.9</b>
<b>TOTAL NSW*</b>		<b>86.9</b>	<b>82.6</b>	<b>81.5</b>	<b>79.6</b>	<b>77.1</b>

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

# Hospitals with more than 200 births in 2019 are identified individually.

† Wollongong Private Hospital opened in 2016.

‡ Northern Beaches Hospital opened in 2018.

\* 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 2019, 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 2015–2019\***

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
<b>Sydney</b>	Canterbury	0.99	1.13	1.95	1.31	1.60
	Royal Prince Alfred	0.96	1.69	1.15	1.02	0.94
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>0.97</b>	<b>1.54</b>	<b>1.36</b>	<b>1.10</b>	<b>1.11</b>
<b>South Western Sydney</b>	Fairfield	0.85	1.16	0.64	0.61	0.34
	Liverpool	0.48	0.65	1.14	0.87	0.89
	Campbelltown	1.07	0.94	0.72	0.55	0.88
	Bankstown-Lidcombe	0.84	0.78	1.01	0.79	1.37
	Bowral	1.39	0.00	0.00	0.66	0.32
	<b>TOTAL</b>	<b>0.82</b>	<b>0.83</b>	<b>0.87</b>	<b>0.71</b>	<b>0.86</b>
<b>South Eastern Sydney</b>	St. George	1.83	1.11	1.34	1.27	1.25
	Sutherland	1.75	1.12	0.77	0.72	0.98
	Royal Hospital for Women	1.24	0.81	1.30	1.30	1.63
	<b>TOTAL</b>	<b>1.52</b>	<b>0.96</b>	<b>1.22</b>	<b>1.18</b>	<b>1.39</b>
<b>Illawarra Shoalhaven</b>	Shoalhaven	1.58	1.32	1.00	1.45	1.81
	Wollongong	1.53	1.31	0.99	1.14	0.95
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>1.53</b>	<b>1.30</b>	<b>0.99</b>	<b>1.22</b>	<b>1.19</b>
<b>Western Sydney</b>	Auburn	0.81	1.34	0.71	0.54	0.76
	Blacktown	1.17	1.49	1.52	0.71	0.70
	Westmead	1.49	1.24	1.14	0.91	0.79
	<b>TOTAL</b>	<b>1.30</b>	<b>1.33</b>	<b>1.20</b>	<b>0.78</b>	<b>0.76</b>
<b>Nepean Blue Mountains</b>	Blue Mountains	2.35	0.63	0.62	0.00	2.88
	Nepean	1.49	1.13	1.69	1.00	1.01
	Hawkesbury	2.71	1.43	0.00	1.22	0.43
	Other hospitals	0.00	0.00	2.36	1.02	0.00
	<b>TOTAL</b>	<b>1.64</b>	<b>1.09</b>	<b>1.42</b>	<b>0.99</b>	<b>0.98</b>
<b>Northern Sydney</b>	Hornsby	1.14	0.88	0.45	0.92	2.15
	Royal North Shore	1.03	1.68	0.33	0.95	0.82
	Northern Beaches <sup>†</sup>	-	-	-	0.00	1.34
	Other hospitals	1.86	0.98	1.03	0.52	1.39
	<b>TOTAL</b>	<b>1.33</b>	<b>1.28</b>	<b>0.58</b>	<b>0.79</b>	<b>1.28</b>
<b>Central Coast</b>	Gosford	1.36	0.96	0.49	0.84	1.61
	Other hospitals	0.00	0.00	0.00	1.28	0.00
	<b>TOTAL</b>	<b>1.26</b>	<b>0.90</b>	<b>0.47</b>	<b>0.86</b>	<b>1.55</b>
<b>Hunter New England</b>	Armidale	1.78	1.10	1.42	0.78	1.95
	Inverell	2.01	1.80	1.92	0.00	1.90
	Tamworth Base	2.17	0.43	1.27	1.93	1.04
	Manning Base	3.61	1.20	2.81	1.61	1.13
	Maitland	1.78	1.67	0.96	1.18	1.23
	John Hunter	2.77	0.85	1.30	1.02	1.84
	Other hospitals	1.73	0.34	0.53	0.87	1.43
	<b>TOTAL</b>	<b>2.39</b>	<b>0.94</b>	<b>1.28</b>	<b>1.14</b>	<b>1.54</b>
	<b>Northern NSW</b>	Grafton Base	1.02	0.33	1.97	1.55
Lismore Base		1.89	0.69	1.63	0.89	1.20
Tweed Heads		1.96	1.61	1.22	0.90	1.35
Other hospitals		0.54	0.00	1.18	1.06	0.00
<b>TOTAL</b>		<b>1.71</b>	<b>0.94</b>	<b>1.48</b>	<b>0.99</b>	<b>1.19</b>

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
<b>Mid North Coast</b>	Coffs Harbour	0.85	1.57	0.41	1.06	1.04
	Kempsey	3.50	0.00	1.52	3.87	2.13
	Port Macquarie Base	2.62	1.58	0.95	1.22	2.16
	Other hospitals	1.85	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>1.87</b>	<b>1.30</b>	<b>0.72</b>	<b>1.45</b>	<b>1.53</b>
	<b>Southern NSW</b>	Bega	2.65	1.09	0.58	1.79
Goulburn Base		1.38	0.00	1.03	0.49	0.93
Moruya		2.20	3.21	1.80	1.75	0.85
Queanbeyan		0.34	1.46	0.82	1.86	1.10
Other hospitals		0.00	0.79	2.00	0.90	3.20
<b>TOTAL</b>		<b>1.27</b>	<b>1.41</b>	<b>1.14</b>	<b>1.47</b>	<b>1.18</b>
<b>Murrumbidgee</b>	Griffith Base	1.19	1.41	1.02	0.56	0.00
	Wagga Wagga Base	1.91	2.38	1.57	1.60	1.21
	Other hospitals	2.04	1.36	0.56	0.61	1.57
	<b>TOTAL</b>	<b>1.77</b>	<b>1.87</b>	<b>1.16</b>	<b>1.11</b>	<b>0.99</b>
<b>Western NSW</b>	Dubbo Base	1.58	1.82	1.28	0.87	0.96
	Mudgee	2.27	1.58	0.60	2.96	0.68
	Bathurst Base	1.34	1.36	0.28	1.43	0.95
	Orange Base	0.85	0.70	0.51	0.81	0.85
	Other hospitals	1.73	1.61	0.32	1.29	1.52
	<b>TOTAL</b>	<b>1.40</b>	<b>1.38</b>	<b>0.74</b>	<b>1.16</b>	<b>0.98</b>
<b>Far West</b>	<b>TOTAL</b>	<b>1.78</b>	<b>0.61</b>	<b>2.10</b>	<b>2.72</b>	<b>1.33</b>
<b>Public Hospitals</b>	<b>TOTAL</b>	<b>1.44</b>	<b>1.15</b>	<b>1.08</b>	<b>0.99</b>	<b>1.13</b>
<b>Private Hospitals</b>	Mater, North Sydney	0.91	0.26	0.92	1.04	0.77
	North Shore Private	0.51	0.58	0.00	0.37	0.78
	Sydney Adventist	2.94	0.49	1.20	0.31	0.32
	North Gosford Private	1.09	0.83	0.31	0.71	1.54
	Hurstville Community	0.98	0.20	0.28	1.15	0.76
	Kareena Private	0.26	0.49	0.27	1.15	0.30
	St. George Private	0.46	0.35	0.13	0.13	0.79
	Prince of Wales Private	0.27	0.19	0.41	0.11	0.33
	Norwest Private	0.71	0.54	0.26	0.25	0.19
	Sydney Southwest Private	0.17	0.30	0.53	0.00	0.33
	Nepean Private	0.00	0.23	0.24	0.25	0.00
	Westmead Private	0.88	1.06	0.69	0.45	0.51
	Wollongong Private <sup>‡</sup>	-	0.60	0.37	0.56	0.60
	Newcastle Private	0.34	0.35	0.20	0.22	0.31
	Calvary, Wagga Wagga	0.98	0.00	1.42	1.82	2.11
	Other hospitals	0.38	0.00	0.00	0.00	0.00
<b>TOTAL</b>	<b>0.80</b>	<b>0.47</b>	<b>0.47</b>	<b>0.42</b>	<b>0.51</b>	
<b>TOTAL NSW*</b>	<b>1.32</b>	<b>1.02</b>	<b>0.97</b>	<b>0.89</b>	<b>1.03</b>	

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

# Hospitals with more than 200 births in 2019 are identified individually.

† Wollongong Private Hospital opened in 2016.

‡ Northern Beaches Hospital opened in 2018.

\* 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 2019, 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 2015–2019\***

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
Sydney	Canterbury	1.02	1.15	0.69	1.24	0.97
	Royal Prince Alfred	0.73	1.18	1.22	0.92	0.48
	<b>TOTAL</b>	<b>0.80</b>	<b>1.18</b>	<b>1.08</b>	<b>0.99</b>	<b>0.59</b>
South Western Sydney	Fairfield	1.35	0.72	0.70	0.45	0.00
	Liverpool	0.43	0.73	1.31	1.08	0.46
	Campbelltown	1.24	0.88	0.22	0.69	0.86
	Bankstown-Lidcombe	0.89	1.42	2.36	2.50	1.51
	Bowral	0.00	1.48	0.79	0.00	0.00
	<b>TOTAL</b>	<b>0.86</b>	<b>0.95</b>	<b>1.03</b>	<b>1.09</b>	<b>0.68</b>
South Eastern Sydney	St. George	2.35	0.95	0.98	1.10	0.92
	Sutherland	0.94	0.32	1.12	1.12	1.13
	Royal Hospital for Women	1.77	0.90	1.79	1.67	0.89
	<b>TOTAL</b>	<b>1.84</b>	<b>0.83</b>	<b>1.43</b>	<b>1.40</b>	<b>0.94</b>
Illawarra Shoalhaven	Shoalhaven	2.80	2.32	1.15	2.16	2.46
	Wollongong	2.22	1.11	1.58	0.47	1.11
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>2.40</b>	<b>1.43</b>	<b>1.47</b>	<b>0.83</b>	<b>1.40</b>
Western Sydney	Auburn	1.92	0.97	0.64	1.11	0.88
	Blacktown	1.26	1.28	1.19	0.71	0.78
	Westmead	2.30	1.54	1.66	1.16	0.71
	<b>TOTAL</b>	<b>1.92</b>	<b>1.40</b>	<b>1.40</b>	<b>1.00</b>	<b>0.75</b>
Nepean Blue Mountains	Blue Mountains	1.18	0.00	0.00	0.00	1.33
	Nepean	2.88	1.17	0.61	1.12	0.98
	Hawkesbury	0.74	1.17	0.40	0.37	0.76
	Other hospitals	1.56	1.52	0.00	3.23	1.75
	<b>TOTAL</b>	<b>2.45</b>	<b>1.13</b>	<b>0.54</b>	<b>1.05</b>	<b>0.99</b>
Northern Sydney	Hornsby	0.38	1.32	1.18	2.21	0.82
	Royal North Shore	1.49	1.53	1.28	1.17	1.27
	Northern Beaches <sup>†</sup>	-	-	-	2.08	0.83
	Other hospitals	0.86	2.30	1.24	0.26	0.00
	<b>TOTAL</b>	<b>1.13</b>	<b>1.72</b>	<b>1.25</b>	<b>1.23</b>	<b>1.05</b>
Central Coast	Gosford	1.01	0.90	1.72	0.78	1.18
	<b>TOTAL</b>	<b>1.01</b>	<b>0.90</b>	<b>1.72</b>	<b>0.78</b>	<b>1.18</b>
Hunter New England	Armidale	2.92	0.76	0.00	0.00	0.60
	Inverell	2.53	0.00	0.00	0.00	0.00
	Tamworth Base	2.06	1.32	0.86	0.81	0.59
	Manning Base	3.17	1.32	3.16	1.74	1.67
	Maitland	1.41	1.61	0.88	0.99	1.89
	John Hunter	3.43	1.62	1.84	1.72	1.62
	Other hospitals	2.27	1.33	1.89	1.68	0.60
	<b>TOTAL</b>	<b>2.78</b>	<b>1.44</b>	<b>1.49</b>	<b>1.34</b>	<b>1.38</b>
Northern NSW	Grafton Base	1.75	2.59	1.64	1.59	0.88
	Lismore Base	0.38	1.49	0.36	0.81	0.85
	Tweed Heads	1.63	1.01	1.12	0.33	0.77
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>1.11</b>	<b>1.44</b>	<b>0.90</b>	<b>0.74</b>	<b>0.83</b>

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
Mid North Coast	Coffs Harbour	0.87	0.25	0.27	0.76	0.62
	Kempsey	1.64	3.45	3.08	4.84	1.54
	Port Macquarie Base	1.15	1.54	0.46	0.70	1.05
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>1.05</b>	<b>0.98</b>	<b>0.62</b>	<b>1.08</b>	<b>0.89</b>
Southern NSW	Bega	2.94	0.00	1.30	2.44	0.00
	Goulburn Base	1.11	3.30	0.00	1.47	1.25
	Moruya	0.00	1.22	0.00	1.12	1.32
	Queanbeyan	0.00	0.93	0.00	0.00	0.59
	Other hospitals	0.00	0.00	3.70	4.00	2.78
<b>TOTAL</b>	<b>0.78</b>	<b>1.33</b>	<b>0.50</b>	<b>1.12</b>	<b>0.92</b>	
Murrumbidgee	Griffith Base	0.66	0.59	1.36	0.68	1.31
	Wagga Wagga Base	2.66	1.17	0.71	0.47	1.48
	Other hospitals	5.31	1.75	1.94	2.00	1.61
	<b>TOTAL</b>	<b>2.66</b>	<b>1.12</b>	<b>1.04</b>	<b>0.75</b>	<b>1.46</b>
Western NSW	Dubbo Base	2.06	2.67	1.40	0.74	0.47
	Mudgee	2.86	0.00	4.62	1.69	0.00
	Bathurst Base	1.33	0.00	0.00	0.67	2.58
	Orange Base	1.66	0.85	0.57	0.00	1.24
	Other hospitals	1.06	0.00	0.00	0.00	0.00
<b>TOTAL</b>	<b>1.78</b>	<b>1.29</b>	<b>0.97</b>	<b>0.46</b>	<b>0.97</b>	
Far West	<b>TOTAL</b>	<b>2.00</b>	<b>0.00</b>	<b>3.33</b>	<b>0.00</b>	<b>1.52</b>
Public Hospitals	<b>TOTAL</b>	<b>1.68</b>	<b>1.22</b>	<b>1.19</b>	<b>1.06</b>	<b>0.96</b>
Private Hospitals	Mater, North Sydney	0.45	0.88	0.77	0.70	0.81
	North Shore Private	0.00	0.23	0.07	0.41	0.44
	Sydney Adventist	0.40	0.37	0.00	0.40	0.77
	North Gosford Private	0.32	0.85	0.59	0.00	0.66
	Hurstville Community	0.67	0.61	0.00	0.74	0.67
	Kareena Private	0.00	0.53	0.29	0.33	0.67
	St. George Private	0.71	0.71	0.44	0.33	0.80
	Prince of Wales Private	0.42	0.43	0.33	0.25	0.09
	Norwest Private	0.25	0.92	0.67	0.14	0.54
	Sydney Southwest Private	0.52	0.00	0.30	0.00	0.00
	Nepean Private	0.00	0.28	0.66	0.00	0.31
	Westmead Private	0.55	0.59	0.75	0.65	0.48
	Wollongong Private <sup>‡</sup>	-	0.25	0.75	0.76	0.50
	Newcastle Private	0.13	0.35	0.25	0.36	0.38
	Calvary, Wagga Wagga	0.35	0.00	0.00	0.00	0.63
	Other hospitals	0.67	0.00	0.00	0.00	0.00
<b>TOTAL</b>	<b>0.35</b>	<b>0.51</b>	<b>0.41</b>	<b>0.38</b>	<b>0.51</b>	
<b>TOTAL NSW*</b>	<b>1.25</b>	<b>0.99</b>	<b>0.94</b>	<b>0.86</b>	<b>0.82</b>	

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

# Hospitals with more than 200 births in 2019 are identified individually.

‡ Wollongong Private Hospital opened in 2016.

