

NSW Mothers and Babies 2020



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2. EXECUTIVE SUMMARY

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

- The number of births in NSW fell from 98,727 in 2016 to 92,541 in 2020, an overall decrease of 6.3%. The largest percentage decrease occurred in the Far West Local Health District, where the number of births decreased by 21.8% between 2016 and 2020.
- In 2020, 41.1% of mothers were overweight or obese: 55.5% of mothers were in the healthy weight range, 26.0% were overweight and 15.1% 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 2020, 21.3% stopped smoking in the first half of pregnancy.
- The percentage of mothers who were teenagers fell from 2.2% in 2016 to 1.6% in 2020. Over the same period the percentage of mothers aged 35 years and over rose from 23.7% to 26.2%.
- The rate of normal vaginal birth decreased from 55.2% in 2016 to 51.3% in 2020. The caesarean section rate increased from 32.9% to 36.7% 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 44.1% in 2016 to 39.3% in 2020 and the caesarean section rate increased from 42.1% to 47.6%. Among publicly insured mothers the rate of normal vaginal birth decreased from 61.4% to 56.7% and the caesarean section rate increased from 27.8% to 32.0%.
- In 2020, the majority of mothers planned to give birth in a hospital labour ward, and 7.1% of mothers planned to give birth in a birth centre. Fifty 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 219 in 2016 to 341 in 2020, and the percentage of planned homebirths that occurred at home decreased from 89.5% in 2016 to 81.5% in 2020.
- The percentage of babies born prematurely (less than 37 weeks gestation) has been stable for the last 5 years. In 2020, 7.3% 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 2020, 6.6% of babies were low birthweight.
- Between 2016 and 2020, the reported number of Aboriginal or Torres Strait Islander mothers giving birth increased from 4,118 to 4,506, an increase from 4.2% to 4.9% of all mothers.
- The percentage of Aboriginal or Torres Strait Islander mothers who were teenagers decreased from 12.8% in 2016 to 9.7% in 2020. The percentage of Aboriginal or Torres Strait Islander mothers giving birth at 35 years of age or more has increased slightly from 9.5% in 2016 to 10.4% in 2020.
- In 2020, 41.7% of Aboriginal or Torres Strait Islander mothers reported smoking at some time during pregnancy, compared to 41.3% in 2016.
- In 2020, 10.9% of Aboriginal or Torres Strait Islander babies were low birthweight and 10.6% were premature.
- The perinatal mortality rate of 13.1 per 1,000 births in Aboriginal or Torres Strait Islander mothers in 2020 is higher than the rate of 8.9 per 1,000 births experienced among babies born to non-Aboriginal or Torres Strait Islander mothers.
- In 2019, there were 567 stillbirths and 252 neonatal deaths recorded on the Maternal and Child Health Register. The most common cause of perinatal death was congenital anomalies (30.5%), followed by spontaneous preterm labour or rupture of membranes (9.3%). Over a third (38.5%) of all neonatal deaths occurred among periviable infants; while 27.8% were associated with congenital anomalies.

3. METHODS

Data sources

NSW Perinatal Data Collection

The New South Wales Perinatal Data Collection (PDC) is a population-based surveillance system covering all births in NSW public and private hospitals, as well as home births. It encompasses all live births, and stillbirths of at least 20 weeks gestation or at least 400 grams 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*.¹ 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>.

There are several maternity information systems used in NSW hospitals that contribute information to the PDC. In 2020, the largest source of PDC records was eMaternity, which supplied 58.3% 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 7.2% of PDC records. Meditech, which includes 5 Ramsay Private Hospitals (North Shore Private Hospital, Westmead Private Hospital, St George Private Hospital, Kareena Private Hospital and Wollongong Private Hospital), supplied 7.5% of all PDC records. The Mater Hospital, North Sydney, database supplied 2.7% of PDC records, 1.7% of PDC records were supplied from the Sydney Adventist Hospital database and 1.9% 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)
- NSW Perinatal Death Review database for the period 1 January 2000 onwards (all records).

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.

Enhanced reporting relies on having independent sources of information on whether a person is Aboriginal or Torres Strait Islander.² 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 3 or more units of information across all contributing data sets, at least 2 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 1 or 2 units of information in all contributing data sets, 1 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 “not stated”.

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 are subject to change as additional information on health service use is made available.

NSW Maternal and Perinatal Mortality Review Committee

The NSW Maternal and Perinatal Mortality Review Committee (MPMRC) 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 MPMRC reviews each maternal death to classify the death, identify the cause of death, ascertain any possible avoidable factors and identify lessons to be learnt. A sub-committee of MPMRC members, known as the Perinatal Mortality Review Subcommittee, 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 2019

Information on causes of death were obtained from the NSW Maternal and Child Health Register (MCHR) for 2019. 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.

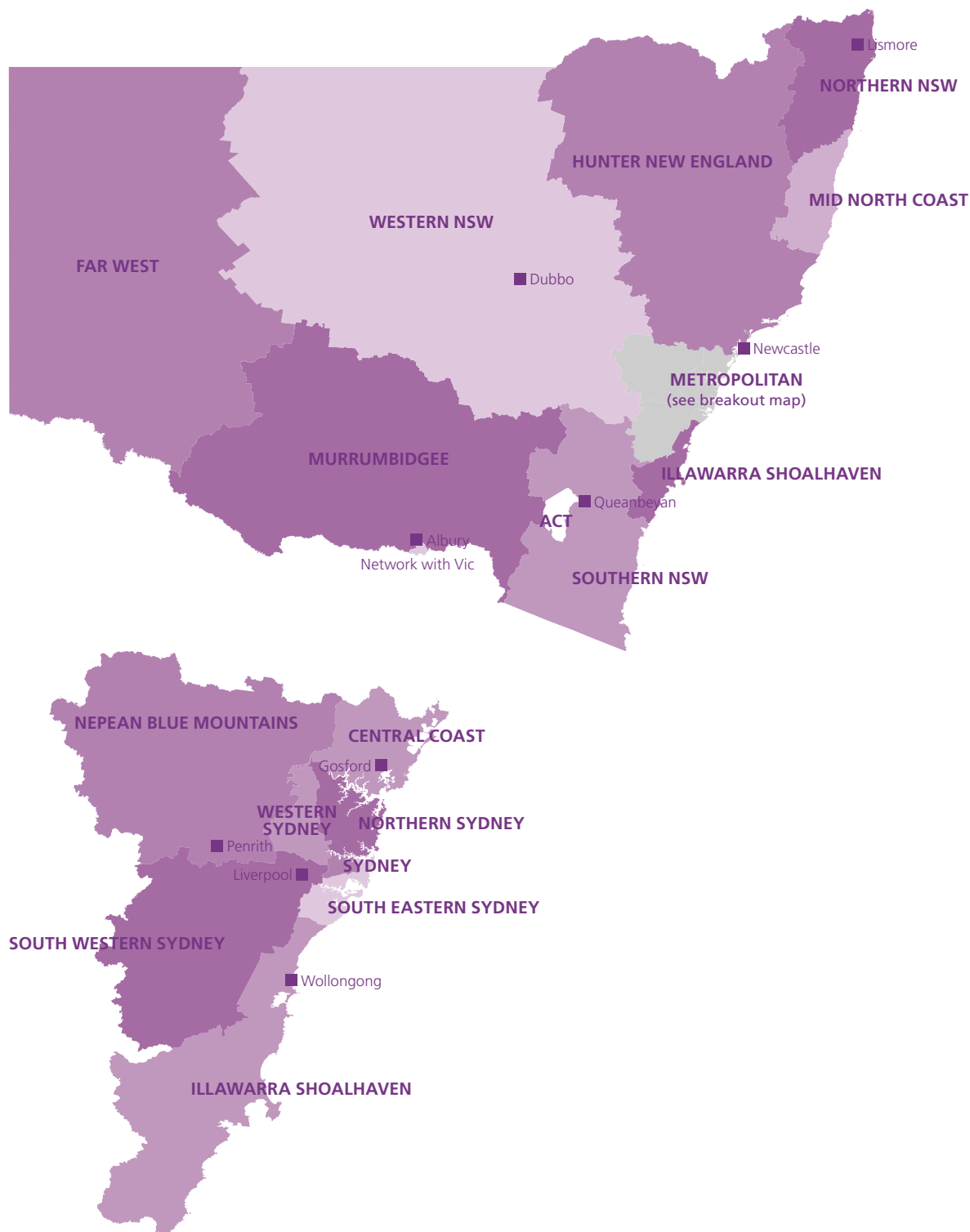
Where a stillbirth was recorded on the Perinatal Data Collection, information from the Perinatal Death Review (PDR) record, Perinatal Cause of Death Unit Record File (PCODURF) and the mother's Admitted Patient Data Collection (APDC) record for the birth were used to classify the perinatal cause of death to the 2018 edition of the Perinatal Society of Australia and New Zealand (PSANZ) Perinatal Death Classification.³

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 2018 editions of 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 PDR, PCODURF 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 PDR, PCODURF and the APDC record when the infant was reported to have died was used.

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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 fell from 98,727 in 2016 to 92,541 in 2020. In 2020, 92,541 births to 91,240 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 2016–2020

Plurality		Year									
		2016		2017		2018		2019		2020	
		No.	%	No.	%	No.	%	No.	%	No.	%
Confinements	Singleton	95906	98.6	93098	98.6	92805	98.6	92406	98.6	89961	98.6
	Twins	1379	1.4	1326	1.4	1348	1.4	1330	1.4	1258	1.4
	Triplets	21	0.0	25	0.0	17	0.0	21	0.0	20	0.0
	Quadruplets	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0
	TOTAL	97306	100.0	94449	100.0	94170	100.0	93758	100.0	91240	100.0
Births	Singleton	95906	97.1	93098	97.2	92805	97.1	92406	97.1	89961	97.2
	Twins	2758	2.8	2652	2.8	2696	2.8	2660	2.8	2516	2.7
	Triplets	63	0.1	75	0.1	51	0.1	63	0.1	60	0.1
	Quadruplets	0	0.0	0	0.0	0	0.0	4	0.0	4	0.0
	TOTAL	98727	100.0	95825	100.0	95552	100.0	95133	100.0	92541	100.0

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 Mid North Coast Local Health District, an increase of 9.2% between 2016 and 2020. The largest decrease in births occurred in the Far West Local Health District, a decrease of 21.8% between 2016 and 2020. In 2020, 31.4% 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 2016–2020

Local Health District	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	8345	8.6	8008	8.5	7725	8.2	7501	8.0	7088	7.8
South Western Sydney	13750	14.1	13554	14.4	14258	15.1	14054	15.0	14046	15.4
South Eastern Sydney	11318	11.6	10644	11.3	10216	10.8	10243	10.9	9663	10.6
Illawarra Shoalhaven	4534	4.7	4475	4.7	4584	4.9	4486	4.8	4529	5.0
Western Sydney	14667	15.1	14479	15.3	14982	15.9	15046	16.0	14635	16.0
Nepean Blue Mountains	5042	5.2	4908	5.2	4878	5.2	5000	5.3	4887	5.4
Northern Sydney	10804	11.1	10146	10.7	9659	10.3	9557	10.2	9048	9.9
Central Coast	3816	3.9	3832	4.1	3834	4.1	3731	4.0	3753	4.1
Hunter New England	10690	11.0	10543	11.2	10407	11.1	10480	11.2	10242	11.2
Northern NSW	2327	2.4	2526	2.7	2623	2.8	2611	2.8	2523	2.8
Mid North Coast	1900	2.0	2163	2.3	2096	2.2	2207	2.4	2075	2.3
Southern NSW	1372	1.4	1363	1.4	1403	1.5	1432	1.5	1405	1.5
Murrumbidgee	2370	2.4	2345	2.5	2390	2.5	2365	2.5	2378	2.6
Western NSW	3740	3.8	3581	3.8	3524	3.7	3460	3.7	3425	3.8
Far West	234	0.2	205	0.2	196	0.2	217	0.2	183	0.2
Other—not stated	2397	2.5	1677	1.8	1395	1.5	1368	1.5	1360	1.5
TOTAL	97306	100.0	94449	100.0	94170	100.0	93758	100.0	91240	100.0

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

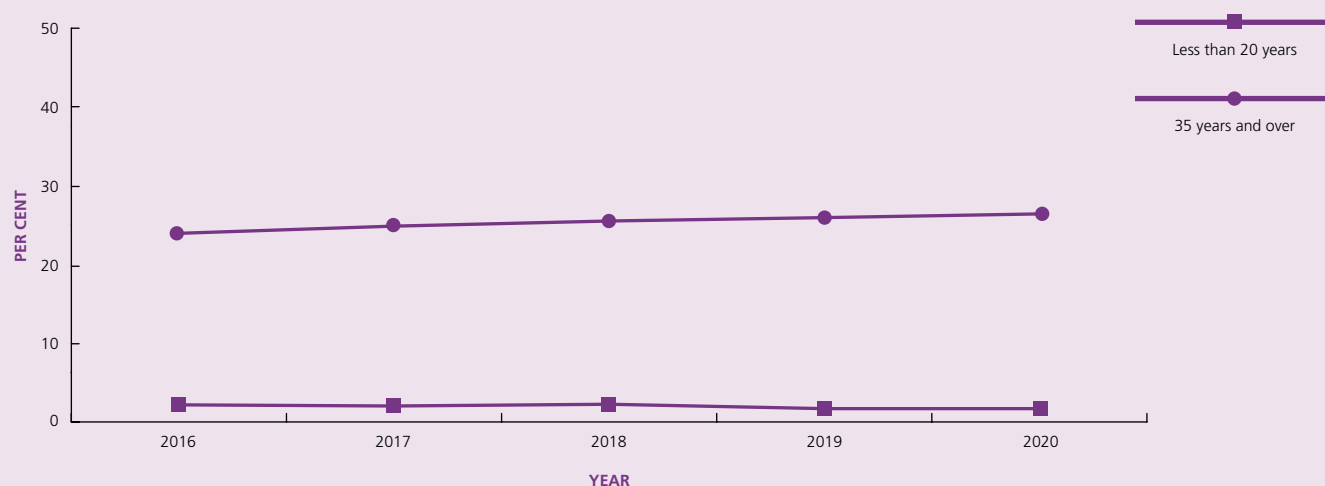
Maternal age

The percentage of mothers who were teenagers fell from 2.2% in 2016 to 1.6% in 2020. Between 2016 and 2020, the percentage of mothers aged 35 years and over rose from 23.7% to 26.2% (Figure 1, Table 3).

The mean maternal age rose from 30.6 to 31.1 years between 2016 and 2020. The mean maternal age rose from 29.3 to 29.7 years for primiparous mothers and rose from 31.7 to 32.1 years for multiparous mothers.

The percentage of mothers giving birth for the first time who were aged 35 years or more was 16.0% in 2016 and 18.0% in 2020. The percentage of multiparous mothers who were aged 35 years or more was 29.7% in 2016 and 32.6% in 2020.

FIGURE 1: MOTHERS AGED LESS THAN 20 YEARS AND 35 YEARS AND OVER, NSW 2016–2020



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

TABLE 3: MATERNAL AGE, NSW 2016–2020

Maternal age (years)	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Less than 15	8	0.0	8	0.0	9	0.0	9	0.0	9	0.0
15–19	2106	2.2	1859	2.0	1783	1.9	1595	1.7	1423	1.6
20–24	11007	11.3	10541	11.2	9971	10.6	9833	10.5	9101	10.0
25–29	25926	26.6	25036	26.5	24581	26.1	24080	25.7	23103	25.3
30–34	35126	36.1	33642	35.6	34129	36.2	33951	36.2	33632	36.9
35–39	18627	19.1	19043	20.2	19320	20.5	19801	21.1	19585	21.5
40–44	4142	4.3	4011	4.2	4022	4.3	4153	4.4	4068	4.5
45+	328	0.3	285	0.3	339	0.4	329	0.4	287	0.3
Not stated	36	0.0	24	0.0	16	0.0	7	0.0	32	0.0
TOTAL	97306	100.0	94449	100.0	94170	100.0	93758	100.0	91240	100.0

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 remained steady between 2016 and 2020, at 62.1%. In 2020, mothers born in India, China, the United Kingdom, the Philippines, New Zealand, Nepal, Vietnam, Pakistan, and Iraq together accounted for 20.3% of all mothers (Table 4).

TABLE 4: MATERNAL COUNTRY OF BIRTH, NSW 2016–2020*

Country of birth	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Australia	60429	62.1	58187	61.6	58189	61.8	57690	61.5	56692	62.1
India	4247	4.4	4393	4.7	4489	4.8	4654	5.0	4851	5.3
China	5079	5.2	4385	4.6	3920	4.2	4151	4.4	3254	3.6
United Kingdom	1825	1.9	1805	1.9	1817	1.9	1907	2.0	1810	2.0
Philippines	1626	1.7	1624	1.7	1727	1.8	1734	1.8	1714	1.9
New Zealand	2081	2.1	2008	2.1	1905	2.0	1795	1.9	1711	1.9
Nepal	1059	1.1	1094	1.2	1283	1.4	1360	1.5	1601	1.8
Vietnam	1499	1.5	1391	1.5	1393	1.5	1462	1.6	1222	1.3
Pakistan	902	0.9	992	1.1	1098	1.2	1106	1.2	1187	1.3
Iraq	1152	1.2	1112	1.2	1195	1.3	1145	1.2	1182	1.3
Lebanon	1081	1.1	1049	1.1	1052	1.1	967	1.0	913	1.0
Bangladesh	901	0.9	943	1.0	911	1.0	917	1.0	911	1.0
South Korea	747	0.8	745	0.8	692	0.7	696	0.7	625	0.7
Indonesia	796	0.8	749	0.8	733	0.8	685	0.7	603	0.7
United States of America	504	0.5	555	0.6	597	0.6	584	0.6	574	0.6
South Africa	587	0.6	572	0.6	618	0.7	570	0.6	568	0.6
Thailand	606	0.6	563	0.6	562	0.6	576	0.6	529	0.6
Ireland	514	0.5	476	0.5	563	0.6	503	0.5	500	0.5
Brazil	317	0.3	354	0.4	395	0.4	474	0.5	492	0.5
Iran	512	0.5	531	0.6	533	0.6	484	0.5	470	0.5
Afghanistan	423	0.4	471	0.5	455	0.5	496	0.5	466	0.5
Hong Kong	500	0.5	515	0.5	452	0.5	504	0.5	455	0.5
Sri Lanka	448	0.5	484	0.5	467	0.5	422	0.5	452	0.5
Malaysia	426	0.4	447	0.5	469	0.5	441	0.5	427	0.5
Fiji	552	0.6	486	0.5	480	0.5	431	0.5	406	0.4
Syria	214	0.2	258	0.3	314	0.3	307	0.3	320	0.4
Japan	382	0.4	348	0.4	362	0.4	330	0.4	293	0.3
Germany	293	0.3	306	0.3	303	0.3	268	0.3	262	0.3
France	221	0.2	256	0.3	259	0.3	264	0.3	260	0.3
Egypt	260	0.3	274	0.3	256	0.3	271	0.3	251	0.3
Canada	334	0.3	279	0.3	320	0.3	300	0.3	239	0.3
Russian Federation	244	0.3	248	0.3	233	0.2	241	0.3	235	0.3
Mongolia	44	0.0	85	0.1	129	0.1	172	0.2	208	0.2
Taiwan	244	0.3	224	0.2	216	0.2	226	0.2	208	0.2
Western Samoa	250	0.3	232	0.2	224	0.2	240	0.3	206	0.2
Colombia	151	0.2	148	0.2	188	0.2	185	0.2	197	0.2
Cambodia	256	0.3	269	0.3	208	0.2	220	0.2	193	0.2
Sudan	236	0.2	208	0.2	177	0.2	193	0.2	165	0.2
Italy	120	0.1	169	0.2	137	0.1	145	0.2	158	0.2
Poland	199	0.2	186	0.2	191	0.2	190	0.2	157	0.2
Saudi Arabia	138	0.1	153	0.2	146	0.2	129	0.1	155	0.2
Tonga	158	0.2	139	0.1	147	0.2	133	0.1	138	0.2
Nigeria	100	0.1	105	0.1	165	0.2	140	0.1	135	0.1
Turkey	147	0.2	152	0.2	166	0.2	171	0.2	132	0.1
Singapore	147	0.2	124	0.1	148	0.2	118	0.1	131	0.1
Chile	137	0.1	125	0.1	124	0.1	119	0.1	122	0.1
Former Yugoslavia	125	0.1	121	0.1	104	0.1	113	0.1	115	0.1
Zimbabwe	111	0.1	98	0.1	106	0.1	110	0.1	115	0.1
Burma (Myanmar)	102	0.1	143	0.2	124	0.1	136	0.1	111	0.1
Bosnia and Herzegovina	126	0.1	142	0.2	132	0.1	127	0.1	110	0.1
Jordan	105	0.1	125	0.1	110	0.1	123	0.1	110	0.1
Serbia (includes Kosovo)	133	0.1	134	0.1	129	0.1	126	0.1	109	0.1
Other/Not stated	3516	3.6	3467	3.7	3057	3.2	2907	3.1	2790	3.1
TOTAL	97306	100.0	94449	100.0	94170	100.0	93758	100.0	91240	100.0

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

*Countries of birth for which 100 or more women gave birth in 2020.

Aboriginal and Torres Strait Islander mothers

The reported number of Aboriginal or Torres Strait Islander mothers giving birth increased from 4,118 to 4,506 between 2016 and 2020, an increase from 4.2% to 4.9% 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 2016–2020

Mother's Aboriginality	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander	4118	4.2	4183	4.4	4213	4.5	4416	4.7	4506	4.9
Non-Aboriginal or Torres Strait Islander	92623	95.2	89836	95.1	89671	95.2	88957	94.9	85951	94.2
Not stated	565	0.6	430	0.5	286	0.3	385	0.4	783	0.9
TOTAL	97306	100.0	94449	100.0	94170	100.0	93758	100.0	91240	100.0

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

Previous pregnancies

The distribution of previous pregnancies has remained 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 2016–2020

No. previous pregnancies (>20 weeks gestation)	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
0	42272	43.4	40469	42.8	40362	42.9	40376	43.1	39707	43.5
1–4	53486	55.0	52447	55.5	52403	55.6	52072	55.5	50243	55.1
5+	1426	1.5	1387	1.5	1323	1.4	1302	1.4	1226	1.3
Not stated	122	0.1	146	0.2	82	0.1	8	0.0	64	0.1
TOTAL	97306	100.0	94449	100.0	94170	100.0	93758	100.0	91240	100.0

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

Duration of pregnancy at first antenatal visit

Between 2016 and 2020, the percentage of mothers starting antenatal care at less than 14 weeks gestation substantially increased from 67.8% to 80.0% (Table 7). In 2020, 93.1% of mothers commenced antenatal care at less than 20 weeks gestation.

TABLE 7: DURATION OF PREGNANCY AT FIRST ANTENATAL VISIT, NSW 2016–2020

Duration of pregnancy (weeks)	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
0–13	65988	67.8	69062	73.1	73110	77.6	74652	79.6	73010	80.0
14–19	20404	21.0	16473	17.4	13546	14.4	12318	13.1	11936	13.1
20+	10033	10.3	8324	8.8	6932	7.4	6111	6.5	5497	6.0
Not stated	881	0.9	590	0.6	582	0.6	677	0.7	797	0.9
TOTAL	97306	100.0	94449	100.0	94170	100.0	93758	100.0	91240	100.0

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 2020, 8.6% of mothers reported any smoking during pregnancy. Of those mothers who smoked during pregnancy in 2020, 21.3% stopped smoking in the first half of pregnancy (Table 9).

TABLE 8: SMOKING IN PREGNANCY, NSW 2016–2020

Smoking in pregnancy	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Did not smoke	88000	90.4	85189	90.2	84518	89.8	84736	90.4	82535	90.5
Smoked	8083	8.3	8279	8.8	8563	9.1	8257	8.8	7887	8.6
Not stated	1223	1.3	981	1.0	1089	1.2	765	0.8	818	0.9
TOTAL	97306	100.0	94449	100.0	94170	100.0	93758	100.0	91240	100.0

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

TABLE 9: MOTHERS WHO SMOKED AT ALL DURING PREGNANCY BY NUMBER OF CIGARETTES SMOKED IN THE SECOND HALF OF PREGNANCY, NSW 2016–2020

Cigarettes smoked in the second half of pregnancy	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
None	2156	26.7	2053	24.8	1626	19.0	1570	19.0	1676	21.3
1–10 per day	4738	58.6	5090	61.5	5796	67.7	5700	69.0	5288	67.0
>10 per day	1065	13.2	1012	12.2	1006	11.7	886	10.7	817	10.4
Smoked, amount not stated	15	0.2	13	0.2	1	0.0	1	0.0	0	0.0
Not stated	109	1.3	111	1.3	134	1.6	100	1.2	106	1.3
TOTAL	8083	100.0	8279	100.0	8563	100.0	8257	100.0	7887	100.0

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

Place of birth

In 2020, the majority of mothers planned to give birth in a hospital labour ward, and 7.1% 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 86.2% in 2016 to 50.3% in 2020. The total number of reported planned homebirths increased from 219 in 2016 to 341 in 2020, and the percentage of planned homebirths that occurred at home decreased from 89.5% in 2016 to 81.5% in 2020 (Table 10).

TABLE 10: MATERNAL PLACE OF BIRTH, NSW 2016–2020

Place of birth	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Hospital	94025	96.6	87687	92.8	84030	89.2	85560	91.3	83829	91.9
Birth centre	2128	2.2	4043	4.3	5351	5.7	4103	4.4	3272	3.6
Planned birth centre–hospital admission	341	0.4	1913	2.0	3861	4.1	3282	3.5	3229	3.5
Planned homebirth	196	0.2	198	0.2	235	0.2	237	0.3	278	0.3
Planned homebirth–hospital admission	23	0.0	41	0.0	66	0.1	49	0.1	63	0.1
Born before arrival	542	0.6	544	0.6	539	0.6	505	0.5	550	0.6
Not stated	51	0.1	23	0.0	88	0.1	22	0.0	19	0.0
TOTAL	97306	100.0	94449	100.0	94170	100.0	93758	100.0	91240	100.0

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

Diabetes

The reported rate of gestational diabetes rose from 12.6% in 2016 to 13.9% in 2020, following widespread implementation of the *Australasian Diabetes in Pregnancy Society (ADIPS) Consensus Guidelines for the Testing and Diagnosis of Gestational Diabetes Mellitus* during 2016.¹ The rate of pre-existing diabetes mellitus was around 0.9% (Table 11) over the 5-year period.

TABLE 11: MATERNAL DIABETES, NSW 2016–2020

Condition	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Pre-existing diabetes mellitus	886	0.9	900	1.0	804	0.9	869	0.9	764	0.8
Type 1	281	0.3	256	0.3	232	0.2	292	0.3	238	0.3
Type 2	332	0.3	377	0.4	424	0.5	428	0.5	430	0.5
Gestational diabetes mellitus	12260	12.6	12375	13.1	12893	13.7	13020	13.9	12686	13.9
TOTAL DIABETES*	13146	13.5	13275	14.1	13697	14.5	13889	14.8	13450	14.7

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

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

Hypertension

In 2020, the overall rate of hypertension in pregnancy was 4.9%. Around 1.6% of mothers developed pre-eclampsia, 2.5% developed gestational hypertension, and 0.9% had pre-existing hypertension. This pattern is similar to previous years (Table 12).

TABLE 12: MATERNAL HYPERTENSION, NSW 2016–2020

Condition	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Chronic hypertension	716	0.7	694	0.7	761	0.8	845	0.9	864	0.9
Pre-eclampsia	1557	1.6	1352	1.4	1333	1.4	1385	1.5	1444	1.6
Eclampsia	27	0.0	35	0.0	34	0.0	49	0.1	34	0.0
Gestational hypertension	2860	2.9	2592	2.7	2258	2.4	2399	2.6	2324	2.5
TOTAL HYPERTENSION*	5062	5.2	4526	4.8	4193	4.5	4469	4.8	4490	4.9

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

*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 48.5% in 2016 to 41.0% in 2020 and the rate of induction of labour rose from 31.1% in 2016 to 35.6% in 2020 (Table 13). The most common reported reason for induction of labour in 2020 was prelabour rupture of membranes (14.0%), followed by diabetes (13.7%), prolonged pregnancy (41 or more weeks) (10.3%), suspected intrauterine growth restriction (5.5%), hypertensive disease (5.4%), fetal distress (5.3%), fetal death (0.7%) and chorioamnionitis (0.2%).

TABLE 13: ONSET AND AUGMENTATION OF LABOUR, NSW 2016–2020

Onset of labour	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Spontaneous	33947	34.9	31411	33.3	29513	31.3	28782	30.7	26701	29.3
Spontaneous augmented with ARM	5932	6.1	5286	5.6	4858	5.2	4640	4.9	4225	4.6
Spontaneous augmented with oxytocics†	7311	7.5	7060	7.5	7078	7.5	6920	7.4	6514	7.1
No labour	19710	20.3	20132	21.3	20951	22.2	21255	22.7	21256	23.3
Induced–oxytocics/prostaglandins	9673	9.9	10473	11.1	12040	12.8	12025	12.8	11730	12.9
Induced–ARM only	3335	3.4	2797	3.0	2437	2.6	2561	2.7	2276	2.5
Induced–ARM + oxytocics/prostaglandins	16879	17.3	16957	18.0	16872	17.9	17119	18.3	17865	19.6
Induced–other‡	384	0.4	266	0.3	396	0.4	441	0.5	651	0.7
Not stated	135	0.1	67	0.1	25	0.0	15	0.0	22	0.0
TOTAL	97306	100.0	94449	100.0	94170	100.0	93758	100.0	91240	100.0

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

ARM: Artificial Rupture of Membranes.

†May include artificial rupture of membranes.

‡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 55.2% in 2016 to 51.3% in 2020 (Table 14). The caesarean section rate increased from 32.9% to 36.7%. The elective caesarean section rate increased from 20.2% to 23.3% while the emergency caesarean section rate was stable at around 13% over the 5-year period. The rate of instrumental birth (forceps and vacuum extraction) remained steady at just under 12%.

Operative and instrumental births were more common among privately than publicly insured mothers (Table 15). Among privately insured mothers the rate of normal vaginal birth decreased from 44.1% in 2016 to 39.3% in 2020 and the caesarean section rate increased from 42.1% to 47.6%. Among publicly insured mothers the rate of normal vaginal birth decreased from 61.4% in 2016 to 56.7% in 2020 and the caesarean section rate increased from 27.8% to 32.0%.

TABLE 14: TYPE OF BIRTH, NSW 2016–2020

Type of birth	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Normal vaginal	53740	55.2	51434	54.5	50451	53.6	49716	53.0	46831	51.3
Forceps	4536	4.7	4435	4.7	4386	4.7	4208	4.5	4180	4.6
Vacuum extraction	6649	6.8	6338	6.7	6549	7.0	6612	7.1	6459	7.1
Vaginal breech	339	0.3	336	0.4	333	0.4	328	0.3	324	0.4
Elective caesarean section	19692	20.2	20115	21.3	20951	22.2	21255	22.7	21256	23.3
Emergency caesarean section†	12321	12.7	11764	12.5	11498	12.2	11639	12.4	12190	13.4
Not stated	29	0.0	27	0.0	2	0.0	0	0.0	0	0.0
TOTAL	97306	100.0	94449	100.0	94170	100.0	93758	100.0	91240	100.0

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

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

TABLE 15: MATERNAL HEALTH INSURANCE BY TYPE OF BIRTH, NSW 2016–2020

Insurance status–Type of birth		Year									
		2016		2017		2018		2019		2020	
		No.	%	No.	%	No.	%	No.	%	No.	%
Public	Normal vaginal	38037	61.4	36962	60.4	36840	59.0	36472	58.8	35005	56.7
	Forceps	2952	4.8	2914	4.8	2927	4.7	2827	4.6	2870	4.6
	Vacuum extraction	3437	5.5	3542	5.8	3774	6.0	3728	6.0	3828	6.2
	Vaginal breech	262	0.4	260	0.4	261	0.4	261	0.4	272	0.4
	Elective caesarean section	9477	15.3	10030	16.4	11134	17.8	11192	18.0	11469	18.6
	Emergency caesarean section†	7776	12.5	7513	12.3	7472	12.0	7527	12.1	8277	13.4
	Not stated	23	0.0	16	0.0	1	0.0	0	0.0	0	0.0
	TOTAL	61964	100.0	61237	100.0	62409	100.0	62007	100.0	61721	100.0
Private	Normal vaginal	15316	44.1	14155	43.2	13214	42.5	12251	41.0	10716	39.3
	Forceps	1568	4.5	1505	4.6	1432	4.6	1284	4.3	1164	4.3
	Vacuum extraction	3170	9.1	2771	8.5	2732	8.8	2709	9.1	2380	8.7
	Vaginal breech	72	0.2	71	0.2	63	0.2	62	0.2	49	0.2
	Elective caesarean section	10147	29.2	10021	30.6	9706	31.2	9704	32.5	9347	34.2
	Emergency caesarean section†	4474	12.9	4204	12.8	3957	12.7	3887	13.0	3635	13.3
	Not stated	5	0.0	9	0.0	0	0.0	0	0.0	0	0.0
	TOTAL	34752	100.0	32736	100.0	31104	100.0	29897	100.0	27291	100.0
TOTAL*	Normal vaginal	53740	55.2	51434	54.5	50451	53.6	49716	53.0	46831	51.3
	Forceps	4536	4.7	4435	4.7	4386	4.7	4208	4.5	4180	4.6
	Vacuum extraction	6649	6.8	6338	6.7	6549	7.0	6612	7.1	6459	7.1
	Vaginal breech	339	0.3	336	0.4	333	0.4	328	0.3	324	0.4
	Elective caesarean section	19692	20.2	20115	21.3	20951	22.2	21255	22.7	21256	23.3
	Emergency caesarean section†	12321	12.7	11764	12.5	11498	12.2	11639	12.4	12190	13.4
	Not stated	29	0.0	27	0.0	2	0.0	0	0.0	0	0.0
	TOTAL	97306	100.0	94449	100.0	94170	100.0	93758	100.0	91240	100.0

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

†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 2016, with slightly more male babies born than females in each year. In 2020, 47,424 (51.2%) babies were male, 45,092 (48.7%) were female, and 14 were of indeterminate sex. This compares with babies born in 2016, when 50,742 (51.4%) babies were male, 47,964 (48.6%) were female, and 10 were of indeterminate sex.

Gestational age

In 2020, 7.3% of babies were born prematurely (less than 37 weeks gestation), equivalent to 7.3% reported in 2016 (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 1.1% in 2016 and 0.7% in 2020.

TABLE 16: GESTATIONAL AGE, NSW 2016–2020

Gestational age (weeks)	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
<28	696	0.7	713	0.7	705	0.7	709	0.7	750	0.8
28–31	619	0.6	642	0.7	608	0.6	590	0.6	594	0.6
32–36	5865	5.9	5754	6.0	6011	6.3	5778	6.1	5420	5.9
37–41	90270	91.4	87768	91.6	87407	91.5	87313	91.8	85123	92.0
42+	1065	1.1	885	0.9	755	0.8	630	0.7	616	0.7
Not stated	212	0.2	63	0.1	66	0.1	113	0.1	38	0.0
TOTAL	98727	100.0	95825	100.0	95552	100.0	95133	100.0	92541	100.0

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

Birthweight

Since 2016, 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 2020, the rate of low birthweight was 6.6%.

TABLE 17: BIRTHWEIGHT, NSW 2016–2020

Birthweight (grams)	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Less than 500	326	0.3	341	0.4	234	0.2	218	0.2	252	0.3
500–999	411	0.4	455	0.5	424	0.4	439	0.5	399	0.4
1,000–1,499	534	0.5	503	0.5	488	0.5	514	0.5	484	0.5
1,500–1,999	1191	1.2	1154	1.2	1224	1.3	1132	1.2	1154	1.2
2,000–2,499	3931	4.0	3952	4.1	4163	4.4	4046	4.3	3829	4.1
2,500–2,999	16272	16.5	16011	16.7	15945	16.7	16404	17.2	15454	16.7
3,000–3,499	37290	37.8	36263	37.8	36575	38.3	36400	38.3	35226	38.1
3,500–3,999	29171	29.5	28051	29.3	27577	28.9	27287	28.7	26901	29.1
4,000–4,499	8348	8.5	7942	8.3	7671	8.0	7423	7.8	7616	8.2
4,500+	1182	1.2	1106	1.2	1066	1.1	1012	1.1	1020	1.1
Not stated	71	0.1	47	0.0	185	0.2	258	0.3	206	0.2
TOTAL	98727	100.0	95825	100.0	95552	100.0	95133	100.0	92541	100.0

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

Apgar score

In 2020, 1.7% of liveborn babies were born with an Apgar score of less than 7 at 5 minutes and 0.5% were born with an Apgar score of less than 5 (Table 18). These rates are similar to those of previous years.

TABLE 18: APGAR SCORE AT 5 MINUTES, LIVE BIRTHS, NSW 2016–2020

Apgar score	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
0–4	538	0.5	423	0.4	399	0.4	445	0.5	425	0.5
5–6	1209	1.2	1083	1.1	1167	1.2	1237	1.3	1159	1.3
7+	95844	97.6	93156	97.8	92819	97.7	92316	97.6	89712	97.6
Not stated	593	0.6	572	0.6	572	0.6	568	0.6	582	0.6
TOTAL	98184	100.0	95234	100.0	94957	100.0	94566	100.0	91878	100.0

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 2016 and 2020 (Table 19).

TABLE 19: HEPATITIS B DOSE GIVEN TO LIVEBORN BABIES, NSW 2016–2020[#]

Hepatitis B dose given	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Yes	92013	93.7	89070	93.5	88907	93.6	88498	93.6	86521	94.2
No	4956	5.0	5220	5.5	5353	5.6	5157	5.5	5189	5.6
Not stated	1215	1.2	944	1.0	697	0.7	911	1.0	168	0.2
TOTAL	98184	100.0	95234	100.0	94957	100.0	94566	100.0	91878	100.0

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

[#]Includes Hepatitis B doses reported to the PDC only. As the PDC form is completed at discharge or transfer of the baby from the hospital of birth, Hepatitis B doses given after this time may not be reported to the PDC.

Infant feeding at discharge from hospital of birth

The percentage of babies fully breastfed at the time of discharge from hospital decreased from 74.9% to 69.1% between 2016 and 2020. The percentage of babies that received any breastfeeding rose from 13.4% in 2016 to 20.1% in 2020. In the same period, the percentage of babies receiving infant formula only remained steady at about 8.4% (Table 20).

TABLE 20: LIVE BIRTHS BY TYPE OF INFANT FEEDING, NSW 2016–2020

Infant feeding	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Full breastfeeding	73524	74.9	70234	73.7	68916	72.6	67258	71.1	63445	69.1
Any breastfeeding	13177	13.4	14031	14.7	15287	16.1	16765	17.7	18438	20.1
Infant formula only	8305	8.5	7921	8.3	7979	8.4	7864	8.3	7755	8.4
Not stated	3178	3.2	3048	3.2	2775	2.9	2679	2.8	2240	2.4
TOTAL	98184	100.0	95234	100.0	94957	100.0	94566	100.0	91878	100.0

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

Perinatal outcome

Across the period 2016–2020 the perinatal mortality rate varied from 7.5 to 9.1 per 1,000 births and was 9.1 per 1,000 in 2020 (Table 21). In 2020, 78.9% of all reported perinatal deaths were stillbirths and 21.1% were neonatal deaths.

Of the 840 perinatal deaths in 2020 in NSW, 705 (83.9%) were reported among planned hospital births, 116 (13.8%) among planned birth centre births and 19 (2.3%) deaths were among babies born before arrival at hospital. There were no perinatal deaths reported among planned or actual homebirths.

TABLE 21: PERINATAL OUTCOMES, NSW 2016–2020[#]

Year	Perinatal outcome										
	Liveborn surviving		Stillborn		Neonatal death		Death–age not stated		Not stated		Total births
	No.	%	No.	%	No.	%	No.	%	No.	%	No.
2016	97983	99.2	543	0.6	201	0.2	0	0.0	0	0.0	98727
2017	95023	99.2	591	0.6	211	0.2	0	0.0	0	0.0	95825
2018	94781	99.2	595	0.6	176	0.2	0	0.0	0	0.0	95552
2019	94368	99.2	567	0.6	198	0.2	0	0.0	0	0.0	95133
2020	91701	99.1	663	0.7	177	0.2	0	0.0	0	0.0	92541

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.

Maternal deaths

In the period 1990–2019, 255 deaths were reported among pregnant women or women who gave birth less than 6 weeks previously. Of these, 73 (28.6%) died of incidental causes not related to the pregnancy or its management, 112 (43.9%) deaths were found to be directly due to pregnancy or its management, and 66 (25.9%) 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 2019.

TABLE 22: MATERNAL DEATHS BY CLASSIFICATION, NSW 1990–2019[#]

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 [†]	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 [†]	2	2.3	2	2.3	4	4.7	2	2.3	7	8.2
2005 [†]	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 [†]	3	3.2	0	0.0	3	3.2	0	0.0	4	4.2
2016	2	2.1	3	3.1	5	5.1	0	0.0	5	5.1
2017	0	0.0	3	3.2	3	3.2	2	2.1	5	5.3
2018	2	2.1	0	0.0	2	2.1	1	1.1	3	3.2
2019	7	7.5	0	0.0	7	7.5	1	1.1	8	8.5

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.[‡]

[†]Totals for the year include 1 death that was unable to be classified.

TABLE 23: MATERNAL DEATHS BY CAUSE, NSW 2019[#]

Classification	Cause	No.
Direct	Amniotic fluid embolism	1
Direct	Sepsis	1
Direct	Pre-eclampsia and sepsis	1
Direct	Complications of morbid obesity	1
Direct	Pulmonary embolism	2
Direct	Complications of pregnancy-induced hypertension	1
Incidental	Multiple injuries associated with motor vehicle accident	1
TOTAL		8

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.[‡]

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2. Australian Institute of Health and Welfare. *Maternal deaths in Australia* [Internet]. Canberra: Australian Institute of Health and Welfare, 2020. Available from: <https://www.aihw.gov.au/reports/mothers-babies/maternal-deaths-in-australia>. Accessed 9 November 2021.

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 2020 were resident in the Western Sydney Local Health District ($n=14,635$, 16.0%), followed by the South Western Sydney Local Health District ($n=14,046$, 15.4%) and the Hunter New England Local Health District ($n=10,242$, 11.2%).

Maternal age

In 2020, 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 9.3% in the Far West Local Health District, while the percentage of mothers giving birth at 35 years of age or more ranged from 14.8% in the Far West Local Health District to 41.8% in the Northern Sydney Local Health District (Table 24).

TABLE 24: MATERNAL AGE BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2020

Local Health District	Maternal age (years)															
	12–19		20–24		25–29		30–34		35–39		40–44		45+		Not stated	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	25	0.4	291	4.1	1201	16.9	2888	40.7	2174	30.7	469	6.6	38	0.5	2	0.0
South Western Sydney	196	1.4	1630	11.6	4183	29.8	4926	35.1	2541	18.1	527	3.8	43	0.3	0	0.0
South Eastern Sydney	31	0.3	366	3.8	1718	17.8	4052	41.9	2820	29.2	617	6.4	56	0.6	3	0.0
Illawarra Shoalhaven	88	1.9	574	12.7	1290	28.5	1633	36.1	787	17.4	149	3.3	6	0.1	2	0.0
Western Sydney	157	1.1	1285	8.8	3805	26.0	5647	38.6	3140	21.5	560	3.8	41	0.3	0	0.0
Nepean Blue Mountains	101	2.1	592	12.1	1515	31.0	1727	35.3	764	15.6	180	3.7	8	0.2	0	0.0
Northern Sydney	10	0.1	147	1.6	1209	13.4	3902	43.1	3013	33.3	709	7.8	58	0.6	0	0.0
Central Coast	82	2.2	512	13.6	1018	27.1	1271	33.9	689	18.4	161	4.3	8	0.2	12	0.3
Hunter New England	319	3.1	1562	15.3	2987	29.2	3385	33.1	1657	16.2	313	3.1	18	0.2	1	0.0
Northern NSW	66	2.6	382	15.1	739	29.3	811	32.1	431	17.1	91	3.6	3	0.1	0	0.0
Mid North Coast	73	3.5	368	17.7	596	28.7	642	30.9	331	16.0	64	3.1	1	0.0	0	0.0
Southern NSW	40	2.8	223	15.9	415	29.5	479	34.1	213	15.2	33	2.3	2	0.1	0	0.0
Murrumbidgee	77	3.2	406	17.1	783	32.9	710	29.9	337	14.2	64	2.7	1	0.0	0	0.0
Western NSW	133	3.9	567	16.6	1134	33.1	1053	30.7	453	13.2	84	2.5	1	0.0	0	0.0
Far West	17	9.3	38	20.8	51	27.9	50	27.3	22	12.0	5	2.7	0	0.0	0	0.0
Other—not stated	17	1.3	158	11.6	459	33.8	456	33.5	213	15.7	42	3.1	3	0.2	12	0.9
TOTAL	1432	1.6	9101	10.0	23103	25.3	33632	36.9	19585	21.5	4068	4.5	287	0.3	32	0.0

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

Maternal country of birth

Sixty-eight per cent of women who gave birth in NSW in 2020 were born in English speaking countries, 20.9% 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, South Western Sydney and Northern Sydney Local Health Districts.

