HSC Public Health Agency

Children's Health in Northern Ireland

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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Improving your health and wellbeing

Executive Summary

- There were 24,291 registered births to NI residents in 2015 with a birth rate of 13.1 per thousand (2014=13.3, 2013=13.3, 2012=13.9). *[Page 11]* The live birth rate (13.2) is the highest across the four UK countries, but is lower than the equivalent rate for Republic of Ireland (2015=14.2). *[Page 10]*
- There were 76 registered still births to Northern Ireland residents which was the lowest number ever recorded in Northern Ireland. *[Page 11]*
- In the next twenty years, the number of registered resident births in Northern Ireland is projected to decrease from 24,291 in 2015 to 22,579 in 2035. *[Page 14]*
- Of the four regions of the United Kingdom, Northern Ireland had the highest total period fertility rate (1.96 in 2015). Scotland had the lowest at 1.56. *[Page 15]*
- Births to teenage mothers have shown substantial reductions in the last few years. This is consistent with the decline in the age specific fertility rate in women under twenty. The decrease in actual numbers reflects less young women and a lower birth rate than in 1990s. In 2015/16, there were 720 infants born to mothers aged less than twenty years – a slight increase on 2014/15 (712). *[Page 20]* The proportion of births to mothers aged 40 and over has increased from 3.6% in 2010/11 to 4.2% in 2015/16. *[Page 20]*
- In 2015/16, over 93% of births are less than 15 weeks gestation at the time of booking. This proportion has increased slightly year on year since 2010/11 (89.8%). *[Page 34]*
- Over the last six years there has been little variation in the proportion of infants born pre-term (<37 weeks gestation). (2015/16 = 7.8%) *[Page 37]* The figures differ considerably by type of birth: 7.6% of live births, 68.6% of still births. The same can be seen for multiple births (67.5%) compared to singleton births (6.0%). *[Page 38]*
- In 2015/16, 14.0% of mothers smoked (2010/11 = 15.3%) and 6.3% of mothers had diabetes (2010/11 = 1.7%) *[Page 40]*
- Over 20% of mothers giving birth during 2015/16 were measured as obese at time of booking appointment. This proportion has increased year on year since 2010/11. *[Page 47]*
- In 2015/16, almost a third (29.7%) of infants were delivered by Caesarian section. This figure has remained steady over the last six years. *[Page 51]*
- In 2015/16, 6.5% of all births were measured as low birth weight i.e. less than 2,500g (6.3% of live and 64.6% of still births). *[Page 56]*
- Data at District Electoral Area level for 2015/16, show that 11.5% of all infants born to mothers living in Oldpark DEA in Belfast LGD were born with a low birth weight, compared to 3.0% in Downshire East DEA (Lisburn and Castlereagh LGD). *[Page 59]*
- In 2015/16, 14.1% of live infants were born with a higher birth weight of 4,000g+ and 2.1% with a birth weight of 4,500g+. *[Page 56]*
- In 2015/16, almost 46% of live infants were breastfed (total/partial feeding) at discharge. *[Page 64].*
- Only 19.8% of infants born to mothers under 20 were breastfed at discharge, compared to 56% of infants to mothers aged 40 and over. *[Page 65].*
- Of mothers who delivered in 2014/15, the proportion breastfeeding gradually decreased with time e.g. less than 7% of mothers were still breastfeeding 12 months after the baby was born. *[Page 69]*
- At all stages where breastfeeding was recorded, the rate was higher in those infants born to mothers who lived in less deprived areas, when compared to those mothers from more deprived areas. *[Page 70]*
- Of those children measured in Primary 1 in 2015/16, 21.9% were considered overweight or obese, a slight increase on the previous year. *[Page 72].*

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Introduction

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

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.**

2. **In previous reports, data on ethnic group provided from CHS was described incorrectly as the ethnic group of the mother, instead of the child. Therefore, where possible, data is now provided for ethnic group of both the mother (from NIMATS) and the child (from CHS). However figures will vary due to different sources of data. For example, NIMATS may not record data on a child born at home/other location in Northern Ireland. However data on this child will be recorded on CHS. Likewise, children not born in Northern Ireland, but who subsequently move into NI will not be recorded on NIMATS but will be recorded on CHS. Therefore, generally, the number of infants born, sourced from CHS data, will be slightly higher than NIMATS.**

"State of Child Health" Report, 2017

This report, published in February 2017, by the Royal College of Paediatrics and Child Health[1], aims to provide an insight into the state of child health across the United Kingdom. Although the health and wellbeing of children has improved over the last century, there are still improvements to be made. The report suggests a number of recommendations, which if implemented, could improve child wellbeing and reduce health inequalities.

The report was used also as a means of trying to standarise data on children's health across the UK, to develop an indicator framework, to be used as a tool to further improve outcomes for children.

The report provides a snapshot of the health of infants, children and young people across the four countries of the UK. However, for some areas of children's health, it was not possible to include all indicators, as data was not available or considered comparable for all four nations.

The following provides a brief summary of the key messages contained in the report, as it relates to Northern Ireland.

Mortality

Infant mortality (under one year old):

- Although infant mortality is falling, figures for 2014 show that NI had the highest mortality rate (4.8 per 1,000 live births) of the four UK nations. UK rate = 3.9, England and Wales = 3.9, Scotland = 3.6.
- Though rates have fluctuated in recent years, the neonatal mortality rate (deaths in the first four weeks of life) for NI is higher when compared to other UK countries.

Mortality in children (10 – 19 years):

- Mortality in children of this age group is higher in NI compared to other UK countries. In 2014, the rate in NI was 26.2, compared to 17.3 in UK. However the rate has been falling in recent years.
  (It should be noted that childhood deaths in Northern Ireland may be more subject to variation due to small numbers)

Conception, pregnancy and infancy

Breastfeeding

- Data for 2014/15 shows that NI has the lowest level of breastfeeding (at 6-8 week review) when compared to other UK nations (where data was available). 31% of mothers in NI were breastfeeding at this stage, compared to 38% in Scotland and 44% in England.

Immunisation

- NI has higher levels of uptake when compared to the rest of the UK, especially relating to the 5-in-1 vaccination[2]. There are some differences in how the data is reported e.g. some countries have provided financial year, others have provided calendar year. However, looking at the data shown, the NI uptake was 97.3% (compared to 93.6% in England, 96.6% in Wales and 97.2% in Scotland).
- MMR2[3] uptake was higher across NI in 2014 (93.0%). The figures for other UK nations ranged from 88.6% in England to 92.9% in Scotland. Again there are differences in how the data is reported as above.

Early Years

Healthy teeth and gums

- Although data for the proportion of five year olds in Northern Ireland with no obvious tooth decay is not the highest in the UK (England 69%, Scotland 68%, NI 60%, Wales 59%), Northern Ireland has shown good improvement in the last ten years – an increase of 21% between 2003 and 2013.

[1] Royal College of Paediatrics and Child Health, State of Child Health Report, 2017 http://www.rcpch.ac.uk/state-of-child-health
[2] 5-in-1 vaccination: Diphtheria, Tetanus, Pertussis (whooping cough), Polio and Hib – refers to children who have received three doses (completed) before their first birthday
[3] MMR2: Measles, Mumps and Rubella – refers to children who have received two doses by the age of five (on or after their first birthday and before their fifth birthday).

School age/adolescence

Suicide (aged 15-19 years)

- The suicide rate in 2014 was highest in Northern Ireland (122.9 per million). This is considerably higher than England (43.9), Scotland (54.7) and Wales (69.0). Rates in Northern Ireland have varied, however they have been consistently higher here than in other UK countries since 2006.

Road traffic injuries (aged 17-19 years)

- In 2015, Northern Ireland had the highest rate of young people aged 17 to 19 years who were either seriously injured or killed as a driver or passenger in road traffic accidents (at 78 per 100,000 population). In England, the equivalent rate was 33, Scotland 41, Wales 62. Although the NI rate has fallen in the last ten years, figures show that NI had a consistently higher rate when compared to the rest of the UK.

Family and social environment

Child poverty

- In 2014/15, around 19% of children across the United Kingdom were living in relative[4] poverty (before housing costs). Using this measure, Northern Ireland had the highest level of children living in poverty. The report points to higher levels of unemployment in Northern Ireland as contributing to these increased figures.

[4] Relative poverty: Relative measures of poverty compare the incomes of households with the average income in a country. In the UK, this is set at 60% of the current median (middle) income. This measure is often displayed in two ways: (1) before housing costs; and (2) after (i.e. including) housing costs. Data presented define a child as an individual under 16 years of age or an unmarried or non-cohabiting 16- to 19-year-old in full-time non-advanced education.

Comparative data (United Kingdom and Republic of Ireland)

		Year/Currency		England	Wales	Scotland	NI	RoI
1	**Live Births**[1]	2015 (n)		664,399	33,279	55,098	24,215	65,909
		2014 (n)		661,496	33,544	56,725	24,394	67,462
		2013 (n)		664,517	33,747	56,014	24,277	68,930
2	**Still births numbers and rates per 1,000 live and still births**[2]	2015 (n)		2,952	158	211	76	262
		2014 (n)		3,047	177	228	81	286
		2013 (n)		3,088	153	234	110	277
		2015 (rate)		4.4	4.7	3.8	3.1	4.0
		2014 (rate)		4.6	5.2	4.0	3.3	4.2
		2013 (rate)		4.7	4.5	4.2	4.5	4.0
3	**Infant mortality (deaths in first year) – numbers and rates per 1,000 live births**[3]	2015 (n)		2,475	123	175	124	205
		2014 (n)		2,548	123	207	118	249
		2013 (n)		2,611	122	186	112	228
		2015 (rate)		3.9	3.7	3.2	5.1	3.1
		2014 (rate)		3.9	3.7	3.6	4.8	3.7
		2013 (rate)		3.9	3.6	3.3	4.6	3.3
4	**Fertility rate (TPFR)**[4]	2015 (rate)		1.82	1.77	1.56	1.96	1.94
		2014 (rate)		1.83	1.78	1.62	1.97	1.94
		2013 (rate)		1.85	1.80	1.61	1.96	1.96
5	**Live births to teenage mothers under twenty years**[5]	2015 (n)		22,420	1,525	2,126	760	1,187
		2014 (n)		24,246	1,725	2,446	839	1,253
		2013 (n)		27,213	1,915	2,763	937	1,381
		2015 (rate/1,000 aged 15-19 years)		14.3	16.9	14.3	13.0	8.7
		2014 (rate/1,000 aged 15-19 years)		15.4	18.9	16.3	14.2	9.3
		2013 (rate/1,000 aged 15-19 years)		17.2	20.6	18.1	15.7	10.4
6	**Multiple birth maternities (% of all maternities)**[6]	2015		1.61		1.51[p]	1.46	1.9
		2014		1.60		1.56	1.46	1.9
		2013		1.56		1.50	1.60	1.9
7	**Risk factors**[7]	% mothers who smoked at booking	2015	10.6 (at delivery, 2015/16)	N/A	17.3	14.0 (2015/16)	N/A
			2014	11.4 (at delivery, 2014/15)	N/A	17.5	14.5 (2014/15)	N/A
			2013	12.3 (at delivery, 2013/14)	N/A	18.5	15.3 (2013/14)	N/A
8	**Caesarean Sections (% of deliveries / births)**[8]	2015/16		26.7 (deliveries)	N/A	31.2 (live births, 2015)	29.7 (births)	31.4 (live births, 2015)
		2014/15		26.1 (deliveries)	26.3 (deliveries)	30.2 (live births, 2014)	28.9 (births)	30.4 (live births, 2014)
		2013/14		25.7 (deliveries)	26.9 (deliveries)	28.4 (live births, 2013)	28.8 (births)	29.7 (live births, 2013)
9	**Low Birth weight**[9]	% total births less than 2,500g	2015	7.3	7.1	6.7	6.5	5.7 (live births)
			2014	7.3	7.0	6.7	6.5	5.6 (live births)
			2013	7.3	7.3	6.8	6.4	5.5 (live births)
10	**Breastfeeding - % infants breastfed at discharge / breastfeeding initiated**[10]	2015/16		73.2[p] (initiation, maternities)	48.7 (2015)	49.3 (first visit ~ 10 days old)	46.0	57.9 (2015)
		2014/15		74.3 (initiation, maternities)	45.1 (2014)	48.3 (first visit ~ 10 days old)	46.0	56.9 (2014)
		2013/14		74.0 (initiation, maternities)	46.4 (2013)	48.4 (first visit ~ 10 days old)	46.0	55.7 (2013)

[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, November 2016
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. 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)
England (all years) and Wales (2015 only): ONS http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=Stillbirths#tab-data-tables
Wales, 2013 and 2014: StatWales https://statswales.gov.wales/Catalogue/Health-and-Social-Care/Births-Deaths-and-Conceptions/Births
Scotland: National Records of Scotland
https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/general-publications/births-deaths-and-other-vital-events-preliminary-annual-figures
Northern Ireland: Northern Ireland Statistics and Research Agency https://www.nisra.gov.uk/statistics/deaths/stillbirths-infant-deaths
Republic of Ireland: National Perinatal Reporting System, Annual Reports, Healthcare Pricing Office http://www.hpo.ie/ and ad hoc request 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'. CSO data shows a still birth rate in 2012 of 2.6 per 1,000 while NPRS shows 3.9 per 1,000. For this reason the NPRS data is shown.
[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: Office for National Statistics (ONS), Vital Statistics: Population and Health Reference Tables, November 2016
https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/vitalstatisticspopulationandhealthreferencetables
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]
[5] England: ONS https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/livebirths/datasets/birthsbyareaofusualresidenceofmotheruk
Wales: As [2]
Scotland: National Records of Scotland http://nationalrecordsofscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/births
Northern Ireland: Northern Ireland Statistics and Research Agency https://www.nisra.gov.uk/publications/topic/23
Republic of Ireland: Central Statistics Office, Vital Statistics Annual Reports/Yearly Summaries http://www.cso.ie/en/statistics/birthsdeathsandmarriages/
[6] England: ONS https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/livebirths/datasets/birthcharacteristicsinenglandandwales
Scotland: As [2]
Northern Ireland: Northern Ireland Statistics and Research Agency, Registrar General Annual Reports https://www.nisra.gov.uk/statistics/births-deaths-and-marriages/registrar-general-annual-report
Republic of Ireland: NPRS – as [2]
Population Estimates (all UK countries): ONS
https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland
[7] England: Health And Social Care Information Centre (HSCIC)
http://www.hscic.gov.uk/article/1165/Search-catalogue?q=title:%22Statistics+on+Women%27s+Smoking+Status+at+Time+of+Delivery%22&area=&size=10&sort=RelevanceDesc
Scotland: Information Services Division (ISD Scotland) http://www.isdscotland.org/Health-Topics/Maternity-and-Births/Publications/data-tables.asp
Northern Ireland: CHS 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: Health And Social Care Information Centre
http://www.hscic.gov.uk/searchcatalogue?topics=2%2fHospital+care%2fAdmissions+and+attendances%2fMaternity+admissions&kwd=M&sort=Relevance&size=10&page=1#top
Scotland: Information Services Division (ISD Scotland) http://www.isdscotland.org/Health-Topics/Maternity-and-Births/Births/ and request to ISD by PHA. Data excludes home births.
Wales, 2013/14 and 2014/15: StatWales https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/NHS-Primary-and-Community-Activity/Maternity
Northern Ireland: CHS data as per this document – see Section 8
Republic of Ireland: NPRS – as [2]
[9] England and Wales: ONS
2013: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/livebirths/datasets/characteristicsofbirth1englandandwales
2014 and 2015: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/livebirths/datasets/birthcharacteristicsinenglandandwales
Scotland: as [7]
Northern Ireland: CHS data via PHA Health Intelligence
Republic of Ireland: NPRS – as [2]
[10] England: NHS England, https://www.england.nhs.uk/statistics/statistical-work-areas/maternity-and-breastfeeding/
Wales: National Community Child Health Database, http://gov.wales/statistics-and-research/births-national-community-child-health-database/?lang=en
Scotland: Information Services Division (ISD Scotland) http://www.isdscotland.org/Health-Topics/Child-Health/Infant-feeding/ Data refer to feeding status at First Visit review (which takes place at around 10 days of age)
Northern Ireland: CHS data as per this document – see Section 10
Republic of Ireland: NPRS – as [2] Data is based on live births only and excludes early neonatal deaths.

Section 1: Trends in Births

Key Points

- There were 24,291 registered births to Northern Ireland residents in 2015 with a birth rate of 13.1 per thousand (2014=13.3, 2013=13.3, 2012=13.9). *[Page 11]* The live birth rate (crude) (13.2) is the highest across the four UK countries, but is lower than the equivalent rate for Republic of Ireland (2015=14.2). *[Page 10]*

- There were 76 registered still births to Northern Ireland residents, which was the lowest number ever recorded in Northern Ireland. *[Page 11]*

- The number of births in Northern Ireland to non-NI resident mothers continued to decrease. In 2015, there were 210 such births. *[Page 11]*

- In 2015, the highest number of registered births was recorded to residents in the Northern Trust area (5,776), with the lowest number in the Western Trust (3,970). *[Page 12]*

- The percentage change in the number of births in the last ten years (2006 to 2015) has not been consistent across Northern Ireland, with a 12.0% increase in Belfast Trust, and a 2.7% decrease in Western Trust (NI = +4.0%). *[Page 12]*

- In 2015, the percentage of live births to mothers whose country of birth was not Northern Ireland was 17.5%. This has increased from 15.7% in 2006 (ten years ago). *[Page 11]* This is consistent with increasing numbers of people overall whose country of birth is not Northern Ireland as shown in the 2011 Census.

- In the next twenty years, the number of registered resident births in Northern Ireland is projected to decrease from 24,291 in 2015 to 22,579 in 2035. *[Page 14]*

Table 1.1: Trends in live births/birth rate across the United Kingdom and Republic of Ireland, 1975 – 2015

Year	Number of Live Births						Crude Birth Rate (Live Births per 1,000 population)					
	Northern Ireland	England	Scotland	Wales	United Kingdom	Republic of Ireland	Northern Ireland	England	Scotland	Wales	United Kingdom	Republic of Ireland
2015	24,215	664,399	55,098	33,279	777,165	65,909	13.2	12.1	10.3	10.7	11.9	14.2
2010	25,315	687,007	58,791	35,952	807,271	75,174	14.0	13.1	11.2	11.8	12.9	16.5
2005	22,328	613,028	54,386	32,593	722,549	61,372	12.9	12.1	10.6	11.0	12.0	14.8
2000	21,512	572,826	53,076	31,304	679,029	54,789	12.8	11.6	10.5	10.8	11.5	14.5
1995	23,693	613,257	60,051	34,477	731,882	48,787	14.4	12.7	11.8	11.9	12.6	13.5
1990	26,251	666,920	65,973	38,866	798,364	53,044	16.5	14.0	13.0	13.6	13.9	15.1
1985	27,427	619,301	66,676	36,771	750,520	62,388	17.5	13.2	13.0	13.1	13.3	17.6
1980	28,582	618,371	68,892	37,357	753,708	74,064	18.6	13.2	13.3	13.3	13.4	21.8
1975	26,130	568,900	67,943	33,972	697,518	67,178	17.2	12.2	13.0	12.2	12.4	21.5

Source:

For United Kingdom: Office for National Statistics, Vital Statistics: Population and Health Reference Tables, November 2016

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.

From 1974 onwards, figures for England and for Wales represent the area of usual residence of the mother. Births to women whose usual residence is outside England and Wales are excluded from the separate figures for England and for Wales. Consequently, figures for England and for Wales along with the other United Kingdom countries will not sum to the UK total for 1974 onwards.