‡ Northern Beaches Hospital opened in 2018.

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

# Intrauterine growth restriction

## Indicator 8.1

Definition: Total number of babies born with birthweight 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 2019, 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 2015–2019<sup>a</sup>**

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
<b>Sydney</b>	Canterbury	2.57	0.97	1.32	2.58	0.29
	Royal Prince Alfred	1.14	1.68	1.55	0.68	1.09
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>1.47</b>	<b>1.51</b>	<b>1.50</b>	<b>1.10</b>	<b>0.92</b>
<b>South Western Sydney</b>	Fairfield	1.92	2.52	2.51	1.83	1.12
	Liverpool	2.73	2.20	1.83	1.76	2.86
	Campbelltown	1.99	0.84	1.28	1.01	1.33
	Bankstown-Lidcombe	1.74	2.33	1.60	0.94	1.73
	Bowral	0.57	1.03	1.81	0.58	2.33
	<b>TOTAL</b>	<b>2.08</b>	<b>1.80</b>	<b>1.71</b>	<b>1.29</b>	<b>1.84</b>
<b>South Eastern Sydney</b>	St. George	2.16	1.80	2.92	2.45	3.14
	Sutherland	0.17	1.93	1.13	0.93	0.98
	Royal Hospital for Women	1.78	2.04	1.91	2.13	1.36
	<b>TOTAL</b>	<b>1.58</b>	<b>1.95</b>	<b>2.07</b>	<b>1.98</b>	<b>1.77</b>
<b>Illawarra Shoalhaven</b>	Shoalhaven	2.02	1.75	0.99	1.27	0.79
	Wollongong	0.94	1.00	1.26	1.25	0.60
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>1.25</b>	<b>1.19</b>	<b>1.18</b>	<b>1.25</b>	<b>0.66</b>
<b>Western Sydney</b>	Auburn	2.08	1.91	2.32	2.03	1.98
	Blacktown	1.70	2.98	2.47	2.67	2.48
	Westmead	2.12	3.46	2.72	3.07	2.16
	<b>TOTAL</b>	<b>1.99</b>	<b>3.08</b>	<b>2.59</b>	<b>2.79</b>	<b>2.25</b>
<b>Nepean Blue Mountains</b>	Blue Mountains	0.00	0.69	0.80	0.88	0.82
	Nepean	2.11	1.61	1.81	1.50	1.20
	Hawkesbury	2.27	1.45	0.34	0.34	0.69
	Other hospitals	1.64	9.09	2.67	0.00	3.64
	<b>TOTAL</b>	<b>1.97</b>	<b>1.77</b>	<b>1.55</b>	<b>1.24</b>	<b>1.17</b>
<b>Northern Sydney</b>	Hornsby	1.05	1.46	2.58	1.17	1.14
	Royal North Shore	1.37	2.73	1.55	2.37	2.18
	Northern Beaches <sup>†</sup>	-	-	-	0.00	2.39
	Other hospitals	0.86	0.90	1.11	0.89	2.78
	<b>TOTAL</b>	<b>1.10</b>	<b>1.83</b>	<b>1.64</b>	<b>1.58</b>	<b>2.00</b>
<b>Central Coast</b>	Gosford	1.15	0.71	1.23	1.06	1.65
	Other hospitals	0.00	0.00	1.49	0.00	0.00
	<b>TOTAL</b>	<b>1.07</b>	<b>0.66</b>	<b>1.25</b>	<b>1.02</b>	<b>1.59</b>
<b>Hunter New England</b>	Armidale	1.31	2.43	0.98	3.17	4.24
	Inverell	1.25	0.00	3.37	5.05	4.65
	Tamworth Base	3.12	1.37	1.63	1.45	1.40
	Manning Base	1.46	3.91	1.61	0.00	1.89
	Maitland	1.47	1.36	0.91	0.57	0.70
	John Hunter	1.17	1.51	1.01	1.24	1.05
	Other hospitals	1.61	1.44	0.75	1.61	0.97
	<b>TOTAL</b>	<b>1.53</b>	<b>1.64</b>	<b>1.11</b>	<b>1.32</b>	<b>1.30</b>
	<b>Northern NSW</b>	Grafton Base	0.66	1.43	1.89	1.27
Lismore Base		2.14	1.72	1.77	2.23	2.19
Tweed Heads		0.50	1.08	0.74	0.51	0.94
Other hospitals		1.61	2.29	0.78	0.00	0.00
<b>TOTAL</b>		<b>1.19</b>	<b>1.48</b>	<b>1.29</b>	<b>1.20</b>	<b>1.31</b>

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
<b>Mid North Coast</b>	Coffs Harbour	0.00	0.86	1.92	2.33	1.33
	Kempsey	0.87	2.04	2.24	3.01	1.74
	Port Macquarie Base	1.70	1.22	0.64	1.39	0.70
	Other hospitals	4.35	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>0.88</b>	<b>1.13</b>	<b>1.47</b>	<b>2.04</b>	<b>1.14</b>
	<b>Southern NSW</b>	Bega	0.00	3.25	0.85	0.00
Goulburn Base		1.85	3.23	1.99	1.59	0.71
Moruya		0.00	1.34	0.00	0.66	0.62
Queanbeyan		1.81	0.40	0.37	0.66	1.99
Other hospitals		1.41	3.53	0.00	1.23	1.30
<b>TOTAL</b>		<b>1.16</b>	<b>1.97</b>	<b>0.66</b>	<b>0.78</b>	<b>1.08</b>
<b>Murrumbidgee</b>	Griffith Base	0.00	2.07	0.78	1.32	0.87
	Wagga Wagga Base	1.01	2.05	1.65	1.46	1.28
	Other hospitals	4.78	1.53	1.28	0.85	1.97
	<b>TOTAL</b>	<b>1.99</b>	<b>1.91</b>	<b>1.31</b>	<b>1.28</b>	<b>1.33</b>
<b>Western NSW</b>	Dubbo Base	2.20	2.92	1.08	2.22	1.01
	Mudgee	0.00	1.69	1.61	0.95	1.02
	Bathurst Base	0.81	2.14	0.41	0.81	0.93
	Orange Base	1.02	1.32	1.09	0.34	0.74
	Other hospitals	0.00	2.79	1.38	1.38	1.20
	<b>TOTAL</b>	<b>1.11</b>	<b>2.24</b>	<b>1.06</b>	<b>1.23</b>	<b>0.96</b>
	<b>Far West</b>	<b>TOTAL</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>1.59</b>	<b>1.86</b>	<b>1.64</b>	<b>1.59</b>	<b>1.55</b>
<b>Private Hospitals</b>	Mater, North Sydney	1.21	1.16	1.02	1.94	1.89
	North Shore Private	0.93	1.22	2.16	1.83	1.26
	Sydney Adventist	2.17	1.23	0.99	1.89	0.63
	North Gosford Private	0.98	1.31	0.00	2.53	1.37
	Hurstville Community	1.52	0.94	2.80	1.54	0.87
	Kareena Private	0.58	1.13	0.61	0.00	0.00
	St. George Private	2.96	1.42	2.30	0.43	1.75
	Prince of Wales Private	1.86	1.73	1.79	1.40	0.82
	Norwest Private	1.44	2.46	0.46	0.78	1.62
	Sydney Southwest Private	0.35	0.72	0.87	0.90	1.03
	Nepean Private	0.00	0.00	1.16	0.00	0.00
	Westmead Private	2.60	1.75	4.00	3.50	0.70
	Wollongong Private <sup>†</sup>	-	1.67	0.50	1.61	0.68
	Newcastle Private	0.96	0.41	0.00	0.00	0.00
	Calvary, Wagga Wagga	0.00	0.00	2.56	2.00	0.00
	Other hospitals	2.37	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	<b>1.53</b>	<b>1.31</b>	<b>1.49</b>	<b>1.51</b>	<b>0.97</b>
<b>TOTAL NSW<sup>a</sup></b>	<b>1.58</b>	<b>1.78</b>	<b>1.62</b>	<b>1.58</b>	<b>1.48</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 2019 are identified individually.  
<sup>†</sup> Wollongong Private Hospital opened in 2016.  
<sup>‡</sup> Northern Beaches Hospital opened in 2018.  
<sup>\*</sup> 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 2019, totals for hospitals for each local health district, sector, and the NSW total.

**TABLE 74: 9.1 APGAR SCORE OF 7 OR LESS IN TERM BABIES BY LOCAL HEALTH DISTRICT AND HOSPITAL, NSW 2015–2019<sup>#</sup>**

Local Health District–Hospital		2015	2016	2017	2018	2019	
		%	%	%	%	%	
<b>Sydney</b>	Canterbury	1.40	1.42	0.87	1.37	0.99	
	Royal Prince Alfred	1.94	1.15	1.27	1.05	1.54	
	Other hospitals	0.00	0.00	0.00	0.00	0.00	
	<b>TOTAL</b>	<b>1.79</b>	<b>1.22</b>	<b>1.16</b>	<b>1.13</b>	<b>1.41</b>	
<b>South Western Sydney</b>	Fairfield	1.26	0.88	0.94	0.73	0.67	
	Liverpool	1.12	0.90	0.73	0.39	0.55	
	Campbelltown	1.32	1.46	1.29	1.01	1.85	
	Bankstown-Lidcombe	0.93	1.02	0.91	1.19	0.95	
	Bowral	0.26	1.43	1.30	1.81	2.44	
	<b>TOTAL</b>	<b>1.13</b>	<b>1.11</b>	<b>1.00</b>	<b>0.84</b>	<b>1.16</b>	
<b>South Eastern Sydney</b>	St. George	2.26	1.61	1.26	1.33	1.22	
	Sutherland	0.88	1.64	1.47	1.24	1.53	
	Royal Hospital for Women	1.63	1.88	1.74	1.35	1.24	
	<b>TOTAL</b>	<b>1.71</b>	<b>1.75</b>	<b>1.54</b>	<b>1.32</b>	<b>1.29</b>	
<b>Illawarra Shoalhaven</b>	Shoalhaven	1.17	1.92	1.68	2.04	2.07	
	Wollongong	1.03	1.00	1.39	1.42	1.67	
	Other hospitals	0.00	0.00	0.00	0.00	0.00	
	<b>TOTAL</b>	<b>1.06</b>	<b>1.24</b>	<b>1.46</b>	<b>1.58</b>	<b>1.77</b>	
<b>Western Sydney</b>	Auburn	0.40	0.46	0.86	0.83	0.88	
	Blacktown	0.62	1.01	0.81	0.95	1.29	
	Westmead	1.51	1.29	1.56	1.18	1.31	
	<b>TOTAL</b>	<b>1.08</b>	<b>1.09</b>	<b>1.23</b>	<b>1.05</b>	<b>1.24</b>	
<b>Nepean Blue Mountains</b>	Blue Mountains	1.61	1.69	1.79	2.97	3.30	
	Nepean	1.19	1.22	1.17	1.55	1.40	
	Hawkesbury	0.28	0.77	0.15	1.38	1.44	
	Other hospitals	3.21	1.98	2.37	1.95	0.66	
	<b>TOTAL</b>	<b>1.17</b>	<b>1.21</b>	<b>1.10</b>	<b>1.60</b>	<b>1.47</b>	
<b>Northern Sydney</b>	Hornsby	1.56	2.13	1.42	1.50	1.12	
	Royal North Shore	1.39	1.95	1.55	1.98	1.47	
	Northern Beaches <sup>†</sup>	-	-	-	1.16	1.46	
	Other hospitals	0.94	1.34	1.00	1.68	2.78	
	<b>TOTAL</b>	<b>1.28</b>	<b>1.79</b>	<b>1.35</b>	<b>1.76</b>	<b>1.41</b>	
<b>Central Coast</b>	Gosford	1.76	2.19	1.97	1.99	1.93	
	Other hospitals	0.00	1.47	1.01	0.00	0.00	
	<b>TOTAL</b>	<b>1.67</b>	<b>2.16</b>	<b>1.94</b>	<b>1.93</b>	<b>1.87</b>	
<b>Hunter New England</b>	Armidale	1.06	1.84	0.78	2.81	3.04	
	Inverell	0.00	1.72	0.45	0.46	0.00	
	Tamworth Base	2.83	2.44	2.62	1.93	2.12	
	Manning Base	2.59	1.59	1.34	2.14	1.87	
	Maitland	2.16	1.79	1.40	1.87	2.28	
	John Hunter	1.83	2.24	1.66	2.06	2.09	
	Other hospitals	0.98	1.02	0.84	1.18	1.28	
	<b>TOTAL</b>	<b>1.87</b>	<b>1.94</b>	<b>1.53</b>	<b>1.92</b>	<b>2.02</b>	
	<b>Northern NSW</b>	Grafton Base	1.06	1.97	1.95	1.11	1.47
		Lismore Base	1.82	2.03	1.90	1.48	1.58
Tweed Heads		1.36	1.62	1.74	2.02	0.97	
Other hospitals		0.00	0.41	0.00	0.53	0.50	
<b>TOTAL</b>		<b>1.38</b>	<b>1.72</b>	<b>1.72</b>	<b>1.59</b>	<b>1.26</b>	