TABLE 25: MATERNAL COUNTRY OF BIRTH BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2020

Local Health District	Country of birth group																					
	English speaking		Central & South America		Melanesia, Micronesia & Polynesia		Southern Europe		Western & Northern Europe		Eastern Europe, Russia, Central Asian & Baltic States		Middle East & Africa		South East Asia		North East Asia		Southern Asia		TOTAL†	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	3986	56.2	127	1.8	38	0.5	121	1.7	110	1.6	107	1.5	341	4.8	566	8.0	848	12.0	829	11.7	7088	100.0
South Western Sydney	8108	57.7	104	0.7	339	2.4	214	1.5	34	0.2	124	0.9	2083	14.8	1415	10.1	311	2.2	1308	9.3	14046	100.0
South Eastern Sydney	6355	65.8	331	3.4	43	0.4	187	1.9	212	2.2	196	2.0	256	2.6	589	6.1	835	8.6	630	6.5	9663	100.0
Illawarra Shoalhaven	4042	89.2	26	0.6	12	0.3	35	0.8	33	0.7	21	0.5	105	2.3	104	2.3	46	1.0	99	2.2	4529	100.0
Western Sydney	6206	42.4	87	0.6	252	1.7	86	0.6	45	0.3	406	2.8	1303	8.9	909	6.2	1320	9.0	4005	27.4	14635	100.0
Nepean Blue Mountains	4067	83.2	28	0.6	51	1.0	27	0.6	20	0.4	30	0.6	159	3.3	146	3.0	55	1.1	298	6.1	4887	100.0
Northern Sydney	5225	57.7	308	3.4	38	0.4	140	1.5	206	2.3	214	2.4	280	3.1	544	6.0	1341	14.8	718	7.9	9048	100.0
Central Coast	3406	90.8	34	0.9	11	0.3	10	0.3	32	0.9	22	0.6	26	0.7	81	2.2	39	1.0	85	2.3	3753	100.0
Hunter New England	9375	91.5	43	0.4	37	0.4	19	0.2	62	0.6	40	0.4	124	1.2	197	1.9	101	1.0	241	2.4	10242	100.0
Northern NSW	2310	91.6	24	1.0	3	0.1	14	0.6	39	1.5	14	0.6	7	0.3	45	1.8	34	1.3	17	0.7	2523	100.0
Mid North Coast	1865	89.9	11	0.5	4	0.2	3	0.1	14	0.7	12	0.6	39	1.9	51	2.5	18	0.9	55	2.7	2075	100.0
Southern NSW	1273	90.6	6	0.4	3	0.2	4	0.3	8	0.6	4	0.3	9	0.6	29	2.1	7	0.5	60	4.3	1405	100.0
Murrumbidgee	2064	86.8	6	0.3	27	1.1	3	0.1	4	0.2	8	0.3	46	1.9	75	3.2	17	0.7	123	5.2	2378	100.0
Western NSW	3174	92.7	5	0.1	3	0.1	4	0.1	8	0.2	9	0.3	29	0.8	49	1.4	14	0.4	129	3.8	3425	100.0
Far West	176	96.2	1	0.5	0	0.0	0	0.0	0	0.0	0	0.0	1	0.5	3	1.6	1	0.5	1	0.5	183	100.0
Other—not stated	468	34.4	55	4.0	27	2.0	12	0.9	12	0.9	18	1.3	57	4.2	169	12.4	111	8.2	417	30.7	1360	100.0
TOTAL	62100	68.1	1196	1.3	888	1.0	879	1.0	839	0.9	1225	1.3	4865	5.3	4972	5.4	5098	5.6	9015	9.9	91240	100.0

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

†Includes 163 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 2020, 4.9% 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 19.7% in the Far West Local Health District.

TABLE 26: ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2020

Local Health District	Mother's Aboriginality							
	Aboriginal or Torres Strait Islander		Non-Aboriginal or Torres Strait Islander		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Sydney	116	1.6	6880	97.1	92	1.3	7088	100.0
South Western Sydney	369	2.6	13569	96.6	108	0.8	14046	100.0
South Eastern Sydney	137	1.4	9451	97.8	75	0.8	9663	100.0
Illawarra Shoalhaven	308	6.8	4221	93.2	0	0.0	4529	100.0
Western Sydney	291	2.0	14228	97.2	116	0.8	14635	100.0
Nepean Blue Mountains	287	5.9	4494	92.0	106	2.2	4887	100.0
Northern Sydney	46	0.5	8834	97.6	168	1.9	9048	100.0
Central Coast	255	6.8	3493	93.1	5	0.1	3753	100.0
Hunter New England	1182	11.5	8964	87.5	96	0.9	10242	100.0
Northern NSW	223	8.8	2298	91.1	2	0.1	2523	100.0
Mid North Coast	268	12.9	1805	87.0	2	0.1	2075	100.0
Southern NSW	103	7.3	1298	92.4	4	0.3	1405	100.0
Murrumbidgee	226	9.5	2148	90.3	4	0.2	2378	100.0
Western NSW	629	18.4	2795	81.6	1	0.0	3425	100.0
Far West	36	19.7	147	80.3	0	0.0	183	100.0
Other—not stated	30	2.2	1326	97.5	4	0.3	1360	100.0
TOTAL	4506	4.9	85951	94.2	783	0.9	91240	100.0

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

Duration of pregnancy at first antenatal visit

In 2020, 93.1% of mothers commenced antenatal care prior to 20 weeks gestation and 80.0% commenced antenatal care prior to 14 weeks gestation. The percentage of mothers commencing antenatal care prior to 20 weeks gestation varied from 84.1% in the Southern NSW Local Health District to 96.1% in the Nepean Blue Mountains Local Health District (Table 27).

TABLE 27: DURATION OF PREGNANCY AT FIRST ANTENATAL VISIT BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2020

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	3985	56.2	2270	32.0	778	11.0	55	0.8	7088	100.0
South Western Sydney	10809	77.0	1961	14.0	1109	7.9	167	1.2	14046	100.0
South Eastern Sydney	7090	73.4	2030	21.0	514	5.3	29	0.3	9663	100.0
Illawarra Shoalhaven	3909	86.3	441	9.7	162	3.6	17	0.4	4529	100.0
Western Sydney	12498	85.4	1373	9.4	660	4.5	104	0.7	14635	100.0
Nepean Blue Mountains	4305	88.1	391	8.0	126	2.6	65	1.3	4887	100.0
Northern Sydney	7773	85.9	870	9.6	259	2.9	146	1.6	9048	100.0
Central Coast	3056	81.4	496	13.2	181	4.8	20	0.5	3753	100.0
Hunter New England	9057	88.4	646	6.3	469	4.6	70	0.7	10242	100.0
Northern NSW	2165	85.8	172	6.8	173	6.9	13	0.5	2523	100.0
Mid North Coast	1761	84.9	155	7.5	142	6.8	17	0.8	2075	100.0
Southern NSW	936	66.6	245	17.4	219	15.6	5	0.4	1405	100.0
Murrumbidgee	1955	82.2	217	9.1	191	8.0	15	0.6	2378	100.0
Western NSW	2755	80.4	390	11.4	233	6.8	47	1.4	3425	100.0
Far West	131	71.6	35	19.1	16	8.7	1	0.5	183	100.0
Other—not stated	825	60.7	244	17.9	265	19.5	26	1.9	1360	100.0
TOTAL	73010	80.0	11936	13.1	5497	6.0	797	0.9	91240	100.0

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

Smoking in pregnancy

In 2020, 8.6% 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 28.4% in the Far West Local Health District (Table 28). Overall, 6.7% 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 (26.2%).

TABLE 28: SMOKING IN PREGNANCY BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2020

Local Health District	Smoking during pregnancy							
	Smoked in first half of pregnancy		Smoked in second half of pregnancy		Smoked at all during pregnancy		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Sydney	213	3.0	121	1.7	218	3.1	7088	100.0
South Western Sydney	1062	7.6	714	5.1	1106	7.9	14046	100.0
South Eastern Sydney	271	2.8	173	1.8	283	2.9	9663	100.0
Illawarra Shoalhaven	554	12.2	426	9.4	578	12.8	4529	100.0
Western Sydney	964	6.6	766	5.2	999	6.8	14635	100.0
Nepean Blue Mountains	526	10.8	463	9.5	545	11.2	4887	100.0
Northern Sydney	105	1.2	50	0.6	108	1.2	9048	100.0
Central Coast	456	12.2	387	10.3	489	13.0	3753	100.0
Hunter New England	1397	13.6	1242	12.1	1486	14.5	10242	100.0
Northern NSW	298	11.8	271	10.7	329	13.0	2523	100.0
Mid North Coast	353	17.0	295	14.2	374	18.0	2075	100.0
Southern NSW	170	12.1	149	10.6	184	13.1	1405	100.0
Murrumbidgee	386	16.2	379	15.9	419	17.6	2378	100.0
Western NSW	599	17.5	558	16.3	639	18.7	3425	100.0
Far West	49	26.8	48	26.2	52	28.4	183	100.0
Other—not stated	76	5.6	63	4.7	78	5.8	1360	100.0
TOTAL	7479	8.2	6105	6.7	7887	8.6	91240	100.0

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

Maternal overweight and obesity

In 2020, 55.5% of mothers were in the healthy weight range, 26.0% were overweight and 15.1% were obese. The percentage of mothers that were overweight or obese varied from 25.0% in the Northern Sydney Local Health District to 55.2% in the Far West Local Health District (Table 29).

TABLE 29: MATERNAL BMI CATEGORIES BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2020

Local Health District	Body Mass Index ^a											
	Underweight		Healthy weight		Overweight		Obese		Overweight or obese		TOTAL [*]	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	275	4.3	4171	64.5	1456	22.5	560	8.7	2016	31.2	6462	100.0
South Western Sydney	377	3.0	6048	47.6	3841	30.3	2429	19.1	6270	49.4	12695	100.0
South Eastern Sydney	359	4.1	5881	67.3	1776	20.3	721	8.3	2497	28.6	8737	100.0
Illawarra Shoalhaven	117	2.8	2283	55.3	1020	24.7	705	17.1	1725	41.8	4125	100.0
Western Sydney	407	3.0	7166	53.3	3834	28.5	2031	15.1	5865	43.6	13438	100.0
Nepean Blue Mountains	114	2.6	2030	46.8	1286	29.7	905	20.9	2191	50.5	4335	100.0
Northern Sydney	372	4.5	5821	70.5	1562	18.9	504	6.1	2066	25.0	8259	100.0
Central Coast	97	3.0	1663	51.7	852	26.5	602	18.7	1454	45.2	3214	100.0
Hunter New England	244	2.8	4217	48.1	2468	28.1	1841	21.0	4309	49.1	8770	100.0
Northern NSW	125	5.5	1281	55.9	544	23.7	342	14.9	886	38.7	2292	100.0
Mid North Coast	81	4.3	995	53.2	517	27.6	278	14.9	795	42.5	1871	100.0
Southern NSW	46	3.5	656	49.8	373	28.3	243	18.4	616	46.7	1318	100.0
Murrumbidgee	60	2.8	991	47.0	613	29.1	446	21.1	1059	50.2	2110	100.0
Western NSW	86	2.8	1456	47.7	856	28.0	654	21.4	1510	49.5	3052	100.0
Far West	8	4.9	65	39.9	47	28.8	43	26.4	90	55.2	163	100.0
Other-not stated	51	4.1	795	64.2	284	22.9	109	8.8	393	31.7	1239	100.0
TOTAL	2819	3.4	45519	55.5	21329	26.0	12413	15.1	33742	41.1	82080	100.0

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

#Mothers under the age of 18 were assigned BMI categories using age-specific thresholds.^{1,2} See Appendix 2: Explanatory notes for further information.

*Biologically implausible and missing height, weight, or BMI values (10.0% of all records) were excluded from the analysis.

Place of birth

Ninety-two per cent of mothers chose to give birth in a hospital birthing suite in 2020, compared to 7.1% who planned a birth centre birth and 0.4% who planned a home birth (Table 30). Planned birth centre births were most commonly reported in the Far West Local Health District (19.1%). The greatest number of planned birth centre births was to mothers living in Hunter New England Local Health District ($n=1,488$), followed by Western Sydney Local Health District ($n=1,264$).

TABLE 30: PLACE OF BIRTH BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2020

Local Health District	Place of birth													
	Hospital		Birth centre		Planned birth centre–hospital admission		Planned homebirth		Planned homebirth–hospital admission		Born before arrival		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	6844	96.6	162	2.3	28	0.4	17	0.2	2	0.0	33	0.5	7088	100.0
South Western Sydney	13768	98.0	46	0.3	122	0.9	31	0.2	2	0.0	73	0.5	14046	100.0
South Eastern Sydney	9038	93.5	405	4.2	128	1.3	40	0.4	5	0.1	41	0.4	9663	100.0
Illawarra Shoalhaven	4286	94.6	41	0.9	130	2.9	32	0.7	3	0.1	37	0.8	4529	100.0
Western Sydney	13266	90.6	490	3.3	774	5.3	16	0.1	8	0.1	81	0.6	14635	100.0
Nepean Blue Mountains	4350	89.0	301	6.2	190	3.9	25	0.5	2	0.0	19	0.4	4887	100.0
Northern Sydney	8589	94.9	140	1.5	254	2.8	20	0.2	1	0.0	41	0.5	9048	100.0
Central Coast	3392	90.4	159	4.2	153	4.1	1	0.0	0	0.0	45	1.2	3753	100.0
Hunter New England	8595	83.9	907	8.9	581	5.7	60	0.6	17	0.2	82	0.8	10242	100.0
Northern NSW	2136	84.7	194	7.7	126	5.0	30	1.2	8	0.3	29	1.1	2523	100.0
Mid North Coast	1867	90.0	81	3.9	113	5.4	0	0.0	2	0.1	12	0.6	2075	100.0
Southern NSW	1221	86.9	38	2.7	127	9.0	5	0.4	2	0.1	12	0.9	1405	100.0
Murrumbidgee	2047	86.1	146	6.1	165	6.9	0	0.0	5	0.2	15	0.6	2378	100.0
Western NSW	3002	87.6	114	3.3	283	8.3	0	0.0	6	0.2	20	0.6	3425	100.0
Far West	144	78.7	18	9.8	17	9.3	1	0.5	0	0.0	3	1.6	183	100.0
Other—not stated	1284	94.4	30	2.2	38	2.8	0	0.0	0	0.0	7	0.5	1360	100.0
TOTAL	83829	91.9	3272	3.6	3229	3.5	278	0.3	63	0.1	550	0.6	91240	100.0

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

Labour

In 2020, the onset of labour was spontaneous in 41.0% of confinements (Table 31). Labour was induced in 35.6% of confinements and no labour (elective caesarean section) was reported in 23.3%. The rate of spontaneous onset of labour was highest among residents of the Far West Local Health District (58.5%). The highest rate of induction of labour was among residents of the Illawarra Shoalhaven Local Health District (40.2%).

TABLE 31: ONSET AND AUGMENTATION OF LABOUR BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2020

Local Health District	Onset of labour																			
	Spontaneous		Spontaneous augmented with ARM		Spontaneous augmented with oxytocics [†]		No labour		Induced-oxytocics/ prostaglandins		Induced-ARM only		Induced-ARM + oxytocics/ prostaglandins		Induced-other [‡]		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	1684	23.8	325	4.6	642	9.1	1944	27.4	796	11.2	185	2.6	1438	20.3	72	1.0	2	0.0	7088	100.0
South Western Sydney	4417	31.4	1014	7.2	1097	7.8	2762	19.7	2532	18.0	522	3.7	1451	10.3	241	1.7	10	0.1	14046	100.0
South Eastern Sydney	2635	27.3	376	3.9	751	7.8	2422	25.1	1217	12.6	203	2.1	2036	21.1	23	0.2	0	0.0	9663	100.0
Illawarra Shoalhaven	1252	27.6	168	3.7	306	6.8	983	21.7	478	10.6	71	1.6	1250	27.6	21	0.5	0	0.0	4529	100.0
Western Sydney	4086	27.9	681	4.7	1229	8.4	3491	23.9	1694	11.6	180	1.2	3187	21.8	79	0.5	8	0.1	14635	100.0
Nepean Blue Mountains	1417	29.0	236	4.8	192	3.9	1181	24.2	722	14.8	82	1.7	1034	21.2	23	0.5	0	0.0	4887	100.0
Northern Sydney	2271	25.1	447	4.9	738	8.2	2666	29.5	1015	11.2	260	2.9	1574	17.4	76	0.8	1	0.0	9048	100.0
Central Coast	1242	33.1	139	3.7	217	5.8	814	21.7	465	12.4	69	1.8	802	21.4	5	0.1	0	0.0	3753	100.0
Hunter New England	3025	29.5	331	3.2	500	4.9	2276	22.2	1228	12.0	312	3.0	2529	24.7	41	0.4	0	0.0	10242	100.0
Northern NSW	999	39.6	94	3.7	179	7.1	414	16.4	263	10.4	93	3.7	467	18.5	13	0.5	1	0.0	2523	100.0
Mid North Coast	741	35.7	83	4.0	109	5.3	432	20.8	234	11.3	74	3.6	392	18.9	10	0.5	0	0.0	2075	100.0
Southern NSW	593	42.2	48	3.4	83	5.9	244	17.4	173	12.3	35	2.5	224	15.9	5	0.4	0	0.0	1405	100.0
Murrumbidgee	808	34.0	91	3.8	128	5.4	569	23.9	302	12.7	60	2.5	414	17.4	6	0.3	0	0.0	2378	100.0
Western NSW	1059	30.9	116	3.4	194	5.7	804	23.5	388	11.3	76	2.2	772	22.5	16	0.5	0	0.0	3425	100.0
Far West	90	49.2	10	5.5	7	3.8	28	15.3	19	10.4	5	2.7	23	12.6	1	0.5	0	0.0	183	100.0
Other-not stated	382	28.1	66	4.9	142	10.4	226	16.6	204	15.0	49	3.6	272	20.0	19	1.4	0	0.0	1360	100.0
TOTAL	26701	29.3	4225	4.6	6514	7.1	21256	23.3	11730	12.9	2276	2.5	17865	19.6	651	0.7	22	0.0	91240	100.0

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

ARM: Artificial Rupture of Membranes.

[†]May include artificial rupture of membranes.

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

Type of birth

Fifty-one per cent of births were normal vaginal births in 2020, 11.7% were instrumental and 36.7% were by caesarean section (Table 32). The highest rate of normal vaginal birth was 62.0% among residents of the Northern NSW Local Health District, while the highest rate of instrumental birth was 16.6% among residents of the South Eastern Sydney Local Health District. The caesarean section rate varied from 28.4% among mothers resident in the Northern NSW Local Health District to 42.3% in the Northern Sydney Local Health District.

TABLE 32: TYPE OF BIRTH BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2020

Local Health District	Type of birth													
	Normal vaginal		Forceps		Vacuum extraction		Vaginal breech		Elective caesarean section		Emergency caesarean section [†]		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	3046	43.0	400	5.6	680	9.6	25	0.4	1944	27.4	993	14.0	7088	100.0
South Western Sydney	8127	57.9	493	3.5	993	7.1	54	0.4	2762	19.7	1617	11.5	14046	100.0
South Eastern Sydney	4241	43.9	701	7.3	902	9.3	21	0.2	2422	25.1	1376	14.2	9663	100.0
Illawarra Shoalhaven	2403	53.1	198	4.4	319	7.0	15	0.3	983	21.7	611	13.5	4529	100.0
Western Sydney	7569	51.7	646	4.4	864	5.9	90	0.6	3491	23.9	1975	13.5	14635	100.0
Nepean Blue Mountains	2520	51.6	125	2.6	325	6.7	15	0.3	1181	24.2	721	14.8	4887	100.0
Northern Sydney	3923	43.4	545	6.0	732	8.1	19	0.2	2666	29.5	1163	12.9	9048	100.0
Central Coast	1984	52.9	236	6.3	218	5.8	9	0.2	814	21.7	492	13.1	3753	100.0
Hunter New England	5498	53.7	395	3.9	558	5.4	35	0.3	2276	22.2	1480	14.5	10242	100.0
Northern NSW	1565	62.0	95	3.8	139	5.5	8	0.3	414	16.4	302	12.0	2523	100.0
Mid North Coast	1194	57.5	61	2.9	119	5.7	8	0.4	432	20.8	261	12.6	2075	100.0
Southern NSW	838	59.6	37	2.6	93	6.6	2	0.1	244	17.4	191	13.6	1405	100.0
Murrumbidgee	1240	52.1	35	1.5	187	7.9	5	0.2	569	23.9	342	14.4	2378	100.0
Western NSW	1907	55.7	130	3.8	161	4.7	12	0.4	804	23.5	411	12.0	3425	100.0
Far West	112	61.2	10	5.5	3	1.6	1	0.5	28	15.3	29	15.8	183	100.0
Other—not stated	664	48.8	73	5.4	166	12.2	5	0.4	226	16.6	226	16.6	1360	100.0
TOTAL	46831	51.3	4180	4.6	6459	7.1	324	0.4	21256	23.3	12190	13.4	91240	100.0

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

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

Birthweight

In 2020, 6.6% 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 2.9% in the Southern NSW Local Health District to 9.1% in the Far West Local Health District.

TABLE 33: BIRTHWEIGHT BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2020

Local Health District	Birthweight (grams)																							
	Less than 500		500–999		1,000–1,499		1,500–1,999		2,000–2,499		2,500–2,999		3,000–3,499		3,500–3,999		4,000–4,499		4,500+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	21	0.3	31	0.4	33	0.5	106	1.5	293	4.1	1441	20.0	2857	39.7	1943	27.0	422	5.9	39	0.5	8	0.1	7194	100.0
South Western Sydney	34	0.2	63	0.4	76	0.5	160	1.1	619	4.3	2428	17.0	5470	38.4	4009	28.1	1197	8.4	163	1.1	38	0.3	14257	100.0
South Eastern Sydney	26	0.3	35	0.4	40	0.4	112	1.1	359	3.7	1592	16.2	3953	40.3	2856	29.1	726	7.4	89	0.9	14	0.1	9802	100.0
Illawarra Shoalhaven	11	0.2	11	0.2	25	0.5	56	1.2	173	3.8	705	15.4	1679	36.6	1461	31.8	415	9.0	50	1.1	4	0.1	4590	100.0
Western Sydney	46	0.3	87	0.6	81	0.5	201	1.4	643	4.3	2861	19.3	5814	39.1	3910	26.3	1016	6.8	150	1.0	44	0.3	14853	100.0
Nepean Blue Mountains	17	0.3	14	0.3	29	0.6	63	1.3	214	4.3	766	15.4	1808	36.4	1494	30.1	467	9.4	76	1.5	13	0.3	4961	100.0
Northern Sydney	19	0.2	33	0.4	35	0.4	96	1.0	333	3.6	1590	17.3	3744	40.8	2592	28.2	660	7.2	70	0.8	8	0.1	9180	100.0
Central Coast	6	0.2	18	0.5	16	0.4	56	1.5	158	4.2	526	13.8	1386	36.4	1169	30.7	388	10.2	77	2.0	5	0.1	3805	100.0
Hunter New England	29	0.3	48	0.5	73	0.7	140	1.3	470	4.5	1527	14.7	3678	35.4	3247	31.3	1011	9.7	134	1.3	20	0.2	10377	100.0
Northern NSW	6	0.2	9	0.4	13	0.5	31	1.2	98	3.8	372	14.6	855	33.5	842	33.0	282	11.0	40	1.6	6	0.2	2554	100.0
Mid North Coast	5	0.2	12	0.6	16	0.8	35	1.7	96	4.6	287	13.6	746	35.4	670	31.8	214	10.1	25	1.2	3	0.1	2109	100.0
Southern NSW	0	0.0	1	0.1	1	0.1	4	0.3	35	2.5	195	13.9	503	35.8	496	35.3	138	9.8	21	1.5	12	0.9	1406	100.0
Murrumbidgee	4	0.2	3	0.1	7	0.3	23	1.0	92	3.8	334	13.9	865	36.0	796	33.1	228	9.5	34	1.4	17	0.7	2403	100.0
Western NSW	20	0.6	22	0.6	25	0.7	51	1.5	177	5.1	520	14.9	1274	36.6	996	28.6	348	10.0	41	1.2	11	0.3	3485	100.0
Far West	1	0.5	1	0.5	0	0.0	2	1.1	13	7.0	25	13.4	75	40.1	53	28.3	15	8.0	2	1.1	0	0.0	187	100.0
Other—not stated	7	0.5	11	0.8	14	1.0	18	1.3	56	4.1	285	20.7	519	37.7	367	26.6	89	6.5	9	0.7	3	0.2	1378	100.0
TOTAL	252	0.3	399	0.4	484	0.5	1154	1.2	3829	4.1	15454	16.7	35226	38.1	26901	29.1	7616	8.2	1020	1.1	206	0.2	92541	100.0

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

Gestational age

The majority of births (92.0%) were at term, and 0.7% were post-term (42-plus weeks). The 7.3% of preterm births comprised 0.8% born at less than 28 weeks, 0.6% at 28–31 weeks, and 5.9% at 32–36 weeks. The highest rate of preterm birth was 9.2% in the Western NSW Local Health District, while the lowest was 3.4% in the Southern NSW Local Health District (Table 34).

TABLE 34: GESTATIONAL AGE BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2020

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	56	0.8	56	0.8	463	6.4	6598	91.7	11	0.2	10	0.1	7194	100.0
South Western Sydney	120	0.8	92	0.6	858	6.0	13163	92.3	19	0.1	5	0.0	14257	100.0
South Eastern Sydney	67	0.7	60	0.6	505	5.2	9107	92.9	62	0.6	1	0.0	9802	100.0
Illawarra Shoalhaven	29	0.6	33	0.7	258	5.6	4245	92.5	25	0.5	0	0.0	4590	100.0
Western Sydney	151	1.0	98	0.7	757	5.1	13754	92.6	92	0.6	1	0.0	14853	100.0
Nepean Blue Mountains	40	0.8	36	0.7	367	7.4	4484	90.4	27	0.5	7	0.1	4961	100.0
Northern Sydney	55	0.6	44	0.5	483	5.3	8569	93.3	26	0.3	3	0.0	9180	100.0
Central Coast	24	0.6	21	0.6	244	6.4	3453	90.7	61	1.6	2	0.1	3805	100.0
Hunter New England	88	0.8	85	0.8	685	6.6	9360	90.2	156	1.5	3	0.0	10377	100.0
Northern NSW	16	0.6	12	0.5	133	5.2	2335	91.4	55	2.2	3	0.1	2554	100.0
Mid North Coast	20	0.9	11	0.5	151	7.2	1907	90.4	20	0.9	0	0.0	2109	100.0
Southern NSW	3	0.2	2	0.1	43	3.1	1341	95.4	14	1.0	3	0.2	1406	100.0
Murrumbidgee	9	0.4	7	0.3	141	5.9	2233	92.9	13	0.5	0	0.0	2403	100.0
Western NSW	50	1.4	26	0.7	243	7.0	3141	90.1	25	0.7	0	0.0	3485	100.0
Far West	1	0.5	0	0.0	11	5.9	174	93.0	1	0.5	0	0.0	187	100.0
Other—not stated	21	1.5	11	0.8	78	5.7	1259	91.4	9	0.7	0	0.0	1378	100.0
TOTAL	750	0.8	594	0.6	5420	5.9	85123	92.0	616	0.7	38	0.0	92541	100.0

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

Hepatitis B

Ninety-four per cent of liveborn babies in NSW in 2020 were given a hepatitis B vaccination at birth. The highest rate of hepatitis B vaccinations at birth was 97.8% in the Far West Local Health District, while the lowest was 76.8% 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 2020*

Local Health District	Hepatitis B dose given							
	Yes		No		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Sydney	6754	94.5	345	4.8	47	0.7	7146	100.0
South Western Sydney	13659	96.5	440	3.1	51	0.4	14150	100.0
South Eastern Sydney	8918	91.5	810	8.3	16	0.2	9744	100.0
Illawarra Shoalhaven	4346	95.2	220	4.8	1	0.0	4567	100.0
Western Sydney	14114	95.8	616	4.2	9	0.1	14739	100.0
Nepean Blue Mountains	4676	94.9	244	5.0	8	0.2	4928	100.0
Northern Sydney	8382	91.8	734	8.0	18	0.2	9134	100.0
Central Coast	3568	94.5	200	5.3	8	0.2	3776	100.0
Hunter New England	9885	96.0	409	4.0	0	0.0	10294	100.0
Northern NSW	1948	76.8	586	23.1	3	0.1	2537	100.0
Mid North Coast	1882	90.0	210	10.0	0	0.0	2092	100.0
Southern NSW	1298	92.9	98	7.0	1	0.1	1397	100.0
Murrumbidgee	2324	97.2	67	2.8	0	0.0	2391	100.0
Western NSW	3330	96.7	114	3.3	1	0.0	3445	100.0
Far West	180	97.8	4	2.2	0	0.0	184	100.0
Other—not stated	1257	92.8	92	6.8	5	0.4	1354	100.0
TOTAL	86521	94.2	5189	5.6	168	0.2	91878	100.0

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

*Includes Hepatitis B doses reported to the PDC only. As the PDC form is completed at discharge or transfer of the baby from the hospital of birth, Hepatitis B doses given after this time may not be reported to the PDC.

Infant feeding at discharge from hospital of birth

In 2020, infant feeding on discharge from hospital was reported for 91,878 liveborn babies (Table 36). The majority of babies (69.1%) were reported to be fully breastfed at hospital discharge, 8.4% were receiving infant formula only, and a further 20.1% were being partially breastfed. Rates of full breastfeeding varied from 55.3% in the South Western Sydney Local Health District to 85.1% in the Northern NSW Local Health District.

TABLE 36: LIVE BIRTHS BY INFANT FEEDING ON DISCHARGE AND LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2020

Local Health District	Infant feeding									
	Full breastfeeding		Any breastfeeding		Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	4703	65.8	2018	28.2	331	4.6	94	1.3	7146	100.0
South Western Sydney	7830	55.3	4129	29.2	1635	11.6	556	3.9	14150	100.0
South Eastern Sydney	7172	73.6	2035	20.9	428	4.4	109	1.1	9744	100.0
Illawarra Shoalhaven	3387	74.2	532	11.6	605	13.2	43	0.9	4567	100.0
Western Sydney	9742	66.1	3549	24.1	1144	7.8	304	2.1	14739	100.0
Nepean Blue Mountains	3190	64.7	941	19.1	599	12.2	198	4.0	4928	100.0
Northern Sydney	6758	74.0	1864	20.4	262	2.9	250	2.7	9134	100.0
Central Coast	2917	77.3	466	12.3	353	9.3	40	1.1	3776	100.0
Hunter New England	7551	73.4	1338	13.0	1082	10.5	323	3.1	10294	100.0
Northern NSW	2158	85.1	176	6.9	132	5.2	71	2.8	2537	100.0
Mid North Coast	1592	76.1	240	11.5	193	9.2	67	3.2	2092	100.0
Southern NSW	1142	81.7	125	8.9	99	7.1	31	2.2	1397	100.0
Murrumbidgee	1773	74.2	246	10.3	334	14.0	38	1.6	2391	100.0
Western NSW	2456	71.3	420	12.2	485	14.1	84	2.4	3445	100.0
Far West	139	75.5	10	5.4	28	15.2	7	3.8	184	100.0
Other—not stated	935	69.1	349	25.8	45	3.3	25	1.8	1354	100.0
TOTAL	63445	69.1	18438	20.1	7755	8.4	2240	2.4	91878	100.0

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

Perinatal outcome

The perinatal mortality rate in 2020 was 9.1 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 6.2 per 1,000 births in the Murrumbidgee Local Health District to 16.0 per 1,000 births in the Far West Local Health District.

TABLE 37: PERINATAL OUTCOMES BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2020*

Local Health District	Perinatal outcomes												Perinatal death rate/1,000 births
	Liveborn surviving		Stillborn		Neonatal death		Death—age not stated		Not stated		Total births		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
Sydney	7129	99.1	48	0.7	17	0.2	0	0.0	0	0.0	7194	100.0	9.0
South Western Sydney	14126	99.1	107	0.8	24	0.2	0	0.0	0	0.0	14257	100.0	9.2
South Eastern Sydney	9731	99.3	58	0.6	13	0.1	0	0.0	0	0.0	9802	100.0	7.2
Illawarra Shoalhaven	4561	99.4	23	0.5	6	0.1	0	0.0	0	0.0	4590	100.0	6.3
Western Sydney	14689	98.9	114	0.8	50	0.3	0	0.0	0	0.0	14853	100.0	11.0
Nepean Blue Mountains	4916	99.1	33	0.7	12	0.2	0	0.0	0	0.0	4961	100.0	9.1
Northern Sydney	9122	99.4	46	0.5	12	0.1	0	0.0	0	0.0	9180	100.0	6.3
Central Coast	3772	99.1	29	0.8	4	0.1	0	0.0	0	0.0	3805	100.0	8.7
Hunter New England	10274	99.0	83	0.8	20	0.2	0	0.0	0	0.0	10377	100.0	9.9
Northern NSW	2536	99.3	17	0.7	1	0.0	0	0.0	0	0.0	2554	100.0	7.0
Mid North Coast	2088	99.0	17	0.8	4	0.2	0	0.0	0	0.0	2109	100.0	10.0
Southern NSW	1397	99.4	9	0.6	0	0.0	0	0.0	0	0.0	1406	100.0	6.4
Murrumbidgee	2388	99.4	12	0.5	3	0.1	0	0.0	0	0.0	2403	100.0	6.2
Western NSW	3436	98.6	40	1.1	9	0.3	0	0.0	0	0.0	3485	100.0	14.1
Far West	184	98.4	3	1.6	0	0.0	0	0.0	0	0.0	187	100.0	16.0
Other—not stated	1352	98.1	24	1.7	2	0.1	0	0.0	0	0.0	1378	100.0	18.9
TOTAL	91701	99.1	663	0.7	177	0.2	0	0.0	0	0.0	92541	100.0	9.1

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

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

Live births by statistical area of residence

TABLE 38: LIVE BIRTHS BY LOCAL HEALTH DISTRICT AND STATISTICAL AREA OF RESIDENCE, NSW 2020[#]

Local Health District–Statistical Area 3 ¹		No.	%
Sydney	Bankstown*	32	0.4
	Canada Bay	958	13.4
	Canterbury*	1713	24.0
	Hurstville*	102	1.4
	Leichhardt	700	9.8
	Marrickville–Sydenham–Petersham	555	7.8
	Strathfield–Burwood–Ashfield	1528	21.4
	Sydney Inner City*	1558	21.8
	TOTAL	7146	100.0
South Western Sydney	Auburn*	12	0.1
	Bankstown*	2433	17.2
	Bringelly–Green Valley	2423	17.1
	Camden	1059	7.5
	Campbelltown	2640	18.7
	Canterbury*	117	0.8
	Fairfield*	1871	13.2
	Liverpool*	2000	14.1
	Merrylands–Guildford*	468	3.3
	Penrith*	107	0.8
	Southern Highlands*	449	3.2
	Wollondilly	571	4.0
	TOTAL	14150	100.0
South Eastern Sydney	Botany	745	7.6
	Cronulla–Miranda–Caringbah	1309	13.4
	Eastern Suburbs–North	1541	15.8
	Eastern Suburbs–South	1457	15.0
	Hurstville*	1215	12.5
	Kogarah–Rockdale	1773	18.2
	Liverpool*	3	0.0
	Lord Howe Island	1	0.0
	Sutherland–Menai–Heathcote	1192	12.2
	Sydney Inner City*	508	5.2
	TOTAL	9744	100.0
Illawarra Shoalhaven	Dapto–Port Kembla	999	21.9
	Kiama–Shellharbour	1103	24.2
	Shoalhaven	1067	23.4
	South Coast*	2	0.0
	Wollongong	1396	30.6
	TOTAL	4567	100.0
Western Sydney	Auburn*	1555	10.6
	Baulkham Hills*	1042	7.1
	Blacktown	2066	14.0
	Blacktown–North	2197	14.9
	Carlingford*	729	4.9
	Dural–Wisemans Ferry*	120	0.8
	Merrylands–Guildford*	2198	14.9
	Mount Druitt	1836	12.5
	Parramatta	2297	15.6
	Pennant Hills–Epping*	81	0.5
	Rouse Hill–McGraths Hill*	575	3.9
	Ryde–Hunters Hill*	43	0.3
	TOTAL	14739	100.0

Local Health District–Statistical Area 3 ¹		No.	%
Nepean Blue Mountains	Bathurst	1	0.0
	Blue Mountains	712	14.4
	Dural–Wisemans Ferry*	1	0.0
	Fairfield*	17	0.3
	Hawkesbury	288	5.8
	Lithgow–Mudgee*	189	3.8
	Penrith*	2290	46.5
	Richmond–Windsor	467	9.5
	Rouse Hill–McGraths Hill*	125	2.5
	St Marys	838	17.0
	TOTAL	4928	100.0
Northern Sydney	Baulkham Hills*	124	1.4
	Carlingford*	45	0.5
	Chatswood–Lane Cove	1307	14.3
	Dural–Wisemans Ferry*	84	0.9
	Hornsby	911	10.0
	Ku-ring-gai	836	9.2
	Manly	520	5.7
	North Sydney–Mosman	1139	12.5
	Pennant Hills–Epping*	333	3.6
	Pittwater	551	6.0
	Ryde–Hunters Hill*	1529	16.7
	Warringah	1755	19.2
	TOTAL	9134	100.0
Central Coast	Gosford	1791	47.4
	Wyong	1985	52.6
	TOTAL	3776	100.0
Hunter New England	Armidale	398	3.9
	Great Lakes	230	2.2
	Inverell–Tenterfield*	310	3.0
	Lake Macquarie–East	1292	12.6
	Lake Macquarie–West	912	8.9
	Lower Hunter	1219	11.8
	Maitland	1139	11.1
	Moree–Narrabri	309	3.0
	Newcastle	1895	18.4
	Port Stephens	619	6.0
	Tamworth–Gunnedah	1064	10.3
	Taree–Gloucester	560	5.4
	Upper Hunter	347	3.4
	TOTAL	10294	100.0
Northern NSW	Clarence Valley	503	19.8
	Coffs Harbour*	5	0.2
	Inverell–Tenterfield*	2	0.1
	Richmond Valley–Coastal	661	26.1
	Richmond Valley–Hinterland	652	25.7
	Tweed Valley	714	28.1
	TOTAL	2537	100.0
Mid North Coast	Coffs Harbour*	850	40.6
	Kempsey–Nambucca*	515	24.6
	Port Macquarie	727	34.8
	TOTAL	2092	100.0

(Continued on next page)

TABLE 38: (Continued)

Local Health District–Statistical Area 3 [†]	No.	%
Southern NSW		
Goulburn–Mulwaree	336	24.1
Queanbeyan	391	28.0
Snowy Mountains	134	9.6
South Coast*	506	36.2
Young–Yass*	30	2.1
TOTAL	1397	100.0
Murrumbidgee		
Albury*	17	0.7
Griffith–Murrumbidgee (West)	651	27.2
Lachlan Valley*	114	4.8
Lower Murray*	35	1.5
Tumut–Tumbarumba	118	4.9
Upper Murray excluding Albury	85	3.6
Wagga Wagga	1225	51.2
Young–Yass*	146	6.1
TOTAL	2391	100.0
Western NSW		
Bathurst	517	15.0
Bourke–Cobar–Coonamble	315	9.1
Dubbo	1012	29.4
Lachlan Valley*	516	15.0
Lithgow–Mudgee*	311	9.0
Orange	774	22.5
TOTAL	3445	100.0
Far West		
Broken Hill and Far West	180	97.8
Lower Murray*	4	2.2
TOTAL	184	100.0
Other–not stated		
TOTAL	1354	100.0
TOTAL	91878	100.0

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 2 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 2020.

TABLE 39: ONSET AND AUGMENTATION OF LABOUR BY LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2020

Hospital sector– Local Health District	Onset and augmentation of labour																	
	Spontaneous		Spontaneous augmented with ARM		Spontaneous augmented with oxytocics†		No labour		Induced–oxytocics/ prostaglandins		Induced–ARM only		Induced–ARM + oxytocics/ prostaglandins		Induced–other†		TOTAL††	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Public																		
Sydney	1433	24.5	285	4.9	615	10.5	1278	21.8	683	11.7	163	2.8	1332	22.7	71	1.2	5860	100.0
South Western Sydney	3844	33.9	902	8.0	935	8.3	1924	17.0	2272	20.1	470	4.2	740	6.5	237	2.1	11324	100.0
South Eastern Sydney	2275	31.7	291	4.1	574	8.0	1325	18.5	1019	14.2	141	2.0	1537	21.4	19	0.3	7181	100.0
Illawarra Shoalhaven	984	29.1	161	4.8	226	6.7	588	17.4	428	12.7	50	1.5	928	27.4	17	0.5	3382	100.0
Western Sydney	3228	31.0	529	5.1	917	8.8	2073	19.9	1241	11.9	97	0.9	2273	21.8	55	0.5	10413	100.0
Nepean Blue Mountains	1528	31.2	231	4.7	231	4.7	1115	22.8	780	16.0	41	0.8	943	19.3	21	0.4	4890	100.0
Northern Sydney	1595	29.1	347	6.3	429	7.8	1221	22.3	793	14.5	129	2.4	921	16.8	43	0.8	5478	100.0
Central Coast	1181	38.7	121	4.0	163	5.3	501	16.4	444	14.6	60	2.0	575	18.9	4	0.1	3049	100.0
Hunter New England	2805	32.6	258	3.0	495	5.7	1719	19.9	1081	12.5	160	1.9	2063	23.9	36	0.4	8617	100.0
Northern NSW	1076	39.6	99	3.6	203	7.5	421	15.5	276	10.1	105	3.9	524	19.3	15	0.6	2720	100.0
Mid North Coast	735	35.3	86	4.1	116	5.6	430	20.7	231	11.1	73	3.5	400	19.2	10	0.5	2081	100.0
Southern NSW	647	42.2	54	3.5	96	6.3	256	16.7	193	12.6	38	2.5	243	15.9	5	0.3	1532	100.0
Murrumbidgee	780	36.2	87	4.0	120	5.6	433	20.1	279	13.0	49	2.3	399	18.5	5	0.2	2152	100.0
Western NSW	1034	31.7	114	3.5	188	5.8	729	22.4	368	11.3	72	2.2	739	22.7	15	0.5	3259	100.0
Far West	88	49.4	10	5.6	7	3.9	27	15.2	19	10.7	5	2.8	22	12.4	0	0.0	178	100.0
TOTAL	23233	32.2	3575	5.0	5315	7.4	14040	19.5	10107	14.0	1653	2.3	13639	18.9	553	0.8	72116	100.0
Private																		
TOTAL	3323	17.5	645	3.4	1199	6.3	7216	38.0	1623	8.6	623	3.3	4226	22.3	98	0.5	18974	100.0
TOTAL NSW*	26701	29.3	4225	4.6	6514	7.1	21256	23.3	11730	12.9	2276	2.5	17865	19.6	651	0.7	91240	100.0

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

ARM: Artificial Rupture of Membranes.

[†]May include artificial rupture of membranes.

