

NSW Mothers and Babies 2021

Report

14 June 2023

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1. Acknowledgements

NSW Perinatal Data Collection

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NSW hospitals' midwives and independent midwives

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Maternal death reviews

NSW Maternal and Perinatal Mortality Review Committee

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2. Report at a Glance

2021 Profile of Mothers and Babies

Mothers

31.3 years

was the average age

5.1%

were Aboriginal or Torres Strait Islander

73.9%

lived in metropolitan local health districts

63.3%

were born in Australia

Babies

92.0%

were born at term (37-41 weeks)

Babies sex

48.5% female, **51.5%** male

92.2%

had a healthy birthweight (2,500–4,999 grams)

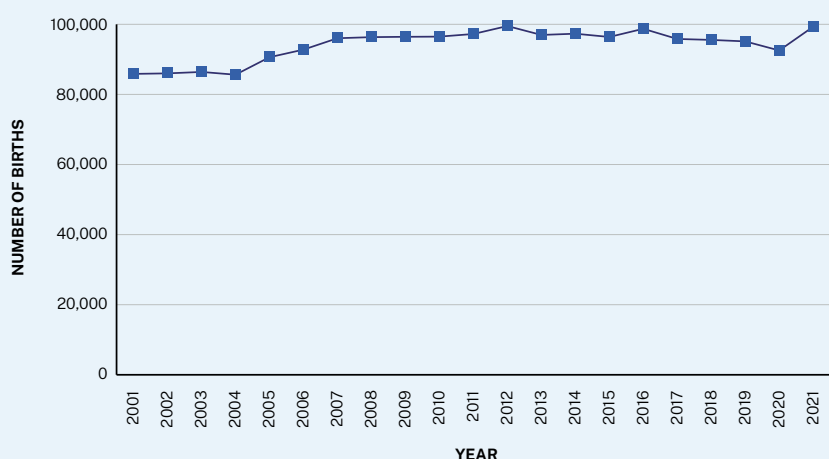
8.4 per 1,000

babies died (77.0% stillbirths and 23.0% neonatal deaths)

In 2021



99,316
births



27.4%

of mothers were aged 35 years and over

▲ from 23.6% in 2012



37.6%

caesarean section rate

▲ from 31.1% in 2012



80.1%

had antenatal care in first trimester

▲ from 61.2% in 2012



Smoked during pregnancy

All mothers
7.9%

Aboriginal and Torres Strait Islander mothers
39.5%



30.4% of mothers were residents of 2 Local Health Districts

South Western Sydney
15.0%

Western Sydney
15.4%



43.0%

of mothers were overweight or obese

26.9%
overweight

16.1%
obese

3. Executive Summary

This is the twenty-fourth annual report on Mothers and Babies in NSW. The key findings are:

- The number of births in NSW increased from 95,825 in 2017 to 99,316 in 2021, an overall increase of 3.6%. The number of births had been declining in the intervening years.
- In 2021, 43.0% of mothers were overweight or obese: 54.0% of mothers were in the healthy weight range, 26.9% were overweight and 16.1% were obese.
- The percentage of mothers that reported any smoking during pregnancy has remained stable in recent years at around 8–9%. Of mothers who smoked during pregnancy in 2021, 25.3% stopped smoking in the first half of pregnancy.
- The percentage of mothers who were teenagers fell from 2.0% in 2017 to 1.4% in 2021. Over the same period the percentage of mothers aged 35 years and over rose from 24.7% to 27.4%.
- The rate of normal vaginal birth decreased from 54.5% in 2017 to 50.7% in 2021. The caesarean section rate increased from 33.8% to 37.6% 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 43.2% in 2017 to 39.0% in 2021 and the caesarean section rate increased from 43.5% to 48.3%. Among publicly insured mothers the rate of normal vaginal birth decreased from 60.4% to 55.8% and the caesarean section rate increased from 28.6% to 33.2%.
- In 2021, the majority of mothers planned to give birth in a hospital labour ward, and 6.3% of mothers planned to give birth in a birth centre. Of mothers who planned to give birth in a birth centre, 48.6% actually did so. The total number of reported planned homebirths increased from 239 in 2017 to 581 in 2021, and the percentage of planned homebirths that occurred at home increased from 82.8% in 2017 to 86.4% in 2021.
- The percentage of babies born prematurely (less than 37 weeks gestation) has been stable for the last 5 years. In 2021, 7.2% 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 2021, 6.4% of babies were low birthweight.
- Between 2017 and 2021, the reported number of Aboriginal or Torres Strait Islander mothers giving birth increased from 4,183 to 5,203, an increase from 4.4% to 5.1% of all mothers.
- The percentage of Aboriginal or Torres Strait Islander mothers who were teenagers decreased from 12.3% in 2017 to 8.8% in 2021. The percentage of Aboriginal or Torres Strait Islander mothers giving birth at 35 years of age or more has increased slightly from 9.6% in 2017 to 10.9% in 2021.
- In 2021, 39.5% of Aboriginal or Torres Strait Islander mothers reported smoking at some time during pregnancy, compared to 42.4% in 2017.
- In 2021, 11.2% of Aboriginal or Torres Strait Islander babies were low birthweight and 11.2% were premature.
- The perinatal mortality rate of 12.7 per 1,000 births in Aboriginal or Torres Strait Islander mothers in 2021 is higher than the rate of 8.3 per 1,000 births experienced among babies born to non-Aboriginal or Torres Strait Islander mothers.
- In 2020, there were 662 stillbirths and 221 neonatal deaths recorded on the Maternal and Child Health Register. The most common cause of perinatal death was congenital anomalies (32.4%), followed by spontaneous preterm labour or rupture of membranes (10.2%). About a third (33.9%) of all neonatal deaths occurred among periviable infants; while 31.7% were associated with congenital anomalies.

4. 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 2021, the largest source of PDC records was eMaternity, which supplied 57.9% of all PDC records. Cerner systems supplied 17.8% of PDC records (public hospitals in Sydney and South Western Sydney Local Health Districts). 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 8.1% of all PDC records. Healthscope Hospitals (Prince of Wales Private Hospital, Norwest Private Hospital, Sydney South West Private Hospital, Nepean Private Hospital, and Newcastle Private Hospital) supplied 7.1% of PDC records. The Mater Hospital, North Sydney, database supplied 2.4% of PDC records, 2.3% of PDC records were supplied from the Sydney Adventist Hospital database and 2.2% 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 *Public Health Act 2010* (NSW). 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. This means the variable 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 contributes 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 “missing”.

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

The Maternal and Child Health Register linkage is updated regularly for all years of data. Reported numbers of Aboriginal mothers and babies according to ERA for a particular birth year 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 *Health Administration Act 1982* (NSW) 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.

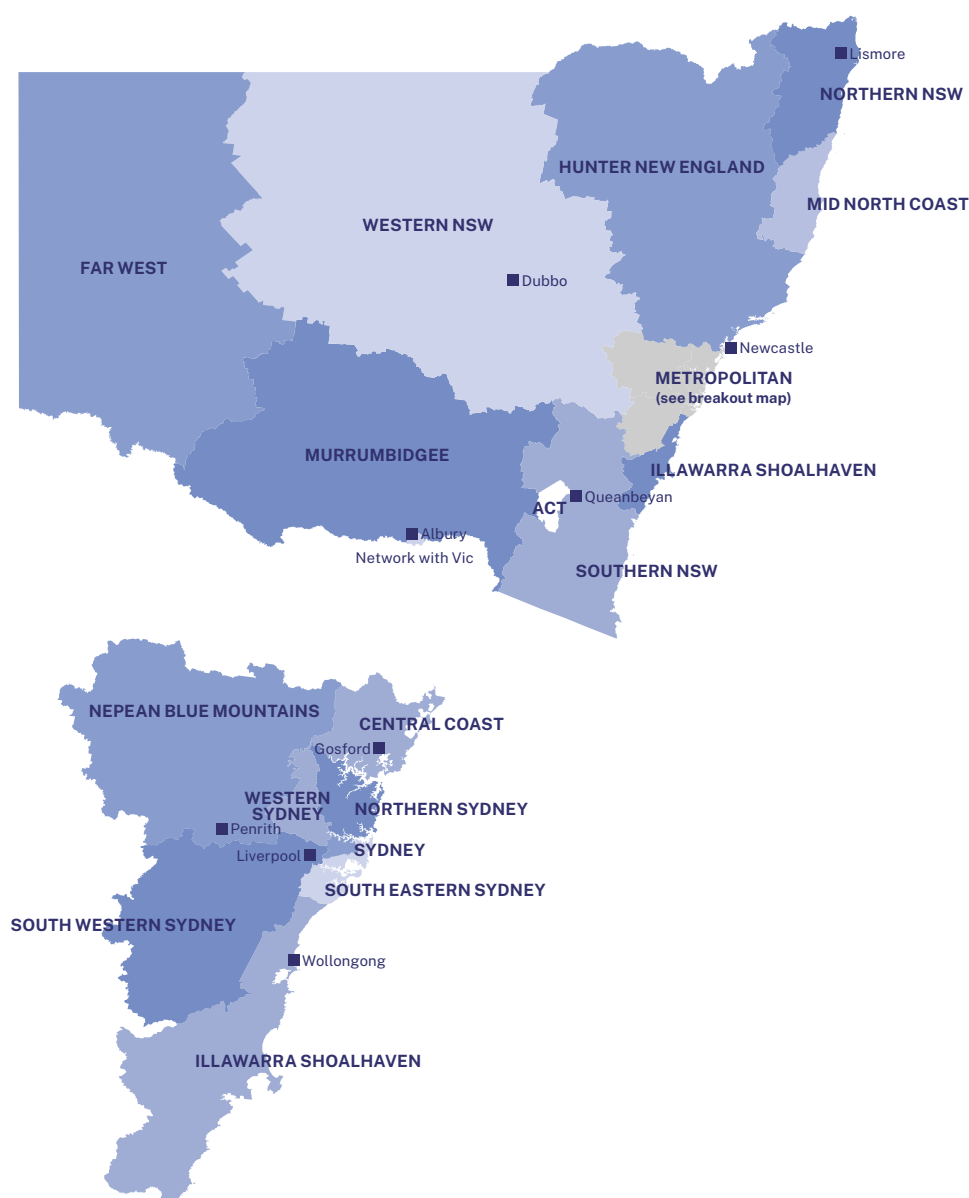
Reporting on perinatal causes of death in 2020

Information on causes of death were obtained from the NSW Maternal and Child Health Register (MCHR) for 2020. 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 both the mother's and baby's Admitted Patient Data Collection (APDC) record for the birth were used to classify the perinatal cause of death to the Perinatal Society of Australia and New Zealand (PSANZ) Perinatal Death Classification.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 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.

Map of NSW Local Health Districts



References

1. NSW Ministry of Health. *NSW Perinatal Data Collection (PDC) Reporting and Submission Requirements from 1 January 2016*. Available at https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2015_025.pdf. Accessed 31 January 2023.
2. Population and Public Health Division. *Improved reporting of Aboriginal and Torres Strait Islander peoples on population datasets in New South Wales using record linkage – a feasibility study*. Sydney: NSW Ministry of Health, 2012. Available at <https://www.health.nsw.gov.au/hsnsw/Publications/atsi-data-linkage-report.pdf>. Accessed 31 January 2023.
3. 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://stillbirthcare.org.au/researchers-clinicians/download-resources/clinical-practice-guidelines-and-position-statements/>. Accessed 31 January 2023.

5. Trends in New South Wales

Confinements and births by plurality

The number of births in NSW increased from 95,825 in 2017 to 99,316 in 2021. The number of births had been declining in the last 10 years, but the number of births in 2021 were similar to the number of births in 2012. In 2021, 99,316 births to 98,006 mothers were reported (Table 1). The percentage of multiple (twin, triplet and quadruplet) pregnancies was similar to recent years at 1.3%.

TABLE 1: PLURALITY, NSW 2012 (10 YEARS AGO) AND 2017–2021

Plurality	10 Years Ago				Year							
	2012		2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Confinements												
Singleton	96793	98.6	93098	98.6	92805	98.6	92406	98.6	89961	98.6	96720	98.7
Twins	1327	1.4	1326	1.4	1348	1.4	1330	1.4	1258	1.4	1263	1.3
Triplets	21	0.0	25	0.0	17	0.0	21	0.0	20	0.0	22	0.0
Quadruplets	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0	1	0.0
TOTAL	98141	100.0	94449	100.0	94170	100.0	93758	100.0	91240	100.0	98006	100.0
Births												
Singleton	96793	97.3	93098	97.2	92805	97.1	92406	97.1	89961	97.2	96720	97.4
Twins	2654	2.7	2652	2.8	2696	2.8	2660	2.8	2516	2.7	2526	2.5
Triplets	63	0.1	75	0.1	51	0.1	63	0.1	60	0.1	66	0.1
Quadruplets	0	0.0	0	0.0	0	0.0	4	0.0	4	0.0	4	0.0
TOTAL	99510	100.0	95825	100.0	95552	100.0	95133	100.0	92541	100.0	99316	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 increases in mothers giving birth occurred in the Illawarra Shoalhaven and Northern NSW Local Health Districts, where the number increased by 12.1% and 12.0% respectively between 2017 and 2021. The largest decreases occurred in the Sydney and Far West Local Health Districts, where the number decreased by 3.9% between 2017 and 2021. In 2021, 30.4% of mothers giving birth were residents in the South Western Sydney and Western Sydney Local Health Districts, similar to previous years (Table 2). The distribution of births across Local Health Districts has not changed in the last 10 years, with the percentage of births in each Local Health District similar in 2021 compared to 2012.

TABLE 2: MATERNAL LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2012 (10 YEARS AGO) AND 2017–2021

Local Health District	10 Years Ago				Year							
	2012		2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	8769	8.9	8008	8.5	7725	8.2	7501	8.0	7088	7.8	7693	7.8
South Western Sydney	13176	13.4	13554	14.4	14258	15.1	14054	15.0	14046	15.4	14657	15.0
South Eastern Sydney	11878	12.1	10644	11.3	10216	10.8	10243	10.9	9663	10.6	10900	11.1
Illawarra Shoalhaven	4476	4.6	4475	4.7	4584	4.9	4486	4.8	4529	5.0	5016	5.1
Western Sydney	14601	14.9	14479	15.3	14982	15.9	15046	16.0	14635	16.0	15141	15.4
Nepean Blue Mountains	4788	4.9	4908	5.2	4878	5.2	5000	5.3	4887	5.4	5119	5.2
Northern Sydney	10653	10.9	10146	10.7	9659	10.3	9557	10.2	9048	9.9	9984	10.2
Central Coast	3823	3.9	3832	4.1	3834	4.1	3731	4.0	3753	4.1	3962	4.0
Hunter New England	11328	11.5	10543	11.2	10407	11.1	10480	11.2	10242	11.2	11221	11.4
Northern NSW	2786	2.8	2526	2.7	2623	2.8	2611	2.8	2523	2.8	2830	2.9
Mid North Coast	2243	2.3	2163	2.3	2096	2.2	2207	2.4	2075	2.3	2282	2.3
Southern NSW	1450	1.5	1363	1.4	1403	1.5	1432	1.5	1405	1.5	1468	1.5
Murrumbidgee	2402	2.4	2345	2.5	2390	2.5	2365	2.5	2378	2.6	2514	2.6
Western NSW	3879	4.0	3581	3.8	3524	3.7	3460	3.7	3425	3.8	3895	4.0
Far West	255	0.3	205	0.2	196	0.2	217	0.2	183	0.2	197	0.2
Other—not stated	1634	1.7	1677	1.8	1395	1.5	1368	1.5	1360	1.5	1127	1.1
TOTAL	98141	100.0	94449	100.0	94170	100.0	93758	100.0	91240	100.0	98006	100.0

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

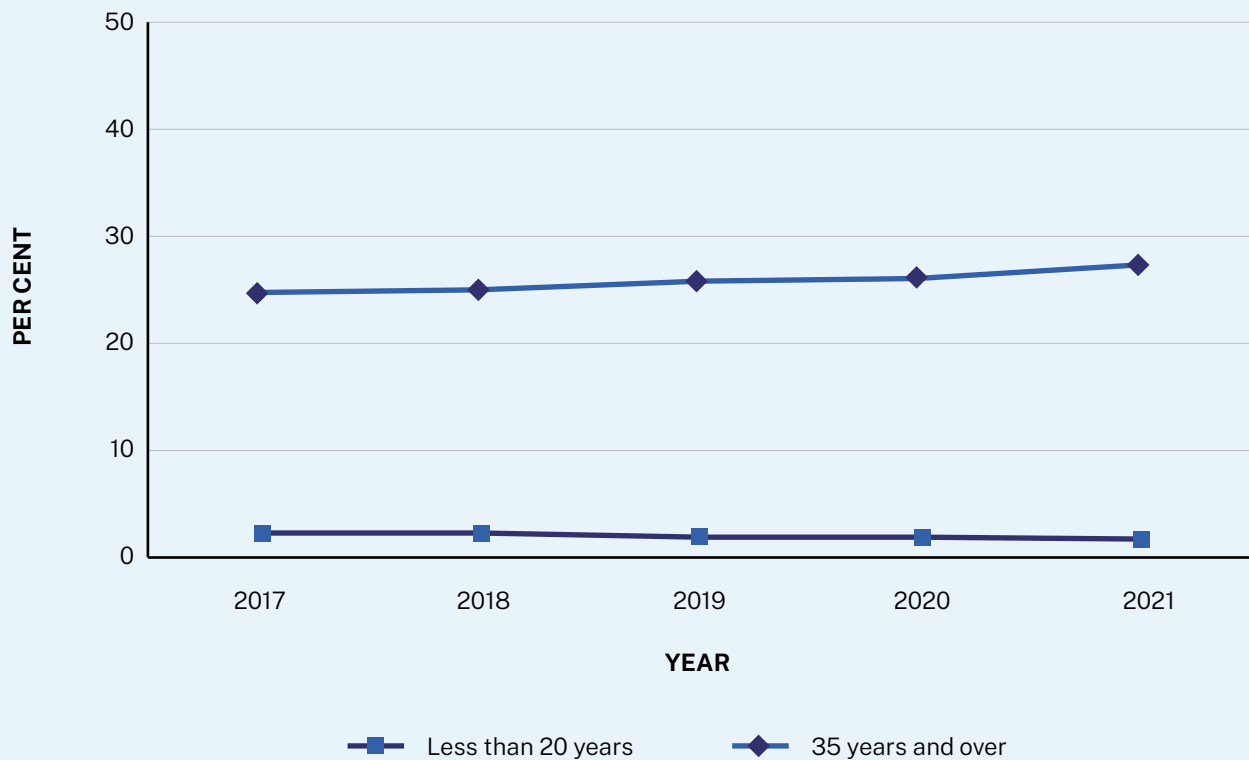
Maternal age

The percentage of mothers who were teenagers fell from 2.0% in 2017 to 1.4% in 2021. Between 2017 and 2021, the percentage of mothers aged 35 years and over rose from 24.7% to 27.4% (Figure 1, Table 3). These trends have been consistent over the last 10 years, with the percentage of mothers who were teenagers falling from 3.2% and the percentage of mothers aged 35 years or over increasing from 23.6% in 2012.

The mean maternal age rose from 30.7 to 31.3 years between 2017 and 2021. The mean maternal age rose from 29.4 to 30.0 years for primiparous mothers and rose from 31.8 to 32.3 years for multiparous mothers.

The percentage of mothers giving birth for the first time who were aged 35 years or more was 16.6% in 2017 and 18.7% in 2021. The percentage of multiparous mothers who were aged 35 years or more was 30.8% in 2017 and 34.0% in 2021.

FIGURE 1: MOTHERS AGED LESS THAN 20 YEARS AND 35 YEARS AND OVER, NSW 2017–2021



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

TABLE 3: MATERNAL AGE, NSW 2012 (10 YEARS AGO) AND 2017–2021

Maternal age (years)	10 Years Ago				Year							
	2012		2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Less than 15	18	0.0	8	0.0	9	0.0	9	0.0	9	0.0	10	0.0
15–19	3144	3.2	1859	2.0	1783	1.9	1595	1.7	1423	1.6	1347	1.4
20–24	12694	12.9	10541	11.2	9971	10.6	9833	10.5	9101	10.0	8899	9.1
25–29	26769	27.3	25036	26.5	24581	26.1	24080	25.7	23103	25.3	24145	24.6
30–34	32385	33.0	33642	35.6	34129	36.2	33951	36.2	33632	36.9	36757	37.5
35–39	18534	18.9	19043	20.2	19320	20.5	19801	21.1	19585	21.5	22080	22.5
40–44	4314	4.4	4011	4.2	4022	4.3	4153	4.4	4068	4.5	4530	4.6
45+	269	0.3	285	0.3	339	0.4	329	0.4	287	0.3	223	0.2
Not stated	14	0.0	24	0.0	16	0.0	7	0.0	32	0.0	15	0.0
TOTAL	98141	100.0	94449	100.0	94170	100.0	93758	100.0	91240	100.0	98006	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 increased slightly from 61.6% in 2017 to 63.3% in 2021. In 2021, mothers born in India, China, the United Kingdom, New Zealand, the Philippines, Nepal, Vietnam, Iraq and Pakistan together accounted for 19.7% of all mothers (Table 4).

TABLE 4: MATERNAL COUNTRY OF BIRTH, NSW 2017–2021[#]

Country of birth	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Australia	58187	61.6	58189	61.8	57690	61.5	56692	62.1	62041	63.3
India	4393	4.7	4489	4.8	4654	5.0	4851	5.3	4889	5.0
China	4385	4.6	3920	4.2	4151	4.4	3254	3.6	3125	3.2
United Kingdom	1805	1.9	1817	1.9	1907	2.0	1810	2.0	2339	2.4
New Zealand	2008	2.1	1905	2.0	1795	1.9	1711	1.9	1824	1.9
Philippines	1624	1.7	1727	1.8	1734	1.8	1714	1.9	1818	1.9
Nepal	1094	1.2	1283	1.4	1360	1.5	1601	1.8	1684	1.7
Vietnam	1391	1.5	1393	1.5	1462	1.6	1222	1.3	1334	1.4
Iraq	1112	1.2	1195	1.3	1145	1.2	1182	1.3	1193	1.2
Pakistan	992	1.1	1098	1.2	1106	1.2	1187	1.3	1110	1.1
Bangladesh	943	1.0	911	1.0	917	1.0	911	1.0	871	0.9
Lebanon	1049	1.1	1052	1.1	967	1.0	913	1.0	845	0.9
Indonesia	749	0.8	733	0.8	685	0.7	603	0.7	664	0.7
Ireland	476	0.5	563	0.6	503	0.5	500	0.5	662	0.7
United States of America	555	0.6	597	0.6	584	0.6	574	0.6	640	0.7
South Korea	745	0.8	692	0.7	696	0.7	625	0.7	606	0.6
South Africa	572	0.6	618	0.7	570	0.6	568	0.6	601	0.6
Thailand	563	0.6	562	0.6	576	0.6	529	0.6	544	0.6
Brazil	354	0.4	395	0.4	474	0.5	492	0.5	528	0.5
Iran	531	0.6	533	0.6	484	0.5	470	0.5	512	0.5
Hong Kong	515	0.5	452	0.5	504	0.5	455	0.5	502	0.5
Malaysia	447	0.5	469	0.5	441	0.5	427	0.5	471	0.5
Sri Lanka	484	0.5	467	0.5	422	0.5	452	0.5	452	0.5
Afghanistan	471	0.5	455	0.5	496	0.5	466	0.5	441	0.4
Fiji	486	0.5	480	0.5	431	0.5	406	0.4	413	0.4
Canada	279	0.3	320	0.3	300	0.3	239	0.3	313	0.3
Japan	348	0.4	362	0.4	330	0.4	293	0.3	311	0.3
France	256	0.3	259	0.3	264	0.3	260	0.3	301	0.3
Germany	306	0.3	303	0.3	268	0.3	262	0.3	290	0.3
Syria	258	0.3	314	0.3	307	0.3	320	0.4	275	0.3
Colombia	148	0.2	188	0.2	185	0.2	197	0.2	235	0.2
Russian Federation	248	0.3	233	0.2	241	0.3	235	0.3	229	0.2
Taiwan	224	0.2	216	0.2	226	0.2	208	0.2	222	0.2
Egypt	274	0.3	256	0.3	271	0.3	251	0.3	220	0.2
Western Samoa	232	0.2	224	0.2	240	0.3	206	0.2	200	0.2
Italy	169	0.2	137	0.1	145	0.2	158	0.2	197	0.2
Mongolia	85	0.1	129	0.1	172	0.2	208	0.2	191	0.2
Sudan	208	0.2	177	0.2	193	0.2	165	0.2	173	0.2
Poland	186	0.2	191	0.2	190	0.2	157	0.2	171	0.2
Cambodia	269	0.3	208	0.2	220	0.2	193	0.2	165	0.2
Singapore	124	0.1	148	0.2	118	0.1	131	0.1	148	0.2
Saudi Arabia	153	0.2	146	0.2	129	0.1	155	0.2	142	0.1
Turkey	152	0.2	166	0.2	171	0.2	132	0.1	136	0.1
Chile	125	0.1	124	0.1	119	0.1	122	0.1	134	0.1
Sweden	92	0.1	78	0.1	86	0.1	80	0.1	130	0.1
Tonga	139	0.1	147	0.2	133	0.1	138	0.2	126	0.1
Bosnia and Herzegovina	142	0.2	132	0.1	127	0.1	110	0.1	125	0.1
Jordan	125	0.1	110	0.1	123	0.1	110	0.1	125	0.1
Nigeria	105	0.1	165	0.2	140	0.1	135	0.1	122	0.1
Former Yugoslavia	121	0.1	104	0.1	113	0.1	115	0.1	116	0.1
Argentina	80	0.1	86	0.1	83	0.1	85	0.1	111	0.1

(Continued on next page)

Table 4: (Continued)

Country of birth	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Zimbabwe	98	0.1	106	0.1	110	0.1	115	0.1	111	0.1
Burma (Myanmar)	143	0.2	124	0.1	136	0.1	111	0.1	103	0.1
Netherlands	104	0.1	84	0.1	94	0.1	79	0.1	102	0.1
Other–Not stated	3325	3.5	2938	3.1	2770	3.0	2655	2.9	2673	2.7
TOTAL	94449	100.0	94170	100.0	93758	100.0	91240	100.0	98006	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 2021.

Aboriginal and Torres Strait Islander mothers

The reported number of Aboriginal or Torres Strait Islander mothers giving birth increased from 4,183 to 5,023 between 2017 and 2021, an increase from 4.4% to 5.1% of all mothers (Table 5). Further information on Aboriginal and Torres Strait Islander mothers and babies is shown in Chapter 9.

TABLE 5: ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS, NSW 2017–2021

Mother's Aboriginality	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander	4183	4.4	4213	4.5	4416	4.7	4506	4.9	5023	5.1
Non-Aboriginal or Torres Strait Islander	89836	95.1	89671	95.2	88957	94.9	85951	94.2	91842	93.7
Not stated	430	0.5	286	0.3	385	0.4	783	0.9	1141	1.2
TOTAL	94449	100.0	94170	100.0	93758	100.0	91240	100.0	98006	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 43.5% of mothers giving birth for the first time and 56.5% of mothers giving birth to a subsequent baby (Table 6).

TABLE 6: PREVIOUS PREGNANCIES, NSW 2017–2021

No. previous pregnancies (>20 weeks gestation)	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
0	40469	42.8	40362	42.9	40376	43.1	39707	43.5	42680	43.5
1–4	52447	55.5	52403	55.6	52072	55.5	50243	55.1	54028	55.1
5+	1387	1.5	1323	1.4	1302	1.4	1226	1.3	1246	1.3
Not stated	146	0.2	82	0.1	8	0.0	64	0.1	52	0.1
TOTAL	94449	100.0	94170	100.0	93758	100.0	91240	100.0	98006	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 2017 and 2021, the percentage of mothers starting antenatal care at less than 14 weeks gestation substantially increased from 73.1% to 80.1% (Table 7). This was also a substantial increase from 10 years ago, compared to 61.2% in 2012. In 2021, 92.9% of mothers commenced antenatal care at less than 20 weeks gestation.

TABLE 7: DURATION OF PREGNANCY AT FIRST ANTENATAL VISIT, NSW 2012 (10 YEARS AGO) AND 2017–2021

Duration of pregnancy (weeks)	10 Years Ago						Year					
	2012		2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
0–13	60051	61.2	69062	73.1	73110	77.6	74652	79.6	73010	80.0	78542	80.1
14–19	21489	21.9	16473	17.4	13546	14.4	12318	13.1	11936	13.1	12476	12.7
20+	14063	14.3	8324	8.8	6932	7.4	6111	6.5	5497	6.0	6072	6.2
Not stated	2538	2.6	590	0.6	582	0.6	677	0.7	797	0.9	916	0.9
TOTAL	98141	100.0	94449	100.0	94170	100.0	93758	100.0	91240	100.0	98006	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 8–9% (Table 8). However, the percentage has reduced slightly from 10.4% in 2012. In 2021, 7.9% of mothers reported any smoking during pregnancy. Of those mothers who smoked during pregnancy in 2021, 25.3% stopped smoking in the first half of pregnancy (Table 9). This was similar to the percentage in 2012, when 25.1% stopped smoking in the first half of pregnancy.

TABLE 8: SMOKING IN PREGNANCY, NSW 2012 (10 YEARS AGO) AND 2017–2021

Smoking in pregnancy	10 Years Ago						Year					
	2012		2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Did not smoke	87580	89.2	85189	90.2	84518	89.8	84736	90.4	82535	90.5	88758	90.6
Smoked	10225	10.4	8279	8.8	8563	9.1	8257	8.8	7887	8.6	7780	7.9
Not stated	336	0.3	981	1.0	1089	1.2	765	0.8	818	0.9	1468	1.5
TOTAL	98141	100.0	94449	100.0	94170	100.0	93758	100.0	91240	100.0	98006	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 2012 (10 YEARS AGO) AND 2017–2021

Cigarettes smoked in the second half of pregnancy	10 Years Ago						Year					
	2012		2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
None	2562	25.1	2053	24.8	1626	19.0	1570	19.0	1676	21.3	1969	25.3
1–10 per day	5439	53.2	5090	61.5	5796	67.7	5700	69.0	5288	67.0	5037	64.7
> 10 per day	1849	18.1	1012	12.2	1006	11.7	886	10.7	817	10.4	673	8.7
Smoked, amount not stated	363	3.6	13	0.2	1	0.0	1	0.0	0	0.0	0	0.0
Not stated	12	0.1	111	1.3	134	1.6	100	1.2	106	1.3	101	1.3
TOTAL	10225	100.0	8279	100.0	8563	100.0	8257	100.0	7887	100.0	7780	100.0

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

Place of birth

In 2021, the majority of mothers planned to give birth in a hospital labour ward, and 6.3% 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 67.9% in 2017 to 48.6% in 2021. The total number of reported planned homebirths increased from 239 in 2017 to 581 in 2021, and the percentage of planned homebirths that occurred at home increased from 82.8% in 2017 to 86.4% in 2021 (Table 10).

TABLE 10: MATERNAL PLACE OF BIRTH, NSW 2017–2021

Place of birth	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Hospital	87687	92.8	84030	89.2	85560	91.3	83829	91.9	90574	92.4
Birth centre	4043	4.3	5351	5.7	4103	4.4	3272	3.6	3011	3.1
Planned birth centre–hospital admission	1913	2.0	3861	4.1	3282	3.5	3229	3.5	3185	3.2
Planned homebirth	198	0.2	235	0.2	237	0.3	278	0.3	502	0.5
Planned homebirth–hospital admission	41	0.0	66	0.1	49	0.1	63	0.1	79	0.1
Born before arrival	544	0.6	539	0.6	505	0.5	550	0.6	647	0.7
Not stated	23	0.0	88	0.1	22	0.0	19	0.0	8	0.0
TOTAL	94449	100.0	94170	100.0	93758	100.0	91240	100.0	98006	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 13.1% in 2017 to 14.8% in 2021. The rate of pre-existing diabetes mellitus was around 0.9% (Table 11) over the 5-year period.

TABLE 11: MATERNAL DIABETES, NSW 2017–2021

Condition	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Pre-existing diabetes mellitus	900	1.0	804	0.9	869	0.9	764	0.8	884	0.9
Type 1	256	0.3	232	0.2	292	0.3	238	0.3	273	0.3
Type 2	377	0.4	424	0.5	428	0.5	430	0.5	482	0.5
Gestational diabetes mellitus	12375	13.1	12893	13.7	13020	13.9	12686	13.9	14518	14.8
TOTAL DIABETES*	13275	14.1	13697	14.5	13889	14.8	13450	14.7	15402	15.7

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 2021, the overall rate of hypertension in pregnancy was 5.0%. Around 1.7% of mothers developed pre-eclampsia, 2.4% developed gestational hypertension, and 1.1% had pre-existing hypertension. This pattern is similar to previous years (Table 12).

TABLE 12: MATERNAL HYPERTENSION, NSW 2017–2021

Condition	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Chronic hypertension	694	0.7	761	0.8	845	0.9	864	0.9	1060	1.1
Pre-eclampsia	1352	1.4	1333	1.4	1385	1.5	1444	1.6	1629	1.7
Eclampsia	35	0.0	34	0.0	49	0.1	34	0.0	42	0.0
Gestational hypertension	2592	2.7	2258	2.4	2399	2.6	2324	2.5	2390	2.4
TOTAL HYPERTENSION*	4526	4.8	4193	4.5	4469	4.8	4490	4.9	4887	5.0

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 46.3% in 2017 to 40.2% in 2021 and the rate of induction of labour rose from 32.3% in 2016 to 35.5% in 2021 (Table 13). The most common reported reason for induction of labour in 2021 was diabetes (14.4%), followed by prelabour rupture of membranes (13.0%), prolonged pregnancy (41 or more weeks) (9.6%), fetal distress (6.8%), hypertensive disease (5.4%), suspected intrauterine growth restriction (5.2%), fetal death (0.5%) and chorioamnionitis (0.2%).

TABLE 13: ONSET AND AUGMENTATION OF LABOUR, NSW 2017–2021

Onset of labour	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Spontaneous	31411	33.3	29513	31.3	28782	30.7	26701	29.3	28287	28.9
Spontaneous augmented with ARM	5286	5.6	4858	5.2	4640	4.9	4225	4.6	4421	4.5
Spontaneous augmented with oxytocics [†]	7060	7.5	7078	7.5	6920	7.4	6514	7.1	6704	6.8
No labour	20132	21.3	20951	22.2	21255	22.7	21256	23.3	23732	24.2
Induced–oxytocics/prostaglandins	10473	11.1	12040	12.8	12025	12.8	11730	12.9	12191	12.4
Induced–ARM only	2797	3.0	2437	2.6	2561	2.7	2276	2.5	2413	2.5
Induced–ARM + oxytocics/prostaglandins	16957	18.0	16872	17.9	17119	18.3	17865	19.6	19676	20.1
Induced–other [‡]	266	0.3	396	0.4	441	0.5	651	0.7	534	0.5
Not stated	67	0.1	25	0.0	15	0.0	22	0.0	48	0.0
TOTAL	94449	100.0	94170	100.0	93758	100.0	91240	100.0	98006	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 54.5% in 2017 to 50.7% in 2021 (Table 14). The caesarean section rate increased from 33.8% to 37.6%. The elective caesarean section rate increased from 21.3% to 24.2% while the emergency 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%. These trends have been consistent over the last 10 years, with the rate of normal vaginal birth decreasing from 57.1%, the caesarean section rate increasing from 31.1% and the elective caesarean section rate increasing from 18.6% in 2012.

Operative and instrumental births are more common among privately than publicly insured mothers (Table 15). Among privately insured mothers the rate of normal vaginal birth decreased from 43.2% in 2017 to 39.0% in 2021 and the caesarean section rate increased from 43.5% to 48.3%. Among publicly insured mothers the rate of normal vaginal birth decreased from 60.4% in 2017 to 55.8% in 2021 and the caesarean section rate increased from 28.6% to 33.2%.

TABLE 14: TYPE OF BIRTH, NSW 2012 (10 YEARS AGO) AND 2017–2021

Type of birth	10 Years Ago				Year							
	2012		2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Normal vaginal	55993	57.1	51434	54.5	50451	53.6	49716	53.0	46831	51.3	49644	50.7
Forceps	4192	4.3	4435	4.7	4386	4.7	4208	4.5	4180	4.6	4235	4.3
Vacuum extraction	6981	7.1	6338	6.7	6549	7.0	6612	7.1	6459	7.1	6910	7.1
Vaginal breech	399	0.4	336	0.4	333	0.4	328	0.3	324	0.4	321	0.3
Elective caesarean section	18253	18.6	20115	21.3	20951	22.2	21255	22.7	21256	23.3	23732	24.2
Emergency caesarean section [†]	12305	12.5	11764	12.5	11498	12.2	11639	12.4	12190	13.4	13163	13.4
Not stated	18	0.0	27	0.0	2	0.0	0	0.0	0	0.0	1	0.0
TOTAL	98141	100.0	94449	100.0	94170	100.0	93758	100.0	91240	100.0	98006	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 2017–2021[#]

Insurance status–Type of birth	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Public										
Normal vaginal	36937	60.4	36817	59.0	36454	58.8	34993	56.7	36615	55.8
Forceps	2915	4.8	2928	4.7	2820	4.6	2870	4.7	2875	4.4
Vacuum extraction	3539	5.8	3768	6.0	3731	6.0	3831	6.2	4137	6.3
Vaginal breech	260	0.4	262	0.4	261	0.4	271	0.4	252	0.4
Elective caesarean section	10028	16.4	11125	17.8	11186	18.1	11464	18.6	12900	19.6
Emergency caesarean section [†]	7503	12.3	7467	12.0	7520	12.1	8275	13.4	8894	13.5
Not stated	16	0.0	1	0.0	0	0.0	0	0.0	0	0.0
TOTAL	61198	100.0	62368	100.0	61972	100.0	61704	100.0	65673	100.0
Private										
Normal vaginal	14149	43.2	13206	42.5	12254	41.0	10835	39.3	11698	39.0
Forceps	1500	4.6	1428	4.6	1282	4.3	1185	4.3	1229	4.1
Vacuum extraction	2771	8.5	2734	8.8	2706	9.1	2424	8.8	2522	8.4
Vaginal breech	71	0.2	61	0.2	62	0.2	52	0.2	63	0.2
Elective caesarean section	10017	30.6	9708	31.2	9705	32.5	9396	34.1	10493	35.0
Emergency caesarean section [†]	4211	12.9	3955	12.7	3889	13.0	3696	13.4	4008	13.4
Not stated	9	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	32728	100.0	31092	100.0	29898	100.0	27588	100.0	30013	100.0
TOTAL[*]										
Normal vaginal	51434	54.5	50451	53.6	49716	53.0	46831	51.3	49644	50.7
Forceps	4435	4.7	4386	4.7	4208	4.5	4180	4.6	4235	4.3
Vacuum extraction	6338	6.7	6549	7.0	6612	7.1	6459	7.1	6910	7.1
Vaginal breech	336	0.4	333	0.4	328	0.3	324	0.4	321	0.3
Elective caesarean section	20115	21.3	20951	22.2	21255	22.7	21256	23.3	23732	24.2
Emergency caesarean section [†]	11764	12.5	11498	12.2	11639	12.4	12190	13.4	13163	13.4
Not stated	27	0.0	2	0.0	0	0.0	0	0.0	1	0.0
TOTAL	94449	100.0	94170	100.0	93758	100.0	91240	100.0	98006	100.0

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

[#]Figures for 2017 to 2020 differ to those reported previously as the linkage has been updated.

[†]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 2017, with slightly more male babies born than females in each year. In 2021, 51,143 (51.5%) babies were male, 48,154 (48.5%) were female, and 4 were of indeterminate sex. This compares with babies born in 2017, when 49,068 (51.2%) babies were male, 46,738 (48.8%) were female, and 15 were of indeterminate sex.

Gestational age

In 2021, 7.2% of babies were born prematurely (less than 37 weeks gestation), equivalent to 7.4% reported in 2017 (Table 16). Over the 5-year period, around 92% of babies were born at term (37–41 weeks gestation). The percentage of post-term babies (42-plus weeks gestation) was 0.9% in 2017 and 0.7% in 2021.

TABLE 16: GESTATIONAL AGE, NSW 2017–2021

Gestational age (weeks)	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
<28	713	0.7	705	0.7	709	0.7	750	0.8	768	0.8
28–31	642	0.7	608	0.6	590	0.6	594	0.6	598	0.6
32–36	5754	6.0	6011	6.3	5778	6.1	5420	5.9	5829	5.9
37–41	87768	91.6	87407	91.5	87313	91.8	85123	92.0	91384	92.0
42+	885	0.9	755	0.8	630	0.7	616	0.7	687	0.7
Not stated	63	0.1	66	0.1	113	0.1	38	0.0	50	0.1
TOTAL	95825	100.0	95552	100.0	95133	100.0	92541	100.0	99316	100.0

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

Birthweight

Since 2017, the pattern of birthweight has remained stable, with the rate of low birthweight (less than 2,500 grams) ranging from 6.4% to 6.8% (Table 17). In 2021, the rate of low birthweight was 6.4% and 92.2% of babies had a healthy birthweight (2,500–4,499 grams).

TABLE 17: BIRTHWEIGHT, NSW 2017–2021

Birthweight (grams)	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Less than 500	341	0.4	234	0.2	218	0.2	252	0.3	258	0.3
500–999	455	0.5	424	0.4	439	0.5	399	0.4	432	0.4
1,000–1,499	503	0.5	488	0.5	514	0.5	484	0.5	493	0.5
1,500–1,999	1154	1.2	1224	1.3	1132	1.2	1154	1.2	1128	1.1
2,000–2,499	3952	4.1	4163	4.4	4046	4.3	3829	4.1	4081	4.1
2,500–2,999	16011	16.7	15945	16.7	16404	17.2	15454	16.7	16429	16.5
3,000–3,499	36263	37.8	36575	38.3	36400	38.3	35226	38.1	37609	37.9
3,500–3,999	28051	29.3	27577	28.9	27287	28.7	26901	29.1	29374	29.6
4,000–4,499	7942	8.3	7671	8.0	7423	7.8	7616	8.2	8181	8.2
4,500+	1106	1.2	1066	1.1	1012	1.1	1020	1.1	1148	1.2
Not stated	47	0.0	185	0.2	258	0.3	206	0.2	183	0.2
TOTAL	95825	100.0	95552	100.0	95133	100.0	92541	100.0	99316	100.0

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

Apgar score

In 2021, 1.8% 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 2017–2021

Apgar score	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
0–4	423	0.4	399	0.4	445	0.5	425	0.5	475	0.5
5–6	1083	1.1	1167	1.2	1237	1.3	1159	1.3	1271	1.3
7+	93156	97.8	92819	97.7	92316	97.6	89712	97.6	96180	97.5
Not stated	572	0.6	572	0.6	568	0.6	582	0.6	745	0.8
TOTAL	95234	100.0	94957	100.0	94566	100.0	91878	100.0	98671	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 93-94% between 2017 and 2021 (Table 19).

TABLE 19: HEPATITIS B DOSE GIVEN TO LIVEBORN BABIES, NSW 2017–2021[#]

Hepatitis B dose given	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Yes	89070	93.5	88907	93.6	88498	93.6	86521	94.2	91866	93.1
No	5220	5.5	5353	5.6	5157	5.5	5189	5.6	6148	6.2
Not stated	944	1.0	697	0.7	911	1.0	168	0.2	657	0.7
TOTAL	95234	100.0	94957	100.0	94566	100.0	91878	100.0	98671	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 73.7% to 67.6% between 2017 and 2021. The percentage of babies that received any breastfeeding rose from 14.7% in 2017 to 20.7% in 2021. In the same period, the percentage of babies receiving infant formula only remained steady at about 8.5% (Table 20).

TABLE 20: LIVE BIRTHS BY TYPE OF INFANT FEEDING, NSW 2017–2021

Infant feeding	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Full breastfeeding	70234	73.7	68916	72.6	67258	71.1	63445	69.1	66739	67.6
Any breastfeeding	14031	14.7	15287	16.1	16765	17.7	18438	20.1	20443	20.7
Infant formula only	7921	8.3	7979	8.4	7864	8.3	7755	8.4	8496	8.6
Not stated	3048	3.2	2775	2.9	2679	2.8	2240	2.4	2993	3.0
TOTAL	95234	100.0	94957	100.0	94566	100.0	91878	100.0	98671	100.0

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

Perinatal outcome

Across the period 2017–2021 the perinatal mortality rate varied from 8.0 to 9.1 per 1,000 births and was 8.4 per 1,000 in 2021 (Table 21). In 2021, 77.0% of all reported perinatal deaths were stillbirths and 23.0% were neonatal deaths.

Of the 838 perinatal deaths in 2021 in NSW, 718 (85.7%) were reported among planned hospital births, 103 (12.3%) among planned birth centre births and 17 deaths were among babies born before arrival at hospital (2.0%). There were no perinatal deaths reported among planned or actual homebirths.

TABLE 21: PERINATAL OUTCOMES, NSW 2017–2021[#]

Year	Perinatal outcome												
	Liveborn surviving		Stillborn		Neonatal death		Death–age not stated		Not stated		Total births		Perinatal death rate/1,000 births
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.
2017	95023	99.2	591	0.6	211	0.2	0	0.0	0	0.0	95825	100.0	8.4
2018	94781	99.2	595	0.6	176	0.2	0	0.0	0	0.0	95552	100.0	8.1
2019	94368	99.2	567	0.6	198	0.2	0	0.0	0	0.0	95133	100.0	8.0
2020	91701	99.1	663	0.7	177	0.2	0	0.0	0	0.0	92541	100.0	9.1
2021	98478	99.2	645	0.6	193	0.2	0	0.0	0	0.0	99316	100.0	8.4

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 1990–2020, 264 deaths were reported among pregnant women or women who gave birth less than 6 weeks previously. Of these, 74 (28.0%) died of incidental causes not related to the pregnancy or its management, 118 (44.7%) deaths were found to be directly due to pregnancy or its management, and 68 (25.8%) 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 2020.

TABLE 22: MATERNAL DEATHS BY CLASSIFICATION, NSW 1990–2020[#]

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
2020	6	6.6	2	2.2	8	8.8	1	1.1	9	9.9

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.¹

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

TABLE 23: MATERNAL DEATHS BY CAUSE, NSW 2020[#]

Classification	Cause	No.
Direct	Pulmonary embolism	2
Direct	Combined effects of myocardial infarction and lower respiratory tract infection	1
Direct	Haemorrhage associated with ruptured splenic artery aneurysm	1
Direct	Bacterial meningitis	1
Direct	Amniotic fluid embolism	1
Indirect	Complications of illicit drug use	1
Indirect	Hypoxic brain injury	1
Incidental	Multiple injuries associated with motor vehicle accident	1
TOTAL		9

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.¹

Reference

1. 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 31 January 2023.

6. Local health districts

Information on the health of Aboriginal and Torres Strait Islander mothers and babies by local health district is shown in Chapter 9.

Confinements

The largest numbers of mothers who gave birth in 2021 were resident in Western Sydney Local Health District (n=15,141, 15.4%), followed by South Western Sydney Local Health District (n=14,657, 15.0%) and Hunter New England Local Health District (n=11,221, 11.4%).

Maternal age

In 2021, the percentage of women giving birth at less than 20 years of age varied from 0.2% in Northern Sydney Local Health District to 4.1% in Far West Local Health District, while the percentage of mothers giving birth at 35 years of age or more ranged from 13.2% in Far West Local Health District to 42.6% in Northern Sydney Local Health District (Table 24).

