

Children's Health in Northern Ireland 2021/22

**A statistical profile of births using data drawn from the
Northern Ireland Child Health System,
Northern Ireland Maternity System and
Northern Ireland Statistics and Research Agency**

**Public Health Intelligence Unit
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Executive Summary

- There were 22,160 registered births to Northern Ireland residents in 2021 with a birth rate of 11.6 per thousand (2020=11.0, 2019=11.9, 2018=12.1). There were 89 registered still births to Northern Ireland residents in 2021. [Page 9]
- The live birth rate (crude) (11.6) is the highest across the four UK countries, but is lower than the equivalent rate for Republic of Ireland (2021 = 11.7). [Page 8]
- The number of births in Northern Ireland to non-NI resident mothers continued to decrease. In 2021, there were 87 such births – the lowest number in the last ten years (will be impacted by COVID-19 pandemic). [Page 9]
- In 2021, the percentage of live births to mothers whose country of birth was not Northern Ireland was 17.4%. [Page 9]
- In the next twenty years, the number of registered resident births in Northern Ireland is projected to decrease from 22,160 in 2021 to 21,940 in 2041 (-1.0%). The Western Trust area is projected to have the largest decrease (-10.4%), with the Southern Trust showing an increase (+10.4%). [Page 12]
- Of the four regions of the United Kingdom, Northern Ireland had the highest total fertility rate (1.81 in 2021). Scotland had the lowest at 1.31. [Page 14]
- In 2021/22, births to teenage mothers represented 2.1% of all births. [Page 20]
- In 2021/22, 6.6% of births were booked at 15 weeks or more gestation. Although fluctuating since 2011/12, there has been an overall downward trend in this percentage. [Page 34]
- There were substantial differences in the timescales of when mothers booked by ethnic group during 2021/22. 23.6% of births to mothers from a 'non-white' ethnic group booked at 15+ weeks, compared to 5.8% of those of a white ethnic group (all births = 6.6%). [Page 35]
- Since 2011/12, there has been little variation in the proportion of infants born pre-term (<37 weeks gestation) (2021/22 = 7.4%). [Page 37] For births during 2021/22, the figures differ considerably by type of birth: 7.1% of live births, 72.0% of still births. [Page 38]
- In 2021/22, 11.3% of mothers smoked (2010/11 = 15.5%). In 2020/21, 15.0% of mothers had diabetes (2010/11 = 1.8%). [Page 43]
- Over 27% of mothers giving birth during 2021/22 were measured as obese (BMI = 30.00 or more) at time of booking appointment. This proportion has increased year on year since 2011/12. 58.4% of mothers at the time of booking, were considered pre-obese or obese (BMI = 25.00 or more). [Page 54]
- In 2021/22, 35.7% of infants were delivered by Caesarian section. [Page 59]
- In 2021/22, 6.4% of all births were measured as low birth weight i.e. less than 2,500g (6.1% of live and 69.0% of still births). 14.1% of live infants were born with a higher birth weight of 4,000g+ and 1.8% with a birth weight of 4,500g+. [Page 64, 65]
- In 2021/22, 51.2% of live infants were breastfed (total/partial feeding) at discharge (where feeding status is known). [Page 74].
- Of mothers who delivered in 2020/21, the proportion breastfeeding gradually decreased with time – 51.2% of infants in Northern Ireland were breastfed at discharge, falling to only 16.8% of infants at 12 months old. [Page 80]
- Of those children measured in Primary 1 in 2021/22, 21.7% were considered overweight or obese. (Based on IOTF classification) [Page 86]

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Introduction

The **Child Health System (CHS)** is a patient centred community based operational system comprising seven modules:

- Module 1 – Child Register
- Module 2 – Preschool Vaccination and Immunisation
- Module 3 – Preschool Developmental Surveillance
- Module 4 – School Health
- Module 5 – Special Needs
- Module 6 – New-born Hearing
- Module 7 – Influenza

This report draws on the information in Modules 1 and 4 and is supplemented with information from the Registrar General's birth registrations and Northern Ireland Maternity System (NIMATS) to provide a statistical profile.

The **General Register Office for Northern Ireland (GRONI)** is the part of the Northern Ireland Statistics and Research Agency (NISRA) that administers civil registration e.g. the registration of births, deaths, marriages through District Registration Offices. The Registrar General has additional statutory duties relating to the production and publication of vital statistics. Demography and Methodology Branch within NISRA manage these duties in partnership with GRONI.

(Source: Registrar General Northern Ireland Annual Report 2011)

The **Northern Ireland Maternity System (NIMATs)** contains a range of demographic and clinical information on mothers and infants. It captures data relating to the current complete maternity process, but also contains details about the mother's past medical and obstetric history. It is a key source for data on birth numbers, interventions, maternal risk factors, birth weights, maternal smoking, BMI and breastfeeding on discharge. NIMATs is available in all five Trust areas and is available through the data warehouse. As a result of ongoing work, data coverage and completeness on NIMATs has improved in recent years.

Note:

1. **Births are presented using all of the above sources, and therefore may not agree. For example, births provided by NISRA are based on the number of births registered with a District Registrar in any year. It is likely that some births occurring in a year may not be registered until the following year and therefore the reason for any differences.**

Comparative data (United Kingdom and Republic of Ireland)

		Year/Currency		England	Wales	Scotland	NI	RoI
1	Live Births ¹	2021 (n)		595,948	28,781	47,786	22,071	58,443
		2020 (n)		585,195	28,638	46,809	20,815	55,959
		2019 (n)		610,505	29,704	49,863	22,447	59,796
2	Still births numbers and rates per 1,000 live and still births ²	2021 (n)		2,451	126	180	89	N/A
		2020 (n)		2,231	127	198	69	219
		2019 (n)		2,346	138	174	67	223
		2021 (rate)		4.1	4.4	3.8	4.0	N/A
		2020 (rate)		3.8	4.4	4.2	3.3	3.8
		2019 (rate)		3.8	4.6	3.5	3.0	3.7
3	Infant mortality (deaths in first year) – numbers and rates per 1,000 live births ³	2021 (n)		2,374	115	186	100	180
		2020 (n)		2,249	121	146	93	153
		2019 (n)		2,413	120	165	112	190
		2021 (rate)		4.0	4.0	3.9	4.5	3.1
		2020 (rate)		3.8	4.2	3.1	4.4	2.7
		2019 (rate)		4.0	4.0	3.3	5.0	3.2
4	Fertility rate (TPFR) ⁴	2021 (rate)		1.55	1.50	1.31	1.81	1.7
		2020 (rate)		1.59	1.47	1.29	1.71	1.6
		2019 (rate)		1.66	1.54	1.37	1.82	1.7
5	Live births to teenage mothers under twenty years ⁵	2021 (n)		12,928	816	1,043	474	699
		2020 (n)		14,917	1,021	1,281	489	830
		2019 (n)		16,587	1,129	1,449	631	864
		2021 (rate/1,000 aged 15-19 years)		8.24	9.65	7.53	8.56	4.4
		2020 (rate/1,000 aged 15-19 years)		9.85	12.17	9.29	9.03	5.2
		2019 (rate/1,000 aged 15-19 years)		11.04	13.59	10.52	11.61	5.5
6	Multiple birth maternities (% of all maternities) ⁶	2021		13.7		1.4	1.3	N/A
		2020		1.44		1.5	1.5	1.8
		2019		1.53		1.5	1.4	1.8
7	Risk factors ⁷	% mothers who smoked at time of booking appointment	2021/22	9.1 (at delivery)	14.8 (at initial assessment, 2021)	12.1 (2021, % of pregnancies booked)	11.3	N/A
			2020/21	9.6 (at delivery)	17.3 (at initial assessment, 2020)	12.6 (2020, % of pregnancies booked)		
			2019/20	10.4 (at delivery)	17.3 (at initial assessment, 2019)	13.9	13.1	N/A
8	Caesarean Sections (% of deliveries / births) ⁸	2021/22		36.0 (deliveries)	31.4 (deliveries, 2021)	37.6 ^P (live singleton births)	35.7 (births)	N/A
		2020/21		33.5 (deliveries)	29.0 (deliveries, 2020)	36.0 (live singleton births)	33.5 (births)	
		2019/20		31.2 (deliveries)	28.4 (deliveries, 2019)	34.5 (live singleton births)	32.9 (births)	34.9 (live births, 2019)
		2021		6.4 (valid %)	6.1 (valid %)	5.2 ^P (2021/22, singleton, valid %)	5.9 (valid %)	N/A
		2020		6.5 (valid %)	6.5 (valid %)	5.2 (2020/21, singleton, valid %)	5.6 (valid %)	
		2019		6.8 (valid %)	6.5 (valid %)	5.5 (2019/20, singleton, valid %)	6.2 (valid %)	5.6
9	Low Birth weight (live births only) ⁹	% live births less than 2,500g		6.4 (valid %)	6.1 (valid %)	5.2 ^P (2021/22, singleton, valid %)	5.9 (valid %)	N/A
		2020		6.5 (valid %)	6.5 (valid %)	5.2 (2020/21, singleton, valid %)	5.6 (valid %)	
		2019		6.8 (valid %)	6.5 (valid %)	5.5 (2019/20, singleton, valid %)	6.2 (valid %)	5.6

P: provisional

N/A: not available

For references see over

References

¹ United Kingdom home countries: Office for National Statistics (ONS), Vital Statistics: Population and Health Reference Tables <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/vitalstatisticspopulationandhealthreferenceables>

For the years shown, figures for Scotland represent country of occurrence. Figures for England, Wales and Northern Ireland represent the area of usual residence of the mother. Rates have been calculated using the most up-to-date population estimates when the statistics were published.

Republic of Ireland: Central Statistics Office, Vital Statistics Annual Reports/Yearly Summaries <http://www.cso.ie/en/statistics/birthsdeathsandmarriages/>

² Stillbirth rate is the number of stillbirths per 1,000 total births (live and still)

Sources as ¹

Republic of Ireland: National Perinatal Reporting System, Annual Reports, Healthcare Pricing Office <http://www.hpo.ie/> and ad hoc requests to HPO

Still birth numbers cited by CSO vary substantially from those in NPRS. The CSO 2012 annual report on Vital Statistics for 2012

<http://www.cso.ie/en/media/csoie/releasespublications/documents/vitalstats/2012/annualreport2012.pdf> says 'In recent years, the numbers of stillbirths according to NPRS reports have been higher than the numbers published in these reports. This suggests that there is some non-registration of stillbirths and that caution should be taken in interpreting the statistics on stillbirths in these reports'. For this reason, the NPRS data is shown.

Stillbirth rates are calculated per 1,000 births (total births).

³ Infant mortality – death within the first year of life expressed as numbers registered in a specific year and as rate per 1000 live births that year.

United Kingdom home countries: Sources as ¹

The infant mortality rates for Northern Ireland represent the rate per 1,000 live births including non-Northern Ireland resident births.

Republic of Ireland: Central Statistics Office, Vital Statistics Annual Reports/Yearly Summaries <http://www.cso.ie/en/statistics/birthsdeathsandmarriages/>

⁴ Total Period Fertility rate is defined as:

UK: Total Fertility Rate (TFR) is the average number of live children that a group of women would bear if they experienced the age-specific fertility rates of the calendar year in question throughout their childbearing lifespan.

RoI: Total Period Fertility Rate (TPFR) gives the theoretical average number of children who would be born alive to a woman during her lifetime if she were to pass through her childbearing years conforming to the age-specific fertility rates of a given year.

Sources as ¹

Republic of Ireland: NPRS – as ²

⁵ England: ONS

Up to 2016:

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/livebirths/datasets/birthsbyareaofusualresidenceofmotheruk>

2017 onwards: <https://www.nomisweb.co.uk/query/construct/summary.asp?mode=construct&version=0&dataset=203>

Wales: Maternity and Birth Statistics, Welsh Government <https://gov.wales/maternity-and-birth-statistics>

Scotland: National Records of Scotland <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events>

Northern Ireland: Northern Ireland Statistics and Research Agency

<https://www.nisra.gov.uk/statistics/births-deaths-and-marriages/registrars-general-annual-report>

Republic of Ireland: Central Statistics Office, Vital Statistics Annual Reports/Yearly Summaries

<http://www.cso.ie/en/statistics/birthsdeathsandmarriages/>

Population Estimates (all UK countries): ONS

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwales/scotlandandnorthernireland>

⁶ England and Wales: ONS

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/livebirths/datasets/birthcharacteristicsinenglandandwales>

Scotland: National Records of Scotland <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events>

Northern Ireland: Northern Ireland Statistics and Research Agency, Registrar General Annual Reports

<https://www.nisra.gov.uk/statistics/births-deaths-and-marriages/registrars-general-annual-report>

Republic of Ireland: NPRS – as ²

Population Estimates (all UK countries): ONS

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwales/scotlandandnorthernireland>

⁷ England: NHS Digital, Statistics on Women's Smoking Status at Time of Delivery

<https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-women-s-smoking-status-at-time-of-delivery-england>

Wales: Maternity and Birth Statistics, Welsh Government <https://gov.wales/maternity-and-birth-statistics>

Scotland: "Births in Scotland", Public Health Scotland (for 2019/20 data only) <https://www.publichealthscotland.scot/publications/> Since 2020, data is provided from the Antenatal Booking Collection (ABC) publication "Antenatal Booking in Scotland" and is presented by calendar year rather than financial year.

Data excludes women delivering at home or in non-NHS hospitals

Northern Ireland: Child Health System data as per this document – see Section 6

⁸ Caesarean rates can be quoted using deliveries (i.e. mothers who delivered) or births. The impact is marginal but given that multiple births are more likely to be delivered by caesarean the percentage rate for births will be slightly higher than that for deliveries. The method used for each region is shown in the table. Within the UK, these rates are derived from hospital activity systems.

England: NHS Digital, NHS Maternity Statistics, England <https://digital.nhs.uk/data-and-information/publications/statistical/nhs-maternity-statistics>

Scotland: Public Health Scotland <https://www.publichealthscotland.scot/publications/>

Wales: Maternity and Birth Statistics, Welsh Government <https://gov.wales/maternity-and-birth-statistics>

Northern Ireland: Child Health System data as per this document – see Section 8

Republic of Ireland: NPRS – as ²

⁹ England and Wales: ONS

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/livebirths/datasets/birthcharacteristicsinenglandandwales>

Scotland: Public Health Scotland <https://www.publichealthscotland.scot/publications/>

Northern Ireland: Child Health System data via Public Health Agency (Health Intelligence Unit)

Republic of Ireland: NPRS – as ²

Further information for European countries is available from reports produced by the Euro-Peristat Network:

<https://www.europeristat.com/index.php/reports.html>

PLEASE NOTE THAT THE QUALITY AND COVERAGE OF DATA ABOVE MAY HAVE BEEN AFFECTED BY THE COVID-19 PANDEMIC AND SO SHOULD BE INTERPRETED WITH CAUTION

Section 1: Trends in Births

Key Points

- There were 22,160 registered births to Northern Ireland residents in 2021 with a birth rate of 11.6 per thousand (2020=11.0, 2019=11.9, 2018=12.1). There were 89 registered still births to Northern Ireland residents in 2021. *[Page 9]*
- The live birth rate (crude) (11.6) is the highest across the four UK countries, but is lower than the equivalent rate for Republic of Ireland (2021=11.7). *[Page 8]*
- The number of births in Northern Ireland to non-NI resident mothers continued to decrease. In 2021, there were 87 such births – the lowest number in the last ten years (will be impacted by COVID-19 pandemic). *[Page 9]*
- In 2021, the highest number of registered births was recorded to residents in the Northern Trust area (5,189), with the lowest number in the Western Trust (3,669). *[Page 10]*
- The number of births in the last ten years (2012 to 2021) showed a decrease in all Trust areas (NI decreased by 12.7%). *[Page 10]*
- In 2021, the percentage of live births to mothers whose country of birth was not Northern Ireland was 17.4%. *[Page 9]*
- In the next twenty years, the number of registered resident births in Northern Ireland is projected to decrease from 22,160 in 2021 to 21,940 in 2041 (-1.0%). The Western Trust area is projected to have the largest decrease (-10.4%), with the Southern Trust showing an increase (+10.4%). The number of births in Belfast, Northern and South Eastern Trusts is projected to decrease in the next twenty years by 3.2%, 4.1% and 0.3% respectively. *[Page 12]*

Table 1.1: Trends in live births/birth rate across the United Kingdom and Republic of Ireland, 1981 - 2021

Year	Number of Live Births					Crude Birth Rate (Live Births per 1,000 population)				
	Northern Ireland	England	Scotland	Wales	Republic of Ireland	Northern Ireland	England	Scotland	Wales	Republic of Ireland
2021	22,071	595,948	47,786	28,781	58,443	11.6	10.5	8.7	9.3	11.7
2016	24,076	663,157	54,488	32,936	63,841	12.9	12.0	10.1	10.6	13.5
2011	25,273	688,120	58,590	35,598	74,033	13.9	13.0	11.1	11.6	16.2
2006	23,272	635,748	55,690	33,628	65,425	13.4	12.5	10.8	11.3	15.4
2001	21,962	563,744	52,527	30,616	57,854	13.0	11.4	10.4	10.5	15.0
1996	24,382	614,184	59,296	34,894	50,655	14.7	12.7	11.6	12.1	14.0
1991	26,028	660,806	67,024	38,079	52,718	16.2	13.8	13.2	13.3	15.0
1986	27,975	623,609	65,812	37,038	61,620	17.8	13.2	12.9	13.2	17.4
1981	27,166	598,163	69,054	35,842	72,158	17.6	12.8	13.3	12.7	21.0

Source:

For United Kingdom: Office for National Statistics, Vital Statistics in the UK: births, deaths and marriages

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/vitalstatisticspopulationandhealthreferencetables>

For the years shown, figures for Scotland represent country of occurrence. Figures for England, Wales and Northern Ireland represent the area of usual residence of the mother

Live birth figures from 1981 for Northern Ireland represent resident births only

Rates have been calculated using the most up-to-date population estimates when the statistics were published

For Republic of Ireland: Central Statistics Office, StatBank database [Data \(cso.ie\)](https://data.cso.ie)

2021 data is provisional

Table 1.2: Trends in births (live and still) registered in Northern Ireland, 2012 – 2021

		Year of birth (registered)									
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total resident births (live and still)		25,375	24,387	24,475	24,291	24,158	23,177	22,908	22,514	20,884	22,160
Total resident crude birth rate / 1,000 population		13.9	13.3	13.3	13.1	12.9	12.3	12.1	11.9	11.0	11.6
Birth status (NI maternal residents)	Live	25,269	24,277	24,394	24,215	24,076	23,075	22,829	22,447	20,815	22,071
	Still	106	110	81	76	82	102	79	67	69	89
	All infants	25,375	24,387	24,475	24,291	24,158	23,177	22,908	22,514	20,884	22,160
Born to NI-resident / non-resident mothers	Resident	25,375	24,387	24,475	24,291	24,158	23,177	22,908	22,514	20,884	22,160
	Non-resident	354	261	221	210	186	173	152	140	115	87
	All infants	25,729	24,648	24,696	24,501	24,344	23,350	23,060	22,654	20,999	22,247
Country of birth of mother (live births only)	NI	20,819	19,937	20,129	19,968	19,882	19,031	18,804	18,374	17,172	18,235
	Rest of UK	1,293	1,271	1,170	1,186	1,052	1,051	985	1,072	956	956
	Republic of Ireland	698	626	626	635	618	572	608	597	548	596
	A8 countries	1,202	1,257	1,258	1,205	1,184	1,041	995	986	754	731
	All other countries	1,257	1,186	1,211	1,221	1,340	1,380	1,437	1,418	1,385	1,553
	Not stated	0	0	0	0	0	0	0	0	0	0
	All infants	25,269	24,277	24,394	24,215	24,076	23,075	22,829	22,447	20,815	22,071
Place of birth (live births only)	Altnagelvin	2,741	2,554	2,695	2,675	2,588	2,528	2,496	2,422	2,333	2,379
	Antrim	2,640	2,638	2,820	2,953	2,970	2,910	2,816	2,933	3,164	2,896
	Causeway	1,413	1,362	1,204	1,086	1,033	943	903	895	532	862
	Craigavon	4,170	3,993	4,015	4,040	4,150	4,028	3,911	3,876	3,233	3,240
	Daisy Hill	1,814	1,701	1,806	1,794	1,760	1,745	1,624	1,656	1,803	1,956
	Downe	97	86	57	81	46	42	30	13	2	2
	Lagan Valley	213	206	178	193	170	107	87	96	75	97
	Mater	1,194	437	191	196	237	262	291	303	93	0
	Royal	5,584	5,927	5,995	5,748	5,630	5,137	5,126	4,861	4,546	5,051
	SWAH/Erne	1,226	1,217	1,233	1,220	1,252	1,233	1,252	1,197	1,136	1,258
	Ulster	4,086	4,036	4,119	4,131	4,140	4,028	4,183	4,059	3,760	4,153
	Other hospitals	1	0	1	5	2	3	1	3	2	5
	Home	72	105	67	75	82	89	93	111	117	154
	Other locations	18	15	13	18	16	20	16	22	19	18
	All places of birth	25,269	24,277	24,394	24,215	24,076	23,075	22,829	22,447	20,815	22,071

Table 1.2 continued: Trends in births (live and still) registered in Northern Ireland, 2012 - 2021

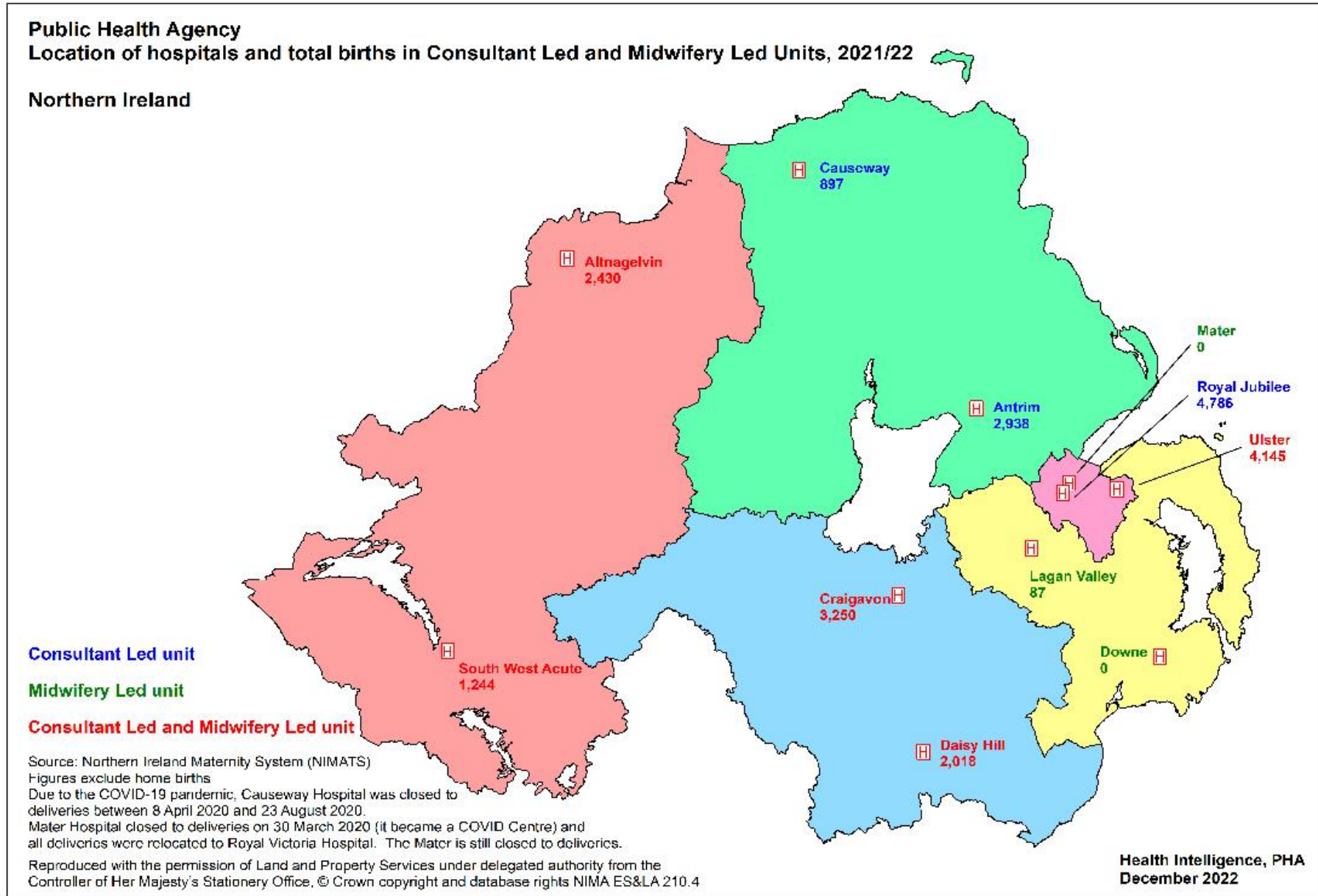
		Year of birth (registered)									
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total resident births (live and still)		25,375	24,387	24,475	24,291	24,158	23,177	22,908	22,514	20,884	22,160
Total resident crude birth rate / 1,000 population		13.9	13.3	13.3	13.1	12.9	12.3	12.1	11.9	11.0	11.6
Local Government District of residence of mother	Antrim and Newtownabbey	1,896	1,744	1,779	1,799	1,767	1,674	1,634	1,670	1,563	1,592
	Ards and North Down	1,796	1,739	1,748	1,756	1,657	1,566	1,537	1,537	1,372	1,486
	Armagh City, Banbridge and Craigavon	3,139	2,884	2,931	2,990	2,947	2,877	2,849	2,751	2,511	2,647
	Belfast	4,938	4,743	4,641	4,601	4,612	4,212	4,277	4,216	3,668	4,185
	Causeway Coast and Glens	1,768	1,771	1,712	1,726	1,663	1,632	1,524	1,514	1,461	1,479
	Derry City and Strabane	2,155	2,066	2,104	2,067	2,009	1,912	1,906	1,872	1,769	1,883
	Fermanagh and Omagh	1,549	1,461	1,513	1,418	1,517	1,508	1,500	1,421	1,338	1,403
	Lisburn and Castlereagh	1,767	1,740	1,757	1,722	1,752	1,727	1,798	1,727	1,659	1,764
	Mid and East Antrim	1,569	1,535	1,596	1,513	1,577	1,522	1,452	1,469	1,377	1,357
	Mid Ulster	2,195	2,219	2,142	2,181	2,155	2,133	2,060	2,092	1,991	2,051
	Newry, Mourne and Down	2,603	2,485	2,552	2,518	2,502	2,414	2,371	2,245	2,175	2,313
		All infants	25,375	24,387	24,475	24,291	24,158	23,177	22,908	22,514	20,884
Trust of residence of mother (NI resident mothers only)	Belfast	4,956	4,786	4,718	4,665	4,663	4,345	4,435	4,347	3,864	4,339
	Northern	5,986	5,901	5,895	5,776	5,764	5,565	5,308	5,400	5,124	5,189
	South Eastern	4,547	4,374	4,338	4,333	4,249	4,033	4,074	3,911	3,597	3,953
	Southern	5,721	5,384	5,477	5,547	5,527	5,376	5,265	5,159	4,797	5,010
	Western	4,165	3,942	4,047	3,970	3,955	3,858	3,826	3,697	3,502	3,669
	All infants	25,375	24,387	24,475	24,291	24,158	23,177	22,908	22,514	20,884	22,160

Source: NISRA <https://www.nisra.gov.uk/statistics/births-deaths-and-marriages/births>

Due to the COVID-19 pandemic, Causeway Hospital was closed to deliveries between 8 April 2020 and 23 August 2020. Mater Hospital closed to deliveries on 30 March 2020 (it became a COVID Centre) and all deliveries were relocated to Royal Victoria Hospital. The Mater is still closed to deliveries.

A8 countries are the eight central and eastern European countries that joined the EU in May 2004 - Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia

Figure 1.1: Location of hospitals and number of births in Consultant Led Units/Midwifery Led Units, Northern Ireland, 2021/22



Projected births

Table 1.3: Resident registered births by Health Trust and Local Government District, 2019 - 2021 and projected to 2041

No. of resident births		Registered births			2018 based projections			
		2019	2020	2021	2026/27	2031/32	2036/37	2041/42
Northern Ireland		22,514	20,884	22,160	21,142	20,716	21,160	21,940
Health Trust of residence	Belfast	4,347	3,864	4,339	4,125	4,009	4,074	4,202
	Northern	5,400	5,124	5,189	4,973	4,810	4,846	4,978
	South Eastern	3,911	3,597	3,953	3,784	3,721	3,797	3,942
	Southern	5,159	4,797	5,010	4,925	4,963	5,217	5,529
	Western	3,697	3,502	3,669	3,335	3,213	3,226	3,289
	Northern Ireland	22,514	20,884	22,160	21,142	20,716	21,160	21,940
Local Government District	Antrim and Newtownabbey	1,670	1,563	1,592	1,522	1,481	1,499	1,545
	Ards and North Down	1,537	1,372	1,486	1,439	1,402	1,413	1,446
	Armagh City, Banbridge and Craigavon	2,751	2,511	2,647	2,675	2,690	2,828	3,002
	Belfast	4,216	3,668	4,185	4,002	3,880	3,936	4,042
	Causeway Coast and Glens	1,514	1,461	1,479	1,396	1,313	1,297	1,310
	Derry City and Strabane	1,872	1,769	1,883	1,719	1,646	1,643	1,669
	Fermanagh and Omagh	1,421	1,338	1,403	1,254	1,222	1,237	1,269
	Lisburn and Castlereagh	1,727	1,659	1,764	1,672	1,675	1,741	1,857
	Mid and East Antrim	1,469	1,377	1,357	1,383	1,347	1,356	1,390
	Mid Ulster	2,092	1,991	2,051	1,893	1,887	1,964	2,071
	Newry, Mourne and Down	2,245	2,175	2,313	2,187	2,173	2,246	2,339
	Northern Ireland	22,514	20,884	22,160	21,142	20,716	21,160	21,940

Source: Northern Ireland Statistics and Research Agency

<https://www.nisra.gov.uk/statistics/births-deaths-and-marriages/births>

NISRA (Components of Change) <https://www.nisra.gov.uk/sites/nisra.gov.uk/files/publications/SNPP18-Methodology.pdf>

Table 1.4: Main providers of delivery services by Local Government District of residence of mother, 2021/22

Local Government District	Main provider	Second provider	Third provider	All other providers
Antrim and Newtownabbey	Antrim (53.1%)	Royal (40.0%)	Ulster (5.5%)	1.3%
Ards and North Down	Ulster (95.8%)	Royal (3.8%)	-	<1%
Armagh City, Banbridge and Craigavon	Craigavon (73.4%)	Daisy Hill (20.4%)	Royal (3.7%)	2.6%
Belfast	Royal (75.9%)	Ulster (22.9%)	-	1.2%
Causeway Coast and Glens	Causeway (50.3%)	Altnagelvin (27.2%)	Antrim (21.0%)	1.5%
Derry City and Strabane	Altnagelvin (96.1%)	SWAH (2.7%)	-	1.2%
Fermanagh and Omagh	SWAH (82.8%)	Altnagelvin (10.4%)	Craigavon (4.1%)	2.6%
Lisburn and Castlereagh	Ulster (53.2%)	Royal (34.3%)	Craigavon (6.2%)	6.3%
Mid and East Antrim	Antrim (72.8%)	Royal (20.0%)	Ulster (4.0%)	3.2%
Mid Ulster	Craigavon (43.6%)	Antrim (36.8%)	Daisy Hill (5.6%)	14.0%
Newry, Mourne and Down	Daisy Hill (56.3%)	Ulster (30.6%)	Craigavon (7.7%)	5.3%

Source: NIMATS

Data excludes home births and births where mother's Local Government District of residence is unknown

Percentages may not add to 100% due to rounding

Due to the COVID-19 pandemic, Mater Hospital (Belfast) closed to deliveries on 30 March 2020 (it became a COVID Centre) and all deliveries were relocated to Royal Victoria Hospital. The Mater is still closed to deliveries.

Table 1.5: Main providers of delivery services by Trust of residence of mother, 2021/22

Trust	Main provider	Second provider	Third provider	All other providers
Belfast	Royal (68.1%)	Ulster (30.8%)	-	1.1%
Northern	Antrim (55.7%)	Royal (18.2%)	Causeway (17.5%)	8.6%
South Eastern	Ulster (68.7%)	Royal (23.1%)	Craigavon (3.1%)	5.1%
Southern	Craigavon (56.2%)	Daisy Hill (37.1%)	Royal (3.3%)	3.4%
Western	Altnagelvin (64.1%)	SWAH (32.5%)	-	3.5%

Source: NIMATS

Data excludes home births and births where mother's Trust of residence is unknown

Percentages may not add to 100% due to rounding

Due to the COVID-19 pandemic, Mater Hospital (Belfast) closed to deliveries on 30 March 2020 (it became a COVID Centre) and all deliveries were relocated to Royal Victoria Hospital. The Mater is still closed to deliveries.

Section 2: Fertility Rates

Key Points

- Total Period Fertility Rates (TPFR) show that fertility has not been at replacement level (2.10 children per “average woman”) since 1992. Replacement level is taken to be the level at which the population would replace itself, ignoring migration. In 2021 fertility levels were below replacement level at 1.81 children; however, this is still higher than the record fertility low of 1.75 in 2001. [Page 15]
- Of the four regions of the United Kingdom, Northern Ireland had the highest total fertility rate (1.81 in 2021). Scotland had the lowest at 1.31. [Page 14]
- Age specific fertility rates have remained fairly steady over the last ten years in most age groups with small increases in the older age ranges and overall decreases in the younger age groups. This shift to women having children later in life is clearly shown in Figure 2.4. [Page 16]
- In 2016, there was a slight increase in the teenage fertility rate (13.8), however the rate has been decreasing since then to 8.5 in 2021. (The lowest number of registered live teenage births on record occurred during 2021, NI = 474). The primary driver in this reduction in births is the decline in the fertility rate in this age group e.g. 29.2 per 1,000 population in 1990 to 8.5 in 2021. [Page 17]

Table 2.1: UK/Rol fertility rates 1992 - 2021, and projections 2026 – 2041

Total Fertility Rate	1992	1997	2002	2007	2012	2017	2018	2019	2020	2021	2020 based projections			
											2026/27	2031/32	2036/37	2041/42
Northern Ireland	2.16	1.95	1.81	1.90	2.02	1.87	1.85	1.82	1.71	1.81	1.68	1.68	1.69	1.72
England	1.79	1.73	1.64	1.88	1.94	1.76	1.70	1.66	1.59	1.55	1.56	1.56	1.57	1.60
Wales	1.87	1.81	1.64	1.86	1.88	1.69	1.63	1.54	1.47	1.50	1.44	1.44	1.44	1.46
Scotland	1.67	1.58	1.47	1.70	1.67	1.47	1.42	1.37	1.29	1.31	1.26	1.26	1.27	1.29
UK	1.79	1.72	1.63	1.87	1.92	1.74	1.68	1.63	1.56	1.53	1.53	1.54	1.55	1.58
Total Period Fertility Rate														
Republic of Ireland	1.99	1.94	1.98	2.03	1.98	1.77	1.75	1.71	1.63	1.70	-	-	-	-

Source:

United Kingdom home countries: Office for National Statistics (ONS), Vital statistics in the UK: births, deaths and marriages, February 2023

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/vitalstatisticspopulationandhealthreferencetables>

Republic of Ireland: Central Statistics Office, Vital Statistics Annual Reports/Yearly Summaries

<http://www.cso.ie/en/statistics/birthsdeathsandmarriages/>

2020 based projections are fertility rates per 1,000 females (principal projection)

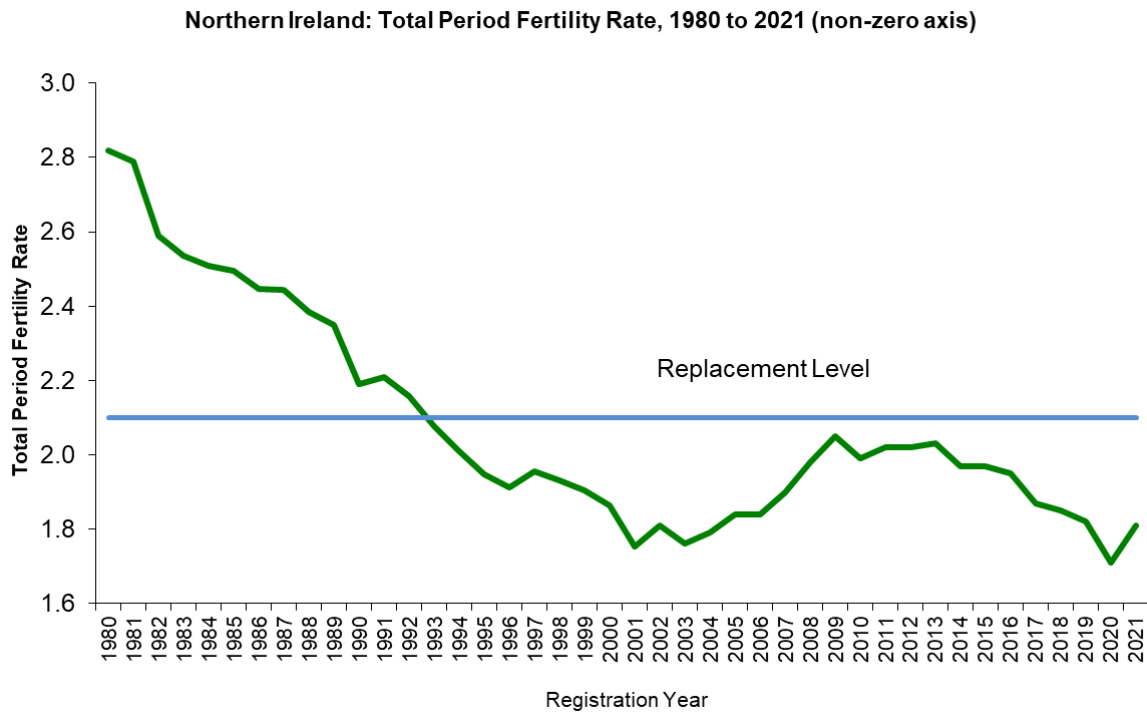
<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datalist?filter=datasets>

UK: Total Fertility Rate (TFR) is the average number of live children that a group of women would bear if they experienced the age-specific fertility rates of the calendar year in question throughout their childbearing lifespan

Rol: The Total Period Fertility Rate (TPFR) gives the theoretical average number of children who would be born alive to a woman during her lifetime if she were to pass through her childbearing years conforming to the age-specific fertility rates of a given year

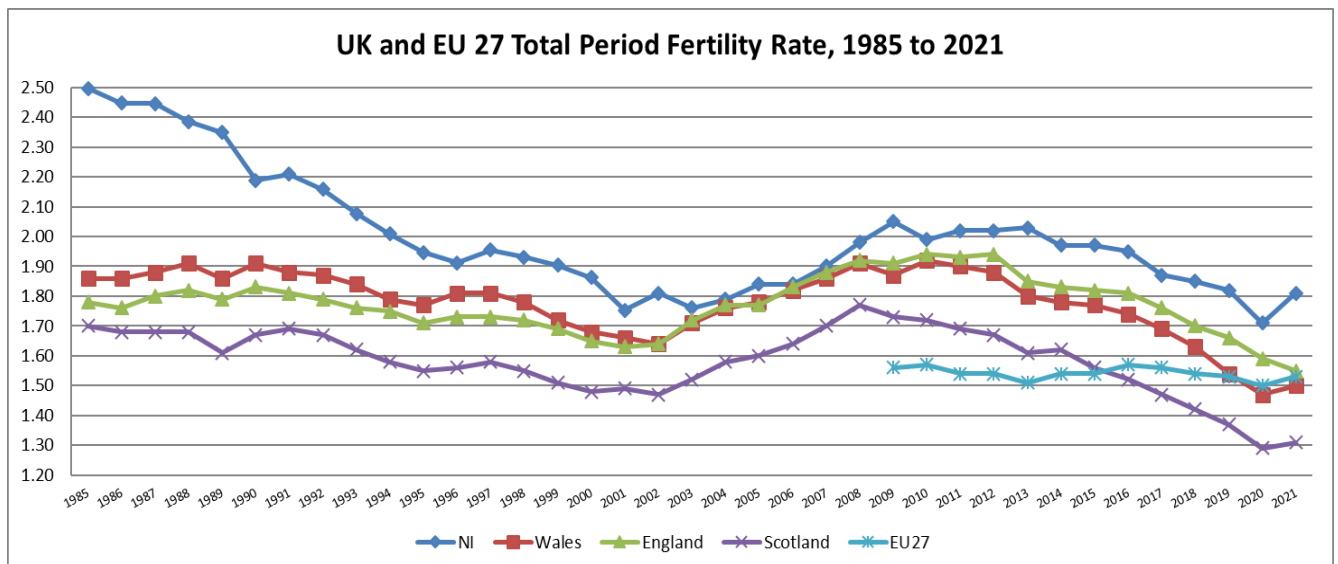
Rol projections data not produced in this format

Figure 2.1: Total Period Fertility Rate (TPFR), Northern Ireland, 1980 – 2021



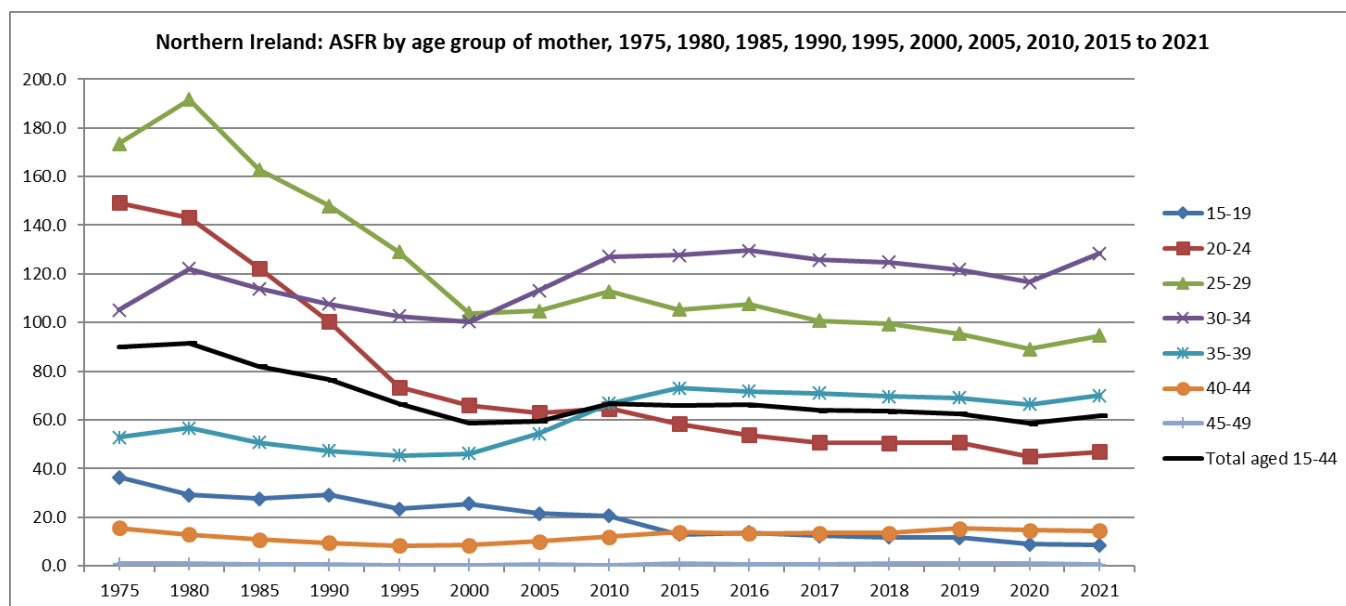
Source: NISRA <https://www.nisra.gov.uk/statistics/births-deaths-and-marriages/registrars-general-annual-report>
 The line at a TPFR of 2.1 represents the 'replacement level' which is the number of births that are required to maintain a steady Northern Ireland population taking account of this population's mortality rates but ignoring any outside effects of population movement.