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

^{††}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 2020^a

Maternity service level–Hospital	Onset and augmentation of labour																	
	Spontaneous		Spontaneous augmented with ARM		Spontaneous augmented with oxytocics†		No labour		Induced–oxytocics/prostaglandins		Induced–ARM only		Induced–ARM + oxytocics/prostaglandins		Induced–other‡		TOTAL††	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Level 6																		
Royal Prince Alfred	1054	23.9	219	5.0	488	11.1	985	22.4	497	11.3	120	2.7	980	22.3	60	1.4	4403	100.0
Royal North Shore	722	27.6	119	4.6	206	7.9	594	22.7	403	15.4	45	1.7	520	19.9	3	0.1	2612	100.0
Royal Hospital for Women	1250	34.0	153	4.2	257	7.0	718	19.5	520	14.1	89	2.4	679	18.5	14	0.4	3680	100.0
Liverpool	1202	32.9	342	9.4	284	7.8	697	19.1	572	15.7	177	4.8	295	8.1	85	2.3	3654	100.0
Nepean	1129	29.5	179	4.7	189	4.9	877	22.9	666	17.4	25	0.7	737	19.3	20	0.5	3822	100.0
Westmead	1440	29.0	248	5.0	448	9.0	1098	22.1	610	12.3	54	1.1	1042	21.0	21	0.4	4961	100.0
John Hunter	1127	29.3	117	3.0	249	6.5	834	21.7	493	12.8	71	1.8	951	24.7	9	0.2	3851	100.0
TOTAL	7924	29.4	1377	5.1	2121	7.9	5803	21.5	3761	13.9	581	2.2	5204	19.3	212	0.8	26983	100.0
Level 5																		
Gosford	1165	38.4	121	4.0	163	5.4	501	16.5	444	14.6	60	2.0	575	19.0	4	0.1	3033	100.0
Northern Beaches	498	28.5	146	8.3	121	6.9	406	23.2	236	13.5	67	3.8	236	13.5	40	2.3	1750	100.0
St. George	606	27.5	92	4.2	150	6.8	391	17.7	341	15.5	33	1.5	587	26.6	3	0.1	2203	100.0
Blacktown	1331	32.5	213	5.2	329	8.0	769	18.8	478	11.7	39	1.0	915	22.3	23	0.6	4097	100.0
Lismore Base	425	36.3	49	4.2	88	7.5	201	17.2	123	10.5	48	4.1	229	19.6	6	0.5	1170	100.0
Tweed Heads	315	31.6	37	3.7	101	10.1	134	13.4	98	9.8	46	4.6	258	25.9	8	0.8	997	100.0
Dubbo Base	332	26.9	25	2.0	73	5.9	304	24.7	183	14.9	26	2.1	287	23.3	2	0.2	1232	100.0
Wollongong	692	27.7	111	4.4	167	6.7	453	18.1	292	11.7	42	1.7	731	29.2	13	0.5	2501	100.0

(Continued on next page)

TABLE 40: (Continued)

Maternity service level– Hospital	Onset and augmentation of labour																	
	Spontaneous		Spontaneous augmented with ARM		Spontaneous augmented with oxytocics [‡]		No labour		Induced–oxytocics/ prostaglandins		Induced–ARM only		Induced–ARM + oxytocics/ prostaglandins		Induced–other [†]		TOTAL ^{††}	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Wagga Wagga Base	379	29.8	49	3.9	75	5.9	289	22.8	180	14.2	28	2.2	268	21.1	2	0.2	1270	100.0
TOTAL	5743	31.5	843	4.6	1267	6.9	3448	18.9	2375	13.0	389	2.1	4086	22.4	101	0.6	18253	100.0
Level 4																		
Canterbury	379	26.0	66	4.5	127	8.7	293	20.1	186	12.8	43	3.0	352	24.2	11	0.8	1457	100.0
Hornsby	373	33.5	82	7.4	102	9.2	221	19.8	154	13.8	17	1.5	165	14.8	0	0.0	1114	100.0
Sutherland	419	32.3	46	3.5	167	12.9	216	16.6	158	12.2	19	1.5	271	20.9	2	0.2	1298	100.0
Fairfield	467	31.4	166	11.2	164	11.0	267	18.0	244	16.4	62	4.2	93	6.3	23	1.5	1486	100.0
Campbelltown	1376	35.2	226	5.8	302	7.7	589	15.1	1070	27.4	74	1.9	199	5.1	75	1.9	3911	100.0
Bankstown-Lidcombe	581	32.9	125	7.1	142	8.0	282	16.0	337	19.1	131	7.4	117	6.6	50	2.8	1765	100.0
Hawkesbury	259	35.6	40	5.5	35	4.8	165	22.7	69	9.5	10	1.4	150	20.6	0	0.0	728	100.0
Coffs Harbour	346	33.8	46	4.5	67	6.5	222	21.7	105	10.3	40	3.9	192	18.8	6	0.6	1024	100.0
Grafton Base	166	44.3	5	1.3	14	3.7	86	22.9	55	14.7	11	2.9	37	9.9	1	0.3	375	100.0
Port Macquarie Base	245	30.6	32	4.0	41	5.1	175	21.9	103	12.9	25	3.1	177	22.1	2	0.3	800	100.0
Armidale	141	35.5	13	3.3	19	4.8	87	21.9	61	15.4	8	2.0	65	16.4	3	0.8	397	100.0
Tamworth Base	281	27.6	36	3.5	56	5.5	243	23.9	118	11.6	23	2.3	259	25.4	2	0.2	1018	100.0
Manning Base	198	30.4	18	2.8	41	6.3	108	16.6	52	8.0	7	1.1	214	32.9	13	2.0	651	100.0
Bathurst Base	193	43.4	21	4.7	23	5.2	83	18.7	62	13.9	9	2.0	53	11.9	1	0.2	445	100.0
Orange Base	239	24.0	40	4.0	62	6.2	241	24.2	66	6.6	22	2.2	316	31.7	11	1.1	997	100.0
Maitland	560	32.7	46	2.7	100	5.8	275	16.1	244	14.2	34	2.0	446	26.0	8	0.5	1713	100.0
Griffith Base	207	39.3	20	3.8	37	7.0	95	18.0	65	12.3	13	2.5	87	16.5	3	0.6	527	100.0
TOTAL	6430	32.6	1028	5.2	1499	7.6	3648	18.5	3149	16.0	548	2.8	3193	16.2	211	1.1	19706	100.0
Level 3																		
Auburn	457	33.7	68	5.0	140	10.3	206	15.2	153	11.3	4	0.3	316	23.3	11	0.8	1355	100.0
Kempsey	97	46.2	8	3.8	8	3.8	33	15.7	23	11.0	8	3.8	31	14.8	2	1.0	210	100.0
Mudgee	101	43.2	10	4.3	7	3.0	46	19.7	23	9.8	5	2.1	41	17.5	1	0.4	234	100.0
Forbes	110	50.2	9	4.1	10	4.6	39	17.8	25	11.4	6	2.7	20	9.1	0	0.0	219	100.0
Bega	99	39.4	7	2.8	16	6.4	39	15.5	29	11.6	3	1.2	58	23.1	0	0.0	251	100.0
Goulburn Base	130	41.4	11	3.5	37	11.8	63	20.1	44	14.0	4	1.3	21	6.7	4	1.3	314	100.0
Moruya	153	48.4	10	3.2	15	4.7	54	17.1	36	11.4	13	4.1	34	10.8	1	0.3	316	100.0
Queanbeyan	207	40.0	21	4.1	21	4.1	88	17.0	65	12.5	14	2.7	102	19.7	0	0.0	518	100.0
Bowral	218	42.9	43	8.5	43	8.5	89	17.5	49	9.6	26	5.1	36	7.1	4	0.8	508	100.0
Shoalhaven	290	33.0	50	5.7	59	6.7	135	15.4	136	15.5	8	0.9	197	22.4	4	0.5	879	100.0
Other hospitals	763	43.4	74	4.2	68	3.9	318	18.1	223	12.7	41	2.3	271	15.4	2	0.1	1760	100.0
TOTAL	2625	40.0	311	4.7	424	6.5	1110	16.9	806	12.3	132	2.0	1127	17.2	29	0.4	6564	100.0
Level 2																		
TOTAL	507	83.7	16	2.6	4	0.7	31	5.1	16	2.6	3	0.5	29	4.8	0	0.0	606	100.0
Public hospital [§]																		
TOTAL	23233	32.2	3575	5.0	5315	7.4	14040	19.5	10107	14.0	1653	2.3	13639	18.9	553	0.8	72116	100.0
Private																		
Mater, North Sydney	384	15.8	83	3.4	207	8.5	1177	48.4	126	5.2	86	3.5	336	13.8	32	1.3	2434	100.0
North Shore Private	378	21.6	0	0.0	119	6.8	777	44.3	142	8.1	56	3.2	272	15.5	8	0.5	1752	100.0
Sydney Adventist	276	18.0	99	6.5	165	10.8	492	32.2	89	5.8	27	1.8	368	24.1	14	0.9	1530	100.0
North Gosford Private	56	9.9	10	1.8	41	7.3	229	40.7	20	3.6	8	1.4	198	35.2	1	0.2	563	100.0
Hurstville Community	186	23.4	38	4.8	126	15.9	224	28.2	52	6.5	7	0.9	158	19.9	3	0.4	794	100.0
Kareena Private	103	17.9	0	0.0	54	9.4	227	39.3	42	7.3	17	2.9	131	22.7	3	0.5	577	100.0
St. George Private	265	20.7	0	0.0	129	10.1	393	30.6	244	19.0	34	2.7	217	16.9	1	0.1	1283	100.0
Prince of Wales Private	302	16.3	128	6.9	0	0.0	846	45.8	124	6.7	53	2.9	395	21.4	0	0.0	1849	100.0
Norwest Private	226	15.2	94	6.3	4	0.3	516	34.7	143	9.6	65	4.4	426	28.6	6	0.4	1488	100.0
Sydney Southwest Private	163	17.7	84	9.1	0	0.0	277	30.1	105	11.4	33	3.6	244	26.6	4	0.4	919	100.0
Nepean Private	99	14.7	32	4.7	0	0.0	214	31.7	92	13.6	41	6.1	194	28.7	3	0.4	675	100.0
Westmead Private	459	19.6	0	0.0	292	12.5	809	34.6	239	10.2	17	0.7	512	21.9	11	0.5	2339	100.0
Wollongong Private	164	18.9	0	0.0	52	6.0	318	36.7	27	3.1	14	1.6	287	33.1	5	0.6	867	100.0
Newcastle Private	221	13.3	76	4.6	1	0.1	579	35.0	149	9.0	156	9.4	469	28.3	5	0.3	1656	100.0
Calvary, Wagga Wagga	41	16.5	1	0.4	9	3.6	138	55.6	29	11.7	9	3.6	19	7.7	2	0.8	248	100.0
TOTAL	3323	17.5	645	3.4	1199	6.3	7216	38.0	1623	8.6	623	3.3	4226	22.3	98	0.5	18974	100.0
TOTAL NSW*	26701	29.3	4225	4.6	6514	7.1	21256	23.3	11730	12.9	2276	2.5	17865	19.6	651	0.7	91240	100.0

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

ARM: Artificial Rupture of Membranes.

#Hospitals with more than 200 births in 2020 are identified individually. Maternity service levels are described on page 92 in Appendix 2: Explanatory notes.

†May include artificial rupture of membranes.

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

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

§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.

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 2020.

TABLE 41: TYPE OF BIRTH BY LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2020

Hospital sector– Local Health District	Type of birth													
	Normal vaginal		Forceps		Vacuum extraction		Vaginal breech		Elective caesarean section		Emergency caesarean section†		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Public														
Sydney	2724	46.5	345	5.9	617	10.5	29	0.5	1278	21.8	867	14.8	5860	100.0
South Western Sydney	6894	60.9	368	3.2	761	6.7	46	0.4	1924	17.0	1331	11.8	11324	100.0
South Eastern Sydney	3495	48.7	628	8.7	658	9.2	29	0.4	1325	18.5	1046	14.6	7181	100.0
Illawarra Shoalhaven	1923	56.9	178	5.3	218	6.4	11	0.3	588	17.4	464	13.7	3382	100.0
Western Sydney	5794	55.6	469	4.5	570	5.5	85	0.8	2073	19.9	1422	13.7	10413	100.0
Nepean Blue Mountains	2566	52.5	134	2.7	310	6.3	18	0.4	1115	22.8	747	15.3	4890	100.0
Northern Sydney	2646	48.3	453	8.3	441	8.1	17	0.3	1221	22.3	700	12.8	5478	100.0
Central Coast	1795	58.9	190	6.2	164	5.4	6	0.2	501	16.4	393	12.9	3049	100.0
Hunter New England	4860	56.4	360	4.2	358	4.2	35	0.4	1719	19.9	1285	14.9	8617	100.0
Northern NSW	1703	62.6	103	3.8	152	5.6	8	0.3	421	15.5	333	12.2	2720	100.0
Mid North Coast	1189	57.1	63	3.0	123	5.9	6	0.3	430	20.7	270	13.0	2081	100.0
Southern NSW	912	59.5	38	2.5	111	7.2	2	0.1	256	16.7	213	13.9	1532	100.0
Murrumbidgee	1185	55.1	36	1.7	177	8.2	5	0.2	433	20.1	316	14.7	2152	100.0
Western NSW	1857	57.0	121	3.7	157	4.8	7	0.2	729	22.4	388	11.9	3259	100.0
Far West	109	61.2	11	6.2	3	1.7	1	0.6	27	15.2	27	15.2	178	100.0
TOTAL	39652	55.0	3497	4.8	4820	6.7	305	0.4	14040	19.5	9802	13.6	72116	100.0
Private														
TOTAL	7029	37.0	683	3.6	1639	8.6	19	0.1	7216	38.0	2388	12.6	18974	100.0
TOTAL NSW*	46831	51.3	4180	4.6	6459	7.1	324	0.4	21256	23.3	12190	13.4	91240	100.0

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

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

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

TABLE 42: TYPE OF BIRTH BY MATERNITY SERVICE LEVEL AND HOSPITAL, NSW 2020*

Maternity service level– Hospital	Type of birth													
	Normal vaginal		Forceps		Vacuum extraction		Vaginal breech		Elective caesarean section		Emergency caesarean section¹		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Level 6														
Royal Prince Alfred	1975	44.9	266	6.0	474	10.8	27	0.6	985	22.4	676	15.4	4403	100.0
Royal North Shore	1253	48.0	226	8.7	163	6.2	12	0.5	594	22.7	364	13.9	2612	100.0
Royal Hospital for Women	1699	46.2	347	9.4	315	8.6	20	0.5	718	19.5	581	15.8	3680	100.0
Liverpool	2154	58.9	166	4.5	215	5.9	26	0.7	697	19.1	396	10.8	3654	100.0
Nepean	2015	52.7	116	3.0	217	5.7	18	0.5	877	22.9	579	15.1	3822	100.0
Westmead	2671	53.8	254	5.1	256	5.2	66	1.3	1098	22.1	616	12.4	4961	100.0
John Hunter	1981	51.4	230	6.0	166	4.3	23	0.6	834	21.7	617	16.0	3851	100.0
TOTAL	13748	51.0	1605	5.9	1806	6.7	192	0.7	5803	21.5	3829	14.2	26983	100.0
Level 5														
Gosford	1779	58.7	190	6.3	164	5.4	6	0.2	501	16.5	393	13.0	3033	100.0
Northern Beaches	784	44.8	128	7.3	227	13.0	1	0.1	406	23.2	204	11.7	1750	100.0
St. George	1054	47.8	169	7.7	268	12.2	5	0.2	391	17.7	316	14.3	2203	100.0
Blacktown	2313	56.5	146	3.6	251	6.1	14	0.3	769	18.8	604	14.7	4097	100.0
Lismore Base	708	60.5	58	5.0	42	3.6	4	0.3	201	17.2	157	13.4	1170	100.0
Tweed Heads	601	60.3	33	3.3	96	9.6	3	0.3	134	13.4	130	13.0	997	100.0
Dubbo Base	651	52.8	56	4.5	68	5.5	4	0.3	304	24.7	149	12.1	1232	100.0
Wollongong	1376	55.0	136	5.4	174	7.0	7	0.3	453	18.1	355	14.2	2501	100.0
Wagga Wagga Base	623	49.1	22	1.7	114	9.0	2	0.2	289	22.8	220	17.3	1270	100.0
TOTAL	9889	54.2	938	5.1	1404	7.7	46	0.3	3448	18.9	2528	13.8	18253	100.0
Level 4														
Canterbury	749	51.4	79	5.4	143	9.8	2	0.1	293	20.1	191	13.1	1457	100.0
Hornsby	607	54.5	99	8.9	51	4.6	4	0.4	221	19.8	132	11.8	1114	100.0
Sutherland	742	57.2	112	8.6	75	5.8	4	0.3	216	16.6	149	11.5	1298	100.0
Fairfield	952	64.1	22	1.5	75	5.0	2	0.1	267	18.0	168	11.3	1486	100.0
Campbelltown	2369	60.6	93	2.4	327	8.4	8	0.2	589	15.1	525	13.4	3911	100.0

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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	1121	63.5	50	2.8	106	6.0	7	0.4	282	16.0	199	11.3	1765	100.0
Hawkesbury	355	48.8	13	1.8	81	11.1	0	0.0	165	22.7	114	15.7	728	100.0
Coffs Harbour	589	57.5	20	2.0	53	5.2	1	0.1	222	21.7	139	13.6	1024	100.0
Grafton Base	216	57.6	12	3.2	14	3.7	1	0.3	86	22.9	46	12.3	375	100.0
Port Macquarie Base	423	52.9	41	5.1	59	7.4	3	0.4	175	21.9	99	12.4	800	100.0
Armidale	221	55.7	18	4.5	10	2.5	0	0.0	87	21.9	61	15.4	397	100.0
Tamworth Base	533	52.4	31	3.0	46	4.5	1	0.1	243	23.9	164	16.1	1018	100.0
Manning Base	398	61.1	24	3.7	34	5.2	3	0.5	108	16.6	84	12.9	651	100.0
Bathurst Base	295	66.3	6	1.3	13	2.9	1	0.2	83	18.7	47	10.6	445	100.0
Orange Base	540	54.2	45	4.5	48	4.8	1	0.1	241	24.2	122	12.2	997	100.0
Maitland	1052	61.4	41	2.4	56	3.3	6	0.4	275	16.1	283	16.5	1713	100.0
Griffith Base	308	58.4	11	2.1	39	7.4	2	0.4	95	18.0	72	13.7	527	100.0
TOTAL	11470	58.2	717	3.6	1230	6.2	46	0.2	3648	18.5	2595	13.2	19706	100.0
Level 3														
Auburn	810	59.8	69	5.1	63	4.6	5	0.4	206	15.2	202	14.9	1355	100.0
Kempsey	130	61.9	2	1.0	11	5.2	2	1.0	33	15.7	32	15.2	210	100.0
Mudgee	130	55.6	11	4.7	16	6.8	0	0.0	46	19.7	31	13.2	234	100.0
Forbes	146	66.7	2	0.9	5	2.3	0	0.0	39	17.8	27	12.3	219	100.0
Bega	152	60.6	7	2.8	18	7.2	0	0.0	39	15.5	35	13.9	251	100.0
Goulburn Base	184	58.6	10	3.2	17	5.4	1	0.3	63	20.1	39	12.4	314	100.0
Moruya	187	59.2	12	3.8	13	4.1	0	0.0	54	17.1	50	15.8	316	100.0
Queanbeyan	304	58.7	7	1.4	56	10.8	0	0.0	88	17.0	63	12.2	518	100.0
Bowral	298	58.7	37	7.3	38	7.5	3	0.6	89	17.5	43	8.5	508	100.0
Shoalhaven	545	62.0	42	4.8	44	5.0	4	0.5	135	15.4	109	12.4	879	100.0
Other hospitals	1113	63.2	38	2.2	83	4.7	5	0.3	318	18.1	203	11.5	1760	100.0
TOTAL	3999	60.9	237	3.6	364	5.5	20	0.3	1110	16.9	834	12.7	6564	100.0
Level 2														
TOTAL	542	89.4	0	0.0	16	2.6	1	0.2	31	5.1	16	2.6	606	100.0
Public hospital [§]														
TOTAL	39652	55.0	3497	4.8	4820	6.7	305	0.4	14040	19.5	9802	13.6	72116	100.0
Private														
Mater, North Sydney	715	29.4	67	2.8	203	8.3	1	0.0	1177	48.4	271	11.1	2434	100.0
North Shore Private	548	31.3	46	2.6	120	6.8	4	0.2	777	44.3	257	14.7	1752	100.0
Sydney Adventist	656	42.9	60	3.9	125	8.2	3	0.2	492	32.2	194	12.7	1530	100.0
North Gosford Private	154	27.4	34	6.0	50	8.9	2	0.4	229	40.7	94	16.7	563	100.0
Hurstville Community	295	37.2	32	4.0	92	11.6	0	0.0	224	28.2	151	19.0	794	100.0
Kareena Private	216	37.4	37	6.4	24	4.2	1	0.2	227	39.3	72	12.5	577	100.0
St. George Private	485	37.8	62	4.8	156	12.2	0	0.0	393	30.6	187	14.6	1283	100.0
Prince of Wales Private	593	32.1	72	3.9	151	8.2	0	0.0	846	45.8	187	10.1	1849	100.0
Norwest Private	664	44.6	47	3.2	112	7.5	1	0.1	516	34.7	148	9.9	1488	100.0
Sydney Southwest Private	401	43.6	53	5.8	110	12.0	0	0.0	277	30.1	78	8.5	919	100.0
Nepean Private	295	43.7	13	1.9	68	10.1	1	0.1	214	31.7	84	12.4	675	100.0
Westmead Private	966	41.3	115	4.9	129	5.5	4	0.2	809	34.6	316	13.5	2339	100.0
Wollongong Private	339	39.1	8	0.9	87	10.0	1	0.1	318	36.7	114	13.1	867	100.0
Newcastle Private	640	38.6	37	2.2	199	12.0	1	0.1	579	35.0	200	12.1	1656	100.0
Calvary, Wagga Wagga	62	25.0	0	0.0	13	5.2	0	0.0	138	55.6	35	14.1	248	100.0
TOTAL	7029	37.0	683	3.6	1639	8.6	19	0.1	7216	38.0	2388	12.6	18974	100.0
TOTAL NSW*	46831	51.3	4180	4.6	6459	7.1	324	0.4	21256	23.3	12190	13.4	91240	100.0

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

§Hospitals with more than 200 births in 2020 are identified individually. Maternity service levels are described on page 92 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 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 2020.

In addition to the types of pain relief shown in the tables, in 2020 a further 16,004 (17.5%) women were reported to have received local anaesthetic to the perineum, and 548 (0.6%) received a pudendal block.

TABLE 43: PAIN RELIEF BY LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2020

Hospital sector– Local Health District	Pain relief											
	Epidural-spinal†		General anesthetic		IM narcotics		Nitrous oxide		Nil		TOTAL‡	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Public												
Sydney	3764	64.2	182	3.1	165	2.8	1770	30.2	636	10.9	5860	100.0
South Western Sydney	5068	44.8	331	2.9	1531	13.5	5426	47.9	1340	11.8	11324	100.0
South Eastern Sydney	4444	61.9	134	1.9	729	10.2	3074	42.8	336	4.7	7181	100.0
Illawarra Shoalhaven	1877	55.5	100	3.0	268	7.9	1573	46.5	238	7.0	3382	100.0
Western Sydney	5754	55.3	281	2.7	819	7.9	4455	42.8	703	6.8	10413	100.0
Nepean Blue Mountains	2709	55.4	207	4.2	507	10.4	2149	43.9	343	7.0	4890	100.0
Northern Sydney	3304	60.3	60	1.1	347	6.3	2251	41.1	315	5.8	5478	100.0
Central Coast	1461	47.9	112	3.7	230	7.5	1374	45.1	277	9.1	3049	100.0
Hunter New England	4216	48.9	452	5.2	776	9.0	3761	43.6	796	9.2	8617	100.0
Northern NSW	1271	46.7	80	2.9	215	7.9	1087	40.0	348	12.8	2720	100.0
Mid North Coast	1078	51.8	58	2.8	139	6.7	834	40.1	180	8.6	2081	100.0
Southern NSW	702	45.8	38	2.5	132	8.6	689	45.0	139	9.1	1532	100.0
Murrumbidgee	987	45.9	60	2.8	322	15.0	970	45.1	228	10.6	2152	100.0
Western NSW	1657	50.8	129	4.0	421	12.9	1452	44.6	230	7.1	3259	100.0
Far West	69	38.8	10	5.6	23	12.9	79	44.4	30	16.9	178	100.0
TOTAL	38361	53.2	2234	3.1	6624	9.2	30944	42.9	6139	8.5	72116	100.0
Private												
TOTAL	15712	82.8	165	0.9	999	5.3	3789	20.0	742	3.9	18974	100.0
TOTAL NSW*	54073	59.3	2399	2.6	7623	8.4	34733	38.1	6978	7.6	91240	100.0

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 1 woman may have more than 1 type of analgesia.

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

TABLE 44: PAIN RELIEF BY MATERNITY SERVICE LEVEL AND HOSPITAL, NSW 2020[#]

Maternity service level– Hospital	Pain relief											
	Epidural-spinal†		General anaesthetic		IM narcotics		Nitrous oxide		Nil		TOTAL‡	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Level 6												
Royal Prince Alfred	2972	67.5	142	3.2	109	2.5	1173	26.6	462	10.5	4403	100.0
Royal North Shore	1735	66.4	45	1.7	158	6.0	959	36.7	112	4.3	2612	100.0
Royal Hospital for Women	2332	63.4	57	1.5	363	9.9	1452	39.5	180	4.9	3680	100.0
Liverpool	1811	49.6	120	3.3	447	12.2	1500	41.1	366	10.0	3654	100.0
Nepean	2182	57.1	175	4.6	367	9.6	1716	44.9	239	6.3	3822	100.0
Westmead	2989	60.2	117	2.4	351	7.1	2013	40.6	300	6.0	4961	100.0
John Hunter	2132	55.4	248	6.4	340	8.8	1648	42.8	250	6.5	3851	100.0
TOTAL	16153	59.9	904	3.4	2135	7.9	10461	38.8	1909	7.1	26983	100.0
Level 5												
Gosford	1461	48.2	112	3.7	228	7.5	1370	45.2	269	8.9	3033	100.0
Northern Beaches	926	52.9	2	0.1	142	8.1	764	43.7	146	8.3	1750	100.0
St. George	1364	61.9	50	2.3	292	13.3	1055	47.9	86	3.9	2203	100.0
Blacktown	2093	51.1	145	3.5	387	9.4	1795	43.8	300	7.3	4097	100.0
Lismore Base	614	52.5	28	2.4	73	6.2	437	37.4	118	10.1	1170	100.0
Tweed Heads	508	51.0	32	3.2	94	9.4	458	45.9	75	7.5	997	100.0
Dubbo Base	646	52.4	51	4.1	229	18.6	582	47.2	78	6.3	1232	100.0
Wollongong	1425	57.0	72	2.9	153	6.1	1108	44.3	164	6.6	2501	100.0
Wagga Wagga Base	719	56.6	39	3.1	168	13.2	545	42.9	88	6.9	1270	100.0
TOTAL	9756	53.4	531	2.9	1766	9.7	8114	44.5	1324	7.3	18253	100.0
Level 4												
Canterbury	792	54.4	40	2.7	56	3.8	597	41.0	174	11.9	1457	100.0
Hornsby	643	57.7	13	1.2	47	4.2	528	47.4	56	5.0	1114	100.0
Sutherland	748	57.6	27	2.1	74	5.7	567	43.7	70	5.4	1298	100.0

(Continued on next page)

TABLE 44: (Continued)

Maternity service level– Hospital	Pain relief											
	Epidural-spinal†		General anaesthetic		IM narcotics		Nitrous oxide		Nil		TOTAL‡	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Fairfield	514	34.6	36	2.4	291	19.6	824	55.5	193	13.0	1486	100.0
Hawkesbury	374	51.4	16	2.2	108	14.8	298	40.9	66	9.1	728	100.0
Campbelltown	1766	45.2	116	3.0	563	14.4	1940	49.6	512	13.1	3911	100.0
Bankstown-Lidcombe	755	42.8	55	3.1	121	6.9	921	52.2	195	11.0	1765	100.0
Coffs Harbour	531	51.9	18	1.8	68	6.6	380	37.1	100	9.8	1024	100.0
Grafton Base	146	38.9	20	5.3	48	12.8	162	43.2	49	13.1	375	100.0
Port Macquarie Base	475	59.4	31	3.9	35	4.4	326	40.8	43	5.4	800	100.0
Armidale	179	45.1	10	2.5	53	13.4	155	39.0	43	10.8	397	100.0
Tamworth Base	541	53.1	46	4.5	72	7.1	445	43.7	65	6.4	1018	100.0
Manning Base	302	46.4	36	5.5	98	15.1	305	46.9	52	8.0	651	100.0
Bathurst Base	178	40.0	23	5.2	42	9.4	217	48.8	41	9.2	445	100.0
Orange Base	608	61.0	41	4.1	78	7.8	399	40.0	45	4.5	997	100.0
Maitland	788	46.0	88	5.1	101	5.9	834	48.7	166	9.7	1713	100.0
Griffith Base	192	36.4	17	3.2	105	19.9	267	50.7	54	10.2	527	100.0
TOTAL	9532	48.4	633	3.2	1960	9.9	9165	46.5	1924	9.8	19706	100.0
Level 3												
Auburn	672	49.6	19	1.4	81	6.0	647	47.7	103	7.6	1355	100.0
Kempsey	72	34.3	8	3.8	35	16.7	101	48.1	26	12.4	210	100.0
Mudgee	110	47.0	5	2.1	8	3.4	80	34.2	29	12.4	234	100.0
Forbes	74	33.8	6	2.7	20	9.1	102	46.6	26	11.9	219	100.0
Bega	116	46.2	8	3.2	39	15.5	123	49.0	18	7.2	251	100.0
Goulburn Base	157	50.0	7	2.2	30	9.6	160	51.0	13	4.1	314	100.0
Moruya	141	44.6	6	1.9	25	7.9	124	39.2	42	13.3	316	100.0
Queanbeyan	243	46.9	13	2.5	21	4.1	208	40.2	47	9.1	518	100.0
Bowral	222	43.7	4	0.8	109	21.5	241	47.4	74	14.6	508	100.0
Shoalhaven	452	51.4	28	3.2	115	13.1	464	52.8	73	8.3	879	100.0
Other hospitals	599	34.0	52	3.0	257	14.6	766	43.5	275	15.6	1760	100.0
TOTAL	2858	43.5	156	2.4	740	11.3	3016	45.9	726	11.1	6564	100.0
Level 2												
TOTAL	62	10.2	10	1.7	23	3.8	187	30.9	253	41.7	606	100.0
Public hospital§												
TOTAL	38361	53.2	2234	3.1	6624	9.2	30944	42.9	6139	8.5	72116	100.0
Private												
Mater, North Sydney	2033	83.5	25	1.0	229	9.4	375	15.4	42	1.7	2434	100.0
North Shore Private	1501	85.7	15	0.9	19	1.1	272	15.5	50	2.9	1752	100.0
Sydney Adventist	1275	83.3	14	0.9	79	5.2	259	16.9	57	3.7	1530	100.0
North Gosford Private	469	83.3	4	0.7	2	0.4	42	7.5	1	0.2	563	100.0
Hurstville Community	638	80.4	2	0.3	29	3.7	192	24.2	2	0.3	794	100.0
Kareena Private	514	89.1	1	0.2	8	1.4	80	13.9	16	2.8	577	100.0
St. George Private	1091	85.0	17	1.3	43	3.4	189	14.7	49	3.8	1283	100.0
Prince of Wales Private	1624	87.8	14	0.8	43	2.3	466	25.2	77	4.2	1849	100.0
Norwest Private	1207	81.1	18	1.2	77	5.2	340	22.8	89	6.0	1488	100.0
Sydney Southwest Private	688	74.9	10	1.1	156	17.0	151	16.4	86	9.4	919	100.0
Nepean Private	487	72.1	9	1.3	79	11.7	228	33.8	48	7.1	675	100.0
Westmead Private	1967	84.1	13	0.6	79	3.4	482	20.6	48	2.1	2339	100.0
Wollongong Private	726	83.7	11	1.3	6	0.7	197	22.7	28	3.2	867	100.0
Newcastle Private	1304	78.7	11	0.7	142	8.6	477	28.8	118	7.1	1656	100.0
Calvary, Wagga Wagga	188	75.8	1	0.4	8	3.2	39	15.7	31	12.5	248	100.0
TOTAL	15712	82.8	165	0.9	999	5.3	3789	20.0	742	3.9	18974	100.0
TOTAL NSW*	54073	59.3	2399	2.6	7623	8.4	34733	38.1	6978	7.6	91240	100.0

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

[#]Hospitals with more than 200 births in 2020 are identified individually. Maternity service levels are described on page 92 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 1 woman may have more than 1 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 2020.

In 2020, there were 1,562 cases of 3rd degree tear and 84 cases of 4th 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 2020

Hospital sector– Local Health District	Perineal status													
	Intact		1st degree tear/graze		2nd degree tear		3rd or 4th degree tear		Episiotomy		Combined tear and episiotomy		Other	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Public														
Sydney	427	11.5	458	12.3	1239	33.4	120	3.2	991	26.7	119	3.2	358	9.6
South Western Sydney	1489	18.5	1893	23.5	2245	27.8	157	1.9	1696	21.0	190	2.4	397	4.9
South Eastern Sydney	483	10.0	840	17.5	1468	30.5	154	3.2	1382	28.7	217	4.5	266	5.5
Illawarra Shoalhaven	404	17.3	509	21.8	673	28.9	73	3.1	398	17.1	57	2.4	216	9.3
Western Sydney	865	12.5	1426	20.6	2066	29.9	171	2.5	1718	24.8	269	3.9	403	5.8
Nepean Blue Mountains	412	13.6	909	30.0	909	30.0	62	2.0	471	15.6	69	2.3	196	6.5
Northern Sydney	326	9.2	829	23.3	1177	33.1	102	2.9	904	25.4	104	2.9	110	3.1
Central Coast	245	11.4	604	28.0	685	31.8	36	1.7	330	15.3	46	2.1	209	9.7
Hunter New England	901	16.1	1539	27.4	1464	26.1	162	2.9	980	17.5	147	2.6	420	7.5
Northern NSW	317	16.1	591	30.1	546	27.8	66	3.4	278	14.1	26	1.3	142	7.2
Mid North Coast	233	16.9	384	27.8	403	29.2	30	2.2	218	15.8	20	1.4	93	6.7
Southern NSW	172	16.2	316	29.7	302	28.4	16	1.5	130	12.2	18	1.7	109	10.3
Murrumbidgee	238	17.0	469	33.4	377	26.9	25	1.8	188	13.4	30	2.1	76	5.4
Western NSW	316	14.8	660	30.8	517	24.1	66	3.1	376	17.6	34	1.6	173	8.1
Far West	22	17.7	48	38.7	23	18.5	3	2.4	10	8.1	4	3.2	14	11.3
TOTAL	6850	14.2	11475	23.8	14094	29.2	1243	2.6	10070	20.9	1350	2.8	3182	6.6
Private														
TOTAL	1305	13.9	1676	17.9	2957	31.6	61	0.7	2394	25.5	312	3.3	659	7.0
TOTAL NSW*	8223	14.2	13182	22.8	17097	29.6	1305	2.3	12464	21.6	1662	2.9	3845	6.7

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 2020*

Maternity service level– Hospital	Perineal status													
	Intact		1st degree tear/graze		2nd degree tear		3rd or 4th degree tear		Episiotomy		Combined tear and episiotomy		Other	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Level 6														
Royal Prince Alfred	281	10.2	316	11.5	953	34.8	81	3.0	773	28.2	73	2.7	264	9.6
Royal North Shore	111	6.7	305	18.4	631	38.1	56	3.4	430	26.0	53	3.2	68	4.1
Royal Hospital for Women	265	11.1	414	17.4	720	30.2	78	3.3	684	28.7	71	3.0	149	6.3
Liverpool	431	16.8	665	26.0	707	27.6	57	2.2	523	20.4	72	2.8	106	4.1
Nepean	312	13.2	692	29.2	711	30.1	47	2.0	378	16.0	63	2.7	163	6.9
Westmead	411	12.7	614	18.9	1035	31.9	70	2.2	799	24.6	137	4.2	181	5.6
John Hunter	288	12.0	601	25.0	695	29.0	82	3.4	491	20.5	78	3.3	165	6.9
TOTAL	2099	12.1	3607	20.8	5452	31.4	471	2.7	4078	23.5	547	3.2	1096	6.3
Level 5														
Gosford	242	11.3	597	27.9	679	31.7	36	1.7	330	15.4	46	2.2	209	9.8
Northern Beaches	137	12.0	383	33.6	312	27.4	28	2.5	243	21.3	31	2.7	1	0.1
St. George	134	9.0	251	16.8	438	29.3	57	3.8	445	29.7	101	6.8	70	4.7
Blacktown	293	10.8	590	21.7	807	29.6	81	3.0	667	24.5	108	4.0	178	6.5
Lismore Base	122	15.0	252	31.0	224	27.6	28	3.4	131	16.1	11	1.4	44	5.4
Tweed Heads	106	14.5	159	21.7	228	31.1	32	4.4	130	17.7	11	1.5	67	9.1
Dubbo Base	118	15.1	248	31.8	179	23.0	13	1.7	140	18.0	16	2.1	65	8.3
Wollongong	265	15.7	349	20.6	496	29.3	49	2.9	321	19.0	51	3.0	162	9.6
Wagga Wagga Base	109	14.3	235	30.9	235	30.9	15	2.0	107	14.1	16	2.1	44	5.8
TOTAL	1526	12.4	3064	25.0	3598	29.3	339	2.8	2514	20.5	391	3.2	840	6.8
Level 4														
Canterbury	146	15.0	142	14.6	286	29.4	39	4.0	218	22.4	46	4.7	94	9.7
Hornsby	78	10.2	140	18.4	233	30.6	18	2.4	231	30.4	20	2.6	41	5.4
Sutherland	84	9.0	175	18.8	310	33.2	19	2.0	253	27.1	45	4.8	47	5.0
Fairfield	229	21.8	265	25.2	236	22.5	13	1.2	264	25.1	16	1.5	28	2.7

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TABLE 46: (Continued)

Maternity service level– Hospital	Perineal status													
	Intact		1st degree tear/graze		2nd degree tear		3rd or 4th degree tear		Episiotomy		Combined tear and episiotomy		Other	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Campbelltown	556	19.9	584	20.9	797	28.5	58	2.1	582	20.8	56	2.0	163	5.8
Bankstown-Lidcombe	209	16.3	282	22.0	379	29.5	26	2.0	258	20.1	41	3.2	88	6.9
Hawkesbury	74	16.5	135	30.1	137	30.5	9	2.0	73	16.3	5	1.1	16	3.6
Coffs Harbour	97	14.6	177	26.7	220	33.2	16	2.4	88	13.3	12	1.8	53	8.0
Grafton Base	53	21.8	90	37.0	56	23.0	2	0.8	17	7.0	4	1.6	21	8.6
Port Macquarie Base	94	17.9	130	24.7	135	25.7	10	1.9	118	22.4	8	1.5	31	5.9
Armidale	48	19.3	68	27.3	65	26.1	5	2.0	39	15.7	4	1.6	20	8.0
Tamworth Base	108	17.7	175	28.6	144	23.6	13	2.1	111	18.2	19	3.1	41	6.7
Manning Base	63	13.7	145	31.6	116	25.3	2	0.4	72	15.7	12	2.6	49	10.7
Bathurst Base	48	15.2	98	31.1	89	28.3	15	4.8	30	9.5	2	0.6	33	10.5
Orange Base	78	12.3	163	25.7	149	23.5	27	4.3	157	24.8	12	1.9	48	7.6
Maitland	205	17.7	301	26.1	297	25.7	42	3.6	181	15.7	27	2.3	102	8.8
Griffith Base	65	18.1	122	33.9	80	22.2	5	1.4	61	16.9	7	1.9	20	5.6
TOTAL	2235	16.6	3192	23.7	3729	27.7	319	2.4	2753	20.4	336	2.5	895	6.6
Level 3														
Auburn	161	17.0	222	23.4	224	23.7	20	2.1	252	26.6	24	2.5	44	4.6
Kempsey	36	24.8	52	35.9	34	23.4	3	2.1	12	8.3	0	0.0	8	5.5
Mudgee	31	19.7	43	27.4	49	31.2	5	3.2	21	13.4	2	1.3	6	3.8
Forbes	21	13.7	74	48.4	27	17.6	6	3.9	11	7.2	1	0.7	13	8.5
Bega	27	15.3	51	28.8	43	24.3	4	2.3	18	10.2	6	3.4	28	15.8
Goulburn Base	42	19.8	39	18.4	83	39.2	3	1.4	17	8.0	1	0.5	27	12.7
Moruya	40	18.9	65	30.7	51	24.1	3	1.4	23	10.8	1	0.5	29	13.7
Queanbeyan	44	12.0	129	35.1	102	27.8	6	1.6	61	16.6	9	2.5	16	4.4
Bowral	64	17.0	97	25.8	126	33.5	3	0.8	69	18.4	5	1.3	12	3.2
Shoalhaven	138	21.7	160	25.2	177	27.9	24	3.8	77	12.1	6	0.9	53	8.3
Other hospitals	262	21.1	429	34.6	271	21.9	20	1.6	159	12.8	16	1.3	82	6.6
TOTAL	866	18.7	1361	29.5	1187	25.7	97	2.1	720	15.6	71	1.5	318	6.9
Level 2														
TOTAL	123	22.0	249	44.5	128	22.9	17	3.0	5	0.9	5	0.9	32	5.7
Public hospital[§]														
TOTAL	6850	14.2	11475	23.8	14094	29.2	1243	2.6	10070	20.9	1350	2.8	3182	6.6
Private														
Mater, North Sydney	118	12.0	201	20.4	304	30.8	8	0.8	219	22.2	85	8.6	47	4.8
North Shore Private	94	13.1	183	25.5	247	34.4	10	1.4	160	22.3	4	0.6	20	2.8
Sydney Adventist	168	19.9	206	24.4	263	31.2	1	0.1	172	20.4	0	0.0	34	4.0
North Gosford Private	38	15.8	64	26.7	87	36.3	0	0.0	47	19.6	2	0.8	2	0.8
Hurstville Community	56	13.4	109	26.0	164	39.1	3	0.7	79	18.9	7	1.7	1	0.2
Kareena Private	28	10.1	53	19.1	100	36.0	6	2.2	82	29.5	1	0.4	8	2.9
St. George Private	94	13.4	136	19.3	266	37.8	8	1.1	154	21.9	7	1.0	38	5.4
Prince of Wales Private	119	14.6	107	13.1	211	25.9	1	0.1	227	27.8	50	6.1	100	12.3
Norwest Private	137	16.6	105	12.7	234	28.4	5	0.6	205	24.9	49	5.9	89	10.8
Sydney Southwest Private	73	12.9	97	17.2	130	23.0	2	0.4	182	32.3	30	5.3	49	8.7
Nepean Private	47	12.5	29	7.7	100	26.5	4	1.1	133	35.3	28	7.4	36	9.5
Westmead Private	109	9.0	179	14.7	320	26.4	4	0.3	539	44.4	6	0.5	57	4.7
Wollongong Private	80	18.4	83	19.1	163	37.5	3	0.7	71	16.3	1	0.2	34	7.8
Newcastle Private	135	15.4	110	12.5	332	37.9	4	0.5	115	13.1	39	4.4	142	16.2
Calvary, Wagga Wagga	9	12.0	14	18.7	36	48.0	2	2.7	9	12.0	3	4.0	2	2.7
TOTAL	1305	13.9	1676	17.9	2957	31.6	61	0.7	2394	25.5	312	3.3	659	7.0
TOTAL NSW*	8223	14.2	13182	22.8	17097	29.6	1305	2.3	12464	21.6	1662	2.9	3845	6.7

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

#Hospitals with more than 200 births in 2020 are identified individually. Maternity service levels are described on page 92 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.

Birthweight

Table 47 shows the birthweight of babies for local health districts, and Table 48 for individual hospitals by maternity service level where at least 200 mothers gave birth in 2020.