TABLE 24: MATERNAL AGE BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2021

Local Health District	Maternal age (years)																	
	12–19		20–24		25–29		30–34		35–39		40–44		45+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	25	0.3	257	3.3	1273	16.5	3141	40.8	2441	31.7	522	6.8	32	0.4	2	0.0	7693	100.0
South Western Sydney	175	1.2	1561	10.7	4259	29.1	5333	36.4	2704	18.4	592	4.0	29	0.2	4	0.0	14657	100.0
South Eastern Sydney	24	0.2	378	3.5	1881	17.3	4505	41.3	3391	31.1	682	6.3	37	0.3	2	0.0	10900	100.0
Illawarra Shoalhaven	79	1.6	526	10.5	1438	28.7	1899	37.9	913	18.2	151	3.0	10	0.2	0	0.0	5016	100.0
Western Sydney	152	1.0	1225	8.1	3647	24.1	5987	39.5	3448	22.8	651	4.3	31	0.2	0	0.0	15141	100.0
Nepean Blue Mountains	86	1.7	618	12.1	1584	30.9	1731	33.8	925	18.1	164	3.2	7	0.1	4	0.1	5119	100.0
Northern Sydney	17	0.2	156	1.6	1271	12.7	4287	42.9	3416	34.2	802	8.0	35	0.4	0	0.0	9984	100.0
Central Coast	84	2.1	484	12.2	1104	27.9	1385	35.0	751	19.0	146	3.7	6	0.2	2	0.1	3962	100.0
Hunter New England	324	2.9	1570	14.0	3328	29.7	3807	33.9	1811	16.1	364	3.2	17	0.2	0	0.0	11221	100.0
Northern NSW	72	2.5	378	13.4	766	27.1	942	33.3	551	19.5	115	4.1	6	0.2	0	0.0	2830	100.0
Mid North Coast	66	2.9	362	15.9	688	30.1	711	31.2	372	16.3	80	3.5	3	0.1	0	0.0	2282	100.0
Southern NSW	37	2.5	199	13.6	444	30.2	511	34.8	234	15.9	41	2.8	2	0.1	0	0.0	1468	100.0
Murrumbidgee	67	2.7	403	16.0	797	31.7	809	32.2	374	14.9	62	2.5	2	0.1	0	0.0	2514	100.0
Western NSW	131	3.4	652	16.7	1207	31.0	1239	31.8	547	14.0	114	2.9	5	0.1	0	0.0	3895	100.0
Far West	8	4.1	42	21.3	67	34.0	54	27.4	24	12.2	2	1.0	0	0.0	0	0.0	197	100.0
Other—not stated	10	0.9	88	7.8	391	34.7	416	36.9	178	15.8	42	3.7	1	0.1	1	0.1	1127	100.0
TOTAL	1357	1.4	8899	9.1	24145	24.6	36757	37.5	22080	22.5	4530	4.6	223	0.2	15	0.0	98006	100.0

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

Maternal country of birth

In 2021, 69.8% of women who gave birth in NSW were born in English speaking countries, 19.7% were born in South East, North East or Southern Asia, and 4.8% were born in the Middle East or Africa (Table 25). The highest percentages of mothers born in non-English speaking countries were in Western Sydney, South Western Sydney, Northern Sydney and Sydney Local Health Districts.

TABLE 25: MATERNAL COUNTRY OF BIRTH BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2021

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 ¹	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	4698	61.1	173	2.2	45	0.6	127	1.7	105	1.4	113	1.5	303	3.9	543	7.1	797	10.4	765	9.9	7693	100.0
South Western Sydney	8743	59.7	124	0.8	320	2.2	193	1.3	58	0.4	105	0.7	1993	13.6	1483	10.1	285	1.9	1338	9.1	14657	100.0
South Eastern Sydney	7410	68.0	352	3.2	46	0.4	229	2.1	271	2.5	213	2.0	287	2.6	683	6.3	773	7.1	609	5.6	10900	100.0
Illawarra Shoalhaven	4493	89.6	41	0.8	16	0.3	42	0.8	36	0.7	21	0.4	89	1.8	94	1.9	45	0.9	132	2.6	5016	100.0
Western Sydney	6628	43.8	126	0.8	265	1.8	78	0.5	61	0.4	395	2.6	1308	8.6	972	6.4	1303	8.6	3990	26.4	15141	100.0
Nepean Blue Mountains	4275	83.5	17	0.3	59	1.2	15	0.3	20	0.4	36	0.7	137	2.7	173	3.4	59	1.2	321	6.3	5119	100.0
Northern Sydney	6032	60.4	321	3.2	33	0.3	130	1.3	237	2.4	236	2.4	283	2.8	573	5.7	1405	14.1	706	7.1	9984	100.0
Central Coast	3563	89.9	19	0.5	9	0.2	12	0.3	33	0.8	30	0.8	24	0.6	99	2.5	43	1.1	124	3.1	3962	100.0
Hunter New England	10332	92.1	39	0.3	17	0.2	19	0.2	59	0.5	44	0.4	120	1.1	222	2.0	85	0.8	281	2.5	11221	100.0
Northern NSW	2561	90.5	33	1.2	1	0.0	15	0.5	52	1.8	8	0.3	10	0.4	54	1.9	34	1.2	32	1.1	2830	100.0
Mid North Coast	2023	88.7	7	0.3	6	0.3	5	0.2	17	0.7	8	0.4	29	1.3	65	2.8	23	1.0	78	3.4	2282	100.0
Southern NSW	1318	89.8	4	0.3	3	0.2	8	0.5	13	0.9	7	0.5	8	0.5	29	2.0	9	0.6	59	4.0	1468	100.0
Murrumbidgee	2199	87.5	4	0.2	27	1.1	6	0.2	11	0.4	14	0.6	44	1.8	60	2.4	26	1.0	123	4.9	2514	100.0
Western NSW	3578	91.9	8	0.2	5	0.1	1	0.0	12	0.3	8	0.2	26	0.7	47	1.2	23	0.6	184	4.7	3895	100.0
Far West	189	95.9	0	0.0	1	0.5	0	0.0	1	0.5	0	0.0	1	0.5	3	1.5	0	0.0	2	1.0	197	100.0
Other—not stated	380	33.7	48	4.3	33	2.9	16	1.4	15	1.3	11	1.0	52	4.6	183	16.2	98	8.7	273	24.2	1127	100.0
TOTAL	68422	69.8	1316	1.3	886	0.9	896	0.9	1001	1.0	1249	1.3	4714	4.8	5283	5.4	5008	5.1	9017	9.2	98006	100.0

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

¹Includes 214 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 2021, 5.1% 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 Northern Sydney Local Health District to 20.3% in Far West Local Health District.

TABLE 26: ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2021

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	120	1.6	7424	96.5	149	1.9	7693	100.0
South Western Sydney	412	2.8	14107	96.2	138	0.9	14657	100.0
South Eastern Sydney	132	1.2	10637	97.6	131	1.2	10900	100.0
Illawarra Shoalhaven	313	6.2	4700	93.7	3	0.1	5016	100.0
Western Sydney	326	2.2	14618	96.5	197	1.3	15141	100.0
Nepean Blue Mountains	315	6.2	4701	91.8	103	2.0	5119	100.0
Northern Sydney	51	0.5	9696	97.1	237	2.4	9984	100.0
Central Coast	280	7.1	3678	92.8	4	0.1	3962	100.0
Hunter New England	1335	11.9	9747	86.9	139	1.2	11221	100.0
Northern NSW	269	9.5	2554	90.2	7	0.2	2830	100.0
Mid North Coast	334	14.6	1946	85.3	2	0.1	2282	100.0
Southern NSW	98	6.7	1368	93.2	2	0.1	1468	100.0
Murrumbidgee	231	9.2	2275	90.5	8	0.3	2514	100.0
Western NSW	741	19.0	3152	80.9	2	0.1	3895	100.0
Far West	40	20.3	157	79.7	0	0.0	197	100.0
Other—not stated	26	2.3	1082	96.0	19	1.7	1127	100.0
TOTAL	5023	5.1	91842	93.7	1141	1.2	98006	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 2021, 92.9% of mothers commenced antenatal care prior to 20 weeks gestation and 80.1% commenced antenatal care prior to 14 weeks gestation. The percentage of mothers commencing antenatal care prior to 20 weeks gestation varied from 84.8% in Southern NSW Local Health District to 97.0% in Northern Sydney Local Health District (Table 27).

TABLE 27: DURATION OF PREGNANCY AT FIRST ANTENATAL VISIT BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2021

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 [#]	4120	53.6	2595	33.7	928	12.1	50	0.6	7693	100.0
South Western Sydney	9882	67.4	2761	18.8	1829	12.5	185	1.3	14657	100.0
South Eastern Sydney	8298	76.1	2079	19.1	487	4.5	36	0.3	10900	100.0
Illawarra Shoalhaven	4556	90.8	306	6.1	136	2.7	18	0.4	5016	100.0
Western Sydney	13124	86.7	1319	8.7	576	3.8	122	0.8	15141	100.0
Nepean Blue Mountains	4449	86.9	397	7.8	195	3.8	78	1.5	5119	100.0
Northern Sydney	8986	90.0	703	7.0	207	2.1	88	0.9	9984	100.0
Central Coast	3450	87.1	322	8.1	177	4.5	13	0.3	3962	100.0
Hunter New England	10009	89.2	630	5.6	448	4.0	134	1.2	11221	100.0
Northern NSW	2640	93.3	94	3.3	75	2.7	21	0.7	2830	100.0
Mid North Coast	2034	89.1	124	5.4	89	3.9	35	1.5	2282	100.0
Southern NSW	973	66.3	271	18.5	213	14.5	11	0.7	1468	100.0
Murrumbidgee	2082	82.8	215	8.6	199	7.9	18	0.7	2514	100.0
Western NSW	3206	82.3	357	9.2	253	6.5	79	2.0	3895	100.0
Far West	123	62.4	60	30.5	13	6.6	1	0.5	197	100.0
Other—not stated	610	54.1	243	21.6	247	21.9	27	2.4	1127	100.0
TOTAL	78542	80.1	12476	12.7	6072	6.2	916	0.9	98006	100.0

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

[#]Care should be taken when comparing data for Sydney Local Health District to other districts.

Smoking in pregnancy

In 2021, 7.9% of mothers reported smoking at all during pregnancy. The percentage of mothers that reported smoking at all during pregnancy varied from 1.3% in Northern Sydney Local Health District to 24.9% in Far West Local Health District (Table 28). Overall, 5.8% of mothers reported smoking in the second half of pregnancy. The lowest rate was reported among mothers living in Northern Sydney Local Health District (0.4%) and the highest rate was reported among residents of Far West Local Health District (20.8%).

TABLE 28: SMOKING IN PREGNANCY BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2021

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	239	3.1	135	1.8	243	3.2	7693	100.0
South Western Sydney	1010	6.9	716	4.9	1059	7.2	14657	100.0
South Eastern Sydney	275	2.5	175	1.6	282	2.6	10900	100.0
Illawarra Shoalhaven	518	10.3	389	7.8	548	10.9	5016	100.0
Western Sydney	883	5.8	667	4.4	919	6.1	15141	100.0
Nepean Blue Mountains	521	10.2	434	8.5	549	10.7	5119	100.0
Northern Sydney	124	1.2	40	0.4	125	1.3	9984	100.0
Central Coast	402	10.1	293	7.4	420	10.6	3962	100.0
Hunter New England	1507	13.4	1258	11.2	1579	14.1	11221	100.0
Northern NSW	294	10.4	230	8.1	319	11.3	2830	100.0
Mid North Coast	322	14.1	234	10.3	335	14.7	2282	100.0
Southern NSW	193	13.1	152	10.4	200	13.6	1468	100.0
Murrumbidgee	397	15.8	335	13.3	411	16.3	2514	100.0
Western NSW	667	17.1	576	14.8	697	17.9	3895	100.0
Far West	47	23.9	41	20.8	49	24.9	197	100.0
Other—not stated	40	3.6	35	3.5	45	4.0	1127	100.0
TOTAL	7439	7.6	5710	5.8	7780	7.9	98006	100.0

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

Maternal overweight and obesity

In 2021, 54.0% of mothers were in the healthy weight range, 26.9% were overweight and 16.1% were obese. The percentage of mothers that were overweight or obese varied from 27.6% in Northern Sydney Local Health District to 62.4% in Far West Local Health District (Table 29).

TABLE 29: MATERNAL BMI CATEGORIES BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2021

Local Health District	Body Mass Index [#]											
	Underweight		Healthy weight		Overweight		Obese		Overweight or obese		TOTAL [*]	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	242	3.5	4411	63.4	1609	23.1	696	10.0	2305	33.1	6958	100.0
South Western Sydney	308	2.4	6149	47.1	3927	30.1	2673	20.5	6600	50.5	13057	100.0
South Eastern Sydney	345	3.5	6486	66.4	2122	21.7	820	8.4	2942	30.1	9773	100.0
Illawarra Shoalhaven	103	2.3	2442	54.0	1220	27.0	761	16.8	1981	43.8	4526	100.0
Western Sydney	408	2.9	6893	49.7	4169	30.1	2401	17.3	6570	47.4	13871	100.0
Nepean Blue Mountains	103	2.3	2039	45.3	1339	29.7	1025	22.7	2364	52.5	4506	100.0
Northern Sydney	348	3.9	6126	68.5	1776	19.9	687	7.7	2463	27.6	8937	100.0
Central Coast	84	2.5	1742	51.6	942	27.9	607	18.0	1549	45.9	3375	100.0
Hunter New England	273	2.9	4450	46.5	2796	29.2	2056	21.5	4852	50.7	9575	100.0
Northern NSW	127	5.0	1496	58.6	596	23.3	335	13.1	931	36.5	2554	100.0
Mid North Coast	73	3.5	1086	52.5	559	27.0	352	17.0	911	44.0	2070	100.0
Southern NSW	31	2.3	677	49.5	405	29.6	254	18.6	659	48.2	1367	100.0
Murrumbidgee	47	2.1	1021	45.6	707	31.6	463	20.7	1170	52.3	2238	100.0
Western NSW	94	2.7	1532	44.7	1036	30.3	762	22.3	1798	52.5	3424	100.0
Far West	8	4.5	59	33.1	54	30.3	57	32.0	111	62.4	178	100.0
Other—not stated	32	3.1	639	61.8	255	24.7	108	10.4	363	35.1	1034	100.0
TOTAL	2626	3.0	47248	54.0	23512	26.9	14057	16.1	37569	43.0	87443	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 (10.8% of all records) were excluded from the analysis.

Place of birth

In 2021, 92.4% of mothers chose to give birth in a hospital birthing suite, compared to 6.3% who planned a birth centre birth and 0.6% who planned a home birth (Table 30). Planned birth centre births were most commonly reported in Far West Local Health District (14.2%). The greatest number of planned birth centre births was to mothers living in Hunter New England Local Health District ($n=1,431$), followed by Western Sydney Local Health District ($n=1,212$).

TABLE 30: PLACE OF BIRTH BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2021

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	7410	96.3	189	2.5	37	0.5	17	0.2	4	0.1	36	0.5	7693	100.0
South Western Sydney	14387	98.2	42	0.3	65	0.4	55	0.4	3	0.0	102	0.7	14657	100.0
South Eastern Sydney	10219	93.8	434	4.0	124	1.1	73	0.7	12	0.1	37	0.3	10900	100.0
Illawarra Shoalhaven	4539	90.5	49	1.0	338	6.7	53	1.1	4	0.1	33	0.7	5016	100.0
Western Sydney	13772	91.0	464	3.1	748	4.9	45	0.3	12	0.1	99	0.7	15141	100.0
Nepean Blue Mountains	4616	90.2	201	3.9	225	4.4	36	0.7	9	0.2	31	0.6	5119	100.0
Northern Sydney	9765	97.8	71	0.7	61	0.6	59	0.6	0	0.0	28	0.3	9984	100.0
Central Coast	3677	92.8	66	1.7	165	4.2	11	0.3	3	0.1	40	1.0	3962	100.0
Hunter New England	9613	85.7	901	8.0	530	4.7	75	0.7	10	0.1	92	0.8	11221	100.0
Northern NSW	2415	85.3	194	6.9	109	3.9	55	1.9	5	0.2	52	1.8	2830	100.0
Mid North Coast	2042	89.5	68	3.0	138	6.0	1	0.0	6	0.3	27	1.2	2282	100.0
Southern NSW	1277	87.0	45	3.1	124	8.4	7	0.5	3	0.2	12	0.8	1468	100.0
Murrumbidgee	2163	86.0	141	5.6	190	7.6	0	0.0	2	0.1	18	0.7	2514	100.0
Western NSW	3461	88.9	108	2.8	289	7.4	1	0.0	5	0.1	31	0.8	3895	100.0
Far West	168	85.3	11	5.6	17	8.6	0	0.0	0	0.0	0	0.0	197	100.0
Other–not stated	1050	93.2	27	2.4	25	2.2	14	1.2	1	0.1	9	0.8	1127	100.0
TOTAL	90574	92.4	3011	3.1	3185	3.2	502	0.5	79	0.1	647	0.7	98006	100.0

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

Labour

In 2021, the onset of labour was spontaneous in 40.2% of confinements (Table 31). Labour was induced in 35.5% of confinements and no labour (elective caesarean section) was reported in 24.2%. The rate of spontaneous onset of labour was highest among residents of Far West Local Health District (51.3%). The highest rate of induction of labour was among residents of Hunter New England Local Health District (40.5%).

TABLE 31: ONSET AND AUGMENTATION OF LABOUR BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2021

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	1859	24.2	337	4.4	703	9.1	2138	27.8	750	9.7	220	2.9	1636	21.3	50	0.6	0	0.0	7693	100.0
South Western Sydney	4407	30.1	948	6.5	947	6.5	3016	20.6	2704	18.4	504	3.4	1968	13.4	155	1.1	8	0.1	14657	100.0
South Eastern Sydney	2953	27.1	447	4.1	879	8.1	2823	25.9	1251	11.5	260	2.4	2260	20.7	26	0.2	1	0.0	10900	100.0
Illawarra Shoalhaven	1465	29.2	184	3.7	313	6.2	1173	23.4	491	9.8	98	2.0	1269	25.3	23	0.5	0	0.0	5016	100.0
Western Sydney	4057	26.8	727	4.8	1150	7.6	3862	25.5	1655	10.9	178	1.2	3428	22.6	77	0.5	7	0.0	15141	100.0
Nepean Blue Mountains	1534	30.0	242	4.7	234	4.6	1271	24.8	700	13.7	70	1.4	1032	20.2	33	0.6	3	0.1	5119	100.0
Northern Sydney	2544	25.5	510	5.1	858	8.6	2868	28.7	1098	11.0	304	3.0	1773	17.8	29	0.3	0	0.0	9984	100.0
Central Coast	1344	33.9	150	3.8	275	6.9	874	22.1	473	11.9	51	1.3	778	19.6	17	0.4	0	0.0	3962	100.0
Hunter New England	3103	27.7	354	3.2	531	4.7	2661	23.7	1413	12.6	337	3.0	2744	24.5	51	0.5	27	0.2	11221	100.0
Northern NSW	1100	38.9	112	4.0	168	5.9	504	17.8	288	10.2	81	2.9	564	19.9	13	0.5	0	0.0	2830	100.0
Mid North Coast	866	37.9	82	3.6	109	4.8	461	20.2	222	9.7	86	3.8	449	19.7	7	0.3	0	0.0	2282	100.0
Southern NSW	578	39.4	35	2.4	104	7.1	268	18.3	178	12.1	34	2.3	267	18.2	4	0.3	0	0.0	1468	100.0
Murrumbidgee	833	33.1	79	3.1	131	5.2	618	24.6	328	13.0	55	2.2	465	18.5	5	0.2	0	0.0	2514	100.0
Western NSW	1228	31.5	145	3.7	204	5.2	955	24.5	465	11.9	98	2.5	773	19.8	26	0.7	1	0.0	3895	100.0
Far West	85	43.1	9	4.6	7	3.6	43	21.8	30	15.2	2	1.0	20	10.2	0	0.0	1	0.5	197	100.0
Other—not stated	331	29.4	60	5.3	91	8.1	197	17.5	145	12.9	35	3.1	250	22.2	18	1.6	0	0.0	1127	100.0
TOTAL	28287	28.9	4421	4.5	6704	6.8	23732	24.2	12191	12.4	2413	2.5	19676	20.1	534	0.5	48	0.0	98006	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

In 2021, 50.7% of births were normal vaginal births, 11.4% were instrumental and 37.6% were by caesarean section (Table 32). The highest rate of normal vaginal birth was 60.1% among residents of the Northern NSW Local Health District, while the highest rate of instrumental birth was 15.8% among residents of the South Eastern Sydney Local Health District. The caesarean section rate varied from 30.5% among mothers resident in Northern NSW Local Health District to 42.6% in Sydney Local Health District.

TABLE 32: TYPE OF BIRTH BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2021

Local Health District	Type of birth															
	Normal vaginal		Forceps		Vacuum extraction		Vaginal breech		Elective caesarean section		Emergency caesarean section†		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	3275	42.6	391	5.1	720	9.4	30	0.4	2138	27.8	1139	14.8	0	0.0	7693	100.0
South Western Sydney	8398	57.3	530	3.6	984	6.7	46	0.3	3016	20.6	1683	11.5	0	0.0	14657	100.0
South Eastern Sydney	4808	44.1	739	6.8	988	9.1	31	0.3	2823	25.9	1511	13.9	0	0.0	10900	100.0
Illawarra Shoalhaven	2537	50.6	177	3.5	343	6.8	10	0.2	1173	23.4	776	15.5	0	0.0	5016	100.0
Western Sydney	7700	50.9	569	3.8	859	5.7	67	0.4	3862	25.5	2084	13.8	0	0.0	15141	100.0
Nepean Blue Mountains	2583	50.5	118	2.3	305	6.0	19	0.4	1271	24.8	823	16.1	0	0.0	5119	100.0
Northern Sydney	4416	44.2	534	5.3	875	8.8	21	0.2	2868	28.7	1270	12.7	0	0.0	9984	100.0
Central Coast	2159	54.5	222	5.6	260	6.6	8	0.2	874	22.1	439	11.1	0	0.0	3962	100.0
Hunter New England	5874	52.3	492	4.4	657	5.9	43	0.4	2661	23.7	1494	13.3	0	0.0	11221	100.0
Northern NSW	1702	60.1	75	2.7	179	6.3	10	0.4	504	17.8	360	12.7	0	0.0	2830	100.0
Mid North Coast	1293	56.7	77	3.4	137	6.0	5	0.2	461	20.2	309	13.5	0	0.0	2282	100.0
Southern NSW	835	56.9	63	4.3	96	6.5	1	0.1	268	18.3	205	14.0	0	0.0	1468	100.0
Murrumbidgee	1278	50.8	61	2.4	171	6.8	6	0.2	618	24.6	380	15.1	0	0.0	2514	100.0
Western NSW	2123	54.5	120	3.1	217	5.6	15	0.4	955	24.5	465	11.9	0	0.0	3895	100.0
Far West	111	56.3	3	1.5	5	2.5	1	0.5	43	21.8	33	16.8	1	0.5	197	100.0
Other—not stated	552	49.0	64	5.7	114	10.1	8	0.7	197	17.5	192	17.0	0	0.0	1127	100.0
TOTAL	49644	50.7	4235	4.3	6910	7.1	321	0.3	23732	24.2	13163	13.4	1	0.0	98006	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 2021, 6.4% 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 5.2% in the 1,500 to 2,499 gram range (Table 33). Rates of low birthweight ranged from 3.8% in Southern NSW Local Health District to 8.3% in Western NSW Local Health District.

TABLE 33: BIRTHWEIGHT BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2021

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	17	0.2	30	0.4	33	0.4	89	1.1	342	4.4	1424	18.3	3072	39.4	2207	28.3	506	6.5	63	0.8	7	0.1	7790	100.0
South Western Sydney	28	0.2	84	0.6	71	0.5	159	1.1	667	4.5	2532	17.0	5644	37.9	4264	28.7	1193	8.0	185	1.2	50	0.3	14877	100.0
South Eastern Sydney	40	0.4	48	0.4	42	0.4	100	0.9	381	3.5	1822	16.5	4418	40.0	3336	30.2	751	6.8	88	0.8	10	0.1	11036	100.0
Illawarra Shoalhaven	16	0.3	20	0.4	22	0.4	50	1.0	185	3.6	797	15.7	1768	34.7	1698	33.4	473	9.3	60	1.2	2	0.0	5091	100.0
Western Sydney	45	0.3	75	0.5	91	0.6	206	1.3	710	4.6	2948	19.2	6075	39.6	3969	25.9	1023	6.7	157	1.0	26	0.2	15325	100.0
Nepean Blue Mountains	14	0.3	20	0.4	36	0.7	77	1.5	226	4.3	760	14.6	1822	35.0	1613	31.0	553	10.6	76	1.5	11	0.2	5208	100.0
Northern Sydney	21	0.2	30	0.3	32	0.3	97	1.0	360	3.6	1675	16.5	4126	40.8	2926	28.9	757	7.5	83	0.8	16	0.2	10123	100.0
Central Coast	10	0.2	14	0.3	22	0.5	49	1.2	146	3.6	581	14.5	1444	35.9	1235	30.7	433	10.8	78	1.9	6	0.1	4018	100.0
Hunter New England	32	0.3	59	0.5	77	0.7	127	1.1	465	4.1	1723	15.2	3994	35.1	3664	32.2	1060	9.3	132	1.2	35	0.3	11368	100.0
Northern NSW	7	0.2	2	0.1	6	0.2	22	0.8	117	4.1	413	14.4	1008	35.2	922	32.2	307	10.7	52	1.8	8	0.3	2864	100.0
Mid North Coast	4	0.2	7	0.3	13	0.6	31	1.3	106	4.6	325	14.1	804	35.0	747	32.5	228	9.9	33	1.4	0	0.0	2298	100.0
Southern NSW	4	0.3	2	0.1	3	0.2	9	0.6	38	2.6	184	12.5	577	39.2	481	32.7	142	9.6	31	2.1	1	0.1	1472	100.0
Murrumbidgee	4	0.2	5	0.2	7	0.3	32	1.3	83	3.2	374	14.6	948	37.1	788	30.9	264	10.3	46	1.8	3	0.1	2554	100.0
Western NSW	12	0.3	28	0.7	27	0.7	61	1.5	203	5.1	633	16.0	1405	35.5	1152	29.1	380	9.6	54	1.4	4	0.1	3959	100.0
Far West	0	0.0	0	0.0	2	1.0	4	2.0	9	4.5	33	16.6	63	31.7	60	30.2	25	12.6	1	0.5	2	1.0	199	100.0
Other—not stated	4	0.4	8	0.7	9	0.8	15	1.3	43	3.8	205	18.1	441	38.9	312	27.5	86	7.6	9	0.8	2	0.2	1134	100.0
TOTAL	258	0.3	432	0.4	493	0.5	1128	1.1	4081	4.1	16429	16.5	37609	37.9	29374	29.6	8181	8.2	1148	1.2	183	0.2	99316	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 7.2% 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 8.7% in Western NSW Local Health District, while the lowest was 3.5% in Southern NSW Local Health District (Table 34).

TABLE 34: GESTATIONAL AGE BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2021

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	54	0.7	38	0.5	466	6.0	7200	92.4	24	0.3	8	0.1	7790	100.0
South Western Sydney	124	0.8	89	0.6	989	6.6	13647	91.7	21	0.1	7	0.0	14877	100.0
South Eastern Sydney	91	0.8	51	0.5	555	5.0	10244	92.8	85	0.8	10	0.1	11036	100.0
Illawarra Shoalhaven	35	0.7	34	0.7	298	5.9	4699	92.3	25	0.5	0	0.0	5091	100.0
Western Sydney	132	0.9	109	0.7	887	5.8	14128	92.2	65	0.4	4	0.0	15325	100.0
Nepean Blue Mountains	39	0.7	43	0.8	362	7.0	4720	90.6	38	0.7	6	0.1	5208	100.0
Northern Sydney	68	0.7	47	0.5	519	5.1	9456	93.4	30	0.3	3	0.0	10123	100.0
Central Coast	31	0.8	13	0.3	246	6.1	3654	90.9	73	1.8	1	0.0	4018	100.0
Hunter New England	100	0.9	91	0.8	674	5.9	10344	91.0	156	1.4	3	0.0	11368	100.0
Northern NSW	16	0.6	3	0.1	162	5.7	2606	91.0	76	2.7	1	0.0	2864	100.0
Mid North Coast	8	0.3	19	0.8	134	5.8	2113	91.9	23	1.0	1	0.0	2298	100.0
Southern NSW	7	0.5	4	0.3	40	2.7	1403	95.3	17	1.2	1	0.1	1472	100.0
Murrumbidgee	10	0.4	11	0.4	153	6.0	2365	92.6	15	0.6	0	0.0	2554	100.0
Western NSW	39	1.0	34	0.9	273	6.9	3582	90.5	28	0.7	3	0.1	3959	100.0
Far West	0	0.0	3	1.5	6	3.0	188	94.5	1	0.5	1	0.5	199	100.0
Other—not stated	14	1.2	9	0.8	65	5.7	1035	91.3	10	0.9	1	0.1	1134	100.0
TOTAL	768	0.8	598	0.6	5829	5.9	91384	92.0	687	0.7	50	0.1	99316	100.0

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

Hepatitis B

In 2021, 93.1% of liveborn babies in NSW were given a hepatitis B vaccination at birth. The highest rate of hepatitis B vaccinations at birth was 97.0% in Far West Local Health District, while the lowest was 75.2% in Northern NSW Local Health District (Table 35).

TABLE 35: HEPATITIS B DOSE GIVEN TO LIVEBORN BABIES BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2021[#]

Local Health District	Hepatitis B dose given									
	Yes		No		Not stated		TOTAL			
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	7225	93.3	415	5.4	105	1.4			7745	100.0
South Western Sydney	13979	94.6	545	3.7	259	1.8			14783	100.0
South Eastern Sydney	9935	90.7	981	9.0	37	0.3			10953	100.0
Illawarra Shoalhaven	4803	94.8	260	5.1	2	0.0			5065	100.0
Western Sydney	14490	95.2	696	4.6	33	0.2			15219	100.0
Nepean Blue Mountains	4858	93.8	292	5.6	30	0.6			5180	100.0
Northern Sydney	9203	91.4	831	8.2	39	0.4			10073	100.0
Central Coast	3714	93.1	270	6.8	7	0.2			3991	100.0
Hunter New England	10705	94.9	495	4.4	77	0.7			11277	100.0
Northern NSW	2144	75.2	690	24.2	18	0.6			2852	100.0
Mid North Coast	2028	88.7	247	10.8	12	0.5			2287	100.0
Southern NSW	1345	91.9	113	7.7	6	0.4			1464	100.0
Murrumbidgee	2458	96.6	87	3.4	0	0.0			2545	100.0
Western NSW	3785	96.5	127	3.2	9	0.2			3921	100.0
Far West	192	97.0	5	2.5	1	0.5			198	100.0
Other—not stated	1002	89.6	94	8.4	22	2.0			1118	100.0
TOTAL	91866	93.1	6148	6.2	657	0.7			98671	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 2021, infant feeding on discharge from hospital was reported for 98,671 liveborn babies (Table 36). The majority of babies (67.6%) were reported to be fully breastfed at hospital discharge, 8.6% were receiving infant formula only, and a further 20.7% were being partially breastfed. Rates of full breastfeeding varied from 55.2% in South Western Sydney Local Health District to 81.9% in Northern NSW Local Health District.

TABLE 36: LIVE BIRTHS BY INFANT FEEDING ON DISCHARGE AND LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2021

Local Health District	Infant feeding									
	Full breastfeeding		Any breastfeeding		Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	5051	65.2	2225	28.7	394	5.1	75	1.0	7745	100.0
South Western Sydney	8164	55.2	4394	29.7	1758	11.9	467	3.2	14783	100.0
South Eastern Sydney	8024	73.3	2210	20.2	572	5.2	147	1.3	10953	100.0
Illawarra Shoalhaven	3852	76.1	549	10.8	624	12.3	40	0.8	5065	100.0
Western Sydney	9358	61.5	4187	27.5	1243	8.2	431	2.8	15219	100.0
Nepean Blue Mountains	3132	60.5	1070	20.7	699	13.5	279	5.4	5180	100.0
Northern Sydney	7246	71.9	2166	21.5	346	3.4	315	3.1	10073	100.0
Central Coast	3127	78.4	468	11.7	330	8.3	66	1.7	3991	100.0
Hunter New England	8133	72.1	1405	12.5	1127	10.0	612	5.4	11277	100.0
Northern NSW	2337	81.9	210	7.4	147	5.2	158	5.5	2852	100.0
Mid North Coast	1746	76.3	256	11.2	195	8.5	90	3.9	2287	100.0
Southern NSW	1116	76.2	119	8.1	124	8.5	105	7.2	1464	100.0
Murrumbidgee	1868	73.4	314	12.3	315	12.4	48	1.9	2545	100.0
Western NSW	2681	68.4	568	14.5	558	14.2	114	2.9	3921	100.0
Far West	157	79.3	15	7.6	19	9.6	7	3.5	198	100.0
Other—not stated	747	66.8	287	25.7	45	4.0	39	3.5	1118	100.0
TOTAL	66739	67.6	20443	20.7	8496	8.6	2993	3.0	98671	100.0

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

Perinatal outcome

The perinatal mortality rate in 2021 was 8.4 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 3.9 per 1,000 births in Murrumbidgee Local Health District to 10.6 per 1,000 births in Western NSW Local Health District.

TABLE 37: PERINATAL OUTCOMES BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2021[#]

Local Health District	Perinatal Outcomes												
	Liveborn surviving		Stillborn		Neonatal death		Death-age not stated		Not stated		Total births		Perinatal death rate/1,000 births
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
Sydney	7728	99.2	45	0.6	17	0.2	0	0.0	0	0.0	7790	100.0	8.0
South Western Sydney	14758	99.2	94	0.6	25	0.2	0	0.0	0	0.0	14877	100.0	8.0
South Eastern Sydney	10935	99.1	83	0.8	18	0.2	0	0.0	0	0.0	11036	100.0	9.2
Illawarra Shoalhaven	5054	99.3	26	0.5	11	0.2	0	0.0	0	0.0	5091	100.0	7.3
Western Sydney	15169	99.0	106	0.7	50	0.3	0	0.0	0	0.0	15325	100.0	10.2
Nepean Blue Mountains	5164	99.2	28	0.5	16	0.3	0	0.0	0	0.0	5208	100.0	8.4
Northern Sydney	10059	99.4	50	0.5	14	0.1	0	0.0	0	0.0	10123	100.0	6.3
Central Coast	3982	99.1	27	0.7	9	0.2	0	0.0	0	0.0	4018	100.0	9.0
Hunter New England	11255	99.0	91	0.8	22	0.2	0	0.0	0	0.0	11368	100.0	9.9
Northern NSW	2848	99.4	12	0.4	4	0.1	0	0.0	0	0.0	2864	100.0	5.6
Mid North Coast	2287	99.5	11	0.5	0	0.0	0	0.0	0	0.0	2298	100.0	4.8
Southern NSW	1463	99.4	8	0.5	1	0.1	0	0.0	0	0.0	1472	100.0	6.1
Murrumbidgee	2544	99.6	9	0.4	1	0.0	0	0.0	0	0.0	2554	100.0	3.9
Western NSW	3917	98.9	38	1.0	4	0.1	0	0.0	0	0.0	3959	100.0	10.6
Far West	198	99.5	1	0.5	0	0.0	0	0.0	0	0.0	199	100.0	5.0
Other-not stated	1117	98.5	16	1.4	1	0.1	0	0.0	0	0.0	1134	100.0	15.0
TOTAL	98478	99.2	645	0.6	193	0.2	0	0.0	0	0.0	99316	100.0	8.4

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 2021[#]

Local Health District–Statistical Area 3 [†]	No.	%	Local Health District–Statistical Area 3 [†]	No.	%
Sydney			Nepean Blue Mountains		
Bankstown*	19	0.2	Bathurst*	1	0.0
Canada Bay	1118	14.4	Blue Mountains	693	13.4
Canterbury*	1623	21.0	Dural–Wisemans Ferry*	1	0.0
Hurstville*	110	1.4	Fairfield*	12	0.2
Leichhardt	805	10.4	Hawkesbury	298	5.8
Marrickville–Sydenham–Petersham	654	8.4	Lithgow–Mudgee*	211	4.1
Strathfield–Burwood–Ashfield	1672	21.6	Penrith*	2374	45.8
Sydney Inner City*	1744	22.5	Richmond–Windsor	549	10.6
TOTAL	7745	100.0	Rouse Hill–McGraths Hill*	129	2.5
South Western Sydney			St Marys	912	17.6
Auburn*	11	0.1	TOTAL	5180	100.0
Bankstown*	2556	17.3	Northern Sydney		
Bringelly–Green Valley	2607	17.6	Baulkham Hills*	118	1.2
Camden	1192	8.1	Carlingford*	64	0.6
Campbelltown	2676	18.1	Chatswood–Lane Cove	1355	13.5
Canterbury*	90	0.6	Dural–Wisemans Ferry*	86	0.9
Fairfield*	1878	12.7	Hornsby	959	9.5
Liverpool*	2055	13.9	Ku-ring-gai	890	8.8
Merrylands–Guildford*	434	2.9	Manly	605	6.0
Penrith*	119	0.8	North Sydney–Mosman	1222	12.1
Southern Highlands*	521	3.5	Pennant Hills–Epping*	387	3.8
Wollondilly	644	4.4	Pittwater	648	6.4
TOTAL	14783	100.0	Ryde–Hunters Hill*	1718	17.1
South Eastern Sydney			Warringah	2020	20.1
Botany	883	8.1	TOTAL	10073	100.0
Cronulla–Miranda–Caringbah	1450	13.2	Central Coast		
Eastern Suburbs–North	1715	15.7	Gosford	1870	46.9
Eastern Suburbs–South	1775	16.2	Wyang	2121	53.1
Hurstville*	1257	11.5	TOTAL	3991	100.0
Kogarah–Rockdale	2017	18.4	Hunter New England		
Liverpool*	8	0.1	Armidale	408	3.6
Lord Howe Island	4	0.0	Great Lakes	255	2.3
Sutherland–Menai–Heathcote	1333	12.2	Inverell–Tenterfield*	377	3.3
Sydney Inner City*	511	4.7	Lake Macquarie–East	1463	13.0
TOTAL	10953	100.0	Lake Macquarie–West	1002	8.9
Illawarra Shoalhaven			Lower Hunter	1276	11.3
Dapto–Port Kembla	1091	21.5	Maitland	1279	11.3
Kiama–Shellharbour	1227	24.2	Moree–Narrabri	324	2.9
Shoalhaven	1217	24.0	Newcastle	2114	18.7
South Coast*	5	0.1	Port Macquarie*	1	0.0
Wollongong	1525	30.1	Port Stephens	701	6.2
TOTAL	5065	100.0	Tamworth–Gunnedah	1154	10.2
Western Sydney			Taree–Gloucester	556	4.9
Auburn*	1587	10.4	Upper Hunter	367	3.3
Baulkham Hills*	1184	7.8	TOTAL	11277	100.0
Blacktown	2082	13.7	Northern NSW		
Blacktown–North	2302	15.1	Clarence Valley	519	18.2
Carlingford*	730	4.8	Coffs Harbour*	6	0.2
Dural–Wisemans Ferry*	107	0.7	Inverell–Tenterfield*	3	0.1
Merrylands–Guildford*	2217	14.6	Richmond Valley–Coastal	825	28.9
Mount Druitt	1739	11.4	Richmond Valley–Hinterland	740	25.9
Parramatta	2382	15.7	Tweed Valley	759	26.6
Pennant Hills–Epping*	97	0.6	TOTAL	2852	100.0
Rouse Hill–McGraths Hill*	755	5.0			
Ryde–Hunters Hill*	37	0.2			
TOTAL	15219	100.0			

(Continued on next page)

Table 38: (Continued)

Local Health District–Statistical Area 3 [†]	No.	%
Mid North Coast		
Coffs Harbour*	940	41.1
Kempsey–Nambucca*	539	23.6
Port Macquarie*	808	35.3
TOTAL	2287	100.0
Southern NSW		
Goulburn–Mulwaree	317	21.7
Queanbeyan	432	29.5
Snowy Mountains	141	9.6
South Coast*	539	36.8
Young–Yass*	35	2.4
TOTAL	1464	100.0
Murrumbidgee		
Albury*	23	0.9
Griffith–Murrumbidgee (West)	654	25.7
Lachlan Valley*	94	3.7
Lower Murray*	27	1.1
Tumut–Tumbarumba	147	5.8
Upper Murray excluding Albury	103	4.0
Wagga Wagga	1321	51.9
Young–Yass*	176	6.9
TOTAL	2545	100.0
Western NSW		
Bathurst*	662	16.9
Bourke–Cobar–Coonamble	382	9.7
Dubbo	1086	27.7
Lachlan Valley*	601	15.3
Lithgow–Mudgee*	336	8.6
Orange	854	21.8
TOTAL	3921	100.0
Far West		
Broken Hill and Far West	198	100.0
TOTAL	198	100.0
Other—not stated	1118	100.0
TOTAL	98671	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.

References

1. 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 31 January 2023.
2. 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 31 January 2023.

7. 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 2021.