Figure 2.2: UK and EU total period fertility rate, 1985 to 2021



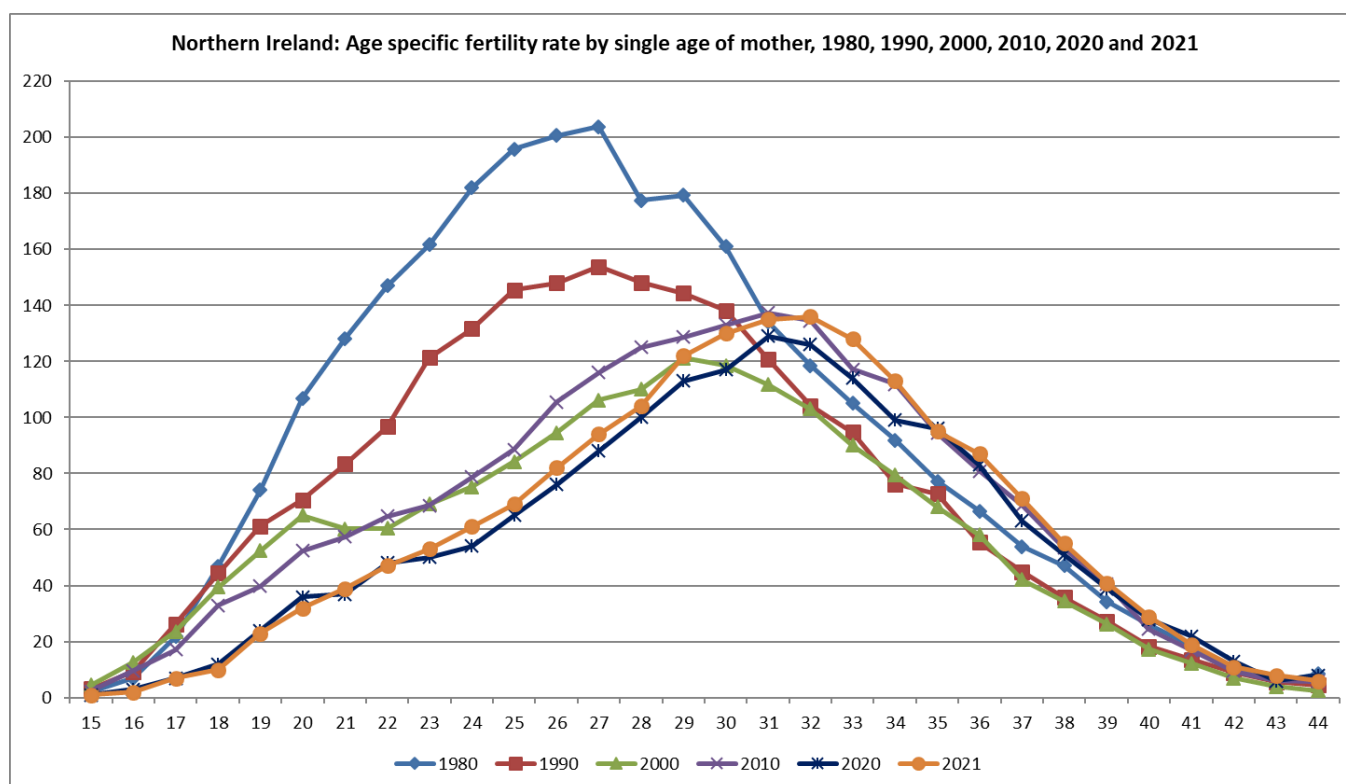
Source: NISRA <https://www.nisra.gov.uk/statistics/births-deaths-and-marriages/registrars-general-annual-report>
 United Kingdom home countries: Office for National Statistics (ONS), Vital statistics in the UK: births, deaths and marriages, February 2023
<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/vitalstatisticspopulationandhealthreferencetables>
 Eurostat (European Commission) - <https://ec.europa.eu/eurostat/web/main/data/database>
 EU 27 refers to the 27 member states of the European Union as at 1 February 2020 (excluding United Kingdom). Data only available from 2009. Rate refers to the mean number of children that would be born alive to a woman during her lifetime if she were to survive and pass through her childbearing years conforming to the fertility rates by age of a given year.

Figure 2.3: Age-Specific Fertility Rates by age-group of mother, Northern Ireland, 1975, 1980, 1985, 1990, 1995, 2000, 2005, 2010, 2015 to 2021



Source: NISRA <https://www.nisra.gov.uk/statistics/births-deaths-and-marriages/registrars-general-annual-report>
 Age-specific fertility rate is the number of live births occurring to a particular woman of a particular age or age group per year, normally expressed per 1,000 women
 Rate for 15-44 includes births for those aged under 15 and over 49

Figure 2.4: Fertility by age of mother 1980, 1990, 2000, 2010, 2020 and 2021



Source: NISRA <https://www.nisra.gov.uk/statistics/births-deaths-and-marriages/registrars-general-annual-report>
 Age-specific fertility rate is the number of live births occurring to a particular woman of a particular age or age group per year, normally expressed per 1,000 women
 Rate for age 15 includes births at younger ages and for age 44 includes births at older ages

Table 2.2: Age-Specific Fertility Rates by age-group of mother, 1975, 1980, 1985, 1990, 1995, 2000, 2005, 2010, 2015 to 2021

Age Group of Mother	Registration Year														
	1975	1980	1985	1990	1995	2000	2005	2010	2015	2016	2017	2018	2019	2020	2021
15-19	36.5	29.2	27.6	29.2	23.4	25.6	21.5	20.5	13.0	13.8	12.4	11.9	11.6	9.0	8.5
20-24	149.3	143.2	122.3	100.4	73.5	66.0	63.0	64.6	58.3	53.9	50.7	50.6	50.8	45.0	46.9
25-29	173.5	191.6	162.9	148.0	129.1	103.9	104.7	112.8	105.4	107.7	100.8	99.4	95.5	89.1	94.7
30-34	105.1	122.1	114.0	107.6	102.7	100.4	113.1	127.1	127.6	129.5	125.7	124.9	121.8	116.7	128.5
35-39	52.9	56.6	50.7	47.4	45.5	46.2	54.3	66.8	73.1	71.8	71.0	69.6	69.1	66.4	70.0
40-44	15.7	12.9	10.8	9.6	8.4	8.5	10.1	12.0	14.0	13.4	13.5	13.5	15.4	14.7	14.4
45-49	1.0	1.0	0.5	0.6	0.4	0.3	0.5	0.4	0.9	0.6	0.8	1.0	0.9	1.0	0.5
Total aged 15-44	90.0	91.6	82.1	76.5	66.6	58.7	59.6	66.7	66.0	66.2	64.0	63.5	62.6	58.5	61.8

Source: NISRA <https://www.nisra.gov.uk/statistics/births-deaths-and-marriages/registrar-general-annual-report>

Age-specific fertility rate is the number of live births occurring to a particular woman of a particular age or age group per year, normally expressed per 1,000 women
Rate for 15-44 includes births for those aged under 15 and over 49

Section 3: Age Profile of Mother

TEENAGERS

Why should we be concerned?

For some young people, teenage parenthood is planned and a positive experience. However, many pregnancies in women aged 16-19 years are unplanned. For example, findings from the National Survey of Sexual Attitudes and Lifestyles (Natsal-3) for Great Britain reported that 11.6% of women aged 16-19 years with a pregnancy in the last year reported that it was planned, 45.2% reported that it was unplanned with 43.2% stating that they were ambivalent.¹ Young people, particularly those under 16, may be considered a group at high-risk for unplanned pregnancy as they are less likely to use or have access to condoms or contraceptives.²

Unplanned pregnancy has been associated with negative social and psychological consequences for both young parents and their children.^{3,4,5,6,7} For young parents these include:

- Poor physical and mental health;
- Poverty - reliance on state benefits or part-time work (if at all), typically lower paid;
- Poorer quality housing;
- Poor educational achievement/career prospects e.g. education may be interrupted as a result of pregnancy or having to withdraw from education completely;
- Social isolation; and
- Further teenage pregnancies i.e. conceiving again relatively quickly.

While the children of teenage parents are at increased risk of:

- Premature birth and low birthweight;
- Stillbirth and infant mortality;
- Hospitalisation for accidental injury;
- Poverty; and
- Poor educational attainment and unemployment in later life.

There is also evidence that the social determinants of health influence adverse adolescent pregnancy outcomes with a 'higher prevalence of poor pregnancy outcomes among socio-economically deprived adolescents compared to their well-off counterparts'.⁸ This may contribute to inter-generational inequalities.

In recent years the number of births to teenage mothers in Northern Ireland has declined. In 2021, 474 live births to mothers under 20 years of age were recorded, a 59% decrease from that recorded a decade ago in 2011 (1,170).⁹ While Health Inequalities and Making Life Better indicators highlight regional improvements in the rates of births to teenage mothers the relative inequality gaps remain, with birth rates to mothers under 20 in the most deprived areas four and a half times that in the least deprived areas.^{10,11}

The 2019 Young Person's Behaviour and Attitudes Survey (YPBAS) found that 3.7% of young people reported having had sexual intercourse, similar to that reported in 2016 (4%) and a decrease from 12% in 2000.^{12,13} Of these, more than three quarters (76.6%) had used contraception, most commonly condoms (87.8%), with

¹ Wellings, Kaye et al. The prevalence of unplanned pregnancy and associated factors in Britain: findings from the third National Survey of Sexual Attitudes and Lifestyles (Natsal-3) The Lancet, 2013 Volume 382, Issue 9907, 1807 – 1816 [http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(13\)62071-1.pdf](http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(13)62071-1.pdf)

² Mason-Jones AJ et al. School-based interventions for preventing HIV, sexually transmitted infections, and pregnancy in adolescents. Cochrane Database of Systematic Reviews 2016, Issue 11. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5461872/pdf/CD006417_0001.pdf

³ Macpherson S. Teenage Pregnancy briefing. Edinburgh: Scottish Parliament Information Centre, 2013. http://www.scottish.parliament.uk/ResearchBriefingsAndFactsheets/S4/SB_13-03.pdf

⁴ Whitaker R et al. Intervention now to eliminate repeat unintended pregnancy in teenagers (INTERUPT): a systematic review of intervention effectiveness and cost-effectiveness, and qualitative and realist synthesis of implementation factors and user engagement. Health Technology Assessment 2016;20(16) <https://njl-admin.nihr.ac.uk/document/download/2003397>

⁵ Public Health England (PHE). A framework for supporting teenage mothers and young fathers. London: PHE, 2019.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/796582/PHE_Young_Parents_Support_Framework_April2019.pdf

⁶ Department for Children, Schools and Families (DCSF). Teenage parents: who cares? A guide to commissioning and delivering maternity services for young parents. Nottingham: DCSF, 2008. <http://webarchive.nationalarchives.gov.uk/20130102182314/https://www.education.gov.uk/publications/eOrderingDownload/Teenage%20parents.pdf>

⁷ Oringanje C et al. Interventions for preventing unintended pregnancies among adolescents. Cochrane Database of Systematic Reviews 2016, Issue 2.

<https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD005215.pub3/epdf/full>

⁸ Arjadj S et al. Social determinants of health and adverse maternal and birth outcomes in adolescent pregnancies: A systematic review and meta-analysis. Paediatr Perinat Epidemiol. 2019 Jan;33(1):88-99.

⁹ Northern Ireland Statistics and Research Agency (NISRA). Registrar General Annual Report 2021. Belfast: NISRA, 2022.

<https://www.nisra.gov.uk/publications/registrar-general-annual-report-2021-births>

¹⁰ Information Analysis Directorate. Health inequalities annual report 2023. Belfast: Department of Health, 2023.

<https://www.health-ni.gov.uk/sites/default/files/publications/health/hscims-report-2023.pdf>

¹¹ Making life better - key indicators progress update 2022. <https://www.health-ni.gov.uk/publications/making-life-better-key-indicators-progress-update-2022>

¹² Information Analysis Directorate. Young person's behaviour and attitudes survey 2019 - sexual health data tables. <https://www.health-ni.gov.uk/publications/young-persons-behaviour-and-attitudes-survey-2019-sexual-health-data-tables>

¹³ Information Analysis Directorate. Young Persons' Behaviour and Attitude Survey 2016 Health Modules. Belfast: Department of Health, 2017.

<https://www.health-ni.gov.uk/sites/default/files/publications/health/bulletin-16-vpbas.pdf>

around a third stating that they had used the pill (32.6%) [note that one in five reported using both condom and pill].¹⁴ However, when asked if they would find it easy to get contraceptives more than half (58.7%) of the young people from Years 11 and 12 said “No” or “Don’t know”, an increase from 50.3% in 2016.¹⁵

Research suggests that receiving sex education mainly from a school-based source is associated with reduced likelihood of unplanned pregnancy and conceptions in young women under 18 years.^{16,17} Relationships and Sexuality Education (RSE) is a statutory component of the primary and post primary curriculum for schools in Northern Ireland.¹⁸ Young people in Years 11 and 12 most commonly report learning about sexual matters and relationships from lessons at school (72.6%).¹⁹ While young people identify parents as a source of information (mothers 43.9% and fathers (23.7%) as sources of information, some report finding it ‘difficult’ to talk about or ‘don’t discuss’ sexual matters with their mother (9.2%, 41.2%) or father (11.5%, 55.1%).

What can be done?

Building on progress from the Sexual Health Promotion and Action Plan 2008-2013 and the subsequent addendum, a new Sexual Health Action Plan for 2023-2026 is currently under development.²⁰ The new action plan will support young people develop safe, healthy relationships and prevent unintended pregnancy through actions including:

- Promoting a culture of openness about sexual and reproductive health, safety and wellbeing which encourages respect and positive attitudes for all;
- Ensuring evidence-based sexual health, consent and relationship information is available to school-aged children, adolescents and young adults; and
- Promoting contraceptive services to target populations, including greater availability of emergency and bridging contraception and the availability of free condoms in the community.

OLDER MOTHERS

Why should we be concerned?

Fertility rates in Northern Ireland show that women are postponing having children until later in life (Sections 2 and 3). This is likely due to advances in assisted conception technologies e.g. IVF which allows women of advanced age to conceive, improvements in women’s educational/professional outlook and the availability of contraception.

However, pregnancies in older women can be complicated by:

- Greater risk of problems in pregnancy e.g. diabetes, hypertension, pre-eclampsia
- General age-related health conditions affecting pregnancy e.g. diabetes, obesity
- Higher rate of multiple births

The health conditions above can cause other problems:

- Risk of miscarriage or stillbirth
- Risk of having a premature birth
- Infant born with a low birthweight
- Increased risk of complications during labour/delivery e.g. needing to deliver by Caesarean Section
- Birth defects in infants.

What can be done?

The Royal College of Obstetricians and Gynaecologists²¹ suggest that women be advised of the increased risk of delaying pregnancy, whether that be the possible complications to mother and infant or increased infertility in older women.

¹⁴ Information Analysis Directorate. Young Person’s Behaviour and Attitudes Survey (YPBAS) 2019 Sexual Health Data Tables. Belfast: Department of Health, 2022. <https://www.health-ni.gov.uk/publications/young-persons-behaviour-and-attitudes-survey-2019-sexual-health-data-tables> - Condom (67.4%), The pill (12.2%) and Both a condom and the pill (20.3%)

¹⁵ Information Analysis Directorate, Public Health Information and Research Branch (PHIRB). Personal email communication. YPBAS 2016 and 2019 analysis. 23 April 2021.

¹⁶ Department of Health. Sexual Health Promotion Strategy and Action Plan (2008 – 2013) and Addendum. <https://www.health-ni.gov.uk/publications/sexual-health-promotion-strategy-and-information>

¹⁷ Wellings K et al. Changes in conceptions in women younger than 18 years and the circumstances of young mothers in England in 2000–12: an observational study The Lancet 2016, Volume 388, Issue 10044, 586 – 595. [http://thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(16\)30449-4.pdf](http://thelancet.com/pdfs/journals/lancet/PIIS0140-6736(16)30449-4.pdf)

¹⁸ Council for the Curriculum, Examinations and Assessments (CCEA) <https://ccea.org.uk/learning-resources/relationships-and-sexuality-education-rse>

¹⁹ Department of Health. Young Persons’ Behaviour and Attitudes Survey 2019. Belfast: Northern Ireland Statistics and Research Agency (NISRA), 2022. <https://www.health-ni.gov.uk/publications/young-persons-behaviour-and-attitudes-survey-2019-sexual-health-data-tables>

²⁰ Department of Health. Sexual Health Promotion Strategy and Action Plan (2008 – 2013) and Addendum. <https://www.health-ni.gov.uk/publications/sexual-health-promotion-strategy-and-information>

²¹ Royal College of Obstetricians and Gynaecologists, “Reproductive Ageing” (Scientific Impact Paper No. 24 January 2011, updated March 2022) https://www.rcog.org.uk/globalassets/documents/guidelines/scientific-impact-papers/sip_24.pdf

Key Points

- In 2021/22, births to teenage mothers represented 2.1% of all births. [Page 20]
- Following a year on year increase in the proportion of births to older mothers (aged 40+), the percentage decreased slightly in 2016/17 and 2017/18, with small increases since 2018/19. In 2021/22, 4.6% of all births were to older mothers. [Page 20]
- Based on 2017 deprivation measures, the proportion of births to teenage mothers ranged from 3.7% in the most deprived areas (2020/21 = 4.7%, 2019/20 = 5.2%) to 0.8% in the least deprived (2020/21 = 0.8%, 2019/20 = 1.1%). The opposite can be seen in the proportion of births to older mothers (40+), increasing from 3.4% in the most deprived areas (2020/21 = 3.8%, 2019/20 = 3.3%) to 6.2% in the least deprived areas (2020/21 = 5.0%, 2019/20 = 6.3%). [Page 23]
- Data for 2019/20–2021/22, at District Electoral Area level, reveals that Macedon DEA (Antrim and Newtownabbey LGD) had the highest proportion of teenage mothers (5.9%). Lisnasharragh DEA (Belfast LGD) had the highest proportion of older mothers (aged 40+) (9.1%). Note that when providing data at this geographic level, numbers of births can be small and so caution is advised. [Page 24]

Table 3.1: Births to Northern Ireland residents, by age of mother, 2010/11 – 2021/22

Year of birth		Infants born by age of mother								Total	Infants born to teenage mothers
		≤ 17	18-19	20 - 24	25 - 29	30 - 34	35 - 39	40 +	Not known		
2010/11	n	343	864	4,103	7,177	7,902	4,308	923	39	25,659	1,207
	%	1.3%	3.4%	16.0%	28.0%	30.8%	16.8%	3.6%	-	-	4.7%
2011/12	n	318	863	4,098	7,196	7,706	4,172	947	9	25,309	1,181
	%	1.3%	3.4%	16.2%	28.4%	30.5%	16.5%	3.7%	-	-	4.7%
2012/13	n	263	793	3,737	6,891	8,211	4,164	965	4	25,028	1,056
	%	1.1%	3.2%	14.9%	27.5%	32.8%	16.6%	3.9%	-	-	4.2%
2013/14	n	187	624	3,466	6,780	7,955	4,280	984	1	24,277	811
	%	0.8%	2.6%	14.3%	27.9%	32.8%	17.6%	4.1%	-	-	3.3%
2014/15	n	170	542	3,441	6,619	8,220	4,396	1,009	3	24,400	712
	%	0.7%	2.2%	14.1%	27.1%	33.7%	18.0%	4.1%	-	-	2.9%
2015/16	n	165	555	3,305	6,605	8,160	4,629	1,015	2	24,436	720
	%	0.7%	2.3%	13.5%	27.0%	33.4%	18.9%	4.2%	-	-	2.9%
2016/17	n	174	586	3,060	6,584	8,267	4,492	914	2	24,079	760
	%	0.7%	2.4%	12.7%	27.3%	34.3%	18.7%	3.8%	-	-	3.2%
2017/18	n	157	523	2,835	6,274	7,963	4,395	853	4	23,004	680
	%	0.7%	2.3%	12.3%	27.3%	34.6%	19.1%	3.7%	-	-	3.0%
2018/19	n	141	498	2,879	6,062	8,002	4,420	910	3	22,915	639
	%	0.6%	2.2%	12.6%	26.5%	34.9%	19.3%	4.0%	-	-	2.8%
2019/20	n	148	456	2,759	5,705	7,848	4,450	990	6	22,362	604
	%	0.7%	2.0%	12.3%	25.5%	35.1%	19.9%	4.4%	-	-	2.7%
2020/21	n	113	384	2,443	5,479	7,686	4,283	933	2	21,323	497
	%	0.5%	1.8%	11.5%	25.7%	36.0%	20.1%	4.4%	-	-	2.3%
2021/22	n	112	337	2,420	5,385	7,940	4,590	996	2	21,782	449
	%	0.5%	1.5%	11.1%	24.7%	36.5%	21.1%	4.6%	-	-	2.1%

Source: Child Health System

Following the inclusion of Child Health data into the Regional Data Warehouse, the source of CHS data for 2021/22 onwards will be the Data Warehouse, rather than downloads from each CHS. The data from both sources were analysed and the impact of changing the source of the data was considered minimal.

Teenage refers to those aged less than twenty years.

This refers to live and still births to NI residents irrespective of place of birth. These numbers will vary slightly from the registered births shown in Table 1.2.

Figure 3.1: % infants born to teenage/older mothers, Northern Ireland, 2010/11 – 2021/22

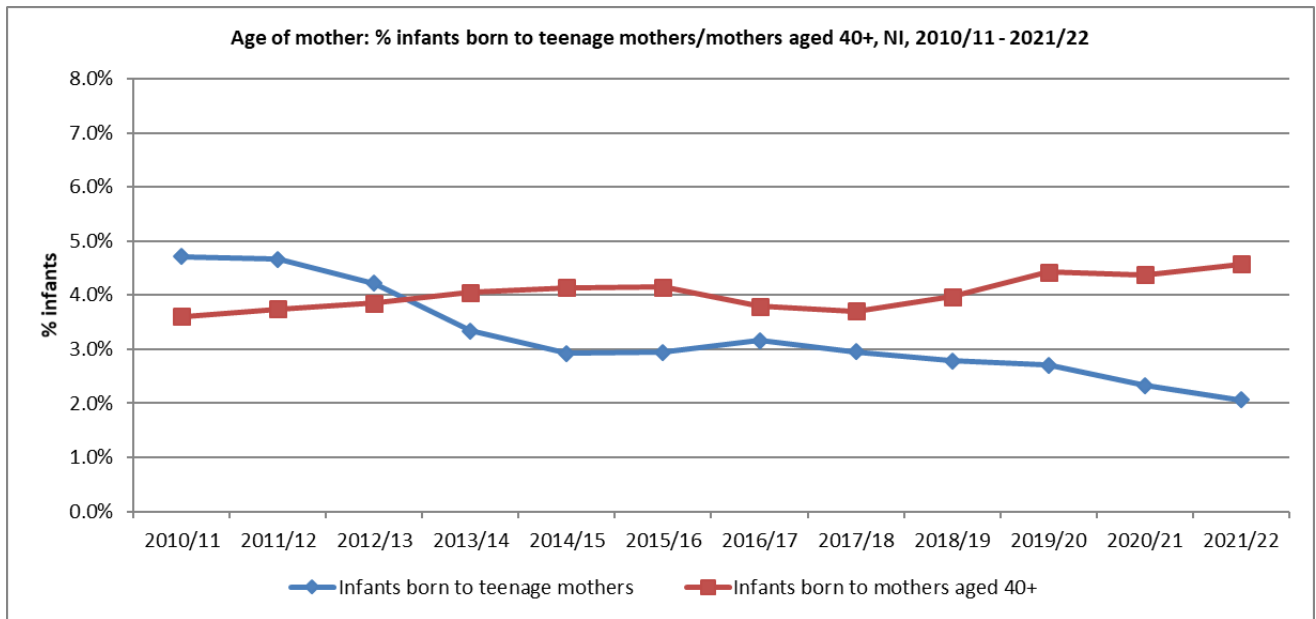


Table 3.2: Births to Northern Ireland residents, by age of mother, 2021/22

		Infants born by age of mother									% infants born to teenage mothers	% infants born to mothers aged 40+
		≤ 17	18-19	20 - 24	25 - 29	30 - 34	35 - 39	40 +	Not known	Total		
Multiple births	Single	112	333	2,370	5,259	7,726	4,429	958	2	21,189	2.1%	4.5%
	Multiple	0	4	50	126	214	161	38	0	593	0.7%	6.4%
	All infants	112	337	2,420	5,385	7,940	4,590	996	2	21,782	2.1%	4.6%
First time mothers	First time mother	104	289	1,476	2,473	2,485	893	212	0	7,932	5.0%	2.7%
	Not a first time mother	6	48	939	2,903	5,444	3,688	781	0	13,809	0.4%	5.7%
	Not known	2	0	5	9	11	9	3	2	41	5.1%	7.7%
	All infants	112	337	2,420	5,385	7,940	4,590	996	2	21,782	2.1%	4.6%
Ethnic group of mother (NIMATS)	White	107	320	2,311	5,080	7,571	4,413	968	0	20,770	2.1%	4.7%
	Non-white	3	16	100	264	338	193	45	0	959	2.0%	4.7%
	Not stated / Blank	0	1	1	5	21	6	4	0	38	2.6%	10.5%
	All infants	110	337	2,412	5,349	7,930	4,612	1,017	0	21,767	2.1%	4.7%
Ethnic group of infant (CHS)	White	96	313	2,253	5,051	7,492	4,325	923	1	20,454	2.0%	4.5%
	Non-white	8	24	156	330	441	260	70	0	1,289	2.5%	5.4%
	Not stated / Blank	8	0	11	4	7	5	3	1	39	21.1%	7.9%
	All infants	112	337	2,420	5,385	7,940	4,590	996	2	21,782	2.1%	4.6%
Place of birth	Altnagelvin	6	34	293	638	844	450	112	0	2,377	1.7%	4.7%
	Antrim	18	36	317	790	1,073	599	106	0	2,939	1.8%	3.6%
	Causeway	6	18	121	241	307	166	37	0	896	2.7%	4.1%
	Craigavon	9	46	303	840	1,245	690	125	0	3,258	1.7%	3.8%
	Daisy Hill	11	23	175	434	815	461	92	0	2,011	1.7%	4.6%
	Downe / Lagan Valley	<5	<5	<5	32	27	22	<5	0	90	>2.1%	<4.6%
	Mater	0	0	0	<5	<5	<5	0	0	6	0.0%	0.0%
	Royal	38	105	666	1,213	1,553	965	241	0	4,781	3.0%	5.0%
	SWAH	<5	<15	108	284	458	306	64	0	1,235	<2.1%	5.2%
	Ulster	20	61	430	905	1,603	925	216	0	4,160	1.9%	5.2%
	Home/Other	0	0	<5	<10	<15	<10	<5	2	29	0.0%	<4.6%
	All infants	112	337	2,420	5,385	7,940	4,590	996	2	21,782	2.1%	4.6%

Table 3.2 continued: Births to Northern Ireland residents, by age of mother, 2021/22

		Infants born by age of mother									% infants born to teenage mothers	% infants born to mothers aged 40+
		≤ 17	18-19	20 - 24	25 - 29	30 - 34	35 - 39	40 +	Not known	Total		
Trust of residence of mother	Belfast	28	88	542	925	1,377	859	209	0	4,028	2.9%	5.2%
	Northern	30	72	585	1,378	1,863	1,023	203	0	5,154	2.0%	3.9%
	South Eastern	24	66	431	934	1,445	819	189	0	3,908	2.3%	4.8%
	Southern	21	64	465	1,240	1,979	1,121	214	1	5,105	1.7%	4.2%
	Western	9	47	397	908	1,276	768	181	1	3,587	1.6%	5.0%
	All infants	112	337	2,420	5,385	7,940	4,590	996	2	21,782	2.1%	4.6%
Local Government District	Antrim and Newtownabbey	12	25	166	411	572	309	62	0	1,557	2.4%	4.0%
	Ards and North Down	12	26	151	356	588	301	71	0	1,505	2.5%	4.7%
	Armagh City, Banbridge and Craigavon	14	44	260	725	1,048	550	107	1	2,749	2.1%	3.9%
	Belfast	28	91	582	919	1,273	779	189	0	3,861	3.1%	4.9%
	Causeway Coast and Glens	7	24	182	399	526	282	66	0	1,486	2.1%	4.4%
	Derry City and Strabane	5	31	251	503	638	331	82	0	1,841	2.0%	4.5%
	Fermanagh and Omagh	<5	<15	112	284	487	370	81	1	1,351	<2.1%	6.0%
	Lisburn and Castlereagh	9	19	128	376	660	420	88	0	1,700	1.6%	5.2%
	Mid and East Antrim	10	17	174	399	473	244	51	0	1,368	2.0%	3.7%
	Mid Ulster	<5	<20	170	498	782	480	73	0	2,024	<2.1%	3.6%
	Newry, Mourne and Down	8	30	244	515	893	524	126	0	2,340	1.6%	5.4%
All infants	112	337	2,420	5,385	7,940	4,590	996	2	21,782	2.1%	4.6%	
Deprivation 2017 quintile (SOA) based on residence of mother	Most deprived	42	129	847	1,325	1,428	751	160	0	4,682	3.7%	3.4%
	2	33	75	570	1,183	1,619	952	222	1	4,655	2.3%	4.8%
	3	17	61	470	1,112	1,653	927	186	0	4,426	1.8%	4.2%
	4	11	53	337	1,039	1,669	996	196	1	4,302	1.5%	4.6%
	Least deprived	9	19	196	726	1,571	964	232	0	3,717	0.8%	6.2%
	All infants	112	337	2,420	5,385	7,940	4,590	996	2	21,782	2.1%	4.6%

Source: Child Health System/NIMATS

Following the inclusion of Child Health data into the Regional Data Warehouse, the source of CHS data for 2021/22 onwards will be the Data Warehouse, rather than downloads from each CHS. The data from both sources were analysed and the impact of changing the source of the data was considered minimal.

Due to the COVID-19 pandemic, Causeway Hospital was closed to deliveries between 8 April 2020 and 23 August 2020. Mater Hospital closed to deliveries on 30 March 2020 (it became a COVID Centre) and all deliveries were relocated to Royal Victoria Hospital. The Mater is still closed to deliveries.

NI Statistics and Research Agency, NI Multiple Deprivation Measure 2017 <https://www.nisra.gov.uk/news/nisra-releases-updated-deprivation-measures-northern-ireland>

Teenage refers to those aged less than twenty years

Due to small numbers, it is not possible to show data by individual ethnic group

Disclosure controls have been applied to this table. As a result, for some percentages, it is not possible to show the exact percentage values in the final two columns and so a comparison to the Northern Ireland value has been provided

Table 3.3: Births to Northern Ireland residents, by age of mother, District Electoral Area, 2019/20 to 2021/22

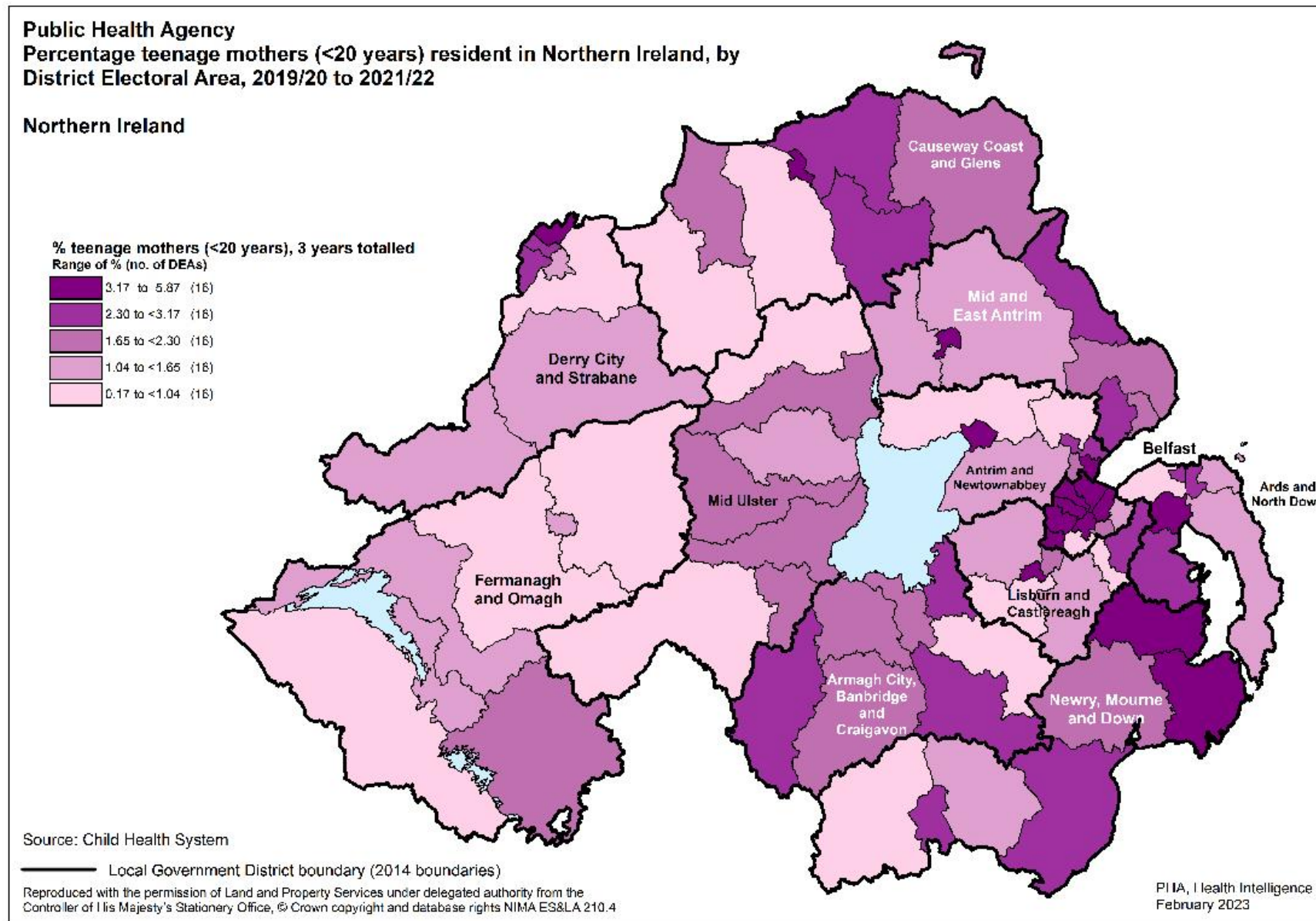
Local Government District	District Electoral Area	Infants born by age of mother								% infants born to teenage mothers	% infants born to mothers aged 40+	Total births (all ages), by year		
		<20	20 - 24	25 - 29	30 - 34	35 - 39	40 +	Not known	Total			2019/20	2020/21	2021/22
Antrim and Newtownabbey	Airport	11	65	189	311	166	43	0	785	1.4%	5.5%	279	267	239
	Antrim	34	140	251	274	133	23	0	855	4.0%	2.7%	301	263	291
	Ballyclare	<10	77	168	231	104	<30	0	609	<2.5%	<4.0%	206	207	196
	Dunsilly	<5	46	127	241	139	<30	0	576	<2.5%	<4.0%	181	203	192
	Glengormley Urban	14	71	164	259	155	31	0	694	2.0%	4.5%	240	213	241
	Macedon	39	109	210	191	93	22	0	664	5.9%	3.3%	240	227	197
	Three Mile Water	17	65	175	236	106	25	1	625	2.7%	4.0%	222	202	201
	Total	121	573	1,284	1,743	896	190	1	4,808	2.5%	4.0%	1,669	1,582	1,557
Ards and North Down	Ards Peninsula	9	67	194	219	131	23	1	644	1.4%	3.6%	208	200	236
	Bangor Central	21	81	215	283	143	33	0	776	2.7%	4.3%	262	270	244
	Bangor East and Donaghadee	<10	47	116	207	110	<30	0	516	<2.5%	>4.4%	191	155	170
	Bangor West	15	56	134	196	129	24	0	554	2.7%	4.3%	197	169	188
	Comber	16	62	132	239	108	20	0	577	2.8%	3.5%	202	180	195
	Hollywood and Clondeboye	<5	19	75	195	126	<40	0	452	<2.5%	>4.4%	145	158	149
	Newtownards	37	151	263	292	153	32	0	928	4.0%	3.4%	320	285	323
	Total	109	483	1,129	1,631	900	194	1	4,447	2.5%	4.4%	1,525	1,417	1,505
Armagh, Banbridge and Craigavon	Armagh	32	135	339	448	277	51	0	1,282	2.5%	4.0%	468	388	426
	Banbridge	27	97	288	470	242	51	1	1,176	2.3%	4.3%	428	356	392
	Craigavon	21	145	312	397	172	49	1	1,097	1.9%	4.5%	384	347	366
	Cusher	<20	94	255	363	196	<40	0	957	<2.0%	<3.9%	305	337	315
	Lagan River	<5	63	228	330	183	<40	0	840	<2.0%	>3.9%	277	270	293
	Lurgan	38	209	439	535	254	53	0	1,528	2.5%	3.5%	503	469	556
	Portadown	24	148	336	413	205	47	0	1,173	2.0%	4.0%	393	379	401
	Total	162	891	2,197	2,956	1,529	316	2	8,053	2.0%	3.9%	2,758	2,546	2,749

Local Government District	District Electoral Area	Infants born by age of mother								% infants born to teenage mothers	% infants born to mothers aged 40+	Total births (all ages), by year		
		<20	20 - 24	25 - 29	30 - 34	35 - 39	40 +	Not known	Total			2019/20	2020/21	2021/22
Belfast	Balmoral	7	49	126	301	229	50	0	762	0.9%	6.6%	288	247	227
	Black Mountain	62	270	409	499	231	42	0	1,513	4.1%	2.8%	534	509	470
	Botanic	49	167	251	382	290	60	0	1,199	4.1%	5.0%	440	378	381
	Castle	46	151	244	339	261	62	0	1,103	4.2%	5.6%	385	362	356
	Collin	64	223	334	474	233	46	0	1,374	4.7%	3.3%	482	464	428
	Court	75	308	427	348	154	28	1	1,341	5.6%	2.1%	429	457	455
	Lisnasharragh	17	62	151	344	274	85	0	933	1.8%	9.1%	325	325	283
	Oldpark	79	326	427	410	177	50	0	1,469	5.4%	3.4%	492	494	483
	Ormiston	14	75	165	424	274	67	0	1,019	1.4%	6.6%	333	369	317
	Titanic	51	264	347	393	234	71	1	1,361	3.8%	5.2%	486	414	461
Total	464	1,895	2,881	3,914	2,357	561	2	12,074	3.8%	4.6%	4,194	4,019	3,861	
Causeway Coast and Glens	Ballymoney	21	108	251	275	171	35	0	861	2.4%	4.1%	279	294	288
	Bann	5	58	133	202	126	23	0	547	0.9%	4.2%	181	186	180
	Benbradagh	6	66	188	254	129	32	0	675	0.9%	4.7%	216	244	215
	Causeway	16	73	147	180	119	35	0	570	2.8%	6.1%	181	181	208
	Coleraine	36	158	205	209	101	17	0	726	5.0%	2.3%	254	238	234
	Limavady	10	47	143	179	87	18	0	484	2.1%	3.7%	166	139	179
	The Glens	13	58	144	219	106	29	0	569	2.3%	5.1%	194	193	182
	Total	107	568	1,211	1,518	839	189	0	4,432	2.4%	4.3%	1,471	1,475	1,486
Derry City and Strabane	Ballyarnett	32	163	278	338	157	40	0	1,008	3.2%	4.0%	337	334	337
	Derg	10	77	191	247	125	28	0	678	1.5%	4.1%	228	221	229
	Faughan	5	61	184	218	128	39	0	635	0.8%	6.1%	212	209	214
	Foyleside	19	104	164	193	113	23	0	616	3.1%	3.7%	191	211	214
	Sperrin	10	131	244	308	195	48	0	936	1.1%	5.1%	318	318	300
	The Moor	18	133	210	180	84	23	0	648	2.8%	3.5%	242	199	207
	Waterside	16	126	285	367	223	51	0	1,068	1.5%	4.8%	365	363	340
	Total	110	795	1,556	1,851	1,025	252	0	5,589	2.0%	4.5%	1,893	1,855	1,841
Fermanagh and Omagh	Enniskillen	8	61	123	203	127	22	0	544	1.5%	4.0%	193	169	182
	Erne East	10	45	107	235	151	31	0	579	1.7%	5.4%	202	189	188
	Erne North	6	52	137	197	120	25	0	537	1.1%	4.7%	183	182	172
	Erne West	<5	22	94	198	167	36	<5	520	<1.1%	6.9%	170	180	170
	Mid Tyrone	<10	44	153	249	206	45	<5	704	<1.1%	6.4%	229	240	235
	Omagh	9	81	145	214	149	35	0	633	1.4%	5.5%	216	204	213
	West Tyrone	6	28	151	247	141	41	0	614	1.0%	6.7%	205	218	191
Total	47	333	910	1,543	1,061	235	2	4,131	1.1%	5.7%	1,398	1,382	1,351	

Local Government District	District Electoral Area	Infants born by age of mother								% infants born to teenage mothers	% infants born to mothers aged 40+	Total births (all ages), by year		
		<20	20 - 24	25 - 29	30 - 34	35 - 39	40 +	Not known	Total			2019/20	2020/21	2021/22
Lisburn and Castlereagh	Castlereagh East	20	77	212	305	161	29	0	804	2.5%	3.6%	274	275	255
	Castlereagh South	<10	<30	114	367	251	55	0	815	<1.9%	6.7%	275	280	260
	Downshire East	6	41	109	177	123	30	0	486	1.2%	6.2%	153	161	172
	Downshire West	<5	<30	113	224	129	35	0	531	<1.9%	6.6%	171	179	181
	Killultagh	12	44	200	319	171	31	0	777	1.5%	4.0%	257	221	299
	Lisburn North	17	98	212	321	175	28	0	851	2.0%	3.3%	313	273	265
	Lisburn South	31	116	228	237	163	32	0	807	3.8%	4.0%	303	236	268
Total	96	424	1,188	1,950	1,173	240	0	5,071	1.9%	4.7%	1,746	1,625	1,700	
Mid and East Antrim	Ballymena	45	136	194	272	92	31	0	770	5.8%	4.0%	269	237	264
	Bannside	8	52	179	257	142	25	0	663	1.2%	3.8%	213	242	208
	Braid	10	85	242	293	135	26	0	791	1.3%	3.3%	266	259	266
	Carrick Castle	11	71	141	173	78	19	0	493	2.2%	3.9%	186	153	154
	Coast Road	14	73	144	159	76	15	0	481	2.9%	3.1%	172	154	155
	Knockagh	12	63	141	162	89	21	0	488	2.5%	4.3%	179	143	166
	Larne Lough	10	54	150	169	88	20	0	491	2.0%	4.1%	151	185	155
Total	110	534	1,191	1,485	700	157	0	4,177	2.6%	3.8%	1,436	1,373	1,368	
Mid Ulster	Carntogher	6	59	161	264	171	37	0	698	0.9%	5.3%	230	235	233
	Clogher Valley	6	50	223	429	231	32	0	971	0.6%	3.3%	339	306	326
	Cookstown	20	94	226	370	187	32	0	929	2.2%	3.4%	313	322	294
	Dungannon	21	111	297	362	244	45	0	1,080	1.9%	4.2%	354	376	350
	Magherafelt	8	74	181	300	179	25	0	767	1.0%	3.3%	257	242	268
	Moyola	12	45	201	270	167	32	0	727	1.7%	4.4%	247	227	253
	Torrent	16	93	233	354	213	36	0	945	1.7%	3.8%	325	320	300
Total	89	526	1,522	2,349	1,392	239	0	6,117	1.5%	3.9%	2,065	2,028	2,024	
Newry, Mourne and Down	Crotlieve	13	63	198	445	278	63	0	1,060	1.2%	5.9%	369	334	357
	Downpatrick	28	105	189	244	133	39	0	738	3.8%	5.3%	260	211	267
	Newry	28	123	276	418	217	61	0	1,123	2.5%	5.4%	395	393	335
	Rowallane	24	85	195	254	115	24	0	697	3.4%	3.4%	208	247	242
	Slieve Croob	12	56	179	255	181	38	0	721	1.7%	5.3%	238	210	273
	Slieve Gullion	14	122	272	576	373	77	0	1,434	1.0%	5.4%	481	462	491
	The Mournes	25	96	281	435	188	52	1	1,078	2.3%	4.8%	351	352	375
Total	144	650	1,590	2,627	1,485	354	1	6,851	2.1%	5.2%	2,302	2,209	2,340	
Northern Ireland	All infants	1,559	7,672	16,659	23,567	13,357	2,927	9	65,750	2.4%	4.5%	22,457	21,511	21,782

Source: Child Health System. Following the inclusion of Child Health data into the Regional Data Warehouse, the source of CHS data for this table is the Data Warehouse, rather than downloads from each CHS. The data from both sources were analysed and the impact of changing the source of the data was considered minimal. Teenage refers to those aged less than twenty years. Disclosure controls have been applied to this table. As a result, for some percentages, it is not possible to show the exact percentage values in the percentage teenage and percentage aged 40+ columns and so a comparison to the Northern Ireland value has been provided.