TABLE 47: BIRTHS BY BIRTHWEIGHT AND LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2020

Hospital sector– Local Health District	Birthweight (grams)									
	Less than 1,000		1,000–1,499		1,500–2,499		2,500–3,999		4,000+	
	No.	%	No.	%	No.	%	No.	%	No.	%
Public										
Sydney	66	1.1	32	0.5	374	6.3	5063	84.9	418	7.0
South Western Sydney	92	0.8	74	0.6	654	5.7	9484	82.6	1153	10.0
South Eastern Sydney	77	1.1	59	0.8	394	5.4	6064	83.1	692	9.5
Illawarra Shoalhaven	9	0.3	8	0.2	182	5.3	2861	83.4	365	10.6
Western Sydney	123	1.2	82	0.8	633	6.0	8811	83.2	904	8.5
Nepean Blue Mountains	46	0.9	45	0.9	335	6.7	3961	79.7	566	11.4
Northern Sydney	48	0.9	61	1.1	299	5.4	4683	84.0	476	8.5
Central Coast	14	0.5	4	0.1	170	5.5	2454	79.6	438	14.2
Hunter New England	89	1.0	87	1.0	583	6.7	6993	79.9	979	11.2
Northern NSW	10	0.4	7	0.3	123	4.5	2255	82.1	344	12.5
Mid North Coast	6	0.3	2	0.1	121	5.7	1731	82.0	248	11.7
Southern NSW	1	0.1	1	0.1	36	2.3	1307	85.3	174	11.4
Murrumbidgee	5	0.2	7	0.3	118	5.4	1793	82.4	237	10.9
Western NSW	25	0.8	4	0.1	178	5.4	2705	81.9	381	11.5
Far West	2	1.1	0	0.0	9	5.0	150	83.8	18	10.1
TOTAL	613	0.8	473	0.6	4209	5.8	60315	82.4	7393	10.1
Private										
TOTAL	38	0.2	11	0.1	772	4.0	17156	89.3	1205	6.3
TOTAL NSW*	651	0.7	484	0.5	4983	5.4	77581	83.8	8636	9.3

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 48: BIRTHS BY BIRTHWEIGHT, MATERNITY SERVICE LEVEL AND HOSPITAL, NSW 2020*

Maternity service level– Hospital	Birthweight (grams)									
	Less than 1,000		1,000–1,499		1,500–2,499		2,500–3,999		4,000+	
	No.	%	No.	%	No.	%	No.	%	No.	%
Level 6										
Royal Prince Alfred	63	1.4	30	0.7	304	6.8	3750	83.4	340	7.6
Royal North Shore	40	1.5	59	2.2	191	7.1	2203	82.4	178	6.7
Royal Hospital for Women	63	1.7	56	1.5	226	6.0	3059	81.4	343	9.1
Liverpool	64	1.7	62	1.7	298	8.0	3014	80.4	303	8.1
Nepean	46	1.2	45	1.2	312	8.0	3045	78.2	432	11.1
Westmead	85	1.7	73	1.4	347	6.8	4105	80.8	457	9.0
John Hunter	77	1.9	73	1.8	367	9.3	3017	76.3	408	10.3
TOTAL	438	1.6	398	1.4	2045	7.4	22193	80.4	2461	8.9
Level 5										
Gosford	14	0.5	4	0.1	170	5.5	2442	79.6	434	14.1
Northern Beaches	3	0.2	2	0.1	68	3.8	1520	85.9	175	9.9
St. George	9	0.4	3	0.1	150	6.7	1909	85.0	173	7.7
Blacktown	22	0.5	8	0.2	236	5.7	3527	85.1	340	8.2
Lismore Base	5	0.4	6	0.5	63	5.3	967	81.9	136	11.5
Tweed Heads	1	0.1	0	0.0	42	4.2	846	83.8	119	11.8
Dubbo Base	12	1.0	2	0.2	86	6.8	1015	80.5	138	10.9
Wollongong	8	0.3	6	0.2	158	6.2	2128	83.6	244	9.6
Wagga Wagga Base	3	0.2	4	0.3	83	6.5	1057	82.2	135	10.5
TOTAL	77	0.4	35	0.2	1056	5.7	15411	83.3	1894	10.2
Level 4										
Canterbury	3	0.2	2	0.1	70	4.8	1313	89.6	78	5.3
Hornsby	5	0.4	0	0.0	40	3.6	958	85.1	123	10.9
Sutherland	5	0.4	0	0.0	18	1.4	1096	84.4	176	13.6
Fairfield	3	0.2	1	0.1	48	3.2	1316	88.5	117	7.9
Campbelltown	15	0.4	10	0.3	208	5.3	3205	81.1	504	12.7
Bankstown-Lidcombe	8	0.4	1	0.1	93	5.2	1526	85.4	155	8.7
Hawkesbury	0	0.0	0	0.0	14	1.9	626	85.1	93	12.6
Coffs Harbour	2	0.2	0	0.0	49	4.7	851	81.8	137	13.2

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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	4	1.1	1	0.3	17	4.5	292	77.5	62	16.4	1	0.3	377	100.0
Port Macquarie Base	3	0.4	2	0.2	63	7.7	658	80.8	86	10.6	2	0.2	814	100.0
Armidale	1	0.2	1	0.2	31	7.7	330	82.1	39	9.7	0	0.0	402	100.0
Tamworth Base	4	0.4	3	0.3	69	6.7	844	81.9	108	10.5	2	0.2	1030	100.0
Manning Base	4	0.6	4	0.6	37	5.6	541	82.5	69	10.5	1	0.2	656	100.0
Bathurst Base	3	0.7	1	0.2	23	5.2	361	80.9	58	13.0	0	0.0	446	100.0
Orange Base	10	1.0	0	0.0	59	5.8	848	83.9	94	9.3	0	0.0	1011	100.0
Maitland	2	0.1	2	0.1	68	4.0	1411	82.0	234	13.6	4	0.2	1721	100.0
Griffith Base	1	0.2	3	0.6	27	5.0	438	81.7	55	10.3	12	2.2	536	100.0
TOTAL	73	0.4	31	0.2	934	4.7	16614	83.5	2188	11.0	46	0.2	19886	100.0
Level 3														
Auburn	16	1.2	1	0.1	50	3.7	1179	86.7	107	7.9	7	0.5	1360	100.0
Kempsey	1	0.5	0	0.0	8	3.8	183	87.1	18	8.6	0	0.0	210	100.0
Mudgee	0	0.0	1	0.4	6	2.6	197	83.8	31	13.2	0	0.0	235	100.0
Forbes	0	0.0	0	0.0	1	0.5	181	82.6	35	16.0	2	0.9	219	100.0
Bega	0	0.0	0	0.0	6	2.4	207	82.5	37	14.7	1	0.4	251	100.0
Goulburn Base	1	0.3	0	0.0	13	4.1	260	82.5	38	12.1	3	1.0	315	100.0
Moruya	0	0.0	0	0.0	11	3.5	275	87.0	30	9.5	0	0.0	316	100.0
Queanbeyan	0	0.0	0	0.0	4	0.8	452	87.3	53	10.2	9	1.7	518	100.0
Bowral	2	0.4	0	0.0	7	1.4	423	83.3	74	14.6	2	0.4	508	100.0
Shoalhaven	1	0.1	2	0.2	23	2.6	732	83.1	121	13.7	2	0.2	881	100.0
Other hospitals	4	0.2	5	0.3	40	2.3	1499	85.1	210	11.9	4	0.2	1762	100.0
TOTAL	25	0.4	9	0.1	169	2.6	5588	85.0	754	11.5	30	0.5	6575	100.0
Level 2														
TOTAL	0	0.0	0	0.0	4	0.7	506	83.5	96	15.8	0	0.0	606	100.0
Public hospital [§]														
TOTAL	613	0.8	473	0.6	4209	5.8	60315	82.4	7393	10.1	178	0.2	73181	100.0
Private														
Mater, North Sydney	2	0.1	2	0.1	103	4.2	2214	90.1	137	5.6	0	0.0	2458	100.0
North Shore Private	9	0.5	2	0.1	81	4.6	1573	88.4	114	6.4	1	0.1	1780	100.0
Sydney Adventist	4	0.3	2	0.1	60	3.9	1370	88.3	114	7.4	1	0.1	1551	100.0
North Gosford Private	3	0.5	0	0.0	18	3.2	508	89.8	36	6.4	1	0.2	566	100.0
Hurstville Community	0	0.0	1	0.1	20	2.5	721	89.5	54	6.7	10	1.2	806	100.0
Kareena Private	3	0.5	0	0.0	16	2.7	515	88.0	51	8.7	0	0.0	585	100.0
St. George Private	3	0.2	1	0.1	57	4.4	1175	90.5	62	4.8	0	0.0	1298	100.0
Prince of Wales Private	0	0.0	0	0.0	93	4.9	1695	90.0	95	5.0	0	0.0	1883	100.0
Norwest Private	4	0.3	1	0.1	66	4.4	1331	88.3	97	6.4	8	0.5	1507	100.0
Sydney Southwest Private	1	0.1	0	0.0	35	3.8	814	87.5	75	8.1	5	0.5	930	100.0
Nepean Private	0	0.0	0	0.0	20	2.9	618	90.2	47	6.9	0	0.0	685	100.0
Westmead Private	6	0.3	1	0.0	114	4.8	2146	90.6	100	4.2	1	0.0	2368	100.0
Wollongong Private	1	0.1	0	0.0	26	3.0	794	90.8	53	6.1	0	0.0	874	100.0
Newcastle Private	2	0.1	1	0.1	58	3.5	1461	87.5	146	8.7	1	0.1	1669	100.0
Calvary, Wagga Wagga	0	0.0	0	0.0	5	2.0	221	88.4	24	9.6	0	0.0	250	100.0
TOTAL	38	0.2	11	0.1	772	4.0	17156	89.3	1205	6.3	28	0.1	19210	100.0
TOTAL NSW*	651	0.7	484	0.5	4983	5.4	77581	83.8	8636	9.3	206	0.2	92541	100.0

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

[#]Hospitals with more than 200 births in 2020 are identified individually. Maternity service levels are described on page 92 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 2020.

TABLE 49: BIRTHS BY GESTATIONAL AGE AND LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2020

Hospital sector– Local Health District	Gestational age (weeks)											
	<32		32–33		34–36		37+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Public												
Sydney	127	2.1	71	1.2	352	5.9	5401	90.6	10	0.2	5961	100.0
South Western Sydney	202	1.8	112	1.0	588	5.1	10579	92.1	1	0.0	11482	100.0
South Eastern Sydney	171	2.3	73	1.0	281	3.8	6774	92.8	1	0.0	7300	100.0
Illawarra Shoalhaven	24	0.7	15	0.4	180	5.2	3210	93.6	0	0.0	3429	100.0
Western Sydney	234	2.2	102	1.0	427	4.0	9820	92.8	2	0.0	10585	100.0
Nepean Blue Mountains	109	2.2	66	1.3	286	5.8	4507	90.7	0	0.0	4968	100.0
Northern Sydney	123	2.2	50	0.9	229	4.1	5168	92.7	3	0.1	5573	100.0
Central Coast	22	0.7	17	0.6	147	4.8	2897	93.9	1	0.0	3084	100.0
Hunter New England	199	2.3	116	1.3	482	5.5	7951	90.9	2	0.0	8750	100.0
Northern NSW	16	0.6	13	0.5	120	4.4	2595	94.5	1	0.0	2745	100.0
Mid North Coast	8	0.4	7	0.3	127	6.0	1969	93.3	0	0.0	2111	100.0
Southern NSW	4	0.3	3	0.2	38	2.5	1488	97.1	0	0.0	1533	100.0
Murrumbidgee	14	0.6	22	1.0	105	4.8	2036	93.5	0	0.0	2177	100.0
Western NSW	35	1.1	16	0.5	181	5.5	3071	92.9	1	0.0	3304	100.0
Far West	1	0.6	0	0.0	4	2.2	174	97.2	0	0.0	179	100.0
TOTAL	1289	1.8	683	0.9	3547	4.8	67640	92.4	22	0.0	73181	100.0
Private												
TOTAL	55	0.3	75	0.4	1113	5.8	17965	93.5	2	0.0	19210	100.0
TOTAL NSW*	1344	1.5	758	0.8	4662	5.0	85739	92.6	38	0.0	92541	100.0

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 2020^a

Maternity service level– Hospital	Gestational age (weeks)											
	<32		32–33		34–36		37+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Level 6												
Royal Prince Alfred	123	2.7	65	1.4	282	6.3	4022	89.5	3	0.1	4495	100.0
Royal North Shore	112	4.2	42	1.6	121	4.5	2400	89.7	0	0.0	2675	100.0
Royal Hospital for Women	147	3.9	56	1.5	149	4.0	3405	90.6	0	0.0	3757	100.0
Liverpool	152	4.1	71	1.9	241	6.4	3283	87.6	0	0.0	3747	100.0
Nepean	108	2.8	66	1.7	245	6.3	3473	89.2	0	0.0	3892	100.0
Westmead	176	3.5	71	1.4	227	4.5	4605	90.6	2	0.0	5081	100.0
John Hunter	169	4.3	99	2.5	282	7.1	3403	86.1	0	0.0	3953	100.0
TOTAL	987	3.6	470	1.7	1547	5.6	24591	89.1	5	0.0	27600	100.0
Level 5												
Gosford	22	0.7	17	0.6	147	4.8	2881	93.9	1	0.0	3068	100.0
Northern Beaches	6	0.3	8	0.5	83	4.7	1670	94.4	3	0.2	1770	100.0
St. George	16	0.7	16	0.7	106	4.7	2106	93.8	1	0.0	2245	100.0
Blacktown	39	0.9	28	0.7	171	4.1	3906	94.3	0	0.0	4144	100.0
Lismore Base	9	0.8	10	0.8	57	4.8	1104	93.5	1	0.1	1181	100.0
Tweed Heads	2	0.2	3	0.3	45	4.5	959	95.0	0	0.0	1009	100.0
Dubbo Base	18	1.4	11	0.9	91	7.2	1140	90.4	1	0.1	1261	100.0
Wollongong	16	0.6	14	0.5	156	6.1	2360	92.7	0	0.0	2546	100.0
Wagga Wagga Base	10	0.8	17	1.3	63	4.9	1196	93.0	0	0.0	1286	100.0
TOTAL	138	0.7	124	0.7	919	5.0	17322	93.6	7	0.0	18510	100.0
Level 4												
Canterbury	4	0.3	6	0.4	70	4.8	1379	94.1	7	0.5	1466	100.0
Hornsby	5	0.4	0	0.0	25	2.2	1096	97.3	0	0.0	1126	100.0
Sutherland	8	0.6	1	0.1	26	2.0	1263	97.3	0	0.0	1298	100.0
Fairfield	4	0.3	1	0.1	43	2.9	1438	96.7	1	0.1	1487	100.0
Campbelltown	30	0.8	38	1.0	208	5.3	3677	93.0	0	0.0	3953	100.0
Bankstown-Lidcombe	13	0.7	1	0.1	89	5.0	1684	94.2	0	0.0	1787	100.0
Hawkesbury	1	0.1	0	0.0	30	4.1	705	95.8	0	0.0	736	100.0
Coffs Harbour	3	0.3	4	0.4	52	5.0	981	94.3	0	0.0	1040	100.0
Grafton Base	5	1.3	0	0.0	18	4.8	354	93.9	0	0.0	377	100.0

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TABLE 50: (Continued)

Maternity service level– Hospital	Gestational age (weeks)											
	<32		32–33		34–36		37+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Port Macquarie Base	4	0.5	2	0.2	68	8.4	740	90.9	0	0.0	814	100.0
Armidale	2	0.5	0	0.0	30	7.5	370	92.0	0	0.0	402	100.0
Tamworth Base	8	0.8	8	0.8	62	6.0	951	92.3	1	0.1	1030	100.0
Manning Base	10	1.5	4	0.6	33	5.0	609	92.8	0	0.0	656	100.0
Bathurst Base	4	0.9	0	0.0	21	4.7	421	94.4	0	0.0	446	100.0
Orange Base	10	1.0	3	0.3	62	6.1	936	92.6	0	0.0	1011	100.0
Maitland	7	0.4	3	0.2	62	3.6	1649	95.8	0	0.0	1721	100.0
Griffith Base	3	0.6	4	0.7	31	5.8	498	92.9	0	0.0	536	100.0
TOTAL	121	0.6	75	0.4	930	4.7	18751	94.3	9	0.0	19886	100.0
Level 3												
Auburn	19	1.4	3	0.2	29	2.1	1309	96.3	0	0.0	1360	100.0
Kempsey	1	0.5	1	0.5	7	3.3	201	95.7	0	0.0	210	100.0
Mudgee	1	0.4	1	0.4	4	1.7	229	97.4	0	0.0	235	100.0
Forbes	2	0.9	0	0.0	1	0.5	216	98.6	0	0.0	219	100.0
Bega	0	0.0	1	0.4	4	1.6	246	98.0	0	0.0	251	100.0
Goulburn Base	2	0.6	0	0.0	18	5.7	295	93.7	0	0.0	315	100.0
Moruya	0	0.0	0	0.0	6	1.9	310	98.1	0	0.0	316	100.0
Queanbeyan	0	0.0	1	0.2	8	1.5	509	98.3	0	0.0	518	100.0
Bowral	3	0.6	1	0.2	7	1.4	497	97.8	0	0.0	508	100.0
Shoalhaven	8	0.9	1	0.1	23	2.6	849	96.4	0	0.0	881	100.0
Other hospitals	7	0.4	5	0.3	40	2.3	1709	97.0	1	0.1	1762	100.0
TOTAL	43	0.7	14	0.2	147	2.2	6370	96.9	1	0.0	6575	100.0
Level 2												
TOTAL	0	0.0	0	0.0	3	0.5	603	99.5	0	0.0	606	100.0
Public hospital [§]												
TOTAL	1289	1.8	683	0.9	3547	4.8	67640	92.4	22	0.0	73181	100.0
Private												
Mater, North Sydney	4	0.2	14	0.6	133	5.4	2306	93.8	1	0.0	2458	100.0
North Shore Private	12	0.7	11	0.6	93	5.2	1664	93.5	0	0.0	1780	100.0
Sydney Adventist	5	0.3	15	1.0	72	4.6	1459	94.1	0	0.0	1551	100.0
North Gosford Private	3	0.5	2	0.4	35	6.2	525	92.8	1	0.2	566	100.0
Hurstville Community	0	0.0	5	0.6	34	4.2	767	95.2	0	0.0	806	100.0
Kareena Private	4	0.7	2	0.3	27	4.6	552	94.4	0	0.0	585	100.0
St. George Private	4	0.3	1	0.1	72	5.5	1221	94.1	0	0.0	1298	100.0
Prince of Wales Private	0	0.0	14	0.7	129	6.9	1740	92.4	0	0.0	1883	100.0
Norwest Private	9	0.6	4	0.3	96	6.4	1398	92.8	0	0.0	1507	100.0
Sydney Southwest Private	1	0.1	1	0.1	50	5.4	878	94.4	0	0.0	930	100.0
Nepean Private	0	0.0	0	0.0	50	7.3	635	92.7	0	0.0	685	100.0
Westmead Private	7	0.3	5	0.2	125	5.3	2231	94.2	0	0.0	2368	100.0
Wollongong Private	2	0.2	0	0.0	53	6.1	819	93.7	0	0.0	874	100.0
Newcastle Private	4	0.2	1	0.1	125	7.5	1539	92.2	0	0.0	1669	100.0
Calvary, Wagga Wagga	0	0.0	0	0.0	19	7.6	231	92.4	0	0.0	250	100.0
TOTAL	55	0.3	75	0.4	1113	5.8	17965	93.5	2	0.0	19210	100.0
TOTAL NSW*	1344	1.5	758	0.8	4662	5.0	85739	92.6	38	0.0	92541	100.0

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

[#]Hospitals with more than 200 births in 2020 are identified individually. Maternity service levels are described on page 92 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 2020.

TABLE 51: BIRTHS BY TYPE OF RESUSCITATION AND LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2020

Hospital sector– Local Health District	Resuscitation of baby															
	None/Minimal		Suction		O ₂ Therapy		IPPR by mask		Intubation and IPPR		External cardiac massage and ventilation		CPAP ventilation		TOTAL†	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Public																
Sydney	4964	83.3	128	2.1	196	3.3	637	10.7	31	0.5	5	0.1	0	0.0	5961	100.0
South Western Sydney	10014	87.2	218	1.9	351	3.1	647	5.6	26	0.2	31	0.3	191	1.7	11482	100.0
South Eastern Sydney	5995	82.1	233	3.2	56	0.8	94	1.3	60	0.8	31	0.4	831	11.4	7300	100.0
Illawarra Shoalhaven	2941	85.8	64	1.9	36	1.0	39	1.1	4	0.1	13	0.4	332	9.7	3429	100.0
Western Sydney	8320	78.6	871	8.2	85	0.8	113	1.1	105	1.0	30	0.3	1060	10.0	10585	100.0
Nepean Blue Mountains	3889	78.3	286	5.8	107	2.2	99	2.0	34	0.7	12	0.2	540	10.9	4968	100.0
Northern Sydney	4599	82.5	168	3.0	24	0.4	126	2.3	20	0.4	9	0.2	626	11.2	5573	100.0
Central Coast	2512	81.5	76	2.5	46	1.5	137	4.4	4	0.1	11	0.4	297	9.6	3084	100.0
Hunter New England	6855	78.3	128	1.5	31	0.4	184	2.1	17	0.2	28	0.3	1507	17.2	8750	100.0
Northern NSW	2244	81.7	82	3.0	25	0.9	42	1.5	3	0.1	11	0.4	337	12.3	2745	100.0
Mid North Coast	1766	83.7	23	1.1	8	0.4	25	1.2	4	0.2	9	0.4	276	13.1	2111	100.0
Southern NSW	1288	84.0	9	0.6	7	0.5	30	2.0	3	0.2	3	0.2	193	12.6	1533	100.0
Murrumbidgee	1795	82.5	63	2.9	31	1.4	68	3.1	3	0.1	13	0.6	204	9.4	2177	100.0
Western NSW	2749	83.2	89	2.7	48	1.5	94	2.8	4	0.1	8	0.2	312	9.4	3304	100.0
Far West	139	77.7	20	11.2	1	0.6	6	3.4	1	0.6	5	2.8	7	3.9	179	100.0
TOTAL	60070	82.1	2458	3.4	1052	1.4	2341	3.2	319	0.4	219	0.3	6713	9.2	73181	100.0
Private																
TOTAL	17550	91.4	339	1.8	414	2.2	540	2.8	2	0.0	16	0.1	293	1.5	19210	100.0
TOTAL NSW*	77765	84.0	2797	3.0	1467	1.6	2885	3.1	321	0.3	235	0.3	7006	7.6	92541	100.0

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

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

[†]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 2020[#]

Maternity service level– Hospital	Resuscitation of baby															
	None/Minimal		Suction		O ₂ Therapy		IPPR by mask		Intubation and IPPR		External cardiac massage and ventilation		CPAP ventilation		TOTAL†	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Level 6																
Royal Prince Alfred	3737	83.1	68	1.5	134	3.0	523	11.6	30	0.7	3	0.1	0	0.0	4495	100.0
Royal North Shore	2097	78.4	132	4.9	16	0.6	49	1.8	18	0.7	5	0.2	358	13.4	2675	100.0
Royal Hospital for Women	2923	77.8	192	5.1	44	1.2	60	1.6	60	1.6	10	0.3	468	12.5	3757	100.0
Liverpool	3139	83.8	123	3.3	145	3.9	265	7.1	20	0.5	5	0.1	50	1.3	3747	100.0
Nepean	2945	75.7	254	6.5	78	2.0	88	2.3	33	0.8	9	0.2	484	12.4	3892	100.0
Westmead	3916	77.1	366	7.2	27	0.5	52	1.0	98	1.9	21	0.4	600	11.8	5081	100.0
John Hunter	2897	73.3	43	1.1	13	0.3	72	1.8	14	0.4	14	0.4	900	22.8	3953	100.0
TOTAL	21654	78.5	1178	4.3	457	1.7	1109	4.0	273	1.0	67	0.2	2860	10.4	27600	100.0
Level 5																
Gosford	2497	81.4	76	2.5	46	1.5	137	4.5	4	0.1	11	0.4	296	9.6	3068	100.0
Northern Beaches	1515	85.6	13	0.7	5	0.3	67	3.8	1	0.1	2	0.1	166	9.4	1770	100.0
St. George	1919	85.5	15	0.7	8	0.4	25	1.1	0	0.0	15	0.7	263	11.7	2245	100.0
Blacktown	3152	76.1	457	11.0	34	0.8	44	1.1	7	0.2	7	0.2	443	10.7	4144	100.0
Lismore Base	952	80.6	35	3.0	11	0.9	13	1.1	2	0.2	2	0.2	166	14.1	1181	100.0
Tweed Heads	809	80.2	43	4.3	11	1.1	24	2.4	1	0.1	6	0.6	115	11.4	1009	100.0
Dubbo Base	999	79.2	76	6.0	16	1.3	19	1.5	0	0.0	0	0.0	151	12.0	1261	100.0
Wollongong	2153	84.6	55	2.2	30	1.2	31	1.2	3	0.1	11	0.4	263	10.3	2546	100.0
Wagga Wagga Base	995	77.4	53	4.1	17	1.3	43	3.3	1	0.1	8	0.6	169	13.1	1286	100.0
TOTAL	14991	81.0	823	4.4	178	1.0	403	2.2	19	0.1	62	0.3	2032	11.0	18510	100.0
Level 4																
Canterbury	1227	83.7	60	4.1	62	4.2	114	7.8	1	0.1	2	0.1	0	0.0	1466	100.0
Hornsby	985	87.5	23	2.0	3	0.3	10	0.9	1	0.1	2	0.2	102	9.1	1126	100.0
Sutherland	1153	88.8	26	2.0	4	0.3	9	0.7	0	0.0	6	0.5	100	7.7	1298	100.0
Fairfield	1380	92.8	20	1.3	34	2.3	32	2.2	2	0.1	3	0.2	15	1.0	1487	100.0

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TABLE 52: (Continued)

Maternity service level– Hospital	Resuscitation of baby															
	None/Minimal		Suction		O ₂ Therapy		IPPR by mask		Intubation and IPPR		External cardiac massage and ventilation		CPAP ventilation		TOTAL†	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Campbelltown	3475	87.9	52	1.3	99	2.5	230	5.8	3	0.1	21	0.5	72	1.8	3953	100.0
Bankstown-Lidcombe	1586	88.8	20	1.1	58	3.2	78	4.4	1	0.1	1	0.1	42	2.4	1787	100.0
Hawkesbury	649	88.2	24	3.3	27	3.7	4	0.5	0	0.0	2	0.3	30	4.1	736	100.0
Coffs Harbour	862	82.9	17	1.6	5	0.5	18	1.7	2	0.2	2	0.2	134	12.9	1040	100.0
Grafton Base	317	84.1	4	1.1	1	0.3	3	0.8	0	0.0	3	0.8	48	12.7	377	100.0
Port Macquarie Base	676	83.0	5	0.6	2	0.2	6	0.7	2	0.2	5	0.6	118	14.5	814	100.0
Armidale	317	78.9	0	0.0	3	0.7	9	2.2	1	0.2	0	0.0	72	17.9	402	100.0
Tamworth Base	840	81.6	28	2.7	6	0.6	12	1.2	2	0.2	4	0.4	138	13.4	1030	100.0
Manning Base	555	84.6	17	2.6	1	0.2	13	2.0	0	0.0	2	0.3	68	10.4	656	100.0
Bathurst Base	358	80.3	8	1.8	5	1.1	24	5.4	2	0.4	1	0.2	48	10.8	446	100.0
Orange Base	863	85.4	2	0.2	18	1.8	36	3.6	1	0.1	6	0.6	85	8.4	1011	100.0
Maitland	1402	81.5	7	0.4	3	0.2	33	1.9	0	0.0	4	0.2	272	15.8	1721	100.0
Griffith Base	475	88.6	4	0.7	9	1.7	17	3.2	0	0.0	3	0.6	28	5.2	536	100.0
TOTAL	17120	86.1	317	1.6	340	1.7	648	3.3	18	0.1	67	0.3	1372	6.9	19886	100.0
Level 3																
Auburn	1252	92.1	48	3.5	24	1.8	17	1.3	0	0.0	2	0.1	17	1.3	1360	100.0
Kempsey	182	86.7	1	0.5	0	0.0	1	0.5	0	0.0	2	1.0	24	11.4	210	100.0
Mudgee	213	90.6	2	0.9	1	0.4	7	3.0	0	0.0	0	0.0	12	5.1	235	100.0
Forbes	199	90.9	1	0.5	4	1.8	6	2.7	1	0.5	1	0.5	7	3.2	219	100.0
Bega	198	78.9	2	0.8	0	0.0	6	2.4	1	0.4	1	0.4	43	17.1	251	100.0
Goulburn Base	264	83.8	3	1.0	3	1.0	11	3.5	0	0.0	1	0.3	33	10.5	315	100.0
Moruya	291	92.1	1	0.3	3	0.9	4	1.3	0	0.0	0	0.0	17	5.4	316	100.0
Queanbeyan	419	80.9	3	0.6	1	0.2	6	1.2	2	0.4	0	0.0	87	16.8	518	100.0
Bowral	434	85.4	3	0.6	15	3.0	42	8.3	0	0.0	1	0.2	12	2.4	508	100.0
Shoalhaven	786	89.2	9	1.0	6	0.7	8	0.9	1	0.1	2	0.2	69	7.8	881	100.0
Other hospitals	1493	84.7	65	3.7	16	0.9	67	3.8	4	0.2	12	0.7	105	6.0	1762	100.0
TOTAL	5731	87.2	138	2.1	73	1.1	175	2.7	9	0.1	22	0.3	426	6.5	6575	100.0
Level 2																
TOTAL	570	94.1	2	0.3	4	0.7	6	1.0	0	0.0	1	0.2	23	3.8	606	100.0
Public hospital§																
TOTAL	60070	82.1	2458	3.4	1052	1.4	2341	3.2	319	0.4	219	0.3	6713	9.2	73181	100.0
Private																
Mater, North Sydney	2263	92.1	33	1.3	64	2.6	86	3.5	0	0.0	1	0.0	11	0.4	2458	100.0
North Shore Private	1648	92.6	45	2.5	39	2.2	25	1.4	0	0.0	0	0.0	8	0.4	1780	100.0
Sydney Adventist	1471	94.8	4	0.3	19	1.2	29	1.9	0	0.0	1	0.1	27	1.7	1551	100.0
North Gosford Private	510	90.1	6	1.1	9	1.6	40	7.1	1	0.2	0	0.0	0	0.0	566	100.0
Hurstville Community	756	93.8	0	0.0	21	2.6	17	2.1	0	0.0	0	0.0	1	0.1	806	100.0
Kareena Private	523	89.4	14	2.4	13	2.2	16	2.7	0	0.0	0	0.0	12	2.1	585	100.0
St. George Private	1036	79.8	92	7.1	53	4.1	48	3.7	0	0.0	3	0.2	57	4.4	1298	100.0
Prince of Wales Private	1765	93.7	12	0.6	8	0.4	54	2.9	0	0.0	2	0.1	42	2.2	1883	100.0
Norwest Private	1424	94.5	4	0.3	15	1.0	45	3.0	0	0.0	3	0.2	16	1.1	1507	100.0
Sydney Southwest Private	905	97.3	0	0.0	7	0.8	16	1.7	0	0.0	1	0.1	0	0.0	930	100.0
Nepean Private	644	94.0	2	0.3	15	2.2	18	2.6	0	0.0	2	0.3	4	0.6	685	100.0
Westmead Private	2119	89.5	100	4.2	91	3.8	30	1.3	1	0.0	0	0.0	16	0.7	2368	100.0
Wollongong Private	752	86.0	20	2.3	56	6.4	39	4.5	0	0.0	0	0.0	5	0.6	874	100.0
Newcastle Private	1501	89.9	2	0.1	2	0.1	67	4.0	0	0.0	3	0.2	94	5.6	1669	100.0
Calvary, Wagga Wagga	233	93.2	5	2.0	2	0.8	10	4.0	0	0.0	0	0.0	0	0.0	250	100.0
TOTAL	17550	91.4	339	1.8	414	2.2	540	2.8	2	0.0	16	0.1	293	1.5	19210	100.0
TOTAL NSW*	77765	84.0	2797	3.0	1467	1.6	2885	3.1	321	0.3	235	0.3	7006	7.6	92541	100.0

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

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

#Hospitals with more than 200 births in 2020 are identified individually. Maternity service levels are described on page 92 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 2020.

TABLE 53: LIVE BIRTHS BY TYPE OF INFANT FEEDING AND LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2020

Hospital sector– Local Health District	Infant feeding									
	Full breastfeeding		Any breastfeeding		Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Public										
Sydney	3931	66.5	1670	28.3	233	3.9	73	1.2	5907	100.0
South Western Sydney	6265	55.1	3307	29.1	1446	12.7	360	3.2	11378	100.0
South Eastern Sydney	5526	76.3	1311	18.1	360	5.0	41	0.6	7238	100.0
Illawarra Shoalhaven	2558	75.0	335	9.8	491	14.4	27	0.8	3411	100.0
Western Sydney	7299	69.6	2146	20.5	794	7.6	244	2.3	10483	100.0
Nepean Blue Mountains	3077	62.5	960	19.5	816	16.6	73	1.5	4926	100.0
Northern Sydney	4530	81.7	693	12.5	148	2.7	172	3.1	5543	100.0
Central Coast	2322	75.9	381	12.5	330	10.8	27	0.9	3060	100.0
Hunter New England	6315	72.9	1078	12.4	1092	12.6	176	2.0	8661	100.0
Northern NSW	2350	86.1	174	6.4	140	5.1	65	2.4	2729	100.0
Mid North Coast	1626	77.3	220	10.5	191	9.1	66	3.1	2103	100.0
Southern NSW	1253	82.3	134	8.8	106	7.0	30	2.0	1523	100.0
Murrumbidgee	1567	72.4	233	10.8	327	15.1	38	1.8	2165	100.0
Western NSW	2366	72.3	395	12.1	447	13.7	65	2.0	3273	100.0
Far West	136	77.3	8	4.5	26	14.8	6	3.4	176	100.0
TOTAL	51121	70.4	13045	18.0	6947	9.6	1463	2.0	72576	100.0
Private										
TOTAL	12180	63.6	5389	28.1	806	4.2	777	4.1	19152	100.0
TOTAL NSW*	63445	69.1	18438	20.1	7755	8.4	2240	2.4	91878	100.0

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 2020*

Maternity service level– Hospital	Infant feeding									
	Full breastfeeding		Any breastfeeding		Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Level 6										
Royal Prince Alfred	2951	66.3	1291	29.0	162	3.6	44	1.0	4448	100.0
Royal North Shore	2186	82.4	387	14.6	65	2.4	16	0.6	2654	100.0
Royal Hospital for Women	2958	79.6	575	15.5	157	4.2	27	0.7	3717	100.0
Liverpool	1890	51.2	1291	35.0	431	11.7	81	2.2	3693	100.0
Nepean	2282	59.2	846	21.9	684	17.7	43	1.1	3855	100.0
Westmead	3711	73.9	830	16.5	318	6.3	163	3.2	5022	100.0
John Hunter	2799	72.0	575	14.8	479	12.3	32	0.8	3885	100.0
TOTAL	18777	68.8	5795	21.2	2296	8.4	406	1.5	27274	100.0
Level 5										
Gosford	2306	75.8	381	12.5	330	10.8	27	0.9	3044	100.0
Northern Beaches	1370	77.5	201	11.4	47	2.7	149	8.4	1767	100.0
St. George	1492	66.9	601	26.9	129	5.8	9	0.4	2231	100.0
Blacktown	2762	67.1	878	21.3	409	9.9	65	1.6	4114	100.0
Lismore Base	974	83.0	93	7.9	65	5.5	42	3.6	1174	100.0
Tweed Heads	912	90.7	46	4.6	34	3.4	13	1.3	1005	100.0
Dubbo Base	823	66.2	187	15.0	218	17.5	15	1.2	1243	100.0
Wollongong	1817	71.6	295	11.6	404	15.9	20	0.8	2536	100.0
Wagga Wagga Base	913	71.4	156	12.2	197	15.4	13	1.0	1279	100.0
TOTAL	13369	72.7	2838	15.4	1833	10.0	353	1.9	18393	100.0
Level 4										
Canterbury	980	67.2	379	26.0	71	4.9	29	2.0	1459	100.0
Hornsby	972	86.8	105	9.4	36	3.2	7	0.6	1120	100.0
Sutherland	1076	83.4	135	10.5	74	5.7	5	0.4	1290	100.0
Fairfield	695	46.9	582	39.3	171	11.5	33	2.2	1481	100.0
Campbelltown	2323	59.2	838	21.4	616	15.7	145	3.7	3922	100.0
Bankstown-Lidcombe	972	54.7	545	30.7	190	10.7	69	3.9	1776	100.0
Hawkesbury	531	72.5	86	11.7	104	14.2	11	1.5	732	100.0
Coffs Harbour	811	78.1	133	12.8	73	7.0	21	2.0	1038	100.0

(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	291	78.2	35	9.4	40	10.8	6	1.6	372 100.0
Port Macquarie Base	612	75.6	78	9.6	84	10.4	36	4.4	810 100.0
Armidale	299	74.6	58	14.5	25	6.2	19	4.7	401 100.0
Tamworth Base	651	63.6	163	15.9	157	15.3	53	5.2	1024 100.0
Manning Base	499	76.4	58	8.9	73	11.2	23	3.5	653 100.0
Bathurst Base	339	76.5	41	9.3	48	10.8	15	3.4	443 100.0
Orange Base	743	74.1	133	13.3	107	10.7	20	2.0	1003 100.0
Maitland	1293	75.5	146	8.5	244	14.3	29	1.7	1712 100.0
Griffith Base	378	71.1	62	11.7	75	14.1	17	3.2	532 100.0
TOTAL	13465	68.1	3577	18.1	2188	11.1	538	2.7	19768 100.0
Level 3									
Auburn	826	61.3	438	32.5	67	5.0	16	1.2	1347 100.0
Kempsey	161	77.4	9	4.3	31	14.9	7	3.4	208 100.0
Mudgee	190	80.9	9	3.8	30	12.8	6	2.6	235 100.0
Forbes	164	75.6	16	7.4	32	14.7	5	2.3	217 100.0
Bega	196	78.4	29	11.6	13	5.2	12	4.8	250 100.0
Goulburn Base	241	77.7	23	7.4	41	13.2	5	1.6	310 100.0
Moruya	272	86.9	15	4.8	22	7.0	4	1.3	313 100.0
Queanbeyan	441	85.1	51	9.8	22	4.2	4	0.8	518 100.0
Bowral	385	76.1	51	10.1	38	7.5	32	6.3	506 100.0
Shoalhaven	740	84.8	40	4.6	86	9.9	7	0.8	873 100.0
Other hospitals	1343	76.6	139	7.9	218	12.4	54	3.1	1754 100.0
TOTAL	4959	75.9	820	12.6	600	9.2	152	2.3	6531 100.0
Level 2									
TOTAL	548	90.4	15	2.5	29	4.8	14	2.3	606 100.0
Public hospital[§]									
TOTAL	51121	70.4	13045	18.0	6947	9.6	1463	2.0	72576 100.0
Private									
Mater, North Sydney	1395	56.9	924	37.7	113	4.6	21	0.9	2453 100.0
North Shore Private	1228	69.4	448	25.3	86	4.9	8	0.5	1770 100.0
Sydney Adventist	940	60.8	471	30.5	54	3.5	80	5.2	1545 100.0
North Gosford Private	509	90.4	31	5.5	22	3.9	1	0.2	563 100.0
Hurstville Community	523	65.0	207	25.7	71	8.8	4	0.5	805 100.0
Kareena Private	468	80.6	78	13.4	33	5.7	2	0.3	581 100.0
St. George Private	567	43.9	591	45.7	126	9.7	9	0.7	1293 100.0
Prince of Wales Private	1391	73.9	412	21.9	0	0.0	79	4.2	1882 100.0
Norwest Private	965	64.4	372	24.8	0	0.0	161	10.7	1498 100.0
Sydney Southwest Private	443	47.7	349	37.6	0	0.0	137	14.7	929 100.0
Nepean Private	435	63.5	147	21.5	0	0.0	103	15.0	685 100.0
Westmead Private	1273	53.9	884	37.4	188	8.0	16	0.7	2361 100.0
Wollongong Private	594	68.1	167	19.2	105	12.0	6	0.7	872 100.0
Newcastle Private	1222	73.4	293	17.6	0	0.0	150	9.0	1665 100.0
Calvary, Wagga Wagga	227	90.8	15	6.0	8	3.2	0	0.0	250 100.0
TOTAL	12180	63.6	5389	28.1	806	4.2	777	4.1	19152 100.0
TOTAL NSW*	63445	69.1	18438	20.1	7755	8.4	2240	2.4	91878 100.0

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

[#]Hospitals with more than 200 births in 2020 are identified individually. Maternity service levels are described on page 92 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 2020.

TABLE 55: BABY DISCHARGE STATUS BY HOSPITAL AND LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2020

Hospital sector– Local Health District	Baby discharge status											
	Discharged		Stillborn		Neonatal death		Transferred		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Public												
Sydney	5739	96.3	54	0.9	18	0.3	143	2.4	7	0.1	5961	100.0
South Western Sydney	10992	95.7	104	0.9	18	0.2	363	3.2	5	0.0	11482	100.0
South Eastern Sydney	7079	97.0	62	0.8	19	0.3	140	1.9	0	0.0	7300	100.0
Illawarra Shoalhaven	3365	98.1	18	0.5	4	0.1	42	1.2	0	0.0	3429	100.0
Western Sydney	10084	95.3	102	1.0	49	0.5	336	3.2	14	0.1	10585	100.0
Nepean Blue Mountains	4683	94.3	42	0.8	15	0.3	199	4.0	29	0.6	4968	100.0
Northern Sydney	5382	96.6	30	0.5	11	0.2	148	2.7	2	0.0	5573	100.0
Central Coast	3020	97.9	24	0.8	3	0.1	36	1.2	1	0.0	3084	100.0
Hunter New England	8191	93.6	89	1.0	23	0.3	341	3.9	106	1.2	8750	100.0
Northern NSW	2652	96.6	16	0.6	0	0.0	34	1.2	43	1.6	2745	100.0
Mid North Coast	1988	94.2	8	0.4	1	0.0	75	3.6	39	1.8	2111	100.0
Southern NSW	1460	95.2	10	0.7	0	0.0	56	3.7	7	0.5	1533	100.0
Murrumbidgee	2067	94.9	12	0.6	2	0.1	78	3.6	18	0.8	2177	100.0
Western NSW	3157	95.6	31	0.9	8	0.2	108	3.3	0	0.0	3304	100.0
Far West	168	93.9	3	1.7	0	0.0	7	3.9	1	0.6	179	100.0
TOTAL	70027	95.7	605	0.8	171	0.2	2106	2.9	272	0.4	73181	100.0
Private												
TOTAL	18996	98.9	58	0.3	6	0.0	149	0.8	1	0.0	19210	100.0
TOTAL NSW*	89173	96.4	663	0.7	177	0.2	2255	2.4	273	0.3	92541	100.0

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 2020*

Maternity service level– Hospital	Baby discharge status											
	Discharged		Stillborn		Neonatal death		Transferred		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Level 6												
Royal Prince Alfred	4303	95.7	47	1.0	17	0.4	124	2.8	4	0.1	4495	100.0
Royal North Shore	2528	94.5	21	0.8	8	0.3	118	4.4	0	0.0	2675	100.0
Royal Hospital for Women	3588	95.5	40	1.1	12	0.3	117	3.1	0	0.0	3757	100.0
Liverpool	3448	92.0	54	1.4	12	0.3	232	6.2	1	0.0	3747	100.0
Nepean	3647	93.7	37	1.0	15	0.4	178	4.6	15	0.4	3892	100.0
Westmead	4722	92.9	59	1.2	30	0.6	270	5.3	0	0.0	5081	100.0
John Hunter	3658	92.5	68	1.7	22	0.6	198	5.0	7	0.2	3953	100.0
TOTAL	25894	93.8	326	1.2	116	0.4	1237	4.5	27	0.1	27600	100.0
Level 5												
Gosford	3004	97.9	24	0.8	3	0.1	36	1.2	1	0.0	3068	100.0
Northern Beaches	1743	98.5	3	0.2	2	0.1	20	1.1	2	0.1	1770	100.0
St. George	2211	98.5	14	0.6	4	0.2	16	0.7	0	0.0	2245	100.0
Blacktown	4033	97.3	30	0.7	12	0.3	55	1.3	14	0.3	4144	100.0
Lismore Base	1126	95.3	7	0.6	0	0.0	17	1.4	31	2.6	1181	100.0
Tweed Heads	990	98.1	4	0.4	0	0.0	8	0.8	7	0.7	1009	100.0
Dubbo Base	1218	96.6	18	1.4	4	0.3	21	1.7	0	0.0	1261	100.0
Wollongong	2498	98.1	10	0.4	3	0.1	35	1.4	0	0.0	2546	100.0
Wagga Wagga Base	1219	94.8	7	0.5	1	0.1	58	4.5	1	0.1	1286	100.0
TOTAL	18042	97.5	117	0.6	29	0.2	266	1.4	56	0.3	18510	100.0
Level 4												
Canterbury	1436	98.0	7	0.5	1	0.1	19	1.3	3	0.2	1466	100.0
Hornsby	1109	98.5	6	0.5	1	0.1	10	0.9	0	0.0	1126	100.0
Sutherland	1280	98.6	8	0.6	3	0.2	7	0.5	0	0.0	1298	100.0
Fairfield	1469	98.8	6	0.4	0	0.0	11	0.7	1	0.1	1487	100.0
Campbelltown	3849	97.4	31	0.8	3	0.1	69	1.7	1	0.0	3953	100.0
Bankstown-Lidcombe	1744	97.6	11	0.6	2	0.1	29	1.6	1	0.1	1787	100.0
Hawkesbury	721	98.0	4	0.5	0	0.0	8	1.1	3	0.4	736	100.0
Coffs Harbour	1005	96.6	2	0.2	1	0.1	27	2.6	5	0.5	1040	100.0

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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	365	96.8	5	1.3	0	0.0	5	1.3	2	0.5	377	100.0
Port Macquarie Base	745	91.5	4	0.5	0	0.0	33	4.1	32	3.9	814	100.0
Armidale	373	92.8	1	0.2	0	0.0	13	3.2	15	3.7	402	100.0
Tamworth Base	941	91.4	6	0.6	0	0.0	37	3.6	46	4.5	1030	100.0
Manning Base	629	95.9	3	0.5	1	0.2	8	1.2	15	2.3	656	100.0
Bathurst Base	427	95.7	3	0.7	1	0.2	15	3.4	0	0.0	446	100.0
Orange Base	960	95.0	8	0.8	2	0.2	41	4.1	0	0.0	1011	100.0
Maitland	1647	95.7	9	0.5	0	0.0	51	3.0	14	0.8	1721	100.0
Griffith Base	509	95.0	4	0.7	1	0.2	11	2.1	11	2.1	536	100.0
TOTAL	19209	96.6	118	0.6	16	0.1	394	2.0	149	0.7	19886	100.0
Level 3												
Auburn	1329	97.7	13	1.0	7	0.5	11	0.8	0	0.0	1360	100.0
Kempsey	193	91.9	2	1.0	0	0.0	15	7.1	0	0.0	210	100.0
Mudgee	215	91.5	0	0.0	0	0.0	20	8.5	0	0.0	235	100.0
Forbes	210	95.9	2	0.9	1	0.5	6	2.7	0	0.0	219	100.0
Bega	235	93.6	1	0.4	0	0.0	10	4.0	5	2.0	251	100.0
Goulburn Base	304	96.5	5	1.6	0	0.0	6	1.9	0	0.0	315	100.0
Moruya	298	94.3	3	0.9	0	0.0	14	4.4	1	0.3	316	100.0
Queanbeyan	502	96.9	0	0.0	0	0.0	16	3.1	0	0.0	518	100.0
Bowral	482	94.9	2	0.4	1	0.2	22	4.3	1	0.2	508	100.0
Shoalhaven	865	98.2	8	0.9	1	0.1	7	0.8	0	0.0	881	100.0
Other hospitals	1666	94.6	8	0.5	0	0.0	66	3.7	22	1.2	1762	100.0
TOTAL	6299	95.8	44	0.7	10	0.2	193	2.9	29	0.4	6575	100.0
Level 2												
TOTAL	579	95.5	0	0.0	0	0.0	16	2.6	11	1.8	606	100.0
Public hospital [§]												
TOTAL	70027	95.7	605	0.8	171	0.2	2106	2.9	272	0.4	73181	100.0
Private												
Mater, North Sydney	2430	98.9	5	0.2	2	0.1	21	0.9	0	0.0	2458	100.0
North Shore Private	1759	98.8	10	0.6	2	0.1	9	0.5	0	0.0	1780	100.0
Sydney Adventist	1538	99.2	6	0.4	0	0.0	7	0.5	0	0.0	1551	100.0
North Gosford Private	556	98.2	3	0.5	0	0.0	7	1.2	0	0.0	566	100.0
Hurstville Community	804	99.8	1	0.1	0	0.0	1	0.1	0	0.0	806	100.0
Kareena Private	579	99.0	4	0.7	0	0.0	2	0.3	0	0.0	585	100.0
St. George Private	1278	98.5	5	0.4	0	0.0	15	1.2	0	0.0	1298	100.0
Prince of Wales Private	1878	99.7	1	0.1	0	0.0	4	0.2	0	0.0	1883	100.0
Norwest Private	1490	98.9	9	0.6	0	0.0	8	0.5	0	0.0	1507	100.0
Sydney Southwest Private	918	98.7	1	0.1	0	0.0	11	1.2	0	0.0	930	100.0
Nepean Private	672	98.1	0	0.0	0	0.0	13	1.9	0	0.0	685	100.0
Westmead Private	2335	98.6	7	0.3	2	0.1	24	1.0	0	0.0	2368	100.0
Wollongong Private	863	98.7	2	0.2	0	0.0	9	1.0	0	0.0	874	100.0
Newcastle Private	1648	98.7	4	0.2	0	0.0	17	1.0	0	0.0	1669	100.0
Calvary, Wagga Wagga	248	99.2	0	0.0	0	0.0	1	0.4	1	0.4	250	100.0
TOTAL	18996	98.9	58	0.3	6	0.0	149	0.8	1	0.0	19210	100.0
TOTAL NSW*	89173	96.4	663	0.7	177	0.2	2255	2.4	273	0.3	92541	100.0

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

#Hospitals with more than 200 births in 2020 are identified individually. Maternity service levels are described on page 92 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 2020.