Local Health District–Hospital		2015	2016	2017	2018	2019
		%	%	%	%	%
<b>Mid North Coast</b>	Coffs Harbour	1.74	1.08	0.95	1.49	0.38
	Kempsey	3.64	3.02	0.79	1.30	1.64
	Port Macquarie Base	1.48	1.27	0.86	1.54	1.58
	Other hospitals	0.00	2.08	0.00	0.00	0.00
	<b>TOTAL</b>	<b>1.84</b>	<b>1.42</b>	<b>0.87</b>	<b>1.46</b>	<b>0.96</b>
	<b>Southern NSW</b>	Bega	0.94	1.61	0.82	0.82
Goulburn Base		2.41	0.73	1.16	1.53	1.39
Moruya		1.05	0.00	0.36	0.65	1.32
Queanbeyan		1.74	1.13	1.57	1.47	2.48
Other hospitals		2.56	2.04	0.00	0.00	1.27
<b>TOTAL</b>		<b>1.70</b>	<b>1.00</b>	<b>0.99</b>	<b>1.07</b>	<b>1.66</b>
<b>Murrumbidgee</b>	Griffith Base	1.57	1.81	1.57	0.84	1.45
	Wagga Wagga Base	2.05	1.80	1.66	1.53	2.10
	Other hospitals	1.48	0.42	1.56	1.44	1.08
	<b>TOTAL</b>	<b>1.75</b>	<b>1.46</b>	<b>1.61</b>	<b>1.35</b>	<b>1.75</b>
<b>Western NSW</b>	Dubbo Base	1.23	2.01	2.39	2.07	1.79
	Mudgee	2.07	1.23	0.00	1.35	2.37
	Bathurst Base	2.00	1.08	1.26	0.64	2.46
	Orange Base	1.94	0.81	0.91	2.15	1.73
	Other hospitals	1.20	1.00	1.42	0.76	1.79
	<b>TOTAL</b>	<b>1.62</b>	<b>1.33</b>	<b>1.50</b>	<b>1.66</b>	<b>1.91</b>
<b>Far West</b>	<b>TOTAL</b>	<b>1.42</b>	<b>1.79</b>	<b>1.53</b>	<b>0.54</b>	<b>2.44</b>
<b>Public Hospitals</b>	<b>TOTAL</b>	<b>1.45</b>	<b>1.45</b>	<b>1.32</b>	<b>1.37</b>	<b>1.47</b>
<b>Private Hospitals</b>	Mater, North Sydney	0.38	0.18	0.20	0.25	0.25
	North Shore Private	0.66	0.25	0.52	0.84	0.83
	Sydney Adventist	1.07	4.94	1.23	1.16	0.99
	North Gosford Private	0.93	1.52	0.48	0.69	0.39
	Hurstville Community	1.19	1.16	1.06	0.33	1.00
	Kareena Private	1.25	1.22	1.91	1.09	0.82
	St. George Private	0.75	1.01	0.72	0.85	1.07
	Prince of Wales Private	0.36	0.48	0.29	0.39	0.35
	Norwest Private	0.36	0.36	0.27	0.22	0.71
	Sydney Southwest Private	0.53	0.60	0.58	0.95	0.55
	Nepean Private	0.40	0.68	0.30	0.00	0.44
	Westmead Private	0.77	0.33	0.40	0.46	0.57
	Wollongong Private <sup>†</sup>	-	0.58	0.44	1.02	1.17
	Newcastle Private	0.71	0.70	0.59	0.56	0.42
	Calvary, Wagga Wagga	0.90	0.85	0.98	0.76	1.28
Other hospitals	0.22	0.00	0.00	0.00	0.00	
<b>TOTAL</b>	<b>0.65</b>	<b>0.96</b>	<b>0.57</b>	<b>0.60</b>	<b>0.66</b>	
<b>TOTAL NSW<sup>*</sup></b>	<b>1.26</b>	<b>1.33</b>	<b>1.16</b>	<b>1.21</b>	<b>1.29</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 2019 are identified individually.

<sup>†</sup> Wollongong Private Hospital opened in 2016.

<sup>‡</sup> Northern Beaches Hospital opened in 2018.

<sup>\*</sup> 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

In addition to the information presented in this chapter, further information on maternal and infant health outcomes for Aboriginal mothers and babies is published on HealthStats NSW (<http://www.healthstats.nsw.gov.au>).

## Reporting of Aboriginality

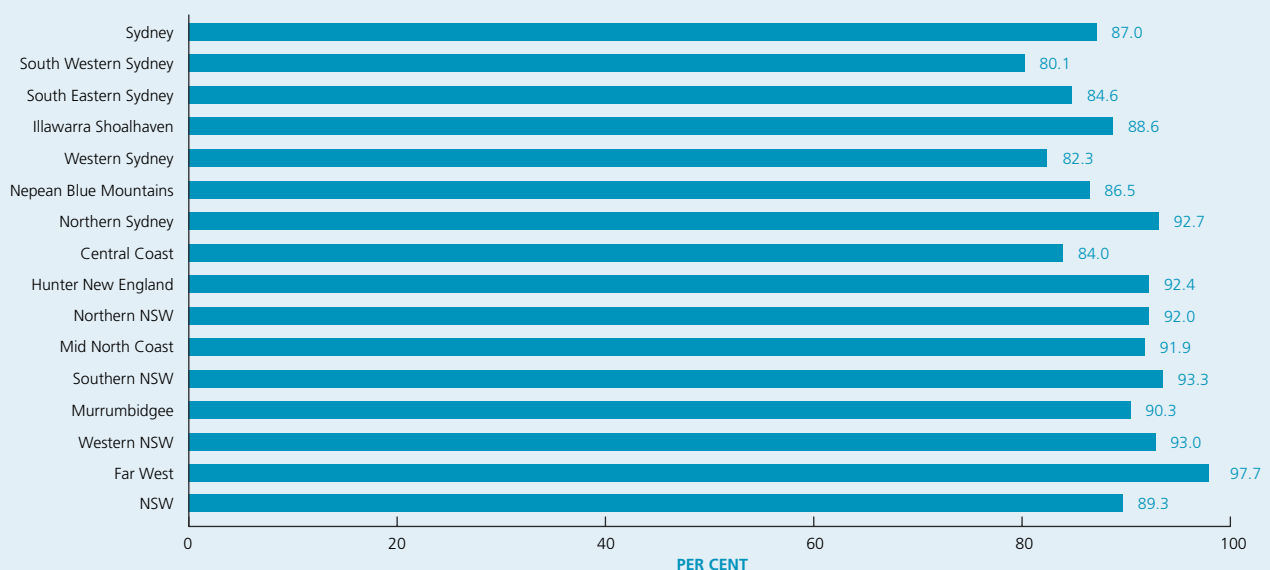
Aboriginal mothers and babies are under-reported on the Perinatal Data Collection. One method of assessing the extent of under-reporting and monitoring changes over time is to compare the reporting of Aboriginal mothers on the Perinatal Data Collection with reporting on other data collections. We used 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 86.5% in 2017, 88.2% in 2018 and 89.3% in 2019. In 2019, reporting varied between local health districts, ranging from 80.1% in the South Western Sydney Local Health District to 97.7% in the Far West 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 66.0% in 2019. Reporting ranged from 54.0% in the Central Coast Local Health District to 76.8% in the Northern NSW and Sydney Local Health Districts. 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 2019**



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 2017–2019**

Year of birth–Local Health District		PDC mothers*	Estimated Aboriginal mothers*	Level of reporting
		No.	No.	%
<b>2017</b>	Sydney	99	105	94.3
	South Western Sydney	295	359	82.2
	South Eastern Sydney	113	135	83.7
	Illawarra Shoalhaven	276	332	83.1
	Western Sydney	289	347	83.3
	Nepean Blue Mountains	229	269	85.1
	Northern Sydney	36	54	66.7
	Central Coast	230	273	84.2
	Hunter New England	1100	1248	88.1
	Northern NSW	231	262	88.2
	Mid North Coast	262	289	90.7
	Southern NSW	91	108	84.3
	Murrumbidgee	204	241	84.6
	Western NSW	666	735	90.6
	Far West	35	42	83.3
	Other-not stated	26	35	74.3
	<b>NSW</b>	<b>4183</b>	<b>4836</b>	<b>86.5</b>
<b>2018</b>	Sydney	110	120	91.7
	South Western Sydney	351	414	84.8
	South Eastern Sydney	122	148	82.4
	Illawarra Shoalhaven	262	291	90.0
	Western Sydney	287	342	83.9
	Nepean Blue Mountains	234	279	83.9
	Northern Sydney	36	41	87.8
	Central Coast	242	267	90.6
	Hunter New England	1086	1212	89.6
	Northern NSW	228	266	85.7
	Mid North Coast	266	298	89.3
	Southern NSW	97	112	86.6
	Murrumbidgee	233	257	90.7
	Western NSW	599	663	90.3
	Far West	31	36	86.1
	Other-not stated	21	24	87.5
	<b>NSW</b>	<b>4213</b>	<b>4778</b>	<b>88.2</b>
<b>2019</b>	Sydney	107	123	87.0
	South Western Sydney	301	376	80.1
	South Eastern Sydney	132	156	84.6
	Illawarra Shoalhaven	264	298	88.6
	Western Sydney	275	334	82.3
	Nepean Blue Mountains	281	325	86.5
	Northern Sydney	51	55	92.7
	Central Coast	220	262	84.0
	Hunter New England	1144	1238	92.4
	Northern NSW	275	299	92.0
	Mid North Coast	317	345	91.9
	Southern NSW	98	105	93.3
	Murrumbidgee	223	247	90.3
	Western NSW	648	697	93.0
	Far West	43	44	97.7
	Other-not stated	31	36	86.1
	<b>NSW</b>	<b>4416</b>	<b>4947</b>	<b>89.3</b>

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

# PDC mothers: mothers recorded on the PDC as being Aboriginal.

\* Estimated Aboriginal mothers: mothers in NSW according to Enhanced Reporting of Aboriginality information on the Maternal and Child Health Register.

**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 2017–2019**

Year of birth–Local Health District		PDC babies*	Estimated Aboriginal babies*	Level of reporting
		No.	No.	%
<b>2017</b>	Sydney	100	125	80.0
	South Western Sydney	297	460	64.6
	South Eastern Sydney	114	173	65.9
	Illawarra Shoalhaven	280	453	61.8
	Western Sydney	298	442	67.4
	Nepean Blue Mountains	231	351	65.8
	Northern Sydney	36	75	48.0
	Central Coast	233	371	62.8
	Hunter New England	1126	1777	63.4
	Northern NSW	232	322	72.0
	Mid North Coast	267	363	73.6
	Southern NSW	92	132	69.7
	Murrumbidgee	207	289	71.6
	Western NSW	676	912	74.1
	Far West	35	48	72.9
	Other-not stated	26	44	59.1
	<b>NSW</b>	<b>4251</b>	<b>6339</b>	<b>67.1</b>
<b>2018</b>	Sydney	112	135	83.0
	South Western Sydney	355	562	63.2
	South Eastern Sydney	124	208	59.6
	Illawarra Shoalhaven	266	464	57.3
	Western Sydney	289	455	63.5
	Nepean Blue Mountains	238	362	65.7
	Northern Sydney	36	63	57.1
	Central Coast	249	396	62.9
	Hunter New England	1102	1806	61.0
	Northern NSW	229	307	74.6
	Mid North Coast	267	384	69.5
	Southern NSW	97	141	68.8
	Murrumbidgee	238	313	76.0
	Western NSW	608	825	73.7
	Far West	31	39	79.5
	Other-not stated	21	34	61.8
	<b>NSW</b>	<b>4270</b>	<b>6502</b>	<b>65.7</b>
<b>2019</b>	Sydney	109	142	76.8
	South Western Sydney	308	534	57.7
	South Eastern Sydney	135	222	60.8
	Illawarra Shoalhaven	266	455	58.5
	Western Sydney	278	407	68.3
	Nepean Blue Mountains	284	413	68.8
	Northern Sydney	52	76	68.4
	Central Coast	223	412	54.1
	Hunter New England	1159	1839	63.0
	Northern NSW	278	362	76.8
	Mid North Coast	322	429	75.1
	Southern NSW	98	152	64.5
	Murrumbidgee	223	295	75.6
	Western NSW	664	910	73.0
	Far West	43	62	69.4
	Other-not stated	31	49	63.3
	<b>NSW</b>	<b>4479</b>	<b>6770</b>	<b>66.2</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 2015 and 2019, the number of reported births to Aboriginal or Torres Strait Islander mothers rose from 3,872 to 4,479, representing 4.0% and 4.7% respectively of all babies born in NSW. In 2019, 4,291 babies were born to Aboriginal mothers, 66 babies were born to Torres Strait Islander mothers and 122 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 2015–2019\***

Aboriginal and Torres Strait Islander		Year									
		2015		2016		2017		2018		2019	
		No.	%	No.	%	No.	%	No.	%	No.	%
<b>Confinements</b>	Aboriginal but not Torres Strait Islander	3686	96.4	3938	95.6	3998	95.6	4028	95.6	4230	95.8
	Torres Strait Islander but not Aboriginal	43	1.1	50	1.2	61	1.5	55	1.3	66	1.5
	Both Aboriginal and Torres Strait Islander	94	2.5	130	3.2	124	3.0	130	3.1	120	2.7
	<b>TOTAL</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>4416</b>	<b>100.0</b>
<b>Births</b>	Aboriginal but not Torres Strait Islander	3735	96.5	3990	95.6	4063	95.6	4081	95.6	4291	95.8
	Torres Strait Islander but not Aboriginal	43	1.1	51	1.2	62	1.5	57	1.3	66	1.5
	Both Aboriginal and Torres Strait Islander	94	2.4	133	3.2	126	3.0	132	3.1	122	2.7
	<b>TOTAL</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>	<b>4479</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).

## Local Health District of residence

The reported number of Aboriginal or Torres Strait Islander mothers who gave birth in 2019 ranged from 43 in the Far West Local Health District to 1,144 in the Hunter New England Local Health District (Table 78).

**TABLE 78: LOCAL HEALTH DISTRICT OF RESIDENCE OF ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS, NSW 2015–2019\***

Local Health District	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	111	2.9	86	2.1	99	2.4	110	2.6	107	2.4
South Western Sydney	237	6.2	318	7.7	295	7.1	351	8.3	301	6.8
South Eastern Sydney	110	2.9	112	2.7	113	2.7	122	2.9	132	3.0
Illawarra Shoalhaven	220	5.8	241	5.9	276	6.6	262	6.2	264	6.0
Western Sydney	246	6.4	258	6.3	289	6.9	287	6.8	275	6.2
Nepean Blue Mountains	243	6.4	232	5.6	229	5.5	234	5.6	281	6.4
Northern Sydney	32	0.8	40	1.0	36	0.9	36	0.9	51	1.2
Central Coast	222	5.8	226	5.5	230	5.5	242	5.7	220	5.0
Hunter New England	975	25.5	1052	25.5	1100	26.3	1086	25.8	1144	25.9
Northern NSW	241	6.3	225	5.5	231	5.5	228	5.4	275	6.2
Mid North Coast	248	6.5	234	5.7	262	6.3	266	6.3	317	7.2
Southern NSW	93	2.4	96	2.3	91	2.2	97	2.3	98	2.2
Murrumbidgee	172	4.5	215	5.2	204	4.9	233	5.5	223	5.0
Western NSW	610	16.0	630	15.3	666	15.9	599	14.2	648	14.7
Far West	43	1.1	42	1.0	35	0.8	31	0.7	43	1.0
Other—not stated	20	0.5	111	2.7	27	0.6	29	0.7	37	0.8
<b>TOTAL</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>4416</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. The level of under-reporting varies between Local Health Districts (Table 75).