TABLE 39: ONSET AND AUGMENTATION OF LABOUR BY LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2021

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	1471	25.0	288	4.9	572	9.7	1321	22.5	601	10.2	165	2.8	1397	23.8	64	1.1	5879	100.0
South Western Sydney	3711	32.2	798	6.9	752	6.5	2100	18.2	2423	21.0	426	3.7	1182	10.2	144	1.2	11536	100.0
South Eastern Sydney	2537	31.5	328	4.1	714	8.9	1466	18.2	1087	13.5	163	2.0	1747	21.7	13	0.2	8055	100.0
Illawarra Shoalhaven	1175	31.5	170	4.6	212	5.7	763	20.4	434	11.6	70	1.9	898	24.0	14	0.4	3736	100.0
Western Sydney	3008	29.4	514	5.0	783	7.7	2263	22.1	1143	11.2	88	0.9	2371	23.2	49	0.5	10219	100.0
Nepean Blue Mountains	1712	32.9	235	4.5	262	5.0	1215	23.4	780	15.0	53	1.0	914	17.6	31	0.6	5202	100.0
Northern Sydney	1874	31.3	354	5.9	496	8.3	1224	20.4	857	14.3	133	2.2	1043	17.4	9	0.2	5990	100.0
Central Coast	1283	38.6	129	3.9	216	6.5	608	18.3	454	13.7	39	1.2	578	17.4	15	0.5	3322	100.0
Hunter New England	2883	30.8	278	3.0	523	5.6	1984	21.2	1224	13.1	172	1.8	2276	24.3	35	0.4	9375	100.0
Northern NSW	1130	38.1	119	4.0	181	6.1	515	17.4	310	10.4	85	2.9	613	20.7	15	0.5	2968	100.0
Mid North Coast	880	38.5	85	3.7	111	4.9	438	19.2	226	9.9	88	3.8	451	19.7	7	0.3	2286	100.0
Southern NSW	619	39.2	38	2.4	117	7.4	286	18.1	186	11.8	38	2.4	289	18.3	5	0.3	1578	100.0
Murrumbidgee	790	35.3	78	3.5	125	5.6	475	21.2	293	13.1	41	1.8	432	19.3	4	0.2	2238	100.0
Western NSW	1189	32.0	142	3.8	201	5.4	870	23.4	442	11.9	96	2.6	747	20.1	26	0.7	3714	100.0
Far West	85	42.9	9	4.5	7	3.5	43	21.7	30	15.2	2	1.0	21	10.6	0	0.0	198	100.0
TOTAL	24347	31.9	3565	4.7	5272	6.9	15571	20.4	10490	13.7	1659	2.2	14959	19.6	431	0.6	76296	100.0
Private	3605	16.9	841	3.9	1431	6.7	8161	38.2	1701	8.0	754	3.5	4717	22.1	102	0.5	21358	100.0
TOTAL NSW*	28287	28.9	4421	4.5	6704	6.8	23732	24.2	12191	12.4	2413	2.5	19676	20.1	534	0.5	98006	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 2021[#]

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	1131	25.0	200	4.4	454	10.0	1040	23.0	450	10.0	133	2.9	1058	23.4	55	1.2	4521	100.0
Royal North Shore	797	30.0	124	4.7	207	7.8	601	22.6	379	14.2	51	1.9	498	18.7	3	0.1	2660	100.0
Royal Hospital for Women	1457	35.4	165	4.0	318	7.7	785	19.1	535	13.0	97	2.4	747	18.1	12	0.3	4116	100.0
Liverpool	1102	30.0	235	6.4	193	5.3	783	21.3	662	18.0	149	4.1	506	13.8	43	1.2	3673	100.0
Nepean	1228	30.7	181	4.5	198	4.9	946	23.6	646	16.1	37	0.9	735	18.4	30	0.7	4001	100.0
Westmead	1549	29.8	280	5.4	417	8.0	1151	22.2	600	11.5	49	0.9	1131	21.8	18	0.3	5195	100.0
John Hunter	1128	26.6	134	3.2	254	6.0	940	22.2	602	14.2	94	2.2	1075	25.4	13	0.3	4240	100.0
TOTAL	8392	29.5	1319	4.6	2041	7.2	6246	22.0	3874	13.6	610	2.1	5750	20.2	174	0.6	28406	100.0
Level 5																		
Gosford	1283	38.6	129	3.9	216	6.5	608	18.3	454	13.7	39	1.2	578	17.4	15	0.5	3322	100.0
Northern Beaches	694	32.0	144	6.6	175	8.1	434	20.0	285	13.1	75	3.5	357	16.5	4	0.2	2168	100.0
St. George	623	24.9	95	3.8	192	7.7	435	17.4	375	15.0	50	2.0	728	29.1	0	0.0	2498	100.0
Blacktown	1088	28.8	189	5.0	236	6.3	890	23.6	402	10.6	37	1.0	908	24.1	25	0.7	3775	100.0
Campbelltown	1383	33.8	213	5.2	296	7.2	646	15.8	1221	29.8	81	2.0	179	4.4	77	1.9	4096	100.0
Lismore Base	526	37.5	73	5.2	88	6.3	260	18.5	131	9.3	47	3.3	273	19.4	6	0.4	1404	100.0
Tweed Heads	316	31.2	38	3.8	82	8.1	135	13.3	131	12.9	33	3.3	269	26.6	8	0.8	1012	100.0
Dubbo Base	473	34.4	46	3.3	60	4.4	335	24.4	186	13.5	34	2.5	236	17.2	4	0.3	1374	100.0
Wollongong	827	29.4	136	4.8	166	5.9	596	21.2	309	11.0	42	1.5	728	25.9	12	0.4	2816	100.0
Wagga Wagga Base	400	29.4	44	3.2	90	6.6	322	23.6	185	13.6	24	1.8	295	21.7	2	0.1	1362	100.0
TOTAL	7613	32.0	1107	4.6	1601	6.7	4661	19.6	3679	15.4	462	1.9	4551	19.1	153	0.6	23827	100.0
Level 4																		
Canterbury	340	25.0	88	6.5	118	8.7	281	20.7	151	11.1	32	2.4	339	25.0	9	0.7	1358	100.0
Hornsby	383	33.0	86	7.4	114	9.8	189	16.3	193	16.6	7	0.6	188	16.2	2	0.2	1162	100.0
Sutherland	457	31.7	68	4.7	204	14.2	246	17.1	177	12.3	16	1.1	272	18.9	1	0.1	1441	100.0
Bankstown-Lidcombe	548	32.3	136	8.0	97	5.7	314	18.5	210	12.4	41	2.4	342	20.1	10	0.6	1698	100.0
Hawkesbury	340	40.2	37	4.4	45	5.3	190	22.5	87	10.3	5	0.6	140	16.6	1	0.1	845	100.0
Coffs Harbour	462	42.0	54	4.9	53	4.8	218	19.8	89	8.1	44	4.0	174	15.8	6	0.5	1100	100.0
Grafton Base	139	34.6	7	1.7	11	2.7	120	29.9	48	11.9	5	1.2	71	17.7	1	0.2	402	100.0
Port Macquarie Base	270	29.8	26	2.9	50	5.5	189	20.8	102	11.2	36	4.0	233	25.7	1	0.1	907	100.0
Armidale	180	42.1	20	4.7	18	4.2	93	21.7	50	11.7	7	1.6	58	13.6	2	0.5	428	100.0
Tamworth Base	322	27.8	21	1.8	52	4.5	292	25.2	144	12.4	19	1.6	294	25.4	13	1.1	1157	100.0
Manning Base	191	29.3	17	2.6	43	6.6	119	18.3	45	6.9	15	2.3	218	33.4	4	0.6	652	100.0
Bathurst Base	225	40.6	22	4.0	19	3.4	115	20.8	88	15.9	9	1.6	71	12.8	4	0.7	554	100.0
Orange Base	225	20.1	37	3.3	76	6.8	290	25.8	95	8.5	33	2.9	351	31.3	15	1.3	1122	100.0
Maitland	560	29.2	50	2.6	114	5.9	371	19.3	283	14.7	17	0.9	524	27.3	2	0.1	1921	100.0
Griffith Base	196	38.9	16	3.2	31	6.2	94	18.7	77	15.3	9	1.8	79	15.7	2	0.4	504	100.0
TOTAL	4838	31.7	685	4.5	1045	6.9	3121	20.5	1839	12.1	295	1.9	3354	22.0	73	0.5	15251	100.0
Level 3																		
Auburn	371	29.7	45	3.6	130	10.4	222	17.8	141	11.3	2	0.2	332	26.6	6	0.5	1249	100.0
Fairfield	446	30.1	168	11.3	122	8.2	276	18.6	237	16.0	112	7.5	116	7.8	7	0.5	1484	100.0
Kempsey	111	45.9	5	2.1	8	3.3	31	12.8	35	14.5	8	3.3	44	18.2	0	0.0	242	100.0
Inverell	59	26.7	8	3.6	23	10.4	50	22.6	37	16.7	3	1.4	41	18.6	0	0.0	221	100.0
Mudgee	101	37.7	12	4.5	13	4.9	66	24.6	31	11.6	9	3.4	35	13.1	1	0.4	268	100.0
Forbes	102	43.4	17	7.2	11	4.7	37	15.7	31	13.2	7	3.0	28	11.9	2	0.9	235	100.0
Bega	98	37.1	2	0.8	11	4.2	52	19.7	32	12.1	3	1.1	66	25.0	0	0.0	264	100.0
Goulburn Base	138	46.3	10	3.4	29	9.7	48	16.1	37	12.4	3	1.0	32	10.7	1	0.3	298	100.0
Moruya	142	40.6	12	3.4	22	6.3	52	14.9	39	11.1	13	3.7	68	19.4	2	0.6	350	100.0
Queanbeyan	186	35.0	13	2.4	39	7.3	109	20.5	67	12.6	18	3.4	98	18.4	2	0.4	532	100.0
Bowral	232	39.7	46	7.9	44	7.5	81	13.8	93	15.9	43	7.4	39	6.7	7	1.2	585	100.0
Shoalhaven	348	37.8	34	3.7	46	5.0	167	18.2	125	13.6	28	3.0	170	18.5	2	0.2	920	100.0
Other hospitals	695	43.3	74	4.6	82	5.1	325	20.2	166	10.3	38	2.4	224	13.9	1	0.1	1606	100.0
TOTAL	3029	36.7	446	5.4	580	7.0	1516	18.4	1071	13.0	287	3.5	1293	15.7	31	0.4	8254	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.	%
Level 2	472	85.0	8	1.4	5	0.9	27	4.9	27	4.9	5	0.9	11	2.0	0	0.0	555	100.0
Public hospital[§]	24345	31.9	3565	4.7	5272	6.9	15571	20.4	10490	13.7	1659	2.2	14959	19.6	431	0.6	76294	100.0
Private																		
Mater, North Sydney	244	10.2	78	3.3	226	9.4	1277	53.2	146	6.1	146	6.1	271	11.3	11	0.5	2399	100.0
North Shore Private	454	19.6	0	0.0	176	7.6	1050	45.3	164	7.1	94	4.1	371	16.0	11	0.5	2320	100.0
Sydney Adventist	413	18.0	198	8.6	273	11.9	657	28.6	123	5.4	46	2.0	575	25.0	11	0.5	2296	100.0
North Gosford Private	50	9.6	15	2.9	50	9.6	197	37.8	25	4.8	6	1.2	177	34.0	1	0.2	521	100.0
Hurstville Community	250	24.7	59	5.8	118	11.6	293	28.9	48	4.7	8	0.8	235	23.2	1	0.1	1014	100.0
Kareena Private	134	20.0	0	0.0	50	7.5	282	42.2	42	6.3	27	4.0	128	19.1	6	0.9	669	100.0
St. George Private	295	21.8	0	0.0	141	10.4	413	30.5	215	15.9	51	3.8	237	17.5	4	0.3	1356	100.0
Prince of Wales Private	346	16.9	156	7.6	0	0.0	957	46.8	139	6.8	55	2.7	390	19.1	3	0.1	2046	100.0
Norwest Private	220	15.0	125	8.5	0	0.0	470	32.0	154	10.5	54	3.7	435	29.6	3	0.2	1469	100.0
Sydney Southwest Private	182	18.8	107	11.0	0	0.0	271	28.0	105	10.8	32	3.3	261	26.9	6	0.6	969	100.0
Nepean Private	90	13.8	25	3.8	0	0.0	224	34.4	82	12.6	27	4.1	194	29.8	5	0.8	651	100.0
Westmead Private	519	19.9	0	0.0	310	11.9	919	35.2	209	8.0	13	0.5	627	24.0	16	0.6	2613	100.0
Wollongong Private	157	16.4	0	0.0	81	8.4	332	34.6	34	3.5	19	2.0	328	34.2	9	0.9	960	100.0
Newcastle Private	197	11.0	76	4.2	0	0.0	686	38.3	175	9.8	162	9.0	455	25.4	14	0.8	1792	100.0
Calvary, Wagga Wagga	54	19.1	2	0.7	6	2.1	133	47.0	40	14.1	14	4.9	33	11.7	1	0.4	283	100.0
TOTAL	3605	16.9	841	3.9	1431	6.7	8161	38.2	1701	8.0	754	3.5	4717	22.1	102	0.5	21358	100.0
TOTAL NSW*	28287	28.9	4421	4.5	6704	6.8	23732	24.2	12191	12.4	2413	2.5	19676	20.1	534	0.5	98006	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 2021 are identified individually. Maternity service levels are described on page 127 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 2021.

TABLE 41: TYPE OF BIRTH BY LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2021

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	2744	46.7	282	4.8	581	9.9	26	0.4	1321	22.5	925	15.7	5879	100.0
South Western Sydney	6952	60.3	423	3.7	731	6.3	38	0.3	2100	18.2	1292	11.2	11536	100.0
South Eastern Sydney	3961	49.2	661	8.2	712	8.8	40	0.5	1466	18.2	1215	15.1	8055	100.0
Illawarra Shoalhaven	1979	53.0	153	4.1	229	6.1	5	0.1	763	20.4	607	16.2	3736	100.0
Western Sydney	5533	54.1	394	3.9	559	5.5	75	0.7	2263	22.1	1395	13.7	10219	100.0
Nepean Blue Mountains	2679	51.5	123	2.4	295	5.7	19	0.4	1215	23.4	871	16.7	5202	100.0
Northern Sydney	2983	49.8	411	6.9	549	9.2	12	0.2	1224	20.4	811	13.5	5990	100.0
Central Coast	1941	58.4	193	5.8	202	6.1	6	0.2	608	18.3	372	11.2	3322	100.0
Hunter New England	5169	55.1	447	4.8	443	4.7	43	0.5	1984	21.2	1289	13.7	9375	100.0
Northern NSW	1773	59.7	88	3.0	205	6.9	10	0.3	515	17.4	377	12.7	2968	100.0
Mid North Coast	1312	57.4	78	3.4	142	6.2	2	0.1	438	19.2	314	13.7	2286	100.0
Southern NSW	894	56.7	68	4.3	113	7.2	1	0.1	286	18.1	216	13.7	1578	100.0
Murrumbidgee	1198	53.5	60	2.7	153	6.8	6	0.3	475	21.2	346	15.5	2238	100.0
Western NSW	2067	55.7	119	3.2	209	5.6	8	0.2	870	23.4	441	11.9	3714	100.0
Far West	112	56.6	3	1.5	5	2.5	1	0.5	43	21.7	33	16.7	198	100.0
TOTAL	41297	54.1	3503	4.6	5128	6.7	292	0.4	15571	20.4	10504	13.8	76296	100.0
Private	7999	37.5	732	3.4	1782	8.3	25	0.1	8161	38.2	2659	12.4	21358	100.0
TOTAL NSW*	49644	50.7	4235	4.3	6910	7.1	321	0.3	23732	24.2	13163	13.4	98006	100.0

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

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

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

TABLE 42: TYPE OF BIRTH BY MATERNITY SERVICE LEVEL AND HOSPITAL, NSW 2021[#]

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.	%
Level 6														
Royal Prince Alfred	2028	44.9	229	5.1	456	10.1	22	0.5	1040	23.0	746	16.5	4521	100.0
Royal North Shore	1358	51.1	148	5.6	186	7.0	9	0.3	601	22.6	358	13.5	2660	100.0
Royal Hospital for Women	1912	46.5	438	10.6	303	7.4	30	0.7	785	19.1	648	15.7	4116	100.0
Liverpool	2060	56.1	227	6.2	230	6.3	15	0.4	783	21.3	358	9.7	3673	100.0
Nepean	2026	50.6	102	2.5	216	5.4	19	0.5	946	23.6	692	17.3	4001	100.0
Westmead	2880	55.4	208	4.0	269	5.2	63	1.2	1151	22.2	624	12.0	5195	100.0
John Hunter	2178	51.4	272	6.4	217	5.1	33	0.8	940	22.2	600	14.2	4240	100.0
TOTAL	14442	50.8	1624	5.7	1877	6.6	191	0.7	6246	22.0	4026	14.2	28406	100.0
Level 5														
Gosford	1941	58.4	193	5.8	202	6.1	6	0.2	608	18.3	372	11.2	3322	100.0
Northern Beaches	1004	46.3	153	7.1	288	13.3	2	0.1	434	20.0	287	13.2	2168	100.0
St. George	1256	50.3	147	5.9	269	10.8	7	0.3	435	17.4	384	15.4	2498	100.0
Blacktown	1933	51.2	114	3.0	233	6.2	8	0.2	890	23.6	597	15.8	3775	100.0
Campbelltown	2495	60.9	84	2.1	303	7.4	9	0.2	646	15.8	559	13.6	4096	100.0
Lismore Base	834	59.4	43	3.1	90	6.4	4	0.3	260	18.5	173	12.3	1404	100.0
Tweed Heads	609	60.2	36	3.6	93	9.2	5	0.5	135	13.3	134	13.2	1012	100.0
Dubbo Base	755	54.9	57	4.1	60	4.4	4	0.3	335	24.4	163	11.9	1374	100.0
Wollongong	1441	51.2	117	4.2	201	7.1	3	0.1	596	21.2	458	16.3	2816	100.0
Wagga Wagga Base	651	47.8	45	3.3	94	6.9	1	0.1	322	23.6	249	18.3	1362	100.0
TOTAL	12919	54.2	989	4.2	1833	7.7	49	0.2	4661	19.6	3376	14.2	23827	100.0
Level 4														
Canterbury	716	52.7	53	3.9	125	9.2	4	0.3	281	20.7	179	13.2	1358	100.0
Hornsby	621	53.4	110	9.5	75	6.5	1	0.1	189	16.3	166	14.3	1162	100.0
Sutherland	793	55.0	76	5.3	140	9.7	3	0.2	246	17.1	183	12.7	1441	100.0
Bankstown-Lidcombe	1033	60.8	61	3.6	99	5.8	9	0.5	314	18.5	182	10.7	1698	100.0
Hawkesbury	449	53.1	16	1.9	64	7.6	0	0.0	190	22.5	126	14.9	845	100.0
Coffs Harbour	646	58.7	22	2.0	53	4.8	1	0.1	218	19.8	160	14.5	1100	100.0
Grafton Base	181	45.0	9	2.2	21	5.2	1	0.2	120	29.9	70	17.4	402	100.0
Port Macquarie Base	473	52.1	53	5.8	76	8.4	1	0.1	189	20.8	115	12.7	907	100.0
Armidale	247	57.7	14	3.3	14	3.3	1	0.2	93	21.7	59	13.8	428	100.0
Tamworth Base	602	52.0	57	4.9	34	2.9	2	0.2	292	25.2	170	14.7	1157	100.0
Manning Base	374	57.4	20	3.1	46	7.1	4	0.6	119	18.3	89	13.7	652	100.0
Bathurst Base	321	57.9	12	2.2	21	3.8	0	0.0	115	20.8	85	15.3	554	100.0
Orange Base	594	52.9	34	3.0	85	7.6	4	0.4	290	25.8	115	10.2	1122	100.0
Maitland	1097	57.1	72	3.7	87	4.5	3	0.2	371	19.3	291	15.1	1921	100.0
Griffith Base	293	58.1	8	1.6	34	6.7	5	1.0	94	18.7	70	13.9	504	100.0
TOTAL	8440	55.3	617	4.0	974	6.4	39	0.3	3121	20.5	2060	13.5	15251	100.0
Level 3														
Auburn	720	57.6	72	5.8	57	4.6	4	0.3	222	17.8	174	13.9	1249	100.0
Fairfield	996	67.1	20	1.3	57	3.8	4	0.3	276	18.6	131	8.8	1484	100.0
Kempsey	156	64.5	3	1.2	13	5.4	0	0.0	31	12.8	39	16.1	242	100.0
Inverell	139	62.9	11	5.0	8	3.6	0	0.0	50	22.6	13	5.9	221	100.0
Mudgee	141	52.6	10	3.7	20	7.5	0	0.0	66	24.6	31	11.6	268	100.0
Forbes	156	66.4	6	2.6	7	3.0	0	0.0	37	15.7	29	12.3	235	100.0
Bega	136	51.5	15	5.7	16	6.1	1	0.4	52	19.7	44	16.7	264	100.0
Goulburn Base	171	57.4	20	6.7	20	6.7	0	0.0	48	16.1	39	13.1	298	100.0
Moruya	219	62.6	9	2.6	24	6.9	0	0.0	52	14.9	46	13.1	350	100.0
Queanbeyan	291	54.7	18	3.4	49	9.2	0	0.0	109	20.5	65	12.2	532	100.0
Bowral	368	62.9	31	5.3	42	7.2	1	0.2	81	13.8	62	10.6	585	100.0
Shoalhaven	538	58.5	36	3.9	28	3.0	2	0.2	167	18.2	149	16.2	920	100.0
Other hospitals	973	60.6	22	1.4	87	5.4	1	0.1	325	20.2	197	12.3	1606	100.0
TOTAL	5004	60.6	273	3.3	428	5.2	13	0.2	1516	18.4	1019	12.3	8254	100.0
Level 2	489	88.1	0	0.0	16	2.9	0	0.0	27	4.9	23	4.1	555	100.0
Public hospital[§]	41295	54.1	3503	4.6	5128	6.7	292	0.4	15571	20.4	10504	13.8	76294	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.	%
Private														
Mater, North Sydney	669	27.9	67	2.8	183	7.6	1	0.0	1277	53.2	202	8.4	2399	100.0
North Shore Private	694	29.9	79	3.4	170	7.3	4	0.2	1050	45.3	323	13.9	2320	100.0
Sydney Adventist	1051	45.8	74	3.2	213	9.3	6	0.3	657	28.6	295	12.8	2296	100.0
North Gosford Private	175	33.6	27	5.2	56	10.7	1	0.2	197	37.8	65	12.5	521	100.0
Hurstville Community	401	39.5	32	3.2	123	12.1	1	0.1	293	28.9	164	16.2	1014	100.0
Kareena Private	198	29.6	43	6.4	40	6.0	1	0.1	282	42.2	105	15.7	669	100.0
St. George Private	558	41.2	54	4.0	149	11.0	2	0.1	413	30.5	180	13.3	1356	100.0
Prince of Wales Private	600	29.3	105	5.1	167	8.2	0	0.0	957	46.8	217	10.6	2046	100.0
Norwest Private	670	45.6	47	3.2	94	6.4	0	0.0	470	32.0	188	12.8	1469	100.0
Sydney Southwest Private	451	46.5	55	5.7	109	11.2	0	0.0	271	28.0	83	8.6	969	100.0
Nepean Private	286	43.9	10	1.5	41	6.3	2	0.3	224	34.4	88	13.5	651	100.0
Westmead Private	1113	42.6	96	3.7	114	4.4	3	0.1	919	35.2	368	14.1	2613	100.0
Wollongong Private	381	39.7	8	0.8	98	10.2	2	0.2	332	34.6	139	14.5	960	100.0
Newcastle Private	664	37.1	34	1.9	205	11.4	2	0.1	686	38.3	201	11.2	1792	100.0
Calvary, Wagga Wagga	88	31.1	1	0.4	20	7.1	0	0.0	133	47.0	41	14.5	283	100.0
TOTAL	7999	37.5	732	3.4	1782	8.3	25	0.1	8161	38.2	2659	12.4	21358	100.0
TOTAL NSW*	49644	50.7	4235	4.3	6910	7.1	321	0.3	23732	24.2	13163	13.4	98006	100.0

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

[#]Hospitals with more than 200 births in 2021 are identified individually. Maternity service levels are described on page 127 in *Appendix 2: Explanatory notes*.

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

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

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

Pain relief

Table 43 shows type of pain relief provided to women during labour or delivery for local health districts, and Table 44 for individual hospitals by maternity service level where at least 200 mothers gave birth in 2021.

In addition to the types of pain relief shown in the tables, in 2021 6,394 (16.7%) women were reported to have received local anaesthetic to the perineum, and 593 (0.6%) received a pudendal block.

TABLE 43: PAIN RELIEF BY LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2021

Hospital sector–Local Health District	Pain Relief											
	Epidural–spinal [†]		General anaesthetic		IM narcotics		Nitrous oxide		Nil		TOTAL [‡]	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Public												
Sydney	3792	64.5	168	2.9	133	2.3	1811	30.8	675	11.5	5879	100.0
South Western Sydney	5362	46.5	382	3.3	1361	11.8	5268	45.7	1370	11.9	11536	100.0
South Eastern Sydney	5186	64.4	134	1.7	682	8.5	3236	40.2	404	5.0	8055	100.0
Illawarra Shoalhaven	2177	58.3	114	3.1	220	5.9	1573	42.1	260	7.0	3736	100.0
Western Sydney	5981	58.5	267	2.6	561	5.5	4197	41.1	728	7.1	10219	100.0
Nepean Blue Mountains	2924	56.2	257	4.9	475	9.1	2173	41.8	369	7.1	5202	100.0
Northern Sydney	3455	57.7	78	1.3	304	5.1	2373	39.6	411	6.9	5990	100.0
Central Coast	1651	49.7	111	3.3	244	7.3	1443	43.4	320	9.6	3322	100.0
Hunter New England	4737	50.5	465	5.0	755	8.1	4041	43.1	772	8.2	9375	100.0
Northern NSW	1521	51.2	87	2.9	166	5.6	1074	36.2	384	12.9	2968	100.0
Mid North Coast	1116	48.8	86	3.8	134	5.9	944	41.3	249	10.9	2286	100.0
Southern NSW	806	51.1	44	2.8	113	7.2	666	42.2	155	9.8	1578	100.0
Murrumbidgee	1111	49.6	80	3.6	263	11.8	992	44.3	198	8.8	2238	100.0
Western NSW	1978	53.3	115	3.1	471	12.7	1712	46.1	253	6.8	3714	100.0
Far West	94	47.5	10	5.1	18	9.1	89	44.9	23	11.6	198	100.0
TOTAL	41891	54.9	2398	3.1	5900	7.7	31592	41.4	6571	8.6	76296	100.0
Private	17953	84.1	194	0.9	1272	6.0	4239	19.8	734	3.4	21358	100.0
TOTAL NSW*	59844	61.1	2592	2.6	7172	7.3	35832	36.6	7531	7.7	98006	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 2021[#]

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	3039	67.2	132	2.9	98	2.2	1247	27.6	526	11.6	4521	100.0
Royal North Shore	1684	63.3	51	1.9	119	4.5	933	35.1	152	5.7	2660	100.0
Royal Hospital for Women	2662	64.7	61	1.5	364	8.8	1511	36.7	230	5.6	4116	100.0
Liverpool	1969	53.6	152	4.1	368	10.0	1381	37.6	355	9.7	3673	100.0
Nepean	2327	58.2	226	5.6	310	7.7	1723	43.1	252	6.3	4001	100.0
Westmead	3166	60.9	119	2.3	291	5.6	2136	41.1	322	6.2	5195	100.0
John Hunter	2348	55.4	255	6.0	334	7.9	1815	42.8	246	5.8	4240	100.0
TOTAL	17195	60.5	996	3.5	1884	6.6	10746	37.8	2083	7.3	28406	100.0
Level 5												
Gosford	1651	49.7	111	3.3	244	7.3	1443	43.4	320	9.6	3322	100.0
Northern Beaches	1130	52.1	7	0.3	135	6.2	894	41.2	201	9.3	2168	100.0
St. George	1650	66.1	45	1.8	218	8.7	1140	45.6	94	3.8	2498	100.0
Blacktown	2124	56.3	128	3.4	215	5.7	1500	39.7	309	8.2	3775	100.0
Lismore Base	776	55.3	35	2.5	48	3.4	484	34.5	152	10.8	1404	100.0
Tweed Heads	521	51.5	32	3.2	66	6.5	409	40.4	111	11.0	1012	100.0
Dubbo Base	707	51.5	44	3.2	214	15.6	650	47.3	111	8.1	1374	100.0
Wollongong	1706	60.6	88	3.1	143	5.1	1136	40.3	167	5.9	2816	100.0
Wagga Wagga Base	830	60.9	53	3.9	124	9.1	543	39.9	94	6.9	1362	100.0
TOTAL	11095	56.2	543	2.8	1407	7.1	8199	41.6	1559	7.9	19731	100.0
Level 4												
Canterbury	753	55.4	36	2.7	35	2.6	564	41.5	149	11.0	1358	100.0
Hornsby	641	55.2	20	1.7	50	4.3	546	47.0	58	5.0	1162	100.0
Sutherland	874	60.7	28	1.9	100	6.9	585	40.6	80	5.6	1441	100.0
Fairfield	524	35.3	35	2.4	252	17.0	819	55.2	186	12.5	1484	100.0
Hawkesbury	431	51.0	18	2.1	124	14.7	321	38.0	77	9.1	845	100.0
Campbelltown	1879	45.9	125	3.1	538	13.1	2010	49.1	552	13.5	4096	100.0
Bankstown-Lidcombe	762	44.9	63	3.7	110	6.5	766	45.1	193	11.4	1698	100.0
Coffs Harbour	522	47.5	45	4.1	59	5.4	394	35.8	135	12.3	1100	100.0
Grafton Base	224	55.7	17	4.2	52	12.9	158	39.3	29	7.2	402	100.0
Port Macquarie Base	510	56.2	33	3.6	34	3.7	405	44.7	67	7.4	907	100.0
Armidale	197	46.0	15	3.5	31	7.2	189	44.2	35	8.2	428	100.0
Tamworth Base	648	56.0	32	2.8	87	7.5	450	38.9	86	7.4	1157	100.0
Manning Base	325	49.8	36	5.5	108	16.6	317	48.6	45	6.9	652	100.0
Bathurst Base	248	44.8	18	3.2	64	11.6	289	52.2	25	4.5	554	100.0
Orange Base	736	65.6	38	3.4	87	7.8	460	41.0	50	4.5	1122	100.0
Maitland	949	49.4	104	5.4	106	5.5	905	47.1	147	7.7	1921	100.0
Griffith Base	190	37.7	17	3.4	96	19.0	271	53.8	43	8.5	504	100.0
TOTAL	10413	50.0	680	3.3	1933	9.3	9449	45.4	1957	9.4	20831	100.0
Level 3												
Auburn	691	55.3	20	1.6	55	4.4	561	44.9	97	7.8	1249	100.0
Kempsey	84	34.7	8	3.3	40	16.5	128	52.9	30	12.4	242	100.0
Inverell	63	28.5	3	1.4	22	10.0	89	40.3	36	16.3	221	100.0
Mudgee	136	50.7	8	3.0	21	7.8	117	43.7	23	8.6	268	100.0
Forbes	85	36.2	4	1.7	40	17.0	122	51.9	26	11.1	235	100.0
Bega	129	48.9	5	1.9	14	5.3	111	42.0	19	7.2	264	100.0
Goulburn Base	155	52.0	4	1.3	37	12.4	158	53.0	23	7.7	298	100.0
Moruya	171	48.9	14	4.0	26	7.4	154	44.0	51	14.6	350	100.0
Queanbeyan	293	55.1	15	2.8	23	4.3	180	33.8	46	8.6	532	100.0
Bowral	228	39.0	7	1.2	93	15.9	292	49.9	84	14.4	585	100.0
Shoalhaven	471	51.2	26	2.8	77	8.4	437	47.5	93	10.1	920	100.0
Other hospitals	628	39.1	50	3.1	210	13.1	695	43.3	209	13.0	1606	100.0
TOTAL	3134	46.3	164	2.4	658	9.7	3044	45.0	737	10.9	6770	100.0
Level 2	54	9.7	15	2.7	18	3.2	154	27.7	232	41.8	555	100.0
Public hospital[§]	41891	54.9	2398	3.1	5900	7.7	31592	41.4	6569	8.6	76294	100.0

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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.	%
Private												
Mater, North Sydney	2002	83.5	31	1.3	499	20.8	412	17.2	0	0.0	2399	100.0
North Shore Private	2033	87.6	9	0.4	17	0.7	392	16.9	58	2.5	2320	100.0
Sydney Adventist	1971	85.8	10	0.4	95	4.1	445	19.4	66	2.9	2296	100.0
North Gosford Private	427	82.0	5	1.0	2	0.4	28	5.4	0	0.0	521	100.0
Hurstville Community	810	79.9	8	0.8	41	4.0	246	24.3	5	0.5	1014	100.0
Kareena Private	598	89.4	7	1.0	4	0.6	59	8.8	25	3.7	669	100.0
St. George Private	1152	85.0	12	0.9	29	2.1	255	18.8	46	3.4	1356	100.0
Prince of Wales Private	1838	89.8	17	0.8	57	2.8	462	22.6	84	4.1	2046	100.0
Norwest Private	1223	83.3	19	1.3	39	2.7	362	24.6	73	5.0	1469	100.0
Sydney Southwest Private	751	77.5	15	1.5	147	15.2	173	17.9	82	8.5	969	100.0
Nepean Private	476	73.1	13	2.0	87	13.4	192	29.5	42	6.5	651	100.0
Westmead Private	2200	84.2	18	0.7	93	3.6	437	16.7	62	2.4	2613	100.0
Wollongong Private	822	85.6	13	1.4	1	0.1	256	26.7	33	3.4	960	100.0
Newcastle Private	1434	80.0	16	0.9	151	8.4	460	25.7	137	7.6	1792	100.0
Calvary, Wagga Wagga	216	76.3	1	0.4	10	3.5	60	21.2	21	7.4	283	100.0
TOTAL	17953	84.1	194	0.9	1272	6.0	4239	19.8	734	3.4	21358	100.0
TOTAL NSW*	59844	61.1	2592	2.6	7172	7.3	35832	36.6	7531	7.7	98006	100.0

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

*Hospitals with more than 200 births in 2021 are identified individually. Maternity service levels are described on page 127 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 2021.

In 2021, there were 1,594 cases of third degree tear and 64 cases of fourth degree tear reported among women who gave birth vaginally, including tears associated with an episiotomy.

TABLE 45: PERINEAL STATUS AMONG VAGINAL BIRTHS BY LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2021

Hospital sector– Local Health District	Perineal status																	
	Intact		1st degree tear/graze		2nd degree tear		3rd or 4th degree tear		Episiotomy		Combined tear and episiotomy		Other		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Public																		
Sydney	402	11.1	420	11.6	1238	34.1	122	3.4	976	26.9	96	2.6	375	10.3	4	0.1	3633	100.0
South Western Sydney	1470	18.1	1627	20.0	2302	28.3	201	2.5	1636	20.1	214	2.6	673	8.3	21	0.3	8144	100.0
South Eastern Sydney	555	10.3	983	18.3	1794	33.4	153	2.8	1385	25.8	212	3.9	292	5.4	0	0.0	5374	100.0
Illawarra Shoalhaven	380	16.1	532	22.5	725	30.6	59	2.5	399	16.9	58	2.5	213	9.0	0	0.0	2366	100.0
Western Sydney	820	12.5	1435	21.9	1974	30.1	158	2.4	1624	24.8	213	3.2	337	5.1	0	0.0	6561	100.0
Nepean Blue Mountains	453	14.5	918	29.5	927	29.7	86	2.8	471	15.1	85	2.7	176	5.6	0	0.0	3116	100.0
Northern Sydney	412	10.4	1041	26.3	1372	34.7	69	1.7	871	22.0	87	2.2	101	2.6	2	0.1	3955	100.0
Central Coast	232	9.9	628	26.8	785	33.5	49	2.1	393	16.8	44	1.9	211	9.0	0	0.0	2342	100.0
Hunter New England	846	13.9	1660	27.2	1644	26.9	168	2.8	1182	19.4	181	3.0	421	6.9	0	0.0	6102	100.0
Northern NSW	303	14.6	652	31.4	587	28.3	71	3.4	275	13.2	29	1.4	159	7.7	0	0.0	2076	100.0
Mid North Coast	231	15.1	443	28.9	428	27.9	29	1.9	231	15.1	35	2.3	137	8.9	0	0.0	1534	100.0
Southern NSW	150	13.9	306	28.4	317	29.5	20	1.9	163	15.1	25	2.3	95	8.8	0	0.0	1076	100.0
Murrumbidgee	244	17.2	459	32.4	389	27.5	26	1.8	191	13.5	18	1.3	90	6.4	0	0.0	1417	100.0
Western NSW	356	14.8	707	29.4	604	25.1	55	2.3	460	19.1	51	2.1	170	7.1	0	0.0	2403	100.0
Far West	25	20.7	39	32.2	30	24.8	3	2.5	7	5.8	4	3.3	13	10.7	0	0.0	121	100.0
TOTAL	6879	13.7	11850	23.6	15116	30.1	1269	2.5	10264	20.4	1352	2.7	3463	6.9	27	0.1	50220	100.0
Private	1494	14.2	1872	17.8	3363	31.9	81	0.8	2552	24.2	352	3.3	817	7.8	7	0.1	10538	100.0
TOTAL NSW*	8527	14.0	13811	22.6	18574	30.4	1352	2.2	12817	21.0	1704	2.8	4281	7.0	44	0.1	61110	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 46: PERINEAL STATUS AMONG VAGINAL BIRTHS BY MATERNITY SERVICE LEVEL AND HOSPITAL, NSW 2021[#]

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		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Level 6																		
Royal Prince Alfred	272	9.9	317	11.6	958	35.0	90	3.3	742	27.1	72	2.6	282	10.3	2	0.1	2735	100.0
Royal North Shore	164	9.6	378	22.2	643	37.8	30	1.8	374	22.0	39	2.3	73	4.3	0	0.0	1701	100.0
Royal Hospital for Women	293	10.9	512	19.1	896	33.4	73	2.7	687	25.6	60	2.2	162	6.0	0	0.0	2683	100.0
Liverpool	354	14.0	483	19.1	786	31.0	61	2.4	473	18.7	78	3.1	289	11.4	8	0.3	2532	100.0
Nepean	322	13.6	699	29.6	700	29.6	60	2.5	374	15.8	74	3.1	134	5.7	0	0.0	2363	100.0
Westmead	411	12.0	724	21.2	1098	32.1	77	2.3	828	24.2	121	3.5	161	4.7	0	0.0	3420	100.0
John Hunter	308	11.4	652	24.1	796	29.5	80	3.0	602	22.3	103	3.8	159	5.9	0	0.0	2700	100.0
TOTAL	2124	11.7	3765	20.8	5877	32.4	471	2.6	4080	22.5	547	3.0	1260	6.9	10	0.1	18134	100.0
Level 5																		
Gosford	232	9.9	628	26.8	785	33.5	49	2.1	393	16.8	44	1.9	211	9.0	0	0.0	2342	100.0
Northern Beaches	164	11.3	499	34.5	475	32.8	24	1.7	261	18.0	22	1.5	0	0.0	2	0.1	1447	100.0
St. George	166	9.9	286	17.0	536	31.9	58	3.5	453	27.0	99	5.9	81	4.8	0	0.0	1679	100.0
Blacktown	262	11.5	523	22.9	670	29.3	62	2.7	566	24.7	69	3.0	136	5.9	0	0.0	2288	100.0
Campbelltown	601	20.8	621	21.5	838	29.0	68	2.4	566	19.6	63	2.2	134	4.6	0	0.0	2891	100.0
Lismore Base	149	15.3	293	30.2	267	27.5	28	2.9	151	15.6	11	1.1	72	7.4	0	0.0	971	100.0
Tweed Heads	92	12.4	202	27.2	224	30.1	39	5.2	107	14.4	15	2.0	64	8.6	0	0.0	743	100.0
Dubbo Base	149	17.0	251	28.7	226	25.8	11	1.3	160	18.3	15	1.7	64	7.3	0	0.0	876	100.0
Wollongong	258	14.6	370	21.0	538	30.5	48	2.7	338	19.2	52	3.0	158	9.0	0	0.0	1762	100.0
Wagga Wagga Base	108	13.7	268	33.9	209	26.4	13	1.6	127	16.1	9	1.1	57	7.2	0	0.0	791	100.0
TOTAL	2181	13.8	3941	25.0	4768	30.2	400	2.5	3122	19.8	399	2.5	977	6.2	2	0.0	15790	100.0
Level 4																		
Canterbury	130	14.5	103	11.5	280	31.2	32	3.6	234	26.1	24	2.7	93	10.4	2	0.2	898	100.0
Hornsby	84	10.4	164	20.3	254	31.5	15	1.9	236	29.2	26	3.2	28	3.5	0	0.0	807	100.0
Sutherland	96	9.5	185	18.3	362	35.8	22	2.2	245	24.2	53	5.2	49	4.8	0	0.0	1012	100.0
Bankstown-Lidcombe	186	15.5	164	13.6	286	23.8	36	3.0	297	24.7	31	2.6	189	15.7	13	1.1	1202	100.0
Hawkesbury	108	20.4	150	28.4	152	28.7	20	3.8	73	13.8	6	1.1	20	3.8	0	0.0	529	100.0
Coffs Harbour	107	14.8	204	28.3	231	32.0	19	2.6	77	10.7	14	1.9	70	9.7	0	0.0	722	100.0
Grafton Base	43	20.3	81	38.2	54	25.5	2	0.9	14	6.6	3	1.4	15	7.1	0	0.0	212	100.0
Port Macquarie Base	90	14.9	154	25.5	157	26.0	7	1.2	138	22.9	15	2.5	42	7.0	0	0.0	603	100.0
Armidaale	57	20.7	74	26.8	74	26.8	5	1.8	32	11.6	2	0.7	32	11.6	0	0.0	276	100.0
Tamworth Base	114	16.4	198	28.5	165	23.7	9	1.3	134	19.3	15	2.2	60	8.6	0	0.0	695	100.0
Manning Base	53	11.9	137	30.9	104	23.4	18	4.1	74	16.7	8	1.8	50	11.3	0	0.0	444	100.0
Bathurst Base	48	13.6	120	33.9	108	30.5	7	2.0	35	9.9	10	2.8	26	7.3	0	0.0	354	100.0
Orange Base	82	11.4	164	22.9	162	22.6	24	3.3	214	29.8	19	2.6	52	7.3	0	0.0	717	100.0
Maitland	175	13.9	354	28.1	330	26.2	39	3.1	245	19.5	42	3.3	74	5.9	0	0.0	1259	100.0
Griffith Base	59	17.4	108	31.8	110	32.4	8	2.4	37	10.9	4	1.2	14	4.1	0	0.0	340	100.0
TOTAL	1432	14.2	2360	23.4	2829	28.1	263	2.6	2085	20.7	272	2.7	814	8.1	15	0.1	10070	100.0
Level 3																		
Auburn	147	17.2	188	22.0	206	24.2	19	2.2	230	27.0	23	2.7	40	4.7	0	0.0	853	100.0
Fairfield	249	23.1	247	22.9	252	23.4	23	2.1	236	21.9	33	3.1	37	3.4	0	0.0	1077	100.0
Kempsey	26	15.1	69	40.1	34	19.8	3	1.7	16	9.3	6	3.5	18	10.5	0	0.0	172	100.0
Inverell	27	17.1	53	33.5	19	12.0	0	0.0	53	33.5	2	1.3	4	2.5	0	0.0	158	100.0
Mudgee	31	18.1	58	33.9	41	24.0	4	2.3	23	13.5	3	1.8	11	6.4	0	0.0	171	100.0
Forbes	17	10.1	72	42.6	42	24.9	7	4.1	14	8.3	2	1.2	15	8.9	0	0.0	169	100.0
Bega	21	12.5	43	25.6	51	30.4	3	1.8	31	18.5	6	3.6	13	7.7	0	0.0	168	100.0
Goulburn Base	47	22.3	40	19.0	69	32.7	3	1.4	25	11.8	2	0.9	25	11.8	0	0.0	211	100.0
Moruya	31	12.3	91	36.1	62	24.6	7	2.8	27	10.7	3	1.2	31	12.3	0	0.0	252	100.0
Queanbeyan	32	8.9	104	29.1	118	33.0	7	2.0	68	19.0	12	3.4	17	4.7	0	0.0	358	100.0
Bowral	80	18.1	112	25.3	140	31.7	13	2.9	64	14.5	9	2.0	24	5.4	0	0.0	442	100.0
Shoalhaven	122	20.2	162	26.8	187	31.0	11	1.8	61	10.1	6	1.0	55	9.1	0	0.0	604	100.0
Other hospitals	220	20.3	332	30.7	291	26.9	20	1.8	111	10.2	23	2.1	86	7.9	0	0.0	1083	100.0
TOTAL	1050	18.4	1571	27.5	1512	26.4	120	2.1	959	16.8	130	2.3	376	6.6	0	0.0	5718	100.0
Level 2	90	17.8	212	42.0	130	25.7	15	3.0	18	3.6	4	0.8	36	7.1	0	0.0	505	100.0
Public hospital ^a	6877	13.7	11850	23.6	15116	30.1	1269	2.5	10264	20.4	1352	2.7	3463	6.9	27	0.1	50218	100.0

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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		Not stated		TOTAL	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Private																			
Mater, North Sydney	95	10.3	132	14.3	296	32.2	5	0.5	147	16.0	133	14.5	112	12.2	0	0.0	920	100.0	
North Shore Private	131	13.8	211	22.3	322	34.0	9	1.0	237	25.0	2	0.2	35	3.7	0	0.0	947	100.0	
Sydney Adventist	251	18.7	317	23.6	453	33.7	1	0.1	248	18.5	0	0.0	74	5.5	0	0.0	1344	100.0	
North Gosford Private	69	26.6	51	19.7	84	32.4	4	1.5	47	18.1	2	0.8	0	0.0	2	0.8	259	100.0	
Hurstville Community	97	17.4	134	24.1	176	31.6	9	1.6	119	21.4	21	3.8	1	0.2	0	0.0	557	100.0	
Kareena Private	38	13.5	46	16.3	92	32.6	3	1.1	88	31.2	1	0.4	14	5.0	0	0.0	282	100.0	
St. George Private	114	14.9	159	20.8	271	35.5	3	0.4	176	23.1	8	1.0	32	4.2	0	0.0	763	100.0	
Prince of Wales Private	93	10.7	122	14.0	255	29.2	4	0.5	232	26.6	44	5.0	121	13.9	1	0.1	872	100.0	
Norwest Private	116	14.3	96	11.8	248	30.6	4	0.5	214	26.4	50	6.2	83	10.2	0	0.0	811	100.0	
Sydney Southwest Private	88	14.3	125	20.3	160	26.0	1	0.2	165	26.8	18	2.9	55	8.9	3	0.5	615	100.0	
Nepean Private	51	15.0	29	8.6	94	27.7	3	0.9	99	29.2	18	5.3	45	13.3	0	0.0	339	100.0	
Westmead Private	131	9.9	213	16.1	333	25.1	7	0.5	562	42.4	7	0.5	73	5.5	0	0.0	1326	100.0	
Wollongong Private	79	16.2	88	18.0	183	37.4	7	1.4	99	20.2	2	0.4	31	6.3	0	0.0	489	100.0	
Newcastle Private	123	13.6	123	13.6	351	38.8	19	2.1	102	11.3	46	5.1	140	15.5	1	0.1	905	100.0	
Calvary, Wagga Wagga	18	16.5	26	23.9	45	41.3	2	1.8	17	15.6	0	0.0	1	0.9	0	0.0	109	100.0	
TOTAL	1494	14.2	1872	17.8	3363	31.9	81	0.8	2552	24.2	352	3.3	817	7.8	7	0.1	10538	100.0	
TOTAL NSW*	8527	14.0	13811	22.6	18574	30.4	1352	2.2	12817	21.0	1704	2.8	4281	7.0	44	0.1	61110	100.0	

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

*Hospitals with more than 200 births in 2021 are identified individually. Maternity service levels are described on page 127 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 2021.