TABLE 57: AVERAGE MATERNAL POSTNATAL LENGTH OF STAY IN HOSPITAL OF BIRTH, NSW 2016–2020*

Local Health District–Hospital		Average postnatal length of stay (days)				
		2016	2017	2018	2019	2020
Sydney	Canterbury	2.6	2.5	2.3	2.0	1.9
	Royal Prince Alfred	3.2	3.2	3.2	3.2	3.0
	Other hospitals	0.0	0.0	6.0	0.0	0.0
	TOTAL	3.0	3.0	3.0	2.9	2.7
South Western Sydney	Fairfield	2.5	2.5	2.3	2.3	2.3
	Liverpool	2.6	2.5	2.4	2.4	2.2
	Campbelltown	2.1	2.1	2.0	1.9	1.8
	Bankstown-Lidcombe	2.4	2.4	2.4	2.5	2.3
	Bowral	2.7	2.6	2.3	2.4	1.9
	TOTAL	2.4	2.4	2.3	2.2	2.1
South Eastern Sydney	St. George	2.2	2.3	2.4	2.4	2.2
	Sutherland	2.0	2.1	2.0	2.2	2.1
	Royal Hospital for Women	3.0	3.0	3.0	2.9	2.7
	TOTAL	2.6	2.6	2.6	2.6	2.4
Illawarra Shoalhaven	Shoalhaven	2.3	2.2	2.1	2.2	1.9
	Wollongong	2.4	2.4	2.4	2.4	2.1
	Other hospitals	1.4	2.0	0.0	2.0	3.0
	TOTAL	2.3	2.3	2.4	2.4	2.1
Western Sydney	Auburn	1.9	1.9	1.9	1.9	2.0
	Blacktown	2.1	2.1	2.1	2.1	1.9
	Westmead	2.1	2.1	2.2	2.2	2.2
	TOTAL	2.1	2.1	2.1	2.1	2.1
Nepean Blue Mountains	Nepean	2.0	2.1	1.9	1.9	1.9
	Hawkesbury	2.9	2.8	2.3	2.3	2.1
	Other hospitals	2.6	2.5	2.6	2.5	2.4
	TOTAL	2.2	2.3	2.0	2.0	2.0
	TOTAL	2.2	2.3	2.2	2.3	2.0
Northern Sydney	Hornsby	2.1	2.2	2.3	2.3	2.2
	Royal North Shore	2.8	2.8	2.8	2.8	2.8
	Northern Beaches [†]	-	-	2.6	2.7	2.5
	Other hospitals	2.2	2.2	2.3	0.2	0.0
	TOTAL	2.5	2.5	2.5	2.7	2.6
Central Coast	Gosford	2.1	2.1	2.2	2.0	1.8
	Other hospitals	0.2	0.3	0.4	0.4	0.3
	TOTAL	2.0	2.1	2.1	2.0	1.8
Hunter New England	Armidale	2.5	2.8	3.0	3.2	2.9
	Tamworth Base	2.4	2.8	2.7	2.6	2.4
	Manning Base	2.7	2.6	2.7	2.4	2.1
	Maitland	2.0	2.1	2.0	2.0	1.7
	John Hunter	2.4	2.4	2.4	2.3	2.3
	Other hospitals	2.4	2.4	2.4	2.4	2.2
	TOTAL	2.4	2.4	2.4	2.3	2.2
Northern NSW	Grafton Base	3.0	3.1	3.1	3.0	2.4
	Lismore Base	2.3	2.4	2.2	2.3	2.2
	Tweed Heads	2.5	2.4	2.5	2.4	2.1
	Other hospitals	1.8	1.2	1.9	0.3	0.9
	TOTAL	2.4	2.4	2.4	2.3	2.1

Local Health District–Hospital		Average postnatal length of stay (days)				
		2016	2017	2018	2019	2020
Mid North Coast	Coffs Harbour	2.7	2.7	2.7	2.5	2.5
	Kempsey	2.4	2.8	2.8	2.7	2.4
	Port Macquarie Base	2.4	2.4	2.6	2.7	2.4
	Other hospitals	2.3	2.1	2.3	2.4	0.8
	TOTAL	2.6	2.6	2.7	2.6	2.4
Southern NSW	Bega	2.3	2.4	2.7	2.5	2.3
	Goulburn Base	2.4	2.8	2.3	2.2	2.2
	Moruya	2.2	2.1	2.0	2.1	1.9
	Queanbeyan	2.8	2.7	2.5	2.6	2.2
	Other hospitals	2.9	3.6	3.0	2.8	3.4
	TOTAL	2.5	2.6	2.4	2.4	2.3
Murrumbidgee	Griffith Base	2.9	2.6	2.3	2.5	2.2
	Wagga Wagga Base	2.4	2.7	2.5	2.5	2.2
	Other hospitals	2.8	3.0	2.6	2.7	2.6
	TOTAL	2.6	2.7	2.5	2.5	2.3
Western NSW	Dubbo Base	2.2	2.2	2.3	2.1	2.1
	Mudgee	2.4	2.3	2.3	2.4	2.4
	Bathurst Base	2.3	2.5	2.5	2.5	2.0
	Forbes	3.3	2.9	2.8	2.6	2.0
	Orange Base	2.5	2.5	2.4	2.5	2.2
	Other hospitals	2.8	2.5	2.6	2.8	2.2
	TOTAL	2.4	2.4	2.4	2.4	2.1
Far West	TOTAL	2.1	2.4	2.2	2.3	2.1
Public Hospitals	TOTAL	2.4	2.4	2.4	2.4	2.2
Private Hospitals	Mater, North Sydney	4.5	4.6	4.4	4.5	4.4
	North Shore Private	4.5	4.5	4.5	4.5	4.4
	Sydney Adventist	4.7	4.8	4.4	4.5	4.3
	North Gosford Private	4.3	4.3	4.5	4.4	4.5
	Hurstville Community	4.5	4.3	4.3	4.5	4.2
	Kareena Private	4.4	4.4	4.4	4.4	4.2
	St. George Private	4.3	4.4	4.3	4.4	4.2
	Prince of Wales Private	4.5	4.6	4.5	4.5	4.3
	Norwest Private	4.2	4.2	4.2	4.2	4.3
	Sydney Southwest Private	3.8	3.8	3.9	3.8	3.5
	Nepean Private	4.2	4.3	4.2	4.2	4.0
	Westmead Private	4.2	4.0	4.0	4.1	4.0
	Wollongong Private	5.3	5.3	5.2	5.1	4.7
	Newcastle Private	4.3	4.2	4.2	4.1	4.0
	Calvary, Wagga Wagga	4.5	4.4	4.4	4.4	4.2
	Other hospitals	4.5	4.4	0.0	0.0	0.0
	TOTAL	4.4	4.4	4.3	4.4	4.2
TOTAL NSW*		2.9	2.9	2.9	2.8	2.7

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

#Hospitals with more than 200 births in 2020 are identified individually.

†Northern Beaches 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*.¹

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 37⁰ to 40⁶ 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 2020, 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 2016–2020^a

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Sydney	Canterbury	43.5	38.3	43.5	40.1	41.5
	Royal Prince Alfred	53.4	52.5	44.3	45.1	39.9
	TOTAL	51.2	48.9	44.1	43.9	40.3
South Western Sydney	Fairfield	65.4	63.9	57.6	67.2	63.3
	Liverpool	56.9	54.8	58.1	54.9	53.3
	Campbelltown	59.7	60.6	58.4	56.3	51.8
	Bankstown-Lidcombe	49.7	58.5	52.0	59.0	56.2
	Bowral	37.0	50.9	64.6	59.3	52.1
	TOTAL	57.1	58.6	57.4	57.9	54.5
South Eastern Sydney	St. George	47.9	45.5	39.0	39.2	39.2
	Sutherland	61.2	56.5	55.6	53.1	45.6
	Royal Hospital for Women	53.2	46.8	50.6	46.4	44.8
	TOTAL	52.7	47.8	47.2	44.9	43.0
Illawarra Shoalhaven	Shoalhaven	56.9	51.5	54.8	52.3	57.4
	Wollongong	54.5	49.1	51.7	43.4	49.2
	Other hospitals	0.0	0.0	0.0	100.0	0.0
	TOTAL	55.1	49.6	52.5	45.7	51.0
Western Sydney	Auburn	67.1	66.3	63.9	63.2	46.8
	Blacktown	54.4	53.8	56.8	52.3	49.4
	Westmead	56.9	56.9	52.9	55.1	50.2
	TOTAL	57.6	57.3	56.0	55.4	49.4
Nepean Blue Mountains	Nepean	48.5	49.0	47.6	46.9	45.2
	Hawkesbury	50.7	50.3	45.4	43.1	33.8
	Other hospitals	59.6	59.7	57.7	50.6	47.1
	TOTAL	49.8	50.0	48.0	46.6	43.7
Northern Sydney	Hornsby	53.5	53.6	52.8	52.0	50.2
	Royal North Shore	49.5	50.0	51.5	49.4	47.8
	Northern Beaches ^b	-	-	48.1	42.3	42.3
	Other hospitals	56.0	54.0	53.5	100.0	0.0
	TOTAL	52.1	51.9	52.0	48.5	46.5
Central Coast	Gosford	52.7	50.3	51.2	52.0	54.2
	Other hospitals	100.0	100.0	100.0	100.0	100.0
	TOTAL	54.5	51.9	52.5	53.2	54.5

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Hunter New England	Armidale	55.6	52.3	50.6	38.7	52.0
	Tamworth Base	56.4	46.6	45.5	55.5	35.7
	Manning Base	53.8	49.2	50.9	46.3	57.9
	Maitland	67.1	62.3	61.9	62.2	57.0
	John Hunter	53.1	56.7	51.3	46.2	48.7
	Other hospitals	70.1	65.9	63.1	55.7	62.1
	TOTAL	58.2	57.1	53.8	51.1	50.9
Northern NSW	Grafton Base	61.8	63.4	50.7	61.5	49.3
	Lismore Base	58.4	70.6	63.4	62.5	57.7
	Tweed Heads	68.7	61.6	55.6	59.2	57.3
	Other hospitals	89.1	100.0	97.1	97.9	100.0
	TOTAL	65.8	67.1	60.5	64.0	59.0
Mid North Coast	Coffs Harbour	50.3	54.0	58.4	64.1	60.3
	Kempsey	73.0	78.9	54.2	63.3	50.0
	Port Macquarie Base	52.4	58.8	53.7	42.4	47.5
	Other hospitals	100.0	75.0	100.0	75.0	100.0
	TOTAL	53.8	58.4	57.4	55.6	55.0
Southern NSW	Bega	59.6	55.1	56.9	55.6	61.0
	Goulburn Base	45.8	39.6	61.1	47.6	49.2
	Moruya	60.8	58.1	76.9	66.0	52.9
	Queanbeyan	53.6	45.4	38.4	48.4	47.6
	Other hospitals	88.6	85.2	54.5	74.2	56.7
	TOTAL	58.3	51.3	52.2	54.2	52.0
Murrumbidgee	Griffith Base	51.0	64.1	52.0	56.4	52.2
	Wagga Wagga Base	50.5	49.1	48.2	43.9	39.1
	Other hospitals	54.5	68.8	67.5	61.4	63.2
	TOTAL	51.5	56.9	52.6	49.1	45.1
Western NSW	Dubbo Base	52.0	51.0	39.3	45.7	44.6
	Mudgee	63.8	52.3	63.6	34.0	50.0
	Bathurst Base	62.1	61.8	65.9	55.1	61.1
	Forbes	79.2	64.3	63.2	78.0	62.8
	Orange Base	51.9	47.3	44.8	41.7	47.5
	Other hospitals	62.7	61.2	54.2	60.5	77.3
	TOTAL	55.9	52.7	47.6	47.2	49.9

(Continued on next page)

TABLE 58: (Continued)

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Far West	TOTAL	64.3	50.0	62.5	62.5	52.8
Public Hospitals	TOTAL	55.0	53.9	52.3	51.1	48.9
Private Hospitals	Mater, North Sydney	28.1	27.6	27.4	24.3	24.5
	North Shore Private	30.5	29.1	31.2	27.9	25.6
	Sydney Adventist	44.6	44.5	37.0	42.2	43.1
	North Gosford Private	27.6	22.5	16.7	19.0	19.7
	Hurstville Community	47.9	45.0	33.3	35.1	28.9
	Kareena Private	29.9	31.6	27.4	31.6	30.1
	St. George Private	33.4	28.6	36.0	37.4	36.1
	Prince of Wales Private	30.7	27.9	26.6	27.4	27.1

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
	Norwest Private	43.3	42.0	41.4	40.0	39.5
	Sydney Southwest Private	40.5	40.4	37.8	37.5	33.3
	Nepean Private	38.1	41.8	36.4	37.4	33.5
	Westmead Private	40.8	39.5	41.5	39.9	40.0
	Wollongong Private	32.1	40.0	39.8	35.1	35.8
	Newcastle Private	35.7	34.9	34.6	35.6	33.1
	Calvary, Wagga Wagga	35.2	31.1	21.0	20.0	23.2
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	TOTAL	35.9	34.8	34.0	33.9	32.7
TOTAL NSW*		49.9	49.0	47.8	46.9	45.0

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

#Hospitals with more than 200 births in 2020 are identified individually.

‡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 37⁰ to 40⁶ 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 2020, 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 2016–2020*

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Sydney	Canterbury	43.3	52.5	51.6	52.3	58.5
	Royal Prince Alfred	35.9	40.3	43.2	47.9	49.1
	TOTAL	37.6	43.4	45.2	48.9	51.5
South Western Sydney	Fairfield	26.9	36.1	35.0	38.2	41.4
	Liverpool	35.7	38.4	38.7	41.4	41.9
	Campbelltown	34.5	39.2	37.6	40.2	45.6
	Bankstown-Lidcombe	36.4	38.2	46.8	45.8	48.2
	Bowral	27.2	16.1	34.2	25.0	27.5
	TOTAL	33.6	37.3	39.0	40.6	43.4
South Eastern Sydney	St. George	44.0	51.4	59.6	60.1	61.0
	Sutherland	36.2	39.5	40.1	42.3	44.1
	Royal Hospital for Women	33.3	40.8	39.0	41.7	43.8
	TOTAL	37.5	44.5	46.6	48.7	49.8
Illawarra Shoalhaven	Shoalhaven	45.4	40.5	44.7	44.9	53.3
	Wollongong	41.3	48.3	51.7	52.9	54.0
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	TOTAL	42.3	46.5	49.9	50.8	53.8
Western Sydney	Auburn	37.3	47.5	43.5	44.7	46.6
	Blacktown	42.6	46.5	48.6	46.0	50.9
	Westmead	45.0	44.7	47.1	46.7	49.7
	TOTAL	43.2	45.7	47.0	46.1	49.7
Nepean Blue Mountains	Nepean	41.5	45.7	48.6	47.3	54.9
	Hawkesbury	50.7	44.2	44.8	50.0	46.6
	Other hospitals	26.6	35.1	35.9	35.8	38.6
	TOTAL	41.5	44.7	47.0	46.8	52.6
Northern Sydney	Hornsby	31.6	38.2	38.9	38.2	44.0
	Royal North Shore	43.0	45.9	43.0	45.2	51.9
	Northern Beaches [‡]	-	-	37.7	43.9	37.0
	Other hospitals	32.3	33.6	39.1	0.0	0.0
	TOTAL	37.9	40.8	41.0	42.8	45.7
Central Coast	Gosford	42.1	42.0	46.5	45.7	46.4
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	TOTAL	40.5	40.7	45.3	44.5	46.1
Hunter New England	Armidale	25.0	35.2	38.6	37.6	42.7
	Tamworth Base	41.1	50.0	52.0	49.5	55.4
	Manning Base	49.6	58.9	50.0	47.9	51.2
	Maitland	43.5	46.3	53.6	53.9	53.8
	John Hunter	49.8	49.3	49.9	51.9	53.2
	Other hospitals	26.4	27.3	27.1	22.4	31.0
	TOTAL	43.3	46.0	47.6	48.0	50.9
Northern NSW	Grafton Base	33.8	39.4	40.0	26.2	45.2
	Lismore Base	37.6	37.1	42.9	42.1	43.9
	Tweed Heads	34.3	41.7	38.2	44.3	46.1
	Other hospitals	17.4	0.0	0.0	0.0	0.0
	TOTAL	34.1	37.6	38.1	37.8	42.3

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Mid North Coast	Coffs Harbour	41.6	37.5	42.1	44.8	40.2
	Kempsey	16.2	21.1	29.2	40.8	37.5
	Port Macquarie Base	46.9	44.4	51.0	52.5	52.5
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	TOTAL	40.8	37.8	42.6	47.0	43.9
Southern NSW	Bega	38.3	49.0	53.4	51.1	44.1
	Goulburn Base	25.4	18.9	20.4	27.0	25.4
	Moruya	23.5	24.2	26.9	20.8	29.4
	Queanbeyan	33.6	37.5	34.4	47.7	43.5
	Other hospitals	14.3	25.9	31.8	25.8	43.3
	TOTAL	28.8	32.9	34.1	38.3	37.5
Murrumbidgee	Griffith Base	33.3	28.2	30.0	47.3	36.5
	Wagga Wagga Base	42.6	43.0	45.0	49.1	52.6
	Other hospitals	14.8	22.5	18.2	21.1	22.8
	TOTAL	33.9	35.0	36.6	45.1	45.1
Western NSW	Dubbo Base	50.4	42.9	50.9	50.5	52.8
	Mudgee	21.3	34.1	34.1	51.1	39.1
	Bathurst Base	33.7	41.6	42.0	31.5	31.9
	Forbes	33.3	25.0	26.3	34.1	27.9
	Orange Base	46.2	50.2	46.2	53.1	57.4
	Other hospitals	25.5	24.5	25.0	23.7	36.4
	TOTAL	42.3	42.3	44.7	47.0	49.3
Far West	TOTAL	28.6	25.0	27.1	35.4	38.9
Public Hospitals	TOTAL	38.8	42.3	44.1	45.5	48.1
Private Hospitals	Mater, North Sydney	26.0	25.2	29.1	28.6	28.0
	North Shore Private	22.9	25.1	27.8	29.6	32.4
	Sydney Adventist	26.2	31.3	30.5	35.9	40.9
	North Gosford Private	43.9	51.7	48.1	59.2	55.8
	Hurstville Community	23.7	26.9	28.5	33.0	32.0
	Kareena Private	32.6	32.1	36.3	39.2	42.9
	St. George Private	36.3	38.6	41.4	49.2	50.3
	Prince of Wales Private	29.8	31.1	37.0	39.8	39.5
	Norwest Private	54.2	50.6	50.5	54.1	59.7
	Sydney Southwest Private	44.2	45.7	48.0	52.1	50.7
	Nepean Private	61.9	63.7	68.7	66.7	65.9
	Westmead Private	38.7	41.3	42.3	45.1	41.8
	Wollongong Private	43.9	44.1	48.7	56.0	52.6
	Newcastle Private	47.8	47.9	56.1	53.2	63.5
	Calvary, Wagga Wagga	37.5	37.8	37.1	33.3	39.1
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	TOTAL	36.5	37.9	40.9	43.8	44.5
TOTAL NSW*		38.1	41.1	43.2	45.1	47.2

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

#Hospitals with more than 200 births in 2020 are identified individually.

‡Northern Beaches Hospital opened in 2018.

*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 37⁰ to 40⁶ 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 2020, 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 2016–2020^a

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Sydney	Canterbury	27.6	31.4	35.2	31.4	32.9
	Royal Prince Alfred	20.7	26.2	27.8	28.8	30.8
	TOTAL	22.3	27.5	29.6	29.4	31.3
South Western Sydney	Fairfield	14.4	15.5	17.9	16.0	14.8
	Liverpool	21.7	24.4	24.2	26.1	24.1
	Campbelltown	19.5	19.0	18.5	21.3	22.4
	Bankstown-Lidcombe	17.3	18.9	20.6	20.6	20.5
	Bowral	26.1	22.3	20.3	24.1	28.2
	TOTAL	19.1	20.2	20.7	22.1	21.9
South Eastern Sydney	St. George	29.3	30.3	33.0	35.2	35.9
	Sutherland	20.2	21.9	24.7	23.3	31.4
	Royal Hospital for Women	26.6	29.2	29.3	29.6	27.8
	TOTAL	26.5	28.5	29.9	30.6	31.2
Illawarra Shoalhaven	Shoalhaven	16.1	21.5	24.4	24.1	19.5
	Wollongong	25.4	23.1	20.2	22.2	26.7
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	TOTAL	23.1	22.8	21.3	22.6	25.1
Western Sydney	Auburn	13.0	15.4	15.7	15.3	20.6
	Blacktown	22.1	23.5	18.9	20.8	21.3
	Westmead	21.7	23.4	25.0	23.2	23.1
	TOTAL	20.6	22.2	21.4	21.1	22.0
Nepean Blue Mountains	Nepean	18.8	19.5	20.4	21.1	21.2
	Hawkesbury	16.7	20.0	25.3	26.9	28.4
	Other hospitals	18.1	9.1	11.5	17.3	11.4
	TOTAL	18.5	18.8	20.6	21.7	21.6
Northern Sydney	Hornsby	23.6	26.2	23.1	20.3	26.4
	Royal North Shore	25.6	26.8	27.1	23.6	23.8
	Northern Beaches [†]	-	-	23.4	29.1	34.0
	Other hospitals	23.0	27.0	25.3	0.0	0.0
	TOTAL	24.5	26.8	25.7	24.3	27.5
Central Coast	Gosford	24.8	26.7	25.8	26.7	23.0
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	TOTAL	23.9	25.9	25.1	26.0	22.8
Hunter New England	Armidale	12.5	20.5	18.1	18.3	14.7
	Tamworth Base	18.3	22.7	24.2	14.7	15.2
	Manning Base	24.8	32.3	25.0	29.8	18.2
	Maitland	17.1	10.2	11.6	10.3	10.8
	John Hunter	23.4	18.1	19.8	24.6	21.7
	Other hospitals	15.4	11.8	12.3	19.1	12.1
	TOTAL	20.3	17.5	18.3	20.0	17.1
Northern NSW	Grafton Base	22.1	11.3	18.7	10.8	17.8
	Lismore Base	22.3	16.5	20.2	17.1	15.4
	Tweed Heads	17.0	19.4	25.3	25.0	23.3
	Other hospitals	4.3	0.0	2.9	2.1	0.0
	TOTAL	18.5	16.2	21.1	18.3	17.7

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Mid North Coast	Coffs Harbour	18.3	18.3	12.7	14.3	14.7
	Kempsey	10.8	5.3	18.8	16.3	14.6
	Port Macquarie Base	17.0	23.5	21.8	29.4	26.0
	Other hospitals	0.0	25.0	0.0	25.0	0.0
	TOTAL	16.9	19.1	16.2	20.5	18.8
Southern NSW	Bega	19.1	20.4	27.6	24.4	20.3
	Goulburn Base	16.9	26.4	18.5	27.0	17.5
	Moruya	13.7	17.7	11.5	15.1	14.7
	Queanbeyan	28.2	27.0	32.5	25.2	24.2
	Other hospitals	8.6	11.1	18.2	6.5	13.3
	TOTAL	19.9	23.0	25.2	22.2	19.5
Murrumbidgee	Griffith Base	22.5	15.5	22.0	21.8	20.0
	Wagga Wagga Base	21.8	17.3	20.9	24.6	24.8
	Other hospitals	19.3	18.8	14.3	22.8	17.5
	TOTAL	21.4	17.1	20.0	23.7	22.8
Western NSW	Dubbo Base	24.6	22.4	34.9	17.9	23.8
	Mudgee	19.1	15.9	15.9	27.7	21.7
	Bathurst Base	18.9	21.3	11.4	13.5	11.1
	Forbes	8.3	14.3	5.3	4.9	4.7
	Orange Base	17.1	22.2	22.6	17.3	23.8
	Other hospitals	17.6	14.3	20.8	10.5	4.5
	TOTAL	20.1	20.8	25.0	16.7	20.5
Far West	TOTAL	9.5	20.5	14.6	18.8	5.6
Public Hospitals	TOTAL	21.5	22.7	23.3	23.4	23.7
Private Hospitals	Mater, North Sydney	24.6	21.6	24.3	24.9	19.8
	North Shore Private	22.0	20.8	20.9	18.6	17.7
	Sydney Adventist	24.1	23.4	23.4	18.3	23.9
	North Gosford Private	28.1	31.5	29.6	34.5	29.9
	Hurstville Community	22.8	25.7	31.7	26.7	29.8
	Kareena Private	27.1	27.4	21.2	27.2	18.6
	St. George Private	28.4	29.7	28.2	31.3	25.4
	Prince of Wales Private	24.0	23.2	23.2	21.4	24.4
	Norwest Private	26.9	24.9	24.1	26.1	25.8
	Sydney Southwest Private	32.7	30.7	36.5	36.5	35.1
	Nepean Private	22.7	25.4	24.9	25.8	25.8
	Westmead Private	21.6	24.4	20.9	18.4	19.7
	Wollongong Private	35.0	29.3	26.9	26.8	22.0
	Newcastle Private	30.2	25.5	23.9	27.4	27.0
	Calvary, Wagga Wagga	20.5	17.6	22.6	25.0	10.1
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	TOTAL	25.7	24.9	24.7	24.4	23.4
TOTAL NSW[*]		22.6	23.2	23.6	23.6	23.6

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

#Hospitals with more than 200 births in 2020 are identified individually.

†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 37⁰ to 40⁶ weeks gestation.

Table 61 shows information for hospitals where at least 200 mothers gave birth in 2020, 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 2016–2020^a

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Sydney	Canterbury	28.9	30.3	21.2	28.5	25.6
	Royal Prince Alfred	25.8	21.3	27.9	26.1	29.3
	TOTAL	26.5	23.6	26.3	26.6	28.3
South Western Sydney	Fairfield	19.9	20.5	24.5	16.8	21.9
	Liverpool	21.2	20.9	17.7	18.9	22.6
	Campbelltown	20.8	20.4	23.1	22.4	25.8
	Bankstown-Lidcombe	32.8	22.6	27.4	20.4	23.3
	Bowral	35.9	26.8	15.2	16.7	19.7
	TOTAL	23.6	21.2	21.9	20.0	23.6
South Eastern Sydney	St. George	22.8	24.2	28.0	25.6	24.9
	Sutherland	18.6	21.6	19.8	23.6	23.0
	Royal Hospital for Women	20.2	24.0	20.1	24.0	27.4
	TOTAL	20.8	23.7	22.9	24.5	25.8
Illawarra Shoalhaven	Shoalhaven	27.0	27.0	20.8	23.6	23.1
	Wollongong	20.1	27.8	28.1	34.5	24.1
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	TOTAL	21.8	27.6	26.1	31.6	23.9
Western Sydney	Auburn	19.6	18.3	20.4	21.5	32.6
	Blacktown	23.5	22.8	24.4	26.9	29.2
	Westmead	21.4	19.7	22.1	21.7	26.8
	TOTAL	21.8	20.4	22.6	23.5	28.6
Nepean Blue Mountains	Nepean	32.7	31.6	32.0	32.0	33.6
	Hawkesbury	32.7	29.7	29.3	30.0	37.8
	Other hospitals	22.3	31.2	30.8	32.1	41.4
	TOTAL	31.8	31.2	31.5	31.7	34.7
Northern Sydney	Hornsby	22.9	20.2	24.1	27.7	23.4
	Royal North Shore	24.9	23.2	21.4	26.9	28.4
	Northern Beaches [†]	-	-	28.6	28.4	23.7
	Other hospitals	21.1	19.0	21.2	0.0	0.0
	TOTAL	23.4	21.4	22.3	27.2	26.0
Central Coast	Gosford	22.5	22.9	23.0	21.3	22.8
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	TOTAL	21.6	22.2	22.4	20.8	22.7
Hunter New England	Armidale	31.9	27.3	31.3	43.0	33.3
	Tamworth Base	25.2	30.7	30.3	29.8	49.1
	Manning Base	21.4	18.5	24.1	24.0	24.0
	Maitland	15.9	27.5	26.5	27.5	32.2
	John Hunter	23.5	25.2	28.9	29.2	29.6
	Other hospitals	14.6	22.3	24.6	25.1	25.9
	TOTAL	21.5	25.4	28.0	28.9	32.0
Northern NSW	Grafton Base	16.2	25.4	30.7	27.7	32.9
	Lismore Base	19.3	12.9	16.4	20.4	26.8
	Tweed Heads	14.3	19.0	19.1	15.8	19.4
	Other hospitals	6.5	0.0	0.0	0.0	0.0
	TOTAL	15.8	16.6	18.4	17.8	23.3

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Mid North Coast	Coffs Harbour	31.5	27.7	29.0	21.5	25.0
	Kempsey	16.2	15.8	27.1	20.4	35.4
	Port Macquarie Base	30.6	17.6	24.5	28.2	26.6
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	TOTAL	29.4	22.5	26.5	23.8	26.2
Southern NSW	Bega	21.3	24.5	15.5	20.0	18.6
	Goulburn Base	37.3	34.0	20.4	25.4	33.3
	Moruya	25.5	24.2	11.5	18.9	32.4
	Queanbeyan	18.2	27.6	29.1	26.5	28.2
	Other hospitals	2.9	3.7	27.3	19.4	30.0
	TOTAL	21.9	25.7	22.6	23.6	28.5
Murrumbidgee	Griffith Base	26.5	20.4	26.0	21.8	27.8
	Wagga Wagga Base	27.7	33.6	30.9	31.6	36.1
	Other hospitals	26.1	12.5	18.2	15.8	19.3
	TOTAL	27.0	25.9	27.5	27.2	32.1
Western NSW	Dubbo Base	23.4	26.5	25.8	36.4	31.6
	Mudgee	17.0	31.8	20.5	38.3	28.3
	Bathurst Base	18.9	16.9	22.7	31.5	27.8
	Forbes	12.5	21.4	31.6	17.1	32.6
	Orange Base	31.0	30.4	32.6	40.9	28.7
	Other hospitals	19.6	24.5	25.0	28.9	18.2
	TOTAL	24.0	26.4	27.3	36.1	29.6
Far West	TOTAL	26.2	29.5	22.9	18.8	41.7
Public Hospitals	TOTAL	23.4	23.4	24.4	25.5	27.4
Private Hospitals	Mater, North Sydney	47.2	50.9	48.3	50.8	55.7
	North Shore Private	47.6	50.1	47.9	53.4	56.7
	Sydney Adventist	31.1	32.1	39.6	39.3	32.9
	North Gosford Private	44.4	46.1	53.7	46.5	50.3
	Hurstville Community	29.3	29.2	34.9	37.2	41.2
	Kareena Private	43.0	41.0	51.4	41.1	51.3
	St. George Private	38.2	41.7	35.8	31.3	38.6
	Prince of Wales Private	45.3	48.9	50.2	51.2	48.5
	Norwest Private	29.8	33.1	34.5	33.9	34.6
	Sydney Southwest Private	26.8	28.8	25.7	26.0	31.5
	Nepean Private	39.3	32.8	38.7	36.9	40.7
	Westmead Private	37.6	36.1	37.6	41.8	40.3
	Wollongong Private	32.9	30.7	33.3	38.1	42.2
	Newcastle Private	34.1	39.6	41.5	37.1	39.8
	Calvary, Wagga Wagga	44.3	51.4	56.5	55.0	66.7
	Other hospitals	100.0	0.0	0.0	0.0	0.0
	TOTAL	38.4	40.3	41.3	41.6	43.9
TOTAL NSW[*]		27.5	27.8	28.6	29.5	31.4

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

#Hospitals with more than 200 births in 2020 are identified individually.

†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 2020, 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 2016–2020*

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Sydney	Canterbury	29.8	20.1	21.7	8.1	2.2
	Royal Prince Alfred	14.7	19.0	15.7	18.9	13.7
	TOTAL	20.1	19.3	17.4	16.5	10.8
South Western Sydney	Fairfield	1.0	3.4	1.6	5.4	10.0
	Liverpool	28.2	22.9	29.8	24.5	30.8
	Campbelltown	30.4	28.9	33.1	33.5	31.0
	Bankstown-Lidcombe	22.7	25.8	33.2	40.7	35.9
	Bowral	20.5	17.4	27.1	22.0	25.0
	TOTAL	24.4	22.9	28.8	28.5	28.7
South Eastern Sydney	St. George	21.1	23.0	23.4	20.5	20.4
	Sutherland	1.3	0.0	0.0	0.0	0.9
	Royal Hospital for Women	15.8	16.5	16.7	18.9	16.8
	TOTAL	16.1	16.4	16.8	17.3	15.4
Illawarra Shoalhaven	Shoalhaven	9.9	12.1	16.9	19.8	15.8
	Wollongong	20.8	22.3	18.3	14.4	18.0
	TOTAL	18.2	19.3	18.0	15.8	17.3
Western Sydney	Auburn	4.9	4.3	1.0	1.3	2.4
	Blacktown	19.3	18.9	15.9	19.7	16.0
	Westmead	17.4	19.7	15.6	15.8	14.8
	TOTAL	17.1	18.3	14.5	16.2	14.4
Nepean Blue Mountains	Nepean	15.6	14.2	17.3	18.5	15.2
	Hawkesbury	16.5	12.4	15.6	9.4	13.2
	Other hospitals	0.0	3.3	0.0	5.3	0.0
	TOTAL	14.4	13.4	16.1	16.2	14.0
Northern Sydney	Hornsby	23.9	19.4	16.0	20.9	16.3
	Royal North Shore	18.4	7.8	13.1	9.6	9.5
	Northern Beaches [‡]	-	-	20.8	7.7	12.5
	Other hospitals	20.1	15.0	22.7	0.0	0.0
	TOTAL	19.9	12.5	15.9	11.4	12.0
Central Coast	Gosford	19.1	20.7	16.4	16.6	17.5
	TOTAL	19.1	20.7	16.4	16.6	17.5
Hunter New England	Armidale	21.4	17.9	13.2	12.2	17.0
	Tamworth Base	22.9	15.2	13.1	12.7	10.3
	Manning Base	25.0	18.5	18.2	8.6	8.2
	Maitland	15.1	9.5	24.8	20.0	14.6
	John Hunter	20.7	22.3	17.8	19.0	19.4
	Other hospitals	8.8	10.9	11.0	12.9	13.9
	TOTAL	18.8	17.8	17.1	16.8	16.0
Northern NSW	Grafton Base	19.6	9.3	13.6	13.2	16.3
	Lismore Base	37.4	27.3	34.4	22.0	20.7
	Tweed Heads	21.7	36.9	21.2	22.3	37.6
	Other hospitals	25.0	0.0	0.0	0.0	0.0
	TOTAL	28.3	28.3	25.1	20.8	25.8

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Mid North Coast	Coffs Harbour	9.8	15.6	11.6	19.2	17.4
	Kempsey	26.1	0.0	21.1	17.6	14.8
	Port Macquarie Base	15.9	16.5	13.7	12.2	12.8
	TOTAL	13.4	14.9	13.2	15.9	15.4
Southern NSW	Bega	13.3	3.8	8.7	9.7	15.6
	Goulburn Base	17.2	32.0	25.8	30.3	23.7
	Moruya	13.8	20.0	17.1	34.2	8.6
	Queanbeyan	12.2	6.1	5.5	12.0	22.4
	Other hospitals	50.0	8.3	20.0	33.3	16.7
	TOTAL	17.5	13.4	13.4	22.2	18.5
Murrumbidgee	Griffith Base	22.0	32.8	28.6	23.6	29.9
	Wagga Wagga Base	16.3	7.3	15.4	13.8	12.1
	Other hospitals	19.0	5.6	10.3	25.9	17.6
	TOTAL	18.3	13.4	17.8	17.4	17.6
Western NSW	Dubbo Base	18.4	20.9	13.1	10.1	13.8
	Mudgee	7.7	26.1	5.9	21.7	17.2
	Bathurst Base	15.6	18.0	19.6	23.8	18.2
	Forbes	29.4	30.8	0.0	15.4	10.0
	Orange Base	24.2	15.8	22.8	13.2	15.1
	Other hospitals	20.8	16.1	33.3	30.0	33.3
	TOTAL	20.4	19.1	18.4	15.1	15.6
Far West	TOTAL	8.7	11.8	15.4	0.0	25.0
Public Hospitals	TOTAL	18.9	18.0	18.7	18.3	17.5
Private Hospitals	Mater, North Sydney	6.1	5.5	3.5	4.4	2.3
	North Shore Private	5.2	7.7	4.0	6.1	2.3
	Sydney Adventist	10.8	9.0	6.6	3.4	5.4
	North Gosford Private	8.8	4.8	6.9	7.1	5.3
	Hurstville Community	9.7	5.1	6.9	3.9	6.0
	Kareena Private	8.5	8.4	3.9	4.7	7.0
	St. George Private	6.2	5.2	9.3	7.9	10.0
	Prince of Wales Private	3.0	2.4	2.7	4.1	3.1
	Norwest Private	7.3	9.7	9.2	7.4	5.9
	Sydney Southwest Private	0.9	0.0	0.9	0.0	0.9
	Nepean Private	9.5	5.3	7.6	8.1	7.2
	Westmead Private	6.0	4.4	7.4	5.7	3.8
	Wollongong Private	5.6	5.1	7.8	7.2	7.3
	Newcastle Private	8.8	7.9	6.8	5.9	5.9
	Calvary, Wagga Wagga	2.3	4.2	5.2	6.0	1.9
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	TOTAL	6.5	6.1	5.8	5.4	4.7
TOTAL NSW*		14.8	14.3	14.9	14.6	13.9

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

#Hospitals with more than 200 births in 2020 are identified individually.

‡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 37⁰ to 40⁶ weeks gestation.

Table 63 shows information for hospitals where at least 200 mothers gave birth in 2020, 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 2016–2020^a

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Sydney	Canterbury	6.2	5.0	6.7	5.3	2.2
	Royal Prince Alfred	8.1	7.9	7.7	5.1	2.3
	TOTAL	7.6	7.2	7.4	5.2	2.3
South Western Sydney	Fairfield	13.9	12.9	7.3	9.9	6.4
	Liverpool	11.3	8.9	6.1	5.7	6.6
	Campbelltown	11.5	9.8	11.2	8.9	7.7
	Bankstown-Lidcombe	7.4	10.7	8.1	8.3	3.7
	Bowral	15.5	22.0	14.9	13.3	5.3
	TOTAL	11.3	10.7	8.6	8.1	6.4
South Eastern Sydney	St. George	5.5	3.5	4.1	3.4	1.9
	Sutherland	5.9	7.9	5.8	3.1	3.5
	Royal Hospital for Women	10.8	9.8	9.9	6.2	5.6
	TOTAL	8.1	7.2	7.2	4.6	4.0
Illawarra Shoalhaven	Shoalhaven	23.6	28.6	18.6	22.4	14.0
	Wollongong	8.4	8.5	6.8	6.9	6.7
	Other hospitals	0.0	0.0	0.0	100.0	0.0
	TOTAL	11.9	13.2	10.2	11.6	8.4
Western Sydney	Auburn	6.2	8.6	10.2	5.0	6.8
	Blacktown	4.6	5.0	4.0	5.0	4.8
	Westmead	5.5	4.4	3.8	4.9	4.8
	TOTAL	5.4	5.2	4.9	5.0	5.1
Nepean Blue Mountains	Nepean	7.0	8.0	6.0	7.7	4.9
	Hawkesbury	24.8	17.2	9.8	16.1	19.6
	Other hospitals	8.2	9.4	9.3	20.0	12.2
	TOTAL	9.6	9.5	6.8	9.9	7.4
Northern Sydney	Hornsby	6.1	6.6	6.5	2.3	4.3
	Royal North Shore	6.1	5.1	5.1	4.3	3.4
	Northern Beaches [†]	-	-	12.7	10.8	8.9
	Other hospitals	14.5	13.2	12.8	31.6	0.0
	TOTAL	8.5	7.9	7.4	6.3	5.4
Central Coast	Gosford	9.3	8.1	7.8	5.7	7.1
	Other hospitals	27.3	27.8	29.4	35.3	25.0
	TOTAL	10.2	8.9	8.5	6.6	7.2
Hunter New England	Armidale	18.4	20.3	15.8	11.3	12.0
	Tamworth Base	14.6	13.9	6.5	14.4	7.0
	Manning Base	21.7	8.9	10.6	17.4	6.5
	Maitland	13.5	13.7	13.1	14.9	15.2
	John Hunter	10.0	5.5	6.8	5.8	4.2
	Other hospitals	29.0	34.5	25.5	22.6	25.6
	TOTAL	15.3	12.5	10.8	11.5	9.5
Northern NSW	Grafton Base	40.4	35.8	26.9	34.0	24.5
	Lismore Base	13.5	17.8	11.1	12.6	15.6
	Tweed Heads	19.3	13.7	12.8	9.9	9.0
	Other hospitals	32.6	50.0	26.5	38.3	39.4
	TOTAL	21.1	20.2	14.6	16.1	15.9

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Mid North Coast	Coffs Harbour	18.5	13.6	11.5	12.6	7.7
	Kempsey	29.0	21.9	25.7	20.5	25.8
	Port Macquarie Base	7.8	9.5	6.3	11.0	9.2
	Other hospitals	50.0	50.0	45.5	0.0	44.4
	TOTAL	16.2	13.7	12.4	12.8	10.9
Southern NSW	Bega	21.6	29.7	8.2	19.4	8.3
	Goulburn Base	13.5	14.3	16.3	6.4	14.3
	Moruya	23.7	27.7	30.4	18.6	19.6
	Queanbeyan	30.0	18.2	13.1	13.2	15.7
	Other hospitals	64.7	53.8	18.8	52.0	47.6
	TOTAL	30.1	24.7	16.1	17.4	17.5
Murrumbidgee	Griffith Base	25.3	28.0	14.9	26.7	19.3
	Wagga Wagga Base	16.4	11.3	12.8	7.2	10.4
	Other hospitals	33.8	35.7	25.4	20.8	17.4
	TOTAL	22.7	21.8	15.9	14.3	13.7
Western NSW	Dubbo Base	18.4	7.8	6.9	11.9	8.2
	Mudgee	23.1	10.0	17.1	6.9	12.1
	Bathurst Base	13.0	14.9	13.2	9.8	5.8
	Forbes	9.5	31.8	15.4	29.4	10.3
	Orange Base	12.4	12.5	9.4	8.0	2.9
	Other hospitals	26.8	21.6	19.4	22.2	27.8
	TOTAL	16.6	12.5	10.3	11.9	7.1
Far West	TOTAL	45.2	29.0	18.9	17.9	38.1
Public Hospitals	TOTAL	10.9	10.0	8.6	8.3	6.9
Private Hospitals	Mater, North Sydney	7.0	6.6	6.4	6.6	4.9
	North Shore Private	5.1	4.6	7.1	5.6	7.6
	Sydney Adventist	10.7	8.8	10.3	9.7	8.2
	North Gosford Private	9.2	6.3	8.0	9.2	5.5
	Hurstville Community	17.1	6.6	8.3	4.2	6.7
	Kareena Private	7.1	4.8	4.2	3.2	3.9
	St. George Private	7.2	5.7	5.9	10.7	7.5
	Prince of Wales Private	5.9	6.3	4.9	6.8	4.0
	Norwest Private	5.6	6.7	3.3	3.9	6.7
	Sydney Southwest Private	6.0	4.2	4.5	1.9	4.2
	Nepean Private	1.3	1.5	0.0	0.8	0.9
	Westmead Private	2.3	3.0	3.1	5.0	2.7
	Wollongong Private	2.7	2.5	5.4	5.3	9.7
	Newcastle Private	5.0	7.0	6.3	1.8	4.3
	Calvary, Wagga Wagga	14.3	8.3	18.5	3.7	4.3
	TOTAL	6.3	5.5	5.6	5.5	5.4
TOTAL NSW[*]		9.9	9.0	8.0	7.8	6.7

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

#Hospitals with more than 200 births in 2020 are identified individually.