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, Vital Statistics Annual Reports/Yearly Summaries http://www.cso.ie/en/statistics/birthsdeathsandmarriages/

Table 1.2: Trends in births (live and still) registered in Northern Ireland, 2006 – 2015

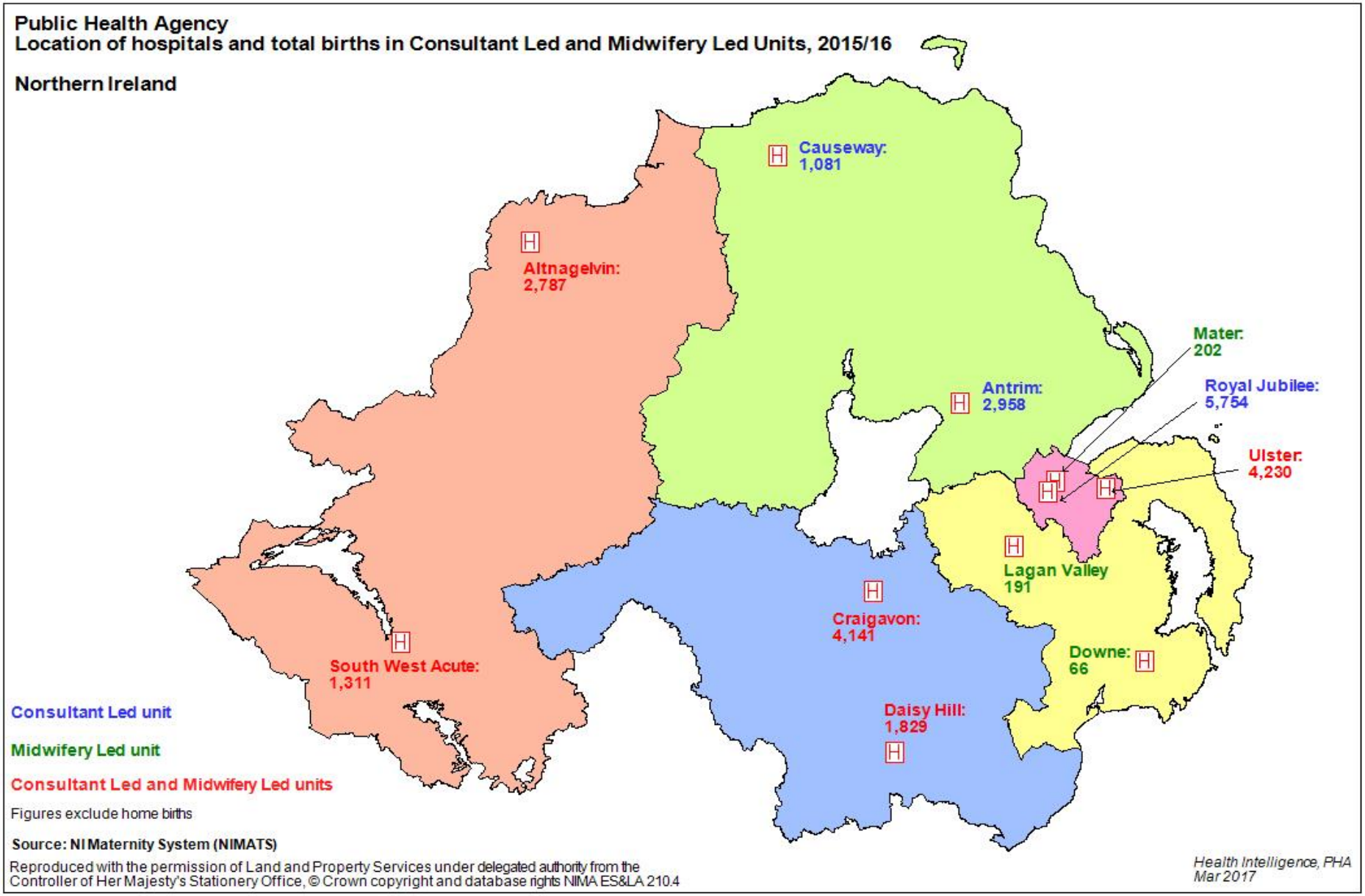
		Year of birth (registered)									
		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total resident births (live and still)		**23,361**	**24,553**	**25,746**	**25,029**	**25,420**	**25,364**	**25,375**	**24,387**	**24,475**	**24,291**
Total resident birth rate / 1,000 population		**13.4**	**13.9**	**14.4**	**13.9**	**14.0**	**13.9**	**13.9**	**13.3**	**13.3**	**13.1**
Birth status (NI maternal residents)	Live	23,272	24,451	25,631	24,910	25,315	25,273	25,269	24,277	24,394	24,215
	Still	89	102	115	119	105	91	106	110	81	76
	All infants	**23,361**	**24,553**	**25,746**	**25,029**	**25,420**	**25,364**	**25,375**	**24,387**	**24,475**	**24,291**
Born to NI-resident / non-resident mothers	Resident	23,361	24,553	25,746	25,029	25,420	25,364	25,375	24,387	24,475	24,291
	Non-resident	497	523	623	577	455	461	352	261	221	210
	All infants	**23,858**	**25,076**	**26,369**	**25,606**	**25,875**	**25,825**	**25,727**	**24,648**	**24,696**	**24,501**
Country of birth of mother (live births only)	NI	19,611	20,325	21,095	20,539	20,805	20,808	20,819	19,937	20,129	19,968
	Other UK	1,477	1,456	1,410	1,364	1,323	1,296	1,293	1,271	1,170	1,186
	RoI	736	723	779	689	714	692	698	626	626	635
	A8 countries	390	775	1,080	1,113	1,235	1,210	1,201	1,257	1,258	1,205
	All other countries	1,058	1,170	1,267	1,205	1,238	1,267	1,258	1,186	1,211	1,221
	Not stated	0	2	0	0	0	0	0	0	0	0
	All infants	**23,272**	**24,451**	**25,631**	**24,910**	**25,315**	**25,273**	**25,269**	**24,277**	**24,394**	**24,215**
Place of birth (live births only)	Altnagelvin	2,485	2,528	2,672	2,676	2,623	2,830	2,741	2,554	2,695	2,675
	Antrim	2,495	3,064	3,078	2,790	2,770	2,671	2,640	2,638	2,820	2,953
	Causeway	1,239	1,328	1,447	1,373	1,412	1,432	1,413	1,362	1,204	1,086
	Craigavon	3,413	3,670	3,805	3,812	4,000	3,975	4,170	3,993	4,015	4,040
	Daisy Hill	1,675	1,797	1,875	1,842	1,840	1,765	1,814	1,701	1,806	1,794
	Downe	-	-	-	-	40	72	97	86	57	81
	Erne	1,268	1,240	1,331	1,266	1,307	1,206	624	4	2	5
	Lagan Valley	1,122	1,190	1,196	1,069	979	334	213	206	178	193
	Mater	1,084	1,159	1,272	1,119	1,204	1,219	1,194	437	191	196
	Mid Ulster	570	-	-	-	-	-	-	-	-	-
	Royal	5,193	5,459	5,437	5,467	5,473	5,555	5,584	5,927	5,995	5,748
	SWAH	-	-	-	-	-	-	602	1,213	1,231	1,215
	Ulster	2,623	2,908	3,416	3,398	3,553	4,120	4,086	4,036	4,119	4,131
	Other hospitals	4	7	3	3	2	5	1	-	1	5
	Home	90	79	83	91	95	73	72	105	67	75
	Other locations	11	22	16	4	17	16	18	15	13	18
	All places of birth	**23,272**	**24,451**	**25,631**	**24,910**	**25,315**	**25,273**	**25,269**	**24,277**	**24,394**	**24,215**

Table 1.2 continued: Trends in births (live and still) registered in Northern Ireland, 2006 – 2015

		Year of birth (registered)									
		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total resident births (live and still)		**23,361**	**24,553**	**25,746**	**25,029**	**25,420**	**25,364**	**25,375**	**24,387**	**24,475**	**24,291**
Local Government District (2014) of residence of mother	Antrim and Newtownabbey			2,062	1,925	1,927	1,914	1,896	1,744	1,779	1,799
	Ards and North Down			3,076	3,053	3,156	3,061	3,139	2,884	2,931	2,990
	Armagh City, Banbridge and Craigavon			4,727	4,668	4,773	4,847	4,938	4,743	4,641	4,601
	Belfast			1,810	1,666	1,755	1,777	1,768	1,771	1,712	1,726
	Causeway Coast and Glens			2,227	2,257	2,128	2,242	2,155	2,066	2,104	2,067
	Derry City and Strabane			1,603	1,541	1,623	1,559	1,549	1,461	1,513	1,418
	Fermanagh and Omagh			1,810	1,836	1,819	1,808	1,767	1,740	1,757	1,722
	Lisburn and Castlereagh			1,702	1,579	1,628	1,627	1,569	1,535	1,596	1,513
	Mid and East Antrim			2,160	2,123	2,197	2,115	2,195	2,219	2,142	2,181
	Mid Ulster			2,623	2,591	2,602	2,525	2,603	2,485	2,552	2,518
	Newry, Mourne and Down			1,946	1,790	1,812	1,889	1,796	1,739	1,748	1,756
	All infants			**25,746**	**25,029**	**25,420**	**25,364**	**25,375**	**24,387**	**24,475**	**24,291**
Trust of residence of mother (NI resident mothers only)	Belfast	4,165	4,484	4,763	4,715	4,809	4,854	4,957	4,786	4,718	4,665
	Northern	5,795	6,058	6,376	5,979	6,134	6,062	5,984	5,901	5,895	5,776
	South Eastern	4,263	4,539	4,697	4,554	4,539	4,615	4,542	4,374	4,338	4,333
	Southern	5,056	5,379	5,620	5,558	5,733	5,538	5,724	5,384	5,477	5,547
	Western	4,082	4,093	4,290	4,223	4,205	4,295	4,168	3,942	4,047	3,970
	All infants	**23,361**	**24,553**	**25,746**	**25,029**	**25,420**	**25,364**	**25,375**	**24,387**	**24,475**	**24,291**

Source: NISRA https://www.nisra.gov.uk/statistics/births-deaths-and-marriages/births
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
RoI = Republic of Ireland
Data at 2014 Local Government District is not available prior to 2008

Figure 1.1: Location of hospitals and number of births in Consultant Led Units/Midwifery Led Units, Northern Ireland, 2015/16



Projected births

Table 1.3: Resident registered births by Health Trust and 2014 Local Government District, 2014 and 2015 and projected to 2035

				2014 based projections			
No. of resident births		**2014**	**2015**	**2020/21**	**2025/26**	**2030/31**	**2035/36**
Northern Ireland		**24,475**	**24,291**	**23,957**	**23,099**	**22,498**	**22,579**
Health Trust of residence	Belfast	4,718	4,665	4,700	4,444	4,274	4,273
	Northern	5,895	5,776	5,601	5,367	5,173	5,138
	South Eastern	4,338	4,333	4,305	4,170	4,041	4,020
	Southern	5,477	5,547	5,525	5,479	5,512	5,697
	Western	4,047	3,970	3,826	3,639	3,498	3,451
	Northern Ireland	**24,475**	**24,291**	**23,957**	**23,099**	**22,498**	**22,579**
Local Government District (2014)	Antrim and Newtownabbey	1,779	1,799	1,708	1,624	1,563	1,551
	Ards and North Down	1,748	1,756	1,648	1,571	1,505	1,478
	Armagh City, Banbridge and Craigavon	2,931	2,990	3,001	2,971	2,983	3,083
	Belfast	4,641	4,601	4,647	4,383	4,213	4,212
	Causeway Coast and Glens	1,712	1,726	1,587	1,491	1,414	1,386
	Derry City and Strabane	2,104	2,067	1,991	1,882	1,796	1,762
	Fermanagh and Omagh	1,513	1,418	1,425	1,367	1,328	1,322
	Lisburn and Castlereagh	1,757	1,722	1,783	1,769	1,744	1,764
	Mid and East Antrim	1,596	1,513	1,519	1,474	1,423	1,402
	Mid Ulster	2,142	2,181	2,134	2,109	2,102	2,161
	Newry, Mourne and Down	2,552	2,518	2,514	2,458	2,427	2,458
	Northern Ireland	**24,475**	**24,291**	**23,957**	**23,099**	**22,498**	**22,579**

Source:
NISRA https://www.nisra.gov.uk/statistics/births-deaths-and-marriages/births
NISRA https://www.nisra.gov.uk/publications/2014-based-population-projections-areas-within-northern-ireland
Methodology Paper - Projections (NISRA): https://www.nisra.gov.uk/sites/nisra.gov.uk/files/publications/SNPP14-Methodology.pdf

Table 1.4: Resident births by place of birth, 2014 and 2015 and projected to 2035

				2014 based projections			
No. of resident births		**2014**	**2015**	**2020/21**	**2025/26**	**2030/31**	**2035/36**
Place of birth	Altnagelvin Hospital	2,693	2,711	2,554	2,419	2,313	2,272
	Antrim Hospital	2,835	2,959	2,818	2,731	2,658	2,658
	Craigavon Area Hospital	4,032	4,092	4,084	4,050	4,066	4,203
	Causeway Hospital	1,201	1,096	1,075	1,012	962	947
	Daisy Hill Hospital	1,825	1,796	1,774	1,745	1,743	1,785
	Downe Hospital	52	82	69	66	63	62
	Lagan Valley Hospital	176	197	192	189	186	188
	Mater Infirmorum	198	188	189	179	171	170
	Royal Jubilee Maternity Hospital	6,067	5,767	5,868	5,596	5,404	5,398
	South West Acute Hospital	1,233	1,223	1,198	1,153	1,123	1,122
	Ulster Hospital	4,147	4,209	4,115	3,940	3,788	3,754
	Home	12	30	20	20	19	19
	All locations	**24,471**	**24,350**	**23,957**	**23,099**	**22,498**	**22,579**

Source:
2014-2015 data: NIMATS (via Business Objects)
Projections: Calculated by PHA Health Intelligence based on:
NISRA https://www.nisra.gov.uk/publications/2014-based-population-projections-areas-within-northern-ireland
NIMATS (via Business Objects) data for births in 2014 and 2015
Data for births during 2014 and 2015 were extracted from NIMATS and analysed by place of birth and Local Government District (1992 boundaries) of residence of mother. The proportion of births in each hospital, from each LGD, was applied to projected births data from NISRA at LGD level to calculate projected births by hospital

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 1991. Replacement level is taken to be the level at which the population would replace itself, ignoring migration. In 2015 fertility levels were below replacement level at 1.96 children; however this is still higher than the record fertility low of 1.75 in 2000. *[Page 16]*

- Of the four regions of the United Kingdom, Northern Ireland had the highest total period fertility rate (1.96 in 2015). Scotland had the lowest at 1.56. *[Page 15]*

- Age specific fertility rates have remained fairly steady over the last ten years in most age groups with increases in the 30-34 and 35-39 age groups and overall decreases in the younger age groups (15-19, 20-24 and 25-29). *[Page 17].* The shift to women having children later in life is clearly shown in Figure 2.4. *[Page 17]*

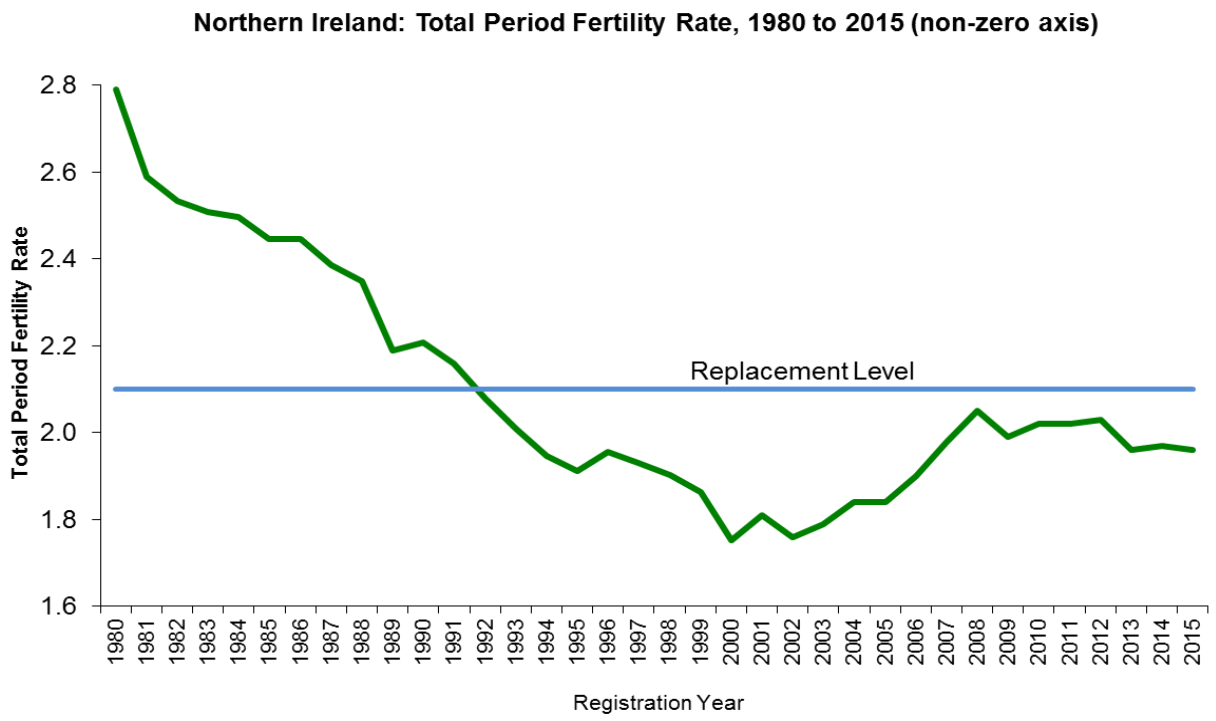
- The decrease in actual numbers of teenage births (under 20 years) reflects less young women and a lower birth rate than in the 1990s. The primary driver in this reduction in births is the decline in the fertility rate in this age group e.g. 21.5 per 1,000 population in 2005 to 13.0 in 2015. *[Page 18]*

Table 2.1: UK/RoI fertility rates 1992 - 2015, and projections 2020 – 2035

									2014 based projections			
Total Fertility Rate	**1992**	**1997**	**2002**	**2007**	**2012**	**2013**	**2014**	**2015**	**2020**	**2025**	**2030**	**2035**
Northern Ireland	2.08	1.93	1.76	1.98	2.03	1.96	1.97	1.96	1.98	2.00	2.00	2.00
England	1.79	1.73	1.64	1.88	1.94	1.85	1.83	1.82	1.87	1.89	1.90	1.90
Wales	1.87	1.81	1.64	1.86	1.88	1.80	1.78	1.77	1.83	1.89	1.89	1.90
Scotland	1.67	1.58	1.47	1.70	1.67	1.61	1.62	1.56	1.59	1.65	1.69	1.70
UK	1.79	1.72	1.63	1.87	1.92	1.83	1.82	1.80	1.85	1.87	1.88	1.89
Total Period Fertility Rate												
Republic of Ireland	1.99	1.94	1.98	2.03	2.01	1.96	1.95	1.94	-	-	-	-