TABLE 47: BIRTHS BY BIRTHWEIGHT AND LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2021

Hospital sector–Local Health District	Birthweight (grams)												TOTAL	
	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.	%
Public														
Sydney	62	1.0	63	1.1	384	6.4	5022	84.3	417	7.0	12	0.2	5960	100.0
South Western Sydney	92	0.8	57	0.5	650	5.5	9729	83.1	1148	9.8	37	0.3	11713	100.0
South Eastern Sydney	115	1.4	53	0.6	405	5.0	6878	84.1	721	8.8	4	0.0	8176	100.0
Illawarra Shoalhaven	18	0.5	7	0.2	176	4.6	3177	83.9	409	10.8	1	0.0	3788	100.0
Western Sydney	105	1.0	68	0.7	657	6.3	8639	83.4	864	8.3	24	0.2	10357	100.0
Nepean Blue Mountains	53	1.0	59	1.1	322	6.1	4177	79.0	670	12.7	7	0.1	5288	100.0
Northern Sydney	50	0.8	58	1.0	309	5.1	5112	84.1	538	8.9	12	0.2	6079	100.0
Central Coast	15	0.4	8	0.2	157	4.7	2704	80.4	473	14.1	7	0.2	3364	100.0
Hunter New England	105	1.1	84	0.9	555	5.8	7701	81.0	1039	10.9	23	0.2	9507	100.0
Northern NSW	9	0.3	5	0.2	147	4.9	2459	81.9	374	12.5	10	0.3	3004	100.0
Mid North Coast	2	0.1	2	0.1	119	5.2	1916	83.3	260	11.3	0	0.0	2299	100.0
Southern NSW	5	0.3	1	0.1	44	2.8	1333	84.3	197	12.5	1	0.1	1581	100.0
Murrumbidgee	9	0.4	5	0.2	109	4.8	1860	81.8	287	12.6	3	0.1	2273	100.0
Western NSW	16	0.4	7	0.2	225	6.0	3093	82.2	418	11.1	3	0.1	3762	100.0
Far West	0	0.0	1	0.5	12	6.0	159	79.5	26	13.0	2	1.0	200	100.0
TOTAL	656	0.8	478	0.6	4271	5.5	63959	82.7	7841	10.1	146	0.2	77351	100.0
Private	34	0.2	15	0.1	938	4.3	19183	88.8	1408	6.5	35	0.2	21613	100.0
TOTAL NSW*	690	0.7	493	0.5	5209	5.2	83412	84.0	9329	9.4	183	0.2	99316	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 48: BIRTHS BY BIRTHWEIGHT, MATERNITY SERVICE LEVEL AND HOSPITAL, NSW 2021[#]

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.	%
Level 6														
Royal Prince Alfred	56	1.2	62	1.3	310	6.7	3817	83.1	342	7.4	9	0.2	4596	100.0
Royal North Shore	43	1.6	55	2.0	172	6.3	2243	82.7	194	7.2	4	0.1	2711	100.0
Royal Hospital for Women	82	2.0	53	1.3	258	6.1	3428	81.6	378	9.0	3	0.1	4202	100.0
Liverpool	65	1.7	48	1.3	300	8.0	3012	79.8	337	8.9	11	0.3	3773	100.0
Nepean	53	1.3	59	1.4	299	7.3	3155	77.3	508	12.4	7	0.2	4081	100.0
Westmead	84	1.6	60	1.1	373	7.0	4333	81.8	434	8.2	10	0.2	5294	100.0
John Hunter	91	2.1	78	1.8	312	7.2	3384	78.2	446	10.3	17	0.4	4328	100.0
TOTAL	474	1.6	415	1.4	2024	7.0	23372	80.6	2639	9.1	61	0.2	28985	100.0
Level 5														
Gosford	15	0.4	8	0.2	157	4.7	2704	80.4	473	14.1	7	0.2	3364	100.0
Northern Beaches	5	0.2	2	0.1	84	3.8	1859	84.7	238	10.8	8	0.4	2196	100.0
St. George	24	0.9	0	0.0	128	5.1	2202	86.9	178	7.0	1	0.0	2533	100.0
Blacktown	16	0.4	6	0.2	238	6.2	3189	83.7	348	9.1	14	0.4	3811	100.0
Campbelltown	13	0.3	7	0.2	216	5.2	3406	81.9	499	12.0	17	0.4	4158	100.0
Lismore Base	7	0.5	2	0.1	80	5.6	1160	81.3	176	12.3	1	0.1	1426	100.0
Tweed Heads	2	0.2	2	0.2	49	4.8	836	81.7	128	12.5	6	0.6	1023	100.0
Dubbo Base	6	0.4	4	0.3	116	8.3	1103	79.1	164	11.8	2	0.1	1395	100.0
Wollongong	15	0.5	7	0.2	155	5.4	2410	84.1	279	9.7	1	0.0	2867	100.0
Wagga Wagga Base	3	0.2	4	0.3	77	5.5	1140	82.0	163	11.7	3	0.2	1390	100.0
TOTAL	106	0.4	42	0.2	1300	5.4	20009	82.8	2646	11.0	60	0.2	24163	100.0
Level 4														
Canterbury	6	0.4	1	0.1	74	5.4	1205	88.3	75	5.5	3	0.2	1364	100.0
Hornsby	2	0.2	1	0.1	53	4.5	1010	86.2	106	9.0	0	0.0	1172	100.0
Sutherland	9	0.6	0	0.0	19	1.3	1248	86.6	165	11.5	0	0.0	1441	100.0
Bankstown-Lidcombe	7	0.4	2	0.1	79	4.6	1488	86.9	135	7.9	2	0.1	1713	100.0
Hawkesbury	0	0.0	0	0.0	20	2.4	727	85.4	104	12.2	0	0.0	851	100.0
Coffs Harbour	1	0.1	0	0.0	53	4.8	938	84.7	116	10.5	0	0.0	1108	100.0
Grafton Base	0	0.0	1	0.2	17	4.2	333	82.2	51	12.6	3	0.7	405	100.0
Port Macquarie Base	0	0.0	2	0.2	60	6.6	735	80.6	115	12.6	0	0.0	912	100.0
Armidale	1	0.2	0	0.0	27	6.3	365	84.5	39	9.0	0	0.0	432	100.0
Tamworth Base	4	0.3	2	0.2	68	5.8	974	82.9	125	10.6	2	0.2	1175	100.0
Manning Base	4	0.6	2	0.3	42	6.4	555	84.1	54	8.2	3	0.5	660	100.0
Bathurst Base	1	0.2	0	0.0	35	6.2	466	83.1	59	10.5	0	0.0	561	100.0
Orange Base	9	0.8	0	0.0	63	5.5	968	84.8	100	8.8	1	0.1	1141	100.0
Maitland	4	0.2	1	0.1	76	3.9	1597	82.5	257	13.3	0	0.0	1935	100.0
Griffith Base	6	1.2	1	0.2	26	5.1	413	81.0	64	12.5	0	0.0	510	100.0
TOTAL	54	0.4	13	0.1	712	4.6	13022	84.7	1565	10.2	14	0.1	15380	100.0
Level 3														
Auburn	5	0.4	2	0.2	46	3.7	1117	89.2	82	6.5	0	0.0	1252	100.0
Fairfield	5	0.3	0	0.0	48	3.2	1333	89.8	94	6.3	4	0.3	1484	100.0
Kempsey	1	0.4	0	0.0	6	2.5	210	86.8	25	10.3	0	0.0	242	100.0
Inverell	0	0.0	0	0.0	12	5.4	188	85.1	20	9.0	1	0.5	221	100.0
Mudgee	0	0.0	0	0.0	3	1.1	231	86.2	34	12.7	0	0.0	268	100.0
Forbes	0	0.0	1	0.4	5	2.1	188	80.0	41	17.4	0	0.0	235	100.0
Bega	1	0.4	0	0.0	6	2.3	226	85.6	31	11.7	0	0.0	264	100.0
Goulburn Base	3	1.0	0	0.0	14	4.7	251	83.4	32	10.6	1	0.3	301	100.0
Moruya	1	0.3	1	0.3	10	2.9	278	79.4	60	17.1	0	0.0	350	100.0
Queanbeyan	0	0.0	0	0.0	11	2.1	458	86.1	63	11.8	0	0.0	532	100.0
Bowral	2	0.3	0	0.0	7	1.2	490	83.8	83	14.2	3	0.5	585	100.0
Shoalhaven	3	0.3	0	0.0	21	2.3	767	83.3	130	14.1	0	0.0	921	100.0
Other hospitals	1	0.1	2	0.1	38	2.4	1347	83.7	219	13.6	2	0.1	1609	100.0
TOTAL	22	0.3	6	0.1	227	2.7	7084	85.7	914	11.1	11	0.1	8264	100.0
Level 2	0	0.0	0	0.0	8	1.4	470	84.7	77	13.9	0	0.0	555	100.0
Public hospital[§]	656	0.8	476	0.6	4271	5.5	63958	82.7	7841	10.1	146	0.2	77348	100.0

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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.	%
Private														
Mater, North Sydney	1	0.0	0	0.0	98	4.0	2188	90.3	137	5.7	0	0.0	2424	100.0
North Shore Private	6	0.3	1	0.0	99	4.2	2082	88.3	168	7.1	3	0.1	2359	100.0
Sydney Adventist	7	0.3	1	0.0	109	4.7	2006	86.6	190	8.2	4	0.2	2317	100.0
North Gosford Private	1	0.2	2	0.4	18	3.4	472	89.4	35	6.6	0	0.0	528	100.0
Hurstville Community	1	0.1	2	0.2	45	4.4	916	89.0	64	6.2	1	0.1	1029	100.0
Kareena Private	1	0.1	0	0.0	14	2.1	604	89.9	52	7.7	1	0.1	672	100.0
St. George Private	2	0.1	0	0.0	66	4.8	1238	90.0	69	5.0	0	0.0	1375	100.0
Prince of Wales Private	2	0.1	2	0.1	97	4.7	1833	88.7	127	6.1	5	0.2	2066	100.0
Norwest Private	2	0.1	3	0.2	90	6.0	1311	88.0	83	5.6	1	0.1	1490	100.0
Sydney Southwest Private	0	0.0	0	0.0	35	3.6	856	87.5	76	7.8	11	1.1	978	100.0
Nepean Private	0	0.0	1	0.2	27	4.1	578	87.4	55	8.3	0	0.0	661	100.0
Westmead Private	6	0.2	1	0.0	135	5.1	2387	90.4	111	4.2	0	0.0	2640	100.0
Wollongong Private	5	0.5	0	0.0	41	4.2	859	87.9	72	7.4	0	0.0	977	100.0
Newcastle Private	0	0.0	2	0.1	58	3.2	1596	88.2	144	8.0	9	0.5	1809	100.0
Calvary, Wagga Wagga	0	0.0	0	0.0	6	2.1	257	89.2	25	8.7	0	0.0	288	100.0
TOTAL	34	0.2	15	0.1	938	4.3	19183	88.8	1408	6.5	35	0.2	21613	100.0
TOTAL NSW*	690	0.7	493	0.5	5209	5.2	83412	84.0	9329	9.4	183	0.2	99316	100.0

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

*Hospitals with more than 200 births in 2021 are identified individually. Maternity service levels are described on page 127 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 2021.

TABLE 49: BIRTHS BY GESTATIONAL AGE AND LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2021

Hospital sector– Local Health District	Gestational age (weeks)												
	<32		32–33		34–36		37+		Not stated		TOTAL		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
Public													
Sydney	151	2.5	48	0.8	371	6.2	5387	90.4	3	0.1	5960	100.0	
South Western Sydney	173	1.5	103	0.9	675	5.8	10761	91.9	1	0.0	11713	100.0	
South Eastern Sydney	186	2.3	64	0.8	334	4.1	7590	92.8	2	0.0	8176	100.0	
Illawarra Shoalhaven	26	0.7	22	0.6	211	5.6	3529	93.2	0	0.0	3788	100.0	
Western Sydney	199	1.9	105	1.0	483	4.7	9569	92.4	1	0.0	10357	100.0	
Nepean Blue Mountains	123	2.3	51	1.0	321	6.1	4792	90.6	1	0.0	5288	100.0	
Northern Sydney	134	2.2	62	1.0	247	4.1	5633	92.7	3	0.0	6079	100.0	
Central Coast	26	0.8	20	0.6	150	4.5	3166	94.1	2	0.1	3364	100.0	
Hunter New England	213	2.2	92	1.0	476	5.0	8724	91.8	2	0.0	9507	100.0	
Northern NSW	20	0.7	20	0.7	149	5.0	2815	93.7	0	0.0	3004	100.0	
Mid North Coast	4	0.2	6	0.3	114	5.0	2175	94.6	0	0.0	2299	100.0	
Southern NSW	6	0.4	6	0.4	31	2.0	1538	97.3	0	0.0	1581	100.0	
Murrumbidgee	17	0.7	22	1.0	116	5.1	2118	93.2	0	0.0	2273	100.0	
Western NSW	28	0.7	23	0.6	202	5.4	3508	93.2	1	0.0	3762	100.0	
Far West	2	1.0	2	1.0	3	1.5	192	96.0	1	0.5	200	100.0	
TOTAL	1308	1.7	646	0.8	3883	5.0	71497	92.4	17	0.0	77351	100.0	
Private	58	0.3	77	0.4	1221	5.6	20238	93.6	19	0.1	21613	100.0	
TOTAL NSW*	1366	1.4	723	0.7	5106	5.1	92071	92.7	50	0.1	99316	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 2021[#]

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	140	3.0	46	1.0	293	6.4	4116	89.6	1	0.0	4596	100.0
Royal North Shore	124	4.6	45	1.7	106	3.9	2436	89.9	0	0.0	2711	100.0
Royal Hospital for Women	152	3.6	50	1.2	192	4.6	3806	90.6	2	0.0	4202	100.0
Liverpool	131	3.5	55	1.5	280	7.4	3306	87.6	1	0.0	3773	100.0
Nepean	123	3.0	51	1.2	287	7.0	3620	88.7	0	0.0	4081	100.0
Westmead	159	3.0	80	1.5	257	4.9	4798	90.6	0	0.0	5294	100.0
John Hunter	185	4.3	81	1.9	259	6.0	3802	87.8	1	0.0	4328	100.0
TOTAL	1014	3.5	408	1.4	1674	5.8	25884	89.3	5	0.0	28985	100.0
Level 5												
Gosford	26	0.8	20	0.6	150	4.5	3166	94.1	2	0.1	3364	100.0
Northern Beaches	6	0.3	14	0.6	102	4.6	2071	94.3	3	0.1	2196	100.0
St. George	25	1.0	12	0.5	121	4.8	2375	93.8	0	0.0	2533	100.0
Blacktown	32	0.8	23	0.6	198	5.2	3557	93.3	1	0.0	3811	100.0
Campbelltown	23	0.6	41	1.0	255	6.1	3839	92.3	0	0.0	4158	100.0
Lismore Base	10	0.7	8	0.6	84	5.9	1324	92.8	0	0.0	1426	100.0
Tweed Heads	7	0.7	9	0.9	47	4.6	960	93.8	0	0.0	1023	100.0
Dubbo Base	12	0.9	16	1.1	91	6.5	1275	91.4	1	0.1	1395	100.0
Wollongong	23	0.8	19	0.7	196	6.8	2629	91.7	0	0.0	2867	100.0
Wagga Wagga Base	8	0.6	17	1.2	88	6.3	1277	91.9	0	0.0	1390	100.0
TOTAL	172	0.7	179	0.7	1332	5.5	22473	93.0	7	0.0	24163	100.0
Level 4												
Canterbury	11	0.8	2	0.1	78	5.7	1271	93.2	2	0.1	1364	100.0
Hornsby	4	0.3	3	0.3	39	3.3	1126	96.1	0	0.0	1172	100.0
Sutherland	9	0.6	2	0.1	21	1.5	1409	97.8	0	0.0	1441	100.0
Bankstown-Lidcombe	11	0.6	6	0.4	84	4.9	1612	94.1	0	0.0	1713	100.0
Hawkesbury	0	0.0	0	0.0	33	3.9	817	96.0	1	0.1	851	100.0
Coffs Harbour	1	0.1	4	0.4	48	4.3	1055	95.2	0	0.0	1108	100.0
Grafton Base	3	0.7	3	0.7	18	4.4	381	94.1	0	0.0	405	100.0
Port Macquarie Base	2	0.2	2	0.2	63	6.9	845	92.7	0	0.0	912	100.0
Armidale	1	0.2	1	0.2	19	4.4	411	95.1	0	0.0	432	100.0
Tamworth Base	8	0.7	1	0.1	62	5.3	1104	94.0	0	0.0	1175	100.0
Manning Base	9	1.4	4	0.6	34	5.2	613	92.9	0	0.0	660	100.0
Bathurst Base	1	0.2	4	0.7	32	5.7	524	93.4	0	0.0	561	100.0
Orange Base	11	1.0	1	0.1	69	6.0	1060	92.9	0	0.0	1141	100.0
Maitland	6	0.3	3	0.2	73	3.8	1852	95.7	1	0.1	1935	100.0
Griffith Base	9	1.8	5	1.0	18	3.5	478	93.7	0	0.0	510	100.0
TOTAL	86	0.6	41	0.3	691	4.5	14558	94.7	4	0.0	15380	100.0
Level 3												
Auburn	8	0.6	2	0.2	28	2.2	1214	97.0	0	0.0	1252	100.0
Fairfield	6	0.4	0	0.0	49	3.3	1429	96.3	0	0.0	1484	100.0
Kempsey	1	0.4	0	0.0	3	1.2	238	98.3	0	0.0	242	100.0
Inverell	0	0.0	1	0.5	9	4.1	211	95.5	0	0.0	221	100.0
Mudgee	0	0.0	0	0.0	6	2.2	262	97.8	0	0.0	268	100.0
Forbes	2	0.9	1	0.4	2	0.9	230	97.9	0	0.0	235	100.0
Bega	1	0.4	2	0.8	4	1.5	257	97.3	0	0.0	264	100.0
Goulburn Base	4	1.3	0	0.0	14	4.7	283	94.0	0	0.0	301	100.0
Moruya	1	0.3	2	0.6	5	1.4	342	97.7	0	0.0	350	100.0
Queanbeyan	0	0.0	0	0.0	7	1.3	525	98.7	0	0.0	532	100.0
Bowral	2	0.3	1	0.2	7	1.2	575	98.3	0	0.0	585	100.0
Shoalhaven	3	0.3	3	0.3	15	1.6	900	97.7	0	0.0	921	100.0
Other hospitals	6	0.4	6	0.4	29	1.8	1567	97.4	1	0.1	1609	100.0
TOTAL	34	0.4	18	0.2	178	2.2	8033	97.2	1	0.0	8264	100.0
Level 2	0	0.0	0	0.0	8	1.4	547	98.6	0	0.0	555	100.0
Public hospital [§]	1306	1.7	646	0.8	3883	5.0	71496	92.4	17	0.0	77348	100.0

(Continued on next page)

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.	%	
Private													
Mater, North Sydney	1	0.0	11	0.5	118	4.9	2294	94.6	0	0.0	2424	100.0	
North Shore Private	10	0.4	12	0.5	120	5.1	2217	94.0	0	0.0	2359	100.0	
Sydney Adventist	11	0.5	15	0.6	139	6.0	2152	92.9	0	0.0	2317	100.0	
North Gosford Private	1	0.2	2	0.4	41	7.8	484	91.7	0	0.0	528	100.0	
Hurstville Community	1	0.1	2	0.2	49	4.8	959	93.2	18	1.7	1029	100.0	
Kareena Private	2	0.3	0	0.0	27	4.0	643	95.7	0	0.0	672	100.0	
St. George Private	2	0.1	10	0.7	76	5.5	1287	93.6	0	0.0	1375	100.0	
Prince of Wales Private	6	0.3	7	0.3	117	5.7	1936	93.7	0	0.0	2066	100.0	
Norwest Private	6	0.4	5	0.3	102	6.8	1377	92.4	0	0.0	1490	100.0	
Sydney Southwest Private	0	0.0	0	0.0	53	5.4	925	94.6	0	0.0	978	100.0	
Nepean Private	2	0.3	0	0.0	44	6.7	615	93.0	0	0.0	661	100.0	
Westmead Private	7	0.3	10	0.4	133	5.0	2490	94.3	0	0.0	2640	100.0	
Wollongong Private	5	0.5	1	0.1	60	6.1	911	93.2	0	0.0	977	100.0	
Newcastle Private	4	0.2	2	0.1	127	7.0	1675	92.6	1	0.1	1809	100.0	
Calvary, Wagga Wagga	0	0.0	0	0.0	15	5.2	273	94.8	0	0.0	288	100.0	
TOTAL	58	0.3	77	0.4	1221	5.6	20238	93.6	19	0.1	21613	100.0	
TOTAL NSW*	1366	1.4	723	0.7	5106	5.1	92071	92.7	50	0.1	99316	100.0	

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

*Hospitals with more than 200 births in 2021 are identified individually. Maternity service levels are described on page 127 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 2021.

TABLE 51: BIRTHS BY TYPE OF RESUSCITATION AND LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2021

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	4937	82.8	92	1.5	198	3.3	694	11.6	38	0.6	1	0.0	0	0.0	5960	100.0
South Western Sydney	10204	87.1	235	2.0	340	2.9	759	6.5	19	0.2	24	0.2	122	1.0	11713	100.0
South Eastern Sydney	6813	83.3	249	3.0	62	0.8	120	1.5	40	0.5	27	0.3	865	10.6	8176	100.0
Illawarra Shoalhaven	3232	85.3	94	2.5	26	0.7	43	1.1	3	0.1	9	0.2	381	10.1	3788	100.0
Western Sydney	8135	78.5	898	8.7	54	0.5	92	0.9	86	0.8	34	0.3	1058	10.2	10357	100.0
Nepean Blue Mountains	4180	79.0	249	4.7	78	1.5	85	1.6	25	0.5	21	0.4	647	12.2	5288	100.0
Northern Sydney	5054	83.1	143	2.4	21	0.3	129	2.1	23	0.4	12	0.2	696	11.4	6079	100.0
Central Coast	2805	83.4	91	2.7	17	0.5	95	2.8	5	0.1	14	0.4	337	10.0	3364	100.0
Hunter New England	7384	77.7	164	1.7	34	0.4	171	1.8	16	0.2	29	0.3	1700	17.9	9507	100.0
Northern NSW	2394	79.7	102	3.4	11	0.4	50	1.7	5	0.2	7	0.2	434	14.4	3004	100.0
Mid North Coast	1908	83.0	15	0.7	4	0.2	36	1.6	2	0.1	7	0.3	327	14.2	2299	100.0
Southern NSW	1333	84.3	15	0.9	9	0.6	26	1.6	1	0.1	8	0.5	188	11.9	1581	100.0
Murrumbidgee	1904	83.8	49	2.2	31	1.4	68	3.0	3	0.1	6	0.3	212	9.3	2273	100.0
Western NSW	2971	79.0	135	3.6	50	1.3	87	2.3	6	0.2	24	0.6	489	13.0	3762	100.0
Far West	166	83.0	9	4.5	0	0.0	11	5.5	0	0.0	2	1.0	11	5.5	200	100.0
TOTAL	63420	82.0	2540	3.3	935	1.2	2466	3.2	272	0.4	225	0.3	7467	9.7	77351	100.0
Private	19762	91.4	342	1.6	419	1.9	591	2.7	2	0.0	19	0.1	422	2.0	21613	100.0
TOTAL NSW*	83500	84.1	2884	2.9	1361	1.4	3063	3.1	274	0.3	244	0.2	7889	7.9	99316	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 2021[#]

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	3733	81.2	67	1.5	143	3.1	615	13.4	38	0.8	0	0.0	0	0.0	4596	100.0
Royal North Shore	2163	79.8	110	4.1	12	0.4	36	1.3	21	0.8	6	0.2	363	13.4	2711	100.0
Royal Hospital for Women	3338	79.4	208	5.0	43	1.0	76	1.8	40	1.0	10	0.2	487	11.6	4202	100.0
Liverpool	3110	82.4	136	3.6	156	4.1	330	8.7	15	0.4	2	0.1	22	0.6	3773	100.0
Nepean	3120	76.5	214	5.2	49	1.2	72	1.8	25	0.6	15	0.4	583	14.3	4081	100.0
Westmead	4089	77.2	426	8.0	25	0.5	57	1.1	84	1.6	14	0.3	599	11.3	5294	100.0
John Hunter	3181	73.5	56	1.3	10	0.2	71	1.6	11	0.3	12	0.3	979	22.6	4328	100.0
TOTAL	22734	78.4	1217	4.2	438	1.5	1257	4.3	234	0.8	59	0.2	3033	10.5	28985	100.0
Level 5																
Gosford	2805	83.4	91	2.7	17	0.5	95	2.8	5	0.1	14	0.4	337	10.0	3364	100.0
Northern Beaches	1903	86.7	6	0.3	2	0.1	82	3.7	1	0.0	1	0.0	200	9.1	2196	100.0
St. George	2210	87.2	19	0.8	9	0.4	25	1.0	0	0.0	14	0.6	256	10.1	2533	100.0
Blacktown	2893	75.9	432	11.3	13	0.3	24	0.6	2	0.1	14	0.4	433	11.4	3811	100.0
Campbelltown	3650	87.8	46	1.1	106	2.5	252	6.1	4	0.1	16	0.4	81	1.9	4158	100.0
Lismore Base	1132	79.4	51	3.6	3	0.2	23	1.6	3	0.2	6	0.4	208	14.6	1426	100.0
Tweed Heads	778	76.1	45	4.4	7	0.7	22	2.2	1	0.1	1	0.1	169	16.5	1023	100.0
Dubbo Base	1028	73.7	120	8.6	19	1.4	30	2.2	1	0.1	6	0.4	191	13.7	1395	100.0
Wollongong	2418	84.3	83	2.9	23	0.8	27	0.9	3	0.1	4	0.1	309	10.8	2867	100.0
Wagga Wagga Base	1115	80.2	38	2.7	14	1.0	44	3.2	2	0.1	3	0.2	174	12.5	1390	100.0
TOTAL	19932	82.5	931	3.9	213	0.9	624	2.6	22	0.1	79	0.3	2358	9.8	24163	100.0
Level 4																
Canterbury	1204	88.3	25	1.8	55	4.0	79	5.8	0	0.0	1	0.1	0	0.0	1364	100.0
Hornsby	988	84.3	27	2.3	7	0.6	11	0.9	1	0.1	5	0.4	133	11.3	1172	100.0
Sutherland	1265	87.8	22	1.5	10	0.7	19	1.3	0	0.0	3	0.2	122	8.5	1441	100.0
Bankstown-Lidcombe	1534	89.6	29	1.7	35	2.0	115	6.7	0	0.0	0	0.0	0	0.0	1713	100.0
Hawkesbury	751	88.2	33	3.9	27	3.2	8	0.9	0	0.0	4	0.5	28	3.3	851	100.0
Coffs Harbour	903	81.5	12	1.1	3	0.3	18	1.6	1	0.1	4	0.4	167	15.1	1108	100.0
Grafton Base	344	84.9	6	1.5	0	0.0	4	1.0	1	0.2	0	0.0	49	12.1	405	100.0
Port Macquarie Base	744	81.6	3	0.3	1	0.1	14	1.5	1	0.1	1	0.1	148	16.2	912	100.0
Armidale	355	82.2	2	0.5	8	1.9	10	2.3	0	0.0	1	0.2	56	13.0	432	100.0
Tamworth Base	894	76.1	56	4.8	5	0.4	19	1.6	2	0.2	4	0.3	194	16.5	1175	100.0
Manning Base	535	81.1	9	1.4	2	0.3	18	2.7	2	0.3	3	0.5	91	13.8	660	100.0
Bathurst Base	392	69.9	6	1.1	6	1.1	20	3.6	2	0.4	1	0.2	134	23.9	561	100.0
Orange Base	958	84.0	7	0.6	19	1.7	22	1.9	2	0.2	9	0.8	124	10.9	1141	100.0
Maitland	1601	82.7	7	0.4	1	0.1	19	1.0	0	0.0	8	0.4	299	15.5	1935	100.0
Griffith Base	451	88.4	5	1.0	11	2.2	22	4.3	1	0.2	1	0.2	19	3.7	510	100.0
TOTAL	12919	84.0	249	1.6	190	1.2	398	2.6	13	0.1	45	0.3	1564	10.2	15380	100.0
Level 3																
Auburn	1153	92.1	40	3.2	16	1.3	11	0.9	0	0.0	6	0.5	26	2.1	1252	100.0
Fairfield	1386	93.4	20	1.3	30	2.0	32	2.2	0	0.0	3	0.2	11	0.7	1484	100.0
Kempsey	225	93.0	0	0.0	0	0.0	3	1.2	0	0.0	2	0.8	12	5.0	242	100.0
Inverell	152	68.8	25	11.3	5	2.3	25	11.3	0	0.0	0	0.0	14	6.3	221	100.0
Mudgee	238	88.8	1	0.4	0	0.0	7	2.6	0	0.0	1	0.4	21	7.8	268	100.0
Forbes	212	90.2	0	0.0	4	1.7	6	2.6	1	0.4	4	1.7	8	3.4	235	100.0
Bega	210	79.5	5	1.9	3	1.1	3	1.1	0	0.0	0	0.0	43	16.3	264	100.0
Goulburn Base	246	81.7	7	2.3	5	1.7	6	2.0	0	0.0	0	0.0	37	12.3	301	100.0
Moruya	322	92.0	2	0.6	0	0.0	5	1.4	0	0.0	3	0.9	18	5.1	350	100.0
Queanbeyan	439	82.5	0	0.0	0	0.0	10	1.9	0	0.0	3	0.6	79	14.8	532	100.0
Bowral	524	89.6	4	0.7	13	2.2	30	5.1	0	0.0	3	0.5	8	1.4	585	100.0
Shoalhaven	814	88.4	11	1.2	3	0.3	16	1.7	0	0.0	5	0.5	72	7.8	921	100.0
Other hospitals	1386	86.1	27	1.7	14	0.9	27	1.7	2	0.1	12	0.7	140	8.7	1609	100.0
TOTAL	7307	88.4	142	1.7	93	1.1	181	2.2	3	0.0	42	0.5	489	5.9	8264	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.	%
Level 2	525	94.6	1	0.2	1	0.2	5	0.9	0	0.0	0	0.0	23	4.1	555	100.0
Public hospital[§]	63418	82.0	2540	3.3	935	1.2	2465	3.2	272	0.4	225	0.3	7467	9.7	77348	100.0
Private																
Mater, North Sydney	2221	91.6	35	1.4	42	1.7	79	3.3	0	0.0	3	0.1	44	1.8	2424	100.0
North Shore Private	2198	93.2	56	2.4	38	1.6	32	1.4	0	0.0	0	0.0	11	0.5	2359	100.0
Sydney Adventist	2202	95.0	7	0.3	23	1.0	33	1.4	1	0.0	1	0.0	50	2.2	2317	100.0
North Gosford Private	486	92.0	3	0.6	2	0.4	35	6.6	0	0.0	0	0.0	2	0.4	528	100.0
Hurstville Community	977	94.9	6	0.6	22	2.1	23	2.2	0	0.0	0	0.0	1	0.1	1029	100.0
Kareena Private	607	90.3	9	1.3	21	3.1	24	3.6	0	0.0	0	0.0	5	0.7	672	100.0
St. George Private	1097	79.8	91	6.6	67	4.9	42	3.1	0	0.0	0	0.0	70	5.1	1375	100.0
Prince of Wales Private	1946	94.2	8	0.4	5	0.2	57	2.8	0	0.0	1	0.0	49	2.4	2066	100.0
Norwest Private	1391	93.4	0	0.0	13	0.9	48	3.2	0	0.0	5	0.3	33	2.2	1490	100.0
Sydney Southwest Private	947	96.8	1	0.1	4	0.4	23	2.4	0	0.0	1	0.1	2	0.2	978	100.0
Nepean Private	600	90.8	3	0.5	20	3.0	29	4.4	0	0.0	0	0.0	9	1.4	661	100.0
Westmead Private	2395	90.7	98	3.7	88	3.3	35	1.3	1	0.0	2	0.1	8	0.3	2640	100.0
Wollongong Private	836	85.6	17	1.7	72	7.4	39	4.0	0	0.0	0	0.0	8	0.8	977	100.0
Newcastle Private	1602	88.6	4	0.2	0	0.0	68	3.8	0	0.0	5	0.3	130	7.2	1809	100.0
Calvary, Wagga Wagga	257	89.2	4	1.4	2	0.7	24	8.3	0	0.0	1	0.3	0	0.0	288	100.0
TOTAL	19762	91.4	342	1.6	419	1.9	591	2.7	2	0.0	19	0.1	422	2.0	21613	100.0
TOTAL NSW*	83500	84.1	2884	2.9	1361	1.4	3063	3.1	274	0.3	244	0.2	7889	7.9	99316	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 2021 are identified individually. Maternity service levels are described on page 127 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 2021.

TABLE 53: LIVE BIRTHS BY TYPE OF INFANT FEEDING AND LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2021

Hospital sector–Local Health District	Infant feeding									
	Full breastfeeding		Any breastfeeding		Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Public										
Sydney	3902	66.1	1707	28.9	257	4.4	34	0.6	5900	100.0
South Western Sydney	6442	55.3	3372	29.0	1568	13.5	262	2.3	11644	100.0
South Eastern Sydney	6185	76.5	1361	16.8	477	5.9	62	0.8	8085	100.0
Illawarra Shoalhaven	2861	75.9	375	9.9	513	13.6	22	0.6	3771	100.0
Western Sydney	6771	65.9	2351	22.9	849	8.3	298	2.9	10269	100.0
Nepean Blue Mountains	3024	57.5	1071	20.4	927	17.6	233	4.4	5255	100.0
Northern Sydney	4774	79.0	854	14.1	165	2.7	252	4.2	6045	100.0
Central Coast	2580	77.2	408	12.2	318	9.5	36	1.1	3342	100.0
Hunter New England	6714	71.3	1083	11.5	1125	12.0	490	5.2	9412	100.0
Northern NSW	2468	82.5	212	7.1	153	5.1	157	5.3	2990	100.0
Mid North Coast	1774	77.3	256	11.2	198	8.6	67	2.9	2295	100.0
Southern NSW	1215	77.2	120	7.6	124	7.9	115	7.3	1574	100.0
Murrumbidgee	1621	71.7	284	12.6	311	13.7	46	2.0	2262	100.0
Western NSW	2598	69.6	530	14.2	525	14.1	79	2.1	3732	100.0
Far West	158	79.4	16	8.0	18	9.0	7	3.5	199	100.0
TOTAL	53087	69.1	14000	18.2	7528	9.8	2160	2.8	76775	100.0
Private	13330	61.9	6435	29.9	959	4.5	820	3.8	21544	100.0
TOTAL NSW*	66739	67.6	20443	20.7	8496	8.6	2993	3.0	98671	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 2021[#]

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	3018	66.4	1323	29.1	178	3.9	26	0.6	4545	100.0
Royal North Shore	2215	82.3	356	13.2	84	3.1	35	1.3	2690	100.0
Royal Hospital for Women	3204	77.3	687	16.6	220	5.3	33	0.8	4144	100.0
Liverpool	1898	50.7	1284	34.3	487	13.0	72	1.9	3741	100.0
Nepean	2158	53.3	936	23.1	759	18.7	196	4.8	4049	100.0
Westmead	3641	69.5	1054	20.1	374	7.1	172	3.3	5241	100.0
John Hunter	2934	69.0	547	12.9	449	10.6	324	7.6	4254	100.0
TOTAL	19068	66.5	6187	21.6	2551	8.9	858	3.0	28664	100.0
Level 5										
Gosford	2580	77.2	408	12.2	318	9.5	36	1.1	3342	100.0
Northern Beaches	1585	72.4	358	16.4	40	1.8	205	9.4	2188	100.0
St. George	1775	70.7	546	21.8	171	6.8	17	0.7	2509	100.0
Blacktown	2477	65.4	825	21.8	373	9.9	110	2.9	3785	100.0
Campbelltown	2522	60.9	852	20.6	644	15.6	123	3.0	4141	100.0
Lismore Base	1139	80.3	118	8.3	59	4.2	103	7.3	1419	100.0
Tweed Heads	902	88.6	44	4.3	43	4.2	29	2.8	1018	100.0
Dubbo Base	867	62.7	221	16.0	261	18.9	34	2.5	1383	100.0
Wollongong	2084	73.0	328	11.5	423	14.8	18	0.6	2853	100.0
Wagga Wagga Base	1002	72.4	188	13.6	184	13.3	10	0.7	1384	100.0
TOTAL	16933	70.5	3888	16.2	2516	10.5	685	2.9	24022	100.0
Level 4										
Canterbury	884	65.2	384	28.3	79	5.8	8	0.6	1355	100.0
Hornsby	974	83.5	140	12.0	41	3.5	12	1.0	1167	100.0
Sutherland	1206	84.2	128	8.9	86	6.0	12	0.8	1432	100.0
Bankstown-Lidcombe	964	56.6	525	30.8	197	11.6	18	1.1	1704	100.0
Hawkesbury	598	70.4	100	11.8	135	15.9	17	2.0	850	100.0
Coffs Harbour	843	76.2	160	14.5	73	6.6	31	2.8	1107	100.0
Grafton Base	288	71.5	49	12.2	51	12.7	15	3.7	403	100.0
Port Macquarie Base	709	77.8	86	9.4	89	9.8	27	3.0	911	100.0
Armidale	339	78.7	39	9.0	43	10.0	10	2.3	431	100.0
Tamworth Base	795	68.0	171	14.6	152	13.0	51	4.4	1169	100.0
Manning Base	471	71.9	67	10.2	75	11.5	42	6.4	655	100.0
Bathurst Base	421	75.6	59	10.6	70	12.6	7	1.3	557	100.0
Orange Base	776	68.6	211	18.7	125	11.1	19	1.7	1131	100.0
Maitland	1406	72.9	184	9.5	304	15.8	34	1.8	1928	100.0
Griffith Base	335	66.3	65	12.9	79	15.6	26	5.1	505	100.0
TOTAL	11009	71.9	2368	15.5	1599	10.4	329	2.1	15305	100.0
Level 3										
Auburn	653	52.5	472	38.0	102	8.2	16	1.3	1243	100.0
Fairfield	616	41.8	643	43.6	188	12.7	28	1.9	1475	100.0
Kempsey	185	77.1	10	4.2	36	15.0	9	3.8	240	100.0
Inverell	150	68.2	28	12.7	35	15.9	7	3.2	220	100.0
Mudgee	223	83.5	11	4.1	25	9.4	8	3.0	267	100.0
Forbes	185	79.1	14	6.0	29	12.4	6	2.6	234	100.0
Bega	204	77.6	20	7.6	26	9.9	13	4.9	263	100.0
Goulburn Base	217	72.6	29	9.7	51	17.1	2	0.7	299	100.0
Moruya	311	89.4	10	2.9	15	4.3	12	3.4	348	100.0
Queanbeyan	378	71.2	48	9.0	25	4.7	80	15.1	531	100.0
Bowral	442	75.8	68	11.7	52	8.9	21	3.6	583	100.0
Shoalhaven	777	84.6	47	5.1	90	9.8	4	0.4	918	100.0
Other hospitals	1229	76.5	146	9.1	167	10.4	65	4.0	1607	100.0
TOTAL	5570	67.7	1546	18.8	841	10.2	271	3.3	8228	100.0
Level 2	506	91.3	11	2.0	21	3.8	16	2.9	554	100.0
Public hospital[§]	53087	69.1	14000	18.2	7528	9.8	2159	2.8	76774	100.0

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Table 54: (Continued)

Maternity service level– Hospital	Infant feeding									
	Full breastfeeding		Any breastfeeding		Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Private										
Mater, North Sydney	1383	57.2	890	36.8	143	5.9	3	0.1	2419	100.0
North Shore Private	1598	67.9	639	27.2	106	4.5	9	0.4	2352	100.0
Sydney Adventist	1345	58.3	731	31.7	116	5.0	114	4.9	2306	100.0
North Gosford Private	472	89.6	36	6.8	17	3.2	2	0.4	527	100.0
Hurstville Community	635	62.0	297	29.0	88	8.6	5	0.5	1025	100.0
Kareena Private	538	80.4	80	12.0	49	7.3	2	0.3	669	100.0
St. George Private	620	45.2	619	45.1	124	9.0	8	0.6	1371	100.0
Prince of Wales Private	1530	74.3	423	20.5	0	0.0	106	5.1	2059	100.0
Norwest Private	839	56.5	478	32.2	0	0.0	168	11.3	1485	100.0
Sydney Southwest Private	436	44.6	402	41.1	0	0.0	139	14.2	977	100.0
Nepean Private	409	62.2	162	24.6	0	0.0	87	13.2	658	100.0
Westmead Private	1228	46.7	1177	44.8	207	7.9	18	0.7	2630	100.0
Wollongong Private	722	74.3	150	15.4	99	10.2	1	0.1	972	100.0
Newcastle Private	1327	73.5	321	17.8	0	0.0	158	8.7	1806	100.0
Calvary, Wagga Wagga	248	86.1	30	10.4	10	3.5	0	0.0	288	100.0
TOTAL	13330	61.9	6435	29.9	959	4.5	820	3.8	21544	100.0
TOTAL NSW*	66739	67.6	20443	20.7	8496	8.6	2993	3.0	98671	100.0

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

*Hospitals with more than 200 births in 2021 are identified individually. Maternity service levels are described on page 127 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 2021.

TABLE 55: BABY DISCHARGE STATUS BY HOSPITAL AND LOCAL HEALTH DISTRICT OF HOSPITAL, NSW 2021

Hospital sector–Local Health District	Baby discharge status											
	Discharged		Stillborn		Neonatal death		Transferred		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Public												
Sydney	5690	95.5	60	1.0	14	0.2	194	3.3	2	0.0	5960	100.0
South Western Sydney	11232	95.9	69	0.6	22	0.2	376	3.2	14	0.1	11713	100.0
South Eastern Sydney	7885	96.4	91	1.1	25	0.3	173	2.1	2	0.0	8176	100.0
Illawarra Shoalhaven	3707	97.9	17	0.4	7	0.2	57	1.5	0	0.0	3788	100.0
Western Sydney	9826	94.9	88	0.8	49	0.5	319	3.1	75	0.7	10357	100.0
Nepean Blue Mountains	4868	92.1	33	0.6	15	0.3	188	3.6	184	3.5	5288	100.0
Northern Sydney	5863	96.4	34	0.6	15	0.2	153	2.5	14	0.2	6079	100.0
Central Coast	3296	98.0	22	0.7	8	0.2	29	0.9	9	0.3	3364	100.0
Hunter New England	8726	91.8	95	1.0	21	0.2	235	2.5	430	4.5	9507	100.0
Northern NSW	2820	93.9	14	0.5	4	0.1	33	1.1	133	4.4	3004	100.0
Mid North Coast	2200	95.7	4	0.2	1	0.0	50	2.2	44	1.9	2299	100.0
Southern NSW	1436	90.8	7	0.4	1	0.1	57	3.6	80	5.1	1581	100.0
Murrumbidgee	2165	95.2	11	0.5	0	0.0	64	2.8	33	1.5	2273	100.0
Western NSW	3590	95.4	30	0.8	2	0.1	131	3.5	9	0.2	3762	100.0
Far West	190	95.0	1	0.5	0	0.0	7	3.5	2	1.0	200	100.0
TOTAL	73494	95.0	576	0.7	184	0.2	2066	2.7	1031	1.3	77351	100.0
Private	21378	98.9	69	0.3	9	0.0	156	0.7	1	0.0	21613	100.0
TOTAL NSW*	95220	95.9	645	0.6	193	0.2	2223	2.2	1035	1.0	99316	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 2021[#]

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	4352	94.7	51	1.1	12	0.3	180	3.9	1	0.0	4596	100.0
Royal North Shore	2551	94.1	21	0.8	15	0.6	112	4.1	12	0.4	2711	100.0
Royal Hospital for Women	3993	95.0	58	1.4	19	0.5	130	3.1	2	0.0	4202	100.0
Liverpool	3486	92.4	32	0.8	14	0.4	235	6.2	6	0.2	3773	100.0
Nepean	3710	90.9	32	0.8	15	0.4	162	4.0	162	4.0	4081	100.0
Westmead	4941	93.3	53	1.0	38	0.7	261	4.9	1	0.0	5294	100.0
John Hunter	3848	88.9	74	1.7	18	0.4	86	2.0	302	7.0	4328	100.0
TOTAL	26881	92.7	321	1.1	131	0.5	1166	4.0	486	1.7	28985	100.0
Level 5												
Gosford	3296	98.0	22	0.7	8	0.2	29	0.9	9	0.3	3364	100.0
Northern Beaches	2164	98.5	8	0.4	0	0.0	22	1.0	2	0.1	2196	100.0
St. George	2475	97.7	24	0.9	5	0.2	29	1.1	0	0.0	2533	100.0
Blacktown	3662	96.1	26	0.7	10	0.3	45	1.2	68	1.8	3811	100.0
Campbelltown	4064	97.7	17	0.4	3	0.1	72	1.7	2	0.0	4158	100.0
Lismore Base	1313	92.1	7	0.5	2	0.1	14	1.0	90	6.3	1426	100.0
Tweed Heads	984	96.2	5	0.5	2	0.2	11	1.1	21	2.1	1023	100.0
Dubbo Base	1341	96.1	12	0.9	1	0.1	36	2.6	5	0.4	1395	100.0
Wollongong	2800	97.7	14	0.5	6	0.2	47	1.6	0	0.0	2867	100.0
Wagga Wagga Base	1333	95.9	6	0.4	0	0.0	47	3.4	4	0.3	1390	100.0
TOTAL	23432	97.0	141	0.6	37	0.2	352	1.5	201	0.8	24163	100.0
Level 4												
Canterbury	1338	98.1	9	0.7	2	0.1	14	1.0	1	0.1	1364	100.0
Hornsby	1148	98.0	5	0.4	0	0.0	19	1.6	0	0.0	1172	100.0
Sutherland	1417	98.3	9	0.6	1	0.1	14	1.0	0	0.0	1441	100.0
Bankstown-Lidcombe	1667	97.3	9	0.5	5	0.3	32	1.9	0	0.0	1713	100.0
Hawkesbury	832	97.8	1	0.1	0	0.0	7	0.8	11	1.3	851	100.0
Coffs Harbour	1072	96.8	1	0.1	0	0.0	12	1.1	23	2.1	1108	100.0
Grafton Base	384	94.8	2	0.5	0	0.0	6	1.5	13	3.2	405	100.0
Port Macquarie Base	866	95.0	1	0.1	1	0.1	28	3.1	16	1.8	912	100.0
Armidale	412	95.4	1	0.2	0	0.0	10	2.3	9	2.1	432	100.0
Tamworth Base	1077	91.7	6	0.5	0	0.0	45	3.8	47	4.0	1175	100.0
Manning Base	612	92.7	5	0.8	1	0.2	1	0.2	41	6.2	660	100.0
Bathurst Base	546	97.3	4	0.7	0	0.0	9	1.6	2	0.4	561	100.0
Orange Base	1077	94.4	10	0.9	1	0.1	53	4.6	0	0.0	1141	100.0
Maitland	1844	95.3	7	0.4	2	0.1	64	3.3	18	0.9	1935	100.0
Griffith Base	480	94.1	5	1.0	0	0.0	3	0.6	22	4.3	510	100.0
TOTAL	14772	96.0	75	0.5	13	0.1	317	2.1	203	1.3	15380	100.0
Level 3												
Auburn	1223	97.7	9	0.7	1	0.1	13	1.0	6	0.5	1252	100.0
Fairfield	1453	97.9	9	0.6	0	0.0	19	1.3	3	0.2	1484	100.0
Kempsey	226	93.4	2	0.8	0	0.0	9	3.7	5	2.1	242	100.0
Inverell	211	95.5	1	0.5	0	0.0	6	2.7	3	1.4	221	100.0
Mudgee	249	92.9	1	0.4	0	0.0	16	6.0	2	0.7	268	100.0
Forbes	225	95.7	1	0.4	0	0.0	9	3.8	0	0.0	235	100.0
Bega	245	92.8	1	0.4	0	0.0	17	6.4	1	0.4	264	100.0
Goulburn Base	294	97.7	2	0.7	0	0.0	5	1.7	0	0.0	301	100.0
Moruya	333	95.1	2	0.6	0	0.0	11	3.1	4	1.1	350	100.0
Queanbeyan	442	83.1	1	0.2	0	0.0	17	3.2	72	13.5	532	100.0
Bowral	562	96.1	2	0.3	0	0.0	18	3.1	3	0.5	585	100.0
Shoalhaven	907	98.5	3	0.3	1	0.1	10	1.1	0	0.0	921	100.0
Other hospitals	1508	93.7	2	0.1	1	0.1	71	4.4	27	1.7	1609	100.0
TOTAL	7878	95.3	36	0.4	3	0.0	221	2.7	126	1.5	8264	100.0
Level 2	530	95.5	1	0.2	0	0.0	9	1.6	15	2.7	555	100.0
Public hospital[§]	73494	95.0	574	0.7	184	0.2	2065	2.7	1031	1.3	77348	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.	%
Private												
Mater, North Sydney	2416	99.7	5	0.2	0	0.0	3	0.1	0	0.0	2424	100.0
North Shore Private	2334	98.9	7	0.3	4	0.2	14	0.6	0	0.0	2359	100.0
Sydney Adventist	2291	98.9	11	0.5	2	0.1	13	0.6	0	0.0	2317	100.0
North Gosford Private	516	97.7	1	0.2	0	0.0	11	2.1	0	0.0	528	100.0
Hurstville Community	1021	99.2	4	0.4	1	0.1	3	0.3	0	0.0	1029	100.0
Kareena Private	665	99.0	3	0.4	0	0.0	4	0.6	0	0.0	672	100.0
St. George Private	1358	98.8	4	0.3	0	0.0	13	0.9	0	0.0	1375	100.0
Prince of Wales Private	2049	99.2	7	0.3	0	0.0	9	0.4	1	0.0	2066	100.0
Norwest Private	1476	99.1	5	0.3	0	0.0	9	0.6	0	0.0	1490	100.0
Sydney Southwest Private	968	99.0	1	0.1	0	0.0	9	0.9	0	0.0	978	100.0
Nepean Private	643	97.3	3	0.5	0	0.0	15	2.3	0	0.0	661	100.0
Westmead Private	2595	98.3	10	0.4	2	0.1	33	1.3	0	0.0	2640	100.0
Wollongong Private	967	99.0	5	0.5	0	0.0	5	0.5	0	0.0	977	100.0
Newcastle Private	1791	99.0	3	0.2	0	0.0	15	0.8	0	0.0	1809	100.0
Calvary, Wagga Wagga	288	100.0	0	0.0	0	0.0	0	0.0	0	0.0	288	100.0
TOTAL	21378	98.9	69	0.3	9	0.0	156	0.7	1	0.0	21613	100.0
TOTAL NSW*	95220	95.9	645	0.6	193	0.2	2223	2.2	1035	1.0	99316	100.0

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

*Hospitals with more than 200 births in 2021 are identified individually. Maternity service levels are described on page 127 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 2021.