Figure 3.2: Percentage teenage mothers (<20 years) resident in Northern Ireland, by District Electoral Area, Northern Ireland, 2019/20 to 2021/22



Section 4: Multiple Births

Why should we be concerned?

The incidence of multiple births (mainly twin births) has increased over the last 30 years from 1.24% of mothers in 1991 to 1.32% of mothers in 2021 in Northern Ireland²².

This increase in the last few decades may be due to the rise in fertility treatments (especially when multiple embryos were transferred) and the increase in the average age of a mother giving birth (older women are more likely to have a multiple pregnancy)²³. Infants born premature are more likely to survive now and this will contribute to the increase in multiple births.

However, having a multiple pregnancy increases the risk of:

- Maternal mortality
- Miscarriage
- Haemorrhage
- Anaemia
- Gestational diabetes
- Hypertensive disorders
- Pre-eclampsia
- Minor health problems e.g. more severe morning sickness, heartburn, tiredness
- Preterm birth and
- Intervention during delivery e.g. Caesarean Section.

Infants are at risk of complications if the placenta is shared e.g. possible stillbirth. Other risks to infants born as part of a multiple birth include premature birth, low birth weight, congenital abnormalities, physical/learning disabilities and perinatal mortality^{24,25,26}

What can be done?

NICE recommends quality standards “Multiple Pregnancy: twin and triplet pregnancies (QS46)²⁷” which should be considered by health professionals to ensure high quality care for those women with a twin or triplet pregnancy.

Providers of infertility services such as IVF should follow Human Fertilisation and Embryology Authority (HFEA) and NICE guidance on embryo transfer strategies.

²² Northern Ireland Statistics and Research Agency, Registrar General Annual Reports, 2021 and 1992
<https://www.nisra.gov.uk/statistics/births-deaths-and-marriages/registrar-general-annual-report>
<https://www.nisra.gov.uk/statistics/registrar-general-annual-report/registrar-general-historical-reports>

²³ Smith LK, Manktelow BN, Draper ES, et al. “Trends in the incidence and mortality of multiple births by socioeconomic deprivation and maternal age in England: population-based cohort study”. *BMJ Open* 2014;4:e004514. doi:10.1136/bmjopen-2013-004514 <http://bmjopen.bmj.com/content/4/4/e004514.full.pdf+html>

²⁴ National Institute for Health and Care Excellence (NICE) “Multiple pregnancy: twin and triplet pregnancies”, Quality standard, September 2013
<http://www.nice.org.uk/guidance/qs46/resources/multiple-pregnancy-twin-and-triplet-pregnancies-2098670068933>

²⁵ National Institute for Health and Care Excellence (NICE) “Multiple pregnancy: antenatal care for twin and triplet pregnancies”, Clinical guideline, September 2011
<https://www.nice.org.uk/guidance/cg129/resources/multiple-pregnancy-antenatal-care-for-twin-and-triplet-pregnancies-35109458300869>

²⁶ Royal College of Obstetricians and Gynaecologists, “Multiple Pregnancy: having more than one baby”, Nov 2016 <https://www.rcog.org.uk/globalassets/documents/patients/patient-information-leaflets/pregnancy/pi-multiple-pregnancy.pdf>

²⁷ National Institute for Health and Care Excellence (NICE) “Multiple Pregnancy: twin and triplet pregnancies”, Quality Standard QS46, September 2013 (updated September 2019)
[Overview | Multiple pregnancy: twin and triplet pregnancies | Quality standards | NICE](#)

Key Points

- The proportion of infants born within a multiple birth has remained fairly steady since 2010/11 (2021/22 = 2.7%). [Page 29]
- The incidence of multiple births increased with mother's age. In 2021/22, across Northern Ireland, 0.9% of births to mothers aged less than twenty years were multiple births, compared to 3.8% of births to mothers aged 40 and over. [Page 30]

Table 4.1: Births to Northern Ireland residents, by singleton/multiple, 2010/11 – 2021/22

Year of birth		Infants born by singleton/multiple birth				Infants born as multiples
		Single	Twin	Triplet / Other	Total	
2010/11	n	24,854	784	21	25,659	805
	%	96.9%	3.1%	0.08%	-	3.1%
2011/12	n	24,552	748	9	25,309	757
	%	97.0%	3.0%	0.04%	-	3.0%
2012/13	n	24,228	782	18	25,028	800
	%	96.8%	3.1%	0.07%	-	3.2%
2013/14	n	23,523	742	12	24,277	754
	%	96.9%	3.1%	0.05%	-	3.1%
2014/15	n	23,687	698	15	24,400	713
	%	97.1%	2.9%	0.06%	-	2.9%
2015/16	n	23,720	686	30	24,436	716
	%	97.1%	2.8%	0.12%	-	2.9%
2016/17	n	23,327	716	36	24,079	752
	%	96.9%	3.0%	0.15%	-	3.1%
2017/18	n	22,328	664	12	23,004	676
	%	97.1%	2.9%	0.05%	-	2.9%
2018/19	n	22,172	730	13	22,915	743
	%	96.8%	3.2%	0.06%	-	3.2%
2019/20	n	21,710	640	12	22,362	652
	%	97.1%	2.9%	0.05%	-	2.9%
2020/21	n	20,705	606	12	21,323	618
	%	97.1%	2.8%	0.06%	-	2.9%
2021/22	n	21,189	584	9	21,782	593
	%	97.3%	2.7%	0.04%	-	2.7%

Source: Child Health System

Following the inclusion of Child Health data into the Regional Data Warehouse, the source of CHS data for 2021/22 onwards will be the Data Warehouse, rather than downloads from each CHS. The data from both sources were analysed and the impact of changing the source of the data was considered minimal.

Figures for multiple births show the number of infants born

Figure 4.1: % infants born as multiples, Northern Ireland, 2010/11 – 2021/22

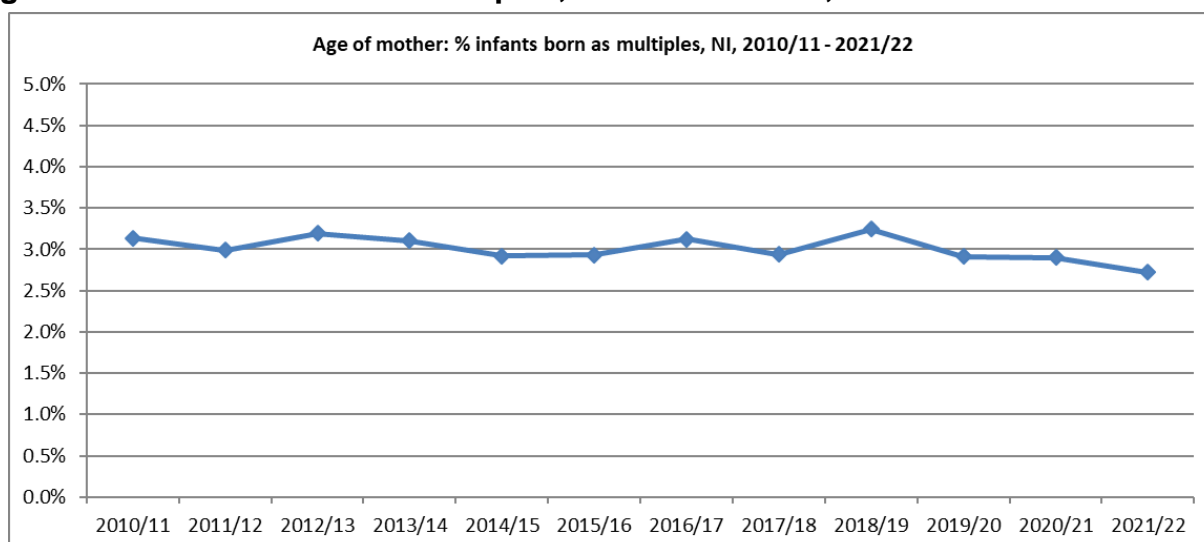


Table 4.2: Births to Northern Ireland residents, by singleton/multiple, 2021/22

		Infants born by singleton/multiple birth			% infants born as multiples
		Single	Multiple	Total	
Birth status	Live	21,101	588	21,689	2.7%
	Still	88	5	93	5.4%
	All infants	21,189	593	21,782	2.7%
Age Group of mother	Under 20	445	4	449	0.9%
	20 - 24	2,370	50	2,420	2.1%
	25 - 29	5,259	126	5,385	2.3%
	30 - 34	7,726	214	7,940	2.7%
	35 - 39	4,429	161	4,590	3.5%
	40 +	958	38	996	3.8%
	Not known	2	0	2	0.0%
	All infants	21,189	593	21,782	2.7%
Ethnic group of mother (NIMATS)	White	20,199	571	20,770	2.7%
	Non-white	937	22	959	2.3%
	Not stated / Blank	38	0	38	0.0%
	All infants	21,174	593	21,767	2.7%
Ethnic group of infant (CHS)	White	19,903	551	20,454	2.7%
	Non-white	1,247	42	1,289	3.3%
	Not stated / Blank	39	0	39	0.0%
	All infants	21,189	593	21,782	2.7%
Place of birth	Altnagelvin	2,323	54	2,377	2.3%
	Antrim	2,836	103	2,939	3.5%
	Causeway	896	0	896	0.0%
	Craigavon	3,152	106	3,258	3.3%
	Daisy Hill	1,965	46	2,011	2.3%
	Downe / Lagan Valley	90	0	90	0.0%
	Mater	6	0	6	0.0%
	Royal	4,647	134	4,781	2.8%
	SWAH	1,211	24	1,235	1.9%
	Ulster	4,034	126	4,160	3.0%
	Home/Other	29	0	29	0.0%
	All infants	21,189	593	21,782	2.7%
Trust of residence of mother	Belfast	3,906	122	4,028	3.0%
	Northern	5,023	131	5,154	2.5%
	South Eastern	3,792	116	3,908	3.0%
	Southern	4,957	148	5,105	2.9%
	Western	3,511	76	3,587	2.1%
	All infants	21,189	593	21,782	2.7%
Local Government District	Antrim and Newtownabbey	1,519	38	1,557	2.4%
	Ards and North Down	1,459	46	1,505	3.1%
	Armagh City, Banbridge and Craigavon	2,673	76	2,749	2.8%
	Belfast	3,747	114	3,861	3.0%
	Causeway Coast and Glens	1,451	35	1,486	2.4%
	Derry City and Strabane	1,809	32	1,841	1.7%
	Fermanagh and Omagh	1,313	38	1,351	2.8%
	Lisburn and Castlereagh	1,652	48	1,700	2.8%
	Mid and East Antrim	1,342	26	1,368	1.9%
	Mid Ulster	1,958	66	2,024	3.3%
	Newry, Mourne and Down	2,266	74	2,340	3.2%
	All infants	21,189	593	21,782	2.7%

Table 4.2 continued: Births to Northern Ireland residents, by singleton/multiple, 2021/22

		Infants born by singleton/multiple birth			% infants born as multiples
		Single	Multiple	Total	
Deprivation 2017 quintile (SOA) based on residence of mother	Most deprived	4,565	117	4,682	2.5%
	2	4,524	131	4,655	2.8%
	3	4,310	116	4,426	2.6%
	4	4,186	116	4,302	2.7%
	Least deprived	3,604	113	3,717	3.0%
	All infants	21,189	593	21,782	2.7%

Source: Child Health System/NIMATS

Following the inclusion of Child Health data into the Regional Data Warehouse, the source of CHS data for 2021/22 onwards will be the Data Warehouse, rather than downloads from each CHS. The data from both sources were analysed and the impact of changing the source of the data was considered minimal.

Due to the COVID-19 pandemic, Causeway Hospital was closed to deliveries between 8 April 2020 and 23 August 2020. Mater Hospital closed to deliveries on 30 March 2020 (it became a COVID Centre) and all deliveries were relocated to Royal Victoria Hospital. The Mater is still closed to deliveries.

NI Statistics and Research Agency, NI Multiple Deprivation Measure 2017

<https://www.nisra.gov.uk/news/nisra-releases-updated-deprivation-measures-northern-ireland>

Due to small numbers, it is not possible to show data by individual ethnic group

Section 5: Infant Gestation

AT BOOKING

Why should we be concerned?

Antenatal care is beneficial in improving outcomes for women and their infants. Women are encouraged to attend for antenatal care (booking appointment) by 10 weeks gestation^{28,29}. At these early stages, potential risks to the pregnancy can be identified. Appropriate lifestyle advice can be given on healthy eating, physical activity etc. and help and support can be provided e.g. to help a mother stop smoking. Although most women have uncomplicated pregnancies, some will experience difficulties perhaps as a result of e.g. smoking, obesity or diabetes (Sections 6 and 7). Early antenatal care ensures women are provided with the correct advice, support, screening and interventions to promote positive experiences and outcomes for both mother and baby.

Although it is recognised that the earlier a mother attends for antenatal care, the better the outcome for her and her baby, there are some groups of women e.g. young mothers, women from a non-white ethnic group, those with low income or educational level, and those living in more deprived areas who do not attend early in pregnancy (Table 5.2, page 36). One study³⁰ also associated late booking with those women who have had numerous prior births and those who were migrants to the UK or did not speak English well (if at all).

What can be done?

The current Maternity Strategy for Northern Ireland³¹ outlines the type of care women should receive: “*When a woman becomes pregnant she will be facilitated to make early direct contact with a midwife*”. The Strategy emphasises that it “*is particularly important to make maternity services accessible to those groups of women who tend to book late, who often are the very women who would benefit most from earlier booking. Direct access to midwives as the first point of contact in the community is intended to increase the number of women making early contact with maternity services*”.

See also:

National Institute for Health and Care Excellence guideline, “Antenatal Care”, August 2021

<https://www.nice.org.uk/guidance/ng201/resources/antenatal-care-pdf-66143709695941>

World Health Organisation, “WHO recommendations on antenatal care for a positive pregnancy experience”, November 2016

<https://www.who.int/publications/i/item/9789241549912>

AT DELIVERY

Why should we be concerned?

This report shows that 7.4% of infants born in 2021/22 in Northern Ireland were pre-term i.e. less than 37 weeks gestation at birth (Table 5.3, page 37). WHO states that “*Preterm birth is the leading cause of death in newborns less than 28 days old with more than a million preterm infants dying each year. Those that do survive risk a range of disabilities throughout their lives*”³². An infant born pre-term is at greater risk of neonatal death, neurological disorders, infection, visual/hearing impairment, feeding problems/poor growth and respiratory illness.

What can be done?

World Health Organisation guidelines³³ states: “*Infant death and morbidity following preterm birth can be reduced through interventions provided to the mother before or during pregnancy, and to the preterm infant after birth. Interventions can be directed at all women for primary prevention and reduction of the risk of preterm birth (e.g. smoking cessation programmes) or used to minimize the risk in pregnant women with known risk factors (e.g. progesterational agents, cervical cerclage). However, the most beneficial set of maternal interventions are those that could improve survival chances and health outcomes of preterm infants when preterm birth is inevitable. These interventions are provided to the mother shortly before or during the birth process with the aim of overcoming immediate and future health challenges of the preterm infant, such as lung immaturity, susceptibility to infection, and neurological complications. Essential and additional care of the preterm newborn to prevent or treat potential complications is also critical to newborn survival without disability*”.

²⁸National Institute for Health and Care Excellence (NICE) “Antenatal care”, Quality Standard QS22, September 2012 (updated February 2023)

<http://www.nice.org.uk/guidance/qs22/resources/antenatal-care-2098542418117>

²⁹ Department of Health “A Strategy for Maternity Care in Northern Ireland, 2012 – 2018 <https://www.health-ni.gov.uk/articles/maternity-strategy-northern-ireland-2012-2018>

³⁰ Cresswell et al, BMC Pregnancy and Childbirth “Predictors of the timing of initiation of antenatal care in an ethnically diverse urban cohort in the UK”, 2012

<http://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/1471-2393-13-103>

³¹ Department of Health “A Strategy for Maternity Care in Northern Ireland, 2012 – 2018 <https://www.health-ni.gov.uk/articles/maternity-strategy-northern-ireland-2012-2018>

³² World Health Organisation, “New recommendations from WHO to help improve the health of preterm infants”, September 2022

<https://www.who.int/news/item/30-09-2022-new-recommendations-from-who-to-help-improve-the-health-of-preterm-birth>

³³ World Health Organisation, “WHO recommendations on interventions to improve preterm birth outcomes” 2015

http://www.who.int/reproductivehealth/publications/maternal_perinatal_health/preterm-birth-guideline/en/

Key Points

- In 2021/22, 6.6% of births were booked at 15 weeks or more gestation. Although fluctuating since 2011/12, there has been an overall downward trend in this percentage. *[Page 34]*
- There were 281 (1.3%) infants born to women who were estimated to be 28 weeks or more gestation at booking. In general, this proportion had been falling year on year since 2011/12. *[Page 34]*
- There were substantial differences in the timescales of when mothers booked by ethnic group during 2021/22. 23.6% of births to mothers from a 'non-white' ethnic group booked at 15+ weeks, compared to 5.8% of those of a white ethnic group (all births = 6.6%). *[Page 35]*
- In 2021/22, and based on 2017 deprivation quintiles, data revealed that more mothers booked at 15 weeks and higher gestation from the most deprived areas of Northern Ireland (8.9% of births), compared to births to those mothers from least deprived areas (5.2%). All births = 6.6%. *[Page 36]*
- Since 2011/12, there has been little variation in the proportion of infants born pre-term (<37 weeks gestation) (2021/22 = 7.4%) *[Page 37]*. For births during 2021/22, the figures differ considerably by type of birth: 7.1% of live births, 72.0% of still births. *[Page 38]*
- In 2021/22, 7.6% of infants were born pre-term to mothers living in the most deprived areas of Northern Ireland. This compared to 7.1% of infants born to mothers living in those areas considered least deprived (all infants = 7.4%). *[Page 39]*

GESTATION AT BOOKING

Table 5.1: Gestation at booking, for births to Northern Ireland residents, by completed weeks, 2011/12 – 2021/22

Year of birth		Infants born by gestation at booking							Total	Booking at ≥ 15 weeks
		≤ 14 weeks	15 - 20 weeks	21 - 27 weeks	28 - 32 weeks	33 - 36 weeks	37+ weeks	Not known		
2011/12	n	22,106	1,317	364	212	177	141	26	24,343	2,211
	%	90.9%	5.4%	1.5%	0.9%	0.7%	0.6%	-	-	9.1%
2012/13	n	23,050	1,050	325	200	159	138	20	24,942	1,872
	%	92.5%	4.2%	1.3%	0.8%	0.6%	0.6%	-	-	7.5%
2013/14	n	22,444	1,020	329	171	144	89	11	24,208	1,753
	%	92.8%	4.2%	1.4%	0.7%	0.6%	0.4%	-	-	7.2%
2014/15	n	22,585	1,001	316	197	160	58	5	24,322	1,732
	%	92.9%	4.1%	1.3%	0.8%	0.7%	0.2%	-	-	7.1%
2015/16	n	22,729	998	287	180	136	72	3	24,405	1,673
	%	93.1%	4.1%	1.2%	0.7%	0.6%	0.3%	-	-	6.9%
2016/17	n	22,427	1,013	280	156	141	67	0	24,084	1,657
	%	93.1%	4.2%	1.2%	0.6%	0.6%	0.3%	-	-	6.9%
2017/18	n	21,517	881	278	149	135	81	4	23,045	1,524
	%	93.4%	3.8%	1.2%	0.6%	0.6%	0.4%	-	-	6.6%
2018/19	n	21,061	1,230	291	166	138	70	1	22,957	1,895
	%	91.7%	5.4%	1.3%	0.7%	0.6%	0.3%	-	-	8.3%
2019/20	n	20,608	1,189	272	157	130	53	1	22,410	1,801
	%	92.0%	5.3%	1.2%	0.7%	0.6%	0.2%	-	-	8.0%
2020/21	n	19,844	1,038	276	167	100	45	1	21,471	1,626
	%	92.4%	4.8%	1.3%	0.8%	0.5%	0.2%	-	-	7.6%
2021/22	n	20,321	917	247	109	112	60	1	21,767	1,445
	%	93.4%	4.2%	1.1%	0.5%	0.5%	0.3%	-	-	6.6%

Source: NIMATS

Figure 5.1: % births booked at ≥ 15 weeks gestation, Northern Ireland residents, 2011/12 – 2021/22

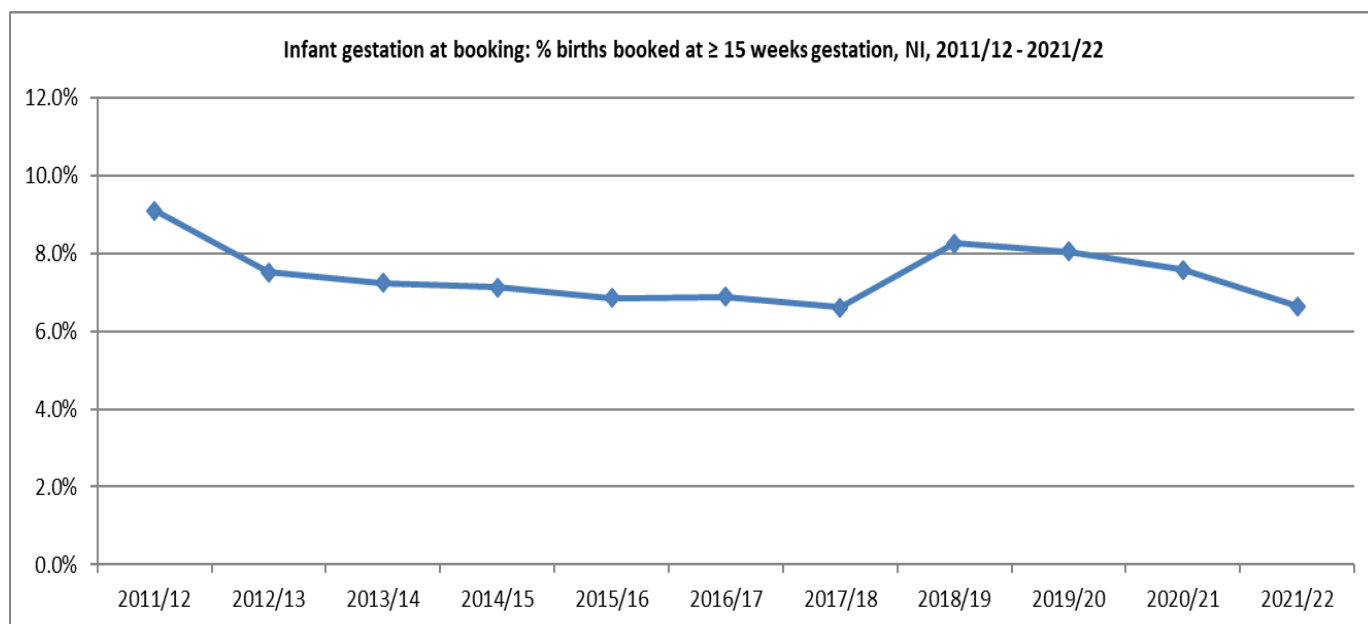


Table 5.2: Gestation at booking, for births to Northern Ireland residents, by completed weeks, 2021/22

		Infants born by gestation at booking							Total	% booking at ≥ 15 weeks
		≤ 14 weeks	15 - 20 weeks	21 - 27 weeks	28 - 32 weeks	33 - 36 weeks	37+ weeks	Not known		
Age Group of mother	Under 20	361	43	22	9	<10	<5	1	447	>6.6%
	20 - 24	2,182	146	41	14	19	10	0	2,412	9.5%
	25 - 29	5,033	175	78	29	24	10	0	5,349	5.9%
	30 - 34	7,515	283	56	30	32	14	0	7,930	5.2%
	35 - 39	4,308	209	34	17	29	15	0	4,612	6.6%
	40 +	922	61	16	10	<5	<10	0	1,017	>6.6%
	All infants	20,321	917	247	109	112	60	1	21,767	6.6%
Ethnic group of mother	White	19,556	796	205	86	78	48	1	20,770	5.8%
	Non-white	733	120	42	20	33	11	0	959	23.6%
	Not stated / Blank	32	1		3	1	1	0	38	15.8%
	All infants	20,321	917	247	109	112	60	1	21,767	6.6%
Place of birth	Altnagelvin	2,278	52	21	<10	13	<5	0	2,376	<6.6%
	Antrim	2,755	113	35	14	10	8	0	2,935	6.1%
	Causeway	854	24	9	<10	0	<5	1	895	<6.6%
	Craigavon	2,949	213	38	15	19	8	0	3,242	9.0%
	Daisy Hill	1,849	113	28	6	7	7	0	2,010	8.0%
	Downe	0	0	0	0	0	0	0	0	-
	Lagan Valley	81	<5	0	<5	0	<5	0	87	>6.6%
	Mater	0	0	0	0	0	0	0	0	-
	Royal	4,383	229	72	35	40	18	0	4,777	8.2%
	SWAH	1,171	45	<10	5	<10	<5	0	1,236	<6.6%
	Ulster	3,931	124	36	19	16	7	0	4,133	4.9%
	Home/Other	70	<5	<5	0	<5	<5	0	76	>6.6%
	All infants	20,321	917	247	109	112	60	1	21,767	6.6%
Trust of residence of mother	Belfast	3,708	189	75	36	40	16	0	4,064	8.8%
	Northern	4,854	184	54	25	11	12	1	5,141	5.6%
	South Eastern	3,682	135	28	15	16	11	0	3,887	5.3%
	Southern	4,648	311	67	20	26	14	0	5,086	8.6%
	Western	3,429	98	23	13	19	7	0	3,589	4.5%
	All infants	20,321	917	247	109	112	60	1	21,767	6.6%

Table 5.2 continued: Gestation at booking, for births to Northern Ireland residents, by completed weeks, 2021/22

		Infants born by gestation at booking							Total	% booking at ≥ 15 weeks
		≤ 14 weeks	15 - 20 weeks	21 - 27 weeks	28 - 32 weeks	33 - 36 weeks	37+ weeks	Not known		
Local Government District	Antrim and Newtownabbey	1,476	49	13	6	7	6	0	1,557	5.2%
	Ards and North Down	1,414	50	15	7	7	5	0	1,498	5.6%
	Armagh City, Banbridge and Craigavon	2,507	164	29	12	14	10	0	2,736	8.4%
	Belfast	3,549	188	73	35	37	16	0	3,898	9.0%
	Causeway Coast and Glens	1,417	41	20	6	<10	<5	1	1,493	<6.6%
	Derry City and Strabane	1,768	39	15	<10	10	<5	0	1,841	<6.6%
	Fermanagh and Omagh	1,280	51	5	<10	5	<5	0	1,350	<6.6%
	Lisburn and Castlereagh	1,607	51	9	<10	12	<5	0	1,689	<6.6%
	Mid and East Antrim	1,271	60	17	8	<5	<5	0	1,359	<6.6%
	Mid Ulster	1,862	115	21	9	<10	<5	0	2,016	>6.6%
	Newry, Mourne and Down	2,170	109	30	8	6	7	0	2,330	6.9%
	All infants	20,321	917	247	109	112	60	1	21,767	6.6%
Deprivation 2017 quintile (SOA) based on residence of mother	Most deprived	4,273	231	97	32	38	20	0	4,691	8.9%
	2	4,350	229	47	22	17	13	0	4,678	7.0%
	3	4,164	160	40	20	12	9	0	4,405	5.5%
	4	4,013	184	39	12	22	6	1	4,277	6.2%
	Least deprived	3,521	113	24	23	23	12	0	3,716	5.2%
		All infants	20,321	917	247	109	112	60	1	21,767

Source: NIMATS

Due to the COVID-19 pandemic, Causeway Hospital was closed to deliveries between 8 April 2020 and 23 August 2020. Mater Hospital closed to deliveries on 30 March 2020 (it became a COVID Centre) and all deliveries were relocated to Royal Victoria Hospital. The Mater is still closed to deliveries.

NI Statistics and Research Agency, NI Multiple Deprivation Measure 2017 <https://www.nisra.gov.uk/news/nisra-releases-updated-deprivation-measures-northern-ireland>

Due to small numbers, it is not possible to show data by individual ethnic group

Disclosure controls have been applied to the data

GESTATION AT DELIVERY

Table 5.3: Gestation at delivery, for births (live and still) to Northern Ireland residents, by completed weeks, 2011/12 – 2021/22

Year of birth		Infants born by gestation at delivery						Total	Infants born pre-term (< 37 wks)
		< 28 weeks	28 - 31 weeks	32 - 36 weeks	37 - 38 weeks	39+ weeks	Not known		
2011/12	n	118	192	1,470	4,493	18,067	3	24,343	1,780
	%	0.48%	0.79%	6.04%	18.46%	74.23%	-	-	7.31%
2012/13	n	116	203	1,593	4,570	18,459	1	24,942	1,912
	%	0.47%	0.81%	6.39%	18.32%	74.01%	-	-	7.67%
2013/14	n	105	212	1,551	4,472	17,868	0	24,208	1,868
	%	0.43%	0.88%	6.41%	18.47%	73.81%	-	-	7.72%
2014/15	n	101	226	1,517	4,658	17,820	0	24,322	1,844
	%	0.42%	0.93%	6.24%	19.15%	73.27%	-	-	7.58%
2015/16	n	106	186	1,612	4,985	17,516	0	24,405	1,904
	%	0.43%	0.76%	6.61%	20.43%	71.77%	-	-	7.80%
2016/17	n	123	192	1,598	5,410	16,761	0	24,084	1,913
	%	0.51%	0.80%	6.64%	22.46%	69.59%	-	-	7.94%
2017/18	n	105	162	1,588	5,186	16,004	0	23,045	1,855
	%	0.46%	0.70%	6.89%	22.50%	69.45%	-	-	8.05%
2018/19	n	113	177	1,496	5,042	16,129	0	22,957	1,786
	%	0.49%	0.77%	6.52%	21.96%	70.26%	-	-	7.78%
2019/20	n	110	153	1,438	5,057	15,652	0	22,410	1,701
	%	0.49%	0.68%	6.42%	22.57%	69.84%	-	-	7.59%
2020/21	n	115	147	1,224	4,620	15,365	0	21,471	1,486
	%	0.54%	0.68%	5.70%	21.52%	71.56%	-	-	6.92%
2021/22	n	113	178	1,313	5,039	15,123	1	21,767	1,604
	%	0.52%	0.82%	6.03%	23.15%	69.48%	-	-	7.37%

Source: NIMATS

Figure 5.2: % infants delivered pre-term (<37 weeks), Northern Ireland, 2011/12 – 2021/22

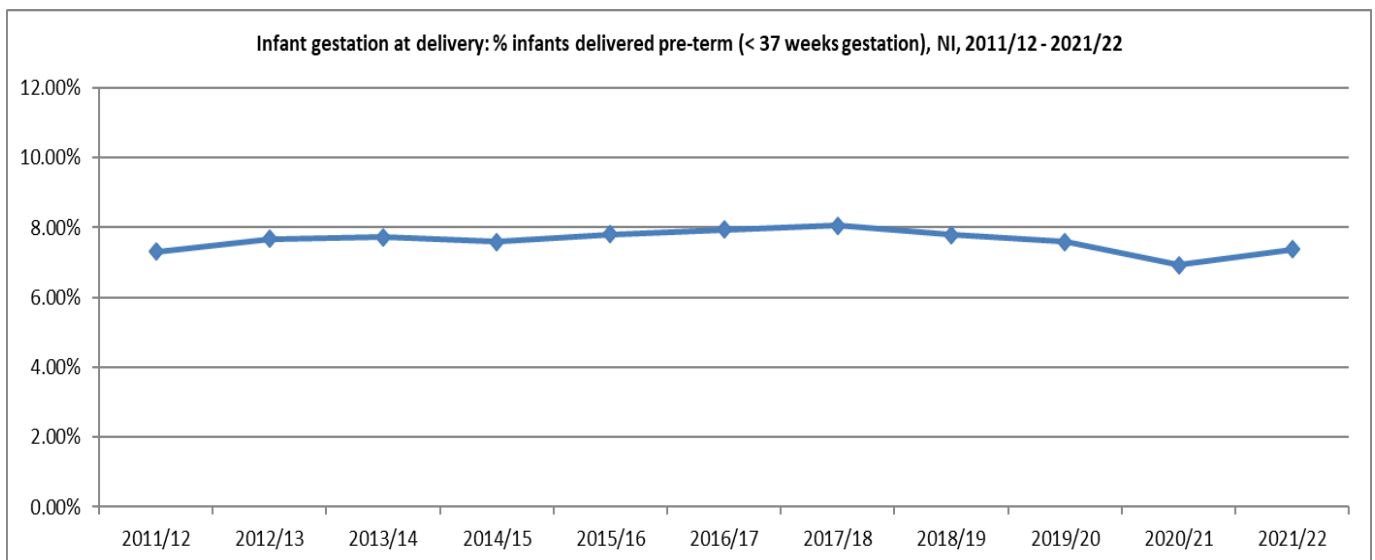


Figure 5.3: % live infants by gestational age at delivery, Northern Ireland, 2021/22

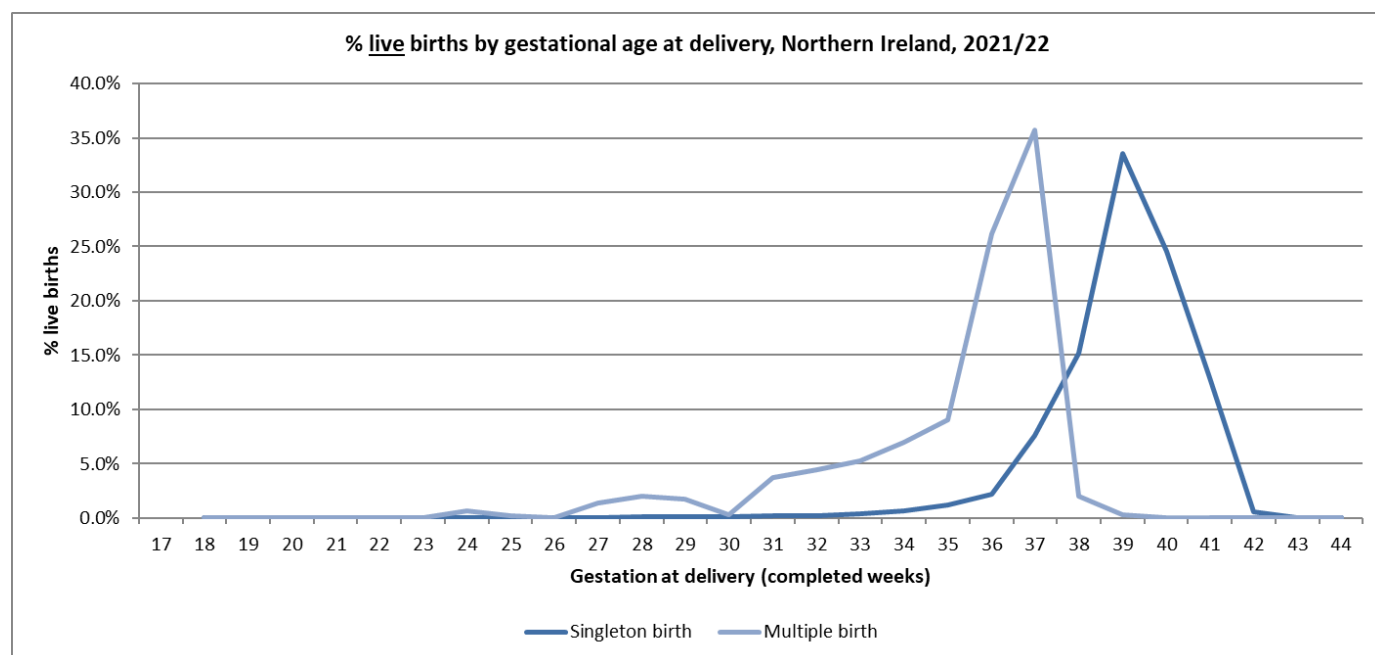


Table 5.4: Gestation at delivery for births to Northern Ireland residents by completed weeks, 2021/22

		Infants born by gestation at delivery							% infants born pre-term (< 37 wks)
		< 28 weeks	28 - 31 weeks	32 - 36 weeks	37 - 38 weeks	39+ weeks	Not known	Total	
Age Group of mother	Under 20	<5	<10	25	105	308	1	447	<7.4%
	20 - 24	13	19	156	540	1,684	0	2,412	7.8%
	25 - 29	27	39	310	1,187	3,786	0	5,349	7.0%
	30 - 34	26	62	433	1,753	5,656	0	7,930	6.6%
	35 - 39	33	41	311	1,129	3,098	0	4,612	8.3%
	40 +	<15	<15	78	325	591	0	1,017	>7.4%
	All infants	113	178	1,313	5,039	15,123	1	21,767	7.4%
Birth status	Live	84	166	1,287	5,026	15,110	1	21,674	7.1%
	Still	29	12	26	13	13	0	93	72.0%
	All infants	113	178	1,313	5,039	15,123	1	21,767	7.4%
Ethnic group of mother	White	104	166	1,253	4,770	14,476	1	20,770	7.3%
	Non-white	7	11	56	257	628	0	959	7.7%
	Not stated/Blank	2	1	4	12	19	0	38	18.4%
	All infants	113	178	1,313	5,039	15,123	1	21,767	7.4%
Place of birth	Altnagelvin	8	27	147	589	1,605	0	2,376	7.7%
	Antrim	11	29	214	756	1,925	0	2,935	8.7%
	Causeway	<5	<5	11	173	707	1	895	<7.4%
	Craigavon	11	33	259	829	2,110	0	3,242	9.3%
	Daisy Hill	<5	<5	85	385	1,535	0	2,010	<7.4%
	Downe	0	0	0	0	0	0	0	-
	Lagan Valley	0	0	0	14	73	0	87	0.0%
	Mater	0	0	0	0	0	0	0	-
	Royal	56	61	273	1,216	3,171	0	4,777	8.2%
	SWAH	<10	<5	37	191	1,000	0	1,236	<7.4%
	Ulster	17	22	287	879	2,928	0	4,133	7.9%
	Home/Other	0	0	0	7	69	0	76	0.0%
	All infants	113	178	1,313	5,039	15,123	1	21,767	7.4%

Table 5.4 continued: Gestation at delivery for births to Northern Ireland residents by completed weeks, 2021/22

		Infants born by gestation at delivery						% infants born pre-term (< 37 wks)	
		< 28 weeks	28 - 31 weeks	32 - 36 weeks	37 - 38 weeks	39+ weeks	Not known		Total
Trust of residence of mother	Belfast	29	37	250	1,006	2,742	0	4,064	7.8%
	Northern	20	44	298	1,210	3,568	1	5,141	7.0%
	South Eastern	18	29	257	853	2,730	0	3,887	7.8%
	Southern	26	34	325	1,198	3,503	0	5,086	7.6%
	Western	20	34	183	772	2,580	0	3,589	6.6%
	All infants	113	178	1,313	5,039	15,123	1	21,767	7.4%
Local Government District	Antrim and Newtownabbey	9	9	82	366	1,091	0	1,557	6.4%
	Ards and North Down	<5	<15	100	309	1,075	0	1,498	>7.4%
	Armagh City, Banbridge and Craigavon	17	20	182	664	1,853	0	2,736	8.0%
	Belfast	29	37	234	1,001	2,597	0	3,898	7.7%
	Causeway Coast and Glens	<5	<15	98	360	1,017	1	1,493	>7.4%
	Derry City and Strabane	11	18	104	435	1,273	0	1,841	7.2%
	Fermanagh and Omagh	8	10	55	246	1,031	0	1,350	5.4%
	Lisburn and Castlereagh	9	14	103	360	1,203	0	1,689	7.5%
	Mid and East Antrim	5	17	79	314	944	0	1,359	7.4%
	Mid Ulster	7	18	119	469	1,403	0	2,016	7.1%
	Newry, Mourne and Down	12	10	157	515	1,636	0	2,330	7.7%
	All infants	113	178	1,313	5,039	15,123	1	21,767	7.4%
	Deprivation 2017 quintile (SOA) based on residence of mother	Most deprived	33	42	280	1,242	3,094	0	4,691
2		32	43	315	1,101	3,187	0	4,678	8.3%
3		14	44	240	981	3,126	0	4,405	6.8%
4		16	31	250	936	3,043	1	4,277	6.9%
Least deprived		18	18	228	779	2,673	0	3,716	7.1%
All infants		113	178	1,313	5,039	15,123	1	21,767	7.4%

Source: NIMATS

Due to the COVID-19 pandemic, Causeway Hospital was closed to deliveries between 8 April 2020 and 23 August 2020. Mater Hospital closed to deliveries on 30 March 2020 (it became a COVID Centre) and all deliveries were relocated to Royal Victoria Hospital. The Mater is still closed to deliveries.

NI Statistics and Research Agency, NI Multiple Deprivation Measure 2017

<https://www.nisra.gov.uk/news/nisra-releases-updated-deprivation-measures-northern-ireland>

Due to small numbers, it is not possible to show data by individual ethnic group

Disclosure controls have been applied to the data

Section 6: Maternal Risk Factors

SMOKING

Why should we be concerned?

Giving up smoking is one of the best things a mother-to-be can do to improve her own health and the health of her baby. Giving up at any stage of the pregnancy provides benefits. The Public Health Agency^{34 35} provides information on the effects of smoking while pregnant.

Smoking in pregnancy is linked to:

- Pregnancy complications e.g. three times more likely to have problems with the placenta
- Premature delivery, still birth and miscarriage
- Low birth weight/small for gestational age – increased risk of infection, other health problems and neonatal death
- Higher carbon monoxide levels can reduce the amount of oxygen available to the infant, while nicotine from cigarettes can narrow the blood vessels, restricting the blood flow and reducing the supply of nutrients and oxygen to the infant.

An infant born to a mother who smoked is at greater risk of³⁶:

- Sudden or unexplained death (SIDS)
- Developing respiratory conditions such as asthma, chest infections
- Developing behavioural problems e.g. Attention Deficit Hyperactivity Disorder (ADHD).

What can be done?

From September 2016, all women across Northern Ireland, attending for their antenatal booking appointment, are screened for carbon monoxide levels in the body. New NICE guidelines published in 2021 recommend that routine carbon monoxide testing is also carried out at the 36-week gestation appointment³⁷. Where levels indicate that the woman is being exposed to sources of carbon monoxide, either by smoking, or environmentally, then appropriate advice is given and women are provided with an opt-out referral to receive stop-smoking support with a trained specialist from a local PHA Stop Smoking Service. Further information on interventions during pregnancy is available in guidance from NICE “Smoking: stopping in pregnancy and after childbirth”³⁸ and useful information, in general, on how to stop smoking is available from the Public Health Agency³⁹.

DIABETES

Why should we be concerned?