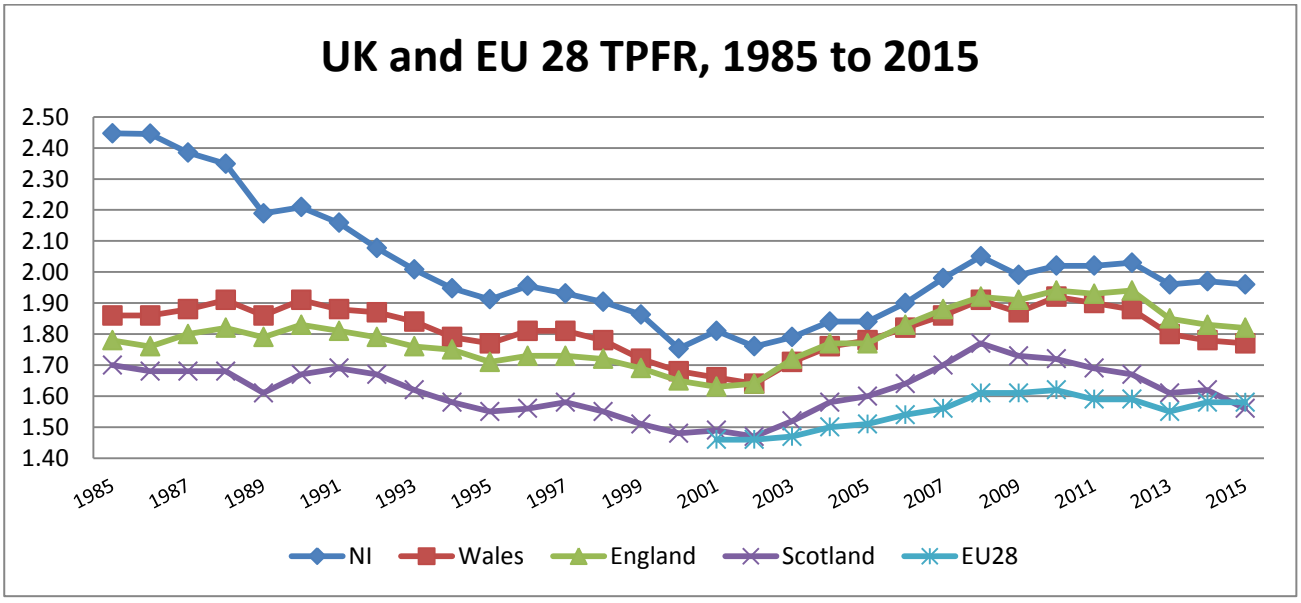
Source: Office for National Statistics and Central Statistics Office (RoI)
2014 based projections are fertility rates per 1,000 females (principal projection)
UK: Total Fertility Rate (TFR) is the average number of live children that a group of women would bear if they experienced the age-specific fertility rates of the calendar year in question throughout their childbearing lifespan
RoI: 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.
RoI projections data not produced

Figure 2.1: Total Period Fertility Rate (TPFR), Northern Ireland, 1980 - 2015



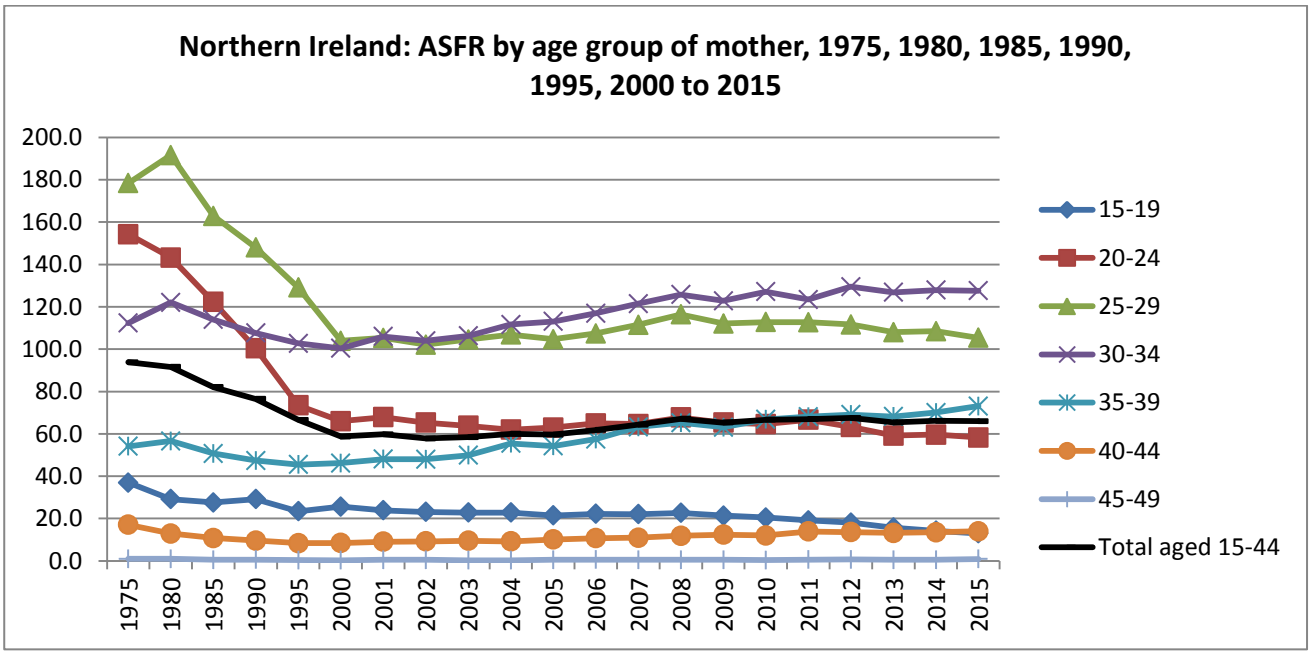
Source: NISRA, Registrar General Annual Report 2015
https://www.nisra.gov.uk/statistics/births-deaths-and-marriages/registrar-general-annual-report
The line at a TPFR of 2.1 represents the 'replacement level' which is the number of births that are required to maintain a steady Northern Ireland population 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 2015



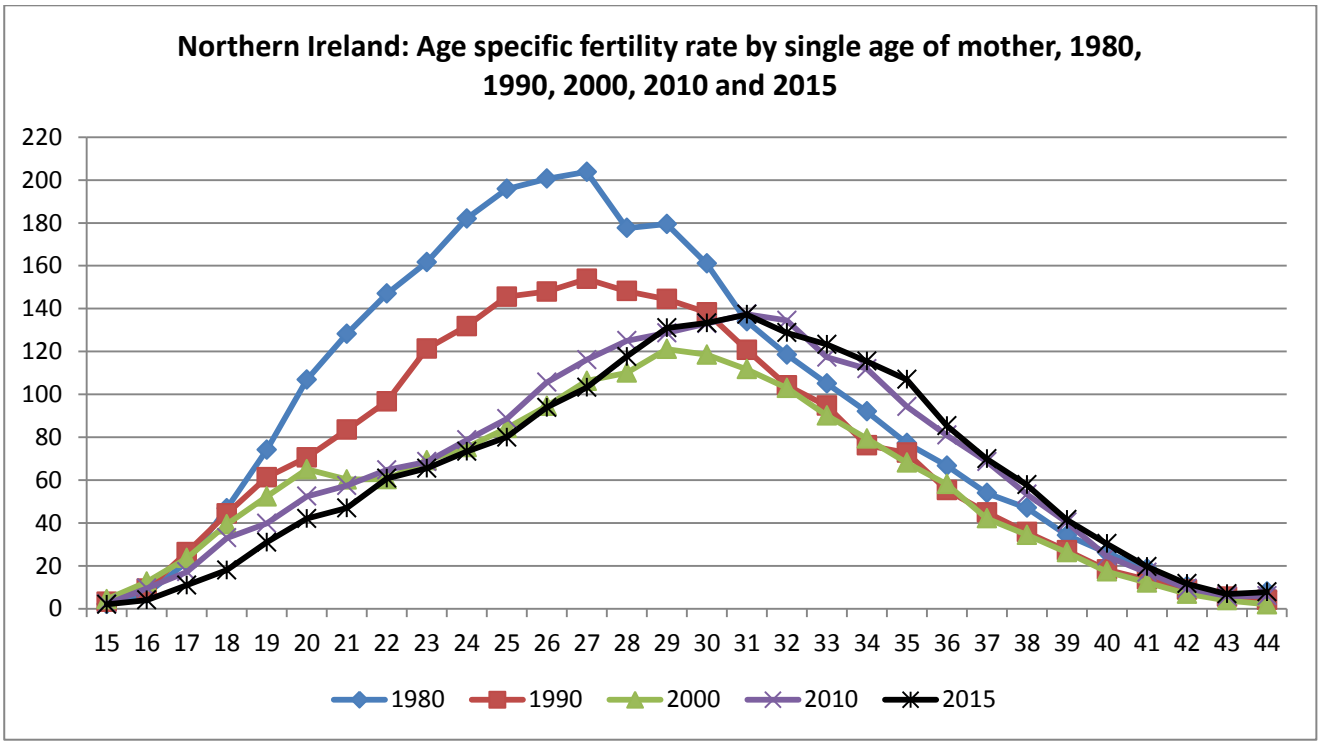
Source:
Office for National Statistics (ONS) - Birth Summary Tables http://www.ons.gov.uk/ons/datasets-and-tables/index.html AND National Records of Scotland https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/general-publications/vital-events-reference-tables/2015/section-3-births
StatWales https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/Births-Deaths-and-Conceptions/Births/totalfertilityrateandgeneralfertilityrate-by-year and Welsh Government (2015 data) http://gov.wales/statistics-and-research/health-statistics-wales/?lang=en
Eurostat (European Commission) - http://ec.europa.eu/eurostat/web/population-demography-migration-projections/births-fertility-data/main-tables
EU 28 refers to the 28 member states of the European Union at 2013. Data only available from 2001. Data for 2013 and 2014 is provisional

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



Source: NISRA https://www.nisra.gov.uk/publications/registrar-general-annual-report-2015-tables-and-full-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 and 2015



Source: NISRA https://www.nisra.gov.uk/publications/registrar-general-annual-report-2015-tables-and-full-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 to 2015

Age Group of Mother	Registration Year																				
	1975	1980	1985	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
15-19	37.0	29.2	27.6	29.2	23.4	25.6	23.9	23.1	22.8	22.8	21.5	22.2	22.1	22.7	21.4	20.5	19.1	18.1	15.7	14.2	13.0
20-24	154.3	143.2	122.3	100.4	73.5	66.0	67.9	65.3	63.8	62.0	63.0	64.9	64.6	67.7	65.3	64.6	66.7	63.3	59.2	59.6	58.3
25-29	178.4	191.6	162.9	148.0	129.1	103.9	105.3	102.1	104.5	106.9	104.7	107.4	111.5	116.4	112.1	112.8	112.7	111.6	108.0	108.5	105.4
30-34	112.3	122.1	114.0	107.6	102.7	100.4	106.0	103.9	106.3	111.6	113.1	116.9	121.5	125.8	122.8	127.1	123.4	129.5	126.8	127.9	127.6
35-39	54.1	56.6	50.7	47.4	45.5	46.2	48.1	48.0	49.9	55.5	54.3	57.5	63.3	65.2	63.1	66.8	68.1	69.1	68.2	70.1	73.1
40-44	17.1	12.9	10.8	9.6	8.4	8.5	9.1	9.2	9.5	9.2	10.1	10.7	11.0	11.9	12.4	12.0	13.9	13.6	13.2	13.5	14.0
45-49	1.0	1.0	0.5	0.6	0.4	0.3	0.5	0.5	0.3	0.3	*0.5*	*0.6*	*0.5*	*0.5*	*0.5*	*0.4*	*0.6*	*0.7*	*0.5*	0.5	0.9
Total aged 15-44	**93.8**	**91.6**	**82.1**	**76.5**	**66.6**	**58.7**	**59.8**	**57.8**	**58.4**	**60.0**	**59.6**	**61.8**	**64.3**	**67.1**	**65.3**	**66.7**	**67.0**	**67.5**	**65.4**	**66.1**	**66.0**

Source: NISRA https://www.nisra.gov.uk/publications/registrar-general-annual-report-2015-tables-and-full-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?

The majority of births to teenage mothers are unplanned. Many teenage mothers experience difficulty adapting to their new situation. Becoming pregnant at an early age, may result in[5]:

- 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
- Further teenage pregnancies i.e. conceiving again relatively quickly.

What can be done?

In November 2008, the Department of Health published a "Sexual Health Promotion Strategy and Action Plan (2008 – 2013)" with an Addendum to the Strategy published in March 2014[6]. The Strategy states that "*with proper information and knowledge, people are more likely to avoid risky behaviour, use contraception, know what local services are available and be more likely to use them*". The Strategy suggested the following to help prevent unwanted teenage pregnancies:

- Encourage young people to delay sexual relations until they are sufficiently mature to participate in a mutually respectful relationship
- Improve parent/child communication
- Encourage partnerships between parents, schools and health services to ensure a consistent approach
- Provide effective Relationship and Sexuality Education (RSE) in schools.

Schools have a statutory responsibility to provide Relationship and Sexuality Education. The Public Health Agency works with education bodies to provide support to schools/teachers to do this. Recently the PHA has also contracted a number of organisations to provide RSE in community settings, particularly targeting vulnerable groups.

The Family Nurse Partnership[7] is a voluntary preventive programme for teenage mothers, offering intensive and structured home visiting, delivered by specially trained 'family nurses', from early pregnancy until the child is two years old. What happens during pregnancy and in the first years of a baby's life has a major influence on their subsequent behaviour, education, employment, health and other life chances.

OLDER MOTHERS

Why should we be concerned?

Fertility rates in Northern Ireland show that women are postponing having children until later in life (Section 2). This is partly due to advances in assisted conception technologies e.g. IVF which allows women of advanced age to conceive. Pregnancies in older women can be complicated by:

- Increased risk of miscarriage
- Greater risk of complications in pregnancy e.g. diabetes, hypertension
- Higher rate of multiple births
- Increased risk of complications during labour/delivery e.g. need to deliver by Caesarean Section
- Congenital abnormalities are more common.

What can be done?

The Royal College of Obstetricians and Gynaecologists[8] suggest that women be advised of the increased risk of delaying pregnancy and that infertility is more difficult to treat after the age of 40.

[5] Scottish Parliament Information Centre, "Teenage Pregnancy" briefing http://www.scottish.parliament.uk/ResearchBriefingsAndFactsheets/S4/SB_13-03.pdf
[6] 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
[7] Public Health Agency http://www.publichealth.hscni.net/directorate-public-health/health-and-social-wellbeing-improvement/family-nurse-partnership
[8] Royal College of Obstetricians and Gynaecologists, "Reproductive Ageing" (Scientific Impact Paper No. 24 January 2011) https://www.rcog.org.uk/globalassets/documents/guidelines/scientific-impact-papers/sip_24.pdf

Key Points

- Births to teenage mothers have shown substantial reductions in the last few years. This is consistent with the decline in the age specific fertility rate in women under twenty. The decrease in actual numbers reflects less young women and a lower birth rate than in 1990s. In 2015/16, there were 720 infants born to mothers aged less than twenty years – a slight increase on 2014/15 (712). *[Page 20]*

- In 2015/16, births to teenage mothers represented 2.9% of all births – in general a decrease over the years shown. However the proportion of births to mothers aged 40 and over has increased from 3.6% in 2010/11 to 4.2% in 2015/16. *[Page 20]*

- Looking at deprivation quintiles across Northern Ireland, the proportion of births to teenage mothers falls from 5.5% in the most deprived areas (2014/15 = 5.0%) to 1.3% in the least deprived (2014/15 = 1.3%). The opposite can be seen in the proportion of births to older mothers (40+), increasing from 2.5% in the most deprived areas (2014/15 = 2.6%) to 7.1% in the least deprived areas (2014/15 = 7.3%). [*Page 23]*

- Data for 2013/14–2015/16 at District Electoral Area reveals that Coleraine DEA (Causeway Coast and Glens LGD) had the highest proportion of teenage mothers (6.7%) and Mid Tyrone DEA (Fermanagh and Omagh LGD) had the lowest at 0.4%. Balmoral DEA (Belfast LGD) had the highest proportion of older mothers (aged 40 and over) (8.9%), Ballymena DEA (Mid and East Antrim LGD) had the lowest at 2.0%. *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 - 2015/16

Year of birth		Infants born by age of mother									Infants born to teenage mothers
		≤ 17	18-19	20 - 24	25 - 29	30 - 34	35 - 39	40 +	Not known	**Total**	
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%	-	**-**	**4.71%**
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%	-	**-**	**4.67%**
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%	-	**-**	**4.22%**
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%	-	**-**	**3.34%**
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%	-	**-**	**2.92%**
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%	-	**-**	**2.95%**

Source: Child Health System
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 - 2015/16