TABLE 57: AVERAGE MATERNAL POSTNATAL LENGTH OF STAY IN HOSPITAL OF BIRTH, NSW 2017–2021[#]

Local Health District– Hospital	Average postnatal length of stay (days)				
	2017	2018	2019	2020	2021
Sydney					
Canterbury	2.5	2.3	2.0	1.9	1.8
Royal Prince Alfred	3.2	3.2	3.2	3.0	2.8
Other hospitals	0.0	6.0	0.0	0.0	0.0
TOTAL	3.0	3.0	2.9	2.7	2.6
South Western Sydney					
Fairfield	2.5	2.3	2.3	2.3	2.1
Liverpool	2.5	2.4	2.4	2.2	2.2
Campbelltown	2.1	2.0	1.9	1.8	1.8
Bankstown-Lidcombe	2.4	2.4	2.5	2.3	2.5
Bowral	2.6	2.3	2.4	1.9	1.8
TOTAL	2.4	2.3	2.2	2.1	2.1
South Eastern Sydney					
St. George	2.3	2.4	2.4	2.2	2.3
Sutherland	2.1	2.0	2.2	2.1	2.1
Royal Hospital for Women	3.0	3.0	2.9	2.7	2.5
TOTAL	2.6	2.6	2.6	2.4	2.4
Illawarra Shoalhaven					
Shoalhaven	2.2	2.1	2.2	1.9	1.9
Wollongong	2.4	2.4	2.4	2.1	2.1
Other hospitals	2.0	0.0	2.0	3.0	0.0
TOTAL	2.3	2.4	2.4	2.1	2.0
Western Sydney					
Auburn	1.9	1.9	1.9	2.0	2.0
Blacktown	2.1	2.1	2.1	1.9	1.9
Westmead	2.1	2.2	2.2	2.2	2.2
TOTAL	2.1	2.1	2.1	2.1	2.1
Nepean Blue Mountains					
Nepean	2.1	1.9	1.9	1.9	1.8
Hawkesbury	2.8	2.3	2.3	2.1	2.2
Other hospitals	2.5	2.6	2.5	2.4	2.4
TOTAL	2.3	2.0	2.0	2.0	1.9
Northern Sydney					
Hornsby	2.2	2.3	2.3	2.2	2.3
Royal North Shore	2.8	2.8	2.8	2.8	2.7
Northern Beaches [†]	-	2.6	2.7	2.5	2.4
Other hospitals	2.2	2.3	0.2	0.0	0.0
TOTAL	2.5	2.5	2.7	2.6	2.5
Central Coast					
Gosford	2.1	2.2	2.0	1.8	1.7
Other hospitals	0.3	0.4	0.4	0.3	0.0
TOTAL	2.1	2.1	2.0	1.8	1.7
Hunter New England					
Armidale	2.8	3.0	3.2	2.9	2.5
Inverell	3.1	3.0	3.0	2.9	3.0
Tamworth Base	2.8	2.7	2.6	2.4	2.3
Manning Base	2.6	2.7	2.4	2.1	2.0
Maitland	2.1	2.0	2.0	1.7	1.7
John Hunter	2.4	2.4	2.3	2.3	2.1
Other hospitals	2.3	2.2	2.2	2.1	2.0
TOTAL	2.4	2.4	2.3	2.2	2.1

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Table 57: (Continued)

Local Health District– Hospital	Average postnatal length of stay (days)				
	2017	2018	2019	2020	2021
Northern NSW					
Grafton Base	3.1	3.1	3.0	2.4	2.7
Lismore Base	2.4	2.2	2.3	2.2	2.1
Tweed Heads	2.4	2.5	2.4	2.1	2.2
Other hospitals	1.2	1.9	0.3	0.9	0.5
TOTAL	2.4	2.4	2.3	2.1	2.2
Mid North Coast					
Coffs Harbour	2.7	2.7	2.5	2.5	2.3
Kempsey	2.8	2.8	2.7	2.4	2.6
Port Macquarie Base	2.4	2.6	2.7	2.4	2.3
Other hospitals	2.1	2.3	2.4	0.8	0.4
TOTAL	2.6	2.7	2.6	2.4	2.3
Southern NSW					
Bega	2.4	2.7	2.5	2.3	2.4
Goulburn Base	2.8	2.3	2.2	2.2	2.1
Moruya	2.1	2.0	2.1	1.9	1.7
Queanbeyan	2.7	2.5	2.6	2.2	2.4
Other hospitals	3.6	3.0	2.8	3.4	2.8
TOTAL	2.6	2.4	2.4	2.3	2.2
Murrumbidgee					
Griffith Base	2.6	2.3	2.5	2.2	2.3
Wagga Wagga Base	2.7	2.5	2.5	2.2	2.2
Other hospitals	3.0	2.6	2.7	2.6	2.7
TOTAL	2.7	2.5	2.5	2.3	2.3
Western NSW					
Dubbo Base	2.2	2.3	2.1	2.1	2.1
Mudgee	2.3	2.3	2.4	2.4	2.4
Bathurst Base	2.5	2.5	2.5	2.0	2.3
Forbes	2.9	2.8	2.6	2.0	2.1
Orange Base	2.5	2.4	2.5	2.2	2.1
Other hospitals	2.5	2.6	2.8	2.2	2.4
TOTAL	2.4	2.4	2.4	2.1	2.2
Far West	2.4	2.2	2.3	2.1	2.0
Public Hospitals	2.4	2.4	2.4	2.2	2.2
Private Hospitals					
Mater, North Sydney	4.6	4.4	4.5	4.4	4.3
North Shore Private	4.5	4.5	4.5	4.4	4.4
Sydney Adventist	4.8	4.4	4.5	4.3	4.3
North Gosford Private	4.3	4.5	4.4	4.5	4.4
Hurstville Community	4.3	4.3	4.5	4.2	4.1
Kareena Private	4.4	4.4	4.4	4.2	4.3
St. George Private	4.4	4.3	4.4	4.2	4.2
Prince of Wales Private	4.6	4.5	4.5	4.3	4.3
Norwest Private	4.2	4.2	4.2	4.3	4.1
Sydney Southwest Private	3.8	3.9	3.8	3.5	3.4
Nepean Private	4.3	4.2	4.2	4.0	3.9
Westmead Private	4.0	4.0	4.1	4.0	4.0
Wollongong Private	5.3	5.2	5.1	4.7	4.6
Newcastle Private	4.2	4.2	4.1	4.0	4.0
Calvary, Wagga Wagga	4.4	4.4	4.4	4.2	3.9
Other hospitals	4.4	0.0	0.0	0.0	0.0
TOTAL	4.4	4.3	4.4	4.2	4.2
TOTAL NSW*	2.9	2.9	2.8	2.7	2.7

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

*Hospitals with more than 200 births in 2021 are identified individually.

†Northern Beaches opened in 2018.

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

8. 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 2021, 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 2017–2021[#]

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Sydney					
Canterbury	38.3	43.5	40.1	41.5	42.9
Royal Prince Alfred	52.5	44.3	45.1	39.9	41.5
TOTAL	48.9	44.1	43.9	40.3	41.8
South Western Sydney					
Fairfield	63.9	57.6	67.2	63.3	61.9
Liverpool	54.8	58.1	54.9	53.3	46.9
Campbelltown	60.6	58.4	56.3	51.8	51.6
Bankstown-Lidcombe	58.5	52.0	59.0	56.2	49.4
Bowral	50.9	64.6	59.3	52.1	53.6
TOTAL	58.6	57.4	57.9	54.5	51.2
South Eastern Sydney					
St. George	45.5	39.0	39.2	39.2	39.1
Sutherland	56.5	55.6	53.1	45.6	48.2
Royal Hospital for Women	46.8	50.6	46.4	44.8	43.1
TOTAL	47.8	47.2	44.9	43.0	42.7
Illawarra Shoalhaven					
Shoalhaven	51.5	54.8	52.3	57.4	47.0
Wollongong	49.1	51.7	43.4	49.2	43.3
Other hospitals	0.0	0.0	100.0	0.0	0.0
TOTAL	49.6	52.5	45.7	51.0	44.0
Western Sydney					
Auburn	66.3	63.9	63.2	46.8	42.1
Blacktown	53.8	56.8	52.3	49.4	41.3
Westmead	56.9	52.9	55.1	50.2	52.4
TOTAL	57.3	56.0	55.4	49.4	47.0
Nepean Blue Mountains					
Nepean	49.0	47.6	46.9	45.2	42.0
Hawkesbury	50.3	45.4	43.1	33.8	47.6
Other hospitals	59.7	57.7	50.6	47.1	52.4
TOTAL	50.0	48.0	46.6	43.7	43.7

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Table 58: (Continued)

Local Health District-Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Northern Sydney					
Hornsby	53.6	52.8	52.0	50.2	46.2
Royal North Shore	50.0	51.5	49.4	47.8	49.3
Northern Beaches [†]	-	48.1	42.3	42.3	41.8
Other hospitals	54.0	53.5	100.0	0.0	0.0
TOTAL	51.9	52.0	48.5	46.5	45.8
Central Coast					
Gosford	50.3	51.2	52.0	54.2	53.8
Other hospitals	100.0	100.0	100.0	100.0	0.0
TOTAL	51.9	52.5	53.2	54.5	53.8
Hunter New England					
Armidale	52.3	50.6	38.7	52.0	58.4
Inverell	65.4	52.6	29.7	45.0	52.1
Tamworth Base	46.6	45.5	55.5	35.7	46.1
Manning Base	49.2	50.9	46.3	57.9	50.7
Maitland	62.3	61.9	62.2	57.0	51.7
John Hunter	56.7	51.3	46.2	48.7	45.3
Other hospitals	66.1	65.5	62.3	67.2	66.4
TOTAL	57.1	53.8	51.1	50.9	49.3
Northern NSW					
Grafton Base	63.4	50.7	61.5	49.3	31.7
Lismore Base	70.6	63.4	62.5	57.7	58.3
Tweed Heads	61.6	55.6	59.2	57.3	55.1
Other hospitals	100.0	97.1	97.9	100.0	100.0
TOTAL	67.1	60.5	64.0	59.0	55.5
Mid North Coast					
Coffs Harbour	54.0	58.4	64.1	60.3	52.9
Kempsey	78.9	54.2	63.3	50.0	61.4
Port Macquarie Base	58.8	53.7	42.4	47.5	45.6
Other hospitals	75.0	100.0	75.0	100.0	100.0
TOTAL	58.4	57.4	55.6	55.0	51.5
Southern NSW					
Bega	55.1	56.9	55.6	61.0	40.4
Goulburn Base	39.6	61.1	47.6	49.2	44.6
Moruya	58.1	76.9	66.0	52.9	56.9
Queanbeyan	45.4	38.4	48.4	47.6	50.7
Other hospitals	85.2	54.5	74.2	56.7	36.4
TOTAL	51.3	52.2	54.2	52.0	48.3
Murrumbidgee					
Griffith Base	64.1	52.0	56.4	52.2	56.6
Wagga Wagga Base	49.1	48.2	43.9	39.1	40.2
Other hospitals	68.8	67.5	61.4	63.2	64.3
TOTAL	56.9	52.6	49.1	45.1	46.9
Western NSW					
Dubbo Base	51.0	39.3	45.7	44.6	46.0
Mudgee	52.3	63.6	34.0	50.0	45.0
Bathurst Base	61.8	65.9	55.1	61.1	52.4
Forbes	64.3	63.2	78.0	62.8	67.4
Orange Base	47.3	44.8	41.7	47.5	45.2
Other hospitals	61.2	54.2	60.5	77.3	58.3
TOTAL	52.7	47.6	47.2	49.9	48.2
Far West	50.0	62.5	62.5	52.8	64.1
Public Hospitals	53.9	52.3	51.1	48.9	47.3

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Table 58: (Continued)

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Private Hospitals					
Mater, North Sydney	27.6	27.4	24.3	24.5	23.5
North Shore Private	29.1	31.2	27.9	25.6	23.3
Sydney Adventist	44.5	37.0	42.2	43.1	46.7
North Gosford Private	22.5	16.7	19.0	19.7	30.6
Hurstville Community	45.0	33.3	35.1	28.9	31.3
Kareena Private	31.6	27.4	31.6	30.1	19.1
St. George Private	28.6	36.0	37.4	36.1	42.1
Prince of Wales Private	27.9	26.6	27.4	27.1	26.5
Norwest Private	42.0	41.4	40.0	39.5	39.6
Sydney Southwest Private	40.4	37.8	37.5	33.3	35.9
Nepean Private	41.8	36.4	37.4	33.5	38.6
Westmead Private	39.5	41.5	39.9	40.0	39.8
Wollongong Private	40.0	39.8	35.1	35.8	34.7
Newcastle Private	34.9	34.6	35.6	33.1	31.0
Calvary, Wagga Wagga	31.1	21.0	20.0	23.2	27.1
TOTAL	34.8	34.0	33.9	32.7	33.5
TOTAL NSW*	49.0	47.8	46.9	45.0	43.8

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

*Hospitals with more than 200 births in 2021 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 2021, 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 2017–2021[#]

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Sydney					
Canterbury	52.5	51.6	52.3	58.5	52.2
Royal Prince Alfred	40.3	43.2	47.9	49.1	48.5
TOTAL	43.4	45.2	48.9	51.5	49.3
South Western Sydney					
Fairfield	36.1	35.0	38.2	41.4	45.9
Liverpool	38.4	38.7	41.4	41.9	56.2
Campbelltown	39.2	37.6	40.2	45.6	50.8
Bankstown-Lidcombe	38.2	46.8	45.8	48.2	47.6
Bowral	16.1	34.2	25.0	27.5	30.1
TOTAL	37.3	39.0	40.6	43.4	50.3
South Eastern Sydney					
St. George	51.4	59.6	60.1	61.0	64.0
Sutherland	39.5	40.1	42.3	44.1	40.0
Royal Hospital for Women	40.8	39.0	41.7	43.8	41.9
TOTAL	44.5	46.6	48.7	49.8	49.0
Illawarra Shoalhaven					
Shoalhaven	40.5	44.7	44.9	53.3	56.4
Wollongong	48.3	51.7	52.9	54.0	55.1
Other hospitals	0.0	0.0	0.0	0.0	0.0
TOTAL	46.5	49.9	50.8	53.8	55.4
Western Sydney					
Auburn	47.5	43.5	44.7	46.6	54.3
Blacktown	46.5	48.6	46.0	50.9	55.8
Westmead	44.7	47.1	46.7	49.7	50.8
TOTAL	45.7	47.0	46.1	49.7	53.1
Nepean Blue Mountains					
Nepean	45.7	48.6	47.3	54.9	51.5
Hawkesbury	44.2	44.8	50.0	46.6	33.7
Other hospitals	35.1	35.9	35.8	38.6	32.9
TOTAL	44.7	47.0	46.8	52.6	47.3
Northern Sydney					
Hornsby	38.2	38.9	38.2	44.0	46.2
Royal North Shore	45.9	43.0	45.2	51.9	45.7
Northern Beaches [†]	-	37.7	43.9	37.0	37.5
Other hospitals	33.6	39.1	0.0	0.0	0.0
TOTAL	40.8	41.0	42.8	45.7	42.6
Central Coast					
Gosford	42.0	46.5	45.7	46.4	42.4
Other hospitals	0.0	0.0	0.0	0.0	0.0
TOTAL	40.7	45.3	44.5	46.1	42.4
Hunter New England					
Armidale	35.2	38.6	37.6	42.7	36.0
Inverell	42.3	63.2	40.5	47.5	33.3
Tamworth Base	50.0	52.0	49.5	55.4	53.9
Manning Base	58.9	50.0	47.9	51.2	63.5
Maitland	46.3	53.6	53.9	53.8	54.9
John Hunter	49.3	49.9	51.9	53.2	56.7
Other hospitals	22.6	18.8	17.8	26.1	14.5
TOTAL	46.0	47.6	48.0	50.9	52.4

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Table 59: (Continued)

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Northern NSW					
Grafton Base	39.4	40.0	26.2	45.2	50.0
Lismore Base	37.1	42.9	42.1	43.9	41.7
Tweed Heads	41.7	38.2	44.3	46.1	49.0
Other hospitals	0.0	0.0	0.0	0.0	0.0
TOTAL	37.6	38.1	37.8	42.3	43.8
Mid North Coast					
Coffs Harbour	37.5	42.1	44.8	40.2	39.3
Kempsey	21.1	29.2	40.8	37.5	52.3
Port Macquarie Base	44.4	51.0	52.5	52.5	54.4
Other hospitals	0.0	0.0	0.0	0.0	0.0
TOTAL	37.8	42.6	47.0	43.9	46.0
Southern NSW					
Bega	49.0	53.4	51.1	44.1	42.1
Goulburn Base	18.9	20.4	27.0	25.4	36.5
Moruya	24.2	26.9	20.8	29.4	40.3
Queanbeyan	37.5	34.4	47.7	43.5	44.0
Other hospitals	25.9	31.8	25.8	43.3	54.5
TOTAL	32.9	34.1	38.3	37.5	42.1
Murrumbidgee					
Griffith Base	28.2	30.0	47.3	36.5	46.2
Wagga Wagga Base	43.0	45.0	49.1	52.6	50.9
Other hospitals	22.5	18.2	21.1	22.8	31.4
TOTAL	35.0	36.6	45.1	45.1	47.3
Western NSW					
Dubbo Base	42.9	50.9	50.5	52.8	44.1
Mudgee	34.1	34.1	51.1	39.1	31.7
Bathurst Base	41.6	42.0	31.5	31.9	39.8
Forbes	25.0	26.3	34.1	27.9	37.0
Orange Base	50.2	46.2	53.1	57.4	56.7
Other hospitals	24.5	25.0	23.7	36.4	16.7
TOTAL	42.3	44.7	47.0	49.3	45.0
Far West	25.0	27.1	35.4	38.9	30.8
Public Hospitals	42.3	44.1	45.5	48.1	48.8
Private Hospitals					
Mater, North Sydney	25.2	29.1	28.6	28.0	27.7
North Shore Private	25.1	27.8	29.6	32.4	32.2
Sydney Adventist	31.3	30.5	35.9	40.9	42.3
North Gosford Private	51.7	48.1	59.2	55.8	56.9
Hurstville Community	26.9	28.5	33.0	32.0	37.7
Kareena Private	32.1	36.3	39.2	42.9	34.0
St. George Private	38.6	41.4	49.2	50.3	49.3
Prince of Wales Private	31.1	37.0	39.8	39.5	40.7
Norwest Private	50.6	50.5	54.1	59.7	58.8
Sydney Southwest Private	45.7	48.0	52.1	50.7	49.8
Nepean Private	63.7	68.7	66.7	65.9	65.5
Westmead Private	41.3	42.3	45.1	41.8	42.2
Wollongong Private	44.1	48.7	56.0	52.6	47.1
Newcastle Private	47.9	56.1	53.2	63.5	60.7
Calvary, Wagga Wagga	37.8	37.1	33.3	39.1	40.0
TOTAL	37.9	40.9	43.8	44.5	43.9
TOTAL NSW*	41.1	43.2	45.1	47.2	47.4

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

#Hospitals with more than 200 births in 2021 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 2021, 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 2017–2021[#]

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Sydney					
Canterbury	31.4	35.2	31.4	32.9	27.4
Royal Prince Alfred	26.2	27.8	28.8	30.8	26.2
TOTAL	27.5	29.6	29.4	31.3	26.4
South Western Sydney					
Fairfield	15.5	17.9	16.0	14.8	14.8
Liverpool	24.4	24.2	26.1	24.1	30.3
Campbelltown	19.0	18.5	21.3	22.4	19.5
Bankstown-Lidcombe	18.9	20.6	20.6	20.5	28.6
Bowral	22.3	20.3	24.1	28.2	22.9
TOTAL	20.2	20.7	22.1	21.9	23.8
South Eastern Sydney					
St. George	30.3	33.0	35.2	35.9	31.6
Sutherland	21.9	24.7	23.3	31.4	26.0
Royal Hospital for Women	29.2	29.3	29.6	27.8	29.0
TOTAL	28.5	29.9	30.6	31.2	29.3
Illawarra Shoalhaven					
Shoalhaven	21.5	24.4	24.1	19.5	13.8
Wollongong	23.1	20.2	22.2	26.7	22.6
Other hospitals	0.0	0.0	0.0	0.0	0.0
TOTAL	22.8	21.3	22.6	25.1	20.8
Western Sydney					
Auburn	15.4	15.7	15.3	20.6	26.9
Blacktown	23.5	18.9	20.8	21.3	21.3
Westmead	23.4	25.0	23.2	23.1	19.8
TOTAL	22.2	21.4	21.1	22.0	21.3
Nepean Blue Mountains					
Nepean	19.5	20.4	21.1	21.2	18.0
Hawkesbury	20.0	25.3	26.9	28.4	18.2
Other hospitals	9.1	11.5	17.3	11.4	12.2
TOTAL	18.8	20.6	21.7	21.6	17.6
Northern Sydney					
Hornsby	26.2	23.1	20.3	26.4	25.6
Royal North Shore	26.8	27.1	23.6	23.8	22.9
Northern Beaches [†]	-	23.4	29.1	34.0	34.0
Other hospitals	27.0	25.3	0.0	0.0	0.0
TOTAL	26.8	25.7	24.3	27.5	27.8
Central Coast					
Gosford	26.7	25.8	26.7	23.0	23.7
Other hospitals	0.0	0.0	0.0	0.0	0.0
TOTAL	25.9	25.1	26.0	22.8	23.7
Hunter New England					
Armidale	20.5	18.1	18.3	14.7	10.1
Inverell	13.5	23.7	29.7	20.0	25.0
Tamworth Base	22.7	24.2	14.7	15.2	18.0
Manning Base	32.3	25.0	29.8	18.2	18.9
Maitland	10.2	11.6	10.3	10.8	16.7
John Hunter	18.1	19.8	24.6	21.7	24.6
Other hospitals	11.3	9.7	16.4	9.7	16.0
TOTAL	17.5	18.3	20.0	17.1	20.5

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Table 60: (Continued)

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Northern NSW					
Grafton Base	11.3	18.7	10.8	17.8	23.2
Lismore Base	16.5	20.2	17.1	15.4	16.8
Tweed Heads	19.4	25.3	25.0	23.3	21.0
Other hospitals	0.0	2.9	2.1	0.0	0.0
TOTAL	16.2	21.1	18.3	17.7	18.5
Mid North Coast					
Coffs Harbour	18.3	12.7	14.3	14.7	13.2
Kempsey	5.3	18.8	16.3	14.6	9.1
Port Macquarie Base	23.5	21.8	29.4	26.0	26.5
Other hospitals	25.0	0.0	25.0	0.0	0.0
TOTAL	19.1	16.2	20.5	18.8	18.2
Southern NSW					
Bega	20.4	27.6	24.4	20.3	29.8
Goulburn Base	26.4	18.5	27.0	17.5	27.0
Moruya	17.7	11.5	15.1	14.7	25.0
Queanbeyan	27.0	32.5	25.2	24.2	22.7
Other hospitals	11.1	18.2	6.5	13.3	27.3
TOTAL	23.0	25.2	22.2	19.5	25.3
Murrumbidgee					
Griffith Base	15.5	22.0	21.8	20.0	17.9
Wagga Wagga Base	17.3	20.9	24.6	24.8	22.0
Other hospitals	18.8	14.3	22.8	17.5	18.6
TOTAL	17.1	20.0	23.7	22.8	20.7
Western NSW					
Dubbo Base	22.4	34.9	17.9	23.8	21.1
Mudgee	15.9	15.9	27.7	21.7	23.3
Bathurst Base	21.3	11.4	13.5	11.1	10.7
Forbes	14.3	5.3	4.9	4.7	4.3
Orange Base	22.2	22.6	17.3	23.8	23.0
Other hospitals	14.3	20.8	10.5	4.5	27.8
TOTAL	20.8	25.0	16.7	20.5	19.9
Far West	20.5	14.6	18.8	5.6	7.7
Public Hospitals	22.7	23.3	23.4	23.7	23.2
Private Hospitals					
Mater, North Sydney	21.6	24.3	24.9	19.8	19.5
North Shore Private	20.8	20.9	18.6	17.7	19.5
Sydney Adventist	23.4	23.4	18.3	23.9	24.4
North Gosford Private	31.5	29.6	34.5	29.9	28.5
Hurstville Community	25.7	31.7	26.7	29.8	30.3
Kareena Private	27.4	21.2	27.2	18.6	21.9
St. George Private	29.7	28.2	31.3	25.4	23.5
Prince of Wales Private	23.2	23.2	21.4	24.4	24.4
Norwest Private	24.9	24.1	26.1	25.8	21.8
Sydney Southwest Private	30.7	36.5	36.5	35.1	31.9
Nepean Private	25.4	24.9	25.8	25.8	17.5
Westmead Private	24.4	20.9	18.4	19.7	15.1
Wollongong Private	29.3	26.9	26.8	22.0	20.2
Newcastle Private	25.5	23.9	27.4	27.0	24.5
Calvary, Wagga Wagga	17.6	22.6	25.0	10.1	12.9
TOTAL	24.9	24.7	24.4	23.4	22.0
TOTAL NSW*	23.2	23.6	23.6	23.6	22.9

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

*Hospitals with more than 200 births in 2021 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 2021, 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 2017–2021[#]

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Sydney					
Canterbury	30.3	21.2	28.5	25.6	29.7
Royal Prince Alfred	21.3	27.9	26.1	29.3	32.4
TOTAL	23.6	26.3	26.6	28.3	31.8
South Western Sydney					
Fairfield	20.5	24.5	16.8	21.9	23.3
Liverpool	20.9	17.7	18.9	22.6	22.7
Campbelltown	20.4	23.1	22.4	25.8	28.9
Bankstown-Lidcombe	22.6	27.4	20.4	23.3	22.0
Bowral	26.8	15.2	16.7	19.7	23.5
TOTAL	21.2	21.9	20.0	23.6	25.0
South Eastern Sydney					
St. George	24.2	28.0	25.6	24.9	29.4
Sutherland	21.6	19.8	23.6	23.0	25.8
Royal Hospital for Women	24.0	20.1	24.0	27.4	27.9
TOTAL	23.7	22.9	24.5	25.8	28.0
Illawarra Shoalhaven					
Shoalhaven	27.0	20.8	23.6	23.1	39.2
Wollongong	27.8	28.1	34.5	24.1	34.1
Other hospitals	0.0	0.0	0.0	0.0	0.0
TOTAL	27.6	26.1	31.6	23.9	35.2
Western Sydney					
Auburn	18.3	20.4	21.5	32.6	31.0
Blacktown	22.8	24.4	26.9	29.2	37.5
Westmead	19.7	22.1	21.7	26.8	27.8
TOTAL	20.4	22.6	23.5	28.6	31.7
Nepean Blue Mountains					
Nepean	31.6	32.0	32.0	33.6	40.0
Hawkesbury	29.7	29.3	30.0	37.8	34.2
Other hospitals	31.2	30.8	32.1	41.4	35.4
TOTAL	31.2	31.5	31.7	34.7	38.7
Northern Sydney					
Hornsby	20.2	24.1	27.7	23.4	28.2
Royal North Shore	23.2	21.4	26.9	28.4	27.8
Northern Beaches [†]	-	28.6	28.4	23.7	24.2
Other hospitals	19.0	21.2	0.0	0.0	0.0
TOTAL	21.4	22.3	27.2	26.0	26.5
Central Coast					
Gosford	22.9	23.0	21.3	22.8	22.5
Other hospitals	0.0	0.0	0.0	0.0	0.0
TOTAL	22.2	22.4	20.8	22.7	22.5
Hunter New England					
Armidale	27.3	31.3	43.0	33.3	31.5
Inverell	21.2	23.7	40.5	35.0	22.9
Tamworth Base	30.7	30.3	29.8	49.1	36.0
Manning Base	18.5	24.1	24.0	24.0	30.4
Maitland	27.5	26.5	27.5	32.2	31.6
John Hunter	25.2	28.9	29.2	29.6	30.0
Other hospitals	22.6	24.8	21.2	23.1	17.6
TOTAL	25.4	28.0	28.9	32.0	30.3

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Table 61: (Continued)

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Northern NSW					
Grafton Base	25.4	30.7	27.7	32.9	45.1
Lismore Base	12.9	16.4	20.4	26.8	24.9
Tweed Heads	19.0	19.1	15.8	19.4	23.9
Other hospitals	0.0	0.0	0.0	0.0	0.0
TOTAL	16.6	18.4	17.8	23.3	26.1
Mid North Coast					
Coffs Harbour	27.7	29.0	21.5	25.0	33.9
Kempsey	15.8	27.1	20.4	35.4	29.5
Port Macquarie Base	17.6	24.5	28.2	26.6	27.9
Other hospitals	0.0	0.0	0.0	0.0	0.0
TOTAL	22.5	26.5	23.8	26.2	30.3
Southern NSW					
Bega	24.5	15.5	20.0	18.6	29.8
Goulburn Base	34.0	20.4	25.4	33.3	28.4
Moruya	24.2	11.5	18.9	32.4	18.1
Queanbeyan	27.6	29.1	26.5	28.2	26.7
Other hospitals	3.7	27.3	19.4	30.0	36.4
TOTAL	25.7	22.6	23.6	28.5	26.4
Murrumbidgee					
Griffith Base	20.4	26.0	21.8	27.8	25.5
Wagga Wagga Base	33.6	30.9	31.6	36.1	37.8
Other hospitals	12.5	18.2	15.8	19.3	17.1
TOTAL	25.9	27.5	27.2	32.1	32.4
Western NSW					
Dubbo Base	26.5	25.8	36.4	31.6	32.9
Mudgee	31.8	20.5	38.3	28.3	31.7
Bathurst Base	16.9	22.7	31.5	27.8	36.9
Forbes	21.4	31.6	17.1	32.6	28.3
Orange Base	30.4	32.6	40.9	28.7	31.8
Other hospitals	24.5	25.0	28.9	18.2	13.9
TOTAL	26.4	27.3	36.1	29.6	31.9
Far West	29.5	22.9	18.8	41.7	28.2
Public Hospitals	23.4	24.4	25.5	27.4	29.5
Private Hospitals					
Mater, North Sydney	50.9	48.3	50.8	55.7	57.0
North Shore Private	50.1	47.9	53.4	56.7	57.2
Sydney Adventist	32.1	39.6	39.3	32.9	28.8
North Gosford Private	46.1	53.7	46.5	50.3	40.3
Hurstville Community	29.2	34.9	37.2	41.2	38.4
Kareena Private	41.0	51.4	41.1	51.3	59.1
St. George Private	41.7	35.8	31.3	38.6	34.4
Prince of Wales Private	48.9	50.2	51.2	48.5	49.1
Norwest Private	33.1	34.5	33.9	34.6	38.6
Sydney Southwest Private	28.8	25.7	26.0	31.5	32.2
Nepean Private	32.8	38.7	36.9	40.7	43.9
Westmead Private	36.1	37.6	41.8	40.3	45.0
Wollongong Private	30.7	33.3	38.1	42.2	45.1
Newcastle Private	39.6	41.5	37.1	39.8	44.5
Calvary, Wagga Wagga	51.4	56.5	55.0	66.7	60.0
TOTAL	40.3	41.3	41.6	43.9	44.6
TOTAL NSW*	27.8	28.6	29.5	31.4	33.3

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

*Hospitals with more than 200 births in 2021 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 2021, 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 2017–2021[#]

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Sydney					
Canterbury	20.1	21.7	8.1	2.2	4.4
Royal Prince Alfred	19.0	15.7	18.9	13.7	10.5
TOTAL	19.3	17.4	16.5	10.8	9.1
South Western Sydney					
Fairfield	3.4	1.6	5.4	10.0	17.5
Liverpool	22.9	29.8	24.5	30.8	18.2
Campbelltown	28.9	33.1	33.5	31.0	31.9
Bankstown-Lidcombe	25.8	33.2	40.7	35.9	18.0
Bowral	17.4	27.1	22.0	25.0	21.7
TOTAL	22.9	28.8	28.5	28.7	24.2
South Eastern Sydney					
St. George	23.0	23.4	20.5	20.4	16.9
Sutherland	0.0	0.0	0.0	0.9	3.1
Royal Hospital for Women	16.5	16.7	18.9	16.8	16.1
TOTAL	16.4	16.8	17.3	15.4	14.7
Illawarra Shoalhaven					
Shoalhaven	12.1	16.9	19.8	15.8	13.9
Wollongong	22.3	18.3	14.4	18.0	19.2
TOTAL	19.3	18.0	15.8	17.3	18.0
Western Sydney					
Auburn	4.3	1.0	1.3	2.4	0.8
Blacktown	18.9	15.9	19.7	16.0	8.9
Westmead	19.7	15.6	15.8	14.8	15.8
TOTAL	18.3	14.5	16.2	14.4	11.7
Nepean Blue Mountains					
Nepean	14.2	17.3	18.5	15.2	16.3
Hawkesbury	12.4	15.6	9.4	13.2	8.7
Other hospitals	3.3	0.0	5.3	0.0	7.7
TOTAL	13.4	16.1	16.2	14.0	14.5
Northern Sydney					
Hornsby	19.4	16.0	20.9	16.3	19.7
Royal North Shore	7.8	13.1	9.6	9.5	9.6
Northern Beaches [†]	-	20.8	7.7	12.5	14.0
Other hospitals	15.0	22.7	0.0	0.0	0.0
TOTAL	12.5	15.9	11.4	12.0	13.1
Central Coast					
Gosford	20.7	16.4	16.6	17.5	16.8
TOTAL	20.7	16.4	16.6	17.5	16.8
Hunter New England					
Armidale	17.9	13.2	12.2	17.0	12.5
Inverell	15.4	12.5	9.1	20.0	5.3
Tamworth Base	15.2	13.1	12.7	10.3	9.4
Manning Base	18.5	18.2	8.6	8.2	10.8
Maitland	9.5	24.8	20.0	14.6	16.3
John Hunter	22.3	17.8	19.0	19.4	16.2
Other hospitals	9.3	10.0	14.3	11.9	9.3
TOTAL	17.8	17.1	16.8	16.0	14.0

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Table 62: (Continued)

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Northern NSW					
Grafton Base	9.3	13.6	13.2	16.3	14.6
Lismore Base	27.3	34.4	22.0	20.7	23.2
Tweed Heads	36.9	21.2	22.3	37.6	32.5
TOTAL	28.3	25.1	20.8	25.8	24.5
Mid North Coast					
Coffs Harbour	15.6	11.6	19.2	17.4	22.3
Kempsey	0.0	21.1	17.6	14.8	18.2
Port Macquarie Base	16.5	13.7	12.2	12.8	15.5
TOTAL	14.9	13.2	15.9	15.4	19.3
Southern NSW					
Bega	3.8	8.7	9.7	15.6	7.1
Goulburn Base	32.0	25.8	30.3	23.7	10.7
Moruya	20.0	17.1	34.2	8.6	22.6
Queanbeyan	6.1	5.5	12.0	22.4	5.2
Other hospitals	8.3	20.0	33.3	16.7	8.3
TOTAL	13.4	13.4	22.2	18.5	10.2
Murrumbidgee					
Griffith Base	32.8	28.6	23.6	29.9	18.5
Wagga Wagga Base	7.3	15.4	13.8	12.1	13.0
Other hospitals	5.6	10.3	25.9	17.6	2.9
TOTAL	13.4	17.8	17.4	17.6	12.8
Western NSW					
Dubbo Base	20.9	13.1	10.1	13.8	17.3
Mudgee	26.1	5.9	21.7	17.2	8.9
Bathurst Base	18.0	19.6	23.8	18.2	23.7
Forbes	30.8	0.0	15.4	10.0	30.0
Orange Base	15.8	22.8	13.2	15.1	25.5
Other hospitals	16.1	33.3	30.0	33.3	27.8
TOTAL	19.1	18.4	15.1	15.6	20.9
Far West	11.8	15.4	0.0	25.0	9.1
Public Hospitals	18.0	18.7	18.3	17.5	15.9
Private Hospitals					
Mater, North Sydney	5.5	3.5	4.4	2.3	3.1
North Shore Private	7.7	4.0	6.1	2.3	3.4
Sydney Adventist	9.0	6.6	3.4	5.4	8.7
North Gosford Private	4.8	6.9	7.1	5.3	9.6
Hurstville Community	5.1	6.9	3.9	6.0	4.6
Kareena Private	8.4	3.9	4.7	7.0	1.6
St. George Private	5.2	9.3	7.9	10.0	7.0
Prince of Wales Private	2.4	2.7	4.1	3.1	5.2
Norwest Private	9.7	9.2	7.4	5.9	5.2
Sydney Southwest Private	0.0	0.9	0.0	0.9	0.0
Nepean Private	5.3	7.6	8.1	7.2	6.7
Westmead Private	4.4	7.4	5.7	3.8	3.6
Wollongong Private	5.1	7.8	7.2	7.3	9.6
Newcastle Private	7.9	6.8	5.9	5.9	7.2
Calvary, Wagga Wagga	4.2	5.2	6.0	1.9	4.8
Other hospitals	0.0	0.0	0.0	0.0	0.0
TOTAL	6.1	5.8	5.4	4.7	5.2
TOTAL NSW*	14.3	14.9	14.6	13.9	12.8

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

*Hospitals with more than 200 births in 2021 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 2021, 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 2017–2021[#]

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Sydney					
Canterbury	5.0	6.7	5.3	2.2	2.5
Royal Prince Alfred	7.9	7.7	5.1	2.3	3.8
TOTAL	7.2	7.4	5.2	2.3	3.5
South Western Sydney					
Fairfield	12.9	7.3	9.9	6.4	5.9
Liverpool	8.9	6.1	5.7	6.6	2.9
Campbelltown	9.8	11.2	8.9	7.7	9.3
Bankstown-Lidcombe	10.7	8.1	8.3	3.7	3.1
Bowral	22.0	14.9	13.3	5.3	11.0
TOTAL	10.7	8.6	8.1	6.4	6.0
South Eastern Sydney					
St. George	3.5	4.1	3.4	1.9	2.8
Sutherland	7.9	5.8	3.1	3.5	6.4
Royal Hospital for Women	9.8	9.9	6.2	5.6	7.1
TOTAL	7.2	7.2	4.6	4.0	5.5
Illawarra Shoalhaven					
Shoalhaven	28.6	18.6	22.4	14.0	14.5
Wollongong	8.5	6.8	6.9	6.7	7.3
Other hospitals	0.0	0.0	100.0	0.0	0.0
TOTAL	13.2	10.2	11.6	8.4	8.7
Western Sydney					
Auburn	8.6	10.2	5.0	6.8	5.6
Blacktown	5.0	4.0	5.0	4.8	3.4
Westmead	4.4	3.8	4.9	4.8	3.6
TOTAL	5.2	4.9	5.0	5.1	3.8
Nepean Blue Mountains					
Nepean	8.0	6.0	7.7	4.9	8.4
Hawkesbury	17.2	9.8	16.1	19.6	19.5
Other hospitals	9.4	9.3	20.0	12.2	1.9
TOTAL	9.5	6.8	9.9	7.4	9.9
Northern Sydney					
Hornsby	6.6	6.5	2.3	4.3	5.4
Royal North Shore	5.1	5.1	4.3	3.4	5.1
Northern Beaches [†]	-	12.7	10.8	8.9	10.9
Other hospitals	13.2	12.8	31.6	0.0	0.0
TOTAL	7.9	7.4	6.3	5.4	7.4
Central Coast					
Gosford	8.1	7.8	5.7	7.1	6.9
Other hospitals	27.8	29.4	35.3	25.0	0.0
TOTAL	8.9	8.5	6.6	7.2	6.9

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Table 63: (Continued)

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Hunter New England					
Armidale	20.3	15.8	11.3	12.0	18.0
Inverell	41.5	13.8	18.2	19.2	10.8
Tamworth Base	13.9	6.5	14.4	7.0	7.0
Manning Base	8.9	10.6	17.4	6.5	10.7
Maitland	13.7	13.1	14.9	15.2	9.6
John Hunter	5.5	6.8	5.8	4.2	5.5
Other hospitals	32.3	28.2	23.5	27.2	25.9
TOTAL	12.5	10.8	11.5	9.5	9.1
Northern NSW					
Grafton Base	35.8	26.9	34.0	24.5	13.3
Lismore Base	17.8	11.1	12.6	15.6	19.0
Tweed Heads	13.7	12.8	9.9	9.0	8.1
Other hospitals	50.0	26.5	38.3	39.4	46.2
TOTAL	20.2	14.6	16.1	15.9	15.8
Mid North Coast					
Coffs Harbour	13.6	11.5	12.6	7.7	17.5
Kempsey	21.9	25.7	20.5	25.8	19.4
Port Macquarie Base	9.5	6.3	11.0	9.2	13.5
Other hospitals	50.0	45.5	0.0	44.4	40.0
TOTAL	13.7	12.4	12.8	10.9	16.6
Southern NSW					
Bega	29.7	8.2	19.4	8.3	5.0
Goulburn Base	14.3	16.3	6.4	14.3	9.4
Moruya	27.7	30.4	18.6	19.6	18.6
Queanbeyan	18.2	13.1	13.2	15.7	12.7
Other hospitals	53.8	18.8	52.0	47.6	14.3
TOTAL	24.7	16.1	17.4	17.5	12.3
Murrumbidgee					
Griffith Base	28.0	14.9	26.7	19.3	11.4
Wagga Wagga Base	11.3	12.8	7.2	10.4	13.4
Other hospitals	35.7	25.4	20.8	17.4	22.4
TOTAL	21.8	15.9	14.3	13.7	14.5
Western NSW					
Dubbo Base	7.8	6.9	11.9	8.2	8.3
Mudgee	10.0	17.1	6.9	12.1	17.1
Bathurst Base	14.9	13.2	9.8	5.8	13.8
Forbes	31.8	15.4	29.4	10.3	18.2
Orange Base	12.5	9.4	8.0	2.9	6.7
Other hospitals	21.6	19.4	22.2	27.8	12.9
TOTAL	12.5	10.3	11.9	7.1	9.9
Far West	29.0	18.9	17.9	38.1	25.0
Public Hospitals	10.0	8.6	8.3	6.9	7.5
Private Hospitals					
Mater, North Sydney	6.6	6.4	6.6	4.9	6.2
North Shore Private	4.6	7.1	5.6	7.6	6.1
Sydney Adventist	8.8	10.3	9.7	8.2	11.9
North Gosford Private	6.3	8.0	9.2	5.5	17.4
Hurstville Community	6.6	8.3	4.2	6.7	12.6
Kareena Private	4.8	4.2	3.2	3.9	2.3
St. George Private	5.7	5.9	10.7	7.5	6.7
Prince of Wales Private	6.3	4.9	6.8	4.0	3.8
Norwest Private	6.7	3.3	3.9	6.7	3.5
Sydney Southwest Private	4.2	4.5	1.9	4.2	2.5
Nepean Private	1.5	0.0	0.8	0.9	1.0
Westmead Private	3.0	3.1	5.0	2.7	1.8
Wollongong Private	2.5	5.4	5.3	9.7	4.9
Newcastle Private	7.0	6.3	1.8	4.3	4.4
Calvary, Wagga Wagga	8.3	18.5	3.7	4.3	10.7
TOTAL	5.5	5.6	5.5	5.4	5.9
TOTAL NSW*	9.0	8.0	7.8	6.7	7.5

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

*Hospitals with more than 200 births in 2021 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 2021, 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 2017–2021[#]

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Sydney					
Canterbury	38.9	39.1	36.9	43.8	50.8
Royal Prince Alfred	27.0	27.9	34.4	45.0	42.2
TOTAL	29.7	30.8	35.0	44.7	44.0
South Western Sydney					
Fairfield	39.4	43.4	42.5	48.0	40.9
Liverpool	33.3	31.3	34.7	38.0	38.0
Campbelltown	29.4	31.9	37.4	40.8	38.1
Bankstown-Lidcombe	38.7	38.0	34.5	41.7	52.5
Bowral	25.6	17.9	31.1	34.2	28.3
TOTAL	33.6	33.6	36.5	40.6	39.6
South Eastern Sydney					
St. George	34.2	48.7	52.9	49.7	45.6
Sutherland	34.6	38.1	43.9	49.8	39.6
Royal Hospital for Women	26.0	35.3	40.5	41.2	37.9
TOTAL	30.3	40.3	45.6	45.7	40.8
Illawarra Shoalhaven					
Shoalhaven	15.1	25.6	22.4	26.0	24.5
Wollongong	23.8	26.3	36.3	36.0	34.5
Other hospitals	0.0	0.0	0.0	0.0	0.0
TOTAL	21.8	26.1	32.2	33.7	32.6
Western Sydney					
Auburn	29.9	39.8	42.5	52.8	55.4
Blacktown	32.5	40.7	45.1	44.1	52.8
Westmead	38.8	45.1	44.2	44.8	45.2
TOTAL	35.6	42.8	44.2	45.7	49.1
Nepean Blue Mountains					
Nepean	23.0	31.8	33.6	32.1	32.4
Hawkesbury	24.1	37.4	36.6	39.1	30.1
Other hospitals	9.4	20.4	12.7	19.5	20.8
TOTAL	22.2	31.9	32.4	32.3	31.1
Northern Sydney					
Hornsby	27.2	37.0	44.4	50.7	46.4
Royal North Shore	35.1	38.2	32.9	38.3	33.3
Northern Beaches [†]	-	32.7	30.5	32.1	29.9
Other hospitals	23.4	23.5	0.0	0.0	0.0
TOTAL	30.0	34.5	33.9	38.7	34.4
Central Coast					
Gosford	27.9	27.9	35.1	30.5	33.0
Other hospitals	11.1	5.9	0.0	0.0	0.0
TOTAL	27.3	27.2	34.0	30.3	33.0
Hunter New England					
Armidale	18.8	36.8	32.1	34.0	21.3
Inverell	29.3	62.1	59.1	65.4	73.0
Tamworth Base	22.1	34.1	30.1	36.8	41.5
Manning Base	24.8	30.6	28.3	27.2	33.0
Maitland	13.7	25.7	23.8	31.9	36.2
John Hunter	22.6	30.7	35.7	35.8	43.4
Other hospitals	12.3	16.9	16.5	14.6	21.3
TOTAL	20.1	29.8	30.6	33.2	39.1

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Table 64: (Continued)

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Northern NSW					
Grafton Base	11.3	21.2	12.8	18.4	17.8
Lismore Base	24.3	26.1	26.2	30.6	25.9
Tweed Heads	21.7	25.6	21.4	30.7	22.2
Other hospitals	0.0	5.9	2.1	0.0	3.8
TOTAL	20.2	24.0	20.5	26.9	22.5
Mid North Coast					
Coffs Harbour	24.7	19.7	20.0	25.0	21.3
Kempsey	9.4	17.1	15.4	12.9	16.1
Port Macquarie Base	24.6	28.8	48.0	45.4	39.4
Other hospitals	12.5	0.0	25.0	0.0	0.0
TOTAL	22.9	22.0	29.9	31.1	28.1
Southern NSW					
Bega	10.8	30.6	19.4	20.8	40.0
Goulburn Base	51.4	18.6	31.9	14.3	24.5
Moruya	14.9	4.3	23.3	21.7	20.3
Queanbeyan	21.8	20.6	32.5	31.5	31.8
Other hospitals	7.7	18.8	8.0	14.3	42.9
TOTAL	21.6	19.2	26.8	23.2	29.7
Murrumbidgee					
Griffith Base	17.1	28.4	26.7	27.7	21.5
Wagga Wagga Base	20.4	35.5	28.7	32.6	33.5
Other hospitals	14.3	19.0	29.2	13.0	19.0
TOTAL	18.0	30.4	28.3	28.6	28.3
Western NSW					
Dubbo Base	33.9	47.1	32.4	42.9	40.7
Mudgee	20.0	22.9	48.3	27.3	26.8
Bathurst Base	21.6	19.1	14.8	17.3	21.5
Forbes	13.6	7.7	14.7	13.8	6.1
Orange Base	22.9	32.9	40.0	48.9	51.7
Other hospitals	21.6	25.0	25.9	22.2	29.0
TOTAL	26.1	34.9	31.9	38.8	38.3
Far West	12.9	21.6	23.1	4.8	10.7
Public Hospitals	28.5	33.5	35.9	38.7	38.1
Private Hospitals					
Mater, North Sydney	41.2	42.8	50.2	37.2	27.1
North Shore Private	37.6	33.0	34.0	35.4	41.8
Sydney Adventist	41.0	38.4	38.0	35.3	29.2
North Gosford Private	51.0	33.3	43.4	32.9	25.6
Hurstville Community	25.6	43.0	34.2	26.9	33.1
Kareena Private	29.6	29.6	43.0	43.4	43.2
St. George Private	29.9	36.3	35.8	29.4	36.1
Prince of Wales Private	36.1	33.4	35.9	44.7	32.1
Norwest Private	41.7	40.2	35.3	40.3	43.0
Sydney Southwest Private	43.2	35.9	48.4	50.8	46.5
Nepean Private	53.3	58.6	60.0	47.2	46.9
Westmead Private	65.1	64.3	59.8	62.0	59.0
Wollongong Private	47.8	34.9	38.5	31.3	34.4
Newcastle Private	14.7	19.5	22.1	23.6	17.6
Calvary, Wagga Wagga	33.3	18.5	37.0	26.1	32.1
TOTAL	40.2	39.6	40.9	40.2	37.3
TOTAL NSW*	31.0	34.7	36.9	39.0	37.8