The prevalence of diabetes in the population is increasing and the same trend can be seen among pregnant women. There are additional risks to mother and baby associated with Type 1 and Type 2 diabetes. Women with diabetes are more likely to deliver an infant that is large for gestational age (with induced labour and increased need for a Caesarean Section). Women

³⁴ Public Health Agency, Stop Smoking <https://www.stopsmokingni.info/why-quit/smoking-pregnancy>

³⁵ Public Health Agency, “Give your baby a breather - help and advice on giving up smoking during pregnancy”

http://www.publichealth.hscni.net/sites/default/files/Give%20your%20baby%20a%20breather%20booklet%2001_17.pdf

³⁶ Institute of Public Health, “A Tobacco-Free Future: An All-Island Report on Tobacco, Inequalities and Childhood”, 2013

<http://www.publichealth.ie/sites/default/files/A%20Tobacco-free%20Future.%20An%20All-island%20report%20on%20Tobacco.%20inequalities%20and%20childhood%202013.pdf>

³⁷ National Institute for Health and Care Excellence (NICE) ‘Tobacco: preventing uptake, promoting quitting and treating dependence’, NICE guideline. November 2021 <https://www.nice.org.uk/guidance/ng209/resources/tobacco-preventing-uptake-promoting-quitting-and-treating-dependence-pdf-66143723132869>

³⁸ National Institute for Health and Care Excellence (NICE) “Smoking: stopping in pregnancy and after childbirth”, public health guidance, June 2010

<http://www.nice.org.uk/guidance/ph26>

³⁹ Public Health Agency, Stop Smoking <https://www.stopsmokingni.info/why-quit/smoking-pregnancy>

may have an increased risk of pre-eclampsia or miscarriage. Women may experience problems with blood glucose control as a result of e.g. morning sickness⁴⁰.

Infants born to mothers with diabetes are at greater risk of ^{41,42}:

- Stillbirth / born pre-term (<37 weeks gestation)
- Neonatal death
- Congenital abnormality
- Birth injury in higher weight infants e.g. shoulder dystocia
- The increased risk of obesity and diabetes in later life.

Gestational diabetes is diabetes which develops during pregnancy. Pregnancy places a heavy demand on the body and some women are less able to produce enough insulin, resulting in high blood glucose levels. It is becoming more prevalent in women of child bearing age, possibly due to increasing maternal age and obesity levels which brings additional risk to the mother and her baby. Mothers with gestational diabetes are more likely to develop Type 2 diabetes in later life⁴³.

What can be done?

Type 1 diabetes cannot be prevented. Type 2 diabetes is becoming more common in women of child bearing age. Risk factors for developing gestational diabetes include⁴⁴:

- Being overweight or obese
- Coming from a African-Caribbean, South Asian, Chinese or Middle Eastern background
- Having a close relative e.g. parent, brother or sister with diabetes
- Having had gestational diabetes before
- Having had a very large baby in a previous pregnancy (≥ 4.5 kg)

A document published by the Royal College of Midwives in September 2022, states⁴⁵:

“The care provided to women with diabetes should nurture their independence, self-management and control over their health. Maternity services must offer prompt access to the right services at the right time. This includes implementing prevention services, weight management clinics and supporting women and their families through radical lifestyle changes. This, in conjunction with recognition of the role health technologies, can help women to achieve more independence and improved outcomes in glycaemic control”.

NICE⁴⁶ guidance *“Diabetes in pregnancy: management from preconception to the postnatal period”* focuses on the additional/different care that a woman with diabetes should be offered, providing advice on best practice prior to conception as well as care of the mother and infant.

⁴⁰ “Type 1 diabetes and pregnancy”, British Medical Journal 334 (7596). Sourced from: US National Library of Medicine (National Institutes of Health), 2007

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1847857/>

⁴¹ Diabetes UK, Pregnancy and diabetes, <https://www.diabetes.org.uk/guide-to-diabetes/life-with-diabetes/pregnancy>

⁴² Royal College of Obstetricians and Gynaecologists, March 2013 <https://www.rcog.org.uk/globalassets/documents/patients/patient-information-leaflets/pregnancy/pi-gestational-diabetes.pdf>

⁴³ R Dennison, E Chen, ME Green, C Legard, D Kotecha, G Farmer, S Sharp, RJ Ward, JA Usher-Smith, SJ Griffin, The absolute and relative risk of type 2 diabetes after gestational diabetes: A systematic review and meta-analysis of 129 studies, in Diabetes Research and Clinical Practice, 15 December 2020

<https://www.phpc.cam.ac.uk/pcu/33-of-women-who-have-gestational-diabetes-will-develop-type-2-diabetes-within-15-years-new-research-shows/>

⁴⁴ Diabetes UK, <https://www.diabetes.org.uk/diabetes-the-basics/gestational-diabetes>

⁴⁵ The Royal College of Midwives, “Caring for pregnant women with pre-existing and gestational diabetes”, September 2022

https://www.rcm.org.uk/media/6337/caring-for-pregnant-with-pre-existing-and-gestational-diabetes_digital.pdf

⁴⁶ National Institute for Health and Care Excellence (NICE) “Diabetes in pregnancy: management from preconception to the postnatal period”, February 2015, updated December 2020 <http://www.nice.org.uk/guidance/ng3>

Key Points

Smoking

- In 2021/22, 11.3% of mothers smoked (2010/11 = 15.5%) [Page 43].
- The proportion of mothers who smoked (at booking) decreased with age, from 31.1% of those aged less than 20 years to 8.7% of those aged 40 and over. [Page 44]
- In the most deprived areas of Northern Ireland (NIMDM 2017), 21.4% of mothers smoked, compared to 4.1% in the least deprived areas. [Page 45]
- Mothers who had previously given birth were more likely to smoke (12.2%), compared to first time mothers (9.1%). [Page 44]
- Smoking rates were higher amongst those women who were of a white ethnic background (11.6%), compared to those of a non-white background (4.2%). [Page 44]
- At District Electoral Area level, the proportion of mothers who smoked ranged from 1.5% (Killultagh DEA, Lisburn and Castlereagh LGD) to 25.0% (Court DEA, Belfast LGD). *Note that when providing data at this geographic level, numbers of births can be small and so caution is advised.* [Page 47]

Diabetes

Due to data validation issues, it is not possible to provide data for mothers with diabetes who gave birth during 2021/22, therefore only data up to 2020/21 has been provided.

- In 2020/21, 15.0% of mothers had diabetes (2010/11 = 1.8%) [Page 43]

Further data for 2020/21 can be found in the Children's Health in Northern Ireland 2020/21 report:
<https://www.publichealth.hscni.net/directorates/operations/statistics>

Table 6.1: Mothers resident in Northern Ireland, by maternal risk factor, 2010/11 – 2021/22

Year of birth	Maternal risk factor							
	Mothers (n)	Smoking (at antenatal booking)	Diabetes	Pregnancy induced hypertension	Anaemia	Alcohol use	Antepartum haemorrhage (APH)	History of psychiatric illness
2010/11	25,253	3,923	444	1,136	940	22	563	
	-	15.5%	1.8%	4.5%	3.7%	0.09%	2.2%	
2011/12	24,929	4,087	575	1,199	863	27	743	
	-	16.4%	2.3%	4.8%	3.5%	0.11%	3.0%	
2012/13	24,625	3,959	890	1,138	1,069	26	719	
	-	16.1%	3.6%	4.6%	4.3%	0.11%	2.9%	
2013/14	23,898	3,544	1,230	1,207	989	21	682	
	-	14.8%	5.1%	5.1%	4.1%	0.09%	2.9%	
2014/15	24,041	3,497	1,361	1,034	787	19	623	
	-	14.5%	5.7%	4.3%	3.3%	0.08%	2.6%	
2015/16	24,073	3,389	1,517	1,063	850	20	574	
	-	14.1%	6.3%	4.4%	3.5%	0.08%	2.4%	
2016/17	23,697	3,194	1,822	1,029	779	12	514	1,668
	-	13.5%	7.7%	4.3%	3.3%	0.05%	2.2%	7.0%
2017/18	22,705	3,134	2,086	1,109	735	83	417	1,711
	-	13.8%	9.2%	4.9%	3.2%	0.37%	1.8%	7.5%
2018/19	Mothers giving birth (n)	22,582	22,582	22,582	22,582	22,582	22,582	22,582
	Valid responses (n) (smoking only)	21,637	-	-	-	-	-	-
	Risk factor (n)	2,862	2,500	1,106	967	85	381	1,751
	%	13.2%	11.1%	4.9%	4.3%	0.38%	1.7%	7.8%
2019/20	Mothers giving birth (n)	22,084	22,084	22,084	22,084	22,084	22,084	22,084
	Valid responses (n) (smoking only)	21,400	-	-	-	-	-	-
	Risk factor (n)	2,801	2,969	1,039	1,057	70	368	1,829
	%	13.1%	13.4%	4.7%	4.8%	0.32%	1.7%	8.3%
2020/21	Mothers giving birth (n)	21,163	21,163	21,163	21,163	21,163	21,163	21,163
	Valid responses (n) (smoking only)	18,851	-	-	-	-	-	-
	Risk factor (n)	2,329	3,177	1,049	973	31	357	1,766
	%	12.4%	15.0%	5.0%	4.6%	0.15%	1.7%	8.3%
2021/22	Mothers giving birth (n)	21,469		21,469	21,469	21,469	21,469	21,469
	Valid responses (n) (smoking only)	20,012		-	-	-	-	-
	Risk factor (n)	2,261		1,033	1,086	29	374	1,851
	%	11.3%		4.8%	5.1%	0.14%	1.7%	8.6%

Source: Child Health System (2010/11 - 2016/17), NIMATS (2017/18 onwards)

Following a change in the interface between NIMATS and CHS during 2017/18, fields containing information on ante-natal risk factors, which had usually transferred from NIMATS to CHS are not now available on CHS. As a result, the data must be sourced from NIMATS. However, on CHS, only four ante-natal risk factors are recorded and so e.g. history of psychiatric of illness may not have been recorded on CHS (but would be recorded on NIMATS), therefore this may account for lower figures when comparing CHS data to NIMATS data. The data from both sources were analysed and the impact of changing the source of the data was considered minimal. History of psychiatric illness - coverage prior to 2016/17 was not regarded as sufficient.

There has been a concerted effort to identify diabetes risk factors in women and this may in part be reflected in the increased numbers.

In September 2016, new screens were added to NIMATS to collect more detailed data on the mother's smoking habits. This data could not be used due to the large number of incomplete records. However, from 2018/19, CO levels, the proportion of mothers who smoked and the number of cigarettes smoked per day will be presented using this new data.

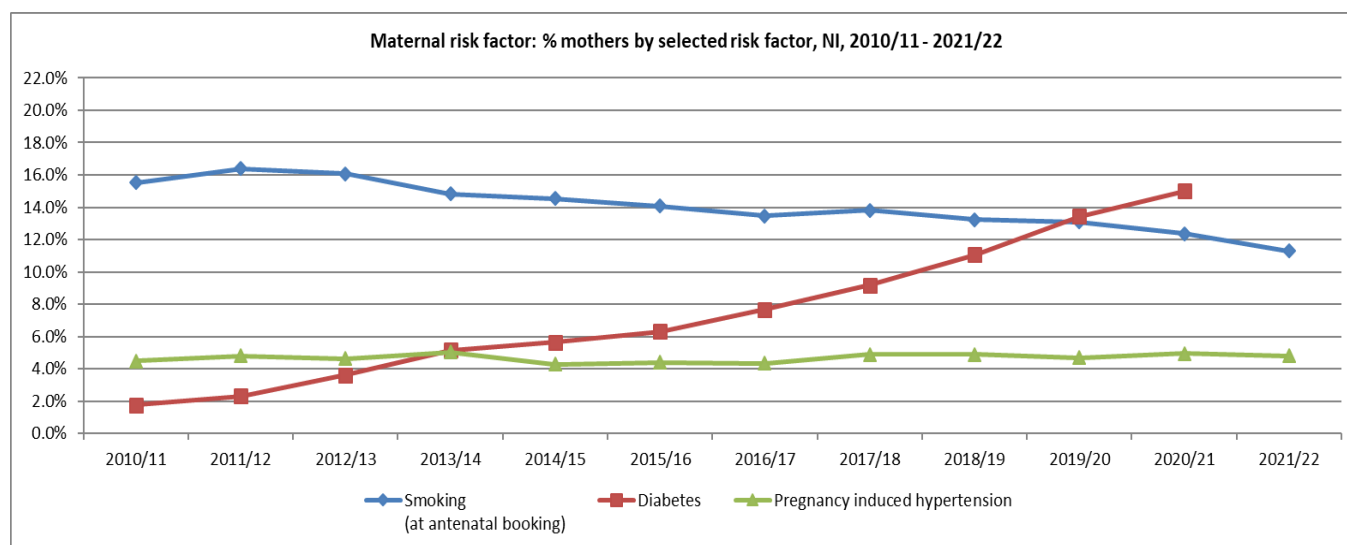
As a result of this change in source of smoking data, how the percentage of mothers who smoked is calculated will change from 2018/19 onwards. The percentage is now a valid percentage i.e. the % calculation is based on those records where smoking status was known and blank data has been removed from the denominator value.

Percentage calculations for all other ante natal risk factors remain the same i.e. as a % of ALL mothers giving birth

NOTE THAT DUE TO COVID-19, CARBON MONOXIDE (CO) MONITORING CEASED APRIL 2020 AND RECOMMENCED NOVEMBER 2021. CO MONITORING IS RECORDED AT THE SAME TIME AS SMOKING STATUS AND SO IT IS LIKELY THAT SOME WOMEN WILL NOT HAVE HAD A SMOKING STATUS RECORDED

DIABETES - due to data validation issues, it is not possible to provide data for mothers with diabetes who gave birth during 2021/22, therefore only data up to 2020/21 has been provided

Figure 6.1: % mothers by selected risk factor, Northern Ireland residents, 2010/11 - 2021/22



DIABETES - due to data validation issues, it is not possible to provide data for mothers with diabetes who gave birth during 2021/22, therefore only data up to 2020/21 has been provided

Table 6.2: Mothers resident in Northern Ireland, by smoking status at antenatal booking, 2021/22

		Smoking status at time of booking appointment						% who smoked (valid percentage)
		Smoked	Never smoked	No stopped smoking prior to this pregnancy	No stopped smoking this pregnancy	Blank	All mothers	
Age Group of mother	Under 20	129	215	33	38	30	445	31.1%
	20 - 24	505	1,218	257	247	160	2,387	22.7%
	25 - 29	671	3,427	532	303	355	5,288	13.6%
	30 - 34	591	5,772	644	289	525	7,821	8.1%
	35 - 39	284	3,365	431	128	322	4,530	6.7%
	40 +	81	737	89	26	65	998	8.7%
	Not known	0	0	0	0	0	0	-
	All mothers	2,261	14,734	1,986	1,031	1,457	21,469	11.3%
Multiple births	Single	2,225	14,533	1,963	1,017	1,436	21,174	11.3%
	Multiple	36	201	23	14	21	295	13.1%
	All mothers	2,261	14,734	1,986	1,031	1,457	21,469	11.3%
First time mothers	First time mother	525	4,304	534	413	456	6,232	9.1%
	Not a first-time mother	1,736	10,430	1,452	618	1,001	15,237	12.2%
	Not known	0	0	0	0	0	0	-
	All mothers	2,261	14,734	1,986	1,031	1,457	21,469	11.3%
Ethnic group of mother	White	2,221	13,912	1,937	1,020	1,393	20,483	11.6%
	Non-white	38	801	47	11	51	948	4.2%
	Not stated / Blank	2	21	2	0	13	38	8.0%
	All mothers	2,261	14,734	1,986	1,031	1,457	21,469	11.3%
Place of birth	Altnagelvin	250	1,540	237	134	188	2,349	11.6%
	Antrim	301	1,923	217	130	312	2,883	11.7%
	Causeway	88	582	93	55	77	895	10.8%
	Craigavon	357	2,313	256	149	113	3,188	11.6%
	Daisy Hill	137	1,467	154	90	139	1,987	7.4%
	Downe	0	0	0	0	0	0	-
	Lagan Valley	<10	59	12	5	<5	87	<11.3%
	Mater	0	0	0	0	0	0	-
	Royal	681	3,069	507	197	256	4,710	15.3%
	SWAH	84	849	105	49	137	1,224	7.7%
	Ulster	352	2,872	398	222	226	4,070	9.2%
	Home	<5	60	7	0	<10	76	<11.3%
	All mothers	2,261	14,734	1,986	1,031	1,457	21,469	11.3%

Table 6.2 continued: Mothers resident in Northern Ireland, by smoking status, 2021/22

		Smoking status at time of booking appointment						All mothers	% who smoked (valid percentage)
		Smoked	Never smoked	No stopped smoking prior to this pregnancy	No stopped smoking this pregnancy	Blank			
Trust of residence of mother	Belfast	571	2,677	392	171	191	4,002	14.98%	
	Northern	521	3,437	453	222	442	5,075	11.25%	
	South Eastern	360	2,604	404	214	248	3,830	10.05%	
	Southern	479	3,636	398	234	264	5,011	10.09%	
	Western	330	2,380	339	190	312	3,551	10.19%	
	All mothers	2,261	14,734	1,986	1,031	1,457	21,469	11.3%	
Local Government District	Antrim and Newtownabbey	152	1,025	174	64	123	1,538	10.7%	
	Ards and North Down	124	1,026	152	85	88	1,475	8.9%	
	Armagh City, Banbridge and Craigavon	285	1,958	219	124	111	2,697	11.0%	
	Belfast	606	2,489	389	166	191	3,841	16.6%	
	Causeway Coast and Glens	145	1,019	140	76	94	1,474	10.5%	
	Derry City and Strabane	205	1,147	199	110	164	1,825	12.3%	
	Fermanagh and Omagh	90	920	116	63	142	1,331	7.6%	
	Lisburn and Castlereagh	109	1,228	157	73	98	1,665	7.0%	
	Mid and East Antrim	166	832	98	55	196	1,347	14.4%	
	Mid Ulster	188	1,502	136	86	71	1,983	9.8%	
Newry, Mourne and Down	191	1,588	206	129	179	2,293	9.0%		
All mothers	2,261	14,734	1,986	1,031	1,457	21,469	11.3%		
Deprivation 2017 quintile (SOA) based on residence of mother	Most deprived	924	2,599	507	285	318	4,633	21.4%	
	2	553	3,077	424	229	328	4,611	12.9%	
	3	366	3,072	407	217	286	4,348	9.0%	
	4	277	3,130	350	180	281	4,218	7.0%	
	Least deprived	141	2,856	298	120	244	3,659	4.1%	
	All mothers	2,261	14,734	1,986	1,031	1,457	21,469	11.3%	

Source: NIMATS

Due to the COVID-19 pandemic, Causeway Hospital was closed to deliveries between 8 April 2020 and 23 August 2020. Mater Hospital closed to deliveries on 30 March 2020 (it became a COVID Centre) and all deliveries were relocated to Royal Victoria Hospital. The Mater is still closed to deliveries.

NI Statistics and Research Agency, NI Multiple Deprivation Measure 2017

<https://www.nisra.gov.uk/news/nisra-releases-updated-deprivation-measures-northern-ireland>

Alcohol use - figures are too small and so have not been provided

In September 2016, new screens were added to NIMATS to collect more detailed data on the mother's smoking habits. This data could not be used due to the large number of incomplete records. However from 2018/19, CO levels, the proportion of mothers who smoked and the number of cigarettes smoked per day will be presented using this new data.

As a result of this change in source of smoking data, how the percentage of mothers who smoked is calculated will change from 2018/19 onwards and so the smoking information presented in this report has been separated out to a new table. The percentage is now a valid percentage i.e. the % calculation is based on those records where smoking status was known and blank data has been removed from the denominator value.

Disclosure controls have been applied to the data

NOTE THAT DUE TO COVID-19, CARBON MONOXIDE (CO) MONITORING CEASED APRIL 2020 AND RECOMMENCED NOVEMBER 2021. CO MONITORING IS RECORDED AT THE SAME TIME AS SMOKING STATUS AND SO IT IS LIKELY THAT SOME WOMEN WILL NOT HAVE HAD A SMOKING STATUS RECORDED

Table 6.3: Mothers resident in Northern Ireland, by maternal risk factor, 2021/22

		% mothers by risk factor				
		Total mothers	Pregnancy induced hypertension	Anaemia	Antepartum haemorrhage (APH)	History of psychiatric illness
Age Group of mother	Under 20	445	2.0%	10.1%	1.1%	11.2%
	20 - 24	2,387	0.9%	8.5%	1.0%	12.5%
	25 - 29	5,288	2.5%	5.2%	1.6%	9.3%
	30 - 34	7,821	3.5%	3.8%	1.7%	7.3%
	35 - 39	4,530	7.8%	4.4%	2.1%	7.5%
	40 +	998	19.6%	6.4%	3.5%	9.9%
	Not known	0	-	-	-	-
	All mothers	21,469	4.8%	5.1%	1.7%	8.6%
Multiple births	Single	21,174	4.8%	5.0%	1.7%	8.6%
	Multiple	295	5.1%	10.2%	3.7%	7.8%
	All mothers	21,469	4.8%	5.1%	1.7%	8.6%
First time mothers	First time mother	6,232	7.4%	3.7%	1.5%	6.5%
	Not a first-time mother	15,237	3.8%	5.6%	1.9%	9.5%
	Not known	0	-	-	-	-
	All mothers	21,469	4.8%	5.1%	1.7%	8.6%
Ethnic group of mother	White	20,483	4.9%	5.0%	1.7%	8.8%
	Non-white	948	3.9%	6.5%	1.9%	3.6%
	Not stated / Blank	38	5.3%	13.2%	0.0%	13.2%
	All mothers	21,469	4.8%	5.1%	1.7%	8.6%
Place of birth	Altnagelvin	2,349	3.8%	5.9%	2.1%	8.0%
	Antrim	2,883	4.5%	4.7%	1.6%	7.7%
	Causeway	895	2.1%	3.9%	2.2%	3.2%
	Craigavon	3,188	5.1%	4.4%	1.1%	6.9%
	Daisy Hill	1,987	2.8%	3.4%	1.3%	4.7%
	Downe	0	-	-	-	-
	Lagan Valley	87	0.0%	1.1%	0.0%	8.0%
	Mater	0	-	-	-	-
	Royal	4,710	6.7%	6.3%	1.5%	12.4%
	SWAH	1,224	3.9%	2.6%	1.6%	7.1%
	Ulster	4,070	5.3%	5.8%	2.6%	10.1%
	Home	76	0.0%	6.6%	0.0%	6.6%
	All mothers	21,469	4.8%	5.1%	1.7%	8.6%
Trust of residence of mother	Belfast	4,002	6.3%	6.2%	1.8%	11.8%
	Northern	5,075	4.4%	4.7%	1.6%	7.5%
	South Eastern	3,830	5.1%	5.6%	2.3%	10.6%
	Southern	5,011	4.4%	4.2%	1.3%	6.2%
	Western	3,551	4.0%	5.0%	1.9%	7.8%
	All mothers	21,469	4.8%	5.1%	1.7%	8.6%

Table 6.3 continued: Mothers resident in Northern Ireland, by maternal risk factor, 2021/22

		% mothers by risk factor				
		Total mothers	Pregnancy induced hypertension	Anaemia	Antepartum haemorrhage (APH)	History of psychiatric illness
Local Government District	Antrim and Newtownabbey	1,538	6.0%	4.6%	1.2%	9.2%
	Ards and North Down	1,475	4.7%	5.0%	2.2%	11.6%
	Armagh City, Banbridge and Craigavon	2,697	4.9%	5.0%	0.9%	7.2%
	Belfast	3,841	6.2%	6.6%	1.7%	12.5%
	Causeway Coast and Glens	1,474	3.1%	4.8%	2.3%	5.6%
	Derry City and Strabane	1,825	3.9%	6.0%	2.1%	8.3%
	Fermanagh and Omagh	1,331	4.1%	3.2%	1.4%	7.1%
	Lisburn and Castlereagh	1,665	6.0%	5.0%	2.3%	8.8%
	Mid and East Antrim	1,347	4.2%	4.7%	1.6%	9.2%
	Mid Ulster	1,983	4.5%	4.5%	1.6%	5.2%
	Newry, Mourne and Down	2,293	3.6%	4.1%	2.1%	7.0%
	All mothers	21,469	4.8%	5.1%	1.7%	8.6%
Deprivation 2017 quintile (SOA) based on residence of mother	Most deprived	4,633	5.5%	6.5%	1.5%	12.3%
	2	4,611	4.0%	5.1%	1.7%	9.2%
	3	4,348	4.9%	4.5%	1.7%	8.0%
	4	4,218	4.4%	4.9%	1.7%	6.3%
	Least deprived	3,659	5.4%	4.0%	2.1%	6.6%
	All mothers	21,469	4.8%	5.1%	1.7%	8.6%

Source: NIMATS

Due to the COVID-19 pandemic, Causeway Hospital was closed to deliveries between 8 April 2020 and 23 August 2020. Mater Hospital closed to deliveries on 30 March 2020 (it became a COVID Centre) and all deliveries were relocated to Royal Victoria Hospital. The Mater is still closed to deliveries.

NI Statistics and Research Agency, NI Multiple Deprivation Measure 2017

<https://www.nisra.gov.uk/news/nisra-releases-updated-deprivation-measures-northern-ireland>

Alcohol use - figures are too small and so have not been provided

DIABETES - due to data validation issues, it is not possible to provide data for mothers with diabetes who gave birth during 2021/22.

Data for 2020/21 can be found in the 2020/21 report: <https://www.publichealth.hscni.net/directorates/operations/statistics>

Table 6.4: Mothers resident in Northern Ireland, by smoking status, by District Electoral Area, 2021/22

Local Government District	District Electoral Area	Total mothers	Total mothers with a valid smoking status	Smoking at antenatal booking (% of mothers with valid smoking status)
Antrim and Newtownabbey	Airport	236	218	5.5%
	Antrim	287	253	15.8%
	Ballyclare	196	178	10.1%
	Dunsilly	188	164	5.5%
	Glengormley Urban	238	227	8.8%
	Macedon	195	188	20.2%
	Three Mile Water	198	187	8.0%
	Total	1,538	1,415	10.7%
Ards and North Down	Ards Peninsula	230	219	10.0%
	Bangor Central	237	221	8.6%
	Bangor East and Donaghadee	170	153	3.3%
	Bangor West	185	177	7.9%
	Comber	194	181	7.2%
	Hollywood and Clondeboye	143	138	5.1%
	Newtownards	316	298	14.8%
	Total	1,475	1,387	8.9%

Table 6.4 continued: Mothers resident in Northern Ireland, by smoking status, by District Electoral Area, 2021/22

Local Government District	District Electoral Area	Total mothers	Total mothers with a valid smoking status	Smoking at antenatal booking (% of mothers with valid smoking status)
Armagh, Banbridge and Craigavon	Armagh	421	382	9.9%
	Banbridge	380	370	9.7%
	Craigavon	354	345	12.2%
	Cusher	311	286	7.0%
	Lagan River	284	277	7.6%
	Lurgan	550	539	13.2%
	Portadown	397	387	14.7%
	Total	2,697	2,586	11.0%
Belfast	Balmoral	231	221	4.1%
	Black Mountain	476	435	20.0%
	Botanic	381	355	14.1%
	Castle	355	338	16.9%
	Collin	426	401	16.7%
	Court	448	420	25.0%
	Lisnasharragh	282	277	5.1%
	Oldpark	476	454	24.2%
	Ormiston	312	307	7.2%
	Titanic	454	442	19.2%
	Total	3,841	3,650	16.6%
Causeway Coast and Glens	Ballymoney	286	262	8.4%
	Bann	182	175	9.1%
	Benbradagh	215	212	7.5%
	Causeway	203	181	9.9%
	Coleraine	227	211	18.0%
	Limavady	179	176	10.8%
	The Glens	182	163	9.8%
	Total	1,474	1,380	10.5%
Derry City and Strabane	Ballyarnett	334	299	17.4%
	Derg	230	210	8.1%
	Faughan	211	197	7.6%
	Foyleside	210	185	16.2%
	Sperrin	302	288	9.0%
	The Moor	206	183	12.0%
	Waterside	332	299	14.4%
	Total	1,825	1,661	12.3%
Fermanagh and Omagh	Enniskillen	179	179	10.6%
	Erne East	184	174	5.2%
	Erne North	172	167	12.0%
	Erne West	170	164	5.5%
	Mid Tyrone	232	191	6.8%
	Omagh	209	164	6.7%
	West Tyrone	185	150	6.0%
	Total	1,331	1,189	7.6%

Table 6.4 continued: Mothers resident in Northern Ireland, by smoking status, by District Electoral Area, 2021/22

Local Government District	District Electoral Area	Total mothers	Total mothers with a valid smoking status	Smoking at antenatal booking (% of mothers with valid smoking status)
Lisburn and Castlereagh	Castlereagh East	251	243	4.5%
	Castlereagh South	255	245	4.9%
	Downshire East	168	162	8.0%
	Downshire West	175	155	4.5%
	Killultagh	290	272	1.5%
	Lisburn North	263	245	8.2%
	Lisburn South	263	245	17.1%
	Total	1,665	1,567	7.0%
Mid and East Antrim	Ballymena	255	203	20.7%
	Bannside	207	161	9.9%
	Braid	260	198	12.6%
	Carrick Castle	155	140	10.0%
	Coast Road	153	144	20.1%
	Knockagh	165	158	13.9%
	Larne Lough	152	147	12.2%
	Total	1,347	1,151	14.4%
Mid Ulster	Carntogher	229	220	5.5%
	Clogher Valley	321	302	6.6%
	Cookstown	287	281	12.1%
	Dungannon	345	336	14.0%
	Magherafelt	261	253	9.5%
	Moyola	242	234	7.7%
	Torrent	298	286	11.5%
	Total	1,983	1,912	9.8%
Newry, Mourne and Down	Crotlieve	350	318	3.1%
	Downpatrick	261	235	14.5%
	Newry	334	308	13.6%
	Rowallane	232	218	14.2%
	Slieve Croob	273	258	8.5%
	Slieve Gullion	474	431	6.0%
	The Mournes	369	346	7.5%
	Total	2,293	2,114	9.0%
Northern Ireland	All mothers	21,469	20,012	11.3%

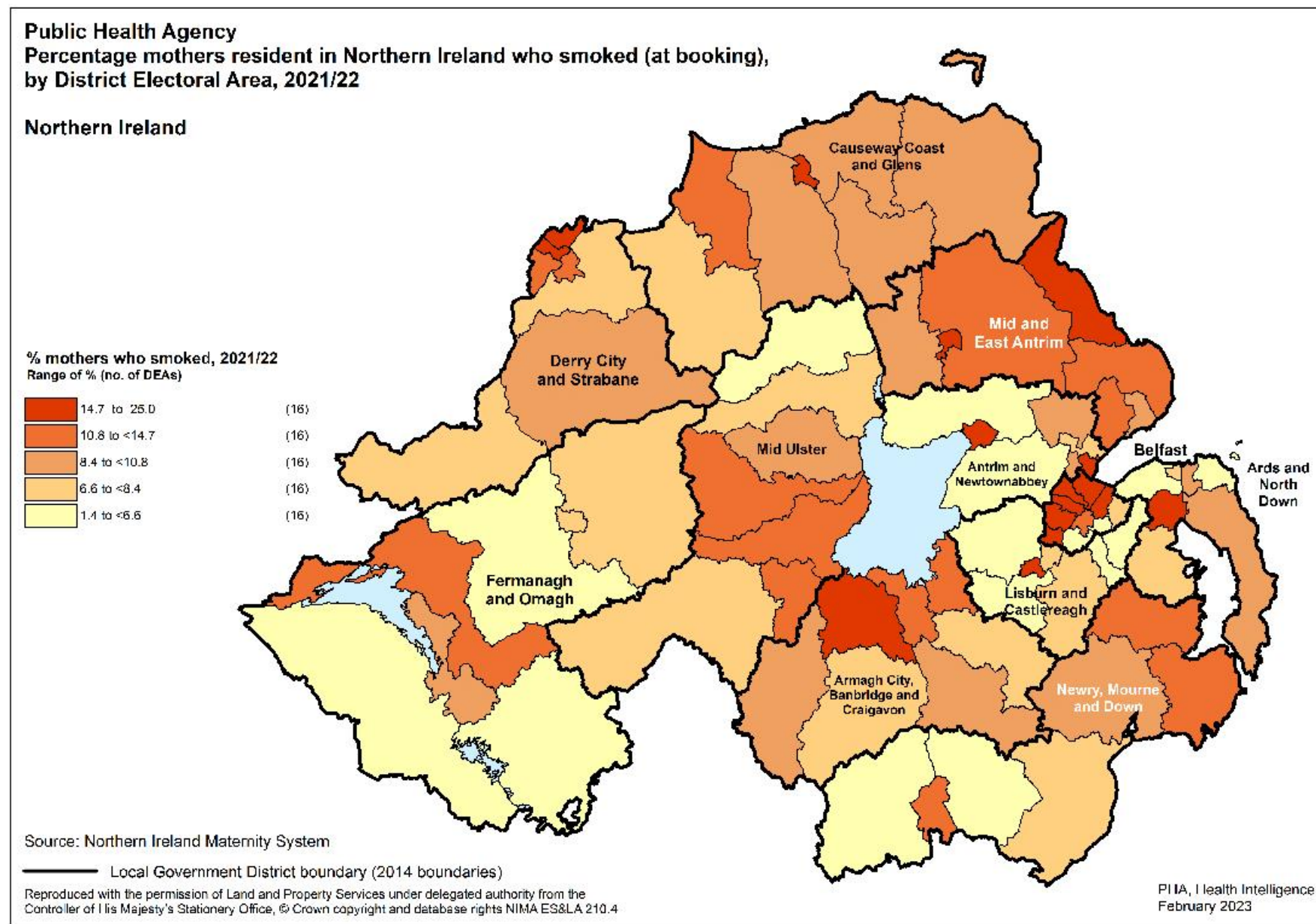
Source: NIMATS

In September 2016, new screens were added to NIMATS to collect more detailed data on the mother's smoking habits. This data could not be used due to the large number of incomplete records. However, from 2018/19, CO levels, the proportion of mothers who smoked and the number of cigarettes smoked per day will be presented using this new data.

As a result of this change in source of smoking data, how the percentage of mothers who smoked is calculated will change from 2018/19 onwards and so the smoking information presented in this report is now shown as a valid percentage i.e. the % calculation is based on those records where smoking status was known and blank data has been removed from the denominator value.

NOTE THAT DUE TO COVID-19, CARBON MONOXIDE (CO) MONITORING CEASED APRIL 2020 AND RECOMMENCED NOVEMBER 2021. CO MONITORING IS RECORDED AT THE SAME TIME AS SMOKING STATUS AND SO IT IS LIKELY THAT SOME WOMEN WILL NOT HAVE HAD A SMOKING STATUS RECORDED

Figure 6.2: Percentage mothers' resident in Northern Ireland who smoked (at booking), by District Electoral Area, Northern Ireland, 2021/22



Diabetes and smoking

Table 6.5: Mothers resident in Northern Ireland, who are diabetic and who smoke, 2012/13 - 2020/21

	Year of birth	Mothers giving birth	Mothers who smoke (at antenatal booking)	
		n	n	%
Mothers WITH diabetes (any type)	2012/13	899	119	13.2%
	2013/14	1,234	162	13.1%
	2014/15	1,352	181	13.4%
	2015/16	1,653	205	12.4%
	2016/17	1,968	265	13.5%
	2017/18	2,086	294	14.1%
	2018/19	2,500	304	12.2%
	2019/20	2,969	371	12.5%
	2020/21	3,177	339	10.7%
Mothers WITHOUT diabetes	2012/13	23,639	3,936	16.7%
	2013/14	22,599	3,616	16.0%
	2014/15	22,617	3,359	14.9%
	2015/16	22,392	3,205	14.3%
	2016/17	21,737	2,957	13.6%
	2017/18	20,624	2,840	13.8%
	2018/19	20,085	2,558	12.7%
	2019/20	19,115	2,430	12.7%
	2020/21	17,986	1,990	11.1%
All mothers	2012/13	24,538	4,055	16.5%
	2013/14	23,833	3,778	15.9%
	2014/15	23,969	3,540	14.8%
	2015/16	24,045	3,410	14.2%
	2016/17	23,705	3,222	13.6%
	2017/18	22,710	3,134	13.8%
	2018/19	22,585	2,862	12.7%
	2019/20	22,084	2,801	12.7%
	2020/21	21,163	2,329	11.0%

Source: NIMATS

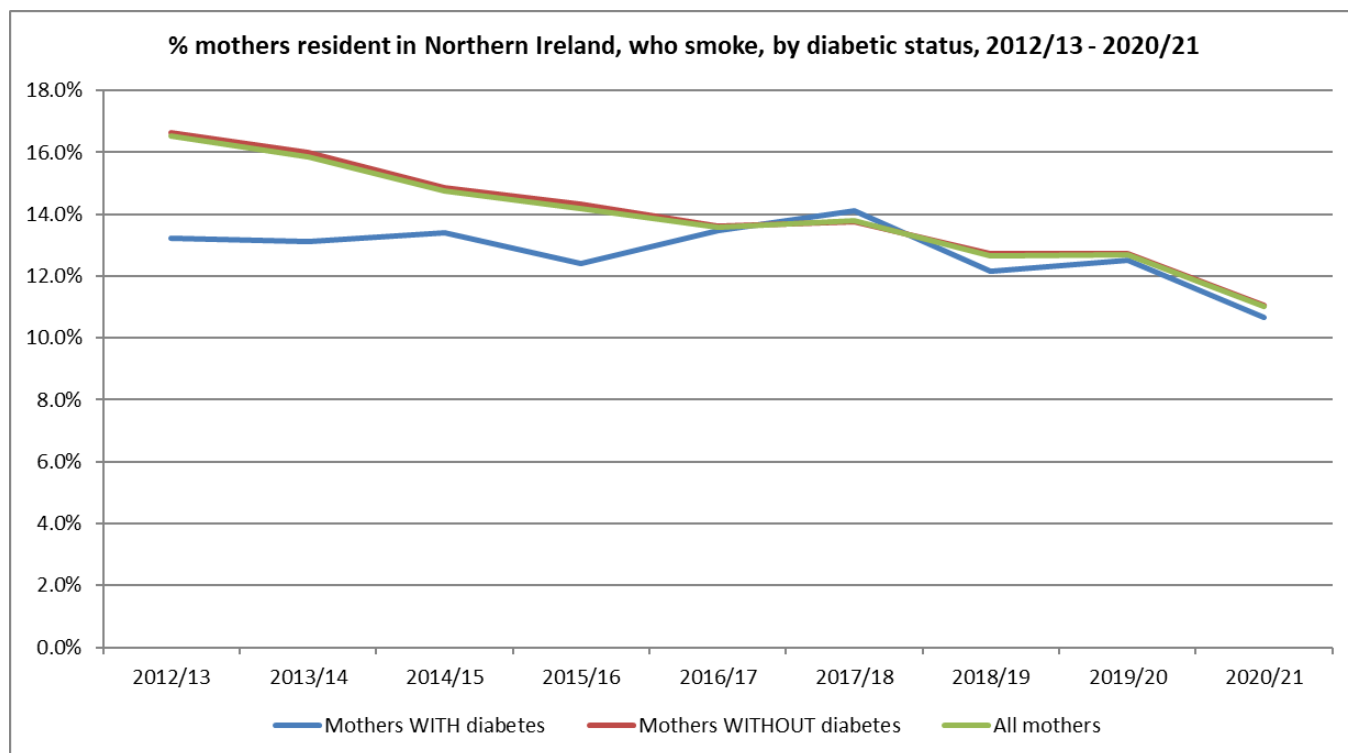
In September 2016, new screens were added to NIMATS to collect more detailed data on the mother's smoking habits. This data could not be used due to the large number of incomplete records. However from 2018/19, CO levels, the proportion of mothers who smoked and the number of cigarettes smoked per day will be presented using this new data.

As a result of this change in source of smoking data, how the percentage of mothers who smoked is calculated will change from 2018/19 onwards and so the smoking information presented in this report is now shown as a valid percentage i.e. the % calculation is based on those records where smoking status was known and blank data has been removed from the denominator value.

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DIABETES - due to data validation issues, it is not possible to provide data for mothers with diabetes who gave birth during 2021/22, therefore only data up to 2020/21 has been provided

Figure 6.3: Mothers resident in Northern Ireland, who are diabetic and who smoke, 2012/13 - 2020/21



Due to data validation issues, it is not possible to provide data for mothers with diabetes who gave birth during 2021/22, therefore only data up to 2020/21 has been provided

Section 7: Maternal BMI

Why should we be concerned?

This report highlights that over a quarter (27%) of mothers giving birth in Northern Ireland in 2021/22 were obese (BMI \geq 30 at time of antenatal booking) (Table 7.1, page 54). Obesity (and excessive weight gain during pregnancy) is associated with increased risks to both mother and infant.

Risks to mothers include^{47 48}:

- Reduced fertility
- Greater risk of miscarriage / still birth / congenital anomalies
- Greater risk of developing gestational diabetes
- Having a larger baby (>4kg) resulting in complications such as infant shoulder dystocia
- Increased risk of requiring a Caesarean Section
- Greater risk of conditions such as diabetes and hypertension to both mother and child
- Maternal death

Postnatally, maternal obesity has been linked to depression and difficulties in breastfeeding, with adverse cardiovascular and respiratory outcomes in children⁴⁹.

The Royal College of Obstetricians and Gynaecologists⁵⁰ adds that mothers who were obese were also at risk of thrombosis (blood clot), high blood pressure and pre-eclampsia, post-Caesarean wound infection, anaesthetic complications and postpartum haemorrhage.

Risks to infants include⁵¹:

- Neural tube defects (problems with development of brain and spine)
- Being born preterm
- The increased risk of obesity and diabetes in later life.

What can be done?

Advice given to the general population on maintaining a sensible weight should be encouraged in women of childbearing age. Recent campaigns and initiatives such as the Public Health Agency's "Choose to Live Better"⁵² and the Department of Health framework "A Fitter Future for All"⁵³ encourage people to make healthy choices, to improve their health and wellbeing and to reduce the risk of diseases relating to obesity.

The Royal College of Obstetricians and Gynaecologists state⁵⁴:

"Primary care services should ensure that all women of childbearing age have the opportunity to optimise their weight before pregnancy. Advice on weight and lifestyle should be given during preconception counselling or contraceptive consultations. Weight and BMI should be measured to encourage women to optimise their weight before pregnancy. Women of childbearing age with a BMI 30 kg/m² or greater should receive information and advice about the risks of obesity during pregnancy and childbirth, and be supported to lose weight before conception and between pregnancies in line with National Institute for Health and Care Excellence (NICE) Clinical guideline (CG) 189. Women should be informed that weight loss between pregnancies reduces the risk of stillbirth, hypertensive complications and fetal macrosomia".