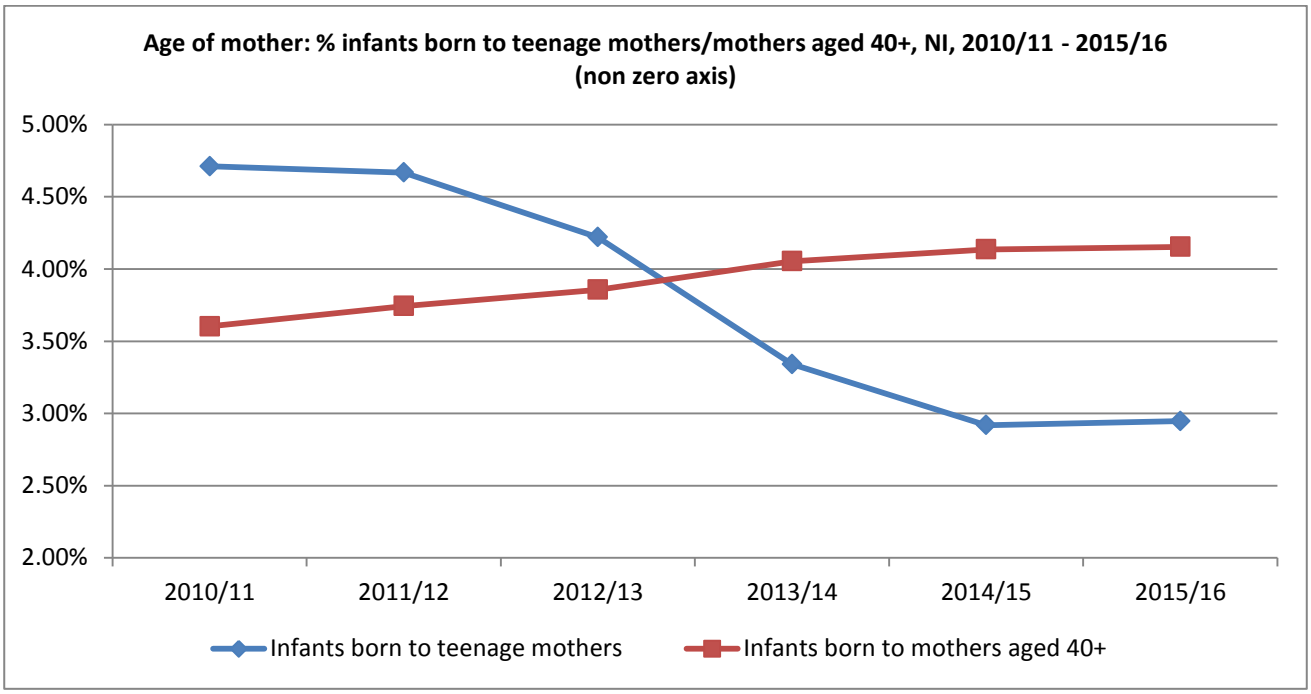


Table 3.2: Births to Northern Ireland residents, by age of mother, 2015/16

		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	165	545	3,259	6,460	7,911	4,425	953	2	**23,720**	3.0%	4.0%
	Multiple	0	10	46	145	249	204	62	0	**716**	1.4%	8.7%
	All infants	**165**	**555**	**3,305**	**6,605**	**8,160**	**4,629**	**1,015**	**2**	**24,436**	**2.9%**	**4.2%**
Ethnic group of mother (NIMATS)	White	209	571	3,288	6,534	7,823	4,361	889	0	**23,675**	3.3%	3.8%
	Non-white	4	10	64	191	246	138	43	0	**696**	2.0%	6.2%
	Not stated / Blank	0	2	4	8	11	7	0	0	**32**	6.3%	0.0%
	All infants	**213**	**583**	**3,356**	**6,733**	**8,080**	**4,506**	**932**	**0**	**24,403**	**3.3%**	**3.8%**
Ethnic group of infant (CHS)	White	146	535	3,124	6,237	7,716	4,359	928	0	**23,045**	3.0%	4.0%
	Non-white	5	15	122	262	310	188	70	0	**972**	2.1%	7.2%
	Not stated / Blank	14	5	59	106	134	82	17	2	**419**	4.6%	4.1%
	All infants	**165**	**555**	**3,305**	**6,605**	**8,160**	**4,629**	**1,015**	**2**	**24,436**	**2.9%**	**4.2%**
Place of birth	Altnagelvin	29	66	409	731	861	485	106	0	**2,687**	3.5%	3.9%
	Antrim	26	60	433	855	953	514	115	0	**2,956**	2.9%	3.9%
	Causeway	9	28	168	362	304	178	31	0	**1,080**	3.4%	2.9%
	Craigavon	18	84	516	1,168	1,447	747	141	0	**4,121**	2.5%	3.4%
	Daisy Hill	5	42	175	484	703	362	46	0	**1,817**	2.6%	2.5%
	Downe	0	0	13	27	20	≤5	≤5	0	**65**	0.0%	<4.2%
	Lagan Valley	≤5	≤5	33	58	65	30	≤5	0	**195**	3.6%	<4.2%
	Mater	≤5	≤5	49	70	41	32	≤5	0	**199**	2.0%	<4.2%
	Royal	53	167	832	1,468	1,779	1,159	297	1	**5,756**	3.8%	5.2%
	SWAH	7	14	135	338	493	246	56	0	**1,289**	1.6%	4.3%
	Ulster	15	86	540	1,028	1,482	866	215	1	**4,233**	2.4%	5.1%
	Home/Other	0	0	2	16	12	≤10	≤5	0	**38**	0.0%	>4.2%
	All infants	**165**	**555**	**3,305**	**6,605**	**8,160**	**4,629**	**1,015**	**2**	**24,436**	**2.9%**	**4.2%**
Trust of residence of mother	Belfast	42	147	710	1,180	1,417	909	227	2	**4,634**	4.1%	4.9%
	Northern	48	123	818	1,729	1,812	1,020	216	0	**5,766**	3.0%	3.7%
	South Eastern	15	77	579	1,064	1,516	890	224	0	**4,365**	2.1%	5.1%
	Southern	24	127	657	1,555	2,007	1,036	182	0	**5,588**	2.7%	3.3%
	Western	36	81	541	1,077	1,408	774	166	0	**4,083**	2.9%	4.1%
	All infants	**165**	**555**	**3,305**	**6,605**	**8,160**	**4,629**	**1,015**	**2**	**24,436**	**2.9%**	**4.2%**

Table 3.2 continued: Births to Northern Ireland residents, by age of mother, 2015/16

		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**		
Council area (2014)	Antrim and Newtownabbey	19	41	259	507	575	331	72	0	**1,804**	3.3%	4.0%
	Ards and North Down	5	33	250	405	571	385	112	0	**1,761**	2.2%	6.4%
	Armagh City, Banbridge and Craigavon	16	66	408	846	1,022	542	100	0	**3,000**	2.7%	3.3%
	Belfast	43	158	742	1,188	1,363	859	207	2	**4,562**	4.4%	4.5%
	Causeway Coast and Glens	14	38	266	531	480	275	67	0	**1,671**	3.1%	4.0%
	Derry City and Strabane	25	57	338	574	670	380	83	0	**2,127**	3.9%	3.9%
	Fermanagh and Omagh	7	16	137	368	593	317	61	0	**1,499**	1.5%	4.1%
	Lisburn and Castlereagh	8	19	174	406	670	372	92	0	**1,741**	1.6%	5.3%
	Mid and East Antrim	16	38	245	459	475	258	57	0	**1,548**	3.5%	3.7%
	Mid Ulster	8	37	219	653	777	398	81	0	**2,173**	2.1%	3.7%
	Newry, Mourne and Down	4	52	267	668	964	512	83	0	**2,550**	2.2%	3.3%
	All infants	**165**	**555**	**3,305**	**6,605**	**8,160**	**4,629**	**1,015**	**2**	**24,436**	**2.9%**	**4.2%**
Deprivation quintile (SOA) based on residence of mother	Most deprived	72	235	1,198	1,703	1,512	739	139	1	**5,599**	5.5%	2.5%
	2	35	115	748	1,395	1,819	947	181	0	**5,240**	2.9%	3.5%
	3	24	89	564	1,426	1,844	1,022	217	1	**5,187**	2.2%	4.2%
	4	24	78	518	1,263	1,672	943	216	0	**4,714**	2.2%	4.6%
	Least deprived	10	38	277	818	1,313	978	262	0	**3,696**	1.3%	7.1%
	All infants	**165**	**555**	**3,305**	**6,605**	**8,160**	**4,629**	**1,015**	**2**	**24,436**	**2.9%**	**4.2%**

Source: Child Health System
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 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

Table 3.3: Births to Northern Ireland residents, by age of mother, District Electoral Area, 2013/14 to 2015/16

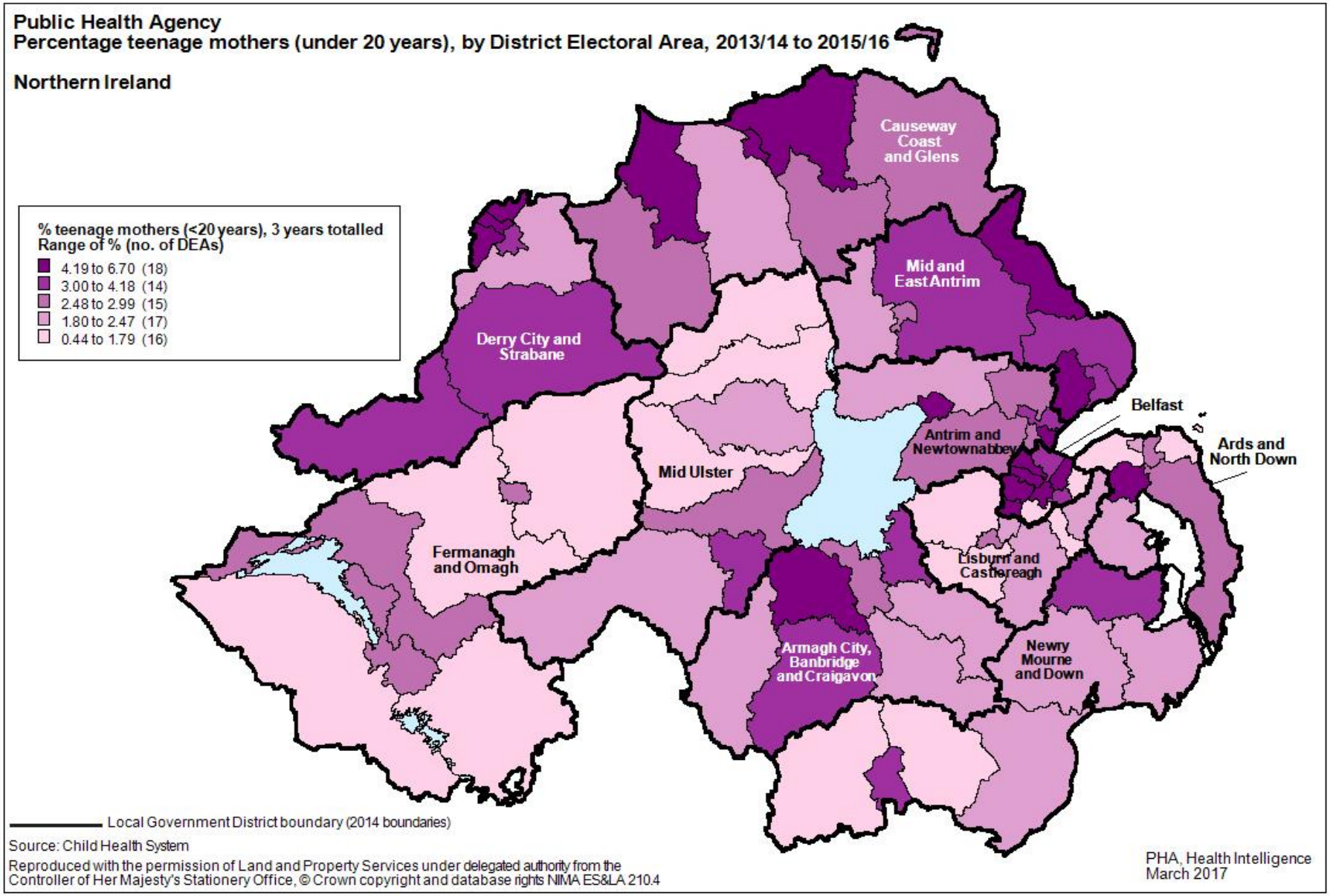
		Infants born by age of mother								% infants born to teenage mothers	% infants born to mothers aged 40+	Total births (all ages), by year		
Council (2014)	**District Electoral Area**	<20	20 - 24	25 - 29	30 - 34	35 - 39	40 +	Not known	**Total**			2013/14	2014/15	2015/16
Antrim and Newtownabbey	Airport	25	76	234	340	191	42	0	**908**	2.8%	4.6%	281	311	316
	Antrim	46	187	272	296	116	35	0	**952**	4.8%	3.7%	336	307	309
	Ballyclare	20	83	182	248	111	24	0	**668**	3.0%	3.6%	207	212	249
	Dunsilly	14	58	163	238	139	38	0	**650**	2.2%	5.8%	203	220	227
	Glengormley Urban	22	99	198	243	142	36	0	**740**	3.0%	4.9%	226	239	275
	Macedon	35	130	225	228	101	19	0	**738**	4.7%	2.6%	267	257	214
	Three Mile Water	23	93	175	213	110	25	0	**639**	3.6%	3.9%	226	199	214
	Total	**185**	**726**	**1,449**	**1,806**	**910**	**219**	**0**	**5,295**	**3.5%**	**4.1%**	**1,746**	**1,745**	**1,804**
Ards and North Down	Ards Peninsula	23	140	234	257	155	43	0	**852**	2.7%	5.0%	268	287	297
	Bangor Central	27	123	263	325	206	62	0	**1,006**	2.7%	6.2%	336	339	331
	Bangor East and Donaghadee	10	79	132	206	146	39	0	**612**	1.6%	6.4%	201	197	214
	Bangor West	16	88	152	215	138	39	0	**648**	2.5%	6.0%	230	216	202
	Comber	11	76	135	193	112	40	0	**567**	1.9%	7.1%	200	181	186
	Holywood and Clandeboye	5	49	107	200	178	40	1	**580**	0.9%	6.9%	200	190	190
	Newtownards	41	170	261	267	184	43	0	**966**	4.2%	4.5%	309	316	341
	Total	**133**	**725**	**1,284**	**1,663**	**1,119**	**306**	**1**	**5,231**	**2.5%**	**5.9%**	**1,744**	**1,726**	**1,761**
Armagh, Banbridge and Craigavon	Armagh	34	158	376	494	253	62	0	**1,377**	2.5%	4.5%	420	464	493
	Banbridge	31	162	351	469	255	49	0	**1,317**	2.4%	3.7%	444	428	445
	Craigavon	37	180	392	415	203	33	0	**1,260**	2.9%	2.6%	419	406	435
	Cusher	34	114	295	381	202	40	0	**1,066**	3.2%	3.8%	340	367	359
	Lagan River	18	101	291	344	183	41	0	**978**	1.8%	4.2%	338	328	312
	Lurgan	52	261	418	481	220	35	0	**1,467**	3.5%	2.4%	475	504	488
	Portadown	57	204	413	436	204	48	0	**1,362**	4.2%	3.5%	451	443	468
	Total	**263**	**1,180**	**2,536**	**3,020**	**1,520**	**308**	**0**	**8,827**	**3.0%**	**3.5%**	**2,887**	**2,940**	**3,000**

		Infants born by age of mother								% infants born to teenage mothers	% infants born to mothers aged 40+	Total births (all ages), by year		
Council (2014)	**District Electoral Area**	<20	20 - 24	25 - 29	30 - 34	35 - 39	40 +	Not known	**Total**			2013/14	2014/15	2015/16
Belfast	Balmoral	13	71	144	300	228	74	0	**830**	1.6%	8.9%	284	276	270
	Black Mountain	79	370	510	471	203	38	0	**1,671**	4.7%	2.3%	549	569	553
	Botanic	63	195	358	453	320	80	1	**1,470**	4.3%	5.4%	496	487	487
	Castle	42	243	317	366	241	70	0	**1,279**	3.3%	5.5%	413	445	421
	Collin	67	294	453	500	224	43	1	**1,582**	4.2%	2.7%	543	528	511
	Court	99	349	549	340	160	44	1	**1,542**	6.4%	2.9%	511	526	505
	Lisnasharragh	33	98	183	379	295	90	0	**1,078**	3.1%	8.3%	373	361	344
	Oldpark	91	349	478	424	209	38	0	**1,589**	5.7%	2.4%	542	531	516
	Ormiston	18	108	246	407	286	85	0	**1,150**	1.6%	7.4%	367	376	407
	Titanic	75	313	526	475	274	66	0	**1,729**	4.3%	3.8%	605	576	548
	Total	**580**	**2,390**	**3,764**	**4,115**	**2,440**	**628**	**3**	**13,920**	**4.2%**	**4.5%**	**4,683**	**4,675**	**4,562**
Causeway Coast and Glens	Ballymoney	27	151	282	283	135	31	0	**909**	3.0%	3.4%	309	308	292
	Bann	15	81	189	195	124	28	0	**632**	2.4%	4.4%	220	215	197
	Benbradagh	22	91	232	263	151	32	0	**791**	2.8%	4.0%	244	279	268
	Causeway	39	124	192	241	124	31	0	**751**	5.2%	4.1%	252	263	236
	Coleraine	63	202	293	233	122	28	0	**941**	6.7%	3.0%	314	316	311
	Limavady	23	101	167	146	84	23	0	**544**	4.2%	4.2%	171	184	189
	The Glens	17	101	170	186	90	23	0	**587**	2.9%	3.9%	216	193	178
	Total	**206**	**851**	**1,525**	**1,547**	**830**	**196**	**0**	**5,155**	**4.0%**	**3.8%**	**1,726**	**1,758**	**1,671**
Derry City and Strabane	Ballyarnett	49	242	307	326	175	34	0	**1,133**	4.3%	3.0%	383	361	389
	Derg	22	100	194	230	155	26	0	**727**	3.0%	3.6%	242	220	265
	Faughan	18	90	194	252	149	30	0	**733**	2.5%	4.1%	231	271	231
	Foyleside	32	141	198	253	108	16	0	**748**	4.3%	2.1%	250	238	260
	Sperrin	33	123	283	312	152	38	0	**941**	3.5%	4.0%	298	301	342
	The Moor	46	187	215	208	97	26	0	**779**	5.9%	3.3%	258	268	253
	Waterside	46	193	340	393	208	50	0	**1,230**	3.7%	4.1%	427	416	387
	Total	**246**	**1,076**	**1,731**	**1,974**	**1,044**	**220**	**0**	**6,291**	**3.9%**	**3.5%**	**2,089**	**2,075**	**2,127**
Fermanagh and Omagh	Enniskillen	18	78	179	205	126	30	0	**636**	2.8%	4.7%	211	205	220
	Erne East	10	64	178	268	129	26	0	**675**	1.5%	3.9%	225	236	214
	Erne North	15	56	138	219	117	26	0	**571**	2.6%	4.6%	210	165	196
	Erne West	7	29	138	222	129	24	0	**549**	1.3%	4.4%	166	186	197
	Mid Tyrone	3	47	141	288	178	19	0	**676**	0.4%	2.8%	243	228	205
	Omagh	17	87	188	225	138	22	0	**677**	2.5%	3.2%	208	234	235
	West Tyrone	6	36	154	259	145	37	0	**637**	0.9%	5.8%	179	226	232
	Total	**76**	**397**	**1,116**	**1,686**	**962**	**184**	**0**	**4,421**	**1.7%**	**4.2%**	**1,442**	**1,480**	**1,499**

		Infants born by age of mother								% infants born to teenage mothers	% infants born to mothers aged 40+	Total births (all ages), by year		
Council (2014)	**District Electoral Area**	<20	20 - 24	25 - 29	30 - 34	35 - 39	40 +	Not known	**Total**			2013/14	2014/15	2015/16
Lisburn and Castlereagh	Castlereagh East	14	91	180	248	110	26	0	**669**	2.1%	3.9%	228	206	235
	Castlereagh South	5	40	161	342	226	60	0	**834**	0.6%	7.2%	295	281	258
	Downshire East	11	45	115	210	117	43	0	**541**	2.0%	7.9%	171	205	165
	Downshire West	7	39	110	200	150	28	1	**535**	1.3%	5.2%	171	166	198
	Killultagh	7	66	219	363	198	40	0	**893**	0.8%	4.5%	275	316	302
	Lisburn North	18	104	189	275	164	33	1	**784**	2.3%	4.2%	247	264	273
	Lisburn South	28	155	250	315	153	37	0	**938**	3.0%	3.9%	316	312	310
	Total	**90**	**540**	**1,224**	**1,953**	**1,118**	**267**	**2**	**5,194**	**1.7%**	**5.1%**	**1,703**	**1,750**	**1,741**
Mid and East Antrim	Ballymena	25	157	289	279	119	18	0	**887**	2.8%	2.0%	272	315	300
	Bannside	14	77	194	261	117	27	0	**690**	2.0%	3.9%	253	220	217
	Braid	28	114	240	270	143	22	0	**817**	3.4%	2.7%	235	290	292
	Carrick Castle	23	94	154	164	99	16	0	**550**	4.2%	2.9%	181	184	185
	Coast Road	32	107	185	162	69	24	0	**579**	5.5%	4.1%	219	179	181
	Knockagh	24	119	155	167	72	23	0	**560**	4.3%	4.1%	190	178	192
	Larne Lough	19	90	153	187	111	18	0	**578**	3.3%	3.1%	196	201	181
	Total	**165**	**758**	**1,370**	**1,490**	**730**	**148**	**0**	**4,661**	**3.5%**	**3.2%**	**1,546**	**1,567**	**1,548**
Mid Ulster	Carntogher	12	68	223	278	139	38	0	**758**	1.6%	5.0%	268	256	234
	Clogher Valley	17	78	254	358	189	40	0	**936**	1.8%	4.3%	297	316	323
	Cookstown	18	146	316	359	176	34	0	**1,049**	1.7%	3.2%	353	356	340
	Dungannon	36	166	361	387	178	36	0	**1,164**	3.1%	3.1%	390	388	386
	Magherafelt	16	84	263	289	129	22	0	**803**	2.0%	2.7%	274	255	274
	Moyola	13	77	205	293	147	34	0	**769**	1.7%	4.4%	241	271	257
	Torrent	26	111	269	381	180	27	0	**994**	2.6%	2.7%	322	313	359
	Total	**138**	**730**	**1,891**	**2,345**	**1,138**	**231**	**0**	**6,473**	**2.1%**	**3.6%**	**2,145**	**2,155**	**2,173**
Newry, Mourne and Down	Crotlieve	15	62	272	435	276	39	0	**1,099**	1.4%	3.5%	371	353	375
	Downpatrick	17	136	231	269	143	33	0	**829**	2.1%	4.0%	283	258	288
	Newry	42	179	404	427	215	46	0	**1,313**	3.2%	3.5%	462	419	432
	Rowallane	26	102	193	235	151	45	0	**752**	3.5%	6.0%	248	253	251
	Slieve Croob	16	107	232	335	162	35	0	**887**	1.8%	3.9%	309	292	286
	Slieve Gullion	24	133	420	630	339	57	0	**1,603**	1.5%	3.6%	506	572	525
	The Mournes	21	120	362	405	208	46	0	**1,162**	1.8%	4.0%	387	382	393
	Total	**161**	**839**	**2,114**	**2,736**	**1,494**	**301**	**0**	**7,645**	**2.1%**	**3.9%**	**2,566**	**2,529**	**2,550**
Northern Ireland	**All infants**	**2,243**	**10,212**	**20,004**	**24,335**	**13,305**	**3,008**	**6**	**73,113**	**3.1%**	**4.1%**	**24,277**	**24,400**	**24,436**

Source: Child Health System
Teenage refers to those aged less than twenty years

Figure 3.2: Percentage teenage mothers (under 20 years), by District Electoral Area, Northern Ireland, 2013/14 to 2015/16



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 1.0% of mothers in 1985 to 1.5% of mothers in 2015 having a multiple birth in Northern Ireland[9]. This may be due to the increased use of fertility treatments and the increase in the average age of a mother giving birth (older women are more likely to have a multiple pregnancy)[10]. However, having a multiple pregnancy increases the risk of:

- Maternal mortality
- Miscarriage
- Haemorrhage
- Anaemia
- Gestational diabetes
- Hypertensive disorders
- Preterm birth and
- Intervention during delivery e.g. forceps or Caesarean Section.