## Plurality

Between 2015 and 2019, multiple (twin, triplet and quadruplet) pregnancies were reported for about 1.4% of all pregnancies. In 2019, 2.5% of babies born to Aboriginal or Torres Strait Islander mothers and 2.8% of babies born to non-Aboriginal or Torres Strait Islander mothers were twins (Table 79).

**TABLE 79: PLURALITY, ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2015–2019<sup>#</sup>**

Mother's Aboriginality–Plurality	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Aboriginal or Torres Strait Islander</b>										
<b>Confinements</b>										
Singleton	3774	98.7	4062	98.6	4117	98.4	4156	98.6	4356	98.6
Twins	49	1.3	56	1.4	64	1.5	57	1.4	57	1.3
Triplets	0	0.0	0	0.0	2	0.0	0	0.0	3	0.1
Quadruplets	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>TOTAL</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>4416</b>	<b>100.0</b>
<b>Births</b>										
Singleton	3774	97.5	4062	97.3	4117	96.8	4156	97.3	4356	97.3
Twins	98	2.5	112	2.7	128	3.0	114	2.7	114	2.5
Triplets	0	0.0	0	0.0	6	0.1	0	0.0	9	0.2
Quadruplets	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>TOTAL</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>	<b>4479</b>	<b>100.0</b>
<b>Non-Aboriginal or Torres Strait Islander</b>										
<b>Confinements</b>										
Singleton	89835	98.5	91291	98.6	88554	98.6	88368	98.5	87675	98.6
Twins	1309	1.4	1311	1.4	1259	1.4	1286	1.4	1263	1.4
Triplets	22	0.0	21	0.0	23	0.0	17	0.0	18	0.0
Quadruplets	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
<b>TOTAL</b>	<b>91166</b>	<b>100.0</b>	<b>92623</b>	<b>100.0</b>	<b>89836</b>	<b>100.0</b>	<b>89671</b>	<b>100.0</b>	<b>88957</b>	<b>100.0</b>
<b>Births</b>										
Singleton	89835	97.1	91291	97.1	88554	97.2	88368	97.1	87675	97.1
Twins	2618	2.8	2622	2.8	2518	2.8	2572	2.8	2526	2.8
Triplets	66	0.1	63	0.1	69	0.1	51	0.1	54	0.1
Quadruplets	0	0.0	0	0.0	0	0.0	0	0.0	4	0.0
<b>TOTAL</b>	<b>92519</b>	<b>100.0</b>	<b>93976</b>	<b>100.0</b>	<b>91141</b>	<b>100.0</b>	<b>90991</b>	<b>100.0</b>	<b>90259</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 and babies are higher than shown (Table 75). Table excludes 1,666 mothers and 1,696 babies of mothers where the mother's Aboriginality was not stated.

## Previous pregnancies

In 2019, 35.1% of Aboriginal or Torres Strait Islander mothers gave birth for the first time, 59.0% of mothers reported between one and four previous births and 6.0% of mothers had previously given birth to five or more babies. In non-Aboriginal or Torres Strait Islander mothers, 43.5% gave birth for the first time, 55.4% of mothers reported between one and four previous births and 1.2% of mothers had previously given birth to five or more babies (Table 80). Between 2015 and 2019, the distribution of number of previous pregnancies remained stable for both Aboriginal or Torres Strait Islander mothers and non-Aboriginal or Torres Strait Islander mothers. Aboriginal or Torres Strait Islander mothers who had previously given birth to five or more babies ranged from 2.0% in the Northern Sydney Local Health District to 8.7% in the Northern NSW Local Health District.

**TABLE 80: PREVIOUS PREGNANCIES AMONG ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2015–2019<sup>#</sup>**

Mother's Aboriginality–No. previous pregnancies (>20 weeks gestation)	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Aboriginal or Torres Strait Islander</b>										
0	1322	34.6	1412	34.3	1412	33.8	1420	33.7	1549	35.1
1–4	2251	58.9	2441	59.3	2503	59.8	2568	61.0	2604	59.0
5+	248	6.5	259	6.3	257	6.1	210	5.0	263	6.0
Not stated	2	0.1	6	0.1	11	0.3	15	0.4	0	0.0
<b>TOTAL</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>4416</b>	<b>100.0</b>
<b>Non-Aboriginal or Torres Strait Islander</b>										
0	40225	44.1	40570	43.8	38863	43.3	38806	43.3	38664	43.5
1–4	49783	54.6	50782	54.8	49714	55.3	49687	55.4	49252	55.4
5+	1142	1.3	1161	1.3	1128	1.3	1113	1.2	1034	1.2
Not stated	16	0.0	110	0.1	131	0.1	65	0.1	7	0.0
<b>TOTAL</b>	<b>91166</b>	<b>100.0</b>	<b>92623</b>	<b>100.0</b>	<b>89836</b>	<b>100.0</b>	<b>89671</b>	<b>100.0</b>	<b>88957</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 excludes 1,666 mothers where the mother's Aboriginality was not stated.

## Maternal age

The percentage of Aboriginal or Torres Strait Islander mothers who were teenagers fell substantially from 15.4% in 2015 to 10.5% in 2019. The percentage of non-Aboriginal or Torres Strait Islander mothers who were teenagers fell from 2.0% in 2015 to 1.3% in 2019. The percentage of Aboriginal or Torres Strait Islander mothers giving birth at 35 years of age or more has remained stable and was 9.5% in 2019, while the percentage of non-Aboriginal or Torres Strait Islander mothers giving birth at 35 years of age or more has increased slightly from 24.0% in 2015 to 26.7% in 2019 (Table 81).

The percentage of Aboriginal or Torres Strait Islander mothers who were teenagers was highest in the Murrumbidgee Local Health District (16.6%) whereas the percentage of mothers giving birth at 35 years of age or more was highest in the Northern Sydney Local Health District (21.6%) (Table 82).

**TABLE 81: MATERNAL AGE, ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2015–2019<sup>#</sup>**

Mother's Aboriginality– Maternal age (years)	Year										
	2015		2016		2017		2018		2019		
	No.	%	No.	%	No.	%	No.	%	No.	%	
<b>Aboriginal or Torres Strait Islander</b>											
12–19	587	15.4	526	12.8	513	12.3	485	11.5	464	10.5	
20–34	2905	76.0	3198	77.7	3268	78.1	3313	78.6	3532	80.0	
35+	331	8.7	393	9.5	401	9.6	415	9.9	419	9.5	
Not stated	0	0.0	1	0.0	1	0.0	0	0.0	1	0.0	
<b>TOTAL</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>4416</b>	<b>100.0</b>	
<b>Non-Aboriginal or Torres Strait Islander</b>											
12–19	1790	2.0	1583	1.7	1352	1.5	1304	1.5	1135	1.3	
20–34	67498	74.0	68479	73.9	65662	73.1	65184	72.7	64071	72.0	
35+	21876	24.0	22526	24.3	22802	25.4	23167	25.8	23745	26.7	
Not stated	2	0.0	35	0.0	20	0.0	16	0.0	6	0.0	
<b>TOTAL</b>	<b>91166</b>	<b>100.0</b>	<b>92623</b>	<b>100.0</b>	<b>89836</b>	<b>100.0</b>	<b>89671</b>	<b>100.0</b>	<b>88957</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 excludes 1,666 mothers where the mother's Aboriginality was not stated.

**TABLE 82: AGE OF ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2019<sup>#</sup>**

Local Health District	Maternal age (years)									
	12–19		20–34		35+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	7	6.5	81	75.7	19	17.8	0	0.0	107	100.0
South Western Sydney	25	8.3	247	82.1	29	9.6	0	0.0	301	100.0
South Eastern Sydney	9	6.8	103	78.0	20	15.2	0	0.0	132	100.0
Illawarra Shoalhaven	20	7.6	221	83.7	23	8.7	0	0.0	264	100.0
Western Sydney	23	8.4	225	81.8	27	9.8	0	0.0	275	100.0
Nepean Blue Mountains	28	10.0	229	81.5	24	8.5	0	0.0	281	100.0
Northern Sydney	0	0.0	40	78.4	11	21.6	0	0.0	51	100.0
Central Coast	18	8.2	171	77.7	31	14.1	0	0.0	220	100.0
Hunter New England	124	10.8	920	80.4	99	8.7	1	0.1	1144	100.0
Northern NSW	31	11.3	210	76.4	34	12.4	0	0.0	275	100.0
Mid North Coast	37	11.7	255	80.4	25	7.9	0	0.0	317	100.0
Southern NSW	10	10.2	81	82.7	7	7.1	0	0.0	98	100.0
Murrumbidgee	37	16.6	170	76.2	16	7.2	0	0.0	223	100.0
Western NSW	83	12.8	518	79.9	47	7.3	0	0.0	648	100.0
Far West	-	-	34	79.1	-	-	0	0.0	43	100.0
Other–not stated	-	-	27	73.0	-	-	0	0.0	37	100.0
<b>TOTAL</b>	<b>464</b>	<b>10.5</b>	<b>3532</b>	<b>80.0</b>	<b>419</b>	<b>9.5</b>	<b>1</b>	<b>0.0</b>	<b>4416</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.

### Duration of pregnancy at first antenatal visit

Between 2015 and 2019, the percentage of Aboriginal or Torres Strait Islander mothers who commenced antenatal care at less than 14 weeks gestation increased from 55.6% to 75.3%, and the percentage that commenced antenatal care at less than 20 weeks gestation increased from 76.0% to 87.6% (Table 83). By contrast, 79.9% of non-Aboriginal or Torres Strait Islander mothers commenced antenatal care at less than 14 weeks gestation in 2019 and 93.0% at less than 20 weeks gestation. In 2019, the percentage of Aboriginal or Torres Strait Islander mothers who commenced antenatal care at less than 14 weeks gestation varied from 59.2% in the Southern NSW Local Health District to 83.3% in the Northern NSW Local Health District (Table 84).

**TABLE 83: DURATION OF PREGNANCY AT FIRST ANTENATAL VISIT, ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2015–2019<sup>a</sup>**

Mother's Aboriginality– Duration of pregnancy (weeks)	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Aboriginal or Torres Strait Islander</b>										
0–13	2124	55.6	2662	64.6	2850	68.1	3102	73.6	3327	75.3
14–19	781	20.4	704	17.1	661	15.8	561	13.3	540	12.2
20+	850	22.2	654	15.9	603	14.4	495	11.7	482	10.9
Not stated	68	1.8	98	2.4	69	1.6	55	1.3	67	1.5
<b>TOTAL</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>4416</b>	<b>100.0</b>
<b>Non-Aboriginal or Torres Strait Islander</b>										
0–13	58949	64.7	62842	67.8	65852	73.3	69785	77.8	71043	79.9
14–19	21088	23.1	19653	21.2	15771	17.6	12948	14.4	11714	13.2
20+	10835	11.9	9347	10.1	7698	8.6	6418	7.2	5593	6.3
Not stated	294	0.3	781	0.8	515	0.6	520	0.6	607	0.7
<b>TOTAL</b>	<b>91166</b>	<b>100.0</b>	<b>92623</b>	<b>100.0</b>	<b>89836</b>	<b>100.0</b>	<b>89671</b>	<b>100.0</b>	<b>88957</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). Table excludes 1,666 mothers where the mother's Aboriginality was not stated.

**TABLE 84: DURATION OF PREGNANCY AT FIRST ANTENATAL VISIT AMONG ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2019<sup>a</sup>**

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	66	61.7	30	28.0	10	9.3	1	0.9	<b>107</b>	<b>100.0</b>
South Western Sydney	227	75.4	37	12.3	31	10.3	6	2.0	<b>301</b>	<b>100.0</b>
South Eastern Sydney	82	62.1	39	29.5	9	6.8	2	1.5	<b>132</b>	<b>100.0</b>
Illawarra Shoalhaven	204	77.3	32	12.1	23	8.7	5	1.9	<b>264</b>	<b>100.0</b>
Western Sydney	195	70.9	36	13.1	35	12.7	9	3.3	<b>275</b>	<b>100.0</b>
Nepean Blue Mountains	224	79.7	28	10.0	24	8.5	5	1.8	<b>281</b>	<b>100.0</b>
Northern Sydney	39	76.5	10	19.6	-	-	-	-	<b>51</b>	<b>100.0</b>
Central Coast	161	73.2	34	15.5	22	10.0	3	1.4	<b>220</b>	<b>100.0</b>
Hunter New England	943	82.4	85	7.4	104	9.1	12	1.0	<b>1144</b>	<b>100.0</b>
Northern NSW	229	83.3	21	7.6	20	7.3	5	1.8	<b>275</b>	<b>100.0</b>
Mid North Coast	255	80.4	28	8.8	29	9.1	5	1.6	<b>317</b>	<b>100.0</b>
Southern NSW	58	59.2	26	26.5	13	13.3	1	1.0	<b>98</b>	<b>100.0</b>
Murrumbidgee	163	73.1	24	10.8	35	15.7	1	0.4	<b>223</b>	<b>100.0</b>
Western NSW	424	65.4	98	15.1	116	17.9	10	1.5	<b>648</b>	<b>100.0</b>
Far West	28	65.1	7	16.3	7	16.3	1	2.3	<b>43</b>	<b>100.0</b>
Other–not stated	29	78.4	5	13.5	-	-	-	-	<b>37</b>	<b>100.0</b>
<b>TOTAL</b>	<b>3327</b>	<b>75.3</b>	<b>540</b>	<b>12.2</b>	<b>482</b>	<b>10.9</b>	<b>67</b>	<b>1.5</b>	<b>4416</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. 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 2019, 43.2% of Aboriginal or Torres Strait Islander mothers reported smoking at some time during pregnancy, compared to 45.0% in 2015. This compares with 7.1% of non-Aboriginal or Torres Strait Islander mothers who reported smoking at some time during pregnancy in 2019 (Table 85). In 2019, the percentage of Aboriginal or Torres Strait Islander mothers who smoked during pregnancy varied from 34.6% in the Sydney Local Health District to 69.8% in the Far West Local Health District (Table 86).