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

*Hospitals with more than 200 births in 2021 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 2021, 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 2017–2021[#]

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Sydney					
Canterbury	41.7	48.0	45.8	42.0	38.9
Royal Prince Alfred	60.5	57.4	54.1	41.9	44.2
TOTAL	56.1	55.0	52.2	41.9	43.1
South Western Sydney					
Fairfield	48.0	46.7	43.8	43.9	45.3
Liverpool	53.2	53.1	53.7	49.2	45.5
Campbelltown	60.5	55.5	51.1	44.6	47.9
Bankstown-Lidcombe	41.7	45.2	48.6	42.0	31.7
Bowral	51.2	76.1	60.0	58.8	55.9
TOTAL	52.8	52.6	50.9	46.3	45.2
South Eastern Sydney					
St. George	46.7	35.1	33.4	35.0	38.0
Sutherland	49.2	47.3	43.5	32.9	43.3
Royal Hospital for Women	56.8	49.0	42.2	43.9	48.4
TOTAL	51.9	44.0	39.2	38.9	43.9
Illawarra Shoalhaven					
Shoalhaven	65.5	52.6	56.4	53.3	58.2
Wollongong	63.1	53.2	45.9	43.7	46.3
Other hospitals	0.0	0.0	100.0	0.0	0.0
TOTAL	63.7	53.0	49.0	45.9	48.5
Western Sydney					
Auburn	50.9	42.6	38.1	33.2	31.2
Blacktown	46.9	43.9	39.8	39.3	33.2
Westmead	38.8	36.6	36.5	38.8	40.4
TOTAL	42.9	40.0	37.8	38.2	36.7
Nepean Blue Mountains					
Nepean	58.0	48.6	46.0	50.8	52.1
Hawkesbury	63.8	48.8	49.1	51.1	55.3
Other hospitals	66.0	59.3	65.5	68.3	58.5
TOTAL	59.5	49.5	48.0	51.9	53.1
Northern Sydney					
Hornsby	55.4	47.4	46.3	34.0	42.4
Royal North Shore	51.6	51.4	52.7	50.5	55.5
Northern Beaches [†]	-	45.5	62.5	59.6	63.7
Other hospitals	58.8	61.5	78.9	0.0	0.0
TOTAL	54.6	52.4	54.8	50.3	56.3
Central Coast					
Gosford	56.5	52.0	50.1	52.1	50.9
Other hospitals	72.2	76.5	70.6	100.0	0.0
TOTAL	57.1	52.8	50.8	52.5	50.9
Hunter New England					
Armidale	57.8	36.8	50.9	50.0	54.1
Inverell	46.3	24.1	27.3	23.1	21.6
Tamworth Base	59.0	46.4	52.9	36.8	39.8
Manning Base	60.4	50.6	50.0	51.1	51.5
Maitland	67.8	58.6	58.6	48.6	48.6
John Hunter	61.7	52.8	45.0	46.8	43.2
Other hospitals	71.5	66.1	65.2	68.0	60.2
TOTAL	62.7	52.9	50.8	48.0	45.8

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Table 65: (Continued)

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Northern NSW					
Grafton Base	67.9	57.7	63.8	49.0	57.8
Lismore Base	65.1	54.3	60.7	54.4	58.2
Tweed Heads	56.0	56.9	60.9	47.0	57.8
Other hospitals	87.5	79.4	87.2	69.7	84.6
TOTAL	62.9	57.5	63.7	52.1	59.4
Mid North Coast					
Coffs Harbour	56.2	65.6	58.3	61.3	50.6
Kempsey	62.5	62.9	61.5	74.2	48.4
Port Macquarie Base	53.2	49.5	37.0	38.5	43.2
Other hospitals	75.0	72.7	50.0	88.9	70.0
TOTAL	56.1	59.9	50.7	54.4	47.8
Southern NSW					
Bega	64.9	44.9	47.2	45.8	42.5
Goulburn Base	40.0	53.5	53.2	57.1	47.2
Moruya	74.5	56.5	48.8	52.2	59.3
Queanbeyan	59.1	56.1	56.1	59.6	52.7
Other hospitals	69.2	56.3	60.0	66.7	35.7
TOTAL	61.2	53.6	53.6	55.7	50.7
Murrumbidgee					
Griffith Base	68.3	60.8	52.3	53.0	64.6
Wagga Wagga Base	63.4	50.0	56.9	57.5	46.9
Other hospitals	65.7	57.1	54.2	63.0	56.9
TOTAL	65.3	54.0	55.3	57.1	52.6
Western NSW					
Dubbo Base	47.8	32.4	50.8	38.0	44.4
Mudgee	63.3	62.9	41.4	63.6	51.2
Bathurst Base	63.5	73.5	63.9	69.2	64.6
Forbes	68.2	69.2	70.6	65.5	81.8
Orange Base	54.2	51.0	48.0	39.1	34.8
Other hospitals	54.1	52.8	51.9	44.4	61.3
TOTAL	54.4	47.9	52.5	45.3	47.3
Far West	74.2	48.6	61.5	71.4	53.6
Public Hospitals	54.7	50.1	48.5	45.8	46.8
Private Hospitals					
Mater, North Sydney	52.6	47.7	41.4	42.1	34.1
North Shore Private	53.2	56.5	54.7	52.0	49.7
Sydney Adventist	49.6	49.8	48.4	57.2	55.0
North Gosford Private	31.3	58.7	48.7	60.3	57.0
Hurstville Community	65.3	50.4	60.0	64.9	53.7
Kareena Private	55.2	64.8	46.2	48.7	45.5
St. George Private	62.8	56.0	53.1	56.3	53.8
Prince of Wales Private	41.1	40.7	35.9	33.2	40.3
Norwest Private	35.3	38.5	39.2	30.4	30.9
Sydney Southwest Private	35.3	40.5	35.7	26.5	32.5
Nepean Private	29.6	21.1	22.4	24.1	30.2
Westmead Private	26.7	25.8	30.4	29.2	32.5
Wollongong Private	42.8	52.2	49.2	44.8	49.7
Newcastle Private	52.0	43.4	51.7	50.5	53.3
Calvary, Wagga Wagga	55.6	66.7	33.3	56.5	64.3
TOTAL	44.8	44.3	43.3	42.7	44.2
TOTAL NSW*	52.5	48.9	47.5	45.2	46.3

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

*Hospitals with more than 200 births in 2021 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 2021, 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 2017–2021[#]

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Sydney					
Canterbury	13.73	7.28	10.30	8.83	6.15
Royal Prince Alfred	6.72	9.41	6.29	4.63	3.47
TOTAL	8.33	8.85	7.20	5.76	4.04
South Western Sydney					
Fairfield	6.32	4.38	6.51	2.36	8.66
Liverpool	4.44	7.31	6.44	6.30	6.96
Campbelltown	2.02	2.90	2.69	3.96	5.01
Bankstown-Lidcombe	9.82	8.41	9.77	8.59	6.95
Bowral	0.00	0.00	1.11	1.75	2.36
TOTAL	4.64	5.38	5.46	5.07	6.21
South Eastern Sydney					
St. George	16.20	10.14	7.76	10.64	8.72
Sutherland	7.50	4.62	4.58	9.41	8.23
Royal Hospital for Women	10.87	4.31	6.34	4.19	2.80
TOTAL	12.30	6.32	6.56	7.38	5.88
Illawarra Shoalhaven					
Shoalhaven	5.88	1.28	1.82	2.67	2.73
Wollongong	5.90	5.57	3.21	6.92	5.78
Other hospitals	0.00	0.00	0.00	0.00	0.00
TOTAL	5.89	4.36	2.80	5.95	5.20
Western Sydney					
Auburn	13.06	6.17	6.60	5.66	7.79
Blacktown	15.81	4.10	5.95	7.97	5.60
Westmead	19.69	8.38	9.27	7.90	6.87
TOTAL	17.59	6.58	7.71	7.60	6.60
Nepean Blue Mountains					
Nepean	15.02	6.87	6.02	6.58	7.06
Hawkesbury	6.03	0.00	4.46	3.26	2.44
Other hospitals	5.66	5.56	1.82	0.00	5.66
TOTAL	12.93	5.62	5.45	5.71	6.14
Northern Sydney					
Hornsby	7.04	6.52	3.74	5.74	5.36
Royal North Shore	7.09	3.66	5.86	4.93	3.46
Northern Beaches [†]	-	0.00	2.86	3.88	1.88
Other hospitals	4.09	0.43	0.00	0.00	0.00
TOTAL	6.15	3.39	4.46	4.74	3.18
Central Coast					
Gosford	3.83	3.59	2.34	4.20	3.75
Other hospitals	5.56	0.00	0.00	0.00	0.00
TOTAL	3.90	3.47	2.26	4.17	3.75

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Table 66: (Continued)

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Hunter New England					
Armidale	12.50	3.51	3.77	2.00	0.00
Inverell	7.32	3.45	4.55	0.00	2.70
Tamworth Base	9.84	4.35	3.27	8.77	4.68
Manning Base	10.89	4.71	3.26	4.35	1.94
Maitland	10.13	3.15	1.53	3.11	5.88
John Hunter	11.53	3.90	8.12	7.48	6.83
Other hospitals	2.31	0.81	0.87	4.85	2.78
TOTAL	10.07	3.54	4.97	5.83	5.34
Northern NSW					
Grafton Base	0.00	0.00	2.13	4.08	6.67
Lismore Base	1.78	3.02	1.57	3.33	1.72
Tweed Heads	3.43	5.13	2.08	3.01	3.24
Other hospitals	0.00	0.00	0.00	0.00	0.00
TOTAL	2.14	3.33	1.68	3.04	2.66
Mid North Coast					
Coffs Harbour	3.09	1.91	5.14	2.38	3.13
Kempsey	0.00	5.71	7.69	0.00	3.23
Port Macquarie Base	6.35	2.70	2.36	2.31	2.58
Other hospitals	0.00	0.00	0.00	0.00	0.00
TOTAL	3.96	2.55	4.35	2.07	2.81
Southern NSW					
Bega	8.11	0.00	0.00	8.33	5.00
Goulburn Base	0.00	2.33	0.00	0.00	3.77
Moruya	2.13	0.00	0.00	0.00	5.08
Queanbeyan	11.82	14.02	5.26	2.25	5.45
Other hospitals	3.85	0.00	0.00	0.00	7.14
TOTAL	7.06	6.13	2.26	2.44	5.07
Murrumbidgee					
Griffith Base	1.22	2.70	2.33	6.02	2.53
Wagga Wagga Base	11.97	4.65	5.13	3.63	2.87
Other hospitals	2.86	0.00	2.08	4.35	3.45
TOTAL	6.80	3.24	3.95	4.35	2.89
Western NSW					
Dubbo Base	10.00	7.35	7.03	5.98	4.63
Mudgee	0.00	2.86	0.00	3.03	4.88
Bathurst Base	2.70	1.47	3.28	0.00	4.62
Forbes	0.00	0.00	2.94	0.00	0.00
Orange Base	13.19	5.37	4.67	3.45	4.49
Other hospitals	8.11	2.78	0.00	5.56	0.00
TOTAL	8.62	5.15	4.73	3.88	4.08
Far West	3.23	2.70	0.00	4.76	3.57
Public Hospitals	9.23	5.40	5.41	5.58	5.04
Private Hospitals					
Mater, North Sydney	1.04	3.89	1.83	11.18	23.26
North Shore Private	0.00	1.54	1.05	0.90	0.68
Sydney Adventist	0.00	0.00	0.00	0.00	0.00
North Gosford Private	7.29	4.00	0.00	2.74	2.33
Hurstville Community	0.83	0.00	1.67	1.49	4.00
Kareena Private	0.00	0.00	1.08	1.32	1.14
St. George Private	0.00	0.73	0.98	2.05	0.67
Prince of Wales Private	5.63	8.20	9.96	7.91	7.59
Norwest Private	5.88	8.03	8.08	10.67	11.33
Sydney Southwest Private	6.32	6.82	5.16	11.11	6.00
Nepean Private	5.19	12.78	9.60	16.67	11.46
Westmead Private	0.70	1.69	0.46	0.39	0.79
Wollongong Private	0.00	0.00	0.00	0.00	1.23
Newcastle Private	10.09	11.40	8.76	6.56	7.84
Calvary, Wagga Wagga	5.56	0.00	3.70	8.70	0.00
TOTAL	3.00	4.33	3.68	4.99	5.08
TOTAL NSW*	7.89	5.17	5.05	5.46	5.03

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

*Hospitals with more than 200 births in 2021 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 2021, 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 2017–2021[#]

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Sydney					
Canterbury	7.84	5.66	6.98	10.09	9.02
Royal Prince Alfred	6.13	7.98	5.70	3.82	4.59
TOTAL	6.52	7.38	5.99	5.51	5.54
South Western Sydney					
Fairfield	9.48	6.93	7.19	2.36	7.48
Liverpool	8.25	8.38	7.34	6.30	5.36
Campbelltown	3.60	3.87	4.58	4.22	4.87
Bankstown-Lidcombe	5.36	9.03	7.76	5.52	8.49
Bowral	1.22	1.49	2.22	0.00	3.94
TOTAL	6.17	6.55	6.21	4.62	5.77
South Eastern Sydney					
St. George	5.99	7.30	4.51	7.16	7.24
Sutherland	3.33	4.23	5.34	6.27	3.66
Royal Hospital for Women	6.85	8.34	5.76	5.64	4.13
TOTAL	5.99	7.27	5.23	6.28	5.07
Illawarra Shoalhaven					
Shoalhaven	3.36	8.33	6.67	5.33	6.36
Wollongong	4.62	6.08	4.94	6.92	4.07
Other hospitals	0.00	0.00	0.00	0.00	0.00
TOTAL	4.32	6.72	5.43	6.55	4.51
Western Sydney					
Auburn	6.19	4.63	2.20	4.91	5.63
Blacktown	9.24	6.69	6.10	6.26	6.20
Westmead	5.24	5.01	5.66	4.79	5.30
TOTAL	6.53	5.51	5.24	5.38	5.64
Nepean Blue Mountains					
Nepean	7.42	4.88	5.84	5.64	6.49
Hawkesbury	4.31	6.50	8.93	6.52	8.13
Other hospitals	1.89	0.00	3.64	4.88	7.55
TOTAL	6.53	4.79	6.15	5.71	6.86
Northern Sydney					
Hornsby	7.04	5.22	4.67	3.35	4.91
Royal North Shore	7.45	5.23	6.43	6.64	4.27
Northern Beaches [†]	-	0.00	2.86	3.05	1.67
Other hospitals	7.60	3.42	0.00	0.00	0.00
TOTAL	7.42	4.57	4.92	4.83	3.35
Central Coast					
Gosford	5.41	3.98	4.48	3.63	4.53
Other hospitals	0.00	0.00	0.00	0.00	0.00
TOTAL	5.19	3.85	4.34	3.60	4.53
Hunter New England					
Armidale	1.56	5.26	11.32	2.00	1.64
Inverell	2.44	0.00	0.00	0.00	0.00
Tamworth Base	3.28	3.62	3.92	7.89	2.92
Manning Base	8.91	4.71	1.09	2.17	8.74
Maitland	3.96	9.91	9.20	6.61	6.19
John Hunter	9.25	8.13	9.14	8.70	7.74
Other hospitals	2.31	3.23	6.09	9.71	4.63
TOTAL	6.46	6.93	7.61	7.31	6.22

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Table 67: (Continued)

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Northern NSW					
Grafton Base	1.89	1.92	2.13	2.04	4.44
Lismore Base	4.73	8.04	5.76	6.11	5.60
Tweed Heads	4.00	8.72	5.73	4.82	9.19
Other hospitals	0.00	5.88	0.00	0.00	0.00
TOTAL	3.80	7.50	4.82	4.67	6.56
Mid North Coast					
Coffs Harbour	0.62	4.46	5.14	4.17	5.00
Kempsey	3.13	8.57	2.56	3.23	3.23
Port Macquarie Base	11.11	5.41	6.30	1.54	1.94
Other hospitals	0.00	0.00	25.00	0.00	0.00
TOTAL	4.88	5.10	5.51	2.96	3.37
Southern NSW					
Bega	8.11	2.04	2.78	2.08	2.50
Goulburn Base	5.71	4.65	14.89	2.38	5.66
Moruya	6.38	4.35	4.65	0.00	5.08
Queanbeyan	8.18	9.35	6.14	4.49	6.36
Other hospitals	7.69	0.00	0.00	0.00	7.14
TOTAL	7.45	5.75	6.42	2.44	5.43
Murrumbidgee					
Griffith Base	1.22	4.05	2.33	2.41	6.33
Wagga Wagga Base	8.45	6.40	6.15	6.74	0.96
Other hospitals	2.86	7.94	6.25	6.52	3.45
TOTAL	5.10	6.15	5.17	5.59	2.60
Western NSW					
Dubbo Base	6.67	4.90	2.70	3.26	3.70
Mudgee	6.67	0.00	3.45	6.06	2.44
Bathurst Base	9.46	7.35	14.75	7.69	1.54
Forbes	4.55	0.00	8.82	10.34	6.06
Orange Base	11.11	6.71	3.33	10.34	7.30
Other hospitals	2.70	2.78	0.00	0.00	3.23
TOTAL	8.01	5.15	4.73	6.73	4.61
Far West	3.23	2.70	5.13	9.52	0.00
Public Hospitals	6.25	6.15	5.70	5.43	5.23
Private Hospitals					
Mater, North Sydney	1.73	0.71	1.10	0.66	1.94
North Shore Private	2.01	2.16	1.40	2.24	2.72
Sydney Adventist	0.00	0.00	0.00	0.00	0.00
North Gosford Private	2.08	4.00	2.63	1.37	2.33
Hurstville Community	0.00	0.83	2.50	2.99	5.14
Kareena Private	0.80	5.63	2.15	2.63	1.14
St. George Private	3.07	2.56	1.95	0.34	0.67
Prince of Wales Private	1.99	1.97	1.42	0.79	1.72
Norwest Private	2.41	2.22	0.90	2.37	3.91
Sydney Southwest Private	4.21	4.55	2.82	2.65	1.50
Nepean Private	5.19	6.02	4.00	4.63	7.29
Westmead Private	1.17	1.20	0.68	0.59	0.99
Wollongong Private	1.49	2.69	3.74	1.49	1.84
Newcastle Private	6.12	3.31	2.42	0.98	5.64
Calvary, Wagga Wagga	2.78	3.70	3.70	4.35	0.00
TOTAL	2.30	2.27	1.69	1.33	2.21
TOTAL NSW*	5.40	5.35	4.88	4.61	4.57

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

*Hospitals with more than 200 births in 2021 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 2021, 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 2017–2021[#]

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Sydney					
Canterbury	0.00	0.00	1.00	0.00	0.41
Royal Prince Alfred	0.34	0.29	0.10	0.70	0.34
TOTAL	0.26	0.21	0.30	0.51	0.35
South Western Sydney					
Fairfield	1.44	0.00	0.00	0.34	0.39
Liverpool	0.16	0.13	0.00	0.14	0.00
Campbelltown	0.43	0.00	0.00	0.00	0.00
Bankstown-Lidcombe	0.00	0.00	0.00	0.00	0.39
Bowral	0.00	0.00	0.00	0.00	0.00
TOTAL	0.43	0.05	0.00	0.09	0.10
South Eastern Sydney					
St. George	0.00	0.20	0.18	0.19	0.00
Sutherland	0.42	0.00	0.00	0.00	0.00
Royal Hospital for Women	0.27	0.14	0.43	0.14	0.00
TOTAL	0.19	0.14	0.26	0.14	0.00
Illawarra Shoalhaven					
Shoalhaven	0.00	0.64	0.00	0.00	0.00
Wollongong	0.00	0.00	0.00	0.20	0.21
Other hospitals	0.00	0.00	0.00	0.00	0.00
TOTAL	0.00	0.18	0.00	0.15	0.17
Western Sydney					
Auburn	0.69	0.31	0.31	0.00	0.43
Blacktown	0.18	0.00	0.30	0.28	0.00
Westmead	0.09	0.51	0.51	0.36	0.12
TOTAL	0.20	0.31	0.41	0.28	0.13
Nepean Blue Mountains					
Nepean	0.35	0.54	0.18	0.19	0.38
Hawkesbury	0.86	0.00	0.89	1.09	0.81
Other hospitals	0.00	0.00	1.82	0.00	0.00
TOTAL	0.41	0.41	0.42	0.30	0.43
Northern Sydney					
Hornsby	0.47	0.00	0.47	0.48	0.45
Royal North Shore	0.36	0.35	0.19	0.00	0.00
Northern Beaches [†]	-	0.00	0.00	0.28	0.42
Other hospitals	0.58	0.43	0.00	0.00	0.00
TOTAL	0.45	0.27	0.19	0.18	0.25
Central Coast					
Gosford	0.00	0.00	0.00	0.76	0.00
Other hospitals	0.00	0.00	5.88	0.00	0.00
TOTAL	0.00	0.00	0.19	0.76	0.00
Hunter New England					
Armidale	0.00	0.00	0.00	0.00	0.00
Inverell	0.00	0.00	0.00	0.00	0.00
Tamworth Base	0.00	0.00	0.00	0.00	0.00
Manning Base	0.00	0.00	0.00	0.00	0.00
Maitland	0.44	0.45	0.00	0.00	0.31
John Hunter	0.16	0.33	0.34	0.52	0.00
Other hospitals	0.00	0.00	1.74	0.97	0.00
TOTAL	0.15	0.24	0.31	0.33	0.07

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Table 68: (Continued)

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Northern NSW					
Grafton Base	1.89	1.92	0.00	0.00	0.00
Lismore Base	0.00	0.00	0.52	0.00	0.00
Tweed Heads	0.00	0.51	1.04	1.20	0.00
Other hospitals	0.00	0.00	0.00	6.06	0.00
TOTAL	0.24	0.42	0.63	0.93	0.00
Mid North Coast					
Coffs Harbour	0.00	0.64	0.00	1.79	0.00
Kempsey	0.00	0.00	0.00	0.00	0.00
Port Macquarie Base	0.79	0.00	0.79	0.77	0.00
Other hospitals	0.00	18.18	0.00	0.00	0.00
TOTAL	0.30	0.96	0.29	1.18	0.00
Southern NSW					
Bega	2.70	0.00	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	1.87	0.88	0.00	0.00
Other hospitals	0.00	0.00	0.00	0.00	0.00
TOTAL	0.39	0.77	0.38	0.00	0.00
Murrumbidgee					
Griffith Base	0.00	0.00	1.16	0.00	0.00
Wagga Wagga Base	0.00	0.00	1.03	0.00	0.00
Other hospitals	1.43	0.00	0.00	2.17	0.00
TOTAL	0.34	0.00	0.91	0.31	0.00
Western NSW					
Dubbo Base	0.00	0.49	0.00	0.00	0.00
Mudgee	0.00	0.00	0.00	0.00	0.00
Bathurst Base	1.35	0.00	0.00	0.00	0.00
Forbes	0.00	0.00	0.00	0.00	0.00
Orange Base	0.00	0.67	0.67	0.57	0.56
Other hospitals	2.70	2.78	7.41	0.00	0.00
TOTAL	0.41	0.59	0.62	0.20	0.18
Far West	0.00	0.00	0.00	0.00	0.00
Public Hospitals	0.28	0.24	0.28	0.30	0.13
Private Hospitals					
Mater, North Sydney	0.00	0.35	0.00	0.00	0.00
North Shore Private	0.00	0.00	0.35	0.45	0.00
Sydney Adventist	0.00	0.00	0.00	0.37	0.00
North Gosford Private	0.00	0.00	0.00	0.00	1.16
Hurstville Community	0.83	0.00	0.83	0.00	0.00
Kareena Private	0.00	0.00	0.00	2.63	0.00
St. George Private	0.00	0.00	0.00	0.00	0.00
Prince of Wales Private	0.00	0.00	0.00	0.00	0.00
Norwest Private	0.00	0.00	0.60	0.00	0.00
Sydney Southwest Private	0.53	0.00	0.00	0.00	0.00
Nepean Private	0.00	0.00	0.80	0.93	1.04
Westmead Private	0.00	0.00	0.00	0.00	0.20
Wollongong Private	0.00	0.00	0.00	0.00	0.61
Newcastle Private	0.00	0.74	0.60	0.00	0.00
Calvary, Wagga Wagga	0.00	0.00	0.00	0.00	0.00
TOTAL	0.06	0.09	0.21	0.16	0.11
TOTAL NSW*	0.23	0.21	0.27	0.27	0.13

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

*Hospitals with more than 200 births in 2021 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 2021, 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 2017–2021[#]

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Sydney					
Canterbury	10.03	12.66	10.42	7.44	6.52
Royal Prince Alfred	9.12	10.13	8.39	7.95	7.22
TOTAL	9.36	10.68	8.87	7.83	7.08
South Western Sydney					
Fairfield	10.28	8.97	7.30	6.90	6.39
Liverpool	13.55	10.52	14.31	9.97	11.92
Campbelltown	11.07	9.17	8.59	7.81	8.80
Bankstown-Lidcombe	12.85	10.34	10.11	10.19	11.90
Bowral	2.36	3.23	4.76	3.03	1.40
TOTAL	11.70	9.61	10.51	8.57	9.70
South Eastern Sydney					
St. George	6.29	5.38	5.78	5.94	4.88
Sutherland	8.43	5.06	4.80	4.93	3.96
Royal Hospital for Women	5.37	4.76	4.21	3.54	3.28
TOTAL	6.13	5.00	4.81	4.47	3.88
Illawarra Shoalhaven					
Shoalhaven	4.62	3.88	5.74	6.15	5.38
Wollongong	9.22	8.10	8.58	7.30	6.36
TOTAL	8.05	7.20	7.98	7.03	6.13
Western Sydney					
Auburn	5.10	4.71	4.97	3.68	4.04
Blacktown	9.87	6.25	7.41	8.30	7.33
Westmead	8.43	7.29	6.81	5.83	5.41
TOTAL	8.52	6.64	6.83	6.55	6.04
Nepean Blue Mountains					
Nepean	13.96	11.66	13.13	10.10	11.78
Hawkesbury	4.84	7.33	3.80	5.38	3.48
Other hospitals	2.63	4.35	6.82	9.45	5.30
TOTAL	12.03	10.54	11.42	9.34	10.12
Northern Sydney					
Hornsby	3.24	4.42	1.91	2.55	2.54
Royal North Shore	5.76	4.87	4.40	3.97	4.59
Northern Beaches [†]	-	1.04	3.30	0.33	0.97
Other hospitals	4.76	5.22	0.00	0.00	0.00
TOTAL	5.00	4.65	3.61	2.55	2.95
Central Coast					
Gosford	7.86	8.21	9.99	9.62	8.06
TOTAL	7.86	8.21	9.99	9.62	8.06
Hunter New England					
Armidale	5.11	3.55	3.59	5.41	5.92
Inverell	0.00	4.11	1.43	1.54	0.00
Tamworth Base	9.43	10.30	10.36	9.09	4.98
Manning Base	12.66	10.47	11.67	12.50	12.50
Maitland	9.19	10.59	12.16	10.22	11.33
John Hunter	14.25	12.42	12.72	12.20	12.14
Other hospitals	10.38	4.47	6.63	4.37	5.91
TOTAL	11.58	10.47	11.06	10.39	10.11

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Table 69: (Continued)

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Northern NSW					
Grafton Base	7.38	10.32	7.08	12.88	7.89
Lismore Base	5.43	9.68	5.40	6.42	6.70
Tweed Heads	8.92	8.28	7.31	8.71	8.18
TOTAL	7.20	9.17	6.34	8.36	7.40
Mid North Coast					
Coffs Harbour	3.84	5.09	5.28	3.32	8.73
Kempsey	9.23	11.29	12.31	6.15	7.14
Port Macquarie Base	5.96	8.77	7.67	9.85	10.20
TOTAL	5.09	7.03	6.97	6.14	9.18
Southern NSW					
Bega	0.00	3.66	0.00	4.05	3.13
Goulburn Base	6.41	4.41	7.50	4.90	3.45
Moruya	11.27	4.49	6.58	1.92	10.20
Queanbeyan	5.33	6.59	7.69	5.96	5.75
Other hospitals	14.81	12.00	8.33	7.89	6.38
TOTAL	6.20	5.61	6.19	4.69	5.78
Murrumbidgee					
Griffith Base	6.12	8.16	10.46	9.58	9.76
Wagga Wagga Base	7.08	6.64	5.72	6.29	8.06
Other hospitals	3.88	7.00	1.61	5.48	9.30
TOTAL	6.38	7.03	6.40	6.94	8.53
Western NSW					
Dubbo Base	10.39	9.09	5.90	9.49	7.63
Mudgee	9.23	11.86	4.41	5.19	8.25
Bathurst Base	8.70	3.36	9.03	7.69	6.50
Forbes	0.00	3.33	2.44	6.06	3.03
Orange Base	12.93	9.59	8.91	9.09	7.90
Other hospitals	8.24	3.03	2.63	7.14	2.22
TOTAL	10.42	8.09	7.08	8.59	7.17
Far West	5.00	2.22	10.61	16.67	10.53
Public Hospitals	8.95	8.12	8.07	7.39	7.34
Private Hospitals					
Mater, North Sydney	1.46	0.96	1.30	1.73	2.10
North Shore Private	1.48	1.56	1.14	1.45	0.58
Sydney Adventist	2.93	3.75	3.61	1.90	0.95
North Gosford Private	1.17	2.82	4.29	1.24	1.53
Hurstville Community	3.02	3.68	2.01	0.53	1.75
Kareena Private	3.54	1.64	1.00	0.00	1.81
St. George Private	3.07	1.82	2.09	2.93	2.02
Prince of Wales Private	1.25	1.23	1.48	1.36	1.45
Norwest Private	4.14	2.98	3.10	2.71	2.89
Sydney Southwest Private	7.12	5.04	3.03	2.54	3.95
Nepean Private	2.95	3.15	3.98	3.02	4.17
Westmead Private	2.02	2.61	1.62	1.16	1.24
Wollongong Private	4.02	5.34	3.22	2.55	2.76
Newcastle Private	2.58	3.62	2.76	1.41	1.80
Calvary, Wagga Wagga	2.11	1.11	0.63	0.58	0.57
Other hospitals	0.00	0.00	0.00	0.00	0.00
TOTAL	2.47	2.45	2.16	1.69	1.74
TOTAL NSW*	6.95	6.44	6.34	5.75	5.70

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

*Hospitals with more than 200 births in 2021 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 2021, 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 2017–2021[#]

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Sydney					
Canterbury	78.6	74.2	74.6	69.1	63.8
Royal Prince Alfred	78.5	76.4	74.0	67.1	66.0
TOTAL	78.5	75.8	74.1	67.6	65.5
South Western Sydney					
Fairfield	46.0	53.2	58.5	47.2	45.2
Liverpool	72.4	65.1	62.8	56.6	59.8
Campbelltown	80.4	79.6	72.0	70.6	75.8
Bankstown-Lidcombe	77.5	69.5	70.2	62.5	59.9
Bowral	94.8	97.0	83.2	85.6	87.8
TOTAL	72.5	69.8	67.4	62.4	65.3
South Eastern Sydney					
St. George	82.5	76.0	71.4	67.8	72.2
Sutherland	94.1	90.7	88.0	87.2	87.4
Royal Hospital for Women	88.9	87.7	88.5	82.9	81.8
TOTAL	87.3	84.1	82.1	78.4	79.6
Illawarra Shoalhaven					
Shoalhaven	95.8	94.5	95.0	92.8	92.9
Wollongong	91.5	89.9	84.3	85.7	83.6
Other hospitals	0.0	0.0	100.0	0.0	0.0
TOTAL	92.5	91.2	87.2	87.4	85.6
Western Sydney					
Auburn	67.4	59.9	64.2	61.5	49.0
Blacktown	83.5	76.9	72.1	71.4	69.0
Westmead	88.4	86.2	83.9	80.5	73.3
TOTAL	83.9	78.7	76.6	74.0	68.3
Nepean Blue Mountains					
Nepean	83.1	84.1	74.2	68.1	61.5
Hawkesbury	94.0	89.2	89.7	80.9	82.2
Other hospitals	94.1	93.3	95.8	90.6	82.4
TOTAL	85.7	85.7	78.4	71.7	66.5
Northern Sydney					
Hornsby	90.3	87.1	91.4	86.2	85.4
Royal North Shore	89.3	89.8	86.3	86.0	87.8
Northern Beaches [†]	-	100.0	87.2	88.0	79.9
Other hospitals	89.4	88.5	100.0	0.0	0.0
TOTAL	89.5	89.3	87.8	86.7	84.4
Central Coast					
Gosford	83.3	88.0	86.1	85.4	84.8
Other hospitals	93.8	94.1	100.0	100.0	0.0
TOTAL	83.6	88.2	86.5	85.5	84.8

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Table 70: (Continued)

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Hunter New England					
Armidale	95.2	87.8	86.5	85.9	91.5
Inverell	93.6	87.5	71.0	82.4	80.0
Tamworth Base	84.2	79.4	80.3	76.7	81.1
Manning Base	87.3	91.6	85.7	88.3	86.6
Maitland	87.4	86.1	84.4	87.2	85.1
John Hunter	89.4	91.4	87.4	84.1	85.0
Other hospitals	88.1	94.8	94.8	90.3	93.2
TOTAL	88.7	89.3	86.2	84.7	85.3
Northern NSW					
Grafton Base	97.1	94.2	96.6	92.2	72.9
Lismore Base	90.3	91.7	92.4	88.6	88.9
Tweed Heads	93.2	96.6	94.6	94.4	96.0
Other hospitals	100.0	100.0	100.0	100.0	100.0
TOTAL	92.9	94.6	94.4	91.9	90.1
Mid North Coast					
Coffs Harbour	82.3	81.8	83.8	82.8	75.7
Kempsey	97.0	95.6	93.3	94.3	92.3
Port Macquarie Base	92.4	90.4	88.7	89.1	90.5
Other hospitals	100.0	100.0	100.0	100.0	100.0
TOTAL	87.5	86.8	86.8	86.6	83.8
Southern NSW					
Bega	80.4	87.3	93.0	84.2	92.3
Goulburn Base	89.6	79.6	89.1	94.5	82.3
Moruya	89.3	96.0	92.0	91.9	95.7
Queanbeyan	95.2	84.1	85.3	88.3	87.7
Other hospitals	96.2	90.0	84.6	88.9	70.0
TOTAL	91.3	86.3	88.0	89.4	88.1
Murrumbidgee					
Griffith Base	81.3	85.1	78.6	81.8	78.7
Wagga Wagga Base	82.3	76.8	84.2	83.7	81.5
Other hospitals	97.1	93.9	94.1	93.8	87.1
TOTAL	85.0	81.8	84.1	84.4	81.7
Western NSW					
Dubbo Base	90.7	86.8	88.3	83.2	76.3
Mudgee	97.6	100.0	93.0	89.5	100.0
Bathurst Base	95.2	88.9	91.1	78.1	89.1
Forbes	100.0	88.9	91.9	91.9	92.5
Orange Base	89.9	85.0	78.1	86.8	80.2
Other hospitals	97.7	90.5	91.9	90.0	84.4
TOTAL	92.4	87.7	85.8	85.1	82.1
Far West	95.2	95.2	90.7	96.7	91.7
Public Hospitals	84.3	82.2	80.3	77.1	76.5
Private Hospitals					
Mater, North Sydney	62.7	63.4	61.6	53.7	53.4
North Shore Private	71.5	71.2	66.3	71.7	68.4
Sydney Adventist	71.1	65.8	58.1	64.1	58.7
North Gosford Private	92.3	88.5	87.6	95.8	93.0
Hurstville Community	60.6	59.6	66.7	68.7	60.0
Kareena Private	94.1	91.2	86.4	81.7	86.6
St. George Private	58.0	57.1	50.8	40.8	45.7
Prince of Wales Private	79.3	81.5	78.9	78.1	81.2
Norwest Private	75.8	77.0	74.4	67.1	62.6
Sydney Southwest Private	66.7	66.9	60.3	47.2	44.4
Nepean Private	77.3	70.0	67.6	72.6	73.2
Westmead Private	73.6	65.3	58.6	55.7	46.0
Wollongong Private	85.8	82.8	82.8	73.1	83.5
Newcastle Private	77.3	78.9	78.2	78.8	77.6
Calvary, Wagga Wagga	95.8	93.5	83.3	92.2	92.8
TOTAL	73.6	71.8	67.9	64.7	63.6
TOTAL NSW*	81.5	79.6	77.1	74.1	73.1

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

*Hospitals with more than 200 births in 2021 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 2021, 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 2017–2021[#]

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Sydney					
Canterbury	1.95	1.31	1.60	1.34	1.00
Royal Prince Alfred	1.15	1.02	0.94	0.29	0.29
Other hospitals	0.00	0.00	0.00	0.00	0.00
TOTAL	1.36	1.10	1.11	0.57	0.47
South Western Sydney					
Fairfield	0.64	0.61	0.34	0.95	1.11
Liverpool	1.14	0.87	0.89	0.59	0.51
Campbelltown	0.72	0.55	0.88	1.22	1.04
Bankstown-Lidcombe	1.01	0.79	1.37	1.09	0.42
Bowral	0.00	0.66	0.32	0.27	0.00
TOTAL	0.87	0.71	0.86	0.92	0.74
South Eastern Sydney					
St. George	1.34	1.27	1.25	0.40	1.49
Sutherland	0.77	0.72	0.98	1.50	0.89
Royal Hospital for Women	1.30	1.30	1.63	1.97	1.64
TOTAL	1.22	1.18	1.39	1.39	1.45
Illawarra Shoalhaven					
Shoalhaven	1.00	1.45	1.81	1.42	1.82
Wollongong	0.99	1.14	0.95	1.77	1.36
Other hospitals	0.00	0.00	0.00	0.00	0.00
TOTAL	0.99	1.22	1.19	1.67	1.48
Western Sydney					
Auburn	0.71	0.54	0.76	1.27	0.82
Blacktown	1.52	0.71	0.70	0.88	0.35
Westmead	1.14	0.91	0.79	0.83	0.58
TOTAL	1.20	0.78	0.76	0.91	0.53
Nepean Blue Mountains					
Nepean	1.69	1.00	1.01	0.89	0.97
Hawkesbury	0.00	1.22	0.43	0.89	0.76
Other hospitals	1.38	0.40	1.68	0.47	0.89
TOTAL	1.42	0.99	0.98	0.86	0.93
Northern Sydney					
Hornsby	0.45	0.92	2.15	1.05	1.86
Royal North Shore	0.33	0.95	0.82	0.97	1.18
Northern Beaches [†]	-	0.00	1.34	0.96	1.04
Other hospitals	1.03	0.52	1.39	0.00	0.00
TOTAL	0.58	0.79	1.28	0.98	1.26
Central Coast					
Gosford	0.49	0.84	1.61	1.12	1.37
Other hospitals	0.00	1.28	0.00	0.00	0.00
TOTAL	0.47	0.86	1.55	1.11	1.37

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Table 71: (Continued)

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Hunter New England					
Armidale	1.42	0.78	1.95	1.20	1.09
Inverell	1.92	0.00	1.90	3.08	0.63
Tamworth Base	1.27	1.93	1.04	2.13	1.44
Manning Base	2.81	1.61	1.13	1.53	1.58
Maitland	0.96	1.18	1.23	1.30	0.71
John Hunter	1.30	1.02	1.84	1.88	1.67
Other hospitals	0.53	0.87	1.43	1.64	0.53
TOTAL	1.28	1.14	1.54	1.73	1.28
Northern NSW					
Grafton Base	1.97	1.55	1.61	2.06	0.94
Lismore Base	1.63	0.89	1.20	0.49	1.24
Tweed Heads	1.22	0.90	1.35	2.05	1.75
Other hospitals	1.18	1.06	0.00	1.69	2.67
TOTAL	1.48	0.99	1.19	1.37	1.49
Mid North Coast					
Coffs Harbour	0.41	1.06	1.04	0.45	1.66
Kempsey	1.52	3.87	2.13	0.00	4.07
Port Macquarie Base	0.95	1.22	2.16	1.14	1.82
Other hospitals	0.00	0.00	0.00	0.00	0.00
TOTAL	0.72	1.45	1.53	0.65	1.96
Southern NSW					
Bega	0.58	1.79	0.61	2.26	1.19
Goulburn Base	1.03	0.49	0.93	0.47	0.00
Moruya	1.80	1.75	0.85	1.89	1.19
Queanbeyan	0.82	1.86	1.10	2.18	0.84
Other hospitals	2.00	0.90	3.20	0.00	0.00
TOTAL	1.14	1.47	1.18	1.60	0.74
Murrumbidgee					
Griffith Base	1.02	0.56	0.00	0.28	1.18
Wagga Wagga Base	1.57	1.60	1.21	0.39	1.14
Other hospitals	0.56	0.61	1.57	0.35	2.10
TOTAL	1.16	1.11	0.99	0.36	1.34
Western NSW					
Dubbo Base	1.28	0.87	0.96	0.77	0.57
Mudgee	0.60	2.96	0.68	1.27	0.58
Bathurst Base	0.28	1.43	0.95	2.86	0.56
Forbes	0.00	1.98	1.39	0.00	0.59
Orange Base	0.51	0.81	0.85	0.63	0.98
Other hospitals	0.53	0.96	1.68	1.92	0.00
TOTAL	0.74	1.16	0.98	1.07	0.67
Far West	2.10	2.72	1.33	1.61	0.83
Public Hospitals	1.08	0.99	1.13	1.10	1.03
Private Hospitals					
Mater, North Sydney	0.92	1.04	0.77	0.81	0.00
North Shore Private	0.00	0.37	0.78	0.42	0.42
Sydney Adventist	1.20	0.31	0.32	0.36	0.45
North Gosford Private	0.31	0.71	1.54	0.83	0.39
Hurstville Community	0.28	1.15	0.76	0.48	0.36
Kareena Private	0.27	1.15	0.30	0.36	0.35
St. George Private	0.13	0.13	0.79	0.14	0.13
Prince of Wales Private	0.41	0.11	0.33	0.37	0.00
Norwest Private	0.26	0.25	0.19	0.12	0.25
Sydney Southwest Private	0.53	0.00	0.33	0.00	0.00
Nepean Private	0.24	0.25	0.00	0.00	0.59
Westmead Private	0.69	0.45	0.51	0.25	0.30
Wollongong Private	0.37	0.56	0.60	1.15	0.61
Newcastle Private	0.20	0.22	0.31	0.11	0.22
Calvary, Wagga Wagga	1.42	1.82	2.11	1.33	0.00
TOTAL	0.47	0.42	0.51	0.36	0.27
TOTAL NSW*	0.97	0.89	1.03	0.98	0.90

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

*Hospitals with more than 200 births in 2021 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 2021, 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 2017–2021[#]

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Sydney					
Canterbury	0.69	1.24	0.97	1.03	0.65
Royal Prince Alfred	1.22	0.92	0.48	0.36	0.34
TOTAL	1.08	0.99	0.59	0.51	0.40
South Western Sydney					
Fairfield	0.70	0.45	0.00	0.23	0.74
Liverpool	1.31	1.08	0.46	0.46	0.96
Campbelltown	0.22	0.69	0.86	0.99	1.00
Bankstown-Lidcombe	2.36	2.50	1.51	1.66	0.60
Bowral	0.79	0.00	0.00	0.00	0.00
TOTAL	1.03	1.09	0.68	0.77	0.85
South Eastern Sydney					
St. George	0.98	1.10	0.92	1.13	0.73
Sutherland	1.12	1.12	1.13	1.10	1.40
Royal Hospital for Women	1.79	1.67	0.89	1.39	1.54
TOTAL	1.43	1.40	0.94	1.27	1.27
Illawarra Shoalhaven					
Shoalhaven	1.15	2.16	2.46	0.82	1.90
Wollongong	1.58	0.47	1.11	0.87	1.71
TOTAL	1.47	0.83	1.40	0.86	1.75
Western Sydney					
Auburn	0.64	1.11	0.88	1.47	1.01
Blacktown	1.19	0.71	0.78	0.29	0.40
Westmead	1.66	1.16	0.71	1.52	1.46
TOTAL	1.40	1.00	0.75	1.03	0.98
Nepean Blue Mountains					
Nepean	0.61	1.12	0.98	0.89	1.16
Hawkesbury	0.40	0.37	0.76	0.36	0.32
Other hospitals	0.00	1.74	1.52	1.57	1.52
TOTAL	0.54	1.05	0.99	0.86	1.05
Northern Sydney					
Hornsby	1.18	2.21	0.82	1.42	1.13
Royal North Shore	1.28	1.17	1.27	0.84	0.83
Northern Beaches [†]	-	2.08	0.83	0.66	0.97
Other hospitals	1.24	0.26	0.00	0.00	0.00
TOTAL	1.25	1.23	1.05	0.88	0.93
Central Coast					
Gosford	1.72	0.78	1.18	1.79	1.94
TOTAL	1.72	0.78	1.18	1.79	1.94
Hunter New England					
Armidale	0.00	0.00	0.60	0.00	1.32
Inverell	0.00	0.00	0.00	0.00	3.17
Tamworth Base	0.86	0.81	0.59	1.23	0.65
Manning Base	3.16	1.74	1.67	0.52	2.40
Maitland	0.88	0.99	1.89	0.90	1.66
John Hunter	1.84	1.72	1.62	2.34	1.82
Other hospitals	1.89	1.68	0.60	1.09	1.61
TOTAL	1.49	1.34	1.38	1.56	1.65

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Table 72: (Continued)

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Northern NSW					
Grafton Base	1.64	1.59	0.88	3.79	0.53
Lismore Base	0.36	0.81	0.85	1.12	2.08
Tweed Heads	1.12	0.33	0.77	1.52	0.00
TOTAL	0.90	0.74	0.83	1.72	1.12
Mid North Coast					
Coffs Harbour	0.27	0.76	0.62	1.94	0.53
Kempsey	3.08	4.84	1.54	1.54	2.86
Port Macquarie Base	0.46	0.70	1.05	2.19	0.99
TOTAL	0.62	1.08	0.89	2.00	0.93
Southern NSW					
Bega	1.30	2.44	0.00	0.00	0.00
Goulburn Base	0.00	1.47	1.25	0.98	1.15
Moruya	0.00	1.12	1.32	1.92	0.00
Queanbeyan	0.00	0.00	0.59	0.00	0.00
Other hospitals	3.70	4.00	2.78	2.63	4.26
TOTAL	0.50	1.12	0.92	0.85	0.60
Murrumbidgee					
Griffith Base	1.36	0.68	1.31	0.60	0.61
Wagga Wagga Base	0.71	0.47	1.48	0.20	0.70
Other hospitals	1.94	2.00	1.61	1.37	4.65
TOTAL	1.04	0.75	1.46	0.40	1.10
Western NSW					
Dubbo Base	1.40	0.74	0.47	0.44	0.60
Mudgee	4.62	1.69	0.00	0.00	0.00
Bathurst Base	0.00	0.67	2.58	1.54	2.00
Forbes	0.00	0.00	0.00	1.52	6.06
Orange Base	0.57	0.00	1.24	0.83	0.99
Other hospitals	0.00	0.00	0.00	0.00	0.00
TOTAL	0.97	0.46	0.97	0.72	1.14
Far West	3.33	0.00	1.52	5.56	0.00
Public Hospitals	1.19	1.06	0.96	1.06	1.11
Private Hospitals					
Mater, North Sydney	0.77	0.70	0.81	0.35	0.00
North Shore Private	0.07	0.41	0.44	0.19	0.44
Sydney Adventist	0.00	0.40	0.77	0.29	0.32
North Gosford Private	0.59	0.00	0.66	0.62	0.76
Hurstville Community	0.00	0.74	0.67	0.00	0.00
Kareena Private	0.29	0.33	0.67	0.00	0.52
St. George Private	0.44	0.33	0.80	0.34	0.34
Prince of Wales Private	0.33	0.25	0.09	0.19	0.43
Norwest Private	0.67	0.14	0.54	0.00	0.00
Sydney Southwest Private	0.30	0.00	0.00	0.56	0.00
Nepean Private	0.66	0.00	0.31	0.00	0.00
Westmead Private	0.75	0.65	0.48	0.36	0.54
Wollongong Private	0.75	0.76	0.50	0.69	1.49
Newcastle Private	0.25	0.36	0.38	0.13	0.11
Calvary, Wagga Wagga	0.00	0.00	0.63	0.00	0.57
Other hospitals	0.00	0.00	0.00	0.00	0.00
TOTAL	0.41	0.38	0.51	0.26	0.33
TOTAL NSW*	0.94	0.86	0.82	0.83	0.88

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

#Hospitals with more than 200 births in 2021 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 40^o weeks gestation or beyond as a percentage of the total number of babies born at 40^o weeks gestation or beyond.