Infants are at risk of complications if the placenta is shared e.g. possible stillbirth. Other risks include low birth weight, congenital abnormalities and perinatal mortality[11,12].

What can be done?

The higher risks faced by the mother and infant in a multiple pregnancy need to be explained to women and births should take place in properly staffed hospitals. Providers of infertility services such as IVF should follow Human Fertilisation and Embryology Authority (HFEA) and NICE guidance on embryo transfer strategies.

[9] Northern Ireland Statistics and Research Agency, Registrar General Annual Reports, 2014 and 1984 https://www.nisra.gov.uk/statistics/births-deaths-and-marriages/registrar-general-annual-report

[10] 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

[11] 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

[12] 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

Key Points

- The proportion of infants born within a multiple birth has remained fairly steady over the last five years (2015/16 = 2.9%). *[Page 29]*

- The incidence of multiple births increases with mother's age. In 2015/16, across Northern Ireland, just over 1% of births to mothers aged less than twenty years were multiple births, compared to 6.1% of births to mothers aged 40 and over. *[Page 30]*

Table 4.1: Births to Northern Ireland residents, by singleton/multiple births, 2010/11 - 2015/16

Year of birth		Infants born by singleton/multiple birth				Infants born as multiples
		Single	Twin	Triplet	**Total**	
2010/11	n	24,854	784	21	**25,659**	**805**
	%	96.9%	3.1%	0.1%	-	**3.1%**
2011/12	n	24,552	748	9	**25,309**	**757**
	%	97.0%	3.0%	0.0%	-	**3.0%**
2012/13	n	24,228	782	18	**25,028**	**800**
	%	96.8%	3.1%	0.1%	-	**3.2%**
2013/14	n	23,523	742	12	**24,277**	**754**
	%	96.9%	3.1%	0.0%	-	**3.1%**
2014/15	n	23,687	698	15	**24,400**	**713**
	%	97.1%	2.9%	0.1%	-	**2.9%**
2015/16	n	23,720	686	30	**24,436**	**716**
	%	97.1%	2.8%	0.1%	-	**2.9%**

Source: Child Health System
Figures for multiple births show the number of infants born

Figure 4.1: % infants born as multiples, Northern Ireland, 2010/11 – 2015/16

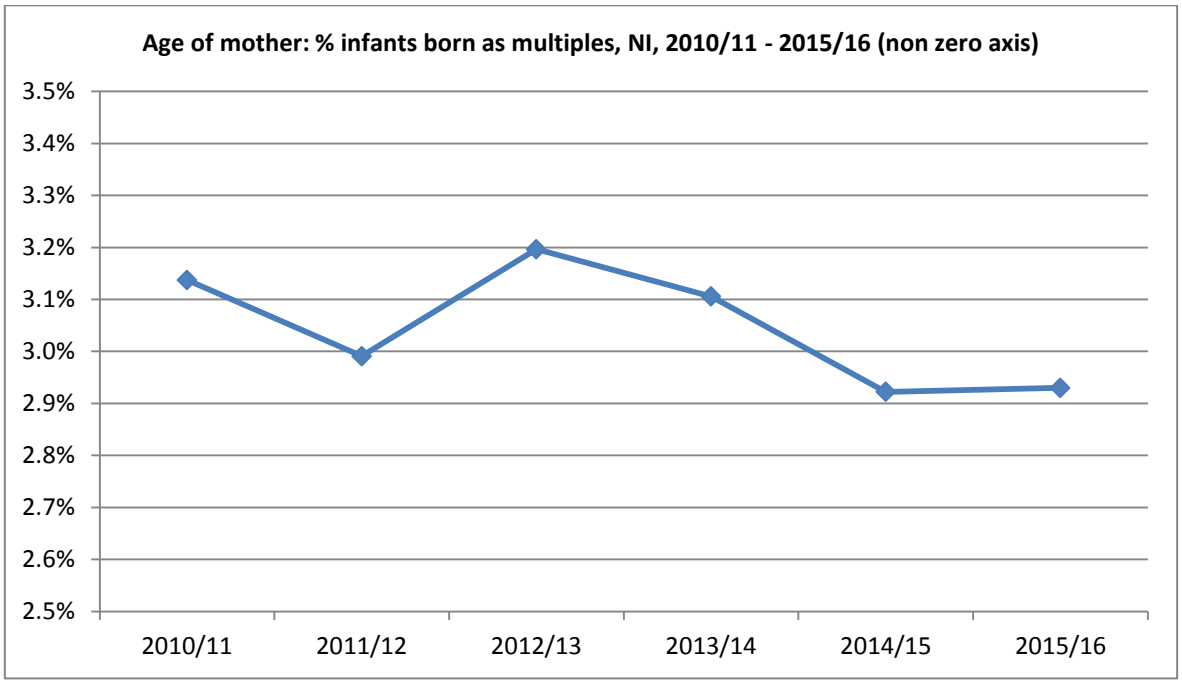


Table 4.2: Births to Northern Ireland residents, by singleton/multiple births, 2015/16

		Infants born by singleton/multiple birth			% infants born as multiples
		Single	Multiple	**Total**	
Birth status	Live	23,641	707	**24,348**	2.9%
	Still	79	9	**88**	10.2%
	All infants	**23,720**	**716**	**24,436**	**2.9%**
Age Group of mother	Under 20	710	10	**720**	1.4%
	20 - 24	3,259	46	**3,305**	1.4%
	25 - 29	6,460	145	**6,605**	2.2%
	30 - 34	7,911	249	**8,160**	3.1%
	35 - 39	4,425	204	**4,629**	4.4%
	40 +	953	62	**1,015**	6.1%
	Not known	2	0	**2**	0.0%
	All infants	**23,720**	**716**	**24,436**	**2.9%**
Ethnic group of mother (NIMATS)	White	22,973	702	**23,675**	3.0%
	Non-white	686	10	**696**	1.4%
	Not stated / Blank	30	2	**32**	6.3%
	All infants	**23,689**	**714**	**24,403**	**2.9%**
Ethnic group of infant (CHS)	White	22,367	678	**23,045**	2.9%
	Non-white	944	28	**972**	2.9%
	Not stated / Blank	409	10	**419**	2.4%
	All infants	**23,720**	**716**	**24,436**	**2.9%**
Place of birth	Altnagelvin	2,581	106	**2,687**	3.9%
	Antrim	2,862	94	**2,956**	3.2%
	Causeway	1,070	10	**1,080**	0.9%
	Craigavon	3,997	124	**4,121**	3.0%
	Daisy Hill	1,783	34	**1,817**	1.9%
	Downe	65	0	**65**	0.0%
	Lagan Valley	195	0	**195**	0.0%
	Mater	199	0	**199**	0.0%
	Royal	5,531	225	**5,756**	3.9%
	SWAH	1,267	22	**1,289**	1.7%
	Ulster	4,134	99	**4,233**	2.3%
	Home/Other	36	2	**38**	5.3%
	All infants	**23,720**	**716**	**24,436**	**2.9%**
Trust of residence of mother	Belfast	4,487	147	**4,634**	3.2%
	Northern	5,601	165	**5,766**	2.9%
	South Eastern	4,247	118	**4,365**	2.7%
	Southern	5,428	160	**5,588**	2.9%
	Western	3,957	126	**4,083**	3.1%
	All infants	**23,720**	**716**	**24,436**	**2.9%**
Council area (2014)	Antrim and Newtownabbey	1,749	55	**1,804**	3.0%
	Ards and North Down	1,700	61	**1,761**	3.5%
	Armagh City, Banbridge and Craigavon	2,906	94	**3,000**	3.1%
	Belfast	4,429	133	**4,562**	2.9%
	Causeway Coast and Glens	1,637	34	**1,671**	2.0%
	Derry City and Strabane	2,045	82	**2,127**	3.9%
	Fermanagh and Omagh	1,465	34	**1,499**	2.3%
	Lisburn and Castlereagh	1,695	46	**1,741**	2.6%
	Mid and East Antrim	1,500	48	**1,548**	3.1%
	Mid Ulster	2,105	68	**2,173**	3.1%
	Newry, Mourne and Down	2,489	61	**2,550**	2.4%
	All infants	**23,720**	**716**	**24,436**	**2.9%**

Table 4.2 continued: Births to Northern Ireland residents, by singleton/multiple births, 2015/16

		Infants born by singleton/multiple birth			% infants born as multiples
		Single	Multiple	**Total**	
Deprivation quintile (SOA) based on residence of mother	Most deprived	5,452	147	**5,599**	2.6%
	2	5,086	154	**5,240**	2.9%
	3	5,046	141	**5,187**	2.7%
	4	4,564	150	**4,714**	3.2%
	Least deprived	3,572	124	**3,696**	3.4%
	All infants	**23,720**	**716**	**24,436**	**2.9%**

Source: Child Health System

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?

Women are encouraged to attend for antenatal care (booking appointment) at 10 weeks gestation and certainly before 12 weeks[13,14]. At these early stages 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 will have uncomplicated pregnancies, some women will experience difficulties maybe as a result of risk factors e.g. smoking, obesity, and diabetes (see Section 6). 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.

It is recognised that the earlier a mother attends for antenatal care, the better the outcome for her and her baby. However there are some groups of women e.g. young mothers, women from a non-white ethnic group, and those living in more deprived areas who do not attend early in pregnancy (Table 5.2, page 35). A recent study[15] 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).

The current Maternity Strategy for Northern Ireland[16] outlines the type of care women should receive.

What can be done?

The Maternity Strategy for Northern Ireland set an objective: "*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*".

AT DELIVERY

Why should we be concerned?

This report shows that almost 8% of infants born in 2015/16 in Northern Ireland were pre-term i.e. less than 37 weeks gestation at birth (Table 5.3, page 37). NICE states that "*preterm birth is the single biggest cause of neonatal mortality and morbidity in the UK*"[17]. The causes of premature birth are not always known, however there are recognised risk factors such as having had a previous premature birth, a previous late miscarriage, having a multiple birth and smoking[18,19]. An infant born pre-term is at greater risk of neonatal death, neurological disorders e.g. cerebral palsy, infection, visual/hearing impairment and respiratory illness.

What can be done?

World Health Organisation guidelines[20] 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. progestational 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*".

[13] National Institute for Health and Care Excellence (NICE) "Antenatal care", Quality Standard, September 2012 http://www.nice.org.uk/guidance/qs22/resources/antenatal-care-2098542418117
[14] 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
[15] 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
[16] As [14]
[17] National Institute for Health and Care Excellence (NICE) "Preterm labour and birth" (QS135), October 2016 https://www.nice.org.uk/guidance/qs135/resources/preterm-labour-and-birth-75545420722117
[18] Royal College of Obstetricians and Gynaecologists, "Premature labour", 2014 https://www.rcog.org.uk/globalassets/documents/patients/patient-information-leaflets/pregnancy/pi-premature-labour.pdf
[19] 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/
[20] 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 2015/16, over 93% of births are less than 15 weeks gestation at the time of booking. This proportion has increased slightly year on year since 2010/11 (89.8%). *[Page 34]*

- There were 398 (1.6%) infants born to women who were estimated to be 28 weeks or more gestation at booking. *[Page 34]*

- The proportion of infants born to mothers booking at 15 or more weeks varies by age of mother. In 2015/16, 18% of births to mothers aged less than twenty were booked at 15+ weeks. This results in a larger proportion of births to mothers in this age group booked at later gestations e.g. 4.1% booked at 28+ weeks compared to 1.6% of infants born to mothers aged 40 and over (all infants = 1.6%). *[Page 35]*

- There are substantial differences in the timescales of when mothers book by ethnic group. 25.1% of births to mothers from a 'non-white' ethnic group booked at 15+ weeks, compared to 6.4% of those of a white ethnic group (all births = 6.9%). *[Page 35]*

- In 2015/16, data revealed that fewer mothers booked at less than 15 weeks gestation in the most deprived areas of Northern Ireland (91.1% of births), compared to births to those mothers from least deprived areas (94.3%). *[Page 36]*

- Over the last six years there has been little variation in the proportion of infants born pre-term (<37 weeks gestation). (2015/16 = 7.8%) *[Page 37]* The figures differ considerably by type of birth: 7.6% of live births, 68.6% of still births. The same can be seen for multiple births (67.5%) compared to singleton births (6.0%). *[Page 38]*

- In 2015/16, a higher proportion of infants were born pre-term to those mothers aged 40 and over (12.1%), compared to all infants born (7.8%). *[Page 38]*

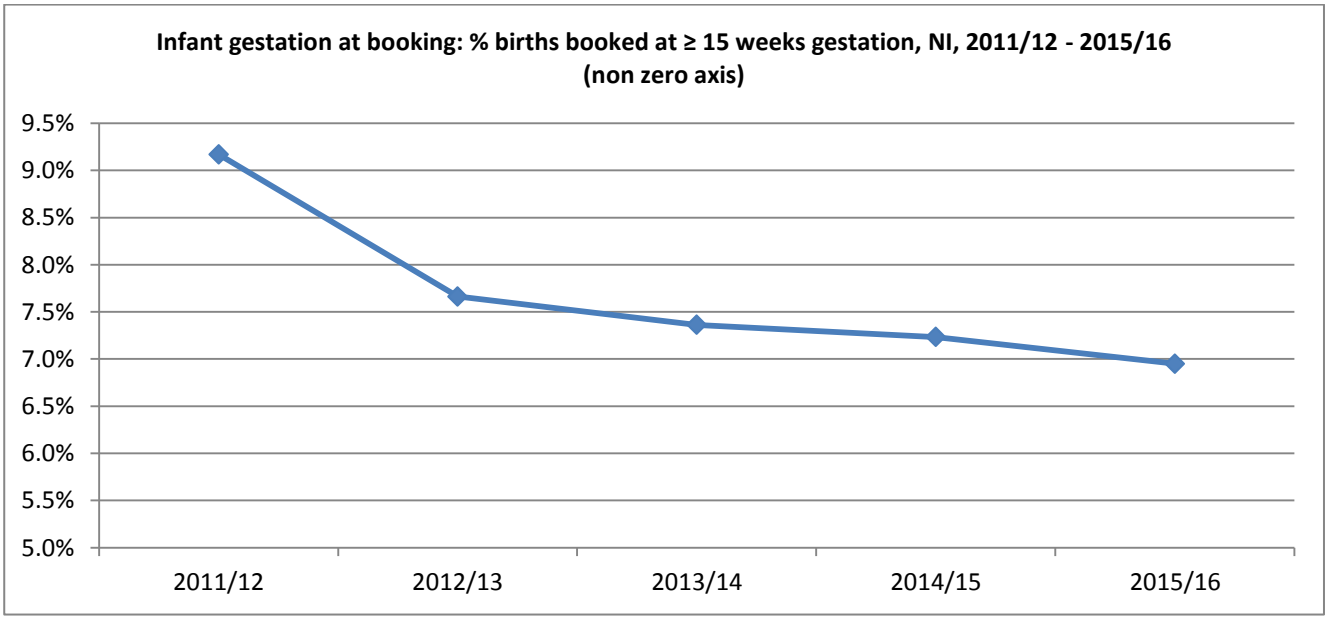
GESTATION AT BOOKING

Table 5.1: Gestation at booking for births in Northern Ireland by completed weeks, 2011/12 - 2015/16

Year of birth		Infants born by gestation at booking								Booking at ≥ 15 weeks
		≤ 14 weeks	15 - 20 weeks	21 - 27 weeks	28 - 32 weeks	33 - 36 weeks	37+ weeks	Not known	**Total**	
2011/12	n	22,504	1,355	374	216	178	149	39	**24,815**	**2,272**
	%	90.8%	5.5%	1.5%	0.9%	0.7%	0.6%	-	**-**	**9.2%**
2012/13	n	23,281	1,087	338	203	161	143	31	**25,244**	**1,932**
	%	92.3%	4.3%	1.3%	0.8%	0.6%	0.6%	-	**-**	**7.7%**
2013/14	n	22,651	1,047	334	176	150	93	13	**24,464**	**1,800**
	%	92.6%	4.3%	1.4%	0.7%	0.6%	0.4%	-	**-**	**7.4%**
2014/15	n	22,762	1,022	322	202	164	65	6	**24,543**	**1,775**
	%	92.8%	4.2%	1.3%	0.8%	0.7%	0.3%	-	**-**	**7.2%**
2015/16	n	22,870	1,018	292	181	138	79	3	**24,581**	**1,708**
	%	93.1%	4.1%	1.2%	0.7%	0.6%	0.3%	-	**-**	**6.9%**

Source: NIMATS

Figure 5.1: % births booked at ≥ 15 weeks gestation, Northern Ireland, 2011/12 – 2015/16



Source: NIMATS

Table 5.2: Gestation at booking for births in Northern Ireland by completed weeks, 2015/16