**TABLE 85: SMOKING IN PREGNANCY, ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2015–2019#**

Mother's Aboriginality– Smoking in pregnancy	Year										
	2015		2016		2017		2018		2019		
	No.	%	No.	%	No.	%	No.	%	No.	%	
<b>Aboriginal or Torres Strait Islander</b>											
Did not smoke	2104	55.0	2355	57.2	2361	56.4	2363	56.1	2491	56.4	
Smoked	1719	45.0	1699	41.3	1773	42.4	1822	43.2	1909	43.2	
Not stated	0	0.0	64	1.6	49	1.2	28	0.7	16	0.4	
<b>TOTAL</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>4416</b>	<b>100.0</b>	
<b>Non-Aboriginal or Torres Strait Islander</b>											
Did not smoke	84443	92.6	85105	91.9	82413	91.7	81896	91.3	81912	92.1	
Smoked	6723	7.4	6364	6.9	6494	7.2	6725	7.5	6327	7.1	
Not stated	0	0.0	1154	1.2	929	1.0	1050	1.2	718	0.8	
<b>TOTAL</b>	<b>91166</b>	<b>100.0</b>	<b>92623</b>	<b>100.0</b>	<b>89836</b>	<b>100.0</b>	<b>89671</b>	<b>100.0</b>	<b>88957</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). Data not shown for cell counts less than five. Table excludes 1,666 mothers where the mother's Aboriginality was not stated.

**TABLE 86: SMOKING IN PREGNANCY AMONG ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2019#**

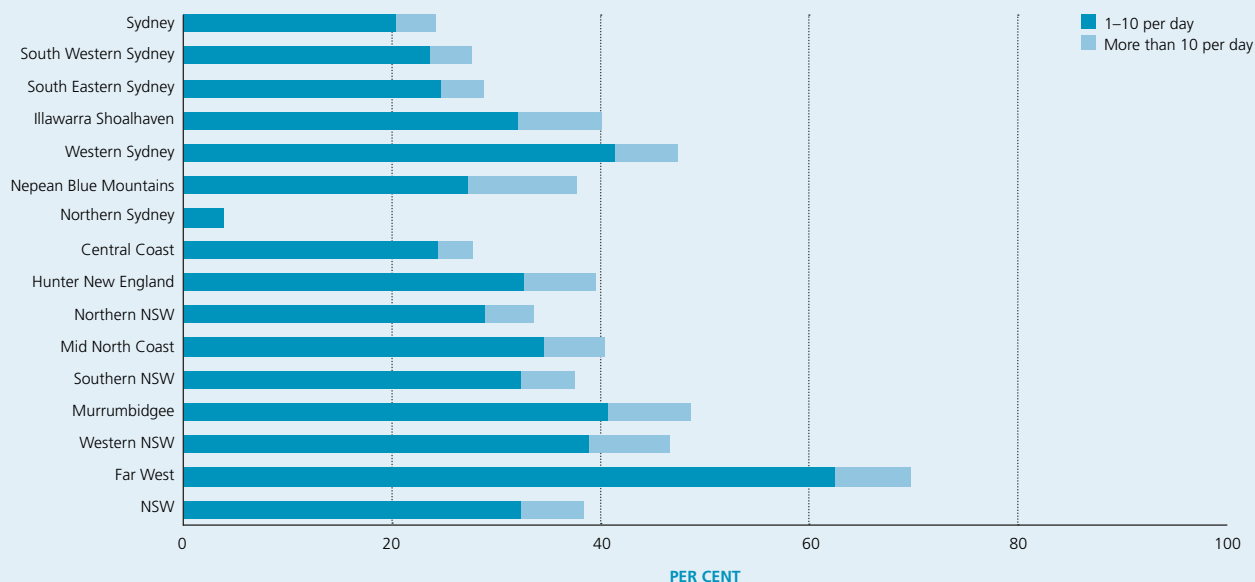
Local Health District	Smoking in pregnancy							
	Did not smoke		Smoked		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Sydney	65	60.7	37	34.6	5	4.7	107	100.0
South Western Sydney	188	62.5	106	35.2	7	2.3	301	100.0
South Eastern Sydney	85	64.4	46	34.8	1	0.8	132	100.0
Illawarra Shoalhaven	150	56.8	114	43.2	0	0.0	264	100.0
Western Sydney	133	48.4	142	51.6	0	0.0	275	100.0
Nepean Blue Mountains	182	64.8	98	34.9	1	0.4	281	100.0
Northern Sydney	47	92.2	-	-	-	-	51	100.0
Central Coast	143	65.0	77	35.0	0	0.0	220	100.0
Hunter New England	642	56.1	502	43.9	0	0.0	1144	100.0
Northern NSW	169	61.5	105	38.2	1	0.4	275	100.0
Mid North Coast	166	52.4	151	47.6	0	0.0	317	100.0
Southern NSW	57	58.2	41	41.8	0	0.0	98	100.0
Murrumbidgee	106	47.5	117	52.5	0	0.0	223	100.0
Western NSW	327	50.5	321	49.5	0	0.0	648	100.0
Far West	13	30.2	30	69.8	0	0.0	43	100.0
Other—not stated	18	48.6	-	-	-	-	37	100.0
<b>TOTAL</b>	<b>2491</b>	<b>56.4</b>	<b>1909</b>	<b>43.2</b>	<b>16.0</b>	<b>0.4</b>	<b>4416</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. The level of under-reporting varies between Local Health Districts (Table 75). Data not shown for cell counts less than five.

Smoking in the second half of pregnancy poses the greatest risk to the health of both mother and baby. In 2019, 38.7% of Aboriginal or Torres Strait Islander mothers reported smoking in the second half of pregnancy. This percentage varied from 3.9% in the Northern Sydney Local Health District to 69.8% 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 2019**



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



## Diabetes and hypertension

In 2019, 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 (10.9%) than non-Aboriginal or Torres Strait Islander mothers (14.0%) (Table 87).

In 2019, 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 (5.6%) compared with non-Aboriginal or Torres Strait Islander mothers (4.7%) (Table 88).

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 87: DIABETES, ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2015–2019\***

Mother's Aboriginality–Condition	Year										
	2015		2016		2017		2018		2019		
	No.	%	No.	%	No.	%	No.	%	No.	%	
<b>Aboriginal or Torres Strait Islander</b>											
Pre-existing diabetes mellitus	60	1.6	51	1.2	49	1.2	51	1.2	59	1.3	
Type 1 <sup>†</sup>	-	-	10	0.2	14	0.3	12	0.3	23	0.5	
Type 2 <sup>†</sup>	-	-	26	0.6	26	0.6	39	0.9	35	0.8	
Gestational diabetes mellitus	297	7.8	441	10.7	419	10.0	437	10.4	481	10.9	
<b>TOTAL DIABETES*</b>	<b>357</b>	<b>9.3</b>	<b>492</b>	<b>11.9</b>	<b>468</b>	<b>11.2</b>	<b>488</b>	<b>11.6</b>	<b>540</b>	<b>12.2</b>	
<b>Non-Aboriginal or Torres Strait Islander</b>											
Pre-existing diabetes mellitus	1338	1.5	832	0.9	849	0.9	751	0.8	805	0.9	
Type 1 <sup>†</sup>	-	-	270	0.3	240	0.3	219	0.2	266	0.3	
Type 2 <sup>†</sup>	-	-	306	0.3	351	0.4	384	0.4	391	0.4	
Gestational diabetes mellitus	7621	8.4	11733	12.7	11881	13.2	12425	13.9	12498	14.0	
<b>TOTAL DIABETES*</b>	<b>8959</b>	<b>9.8</b>	<b>12565</b>	<b>13.6</b>	<b>12730</b>	<b>14.2</b>	<b>13176</b>	<b>14.7</b>	<b>13303</b>	<b>15.0</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). Table excludes 1,666 mothers where the mother's Aboriginality was not stated.

† Types of diabetes mellitus reported from 2016.

\* Total diabetes includes types of diabetes not further defined.

**TABLE 88: HYPERTENSION, ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2015–2019\***

Mother's Aboriginality–Condition	Year										
	2015		2016		2017		2018		2019		
	No.	%	No.	%	No.	%	No.	%	No.	%	
<b>Aboriginal or Torres Strait Islander</b>											
Chronic hypertension	31	0.8	39	0.9	35	0.8	46	1.1	48	1.1	
Pre-eclampsia	99	2.6	94	2.3	82	2.0	76	1.8	82	1.9	
Eclampsia <sup>†</sup>	-	-	1	0.0	-	-	2	0.0	4	0.1	
Gestational hypertension	153	4.0	147	3.6	137	3.3	104	2.5	124	2.8	
<b>TOTAL HYPERTENSION*</b>	<b>281</b>	<b>7.4</b>	<b>275</b>	<b>6.7</b>	<b>245</b>	<b>5.9</b>	<b>221</b>	<b>5.2</b>	<b>248</b>	<b>5.6</b>	
<b>Non-Aboriginal or Torres Strait Islander</b>											
Chronic hypertension	700	0.8	676	0.7	657	0.7	714	0.8	795	0.9	
Pre-eclampsia	1364	1.5	1454	1.6	1266	1.4	1255	1.4	1295	1.5	
Eclampsia <sup>†</sup>	-	-	26	0.0	35	0.0	32	0.0	45	0.1	
Gestational hypertension	2756	3.0	2690	2.9	2438	2.7	2138	2.4	2269	2.6	
<b>TOTAL HYPERTENSION*</b>	<b>4737</b>	<b>5.2</b>	<b>4754</b>	<b>5.1</b>	<b>4258</b>	<b>4.7</b>	<b>3953</b>	<b>4.4</b>	<b>4205</b>	<b>4.7</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). Table excludes 1,666 mothers where the mother's Aboriginality was not stated.

† Eclampsia reported from 2016.

\* 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 53.3% in 2015 to 45.9% in 2019, while the rate of induction of labour increased from 31.4% to 34.8%. These trends were also found in non-Aboriginal or Torres Strait Islander mothers with spontaneous onset of labour decreasing from 49.5% in 2015 to 42.9% in 2019 and induction of labour increasing from 30.4% in 2015 to 34.3% in 2019. (Table 89). The rate of spontaneous onset of labour was slightly higher among Aboriginal or Torres Strait Islander mothers (45.9%) compared to the rate of 42.9% reported among non-Aboriginal or Torres Strait Islander mothers in 2019.

Between 2015 and 2019, the rate of normal vaginal birth fell among Aboriginal or Torres Strait Islander mothers from 65.9% to 60.9%. The caesarean section rate rose from 27.0% to 32.0%. The rate of instrumental delivery was stable at about 6.7%, as was the rate of vaginal breech births (0.4%). Similar trends of a decrease in normal vaginal births (55.6% to 52.7%), an increase in caesarean section (32.7% to 35.2%) and stable rates for instrumental delivery (about 11.8%) and vaginal breech births (about 0.3%) were seen in non-Aboriginal or Torres Strait Islander mothers from 2015 to 2019 respectively (Table 90).

**TABLE 89: LABOUR ONSET, ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2015–2019<sup>#</sup>**

Mother's Aboriginality–Labour onset	Year										
	2015		2016		2017		2018		2019		
	No.	%	No.	%	No.	%	No.	%	No.	%	
<b>Aboriginal or Torres Strait Islander</b>											
Spontaneous	2038	53.3	2157	52.4	2080	49.7	1935	45.9	2027	45.9	
Induced	1202	31.4	1284	31.2	1399	33.4	1448	34.4	1538	34.8	
No labour*	583	15.2	671	16.3	702	16.8	830	19.7	851	19.3	
Not stated	0	0.0	6	0.1	2	0.0	0	0.0	0	0.0	
<b>TOTAL</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>4416</b>	<b>100.0</b>	
<b>Non-Aboriginal or Torres Strait Islander</b>											
Spontaneous	45172	49.5	44759	48.3	41488	46.2	39404	43.9	38174	42.9	
Induced	27747	30.4	28846	31.1	28980	32.3	30201	33.7	30471	34.3	
No labour*	18244	20.0	18890	20.4	19303	21.5	20042	22.4	20297	22.8	
Not stated	3	0.0	128	0.1	65	0.1	24	0.0	15	0.0	
<b>TOTAL</b>	<b>91166</b>	<b>100.0</b>	<b>92623</b>	<b>100.0</b>	<b>89836</b>	<b>100.0</b>	<b>89671</b>	<b>100.0</b>	<b>88957</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). Table excludes 1,666 mothers where the mother's Aboriginality was not stated.

\* No labour indicates elective caesarean section.

**TABLE 90: TYPE OF BIRTH, ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2015–2019<sup>#</sup>**

Mother's Aboriginality–Type of birth	Year										
	2015		2016		2017		2018		2019		
	No.	%	No.	%	No.	%	No.	%	No.	%	
<b>Aboriginal or Torres Strait Islander</b>											
Normal vaginal	2519	65.9	2642	64.2	2649	63.3	2565	60.9	2690	60.9	
Forceps	94	2.5	111	2.7	114	2.7	104	2.5	129	2.9	
Vacuum extraction	160	4.2	178	4.3	173	4.1	190	4.5	166	3.8	
Vaginal breech	16	0.4	19	0.5	14	0.3	19	0.5	16	0.4	
Elective caesarean section	583	15.2	671	16.3	701	16.8	830	19.7	851	19.3	
Emergency caesarean section <sup>†</sup>	451	11.8	496	12.0	530	12.7	504	12.0	564	12.8	
Not stated	0	0.0	1	0.0	2	0.0	1	0.0	0	0.0	
<b>TOTAL</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>4416</b>	<b>100.0</b>	
<b>Non-Aboriginal or Torres Strait Islander</b>											
Normal vaginal	50684	55.6	50826	54.9	48564	54.1	47765	53.3	46868	52.7	
Forceps	4394	4.8	4403	4.8	4303	4.8	4268	4.8	4067	4.6	
Vacuum extraction	5962	6.5	6418	6.9	6140	6.8	6331	7.1	6394	7.2	
Vaginal breech	347	0.4	318	0.3	322	0.4	314	0.4	311	0.3	
Elective caesarean section	18243	20.0	18872	20.4	19287	21.5	20042	22.4	20297	22.8	
Emergency caesarean section <sup>†</sup>	11533	12.7	11758	12.7	11196	12.5	10950	12.2	11020	12.4	
Not stated	3	0.0	28	0.0	24	0.0	1	0.0	0	0.0	
<b>TOTAL</b>	<b>91166</b>	<b>100.0</b>	<b>92623</b>	<b>100.0</b>	<b>89836</b>	<b>100.0</b>	<b>89671</b>	<b>100.0</b>	<b>88957</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). Table excludes 1,666 mothers where the mother's Aboriginality was not stated.

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

## Birthweight

The rate of low birthweight (less than 2,500 grams) in babies born to Aboriginal or Torres Strait Islander mothers was 10.7% in 2019 (Table 91). This is higher than the rate for babies born to non-Aboriginal or Torres Strait Islander mothers, which was 6.5% in 2019. The largest percentage of low birthweight babies of Aboriginal or Torres Strait Islander mothers in 2019 (19.3%) was in the Sydney Local Health District (Table 92). In contrast, the rate of babies weighing 4,500 grams and greater was 1.1% in 2019 in babies born to both Aboriginal or Torres Strait Islander mothers and non-Aboriginal or Torres Strait Islander mothers.