⁴⁷ The BMJ, "Obesity and pregnancy: mechanisms of short term and long term adverse consequences for mother and child", February 2017 <https://www.bmj.com/content/356/bmj.j1>

⁴⁸ British Dietetic Association, "Maternal Obesity", December 2015 <https://www.bda.uk.com/resource/maternal-obesity.html>

⁴⁹ "Maternal Obesity", Public Health England, December 2015 https://khub.net/c/document_library/get_file?uuid=a5768682-fb3d-4fda-ab4a-937a8d80f855&groupId=31798783

⁵⁰ Royal College of Obstetricians and Gynaecologists "Why your weight matters during pregnancy and after birth"

https://www.rcog.org.uk/en/patients/patient-leaflets/why-your-weight-matters-during-pregnancy-and-after-birth/?t_id=1B2M2Y8AsqTpgAmY7PhCfq%3d%3d&t_q=obesity+and+pregnancy&t_tags=language%3aen%2csiteid%3a39338ee9-cb61-4e10-a686-8f4a5e1b76d7&t_ip=81.145.165.209&t_hit.id=EPiServer_Templates_RCOG_Models_Pages_PatientGuidelinesDetailsType/a0e7baf6-8ee1-45e5-921f-727dce8de07_en&t_hit.pos=9

⁵¹ As ⁴³

⁵² Choose to Live Better, Public Health Agency <http://www.choosetolivebetter.com/>

⁵³ "A Fitter Future for All", Department of Health <https://www.health-ni.gov.uk/articles/obesity-prevention>

⁵⁴ Denison FC, Aedla NR, Keag O, Hor K, Reynolds RM, Milne A, Diamond A, on behalf of the Royal College of Obstetricians and Gynaecologists. Care of Women with Obesity in Pregnancy. Green-top Guideline No. 72. BJOG 2018

<https://www.rcog.org.uk/guidance/browse-all-guidance/green-top-guidelines/care-of-women-with-obesity-in-pregnancy-green-top-guideline-no-72/>

Key Points

- Over 27% of mothers giving birth during 2021/22 were measured as obese (BMI = 30.00 or more) at time of booking appointment. This proportion has increased year on year since 2011/12. 58.4% of mothers at the time of booking, were considered pre-obese or obese (BMI = 25.00 or more). [Page 54]
- Levels of obesity in mothers, in general, increased with age e.g. in 2021/22, 39.3% of mothers aged less than twenty years were considered pre-obese/obese, compared to 63% of mothers aged 40 and over (all mothers = 58.4%). [Page 55]
- Levels of obesity decreased as level of deprivation decreased (NIMDM 2017). In 2021/22, 62.3% of mothers from the most deprived areas were classified as pre-obese/obese, compared to 52.6% from the least deprived areas (all mothers = 58.4%). [Page 56]

Table 7.1: Body Mass Index, at time of booking, of mothers' resident in Northern Ireland who gave birth, 2011/12 - 2021/22

Year of birth		Mothers by BMI at booking							Total	Total: Obese I, II and III (valid %)
		Underweight (<18.50)	Normal (18.50 - 24.99)	Pre-obese (25.00 - 29.99)	Obese I (30.00 - 34.99)	Obese II (35.00 - 39.99)	Obese III (≥40.00)	Not known		
2011/12	n	487	11,540	6,753	2,733	1,032	489	947	23,981	4,254
	%	2.1%	50.1%	29.3%	11.9%	4.5%	2.1%	-	-	18.5%
2012/13	n	509	11,805	7,037	2,971	1,115	547	552	24,536	4,633
	%	2.1%	49.2%	29.3%	12.4%	4.6%	2.3%	-	-	19.3%
2013/14	n	470	11,430	6,950	2,923	1,174	515	368	23,830	4,612
	%	2.0%	48.7%	29.6%	12.5%	5.0%	2.2%	-	-	19.7%
2014/15	n	472	11,512	6,952	2,933	1,215	576	307	23,967	4,724
	%	2.0%	48.7%	29.4%	12.4%	5.1%	2.4%	-	-	20.0%
2015/16	n	472	11,216	7,178	2,970	1,271	605	331	24,043	4,846
	%	2.0%	47.3%	30.3%	12.5%	5.4%	2.6%	-	-	20.4%
2016/17	n	456	10,704	7,043	3,148	1,332	676	345	23,704	5,156
	%	2.0%	45.8%	30.2%	13.5%	5.7%	2.9%	-	-	22.1%
2017/18	n	435	10,213	6,776	3,028	1,351	595	307	22,705	4,974
	%	1.9%	45.6%	30.3%	13.5%	6.0%	2.7%	-	-	22.2%
2018/19	n	359	9,953	6,808	3,254	1,408	675	125	22,582	5,337
	%	1.6%	44.3%	30.3%	14.5%	6.3%	3.0%	-	-	23.8%
2019/20	n	382	9,463	6,682	3,345	1,416	669	127	22,084	5,430
	%	1.7%	43.1%	30.4%	15.2%	6.4%	3.0%	-	-	24.7%
2020/21	n	321	8,769	6,515	3,173	1,475	758	152	21,163	5,406
	%	1.5%	41.7%	31.0%	15.1%	7.0%	3.6%	-	-	25.7%
2021/22	n	344	8,535	6,628	3,416	1,590	848	108	21,469	5,854
	%	1.6%	40.0%	31.0%	16.0%	7.4%	4.0%	-	-	27.4%

Source: NIMATS

Figure 7.1: % mothers Obese I, II and III, Northern Ireland, 2011/12 – 2021/22

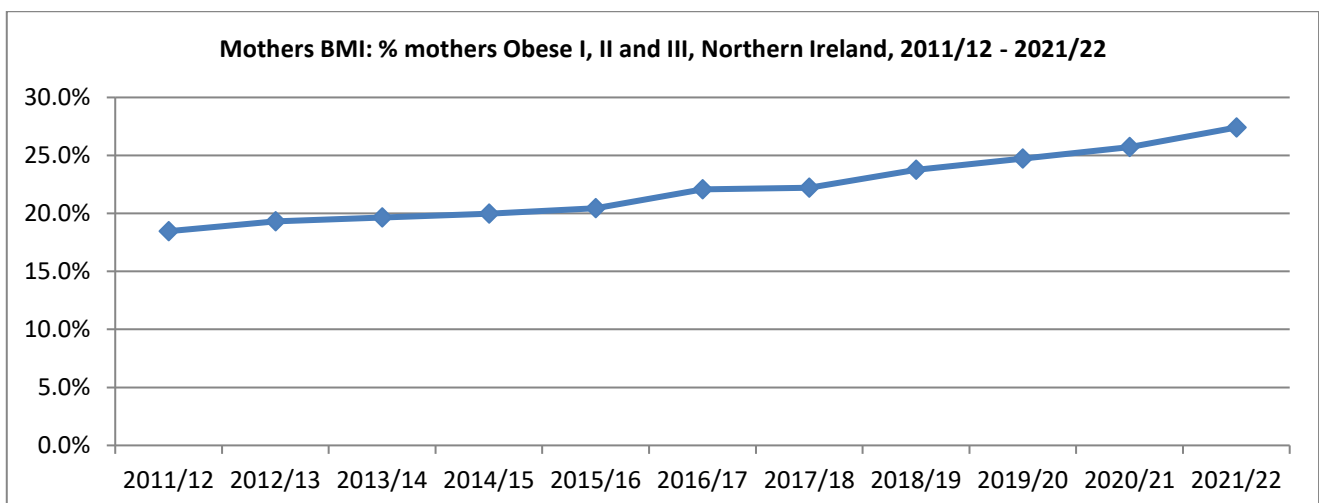


Table 7.2: Body Mass Index, at time of booking, of mothers' resident in Northern Ireland who gave birth, 2021/22

		Mothers by BMI at booking							Total	% obese I, II and III (valid %)
		Under weight (<18.50)	Normal (18.50 - 24.99)	Pre-obese (25.00 - 29.99)	Obese I (30.00 - 34.99)	Obese II (35.00 - 39.99)	Obese III (≥40.00)	Not known		
Age Group of mother	Under 20	29	238	109	44	15	5	5	445	14.5%
	20 - 24	86	976	668	382	185	74	16	2,387	27.0%
	25 - 29	105	2,030	1,576	882	422	254	19	5,288	29.6%
	30 - 34	86	3,180	2,433	1,207	565	313	37	7,821	26.8%
	35 - 39	33	1,747	1,495	739	325	162	29	4,530	27.2%
	40 +	5	364	347	162	78	40	2	998	28.1%
	All mothers	344	8,535	6,628	3,416	1,590	848	108	21,469	27.4%
Ethnic group of mother	White	321	8,128	6,297	3,278	1,536	828	95	20,483	27.7%
	Non-white	23	393	325	132	51	20	4	948	21.5%
	Not stated / Blank		14	6	6	3	0	9	38	31.0%
	All mothers	344	8,535	6,628	3,416	1,590	848	108	21,469	27.4%
Place of birth	Altnagelvin	39	854	744	401	196	113	2	2,349	30.3%
	Antrim	70	1,099	850	456	250	151	7	2,883	29.8%
	Causeway	17	403	261	132	<75	<5	<5	895	<27.4%
	Craigavon	51	1,226	964	537	242	164	4	3,188	29.6%
	Daisy Hill	28	846	698	269	108	35	3	1,987	20.8%
	Downe	0	0	0	0	0	0	0	0	-
	Lagan Valley	<5	39	33	<15	0	0	0	87	<27.4%
	Mater	0	0	0	0	0	0	0	0	-
	Royal	75	1,846	1,445	769	367	192	16	4,710	28.3%
	SWAH	<15	468	405	202	97	<40	<5	1,224	>27.4%
	Ulster	50	1,722	1,197	627	255	152	67	4,070	25.8%
	Home	0	32	31	<15	<5	0	<5	76	<27.4%
	All mothers	344	8,535	6,628	3,416	1,590	848	108	21,469	27.4%
Local Government District	Antrim and Newtownabbey	26	600	473	231	134	72	2	1,538	28.5%
	Ards and North Down	24	642	431	232	87	56	3	1,475	25.5%
	Armagh City, Banbridge and Craigavon	40	1,019	877	438	185	131	7	2,697	28.0%
	Belfast	59	1,539	1,173	624	280	153	13	3,841	27.6%
	Causeway Coast and Glens	29	577	440	243	124	57	4	1,474	28.8%
	Derry City and Strabane	33	682	569	294	154	90	3	1,825	29.5%
	Fermanagh and Omagh	14	505	439	225	106	41	1	1,331	28.0%
	Lisburn and Castlereagh	20	720	480	245	106	52	42	1,665	24.8%
	Mid and East Antrim	34	529	409	215	106	51	3	1,347	27.7%
	Mid Ulster	40	808	604	315	149	61	6	1,983	26.6%
	Newry, Mourne and Down	25	914	733	354	159	84	24	2,293	26.3%
	All infants	344	8,535	6,628	3,416	1,590	848	108	21,469	27.4%

Table 7.2 continued: Body Mass Index, at time of booking, of mothers' resident in Northern Ireland who gave birth, 2021/22

		Mothers by BMI at booking							Total	% obese I, II and III (valid %)
		Underweight (<18.50)	Normal (18.50 - 24.99)	Pre-obese (25.00 - 29.99)	Obese I (30.00 - 34.99)	Obese II (35.00 - 39.99)	Obese III (≥40.00)	Not known		
Trust of residence of mother	Belfast	56	1,623	1,224	642	288	153	16	4,002	27.2%
	Northern	106	2,014	1,515	805	422	201	12	5,075	28.2%
	South Eastern	55	1,588	1,131	595	248	150	63	3,830	26.4%
	Southern	76	1,981	1,616	787	341	197	13	5,011	26.5%
	Western	51	1,329	1,142	587	291	147	4	3,551	28.9%
	All mothers	344	8,535	6,628	3,416	1,590	848	108	21,469	27.4%
Deprivation 2017 quintile (SOA) based on residence of mother	Most deprived	89	1,654	1,425	805	400	248	12	4,633	31.4%
	2	76	1,772	1,423	784	357	172	27	4,611	28.6%
	3	73	1,654	1,369	722	326	185	19	4,348	28.5%
	4	64	1,774	1,275	620	306	154	25	4,218	25.8%
	Least deprived	42	1,681	1,136	485	201	89	25	3,659	21.3%
	All mothers	344	8,535	6,628	3,416	1,590	848	108	21,469	27.4%

Source: NIMATS

Due to the COVID-19 pandemic, Causeway Hospital was closed to deliveries between 8 April 2020 and 23 August 2020. Mater Hospital closed to deliveries on 30 March 2020 (it became a COVID Centre) and all deliveries were relocated to Royal Victoria Hospital. The Mater is still closed to deliveries.

NI Statistics and Research Agency, NI Multiple Deprivation Measure 2017

<https://www.nisra.gov.uk/news/nisra-releases-updated-deprivation-measures-northern-ireland>

Due to small numbers, it is not possible to show data by individual ethnic group

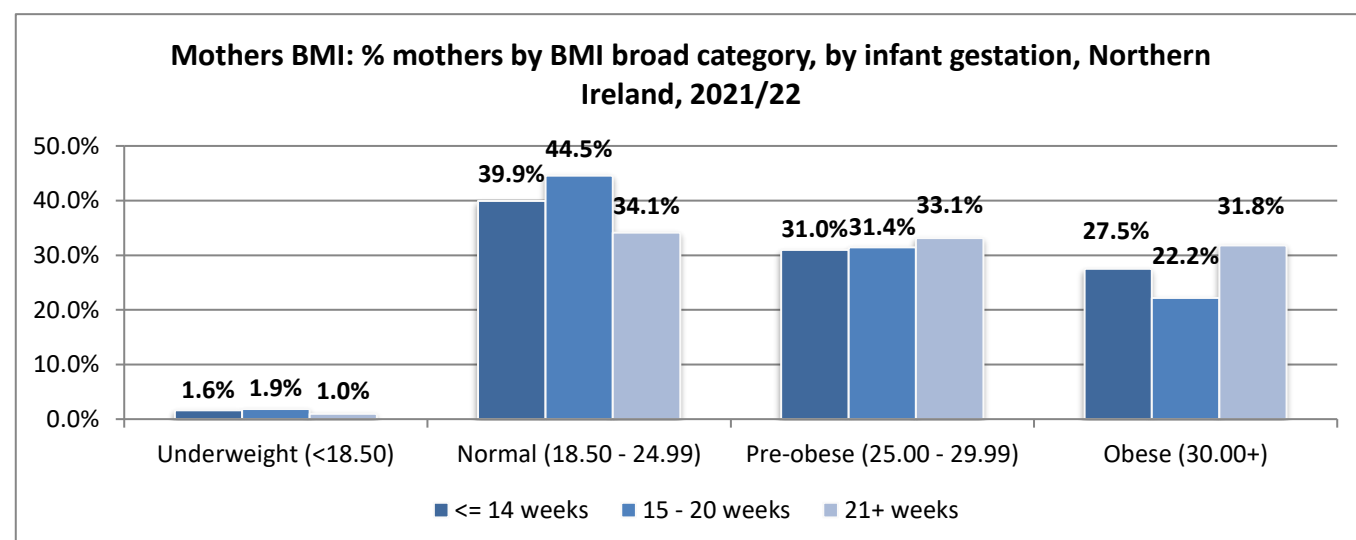
Disclosure controls have been applied to this table. As a result, for some places of birth, it is not possible to show the exact percentage values in the final column and so a comparison to the NI value has been provided

Table 7.3: Body Mass Index, at time of booking, of mothers' resident in Northern Ireland by infant gestation at time of booking (completed weeks), 2021/22

Infant gestation at booking	Mother's BMI at booking / No. of infants							Grand Total	% obese I, II and III (valid %)
	Underweight (<18.50)	Normal (18.50 - 24.99)	Pre-obese (25.00 - 29.99)	Obese I (30.00 - 34.99)	Obese II (35.00 - 39.99)	Obese III (40.00+)	Not known		
<= 14 weeks	325	8,079	6,263	3,254	1,503	806	91	20,321	27.5%
15 - 20 weeks	17	408	288	109	51	43	1	917	22.2%
21+ weeks	5	174	169	98	51	13	18	528	31.8%
Not known	0	0	0	0	0	0	1	1	-
Grand Total	347	8,661	6,720	3,461	1,605	862	111	21,767	27.4%

Source: NIMATS

Figure 7.2: % mothers by BMI category, by infant gestation, Northern Ireland, 2021/22



The data from Table 5.2 [Page 35] shows that younger women are more likely to attend for their antenatal booking appointment later in their pregnancy. Women under 20 years tend to be less overweight/obese and this can confuse the picture.

Table 7.4 below looks at women who attend antenatal booking, in under 15 weeks only, across a range of risk factors and outcomes by maternal weight at booking.

Table 7.4: Body Mass Index, at time of booking, of mothers' resident in Northern Ireland, who booked at ≤14 weeks gestation, by various risk factors/outcomes, 2017/18 – 2021/22

Risk factor/outcome (blanks/not knowns removed)		No. of mothers	Mother's BMI at booking (% of BMI category)					TOTAL
			Underweight (<18.50)	Normal (18.50 - 24.99)	Overweight (25.00 - 29.99)	Obese (≥30.00)	Not known	
Birth weight	Low birth weight (<2,500g)	5,426	11.3%	5.3%	4.9%	5.3%	11.3%	5.3%
	2500 - 3999g	81,564	84.3%	82.4%	78.6%	77.9%	73.4%	80.1%
	High birth weight (> 4000g)	14,796	4.4%	12.3%	16.4%	16.8%	15.3%	14.5%
	Total mothers	101,786	-	-	-	-	-	-
Delivery method	Elective Caesarean	17,276	9.9%	14.2%	17.5%	21.8%	15.3%	17.0%
	Emergency Caesarean	15,792	12.3%	13.0%	16.4%	18.9%	18.8%	15.5%
	Normal	56,779	62.4%	59.1%	54.8%	50.7%	55.8%	55.8%
	Other	11,958	15.4%	13.7%	11.4%	8.6%	10.1%	11.7%
	Total mothers	101,805	-	-	-	-	-	-
Gestation at delivery (completed weeks)	<28 weeks	440	0.6%	0.3%	0.4%	0.5%	2.9%	0.4%
	28 - 31 weeks	641	0.6%	0.6%	0.6%	0.7%	1.8%	0.6%
	32 - 36 weeks	5,677	9.2%	5.2%	5.5%	5.9%	8.8%	5.6%
	37 - 38 weeks	22,439	23.0%	20.2%	20.5%	27.1%	19.8%	22.0%
	39+ weeks	72,610	66.6%	73.6%	72.9%	65.8%	66.7%	71.3%
	Total mothers	101,807	-	-	-	-	-	-
Breastfeeding (live)	Total	37,952	35.7%	44.3%	37.2%	26.9%	41.9%	37.7%
	Partial	12,325	10.3%	11.4%	12.7%	13.3%	13.5%	12.3%
	Not at all	50,332	53.9%	44.3%	50.2%	59.8%	44.6%	50.0%
	Other	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Total mothers	100,609	-	-	-	-	-	-
Smoker (recorded at booking)	Yes	11,332	23.5%	11.4%	11.7%	13.3%	5.1%	12.3%
	No	80,847	76.5%	88.6%	88.3%	86.7%	94.9%	87.7%
	Total mothers	92,179	-	-	-	-	-	-

Source: NIMATS

Data above refers to mothers giving birth between 2017/18 and 2021/22

The percentage of mothers is shown as a valid percentage i.e. the % calculation is based on those records where data has been completed - blanks or unknowns have been removed from the denominator value.

It is possible that due to COVID-19, not all mothers will have had their smoking status recorded. Carbon Monoxide (CO) monitoring ceased April 2020 and recommenced November 2021 and as a result it is likely that some women will not have had their smoking status recorded.

Section 8: Method of Delivery

Why should we be concerned?

This report highlights the high level of Caesarean Section births in Northern Ireland (35.7% of births in 2021/22, Table 8.1, page 59). Table 8.1 shows a general year on year increase in the rate of Caesarean Section births, particularly noticeable in the last five years.

In some pregnancies where help is needed at birth, a Caesarean Section may be necessary e.g. breech presentation, a multiple birth, placenta praevia (low lying placenta). However, there are risks associated with a Caesarean Section which may include^{55 56}:

- Wound infection
- Blood clots
- Excess bleeding
- Possibility of staying in hospital for longer
- Maternal death

Having numerous Caesarean Sections may increase the risk of the following (although risk is low):

- Damage to the bowel and bladder
- Further procedures after birth e.g. blood transfusion, emergency hysterectomy
- Stillbirth in a future pregnancy

Following delivery by Caesarean Section, there is some evidence to suggest that infants/children are at a slightly higher risk of developing asthma, Type 1 diabetes, becoming overweight/obese in childhood, increase in autism spectrum condition.^{57 58}

What can be done?

WHO states that *“when medically justified, a caesarean section can effectively prevent maternal and perinatal mortality and morbidity. However, there is no evidence showing the benefits of caesarean delivery for women or infants who do not require the procedure”*.⁵⁹

For some women, there may not be a choice i.e. a Caesarean Section must be carried out (as above). However, all women should be provided with information and support when choosing how they will deliver and in particular, the benefits and risks associated with both planned vaginal and Caesarean birth.

⁵⁵ National Institute for Health and Care Excellence (NICE), “Caesarean birth”, NICE Guideline (NG192), March 2021 <https://www.nice.org.uk/guidance/ng192>

⁵⁶ Royal College of Obstetricians and Gynaecologists “Choosing to have a caesarean section <https://www.rcog.org.uk/globalassets/documents/patients/patient-information-leaflets/pregnancy/pi-choosing-to-have-a-c-section.pdf>

⁵⁷ National Institute for Health and Care Excellence (NICE), “Caesarean birth”, NICE Guideline (NG192), March 2021 <https://www.nice.org.uk/guidance/ng192>

⁵⁸ Keag OE, Norman JE, Stock SJ. “Long-term risks and benefits associated with caesarean delivery for mother, baby, and subsequent pregnancies: systematic review and meta-analysis”. PLoS Med. 2018;15(1):e1002494, January 2018 <https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002494>

⁵⁹ World Health Organisation, Statement on Caesarean Section Rates, 2015 http://www.who.int/reproductivehealth/publications/maternal_perinatal_health/cs-statement/en/

Key Points

- In 2021/22, 35.7% of infants were delivered by Caesarian section. [Page 59]
- In 2021/22, mothers under 30 years of age had a higher percentage of births by emergency Caesarian section (17.7%) than by elective Caesarian section (11.8%), but the opposite is seen when the mother is over 30 years of age when 23.6% of births are by elective Caesarian section and 15.8% by emergency Caesarian section. [Page 60]
- In 2021/22, there was little difference between the proportion of births by Caesarian Section in those who were first-time mothers (37.2%) and those who were not first-time mothers (35.1%) (All infants = 35.7%). [Page 60]
- In 2021/22, of those hospitals providing Caesarean Sections, the proportion of infants born by this method, ranged from 29.7% in Royal Victoria Hospital to 47.9% in Daisy Hill Hospital. (All infants = 35.7%). [Page 61]

Table 8.1: Births to Northern Ireland residents, by method of delivery, 2010/11 – 2021/22

Year of birth		Infants born by method of delivery						Total	Infants born by Caesarean Section (valid %)
		Elective C/S	Emergency C/S	C/S Other	Normal	Other	Not known		
2010/11	n	3,614	3,518	16	14,318	3,313	880	25,659	7,148
	%	14.6%	14.2%	0.1%	57.8%	13.4%	-	-	28.8%
2011/12	n	3,614	3,509	0	14,291	3,744	151	25,309	7,123
	%	14.4%	13.9%	0.0%	56.8%	14.9%	-	-	28.3%
2012/13	n	3,785	3,610	0	13,902	3,574	157	25,028	7,395
	%	15.2%	14.5%	0.0%	55.9%	14.4%	-	-	29.7%
2013/14	n	3,475	3,484	0	13,778	3,393	147	24,277	6,959
	%	14.4%	14.4%	0.0%	57.1%	14.1%	-	-	28.8%
2014/15	n	3,473	3,550	0	13,754	3,525	98	24,400	7,023
	%	14.3%	14.6%	0.0%	56.6%	14.5%	-	-	28.9%
2015/16	n	3,742	3,492	0	13,832	3,262	108	24,436	7,234
	%	15.4%	14.4%	0.0%	56.9%	13.4%	-	-	29.7%
2016/17	n	3,832	3,480	0	13,527	3,130	110	24,079	7,312
	%	16.0%	14.5%	0.0%	56.4%	13.1%	-	-	30.5%
2017/18	n	3,677	3,458	0	13,144	2,766	0	23,045	7,135
	%	16.0%	15.0%	0.0%	57.0%	12.0%	-	-	31.0%
2018/19	n	3,701	3,454	0	13,014	2,788	0	22,957	7,155
	%	16.1%	15.0%	0.0%	56.7%	12.1%	-	-	31.2%
2019/20	n	3,808	3,562	0	12,430	2,610	0	22,410	7,370
	%	17.0%	15.9%	0.0%	55.5%	11.6%	-	-	32.9%
2020/21	n	3,740	3,460	0	11,824	2,446	1	21,471	7,200
	%	17.4%	16.1%	0.0%	55.1%	11.4%	-	-	33.5%
2021/22	n	4,167	3,603	0	11,434	2,562	1	21,767	7,770
	%	19.1%	16.6%	0.0%	52.5%	11.8%	-	-	35.7%

Source: Child Health System (2010/11 - 2016/17), NIMATS (2017/18 onwards)

Following a change in the interface between NIMATS and CHS during 2017/18, fields containing information on method of delivery, which had usually transferred from NIMATS to CHS are not now available on CHS. As a result, the data must be sourced from NIMATS. The data from both sources were analysed and the impact of changing the source of the data was considered minimal.

Method of delivery – categories used (CHS)

- Normal: normal vertex
- Elective Caesarean: elective, planned or scheduled Caesarean
- Emergency Caesarean: crash, emergency or urgent Caesarean
- Other: assisted breech, breech delivery, breech extraction, forceps (low), forceps (other), other cephalic, spontaneous breech or vacuum

Method of delivery – categories used (NIMATS)

- Normal: normal face to pubis or normal occiput anterior
- Elective Caesarean
- Emergency Caesarean
- Other: assisted breech, Barnes-Neville forceps, breech extraction, Haig-Ferguson forceps, Keillands forceps, spontaneous breech, vacuum extraction or Wrigleys forceps

Figure 8.1: % infants born by Caesarean Section, Northern Ireland, 2010/11 – 2021/22

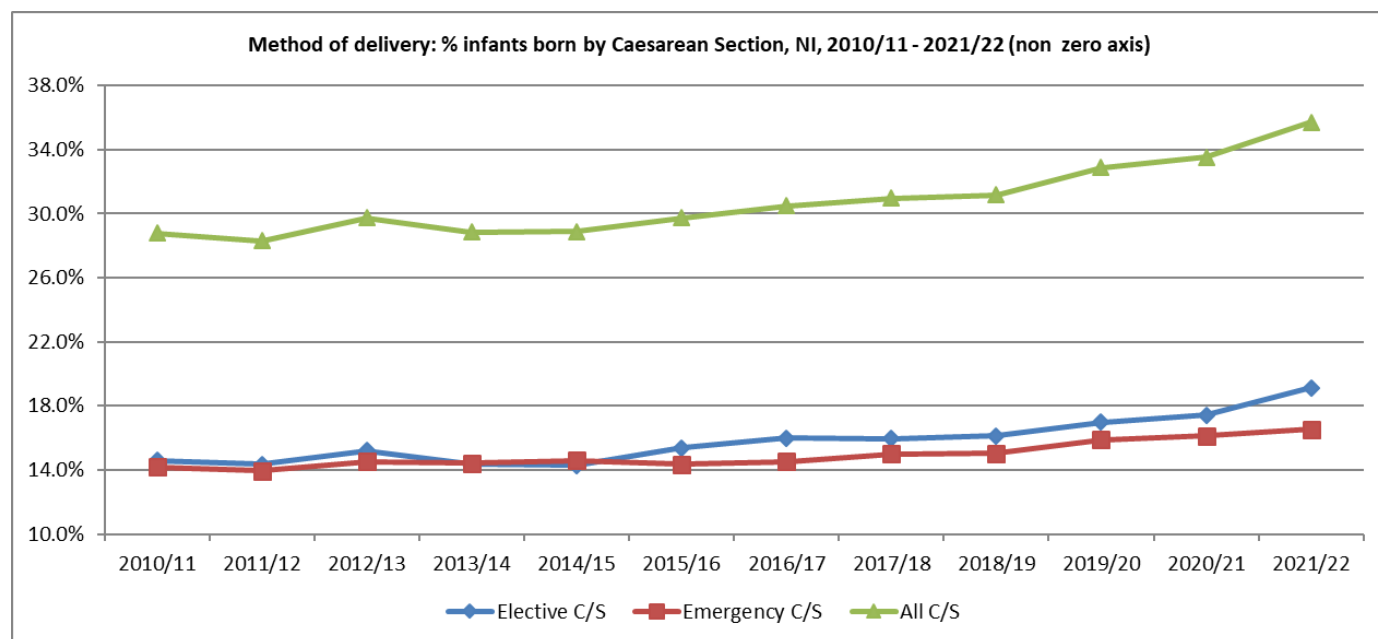


Table 8.2: Births to Northern Ireland residents, by method of delivery, 2021/22

		Infants born by method of delivery						% infants born by Caesarean Section (valid)
		Elective C/S	Emergency C/S	Normal	Other	Not known	Total	
Age Group of mother	Under 20	22	70	283	72	0	447	20.6%
	20 - 24	195	423	1,474	320	0	2,412	25.6%
	25 - 29	748	962	2,884	755	0	5,349	32.0%
	30 - 34	1,651	1,257	4,108	914	0	7,930	36.7%
	35 - 39	1,224	691	2,281	415	1	4,612	41.5%
	40 +	327	200	404	86	0	1,017	51.8%
	Not known	0	0	0	0	0	0	-
	All infants	4,167	3,603	11,434	2,562	1	21,767	35.7%
Multiple births	Single	3,928	3,402	11,345	2,498	1	21,174	34.6%
	Multiple	239	201	89	64	0	593	74.2%
	All infants	4,167	3,603	11,434	2,562	1	21,767	35.7%
First time mothers	First time mother	615	1,730	2,499	1,468		6,312	37.2%
	Not a first-time mother	3,552	1,873	8,935	1,094	1	15,455	35.1%
	Not known	0	0	0	0	0	0	-
	All infants	4,167	3,603	11,434	2,562	1	21,767	35.7%
Ethnic group of mother	White	4,017	3,424	10,883	2,445	1	20,770	35.8%
	Asian	49	48	155	39	0	291	33.3%
	Black	27	42	130	21	0	220	31.4%
	Mixed	13	16	63	10	0	102	28.4%
	Other	58	67	180	41	0	346	36.1%
	Not stated / Blank	3	6	23	6	0	38	23.7%
	All infants	4,167	3,603	11,434	2,562	1	21,767	35.7%
Ethnic group of infant	White	3,949	3,364	10,719	2,424	1	20,457	35.7%
	Asian	39	37	118	29	0	223	34.1%
	Black	25	30	108	25	0	188	29.3%
	Mixed	69	94	240	43	0	446	36.5%
	Other	84	73	236	40	0	433	36.3%
	Not stated / Blank	1	5	13	1	0	20	30.0%
	All infants	4,167	3,603	11,434	2,562	1	21,767	35.7%

Table 8.2 continued: Births to Northern Ireland residents, by method of delivery, 2021/22

		Infants born by method of delivery						% infants born by Caesarean Section (valid)
		Elective C/S	Emergency C/S	Normal	Other	Not known	Total	
Place of birth	Altnagelvin	513	409	1,199	254	1	2,376	38.8%
	Antrim	619	523	1,525	268	0	2,935	38.9%
	Causeway	119	168	481	127	0	895	32.1%
	Craigavon	426	607	1,774	435	0	3,242	31.9%
	Daisy Hill	680	283	854	193	0	2,010	47.9%
	Downe	0	0	0	0	0	0	-
	Lagan Valley	0	0	87	0	0	87	0.0%
	Mater	0	0	0	0	0	0	-
	Royal	722	696	2,739	620	0	4,777	29.7%
	SWAH	231	203	636	166	0	1,236	35.1%
	Ulster	857	714	2,064	498	0	4,133	38.0%
	Home	0	0	75	1	0	76	0.0%
		All infants	4,167	3,603	11,434	2,562	1	21,767
Trust of residence of mother	Belfast	652	642	2,226	544	0	4,064	31.8%
	Northern	940	885	2,761	555	0	5,141	35.5%
	South Eastern	742	614	2,102	429	0	3,887	34.9%
	Southern	1,097	857	2,524	608	0	5,086	38.4%
	Western	736	605	1,821	426	1	3,589	37.4%
		All infants	4,167	3,603	11,434	2,562	1	21,767
Local Government District	Antrim and Newtownabbey	289	229	864	175	0	1,557	33.3%
	Ards and North Down	310	247	770	171	0	1,498	37.2%
	Armagh City, Banbridge and Craigavon	543	461	1,383	349	0	2,736	36.7%
	Belfast	590	587	2,212	509	0	3,898	30.2%
	Causeway Coast and Glens	270	289	755	179	0	1,493	37.4%
	Derry City and Strabane	385	326	928	202	0	1,841	38.6%
	Fermanagh and Omagh	277	211	673	188	1	1,350	36.2%
	Lisburn and Castlereagh	322	285	880	202	0	1,689	35.9%
	Mid and East Antrim	242	222	755	140	0	1,359	34.1%
	Mid Ulster	402	357	1,064	193	0	2,016	37.6%
	Newry, Mourne and Down	537	389	1,150	254	0	2,330	39.7%
		All infants	4,167	3,603	11,434	2,562	1	21,767
Deprivation 2017 quintile (SOA) based on residence of mother	Most deprived	813	745	2,609	524	0	4,691	33.2%
	2	892	816	2,430	540	0	4,678	36.5%
	3	870	766	2,254	514	1	4,405	37.1%
	4	826	698	2,248	505	0	4,277	35.6%
	Least deprived	766	578	1,893	479	0	3,716	36.2%
		All infants	4,167	3,603	11,434	2,562	1	21,767

Source: NIMATS

Due to the COVID-19 pandemic, Causeway Hospital was closed to deliveries between 8 April 2020 and 23 August 2020. Mater Hospital closed to deliveries on 30 March 2020 (it became a COVID Centre) and all deliveries were relocated to Royal Victoria Hospital. The Mater is still closed to deliveries.

Method of delivery – categories used

- Normal: normal face to pubis or normal occiput anterior
- Elective Caesarean
- Emergency Caesarean
- Other: assisted breech, Barnes-Neville forceps, breech extraction, Kielland's forceps, spontaneous breech, vacuum extraction or Wrigley's forceps

NI Statistics and Research Agency, NI Multiple Deprivation Measure 2017

<https://www.nisra.gov.uk/news/nisra-releases-updated-deprivation-measures-northern-ireland>

Section 9: Infant Birth Weight

LOW BIRTH WEIGHT

Why should we be concerned?

Low birth weight is defined as weight at birth of less than 2,500 grammes (or 5.5 pounds). In Northern Ireland, in 2021/22, 6.4% of infants were born with a low birth weight (Table 9.1, page 65). Typically, a baby might have a lower birth weight because they were born earlier than expected (pre-term) or where growth has been restricted (small for gestational age). The following risk factors are associated with low birth weight^{60,61,62,63,64}:

- Younger (<17) / older mothers (>35)
- Low maternal BMI / poor maternal diet
- Maternal smoking (heavy) / substance misuse
- Maternal alcohol consumption (heavy)
- Over exercising by mother
- Multiple pregnancy
- Maternal hypertension and diabetes
- Non-attendance at antenatal care.

A birthweight below 2,500g contributes to a range of poor outcomes, including still birth and infant mortality^{65,66,67,68,69}:

- Respiratory problems
- Infections
- In later life - diabetes, high blood pressure, heart disease, obesity.
- Possible lower life expectancy
- Possible lower educational achievement

What can be done?

Actions to prevent low birth weight should address the risk factors identified above. For example, by reducing teenage pregnancies, encouraging women to maintain a healthy weight/promote healthy eating, encouraging healthier lifestyles (stop smoking and substance misuse/reduce alcohol consumption), monitoring women with conditions such as diabetes (see Sections 3, 6 and 7).

⁶⁰ World Health Organisation, "Born too soon - The global action report on preterm birth", 2012 http://www.who.int/maternal_child_adolescent/documents/born_too_soon/en/

⁶¹ Han Z, Mulla S, Beyene J et al. Maternal underweight and the risk of preterm birth and low birth weight: a systematic review and meta-analysis. *Int J Epidemiol* 2011;40(1):65–101 <http://ije.oxfordjournals.org/content/40/1/65.long>

⁶² Patra J, Bakker R, Irving H, Jaddoe V, Malini S, Rehm J. Dose–response relationship between alcohol consumption before and during pregnancy and the risks of low birthweight, preterm birth and small for gestational age (SGA)—a systematic review and meta-analysis. *BJOG* 2011;118:1411–1421 <http://onlinelibrary.wiley.com/doi/10.1111/j.1471-0528.2011.03050.x/epdf>

⁶³ Bramham Kate, Parnell Bethany, Nelson-Piercy Catherine, Seed Paul T, Poston Lucilla, Chappell Lucy C et al. Chronic hypertension and pregnancy outcomes: systematic review and meta-analysis *BMJ* 2014; 348 :g2301 <http://www.bmj.com/content/348/bmj.g2301>

⁶⁴ Royal College of Obstetricians and Gynaecologists, "Having a small baby" <https://www.rcog.org.uk/for-the-public/browse-all-patient-information-leaflets/having-a-small-baby/>

⁶⁵ Royal College of Obstetricians and Gynaecologists "Having a small baby" <https://www.rcog.org.uk/globalassets/documents/patients/patient-information-leaflets/pregnancy/pi-having-a-small-baby.pdf>

⁶⁶ Diabetes UK, https://www.diabetes.org.uk/About_us/News_Landing_Page/2008/Underweight-babies-at-higher-risk-of-Type-2-diabetes/

⁶⁷ Class QA, Rickert ME, Lichtenstein P, et al. Birth weight, physical morbidity, and mortality: a population-based sibling-comparison study. *Am J Epidemiol* 2014;179:550–8.

⁶⁸ <http://aje.oxfordjournals.org/content/179/5/550.full>

⁶⁹ Institute of Health Economics, Canada, "Determinants and Prevention of Low Birth Weight: A Synopsis of the Evidence", 2008 <https://www.ihe.ca/publications/determinants-and-prevention-of-low-birth-weight-a-synopsis-of-the-evidence>

⁶⁹ Public Health Wales, Low Birth Weight – Review of risk factors and interventions – Technical Report, 2014.

[http://www2.nphs.wales.nhs.uk:8080/ChildrenMatFamiliesDocs.nsf/5633c1d141208e8880256f2a004937d1e3f761ec6efe646f80257d490044fbae/\\$FILE/Low%20Birth%20Weight%20-%20Technical%20paper%20v1.pdf](http://www2.nphs.wales.nhs.uk:8080/ChildrenMatFamiliesDocs.nsf/5633c1d141208e8880256f2a004937d1e3f761ec6efe646f80257d490044fbae/$FILE/Low%20Birth%20Weight%20-%20Technical%20paper%20v1.pdf)

Key Points

- In 2021/22, 6.4% of all births were measured as low birth weight i.e. less than 2,500g (6.1% of live and 69.0% of still births). 14.1% of live infants were born with a higher birth weight of 4,000g+ and 1.8% with a birth weight of 4,500g+. [Page 64, 65]
- A higher proportion (14.5%) of mothers in 2021/22 who were of a white ethnic group had infants with a higher birth weight ($\geq 4,000\text{g}$) than those of a non-white ethnic group (5.5%). [Page 65]
- The proportion of low birth weight infants born to mothers residing in the most deprived areas (NIMDM 2017) in 2021/22 was higher at 8.1% than to mothers from least deprived areas (5.5%). [Page 66]
- Data at District Electoral Area level for 2021/22 show that 11.0% of infants born to mothers living in Lagan River DEA in Armagh, Banbridge and Craigavon LGD, were born with a low birth weight. Note that when providing data at this geographic level, numbers of births can be small and so caution is advised. [Page 68]

Figure 9.1: Percentage low birth weight infants, Northern Ireland, 2010/11 – 2021/22

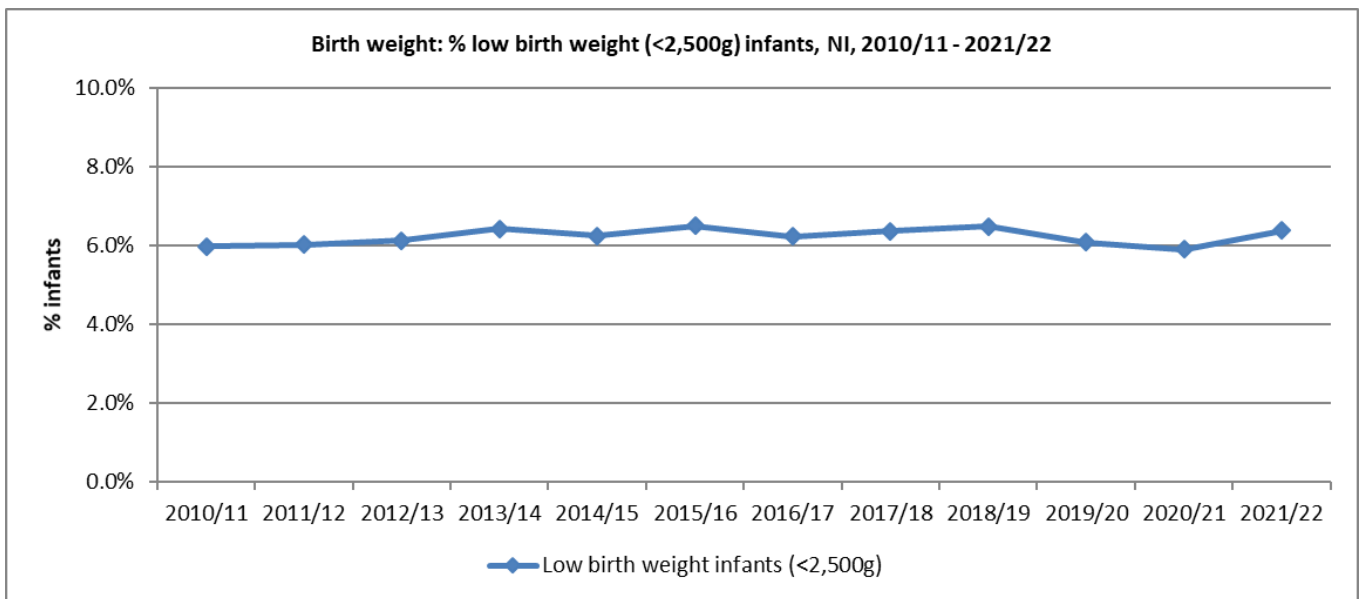


Figure 9.2: Percentage high birth weight infants, Northern Ireland, 2010/11 – 2021/22

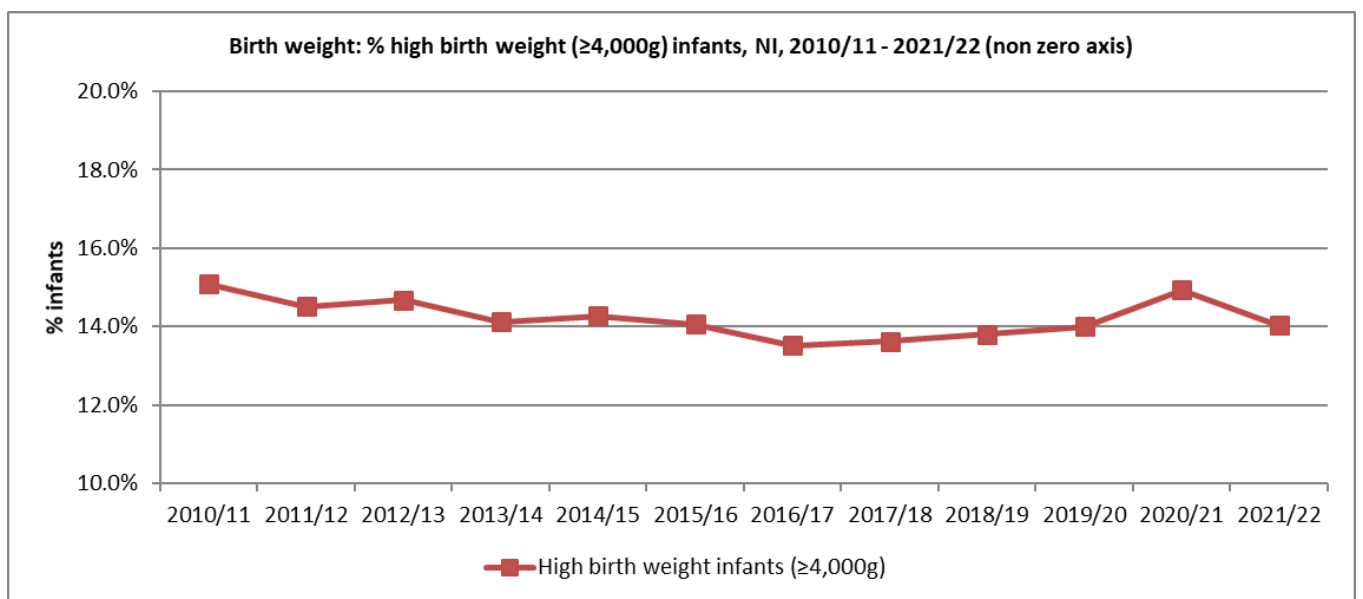


Table 9.1: Births to Northern Ireland residents, by birth weight, 2010/11 - 2021/22