		Infants born by gestation at booking, 2015/16								% booking at ≥ 15 weeks
		≤ 14 weeks	15 - 20 weeks	21 - 27 weeks	28 - 32 weeks	33 - 36 weeks	37+ weeks	Not known	**Total**	
Age Group of mother	Under 20	650	75	39	16	≤10	≤10	0	**797**	18.4%
	20 - 24	3,018	209	70	26	25	15	0	**3,363**	10.3%
	25 - 29	6,345	239	68	57	30	15	1	**6,755**	6.1%
	30 - 34	7,729	244	57	51	46	29	0	**8,156**	5.2%
	35 - 39	4,268	195	41	23	23	10	1	**4,561**	6.4%
	40 +	860	56	17	8	≤10	≤10	1	**949**	9.3%
	All infants	**22,870**	**1,018**	**292**	**181**	**138**	**79**	**3**	**24,581**	**6.9%**
Ethnic group of mother	White	22,324	936	256	149	110	73	3	**23,851**	6.4%
	Non-white	523	80	34	31	24	6	0	**698**	25.1%
	Not stated / Blank	23	2	2	1	4	0	0	**32**	28.1%
	All infants	**22,870**	**1,018**	**292**	**181**	**138**	**79**	**3**	**24,581**	**6.9%**
Place of birth	Altnagelvin	2,626	90	35	13	14	9	0	**2,787**	5.8%
	Antrim	2,746	139	30	19	14	9	1	**2,958**	7.1%
	Causeway	1,035	26	12	5	≤5	≤5	0	**1,081**	4.3%
	Craigavon	3,844	188	47	34	19	9	0	**4,141**	7.2%
	Daisy Hill	1,707	73	22	13	6	8	0	**1,829**	6.7%
	Downe	62	≤5	0	0	0	≤5	0	**66**	6.1%
	Lagan Valley	172	8	≤10	≤5	≤5	≤5	0	**191**	9.9%
	Mater	180	17	≤5	0	≤5	≤5	0	**202**	10.9%
	Royal	5,259	306	73	55	39	21	1	**5,754**	8.6%
	SWAH	1,223	44	20	12	8	≤5	0	**1,311**	6.7%
	Ulster	3,989	122	44	27	34	13	1	**4,230**	5.7%
	Home/Other	27	≤5	0	≤5	0	≤5	0	**31**	12.9%
	All infants	**22,870**	**1,018**	**292**	**181**	**138**	**79**	**3**	**24,581**	**6.9%**
Trust of residence of mother	Belfast	4,227	264	62	39	42	14	0	**4,648**	9.1%
	Northern	5,397	237	58	35	23	11	1	**5,762**	6.3%
	South Eastern	4,080	133	45	30	28	23	2	**4,341**	6.0%
	Southern	5,188	238	69	46	21	14	0	**5,576**	7.0%
	Western	3,834	126	53	30	22	10	0	**4,075**	5.9%
	Not known	144	20	5	1	2	7	0	**179**	19.6%
	All infants	**22,870**	**1,018**	**292**	**181**	**138**	**79**	**3**	**24,581**	**6.9%**

Table 5.2 continued: Gestation at booking for births in Northern Ireland by completed weeks, 2015/16

		Infants born by gestation at booking, 2015/16								% booking at ≥ 15 weeks
		≤ 14 weeks	15 - 20 weeks	21 - 27 weeks	28 - 32 weeks	33 - 36 weeks	37+ weeks	Not known	**Total**	
Council area (2014)	Antrim and Newtownabbey	1,666	84	19	14	7	5	0	**1,795**	7.2%
	Ards and North Down	1,668	46	15	≤10	12	≤5	1	**1,754**	4.8%
	Armagh City, Banbridge and Craigavon	2,815	112	29	19	15	8	0	**2,998**	6.1%
	Belfast	4,152	270	60	40	41	15	0	**4,578**	9.3%
	Causeway Coast and Glens	1,594	38	25	10	≤10	≤5	1	**1,677**	4.9%
	Derry City and Strabane	2,010	62	27	11	9	5	0	**2,124**	5.4%
	Fermanagh and Omagh	1,389	55	18	16	10	5	0	**1,493**	7.0%
	Lisburn and Castlereagh	1,620	56	21	12	11	13	0	**1,733**	6.5%
	Mid and East Antrim	1,434	81	12	≤10	≤10	≤5	0	**1,547**	7.3%
	Mid Ulster	2,010	104	28	19	≤10	≤5	0	**2,168**	7.3%
	Newry, Mourne and Down	2,367	90	33	21	10	12	1	**2,534**	6.6%
	Not known	145	20	5	1	2	7	0	**180**	19.4%
	All infants	**22,870**	**1,018**	**292**	**181**	**138**	**79**	**3**	**24,581**	**6.9%**
Deprivation quintile (SOA) based on residence of mother	Most deprived	5,112	327	71	44	40	18	1	**5,613**	8.9%
	2	4,841	210	75	38	23	19	0	**5,206**	7.0%
	3	4,894	149	63	39	23	11	0	**5,179**	5.5%
	4	4,417	189	51	30	28	14	1	**4,730**	6.6%
	Least deprived	3,462	123	27	29	22	10	1	**3,674**	5.7%
	Not known	144	20	5	1	2	7	0	**179**	19.6%
	All infants	**22,870**	**1,018**	**292**	**181**	**138**	**79**	**3**	**24,581**	**6.9%**

Source: NIMATS
Due to small numbers, it is not possible to show data by individual ethnic group
Disclosure controls have been applied to the data

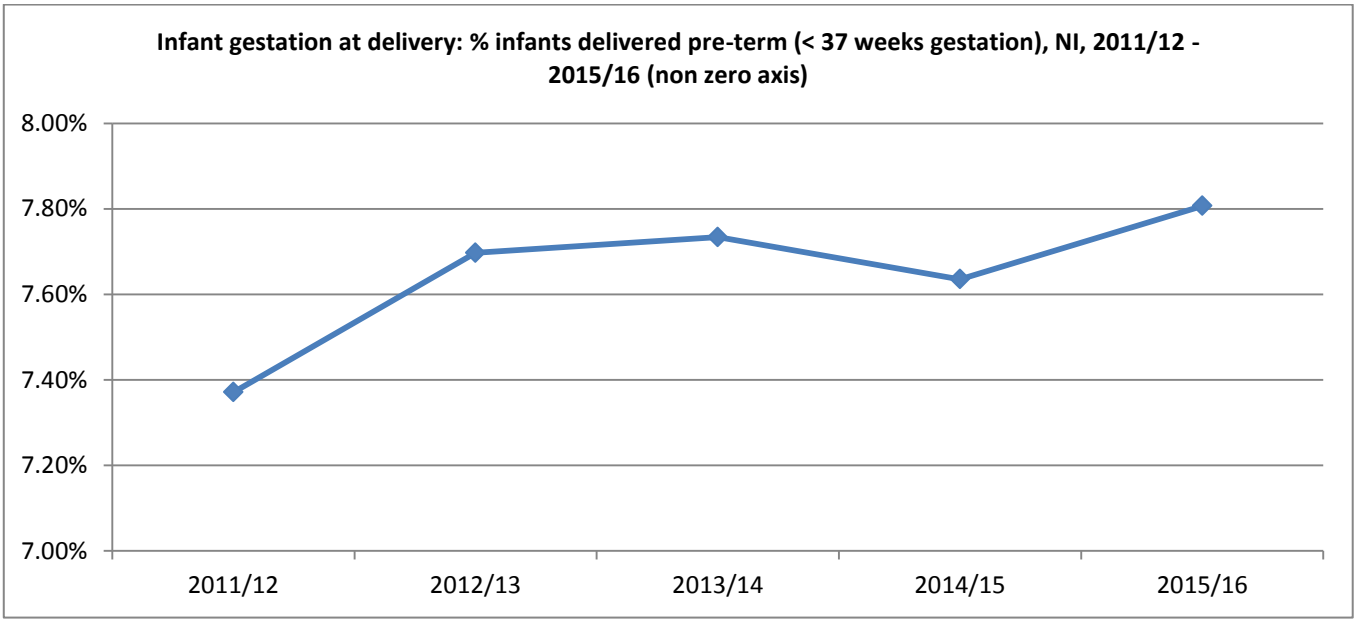
GESTATION AT DELIVERY

Table 5.3: Gestation at delivery for births in Northern Ireland by completed weeks, 2011/12 - 2015/16

Year of birth		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	
2011/12	n	124	201	1,504	4,581	18,403	2	**24,815**	**1,829**
	%	0.50%	0.81%	6.06%	18.46%	74.17%	-	-	**7.37%**
2012/13	n	120	206	1,617	4,655	18,645	1	**25,244**	**1,943**
	%	0.48%	0.82%	6.41%	18.44%	73.86%	-	-	**7.70%**
2013/14	n	110	217	1,565	4,535	18,037	0	**24,464**	**1,892**
	%	0.45%	0.89%	6.40%	18.54%	73.73%	-	-	**7.73%**
2014/15	n	107	230	1,537	4,695	17,974	0	**24,543**	**1,874**
	%	0.44%	0.94%	6.26%	19.13%	73.23%	-	-	**7.64%**
2015/16	n	108	188	1,623	5,034	17,628	0	**24,581**	**1,919**
	%	0.44%	0.76%	6.60%	20.48%	71.71%	-	-	**7.81%**

Source: NIMATS

Figure 5.2: % infants delivered pre-term (<37 weeks gestation), Northern Ireland, 2011/12 – 2015/16



Source: NIMATS

Table 5.4: Gestation at delivery for births in Northern Ireland by completed weeks, 2015/16

		Infants born by gestation at delivery, 2015/16							% 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	48	155	583	0	**797**	7.40%
	20 - 24	14	24	209	626	2,490	0	**3,363**	7.34%
	25 - 29	22	43	397	1,309	4,984	0	**6,755**	6.84%
	30 - 34	46	46	511	1,644	5,909	0	**8,156**	7.39%
	35 - 39	18	51	364	1,017	3,111	0	**4,561**	9.49%
	40 +	≤5	≤20	94	283	551	0	**949**	12.12%
	All infants	**108**	**188**	**1,623**	**5,034**	**17,628**	**0**	**24,581**	**7.81%**
Birth status	Live	82	175	1,603	5,022	17,613	0	**24,495**	7.59%
	Still	26	13	20	12	15	0	**86**	68.60%
	All infants	**108**	**188**	**1,623**	**5,034**	**17,628**	**0**	**24,581**	**7.81%**
Ethnic group of mother	White	106	187	1,571	4,823	17,163	0	**23,850**	7.82%
	Non-white	2	1	50	202	444	0	**699**	7.58%
	Not stated / Blank	0	0	2	9	21	0	**32**	6.25%
	All infants	**108**	**188**	**1,623**	**5,034**	**17,628**	**0**	**24,581**	**7.81%**
Place of birth	Altnagelvin	10	27	193	517	2,040	0	**2,787**	8.25%
	Antrim	10	23	238	659	2,028	0	**2,958**	9.16%
	Causeway	≤5	≤10	29	173	866	0	**1,081**	3.89%
	Craigavon	12	40	358	909	2,822	0	**4,141**	9.90%
	Daisy Hill	≤5	≤10	96	305	1,420	0	**1,829**	5.69%
	Downe	0	0	0	9	57	0	**66**	0.00%
	Lagan Valley	0	0	0	19	172	0	**191**	0.00%
	Mater	0	0	0	14	188	0	**202**	0.00%
	Royal	59	63	387	1,328	3,917	0	**5,754**	8.85%
	SWAH	≤5	≤5	67	205	1,038	0	**1,311**	5.19%
	Ulster	10	20	255	890	3,055	0	**4,230**	6.74%
	Home/Other	0	0	0	6	25	0	**31**	0.00%
	All infants	**108**	**188**	**1,623**	**5,034**	**17,628**	**0**	**24,581**	**7.81%**
Trust of residence of mother	Belfast	21	41	294	1,012	3,280	0	**4,648**	7.66%
	Northern	35	45	378	1,195	4,109	0	**5,762**	7.95%
	South Eastern	12	20	272	915	3,122	0	**4,341**	7.00%
	Southern	22	50	407	1,140	3,957	0	**5,576**	8.59%
	Western	16	30	261	723	3,045	0	**4,075**	7.53%
	Not known	2	2	11	49	115	0	**179**	8.38%
	All infants	**108**	**188**	**1,623**	**5,034**	**17,628**	**0**	**24,581**	**7.81%**
Council area (2014)	Antrim and Newtownabbey	11	11	116	390	1,267	0	**1,795**	7.69%
	Ards and North Down	≤5	≤15	128	404	1,208	0	**1,754**	8.10%
	Armagh City, Banbridge and Craigavon	13	33	227	661	2,064	0	**2,998**	9.11%
	Belfast	24	38	274	996	3,246	0	**4,578**	7.34%
	Causeway Coast and Glens	9	21	104	329	1,214	0	**1,677**	7.99%
	Derry City and Strabane	10	22	138	392	1,562	0	**2,124**	8.00%
	Fermanagh and Omagh	≤5	≤5	97	245	1,142	0	**1,493**	7.10%
	Lisburn and Castlereagh	≤5	≤10	107	367	1,248	0	**1,733**	6.81%
	Mid and East Antrim	7	7	105	336	1,092	0	**1,547**	7.69%
	Mid Ulster	13	15	158	419	1,563	0	**2,168**	8.58%
	Newry, Mourne and Down	8	16	158	445	1,907	0	**2,534**	7.18%
	Not known	2	2	11	50	115	0	**180**	8.33%
	All infants	**108**	**188**	**1,623**	**5,034**	**17,628**	**0**	**24,581**	**7.81%**
Deprivation quintile (SOA) based on residence of mother	Most deprived	29	55	379	1,145	4,005	0	**5,613**	8.25%
	2	22	42	327	1,085	3,730	0	**5,206**	7.51%
	3	21	36	348	1,026	3,748	0	**5,179**	7.82%
	4	15	29	318	973	3,395	0	**4,730**	7.65%
	Least deprived	19	24	240	756	2,635	0	**3,674**	7.70%
	Not known	2	2	11	49	115	0	**179**	8.38%
	All infants	**108**	**188**	**1,623**	**5,034**	**17,628**	**0**	**24,581**	**7.81%**

Source: NIMATS
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. The Public Health Agency[21] [22]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 (40% more likely to be still born), miscarriage (25% more likely to have a miscarriage)
- Low birth weight/small for gestational age – increased risk of infection, other health problems and neonatal death
- Higher carbon monoxide levels as a result of smoking 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 of[23]:

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

What can be done?

Further information on interventions during pregnancy is available in guidance from NICE "Smoking: stopping in pregnancy and after childbirth" [24].

DIABETES

Why should we be concerned?

NICE guidelines describe the additional risk to mother and baby associated with Type 1 and Type 2 diabetes. Women with diabetes are more likely to give birth by Caesarean Section or deliver an infant that was large for gestational age. Women may also have an increased risk of pre-eclampsia or miscarriage[25]. Infants born to mothers with diabetes are at greater risk of[26]:

- Stillbirth / born pre-term (<37 weeks gestation)
- Neonatal death
- Congenital abnormality.

Gestational diabetes 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 life.

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 include:

- Being overweight, having a high BMI or a large waist measurement (more than 80cm/31.5 inches in women)
- Coming from an African-Caribbean, Black African, Chinese or South Asian background and aged over 25 or from another ethnic background and aged over 40 years
- Having a close relative e.g. parent, brother or sister with diabetes.

In November 2016, the Department of Health published "A Diabetes Strategic Framework[27]" which sets out a plan to achieve improvement in outcomes for people living with diabetes. The Framework refers to pre-pregnancy and pregnant women: "*Unlike Type 1 diabetes, whose management largely resides within specialist diabetes teams, many women with Type 2 diabetes will be managed exclusively in the community prior to pregnancy. Ensuring those women who might become pregnant have the right education and support requires staff in primary and community settings to be well-trained and alert to the possibility of pregnancy occurring. Pre pregnancy counselling which can improve pregnancy outcomes and reduce the risk of congenital malformations is now available in all 5 HSC Trusts. The need for services for pregnant women living with diabetes to be coordinated is essential to improving outcomes for both mother and baby, including for example the role of the diabetes specialist nurse and dieticians within the context of joint antenatal diabetes clinics within each Health and Social Care Trust*".

The 2015 NICE[28] guidance focuses on the additional/different care that a woman with diabetes should be offered and provides advice on best practice for the care of the mother/baby.

Pre pregnancy clinics are available throughout Northern Ireland for women with a history of Type 1, Type 2 and a past history of Gestational Diabetes, who should attend early if they are planning pregnancy. An online resource "Women with Diabetes" is available at www.womenwithdiabetes.net

[21] Public Health Agency, Want2Stop http://www.want2stop.info/know-about-smoking/smoking-and-pregnancy
[22] 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
[23] 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
[24] 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
[25] "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/
[26] Diabetes UK, "Diabetes: Facts and Stats", May 2015 https://www.diabetes.org.uk/Documents/Position%20statements/Facts%20and%20stats%20June%202015.pdf
[27] Department of Health, November 2016 https://www.health-ni.gov.uk/publications/diabetes-strategic-framework
[28] National Institute for Health and Care Excellence (NICE) "Diabetes in pregnancy: management from preconception to the postnatal period", February 2015 http://www.nice.org.uk/guidance/ng3

Key Points

- In 2015/16 *[Page 40]*:
  - 14.0% of mothers smoked (2010/11 = 15.3%)
  - 6.3% of mothers had diabetes (2010/11 = 1.7%)
  - 4.4% of mothers had pregnancy induced hypertension (2010/11 = 4.5%)

- Smoking: the proportion of mothers who smoked (at booking) decreased with age, from 31.7% of those aged less than 20 years to 7.1% of those aged 40 and over. In the most deprived areas of NI, 25.0% of mothers smoked, compared to 6.1% in the least deprived areas. *[Page 41, 42]*

- Diabetes: the percentage of mothers with diabetes increased with age, 2.8% of those aged less than 20 years, compared to 12.3% of mothers aged 40 and over. A considerably higher proportion of mothers from a non-white ethnic background had diabetes (12.7%), compared to all mothers (6.3%). *[Page 41]*

- Smoking: at District Electoral Area level, the proportion of mothers who smoked ranged from 4.3% (Castlereagh South DEA, Lisburn and Castlereagh LGD) to 34.5% (Oldpark DEA, Belfast LGD). *[Page 43]*

Table 6.1: Mothers by maternal risk factor, 2010/11 - 2015/16

Year of birth		Maternal risk factor						
		Mothers giving birth	Smoking	Diabetes	Pregnancy induced hypertension	Anaemia	Alcohol use	Antepartum haemorrhage (APH)
2010/11	n	25,682	3,938	444	1,150	955	22	569
	%	-	15.3%	1.7%	4.5%	3.7%	0.09%	2.2%
2011/12	n	25,358	4,114	576	1,214	875	27	753
	%	-	16.2%	2.3%	4.8%	3.5%	0.11%	3.0%
2012/13	n	24,857	3,965	894	1,149	1,107	26	723
	%	-	16.0%	3.6%	4.6%	4.5%	0.10%	2.9%
2013/14	n	24,094	3,676	1,239	1,139	1,008	25	667
	%	-	15.3%	5.1%	4.7%	4.2%	0.10%	2.8%
2014/15	n	24,199	3,500	1,365	1,042	789	19	628
	%	-	14.5%	5.6%	4.3%	3.3%	0.08%	2.6%
2015/16	n	24,235	3,393	1,528	1,066	855	20	578
	%	-	14.0%	6.3%	4.4%	3.5%	0.1%	2.4%

Source: Child Health System
There has been a concerted effort to identify diabetes risk factors in women and this may in part be reflected in the increased numbers

Figure 6.1: % mothers by selected risk factor, Northern Ireland, 2010/11 – 2015/16