Table 73 shows information for hospitals where at least 200 babies were born in 2021, 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 2017–2021[#]

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Sydney					
Canterbury	1.32	2.58	0.29	0.58	1.29
Royal Prince Alfred	1.55	0.68	1.09	0.70	0.38
Other hospitals	0.00	0.00	0.00	0.00	0.00
TOTAL	1.50	1.10	0.92	0.67	0.56
South Western Sydney					
Fairfield	2.51	1.83	1.12	1.30	2.11
Liverpool	1.83	1.76	2.86	2.90	1.97
Campbelltown	1.28	1.01	1.33	1.05	1.16
Bankstown-Lidcombe	1.60	0.94	1.73	2.23	1.47
Bowral	1.81	0.58	2.33	0.94	0.78
TOTAL	1.71	1.29	1.84	1.80	1.51
South Eastern Sydney					
St. George	2.92	2.45	3.14	1.73	2.08
Sutherland	1.13	0.93	0.98	1.96	1.78
Royal Hospital for Women	1.91	2.13	1.36	1.04	1.63
TOTAL	2.07	1.98	1.77	1.41	1.77
Illawarra Shoalhaven					
Shoalhaven	0.99	1.27	0.79	0.84	0.00
Wollongong	1.26	1.25	0.60	1.09	0.62
TOTAL	1.18	1.25	0.66	1.02	0.44
Western Sydney					
Auburn	2.32	2.03	1.98	0.96	1.95
Blacktown	2.47	2.67	2.48	1.91	1.85
Westmead	2.72	3.07	2.16	2.10	1.78
TOTAL	2.59	2.79	2.25	1.87	1.83
Nepean Blue Mountains					
Nepean	1.81	1.50	1.20	1.71	0.77
Hawkesbury	0.34	0.34	0.69	1.92	0.80
Other hospitals	1.50	0.60	1.69	0.00	0.00
TOTAL	1.55	1.24	1.17	1.61	0.72
Northern Sydney					
Hornsby	2.58	1.17	1.14	2.08	1.38
Royal North Shore	1.55	2.37	2.18	1.58	1.64
Northern Beaches [†]	-	0.00	2.39	0.78	0.64
Other hospitals	1.11	0.89	2.78	0.00	0.00
TOTAL	1.64	1.58	2.00	1.45	1.24
Central Coast					
Gosford	1.23	1.06	1.65	1.19	1.63
Other hospitals	1.49	0.00	0.00	0.00	0.00
TOTAL	1.25	1.02	1.59	1.18	1.63
Hunter New England					
Armidale	0.98	3.17	4.24	3.75	3.61
Inverell	3.37	5.05	4.65	0.00	3.26
Tamworth Base	1.63	1.45	1.40	1.34	0.88
Manning Base	1.61	0.00	1.89	1.00	1.06
Maitland	0.91	0.57	0.70	1.22	0.92
John Hunter	1.01	1.24	1.05	1.24	0.80
Other hospitals	0.75	1.61	0.97	0.70	0.93
TOTAL	1.11	1.32	1.30	1.25	1.06

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Table 73: (Continued)

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Northern NSW					
Grafton Base	1.89	1.27	0.65	1.24	2.55
Lismore Base	1.77	2.23	2.19	1.81	1.57
Tweed Heads	0.74	0.51	0.94	2.24	1.08
Other hospitals	0.78	0.00	0.00	0.75	0.00
TOTAL	1.29	1.20	1.31	1.79	1.41
Mid North Coast					
Coffs Harbour	1.92	2.33	1.33	2.04	0.44
Kempsey	2.24	3.01	1.74	2.17	0.91
Port Macquarie Base	0.64	1.39	0.70	0.65	1.48
Other hospitals	0.00	0.00	0.00	0.00	0.00
TOTAL	1.47	2.04	1.14	1.45	0.87
Southern NSW					
Bega	0.85	0.00	0.00	0.89	0.00
Goulburn Base	1.99	1.59	0.71	0.67	1.63
Moruya	0.00	0.66	0.62	0.61	0.53
Queanbeyan	0.37	0.66	1.99	0.39	2.26
Other hospitals	0.00	1.23	1.30	0.00	1.43
TOTAL	0.66	0.78	1.08	0.53	1.31
Murrumbidgee					
Griffith Base	0.78	1.32	0.87	2.26	1.04
Wagga Wagga Base	1.65	1.46	1.28	1.09	1.21
Other hospitals	1.28	0.85	1.97	2.38	2.30
TOTAL	1.31	1.28	1.33	1.65	1.39
Western NSW					
Dubbo Base	1.08	2.22	1.01	1.87	1.52
Mudgee	1.61	0.95	1.02	0.00	2.59
Bathurst Base	0.41	0.81	0.93	1.91	2.15
Forbes	3.85	1.54	2.17	2.80	0.97
Orange Base	1.09	0.34	0.74	1.45	1.02
Other hospitals	0.00	1.32	0.00	2.70	0.00
TOTAL	1.06	1.23	0.96	1.76	1.48
Far West	5.49	3.85	1.16	4.71	3.45
Public Hospitals	1.64	1.59	1.55	1.48	1.32
Private Hospitals	1.02	1.94	1.89	1.62	1.39
Mater, North Sydney	2.16	1.83	1.26	1.52	1.49
North Shore Private	0.99	1.89	0.63	1.34	1.06
Sydney Adventist	0.00	2.53	1.37	0.00	0.00
North Gosford Private	2.80	1.54	0.87	1.20	2.55
Hurstville Community	0.61	0.00	0.00	2.68	0.00
Kareena Private	2.30	0.43	1.75	1.61	0.90
St. George Private	1.79	1.40	0.82	1.44	1.28
Prince of Wales Private	0.46	0.78	1.62	1.65	3.00
Norwest Private	0.87	0.90	1.03	1.23	0.00
Sydney Southwest Private	1.16	0.00	0.00	3.00	0.00
Nepean Private	4.00	3.50	0.70	2.72	1.41
Westmead Private	0.50	1.61	0.68	0.00	0.76
Wollongong Private	0.00	0.00	0.00	1.67	0.43
Newcastle Private	2.56	2.00	0.00	0.00	0.00
Calvary, Wagga Wagga	0.00	0.00	0.00	0.00	0.00
Other hospitals	1.49	1.51	0.97	1.67	1.22
TOTAL					
TOTAL NSW*	1.62	1.58	1.48	1.49	1.30

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

*Hospitals with more than 200 births in 2021 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 2021, 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 2017–2021[#]

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Sydney					
Canterbury	0.87	1.37	0.99	1.60	0.24
Royal Prince Alfred	1.27	1.05	1.54	0.97	1.12
Other hospitals	0.00	0.00	0.00	0.00	0.00
TOTAL	1.16	1.13	1.41	1.13	0.91
South Western Sydney					
Fairfield	0.94	0.73	0.67	0.98	1.33
Liverpool	0.73	0.39	0.55	0.73	0.97
Campbelltown	1.29	1.01	1.85	1.44	1.48
Bankstown-Lidcombe	0.91	1.19	0.95	1.19	1.24
Bowral	1.30	1.81	2.44	2.41	1.39
TOTAL	1.00	0.84	1.16	1.16	1.27
South Eastern Sydney					
St. George	1.26	1.33	1.22	2.00	2.19
Sutherland	1.47	1.24	1.53	1.82	1.78
Royal Hospital for Women	1.74	1.35	1.24	1.44	1.26
TOTAL	1.54	1.32	1.29	1.68	1.65
Illawarra Shoalhaven					
Shoalhaven	1.68	2.04	2.07	1.77	2.00
Wollongong	1.39	1.42	1.67	1.31	1.10
Other hospitals	0.00	0.00	0.00	0.00	0.00
TOTAL	1.46	1.58	1.77	1.43	1.33
Western Sydney					
Auburn	0.86	0.83	0.88	0.38	0.66
Blacktown	0.81	0.95	1.29	0.92	0.39
Westmead	1.56	1.18	1.31	1.28	1.13
TOTAL	1.23	1.05	1.24	1.02	0.80
Nepean Blue Mountains					
Nepean	1.17	1.55	1.40	1.47	1.36
Hawkesbury	0.15	1.38	1.44	0.85	1.47
Other hospitals	2.04	2.53	2.20	1.52	2.82
TOTAL	1.10	1.60	1.47	1.38	1.48
Northern Sydney					
Hornsby	1.42	1.50	1.12	1.28	1.51
Royal North Shore	1.55	1.98	1.47	2.09	2.18
Northern Beaches [†]	-	1.16	1.46	1.32	1.59
Other hospitals	1.00	1.68	2.78	0.00	0.00
TOTAL	1.35	1.76	1.41	1.67	1.83
Central Coast					
Gosford	1.97	1.99	1.93	1.78	1.58
Other hospitals	1.01	0.00	0.00	0.00	0.00
TOTAL	1.94	1.93	1.87	1.77	1.58
Hunter New England					
Armidale	0.78	2.81	3.04	1.35	3.89
Inverell	0.45	0.46	0.00	1.04	0.00
Tamworth Base	2.62	1.93	2.12	1.68	1.72
Manning Base	1.34	2.14	1.87	1.48	1.96
Maitland	1.40	1.87	2.28	2.25	2.06
John Hunter	1.66	2.06	2.09	2.18	2.37
Other hospitals	0.84	1.18	1.28	1.29	1.09
TOTAL	1.53	1.92	2.02	1.93	2.10

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Table 74: (Continued)

Local Health District–Hospital	2017	2018	2019	2020	2021
	%	%	%	%	%
Northern NSW					
Grafton Base	1.95	1.11	1.47	0.85	1.31
Lismore Base	1.90	1.48	1.58	1.09	1.06
Tweed Heads	1.74	2.02	0.97	1.25	1.67
Other hospitals	0.00	0.53	0.50	0.56	0.00
TOTAL	1.72	1.59	1.26	1.08	1.24
Mid North Coast					
Coffs Harbour	0.95	1.49	0.38	1.53	1.90
Kempsey	0.79	1.30	1.64	2.50	1.27
Port Macquarie Base	0.86	1.54	1.58	2.17	1.66
Other hospitals	0.00	0.00	0.00	0.00	0.00
TOTAL	0.87	1.46	0.96	1.83	1.70
Southern NSW					
Bega	0.82	0.82	0.86	1.63	0.78
Goulburn Base	1.16	1.53	1.39	3.07	1.41
Moruya	0.36	0.65	1.32	0.65	2.05
Queanbeyan	1.57	1.47	2.48	0.79	1.33
Other hospitals	0.00	0.00	1.27	0.78	4.58
TOTAL	0.99	1.07	1.66	1.35	1.69
Murrumbidgee					
Griffith Base	1.57	0.84	1.45	1.21	1.05
Wagga Wagga Base	1.66	1.53	2.10	2.34	2.90
Other hospitals	1.56	1.44	1.08	1.17	0.83
TOTAL	1.61	1.35	1.75	1.87	2.13
Western NSW					
Dubbo Base	2.39	2.07	1.79	1.14	1.96
Mudgee	0.00	1.35	2.37	1.31	2.68
Bathurst Base	1.26	0.64	2.46	1.67	1.73
Forbes	1.29	0.78	2.73	2.78	3.04
Orange Base	0.91	2.15	1.73	2.24	1.13
Other hospitals	1.49	0.75	0.66	2.33	1.27
TOTAL	1.50	1.66	1.91	1.73	1.77
Far West	1.53	0.54	2.44	3.49	3.13
Public Hospitals	1.32	1.37	1.47	1.45	1.47
Private Hospitals					
Mater, North Sydney	0.20	0.25	0.25	0.43	0.26
North Shore Private	0.52	0.84	0.83	0.48	0.68
Sydney Adventist	1.23	1.16	0.99	0.55	0.47
North Gosford Private	0.48	0.69	0.39	1.14	1.24
Hurstville Community	1.06	0.33	1.00	0.91	0.52
Kareena Private	1.91	1.09	0.82	0.54	1.71
St. George Private	0.72	0.85	1.07	1.80	1.17
Prince of Wales Private	0.29	0.39	0.35	0.40	0.10
Norwest Private	0.27	0.22	0.71	0.29	0.65
Sydney Southwest Private	0.58	0.95	0.55	0.57	0.43
Nepean Private	0.30	0.00	0.44	0.31	0.49
Westmead Private	0.40	0.46	0.57	0.85	0.36
Wollongong Private	0.44	1.02	1.17	0.98	0.77
Newcastle Private	0.59	0.56	0.42	0.84	0.60
Calvary, Wagga Wagga	0.98	0.76	1.28	4.33	4.03
Other hospitals	0.00	0.00	0.00	0.00	0.00
TOTAL	0.57	0.60	0.66	0.74	0.61
TOTAL NSW*	1.16	1.21	1.29	1.30	1.28

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

*Hospitals with more than 200 births in 2021 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.

9. 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

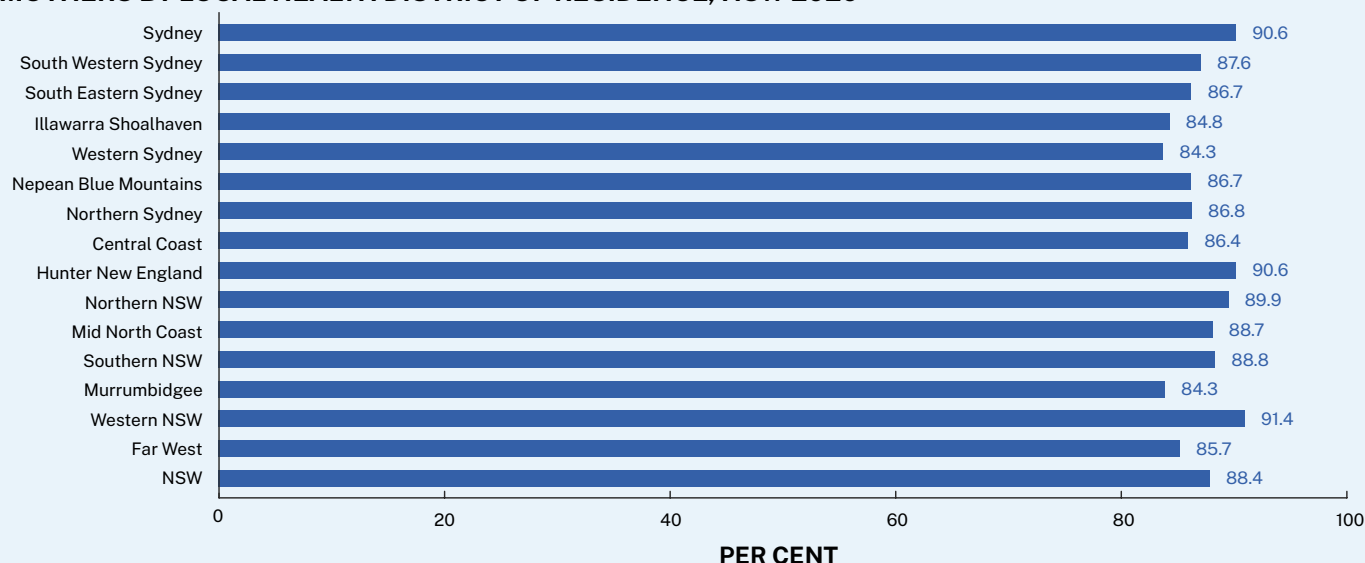
Aboriginal mothers and babies are under-reported on the Perinatal Data Collection. One method of assessing the extent of under-reporting and monitoring changes over time is to compare the reporting of Aboriginal mothers on the Perinatal Data Collection with reporting on other data collections. We used 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 84.9% in 2018, 85.9% in 2019 and 88.4% in 2020. In 2020, reporting varied between local health districts, ranging from 84.3% in Western Sydney and Murrumbidgee Local Health Districts to 91.4% in Western NSW Local Health District (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 66.3% in 2020. Reporting ranged from 54.7% in Central Coast Local Health District to 84.5% in Sydney Local Health District. There are therefore a substantial number of Aboriginal babies with non-Aboriginal or Torres Strait Islander mothers who are not represented in the numbers reported in this chapter.

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

FIGURE 2: ESTIMATED LEVEL OF REPORTING OF BIRTHS TO ABORIGINAL OR TORRES STRAIT ISLANDER MOTHERS BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2020



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 2018–2020

Year of birth–Local Health District	PDC mothers [#]	Estimated Aboriginal mothers [*]	Level of reporting
	No.	No.	%
2018			
Sydney	110	126	87.3
South Western Sydney	351	424	82.8
South Eastern Sydney	122	158	77.2
Illawarra Shoalhaven	262	306	85.6
Western Sydney	287	356	80.6
Nepean Blue Mountains	234	296	79.1
Northern Sydney	36	42	85.7
Central Coast	242	280	86.4
Hunter New England	1086	1271	85.4
Northern NSW	228	273	83.5
Mid North Coast	266	304	87.5
Southern NSW	97	116	83.6
Murrumbidgee	233	263	88.6
Western NSW	599	680	88.1
Far West	31	36	86.1
Other–not stated	21	23	91.3
NSW	4213	4963	84.9
2019			
Sydney	107	126	84.9
South Western Sydney	301	392	76.8
South Eastern Sydney	132	158	83.5
Illawarra Shoalhaven	264	314	84.1
Western Sydney	275	346	79.5
Nepean Blue Mountains	281	343	81.9
Northern Sydney	51	58	87.9
Central Coast	220	273	80.6
Hunter New England	1144	1294	88.4
Northern NSW	275	301	91.4
Mid North Coast	317	349	90.8
Southern NSW	98	113	86.7
Murrumbidgee	223	261	85.4
Western NSW	648	725	89.4
Far West	43	45	95.6
Other–not stated	31	36	86.1
NSW	4416	5142	85.9
2020			
Sydney	116	128	90.6
South Western Sydney	369	421	87.6
South Eastern Sydney	137	158	86.7
Illawarra Shoalhaven	308	363	84.8
Western Sydney	291	345	84.3
Nepean Blue Mountains	287	331	86.7
Northern Sydney	46	53	86.8
Central Coast	255	295	86.4
Hunter New England	1182	1304	90.6
Northern NSW	223	248	89.9
Mid North Coast	268	302	88.7
Southern NSW	103	116	88.8
Murrumbidgee	226	268	84.3
Western NSW	629	688	91.4
Far West	36	42	85.7
Other–not stated	26	30	86.7
NSW	4506	5096	88.4

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 2018–2020

Year of birth–Local Health District	PDC babies [#]	Estimated Aboriginal babies [*]	Level of reporting
	No.	No.	%
2018			
Sydney	112	138	81.2
South Western Sydney	355	576	61.6
South Eastern Sydney	124	208	59.6
Illawarra Shoalhaven	266	470	56.6
Western Sydney	289	473	61.1
Nepean Blue Mountains	238	386	61.7
Northern Sydney	36	65	55.4
Central Coast	249	403	61.8
Hunter New England	1102	1832	60.2
Northern NSW	229	316	72.5
Mid North Coast	267	386	69.2
Southern NSW	97	146	66.4
Murrumbidgee	238	327	72.8
Western NSW	608	854	71.2
Far West	31	38	81.6
Other–not stated	21	35	60.0
NSW	4270	6661	64.1
2019			
Sydney	109	135	80.7
South Western Sydney	308	539	57.1
South Eastern Sydney	135	219	61.6
Illawarra Shoalhaven	266	458	58.1
Western Sydney	278	433	64.2
Nepean Blue Mountains	284	433	65.6
Northern Sydney	52	73	71.2
Central Coast	223	428	52.1
Hunter New England	1159	1858	62.4
Northern NSW	278	359	77.4
Mid North Coast	322	418	77.0
Southern NSW	98	158	62.0
Murrumbidgee	223	302	73.8
Western NSW	664	927	71.6
Far West	43	61	70.5
Other–not stated	31	49	63.3
NSW	4479	6861	65.3
2020			
Sydney	120	142	84.5
South Western Sydney	377	576	65.5
South Eastern Sydney	141	203	69.5
Illawarra Shoalhaven	312	539	57.9
Western Sydney	296	457	64.8
Nepean Blue Mountains	295	418	70.6
Northern Sydney	47	86	54.7
Central Coast	258	442	58.4
Hunter New England	1195	1943	61.5
Northern NSW	225	307	73.3
Mid North Coast	271	360	75.3
Southern NSW	103	152	67.8
Murrumbidgee	229	340	67.4
Western NSW	644	852	75.6
Far West	36	47	76.6
Other–not stated	26	37	70.3
NSW	4579	6906	66.3

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 2017 and 2021, the number of reported births to Aboriginal or Torres Strait Islander mothers rose from 4,251 to 5,101, representing 4.4% and 5.1% respectively of all babies born in NSW. In 2021, 4,922 babies were born to Aboriginal mothers, 72 babies were born to Torres Strait Islander mothers and 107 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 2017–2021[#]

Aboriginal and Torres Strait Islander	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Confinements										
Aboriginal but not Torres Strait Islander	3998	95.6	4028	95.6	4230	95.8	4353	96.6	4845	96.5
Torres Strait Islander but not Aboriginal	61	1.5	55	1.3	66	1.5	56	1.2	71	1.4
Both Aboriginal and Torres Strait Islander	124	3.0	130	3.1	120	2.7	97	2.2	107	2.1
TOTAL	4183	100.0	4213	100.0	4416	100.0	4506	100.0	5023	100.0
Births										
Aboriginal but not Torres Strait Islander	4063	95.6	4081	95.6	4291	95.8	4423	96.6	4922	96.5
Torres Strait Islander but not Aboriginal	62	1.5	57	1.3	66	1.5	57	1.2	72	1.4
Both Aboriginal and Torres Strait Islander	126	3.0	132	3.1	122	2.7	99	2.2	107	2.1
TOTAL	4251	100.0	4270	100.0	4479	100.0	4579	100.0	5101	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 2021 ranged from 40 in the Far West Local Health District to 1,335 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 2017–2021[#]

Local Health District	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	99	2.4	110	2.6	107	2.4	116	2.6	120	2.4
South Western Sydney	295	7.1	351	8.3	301	6.8	369	8.2	412	8.2
South Eastern Sydney	113	2.7	122	2.9	132	3.0	137	3.0	132	2.6
Illawarra Shoalhaven	276	6.6	262	6.2	264	6.0	308	6.8	313	6.2
Western Sydney	289	6.9	287	6.8	275	6.2	291	6.5	326	6.5
Nepean Blue Mountains	229	5.5	234	5.6	281	6.4	287	6.4	315	6.3
Northern Sydney	36	0.9	36	0.9	51	1.2	46	1.0	51	1.0
Central Coast	230	5.5	242	5.7	220	5.0	255	5.7	280	5.6
Hunter New England	1100	26.3	1086	25.8	1144	25.9	1182	26.2	1335	26.6
Northern NSW	231	5.5	228	5.4	275	6.2	223	4.9	269	5.4
Mid North Coast	262	6.3	266	6.3	317	7.2	268	5.9	334	6.6
Southern NSW	91	2.2	97	2.3	98	2.2	103	2.3	98	2.0
Murrumbidgee	204	4.9	233	5.5	223	5.0	226	5.0	231	4.6
Western NSW	666	15.9	599	14.2	648	14.7	629	14.0	741	14.8
Far West	35	0.8	31	0.7	43	1.0	36	0.8	40	0.8
Other—not stated	27	0.6	29	0.7	37	0.8	30	0.7	26	0.5
TOTAL	4183	100.0	4213	100.0	4416	100.0	4506	100.0	5023	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 2017 and 2021, multiple (twin, triplet and quadruplet) pregnancies were reported for about 1.3% of all pregnancies (Table 1). In 2021, 3.1% of babies born to Aboriginal or Torres Strait Islander mothers and 2.5% of babies born to non-Aboriginal or Torres Strait Islander mothers were twins (Table 79).

TABLE 79: PLURALITY, ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2017–2021[#]

Mother's Aboriginality–Plurality	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
Confinements										
Singleton	4117	98.4	4156	98.6	4356	98.6	4435	98.4	4945	98.4
Twins	64	1.5	57	1.4	57	1.3	70	1.6	78	1.6
Triplets	2	0.0	0	0.0	3	0.1	0	0.0	0	0.0
Quadruplets	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0
TOTAL	4183	100.0	4213	100.0	4416	100.0	4506	100.0	5023	100.0
Births										
Singleton	4117	96.8	4156	97.3	4356	97.3	4435	96.9	4945	96.9
Twins	128	3.0	114	2.7	114	2.5	140	3.1	156	3.1
Triplets	6	0.1	0	0.0	9	0.2	0	0.0	0	0.0
Quadruplets	0	0.0	0	0.0	0	0.0	4	0.1	0	0.0
TOTAL	4251	100.0	4270	100.0	4479	100.0	4579	100.0	5101	100.0
Non-Aboriginal or Torres Strait Islander										
Confinements										
Singleton	88554	98.6	88368	98.5	87675	98.6	84749	98.6	90648	98.7
Twins	1259	1.4	1286	1.4	1263	1.4	1182	1.4	1171	1.3
Triplets	23	0.0	17	0.0	18	0.0	20	0.0	22	0.0
Quadruplets	0	0.0	0	0.0	1	0.0	0	0.0	1	0.0
TOTAL	89836	100.0	89671	100.0	88957	100.0	85951	100.0	91842	100.0
Births										
Singleton	88554	97.2	88368	97.1	87675	97.1	84749	97.2	90648	97.4
Twins	2518	2.8	2572	2.8	2526	2.8	2364	2.7	2342	2.5
Triplets	69	0.1	51	0.1	54	0.1	60	0.1	66	0.1
Quadruplets	0	0.0	0	0.0	4	0.0	0	0.0	4	0.0
TOTAL	91141	100.0	90991	100.0	90259	100.0	87173	100.0	93060	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 3,025 mothers where the mother's Aboriginality was not stated.

Previous pregnancies

In 2021, 34.5% of Aboriginal or Torres Strait Islander mothers gave birth for the first time, 60.5% of mothers reported between 1 and 4 previous pregnancies and 5.0% of mothers had 5 or more previous pregnancies. In non-Aboriginal or Torres Strait Islander mothers, 44.0% gave birth for the first time, 54.9% of mothers reported between 1 and 4 previous pregnancies and 1.1% of mothers had 5 or more previous pregnancies (Table 80). Between 2017 and 2021, the distribution of number of previous pregnancies remained stable for both Aboriginal or Torres Strait Islander mothers and non-Aboriginal or Torres Strait Islander mothers. Aboriginal or Torres Strait Islander mothers who had 5 or more previous pregnancies ranged from 2.0% in the Northern Sydney and Southern NSW Local Health Districts to 6.7% in Sydney Local Health District.

TABLE 80: PREVIOUS PREGNANCIES AMONG ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2017–2021[#]

Mother's Aboriginality–No. previous pregnancies (>20 weeks gestation)	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
0	1412	33.8	1420	33.7	1549	35.1	1515	33.6	1734	34.5
1–4	2503	59.8	2568	61.0	2604	59.0	2761	61.3	3039	60.5
5+	257	6.1	210	5.0	263	6.0	228	5.1	250	5.0
Not stated	11	0.3	15	0.4	0	0.0	2	0.0	0	0.0
TOTAL	4183	100.0	4213	100.0	4416	100.0	4506	100.0	5023	100.0
Non-Aboriginal or Torres Strait Islander										
0	38863	43.3	38806	43.3	38664	43.5	37834	44.0	40415	44.0
1–4	49714	55.3	49687	55.4	49252	55.4	47076	54.8	50395	54.9
5+	1128	1.3	1113	1.2	1034	1.2	995	1.2	994	1.1
Not stated	131	0.1	65	0.1	7	0.0	46	0.1	38	0.0
TOTAL	89836	100.0	89671	100.0	88957	100.0	85951	100.0	91842	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 3,025 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 12.3% in 2017 to 8.8% in 2021. The percentage of non-Aboriginal or Torres Strait Islander mothers who were teenagers fell from 1.5% in 2017 to 1.0% in 2021. The percentage of Aboriginal or Torres Strait Islander mothers giving birth at 35 years of age or more has increased slightly from 9.6% in 2017 to 10.9% in 2021. The percentage of non-Aboriginal or Torres Strait Islander mothers giving birth at 35 years of age or more has increased slightly from 25.4% in 2017 to 28.1% in 2021 (Table 81).

The percentage of Aboriginal or Torres Strait Islander mothers who were teenagers was highest in the Southern NSW Local Health District (12.2%) whereas the percentage of mothers giving birth at 35 years of age or more was highest in the Northern Sydney Local Health District (27.5%) (Table 82).

TABLE 81: MATERNAL AGE, ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2017–2021[#]

Mother's Aboriginality–Maternal age (years)	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
12–19	513	12.3	485	11.5	464	10.5	438	9.7	444	8.8
20–34	3268	78.1	3313	78.6	3532	80.0	3597	79.8	4034	80.3
35+	401	9.6	415	9.9	419	9.5	468	10.4	545	10.9
Not stated	1	0.0	0	0.0	1	0.0	3	0.1	0	0.0
TOTAL	4183	100.0	4213	100.0	4416	100.0	4506	100.0	5023	100.0
Non-Aboriginal or Torres Strait Islander										
12–19	1352	1.5	1304	1.5	1135	1.3	994	1.2	907	1.0
20–34	65662	73.1	65184	72.7	64071	72.0	61741	71.8	65087	70.9
35+	22802	25.4	23167	25.8	23745	26.7	23187	27.0	25834	28.1
Not stated	20	0.0	16	0.0	6	0.0	29	0.0	14	0.0
TOTAL	89836	100.0	89671	100.0	88957	100.0	85951	100.0	91842	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 3,025 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 2021[#]

Local Health District	Maternal age (years)									
	12–19		20–34		35+		TOTAL			
	No.	%	No.	%	No.	%	No.	%		
Sydney	-	-	99	82.5	-	-			120	100.0
South Western Sydney	33	8.0	327	79.4	52	12.6			412	100.0
South Eastern Sydney	-	-	107	81.1	-	-			132	100.0
Illawarra Shoalhaven	29	9.3	245	78.3	39	12.5			313	100.0
Western Sydney	38	11.7	253	77.6	35	10.7			326	100.0
Nepean Blue Mountains	22	7.0	256	81.3	37	11.7			315	100.0
Northern Sydney	-	-	34	66.7	-	-			51	100.0
Central Coast	26	9.3	234	83.6	20	7.1			280	100.0
Hunter New England	127	9.5	1063	79.6	145	10.9			1335	100.0
Northern NSW	18	6.7	223	82.9	28	10.4			269	100.0
Mid North Coast	24	7.2	268	80.2	42	12.6			334	100.0
Southern NSW	12	12.2	78	79.6	8	8.2			98	100.0
Murrumbidgee	28	12.1	186	80.5	17	7.4			231	100.0
Western NSW	71	9.6	603	81.4	67	9.0			741	100.0
Far West	-	-	36	90.0	-	-			40	100.0
Other—not stated	-	-	22	84.6	-	-			26	100.0
TOTAL	444	8.8	4034	80.3	545	10.9			5023	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 2017 and 2021, the percentage of Aboriginal or Torres Strait Islander mothers who commenced antenatal care at less than 14 weeks gestation increased from 68.1% to 78.9%, and the percentage that commenced antenatal care at less than 20 weeks gestation increased from 83.9% to 89.1% (Table 83). By contrast, 80.2% of non-Aboriginal or Torres Strait Islander mothers commenced antenatal care at less than 14 weeks gestation in 2021 and 93.1% at less than 20 weeks gestation. In 2021, the percentage of Aboriginal or Torres Strait Islander mothers who commenced antenatal care at less than 14 weeks gestation varied from 30.0% in the Sydney Local Health District to 88.2% in the Northern Sydney Local Health District (Table 84).

TABLE 83: DURATION OF PREGNANCY AT FIRST ANTENATAL VISIT, ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2017–2021[#]

Mother's Aboriginality–Duration of pregnancy (weeks)	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
0–13	2850	68.1	3102	73.6	3327	75.3	3440	76.3	3965	78.9
14–19	661	15.8	561	13.3	540	12.2	527	11.7	513	10.2
20+	603	14.4	495	11.7	482	10.9	447	9.9	426	8.5
Not stated	69	1.6	55	1.3	67	1.5	92	2.0	119	2.4
TOTAL	4183	100.0	4213	100.0	4416	100.0	4506	100.0	5023	100.0
Non-Aboriginal or Torres Strait Islander										
0–13	65852	73.3	69785	77.8	71043	79.9	68933	80.2	73618	80.2
14–19	15771	17.6	12948	14.4	11714	13.2	11315	13.2	11845	12.9
20+	7698	8.6	6418	7.2	5593	6.3	5019	5.8	5604	6.1
Not stated	515	0.6	520	0.6	607	0.7	684	0.8	775	0.8
TOTAL	89836	100.0	89671	100.0	88957	100.0	85951	100.0	91842	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 3,025 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 2021[#]

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*	36	30.0	44	36.7	37	30.8	3	2.5	120	100.0
South Western Sydney	303	73.5	63	15.3	38	9.2	8	1.9	412	100.0
South Eastern Sydney	88	66.7	30	22.7	12	9.1	2	1.5	132	100.0
Illawarra Shoalhaven	274	87.5	21	6.7	14	4.5	4	1.3	313	100.0
Western Sydney	262	80.4	32	9.8	21	6.4	11	3.4	326	100.0
Nepean Blue Mountains	259	82.2	30	9.5	16	5.1	10	3.2	315	100.0
Northern Sydney	45	88.2	-	-	-	-	-	-	51	100.0
Central Coast	236	84.3	20	7.1	20	7.1	4	1.4	280	100.0
Hunter New England	1134	84.9	90	6.7	84	6.3	27	2.0	1335	100.0
Northern NSW	235	87.4	12	4.5	19	7.1	3	1.1	269	100.0
Mid North Coast	282	84.4	24	7.2	18	5.4	10	3.0	334	100.0
Southern NSW	59	60.2	18	18.4	20	20.4	1	1.0	98	100.0
Murrumbidgee	170	73.6	29	12.6	26	11.3	6	2.6	231	100.0
Western NSW	534	72.1	89	12.0	90	12.1	28	3.8	741	100.0
Far West	27	67.5	6	15.0	7	17.5	0	0.0	40	100.0
Other—not stated	21	80.8	-	-	-	-	-	-	26	100.0
TOTAL	3965	78.9	513	10.2	426	8.5	119	2.4	5023	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.

*Care should be taken when comparing data for Sydney Local Health District to other districts.

Smoking in pregnancy

In 2021, 39.5% of Aboriginal or Torres Strait Islander mothers reported smoking at some time during pregnancy, compared to 42.4% in 2017. This compares with 6.3% of non-Aboriginal or Torres Strait Islander mothers who reported smoking at some time during pregnancy in 2021 (Table 85). In 2021, the percentage of Aboriginal or Torres Strait Islander mothers who smoked during pregnancy was lowest in the Northern Sydney Local Health District and highest in the Far West Local Health District (Table 86).

TABLE 85: SMOKING IN PREGNANCY, ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2017–2021[#]

Mother's Aboriginality–Smoking in pregnancy	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
Did not smoke	2361	56.4	2363	56.1	2491	56.4	2592	57.5	2947	58.7
Smoked	1773	42.4	1822	43.2	1909	43.2	1880	41.7	1986	39.5
Not stated	49	1.2	28	0.7	16	0.4	34	0.8	90	1.8
TOTAL	4183	100.0	4213	100.0	4416	100.0	4506	100.0	5023	100.0
Non-Aboriginal or Torres Strait Islander										
Did not smoke	82413	91.7	81896	91.3	81912	92.1	79207	92.2	84717	92.2
Smoked	6494	7.2	6725	7.5	6327	7.1	5981	7.0	5769	6.3
Not stated	929	1.0	1050	1.2	718	0.8	763	0.9	1356	1.5
TOTAL	89836	100.0	89671	100.0	88957	100.0	85951	100.0	91842	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 3,025 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 2021[#]

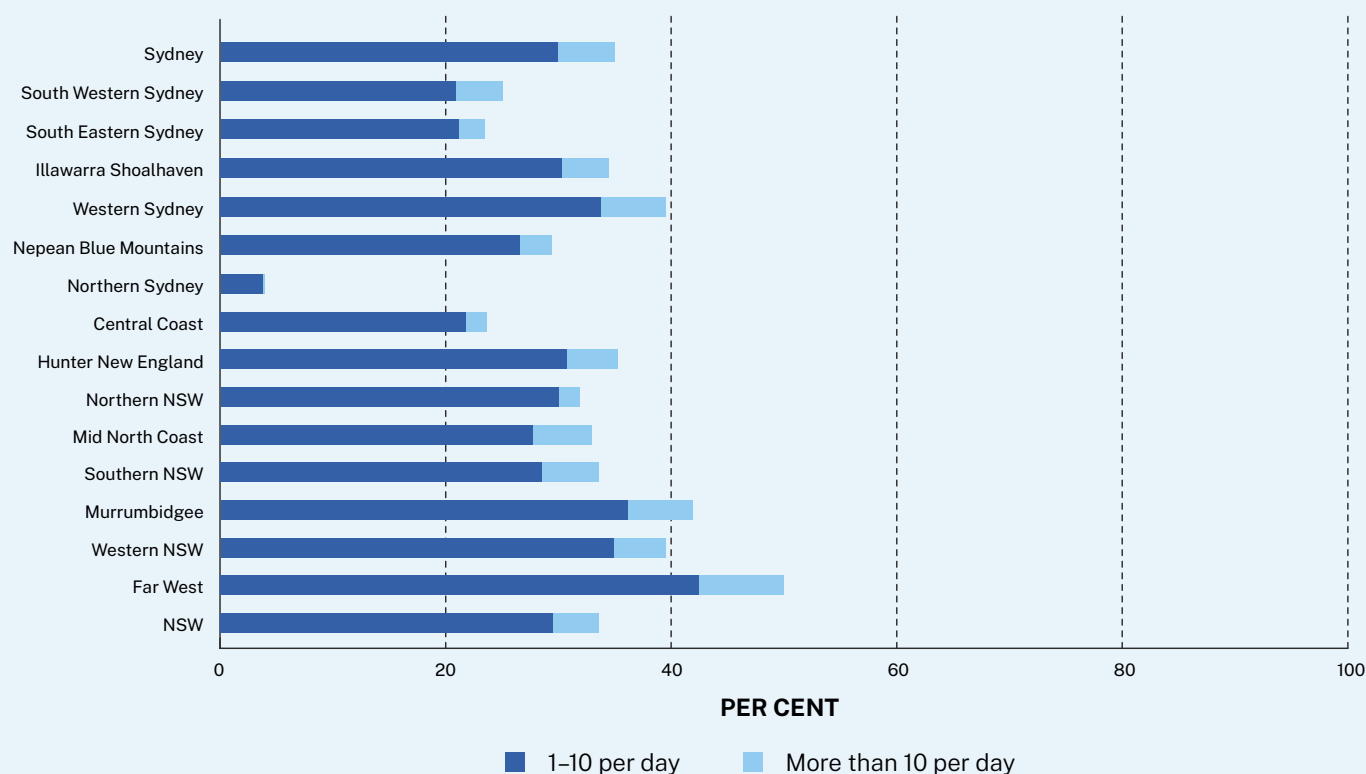
Local Health District	Smoking in pregnancy							
	Did not smoke		Smoked		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Sydney	53	44.2	65	54.2	2	1.7	120	100.0
South Western Sydney	253	61.4	142	34.5	17	4.1	412	100.0
South Eastern Sydney	93	70.5	38	28.8	1	0.8	132	100.0
Illawarra Shoalhaven	188	60.1	125	39.9	0	0.0	313	100.0
Western Sydney	176	54.0	148	45.4	2	0.6	326	100.0
Nepean Blue Mountains	212	67.3	102	32.4	1	0.3	315	100.0
Northern Sydney	45	88.2	-	-	-	-	51	100.0
Central Coast	191	68.2	84	30.0	5	1.8	280	100.0
Hunter New England	777	58.2	536	40.1	22	1.6	1335	100.0
Northern NSW	163	60.6	97	36.1	9	3.3	269	100.0
Mid North Coast	190	56.9	137	41.0	7	2.1	334	100.0
Southern NSW	58	59.2	39	39.8	1	1.0	98	100.0
Murrumbidgee	119	51.5	109	47.2	3	1.3	231	100.0
Western NSW	396	53.4	330	44.5	15	2.0	741	100.0
Far West	17	42.5	22	55.0	1	2.5	40	100.0
Other-not stated	16	61.5	8	30.8	2	7.7	26	100.0
TOTAL	2947	58.7	1986	39.5	90	1.8	5023	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 the second half of pregnancy poses the greatest risk to the health of both mother and baby. In 2021, 33.7% of Aboriginal or Torres Strait Islander mothers reported smoking in the second half of pregnancy. This percentage varied from 3.9% in the Northern Sydney Local Health District to 50.0% in the Far West Local Health District (Figure 3).

FIGURE 3: SMOKING IN THE SECOND HALF OF PREGNANCY AMONG ABORIGINAL AND TORRES STRAIT ISLANDER MOTHERS BY AMOUNT SMOKED AND LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2021



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

Diabetes and hypertension

In 2021, 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 2021, 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 total rate of hypertension was higher in Aboriginal or Torres Strait Islander mothers (6.5%) compared with non-Aboriginal or Torres Strait Islander mothers (4.9%) (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 2017–2021[#]

Mother's Aboriginality–Condition	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
Pre-existing diabetes mellitus	49	1.2	51	1.2	59	1.3	52	1.2	77	1.5
Type 1	14	0.3	12	0.3	23	0.5	9	0.2	21	0.4
Type 2	26	0.6	39	0.9	35	0.8	41	0.9	51	1.0
Gestational diabetes mellitus	419	10.0	437	10.4	481	10.9	593	13.2	685	13.6
TOTAL DIABETES*	468	11.2	488	11.6	540	12.2	645	14.3	762	15.2
Non-Aboriginal or Torres Strait Islander										
Pre-existing diabetes mellitus	849	0.9	751	0.8	805	0.9	708	0.8	803	0.9
Type 1	240	0.3	219	0.2	266	0.3	228	0.3	251	0.3
Type 2	351	0.4	384	0.4	391	0.4	387	0.5	429	0.5
Gestational diabetes mellitus	11881	13.2	12425	13.9	12498	14.0	11999	14.0	13701	14.9
TOTAL DIABETES*	12730	14.2	13176	14.7	13303	15.0	12707	14.8	14504	15.8

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 3,025 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 2017–2021[#]

Mother's Aboriginality–Condition	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
Chronic hypertension	35	0.8	46	1.1	48	1.1	53	1.2	76	1.5
Pre-eclampsia	82	2.0	76	1.8	82	1.9	93	2.1	136	2.7
Eclampsia	0	0.0	2	0.0	4	0.1	7	0.2	4	0.1
Gestational hypertension	137	3.3	104	2.5	124	2.8	145	3.2	126	2.5
TOTAL HYPERTENSION*	245	5.9	221	5.2	248	5.6	286	6.3	326	6.5
Non-Aboriginal or Torres Strait Islander										
Chronic hypertension	657	0.7	714	0.8	795	0.9	802	0.9	978	1.1
Pre-eclampsia	1266	1.4	1255	1.4	1295	1.5	1347	1.6	1484	1.6
Eclampsia	35	0.0	32	0.0	45	0.1	25	0.0	38	0.0
Gestational hypertension	2438	2.7	2138	2.4	2269	2.6	2156	2.5	2229	2.4
TOTAL HYPERTENSION*	4258	4.7	3953	4.4	4205	4.7	4167	4.8	4511	4.9

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 3,025 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 49.7% in 2017 to 41.9% in 2021, while the rate of induction of labour increased from 33.4% to 37.0%. These trends were also found in non-Aboriginal or Torres Strait Islander mothers with spontaneous onset of labour decreasing from 46.2% in 2017 to 40.3% in 2021 and induction of labour increasing from 32.3% in 2017 to 35.5% in 2021. (Table 89). The rate of spontaneous onset of labour was slightly higher among Aboriginal or Torres Strait Islander mothers (41.9%) compared to the rate of 40.3% reported among non-Aboriginal or Torres Strait Islander mothers in 2021.

Between 2017 and 2021, the rate of normal vaginal birth among Aboriginal or Torres Strait Islander mothers fell from 63.3% to 59.0%. The caesarean section rate rose from 29.5% to 33.8%. 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 (54.1% to 50.3%), an increase in caesarean section (29.4% to 33.8%) and stable rates for instrumental delivery (about 11.6%) and vaginal breech births (about 0.4%) were seen in non-Aboriginal or Torres Strait Islander mothers from 2017 to 2021 respectively (Table 90).