**TABLE 91: BIRTHWEIGHT, BABIES BORN TO ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2015–2019<sup>#</sup>**

Mother's Aboriginality– Birthweight (grams)	Year										
	2015		2016		2017		2018		2019		
	No.	%	No.	%	No.	%	No.	%	No.	%	
<b>Aboriginal or Torres Strait Islander</b>											
Less than 1,000	29	0.7	54	1.3	61	1.4	38	0.9	39	0.9	
1,000–1,499	45	1.2	39	0.9	42	1.0	42	1.0	43	1.0	
1,500–2,499	363	9.4	357	8.6	367	8.6	342	8.0	398	8.9	
2,500–4,499	3385	87.4	3666	87.8	3732	87.8	3777	88.5	3937	87.9	
4,500+	46	1.2	56	1.3	48	1.1	62	1.5	49	1.1	
Not stated	4	0.1	2	0.0	1	0.0	9	0.2	13	0.3	
<b>TOTAL</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>	<b>4479</b>	<b>100.0</b>	
<b>Non-Aboriginal or Torres Strait Islander</b>											
Less than 1,000	665	0.7	679	0.7	734	0.8	618	0.7	614	0.7	
1,000–1,499	500	0.5	492	0.5	461	0.5	446	0.5	470	0.5	
1,500–2,499	4748	5.1	4745	5.0	4724	5.2	5018	5.5	4761	5.3	
2,500–4,499	85313	92.2	86869	92.4	84122	92.3	83736	92.0	83232	92.2	
4,500+	1230	1.3	1122	1.2	1055	1.2	998	1.1	955	1.1	
Not stated	63	0.1	69	0.1	45	0.0	175	0.2	227	0.3	
<b>TOTAL</b>	<b>92519</b>	<b>100.0</b>	<b>93976</b>	<b>100.0</b>	<b>91141</b>	<b>100.0</b>	<b>90991</b>	<b>100.0</b>	<b>90259</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 (Table 75). Table excludes 1,696 babies of mothers where the mother's Aboriginality was not stated.

**TABLE 92: BIRTHWEIGHT, BABIES BORN TO ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2019<sup>#</sup>**

Local Health District	Birthweight (grams)							
	<2,500		2,500+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Sydney	21	19.3	88	80.7	0	0.0	109	100.0
South Western Sydney	29	9.4	277	89.9	2	0.6	308	100.0
South Eastern Sydney	12	8.9	123	91.1	0	0.0	135	100.0
Illawarra Shoalhaven	38	14.3	228	85.7	0	0.0	266	100.0
Western Sydney	26	9.4	251	90.3	1	0.4	278	100.0
Nepean Blue Mountains	26	9.2	257	90.5	1	0.4	284	100.0
Northern Sydney	5	9.6	47	90.4	0	0.0	52	100.0
Central Coast	20	9.0	203	91.0	0	0.0	223	100.0
Hunter New England	130	11.2	1027	88.6	2	0.2	1159	100.0
Northern NSW	25	9.0	251	90.3	2	0.7	278	100.0
Mid North Coast	42	13.0	278	86.3	2	0.6	322	100.0
Southern NSW	7	7.1	90	91.8	1	1.0	98	100.0
Murrumbidgee	12	5.4	211	94.6	0	0.0	223	100.0
Western NSW	79	11.9	583	87.8	2	0.3	664	100.0
Far West	7	16.3	36	83.7	0	0.0	43	100.0
Other–not stated	-	2.7	36	97.3	-	0.0	37	100.0
<b>TOTAL</b>	<b>480</b>	<b>10.7</b>	<b>3986</b>	<b>89.0</b>	<b>13</b>	<b>0.3</b>	<b>4479</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.

## Gestational age

Since 2015, the percentage of babies born prematurely (less than 37 weeks gestation) to Aboriginal or Torres Strait Islander mothers has decreased slightly from 12.7% in 2015 to 10.6% in 2019 (Table 93). By comparison, babies born to non-Aboriginal or Torres Strait Islander mothers have a relatively stable rate of 7.2% for prematurity. In 2019, the highest percentage of prematurity in babies born to Aboriginal or Torres Strait Islander mothers (17.4%) was in the Sydney Local Health District (Table 94).

**TABLE 93: GESTATIONAL AGE, BABIES BORN TO ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2015–2019#**

Mother's Aboriginality– Gestational age (weeks)	Year										
	2015		2016		2017		2018		2019		
	No.	%	No.	%	No.	%	No.	%	No.	%	
<b>Aboriginal or Torres Strait Islander</b>											
<28	36	0.9	49	1.2	58	1.4	36	0.8	42	0.9	
28–31	60	1.5	53	1.3	52	1.2	49	1.1	55	1.2	
32–36	396	10.2	364	8.7	387	9.1	387	9.1	377	8.4	
37–41	3361	86.8	3651	87.5	3714	87.4	3752	87.9	3976	88.8	
42+	17	0.4	49	1.2	37	0.9	43	1.0	28	0.6	
Not stated	2	0.1	8	0.2	3	0.1	3	0.1	1	0.0	
<b>TOTAL</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>	<b>4479</b>	<b>100.0</b>	
<b>Non-Aboriginal or Torres Strait Islander</b>											
<28	697	0.8	642	0.7	654	0.7	667	0.7	663	0.7	
28–31	630	0.7	560	0.6	588	0.6	558	0.6	533	0.6	
32–36	5804	6.3	5480	5.8	5343	5.9	5595	6.1	5367	5.9	
37–41	85036	91.9	86079	91.6	83650	91.8	83402	91.7	83016	92.0	
42+	350	0.4	1013	1.1	846	0.9	709	0.8	601	0.7	
Not stated	2	0.0	202	0.2	60	0.1	60	0.1	79	0.1	
<b>TOTAL</b>	<b>92519</b>	<b>100.0</b>	<b>93976</b>	<b>100.0</b>	<b>91141</b>	<b>100.0</b>	<b>90991</b>	<b>100.0</b>	<b>90259</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 excludes 1,696 babies of mothers where the mother's Aboriginality was not stated.

**TABLE 94: GESTATIONAL AGE, BABIES BORN TO ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2019#**

Local Health District	Gestational age (weeks)							
	Less than 37		37+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Sydney	19	17.4	90	82.6	0	0.0	109	100.0
South Western Sydney	40	13.0	268	87.0	0	0.0	308	100.0
South Eastern Sydney	11	8.1	124	91.9	0	0.0	135	100.0
Illawarra Shoalhaven	39	14.7	227	85.3	0	0.0	266	100.0
Western Sydney	34	12.2	244	87.8	0	0.0	278	100.0
Nepean Blue Mountains	34	12.0	250	88.0	0	0.0	284	100.0
Northern Sydney	-	-	48	92.3	-	-	52	100.0
Central Coast	20	9.0	203	91.0	0	0.0	223	100.0
Hunter New England	117	10.1	1042	89.9	0	0.0	1159	100.0
Northern NSW	27	9.7	251	90.3	0	0.0	278	100.0
Mid North Coast	38	11.8	284	88.2	0	0.0	322	100.0
Southern NSW	-	-	94	95.9	-	-	98	100.0
Murrumbidgee	8	3.6	215	96.4	0	0.0	223	100.0
Western NSW	75	11.3	588	88.6	1	0.2	664	100.0
Far West	-	-	39	90.7	-	-	43	100.0
Other–not stated	0	0.0	37	100.0	0	0.0	37	100.0
<b>TOTAL</b>	<b>474</b>	<b>10.6</b>	<b>4004</b>	<b>89.4</b>	<b>1</b>	<b>0.0</b>	<b>4479</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.

## Apgar score

In 2019, 2.4% of liveborn babies of Aboriginal or Torres Strait Islander mothers had an Apgar score less than seven at 5 minutes (Table 95), which is higher than the rate of 1.8% for liveborn babies of non-Aboriginal or Torres Strait Islander mothers. The highest percentage of liveborn babies of Aboriginal or Torres Strait Islander mothers with an Apgar score less than seven at 5 minutes was 5.6% in Sydney Local Health District.

**TABLE 95: APGAR SCORE, LIVEBORN BABIES OF ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2015–2019<sup>#</sup>**

Mother's Aboriginality– Apgar score at 5 minutes	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Aboriginal or Torres Strait Islander</b>										
0–4	24	0.6	30	0.7	34	0.8	27	0.6	28	0.6
5–6	75	2.0	82	2.0	60	1.4	79	1.9	78	1.8
7+	3718	96.9	3977	96.1	4070	96.6	4082	96.3	4300	96.7
Not stated	19	0.5	49	1.2	49	1.2	49	1.2	42	0.9
<b>TOTAL</b>	<b>3836</b>	<b>100.0</b>	<b>4138</b>	<b>100.0</b>	<b>4213</b>	<b>100.0</b>	<b>4237</b>	<b>100.0</b>	<b>4448</b>	<b>100.0</b>
<b>Non-Aboriginal or Torres Strait Islander</b>										
0–4	398	0.4	491	0.5	385	0.4	371	0.4	415	0.5
5–6	1121	1.2	1121	1.2	1018	1.1	1086	1.2	1156	1.3
7+	90122	98.0	91317	97.7	88669	97.9	88452	97.8	87660	97.7
Not stated	281	0.3	543	0.6	521	0.6	520	0.6	492	0.5
<b>TOTAL</b>	<b>91922</b>	<b>100.0</b>	<b>93472</b>	<b>100.0</b>	<b>90593</b>	<b>100.0</b>	<b>90429</b>	<b>100.0</b>	<b>89723</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 (Table 75). Table excludes 1,696 babies of mothers where the mother's Aboriginality was not stated.

## Infant feeding at discharge from hospital of birth

In 2019, 59.3% of babies born to Aboriginal or Torres Strait Islander mothers were fully breastfed at discharge from hospital, 12.7% were partially breastfed and 25.6% received infant formula only (Table 96). By comparison, 71.7% of babies born to non-Aboriginal or Torres Strait Islander mothers were fully breastfed in 2019. Rates of full breastfeeding in Aboriginal or Torres Strait Islander mothers ranged from 45.4% in the South Western Sydney Local Health District to 80.4% in the Northern Sydney Local Health District (Table 97).

**TABLE 96: INFANT FEEDING, LIVEBORN BABIES OF ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2015–2019<sup>#</sup>**

Mother's Aboriginality– Infant feeding	Year									
	2015		2016		2017		2018		2019	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Aboriginal or Torres Strait Islander</b>										
Full breastfeeding	2427	63.3	2600	62.8	2600	61.7	2595	61.2	2636	59.3
Any breastfeeding	274	7.1	330	8.0	424	10.1	438	10.3	566	12.7
Infant formula only	1066	27.8	1042	25.2	1052	25.0	1088	25.7	1140	25.6
Not stated	69	1.8	166	4.0	137	3.3	116	2.7	106	2.4
<b>TOTAL</b>	<b>3836</b>	<b>100.0</b>	<b>4138</b>	<b>100.0</b>	<b>4213</b>	<b>100.0</b>	<b>4237</b>	<b>100.0</b>	<b>4448</b>	<b>100.0</b>
<b>Non-Aboriginal or Torres Strait Islander</b>										
Full breastfeeding	73135	79.6	70504	75.4	67357	74.4	66126	73.1	64376	71.7
Any breastfeeding	9773	10.6	12734	13.6	13521	14.9	14797	16.4	16108	18.0
Infant formula only	8204	8.9	7247	7.8	6851	7.6	6866	7.6	6700	7.5
Not stated	810	0.9	2987	3.2	2864	3.2	2640	2.9	2539	2.8
<b>TOTAL</b>	<b>91922</b>	<b>100.0</b>	<b>93472</b>	<b>100.0</b>	<b>90593</b>	<b>100.0</b>	<b>90429</b>	<b>100.0</b>	<b>89723</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. Table excludes 1,688 babies of mothers where the mother's Aboriginality was not stated.

**TABLE 97: INFANT FEEDING, LIVEBORN BABIES OF ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2019\***

Local Health District	Infant feeding									
	Full breastfeeding		Any breastfeeding		Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	67	62.0	19	17.6	20	18.5	2	1.9	108	100.0
South Western Sydney	139	45.4	62	20.3	89	29.1	16	5.2	306	100.0
South Eastern Sydney	87	64.9	17	12.7	29	21.6	1	0.7	134	100.0
Illawarra Shoalhaven	169	64.0	18	6.8	73	27.7	4	1.5	264	100.0
Western Sydney	144	52.0	32	11.6	98	35.4	3	1.1	277	100.0
Nepean Blue Mountains	148	52.5	50	17.7	77	27.3	7	2.5	282	100.0
Northern Sydney	41	80.4	-	-	-	-	2	3.9	51	100.0
Central Coast	137	61.7	36	16.2	46	20.7	3	1.4	222	100.0
Hunter New England	691	60.1	165	14.4	275	23.9	18	1.6	1149	100.0
Northern NSW	203	73.6	29	10.5	27	9.8	17	6.2	276	100.0
Mid North Coast	231	71.7	32	9.9	54	16.8	5	1.6	322	100.0
Southern NSW	69	71.1	9	9.3	14	14.4	5	5.2	97	100.0
Murrumbidgee	116	52.0	20	9.0	85	38.1	2	0.9	223	100.0
Western NSW	348	52.9	65	9.9	225	34.2	20	3.0	658	100.0
Far West	21	50.0	7	16.7	13	31.0	1	2.4	42	100.0
Other-not stated	25	67.6	-	-	-	-	0	0.0	37	100.0
<b>TOTAL</b>	<b>2636</b>	<b>59.3</b>	<b>566</b>	<b>12.7</b>	<b>1140</b>	<b>25.6</b>	<b>106</b>	<b>2.4</b>	<b>4448</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.

### Perinatal mortality

Between 2015 and 2019, the perinatal mortality rate among babies born to Aboriginal and Torres Strait Islander mothers varied between 9.6 and 12.7 per 1,000 births (Table 98). The rate of 10.3 per 1,000 births in Aboriginal or Torres Strait Islander mothers in 2019 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 98: PERINATAL DEATHS, BABIES BORN TO ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2015–2019\***

Mother's Aboriginality- Perinatal deaths	Year									
	2015		2016		2017		2018		2019	
	No.	Rate/1,000 births	No.	Rate/1,000 births	No.	Rate/1,000 births	No.	Rate/1,000 births	No.	Rate/1,000 births
<b>Aboriginal or Torres Strait Islander</b>										
Stillborn	34	8.8	36	8.6	38	8.9	33	7.7	31	6.9
Neonatal death	3	0.8	15	3.6	16	3.8	17	4.0	15	3.3
<b>TOTAL</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>	<b>46</b>	<b>10.3</b>
<b>Non-Aboriginal or Torres Strait Islander</b>										
Stillborn	568	6.1	504	5.4	548	6.0	562	6.2	536	5.9
Neonatal death	183	2.0	185	2.0	195	2.1	159	1.7	181	2.0
<b>TOTAL</b>	<b>751</b>	<b>8.1</b>	<b>689</b>	<b>7.3</b>	<b>743</b>	<b>8.2</b>	<b>721</b>	<b>7.9</b>	<b>717</b>	<b>7.9</b>

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 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 perinatal deaths are higher than shown (Table 75). Table excludes 11 babies of mothers where the mother's Aboriginality was not stated.