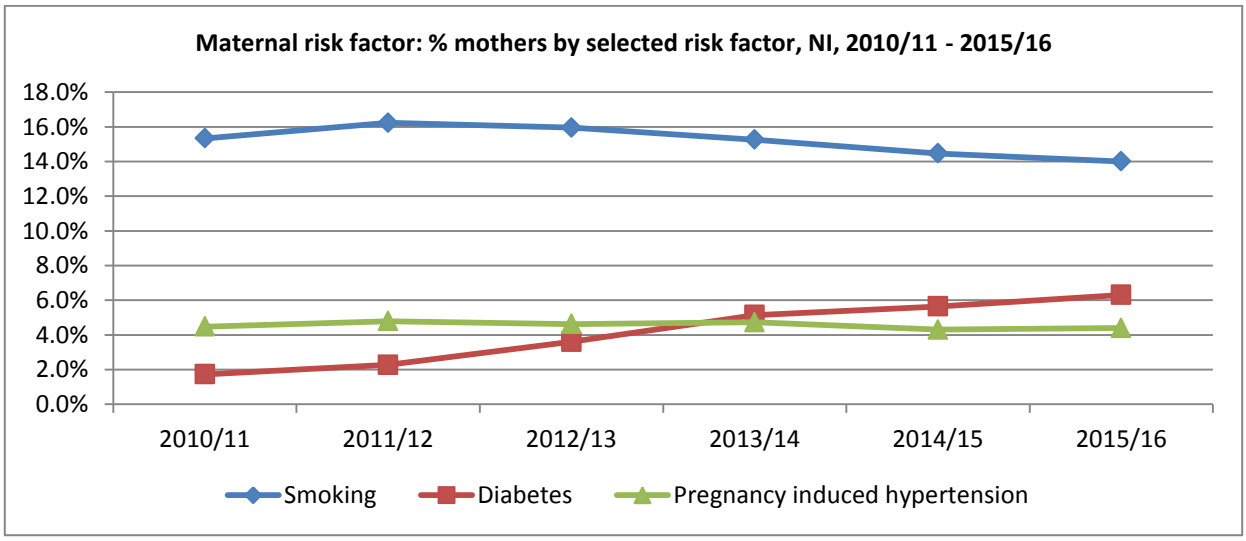


Table 6.2: Mothers by maternal risk factor, 2015/16

			% mothers by risk factor					
		Total mothers	Smoking	Diabetes	Pregnancy induced hypertension	Anaemia	Alcohol use	Antepartum haemorrhage (APH)
Age Group of mother	Under 20	716	31.70%	2.79%	3.63%	6.42%		1.82%
	20 - 24	3,285	28.65%	4.60%	4.51%	5.33%		2.13%
	25 - 29	6,545	15.80%	5.18%	3.88%	3.39%		2.18%
	30 - 34	8,109	9.31%	6.29%	4.55%	3.23%		2.27%
	35 - 39	4,580	7.97%	8.41%	4.67%	2.69%		2.79%
	40 +	998	7.11%	12.32%	5.51%	2.71%		4.01%
	Not known	2	0.00%	0.00%	0.00%	0.00%		0.00%
	All mothers	**24,235**	**14.00%**	**6.30%**	**4.40%**	**3.53%**		**2.38%**
Multiple births	Single	23,879	14.03%	6.32%	4.37%	3.46%		2.37%
	Multiple	356	12.08%	5.06%	6.18%	8.15%		3.65%
	All mothers	**24,235**	**14.00%**	**6.30%**	**4.40%**	**3.53%**		**2.38%**
First time mothers	First time mother	9,134	12.55%	5.94%	6.66%	2.78%		2.45%
	Not a first time mother	14,758	14.87%	6.64%	3.09%	4.06%		2.39%
	Not known	343	15.45%	1.46%	0.58%	0.58%		0.29%
	All mothers	**24,235**	**14.00%**	**6.30%**	**4.40%**	**3.53%**		**2.38%**
Ethnic group of mother (NIMATS)	White	23,492	14.39%	6.13%	4.44%	3.20%		2.46%
	Non-white	693	5.34%	12.70%	4.33%	2.89%		3.03%
	Not stated / Blank	31	6.45%	9.68%	0.00%	0.00%		0.00%
	All mothers	**24,216**	**14.12%**	**6.33%**	**4.43%**	**3.18%**		**2.48%**
Place of birth	Altnagelvin	2,733	13.50%	7.24%	3.70%	3.88%		2.20%
	Antrim	2,911	15.12%	11.92%	3.13%	2.95%		1.75%
	Causeway	1,076	16.17%	0.74%	2.79%	5.39%		1.86%
	Craigavon	4,079	12.09%	6.52%	5.10%	3.46%		1.67%
	Daisy Hill	1,814	10.36%	0.17%	2.70%	4.58%		2.32%
	Downe	65	9.23%	0.00%	0.00%	1.54%		0.00%
	Lagan Valley	195	15.38%	0.00%	0.00%	1.54%		0.00%
	Mater	199	20.60%	0.00%	0.00%	1.51%		0.50%
	Royal	5,641	17.75%	6.47%	4.95%	3.62%		2.77%
	SWAH	1,299	11.24%	5.54%	3.62%	2.93%		1.85%
	Ulster	4,184	12.07%	6.43%	6.24%	3.13%		3.73%
	Home/Other	39	0.00%	0.00%	0.00%	2.56%		0.00%
	All mothers	**24,235**	**14.00%**	**6.30%**	**4.40%**	**3.53%**		**2.38%**
Trust of residence of mother	Belfast	4,560	18.88%	5.77%	4.96%	3.82%		2.76%
	Northern	5,682	14.45%	8.15%	3.61%	3.43%		1.99%
	South Eastern	4,304	12.38%	6.37%	5.72%	2.63%		3.44%
	Southern	5,507	11.84%	4.61%	4.32%	4.10%		1.83%
	Western	4,020	12.99%	6.54%	3.68%	3.53%		2.14%
	Not known	162	2.47%	6.79%	1.85%	3.09%		2.47%
	All mothers	**24,235**	**14.00%**	**6.30%**	**4.40%**	**3.53%**		**2.38%**
Council area (2014)	Antrim and Newtownabbey	1,776	14.86%	7.21%	4.00%	3.38%		2.14%
	Ards and North Down	1,729	12.49%	6.59%	6.48%	2.78%		3.93%
	Armagh City, Banbridge and Craigavon	2,953	13.34%	5.05%	4.81%	3.83%		1.69%
	Belfast	4,495	20.44%	5.76%	4.89%	4.05%		2.76%
	Causeway Coast and Glens	1,654	15.30%	8.95%	3.69%	4.41%		1.69%
	Derry City and Strabane	2,086	15.20%	6.90%	3.64%	3.98%		2.21%
	Fermanagh and Omagh	1,482	10.39%	6.28%	3.64%	2.90%		2.23%
	Lisburn and Castlereagh	1,718	8.56%	6.81%	5.36%	1.92%		2.85%
	Mid and East Antrim	1,523	15.04%	7.81%	3.55%	3.22%		1.77%
	Mid Ulster	2,139	10.29%	7.34%	4.25%	2.90%		1.87%
	Newry, Mourne and Down	2,518	10.96%	3.53%	3.57%	4.13%		2.82%
	Not known	162	2.47%	6.79%	1.85%	3.09%		2.47%
	All mothers	**24,235**	**14.00%**	**6.30%**	**4.40%**	**3.53%**		**2.38%**

Table 6.2 continued: Mothers by maternal risk factor, 2015/16

			% mothers by risk factor					
		Total mothers	Smoking	Diabetes	Pregnancy induced hypertension	Anaemia	Alcohol use	Antepartum haemorrhage (APH)
Deprivation quintile (SOA) based on residence of mother	Most deprived	5,525	25.00%	6.66%	4.16%	4.58%		2.26%
	2	5,162	15.38%	6.41%	4.73%	3.56%		2.54%
	3	5,116	10.81%	6.10%	4.10%	3.48%		1.97%
	4	4,638	9.47%	5.97%	4.57%	3.02%		2.48%
	Least deprived	3,632	6.11%	6.31%	4.60%	2.62%		2.81%
	Not known	162	2.47%	6.79%	1.85%	3.09%		2.47%
	All mothers	**24,235**	**14.00%**	**6.30%**	**4.40%**	**3.53%**		**2.38%**

Source: Child Health System
Alcohol use - figures are too small and so have not been provided
One set of twins born in two hospitals - Antrim and RJMS. The mother has been allocated to Antrim in the data above
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 e.g. CHS report 14.0% of mothers who smoked, while NIMATS reports 14.1%. Other risk factors show greater differences.

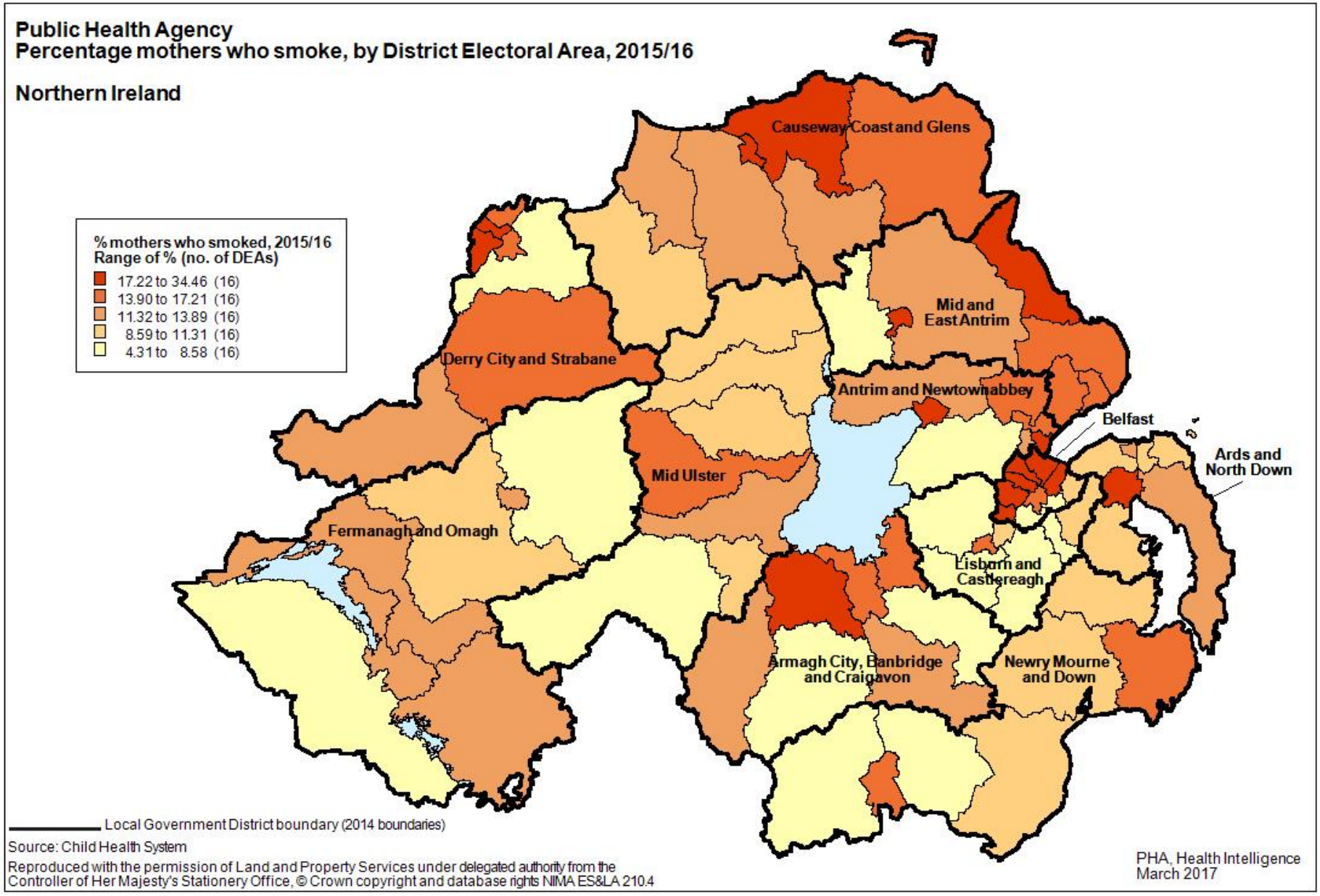
Table 6.3: Mothers by maternal risk factor - smoking and diabetes, by District Electoral Area, 2015/16

			% mothers by risk factor	
Council (2014)	**District Electoral Area**	**Total mothers**	**Smoking**	**Diabetes**
Antrim and Newtownabbey	Airport	313	5.43%	5.75%
	Antrim	307	22.48%	9.12%
	Ballyclare	244	17.21%	7.38%
	Dunsilly	223	12.56%	8.07%
	Glengormley Urban	269	11.90%	4.09%
	Macedon	210	21.43%	9.05%
	Three Mile Water	210	14.76%	7.62%
	Total	**1,776**	**14.86%**	**7.21%**
Ards and North Down	Ards Peninsula	291	12.37%	5.50%
	Bangor Central	322	9.01%	6.21%
	Bangor East and Donaghadee	212	10.85%	7.55%
	Bangor West	201	11.94%	6.97%
	Comber	183	9.84%	9.29%
	Holywood and Clandeboye	188	11.17%	5.85%
	Newtownards	332	19.58%	6.02%
	Total	**1,729**	**12.49%**	**6.59%**
Armagh, Banbridge and Craigavon	Armagh	488	13.52%	3.89%
	Banbridge	434	12.67%	4.84%
	Craigavon	428	15.89%	6.31%
	Cusher	355	7.32%	3.66%
	Lagan River	303	6.93%	2.97%
	Lurgan	486	15.43%	6.17%
	Portadown	459	18.08%	6.54%
	Total	**2,953**	**13.34%**	**5.05%**
Belfast	Balmoral	268	8.58%	3.73%
	Black Mountain	538	22.30%	6.32%
	Botanic	481	14.97%	6.24%
	Castle	414	21.98%	5.31%
	Collin	509	21.41%	5.50%
	Court	499	29.26%	5.61%
	Lisnasharragh	342	8.48%	7.02%
	Oldpark	505	34.46%	4.95%
	Ormiston	400	9.75%	6.50%
	Titanic	539	21.52%	5.94%
	Total	**4,495**	**20.44%**	**5.76%**
Causeway Coast and Glens	Ballymoney	288	13.89%	11.11%
	Bann	194	11.34%	10.82%
	Benbradagh	264	9.47%	3.41%
	Causeway	235	18.30%	11.06%
	Coleraine	308	22.40%	10.06%
	Limavady	188	13.83%	9.04%
	The Glens	177	15.82%	6.78%
	Total	**1,654**	**15.30%**	**8.95%**
Derry City and Strabane	Ballyarnett	379	14.78%	7.92%
	Derg	261	13.03%	7.28%
	Faughan	225	8.44%	7.56%
	Foyleside	254	18.50%	4.33%
	Sperrin	332	15.96%	8.13%
	The Moor	251	17.53%	5.98%
	Waterside	384	16.67%	6.51%
	Total	**2,086**	**15.20%**	**6.90%**

Table 6.3 continued: Mothers by maternal risk factor - smoking and diabetes, by District Electoral Area, 2015/16

			% mothers by risk factor	
Council (2014)	**District Electoral Area**	**Total mothers**	**Smoking**	**Diabetes**
Fermanagh and Omagh	Enniskillen	216	12.50%	6.02%
	Erne East	212	13.21%	6.13%
	Erne North	195	12.31%	6.15%
	Erne West	192	7.81%	3.65%
	Mid Tyrone	205	4.39%	5.37%
	Omagh	233	13.30%	11.16%
	West Tyrone	229	8.73%	4.80%
	Total	**1,482**	**10.39%**	**6.28%**
Lisburn and Castlereagh	Castlereagh East	230	8.70%	6.09%
	Castlereagh South	255	4.31%	4.71%
	Downshire East	165	8.48%	6.06%
	Downshire West	196	6.12%	4.59%
	Killultagh	299	4.35%	7.36%
	Lisburn North	269	9.29%	7.81%
	Lisburn South	304	17.11%	9.54%
	Total	**1,718**	**8.56%**	**6.81%**
Mid and East Antrim	Ballymena	298	20.81%	8.72%
	Bannside	214	7.48%	6.07%
	Braid	285	12.28%	7.02%
	Carrick Castle	184	14.67%	8.70%
	Coast Road	174	18.97%	7.47%
	Knockagh	191	15.18%	9.42%
	Larne Lough	177	15.25%	7.34%
	Total	**1,523**	**15.04%**	**7.81%**
Mid Ulster	Carntogher	230	9.13%	9.57%
	Clogher Valley	316	6.01%	4.11%
	Cookstown	335	14.33%	8.66%
	Dungannon	384	10.68%	9.38%
	Magherafelt	267	9.74%	4.49%
	Moyola	255	9.80%	8.24%
	Torrent	352	11.36%	6.82%
	Total	**2,139**	**10.29%**	**7.34%**
Newry, Mourne and Down	Crotlieve	370	7.84%	3.24%
	Downpatrick	284	15.85%	7.39%
	Newry	427	15.93%	2.58%
	Rowallane	247	10.12%	5.67%
	Slieve Croob	281	8.90%	2.85%
	Slieve Gullion	520	7.69%	2.88%
	The Mournes	389	11.31%	2.06%
	Total	**2,518**	**10.96%**	**3.53%**
DEA not known		162	2.47%	6.79%
Northern Ireland	**All mothers**	**24,235**	**14.00%**	**6.30%**

Figure 6.2: Percentage mothers who smoke, by District Electoral Area, 2015/16



Section 7: Maternal BMI

Why should we be concerned?

This report highlights that over one fifth of mothers giving birth in Northern Ireland in 2015/16 were obese (BMI ≥ 30) (Table 7.1, page 47). A recent annual report by the Chief Medical Officer (England)[29], stated that obesity in pregnancy is linked to the following:

- Greater risk of miscarriage
- Greater risk of developing gestational diabetes
- Perinatal complications e.g. shoulder dystocia
- Greater risk of conditions such as diabetes and hypertension to both mother and child.

The Royal College of Obstetricians and Gynaecologists[30] 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 born to a mother who is obese include[31]:

- Greater risk of neural tube defects (problems with development of brain and spine)
- Having a larger baby
- Being born preterm
- The increased risk of obesity and diabetes in later life.

Maternal obesity has been linked also to low breastfeeding rates and adverse cardiovascular and respiratory outcomes in children[32].

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"[33] and the Department of Health framework "A Fitter Future for All"[34] encourage people to make healthy choices, to improve their health and wellbeing and to reduce the risk of diseases relating to obesity.

For women who are already pregnant or are planning conception, healthy eating, appropriate physical activity, increased dose of folic acid and vitamin D supplements are encouraged, particularly in obese women. Due to the risks highlighted above, women who are obese are more likely to need specialist health care during their pregnancy, at birth and postnatally. Various guidelines, recommendations and resources are available to health care professionals to encourage better weight management in pregnancy[35].