Year of birth		Infants born by birth weight							Low birth weight infants (<2,500g)	High birth weight infants (≥4,000g)	High birth weight infants (≥4,500g)
		LIVE BIRTHS									
		< 1,500g	1,500 - 2,499g	2,500 - 3,999g	4,000 - 4,499g	4,500+g	Not known	Total			
2010/11	n	251	1,220	20,190	3,245	621	29	25,556	1,471	3,866	621
	%	1.0%	4.8%	79.1%	12.7%	2.4%	-	-	5.76%	15.14%	2.43%
2011/12	n	247	1,218	20,062	3,075	590	28	25,220	1,465	3,665	590
	%	1.0%	4.8%	79.6%	12.2%	2.3%	-	-	5.82%	14.55%	2.34%
2012/13	n	229	1,225	19,767	3,118	548	24	24,911	1,454	3,666	548
	%	0.9%	4.9%	79.4%	12.5%	2.2%	-	-	5.84%	14.73%	2.20%
2013/14	n	243	1,241	19,238	2,942	480	25	24,169	1,484	3,422	480
	%	1.0%	5.1%	79.7%	12.2%	2.0%	-	-	6.15%	14.17%	1.99%
2014/15	n	238	1,221	19,341	2,997	477	35	24,309	1,459	3,474	477
	%	1.0%	5.0%	79.7%	12.3%	2.0%	-	-	6.01%	14.31%	1.97%
2015/16	n	206	1,327	19,333	2,923	504	55	24,348	1,533	3,427	504
	%	0.8%	5.5%	79.6%	12.0%	2.1%	-	-	6.31%	14.11%	2.07%
2016/17	n	239	1,208	19,261	2,764	484	21	23,977	1,447	3,248	484
	%	1.0%	5.0%	80.4%	11.5%	2.0%	-	-	6.04%	13.56%	2.02%
2017/18	n	208	1,187	18,361	2,711	416	20	22,903	1,395	3,127	416
	%	0.9%	5.2%	80.2%	11.8%	1.8%	-	-	6.10%	13.67%	1.82%
2018/19	n	221	1,221	18,226	2,753	404	14	22,839	1,442	3,157	404
	%	1.0%	5.3%	79.9%	12.1%	1.8%	-	-	6.32%	13.83%	1.77%
2019/20	n	193	1,121	17,839	2,735	391	12	22,291	1,314	3,126	391
	%	0.9%	5.0%	80.1%	12.3%	1.8%	-	-	5.90%	14.03%	1.76%
2020/21	n	211	990	16,840	2,755	424	14	21,234	1,201	3,179	424
	%	1.0%	4.7%	79.4%	13.0%	2.0%	-	-	5.66%	14.98%	2.00%
2021/22	n	215	1,111	17,302	2,655	397	9	21,689	1,326	3,052	397
	%	1.0%	5.1%	79.8%	12.2%	1.8%	-	-	6.12%	14.08%	1.83%

Year of birth		Infants born by birth weight					Low birth weight infants (<2,500g)
		STILL BIRTHS					
		< 1,500g	1,500 - 2,499g	2,500+g	Not known	Total	
2010/11	n	38	24	38	3	103	62
	%	38.0%	24.0%	38.0%	-	-	62.00%
2011/12	n	34	25	29	1	89	59
	%	38.6%	28.4%	33.0%	-	-	67.05%
2012/13	n	53	25	39	0	117	78
	%	45.3%	21.4%	33.3%	-	-	66.67%
2013/14	n	50	25	32	1	108	75
	%	46.7%	23.4%	29.9%	-	-	70.09%
2014/15	n	43	23	24	1	91	66
	%	47.8%	25.6%	26.7%	-	-	73.33%
2015/16	n	33	20	29	6	88	53
	%	40.2%	24.4%	35.4%	-	-	64.63%
2016/17	n	43	10	43	6	102	53
	%	44.8%	10.4%	44.8%	-	-	55.21%
2017/18	n	46	24	31	0	101	70
	%	45.5%	23.8%	30.7%	-	-	69.31%
2018/19	n	28	17	30	1	76	45
	%	37.3%	22.7%	40.0%	-	-	60.00%
2019/20	n	35	13	22	1	71	48
	%	50.0%	18.6%	31.4%	-	-	68.57%
2020/21	n	44	14	30	1	89	58
	%	50.0%	15.9%	34.1%	-	-	65.91%
2021/22	n	44	19	28	2	93	63
	%	48.4%	20.9%	30.8%	-	-	69.23%

The number of infants with a birth weight above 4,000g was too small to show separately

Table 9.1 continued: Births to Northern Ireland residents, by birth weight, 2010/11 - 2021/22

Year of birth		Infants born by birth weight						Low birth weight infants (<2,500g)	High birth weight infants (≥4,000g)
		ALL BIRTHS							
		< 1,500g	1,500 - 2,499g	2,500 - 3,999g	4,000+g	Not known	Total		
2010/11	n	289	1,244	20,227	3,867	32	25,659	1,533	3,867
	%	1.1%	4.9%	78.9%	15.1%	-	-	5.98%	15.09%
2011/12	n	281	1,243	20,087	3,669	29	25,309	1,524	3,669
	%	1.1%	4.9%	79.5%	14.5%	-	-	6.03%	14.51%
2012/13	n	282	1,250	19,801	3,671	24	25,028	1,532	3,671
	%	1.1%	5.0%	79.2%	14.7%	-	-	6.13%	14.68%
2013/14	n	293	1,266	19,267	3,425	26	24,277	1,559	3,425
	%	1.2%	5.2%	79.4%	14.1%	-	-	6.43%	14.12%
2014/15	n	281	1,244	19,362	3,477	36	24,400	1,525	3,477
	%	1.2%	5.1%	79.5%	14.3%	-	-	6.26%	14.27%
2015/16	n	239	1,347	19,360	3,429	61	24,436	1,586	3,429
	%	1.0%	5.5%	79.4%	14.1%	-	-	6.51%	14.07%
2016/17	n	282	1,218	19,302	3,250	27	24,079	1,500	3,250
	%	1.2%	5.1%	80.3%	13.5%	-	-	6.24%	13.51%
2017/18	n	254	1,211	18,389	3,130	20	23,004	1,465	3,130
	%	1.1%	5.3%	80.0%	13.6%	-	-	6.37%	13.62%
2018/19	n	249	1,238	18,252	3,161	15	22,915	1,487	3,161
	%	1.1%	5.4%	79.7%	13.8%	-	-	6.49%	13.80%
2019/20	n	228	1,134	17,858	3,129	13	22,362	1,362	3,129
	%	1.0%	5.1%	79.9%	14.0%	-	-	6.09%	14.00%
2020/21	n	255	1,004	16,867	3,182	15	21,323	1,259	3,182
	%	1.2%	4.7%	79.2%	14.9%	-	-	5.91%	14.93%
2021/22	n	259	1,130	17,327	3,055	11	21,782	1,389	3,055
	%	1.2%	5.2%	79.6%	14.0%	-	-	6.38%	14.03%

Source: Child Health System

Following the inclusion of Child Health data into the Regional Data Warehouse, the source of CHS data for 2021/22 onwards will be the Data Warehouse, rather than downloads from each CHS. The data from both sources were analysed and the impact of changing the source of the data was considered minimal.

Table 9.2: Births to Northern Ireland residents, by birth weight, 2021/22

		Infants born by birth weight						% low birth weight infants (<2,500g)	% high birth weight infants (≥4,000g)
		< 1,500g	1,500 - 2,499g	2,500 - 3,999g	4,000 +g	Not known	Total		
Age Group of mother	Under 20	8	29	383	29	0	449	8.24%	6.46%
	20 - 24	29	137	2,000	252	2	2,420	6.87%	10.42%
	25 - 29	66	280	4,328	709	2	5,385	6.43%	13.17%
	30 - 34	68	360	6,256	1,253	3	7,940	5.39%	15.79%
	35 - 39	67	248	3,557	716	2	4,590	6.87%	15.61%
	40 +	21	76	803	96	0	996	9.74%	9.64%
	Not known	0	0	0	0	2	2	-	-
	All infants	259	1,130	17,327	3,055	11	21,782	6.38%	14.03%
Multiple births	Single	206	847	17,070	3,055	11	21,189	4.97%	14.43%
	Multiple	53	283	257	0	0	593	56.66%	0.00%
	All infants	259	1,130	17,327	3,055	11	21,782	6.38%	14.03%
Ethnic group of mother (NIMATS)	White	235	1,061	16,469	3,003	2	20,770	6.24%	14.46%
	Non-white	18	67	821	53	0	959	8.86%	5.53%
	Not stated / Blank	3	2	31	2	0	38	13.16%	5.26%
	All infants	256	1,130	17,321	3,058	0	21,767	6.37%	14.05%

Table 9.2 continued: Births to Northern Ireland residents, by birth weight, 2021/22

		Infants born by birth weight						% low birth weight infants (<2,500g)	% high birth weight infants (≥4,000g)
		< 1,500g	1,500 - 2,499g	2,500 - 3,999g	4,000 +g	Not known	Total		
Ethnic group of infant (CHS)	White	234	1,033	16,212	2,965	10	20,454	6.20%	14.50%
	Non-white	22	89	1,089	89	0	1,289	8.61%	6.90%
	Not stated / Blank	3	8	26	1	1	39	28.95%	2.63%
	All infants	259	1,130	17,327	3,055	11	21,782	6.38%	14.03%
Place of birth	Altnagelvin	28	131	1,905	313	0	2,377	6.69%	13.17%
	Antrim	32	175	2,291	440	1	2,939	7.05%	14.98%
	Causeway	<5	<15	711	172	0	896	<6.38%	19.20%
	Craigavon	36	215	2,556	448	3	3,258	7.71%	13.76%
	Daisy Hill	7	63	1,566	373	2	2,011	3.48%	18.57%
	Downe / Lagan Valley	0	0	75	15	0	90	0.00%	16.67%
	Mater	0	0	6	0	0	6	0.00%	0.00%
	Royal	108	273	3,915	484	1	4,781	7.97%	10.13%
	SWAH	<10	<40	968	227	0	1,235	<6.38%	18.38%
	Ulster	35	231	3,314	579	1	4,160	6.40%	13.92%
	Home/Other	2	0	20	4	3	29	7.69%	15.38%
	All infants	259	1,130	17,327	3,055	11	21,782	6.38%	14.03%
	Trust of residence of mother	Belfast	66	255	3,291	416	0	4,028	7.97%
Northern		54	240	4,078	780	2	5,154	5.71%	15.14%
South Eastern		39	203	3,116	550	0	3,908	6.19%	14.07%
Southern		52	273	3,993	779	8	5,105	6.38%	15.28%
Western		48	159	2,849	530	1	3,587	5.77%	14.78%
All infants		259	1,130	17,327	3,055	11	21,782	6.38%	14.03%
Local Government District	Antrim and Newtownabbey	14	78	1,275	190	0	1,557	5.91%	12.20%
	Ards and North Down	12	76	1,190	227	0	1,505	5.85%	15.08%
	Armagh City, Banbridge and Craigavon	29	166	2,152	397	5	2,749	7.11%	14.47%
	Belfast	63	248	3,166	384	0	3,861	8.05%	9.95%
	Causeway Coast and Glens	12	77	1,148	249	0	1,486	5.99%	16.76%
	Derry City and Strabane	27	87	1,482	245	0	1,841	6.19%	13.31%
	Fermanagh and Omagh	17	52	1,055	226	1	1,351	5.11%	16.74%
	Lisburn and Castlereagh	21	77	1,367	235	0	1,700	5.76%	13.82%
	Mid and East Antrim	19	58	1,077	213	1	1,368	5.63%	15.58%
	Mid Ulster	21	97	1,599	305	2	2,024	5.84%	15.08%
	Newry, Mourne and Down	24	114	1,816	384	2	2,340	5.90%	16.42%
All infants	259	1,130	17,327	3,055	11	21,782	6.38%	14.03%	
Deprivation 2017 quintile (SOA) based on residence of mother	Most deprived	77	304	3,817	484	0	4,682	8.14%	10.34%
	2	68	264	3,637	682	4	4,655	7.14%	14.66%
	3	43	195	3,516	669	3	4,426	5.38%	15.13%
	4	35	198	3,376	689	4	4,302	5.42%	16.03%
	Least deprived	36	169	2,981	531	0	3,717	5.52%	14.29%
	All infants	259	1,130	17,327	3,055	11	21,782	6.38%	14.03%

Source: Child Health System and NIMATS

Following the inclusion of Child Health data into the Regional Data Warehouse, the source of CHS data for 2021/22 onwards will be the Data Warehouse, rather than downloads from each CHS. The data from both sources were analysed and the impact of changing the source of the data was considered minimal.

Due to the COVID-19 pandemic, Causeway Hospital was closed to deliveries between 8 April 2020 and 23 August 2020. Mater Hospital closed to deliveries on 30 March 2020 (it became a COVID Centre) and all deliveries were relocated to Royal Victoria Hospital. The Mater is still closed to deliveries.

NI Statistics and Research Agency, NI Multiple Deprivation Measure 2017

<https://www.nisra.gov.uk/news/nisra-releases-updated-deprivation-measures-northern-ireland>

Due to small numbers, it is not possible to show data by individual ethnic group

For reasons of disclosure control and small numbers, birthweights over 4,000g have been grouped

Disclosure controls have been applied to this table. As a result, for some places of birth, it is not possible to show the exact percentage values in the final two columns and so a comparison to the NI value has been provided.

Ethnic group of mother is not available from CHS, therefore data from NIMATS has been provided. However, data by ethnic group will differ between the two systems.

Table 9.3: Births to Northern Ireland residents (live), by birth weight and gestation at delivery, 2017-18 – 2021/22

Gestation at delivery (completed weeks)	Infants born live by birth weight						% low birth weight infants (<2,500g)	% high birth weight infants (≥4,000g)
	<1500g	1500 - 2499g	2500- 3999g	4000+g	Not known	Total		
Less than 31 weeks	898	286	6	2	0	1,192	99.33%	0.17%
32 - 36 weeks	114	3,354	3,395	69	5	6,937	50.03%	1.00%
37 - 38 weeks	4	1,774	21,744	1,363	1	24,886	7.14%	5.48%
39+ weeks	6	227	63,696	14,269	19	78,217	0.30%	18.25%
All infants	1,022	5,641	88,841	15,703	25	111,232	5.99%	14.12%

Source: NIMATS

Due to small numbers, data had to be provided over a 5 year period.

Figure 9.3: Percentage low and high birth weight infants, gestation at delivery, Northern Ireland, 2017/18 - 2021/22

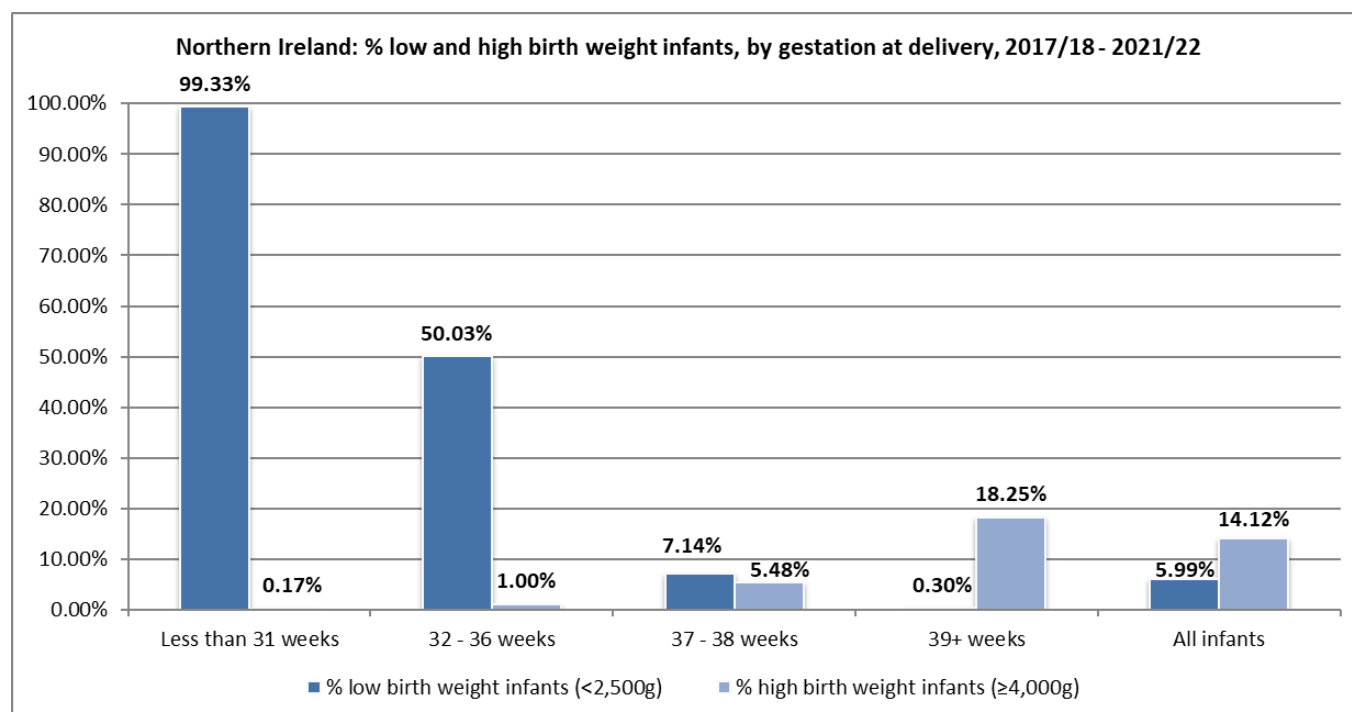


Table 9.4: Births to Northern Ireland residents, by birth weight, District Electoral Area, 2021/22

Local Government District	District Electoral Area	Infants born by birth weight					% low birth weight infants (<2,500g)	% high birth weight infants (≥4,000g)
		< 2,500g	2,500 - 3,999g	4,000+ g	Not known	Total		
Antrim and Newtownabbey	Airport	16	188	35	0	239	6.69%	14.64%
	Antrim	21	243	27	0	291	7.22%	9.28%
	Ballyclare	17	163	16	0	196	8.67%	8.16%
	Dunsilly	10	145	37	0	192	5.21%	19.27%
	Glengormley Urban	11	200	30	0	241	4.56%	12.45%
	Macedon	7	173	17	0	197	3.55%	8.63%
	Three Mile Water	10	163	28	0	201	4.98%	13.93%
	Total	92	1,275	190	0	1,557	5.91%	12.20%
Ards and North Down	Ards Peninsula	13	181	42	0	236	5.51%	17.80%
	Bangor Central	19	197	28	0	244	7.79%	11.48%
	Bangor East and Donaghadee	14	131	25	0	170	8.24%	14.71%
	Bangor West	10	151	27	0	188	5.32%	14.36%
	Comber	9	144	42	0	195	4.62%	21.54%
	Holywood and Clandeboye	7	124	18	0	149	4.70%	12.08%
	Newtownards	16	262	45	0	323	4.95%	13.93%
	Total	88	1,190	227	0	1,505	5.85%	15.08%
Armagh, Banbridge and Craigavon	Armagh	29	341	55	1	426	6.82%	12.94%
	Banbridge	26	297	68	1	392	6.65%	17.39%
	Craigavon	23	295	48	0	366	6.28%	13.11%
	Cusher	21	240	53	1	315	6.69%	16.88%
	Lagan River	32	207	53	1	293	10.96%	18.15%
	Lurgan	39	461	55	1	556	7.03%	9.91%
	Portadown	25	311	65	0	401	6.23%	16.21%
	Total	195	2,152	397	5	2,749	7.11%	14.47%
Belfast	Balmoral	18	177	32	0	227	7.93%	14.10%
	Black Mountain	34	389	47	0	470	7.23%	10.00%
	Botanic	32	313	36	0	381	8.40%	9.45%
	Castle	24	299	33	0	356	6.74%	9.27%
	Collin	28	357	43	0	428	6.54%	10.05%
	Court	45	379	31	0	455	9.89%	6.81%
	Lisnasharragh	16	234	33	0	283	5.65%	11.66%
	Oldpark	51	398	34	0	483	10.56%	7.04%
	Ormiston	18	254	45	0	317	5.68%	14.20%
	Titanic	45	366	50	0	461	9.76%	10.85%
	Total	311	3,166	384	0	3,861	8.05%	9.95%
Causeway Coast and Glens	Ballymoney	18	217	53	0	288	6.25%	18.40%
	Bann	11	136	33	0	180	6.11%	18.33%
	Benbradagh	8	172	35	0	215	3.72%	16.28%
	Causeway	16	157	35	0	208	7.69%	16.83%
	Coleraine	9	187	38	0	234	3.85%	16.24%
	Limavady	16	139	24	0	179	8.94%	13.41%
	The Glens	11	140	31	0	182	6.04%	17.03%
	Total	89	1,148	249	0	1,486	5.99%	16.76%

Table 9.4 continued: Births to Northern Ireland residents, by birth weight, District Electoral Area, 2021/22

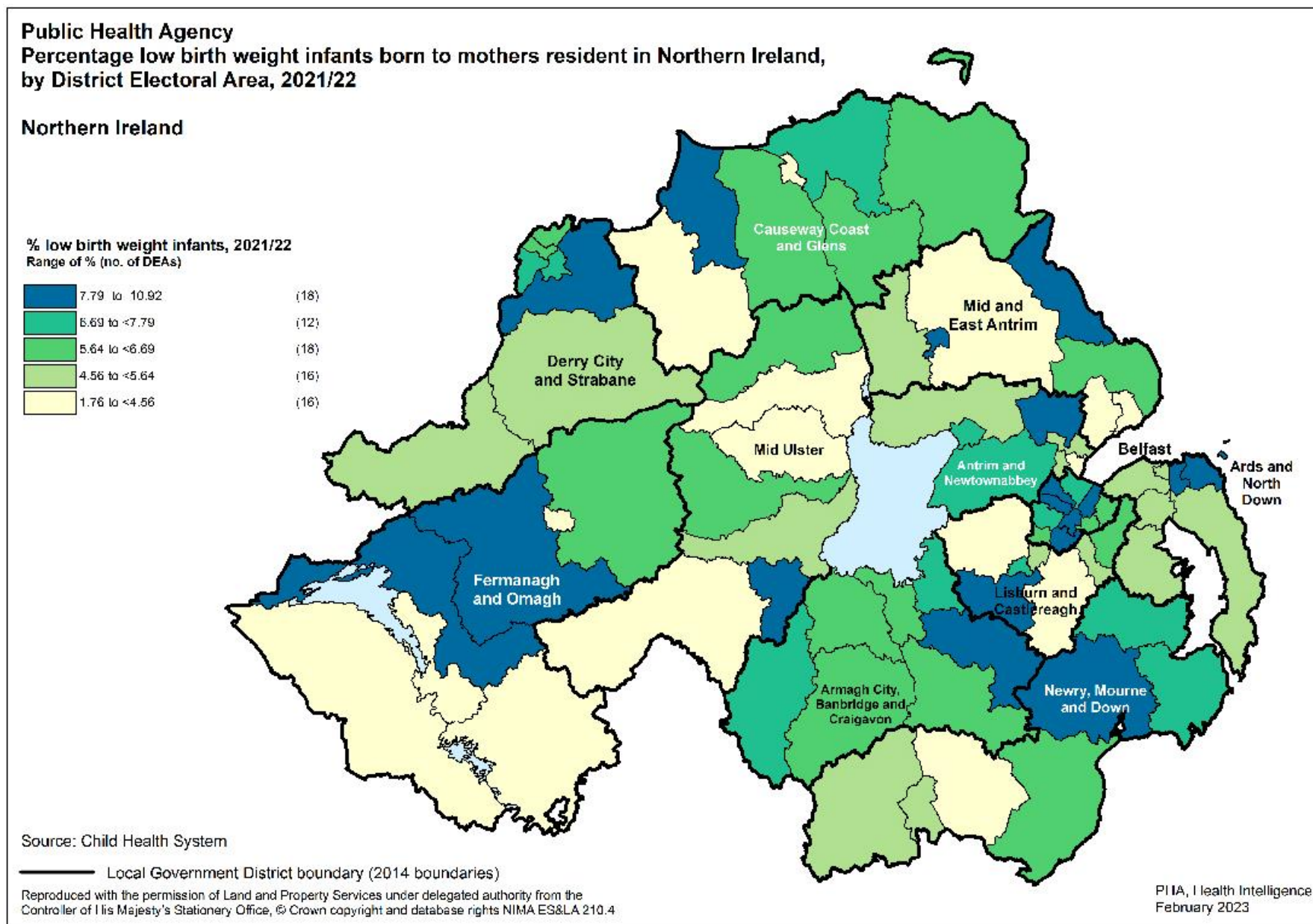
Local Government District	District Electoral Area	Infants born by birth weight					Total	% low birth weight infants (<2,500g)	% high birth weight infants (≥4,000g)
		< 2,500g	2,500 - 3,999g	4,000+ g	Not known				
Derry City and Strabane	Ballyarnett	19	275	43	0	337	5.64%	12.76%	
	Derg	11	178	40	0	229	4.80%	17.47%	
	Faughan	18	165	31	0	214	8.41%	14.49%	
	Foyleside	13	176	25	0	214	6.07%	11.68%	
	Sperrin	15	244	41	0	300	5.00%	13.67%	
	The Moor	15	176	16	0	207	7.25%	7.73%	
	Waterside	23	268	49	0	340	6.76%	14.41%	
	Total	114	1,482	245	0	1,841	6.19%	13.31%	
Fermanagh and Omagh	Enniskillen	8	149	25	0	182	4.40%	13.74%	
	Erne East	7	147	34	0	188	3.72%	18.09%	
	Erne North	14	123	35	0	172	8.14%	20.35%	
	Erne West	<5	128	<40	1	170	<5.11%	>16.74%	
	Mid Tyrone	14	186	35	0	235	5.96%	14.89%	
	Omagh	<10	177	<30	0	213	<5.11%	<16.74%	
	West Tyrone	16	145	30	0	191	8.38%	15.71%	
	Total	69	1,055	226	1	1,351	5.11%	16.74%	
Lisburn and Castlereagh	Castlereagh East	17	210	28	0	255	6.67%	10.98%	
	Castlereagh South	14	213	33	0	260	5.38%	12.69%	
	Downshire East	7	139	26	0	172	4.07%	15.12%	
	Downshire West	15	134	32	0	181	8.29%	17.68%	
	Killultagh	13	231	55	0	299	4.35%	18.39%	
	Lisburn North	13	216	36	0	265	4.91%	13.58%	
	Lisburn South	19	224	25	0	268	7.09%	9.33%	
	Total	98	1,367	235	0	1,700	5.76%	13.82%	
Mid and East Antrim	Ballymena	23	202	39	0	264	8.71%	14.77%	
	Bannside	10	151	47	0	208	4.81%	22.60%	
	Braid	10	208	48	0	266	3.76%	18.05%	
	Carrick Castle	<5	132	<20	0	154	<5.63%	<15.58%	
	Coast Road	13	122	20	0	155	8.39%	12.90%	
	Knockagh	<10	135	<25	1	166	<5.63%	<15.58%	
	Larne Lough	10	127	18	0	155	6.45%	11.61%	
	Total	77	1,077	213	1	1,368	5.63%	15.58%	
Mid Ulster	Carntogher	15	172	46	0	233	6.44%	19.74%	
	Clogher Valley	14	261	50	1	326	4.31%	15.38%	
	Cookstown	19	229	45	1	294	6.48%	15.36%	
	Dungannon	32	279	39	0	350	9.14%	11.14%	
	Magherafelt	11	215	42	0	268	4.10%	15.67%	
	Moyola	11	200	42	0	253	4.35%	16.60%	
	Torrent	16	243	41	0	300	5.33%	13.67%	
	Total	118	1,599	305	2	2,024	5.84%	15.08%	
Newry, Mourne and Down	Crotlieve	9	276	70	2	357	2.54%	19.72%	
	Downpatrick	19	219	29	0	267	7.12%	10.86%	
	Newry	18	266	51	0	335	5.37%	15.22%	
	Rowallane	18	190	34	0	242	7.44%	14.05%	
	Slieve Croob	22	213	38	0	273	8.06%	13.92%	
	Slieve Gullion	27	364	100	0	491	5.50%	20.37%	
	The Mournes	25	288	62	0	375	6.67%	16.53%	
	Total	138	1,816	384	2	2,340	5.90%	16.42%	
Northern Ireland	All infants	1,389	17,327	3,055	11	21,782	6.38%	14.03%	

Source: Child Health System

Following the inclusion of Child Health data into the Regional Data Warehouse, the source of CHS data for 2021/22 onwards will be the Data Warehouse, rather than downloads from each CHS. The data from both sources were analysed and the impact of changing the source of the data was considered minimal

Disclosure controls have been applied to this table. As a result, for some places of birth, it is not possible to show the exact percentage values in the final two columns and so a comparison to the NI value has been provided.

Figure 9.3: Percentage low birth weight infants born to mothers' resident in Northern Ireland, by District Electoral Area, Northern Ireland, 2021/22



Section 10: Breastfeeding

Why should we be concerned?

In June 2013, the Department of Health presented “*Breastfeeding – A Great Start. A Strategy for Northern Ireland 2013 - 2023.*”⁷⁰ The Strategy describes breastfeeding as “a fundamental public health issue because it promotes health, prevents disease and helps contribute to reducing health inequalities. It provides the foundation for a healthy start in life and prevents disease in the short and long term for both babies and their mothers.” The Strategy highlights the benefits of breastfeeding - “Human milk provides infants with all the nutrients they need for healthy growth and development. Many of the components of breast milk cannot be manufactured”.

For infants, evidence supports the role of breastfeeding in reducing the risk of ear and respiratory infections, gastroenteritis, bowel complications (eg necrotising enterocolitis (NEC), Sudden Infant Death Syndrome (SIDS) (cot death) and childhood leukaemia.^{71,72,73} The 2016 Lancet review also indicates that breastfeeding improves intelligence and supports better life chances.⁷⁴ There is also some evidence to suggest likely effects in reducing obesity and the risk of developing type 2 diabetes.

The benefits of breastfeeding for mothers include reduced risk of breast cancer, ovarian cancer and type 2 diabetes.⁷⁵

However, despite the benefits to both infant and mother, breastfeeding rates across NI remain low.

What can be done?

The Strategy recognises that there are a number of reasons why a mother may choose not to breastfeed. Reasons reported in the 2010 Infant Feeding Survey included having fed previous children with formula, disliking the idea of breastfeeding, convenience/mother’s lifestyle, that others could feed the baby, put off by their own or another’s previous experience, medical reasons or embarrassment.⁷⁶

More recently, a systematic review exploring the factors influencing infant feeding decisions in the antenatal period highlighted that the choice for expectant mothers is not simply between breastfeeding and bottle feeding but a process of weighing up the reasons for and against breastfeeding.⁷⁷ The review identified a range of factors under nine themes including bonding/attachment, self-esteem/confidence, body image, female role models, family/social networks, formal information sources, lifestyle factors, feeding in front of others/in public and knowledge which influence infant feeding decisions.

The reasons given by mothers for stopping breastfeeding include insufficient milk, baby not sucking/rejecting the breast/would not latch on and having painful breasts or nipples.⁷⁸ When mothers were asked what could have influenced them to breastfeed for longer the main reasons included: more support and guidance from hospital staff, midwives and family; if the baby could have latched on the breast easier; and naturally producing more milk and less pain/being more comfortable.

In qualitative research undertaken in Northern Ireland, mothers reported that breastfeeding was not convenient at home or outside the home and a lack of information/support as reasons why they chose not to breastfeed or had ceased breastfeeding. Other reasons for not starting to breastfeed included a lack of social acceptance, lack of confidence, lack of facilities and complicated births/medical issues. While those

⁷⁰ Department of Health, “Breastfeeding – A Great Start. A Strategy for Northern Ireland 2013 – 2023 <https://www.health-ni.gov.uk/publications/breastfeeding-strategy>

⁷¹ Department of Health, “Breastfeeding – A Great Start. A Strategy for Northern Ireland 2013 – 2023 <https://www.health-ni.gov.uk/publications/breastfeeding-strategy>

⁷² Health Service Executive, Republic of Ireland, 2008 “The Evidence for Breastfeeding” <https://www.breastfeeding.ie/Uploads/The-evidence-for-breastfeeding.pdf>

⁷³ UNICEF Research on infant health <https://www.unicef.org.uk/babyfriendly/news-and-research/baby-friendly-research/infant-health-research/>

⁷⁴ Victoria CG et al. Breastfeeding in the 21st century: epidemiology, mechanisms and lifelong effect. Lancet 2016; 387: 475-490. [http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(15\)01024-7.pdf](http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(15)01024-7.pdf)

⁷⁵ UNICEF Research on maternal health <https://www.unicef.org.uk/babyfriendly/news-and-research/baby-friendly-research/maternal-health-research/>

⁷⁶ UK Infant Feeding Survey 2010. Available at <http://digital.nhs.uk/catalogue/PUB08694> Table 3.7

⁷⁷ Roll, CL and Cheater, F. Expectant parents’ views of factors influencing infant feeding decisions in the antenatal period: A systematic review. International Journal of Nursing Studies 2016; 60:145-55.

⁷⁸ UK Infant Feeding Survey 2010. Available at <http://digital.nhs.uk/catalogue/PUB08694> Table 6.6

who stopped breastfeeding reported problems establishing breastfeeding, exhaustion/difficult births, self-image/lifestyle and not believing the benefits of breastfeeding over feeding with formula.^{79,80}

Further studies conducted with mothers in Northern Ireland report their varied experiences in relation to breastfeeding and outline challenges encountered with support to initiate and sustain breastfeeding.^{81,82} The findings highlight the need for more support with breastfeeding in hospital and in the early days and the importance of consistent evidence-based advice from health professionals. Recognising that each breastfeeding journey is different and that women who have had babies before also need support is emphasised.

The NI Breastfeeding Strategy details the following four strategic outcomes to help increase breastfeeding rates in Northern Ireland:

Outcome 1 - *Supportive environments for breastfeeding exist throughout Northern Ireland.*

Outcome 2 - *Health and Social Care has the necessary knowledge, skills and leadership to protect, promote, support and normalise breastfeeding.*

Outcome 3 - *High quality information systems in place that underpin the development of policy and programmes, and which support Strategy delivery.*

Outcome 4 - *An informed and supportive public.*

The Department of Health published a Mid-Term Review of the breastfeeding strategy in May 2018.⁸³ The review outlined the progress made since 2013 through the Strategy action plan, assessed and made recommendations on new actions.

In January 2018, the PHA public information campaign *#NotSorryMums* highlighted the need to support mums to feel more comfortable breastfeeding in public. Three quarters (75%) of respondents surveyed were aware of the campaign and a similar proportion (74%) agreed that the advertising would encourage them to think more positively about mums who breastfeed in public.

Initiatives such as the WHO/UNICEF Baby Friendly Initiative (BFI) provide a framework to implement best practice in hospitals/health care facilities to ensure that mothers are able to make informed decisions about how they will feed their infant.⁸⁴ Facilities accredited as 'Baby Friendly' will implement standards which have been proven to increase breastfeeding rates. All hospitals providing maternity services in Northern Ireland are now accredited as "Baby Friendly" and Health Visiting Services across all five HSC Trust areas have achieved full BFI accreditation.

The UNICEF UK Baby Friendly Initiative Gold Standard Award is presented to services in recognition of their long standing commitment to best practice and implementation of the Achieving Sustainability standards. In Northern Ireland a total of nine services have now achieved a BFI Gold Standard award. They include; Antrim Hospital; Causeway Hospital, NHSCT Health Visiting Services; SEHSCT Health Visiting Services, South West Acute Hospital Maternity service and WHSCT (Southern Sector) Health Visiting Services. In November 2020 Northern Ireland's first GOLD Children's Centre award was achieved jointly by Glenbrook, Smile and Shankill Sure Starts.

In 2021 the Northern HSCT became the first neonatal unit in Northern Ireland to achieve full Baby Friendly accreditation. In 2022 Queens University Belfast achieved University Standards re-accreditation for their BSc (Hons) Midwifery Sciences (3 years) and BSc (Hons) Midwifery Studies (18 months) courses.

In October 2022, the Health Minister agreed a one year extension of the Strategy term until June 2024. A process to provide a final review of the strategy is currently underway which will allow for an assessment of progress made against the strategy's targets and objectives and make recommendations that will form an evidence-base to determine whether a successor strategy or plan is required.

⁷⁹ Glass K. Breastfeeding and maternity care research: final report Spring. Report prepared for the Public Health Agency. Belfast: Ipsos MORI, 2015.

⁸⁰ Glass K. Breastfeeding and maternity care research: final report Autumn. Report prepared for the Public Health Agency. Belfast: Ipsos MORI, 2016.

⁸¹ BirthWise-Survey-2019. pdf <https://cdn.birthwise.org.uk/reports/BirthWise-Survey-2019.pdf>

⁸² Ipsos Mori. Impact of the COVID-19 pandemic on breastfeeding support. Report prepared for the Public Health Agency. Belfast: Ipsos MORI 2021.

⁸³ Department of Health. Breastfeeding – A great start. A strategy for NI 2013-2023. Mid-Term Review. Belfast: DOH, 2018. Available at www.health-ni.gov.uk/sites/default/files/publications/health/draft-mid-term-review-breastfeeding-strategy.pdf

⁸⁴ WHO/UNICEF, The Baby Friendly Initiative Available at www.unicef.org.uk/BabyFriendly/

Key Points

Breastfeeding at discharge

- **Please note that recording of breastfeeding data may not be complete. In any year, there will be a number of records where the breastfeeding status is not known. Therefore, the figures shown may not reflect the true numbers of children being breastfed.**
- In 2021/22, 51.2% of live infants were breastfed (total/partial feeding) at discharge (where feeding status is known). [Page 74].
- Only 25.5% of infants born to mothers under 20 were breastfed at discharge, compared to 63.0% of infants to mothers aged 40 and over. [Page 75].
- Breastfeeding rates were slightly higher for infants born to first time mothers at 53.6%. Mothers who have previously given birth = 49.8%. [Page 75].
- Breastfeeding rates were much higher in infants born to 'non-white' mothers. However the number of births for some ethnic groupings was small and caution is advised. [Page 75].
- Breastfeeding rates varied by Health Trust of residence of mother, ranging from 44.8% of infants born to mothers from WHSCT, to 55.5% in SEHSCT. [Page 76].
- The proportion breastfeeding was markedly lower in more deprived areas (NIMDM 2017). In 2021/22, 36.7% of mothers from most deprived areas were breastfeeding at discharge, compared to 66.8% of mothers from the least deprived areas. It should however be noted that breastfeeding rates increase with age of mother, and more deprived areas have a higher proportion of younger mothers. [Page 76]
- Breastfeeding rates at District Electoral Area level range from 25.8% in Court DEA (Belfast LGD) to 76.3% in Balmoral DEA (Belfast LGD). *Note that when providing data at this geographic level, numbers of births can be small and so caution is advised.* [Page 77].

Breastfeeding duration

- Prevalence of breastfeeding at various stages during the first year of life is not yet available for 2021/22.
- Of mothers who delivered in 2020/21, the proportion breastfeeding gradually decreased with time – 51.2% of infants in Northern Ireland were breastfed at discharge, falling to only 16.8% of infants at 12 months old. In general, this percentage increased with age of mother – 3.9% of mothers aged less than 20 years up to 17.9% of mothers aged 40+ were still breastfeeding after 12 months in this year. [Page 80]
- At all stages where breastfeeding was recorded, the rate was substantially higher in those infants born to mothers who lived in less deprived areas (NIMDM 2017), when compared to mothers from more deprived areas. For example, in 2020/21, prevalence of breastfeeding at 12 months old was higher at 24.2% in the least deprived areas, than in the most deprived areas of Northern Ireland (9.7%). [Page 81]

Breastfeeding data on the Child Health System is recorded as either 'Total', 'Partial' or 'Not at all'. Total – where the child receives breast milk only, with no other type of milk, liquids or food given. Partial – where the child receives breast milk, as well as formula milk and other liquids or food. Not at all - where the child does not receive any breast milk at all, but rather other feeding methods are used.

Please note that recording of breastfeeding data may not be complete. In any year, there will be a number of records where the breastfeeding status is not known. As a result, percentage breastfeeding is calculated as a valid percentage. The calculation is based on those records where feeding status was known i.e. blank data has been removed from the denominator value.

Table 10.1: Breastfeeding status (at discharge) of live infants born to Northern Ireland residents, 2010/11 – 2021/22

Year of birth		Infant breastfeeding status at discharge					% infants breastfed (partial/total - feeding status known)
		Total	Partial	Not at all	Not known	Total	
2010/11	n	9,578	1,897	13,573	508	25,556	11,475
	%	38.2%	7.6%	54.2%	-	-	45.81%
2011/12	n	9,369	1,610	13,879	362	25,220	10,979
	%	37.7%	6.5%	55.8%	-	-	44.17%
2012/13	n	9,011	1,777	13,658	465	24,911	10,788
	%	36.9%	7.3%	55.9%	-	-	44.13%
2013/14	n	9,148	1,838	12,886	297	24,169	10,986
	%	38.3%	7.7%	54.0%	-	-	46.02%
2014/15	n	9,235	1,762	12,918	394	24,309	10,997
	%	38.6%	7.4%	54.0%	-	-	45.98%
2015/16	n	9,157	1,891	12,988	312	24,348	11,048
	%	38.1%	7.9%	54.0%	-	-	45.96%
2016/17	n	8,655	2,439	12,562	321	23,977	11,094
	%	36.6%	10.3%	53.1%	-	-	46.90%
2017/18	n	8,343	2,507	11,704	349	22,903	10,850
	%	37.0%	11.1%	51.9%	-	-	48.11%
2018/19	n	8,471	2,613	11,383	372	22,839	11,084
	%	37.7%	11.6%	50.7%	-	-	49.33%
2019/20	n	8,254	2,747	10,953	337	22,291	11,001
	%	37.6%	12.5%	49.9%	-	-	50.11%
2020/21	n	7,853	2,828	10,162	391	21,234	10,681
	%	37.7%	13.6%	48.8%	-	-	51.25%
2021/22	n	8,044	2,842	10,383	420	21,689	10,886
	%	37.8%	13.4%	48.8%	-	-	51.18%

Source: Child Health System

Following the inclusion of Child Health data into the Regional Data Warehouse, the source of CHS data for 2021/22 onwards will be the Data Warehouse, rather than downloads from each CHS. The data from both sources were analysed and the impact of changing the source of the data was considered minimal.

Percentage breastfeeding is calculated as a valid percentage. The calculation is based on those records where feeding status was known i.e. blank data has been removed from the denominator value.