## 9. PERINATAL DEATHS

Information on causes of perinatal death were obtained from the NSW Maternal and Child Health Register (MCHR) for 2017 and 2018. The underlying cause of death was assigned using the Perinatal Society of Australia and New Zealand (PSANZ) Perinatal Death Classification for both stillbirths and neonatal deaths and, in addition, the PSANZ Neonatal Death Classification for neonatal deaths.<sup>1</sup> Information on causes of death in this chapter is based on the year of birth. The MCHR includes information on all perinatal deaths, including deaths that occurred after discharge or transfer from the hospital of birth; however, the MCHR does not include death information for babies who were born in NSW and died interstate. The numbers of perinatal deaths reported in this chapter are therefore slightly higher than presented elsewhere in this report (see Methods).

### Perinatal deaths 2017 and 2018

In 2017, the perinatal mortality rate was 8.9 per 1,000 births, comprising 591 stillbirths (69.4%) and 261 neonatal deaths (30.6%). In 2018, the perinatal mortality rate was 8.5 per 1,000, comprising 595 stillbirths (73.0%) and 220 neonatal deaths (27.0%) (Table 99).

In 2017, 118 stillbirths were reported to have occurred before the onset of labour, 23 occurred during labour and 28 occurred at an unspecified time before birth. In 2018, 174 stillbirths were reported to have occurred before the onset of labour, 26 occurred during labour and 32 occurred at an unspecified time before birth.

### Maternal age 2018

In 2018, the overall perinatal mortality rate was 8.5 deaths per 1,000 births, with higher perinatal mortality rates for babies born to women aged 12–19 years (16.6 per 1,000) than babies born to women aged 20–34 years (8.2 per 1,000) and 35 years and older (8.9 per 1,000) (Table 99).

TABLE 99: PERINATAL DEATHS BY MATERNAL AGE AND PERINATAL DEATH TYPE, NSW 2017–2018<sup>a</sup>

Maternal age (years)	Year–Perinatal death type											
	2017						2018					
	Stillborn		Neonatal death		TOTAL		Stillborn		Neonatal death		TOTAL	
	No.	Rate/1,000 births	No.	Rate/1,000 births	No.	Rate/1,000 births	No.	Rate/1,000 births	No.	Rate/1,000 births	No.	Rate/1,000 births
12–19	22	11.7	9	4.8	31	16.4	24	13.3	6	3.3	30	16.6
20–34	411	5.9	174	2.5	585	8.3	417	6.0	152	2.2	569	8.2
35+	157	6.6	78	3.3	235	9.9	153	6.3	62	2.6	215	8.9
Not stated	1	-	0	-	1	-	1	-	0	-	1	-
<b>TOTAL</b>	<b>591</b>	<b>6.2</b>	<b>261</b>	<b>2.7</b>	<b>852</b>	<b>8.9</b>	<b>595</b>	<b>6.2</b>	<b>220</b>	<b>2.3</b>	<b>815</b>	<b>8.5</b>

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

# Neonatal deaths comprise babies who were born and died in NSW, including babies who died after discharge or transfer from the hospital of birth.

## Local Health Districts 2018

In 2018, the perinatal mortality rate ranged from 6.0 per 1,000 in the Northern Sydney Local Health District to 15.2 per 1,000 in the Far West Local Health District (Table 100).

**TABLE 100: PERINATAL DEATHS BY LOCAL HEALTH DISTRICT OF RESIDENCE AND PERINATAL DEATH TYPE, NSW 2017–2018<sup>#</sup>**

Local Health District	Year–Perinatal death type											
	2017						2018					
	Stillborn		Neonatal death		TOTAL		Stillborn		Neonatal death		TOTAL	
	No.	Rate/1,000 births	No.	Rate/1,000 births	No.	Rate/1,000 births	No.	Rate/1,000 births	No.	Rate/1,000 births	No.	Rate/1,000 births
Sydney	40	4.9	17	2.1	57	7.0	48	6.1	23	2.9	71	9.1
South Western Sydney	106	7.7	30	2.2	136	9.9	92	6.4	31	2.1	123	8.5
South Eastern Sydney	65	6.0	25	2.3	90	8.3	53	5.1	24	2.3	77	7.4
Illawarra Shoalhaven	22	4.8	8	1.8	30	6.6	26	5.6	10	2.1	36	7.7
Western Sydney	101	6.9	56	3.8	157	10.7	119	7.8	43	2.8	162	10.7
Nepean Blue Mountains	26	5.2	13	2.6	39	7.8	24	4.8	11	2.2	35	7.1
Northern Sydney	44	4.3	24	2.3	68	6.6	44	4.5	15	1.5	59	6.0
Central Coast	35	9.0	14	3.6	49	12.6	24	6.1	5	1.3	29	7.4
Hunter New England	76	7.1	44	4.1	120	11.2	75	7.1	28	2.7	103	9.8
Northern NSW	11	4.3	5	2.0	16	6.3	15	5.7	3	1.1	18	6.8
Mid North Coast	19	8.7	8	3.7	27	12.3	13	6.1	5	2.4	18	8.5
Southern NSW	4	2.9	2	1.5	6	4.4	6	4.2	3	2.1	9	6.4
Murrumbidgee	12	5.1	0	0.0	12	5.1	12	4.9	3	1.2	15	6.2
Western NSW	21	5.8	12	3.3	33	9.1	21	5.9	9	2.5	30	8.4
Far West	2	9.7	0	0.0	2	9.7	3	15.2	0	0.0	3	15.2
Other–not stated	7	-	3	-	10	-	20	-	7	-	27	-
<b>TOTAL</b>	<b>591</b>	<b>6.2</b>	<b>261</b>	<b>2.7</b>	<b>852</b>	<b>8.9</b>	<b>595</b>	<b>6.2</b>	<b>220</b>	<b>2.3</b>	<b>815</b>	<b>8.5</b>

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

<sup>#</sup> Neonatal deaths comprise babies who were born and died in NSW, including babies who died after discharge or transfer from the hospital of birth.

## Gestational age and birthweight 2018

As expected, perinatal mortality rates increased with greater prematurity and lower birthweight. Of the 815 perinatal deaths in 2018, 502 (61.6%) occurred in extremely pre-term babies (less than 28 weeks) and 444 (54.5%) in babies that weighed less than 1,000 grams (Tables 101 and 102).

**TABLE 101: GESTATIONAL AGE BY TYPE OF PERINATAL DEATH, NSW 2017–2018<sup>#</sup>**

Gestational age (weeks)	Year–Perinatal death type											
	2017						2018					
	Stillborn		Neonatal death		TOTAL		Stillborn		Neonatal death		TOTAL	
	No.	Rate/1,000 births	No.	Rate/1,000 births	No.	Rate/1,000 births	No.	Rate/1,000 births	No.	Rate/1,000 births	No.	Rate/1,000 births
<28	335	469.8	159	223.0	494	692.8	366	519.1	136	192.9	502	712.1
28–31	57	88.8	19	29.6	76	118.4	61	100.3	16	26.3	77	126.6
32–36	92	16.0	34	5.9	126	21.9	77	12.8	28	4.7	105	17.5
37–41	105	1.2	48	0.5	153	1.7	89	1.0	37	0.4	126	1.4
42+	1	1.1	1	1.1	2	2.3	1	1.3	0	0.0	1	1.3
Not stated	1	-	0	-	1	-	1	-	3	-	4	-
<b>TOTAL</b>	<b>591</b>	<b>6.2</b>	<b>261</b>	<b>2.7</b>	<b>852</b>	<b>8.9</b>	<b>595</b>	<b>6.2</b>	<b>220</b>	<b>2.3</b>	<b>815</b>	<b>8.5</b>

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

<sup>#</sup> Neonatal deaths comprise babies who were born and died in NSW, including babies who died after discharge or transfer from the hospital of birth.



TABLE 102: BIRTHWEIGHT BY TYPE OF PERINATAL DEATH, NSW 2017–2018\*

Birthweight (grams)	Year–Perinatal death type											
	2017					2018						
	Stillborn		Neonatal death		TOTAL		Stillborn		Neonatal death		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Less than 1,000	367	461.1	159	199.7	<b>526</b>	<b>660.8</b>	346	525.8	98	148.9	<b>444</b>	<b>674.8</b>
1,000–1,499	32	63.6	17	33.8	<b>49</b>	<b>97.4</b>	41	84.0	18	36.9	<b>59</b>	<b>120.9</b>
1,500–2,499	79	15.5	34	6.7	<b>113</b>	<b>22.1</b>	67	12.4	25	4.6	<b>92</b>	<b>17.1</b>
2,500–3,999	100	1.2	45	0.6	<b>145</b>	<b>1.8</b>	85	1.1	39	0.5	<b>124</b>	<b>1.5</b>
4,000+	6	0.7	6	0.7	<b>12</b>	<b>1.3</b>	9	1.0	2	0.2	<b>11</b>	<b>1.3</b>
Not stated	7	-	0	-	<b>7</b>	<b>-</b>	47	-	38	-	<b>85</b>	<b>-</b>
<b>TOTAL</b>	<b>591</b>	<b>6.2</b>	<b>261</b>	<b>2.7</b>	<b>852</b>	<b>8.9</b>	<b>595</b>	<b>6.2</b>	<b>220</b>	<b>2.3</b>	<b>815</b>	<b>8.5</b>

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

\* Neonatal deaths comprise babies who were born and died in NSW, including babies who died after discharge or transfer from the hospital of birth.

### Cause of perinatal death 2018

The PSANZ Perinatal Death Classification was used to classify perinatal deaths according to the single most important factor which led to the chain of events that resulted in the death. In 2018, 29.3% of perinatal deaths were due to a congenital abnormality and 12.5% were due to maternal conditions such as diabetes, while 26.9% were unexplained antepartum deaths (Table 103).

#### Congenital abnormalities

In 2018, the most common causes of deaths due to congenital abnormalities were chromosomal conditions ( $n = 46$ ), followed by conditions of the central nervous system ( $n = 43$ ) and cardiovascular system ( $n = 41$ ). Two deaths were associated with diaphragmatic hernia and two deaths were associated with congenital tumours.

#### Perinatal infection

Of the 48 deaths classified as due to perinatal infection, 46 were associated with bacterial infection including 2 deaths due to group B streptococcal infection. Two deaths were associated with parvovirus infection.

#### Hypertension

In 2018, there were 27 stillbirths and 12 neonatal deaths attributed to hypertension. Of these, 12 deaths were attributed to pre-eclampsia, 3 deaths to pre-eclampsia superimposed on chronic hypertension, 6 deaths to gestational hypertension and 6 deaths due to chronic hypertension. The type of hypertension was unspecified in the remaining cases.

#### Antepartum haemorrhage

In 2018, there were 65 perinatal deaths that were attributed to antepartum haemorrhage. Of these, 39 were due to placental abruption, 5 were due to placental praevia and the origin of the remaining 21 cases was not specified.

#### Maternal conditions

There were 102 perinatal deaths that were attributed to maternal conditions in 2018. Forty perinatal deaths were attributed to diabetes and four were attributed to maternal sepsis.

#### Specific perinatal conditions

Twin-to-twin transfusion accounted for 14 of the 50 deaths that were attributed to specific perinatal conditions. The next most common conditions were subdural haemorrhage ( $n = 11$ ), followed by antepartum umbilical cord complications ( $n = 11$ ), uterine abnormalities ( $n = 5$ ) and idiopathic hydrops ( $n = 4$ ).

#### Hypoxic peripartum death

In 2018, there were 14 deaths classified as hypoxic peripartum death. Of these, six had evidence of non-reassuring fetal status in a normally grown infant and two were due to shoulder dystocia.

#### Fetal growth restriction

There were seven deaths attributed to fetal growth restriction. These included babies that died during labour or in the neonatal period. Fetal growth restriction was not assigned as a cause of death for stillborn babies that died before the onset of labour as these babies may be smaller than expected due to the death occurring some time before birth, and information from serial ultrasounds is not available in the MCHR.

#### Spontaneous preterm

In 2018, there were 30 deaths attributed to spontaneous preterm birth with no other cause identified in the mother or baby.

#### Unexplained antepartum death

In 2018, there were 219 unexplained stillbirths, of which 178 (81.3%) were premature and 154 (70.3%) were low birthweight.

#### No obstetric antecedent

There were two perinatal deaths with no known obstetric antecedent in 2018.

**TABLE 103: PERINATAL DEATHS BY PSANZ PERINATAL DEATH CLASSIFICATION AND TYPE OF PERINATAL DEATH, NSW 2017–2018\***

PSANZ-PDC Major category	Year-Perinatal death type											
	2017					2018						
	Stillbirth		Neonatal death		TOTAL		Stillbirth		Neonatal death		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1. Congenital abnormality	141	23.9	97	37.2	<b>238</b>	<b>27.9</b>	159	26.7	80	36.4	<b>239</b>	<b>29.3</b>
2. Perinatal infection	41	6.9	15	5.7	<b>56</b>	<b>6.6</b>	29	4.9	19	8.6	<b>48</b>	<b>5.9</b>
3. Hypertension	32	5.4	10	3.8	<b>42</b>	<b>4.9</b>	27	4.5	12	5.5	<b>39</b>	<b>4.8</b>
4. Antepartum haemorrhage (APH)	46	7.8	26	10.0	<b>72</b>	<b>8.5</b>	43	7.2	22	10.0	<b>65</b>	<b>8.0</b>
5. Maternal conditions	77	13.0	30	11.5	<b>107</b>	<b>12.6</b>	70	11.8	32	14.5	<b>102</b>	<b>12.5</b>
6. Specific perinatal conditions	21	3.6	20	7.7	<b>41</b>	<b>4.8</b>	35	5.9	15	6.8	<b>50</b>	<b>6.1</b>
7. Hypoxic peripartum death	7	1.2	11	4.2	<b>18</b>	<b>2.1</b>	9	1.5	5	2.3	<b>14</b>	<b>1.7</b>
8. Fetal growth restriction	0	0.0	5	1.9	<b>5</b>	<b>0.6</b>	2	0.3	5	2.3	<b>7</b>	<b>0.9</b>
9. Spontaneous preterm (<37 weeks gestation)	5	0.8	37	14.2	<b>42</b>	<b>4.9</b>	2	0.3	28	12.7	<b>30</b>	<b>3.7</b>
10. Unexplained antepartum death	221	37.4	0	0.0	<b>221</b>	<b>25.9</b>	219	36.8	0	0.0	<b>219</b>	<b>26.9</b>
11. No obstetric antecedent	0	0.0	10	3.8	<b>10</b>	<b>1.2</b>	0	0.0	2	0.9	<b>2</b>	<b>0.2</b>
<b>TOTAL</b>	<b>591</b>	<b>100.0</b>	<b>261</b>	<b>100.0</b>	<b>852</b>	<b>100.0</b>	<b>595</b>	<b>100.0</b>	<b>220</b>	<b>100.0</b>	<b>815</b>	<b>100.0</b>

Source: Maternal and Child Health Register (SAPHaRI), Centre for Epidemiology and Evidence, NSW Ministry of Health.  
 # Neonatal deaths comprise babies who were born and died in NSW, including babies who died after discharge or transfer from the hospital of birth.