TABLE 89: LABOUR ONSET, ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2017–2021[#]

Mother's Aboriginality–Labour onset	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
Spontaneous	2080	49.7	1935	45.9	2027	45.9	1909	42.4	2106	41.9
Induced	1399	33.4	1448	34.4	1538	34.8	1701	37.7	1856	37.0
No labour*	702	16.8	830	19.7	851	19.3	896	19.9	1060	21.1
Not stated	2	0.0	0	0.0	0	0.0	0	0.0	1	0.0
TOTAL	4183	100.0	4213	100.0	4416	100.0	4506	100.0	5023	100.0
Non-Aboriginal or Torres Strait Islander										
Spontaneous	41488	46.2	39404	43.9	38174	42.9	35301	41.1	36989	40.3
Induced	28980	32.3	30201	33.7	30471	34.3	30544	35.5	32581	35.5
No labour*	19303	21.5	20042	22.4	20297	22.8	20085	23.4	22233	24.2
Not stated	65	0.1	24	0.0	15	0.0	21	0.0	39	0.0
TOTAL	89836	100.0	89671	100.0	88957	100.0	85951	100.0	91842	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 3,025 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 2017–2021[#]

Mother's Aboriginality–Type of birth	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
Normal vaginal	2649	63.3	2565	60.9	2690	60.9	2693	59.8	2966	59.0
Forceps	114	2.7	104	2.5	129	2.9	112	2.5	135	2.7
Vacuum extraction	173	4.1	190	4.5	166	3.8	185	4.1	205	4.1
Vaginal breech	14	0.3	19	0.5	16	0.4	19	0.4	21	0.4
Elective caesarean section	701	16.8	830	19.7	851	19.3	896	19.9	1060	21.1
Emergency caesarean section [†]	530	12.7	504	12.0	564	12.8	601	13.3	636	12.7
Not stated	2	0.0	1	0.0	0	0.0	0	0.0	0	0.0
TOTAL	4183	100.0	4213	100.0	4416	100.0	4506	100.0	5023	100.0
Non-Aboriginal or Torres Strait Islander										
Normal vaginal	48564	54.1	47765	53.3	46868	52.7	43805	51.0	46240	50.3
Forceps	4303	4.8	4268	4.8	4067	4.6	4046	4.7	4063	4.4
Vacuum extraction	6140	6.8	6331	7.1	6394	7.2	6203	7.2	6605	7.2
Vaginal breech	322	0.4	314	0.4	311	0.3	302	0.4	299	0.3
Elective caesarean section	19287	21.5	20042	22.4	20297	22.8	20085	23.4	22233	24.2
Emergency caesarean section [†]	11196	12.5	10950	12.2	11020	12.4	11510	13.4	12401	13.5
Not stated	24	0.0	1	0.0	0	0.0	0	0.0	1	0.0
TOTAL	89836	100.0	89671	100.0	88957	100.0	85951	100.0	91842	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 3,025 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 11.2% in 2021. This is higher than the rate for babies born to non-Aboriginal or Torres Strait Islander mothers, which was 6.2% in 2021. 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 (1.2%) in 2021 (Table 91).

The largest percentage of low birthweight babies of Aboriginal or Torres Strait Islander mothers in 2021 (24.4%) was in the Far West Local Health District (Table 92).

TABLE 91: BIRTHWEIGHT, BABIES BORN TO ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2017–2021[#]

Mother's Aboriginality– Birthweight (grams)	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
Less than 1,000	61	1.4	38	0.9	39	0.9	43	0.9	56	1.1
1,000–1,499	42	1.0	42	1.0	43	1.0	45	1.0	55	1.1
1,500–2,499	367	8.6	342	8.0	398	8.9	413	9.0	460	9.0
2,500–4,499	3732	87.8	3777	88.5	3937	87.9	4009	87.6	4444	87.1
4,500+	48	1.1	62	1.5	49	1.1	62	1.4	72	1.4
Not stated	1	0.0	9	0.2	13	0.3	7	0.2	14	0.3
TOTAL	4251	100.0	4270	100.0	4479	100.0	4579	100.0	5101	100.0
Non-Aboriginal or Torres Strait Islander										
Less than 1,000	734	0.8	618	0.7	614	0.7	605	0.7	629	0.7
1,000–1,499	461	0.5	446	0.5	470	0.5	437	0.5	436	0.5
1,500–2,499	4724	5.2	5018	5.5	4761	5.3	4537	5.2	4712	5.1
2,500–4,499	84122	92.3	83736	92.0	83232	92.2	80446	92.3	86049	92.5
4,500+	1055	1.2	998	1.1	955	1.1	952	1.1	1071	1.2
Not stated	45	0.0	175	0.2	227	0.3	196	0.2	163	0.2
TOTAL	91141	100.0	90991	100.0	90259	100.0	87173	100.0	93060	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 3,049 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 2021[#]

Local Health District	Birthweight (grams)									
	<2,500		2,500+		Not stated		TOTAL			
	No.	%	No.	%	No.	%	No.	%		
Sydney	23	18.7	100	81.3	0	0.0			123	100.0
South Western Sydney	36	8.6	383	91.0	2	0.5			421	100.0
South Eastern Sydney	12	9.1	120	90.9	0	0.0			132	100.0
Illawarra Shoalhaven	30	9.4	288	90.6	0	0.0			318	100.0
Western Sydney	34	10.3	295	89.7	0	0.0			329	100.0
Nepean Blue Mountains	41	12.7	280	86.7	2	0.6			323	100.0
Northern Sydney	-	-	49	96.1	-	-			51	100.0
Central Coast	31	10.9	254	89.1	0	0.0			285	100.0
Hunter New England	146	10.8	1202	88.8	6	0.4			1354	100.0
Northern NSW	31	11.4	237	87.5	3	1.1			271	100.0
Mid North Coast	34	10.1	301	89.9	0	0.0			335	100.0
Southern NSW	6	6.1	92	93.9	0	0.0			98	100.0
Murrumbidgee	28	11.8	209	88.2	0	0.0			237	100.0
Western NSW	104	13.7	652	86.1	1	0.1			757	100.0
Far West	10	24.4	31	75.6	0	0.0			41	100.0
Other—not stated	-	-	23	88.5	-	-			26	100.0
TOTAL	571	11.2	4516	88.5	14	0.3			5101	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 2017, the percentage of babies born prematurely (less than 37 weeks gestation) to Aboriginal or Torres Strait Islander mothers has decreased slightly from 11.7% in 2017 to 11.2% in 2021 (Table 93). By comparison, babies born to non-Aboriginal or Torres Strait Islander mothers have a relatively stable rate of around 7.2% for prematurity. In 2021, the highest percentage of prematurity in babies born to Aboriginal or Torres Strait Islander mothers (20.3%) was in Sydney Local Health District (Table 94).

TABLE 93: GESTATIONAL AGE, BABIES BORN TO ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2017–2021[#]

Mother's Aboriginality–Gestational age (weeks)	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
<28	58	1.4	36	0.8	42	0.9	48	1.0	57	1.1
28–31	52	1.2	49	1.1	55	1.2	60	1.3	62	1.2
32–36	387	9.1	387	9.1	377	8.4	377	8.2	453	8.9
37–41	3714	87.4	3752	87.9	3976	88.8	4062	88.7	4496	88.1
42+	37	0.9	43	1.0	28	0.6	31	0.7	31	0.6
Not stated	3	0.1	3	0.1	1	0.0	1	0.0	2	0.0
TOTAL	4251	100.0	4270	100.0	4479	100.0	4579	100.0	5101	100.0
Non-Aboriginal or Torres Strait Islander										
<28	654	0.7	667	0.7	663	0.7	700	0.8	705	0.8
28–31	588	0.6	558	0.6	533	0.6	531	0.6	536	0.6
32–36	5343	5.9	5595	6.1	5367	5.9	4996	5.7	5307	5.7
37–41	83650	91.8	83402	91.7	83016	92.0	80327	92.1	85811	92.2
42+	846	0.9	709	0.8	601	0.7	582	0.7	654	0.7
Not stated	60	0.1	60	0.1	79	0.1	37	0.0	47	0.1
TOTAL	91141	100.0	90991	100.0	90259	100.0	87173	100.0	93060	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 3,049 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 2021[#]

Local Health District	Gestational age (weeks)							
	Less than 37		37+		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Sydney	25	20.3	97	78.9	1	0.8	123	100.0
South Western Sydney	34	8.1	387	91.9	0	0.0	421	100.0
South Eastern Sydney	10	7.6	122	92.4	0	0.0	132	100.0
Illawarra Shoalhaven	33	10.4	285	89.6	0	0.0	318	100.0
Western Sydney	39	11.9	290	88.1	0	0.0	329	100.0
Nepean Blue Mountains	43	13.3	280	86.7	0	0.0	323	100.0
Northern Sydney	-	-	49	96.1	-	-	51	100.0
Central Coast	29	10.2	256	89.8	0	0.0	285	100.0
Hunter New England	134	9.9	1220	90.1	0	0.0	1354	100.0
Northern NSW	37	13.7	234	86.3	0	0.0	271	100.0
Mid North Coast	32	9.6	302	90.1	1	0.3	335	100.0
Southern NSW	-	-	95	96.9	-	-	98	100.0
Murrumbidgee	35	14.8	202	85.2	0	0.0	237	100.0
Western NSW	106	14.0	651	86.0	0	0.0	757	100.0
Far West	6	14.6	35	85.4	0	0.0	41	100.0
Other—not stated	-	-	22	84.6	-	-	26	100.0
TOTAL	572	11.2	4527	88.7	2	0.0	5101	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 2021, 2.6% 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 7.5% in Far West Local Health District.

TABLE 95: APGAR SCORE, LIVEBORN BABIES OF ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2017–2021[#]

Mother's Aboriginality–Apgar score at 5 minutes	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
0–4	34	0.8	27	0.6	28	0.6	30	0.7	40	0.8
5–6	60	1.4	79	1.9	78	1.8	83	1.8	90	1.8
7+	4070	96.6	4082	96.3	4300	96.7	4369	96.4	4830	95.7
Not stated	49	1.2	49	1.2	42	0.9	51	1.1	85	1.7
TOTAL	4213	100.0	4237	100.0	4448	100.0	4533	100.0	5045	100.0
Non-Aboriginal or Torres Strait Islander										
0–4	385	0.4	371	0.4	415	0.5	394	0.5	430	0.5
5–6	1018	1.1	1086	1.2	1156	1.3	1073	1.2	1176	1.3
7+	88669	97.9	88452	97.8	87660	97.7	84571	97.7	90221	97.6
Not stated	521	0.6	520	0.6	492	0.5	522	0.6	649	0.7
TOTAL	90593	100.0	90429	100.0	89723	100.0	86560	100.0	92476	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 3,049 babies of mothers where the mother's Aboriginality was not stated.

Infant feeding at discharge from hospital of birth

In 2021, 56.3% of babies born to Aboriginal or Torres Strait Islander mothers were fully breastfed at discharge from hospital, 14.5% were partially breastfed and 24.6% received infant formula only (Table 96). By comparison, 68.4% of babies born to non-Aboriginal or Torres Strait Islander mothers were fully breastfed in 2021. Rates of full breastfeeding in Aboriginal or Torres Strait Islander mothers ranged from 40.1% in Western Sydney Local Health District to 74.5% in Northern Sydney Local Health District (Table 97).

TABLE 96: INFANT FEEDING, LIVEBORN BABIES OF ABORIGINAL AND NON-ABORIGINAL MOTHERS, NSW 2017–2021[#]

Mother's Aboriginality–Infant feeding	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander										
Full breastfeeding	2600	61.7	2595	61.2	2636	59.3	2668	58.9	2841	56.3
Any breastfeeding	424	10.1	438	10.3	566	12.7	619	13.7	731	14.5
Infant formula only	1052	25.0	1088	25.7	1140	25.6	1110	24.5	1243	24.6
Not stated	137	3.3	116	2.7	106	2.4	136	3.0	230	4.6
TOTAL	4213	100.0	4237	100.0	4448	100.0	4533	100.0	5045	100.0
Non-Aboriginal or Torres Strait Islander										
Full breastfeeding	67357	74.4	66126	73.1	64376	71.7	60325	69.7	63247	68.4
Any breastfeeding	13521	14.9	14797	16.4	16108	18.0	17586	20.3	19346	20.9
Infant formula only	6851	7.6	6866	7.6	6700	7.5	6602	7.6	7200	7.8
Not stated	2864	3.2	2640	2.9	2539	2.8	2047	2.4	2683	2.9
TOTAL	90593	100.0	90429	100.0	89723	100.0	86560	100.0	92476	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). Table excludes 3,049 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 2021[#]

Local Health District	Infant feeding									
	Full breastfeeding		Any breastfeeding		Infant formula only		Not stated		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	50	42.4	33	28.0	35	29.7	0	0.0	118	100.0
South Western Sydney	196	46.9	93	22.2	115	27.5	14	3.3	418	100.0
South Eastern Sydney	90	71.4	15	11.9	20	15.9	1	0.8	126	100.0
Illawarra Shoalhaven	186	58.9	40	12.7	87	27.5	3	0.9	316	100.0
Western Sydney	131	40.1	53	16.2	125	38.2	18	5.5	327	100.0
Nepean Blue Mountains	175	54.5	67	20.9	64	19.9	15	4.7	321	100.0
Northern Sydney	38	74.5	10	19.6	-	-	-	-	51	100.0
Central Coast	187	66.5	41	14.6	47	16.7	6	2.1	281	100.0
Hunter New England	805	59.9	169	12.6	277	20.6	92	6.9	1343	100.0
Northern NSW	172	64.4	32	12.0	45	16.9	18	6.7	267	100.0
Mid North Coast	220	66.1	32	9.6	66	19.8	15	4.5	333	100.0
Southern NSW	67	69.1	8	8.2	15	15.5	7	7.2	97	100.0
Murrumbidgee	134	56.8	27	11.4	68	28.8	7	3.0	236	100.0
Western NSW	350	47.0	102	13.7	263	35.3	30	4.0	745	100.0
Far West	23	57.5	-	-	8	20.0	-	-	40	100.0
Other—not stated	17	65.4	-	-	-	-	-	-	26	100.0
TOTAL	2841	56.3	731	14.5	1243	24.6	230	4.6	5045	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

The perinatal mortality rate among babies born to Aboriginal and Torres Strait Islander mothers was the same in 2021 as it was in 2017 (12.7 per 1,000 births) (Table 98). The rate of 12.7 per 1,000 births in Aboriginal or Torres Strait Islander mothers in 2021 is higher than the rate of 8.3 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 2017–2021[#]

Mother's Aboriginality–Perinatal Deaths	Year									
	2017		2018		2019		2020		2021	
	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	38	8.9	33	7.7	31	6.9	46	10.0	56	11.0
Neonatal death	16	3.8	17	4.0	15	3.3	14	3.1	9	1.8
TOTAL	54	12.7	50	11.7	46	10.3	60	13.1	65	12.7
Non-Aboriginal or Torres Strait Islander										
Stillborn	548	6.0	562	6.2	536	5.9	613	7.0	584	6.3
Neonatal death	195	2.1	159	1.7	181	2.0	163	1.9	184	2.0
TOTAL	743	8.2	721	7.9	717	7.9	776	8.9	768	8.3

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 16 babies of mothers where the mother's Aboriginality was not stated.

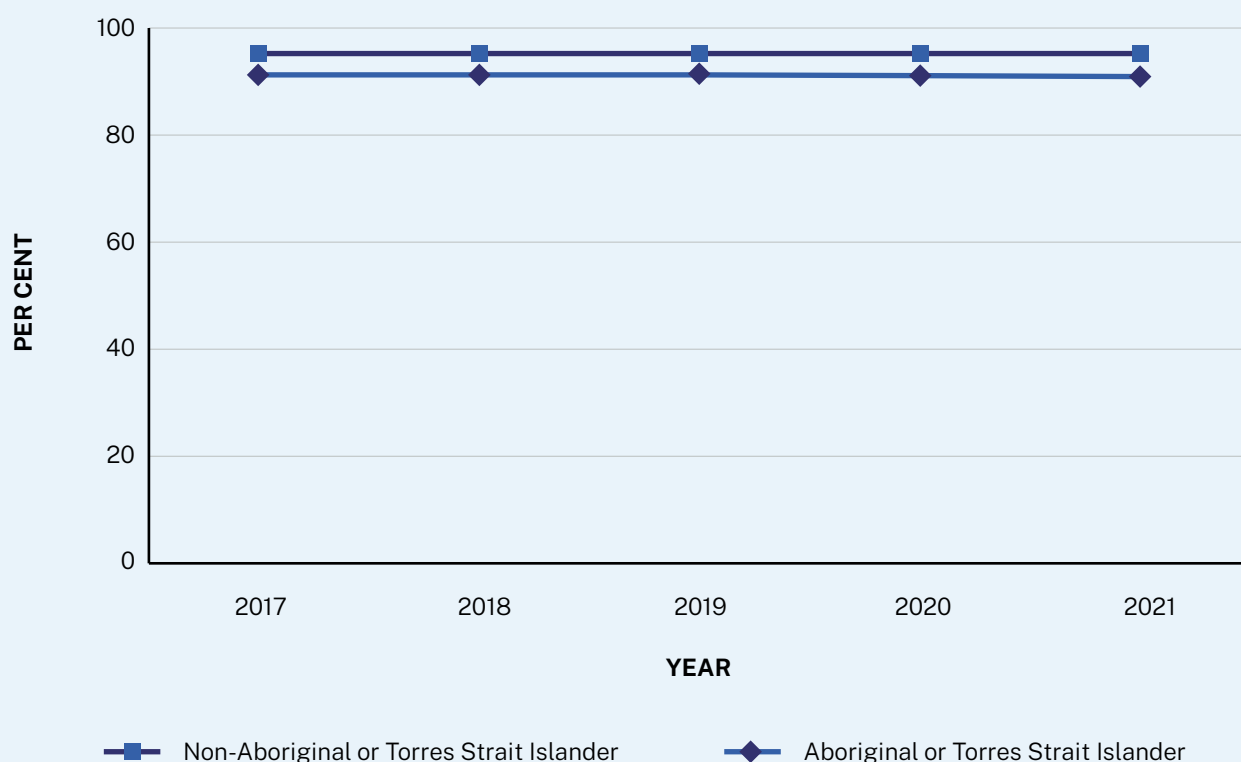
Closing the Gap on healthy birthweight

Socioeconomic outcome area 2 under the National Agreement on Closing the Gap¹ is that Aboriginal and Torres Strait Islander children are born healthy and strong. The agreement aims to achieve this outcome through *Target 2: By 2031, increase the proportion of Aboriginal and Torres Strait Islander babies with a healthy birthweight to 91 per cent*. Healthy birthweight is an important indicator of an infant's future health² and is defined as liveborn singleton babies who weighed between 2,500 and 4,499 grams at birth. For the purposes of this report, this measure includes babies that were reported as Aboriginal and Torres Strait Islander as well as babies born to Aboriginal and Torres Strait Islander mothers.

In 2021, 90.3% of Aboriginal and Torres Strait Islander babies born in NSW were a healthy birthweight (Table 99). This is similar to the rate in 2017 (the baseline year), which was 90.6%. The proportion of Aboriginal and Torres Strait Islander babies born in NSW with a healthy birthweight has consistently been around 4% lower than the proportion for non-Aboriginal babies since 2017.

This data differs from the Productivity Commission's Closing the Gap reporting³ because it includes all babies born in NSW, whereas the Productivity Commission reports data for NSW residents.

FIGURE 4: HEALTHY BIRTHWEIGHT BY YEAR AND BABIES' ABORIGINALITY, NSW 2017–2021



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

TABLE 99: HEALTHY BIRTHWEIGHT, ABORIGINAL AND NON-ABORIGINAL BABIES, NSW 2017–2021[#]

Baby's Aboriginality	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal or Torres Strait Islander	4960	90.6	5052	90.4	5507	90.7	5403	90.3	5850	90.3
Non-Aboriginal or Torres Strait Islander	80679	94.3	80004	94.2	79425	94.3	77078	94.5	81581	94.6

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

[#]Table includes all liveborn singleton babies born in NSW, regardless of place of residence.

The rate of Aboriginal and Torres Strait Islander babies born with a healthy birthweight varies across local health districts. In 2021, the rates in most Local Health Districts were between 89–93% (Table 100). However, Sydney Local Health District (82.2%) and Far West Local Health District (85.4%) had lower rates. Northern Sydney Local Health District had the highest rate (92.9%).

TABLE 100: HEALTHY BIRTHWEIGHT ABORIGINAL BABIES BY LOCAL HEALTH DISTRICT OF RESIDENCE, NSW 2017–2021[#]

Local Health District	Year									
	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sydney	110	90.9	109	83.2	103	83.1	122	93.1	111	82.2
South Western Sydney	388	93.3	456	91.4	428	92.2	462	91.1	511	91.6
South Eastern Sydney	136	90.7	152	91.6	174	92.6	155	91.7	166	92.2
Illawarra Shoalhaven	345	90.6	343	86.6	328	87.0	401	89.7	403	90.8
Western Sydney	278	86.1	324	89.5	311	90.7	345	90.3	369	89.3
Nepean Blue Mountains	260	90.9	263	93.6	320	90.7	299	89.0	326	90.1
Northern Sydney	60	95.2	57	93.4	63	94.0	60	93.8	79	92.9
Central Coast	277	90.8	306	95.3	314	91.8	342	90.0	367	91.1
Hunter New England	1289	90.6	1295	90.4	1474	90.5	1451	90.6	1506	90.6
Northern NSW	269	88.8	250	86.8	322	91.5	264	88.3	301	89.9
Mid North Coast	339	89.0	315	88.0	375	88.7	295	88.1	356	89.0
Southern NSW	114	92.7	110	88.0	130	93.5	122	94.6	123	92.5
Murrumbidgee	219	89.0	263	92.9	254	93.0	256	93.8	239	90.5
Western NSW	807	92.0	742	91.4	816	91.7	756	89.3	921	90.0
Far West	37	86.0	33	89.2	46	86.8	40	87.0	41	85.4
Other—not stated	31	91.2	26	92.9	42	95.5	30	90.9	24	85.7
Total	4959	90.6	5044	90.4	5500	90.7	5400	90.3	5843	90.3

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

[#]Table includes all liveborn singleton babies born in NSW, regardless of place of residence.

References

1. Council of Australian Governments. *National Agreement on Closing the Gap*. Canberra: COAG, 2020. Available at: <https://www.closingthegap.gov.au/sites/default/files/files/national-agreement-ctg.pdf>. Accessed 31 January 2023.
2. Australian Institute of Health and Welfare (AIHW) 2022, *Australia's children*. Available at: <https://www.aihw.gov.au/reports/children-youth/australias-children>. Accessed 31 January 2023.
3. Productivity Commission 2022. *Closing the Gap Dashboard – Socioeconomic outcome area 2*. Available at: <https://www.pc.gov.au/closing-the-gap-data/dashboard/socioeconomic/outcome-area2>. Accessed 31 January 2023.

10. Perinatal deaths

Information on causes of perinatal death were obtained from the NSW Maternal and Child Health Register (MCHR) for 2020. The underlying cause of death was assigned using the Perinatal Society of Australia and New Zealand (PSANZ) Perinatal Death Classification for both stillbirths and neonatal deaths and, in addition, the PSANZ Neonatal Death Classification for neonatal deaths.¹ 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 include stillbirths and neonatal deaths. A stillbirth is defined as 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. A neonatal death is defined as the death of a liveborn within the first 28 days of life.

Perinatal deaths 2020

In 2020, the perinatal mortality rate was 9.5 per 1,000 births, comprising 662 stillbirths (75.0%) and 221 neonatal deaths (25.0%).

Of the 662 stillbirths, 423 (63.9%) were reported to have occurred before the onset of labour, 49 (7.4%) occurred during labour, and 190 (28.7%) occurred at an unspecified time before birth.

Maternal age 2020

In 2020, the overall perinatal mortality rate was 9.5 deaths per 1,000 births, with higher perinatal mortality rates for babies born to women aged 12–19 years (15.9 per 1,000) than babies born to women aged 35 years and older (11.4 per 1,000) and 20–34 years (8.7 per 1,000) (Table 101).

TABLE 101: PERINATAL DEATHS BY MATERNAL AGE AND PERINATAL DEATH TYPE, NSW 2020[#]

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	18	12.4	5	3.5	23	15.9
20–34	427	6.4	154	2.3	581	8.7
35+	217	8.9	62	2.5	279	11.4
TOTAL	662	7.2	221	2.4	883	9.5

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 2020

In 2020, the perinatal mortality rate ranged from 6.3 per 1,000 in Northern Sydney Local Health District to 16.0 per 1,000 in the Far West Local Health District (Table 102).

TABLE 102: PERINATAL DEATHS BY LOCAL HEALTH DISTRICT OF RESIDENCE AND PERINATAL DEATH TYPE, NSW 2020[#]

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	48	6.7	21	2.9	69	9.6
South Western Sydney	106	7.4	34	2.4	140	9.8
South Eastern Sydney	58	5.9	15	1.5	73	7.4
Illawarra Shoalhaven	23	5.0	9	2.0	32	7.0
Western Sydney	114	7.7	55	3.7	169	11.4
Nepean Blue Mountains	33	6.7	14	2.8	47	9.5
Northern Sydney	46	5.0	12	1.3	58	6.3
Central Coast	29	7.6	10	2.6	39	10.2
Hunter New England	83	8.0	25	2.4	108	10.4
Northern NSW	17	6.7	1	0.4	18	7.0
Mid North Coast	17	8.1	4	1.9	21	10.0
Southern NSW	9	6.4	0	0.0	9	6.4
Murrumbidgee	12	5.0	7	2.9	19	7.9
Western NSW	40	11.5	12	3.4	52	14.9
Far West	3	16.0	0	0.0	3	16.0
Other—not stated	24	-	2	-	26	-
TOTAL	662	7.2	221	2.4	883	9.5

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.

Gestational age and birthweight 2020

As expected, perinatal mortality rates increased with greater prematurity and lower birthweight. Of the 883 perinatal deaths in 2020, 558 (63.2%) occurred in extremely pre-term babies (less than 28 weeks) and 449 (50.8%) in babies that weighed less than 1,000 grams (Tables 103 and 104).

TABLE 103: GESTATIONAL AGE BY TYPE OF PERINATAL DEATH, NSW 2020[#]

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	426	568.0	132	176.0	558	744.0
28–31	66	111.1	18	30.3	84	141.4
32–36	68	12.5	17	3.1	85	15.7
37–41	102	1.2	54	0.6	156	1.8
TOTAL	662	7.2	221	2.4	883	9.5

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.

TABLE 104: BIRTHWEIGHT BY TYPE OF PERINATAL DEATH, NSW 2020[#]

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	359	551.5	90	138.2	449	689.7
1,000–1,499	64	132.2	14	28.9	78	161.2
1,500–2,499	78	15.7	18	3.6	96	19.3
2,500–3,999	82	1.1	50	0.6	132	1.7
4,000+	6	0.7	5	0.6	11	1.3
Not stated	73	-	44	-	117	-
TOTAL	662	7.2	221	2.4	883	9.5

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 2020

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 2020, 32.4% of perinatal deaths were due to a congenital anomaly and 10.2% were due to spontaneous preterm labour or rupture of membranes, while 11.1% were unexplained antepartum deaths (Table 105).

Congenital anomalies

In 2020, the most common causes of deaths due to congenital anomalies were conditions of the nervous system ($n=58$), followed by conditions of the cardiovascular system ($n=53$) and multiple congenital anomalies with no chromosomal or genetic cause ($n=36$). Sixty-one deaths were associated with chromosomal anomalies, 10 with genetic anomalies and 8 with diaphragmatic hernia.

Perinatal infection

Of the 58 deaths classified as due to perinatal infection, 41 were associated with bacterial infection including 13 deaths due to E coli infection and 4 deaths due to group B streptococcal infection. There were 3 deaths associated with parvovirus infection and 2 deaths associated with cytomegalovirus infection.

Hypertension

In 2020, there were 29 stillbirths and 10 neonatal deaths attributed to hypertension. Of these, 27 deaths were attributed to pre-eclampsia, 5 deaths to pre-eclampsia superimposed on chronic hypertension, 5 deaths to chronic hypertension and 1 death to gestational hypertension. The type of hypertension was unspecified in the remaining cases.

Antepartum haemorrhage

In 2020, there were 54 perinatal deaths that were attributed to antepartum haemorrhage. Of these, 47 were due to placental abruption, 1 was due to placenta praevia and the origin of the remaining 6 cases was not specified.

Maternal conditions

There were 71 perinatal deaths that were attributed to maternal conditions in 2020. Thirty-one pregnancies were terminated for maternal psychosocial indications. Twenty-four perinatal deaths were attributed to diabetes, 4 were attributed to antiphospholipid syndrome and 3 were attributed to maternal sepsis.

Complications of multiple pregnancy

In 2020, there were 46 perinatal deaths that were attributed to complications of multiple pregnancy. Of these, 37 were due to complications in monochorionic twins, including 26 due to twin-to-twin transfusion syndrome, 5 due to monoamniotic twins, 4 due to selective fetal growth restriction and 2 with unspecified complications. Four perinatal deaths were due to unspecified complications in dichorionic twins. Chorionicity was unknown among the remaining 5 cases.

Specific perinatal conditions

Fetomaternal haemorrhage accounted for 11 of the 47 deaths that were attributed to specific perinatal conditions. The next most common conditions were uterine abnormalities ($n=13$), antepartum cord or fetal vessel complications ($n=7$), fetal antenatal haemorrhagic brain injury ($n=7$), other specified perinatal conditions ($n=7$) and alloimmune disease ($n=2$).

Hypoxic peripartum death

In 2020, there were 23 deaths classified as hypoxic peripartum death. Of these, 10 had evidence of significant fetal compromise (excluding other complications), 4 were due to uterine rupture and 2 were due to cord prolapse.

Placental dysfunction or causative placental pathology

In 2020, there were 69 deaths attributed to placental dysfunction or causative placental pathology. Of these, 23 were due to fetal vascular malperfusion and 15 were due to maternal vascular malperfusion.

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

In 2020, there were 90 deaths attributed to spontaneous preterm birth with no other cause identified in the mother or baby. Among these, there were 51 cases with histological chorioamnionitis.

Unexplained antepartum fetal death

In 2020, there were 98 unexplained stillbirths, of which 79 (80.6%) were premature and 63 (64.3%) were low birthweight.

Neonatal death without obstetric antecedent

There were 2 perinatal deaths with no known obstetric antecedent in 2020.

TABLE 105: PERINATAL DEATHS BY PSANZ PERINATAL DEATH CLASSIFICATION AND TYPE OF PERINATAL DEATH, NSW 2020[#]

PSANZ-PDC Category [*]	Perinatal death type					
	Stillbirth		Neonatal death		TOTAL	
	No.	%	No.	%	No.	%
1 Congenital anomaly						
1.1 Structural anomaly						
1.11 Nervous system	47	7.1	11	5.0	58	6.6
1.12 Cardiovascular system	35	5.3	18	8.1	53	6.0
1.13 Genitourinary system	15	2.3	6	2.7	21	2.4
1.14 Gastrointestinal system	7	1.1	1	0.5	8	0.9
1.15 Musculoskeletal	12	1.8	8	3.6	20	2.3
1.16 Respiratory system [†]	0	0.0	2	0.9	2	0.2
1.17 Haematological	1	0.2	0	0.0	1	0.1
1.18 Multiple Congenital anomaly [‡]	26	3.9	10	4.5	36	4.1
1.19 Other congenital abnormality	12	1.8	4	1.8	16	1.8
TOTAL	155	23.4	60	27.1	215	24.3
1.2 Chromosomal anomaly						
1.21 Down syndrome (trisomy 21)	11	1.7	6	2.7	17	1.9
1.22 Edward syndrome and Patau syndrome (trisomy 18, trisomy 13)	8	1.2	7	3.2	15	1.7
1.23 Other trisomies and partial trisomies of the autosomes, not elsewhere classified [§]	4	0.6	1	0.5	5	0.6
1.24 Monosomies and deletions from the autosomes, not elsewhere classified [‡]	7	1.1	2	0.9	9	1.0
1.25 Turner syndrome (monosomy X)	4	0.6	0	0.0	4	0.5
1.26 Other sex chromosome abnormalities [§]	1	0.2	1	0.5	2	0.2
1.28 Other chromosomal abnormalities, not elsewhere specified	8	1.2	1	0.5	9	1.0
TOTAL	43	6.5	18	8.1	61	6.9
1.3 Genetic anomaly						
1.31 Genetic condition ^{††}	0	0.0	4	1.8	4	0.5
1.32 Syndrome/association with demonstrated chromosomal/gene anomaly	4	0.6	2	0.9	6	0.7
TOTAL	4	0.6	6	2.7	10	1.1
TOTAL	202	30.5	84	38.0	286	32.4

(Continued on next page)

Table 105: (Continued)

PSANZ-PDC Category*	Perinatal death type					
	Stillbirth		Neonatal death		TOTAL	
	No.	%	No.	%	No.	%
2 Perinatal infection						
2.1 Bacterial						
2.11 Group B Streptococcus	3	0.5	1	0.5	4	0.5
2.12 E coli	10	1.5	3	1.4	13	1.5
2.13 Listeria monocytogenes	1	0.2	0	0.0	1	0.1
2.14 Spirochaetal†‡	1	0.2	0	0.0	1	0.1
2.18 Other bacterial	4	0.6	3	1.4	7	0.8
2.19 Unspecified bacterial	9	1.4	6	2.7	15	1.7
TOTAL	28	4.2	13	5.9	41	4.6
2.2 Viral						
2.21 Cytomegalovirus	1	0.2	1	0.5	2	0.2
2.22 Parvovirus	3	0.5	0	0.0	3	0.3
TOTAL	4	0.6	1	0.5	5	0.6
2.8 Other specified organism	2	0.3	1	0.5	3	0.3
2.9 Other unspecified organism	4	0.6	5	2.3	9	1.0
TOTAL	38	5.7	20	9.0	58	6.6
3 Hypertension						
3.1 Chronic hypertension: essential	4	0.6	1	0.5	5	0.6
3.4 Gestational hypertension	1	0.2	0	0.0	1	0.1
3.5 Pre-eclampsia	19	2.9	8	3.6	27	3.1
3.6 Pre-eclampsia superimposed on chronic hypertension	4	0.6	1	0.5	5	0.6
3.9 Unspecified hypertension	1	0.2	0	0.0	1	0.1
TOTAL	29	4.4	10	4.5	39	4.4
4 Antepartum haemorrhage (APH)						
4.1 Placental abruption	37	5.6	10	4.5	47	5.3
4.2 Placenta praevia	0	0.0	1	0.5	1	0.1
4.9 APH of undetermined origin	4	0.6	2	0.9	6	0.7
TOTAL	41	6.2	13	5.9	54	6.1
5 Maternal conditions						
5.1 Termination of pregnancy for maternal psychosocial indications	26	3.9	5	2.3	31	3.5
5.2 Diabetes						
5.21 Gestational diabetes	17	2.6	3	1.4	20	2.3
5.22 Pre-existing diabetes	4	0.6	0	0.0	4	0.5
TOTAL	21	3.2	3	1.4	24	2.7
5.3 Maternal injury	1	0.2	0	0.0	1	0.1
5.4 Maternal sepsis	2	0.3	1	0.5	3	0.3
5.5 Antiphospholipid syndrome	4	0.6	0	0.0	4	0.5
5.6 Obstetric cholestasis	1	0.2	0	0.0	1	0.1
5.8 Other specified maternal conditions	6	0.9	1	0.5	7	0.8
TOTAL	61	9.2	10	4.5	71	8.0
6 Complications of multiple pregnancy						
6.1 Monochorionic twins						
6.11 Twin to twin transfusion syndrome (TTTS)	20	3.0	6	2.7	26	2.9
6.12 Selective fetal growth restriction (FGR)	3	0.5	1	0.5	4	0.5
6.13 Monoamniotic twins	5	0.8	0	0.0	5	0.6
6.18 Other	2	0.3	0	0.0	2	0.2
TOTAL	30	4.5	7	3.2	37	4.2
6.2 Dichorionic twins	4	0.6	0	0.0	4	0.5
6.4 Complications where chorionicity is unknown	4	0.6	1	0.5	5	0.6
TOTAL	38	5.7	8	3.6	46	5.2
7 Specific perinatal conditions						
7.1 Fetomaternal haemorrhage	9	1.4	2	0.9	11	1.2
7.2 Antepartum cord or fetal vessel complications§	7	1.1	0	0.0	7	0.8
7.3 Uterine abnormalities	13	2.0	0	0.0	13	1.5
7.4 Alloimmune disease	2	0.3	0	0.0	2	0.2
7.5 Fetal antenatal intracranial brain injury	1	0.2	6	2.7	7	0.8
7.6 Other specific perinatal conditions	5	0.8	2	0.9	7	0.8
TOTAL	37	5.6	10	4.5	47	5.3

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Table 105: (Continued)

PSANZ-PDC Category*	Perinatal death type					
	Stillbirth		Neonatal death		TOTAL	
	No.	%	No.	%	No.	%
8 Hypoxic peripartum death						
8.1 With intrapartum complications (sentinel events)						
8.11 Uterine rupture	3	0.5	1	0.5	4	0.5
8.12 Cord prolapse	1	0.2	1	0.5	2	0.2
8.14 Complications of breech presentation	0	0.0	1	0.5	1	0.1
TOTAL	4	0.6	3	1.4	7	0.8
8.2 Evidence of significant fetal compromise ^{‡‡}	1	0.2	9	4.1	10	1.1
8.9 Unspecified hypoxic peripartum death	4	0.6	2	0.9	6	0.7
TOTAL	9	1.4	14	6.3	23	2.6
9 Placental dysfunction or causative placental pathology						
9.1 Maternal vascular malperfusion	15	2.3	0	0.0	15	1.7
9.2 Fetal vascular malperfusion	22	3.3	1	0.5	23	2.6
9.3 High grade villitis of unknown etiology (VUE)	2	0.3	0	0.0	2	0.2
9.5 Severe chronic intervillitis (Histiocytic intervillitis)	5	0.8	0	0.0	5	0.6
9.6 Placental hypoplasia (small-for gestation placenta)	5	0.8	0	0.0	5	0.6
9.9 Other placental pathology	17	2.6	2	0.9	19	2.2
TOTAL	66	10.0	3	1.4	69	7.8
10 Spontaneous preterm labour or rupture of membranes (<37 weeks gestation)	43	6.5	47	21.3	90	10.2
11 Unexplained antepartum fetal death	98	14.8	0	0.0	98	11.1
12 Neonatal death without obstetric antecedent	0	0.0	2	0.9	2	0.2
TOTAL	662	100.0	221	100.0	883	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 2020 are not represented in the table.

[†]Includes congenital pulmonary airway malformation (CPAM).

[‡]No chromosomal/genetic cause or not tested.

[§]Includes pathogenic duplications, unbalanced translocations and insertions.

[‡]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 syndrome, triploidy.

^{††}Includes inborn errors of metabolism, for example, Tay-Sachs disease.

^{‡‡}For example, Syphilis.

^{§§}Excludes monozygotic twins or higher order multiples.

^{‡‡}Excludes other complications.

Cause of perinatal death by hospital maternity service level 2020

Hospital maternity service levels are used to group hospitals with similar characteristics for comparative reporting and service planning purposes (see Explanatory notes). In 2020, 52.5% of perinatal deaths were among babies born in maternity service level 6 hospitals (Table 106). The percentage of perinatal deaths attributed to congenital abnormalities was higher among babies born in maternity service level 6 hospitals (39.0%) 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 (5.0%) compared to other hospital maternity service levels, possibly due to better access to perinatal post-mortem services.

TABLE 106: PERINATAL DEATHS BY PSANZ PERINATAL DEATH CLASSIFICATION AND MATERNITY SERVICE LEVEL, NSW 2020[#]

PSANZ-PDC Major category	Maternity service level															
	Level 6		Level 5		Level 4		Level 3		Level 2		Public hospital [§]		Private		TOTAL NSW [*]	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1 Congenital anomaly	181	39.0	45	29.6	38	26.4	12	21.1	0	0.0	276	33.8	10	15.2	286	32.4
2 Perinatal infection	32	6.9	11	7.2	10	6.9	2	3.5	0	0.0	55	6.7	3	4.5	58	6.6
3 Hypertension	27	5.8	5	3.3	3	2.1	3	5.3	0	0.0	38	4.7	1	1.5	39	4.4
4 Antepartum haemorrhage (APH)	19	4.1	12	7.9	14	9.7	4	7.0	0	0.0	49	6.0	5	7.6	54	6.1
5 Maternal conditions	42	9.1	10	6.6	11	7.6	1	1.8	0	0.0	64	7.8	7	10.6	71	8.0
6 Complications of multiple pregnancy	29	6.3	10	6.6	3	2.1	0	0.0	0	0.0	42	5.1	4	6.1	46	5.2
7 Specific perinatal conditions	19	4.1	7	4.6	8	5.6	6	10.5	0	0.0	40	4.9	7	10.6	47	5.3
8 Hypoxic peripartum death	8	1.7	1	0.7	8	5.6	3	5.3	0	0.0	20	2.4	3	4.5	23	2.6
9 Placental dysfunction or causative placental pathology	31	6.7	13	8.6	14	9.7	6	10.5	0	0.0	64	7.8	5	7.6	69	7.8
10 Spontaneous preterm labour or rupture of membranes (<37 weeks gestation)	52	11.2	18	11.8	7	4.9	6	10.5	0	0.0	83	10.2	7	10.6	90	10.2
11 Unexplained antepartum fetal death	23	5.0	20	13.2	28	19.4	14	24.6	0	0.0	85	10.4	13	19.7	98	11.1
12 Neonatal death without obstetric antecedent	1	0.2	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1	1	1.5	2	0.2
TOTAL	464	100.0	152	100.0	144	100.0	57	100.0	0	0.0	817	100.0	66	100.0	883	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 127 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 2020

In 2020, about a third (33.9%) of all deaths occurred among periviable infants; while 31.7% were associated with congenital anomalies (Table 107). Of the 221 neonatal deaths in 2020, 167 (75.6%) were born prematurely. Congenital anomalies accounted for the majority of deaths among babies born at 37-plus weeks gestation (37.0%), followed by neurological conditions (25.9%).

TABLE 107: NEONATAL DEATHS BY PSANZ NEONATAL DEATH CLASSIFICATION AND GESTATIONAL AGE, NSW 2020[#]

PSANZ-NDC Major category	Gestational age (weeks)					
	Less than 37		37+		TOTAL	
	No.	%	No.	%	No.	%
1 Congenital anomaly	50	29.9	20	37.0	70	31.7
2 Periviable infants (typically <24 weeks)	75	44.9	0	0.0	75	33.9
3 Cardio-respiratory disorders	19	11.4	5	9.3	24	10.9
4 Neonatal infection	9	5.4	3	5.6	12	5.4
5 Neurological	8	4.8	14	25.9	22	10.0
7 Other	3	1.8	10	18.5	13	5.9
Unable to be classified	3	1.8	2	3.7	5	2.3
TOTAL	167	100.0	54	100.0	221	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.

Reference

1. 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 31 January 2023.

11. 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.

First trimester

The first period of pregnancy before 14 weeks of gestation.

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.

Metropolitan local health districts

Includes Central Coast, Illawarra Shoalhaven, Nepean Blue Mountains, Northern Sydney, South Eastern Sydney, South Western Sydney, Sydney and Western Sydney Local Health Districts.

Neonatal death

The death of a liveborn 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 2021 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 *GL2022_002 Maternal and Neonatal Service Capability* 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 10, 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 31 January 2023.
2. NSW Ministry of Health. *Maternity and Neonatal Service Capability*. Available at https://www1.health.nsw.gov.au/pds/Pages/doc.aspx?dn=GL2022_002. Accessed 31 January 2023.
3. Centers for Disease Control and Prevention. *Percentile Data Files with LMS Values*. Available at https://www.cdc.gov/growthcharts/percentile_data_files.htm. Accessed 31 January 2023.
4. World Health Organization. *Obesity: Preventing and Managing the Global Epidemic 2000*, WHO Technical Report Series 894. World Health Organization. Available at <https://apps.who.int/iris/handle/10665/42330>. Accessed 31 January 2023.
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 31 January 2023.
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 31 January 2023.

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

English speaking	Pitcairn Islands	Western and Northern Europe	Russian Federation
Australia	Polynesia (excludes Hawaii), NEC*	Aland Islands	Slovakia
Australian External Territories, NEC*	Samoa	Austria	Tajikistan
Bermuda	Samoa, American	Belgium	Turkmenistan
Canada	Solomon Islands	Denmark	Ukraine
England	Tokelau	Faroe Islands	Uzbekistan
Guernsey	Tonga	Finland	Middle East and Africa
Ireland	Tuvalu	France	Algeria
Isle of Man	Vanuatu	Germany	Angola
Jersey	Wallis and Futuna	Greenland	Bahrain
New Zealand		Iceland	Benin
Norfolk Island	Southern Europe	Liechtenstein	Botswana
Northern Ireland	Albania	Luxembourg	Burkina Faso
Scotland	Andorra	Monaco	Burundi
South Africa	Bosnia and Herzegovina	Netherlands	Cameroon
St Pierre and Miquelon	Bulgaria	Norway	Cape Verde
United States of America	Croatia	Sweden	Central African Republic
Wales	Cyprus	Switzerland	Chad
	Former Yugoslav Republic of Macedonia (FYROM)	Eastern Europe, Russia and Central Asian States	Comoros
Melanesia, Micronesia & Polynesia	Gibraltar	Afghanistan	Congo, Democratic Republic of
Cook Islands	Greece	Armenia	Congo, Republic of
Fiji	Holy See	Azerbaijan	Cote d'Ivoire
French Polynesia	Italy	Belarus	Djibouti
Guam	Kosovo	Czech Republic	Egypt
Kiribati	Malta	Estonia	Equatorial Guinea
Marshall Islands	Moldova	Georgia	Eritrea
Micronesia, Federated States of	Montenegro	Hungary	Ethiopia
Nauru	Portugal	Kazakhstan	Gabon
New Caledonia	Romania	Kyrgyzstan	Gambia, Republic of
Niue	San Marino	Latvia	Gaza Strip and West Bank
Northern Mariana Islands	Serbia	Lithuania	Ghana
Palau	Slovenia	Poland	Guinea
Papua New Guinea	Spain		Guinea-Bissau

Iran	Sudan	Macau (SAR# of China)	Falkland Islands
Iraq	Swaziland	Mongolia	French Guiana
Israel	Syria	Taiwan	Grenada
Jordan	Tanzania		Guadeloupe
Kenya	Togo	Southern Asia	Guatemala
Kuwait	Tunisia	Bangladesh	Guyana
Lebanon	Turkey	Bhutan	Haiti
Lesotho	Uganda	India	Honduras
Liberia	United Arab Emirates	Maldives	Jamaica
Libya	Western Sahara	Nepal	Martinique
Madagascar	Yemen	Pakistan	Mexico
Malawi	Zambia	Sri Lanka	Montserrat
Mali	Zimbabwe		Nicaragua
Mauritania		Central and South America	Panama
Mauritius	South East Asia	Anguilla	Paraguay
Mayotte	Brunei Darussalam	Antigua and Barbuda	Peru
Morocco	Cambodia	Argentina	Puerto Rico
Mozambique	Indonesia	Aruba	Sint Maarten (Dutch part)
Namibia	Laos	Bahamas	South America, NEC*
Niger	Malaysia	Barbados	St Barthelemy
Nigeria	Myanmar, The Republic of the Union of	Belize	St Kitts and Nevis
Oman	Philippines	Bolivia, Plurinational State of	St Lucia
Qatar	Singapore	Bonaire, Sint Eustatius and Saba	St Martin (French part)
Reunion	Thailand	Brazil	St Vincent and the Grenadines
Rwanda	Timor-Leste	Cayman Islands	Suriname
Sao Tome and Principe	Vietnam	Chile	Trinidad and Tobago
Saudi Arabia		Colombia	Turks and Caicos Islands
Senegal	North East Asia	Costa Rica	Uruguay
Seychelles	China (excludes SARs# and Taiwan)	Cuba	Venezuela, Bolivarian Republic of
Sierra Leone	Hong Kong (SAR# of China)	Curacao	Virgin Islands, British
Somalia	Japan	Dominica	Virgin Islands, United States
South Sudan	Korea, Democratic People's Republic of (North)	Dominican Republic	
Southern and East Africa, NEC*	Korea, Republic of (South)	Ecuador	
Spanish North Africa		El Salvador	
St Helena			

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

NSW Mothers and Babies 2021
NSW Health
1 Reserve Road, St Leonards NSW 2065
Locked Mail Bag 2030, St Leonards NSW 1590