Figure 10.1: % infants' breastfed (total/partial) at discharge, Northern Ireland, 2010/11 – 2021/22

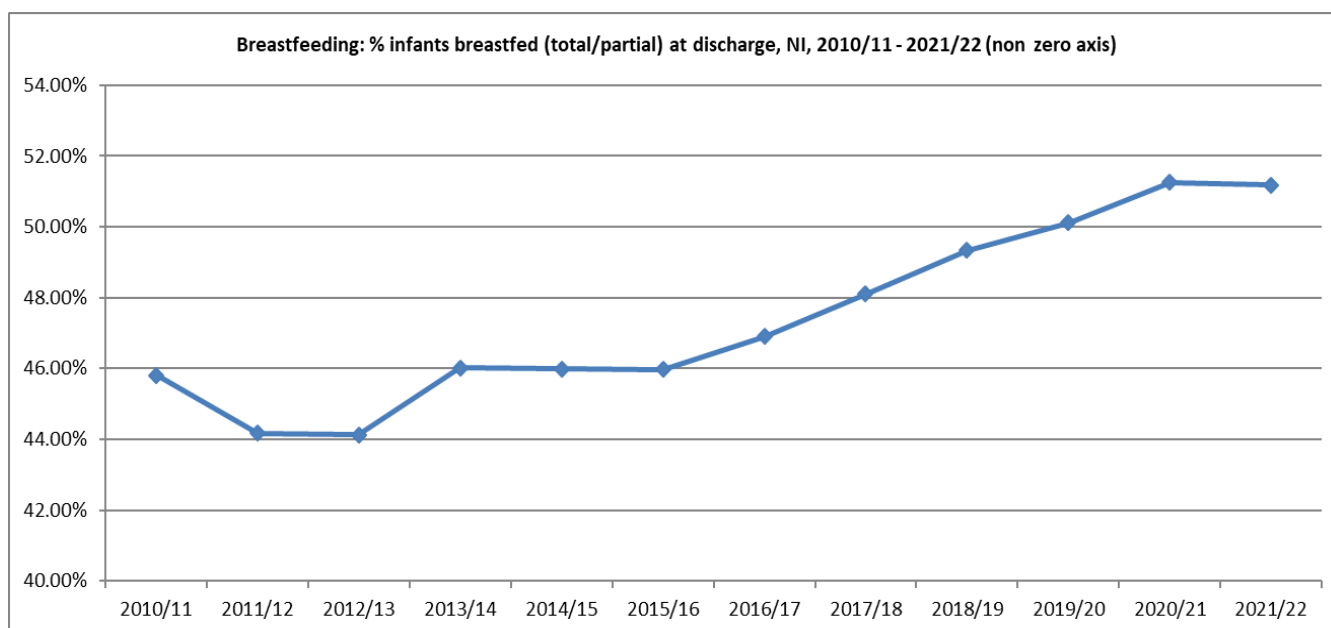


Table 10.2: Breastfeeding status (at discharge) of live infants born to Northern Ireland residents, 2021/22

		Infant breastfeeding status at discharge				Total	% infants breastfed (partial/total - feeding status known)
		Total	Partial	Not at all	Other / Not known		
Age Group of mother	Under 20	78	34	328	5	445	25.5%
	20 - 24	511	247	1,616	32	2,406	31.9%
	25 - 29	1,713	701	2,848	104	5,366	45.9%
	30 - 34	3,278	1,028	3,469	146	7,921	55.4%
	35 - 39	2,045	649	1,768	101	4,563	60.4%
	40 +	419	183	354	30	986	63.0%
	Not known	0	0	0	2	2	-
	All ages	8,044	2,842	10,383	420	21,689	51.2%
Multiple births	Single	7,978	2,700	10,051	372	21,101	51.5%
	Multiple	66	142	332	48	588	38.5%
	All infants	8,044	2,842	10,383	420	21,689	51.2%
First time mothers	First time mother	2,858	1,312	3,609	117	7,896	53.6%
	Not a first time mother	5,174	1,526	6,755	297	13,752	49.8%
	Not known	12	4	19	6	41	45.7%
	All infants	8,044	2,842	10,383	420	21,689	51.2%
Ethnic group of mother (NIMATS)	White	7,605	2,581	10,275	223	20,684	49.8%
	Asian	145	111	33	1	290	88.6%
	Black	100	82	29	5	216	86.3%
	Mixed	53	17	27	5	102	72.2%
	Other	165	93	82	5	345	75.9%
	Not stated / Blank	10	11	14	2	37	60.0%
	All ethnic groups	8,078	2,895	10,460	241	21,674	51.2%

Table 10.2 continued: Breastfeeding status (at discharge) of live infants born to Northern Ireland residents, 2021/22

		Infant breastfeeding status at discharge					% infants breastfed (partial/total - feeding status known)
		Total	Partial	Not at all	Other / Not known	Total	
Place of birth	Altnagelvin	698	289	1,332	53	2,372	42.6%
	Antrim	1,001	393	1,497	36	2,927	48.2%
	Causeway	391	85	414	2	892	53.5%
	Craigavon	1,230	447	1,498	72	3,247	52.8%
	Daisy Hill	714	306	951	32	2,003	51.8%
	Downe	0	0	0	3	3	-
	Lagan Valley	52	<10	25	<5	87	>51.2%
	Mater	<5	0	<5	<5	6	>51.2%
	Royal	1,574	643	2,414	118	4,749	47.9%
	SWAH	450	169	592	19	1,230	51.1%
	Ulster	1,926	501	1,657	60	4,144	59.4%
	Home/Other	<5	<5	<5	22	29	>51.2%
		All places of birth	8,044	2,842	10,383	420	21,689
Trust of residence of mother	Belfast	1,450	563	1,928	66	4,007	51.1%
	Northern	1,926	661	2,476	65	5,128	51.1%
	South Eastern	1,665	450	1,694	85	3,894	55.5%
	Southern	1,875	730	2,359	119	5,083	52.5%
	Western	1,128	438	1,926	85	3,577	44.8%
		All infants	8,044	2,842	10,383	420	21,689
Local Government District	Antrim and Newtownabbey	593	218	718	24	1,553	53.0%
	Ards and North Down	687	163	628	24	1,502	57.5%
	Armagh City, Banbridge and Craigavon	1,011	389	1,271	66	2,737	52.4%
	Belfast	1,286	508	1,977	68	3,839	47.6%
	Causeway Coast and Glens	541	160	760	20	1,481	48.0%
	Derry City and Strabane	515	216	1,057	48	1,836	40.9%
	Fermanagh and Omagh	497	181	641	27	1,346	51.4%
	Lisburn and Castlereagh	806	245	609	34	1,694	63.3%
	Mid and East Antrim	497	183	661	19	1,360	50.7%
	Mid Ulster	751	265	965	32	2,013	51.3%
	Newry, Mourne and Down	860	314	1,096	58	2,328	51.7%
		All infants	8,044	2,842	10,383	420	21,689
Deprivation 2017 quintile (SOA) based on residence of mother	Most deprived	1,138	536	2,887	94	4,655	36.7%
	2	1,540	576	2,411	103	4,630	46.7%
	3	1,589	597	2,131	96	4,413	50.6%
	4	1,875	598	1,745	67	4,285	58.6%
	Least deprived	1,902	535	1,209	60	3,706	66.8%
		All infants	8,044	2,842	10,383	420	21,689

Source: Child Health System and NIMATS

Following the inclusion of Child Health data into the Regional Data Warehouse, the source of CHS data for 2021/22 onwards will be the Data Warehouse, rather than downloads from each CHS. The data from both sources were analysed and the impact of changing the source of the data was considered minimal.

Due to the COVID-19 pandemic, Causeway Hospital was closed to deliveries between 8 April 2020 and 23 August 2020. Mater Hospital closed to deliveries on 30 March 2020 (it became a COVID Centre) and all deliveries were relocated to Royal Victoria Hospital. The Mater is still closed to deliveries.

NI Statistics and Research Agency, NI Multiple Deprivation Measure 2017

<https://www.nisra.gov.uk/news/nisra-releases-updated-deprivation-measures-northern-ireland>

Disclosure controls have been applied to this table. As a result, for some places of birth, it is not possible to show the exact percentage values in the final column and so a comparison to the NI value has been provided.

Percentage breastfeeding is calculated as a valid percentage. The calculation is based on those records where feeding status was known i.e. blank data has been removed from the denominator value.

Table 10.3: Breastfeeding status (at discharge) of live infants born to Northern Ireland residents, District Electoral Area, 2021/22

Local Government District	District Electoral Area	Infant breastfeeding status at discharge					% infants breastfed (partial/total - feeding status known)
		Total	Partial	Not at all	Not known	Total	
Antrim and Newtownabbey	Airport	89	33	112	4	238	52.14%
	Antrim	99	42	144	6	291	49.47%
	Ballyclare	90	22	82	2	196	57.73%
	Dunsilly	70	22	98	2	192	48.42%
	Glengormley Urban	99	34	101	6	240	56.84%
	Macedon	66	35	94	2	197	51.79%
	Three Mile Water	80	30	87	2	199	55.84%
	Total	593	218	718	24	1,553	53.04%
Ards and North Down	Ards Peninsula	88	32	108	6	234	52.63%
	Bangor Central	114	21	106	3	244	56.02%
	Bangor East and Donaghadee	84	15	67	4	170	59.64%
	Bangor West	84	19	79	5	187	56.59%
	Comber	103	17	72	3	195	62.50%
	Holywood and Clondeboye	87	22	40	0	149	73.15%
	Newtownards	127	37	156	3	323	51.25%
	Total	687	163	628	24	1,502	57.51%
Armagh, Banbridge and Craigavon	Armagh	131	56	227	9	423	45.17%
	Banbridge	139	60	176	17	392	53.07%
	Craigavon	140	41	176	6	363	50.70%
	Cusher	134	36	137	7	314	55.37%
	Lagan River	135	38	112	5	290	60.70%
	Lurgan	176	89	279	11	555	48.71%
	Portadown	156	69	164	11	400	57.84%
	Total	1,011	389	1,271	66	2,737	52.41%
Belfast	Balmoral	133	38	53	2	226	76.34%
	Black Mountain	93	54	318	4	469	31.61%
	Botanic	160	85	127	9	381	65.86%
	Castle	120	60	167	7	354	51.87%
	Collin	107	35	272	12	426	34.30%
	Court	81	34	330	6	451	25.84%
	Lisnasharragh	166	41	70	5	282	74.73%
	Oldpark	92	42	332	10	476	28.76%
	Ormiston	167	46	99	3	315	68.27%
	Titanic	167	73	209	10	459	53.45%
Total	1,286	508	1,977	68	3,839	47.57%	
Causeway Coast and Glens	Ballymoney	98	25	160	3	286	43.46%
	Bann	68	31	79	2	180	55.62%
	Benbradagh	66	22	121	6	215	42.11%
	Causeway	101	23	79	2	205	61.08%
	Coleraine	83	25	125	1	234	46.35%
	Limavady	50	18	107	4	179	38.86%
	The Glens	75	16	89	2	182	50.56%
	Total	541	160	760	20	1,481	47.98%
Derry City and Strabane	Ballyarnett	71	48	214	4	337	35.74%
	Derg	66	22	134	7	229	39.64%
	Faughan	53	35	121	5	214	42.11%
	Foyleside	69	19	120	6	214	42.31%
	Sperrin	80	36	173	10	299	40.14%
	The Moor	51	15	131	7	204	33.50%
	Waterside	125	41	164	9	339	50.30%
	Total	515	216	1,057	48	1,836	40.88%

Table 10.3 continued: Breastfeeding status (at discharge) of live infants born to Northern Ireland residents, District Electoral Area, 2021/22

Local Government District	District Electoral Area	Infant breastfeeding status at discharge					% infants breastfed (partial/total - feeding status known)
		Total	Partial	Not at all	Not known	Total	
Fermanagh and Omagh	Enniskillen	74	27	75	5	181	57.39%
	Erne East	62	21	101	4	188	45.11%
	Erne North	53	27	87	3	170	47.90%
	Erne West	77	23	67	2	169	59.88%
	Mid Tyrone	90	25	115	5	235	50.00%
	Omagh	69	31	107	5	212	48.31%
	West Tyrone	72	27	89	3	191	52.66%
	Total	497	181	641	27	1,346	51.40%
Lisburn and Castlereagh	Castlereagh East	117	36	95	6	254	61.69%
	Castlereagh South	135	49	73	3	260	71.60%
	Downshire East	90	25	50	5	170	69.70%
	Downshire West	95	25	54	6	180	68.97%
	Killultagh	145	40	107	5	297	63.36%
	Lisburn North	127	31	103	4	265	60.54%
	Lisburn South	97	39	127	5	268	51.71%
	Total	806	245	609	34	1,694	63.31%
Mid and East Antrim	Ballymena	81	47	133	2	263	49.04%
	Bannside	85	27	91	4	207	55.17%
	Braid	100	35	124	3	262	52.12%
	Carrick Castle	63	17	69	4	153	53.69%
	Coast Road	42	14	96	2	154	36.84%
	Knockagh	71	18	75	2	166	54.27%
	Larne Lough	55	25	73	2	155	52.29%
	Total	497	183	661	19	1,360	50.71%
Mid Ulster	Carntogher	75	34	115	5	229	48.66%
	Clogher Valley	133	48	135	10	326	57.28%
	Cookstown	97	37	155	2	291	46.37%
	Dungannon	130	54	154	10	348	54.44%
	Magherafelt	110	26	128	3	267	51.52%
	Moyola	100	34	117	2	253	53.39%
	Torrent	106	32	161	0	299	46.15%
	Total	751	265	965	32	2,013	51.29%
Newry, Mourne and Down	Crotlieve	141	53	155	7	356	55.59%
	Downpatrick	92	30	139	5	266	46.74%
	Newry	122	44	158	9	333	51.23%
	Rowallane	94	24	120	3	241	49.58%
	Slieve Croob	115	23	119	14	271	53.70%
	Slieve Gullion	149	79	250	10	488	47.70%
	The Mournes	147	61	155	10	373	57.30%
	Total	860	314	1,096	58	2,328	51.72%
Northern Ireland	All infants	8,044	2,842	10,383	420	21,689	51.18%

Source: Child Health System

Following the inclusion of Child Health data into the Regional Data Warehouse, the source of CHS data for 2021/22 onwards will be the Data Warehouse, rather than downloads from each CHS. The data from both sources were analysed and the impact of changing the source of the data was considered minimal.

Percentage breastfeeding is calculated as a valid percentage. The calculation is based on those records where feeding status was known i.e. blank data has been removed from the denominator value.

Figure 10.2: Percentage infants born live to mothers' resident in Northern Ireland who were breastfed at discharge, by District Electoral Area, 2021/22

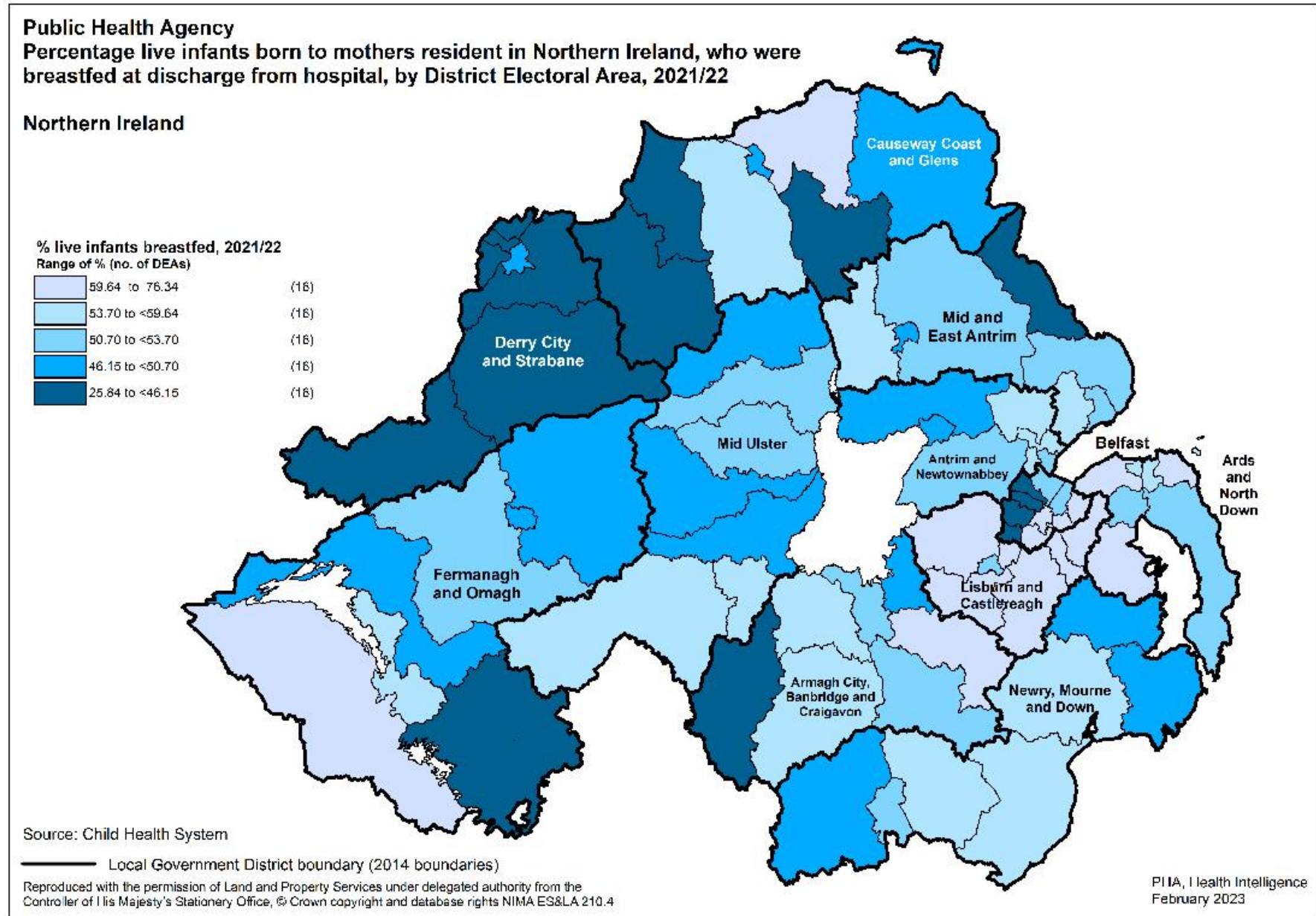


Table 10.4: Prevalence of breastfeeding of live infants born to Northern Ireland residents, at various stages during first year of life, 2020/21

		% infants breastfed (total/partial) by time period (feeding status known)					
		Discharge	Primary visit (10-14 days old)	6 weeks	3 months	6 months	12 months
Age Group of mother	Under 20	25.0%	20.2%	13.2%	9.1%	6.6%	3.9%
	20 - 24	33.7%	27.9%	19.0%	15.4%	11.2%	7.7%
	25 - 29	45.1%	38.6%	30.0%	25.9%	20.9%	13.5%
	30 - 34	56.0%	48.2%	40.4%	34.6%	29.1%	19.5%
	35 - 39	61.7%	53.7%	43.4%	38.7%	32.6%	22.4%
	40 +	59.1%	53.3%	42.3%	38.0%	31.0%	17.9%
	Not known	-	51.9%	50.0%	0.0%	0.0%	0.0%
	All infants	51.2%	44.1%	35.3%	30.6%	25.3%	16.8%
Multiple births	Single	51.7%	44.4%	35.6%	31.0%	25.6%	17.0%
	Multiple	36.2%	35.3%	25.1%	17.3%	13.6%	9.9%
	All infants	51.2%	44.1%	35.3%	30.6%	25.3%	16.8%
First time mothers	First time mother	53.9%	45.9%	36.0%	30.6%	24.5%	14.8%
	Not a first time mother	49.6%	43.0%	34.9%	30.6%	25.8%	18.0%
	Not known	47.2%	47.5%	46.2%	35.0%	27.8%	22.6%
	All infants	51.2%	44.1%	35.3%	30.6%	25.3%	16.8%
Ethnic group of infant	White	49.8%	42.2%	33.5%	29.1%	24.1%	16.1%
	Asian	81.3%	87.6%	79.9%	69.9%	60.1%	48.5%
	Black	80.6%	89.4%	80.8%	71.1%	58.5%	37.1%
	Mixed	72.1%	69.5%	55.7%	46.2%	39.3%	25.4%
	Other	78.2%	80.1%	69.1%	61.1%	51.2%	32.8%
	Not stated / Blank	65.5%	68.8%	46.4%	41.4%	16.7%	18.2%
	All infants	51.2%	44.1%	35.3%	30.6%	25.3%	16.8%
Place of birth	Altnagelvin	42.2%	34.9%	26.4%	21.8%	17.4%	11.0%
	Antrim	51.1%	43.3%	33.8%	29.9%	25.5%	17.9%
	Causeway	54.0%	45.0%	39.3%	34.9%	29.6%	20.7%
	Craigavon	53.3%	44.4%	35.7%	30.7%	25.0%	15.8%
	Daisy Hill	50.2%	41.5%	33.5%	29.6%	23.1%	15.4%
	Downe	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%
	Lagan Valley	69.4%	68.2%	60.9%	53.8%	46.4%	27.3%
	Mater	-	-	-	-	-	-
	Royal	48.3%	43.0%	34.1%	29.0%	24.9%	17.1%
	SWAH	52.5%	42.4%	35.1%	29.7%	24.2%	16.5%
	Ulster	57.9%	52.5%	43.0%	37.7%	31.2%	19.8%
	Home/Other	66.7%	68.6%	66.7%	55.6%	54.3%	59.4%
	All infants	51.2%	44.1%	35.3%	30.6%	25.3%	16.8%
Trust of residence of mother	Belfast	51.3%	47.7%	39.5%	35.2%	30.4%	20.0%
	Northern	52.2%	44.3%	35.3%	30.9%	26.7%	18.8%
	South Eastern	54.2%	47.1%	37.2%	31.4%	24.9%	17.4%
	Southern	52.0%	43.7%	35.1%	30.4%	24.3%	15.6%
	Western	45.7%	37.1%	29.0%	24.3%	19.3%	12.9%
	All infants	51.2%	44.1%	35.3%	30.6%	25.3%	16.8%

Table 10.4 continued: Prevalence of breastfeeding of live infants born to Northern Ireland residents, at various stages during first year of life, 2020/21

		% infants breastfed (total/partial) by time period (feeding status known)					
		Discharge	Primary visit (10-14 days old)	6 weeks	3 months	6 months	12 months
Local Government District	Antrim and Newtownabbey	54.7%	47.4%	37.3%	32.0%	28.3%	21.0%
	Ards and North Down	54.4%	48.6%	37.7%	32.7%	24.5%	18.3%
	Armagh City, Banbridge and Craigavon	51.1%	43.3%	35.4%	30.1%	24.4%	15.9%
	Belfast	47.9%	44.0%	35.9%	32.0%	27.8%	17.0%
	Causeway Coast and Glens	48.9%	39.3%	31.6%	26.6%	22.8%	16.5%
	Derry City and Strabane	40.8%	34.0%	25.6%	21.3%	16.9%	10.4%
	Fermanagh and Omagh	53.7%	43.4%	35.4%	29.8%	24.7%	16.5%
	Lisburn and Castlereagh	63.7%	56.7%	47.2%	40.4%	33.8%	20.5%
	Mid and East Antrim	54.5%	47.4%	36.9%	33.4%	29.4%	21.3%
	Mid Ulster	50.5%	40.9%	32.7%	29.4%	22.8%	13.9%
	Newry, Mourne and Down	51.1%	43.9%	34.8%	29.3%	23.6%	15.9%
	All infants	51.2%	44.1%	35.3%	30.6%	25.3%	16.8%
Deprivation 2017 quintile (SOA) based on residence of mother	Most deprived	35.6%	30.5%	22.6%	18.9%	14.8%	9.7%
	2	47.9%	40.3%	31.3%	26.3%	21.2%	14.5%
	3	50.5%	42.3%	34.4%	29.4%	24.2%	16.6%
	4	57.7%	49.5%	40.7%	35.7%	30.0%	20.1%
	Least deprived	68.7%	62.0%	51.3%	46.0%	38.9%	24.2%
		All infants	51.2%	44.1%	35.3%	30.6%	25.3%

Source: Child Health System

Due to the COVID-19 pandemic, Causeway Hospital was closed to deliveries between 8 April 2020 and 23 August 2020. Mater Hospital closed to deliveries on 30 March 2020 (it became a COVID Centre) and all deliveries were relocated to Royal Victoria Hospital. The Mater is still closed to deliveries.

NI Statistics and Research Agency, NI Multiple Deprivation Measure 2017

<https://www.nisra.gov.uk/news/nisra-releases-updated-deprivation-measures-northern-ireland>

Note that for some ethnic groups, hospitals and age groups the number of infants will be very small

Percentage breastfeeding is calculated as a valid percentage. The calculation is based on those records where feeding status was known i.e. blank data has been removed from the denominator value.

Table 10.5: Prevalence of breastfeeding of live infants born to Northern Ireland residents, at various stages during first year of life, by Sure Start area, 2020/21

Sure Start area	% infants breastfed (total/partial) by time period (where feeding status is known)					
	Discharge	Primary visit (10-14 days old)	6 weeks	3 months	6 months	12 months
Abbey	43.7%	37.0%	31.8%	27.7%	23.1%	18.4%
Antrim	45.8%	44.9%	28.6%	22.0%	22.4%	17.8%
Ards	43.7%	35.1%	26.3%	24.1%	18.1%	11.5%
ArKe	49.6%	38.8%	31.3%	23.1%	16.7%	13.5%
Ballymena	42.0%	37.7%	23.4%	23.4%	18.0%	13.9%
Bangor	55.4%	47.9%	34.3%	29.2%	17.1%	12.2%
Beechmount	41.3%	35.1%	25.6%	19.7%	17.7%	0.0%
Blossom	38.7%	38.3%	28.2%	23.9%	22.6%	12.1%
Cherish	50.2%	41.0%	34.8%	29.2%	21.5%	17.2%
Clan Mor	28.2%	27.2%	19.6%	14.2%	12.8%	10.3%
Clogher Valley	55.0%	40.5%	31.1%	24.3%	20.4%	8.8%
Coleraine	31.5%	26.6%	19.2%	14.7%	11.3%	7.1%
Colin	29.4%	22.8%	16.1%	12.7%	11.7%	6.0%
Dalriada	42.9%	35.0%	29.3%	23.6%	17.9%	14.6%
Downpatrick	44.6%	39.2%	30.4%	21.5%	13.1%	12.1%
Dungannon	53.7%	48.8%	36.5%	32.2%	21.0%	10.9%
Dungiven	41.9%	30.7%	23.5%	20.3%	15.6%	12.3%
East Belfast	41.2%	41.4%	33.9%	28.5%	23.0%	19.4%
Edenballymore	35.4%	31.2%	22.9%	20.5%	17.9%	7.9%
Glenbrook	27.7%	23.2%	17.8%	12.9%	9.7%	4.3%
Gold	37.8%	31.5%	24.9%	23.5%	19.8%	12.9%
Horizon	37.8%	36.3%	30.7%	25.7%	20.0%	16.2%
Kilkeel	55.0%	47.5%	30.8%	30.8%	28.9%	12.9%
LAST	51.2%	40.6%	30.5%	27.6%	23.4%	16.4%
Lisburn	41.7%	28.9%	25.3%	20.0%	10.8%	10.8%
Little Hands	36.9%	28.9%	17.3%	14.7%	9.0%	3.6%
Newry City	50.7%	43.2%	33.1%	27.9%	21.5%	16.2%
Outer West Belfast	43.5%	32.4%	23.9%	19.9%	16.2%	14.7%
Rainbow	50.0%	36.8%	29.6%	20.6%	16.8%	9.4%
Saol Ur	32.6%	26.9%	18.3%	13.9%	8.1%	10.0%
Shankill	24.4%	23.1%	15.9%	13.5%	12.0%	2.2%
Shantallow	32.0%	26.3%	18.3%	14.1%	9.2%	5.7%
Smile	39.1%	35.3%	29.0%	21.8%	17.5%	17.3%
South Armagh	46.2%	40.1%	34.8%	31.4%	24.7%	11.6%
South Belfast	55.8%	58.4%	46.6%	42.7%	37.2%	27.5%
Splash	39.7%	35.4%	26.1%	21.2%	14.9%	5.9%
Star	32.5%	26.8%	19.5%	13.2%	8.3%	0.0%
Strabane	37.6%	29.6%	23.7%	20.8%	13.1%	8.6%
Waterside	38.8%	35.6%	27.6%	22.9%	21.2%	13.2%
Children living in Sure Start areas	41.2%	35.4%	27.2%	22.8%	17.9%	11.9%
Children not living in Sure Start areas	57.1%	49.2%	40.1%	35.0%	29.5%	19.3%
All children	51.2%	44.1%	35.3%	30.6%	25.3%	16.8%

Source: Child Health System

Note that some percentages above are based on small numbers, especially in the later time periods e.g. at 6 months and 12 months Percentage breastfeeding is calculated as a valid percentage. The calculation is based on those records where feeding status was known i.e. blank data has been removed from the denominator value.

Section 11: Childhood Immunisations

Vaccination Coverage

The COVER (Cover of Vaccination Evaluated Rapidly) programme monitors immunisation coverage data for children in the United Kingdom who reach their first, second or fifth birthday during each evaluation year.

The World Health Organisation (WHO) states that there is an expectation that a target of 95% coverage should be reached for all routine childhood immunisation in the UK by the age of five years.⁸⁵

However, over the last few years, immunisation coverage in Northern Ireland has been falling and coverage for some immunisations is below the expected 95% target.

Northern Ireland

Detailed coverage data for Northern Ireland can be found at the link below:

Public Health Agency, Health Protection Department

<https://www.publichealth.hscni.net/publications/annual-immunisation-and-vaccine-preventable-diseases-reports>
<https://www.publichealth.hscni.net/directorate-public-health/health-protection/surveillance-data>

Rest of United Kingdom

Detailed coverage data for the rest of the UK can be found at the links below:

NHS Digital

<https://digital.nhs.uk/data-and-information/publications/statistical/nhs-immunisation-statistics>

UK Health Security Agency

<https://www.gov.uk/government/collections/vaccine-uptake>

Public Health Scotland/ISD Scotland

<https://beta.isdscotland.org/topics/child-health/immunisation/>

Public Health Wales

<https://phw.nhs.wales/>

⁸⁵ World Health Organisation "Health 21" - *The health for all policy framework for the WHO European Region* http://www.euro.who.int/_data/assets/pdf_file/0010/98398/wa540qa199heeng.pdf

Section 12: Childhood BMI

Why should we be concerned?

The World Health Organisation (WHO) states that “*childhood obesity is one of the most serious public health challenges of the 21st century... prevalence has increased at an alarming rate. Globally in 2016, the number of overweight children under the age of five, is estimated to have been over 41 million... Overweight and obese children are likely to stay obese into adulthood and more likely to develop noncommunicable diseases like diabetes and cardiovascular diseases at a younger age. Overweight and obesity, as well as their related diseases, are largely preventable. Prevention of childhood obesity therefore needs high priority*”.⁸⁶

A child who is obese may have a greater risk of the following in later life^{87 88}:

- Type 2 diabetes
- Asthma
- Musculo-skeletal problems
- Heart disease / high blood pressure / stroke
- Low self-esteem / mental illness / eating disorders

An obese child is more likely to become an obese adult.

What can be done?

The Department of Health developed a strategic framework “A Fitter Future for All, 2012-2022”⁸⁹ aimed at preventing overweight and obesity across the life course of the population of Northern Ireland.

The overall aim of the Framework is to: “*Empower the population of Northern Ireland to make healthy choices, reduce the risk of overweight and obesity related diseases and improve health and well-being, by creating an environment that supports a physically active lifestyle and a healthy diet*”.

A target to reduce levels of overweight and obesity in children was set – a reduction of 3% in those obese and 2% in those obese/overweight.

Further reading:

[Healthy eating - GOV.UK \(www.gov.uk\)](http://www.gov.uk)

[Overview | Obesity: identification, assessment and management | Guidance | NICE](#)

[Overview | Weight management: lifestyle services for overweight or obese children and young people | Guidance | NICE](#)

[Noncommunicable diseases: Childhood overweight and obesity \(who.int\)](http://www.who.int)

[WSA-approach-to-obesity-prevention-final.pdf \(publichealth.ie\)](https://publichealth.ie)

⁸⁶ World Health Organisation <http://www.who.int/dietphysicalactivity/childhood/en/>

⁸⁷ Royal College of Paediatrics and Child Health, <https://www.rcpch.ac.uk/key-topics/nutrition-obesity/about-childhood-obesity>

⁸⁸ Royal College of Paediatrics and Child Health, State of Child Health, 2020 <https://stateofchildhealth.rcpch.ac.uk/>

⁸⁹ Department of Health, Northern Ireland <https://www.health-ni.gov.uk/articles/obesity-prevention>

Classification of Growth Measurements in Northern Ireland

In this report, in the past, growth measurements have been classified using the International Obesity Task Force Classification (IOTF) only. However, from 2017/18 onwards a further classification will be provided - the British 1990 (UK90) growth reference. In other countries of the UK, the British 1990 growth reference (UK90) is recommended for population monitoring and clinical assessment in children aged 4 years and over.

International Obesity Task Force (IOTF)

The IOTF thresholds are derived from BMI data from six large, nationally representative, cross-sectional surveys from Brazil, Great Britain, Hong Kong, the Netherlands, Singapore, and the United States. These samples include 192,727 children aged 0 to 25 years. Each data set has over 10,000 subjects, with age ranges covering at least the period from 6 to 18 years. Age and sex specific cut-off points are extrapolated from the adult BMI cut-offs of 25kg/m² and 30kg/m² for overweight and obesity respectively. Three grades of thinness are defined from equivalent adult BMIs of 16, 17 and 18.5.

British 1990 Growth Reference (UK90)

The UK90 BMI reference provides centile curves for BMI for British children from birth to 23 years. They are based on a sample of 32,222 measurements from 12 distinct surveys collected between 1978 and 1994. The sample was rebased to 1990 levels and the data were then used to express BMI as a centile based on the BMI distribution, adjusted for skewness, age and sex using Cole's LMS method (*'Growth monitoring with the British 1990 growth reference'*. *Cole Arch Dis Child*.1997; 76: 47-49.)

The BMI classification of each child is derived by calculating the child's BMI centile and assigning the BMI classification based on the following thresholds:

- Underweight is defined as a BMI centile less than or equal to the 2nd centile
- Healthy weight is defined as a BMI centile greater than the 2nd centile but less than the 85th centile
- Overweight is defined as a BMI centile greater than or equal to the 85th centile but less than the 95th centile (i.e. overweight but not obese)
- Obese is defined as a BMI centile greater than or equal to the 95th centile.

Further information on classifications:

National Obesity Observatory (PHE), "A simple guide to classifying body mass index in children", June 2011

<https://khub.net/documents/31798783/32039025/A+simple+guide+to+classifying+body+mass+index+in+children/ced23256-6f8d-43c7-9f44-222e2beebf97?version=1.0>

Note

Due to the COVID-19 pandemic, disruption in schools resulted in some children not being measured during this time. As a result, data coverage was not sufficient enough to provide information for 2019/20 and 2020/21 for Primary 1 children, and 2019/20, 2020/21 and 2021/22 for Year 8 children.

Although data for 2021/22 is provided for Primary 1 children, the coverage is lower than in previous years and so caution is advised when interpreting data.

International Obesity Task Force Classification

Key Points

Primary 1

- Of those children measured in Primary 1 in 2021/22, 21.7% were considered overweight or obese [Page 86].
- A higher proportion of girls were overweight/obese (25.4%) compared to boys (18.1%) [Page 87].
- The proportion of children overweight/obese by Local Government District ranges from 18.6% (Lisburn and Castlereagh LGD) to 25.5% (Derry City and Strabane LGD) [Page 87].
- 26.1% of children living in the most deprived areas of Northern Ireland (NIMDM 2017) were measured as overweight/obese, compared to 17.9% of children from the least deprived areas [Page 87].

Year 8

- In 2018/19, just over 27% of children in Year 8 were measured as overweight/obese, a decrease on the previous year [Page 89].
- At this age, there is little difference in the proportion overweight/obese between the two genders (27.5% male, 26.8% female) [Page 90].

PRIMARY 1 (IOTF)

Table 12.1: BMI levels in Primary 1 children across Northern Ireland (IOTF), 2008/09 – 2018/19 and 2021/22

BMI category / Number of children	% Primary 1 children											
	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	21/22
	18,514	19,749	19,469	21,223	21,934	23,048	21,780	23,778	24,042	23,314	22,848	18,260
Thinness grade 1 to 3	2.98%	3.21%	2.72%	3.46%	3.53%	3.38%	3.86%	3.58%	4.48%	4.51%	4.12%	4.22%
Normal	75.62%	75.50%	75.15%	75.75%	75.04%	75.26%	75.23%	74.88%	74.86%	74.95%	74.06%	74.12%
Overweight	16.84%	16.57%	17.12%	15.83%	16.59%	16.57%	15.82%	16.19%	15.69%	15.48%	16.29%	15.55%
Obese	4.56%	4.72%	5.01%	4.96%	4.85%	4.80%	5.08%	5.35%	4.97%	5.06%	5.53%	6.10%
% children overweight / obese	21.40%	21.29%	22.13%	20.79%	21.44%	21.37%	20.90%	21.54%	20.66%	20.54%	21.82%	21.65%

Source: Child Health System

Year refers to school year

Children measured are typically between 4½ and 5½ years of age

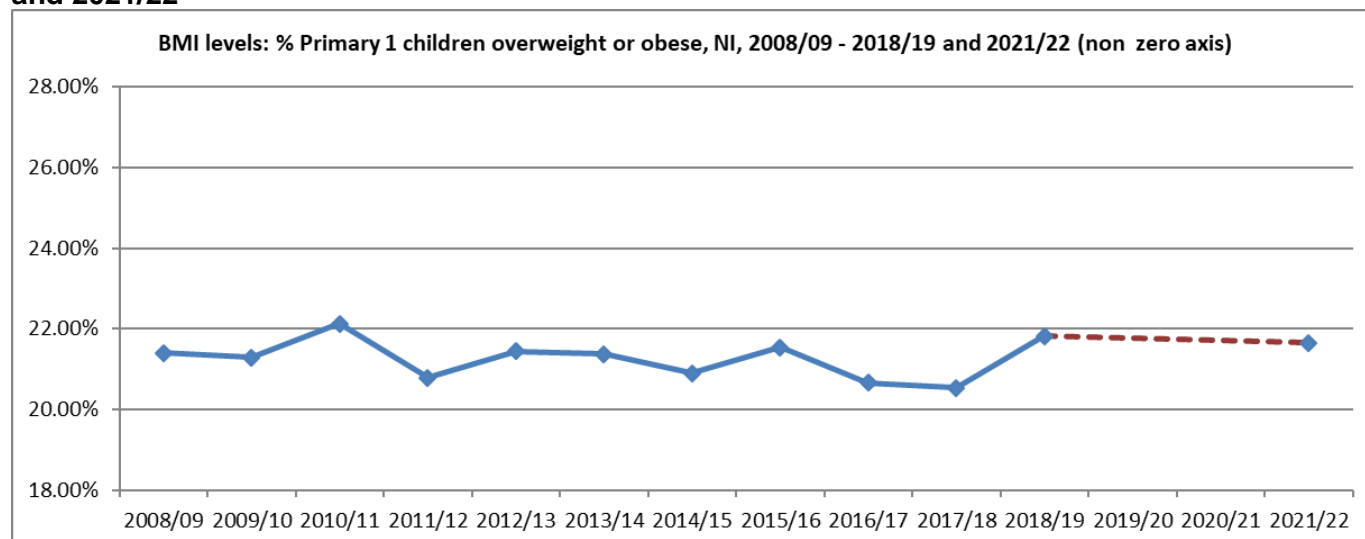
Figures above are categorised using International Obesity TaskForce measures

Note that in any year all children may not be measured and so coverage may not be complete

Following a data validation exercise, data for 2008/09 to 2016/17 has been revised

Data for 2019/20 and 2020/21 is not available due to impact of COVID-19 pandemic on data collection. Although data for 2021/22 is provided, the coverage is lower than in previous years and so caution is advised when interpreting data.

Figure 12.1: % Primary 1 children overweight or obese, Northern Ireland (IOTF), 2008/09 – 2018/19 and 2021/22



Note that due to insufficient recording of growth measurements during the COVID-19 pandemic, it is not possible to include 2019/20 and 2020/21 data in the chart above. Therefore, the break in the trend is shown as a dashed line.

Table 12.2: BMI levels in Primary 1 children across Northern Ireland (IOTF), 2021/22

		No. of children by BMI category					% children overweight or obese
		Thinness grade 1 to 3	Normal	Overweight	Obese	Total	
Gender	Male	452	7,218	1,204	487	9,361	18.06%
	Female	319	6,317	1,636	627	8,899	25.43%
	All persons	771	13,535	2,840	1,114	18,260	21.65%
Trust of residence of child	Belfast	144	1,986	426	174	2,730	21.98%
	Northern	224	3,840	873	321	5,258	22.71%
	South Eastern	164	3,144	616	235	4,159	20.46%
	Southern	126	2,346	431	157	3,060	19.22%
	Western	111	2,211	493	227	3,042	23.67%
	Not known	2	8	1	0	11	9.09%
	All persons	771	13,535	2,840	1,114	18,260	21.65%
Local Government District	Antrim and Newtownabbey	68	1,048	245	89	1,450	23.03%
	Ards and North Down	77	1,272	252	86	1,687	20.04%
	Armagh City, Banbridge and Craigavon	65	1,271	241	85	1,662	19.61%
	Belfast	136	1,975	448	187	2,746	23.12%
	Causeway Coast and Glens	42	1,006	232	99	1,379	24.00%
	Derry City and Strabane	49	1,052	245	132	1,478	25.51%
	Fermanagh and Omagh	55	946	196	77	1,274	21.43%
	Lisburn and Castlereagh	67	1,226	213	83	1,589	18.63%
	Mid and East Antrim	58	1,138	271	98	1,565	23.58%
	Mid Ulster	89	1,398	269	93	1,849	19.58%
	Newry, Mourne and Down	63	1,195	227	85	1,570	19.87%
	Not known	2	8	1	0	11	9.09%
	All persons	771	13,535	2,840	1,114	18,260	21.65%
Deprivation 2017 quintile (SOA) based on residence of child	Most deprived	128	2,317	577	285	3,307	26.07%
	2	137	2,956	578	271	3,942	21.54%
	3	152	2,871	634	230	3,887	22.23%
	4	181	2,854	593	195	3,823	20.61%
	Least deprived	171	2,529	457	133	3,290	17.93%
	Not known	2	8	1	0	11	9.09%
	All persons	771	13,535	2,840	1,114	18,260	21.65%

Source: Child Health System and NI Statistics and Research Agency, NI Multiple Deprivation Measure 2017

<https://www.nisra.gov.uk/news/nisra-releases-updated-deprivation-measures-northern-ireland>

Year refers to school year. Children measured are typically between 4½ and 5½ years of age.

Figures above are categorised using International Obesity TaskForce measures.

Note that in any year all children may not be measured and so coverage may not be complete

Although data for 2021/22 is provided, the coverage is lower than in previous years and so caution is advised when interpreting data.

Table 12.3: BMI levels in Primary 1 children across Northern Ireland, by Sure Start area (IOTF), 2021/22

Sure Start area	Total children	% children by BMI category				% children overweight or obese
		Thinness grade 1 to 3	Normal	Overweight	Obese	
Abbey	202	4.5%	64.4%	24.3%	6.9%	31.2%
Antrim	<100	1.8%	69.6%	17.9%	10.7%	28.6%
Ards	221	2.3%	70.6%	19.0%	8.1%	27.1%
ArKe	112	4.5%	78.6%	13.4%	3.6%	17.0%
Ballymena	190	4.7%	68.9%	20.0%	6.3%	26.3%
Bangor	<100	3.2%	69.9%	11.8%	15.1%	26.9%
Beechmount	<100	0.0%	80.0%	20.0%	0.0%	20.0%
Blossom	<100	2.2%	68.1%	20.9%	8.8%	29.7%
Cherish	202	5.4%	75.2%	15.8%	3.5%	19.3%
Clan Mor	<100	13.0%	69.6%	10.9%	6.5%	17.4%
Clogher Valley	165	2.4%	75.2%	16.4%	6.1%	22.4%
Coleraine	159	4.4%	70.4%	15.7%	9.4%	25.2%
Colin	282	3.2%	69.9%	19.1%	7.8%	27.0%
Dalriada	155	1.9%	77.4%	13.5%	7.1%	20.6%
Downpatrick	287	4.5%	75.6%	12.9%	7.0%	19.9%
Dungannon	196	6.1%	76.5%	11.7%	5.6%	17.3%
Dungiven	155	2.6%	71.6%	18.7%	7.1%	25.8%
East Belfast	149	6.0%	67.8%	18.8%	7.4%	26.2%
Edenballymore	146	3.4%	72.6%	15.1%	8.9%	24.0%
Glenbrook	182	3.8%	73.6%	14.8%	7.7%	22.5%
Gold	236	3.4%	77.5%	15.3%	3.8%	19.1%
Horizon	144	1.4%	75.0%	13.2%	10.4%	23.6%
Kilkeel	<100	2.3%	72.7%	13.6%	11.4%	25.0%
LAST	214	3.7%	78.5%	13.6%	4.2%	17.8%
Lisburn	114	2.6%	67.5%	19.3%	10.5%	29.8%
Little Hands	132	3.8%	65.9%	22.0%	8.3%	30.3%
Newry City	<100	0.0%	81.8%	15.2%	3.0%	18.2%
Outer West Belfast	202	3.5%	73.3%	18.8%	4.5%	23.3%
Rainbow	116	4.3%	73.3%	13.8%	8.6%	22.4%
Saol Ur	123	2.4%	69.1%	20.3%	8.1%	28.5%
Shankill	259	3.9%	68.7%	18.5%	8.9%	27.4%
Shantallow	166	5.4%	68.1%	16.3%	10.2%	26.5%
Smile	168	3.0%	66.1%	14.3%	16.7%	31.0%
South Armagh	<100	7.0%	67.4%	20.9%	4.7%	25.6%
South Belfast	238	8.0%	68.5%	16.4%	7.1%	23.5%
Splash	141	2.8%	68.8%	24.1%	4.3%	28.4%
Star	<100	9.5%	71.4%	14.3%	4.8%	19.0%
Strabane	251	2.8%	70.1%	15.9%	11.2%	27.1%
Waterside	151	3.3%	70.2%	16.6%	9.9%	26.5%
Children living in Sure Start areas	5,921	3.9%	71.6%	16.8%	7.7%	24.4%
Children not living in Sure Start areas	12,328	4.4%	75.3%	15.0%	5.4%	20.3%
Children - address not known	11	18.2%	72.7%	9.1%	0.0%	9.1%
All children	18,260	4.2%	74.1%	15.6%	6.1%	21.7%

Source: Child Health System

Year refers to school year

Children measured are typically between 4½ and 5½ years of age

Figures above are categorised using International Obesity TaskForce measures

Note that in any year all children may not be measured and so coverage may not be complete

Note that some percentages above are based on small numbers

Disclosure controls have been applied to the data

Although data for 2021/22 is provided, the coverage is lower than in previous years and so caution is advised when interpreting data.