**Cause of perinatal death by hospital maternity service level 2018**

Hospital maternity service levels are used to group hospitals with similar characteristics for comparative reporting and service planning purposes (see Explanatory notes). In 2018, 54.4% of perinatal deaths were among babies born in maternity service level 6 hospitals (Table 104). The percentage of perinatal deaths attributed to congenital abnormalities was higher among babies born in maternity service level 6 hospitals (36.3%) compared to all other hospital maternity service levels, reflecting patterns of referral for diagnosis and treatment. Maternity service level 6 hospitals had lower rates of unexplained antepartum deaths (21.7%) compared to other hospital maternity service levels, possibly due to better access to perinatal post-mortem services.

**TABLE 104: PERINATAL DEATHS BY PSANZ PERINATAL DEATH CLASSIFICATION AND MATERNITY SERVICE LEVEL, NSW 2017–2018\***

Year-PSANZ-PDC Major category	Maternity service level															
	Level 6		Level 5		Level 4		Level 3		Level 2		Public hospital <sup>§</sup>		Private hospitals		TOTAL NSW*	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<b>2017</b>																
1. Congenital Abnormality	168	37.3	23	16.1	21	15.4	3	9.7	0	0.0	219	28.2	19	25.0	<b>238</b>	<b>27.9</b>
2. Perinatal infection	33	7.3	11	7.7	7	5.1	2	6.5	0	0.0	53	6.8	3	3.9	<b>56</b>	<b>6.6</b>
3. Hypertension	26	5.8	9	6.3	5	3.7	0	0.0	0	0.0	41	5.3	1	1.3	<b>42</b>	<b>4.9</b>
4. Antepartum haemorrhage (APH)	30	6.7	13	9.1	16	11.8	5	16.1	0	0.0	65	8.4	7	9.2	<b>72</b>	<b>8.5</b>
5. Maternal conditions	47	10.4	20	14.0	24	17.6	5	16.1	0	0.0	98	12.6	9	11.8	<b>107</b>	<b>12.6</b>
6. Specific perinatal conditions	23	5.1	5	3.5	6	4.4	0	0.0	0	0.0	36	4.6	5	6.6	<b>41</b>	<b>4.8</b>
7. Hypoxic peripartum death	8	1.8	2	1.4	2	1.5	0	0.0	2	100.0	14	1.8	4	5.3	<b>18</b>	<b>2.1</b>
8. Fetal growth restriction	3	0.7	2	1.4	0	0.0	0	0.0	0	0.0	5	0.6	0	0.0	<b>5</b>	<b>0.6</b>
9. Spontaneous preterm (<37 weeks gestation)	21	4.7	7	4.9	6	4.4	6	19.4	0	0.0	42	5.4	0	0.0	<b>42</b>	<b>4.9</b>
10. Unexplained antepartum death	90	20.0	48	33.6	46	33.8	8	25.8	0	0.0	193	24.9	28	36.8	<b>221</b>	<b>25.9</b>
11. No obstetric antecedent	2	0.4	3	2.1	3	2.2	2	6.5	0	0.0	10	1.3	0	0.0	<b>10</b>	<b>1.2</b>
<b>TOTAL</b>	<b>451</b>	<b>100.0</b>	<b>143</b>	<b>100.0</b>	<b>136</b>	<b>100.0</b>	<b>31</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>776</b>	<b>100.0</b>	<b>76</b>	<b>100.0</b>	<b>852</b>	<b>100.0</b>
<b>2018</b>																
1. Congenital Abnormality	161	36.3	38	29.2	18	14.6	6	13.3	0	0.0	226	30.1	13	20.6	<b>239</b>	<b>29.3</b>
2. Perinatal infection	27	6.1	7	5.4	9	7.3	4	8.9	0	0.0	47	6.3	1	1.6	<b>48</b>	<b>5.9</b>
3. Hypertension	20	4.5	8	6.2	7	5.7	1	2.2	0	0.0	36	4.8	3	4.8	<b>39</b>	<b>4.8</b>
4. Antepartum haemorrhage (APH)	34	7.7	9	6.9	14	11.4	5	11.1	0	0.0	62	8.3	3	4.8	<b>65</b>	<b>8.0</b>
5. Maternal conditions	48	10.8	17	13.1	18	14.6	7	15.6	0	0.0	92	12.3	10	15.9	<b>102</b>	<b>12.5</b>
6. Specific perinatal conditions	32	7.2	2	1.5	6	4.9	2	4.4	0	0.0	42	5.6	8	12.7	<b>50</b>	<b>6.1</b>
7. Hypoxic peripartum death	4	0.9	1	0.8	4	3.3	4	8.9	0	0.0	13	1.7	1	1.6	<b>14</b>	<b>1.7</b>
8. Fetal growth restriction	3	0.7	1	0.8	1	0.8	1	2.2	0	0.0	6	0.8	1	1.6	<b>7</b>	<b>0.9</b>
9. Spontaneous preterm (<37 weeks gestation)	17	3.8	7	5.4	2	1.6	2	4.4	0	0.0	28	3.7	2	3.2	<b>30</b>	<b>3.7</b>
10. Unexplained antepartum death	96	21.7	40	30.8	43	35.0	13	28.9	1	100.0	197	26.2	21	33.3	<b>219</b>	<b>26.9</b>
11. No obstetric antecedent	1	0.2	0	0.0	1	0.8	0	0.0	0	0.0	2	0.3	0	0.0	<b>2</b>	<b>0.2</b>
<b>TOTAL</b>	<b>443</b>	<b>100.0</b>	<b>130</b>	<b>100.0</b>	<b>123</b>	<b>100.0</b>	<b>45</b>	<b>100.0</b>	<b>1</b>	<b>100.0</b>	<b>751</b>	<b>100.0</b>	<b>63</b>	<b>100.0</b>	<b>815</b>	<b>100.0</b>

Source: Maternal and Child Health Register (SAPHaRI), Centre for Epidemiology and Evidence, NSW Ministry of Health.  
 # Neonatal deaths comprise babies who were born and died in NSW, including babies who died after discharge or transfer from the hospital of birth. Maternity service levels are described on page 91 in Appendix 2: Explanatory notes.  
 § Public total includes public hospitals with a maternity service level other than those specified in the table.  
 \* Total NSW includes births at home assisted by independent midwives and births at level 1 hospitals.

## Cause of neonatal death 2018

In 2018, the most common causes of neonatal death were extreme prematurity (40.0%), followed by congenital abnormalities (36.4%) (Table 105). Of the 220 neonatal deaths in 2018, 180 (81.8%) were born prematurely. Congenital abnormalities accounted for the majority of deaths among babies born at 37-plus weeks gestation (59.5%), followed by neurological conditions (21.6%) and cardio-respiratory conditions (10.8%).

**TABLE 105: NEONATAL DEATHS BY PSANZ NEONATAL DEATH CLASSIFICATION AND GESTATIONAL AGE, NSW 2017–2018\***

PSANZ-NDC Major category	Year–Gestational age (weeks)											
	2017					2018						
	Less than 37		37+		TOTAL*		Less than 37		37+		TOTAL*	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1. Congenital abnormality	68	32.1	29	59.2	<b>97</b>	<b>37.2</b>	58	32.2	22	59.5	<b>80</b>	<b>36.4</b>
2. Extreme prematurity	102	48.1	0	0.0	<b>102</b>	<b>39.1</b>	85	47.2	0	0.0	<b>88</b>	<b>40.0</b>
3. Cardio-respiratory disorders	16	7.5	2	4.1	<b>18</b>	<b>6.9</b>	16	8.9	4	10.8	<b>20</b>	<b>9.1</b>
4. Infection	9	4.2	1	2.0	<b>10</b>	<b>3.8</b>	3	1.7	1	2.7	<b>4</b>	<b>1.8</b>
5. Neurological	9	4.2	14	28.6	<b>23</b>	<b>8.8</b>	12	6.7	8	21.6	<b>20</b>	<b>9.1</b>
6. Gastrointestinal	1	0.5	0	0.0	<b>1</b>	<b>0.4</b>	0	0.0	0	0.0	<b>0</b>	<b>0.0</b>
7. Other	7	3.3	3	6.1	<b>10</b>	<b>3.8</b>	6	3.3	2	5.4	<b>8</b>	<b>3.6</b>
<b>TOTAL</b>	<b>212</b>	<b>100.0</b>	<b>49</b>	<b>100.0</b>	<b>261</b>	<b>100.0</b>	<b>180</b>	<b>100.0</b>	<b>37</b>	<b>100.0</b>	<b>220</b>	<b>100.0</b>

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

# Neonatal deaths comprise babies who were born and died in NSW, including babies who died after discharge or transfer from the hospital of birth.

\* Includes neonatal deaths where gestational age was missing.

## References

1. Perinatal Society of Australia and New Zealand. *Clinical Practice Guideline for Perinatal Mortality—second edition, version 2.2, April 2009*. Available at <https://sanda.psanz.com.au/assets/Uploads/Section-1-Version-2.2-April-2009.pdf>. Accessed 27 October 2020.

# 10. 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.

### Birthweight

The newborn infant's first bare weight in grams.  
Low birthweight: birthweight less than 2,500 grams.  
Very low birthweight: birthweight less than 1,500 grams.  
Extremely low birthweight: birthweight less than 1,000 grams.

### Overweight and obesity

Body Mass Index is a commonly used measure for monitoring rates of overweight and obesity in populations. 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 birthweight 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.

### Maternity service levels

The maternity service levels for 2019 have been applied to the data in this report. These are explained in the *NSW Health Guide to the Role Delineation of Clinical Services (2019)*, which provides a consistent language for describing clinical services delivered by public hospitals and health services. This guide delineates the level of clinical services, not hospitals or health facilities as a whole.

The *NSW Maternity and Neonatal Service Capability Framework (GL2016\_018)* is used to guide services by identifying the scope of planned activity for each service capability level. It provides a mechanism for Local Health Districts to assess the planned service capability of their facilities.

For further information on role delineation levels for individual sites, please contact the relevant Local Health District.

### Type of birth

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

### Perinatal mortality rate

With the exception of Chapter 9, perinatal deaths in this report 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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## Appendix 3: Maternal countries of birth and country of birth groups

<b>English speaking</b>	<b>Southern Europe</b>	Czech Republic	Lebanon	Myanmar, The	Dominica
Australia	Albania	Estonia	Lesotho	Republic of the	Dominican Republic
Australian External Territories, NEC*	Andorra	Georgia	Liberia	Union of	Ecuador
Bermuda	Bosnia and Herzegovina	Hungary	Libya	Philippines	El Salvador
Canada	Bulgaria	Kazakhstan	Madagascar	Singapore	Falkland Islands
England	Croatia	Kyrgyzstan	Malawi	Thailand	French Guiana
Guernsey	Cyprus	Latvia	Mali	Timor-Leste	Grenada
Ireland	Former Yugoslav Republic of Macedonia	Lithuania	Mauritania	Vietnam	Guadeloupe
Isle of Man	Republic of Macedonia (FYROM)	Poland	Mauritius	<b>North East Asia</b>	Guatemala
Jersey	Gibraltar	Russian Federation	Mayotte	China (excludes SARs# and Taiwan)	Guyana
New Zealand	Greece	Slovakia	Morocco	Hong Kong (SAR# of China)	Haiti
Norfolk Island	Holy See	Tajikistan	Mozambique	Japan	Honduras
Northern Ireland	Italy	Turkmenistan	Namibia	Korea, Democratic People's Republic of (North)	Jamaica
Scotland	Kosovo	Ukraine	Niger	Korea, Republic of (South)	Martinique
South Africa	Malta	Uzbekistan	Nigeria	Macau (SAR# of China)	Mexico
St Pierre and Miquelon	Moldova	<b>Middle East and Africa</b>	Oman	Mongolia	Montserrat
United States of America	Montenegro	Algeria	Qatar	Taiwan	Nicaragua
Wales	Portugal	Angola	Reunion		Panama
<b>Melanesia, Micronesia &amp; Polynesia</b>	Romania	Bahrain	Rwanda		Paraguay
Cook Islands	San Marino	Benin	Sao Tome and Principe		Peru
Fiji	Serbia	Botswana	Saudi Arabia		Puerto Rico
French Polynesia	Slovenia	Burkina Faso	Senegal		Sint Maarten (Dutch part)
Guam	Spain	Burundi	Seychelles		South America, NEC*
Kiribati	<b>Western and Northern Europe</b>	Cameroon	Sierra Leone	<b>Southern Asia</b>	St Barthelemy
Marshall Islands	Aland Islands	Cape Verde	Somalia	Bangladesh	St Kitts and Nevis
Micronesia, Federated States of	Austria	Central African Republic	South Sudan	Bhutan	St Lucia
Nauru	Belgium	Chad	Southern and East Africa, NEC*	India	St Martin (French part)
New Caledonia	Denmark	Comoros	Spanish North Africa	Maldives	St Vincent and the Grenadines
Niue	Faroe Islands	Congo, Democratic Republic of	Africa	Nepal	St Vincent and the Grenadines
Northern Mariana Islands	Finland	Congo, Republic of	St Helena	Pakistan	Suriname
Palau	France	Cote d'Ivoire	Sudan	Sri Lanka	Trinidad and Tobago
Papua New Guinea	Greenland	Djibouti	Swaziland	<b>Central and South America</b>	Turks and Caicos Islands
Pitcairn Islands	Iceland	Egypt	Syria	Anguilla	Uruguay
Polynesia (excludes Hawaii), NEC*	Liechtenstein	Equatorial Guinea	Tanzania	Antigua and Barbuda	Venezuela, Bolivarian Republic of
Samoa	Luxembourg	Eritrea	Togo	Argentina	Virgin Islands, British
Samoa, American	Monaco	Ethiopia	Tunisia	Aruba	Virgin Islands, United States
Solomon Islands	Netherlands	Gabon	Turkey	Bahamas	
Tokelau	Norway	Gambia, Republic of	Uganda	Barbados	
Tonga	Sweden	Gaza Strip and West Bank	United Arab Emirates	Belize	
Tuvalu	Switzerland	Ghana	Western Sahara	Bolivia, Plurinational State of	
Vanuatu	<b>Eastern Europe, Russia and Central Asian States</b>	Guinea	Yemen	Bonaire, Sint Eustatius and Saba	
Wallis and Futuna	Afghanistan	Guinea-Bissau	Zambia	Brazil	
	Armenia	Iran	Zimbabwe	Cayman Islands	
	Azerbaijan	Iraq		Chile	
	Belarus	Israel	<b>South East Asia</b>	Colombia	
		Jordan	Brunei Darussalam	Costa Rica	
		Kenya	Cambodia	Cuba	
		Kuwait	Indonesia	Curacao	
			Laos		
			Malaysia		

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