†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 37⁰ to 40⁶ weeks gestation.

Table 64 shows information for hospitals where at least 200 mothers gave birth in 2020, 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 2016–2020^a

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Sydney	Canterbury	45.3	38.9	39.1	36.9	43.8
	Royal Prince Alfred	23.4	27.0	27.9	34.4	45.0
	TOTAL	28.2	29.7	30.8	35.0	44.7
South Western Sydney	Fairfield	30.9	39.4	43.4	42.5	48.0
	Liverpool	27.6	33.3	31.3	34.7	38.0
	Campbelltown	29.8	29.4	31.9	37.4	40.8
	Bankstown-Lidcombe	39.9	38.7	38.0	34.5	41.7
	Bowral	39.7	25.6	17.9	31.1	34.2
	TOTAL	31.3	33.6	33.6	36.5	40.6
South Eastern Sydney	St. George	33.3	34.2	48.7	52.9	49.7
	Sutherland	30.1	34.6	38.1	43.9	49.8
	Royal Hospital for Women	21.0	26.0	35.3	40.5	41.2
	TOTAL	26.7	30.3	40.3	45.6	45.7
Illawarra Shoalhaven	Shoalhaven	22.0	15.1	25.6	22.4	26.0
	Wollongong	25.6	23.8	26.3	36.3	36.0
	Other hospitals	0.0	0.0	0.0	0.0	0.0
	TOTAL	24.8	21.8	26.1	32.2	33.7
Western Sydney	Auburn	27.2	29.9	39.8	42.5	52.8
	Blacktown	31.1	32.5	40.7	45.1	44.1
	Westmead	38.5	38.8	45.1	44.2	44.8
	TOTAL	34.7	35.6	42.8	44.2	45.7
Nepean Blue Mountains	Nepean	23.2	23.0	31.8	33.6	32.1
	Hawkesbury	17.8	24.1	37.4	36.6	39.1
	Other hospitals	11.0	9.4	20.4	12.7	19.5
	TOTAL	21.3	22.2	31.9	32.4	32.3
Northern Sydney	Hornsby	15.7	27.2	37.0	44.4	50.7
	Royal North Shore	24.4	35.1	38.2	32.9	38.3
	Northern Beaches [†]	-	-	32.7	30.5	32.1
	Other hospitals	19.7	23.4	23.5	0.0	0.0
	TOTAL	21.4	30.0	34.5	33.9	38.7
Central Coast	Gosford	17.2	27.9	27.9	35.1	30.5
	Other hospitals	0.0	11.1	5.9	0.0	0.0
	TOTAL	16.3	27.3	27.2	34.0	30.3
Hunter New England	Armidale	22.4	18.8	36.8	32.1	34.0
	Tamworth Base	22.5	22.1	34.1	30.1	36.8
	Manning Base	16.3	24.8	30.6	28.3	27.2
	Maitland	15.9	13.7	25.7	23.8	31.9
	John Hunter	18.5	22.6	30.7	35.7	35.8
	Other hospitals	16.6	16.4	25.5	23.4	24.8
	TOTAL	18.2	20.1	29.8	30.6	33.2
Northern NSW	Grafton Base	10.5	11.3	21.2	12.8	18.4
	Lismore Base	23.3	24.3	26.1	26.2	30.6
	Tweed Heads	10.7	21.7	25.6	21.4	30.7
	Other hospitals	7.0	0.0	5.9	2.1	0.0
	TOTAL	14.8	20.2	24.0	20.5	26.9

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Mid North Coast	Coffs Harbour	26.7	24.7	19.7	20.0	25.0
	Kempsey	3.2	9.4	17.1	15.4	12.9
	Port Macquarie Base	20.6	24.6	28.8	48.0	45.4
	Other hospitals	0.0	12.5	0.0	25.0	0.0
	TOTAL	21.3	22.9	22.0	29.9	31.1
Southern NSW	Bega	16.2	10.8	30.6	19.4	20.8
	Goulburn Base	35.1	51.4	18.6	31.9	14.3
	Moruya	18.4	14.9	4.3	23.3	21.7
	Queanbeyan	23.3	21.8	20.6	32.5	31.5
	Other hospitals	2.9	7.7	18.8	8.0	14.3
	TOTAL	20.3	21.6	19.2	26.8	23.2
Murrumbidgee	Griffith Base	18.7	17.1	28.4	26.7	27.7
	Wagga Wagga Base	24.7	20.4	35.5	28.7	32.6
	Other hospitals	18.5	14.3	19.0	29.2	13.0
	TOTAL	21.7	18.0	30.4	28.3	28.6
Western NSW	Dubbo Base	24.5	33.9	47.1	32.4	42.9
	Mudgee	20.5	20.0	22.9	48.3	27.3
	Bathurst Base	15.6	21.6	19.1	14.8	17.3
	Forbes	9.5	13.6	7.7	14.7	13.8
	Orange Base	23.4	22.9	32.9	40.0	48.9
	Other hospitals	26.8	21.6	25.0	25.9	22.2
	TOTAL	22.2	26.1	34.9	31.9	38.8
Far West	TOTAL	6.5	12.9	21.6	23.1	4.8
Public Hospitals	TOTAL	25.7	28.5	33.5	35.9	38.7
Private Hospitals	Mater, North Sydney	46.3	41.2	42.8	50.2	37.2
	North Shore Private	34.8	37.6	33.0	34.0	35.4
	Sydney Adventist	43.4	41.0	38.4	38.0	35.3
	North Gosford Private	35.8	51.0	33.3	43.4	32.9
	Hurstville Community	28.3	25.6	43.0	34.2	26.9
	Kareena Private	33.3	29.6	29.6	43.0	43.4
	St. George Private	23.4	29.9	36.3	35.8	29.4
	Prince of Wales Private	34.3	36.1	33.4	35.9	44.7
	Norwest Private	34.1	41.7	40.2	35.3	40.3
	Sydney Southwest Private	48.1	43.2	35.9	48.4	50.8
	Nepean Private	51.3	53.3	58.6	60.0	47.2
	Westmead Private	63.8	65.1	64.3	59.8	62.0
	Wollongong Private	59.0	47.8	34.9	38.5	31.3
	Newcastle Private	15.6	14.7	19.5	22.1	23.6
	Calvary, Wagga Wagga	28.6	33.3	18.5	37.0	26.1
	TOTAL	39.2	40.2	39.6	40.9	40.2
TOTAL NSW[*]		28.8	31.0	34.7	36.9	39.0

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

[#]Hospitals with more than 200 births in 2020 are identified individually.

[†]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 37⁰ to 40⁶ weeks gestation.

Table 65 shows information for hospitals where at least 200 mothers gave birth in 2020, 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 2016–2020^a

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Sydney	Canterbury	40.9	41.7	48.0	45.8	42.0
	Royal Prince Alfred	64.6	60.5	57.4	54.1	41.9
	TOTAL	59.4	56.1	55.0	52.2	41.9
South Western Sydney	Fairfield	54.1	48.0	46.7	43.8	43.9
	Liverpool	59.8	53.2	53.1	53.7	49.2
	Campbelltown	59.9	60.5	55.5	51.1	44.6
	Bankstown-Lidcombe	43.8	41.7	45.2	48.6	42.0
	Bowral	51.7	51.2	76.1	60.0	58.8
	TOTAL	55.9	52.8	52.6	50.9	46.3
South Eastern Sydney	St. George	48.6	46.7	35.1	33.4	35.0
	Sutherland	54.6	49.2	47.3	43.5	32.9
	Royal Hospital for Women	63.0	56.8	49.0	42.2	43.9
	TOTAL	56.6	51.9	44.0	39.2	38.9
Illawarra Shoalhaven	Shoalhaven	68.5	65.5	52.6	56.4	53.3
	Wollongong	62.0	63.1	53.2	45.9	43.7
	Other hospitals	0.0	0.0	0.0	100.0	0.0
	TOTAL	63.5	63.7	53.0	49.0	45.9
Western Sydney	Auburn	54.5	50.9	42.6	38.1	33.2
	Blacktown	46.8	46.9	43.9	39.8	39.3
	Westmead	39.5	38.8	36.6	36.5	38.8
	TOTAL	43.8	42.9	40.0	37.8	38.2
Nepean Blue Mountains	Nepean	58.3	58.0	48.6	46.0	50.8
	Hawkesbury	65.3	63.8	48.8	49.1	51.1
	Other hospitals	76.7	66.0	59.3	65.5	68.3
	TOTAL	61.1	59.5	49.5	48.0	51.9
Northern Sydney	Hornsby	64.2	55.4	47.4	46.3	34.0
	Royal North Shore	56.7	51.6	51.4	52.7	50.5
	Northern Beaches [‡]	-	-	45.5	62.5	59.6
	Other hospitals	63.6	58.8	61.5	78.9	0.0
	TOTAL	60.1	54.6	52.4	54.8	50.3
Central Coast	Gosford	67.3	56.5	52.0	50.1	52.1
	Other hospitals	100.0	72.2	76.5	70.6	100.0
	TOTAL	68.9	57.1	52.8	50.8	52.5
Hunter New England	Armidale	63.3	57.8	36.8	50.9	50.0
	Tamworth Base	61.6	59.0	46.4	52.9	36.8
	Manning Base	66.3	60.4	50.6	50.0	51.1
	Maitland	72.5	67.8	58.6	58.6	48.6
	John Hunter	66.8	61.7	52.8	45.0	46.8
	Other hospitals	67.7	65.5	58.2	59.1	58.9
	TOTAL	67.1	62.7	52.9	50.8	48.0
	TOTAL	70.9	62.9	57.5	63.7	52.1
Northern NSW	Grafton Base	71.9	67.9	57.7	63.8	49.0
	Lismore Base	62.6	65.1	54.3	60.7	54.4
	Tweed Heads	74.1	56.0	56.9	60.9	47.0
	Other hospitals	86.0	87.5	79.4	87.2	69.7
	TOTAL	70.9	62.9	57.5	63.7	52.1

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Mid North Coast	Coffs Harbour	61.5	56.2	65.6	58.3	61.3
	Kempsey	80.6	62.5	62.9	61.5	74.2
	Port Macquarie Base	70.6	53.2	49.5	37.0	38.5
	Other hospitals	100.0	75.0	72.7	50.0	88.9
	TOTAL	67.6	56.1	59.9	50.7	54.4
Southern NSW	Bega	64.9	64.9	44.9	47.2	45.8
	Goulburn Base	48.6	40.0	53.5	53.2	57.1
	Moruya	73.7	74.5	56.5	48.8	52.2
	Queanbeyan	61.1	59.1	56.1	56.1	59.6
	Other hospitals	58.8	69.2	56.3	60.0	66.7
	TOTAL	61.4	61.2	53.6	53.6	55.7
Murrumbidgee	Griffith Base	62.7	68.3	60.8	52.3	53.0
	Wagga Wagga Base	60.3	63.4	50.0	56.9	57.5
	Other hospitals	56.9	65.7	57.1	54.2	63.0
	TOTAL	60.1	65.3	54.0	55.3	57.1
Western NSW	Dubbo Base	62.2	47.8	32.4	50.8	38.0
	Mudgee	66.7	63.3	62.9	41.4	63.6
	Bathurst Base	68.8	63.5	73.5	63.9	69.2
	Forbes	81.0	68.2	69.2	70.6	65.5
	Orange Base	53.8	54.2	51.0	48.0	39.1
	Other hospitals	48.8	54.1	52.8	51.9	44.4
	TOTAL	60.9	54.4	47.9	52.5	45.3
Far West	TOTAL	80.6	74.2	48.6	61.5	71.4
Public Hospitals	TOTAL	58.4	54.7	50.1	48.5	45.8
Private Hospitals	Mater, North Sydney	46.7	52.6	47.7	41.4	42.1
	North Shore Private	50.0	53.2	56.5	54.7	52.0
	Sydney Adventist	46.2	49.6	49.8	48.4	57.2
	North Gosford Private	39.4	31.3	58.7	48.7	60.3
	Hurstville Community	58.6	65.3	50.4	60.0	64.9
	Kareena Private	53.2	55.2	64.8	46.2	48.7
	St. George Private	65.9	62.8	56.0	53.1	56.3
	Prince of Wales Private	40.8	41.1	40.7	35.9	33.2
	Norwest Private	39.8	35.3	38.5	39.2	30.4
	Sydney Southwest Private	30.2	35.3	40.5	35.7	26.5
	Nepean Private	27.3	29.6	21.1	22.4	24.1
	Westmead Private	27.6	26.7	25.8	30.4	29.2
	Wollongong Private	33.5	42.8	52.2	49.2	44.8
	Newcastle Private	51.7	52.0	43.4	51.7	50.5
	Calvary, Wagga Wagga	51.0	55.6	66.7	33.3	56.5
	TOTAL	43.8	44.8	44.3	43.3	42.7
TOTAL NSW[*]		55.0	52.5	48.9	47.5	45.2

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

[#]Hospitals with more than 200 births in 2020 are identified individually.

[‡]Northern Beaches Hospital opened in 2018.

^{*}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 37⁰ to 40⁶ weeks gestation.

Table 66 shows information for hospitals where at least 200 mothers gave birth in 2020, 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 2016–2020^a

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Sydney	Canterbury	9.12	13.73	7.28	10.30	8.83
	Royal Prince Alfred	5.92	6.72	9.41	6.29	4.63
	TOTAL	6.62	8.33	8.85	7.20	5.76
South Western Sydney	Fairfield	3.55	6.32	4.38	6.51	2.36
	Liverpool	4.15	4.44	7.31	6.44	6.30
	Campbelltown	1.58	2.02	2.90	2.69	3.96
	Bankstown-Lidcombe	7.69	9.82	8.41	9.77	8.59
	Bowral	3.45	0.00	0.00	1.11	1.75
	TOTAL	3.81	4.64	5.38	5.46	5.07
South Eastern Sydney	St. George	15.47	16.20	10.14	7.76	10.64
	Sutherland	12.09	7.50	4.62	4.58	9.41
	Royal Hospital for Women	11.01	10.87	4.31	6.34	4.19
	TOTAL	12.72	12.30	6.32	6.56	7.38
Illawarra Shoalhaven	Shoalhaven	3.94	5.88	1.28	1.82	2.67
	Wollongong	8.85	5.90	5.57	3.21	6.92
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	7.71	5.89	4.36	2.80	5.95
Western Sydney	Auburn	15.52	13.06	6.17	6.60	5.66
	Blacktown	20.71	15.81	4.10	5.95	7.97
	Westmead	19.36	19.69	8.38	9.27	7.90
	TOTAL	19.18	17.59	6.58	7.71	7.60
Nepean Blue Mountains	Nepean	16.52	15.02	6.87	6.02	6.58
	Hawkesbury	7.92	6.03	0.00	4.46	3.26
	Other hospitals	8.22	5.66	5.56	1.82	0.00
	TOTAL	14.54	12.93	5.62	5.45	5.71
Northern Sydney	Hornsby	17.47	7.04	6.52	3.74	5.74
	Royal North Shore	16.56	7.09	3.66	5.86	4.93
	Northern Beaches [†]	-	-	0.00	2.86	3.88
	Other hospitals	10.91	4.09	0.43	0.00	0.00
	TOTAL	15.14	6.15	3.39	4.46	4.74
Central Coast	Gosford	10.90	3.83	3.59	2.34	4.20
	Other hospitals	0.00	5.56	0.00	0.00	0.00
	TOTAL	10.38	3.90	3.47	2.26	4.17
Hunter New England	Armidale	6.12	12.50	3.51	3.77	2.00
	Tamworth Base	9.27	9.84	4.35	3.27	8.77
	Manning Base	7.61	10.89	4.71	3.26	4.35
	Maitland	7.73	10.13	3.15	1.53	3.11
	John Hunter	12.27	11.53	3.90	8.12	7.48
	Other hospitals	5.07	3.51	1.31	1.46	3.88
	TOTAL	9.50	10.07	3.54	4.97	5.83
Northern NSW	Grafton Base	5.26	0.00	0.00	2.13	4.08
	Lismore Base	5.52	1.78	3.02	1.57	3.33
	Tweed Heads	5.08	3.43	5.13	2.08	3.01
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	4.78	2.14	3.33	1.68	3.04

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Mid North Coast	Coffs Harbour	5.19	3.09	1.91	5.14	2.38
	Kempsey	9.68	0.00	5.71	7.69	0.00
	Port Macquarie Base	6.86	6.35	2.70	2.36	2.31
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	6.25	3.96	2.55	4.35	2.07
Southern NSW	Bega	5.41	8.11	0.00	0.00	8.33
	Goulburn Base	2.70	0.00	2.33	0.00	0.00
	Moruya	0.00	2.13	0.00	0.00	0.00
	Queanbeyan	10.00	11.82	14.02	5.26	2.25
	Other hospitals	2.94	3.85	0.00	0.00	0.00
	TOTAL	5.51	7.06	6.13	2.26	2.44
Murrumbidgee	Griffith Base	10.67	1.22	2.70	2.33	6.02
	Wagga Wagga Base	11.64	11.97	4.65	5.13	3.63
	Other hospitals	7.69	2.86	0.00	2.08	4.35
	TOTAL	10.49	6.80	3.24	3.95	4.35
Western NSW	Dubbo Base	7.14	10.00	7.35	7.03	5.98
	Mudgee	2.56	0.00	2.86	0.00	3.03
	Bathurst Base	9.09	2.70	1.47	3.28	0.00
	Forbes	9.52	0.00	0.00	2.94	0.00
	Orange Base	15.86	13.19	5.37	4.67	3.45
	Other hospitals	12.20	8.11	2.78	0.00	5.56
	TOTAL	10.02	8.62	5.15	4.73	3.88
Far West	TOTAL	3.23	3.23	2.70	0.00	4.76
Public Hospitals	TOTAL	10.60	9.23	5.40	5.41	5.58
Private Hospitals	Mater, North Sydney	1.27	1.04	3.89	1.83	11.18
	North Shore Private	1.96	0.00	1.54	1.05	0.90
	Sydney Adventist	0.00	0.00	0.00	0.00	0.00
	North Gosford Private	7.34	7.29	4.00	0.00	2.74
	Hurstville Community	1.32	0.83	0.00	1.67	1.49
	Kareena Private	0.79	0.00	0.00	1.08	1.32
	St. George Private	0.31	0.00	0.73	0.98	2.05
	Prince of Wales Private	8.72	5.63	8.20	9.96	7.91
	Norwest Private	7.06	5.88	8.03	8.08	10.67
	Sydney Southwest Private	6.81	6.32	6.82	5.16	11.11
	Nepean Private	12.00	5.19	12.78	9.60	16.67
	Westmead Private	0.68	0.70	1.69	0.46	0.39
	Wollongong Private	0.00	0.00	0.00	0.00	0.00
	Newcastle Private	10.56	10.09	11.40	8.76	6.56
	Calvary, Wagga Wagga	0.00	5.56	0.00	3.70	8.70
	TOTAL	3.94	3.00	4.33	3.68	4.99
TOTAL NSW[*]		9.06	7.89	5.17	5.05	5.46

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

#Hospitals with more than 200 births in 2020 are identified individually.

†Northern Beaches Hospital opened in 2018.

*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 37⁰ to 40⁶ 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 2020, 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 2016–2020*

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Sydney	Canterbury	5.59	7.84	5.66	6.98	10.09
	Royal Prince Alfred	8.22	6.13	7.98	5.70	3.82
	TOTAL	7.65	6.52	7.38	5.99	5.51
South Western Sydney	Fairfield	9.02	9.48	6.93	7.19	2.36
	Liverpool	8.77	8.25	8.38	7.34	6.30
	Campbelltown	5.21	3.60	3.87	4.58	4.22
	Bankstown-Lidcombe	6.21	5.36	9.03	7.76	5.52
	Bowral	1.72	1.22	1.49	2.22	0.00
	TOTAL	7.07	6.17	6.55	6.21	4.62
South Eastern Sydney	St. George	10.15	5.99	7.30	4.51	7.16
	Sutherland	3.59	3.33	4.23	5.34	6.27
	Royal Hospital for Women	7.49	6.85	8.34	5.76	5.64
	TOTAL	7.72	5.99	7.27	5.23	6.28
Illawarra Shoalhaven	Shoalhaven	3.94	3.36	8.33	6.67	5.33
	Wollongong	5.26	4.62	6.08	4.94	6.92
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	4.95	4.32	6.72	5.43	6.55
Western Sydney	Auburn	4.14	6.19	4.63	2.20	4.91
	Blacktown	6.07	9.24	6.69	6.10	6.26
	Westmead	4.45	5.24	5.01	5.66	4.79
	TOTAL	4.87	6.53	5.51	5.24	5.38
Nepean Blue Mountains	Nepean	6.50	7.42	4.88	5.84	5.64
	Hawkesbury	7.92	4.31	6.50	8.93	6.52
	Other hospitals	1.37	1.89	0.00	3.64	4.88
	TOTAL	6.19	6.53	4.79	6.15	5.71
Northern Sydney	Hornsby	5.24	7.04	5.22	4.67	3.35
	Royal North Shore	8.36	7.45	5.23	6.43	6.64
	Northern Beaches [‡]	-	-	0.00	2.86	3.05
	Other hospitals	8.79	7.60	3.42	0.00	0.00
	TOTAL	7.87	7.42	4.57	4.92	4.83
Central Coast	Gosford	4.41	5.41	3.98	4.48	3.63
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	4.19	5.19	3.85	4.34	3.60
Hunter New England	Armidale	4.08	1.56	5.26	11.32	2.00
	Tamworth Base	3.97	3.28	3.62	3.92	7.89
	Manning Base	2.17	8.91	4.71	1.09	2.17
	Maitland	7.73	3.96	9.91	9.20	6.61
	John Hunter	8.51	9.25	8.13	9.14	8.70
	Other hospitals	3.69	2.34	2.61	5.11	7.75
	TOTAL	6.48	6.46	6.93	7.61	7.31
Northern NSW	Grafton Base	1.75	1.89	1.92	2.13	2.04
	Lismore Base	3.07	4.73	8.04	5.76	6.11
	Tweed Heads	5.58	4.00	8.72	5.73	4.82
	Other hospitals	0.00	0.00	5.88	0.00	0.00
	TOTAL	3.70	3.80	7.50	4.82	4.67

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Mid North Coast	Coffs Harbour	4.44	0.62	4.46	5.14	4.17
	Kempsey	9.68	3.13	8.57	2.56	3.23
	Port Macquarie Base	6.86	11.11	5.41	6.30	1.54
	Other hospitals	0.00	0.00	0.00	25.00	0.00
	TOTAL	5.88	4.88	5.10	5.51	2.96
Southern NSW	Bega	0.00	8.11	2.04	2.78	2.08
	Goulburn Base	5.41	5.71	4.65	14.89	2.38
	Moruya	13.16	6.38	4.35	4.65	0.00
	Queanbeyan	6.67	8.18	9.35	6.14	4.49
	Other hospitals	0.00	7.69	0.00	0.00	0.00
	TOTAL	5.51	7.45	5.75	6.42	2.44
Murrumbidgee	Griffith Base	5.33	1.22	4.05	2.33	2.41
	Wagga Wagga Base	4.79	8.45	6.40	6.15	6.74
	Other hospitals	1.54	2.86	7.94	6.25	6.52
	TOTAL	4.20	5.10	6.15	5.17	5.59
Western NSW	Dubbo Base	4.59	6.67	4.90	2.70	3.26
	Mudgee	5.13	6.67	0.00	3.45	6.06
	Bathurst Base	5.19	9.46	7.35	14.75	7.69
	Forbes	14.29	4.55	0.00	8.82	10.34
	Orange Base	4.83	11.11	6.71	3.33	10.34
	Other hospitals	4.88	2.70	2.78	0.00	0.00
	TOTAL	5.20	8.01	5.15	4.73	6.73
Far West	TOTAL	0.00	3.23	2.70	5.13	9.52
Public Hospitals	TOTAL	6.36	6.25	6.15	5.70	5.43
Private Hospitals	Mater, North Sydney	1.27	1.73	0.71	1.10	0.66
	North Shore Private	2.21	2.01	2.16	1.40	2.24
	Sydney Adventist	0.00	0.00	0.00	0.00	0.00
	North Gosford Private	1.83	2.08	4.00	2.63	1.37
	Hurstville Community	0.66	0.00	0.83	2.50	2.99
	Kareena Private	2.38	0.80	5.63	2.15	2.63
	St. George Private	3.13	3.07	2.56	1.95	0.34
	Prince of Wales Private	2.18	1.99	1.97	1.42	0.79
	Norwest Private	2.82	2.41	2.22	0.90	2.37
	Sydney Southwest Private	2.13	4.21	4.55	2.82	2.65
	Nepean Private	6.00	5.19	6.02	4.00	4.63
	Westmead Private	0.91	1.17	1.20	0.68	0.59
	Wollongong Private	1.06	1.49	2.69	3.74	1.49
	Newcastle Private	6.94	6.12	3.31	2.42	0.98
	Calvary, Wagga Wagga	0.00	2.78	3.70	3.70	4.35
	TOTAL	2.33	2.30	2.27	1.69	1.33
TOTAL NSW*		5.43	5.40	5.35	4.88	4.61

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

#Hospitals with more than 200 births in 2020 are identified individually.

‡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 4th 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 37⁰ to 40⁶ 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 2020, 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 2016–2020*

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Sydney	Canterbury	0.29	0.00	0.00	1.00	0.00
	Royal Prince Alfred	0.08	0.34	0.29	0.10	0.70
	TOTAL	0.13	0.26	0.21	0.30	0.51
South Western Sydney	Fairfield	0.27	1.44	0.00	0.00	0.34
	Liverpool	0.32	0.16	0.13	0.00	0.14
	Campbelltown	0.00	0.43	0.00	0.00	0.00
	Bankstown-Lidcombe	0.30	0.00	0.00	0.00	0.00
	Bowral	0.00	0.00	0.00	0.00	0.00
	TOTAL	0.20	0.43	0.05	0.00	0.09
South Eastern Sydney	St. George	0.50	0.00	0.20	0.18	0.19
	Sutherland	0.00	0.42	0.00	0.00	0.00
	Royal Hospital for Women	0.12	0.27	0.14	0.43	0.14
	TOTAL	0.23	0.19	0.14	0.26	0.14
Illawarra Shoalhaven	Shoalhaven	0.00	0.00	0.64	0.00	0.00
	Wollongong	0.00	0.00	0.00	0.00	0.20
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	0.00	0.00	0.18	0.00	0.15
Western Sydney	Auburn	0.00	0.69	0.31	0.31	0.00
	Blacktown	0.18	0.18	0.00	0.30	0.28
	Westmead	0.36	0.09	0.51	0.51	0.36
	TOTAL	0.26	0.20	0.31	0.41	0.28
Nepean Blue Mountains	Nepean	0.18	0.35	0.54	0.18	0.19
	Hawkesbury	0.00	0.86	0.00	0.89	1.09
	Other hospitals	0.00	0.00	0.00	1.82	0.00
	TOTAL	0.13	0.41	0.41	0.42	0.30
Northern Sydney	Hornsby	1.31	0.47	0.00	0.47	0.48
	Royal North Shore	0.82	0.36	0.35	0.19	0.00
	Northern Beaches [‡]	-	-	0.00	0.00	0.28
	Other hospitals	0.00	0.58	0.43	0.00	0.00
	TOTAL	0.68	0.45	0.27	0.19	0.18
Central Coast	Gosford	0.00	0.00	0.00	0.00	0.76
	Other hospitals	0.00	0.00	0.00	5.88	0.00
	TOTAL	0.00	0.00	0.00	0.19	0.76
Hunter New England	Armidale	0.00	0.00	0.00	0.00	0.00
	Tamworth Base	1.32	0.00	0.00	0.00	0.00
	Manning Base	0.00	0.00	0.00	0.00	0.00
	Maitland	0.97	0.44	0.45	0.00	0.00
	John Hunter	0.16	0.16	0.33	0.34	0.52
	Other hospitals	0.46	0.00	0.00	1.46	0.78
	TOTAL	0.45	0.15	0.24	0.31	0.33
Northern NSW	Grafton Base	1.75	1.89	1.92	0.00	0.00
	Lismore Base	0.00	0.00	0.00	0.52	0.00
	Tweed Heads	0.51	0.00	0.51	1.04	1.20
	Other hospitals	0.00	0.00	0.00	0.00	6.06
	TOTAL	0.43	0.24	0.42	0.63	0.93

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Mid North Coast	Coffs Harbour	0.00	0.00	0.64	0.00	1.79
	Kempsey	3.23	0.00	0.00	0.00	0.00
	Port Macquarie Base	0.00	0.79	0.00	0.79	0.77
	Other hospitals	0.00	0.00	18.18	0.00	0.00
	TOTAL	0.37	0.30	0.96	0.29	1.18
Southern NSW	Bega	0.00	2.70	0.00	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	1.87	0.88	0.00
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	0.00	0.39	0.77	0.38	0.00
Murrumbidgee	Griffith Base	0.00	0.00	0.00	1.16	0.00
	Wagga Wagga Base	0.00	0.00	0.00	1.03	0.00
	Other hospitals	1.54	1.43	0.00	0.00	2.17
	TOTAL	0.35	0.34	0.00	0.91	0.31
Western NSW	Dubbo Base	0.00	0.00	0.49	0.00	0.00
	Mudgee	0.00	0.00	0.00	0.00	0.00
	Bathurst Base	0.00	1.35	0.00	0.00	0.00
	Forbes	0.00	0.00	0.00	0.00	0.00
	Orange Base	0.00	0.00	0.67	0.67	0.57
	Other hospitals	0.00	2.70	2.78	7.41	0.00
	TOTAL	0.00	0.41	0.59	0.62	0.20
Far West	TOTAL	0.00	0.00	0.00	0.00	0.00
Public Hospitals	TOTAL	0.26	0.28	0.24	0.28	0.30
Private Hospitals	Mater, North Sydney	0.32	0.00	0.35	0.00	0.00
	North Shore Private	0.49	0.00	0.00	0.35	0.45
	Sydney Adventist	0.26	0.00	0.00	0.00	0.37
	North Gosford Private	0.00	0.00	0.00	0.00	0.00
	Hurstville Community	0.00	0.83	0.00	0.83	0.00
	Kareena Private	0.00	0.00	0.00	0.00	2.63
	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	0.24	0.00	0.00	0.60	0.00
	Sydney Southwest Private	0.00	0.53	0.00	0.00	0.00
	Nepean Private	0.67	0.00	0.00	0.80	0.93
	Westmead Private	0.00	0.00	0.00	0.00	0.00
	Wollongong Private	0.00	0.00	0.00	0.00	0.00
	Newcastle Private	0.00	0.00	0.74	0.60	0.00
	Calvary, Wagga Wagga	0.00	0.00	0.00	0.00	0.00
	TOTAL	0.15	0.06	0.09	0.21	0.16
TOTAL NSW*		0.23	0.23	0.21	0.27	0.27

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

#Hospitals with more than 200 births in 2020 are identified individually.

‡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 2020, 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 2016–2020*

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Sydney	Canterbury	8.62	10.03	12.66	10.42	7.44
	Royal Prince Alfred	10.54	9.12	10.13	8.39	7.95
	TOTAL	10.07	9.36	10.68	8.87	7.83
South Western Sydney	Fairfield	12.65	10.28	8.97	7.30	6.90
	Liverpool	15.54	13.55	10.52	14.31	9.97
	Campbelltown	12.74	11.07	9.17	8.59	7.81
	Bankstown-Lidcombe	13.27	12.85	10.34	10.11	10.19
	Bowral	8.89	2.36	3.23	4.76	3.03
	TOTAL	13.58	11.70	9.61	10.51	8.57
South Eastern Sydney	St. George	6.22	6.29	5.38	5.78	5.94
	Sutherland	6.62	8.43	5.06	4.80	4.93
	Royal Hospital for Women	4.49	5.37	4.76	4.21	3.54
	TOTAL	5.35	6.13	5.00	4.81	4.47
Illawarra Shoalhaven	Shoalhaven	6.18	4.62	3.88	5.74	6.15
	Wollongong	9.72	9.22	8.10	8.58	7.30
	Other hospitals	50.00	0.00	0.00	0.00	0.00
	TOTAL	8.87	8.05	7.20	7.98	7.03
Western Sydney	Auburn	4.53	5.10	4.71	4.97	3.68
	Blacktown	10.27	9.87	6.25	7.41	8.30
	Westmead	8.96	8.43	7.29	6.81	5.83
	TOTAL	8.91	8.52	6.64	6.83	6.55
Nepean Blue Mountains	Nepean	12.00	13.96	11.66	13.13	10.10
	Hawkesbury	8.20	4.84	7.33	3.80	5.38
	Other hospitals	4.23	2.63	4.35	6.82	9.45
	TOTAL	10.93	12.03	10.54	11.42	9.34
Northern Sydney	Hornsby	7.92	3.24	4.42	1.91	2.55
	Royal North Shore	5.29	5.76	4.87	4.40	3.97
	Northern Beaches [‡]	-	-	1.04	3.30	0.33
	Other hospitals	7.68	4.76	5.22	0.00	0.00
	TOTAL	6.42	5.00	4.65	3.61	2.55
Central Coast	Gosford	10.97	7.86	8.21	9.99	9.62
	TOTAL	10.97	7.86	8.21	9.99	9.62
Hunter New England	Armidale	5.30	5.11	3.55	3.59	5.41
	Tamworth Base	9.24	9.43	10.30	10.36	9.09
	Manning Base	14.57	12.66	10.47	11.67	12.50
	Maitland	14.25	9.19	10.59	12.16	10.22
	John Hunter	16.28	14.25	12.42	12.72	12.20
	Other hospitals	8.88	7.77	4.37	5.08	3.63
	TOTAL	13.54	11.58	10.47	11.06	10.39
Northern NSW	Grafton Base	6.90	7.38	10.32	7.08	12.88
	Lismore Base	6.72	5.43	9.68	5.40	6.42
	Tweed Heads	7.07	8.92	8.28	7.31	8.71
	Other hospitals	15.38	0.00	0.00	0.00	0.00
	TOTAL	7.06	7.20	9.17	6.34	8.36

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Mid North Coast	Coffs Harbour	7.61	3.84	5.09	5.28	3.32
	Kempsey	15.52	9.23	11.29	12.31	6.15
	Port Macquarie Base	7.34	5.96	8.77	7.67	9.85
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	8.13	5.09	7.03	6.97	6.14
Southern NSW	Bega	4.11	0.00	3.66	0.00	4.05
	Goulburn Base	7.69	6.41	4.41	7.50	4.90
	Moruya	6.10	11.27	4.49	6.58	1.92
	Queanbeyan	2.78	5.33	6.59	7.69	5.96
	Other hospitals	4.76	14.81	12.00	8.33	7.89
	TOTAL	5.07	6.20	5.61	6.19	4.69
Murrumbidgee	Griffith Base	7.06	6.12	8.16	10.46	9.58
	Wagga Wagga Base	7.62	7.08	6.64	5.72	6.29
	Other hospitals	1.75	3.88	7.00	1.61	5.48
	TOTAL	6.40	6.38	7.03	6.40	6.94
Western NSW	Dubbo Base	15.51	10.39	9.09	5.90	9.49
	Mudgee	3.51	9.23	11.86	4.41	5.19
	Bathurst Base	5.79	8.70	3.36	9.03	7.69
	Forbes	3.03	0.00	3.33	2.44	6.06
	Orange Base	11.83	12.93	9.59	8.91	9.09
	Other hospitals	9.23	8.24	3.03	2.63	7.14
	TOTAL	11.54	10.42	8.09	7.08	8.59
Far West	TOTAL	7.58	5.00	2.22	10.61	16.67
Public Hospitals	TOTAL	9.75	8.95	8.12	8.07	7.39
Private Hospitals	Mater, North Sydney	1.05	1.46	0.96	1.30	1.73
	North Shore Private	1.62	1.48	1.56	1.14	1.45
	Sydney Adventist	2.37	2.93	3.75	3.61	1.90
	North Gosford Private	2.26	1.17	2.82	4.29	1.24
	Hurstville Community	1.22	3.02	3.68	2.01	0.53
	Kareena Private	2.38	3.54	1.64	1.00	0.00
	St. George Private	3.53	3.07	1.82	2.09	2.93
	Prince of Wales Private	2.32	1.25	1.23	1.48	1.36
	Norwest Private	4.31	4.14	2.98	3.10	2.71
	Sydney Southwest Private	2.47	7.12	5.04	3.03	2.54
	Nepean Private	5.11	2.95	3.15	3.98	3.02
	Westmead Private	2.67	2.02	2.61	1.62	1.16
	Wollongong Private	4.56	4.02	5.34	3.22	2.55
	Newcastle Private	2.25	2.58	3.62	2.76	1.41
	Calvary, Wagga Wagga	1.35	2.11	1.11	0.63	0.58
	Other hospitals	4.55	0.00	0.00	0.00	0.00
	TOTAL	2.48	2.47	2.45	2.16	1.69
TOTAL NSW*		7.42	6.95	6.44	6.34	5.75

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

#Hospitals with more than 200 births in 2020 are identified individually.

*Northern Beaches Hospital opened in 2018.

*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 37⁰ to 40⁶ weeks gestation.

Table 70 shows information for hospitals where at least 200 mothers gave birth in 2020, 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 2016–2020*

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Sydney	Canterbury	75.6	78.6	74.2	74.6	69.1
	Royal Prince Alfred	81.1	78.5	76.4	74.0	67.1
	TOTAL	79.8	78.5	75.8	74.1	67.6
South Western Sydney	Fairfield	43.1	46.0	53.2	58.5	47.2
	Liverpool	71.9	72.4	65.1	62.8	56.6
	Campbelltown	82.4	80.4	79.6	72.0	70.6
	Bankstown-Lidcombe	71.1	77.5	69.5	70.2	62.5
	Bowral	90.5	94.8	97.0	83.2	85.6
	TOTAL	70.4	72.5	69.8	67.4	62.4
South Eastern Sydney	St. George	86.1	82.5	76.0	71.4	67.8
	Sutherland	93.5	94.1	90.7	88.0	87.2
	Royal Hospital for Women	89.5	88.9	87.7	88.5	82.9
	TOTAL	89.0	87.3	84.1	82.1	78.4
Illawarra Shoalhaven	Shoalhaven	96.3	95.8	94.5	95.0	92.8
	Wollongong	94.4	91.5	89.9	84.3	85.7
	Other hospitals	0.0	0.0	0.0	100.0	0.0
	TOTAL	94.9	92.5	91.2	87.2	87.4
Western Sydney	Auburn	67.6	67.4	59.9	64.2	61.5
	Blacktown	87.9	83.5	76.9	72.1	71.4
	Westmead	87.2	88.4	86.2	83.9	80.5
	TOTAL	84.6	83.9	78.7	76.6	74.0
Nepean Blue Mountains	Nepean	87.0	83.1	84.1	74.2	68.1
	Hawkesbury	95.0	94.0	89.2	89.7	80.9
	Other hospitals	93.0	94.1	93.3	95.8	90.6
	TOTAL	88.7	85.7	85.7	78.4	71.7
Northern Sydney	Hornsby	90.7	90.3	87.1	91.4	86.2
	Royal North Shore	89.3	89.3	89.8	86.3	86.0
	Northern Beaches [†]	-	-	100.0	87.2	88.0
	Other hospitals	91.6	89.4	88.5	100.0	0.0
	TOTAL	90.2	89.5	89.3	87.8	86.7
Central Coast	Gosford	92.6	83.3	88.0	86.1	85.4
	Other hospitals	100.0	93.8	94.1	100.0	100.0
	TOTAL	92.9	83.6	88.2	86.5	85.5

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Hunter New England	Armidale	91.2	95.2	87.8	86.5	85.9
	Tamworth Base	89.9	84.2	79.4	80.3	76.7
	Manning Base	85.7	87.3	91.6	85.7	88.3
	Maitland	94.3	87.4	86.1	84.4	87.2
	John Hunter	89.0	89.4	91.4	87.4	84.1
	Other hospitals	93.2	89.4	93.5	90.3	88.6
	TOTAL	90.4	88.7	89.3	86.2	84.7
Northern NSW	Grafton Base	85.2	97.1	94.2	96.6	92.2
	Lismore Base	92.6	90.3	91.7	92.4	88.6
	Tweed Heads	97.3	93.2	96.6	94.6	94.4
	Other hospitals	97.6	100.0	100.0	100.0	100.0
	TOTAL	94.2	92.9	94.6	94.4	91.9
Mid North Coast	Coffs Harbour	84.6	82.3	81.8	83.8	82.8
	Kempsey	96.9	97.0	95.6	93.3	94.3
	Port Macquarie Base	93.9	92.4	90.4	88.7	89.1
	Other hospitals	100.0	100.0	100.0	100.0	100.0
	TOTAL	89.3	87.5	86.8	86.8	86.6
Southern NSW	Bega	93.2	80.4	87.3	93.0	84.2
	Goulburn Base	96.4	89.6	79.6	89.1	94.5
	Moruya	95.8	89.3	96.0	92.0	91.9
	Queanbeyan	92.4	95.2	84.1	85.3	88.3
	Other hospitals	96.9	96.2	90.0	84.6	88.9
	TOTAL	94.4	91.3	86.3	88.0	89.4
Murrumbidgee	Griffith Base	89.0	81.3	85.1	78.6	81.8
	Wagga Wagga Base	88.2	82.3	76.8	84.2	83.7
	Other hospitals	96.4	97.1	93.9	94.1	93.8
	TOTAL	90.5	85.0	81.8	84.1	84.4
Western NSW	Dubbo Base	93.1	90.7	86.8	88.3	83.2
	Mudgee	94.7	97.6	100.0	93.0	89.5
	Bathurst Base	97.6	95.2	88.9	91.1	78.1
	Forbes	100.0	100.0	88.9	91.9	91.9
	Orange Base	89.7	89.9	85.0	78.1	86.8
	Other hospitals	96.0	97.7	90.5	91.9	90.0
	TOTAL	93.2	92.4	87.7	85.8	85.1
Far West	TOTAL	100.0	95.2	95.2	90.7	96.7

(Continued on next page)

TABLE 70: (Continued)

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Public Hospitals	TOTAL	85.6	84.3	82.2	80.3	77.1
Private Hospitals	Mater, North Sydney	64.9	62.7	63.4	61.6	53.7
	North Shore Private	71.3	71.5	71.2	66.3	71.7
	Sydney Adventist	75.9	71.1	65.8	58.1	64.1
	North Gosford Private	91.3	92.3	88.5	87.6	95.8
	Hurstville Community	68.0	60.6	59.6	66.7	68.7
	Kareena Private	88.4	94.1	91.2	86.4	81.7
	St. George Private	63.6	58.0	57.1	50.8	40.8
	Prince of Wales Private	79.9	79.3	81.5	78.9	78.1
	Norwest Private	79.8	75.8	77.0	74.4	67.1
	Sydney Southwest Private	64.8	66.7	66.9	60.3	47.2

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
	Nepean Private	77.5	77.3	70.0	67.6	72.6
	Westmead Private	71.0	73.6	65.3	58.6	55.7
	Wollongong Private	89.9	85.8	82.8	82.8	73.1
	Newcastle Private	79.1	77.3	78.9	78.2	78.8
	Calvary, Wagga Wagga	92.0	95.8	93.5	83.3	92.2
	Other hospitals	100.0	0.0	0.0	0.0	0.0
	TOTAL	74.7	73.6	71.8	67.9	64.7
TOTAL NSW*		82.6	81.5	79.6	77.1	74.1

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

#Hospitals with more than 200 births in 2020 are identified individually.