YEAR 8 (IOTF)

In 2018/19, children in Western Trust area did not have height and weight measurements taken at Year 8. Therefore Year 8 data for 2018/19 in this report is based on four out of five Health Trusts only. In Year 8, approximately 3,000 children would have been measured in the Western Trust area, while only 124 children were measured.

Coverage at Year 8 has never been complete, ranging from 15,000 – 18,000 children which would equate to 65 - 70%. Comparison with previous years' data including and excluding Western Trust has shown that the Northern Ireland figure is not materially affected.

Table 12.4: BMI levels in Year 8 children across Northern Ireland (IOTF), 2010/11 - 2018/19

BMI category	% Year 8 children								
	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19*
Number of children	17,873	17,836	16,618	14,789	15,490	17,832	18,108	18,465	16,367
Thinness grade 1 to 3	6.13%	6.21%	5.87%	6.04%	6.95%	6.21%	6.86%	6.64%	7.15%
Normal	65.97%	66.12%	66.77%	65.72%	66.66%	66.45%	65.92%	65.50%	65.69%
Overweight	21.88%	21.96%	21.59%	22.14%	20.97%	21.93%	21.67%	21.83%	21.20%
Obese	6.03%	5.71%	5.78%	6.10%	5.42%	5.42%	5.55%	6.03%	5.96%
% children overweight/obese	27.91%	27.67%	27.37%	28.24%	26.39%	27.35%	27.22%	27.86%	27.16%

Source: Child Health System

* NOTE THAT IN 2018/19, CHILDREN IN WESTERN TRUST DID NOT HAVE HEIGHT AND WEIGHT MEASUREMENTS TAKEN.

THEREFORE 2018/19 DATA IS BASED ON FOUR OUT OF FIVE HEALTH TRUSTS ONLY. A SMALL NUMBER OF CHILDREN WERE MEASURED WHO WERE RESIDENT IN WHSCT AREA (124) AND THESE CHILDREN HAVE BEEN INCLUDED IN THE DATA ABOVE

Year refers to school year

Children measured are typically between 11½ and 12½ years of age

Figures above are categorised using International Obesity TaskForce measures

Note that in any year all children may not be measured and so coverage may not be complete

Due to lower coverage in previous years, figures are only available for Year 8 from 2010/11

Following a data validation exercise, data for 2010/11 to 2016/17 has been revised

Figure 12.2: % Year 8 children overweight or obese, Northern Ireland (IOTF), 2010/11 – 2018/19

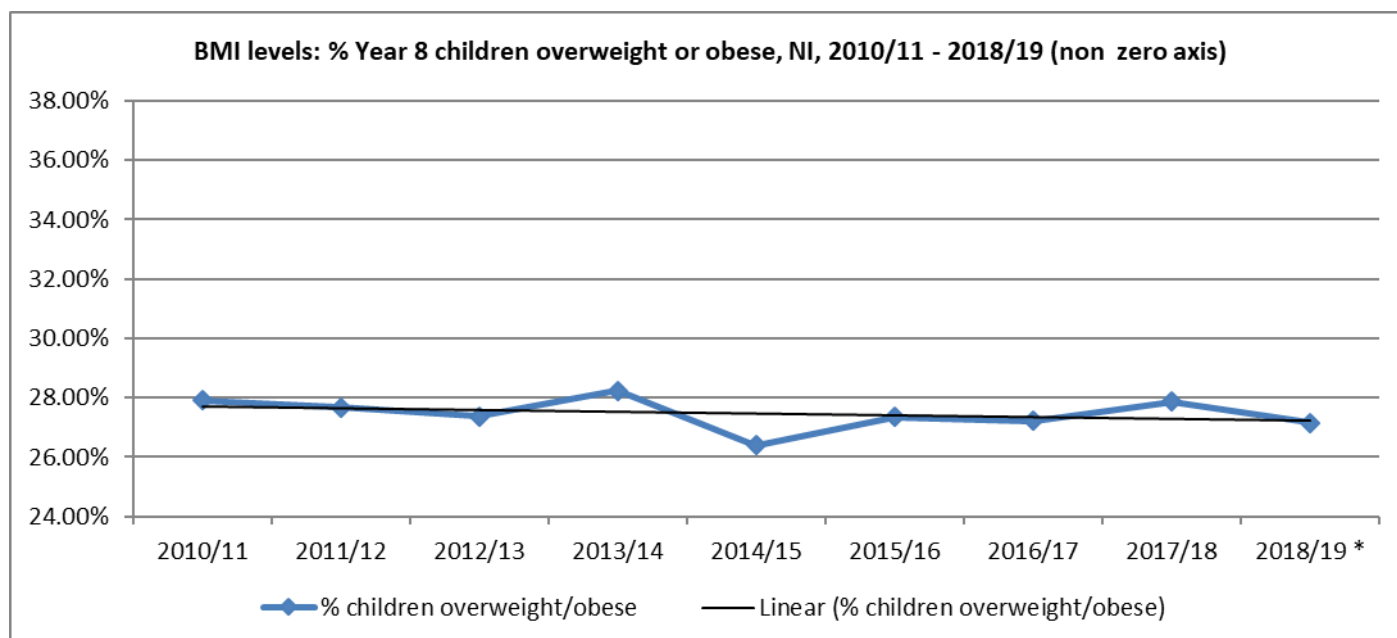


Table 12.5: BMI levels in Year 8 children across Northern Ireland (IOTF), 2018/19

		No. of children by BMI category *					% children overweight or obese
		Thinness grade 1 to 3	Normal	Overweight	Obese	Total	
Gender	Male	530	5,405	1,714	537	8,186	27.50%
	Female	641	5,346	1,755	439	8,181	26.82%
	All persons	1,171	10,751	3,469	976	16,367	27.16%
Trust of residence of child	Belfast	199	2,075	709	210	3,193	28.78%
	Northern	359	3,448	1,151	335	5,293	28.07%
	South Eastern	276	2,344	731	176	3,527	25.72%
	Southern	326	2,762	853	243	4,184	26.20%
	Western						
	Not known	2	30	9	5	46	30.43%
	All persons	1,162	10,659	3,453	969	16,243	27.22%
Local Government District	Antrim and Newtownabbey	106	1,064	352	98	1,620	27.78%
	Ards and North Down	132	1,086	312	63	1,593	23.54%
	Armagh City, Banbridge and Craigavon	192	1,508	466	146	2,312	26.47%
	Belfast	194	2,001	722	215	3,132	29.92%
	Causeway Coast and Glens						
	Derry City and Strabane						
	Fermanagh and Omagh						
	Lisburn and Castlereagh	96	896	268	64	1,324	25.08%
	Mid and East Antrim	103	931	343	103	1,480	30.14%
	Mid Ulster	112	1,109	358	98	1,677	27.19%
	Newry, Mourne and Down	146	1,281	377	108	1,912	25.37%
	Not known	2	30	9	5	46	30.43%
	All persons	1,083	9,906	3,207	900	15,096	27.21%
Deprivation 2017 quintile (SOA) based on residence of child	Most deprived	138	1,600	651	233	2,622	33.71%
	2	229	1,847	645	191	2,912	28.71%
	3	242	2,236	728	209	3,415	27.44%
	4	282	2,647	822	204	3,955	25.94%
	Least deprived	278	2,391	614	134	3,417	21.89%
	Not known	2	30	9	5	46	30.43%
	All persons	1,171	10,751	3,469	976	16,367	27.16%

Source: Child Health System

* NOTE THAT IN 2018/19, CHILDREN IN WESTERN TRUST DID NOT HAVE HEIGHT AND WEIGHT MEASUREMENTS TAKEN. THEREFORE 2018/19 DATA IS BASED ON FOUR OUT OF FIVE HEALTH TRUSTS ONLY. A SMALL NUMBER OF CHILDREN WERE MEASURED WHO WERE RESIDENT IN WHSCT AREA (124) AND THESE CHILDREN HAVE BEEN INCLUDED IN THE DATA ABOVE BY GENDER AND DEPRIVATION QUINTILE, HOWEVER THEY HAVE BEEN REMOVED FROM TRUST AND LOCAL GOVERNMENT DISTRICT LEVEL DATA. DATA HAS NOT BEEN SHOWN FOR 3 LOCAL GOVERNMENT DISTRICTS ABOVE AND THIS REMOVED APPROXIMATELY 1,200 CHILDREN WHO WERE RESIDENT IN THESE LOCAL GOVERNMENT DISTRICTS, BUT NOT RESIDENT IN WHSCT AREA.

NI Statistics and Research Agency, NI Multiple Deprivation Measure 2017

<https://www.nisra.gov.uk/news/nisra-releases-updated-deprivation-measures-northern-ireland>

Year refers to school year

Children measured are typically between 11½ and 12½ years of age

Figures above are categorised using International Obesity TaskForce measures

Note that in any year all children may not be measured and so coverage may not be complete

Table 12.6: BMI levels in Year 8 children across Northern Ireland, by Sure Start area (IOTF), 2018/19

Sure Start area	Total children	% children by BMI category *				% children overweight or obese
		Thinness grade 1 to 3	Normal	Overweight	Obese	
Abbey	234	6.0%	60.3%	25.6%	8.1%	33.8%
Antrim	<100	3.9%	49.0%	35.3%	11.8%	47.1%
Ards	232	10.8%	60.8%	21.6%	6.9%	28.4%
ArKe	103	9.7%	60.2%	22.3%	7.8%	30.1%
Ballymena	169	5.9%	56.8%	26.6%	10.7%	37.3%
Bangor	<100	4.1%	64.9%	24.3%	6.8%	31.1%
Beechmount	<100	3.8%	61.5%	23.1%	11.5%	34.6%
Blossom	167	7.2%	61.7%	20.4%	10.8%	31.1%
Cherish						
Clan Mor	<100	0.0%	59.7%	29.0%	11.3%	40.3%
Clogher Valley	109	2.8%	63.3%	27.5%	6.4%	33.9%
Coleraine	127	3.9%	57.5%	29.9%	8.7%	38.6%
Colin	266	4.1%	60.2%	27.8%	7.9%	35.7%
Dalriada	142	7.7%	66.2%	19.7%	6.3%	26.1%
Downpatrick	229	7.9%	59.8%	24.0%	8.3%	32.3%
Dungannon	229	7.9%	65.9%	20.5%	5.7%	26.2%
Dungiven						
East Belfast	280	6.1%	62.1%	25.4%	6.4%	31.8%
Edenballymore						
Glenbrook	209	5.7%	59.8%	25.4%	9.1%	34.4%
Gold	166	7.8%	59.6%	27.1%	5.4%	32.5%
Horizon	112	6.3%	54.5%	25.9%	13.4%	39.3%
Kilkeel	<100	15.6%	53.1%	15.6%	15.6%	31.3%
LAST						
Lisburn	<100	14.7%	61.8%	13.2%	10.3%	23.5%
Little Hands						
Newry City	169	8.9%	63.3%	21.3%	6.5%	27.8%
Outer West Belfast	236	4.7%	64.4%	25.0%	5.9%	30.9%
Rainbow						
Saol Ur	165	3.0%	61.8%	25.5%	9.7%	35.2%
Shankill	340	4.7%	62.9%	23.2%	9.1%	32.4%
Shantallow						
Smile	160	5.6%	55.6%	27.5%	11.3%	38.8%
South Armagh	338	5.9%	68.6%	20.1%	5.3%	25.4%
South Belfast	240	6.3%	64.2%	22.5%	7.1%	29.6%
Splash	229	7.0%	62.9%	25.3%	4.8%	30.1%
Star	<100	9.6%	65.4%	19.2%	5.8%	25.0%
Strabane						
Waterside						
Children living in Sure Start areas	5,098	6.3%	61.8%	24.0%	7.8%	31.9%
Children not living in Sure Start areas	11,223	7.5%	67.4%	20.0%	5.1%	25.1%
Children - address not known	46	4.3%	65.2%	19.6%	10.9%	30.4%
All children	16,367	7.1%	65.7%	21.2%	6.0%	27.2%

Source: Child Health System

* NOTE THAT IN 2018/19, CHILDREN IN WESTERN TRUST DID NOT HAVE HEIGHT AND WEIGHT MEASUREMENTS TAKEN. THEREFORE 2018/19 DATA IS BASED ON FOUR OUT OF FIVE HEALTH TRUSTS ONLY. DATA HAS NOT BEEN SHOWN FOR A NUMBER OF SURESTART AREAS AND THIS REMOVED APPROXIMATELY 1,200 CHILDREN WHO WERE RESIDENT IN THESE AREAS, BUT NOT RESIDENT IN WHSCT AREA.

Year refers to school year

Children measured are typically between 11½ and 12½ years of age

Figures above are categorised using International Obesity TaskForce measures

Note that in any year all children may not be measured and so coverage may not be complete

Note that some percentages above are based on small numbers

Disclosure controls have been applied to the data

British 1990 Growth Reference (UK90) Classification

Key Points

Primary 1

- Based on the UK90 classification, in 2021/22, 25.7% of children in Northern Ireland measured in Primary 1 were considered overweight or obese. This compares to 22.3% in England and 24.1% in Scotland. At time of publication, data for 2021/22 for Wales was not available. Equivalent figure for 2018/19 = 26.9%) [*Page 93*].
- Of those children measured in Primary 1 across NI in 2021/22, 12.0% were considered obese. This figure has fluctuated only slightly over the last ten years, however the figure of 12.0% for 2021/22 is the highest since 2008/09 [*Page 94*].
- There was little difference between the genders in those children measured as overweight or obese during 2021/22 (males = 26.1%, females = 25.4%) [*Page 95*].
- Based on this classification, over a quarter (27.3%) of children in Western HSCT area were considered overweight/obese. Southern HSCT had the lowest proportion at 23.5% [*Page 95*].
- The proportion of children overweight/obese by Local Government District ranged from 23.1% (Lisburn and Castlereagh LGD) to 29.3% (Derry City and Strabane LGD) [*Page 95*].
- Levels of overweight/obesity decreased as deprivation level decreased. 29.7% of children living in the most deprived areas of Northern Ireland (NIMDM 2017) were measured as overweight/obese, compared to 21.9% of children from the least deprived areas [*Page 95*].

Year 8 (2018/19 excludes WHSCT)

- In 2018/19, more than 1 in 3 children in Year 8 were measured as overweight/obese (35.2%), a slight decrease on the previous year (35.6%) [*Page 97*].
- At this age, more males than females were considered overweight/obese (38.3% male, 32.1% female) [*Page 98*].

PRIMARY 1 (UK90)

Table 12.7: Levels of obesity in Primary 1/Reception aged children, by UK country (UK90), 2012/13 - 2021/22

Country	Year measured (school year)	Number measured (with a valid height and weight)	% children in each BMI category (UK90)				
			Underweight	Healthy	Overweight	Obese	Overweight and obese
Northern Ireland	2012/13	21,934	0.5%	73.7%	15.0%	10.8%	25.8%
	2013/14	23,048	0.5%	73.5%	15.4%	10.7%	26.1%
	2014/15	21,780	0.6%	74.2%	14.3%	10.8%	25.1%
	2015/16	23,778	0.5%	73.5%	14.7%	11.2%	25.9%
	2016/17	24,042	0.7%	74.1%	14.5%	10.7%	25.2%
	2017/18	23,314	0.8%	74.6%	14.0%	10.7%	24.6%
	2018/19	22,848	0.7%	73.2%	14.5%	11.6%	26.1%
	2019/20	Not available due to impact of COVID-19 pandemic on data collection					
	2020/21	Not available due to impact of COVID-19 pandemic on data collection					
	2021/22	18,260	0.9%	73.3%	13.8%	12.0%	25.7%
England	2012/13	587,678	0.9%	76.9%	13.0%	9.3%	22.2%
	2013/14	587,336	0.9%	76.5%	13.1%	9.5%	22.5%
	2014/15	610,636	1.0%	77.2%	12.8%	9.1%	21.9%
	2015/16	625,326	1.0%	76.9%	12.8%	9.3%	22.1%
	2016/17	629,359	1.0%	76.4%	13.0%	9.6%	22.6%
	2017/18	610,435	1.0%	76.6%	12.8%	9.5%	22.4%
	2018/19	597,812	1.0%	76.5%	12.9%	9.7%	22.6%
	2019/20	399,470	0.9%	76.1%	13.1%	9.9%	23.0%
	2020/21	129,586	0.9%	71.3%	13.3%	14.4%	27.7%
	2021/22	569,322	1.2%	76.5%	12.1%	10.1%	22.3%
Scotland	2012/13	54,411	1.2%	77.5%	12.0%	9.4%	21.3%
	2013/14	55,028	1.0%	76.3%	12.4%	10.2%	22.6%
	2014/15	54,974	1.1%	77.1%	12.0%	9.8%	21.8%
	2015/16	53,722	1.2%	76.7%	12.2%	10.0%	22.1%
	2016/17	52,531	1.0%	76.1%	12.4%	10.5%	22.9%
	2017/18	52,924	1.1%	76.4%	12.3%	10.2%	22.5%
	2018/19	45,065	1.0%	76.6%	12.2%	10.3%	22.4%
	2019/20	25,254	1.0%	76.3%	12.3%	10.4%	22.7%
	2020/21	21,682	0.8%	69.7%	14.0%	15.5%	29.5%
	2021/22	52,732	1.1%	74.7%	12.4%	11.7%	24.1%
Wales	2012/13	29,259	0.6%	73.2%	14.9%	11.3%	26.2%
	2013/14	30,693	0.8%	72.7%	14.6%	11.8%	26.4%
	2014/15	32,859	0.9%	72.9%	14.6%	11.6%	26.1%
	2015/16	33,337	1.0%	72.9%	14.5%	11.7%	26.2%
	2016/17	33,159	0.8%	72.1%	14.7%	12.4%	27.1%
	2017/18	32,166	0.8%	72.8%	14.3%	12.0%	26.4%
	2018/19	31,756	0.7%	72.4%	14.4%	12.6%	26.9%
	2019/20	Not available due to impact of COVID-19 pandemic on data collection					
	2020/21	Not available due to impact of COVID-19 pandemic on data collection					
	2021/22	Not available					

Source:

Northern Ireland: Child Health System (Health Trusts)

As a result of the COVID-19 pandemic, disruption in schools resulted in some children not being measured and therefore there was insufficient coverage during 2019/20 and 2020/21. Therefore, data for these years has not been provided in this report.

England: National Child Measurement Programme, NHS Digital/Public Health England

<https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme>

Due to disruptions caused by COVID-19 and periods of lockdown, the 2020/21 NCMP collection took the form of a sample, measuring many fewer children than usual. Statistical weighting was applied to data collected to produce estimates of the prevalence of underweight, healthy weight, overweight, obese and severely obese children at national level.

Scotland: Public Health Scotland <https://publichealthscotland.scot>

In 2019/20 and 2020/21 coverage fell to 44% and 40% respectively due to Covid-19. Therefore, data should be interpreted with a degree of caution.

Wales: Child Measurement Programme for Wales, Public Health Wales <https://phw.nhs.wales/services-and-teams/child-measurement-programme/>

Data for 2019/20 and 2020/21 is not available due to impact of COVID-19 pandemic on data collection.

Table 12.8: BMI levels in Primary 1 children across Northern Ireland (UK90), 2008/09 - 2018/19 and 2021/22

BMI category / Number of children	% Primary 1 children											
	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	21/22
	18,514	19,749	19,469	21,223	21,934	23,048	21,780	23,778	24,042	23,314	22,848	18,260
Underweight	0.42%	0.48%	0.39%	0.54%	0.49%	0.47%	0.64%	0.51%	0.70%	0.75%	0.70%	0.94%
Healthy	73.64%	73.75%	72.75%	74.19%	73.74%	73.46%	74.21%	73.54%	74.11%	74.60%	73.20%	73.32%
Overweight	15.17%	15.06%	15.40%	14.53%	14.99%	15.39%	14.32%	14.72%	14.49%	13.95%	14.50%	13.77%
Obese	10.78%	10.71%	11.46%	10.74%	10.78%	10.68%	10.83%	11.22%	10.70%	10.69%	11.60%	11.97%
% children overweight / obese	25.95%	25.77%	26.86%	25.27%	25.77%	26.07%	25.15%	25.94%	25.19%	24.64%	26.10%	25.74%

Source: Child Health System

Year refers to school year

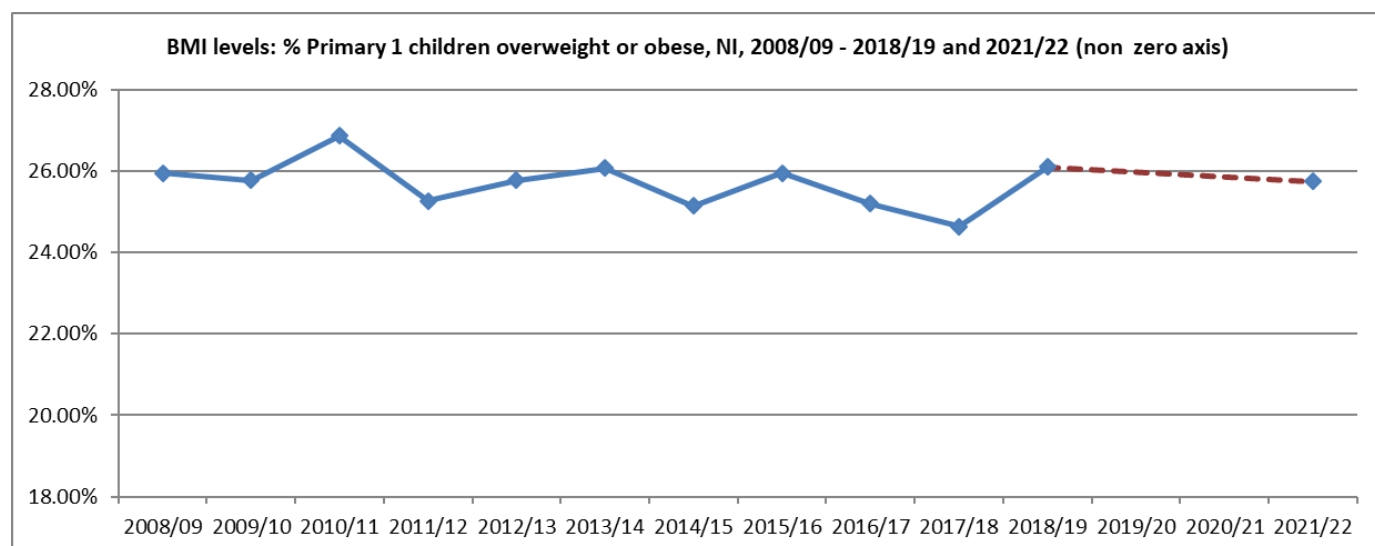
Children measured are typically between 4½ and 5½ years of age

Figures above are categorised using British 1990 (UK90) Growth Reference thresholds

Note that in any year all children may not be measured and so coverage may not be complete

Data for 2019/20 and 2020/21 is not available due to impact of COVID-19 pandemic on data collection. Although data for 2021/22 is provided, the coverage is lower than in previous years and so caution is advised when interpreting data.

Figure 12.3: % Primary 1 children overweight or obese, Northern Ireland (UK90), 2008/09 – 2018/19 and 2021/22



Note that due to insufficient recording of growth measurements during the COVID-19 pandemic, it is not possible to include 2019/20 and 2020/21 data in the chart above. Therefore, the break in the trend is shown as a dashed line.

Table 12.9: BMI levels in Primary 1 children across Northern Ireland (UK90), 2021/22

		No. of children by BMI category					% children overweight or obese
		Underweight	Healthy	Overweight	Obese	Total	
Gender	Male	111	6,809	1,279	1,162	9,361	26.08%
	Female	61	6,579	1,235	1,024	8,899	25.38%
	All persons	172	13,388	2,514	2,186	18,260	25.74%
Trust of residence of child	Belfast	49	1,968	370	343	2,730	26.12%
	Northern	55	3,796	762	645	5,258	26.76%
	South Eastern	31	3,100	566	462	4,159	24.72%
	Southern	21	2,319	409	311	3,060	23.53%
	Western	16	2,195	407	424	3,042	27.32%
	Not known	0	10	0	1	11	9.09%
	All persons	172	13,388	2,514	2,186	18,260	25.74%
Local Government District	Antrim and Newtownabbey	17	1,046	194	193	1,450	26.69%
	Ards and North Down	9	1,268	232	178	1,687	24.30%
	Armagh City, Banbridge and Craigavon	11	1,259	217	175	1,662	23.59%
	Belfast	45	1,959	378	364	2,746	27.02%
	Causeway Coast and Glens	6	979	211	183	1,379	28.57%
	Derry City and Strabane	4	1,041	202	231	1,478	29.30%
	Fermanagh and Omagh	12	944	164	154	1,274	24.96%
	Lisburn and Castlereagh	17	1,205	201	166	1,589	23.10%
	Mid and East Antrim	11	1,121	248	185	1,565	27.67%
	Mid Ulster	28	1,377	246	198	1,849	24.01%
	Newry, Mourne and Down	12	1,179	221	158	1,570	24.14%
	Not known	0	10	0	1	11	9.09%
	All persons	172	13,388	2,514	2,186	18,260	25.74%
Deprivation 2017 quintile (SOA) based on residence of child	Most deprived	28	2,298	458	523	3,307	29.66%
	2	27	2,896	546	473	3,942	25.85%
	3	31	2,832	542	482	3,887	26.34%
	4	39	2,830	546	408	3,823	24.95%
	Least deprived	47	2,522	422	299	3,290	21.91%
	Not known	0	10	0	1	11	9.09%
	All persons	172	13,388	2,514	2,186	18,260	25.74%

Source: Child Health System

NI Statistics and Research Agency, NI Multiple Deprivation Measure 2017

<https://www.nisra.gov.uk/news/nisra-releases-updated-deprivation-measures-northern-ireland>

Year refers to school year

Children measured are typically between 4½ and 5½ years of age

Figures above are categorised using British 1990 (UK90) Growth Reference thresholds

Note that in any year all children may not be measured and so coverage may not be complete

Although data for 2021/22 is provided, the coverage is lower than in previous years and so caution is advised when interpreting data.

Table 12.10: BMI levels in Primary 1 children across Northern Ireland, by Sure Start area (UK90), 2021/22

Sure Start area	Total children	% children by BMI category				% children overweight or obese
		Underweight	Healthy	Overweight	Obese	
Abbey	202	0.99%	65.35%	13.37%	20.30%	33.66%
Antrim	<100	1.79%	67.86%	16.07%	14.29%	30.36%
Ards	221	0.45%	68.33%	18.10%	13.12%	31.22%
ArKe	112	0.89%	80.36%	8.93%	9.82%	18.75%
Ballymena	190	0.53%	70.53%	15.79%	13.16%	28.95%
Bangor	<100	1.08%	68.82%	10.75%	19.35%	30.11%
Beechmount	<100	0.00%	86.67%	6.67%	6.67%	13.33%
Blossom	<100	0.00%	63.74%	15.38%	20.88%	36.26%
Cherish	202	1.98%	74.26%	14.85%	8.91%	23.76%
Clan Mor	<100	2.17%	78.26%	8.70%	10.87%	19.57%
Clogher Valley	165	0.61%	71.52%	16.97%	10.91%	27.88%
Coleraine	159	0.63%	69.81%	15.09%	14.47%	29.56%
Colin	282	0.71%	68.44%	16.31%	14.54%	30.85%
Dalriada	155	0.65%	72.90%	14.19%	12.26%	26.45%
Downpatrick	287	1.74%	72.47%	14.98%	10.80%	25.78%
Dungannon	196	1.02%	77.04%	13.27%	8.67%	21.94%
Dungiven	155	0.00%	72.26%	11.61%	16.13%	27.74%
East Belfast	149	1.34%	69.80%	12.08%	16.78%	28.86%
Edenballymore	146	0.00%	70.55%	13.70%	15.75%	29.45%
Glenbrook	182	0.00%	74.18%	12.09%	13.74%	25.82%
Gold	236	0.85%	76.69%	11.86%	10.59%	22.46%
Horizon	144	0.69%	71.53%	13.89%	13.89%	27.78%
Kilkeel	<100	0.00%	75.00%	6.82%	18.18%	25.00%
LAST	214	0.47%	80.37%	10.75%	8.41%	19.16%
Lisburn	114	1.75%	65.79%	12.28%	20.18%	32.46%
Little Hands	132	0.00%	65.91%	17.42%	16.67%	34.09%
Newry City	<100	0.00%	81.82%	9.09%	9.09%	18.18%
Outer West Belfast	202	0.50%	73.27%	12.87%	13.37%	26.24%
Rainbow	116	0.00%	75.00%	11.21%	13.79%	25.00%
Saol Ur	123	0.81%	65.04%	20.33%	13.82%	34.15%
Shankill	259	1.54%	65.25%	16.22%	16.99%	33.20%
Shantallow	166	0.60%	67.47%	14.46%	17.47%	31.93%
Smile	168	1.19%	62.50%	15.48%	20.83%	36.31%
South Armagh	<100	0.00%	72.09%	16.28%	11.63%	27.91%
South Belfast	238	2.94%	70.59%	11.34%	15.13%	26.47%
Splash	141	1.42%	67.38%	19.86%	11.35%	31.21%
Star	<100	2.38%	73.81%	16.67%	7.14%	23.81%
Strabane	251	0.00%	70.52%	10.76%	18.73%	29.48%
Waterside	151	0.00%	70.20%	15.89%	13.91%	29.80%
Children living in Sure Start areas	5,921	0.86%	70.95%	14.05%	14.14%	28.19%
Children not living in Sure Start areas	12,328	0.98%	74.44%	13.64%	10.93%	24.58%
Children - address not known	11	0.00%	90.91%	0.00%	9.09%	9.09%
All children	18,260	0.94%	73.32%	13.77%	11.97%	25.74%

Source: Child Health System

Year refers to school year

Children measured are typically between 4½ and 5½ years of age

Figures above are categorised using British 1990 (UK90) Growth Reference thresholds

Note that in any year all children may not be measured and so coverage may not be complete

Note that some percentages above are based on small numbers

Disclosure controls have been applied to the data

Although data for 2021/22 is provided, the coverage is lower than in previous years and so caution is advised when interpreting data.

YEAR 8 (UK90)

In 2018/19, children in Western Trust area did not have height and weight measurements taken at Year 8. Therefore Year 8 data for 2018/19 in this report is based on four out of five Health Trusts only. In Year 8, approximately 3,000 children would have been measured in the Western Trust area, while only 124 children were measured.

Coverage at Year 8 has never been complete, ranging from 15,000 – 18,000 children which would equate to 65 - 70%. Comparison with previous years' data including and excluding Western Trust has shown that the Northern Ireland figure is not materially affected.

Table 12.11: BMI levels in Year 8 children across Northern Ireland (UK90), 2010/11 - 2018/19

BMI category	% Year 8 children								
	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19 *
Number of children	17,873	17,836	16,618	14,789	15,490	17,832	18,108	18,465	16,367
Underweight	1.1%	1.3%	1.3%	1.1%	1.5%	1.2%	1.6%	1.5%	1.5%
Healthy	63.2%	62.8%	63.3%	62.9%	64.2%	63.6%	63.4%	62.9%	63.4%
Overweight	15.2%	15.7%	15.4%	15.0%	15.5%	15.3%	14.9%	15.2%	15.2%
Obese	20.6%	20.3%	20.1%	20.9%	18.8%	19.9%	20.2%	20.5%	20.0%
% children overweight/obese	35.72%	35.97%	35.46%	35.93%	34.32%	35.16%	35.05%	35.64%	35.20%

Source: Child Health System

* NOTE THAT IN 2018/19, CHILDREN IN WESTERN TRUST DID NOT HAVE HEIGHT AND WEIGHT MEASUREMENTS TAKEN. THEREFORE 2018/19 DATA IS BASED ON FOUR OUT OF FIVE HEALTH TRUSTS ONLY. A SMALL NUMBER OF CHILDREN WERE MEASURED WHO WERE RESIDENT IN WHSCT AREA (124) AND THESE CHILDREN HAVE BEEN INCLUDED IN THE DATA ABOVE

Year refers to school year

Children measured are typically between 11½ and 12½ years of age

Figures above are categorised using British 1990 (UK90) Growth Reference thresholds

Note that in any year all children may not be measured and so coverage may not be complete

Due to lower coverage in previous years, figures are only available for Year 8 from 2010/11

Figure 12.4: % Year 8 children overweight or obese, Northern Ireland (UK90), 2010/11 – 2018/19

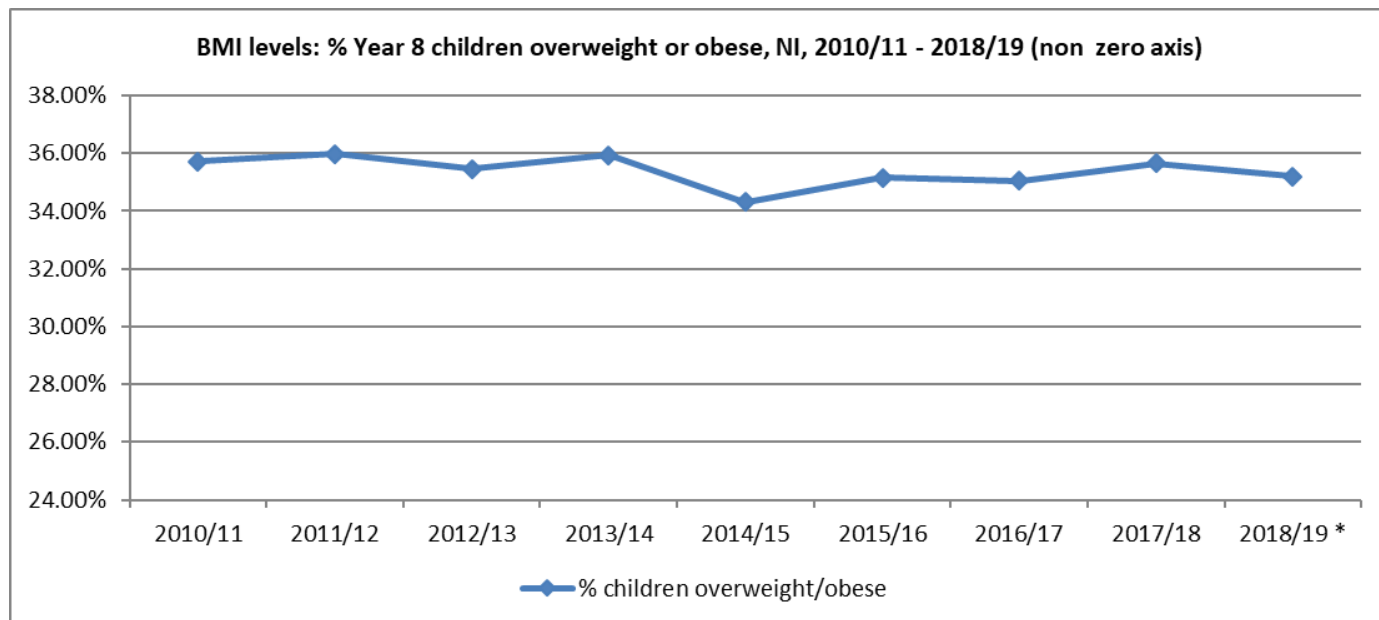


Table 12.12: BMI levels in Year 8 children across Northern Ireland (UK90), 2018/19

		No. of children by BMI category *					% children overweight or obese
		Underweight	Healthy	Overweight	Obese	Total	
Gender	Male	101	4953	1273	1859	8,186	38.26%
	Female	137	5416	1215	1413	8,181	32.12%
	All persons	238	10,369	2,488	3,272	16,367	35.19%
Trust of residence of child	Belfast	42	1974	481	696	3,193	36.86%
	Northern	74	3299	848	1072	5,293	36.27%
	South Eastern	51	2279	532	665	3,527	33.94%
	Southern	70	2697	609	808	4,184	33.87%
	Western						
	Not known	0	30	3	13	46	34.78%
	All persons	238	10,369	2,488	3,272	16,367	35.19%
Local Government District	Antrim and Newtownabbey	23	1031	238	328	1,620	34.94%
	Ards and North Down	21	1068	236	268	1,593	31.64%
	Armagh City, Banbridge and Craigavon	41	1501	323	447	2,312	33.30%
	Belfast	44	1894	482	712	3,132	38.12%
	Causeway Coast and Glens						
	Derry City and Strabane						
	Fermanagh and Omagh						
	Lisburn and Castlereagh	21	867	198	238	1,324	32.93%
	Mid and East Antrim	21	893	247	319	1,480	38.24%
	Mid Ulster	23	1043	272	339	1,677	36.43%
	Newry, Mourne and Down	28	1237	279	368	1,912	33.84%
	Not known	0	30	3	13	46	34.78%
	All persons	238	10,369	2,488	3,272	16,367	35.19%
Deprivation 2017 quintile (SOA) based on residence of child	Most deprived	27	1500	399	696	2,622	41.76%
	2	50	1787	464	611	2,912	36.92%
	3	48	2153	512	702	3,415	35.55%
	4	56	2569	591	739	3,955	33.63%
	Least deprived	57	2330	519	511	3,417	30.14%
	Not known	0	30	3	13	46	34.78%
	All persons	238	10,369	2,488	3,272	16,367	35.19%

Source: Child Health System

* NOTE THAT IN 2018/19, CHILDREN IN WESTERN TRUST DID NOT HAVE HEIGHT AND WEIGHT MEASUREMENTS TAKEN. THEREFORE 2018/19 DATA IS BASED ON FOUR OUT OF FIVE HEALTH TRUSTS ONLY. A SMALL NUMBER OF CHILDREN WERE MEASURED WHO WERE RESIDENT IN WHSCT AREA (124) AND THESE CHILDREN HAVE BEEN INCLUDED IN THE DATA ABOVE BY GENDER AND DEPRIVATION QUINTILE, HOWEVER THEY HAVE BEEN REMOVED FROM TRUST AND LOCAL GOVERNMENT DISTRICT LEVEL DATA. DATA HAS NOT BEEN SHOWN FOR 3 LOCAL GOVERNMENT DISTRICTS ABOVE AND THIS REMOVED APPROXIMATELY 1,200 CHILDREN WHO WERE RESIDENT IN THESE LOCAL GOVERNMENT DISTRICTS, BUT NOT RESIDENT IN WHSCT AREA.

NI Statistics and Research Agency, NI Multiple Deprivation Measure 2017

<https://www.nisra.gov.uk/news/nisra-releases-updated-deprivation-measures-northern-ireland>

Year refers to school year

Children measured are typically between 11½ and 12½ years of age

Figures above are categorised using British 1990 (UK90) Growth Reference thresholds

Note that in any year all children may not be measured and so coverage may not be complete

Table 12.13: BMI levels in Year 8 children across Northern Ireland, by Sure Start area (UK90), 2018/19

Sure Start area	Total children	% children by BMI category *				% children overweight or obese
		Underweight	Healthy	Overweight	Obese	
Abbey	234	2.1%	57.7%	16.2%	23.9%	40.2%
Antrim	<100	0.0%	43.1%	21.6%	35.3%	56.9%
Ards	232	1.3%	62.1%	15.9%	20.7%	36.6%
ArKe	103	1.0%	64.1%	12.6%	22.3%	35.0%
Ballymena	169	1.8%	56.2%	16.0%	26.0%	42.0%
Bangor	<100	0.0%	64.9%	14.9%	20.3%	35.1%
Beechmount	<100	1.9%	55.8%	7.7%	34.6%	42.3%
Blossom	167	0.6%	61.7%	12.0%	25.7%	37.7%
Cherish						
Clan Mor	<100	0.0%	51.6%	19.4%	29.0%	48.4%
Clogher Valley	109	2.8%	54.1%	15.6%	27.5%	43.1%
Coleraine	127	0.0%	54.3%	15.7%	29.9%	45.7%
Colin	266	1.5%	54.5%	17.7%	26.3%	44.0%
Dalriada	142	1.4%	62.0%	18.3%	18.3%	36.6%
Downpatrick	229	0.9%	54.6%	17.9%	26.6%	44.5%
Dungannon	229	0.0%	64.6%	17.0%	18.3%	35.4%
Dungiven						
East Belfast	280	1.8%	58.6%	13.6%	26.1%	39.6%
Edenballymore						
Glenbrook	209	1.9%	58.9%	11.0%	28.2%	39.2%
Gold	166	2.4%	53.6%	20.5%	23.5%	44.0%
Horizon	112	0.9%	54.5%	13.4%	31.3%	44.6%
Kilkeel	<100	6.3%	53.1%	15.6%	25.0%	40.6%
LAST						
Lisburn	<100	5.9%	61.8%	13.2%	19.1%	32.4%
Little Hands						
Newry City	169	1.8%	66.3%	9.5%	22.5%	32.0%
Outer West Belfast	236	0.8%	56.8%	20.8%	21.6%	42.4%
Rainbow						
Saol Ur	165	0.6%	57.6%	13.9%	27.9%	41.8%
Shankill	340	0.6%	56.8%	16.2%	26.5%	42.6%
Shantallow						
Smile	160	1.3%	55.6%	11.9%	31.3%	43.1%
South Armagh	338	1.8%	64.8%	13.6%	19.8%	33.4%
South Belfast	240	1.3%	58.8%	16.3%	23.8%	40.0%
Splash	229	2.6%	60.7%	14.0%	22.7%	36.7%
Star	<100	3.8%	67.3%	11.5%	17.3%	28.8%
Strabane						
Waterside						
Children living in Sure Start areas	5,098	1.4%	58.9%	15.3%	24.4%	39.7%
Children not living in Sure Start areas	11,223	1.5%	65.4%	15.2%	18.0%	33.2%
Children - address not known	46	0.0%	65.2%	6.5%	28.3%	34.8%
All children	16,367	1.5%	63.4%	15.2%	20.0%	35.2%

Source: Child Health System

* NOTE THAT IN 2018/19, CHILDREN IN WESTERN TRUST DID NOT HAVE HEIGHT AND WEIGHT MEASUREMENTS TAKEN. THEREFORE 2018/19 DATA IS BASED ON FOUR OUT OF FIVE HEALTH TRUSTS ONLY. DATA HAS NOT BEEN SHOWN FOR A NUMBER OF SURESTART AREAS AND THIS REMOVED APPROXIMATELY 1,200 CHILDREN WHO WERE RESIDENT IN THESE AREAS, BUT NOT RESIDENT IN WHSCT AREA.

Year refers to school year

Children measured are typically between 11½ and 12½ years of age

Figures above are categorised using British 1990 (UK90) Growth Reference thresholds

Note that in any year all children may not be measured and so coverage may not be complete

Note that some percentages above are based on small numbers

Disclosure controls have been applied to the data



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