‡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 2020, 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 2016–2020*

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Sydney	Canterbury	1.13	1.95	1.31	1.60	1.34
	Royal Prince Alfred	1.69	1.15	1.02	0.94	0.29
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	1.54	1.36	1.10	1.11	0.57
South Western Sydney	Fairfield	1.16	0.64	0.61	0.34	0.95
	Liverpool	0.65	1.14	0.87	0.89	0.59
	Campbelltown	0.94	0.72	0.55	0.88	1.22
	Bankstown-Lidcombe	0.78	1.01	0.79	1.37	1.09
	Bowral	0.00	0.00	0.66	0.32	0.27
	TOTAL	0.83	0.87	0.71	0.86	0.92
South Eastern Sydney	St. George	1.11	1.34	1.27	1.25	0.40
	Sutherland	1.12	0.77	0.72	0.98	1.50
	Royal Hospital for Women	0.81	1.30	1.30	1.63	1.97
	TOTAL	0.96	1.22	1.18	1.39	1.39
Illawarra Shoalhaven	Shoalhaven	1.32	1.00	1.45	1.81	1.42
	Wollongong	1.31	0.99	1.14	0.95	1.77
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	1.30	0.99	1.22	1.19	1.67
Western Sydney	Auburn	1.34	0.71	0.54	0.76	1.27
	Blacktown	1.49	1.52	0.71	0.70	0.88
	Westmead	1.24	1.14	0.91	0.79	0.83
	TOTAL	1.33	1.20	0.78	0.76	0.91
Nepean Blue Mountains	Nepean	1.13	1.69	1.00	1.01	0.89
	Hawkesbury	1.43	0.00	1.22	0.43	0.89
	Other hospitals	0.33	1.38	0.40	1.68	0.47
	TOTAL	1.09	1.42	0.99	0.98	0.86
Northern Sydney	Hornsby	0.88	0.45	0.92	2.15	1.05
	Royal North Shore	1.68	0.33	0.95	0.82	0.97
	Northern Beaches [†]	-	-	0.00	1.34	0.96
	Other hospitals	0.98	1.03	0.52	1.39	0.00
	TOTAL	1.28	0.58	0.79	1.28	0.98
Central Coast	Gosford	0.96	0.49	0.84	1.61	1.12
	Other hospitals	0.00	0.00	1.28	0.00	0.00
	TOTAL	0.90	0.47	0.86	1.55	1.11
Hunter New England	Armidale	1.10	1.42	0.78	1.95	1.20
	Tamworth Base	0.43	1.27	1.93	1.04	2.13
	Manning Base	1.20	2.81	1.61	1.13	1.53
	Maitland	1.67	0.96	1.18	1.23	1.30
	John Hunter	0.85	1.30	1.02	1.84	1.88
	Other hospitals	0.58	0.77	0.72	1.53	1.89
	TOTAL	0.94	1.28	1.14	1.54	1.73
Northern NSW	Grafton Base	0.33	1.97	1.55	1.61	2.06
	Lismore Base	0.69	1.63	0.89	1.20	0.49
	Tweed Heads	1.61	1.22	0.90	1.35	2.05
	Other hospitals	0.00	1.18	1.06	0.00	1.69
	TOTAL	0.94	1.48	0.99	1.19	1.37

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Mid North Coast	Coffs Harbour	1.57	0.41	1.06	1.04	0.45
	Kempsey	0.00	1.52	3.87	2.13	0.00
	Port Macquarie Base	1.58	0.95	1.22	2.16	1.14
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	1.30	0.72	1.45	1.53	0.65
Southern NSW	Bega	1.09	0.58	1.79	0.61	2.26
	Goulburn Base	0.00	1.03	0.49	0.93	0.47
	Moruya	3.21	1.80	1.75	0.85	1.89
	Queanbeyan	1.46	0.82	1.86	1.10	2.18
	Other hospitals	0.79	2.00	0.90	3.20	0.00
	TOTAL	1.41	1.14	1.47	1.18	1.60
Murrumbidgee	Griffith Base	1.41	1.02	0.56	0.00	0.28
	Wagga Wagga Base	2.38	1.57	1.60	1.21	0.39
	Other hospitals	1.36	0.56	0.61	1.57	0.35
	TOTAL	1.87	1.16	1.11	0.99	0.36
Western NSW	Dubbo Base	1.82	1.28	0.87	0.96	0.77
	Mudgee	1.58	0.60	2.96	0.68	1.27
	Bathurst Base	1.36	0.28	1.43	0.95	2.86
	Forbes	0.88	0.00	1.98	1.39	0.00
	Orange Base	0.70	0.51	0.81	0.85	0.63
	Other hospitals	2.04	0.53	0.96	1.68	1.92
	TOTAL	1.38	0.74	1.16	0.98	1.07
Far West	TOTAL	0.61	2.10	2.72	1.33	1.61
Public Hospitals	TOTAL	1.15	1.08	0.99	1.13	1.10
Private Hospitals	Mater, North Sydney	0.26	0.92	1.04	0.77	0.81
	North Shore Private	0.58	0.00	0.37	0.78	0.42
	Sydney Adventist	0.49	1.20	0.31	0.32	0.36
	North Gosford Private	0.83	0.31	0.71	1.54	0.83
	Hurstville Community	0.20	0.28	1.15	0.76	0.48
	Kareena Private	0.49	0.27	1.15	0.30	0.36
	St. George Private	0.35	0.13	0.13	0.79	0.14
	Prince of Wales Private	0.19	0.41	0.11	0.33	0.37
	Norwest Private	0.54	0.26	0.25	0.19	0.12
	Sydney Southwest Private	0.30	0.53	0.00	0.33	0.00
	Nepean Private	0.23	0.24	0.25	0.00	0.00
	Westmead Private	1.06	0.69	0.45	0.51	0.25
	Wollongong Private	0.60	0.37	0.56	0.60	1.15
	Newcastle Private	0.35	0.20	0.22	0.31	0.11
	Calvary, Wagga Wagga	0.00	1.42	1.82	2.11	1.33
	TOTAL	0.47	0.47	0.42	0.51	0.36
TOTAL NSW*		1.02	0.97	0.89	1.03	0.98

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

#Hospitals with more than 200 births in 2020 are identified individually.

*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 2020, 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 2016–2020*

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Sydney	Canterbury	1.15	0.69	1.24	0.97	1.03
	Royal Prince Alfred	1.18	1.22	0.92	0.48	0.36
	TOTAL	1.18	1.08	0.99	0.59	0.51
South Western Sydney	Fairfield	0.72	0.70	0.45	0.00	0.23
	Liverpool	0.73	1.31	1.08	0.46	0.46
	Campbelltown	0.88	0.22	0.69	0.86	0.99
	Bankstown-Lidcombe	1.42	2.36	2.50	1.51	1.66
	Bowral	1.48	0.79	0.00	0.00	0.00
	TOTAL	0.95	1.03	1.09	0.68	0.77
South Eastern Sydney	St. George	0.95	0.98	1.10	0.92	1.13
	Sutherland	0.32	1.12	1.12	1.13	1.10
	Royal Hospital for Women	0.90	1.79	1.67	0.89	1.39
	TOTAL	0.83	1.43	1.40	0.94	1.27
Illawarra Shoalhaven	Shoalhaven	2.32	1.15	2.16	2.46	0.82
	Wollongong	1.11	1.58	0.47	1.11	0.87
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	1.43	1.47	0.83	1.40	0.86
Western Sydney	Auburn	0.97	0.64	1.11	0.88	1.47
	Blacktown	1.28	1.19	0.71	0.78	0.29
	Westmead	1.54	1.66	1.16	0.71	1.52
	TOTAL	1.40	1.40	1.00	0.75	1.03
Nepean Blue Mountains	Nepean	1.17	0.61	1.12	0.98	0.89
	Hawkesbury	1.17	0.40	0.37	0.76	0.36
	Other hospitals	0.70	0.00	1.74	1.52	1.57
	TOTAL	1.13	0.54	1.05	0.99	0.86
Northern Sydney	Hornsby	1.32	1.18	2.21	0.82	1.42
	Royal North Shore	1.53	1.28	1.17	1.27	0.84
	Northern Beaches†	-	-	2.08	0.83	0.66
	Other hospitals	2.30	1.24	0.26	0.00	0.00
	TOTAL	1.72	1.25	1.23	1.05	0.88
Central Coast	Gosford	0.90	1.72	0.78	1.18	1.79
	TOTAL	0.90	1.72	0.78	1.18	1.79
Hunter New England	Armidale	0.76	0.00	0.00	0.60	0.00
	Tamworth Base	1.32	0.86	0.81	0.59	1.23
	Manning Base	1.32	3.16	1.74	1.67	0.52
	Maitland	1.61	0.88	0.99	1.89	0.90
	John Hunter	1.62	1.84	1.72	1.62	2.34
	Other hospitals	0.99	1.41	1.19	0.42	0.81
	TOTAL	1.44	1.49	1.34	1.38	1.56
Northern NSW	Grafton Base	2.59	1.64	1.59	0.88	3.79
	Lismore Base	1.49	0.36	0.81	0.85	1.12
	Tweed Heads	1.01	1.12	0.33	0.77	1.52
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	1.44	0.90	0.74	0.83	1.72

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Mid North Coast	Coffs Harbour	0.25	0.27	0.76	0.62	1.94
	Kempsey	3.45	3.08	4.84	1.54	1.54
	Port Macquarie Base	1.54	0.46	0.70	1.05	2.19
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	0.98	0.62	1.08	0.89	2.00
Southern NSW	Bega	0.00	1.30	2.44	0.00	0.00
	Goulburn Base	3.30	0.00	1.47	1.25	0.98
	Moruya	1.22	0.00	1.12	1.32	1.92
	Queanbeyan	0.93	0.00	0.00	0.59	0.00
	Other hospitals	0.00	3.70	4.00	2.78	2.63
	TOTAL	1.33	0.50	1.12	0.92	0.85
Murrumbidgee	Griffith Base	0.59	1.36	0.68	1.31	0.60
	Wagga Wagga Base	1.17	0.71	0.47	1.48	0.20
	Other hospitals	1.75	1.94	2.00	1.61	1.37
	TOTAL	1.12	1.04	0.75	1.46	0.40
Western NSW	Dubbo Base	2.67	1.40	0.74	0.47	0.44
	Mudgee	0.00	4.62	1.69	0.00	0.00
	Bathurst Base	0.00	0.00	0.67	2.58	1.54
	Forbes	0.00	0.00	0.00	0.00	1.52
	Orange Base	0.85	0.57	0.00	1.24	0.83
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	1.29	0.97	0.46	0.97	0.72
Far West	TOTAL	0.00	3.33	0.00	1.52	5.56
Public Hospitals	TOTAL	1.22	1.19	1.06	0.96	1.06
Private Hospitals	Mater, North Sydney	0.88	0.77	0.70	0.81	0.35
	North Shore Private	0.23	0.07	0.41	0.44	0.19
	Sydney Adventist	0.37	0.00	0.40	0.77	0.29
	North Gosford Private	0.85	0.59	0.00	0.66	0.62
	Hurstville Community	0.61	0.00	0.74	0.67	0.00
	Kareena Private	0.53	0.29	0.33	0.67	0.00
	St. George Private	0.71	0.44	0.33	0.80	0.34
	Prince of Wales Private	0.43	0.33	0.25	0.09	0.19
	Norwest Private	0.92	0.67	0.14	0.54	0.00
	Sydney Southwest Private	0.00	0.30	0.00	0.00	0.56
	Nepean Private	0.28	0.66	0.00	0.31	0.00
	Westmead Private	0.59	0.75	0.65	0.48	0.36
	Wollongong Private	0.25	0.75	0.76	0.50	0.69
	Newcastle Private	0.35	0.25	0.36	0.38	0.13
	Calvary, Wagga Wagga	0.00	0.00	0.00	0.63	0.00
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	0.51	0.41	0.38	0.51	0.26
TOTAL NSW*		0.99	0.94	0.86	0.82	0.83

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

#Hospitals with more than 200 births in 2020 are identified individually.

†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 40⁰ weeks gestation or beyond as a percentage of the total number of babies born at 40⁰ weeks gestation or beyond.

Table 73 shows information for hospitals where at least 200 babies were born in 2020, 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 2016–2020*

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Sydney	Canterbury	0.97	1.32	2.58	0.29	0.58
	Royal Prince Alfred	1.68	1.55	0.68	1.09	0.70
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	1.51	1.50	1.10	0.92	0.67
South Western Sydney	Fairfield	2.52	2.51	1.83	1.12	1.30
	Liverpool	2.20	1.83	1.76	2.86	2.90
	Campbelltown	0.84	1.28	1.01	1.33	1.05
	Bankstown-Lidcombe	2.33	1.60	0.94	1.73	2.23
	Bowral	1.03	1.81	0.58	2.33	0.94
	TOTAL	1.80	1.71	1.29	1.84	1.80
South Eastern Sydney	St. George	1.80	2.92	2.45	3.14	1.73
	Sutherland	1.93	1.13	0.93	0.98	1.96
	Royal Hospital for Women	2.04	1.91	2.13	1.36	1.04
	TOTAL	1.95	2.07	1.98	1.77	1.41
Illawarra Shoalhaven	Shoalhaven	1.75	0.99	1.27	0.79	0.84
	Wollongong	1.00	1.26	1.25	0.60	1.09
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	1.19	1.18	1.25	0.66	1.02
Western Sydney	Auburn	1.91	2.32	2.03	1.98	0.96
	Blacktown	2.98	2.47	2.67	2.48	1.91
	Westmead	3.46	2.72	3.07	2.16	2.10
	TOTAL	3.08	2.59	2.79	2.25	1.87
Nepean Blue Mountains	Nepean	1.61	1.81	1.50	1.20	1.71
	Hawkesbury	1.45	0.34	0.34	0.69	1.92
	Other hospitals	3.33	1.50	0.60	1.69	0.00
	TOTAL	1.77	1.55	1.24	1.17	1.61
Northern Sydney	Hornsby	1.46	2.58	1.17	1.14	2.08
	Royal North Shore	2.73	1.55	2.37	2.18	1.58
	Northern Beaches†	-	-	0.00	2.39	0.78
	Other hospitals	0.90	1.11	0.89	2.78	0.00
	TOTAL	1.83	1.64	1.58	2.00	1.45
Central Coast	Gosford	0.71	1.23	1.06	1.65	1.19
	Other hospitals	0.00	1.49	0.00	0.00	0.00
	TOTAL	0.66	1.25	1.02	1.59	1.18
Hunter New England	Armidale	2.43	0.98	3.17	4.24	3.75
	Tamworth Base	1.37	1.63	1.45	1.40	1.34
	Manning Base	3.91	1.61	0.00	1.89	1.00
	Maitland	1.36	0.91	0.57	0.70	1.22
	John Hunter	1.51	1.01	1.24	1.05	1.24
	Other hospitals	1.27	1.12	2.18	1.60	0.58
	TOTAL	1.64	1.11	1.32	1.30	1.25
	TOTAL	1.48	1.29	1.20	1.31	1.79
Northern NSW	Grafton Base	1.43	1.89	1.27	0.65	1.24
	Lismore Base	1.72	1.77	2.23	2.19	1.81
	Tweed Heads	1.08	0.74	0.51	0.94	2.24
	Other hospitals	2.29	0.78	0.00	0.00	0.75
	TOTAL	1.48	1.29	1.20	1.31	1.79

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Mid North Coast	Coffs Harbour	0.86	1.92	2.33	1.33	2.04
	Kempsey	2.04	2.24	3.01	1.74	2.17
	Port Macquarie Base	1.22	0.64	1.39	0.70	0.65
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	1.13	1.47	2.04	1.14	1.45
	TOTAL	1.13	1.47	2.04	1.14	1.45
Southern NSW	Bega	3.25	0.85	0.00	0.00	0.89
	Goulburn Base	3.23	1.99	1.59	0.71	0.67
	Moruya	1.34	0.00	0.66	0.62	0.61
	Queanbeyan	0.40	0.37	0.66	1.99	0.39
	Other hospitals	3.53	0.00	1.23	1.30	0.00
	TOTAL	1.97	0.66	0.78	1.08	0.53
Murrumbidgee	Griffith Base	2.07	0.78	1.32	0.87	2.26
	Wagga Wagga Base	2.05	1.65	1.46	1.28	1.09
	Other hospitals	1.53	1.28	0.85	1.97	2.38
	TOTAL	1.91	1.31	1.28	1.33	1.65
Western NSW	Dubbo Base	2.92	1.08	2.22	1.01	1.87
	Mudgee	1.69	1.61	0.95	1.02	0.00
	Bathurst Base	2.14	0.41	0.81	0.93	1.91
	Forbes	6.41	3.85	1.54	2.17	2.80
	Orange Base	1.32	1.09	0.34	0.74	1.45
	Other hospitals	0.73	0.00	1.32	0.00	2.70
	TOTAL	2.24	1.06	1.23	0.96	1.76
Far West	TOTAL	0.82	5.49	3.85	1.16	4.71
Public Hospitals	TOTAL	1.86	1.64	1.59	1.55	1.48
Private Hospitals	Mater, North Sydney	1.16	1.02	1.94	1.89	1.62
	North Shore Private	1.22	2.16	1.83	1.26	1.52
	Sydney Adventist	1.23	0.99	1.89	0.63	1.34
	North Gosford Private	1.31	0.00	2.53	1.37	0.00
	Hurstville Community	0.94	2.80	1.54	0.87	1.20
	Kareena Private	1.13	0.61	0.00	0.00	2.68
	St. George Private	1.42	2.30	0.43	1.75	1.61
	Prince of Wales Private	1.73	1.79	1.40	0.82	1.44
	Norwest Private	2.46	0.46	0.78	1.62	1.65
	Sydney Southwest Private	0.72	0.87	0.90	1.03	1.23
	Nepean Private	0.00	1.16	0.00	0.00	3.00
	Westmead Private	1.75	4.00	3.50	0.70	2.72
	Wollongong Private	1.67	0.50	1.61	0.68	0.00
	Newcastle Private	0.41	0.00	0.00	0.00	1.67
	Calvary, Wagga Wagga	0.00	2.56	2.00	0.00	0.00
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	1.31	1.49	1.51	0.97	1.67
TOTAL NSW*		1.78	1.62	1.58	1.48	1.49

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

#Hospitals with more than 200 births in 2020 are identified individually.

†Northern Beaches Hospital opened in 2018.

*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 7 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 2020, totals for hospitals for each local health district, sector, and the NSW total.

TABLE 74: 9.1 APGAR SCORE OF LESS THAN 7 IN TERM BABIES BY LOCAL HEALTH DISTRICT AND HOSPITAL, NSW 2016–2020*

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Sydney	Canterbury	1.42	0.87	1.37	0.99	1.60
	Royal Prince Alfred	1.15	1.27	1.05	1.54	0.97
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	1.22	1.16	1.13	1.41	1.13
South Western Sydney	Fairfield	0.88	0.94	0.73	0.67	0.98
	Liverpool	0.90	0.73	0.39	0.55	0.73
	Campbelltown	1.46	1.29	1.01	1.85	1.44
	Bankstown-Lidcombe	1.02	0.91	1.19	0.95	1.19
	Bowral	1.43	1.30	1.81	2.44	2.41
	TOTAL	1.11	1.00	0.84	1.16	1.16
South Eastern Sydney	St. George	1.61	1.26	1.33	1.22	2.00
	Sutherland	1.64	1.47	1.24	1.53	1.82
	Royal Hospital for Women	1.88	1.74	1.35	1.24	1.44
	TOTAL	1.75	1.54	1.32	1.29	1.68
Illawarra Shoalhaven	Shoalhaven	1.92	1.68	2.04	2.07	1.77
	Wollongong	1.00	1.39	1.42	1.67	1.31
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	1.24	1.46	1.58	1.77	1.43
Western Sydney	Auburn	0.46	0.86	0.83	0.88	0.38
	Blacktown	1.01	0.81	0.95	1.29	0.92
	Westmead	1.29	1.56	1.18	1.31	1.28
	TOTAL	1.09	1.23	1.05	1.24	1.02
Nepean Blue Mountains	Nepean	1.22	1.17	1.55	1.40	1.47
	Hawkesbury	0.77	0.15	1.38	1.44	0.85
	Other hospitals	1.83	2.04	2.53	2.20	1.52
	TOTAL	1.21	1.10	1.60	1.47	1.38
Northern Sydney	Hornsby	2.13	1.42	1.50	1.12	1.28
	Royal North Shore	1.95	1.55	1.98	1.47	2.09
	Northern Beaches [‡]	-	-	1.16	1.46	1.32
	Other hospitals	1.34	1.00	1.68	2.78	0.00
	TOTAL	1.79	1.35	1.76	1.41	1.67
Central Coast	Gosford	2.19	1.97	1.99	1.93	1.78
	Other hospitals	1.47	1.01	0.00	0.00	0.00
	TOTAL	2.16	1.94	1.93	1.87	1.77
Hunter New England	Armidale	1.84	0.78	2.81	3.04	1.35
	Tamworth Base	2.44	2.62	1.93	2.12	1.68
	Manning Base	1.59	1.34	2.14	1.87	1.48
	Maitland	1.79	1.40	1.87	2.28	2.25
	John Hunter	2.24	1.66	2.06	2.09	2.18
	Other hospitals	1.14	0.77	1.03	1.00	1.24
	TOTAL	1.94	1.53	1.92	2.02	1.93
Northern NSW	Grafton Base	1.97	1.95	1.11	1.47	0.85
	Lismore Base	2.03	1.90	1.48	1.58	1.09
	Tweed Heads	1.62	1.74	2.02	0.97	1.25
	Other hospitals	0.41	0.00	0.53	0.50	0.56
	TOTAL	1.72	1.72	1.59	1.26	1.08

Local Health District–Hospital		2016	2017	2018	2019	2020
		%	%	%	%	%
Mid North Coast	Coffs Harbour	1.08	0.95	1.49	0.38	1.53
	Kempsey	3.02	0.79	1.30	1.64	2.50
	Port Macquarie Base	1.27	0.86	1.54	1.58	2.17
	Other hospitals	2.08	0.00	0.00	0.00	0.00
	TOTAL	1.42	0.87	1.46	0.96	1.83
Southern NSW	Bega	1.61	0.82	0.82	0.86	1.63
	Goulburn Base	0.73	1.16	1.53	1.39	3.07
	Moruya	0.00	0.36	0.65	1.32	0.65
	Queanbeyan	1.13	1.57	1.47	2.48	0.79
	Other hospitals	2.04	0.00	0.00	1.27	0.78
	TOTAL	1.00	0.99	1.07	1.66	1.35
Murrumbidgee	Griffith Base	1.81	1.57	0.84	1.45	1.21
	Wagga Wagga Base	1.80	1.66	1.53	2.10	2.34
	Other hospitals	0.42	1.56	1.44	1.08	1.17
	TOTAL	1.46	1.61	1.35	1.75	1.87
Western NSW	Dubbo Base	2.01	2.39	2.07	1.79	1.14
	Mudgee	1.23	0.00	1.35	2.37	1.31
	Bathurst Base	1.08	1.26	0.64	2.46	1.67
	Forbes	1.38	1.29	0.78	2.73	2.78
	Orange Base	0.81	0.91	2.15	1.73	2.24
	Other hospitals	0.78	1.49	0.75	0.66	2.33
	TOTAL	1.33	1.50	1.66	1.91	1.73
Far West	TOTAL	1.79	1.53	0.54	2.44	3.49
Public Hospitals	TOTAL	1.45	1.32	1.37	1.47	1.45
Private Hospitals	Mater, North Sydney	0.18	0.20	0.25	0.25	0.43
	North Shore Private	0.25	0.52	0.84	0.83	0.48
	Sydney Adventist	4.94	1.23	1.16	0.99	0.55
	North Gosford Private	1.52	0.48	0.69	0.39	1.14
	Hurstville Community	1.16	1.06	0.33	1.00	0.91
	Kareena Private	1.22	1.91	1.09	0.82	0.54
	St. George Private	1.01	0.72	0.85	1.07	1.80
	Prince of Wales Private	0.48	0.29	0.39	0.35	0.40
	Norwest Private	0.36	0.27	0.22	0.71	0.29
	Sydney Southwest Private	0.60	0.58	0.95	0.55	0.57
	Nepean Private	0.68	0.30	0.00	0.44	0.31
	Westmead Private	0.33	0.40	0.46	0.57	0.85
	Wollongong Private	0.58	0.44	1.02	1.17	0.98
	Newcastle Private	0.70	0.59	0.56	0.42	0.84
	Calvary, Wagga Wagga	0.85	0.98	0.76	1.28	4.33
	Other hospitals	0.00	0.00	0.00	0.00	0.00
	TOTAL	0.96	0.57	0.60	0.66	0.74
TOTAL NSW*		1.33	1.16	1.21	1.29	1.30

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

#Hospitals with more than 200 births in 2020 are identified individually.

‡Northern Beaches Hospital opened in 2018.

*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 66.2% in 2019. Reporting ranged from 54.1% 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 the information in this chapter should 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.	%
2017	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
	NSW	4183	4836	86.5
2018	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
	NSW	4213	4778	88.2
2019	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
	NSW	4416	4947	89.3

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.	%
2017	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
	NSW	4251	6339	67.1
2018	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
	NSW	4270	6502	65.7
2019	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
	NSW	4479	6770	66.2

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 2016 and 2020, the number of reported births to Aboriginal or Torres Strait Islander mothers rose from 4,174 to 4,579, representing 4.2% and 4.9% respectively of all babies born in NSW. In 2020, 4,423 babies were born to Aboriginal mothers, 57 babies were born to Torres Strait Islander mothers and 99 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 2016–2020*

Aboriginal and Torres Strait Islander		Year									
		2016		2017		2018		2019		2020	
		No.	%	No.	%	No.	%	No.	%	No.	%
Confinements	Aboriginal but not Torres Strait Islander	3938	95.6	3998	95.6	4028	95.6	4230	95.8	4353	96.6
	Torres Strait Islander but not Aboriginal	50	1.2	61	1.5	55	1.3	66	1.5	56	1.2
	Both Aboriginal and Torres Strait Islander	130	3.2	124	3.0	130	3.1	120	2.7	97	2.2
	TOTAL	4118	100.0	4183	100.0	4213	100.0	4416	100.0	4506	100.0
Births	Aboriginal but not Torres Strait Islander	3990	95.6	4063	95.6	4081	95.6	4291	95.8	4423	96.6
	Torres Strait Islander but not Aboriginal	51	1.2	62	1.5	57	1.3	66	1.5	57	1.2
	Both Aboriginal and Torres Strait Islander	133	3.2	126	3.0	132	3.1	122	2.7	99	2.2
	TOTAL	4174	100.0	4251	100.0	4270	100.0	4479	100.0	4579	100.0

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

#Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers 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 2020 ranged from 36 in the Far West Local Health District to 1,182 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 2016–2020*

Local Health District	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	86	2.1	99	2.4	110	2.6	107	2.4	116	2.6
South Western Sydney	318	7.7	295	7.1	351	8.3	301	6.8	369	8.2
South Eastern Sydney	112	2.7	113	2.7	122	2.9	132	3.0	137	3.0
Illawarra Shoalhaven	241	5.9	276	6.6	262	6.2	264	6.0	308	6.8
Western Sydney	258	6.3	289	6.9	287	6.8	275	6.2	291	6.5
Nepean Blue Mountains	232	5.6	229	5.5	234	5.6	281	6.4	287	6.4
Northern Sydney	40	1.0	36	0.9	36	0.9	51	1.2	46	1.0
Central Coast	226	5.5	230	5.5	242	5.7	220	5.0	255	5.7
Hunter New England	1052	25.5	1100	26.3	1086	25.8	1144	25.9	1182	26.2
Northern NSW	225	5.5	231	5.5	228	5.4	275	6.2	223	4.9
Mid North Coast	234	5.7	262	6.3	266	6.3	317	7.2	268	5.9
Southern NSW	96	2.3	91	2.2	97	2.3	98	2.2	103	2.3
Murrumbidgee	215	5.2	204	4.9	233	5.5	223	5.0	226	5.0
Western NSW	630	15.3	666	15.9	599	14.2	648	14.7	629	14.0
Far West	42	1.0	35	0.8	31	0.7	43	1.0	36	0.8
Other—not stated	111	2.7	27	0.6	29	0.7	37	0.8	30	0.7
TOTAL	4118	100.0	4183	100.0	4213	100.0	4416	100.0	4506	100.0

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

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

Plurality

Between 2016 and 2020, multiple (twin, triplet and quadruplet) pregnancies were reported for about 1.4% of all pregnancies. In 2020, 3.1% of babies born to Aboriginal or Torres Strait Islander mothers and 2.7% of babies born to non-Aboriginal or Torres Strait Islander mothers were twins (Table 79).

TABLE 79: PLURALITY, ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2016–2020[#]

Mother's Aboriginality–Plurality	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
Confinements										
Singleton	4062	98.6	4117	98.4	4156	98.6	4356	98.6	4435	98.4
Twins	56	1.4	64	1.5	57	1.4	57	1.3	70	1.6
Triplets	0	0.0	2	0.0	0	0.0	3	0.1	0	0.0
Quadruplets	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
TOTAL	4118	100.0	4183	100.0	4213	100.0	4416	100.0	4506	100.0
Births										
Singleton	4062	97.3	4117	96.8	4156	97.3	4356	97.3	4435	96.9
Twins	112	2.7	128	3.0	114	2.7	114	2.5	140	3.1
Triplets	0	0.0	6	0.1	0	0.0	9	0.2	0	0.0
Quadruplets	0	0.0	0	0.0	0	0.0	0	0.0	4	0.1
TOTAL	4174	100.0	4251	100.0	4270	100.0	4479	100.0	4579	100.0
Non-Aboriginal or Torres Strait Islander										
Confinements										
Singleton	91291	98.6	88554	98.6	88368	98.5	87675	98.6	84749	98.6
Twins	1311	1.4	1259	1.4	1286	1.4	1263	1.4	1182	1.4
Triplets	21	0.0	23	0.0	17	0.0	18	0.0	20	0.0
Quadruplets	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0
TOTAL	92623	100.0	89836	100.0	89671	100.0	88957	100.0	85951	100.0
Births										
Singleton	91291	97.1	88554	97.2	88368	97.1	87675	97.1	84749	97.2
Twins	2622	2.8	2518	2.8	2572	2.8	2526	2.8	2364	2.7
Triplets	63	0.1	69	0.1	51	0.1	54	0.1	60	0.1
Quadruplets	0	0.0	0	0.0	0	0.0	4	0.0	0	0.0
TOTAL	93976	100.0	91141	100.0	90991	100.0	90259	100.0	87173	100.0

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

[#]Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers and babies are higher than shown (Table 75). Table excludes 2,449 mothers and 2,485 babies of mothers where the mother's Aboriginality was not stated.

Previous pregnancies

In 2020, 33.6% of Aboriginal or Torres Strait Islander mothers gave birth for the first time, 61.3% of mothers reported between 1 and 4 previous births and 5.1% of mothers had previously given birth to 5 or more babies. In non-Aboriginal or Torres Strait Islander mothers, 44.0% gave birth for the first time, 54.8% of mothers reported between 1 and 4 previous births and 1.2% of mothers had previously given birth to 5 or more babies (Table 80). Between 2016 and 2020, the pattern 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 5 or more babies ranged from 2.2% in the Northern Sydney Local Health District to 8.3% in the Far West Local Health District.

TABLE 80: PREVIOUS PREGNANCIES AMONG ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2016–2020[#]

Mother's Aboriginality–No. previous pregnancies (>20 weeks gestation)	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
0	1412	34.3	1412	33.8	1420	33.7	1549	35.1	1515	33.6
1–4	2441	59.3	2503	59.8	2568	61.0	2604	59.0	2761	61.3
5+	259	6.3	257	6.1	210	5.0	263	6.0	228	5.1
Not stated	6	0.1	11	0.3	15	0.4	0	0	2	0.0
TOTAL	4118	100.0	4183	100.0	4213	100.0	4416	100.0	4506	100.0
Non-Aboriginal or Torres Strait Islander										
0	40570	43.8	38863	43.3	38806	43.3	38664	43.5	37834	44.0
1–4	50782	54.8	49714	55.3	49687	55.4	49252	55.4	47076	54.8
5+	1161	1.3	1128	1.3	1113	1.2	1034	1.2	995	1.2
Not stated	110	0.1	131	0.1	65	0.1	7	0.0	46	0.1
TOTAL	92623	100.0	89836	100.0	89671	100.0	88957	100.0	85951	100.0

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

[#]Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers and babies are higher than shown (Table 75). Table excludes 2,449 mothers where the mother's Aboriginality was not stated.

Maternal age

The percentage of Aboriginal or Torres Strait Islander mothers who were teenagers fell from 12.8% in 2016 to 9.7% in 2020. The percentage of non-Aboriginal or Torres Strait Islander mothers who were teenagers fell from 1.7% in 2016 to 1.2% in 2020. The percentage of Aboriginal or Torres Strait Islander mothers giving birth at 35 years of age or more has increased slightly from 9.5% in 2016 to 10.4% in 2020. The percentage of non-Aboriginal or Torres Strait Islander mothers giving birth at 35 years of age or more has increased slightly from 24.3% in 2016 to 27.0% in 2020 (Table 81).

The percentage of Aboriginal or Torres Strait Islander mothers who were teenagers was highest in the Hunter New England (11.2%) and Northern NSW (11.2%) Local Health Districts whereas the percentage of mothers giving birth at 35 years of age or more was highest in the Northern Sydney (37.0%) Local Health District (Table 82).

TABLE 81: MATERNAL AGE, ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2016–2020[#]

Mother's Aboriginality– Maternal age (years)	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
12–19	526	12.8	513	12.3	485	11.5	464	10.5	438	9.7
20–34	3198	77.7	3268	78.1	3313	78.6	3532	80.0	3597	79.8
35+	393	9.5	401	9.6	415	9.9	419	9.5	468	10.4
Not stated	1	0.0	1	0.0	0	0.0	1	0.0	3	0.1
TOTAL	4118	100.0	4183	100.0	4213	100.0	4416	100.0	4506	100.0
Non-Aboriginal or Torres Strait Islander										
12–19	1583	1.7	1352	1.5	1304	1.5	1135	1.3	994	1.2
20–34	68479	73.9	65662	73.1	65184	72.7	64071	72.0	61741	71.8
35+	22526	24.3	22802	25.4	23167	25.8	23745	26.7	23187	27.0
Not stated	35	0.0	20	0.0	16	0.0	6	0.0	29	0.0
TOTAL	92623	100.0	89836	100.0	89671	100.0	88957	100.0	85951	100.0

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

[#]Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers and babies are higher than shown (Table 75). Table excludes 2,449 mothers where the mother's Aboriginality was not stated.

TABLE 82: AGE OF ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS AND LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2020[#]

Local Health District	Maternal age (years)									
	12–19		20–34		35+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	5	4.3	91	78.4	20	17.2	0	0.0	116	100.0
South Western Sydney	26	7.0	306	82.9	37	10.0	0	0.0	369	100.0
South Eastern Sydney	6	4.4	102	74.5	29	21.2	0	0.0	137	100.0
Illawarra Shoalhaven	31	10.1	247	80.2	29	9.4	1	0.3	308	100.0
Western Sydney	23	7.9	232	79.7	36	12.4	0	0.0	291	100.0
Nepean Blue Mountains	28	9.8	228	79.4	31	10.8	0	0.0	287	100.0
Northern Sydney	0	0.0	29	63.0	17	37.0	0	0.0	46	100.0
Central Coast	19	7.5	201	78.8	35	13.7	0	0.0	255	100.0
Hunter New England	132	11.2	944	79.9	105	8.9	1	0.1	1182	100.0
Northern NSW	25	11.2	180	80.7	18	8.1	0	0.0	223	100.0
Mid North Coast	25	9.3	212	79.1	31	11.6	0	0.0	268	100.0
Southern NSW	10	9.7	83	80.6	10	9.7	0	0.0	103	100.0
Murrumbidgee	25	11.1	184	81.4	17	7.5	0	0.0	226	100.0
Western NSW	66	10.5	517	82.2	46	7.3	0	0.0	629	100.0
Far West	-	-	23	63.9	-	-	0	0.0	36	100.0
Other—not stated	-	-	18	60.0	-	-	1	3.3	30	100.0
TOTAL	438	9.7	3597	79.8	468	10.4	3	0.1	4506	100.0

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

[#]Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of 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 5.

Duration of pregnancy at first antenatal visit

Between 2016 and 2020, the percentage of Aboriginal or Torres Strait Islander mothers who commenced antenatal care at less than 14 weeks gestation increased from 64.6% to 76.3%, and the percentage that commenced antenatal care at less than 20 weeks gestation increased from 81.7% to 88.0% (Table 83). By contrast, 80.2% of non-Aboriginal or Torres Strait Islander mothers commenced antenatal care at less than 14 weeks gestation in 2020 and 93.4% at less than 20 weeks gestation. In 2020, the percentage of Aboriginal or Torres Strait Islander mothers who commenced antenatal care at less than 14 weeks gestation varied from 47.6% in the Southern NSW Local Health District to 85.9% in the Western Sydney Local Health District (Table 84).

TABLE 83: DURATION OF PREGNANCY AT FIRST ANTENATAL VISIT, ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2016–2020[#]

Mother's Aboriginality– Duration of pregnancy (weeks)	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
0–13	2662	64.6	2850	68.1	3102	73.6	3327	75.3	3440	76.3
14–19	704	17.1	661	15.8	561	13.3	540	12.2	527	11.7
20+	654	15.9	603	14.4	495	11.7	482	10.9	447	9.9
Not stated	98	2.4	69	1.6	55	1.3	67	1.5	92	2.0
TOTAL	4118	100.0	4183	100.0	4213	100.0	4416	100.0	4506	100.0
Non-Aboriginal or Torres Strait Islander										
0–13	62842	67.8	65852	73.3	69785	77.8	71043	79.9	68933	80.2
14–19	19653	21.2	15771	17.6	12948	14.4	11714	13.2	11315	13.2
20+	9347	10.1	7698	8.6	6418	7.2	5593	6.3	5019	5.8
Not stated	781	0.8	515	0.6	520	0.6	607	0.7	684	0.8
TOTAL	92623	100.0	89836	100.0	89671	100.0	88957	100.0	85951	100.0

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

[#]Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers are higher than shown (Table 75). Table excludes 2,449 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 2020[#]

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	56	48.3	35	30.2	22	19.0	3	2.6	116	100.0
South Western Sydney	251	68.0	62	16.8	45	12.2	11	3.0	369	100.0
South Eastern Sydney	94	68.6	25	18.2	17	12.4	1	0.7	137	100.0
Illawarra Shoalhaven	257	83.4	22	7.1	25	8.1	4	1.3	308	100.0
Western Sydney	250	85.9	14	4.8	23	7.9	4	1.4	291	100.0
Nepean Blue Mountains	246	85.7	24	8.4	11	3.8	6	2.1	287	100.0
Northern Sydney	34	73.9	10	21.7	-	-	-	-	46	100.0
Central Coast	178	69.8	54	21.2	19	7.5	4	1.6	255	100.0
Hunter New England	990	83.8	84	7.1	83	7.0	25	2.1	1182	100.0
Northern NSW	184	82.5	19	8.5	17	7.6	3	1.3	223	100.0
Mid North Coast	210	78.4	27	10.1	25	9.3	6	2.2	268	100.0
Southern NSW	49	47.6	20	19.4	33	32.0	1	1.0	103	100.0
Murrumbidgee	163	72.1	29	12.8	30	13.3	4	1.8	226	100.0
Western NSW	434	69.0	95	15.1	84	13.4	16	2.5	629	100.0
Far West	21	58.3	-	-	8	22.2	-	-	36	100.0
Other—not stated	23	76.7	-	-	-	-	-	-	30	100.0
TOTAL	3440	76.3	527	11.7	447	9.9	92	2.0	4506	100.0

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

[#]Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers are higher than shown. The level of under-reporting varies between local health districts (Table 75). Data not shown for cell counts less than 5.

Smoking in pregnancy

In 2020, 41.7% of Aboriginal or Torres Strait Islander mothers reported smoking at some time during pregnancy, compared to 41.3% in 2016. This compares with 7.0% of non-Aboriginal or Torres Strait Islander mothers who reported smoking at some time during pregnancy in 2020 (Table 85). In 2020, the percentage of Aboriginal or Torres Strait Islander mothers who smoked during pregnancy varied from 15.2% in the Northern Sydney Local Health District to 63.9% in the Far West Local Health District (Table 86).

TABLE 85: SMOKING IN PREGNANCY, ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2016–2020[#]

Mother's Aboriginality– Smoking in pregnancy	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
Did not smoke	2355	57.2	2361	56.4	2363	56.1	2491	56.4	2592	57.5
Smoked	1699	41.3	1773	42.4	1822	43.2	1909	43.2	1880	41.7
Not stated	64	1.6	49	1.2	28	0.7	16	0.4	34	0.8
TOTAL	4118	100.0	4183	100.0	4213	100.0	4416	100.0	4506	100.0
Non-Aboriginal or Torres Strait Islander										
Did not smoke	85105	91.9	82413	91.7	81896	91.3	81912	92.1	79207	92.2
Smoked	6364	6.9	6494	7.2	6725	7.5	6327	7.1	5981	7.0
Not stated	1154	1.2	929	1.0	1050	1.2	718	0.8	763	0.9
TOTAL	92623	100.0	89836	100.0	89671	100.0	88957	100.0	85951	100.0

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

[#]Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers are higher than shown (Table 75). Table excludes 2,449 mothers where the mother's Aboriginality was not stated.

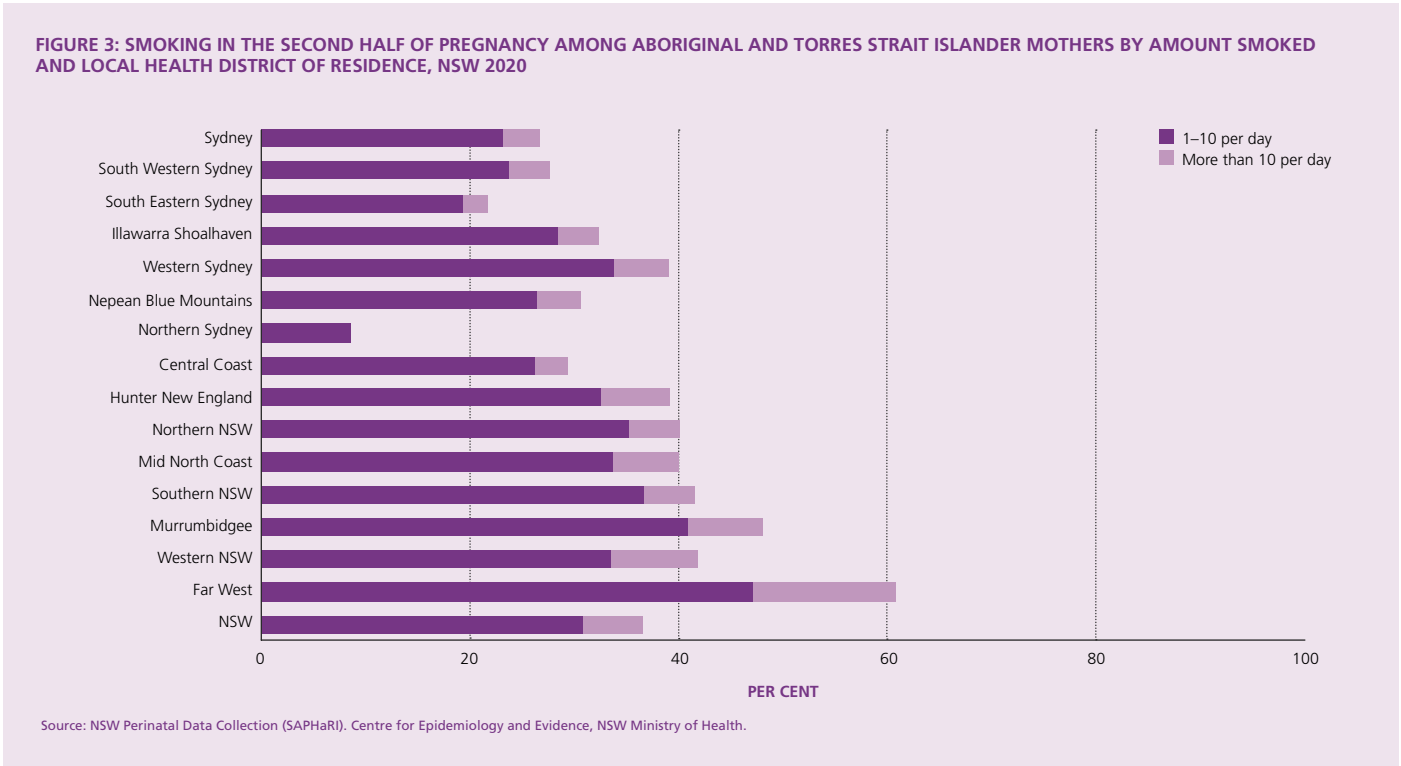
TABLE 86: SMOKING IN PREGNANCY AMONG ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2020[#]

Local Health District	Smoking in pregnancy							
	Did not smoke		Smoked		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Sydney	60	51.7	48	41.4	8	6.9	116	100.0
South Western Sydney	218	59.1	139	37.7	12	3.3	369	100.0
South Eastern Sydney	97	70.8	39	28.5	1	0.7	137	100.0
Illawarra Shoalhaven	188	61.0	120	39.0	0	0.0	308	100.0
Western Sydney	159	54.6	132	45.4	0	0.0	291	100.0
Nepean Blue Mountains	189	65.9	98	34.1	0	0.0	287	100.0
Northern Sydney	39	84.8	7	15.2	0	0.0	46	100.0
Central Coast	165	64.7	90	35.3	0	0.0	255	100.0
Hunter New England	670	56.7	510	43.1	2	0.2	1182	100.0
Northern NSW	125	56.1	95	42.6	3	1.3	223	100.0
Mid North Coast	138	51.5	129	48.1	1	0.4	268	100.0
Southern NSW	57	55.3	44	42.7	2	1.9	103	100.0
Murrumbidgee	115	50.9	111	49.1	0	0.0	226	100.0
Western NSW	343	54.5	283	45.0	3	0.5	629	100.0
Far West	12	33.3	23	63.9	1	2.8	36	100.0
Other—not stated	17	56.7	12	40.0	1	3.3	30	100.0
TOTAL	2592	57.5	1880	41.7	34	0.8	4506	100.0

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

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

Smoking in the second half of pregnancy poses the greatest risk to the health of both mother and baby. In 2020, 36.8% of Aboriginal or Torres Strait Islander mothers reported smoking in the second half of pregnancy. This percentage varied from 8.7% in the Northern Sydney Local Health District to 61.1% in the Far West Local Health District (Figure 3).



Diabetes and hypertension

In 2020, there were similar reported rates of pre-existing diabetes mellitus and gestational diabetes reported among Aboriginal or Torres Strait Islander mothers compared with non-Aboriginal or Torres Strait Islander mothers (Table 87).

In 2020, 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 (6.3%) compared with non-Aboriginal or Torres Strait Islander mothers (4.8%) (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 2016–2020*

Mother's Aboriginality–Condition	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
Pre-existing diabetes mellitus	51	1.2	49	1.2	51	1.2	59	1.3	52	1.2
Type 1	10	0.2	14	0.3	12	0.3	23	0.5	9	0.2
Type 2	26	0.6	26	0.6	39	0.9	35	0.8	41	0.9
Gestational diabetes mellitus	441	10.7	419	10.0	437	10.4	481	10.9	593	13.2
TOTAL DIABETES*	492	11.9	468	11.2	488	11.6	540	12.2	645	14.3
Non-Aboriginal or Torres Strait Islander										
Pre-existing diabetes mellitus	832	0.9	849	0.9	751	0.8	805	0.9	708	0.8
Type 1	270	0.3	240	0.3	219	0.2	266	0.3	228	0.3
Type 2	306	0.3	351	0.4	384	0.4	391	0.4	387	0.5
Gestational diabetes mellitus	11733	12.7	11881	13.2	12425	13.9	12498	14.0	11999	14.0
TOTAL DIABETES*	12565	13.6	12730	14.2	13176	14.7	13303	15.0	12707	14.8

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 2,449 mothers where the mother's Aboriginality was not stated.

*Total diabetes includes types of diabetes not further defined.

TABLE 88: HYPERTENSION, ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2016–2020*

Mother's Aboriginality–Condition	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
Chronic hypertension	39	0.9	35	0.8	46	1.1	48	1.1	53	1.2
Pre-eclampsia	94	2.3	82	2.0	76	1.8	82	1.9	93	2.1
Eclampsia	1	0.0	0	0.0	2	0.0	4	0.1	7	0.2
Gestational hypertension	147	3.6	137	3.3	104	2.5	124	2.8	145	3.2
TOTAL HYPERTENSION*	275	6.7	245	5.9	221	5.2	248	5.6	286	6.3
Non-Aboriginal or Torres Strait Islander										
Chronic hypertension	676	0.7	657	0.7	714	0.8	795	0.9	802	0.9
Pre-eclampsia	1454	1.6	1266	1.4	1255	1.4	1295	1.5	1347	1.6
Eclampsia	26	0.0	35	0.0	32	0.0	45	0.1	25	0.0
Gestational hypertension	2690	2.9	2438	2.7	2138	2.4	2269	2.6	2156	2.5
TOTAL HYPERTENSION*	4754	5.1	4258	4.7	3953	4.4	4205	4.7	4167	4.8

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 2,449 mothers where the mother's Aboriginality was not stated.

*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 52.4% in 2016 to 42.4% in 2020, while the rate of induction of labour increased from 31.2% to 37.7%. These trends were also found in non-Aboriginal or Torres Strait Islander mothers with spontaneous onset of labour decreasing from 48.3% in 2016 to 41.1% in 2020 and induction of labour increasing from 31.1% in 2016 to 35.5% in 2020. (Table 89). The rate of spontaneous onset of labour was slightly higher among Aboriginal or Torres Strait Islander mothers (42.4%) compared to the rate of 41.1% reported among non-Aboriginal or Torres Strait Islander mothers in 2020.

Between 2016 and 2020, the rate of normal vaginal birth among Aboriginal or Torres Strait Islander mothers fell from 64.2% to 59.8%. The caesarean section rate rose from 28.3% to 33.2%. The rate of instrumental delivery was stable at about 6.8%, as was the rate of vaginal breech births (0.4%). Similar trends of a decrease in normal vaginal births (54.9% to 51.0%), an increase in caesarean section (33.1% to 36.8%) and stable rates for instrumental delivery (about 11.8%) and vaginal breech births (about 0.4%) were seen in non-Aboriginal or Torres Strait Islander mothers from 2016 to 2020 respectively (Table 90).

TABLE 89: LABOUR ONSET, ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2016–2020^a

Mother's Aboriginality–Labour onset	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
Spontaneous	2157	52.4	2080	49.7	1935	45.9	2027	45.9	1909	42.4
Induced	1284	31.2	1399	33.4	1448	34.4	1538	34.8	1701	37.7
No labour [*]	671	16.3	702	16.8	830	19.7	851	19.3	896	19.9
Not stated	6	0.1	2	0.0	0	0.0	0	0.0	0	0.0
TOTAL	4118	100.0	4183	100.0	4213	100.0	4416	100.0	4506	100.0
Non-Aboriginal or Torres Strait Islander										
Spontaneous	44759	48.3	41488	46.2	39404	43.9	38174	42.9	35301	41.1
Induced	28846	31.1	28980	32.3	30201	33.7	30471	34.3	30544	35.5
No labour [*]	18890	20.4	19303	21.5	20042	22.4	20297	22.8	20085	23.4
Not stated	128	0.1	65	0.1	24	0.0	15	0.0	21	0.0
TOTAL	92623	100.0	89836	100.0	89671	100.0	88957	100.0	85951	100.0

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

[#]Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers are higher than shown (Table 75). Table excludes 2,449 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 2016–2020^a

Mother's Aboriginality–Type of birth	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
Normal vaginal	2642	64.2	2649	63.3	2565	60.9	2690	60.9	2693	59.8
Forceps	111	2.7	114	2.7	104	2.5	129	2.9	112	2.5
Vacuum extraction	178	4.3	173	4.1	190	4.5	166	3.8	185	4.1
Vaginal breech	19	0.5	14	0.3	19	0.5	16	0.4	19	0.4
Elective caesarean section	671	16.3	701	16.8	830	19.7	851	19.3	896	19.9
Emergency caesarean section [†]	496	12.0	530	12.7	504	12.0	564	12.8	601	13.3
Not stated	1	0.0	2	0.0	1	0.0	0	0.0	0	0.0
TOTAL	4118	100.0	4183	100.0	4213	100.0	4416	100.0	4506	100.0
Non-Aboriginal or Torres Strait Islander										
Normal vaginal	50826	54.9	48564	54.1	47765	53.3	46868	52.7	43805	51.0
Forceps	4403	4.8	4303	4.8	4268	4.8	4067	4.6	4046	4.7
Vacuum extraction	6418	6.9	6140	6.8	6331	7.1	6394	7.2	6203	7.2
Vaginal breech	318	0.3	322	0.4	314	0.4	311	0.3	302	0.4
Elective caesarean section	18872	20.4	19287	21.5	20042	22.4	20297	22.8	20085	23.4
Emergency caesarean section [†]	11758	12.7	11196	12.5	10950	12.2	11020	12.4	11510	13.4
Not stated	28	0.0	24	0.0	1	0.0	0	0.0	0	0.0
TOTAL	92623	100.0	89836	100.0	89671	100.0	88957	100.0	85951	100.0

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

[#]Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of mothers are higher than shown (Table 75). Table excludes 2,449 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 10.9% in 2020 (Table 91). This is higher than the rate for babies born to non-Aboriginal or Torres Strait Islander mothers, which was 6.4% in 2020. The largest percentage of low birthweight babies of Aboriginal or Torres Strait Islander mothers in 2020 (13.5%) was in the Illawarra Shoalhaven and Western NSW Local Health Districts (Table 92). In contrast, the rate of babies weighing 4,500 grams and greater was similar in babies born to Aboriginal or Torres Strait Islander mothers (1.4%) and babies born to non-Aboriginal or Torres Strait Islander mothers (1.1%) in 2020.

TABLE 91: BIRTHWEIGHT, BABIES BORN TO ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2016–2020[#]

Mother's Aboriginality– Birthweight (grams)	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
Less than 1,000	54	1.3	61	1.4	38	0.9	39	0.9	43	0.9
1,000–1,499	39	0.9	42	1.0	42	1.0	43	1.0	45	1.0
1,500–2,499	357	8.6	367	8.6	342	8.0	398	8.9	413	9.0
2,500–4,499	3666	87.8	3732	87.8	3777	88.5	3937	87.9	4009	87.6
4,500+	56	1.3	48	1.1	62	1.5	49	1.1	62	1.4
Not stated	2	0.0	1	0.0	9	0.2	13	0.3	7	0.2
TOTAL	4174	100.0	4251	100.0	4270	100.0	4479	100.0	4579	100.0
Non-Aboriginal or Torres Strait Islander										
Less than 1,000	679	0.7	734	0.8	618	0.7	614	0.7	605	0.7
1,000–1,499	492	0.5	461	0.5	446	0.5	470	0.5	437	0.5
1,500–2,499	4745	5.0	4724	5.2	5018	5.5	4761	5.3	4537	5.2
2,500–4,499	86869	92.4	84122	92.3	83736	92.0	83232	92.2	80446	92.3
4,500+	1122	1.2	1055	1.2	998	1.1	955	1.1	952	1.1
Not stated	69	0.1	45	0.0	175	0.2	227	0.3	196	0.2
TOTAL	93976	100.0	91141	100.0	90991	100.0	90259	100.0	87173	100.0

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

[#]Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of babies are higher than shown (Table 75). Table excludes 2,485 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 2020[#]

Local Health District	Birthweight (grams)							
	<2,500		2,500+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Sydney	9	7.5	111	92.5	0	0.0	120	100.0
South Western Sydney	32	8.5	344	91.2	1	0.3	377	100.0
South Eastern Sydney	18	12.8	123	87.2	0	0.0	141	100.0
Illawarra Shoalhaven	42	13.5	269	86.2	1	0.3	312	100.0
Western Sydney	33	11.1	262	88.5	1	0.3	296	100.0
Nepean Blue Mountains	37	12.5	257	87.1	1	0.3	295	100.0
Northern Sydney	5	10.6	42	89.4	0	0.0	47	100.0
Central Coast	24	9.3	234	90.7	0	0.0	258	100.0
Hunter New England	117	9.8	1077	90.1	1	0.1	1195	100.0
Northern NSW	28	12.4	197	87.6	0	0.0	225	100.0
Mid North Coast	36	13.3	235	86.7	0	0.0	271	100.0
Southern NSW	6	5.8	97	94.2	0	0.0	103	100.0
Murrumbidgee	18	7.9	210	91.7	1	0.4	229	100.0
Western NSW	87	13.5	556	86.3	1	0.2	644	100.0
Far West	-	-	31	86.1	-	-	36	100.0
Other—not stated	-	-	26	86.7	-	-	30	100.0
TOTAL	501	10.9	4071	88.9	7	0.2	4579	100.0

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

[#]Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of 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 5.

Gestational age

Since 2016, the percentage of babies born prematurely (less than 37 weeks gestation) to Aboriginal or Torres Strait Islander mothers has decreased slightly from 11.2% in 2016 to 10.6% in 2020 (Table 93). By comparison, babies born to non-Aboriginal or Torres Strait Islander mothers have a relatively stable rate of about 7.2% for prematurity. In 2020, the highest percentage of prematurity in babies born to Aboriginal or Torres Strait Islander mothers (15.6%) was in the Nepean Blue Mountains Local Health District (Table 94).

TABLE 93: GESTATIONAL AGE, BABIES BORN TO ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2016–2020[#]

Mother's Aboriginality– Gestational age (weeks)	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
<28	49	1.2	58	1.4	36	0.8	42	0.9	48	1.0
28–31	53	1.3	52	1.2	49	1.1	55	1.2	60	1.3
32–36	364	8.7	387	9.1	387	9.1	377	8.4	377	8.2
37–41	3651	87.5	3714	87.4	3752	87.9	3976	88.8	4062	88.7
42+	49	1.2	37	0.9	43	1.0	28	0.6	31	0.7
Not stated	8	0.2	3	0.1	3	0.1	1	0.0	1	0.0
TOTAL	4174	100.0	4251	100.0	4270	100.0	4479	100.0	4579	100.0
Non-Aboriginal or Torres Strait Islander										
<28	642	0.7	654	0.7	667	0.7	663	0.7	700	0.8
28–31	560	0.6	588	0.6	558	0.6	533	0.6	531	0.6
32–36	5480	5.8	5343	5.9	5595	6.1	5367	5.9	4996	5.7
37–41	86079	91.6	83650	91.8	83402	91.7	83016	92.0	80327	92.1
42+	1013	1.1	846	0.9	709	0.8	601	0.7	582	0.7
Not stated	202	0.2	60	0.1	60	0.1	79	0.1	37	0.0
TOTAL	93976	100.0	91141	100.0	90991	100.0	90259	100.0	87173	100.0

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

[#]Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of babies are higher than shown (Table 75). Table excludes 2,485 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 2020[#]

Local Health District	Gestational age (weeks)							
	Less than 37		37+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Sydney	11	9.2	109	90.8	0	0.0	120	100.0
South Western Sydney	41	10.9	336	89.1	0	0.0	377	100.0
South Eastern Sydney	20	14.2	121	85.8	0	0.0	141	100.0
Illawarra Shoalhaven	37	11.9	275	88.1	0	0.0	312	100.0
Western Sydney	25	8.4	271	91.6	0	0.0	296	100.0
Nepean Blue Mountains	46	15.6	249	84.4	0	0.0	295	100.0
Northern Sydney	-	-	43	91.5	-	-	47	100.0
Central Coast	19	7.4	239	92.6	0	0.0	258	100.0
Hunter New England	118	9.9	1077	90.1	0	0.0	1195	100.0
Northern NSW	21	9.3	203	90.2	1	0.4	225	100.0
Mid North Coast	35	12.9	236	87.1	0	0.0	271	100.0
Southern NSW	-	-	100	97.1	-	-	103	100.0
Murrumbidgee	16	7.0	213	93.0	0	0.0	229	100.0
Western NSW	84	13.0	560	87.0	0	0.0	644	100.0
Far West	-	-	33	91.7	-	-	36	100.0
Other—not stated	-	-	28	93.3	-	-	30	100.0
TOTAL	485	10.6	4093	89.4	1	0.0	4579	100.0

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

[#]Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of 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 5.

Apgar score

In 2020, 2.5% of liveborn babies of Aboriginal or Torres Strait Islander mothers had an Apgar score less than 7 at 5 minutes (Table 95), which is higher than the rate of 1.7% 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 7 at 5 minutes was 4.3% in the Northern Sydney Local Health District.

TABLE 95: APGAR SCORE, LIVEBORN BABIES OF ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2016–2020*

Mother's Aboriginality– Apgar score at 5 minutes	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
0–4	30	0.7	34	0.8	27	0.6	28	0.6	30	0.7
5–6	82	2.0	60	1.4	79	1.9	78	1.8	83	1.8
7+	3977	96.1	4070	96.6	4082	96.3	4300	96.7	4369	96.4
Not stated	49	1.2	49	1.2	49	1.2	42	0.9	51	1.1
TOTAL	4138	100.0	4213	100.0	4237	100.0	4448	100.0	4533	100.0
Non-Aboriginal or Torres Strait Islander										
0–4	491	0.5	385	0.4	371	0.4	415	0.5	394	0.5
5–6	1121	1.2	1018	1.1	1086	1.2	1156	1.3	1073	1.2
7+	91317	97.7	88669	97.9	88452	97.8	87660	97.7	84571	97.7
Not stated	543	0.6	521	0.6	520	0.6	492	0.5	522	0.6
TOTAL	93472	100.0	90593	100.0	90429	100.0	89723	100.0	86560	100.0

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

#Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of babies are higher than shown (Table 75). Table excludes 2,473 babies of mothers where the mother's Aboriginality was not stated.

Infant feeding at discharge from hospital of birth

In 2020, 58.9% of babies born to Aboriginal or Torres Strait Islander mothers were fully breastfed at discharge from hospital, 13.7% were partially breastfed and 24.5% received infant formula only (Table 96). By comparison, 69.7% of babies born to non-Aboriginal or Torres Strait Islander mothers were fully breastfed in 2020. Rates of full breastfeeding in Aboriginal or Torres Strait Islander mothers ranged from 49.5% in the South Western Sydney Local Health District to 76.6% in the Northern Sydney Local Health District (Table 97).

TABLE 96: INFANT FEEDING, LIVEBORN BABIES OF ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2016–2020*

Mother's Aboriginality– Infant feeding	Year									
	2016		2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
Full breastfeeding	2600	62.8	2600	61.7	2595	61.2	2636	59.3	2668	58.9
Any breastfeeding	330	8.0	424	10.1	438	10.3	566	12.7	619	13.7
Infant formula only	1042	25.2	1052	25.0	1088	25.7	1140	25.6	1110	24.5
Not stated	166	4.0	137	3.3	116	2.7	106	2.4	136	3.0
TOTAL	4138	100.0	4213	100.0	4237	100.0	4448	100.0	4533	100.0
Non-Aboriginal or Torres Strait Islander										
Full breastfeeding	70504	75.4	67357	74.4	66126	73.1	64376	71.7	60325	69.7
Any breastfeeding	12734	13.6	13521	14.9	14797	16.4	16108	18.0	17586	20.3
Infant formula only	7247	7.8	6851	7.6	6866	7.6	6700	7.5	6602	7.6
Not stated	2987	3.2	2864	3.2	2640	2.9	2539	2.8	2047	2.4
TOTAL	93472	100.0	90593	100.0	90429	100.0	89723	100.0	86560	100.0

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

#Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of babies are higher than shown. Table excludes 2,473 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 2020*

Local Health District	Infant feeding									
	Full breastfeeding		Any breastfeeding		Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	64	53.3	27	22.5	29	24.2	0	0.0	120	100.0
South Western Sydney	185	49.5	63	16.8	97	25.9	29	7.8	374	100.0
South Eastern Sydney	98	71.0	20	14.5	18	13.0	2	1.4	138	100.0
Illawarra Shoalhaven	180	58.6	27	8.8	95	30.9	5	1.6	307	100.0
Western Sydney	153	51.9	38	12.9	100	33.9	4	1.4	295	100.0
Nepean Blue Mountains	152	52.2	54	18.6	74	25.4	11	3.8	291	100.0
Northern Sydney	36	76.6	8	17.0	-	-	-	-	47	100.0
Central Coast	174	67.7	35	13.6	44	17.1	4	1.6	257	100.0
Hunter New England	711	60.1	177	14.9	268	22.6	28	2.4	1184	100.0
Northern NSW	169	75.4	19	8.5	28	12.5	8	3.6	224	100.0
Mid North Coast	168	62.9	30	11.2	53	19.9	16	6.0	267	100.0
Southern NSW	75	74.3	11	10.9	11	10.9	4	4.0	101	100.0
Murrumbidgee	136	59.9	19	8.4	67	29.5	5	2.2	227	100.0
Western NSW	326	51.3	83	13.1	212	33.4	14	2.2	635	100.0
Far West	21	58.3	-	-	7	19.4	-	-	36	100.0
Other-not stated	20	66.7	-	-	-	-	-	-	30	100.0
TOTAL	2668	58.9	619	13.7	1110	24.5	136	3.0	4533	100.0

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

#Due to under-reporting of Aboriginal mothers to the PDC, it is likely that the true numbers of 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 5.

Perinatal mortality

Between 2016 and 2020, the perinatal mortality rate among babies born to Aboriginal and Torres Strait Islander mothers varied between 10.3 and 13.1 per 1,000 births (Table 98). The rate of 13.1 per 1,000 births in Aboriginal or Torres Strait Islander mothers in 2020 is higher than the rate of 8.9 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 2016–2020*

Mother's Aboriginality– Perinatal deaths	Year									
	2016		2017		2018		2019		2020	
	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
Aboriginal or Torres Strait Islander										
Stillborn	36	8.6	38	8.9	33	7.7	31	6.9	46	10.0
Neonatal death	15	3.6	16	3.8	17	4.0	15	3.3	14	3.1
TOTAL	51	12.2	54	12.7	50	11.7	46	10.3	60	13.1
Non-Aboriginal or Torres Strait Islander										
Stillborn	504	5.4	548	6.0	562	6.2	536	5.9	613	7.0
Neonatal death	185	2.0	195	2.1	159	1.7	181	2.0	163	1.9
TOTAL	689	7.3	743	8.2	721	7.9	717	7.9	776	8.9

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 15 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 2019. The underlying cause of death was assigned using the 2018 edition of 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.¹ Information presented in this chapter is not directly comparable to previous Mothers and Babies reports due to an updated version of the PSANZ classification that was introduced in 2018. 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 2019

In 2019, the perinatal mortality rate was 8.6 per 1,000 births, comprising 567 stillbirths (69.2%) and 252 neonatal deaths (30.8%).

Of the 567 stillbirths, 339 (59.8%) were reported to have occurred before the onset of labour, 55 (9.7%) occurred during labour, and 173 (30.5%) occurred at an unspecified time before birth.

Maternal age 2019

In 2019, the overall perinatal mortality rate was 8.6 deaths per 1,000 births, with higher perinatal mortality rates for babies born to women aged 35 years and older (9.9 per 1,000) than babies born to women aged 12–19 years (8.0 per 1,000) and 20–34 years (8.2 per 1,000) (Table 99).

TABLE 99: PERINATAL DEATHS BY MATERNAL AGE AND PERINATAL DEATH TYPE, NSW 2019*

Maternal age (years)	Perinatal death type					
	Stillborn		Neonatal death		TOTAL	
	No.	Rate/1,000 births	No.	Rate/1,000 births	No.	Rate/1,000 births
12–19	10	6.2	3	1.9	13	8.0
20–34	379	5.5	182	2.6	561	8.2
35+	178	7.2	67	2.7	245	9.9
TOTAL	567	6.0	252	2.6	819	8.6

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 District of residence 2019

In 2019, the perinatal mortality rate ranged from 3.1 per 1,000 in the Mid North Coast Local Health District to 18.3 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 2019^a

Local Health District	Perinatal death type					
	Stillborn		Neonatal death		TOTAL	
	No.	Rate/1,000 births	No.	Rate/1,000 births	No.	Rate/1,000 births
Sydney	51	6.7	22	2.9	73	9.6
South Western Sydney	83	5.8	48	3.4	131	9.2
South Eastern Sydney	59	5.7	16	1.5	75	7.2
Illawarra Shoalhaven	15	3.3	9	2.0	24	5.3
Western Sydney	104	6.8	43	2.8	147	9.6
Nepean Blue Mountains	32	6.3	14	2.8	46	9.1
Northern Sydney	42	4.3	20	2.1	62	6.4
Central Coast	25	6.6	10	2.6	35	9.2
Hunter New England	77	7.2	42	3.9	119	11.2
Northern NSW	16	6.0	3	1.1	19	7.2
Mid North Coast	4	1.8	3	1.3	7	3.1
Southern NSW	8	5.6	2	1.4	10	7.0
Murrumbidgee	12	5.0	2	0.8	14	5.9
Western NSW	29	8.2	13	3.7	42	11.9
Far West	3	13.7	1	4.6	4	18.3
Other—not stated	7	-	4	-	11	-
TOTAL	567	6.0	252	2.6	819	8.6

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

^aNeonatal 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 2019

As expected, perinatal mortality rates increased with greater prematurity and lower birthweight. Of the 819 perinatal deaths in 2019, 490 (59.8%) occurred in extremely pre-term babies (less than 28 weeks) and 427 (52.1%) in babies that weighed less than 1,000 grams (Tables 101 and 102 respectively).

TABLE 101: GESTATIONAL AGE BY TYPE OF PERINATAL DEATH, NSW 2019^a

Gestational age (weeks)	Perinatal death type					
	Stillborn		Neonatal death		TOTAL	
	No.	Rate/1,000 births	No.	Rate/1,000 births	No.	Rate/1,000 births
<28	332	468.3	158	222.8	490	691.1
28–31	58	98.3	17	28.8	75	127.1
32–36	89	15.4	23	4.0	112	19.4
37–41	88	1.0	43	0.5	131	1.5
42+	0	0.0	2	3.2	2	3.2
Not stated	0	-	9	-	9	-
TOTAL	567	6.0	252	2.6	819	8.6

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

^aNeonatal 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 2019*

Birthweight (grams)	Perinatal death type					
	Stillborn		Neonatal death		TOTAL	
	No.	Rate/1,000 births	No.	Rate/1,000 births	No.	Rate/1,000 births
Less than 1,000	311	473.4	116	176.6	427	649.9
1,000–1,499	40	77.8	15	29.2	55	107.0
1,500–2,499	76	14.7	26	5.0	102	19.7
2,500–3,999	79	1.0	41	0.5	120	1.5
4,000+	2	0.2	4	0.5	6	0.7
Not stated	59	-	50	-	109	-
TOTAL	567	6.0	252	2.6	819	8.6

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 2019

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 2019, 30.5% of perinatal deaths were due to a congenital anomaly and 9.3% were due to spontaneous preterm labour or rupture of membranes, while 18.1% were unexplained antepartum deaths (Table 103).

Congenital abnormalities

In 2019, the most common causes of deaths due to congenital anomalies were conditions of the nervous system ($n=53$), followed by conditions of the cardiovascular system ($n=42$) and multiple congenital anomalies with no chromosomal or genetic cause ($n=35$). Twenty-nine deaths were associated with chromosomal anomalies and 5 with diaphragmatic hernia.

Perinatal infection

Of the 72 deaths classified as due to perinatal infection, 54 were associated with bacterial infection including 14 deaths due to group B streptococcal infection. There were 4 deaths associated with cytomegalovirus infection.

Hypertension

In 2019, there were 27 stillbirths and 7 neonatal deaths attributed to hypertension. Of these, 17 deaths were attributed to pre-eclampsia, 5 deaths to pre-eclampsia superimposed on chronic hypertension, 3 deaths to gestational hypertension and 3 deaths to chronic hypertension. The type of hypertension was unspecified in the remaining cases.

Antepartum haemorrhage

In 2019, there were 71 perinatal deaths that were attributed to antepartum haemorrhage. Of these, 43 were due to placental abruption, 5 were due to placenta praevia and the origin of the remaining 23 cases was not specified.

Maternal conditions

There were 33 perinatal deaths that were attributed to maternal conditions in 2019. Twenty-three perinatal deaths were attributed to diabetes and 4 were attributed to maternal sepsis.

Complications of multiple pregnancy

In 2019, there were 30 perinatal deaths that were attributed to complications of multiple pregnancy. Of these, 11 were due to twin-to-twin transfusion syndrome in monochorionic twins and 1 was due to selective fetal growth restriction in a higher order multiple pregnancy. Chorionicity was unknown among the remaining 18 cases.

Specific perinatal conditions

Antepartum cord or fetal vessel complications accounted for 28 of the 59 deaths that were attributed to specific perinatal conditions. The next most common conditions were other specified perinatal conditions ($n=15$), followed by fetomaternal haemorrhage ($n=7$), uterine abnormalities ($n=6$) and fetal antenatal haemorrhagic brain injury ($n=3$).

Hypoxic peripartum death

In 2019, there were 23 deaths classified as hypoxic peripartum death. Of these, 9 had evidence of significant fetal compromise (excluding other complications) and 1 was due to shoulder dystocia.

Placental dysfunction or causative placental pathology

In 2019, there were 6 deaths attributed to placental dysfunction or causative placental pathology.

Spontaneous preterm labour or rupture of membranes (<37 weeks gestation)

In 2019, there were 76 deaths attributed to spontaneous preterm birth with no other cause identified in the mother or baby. Among these, there were 36 cases with histological chorioamnionitis.

Unexplained antepartum fetal death

In 2019, there were 148 unexplained stillbirths, of which 118 (79.7%) were premature and 101 (68.2%) were low birthweight.

Neonatal death without obstetric antecedent

There were 17 perinatal deaths with no known obstetric antecedent in 2019.

TABLE 103: PERINATAL DEATHS BY PSANZ PERINATAL DEATH CLASSIFICATION AND TYPE OF PERINATAL DEATH, NSW 2019[#]

PSANZ-PDC Category [*]	Perinatal death type					
	Stillbirth		Neonatal death		TOTAL	
	No.	%	No.	%	No.	%
1 Congenital anomaly						
1.1 Structural anomaly						
1.11 Nervous system	43	7.6	10	4.0	53	6.5
1.12 Cardiovascular system	25	4.4	17	6.7	42	5.1
1.13 Genitourinary system	15	2.6	13	5.2	28	3.4
1.14 Gastrointestinal system	3	0.5	4	1.6	7	0.9
1.15 Musculoskeletal	20	3.5	6	2.4	26	3.2
1.16 Respiratory system [†]	2	0.4	1	0.4	3	0.4
1.18 Multiple congenital anomaly [‡]	25	4.4	10	4.0	35	4.3
1.19 Other congenital abnormality	17	3.0	9	3.6	26	3.2
TOTAL	150	26.5	70	27.8	220	26.9
1.2 Chromosomal anomaly						
1.21 Down syndrome (trisomy 21)	5	0.9	5	2.0	10	1.2
1.22 Edward syndrome and Patau syndrome (trisomy 18, trisomy 13)	5	0.9	2	0.8	7	0.9
1.24 Monosomies and deletions from the autosomes, not elsewhere classified [§]	3	0.5	0	0.0	3	0.4
1.25 Turner syndrome (monosomy X)	5	0.9	0	0.0	5	0.6
1.26 Other sex chromosome abnormalities [‡]	1	0.2	0	0.0	1	0.1
1.28 Other chromosomal abnormalities, not elsewhere specified [§]	1	0.2	2	0.8	3	0.4
TOTAL	20	3.5	9	3.6	29	3.5
1.3 Genetic anomaly						
1.32 Syndrome/association with demonstrated chromosomal/gene anomaly	1	0.2	0	0.0	1	0.1
TOTAL	1	0.2	0	0.0	1	0.1
TOTAL	171	30.2	79	31.3	250	30.5
2 Perinatal infection						
2.1 Bacterial						
2.11 Group B Streptococcus	13	2.3	1	0.4	14	1.7
2.12 E coli	9	1.6	6	2.4	15	1.8
2.18 Other bacterial	11	1.9	1	0.4	12	1.5
2.19 Unspecified bacterial	4	0.7	9	3.6	13	1.6
TOTAL	37	6.5	17	6.7	54	6.6
2.2 Viral						
2.21 Cytomegalovirus	4	0.7	0	0.0	4	0.5
2.23 Herpes simplex virus	0	0.0	1	0.4	1	0.1
2.24 Rubella virus	1	0.2	0	0.0	1	0.1
TOTAL	5	0.9	1	0.4	6	0.7
2.5 Fungal	2	0.4	0	0.0	2	0.2
2.8 Other specified organism	4	0.7	1	0.4	5	0.6
2.9 Other unspecified organism	4	0.7	1	0.4	5	0.6
TOTAL	52	9.2	20	7.9	72	8.8
3 Hypertension						
3.1 Chronic hypertension: essential	1	0.2	0	0.0	1	0.1
3.3 Chronic hypertension: unspecified	1	0.2	1	0.4	2	0.2
3.4 Gestational hypertension	1	0.2	2	0.8	3	0.4
3.5 Pre-eclampsia	13	2.3	4	1.6	17	2.1
3.6 Pre-eclampsia superimposed on chronic hypertension	5	0.9	0	0.0	5	0.6
3.9 Unspecified hypertension	6	1.1	0	0.0	6	0.7
TOTAL	27	4.8	7	2.8	34	4.2

(Continued on next page)

TABLE 103: (Continued)

PSANZ-PDC Category [*]	Perinatal death type					
	Stillbirth		Neonatal death		TOTAL	
	No.	%	No.	%	No.	%
4 Antepartum haemorrhage (APH)						
4.1 Placental abruption	30	5.3	13	5.2	43	5.3
4.2 Placenta praevia	2	0.4	3	1.2	5	0.6
4.9 APH of undetermined origin	7	1.2	16	6.3	23	2.8
TOTAL	39	6.9	32	12.7	71	8.7
5 Maternal conditions						
5.1 Termination of pregnancy for maternal psychosocial indications	3	0.5	0	0.0	3	0.4
5.2 Diabetes						
5.21 Gestational diabetes	11	1.9	5	2.0	16	2.0
5.22 Pre-existing diabetes	4	0.7	3	1.2	7	0.9
TOTAL	15	2.6	8	3.2	23	2.8
5.4 Maternal sepsis	2	0.4	2	0.8	4	0.5
5.8 Other specified maternal conditions						
5.88 Other specified maternal medical or surgical conditions	2	0.4	1	0.4	3	0.4
TOTAL	2	0.4	1	0.4	3	0.4
TOTAL	22	3.9	11	4.4	33	4.0
6 Complications of multiple pregnancy	23	4.1	7	2.8	30	3.7
7 Specific perinatal conditions						
7.1 Fetomaternal haemorrhage	4	0.7	3	1.2	7	0.9
7.2 Antepartum cord or fetal vessel complications ^{**}	28	4.9	0	0.0	28	3.4
7.3 Uterine abnormalities	2	0.4	4	1.6	6	0.7
7.5 Fetal antenatal intracranial injury	0	0.0	3	1.2	3	0.4
7.6 Other specific perinatal conditions	9	1.6	6	2.4	15	1.8
TOTAL	43	7.6	16	6.4	59	7.2
8 Hypoxic peripartum death						
8.1 With intrapartum complications (sentinel events)						
8.11 Uterine rupture	1	0.2	0	0.0	1	0.1
8.13 Shoulder dystocia	0	0.0	1	0.4	1	0.1
8.14 Complications of breech presentation	0	0.0	2	0.8	2	0.2
8.15 Birth trauma	1	0.2	0	0.0	1	0.1
8.16 Intrapartum haemorrhage	0	0.0	1	0.4	1	0.1
8.18 Other	0	0.0	1	0.4	1	0.1
TOTAL	2	0.4	5	2.0	7	0.9
8.2 Evidence of significant fetal compromise^{††}	1	0.2	8	3.2	9	1.1
8.9 Unspecified hypoxic peripartum death	2	0.4	5	2.0	7	0.9
TOTAL	5	0.9	18	7.1	23	2.8
9 Placental dysfunction or causative placental pathology	6	1.1	0	0.0	6	0.7
10 Spontaneous preterm labour or rupture of membranes (<37 weeks gestation)	31	5.5	45	17.9	76	9.3
11 Unexplained antepartum fetal death	148	26.1	0	0.0	148	18.1
12 Neonatal death without obstetric antecedent	0	0.0	17	6.7	17	2.1
TOTAL	567	100.0	252	100.0	819	100.0

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.^{*}PSANZ-PDC categories that were not assigned to any perinatal deaths in 2019 are not represented in the table.[†]Includes congenital pulmonary airway malformation (CPAM).[‡]No chromosomal/genetic cause or not tested.[§]Includes pathogenic deletions, for example, 22q11.2 deletion syndrome (diGeorge syndrome), Wolff-Hirschorn syndrome, Cri-du-chat syndrome.^{||}For example, Klinefelter syndrome.[¶]Includes Fragile X syndrome, imprinting syndromes, triploidy.^{**}Excludes monozygotic twins or higher order multiples.^{††}Excludes other complications.

Cause of perinatal death by hospital maternity service level 2019

Hospital maternity service levels are used to group hospitals with similar characteristics for comparative reporting and service planning purposes (see Explanatory notes). In 2019, 54.3% 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 (35.3%) 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 fetal deaths (15.5%) 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 2019[#]

PSANZ-PDC Major category	Maternity service level															
	Level 6		Level 5		Level 4		Level 3		Level 2		Public hospital [§]		Private hospitals		TOTAL NSW [*]	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1 Congenital anomaly	157	35.3	38	26.0	26	21.8	9	20.9	0	0.0	230	30.5	20	31.3	250	30.5
2 Perinatal infection	41	9.2	16	11.0	11	9.2	3	7.0	0	0.0	71	9.4	1	1.6	72	8.8
3 Hypertension	19	4.3	6	4.1	4	3.4	3	7.0	0	0.0	33	4.4	1	1.6	34	4.2
4 Antepartum haemorrhage (APH)	37	8.3	9	6.2	14	11.8	3	7.0	0	0.0	63	8.3	8	12.5	71	8.7
5 Maternal conditions	18	4.0	4	2.7	10	8.4	1	2.3	0	0.0	33	4.4	0	0.0	33	4.0
6 Complications of multiple pregnancy	18	4.0	4	2.7	1	0.8	2	4.7	0	0.0	25	3.3	5	7.8	30	3.7
7 Specific perinatal conditions	28	6.3	8	5.5	9	7.6	6	14.0	0	0.0	51	6.8	8	12.5	59	7.2
8 Hypoxic peripartum death	12	2.7	6	4.1	3	2.5	1	2.3	0	0.0	22	2.9	1	1.6	23	2.8
9 Placental dysfunction or causative placental pathology	1	0.2	1	0.7	3	2.5	1	2.3	0	0.0	6	0.8	0	0.0	6	0.7
10 Spontaneous preterm labour or rupture of membranes (<37 weeks gestation)	36	8.1	17	11.6	15	12.6	1	2.3	0	0.0	70	9.3	6	9.4	76	9.3
11 Unexplained antepartum fetal death	69	15.5	31	21.2	21	17.6	13	30.2	0	0.0	134	17.7	14	21.9	148	18.1
12 Neonatal death without obstetric antecedent	9	2.0	6	4.1	2	1.7	0	0.0	0	0.0	17	2.3	0	0.0	17	2.1
TOTAL	445	100.0	146	100.0	119	100.0	43	100.0	0	0.0	755	100.0	64	100.0	819	100.0

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 92 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 2019

In 2019, over a third (38.5%) of all neonatal deaths occurred among periviable infants; while 27.8% were associated with congenital anomalies (Table 105). Of the 252 neonatal deaths in 2019, 198 (78.6%) were born prematurely. Congenital anomalies accounted for the majority of deaths among babies born at 37-plus weeks gestation (44.4%), followed by neurological conditions (17.8%).

TABLE 105: NEONATAL DEATHS BY PSANZ NEONATAL DEATH CLASSIFICATION AND GESTATIONAL AGE, NSW 2019[#]

PSANZ-NDC Major category	Gestational age (weeks)					
	Less than 37		37+		TOTAL [*]	
	No.	%	No.	%	No.	%
1 Congenital anomaly	50	25.3	20	44.4	70	27.8
2 Periviable infants (typically <24 weeks)	96	48.5	0	0.0	97	38.5
3 Cardio-respiratory disorders	12	6.1	0	0.0	12	4.8
4 Neonatal infection	12	6.1	4	8.9	16	6.3
5 Neurological	17	8.6	8	17.8	25	9.9
6 Gastrointestinal	0	0.0	2	4.4	2	0.8
7 Other	11	5.6	11	24.4	30	11.9
TOTAL	198	100.0	45	100.0	252	100.0

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

- Perinatal Society of Australia and New Zealand. *Clinical Practice Guideline for Care Around Stillbirth and Neonatal Death, version 4.3, August 2020*. Available at <https://stillbirthcre.org.au/researchers-clinicians/download-resources/clinical-practice-guidelines-and-position-statements/>. Accessed 9 November 2021.

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 0 to 10 (10 being perfect). It takes account of 5 physical signs, each of which is assigned a component score of 0, 1 or 2: 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, 1 confinement will result in more than 1 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.

Neonatal death

The death of a liveborn baby within the first 28 days of life.

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 3rd 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 a 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 3 tick-box categories: breastfeeding, expressed breast milk and infant formula. More than 1 type of feeding may be reported by ticking multiple boxes. In this report, infant feeding is classified into 3 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 level

The maternity service levels for 2020 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.¹ This guide delineates the level of clinical services, not hospitals or health facilities as a whole.

The *GL2016_018 NSW Maternity and Neonatal Service Capability Framework* is used to guide services by identifying the scope of planned activity for each service capability level.² 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 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.³ For mothers aged over 18 years, the BMI score is classified using World Health Organization criteria.⁴ For mothers aged less than 18 years, modified BMI thresholds are used, as described by Cole et al.^{5,6} For more information see <https://www.healthstats.nsw.gov.au/assets/resources/maternal-oo.pdf>.

References

1. NSW Ministry of Health. *NSW Health Guide to the Role Delineation of Clinical Services*. Available at <https://www.health.nsw.gov.au/services/Publications/role-delineation-of-clinical-services.pdf>. Accessed 9 November 2021.
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5. Cole TJ, Flegal KM, Nicholls D, Jackson AA. *Body mass index cut offs to define thinness in children and adolescents: international survey*. BMJ 2007; 335(7612): 194. Available at <https://doi.org/10.1136/bmj.39238.399444.55>. Accessed 9 November 2021.
6. Cole TJ, Bellizzi MC, Flegal KM, Dietz WH. *Establishing a standard definition for child overweight and obesity worldwide: international survey*. BMJ. 2000; 320(7244): 1240-3. Available at <https://doi.org/10.1136/bmj.320.7244.1240>. Accessed 9 November 2021.

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

English speaking

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

Melanesia, Micronesia & Polynesia

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

Southern Europe

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

Western and Northern Europe

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

Eastern Europe, Russia and Central Asian States

Afghanistan
Armenia
Azerbaijan
Belarus

Czech Republic
Estonia
Georgia
Hungary
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Poland
Russian Federation
Slovakia
Tajikistan
Turkmenistan
Ukraine
Uzbekistan

Middle East and Africa

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

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

South East Asia

Brunei Darussalam
Cambodia
Indonesia
Laos
Malaysia

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

North East Asia

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

Southern Asia

Bangladesh
Bhutan
India
Maldives
Nepal
Pakistan
Sri Lanka

Central and South America

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

Dominica
Dominican Republic
Ecuador
El Salvador
Falkland Islands
French Guiana
Grenada
Guadeloupe
Guatemala
Guyana
Haiti
Honduras
Jamaica
Martinique
Mexico
Montserrat
Nicaragua
Panama
Paraguay
Peru
Puerto Rico
Sint Maarten (Dutch part)
South America, NEC*
St Barthelemy
St Kitts and Nevis
St Lucia
St Martin (French part)
St Vincent and the Grenadines
Suriname
Trinidad and Tobago
Turks and Caicos Islands
Uruguay
Venezuela, Bolivarian Republic of
Virgin Islands, British
Virgin Islands, United States

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