[29] "Annual Report of the Chief Medical Officer, 2014, The Health of the 51%: Women" https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/484383/cmo-report-2014.pdf

[30] 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=1B2M2Y8AsgTpgAmY7PhCfg%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-727dcfe8de07_en&_t_hit.pos=9

[31] As [30]

[32] National Obesity Observatory (part of Public Health England) http://www.noo.org.uk/NOO_about_obesity/maternal_obesity_2015

[33] Choose to Live Better, Public Health Agency http://www.choosetolivebetter.com/

[34] "A Fitter Future for All", Department of Health https://www.dhsspsni.gov.uk/publications/obesity-prevention-framework-and-reports

[35] Centre for Maternal and Child Enquiries/Royal College of Obstetricians and Gynaecologists, Joint guideline "Management of Women with Obesity in Pregnancy", 2010 https://www.rcog.org.uk/globalassets/documents/guidelines/cmacercogjointguidelinemanagementwomenobesitypregnancya.pdf and National Institute for Health and Care Excellence (NICE), "Weight management before, during and after pregnancy", 2010 http://www.nice.org.uk/guidance/ph27/resources/weight-management-before-during-and-after-pregnancy-1996242046405

Key Points

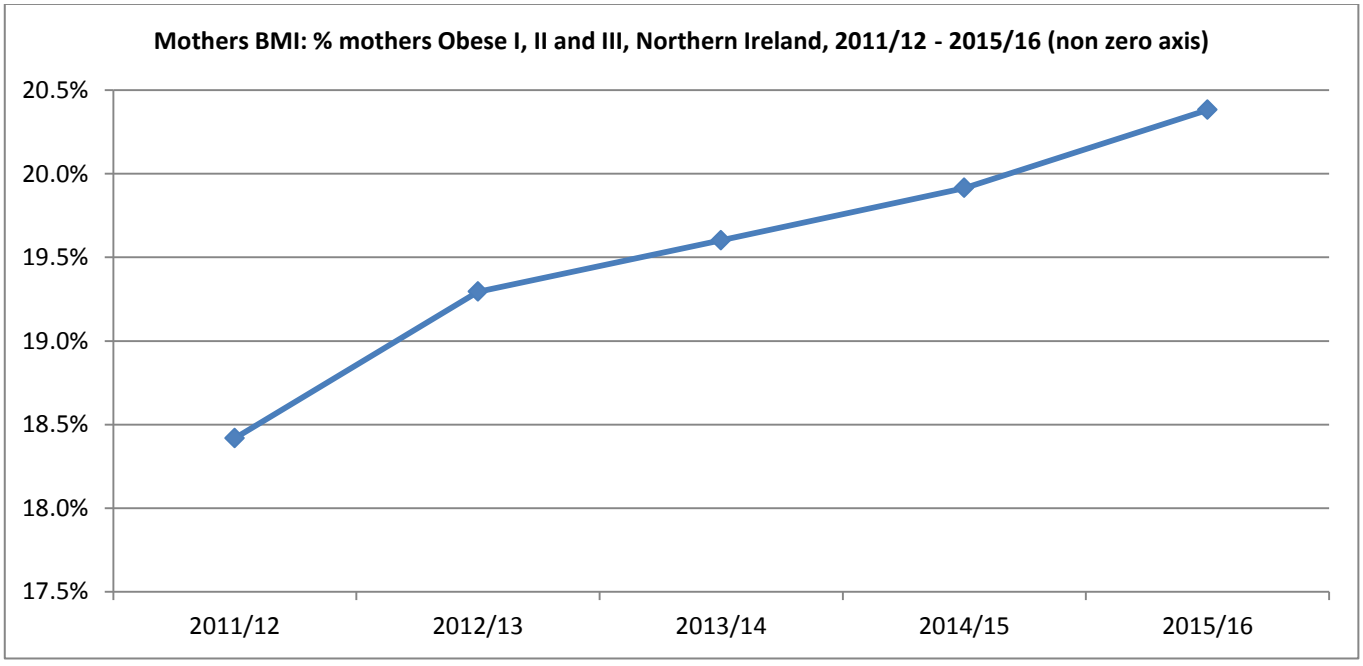
- Over 20% of mothers giving birth during 2015/16 were measured as obese at time of booking appointment. This proportion has increased year on year since 2010/11. *[Page 47]*
- In 2015/16, over half (50.6%) of all mothers at the time of booking, are considered pre-obese or obese. *[Page 47]*
- Levels of obesity in mothers, in general, increased with age e.g. in 2015/16, 35.2% of mothers aged less than twenty years were considered pre-obese/obese compared to 58.9% of mothers aged 40 and over. *[Page 48]*
- Levels of obesity decreased as level of deprivation decreased. In 2015/16, 54.1% of mothers from most deprived areas were classified as pre-obese/obese compared to 44.7% from the least deprived areas. *[Page 49]*

Table 7.1: Body Mass Index, at time of booking, of mothers who gave birth in Northern Ireland, 2011/12 - 2015/16

Year of birth		Mothers by BMI at booking								Total: Obese I, II and III
		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	**Total**	
2011/12	n	492	11,758	6,880	2,774	1,048	497	987	**24,436**	**4,319**
	%	2.1%	50.1%	29.3%	11.8%	4.5%	2.1%	-	**-**	**18.4%**
2012/13	n	513	11,951	7,120	3,003	1,126	553	565	**24,831**	**4,682**
	%	2.1%	49.2%	29.3%	12.4%	4.6%	2.3%	-	**-**	**19.3%**
2013/14	n	472	11,569	7,015	2,945	1,182	519	377	**24,079**	**4,646**
	%	2.0%	48.8%	29.6%	12.4%	5.0%	2.2%	-	**-**	**19.6%**
2014/15	n	479	11,613	7,026	2,954	1,221	579	313	**24,185**	**4,754**
	%	2.0%	48.6%	29.4%	12.4%	5.1%	2.4%	-	**-**	**19.9%**
2015/16	n	477	11,314	7,225	2,987	1,274	607	332	**24,216**	**4,868**
	%	2.0%	47.4%	30.3%	12.5%	5.3%	2.5%	-	**-**	**20.4%**

Source: NIMATS

Figure 7.1: % mothers Obese I, II and III, Northern Ireland, 2011/12 – 2015/16



Source: NIMATS

Table 7.2: Body Mass Index, at time of booking, of mothers who gave birth in Northern Ireland, 2015/16

		Mothers by BMI at booking, 2015/16								% obese I, II and III
		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	**Total**	
Age Group of mother	Under 20	69	438	197	63	14	≤10	≤10	**791**	<20.4%
	20 - 24	138	1,535	888	437	196	96	49	**3,339**	22.2%
	25 - 29	129	3,110	1,948	847	383	169	92	**6,678**	21.2%
	30 - 34	98	3,809	2,476	959	391	189	109	**8,031**	19.4%
	35 - 39	43	2,050	1,413	553	222	118	61	**4,460**	20.3%
	40 +	0	372	303	128	68	≤50	≤20	**917**	25.3%
	All mothers	**477**	**11,314**	**7,225**	**2,987**	**1,274**	**607**	**332**	**24,216**	**20.4%**
Multiple births	Single	471	11,146	7,110	2,947	1,258	602	327	**23,861**	20.4%
	Multiple	6	168	115	40	16	5	5	**355**	17.4%
	All mothers	**477**	**11,314**	**7,225**	**2,987**	**1,274**	**607**	**332**	**24,216**	**20.4%**
Ethnic group of mother	White	454	10,961	6,986	2,912	1,258	599	322	**23,492**	20.6%
	Non-white	23	343	229	71	14	8	5	**693**	13.5%
	Not stated / Blank	0	10	10	4	2	0	5	**31**	23.1%
	All mothers	**477**	**11,314**	**7,225**	**2,987**	**1,274**	**607**	**332**	**24,216**	**20.4%**
Place of birth	Altnagelvin	54	1,223	830	375	157	85	8	**2,732**	22.7%
	Antrim	63	1,289	875	384	172	107	21	**2,911**	22.9%
	Causeway	27	564	295	140	46	≤5	≤5	**1,076**	<20.4%
	Craigavon	94	1,974	1,189	519	198	98	7	**4,079**	20.0%
	Daisy Hill	20	866	581	213	92	36	4	**1,812**	18.9%
	Downe	0	39	15	11	0	0	1	**66**	16.9%
	Lagan Valley	≤5	99	69	18	≤5	0	2	**191**	<20.4%
	Mater	0	106	76	18	≤5	0	≤5	**202**	<20.4%
	Royal	121	2,597	1,686	687	335	160	51	**5,637**	21.2%
	SWAH	24	636	409	151	66	9	4	**1,299**	17.5%
	Ulster	70	1,911	1,187	466	206	109	231	**4,180**	19.8%
	Home/Other	≤5	10	13	5	0	≤5	0	**31**	<20.4%
	All mothers	**477**	**11,314**	**7,225**	**2,987**	**1,274**	**607**	**332**	**24,216**	**20.4%**
Trust of residence of mother	Belfast	104	2,182	1,350	541	261	123	13	**4,574**	20.3%
	Northern	118	2,630	1,691	746	309	152	32	**5,678**	21.4%
	South Eastern	71	1,937	1,230	480	202	106	254	**4,280**	19.6%
	Southern	106	2,624	1,677	675	270	128	16	**5,496**	19.6%
	Western	73	1,842	1,230	526	229	96	16	**4,012**	21.3%
	Not known	5	99	47	19	3	2	1	**176**	13.7%
	All mothers	**477**	**11,314**	**7,225**	**2,987**	**1,274**	**607**	**332**	**24,216**	**20.4%**
Council area (2014)	Antrim & Newtownabbey	29	799	546	219	105	61	8	**1,767**	21.9%
	Ards & North Down	27	811	543	213	81	43	4	**1,722**	19.6%
	Armagh City, Banbridge & Craigavon	66	1,380	902	377	141	76	10	**2,952**	20.2%
	Belfast	105	2,126	1,318	567	259	118	18	**4,511**	21.0%
	Causeway Coast & Glens	38	767	447	248	95	47	17	**1,659**	23.8%
	Derry City & Strabane	45	933	640	281	125	54	5	**2,083**	22.1%
	Fermanagh & Omagh	22	720	461	166	72	26	9	**1,476**	18.0%
	Lisburn & Castlereagh	28	810	480	143	68	39	142	**1,710**	15.9%
	Mid & East Antrim	40	691	477	193	81	34	7	**1,523**	20.3%
	Mid Ulster	43	1,068	613	265	104	38	3	**2,134**	19.1%
	Newry, Mourne & Down	29	1,110	751	295	140	69	108	**2,502**	21.1%
	Not known	5	99	47	20	3	2	1	**177**	14.2%
	All infants	**477**	**11,314**	**7,225**	**2,987**	**1,274**	**607**	**332**	**24,216**	**20.4%**

Table 7.2 continued: Body Mass Index, at time of booking, of mothers who gave birth in Northern Ireland, 2015/16

		Mothers by BMI at booking, 2015/16								% obese I, II and III
		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	**Total**	
Deprivation quintile (SOA) based on residence of mother	Most deprived	139	2,383	1,663	785	348	170	50	**5,538**	23.7%
	2	104	2,309	1,484	690	313	158	70	**5,128**	23.0%
	3	98	2,403	1,556	622	256	116	58	**5,109**	19.7%
	4	77	2,217	1,403	549	224	105	79	**4,654**	19.2%
	Least deprived	54	1,903	1,072	322	130	56	74	**3,611**	14.4%
	Not known	5	99	47	19	3	2	1	**176**	13.7%
	All mothers	**477**	**11,314**	**7,225**	**2,987**	**1,274**	**607**	**332**	**24,216**	**20.4%**

Source: NIMATS
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

Section 8: Method of Delivery

Why should we be concerned?

This report highlights the high level of Caesarean section births in Northern Ireland (almost 30% of births in 2015/16). This level increases as age of mother increases and if the birth was a multiple birth. In some pregnancies where there are complications present, a Caesarean section may be necessary e.g. breech presentation, multiple birth, inadequate progress during labour, pre-eclampsia, placenta praevia (low lying placenta). The main risks associated with a Caesarean section include[36]:

- Wound infection
- Blood clots
- Excess bleeding
- Needing to stay in hospital for longer
- Maternal death

What can be done?

A joint statement by the Royal College of Obstetricians and Gynaecologists, Royal College of Midwives and National Childbirth Trust (based on findings by the NHS Institute) suggested a Caesarean section rate of 20%, which is much lower than the current rate in Northern Ireland (30%). WHO also states that "*Caesarean sections should ideally only be undertaken when medically necessary*".[37]

For some women, there will not be a choice i.e. a Caesarean section must be carried out (as above). However all women should be provided with information on the potential risks and benefits associated with Caesarean delivery. One particular area of concern is the number of first time mothers delivering by Caesarean unnecessarily. These women are more likely to give birth again by Caesarean, and therefore reducing the number of first time mothers delivering by Caesarean, by encouraging a birth without intervention, may help to decrease the overall number of Caesarean sections carried out.

ROBSON GROUPS

To allow for meaningful comparison of Caesarean section rates, a classification system (Ten Group Classification System)[38] developed by Dr Michael Robson, was recommended for use within all healthcare facilities. WHO believes that this classification will help health care facilities to:

- Optimize the use of caesarean section by identifying, analysing and focusing interventions on specific groups of particular relevance for each health care facility
- Assess the effectiveness of strategies or interventions targeted at optimizing the use of caesarean section
- Assess the quality of care, clinical management practices and outcomes by group
- Assess the quality of the data collected, while raising staff awareness about the importance of the data and its use.

Currently work is being carried out to allow the Robson Groups to be monitored across Northern Ireland.

[36] 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
[37] World Health Organisation, Statement on Caesarean Section Rates, 2015 http://www.who.int/reproductivehealth/publications/maternal_perinatal_health/cs-statement/en/
[38] As [37]

Key Points

- In 2015/16, 29.7% of infants were delivered by Caesarian section. This figure has remained steady over the last six years. *[Page 51]*

- In 2015/16, mothers under 30 years of age had a higher percentage of births by emergency Caesarian section (13.4%) than by elective Caesarian section (9.4%), but the opposite is seen when the mother is over 30 years of age when 20.0% of births are by elective Caesarian section and 15.1% are by emergency Caesarian section. *[Page 52]*

- In 2015/16, 34.2% of infants born in Daisy Hill Hospital were by Caesarian section, compared to 27.5% in Altnagelvin Hospital. (All infants = 29.7%). *[Page 52]*

- In 2015/16, elective Caesarian sections accounted for 12.4% of births in the most deprived areas, compared to 15.3% in least deprived areas. (All births = 15.3%) *[Page 53]*

Table 8.1: Births to Northern Ireland residents, by method of delivery, 2010/11 - 2015/16

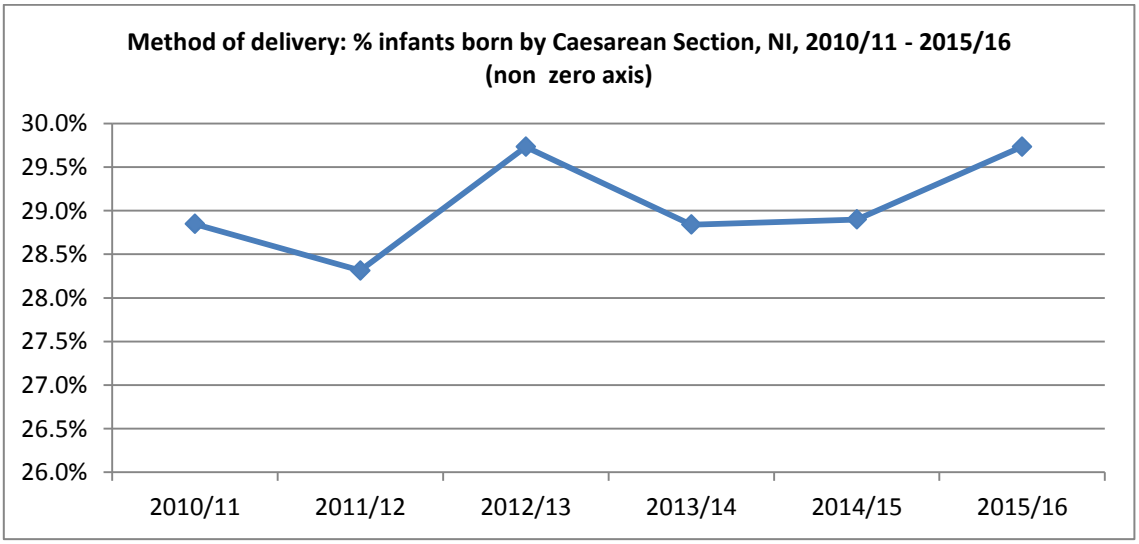
Year of birth		Infants born by method of delivery							Infants born by Caesarean Section
		Elective C/S	Emergency C/S	C/S Other	Normal	Other	Not known	**Total**	
2010/11	n	3,614	3,518	16	14,318	3,313	880	**25,659**	**7,148**
	%	14.6%	14.2%	0.1%	57.8%	13.4%	-	**-**	**28.8%**
2011/12	n	3,614	3,509	0	14,291	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%**

Source: Child Health System

Method of delivery – Categories (Child Health System data)

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

Figure 8.1: % infants born by Caesarean Section, Northern Ireland, 2010/11 – 2015/16



Source: Child Health System

Table 8.2: Births to Northern Ireland residents, by method of delivery, 2015/16

		Infants born by method of delivery, 2015/16						% infants born by Caesarean Section
		Elective C/S	Emergency C/S	Normal	Other	Not known	**Total**	
Age Group of mother	Under 20	21	96	462	138	3	**720**	16.3%
	20 - 24	239	435	2,144	478	9	**3,305**	20.4%
	25 - 29	739	890	3,980	969	27	**6,605**	24.8%
	30 - 34	1,374	1,193	4,492	1,063	38	**8,160**	31.6%
	35 - 39	1,055	715	2,317	513	29	**4,629**	38.5%
	40 +	314	162	437	100	2	**1,015**	47.0%
	Not known	0	1	0	1	0	**2**	50.0%
	All infants	**3,742**	**3,492**	**13,832**	**3,262**	**108**	**24,436**	**29.7%**
Multiple births	Single	3,501	3,236	13,720	3,162	101	**23,720**	28.5%
	Multiple	241	256	112	100	7	**716**	70.1%
	All infants	**3,742**	**3,492**	**13,832**	**3,262**	**108**	**24,436**	**29.7%**
First time mothers	First time mother	696	2,068	4,208	2,242	32	**9,246**	30.0%
	Not a first time mother	3,016	1,397	9,414	972	72	**14,871**	29.8%
	Not known	30	27	210	48	4	**319**	18.1%
	All infants	**3,742**	**3,492**	**13,832**	**3,262**	**108**	**24,436**	**29.7%**
Ethnic group of mother (NIMATS)	White	3,655	3,412	13,683	2,919	6	**23,675**	29.9%
	Asian	38	34	153	31	0	**256**	28.1%
	Black	13	25	79	10	0	**127**	29.9%
	Mixed	13	20	61	15	0	**109**	30.3%
	Other	25	21	135	23	0	**204**	22.5%
	Not stated / Blank	6	4	21	1	0	**32**	31.3%
	All infants	**3,750**	**3,516**	**14,132**	**2,999**	**6**	**24,403**	**29.8%**
Ethnic group of infant (CHS)	White	3,557	3,322	12,980	3,098	88	**23,045**	30.0%
	Asian	37	34	137	31	0	**239**	29.7%
	Black	8	23	84	7	2	**124**	25.4%
	Mixed	63	52	206	48	2	**371**	31.2%
	Other	33	34	142	29	0	**238**	28.2%
	Not stated / Blank	44	27	283	49	16	**419**	17.6%
	All infants	**3,742**	**3,492**	**13,832**	**3,262**	**108**	**24,436**	**29.7%**
Place of birth	Altnagelvin	390	349	1,547	399	2	**2,687**	27.5%
	Antrim	480	468	1,625	382	1	**2,956**	32.1%
	Causeway	158	173	622	127	0	**1,080**	30.6%
	Craigavon	723	568	2,224	571	35	**4,121**	31.6%
	Daisy Hill	329	289	961	229	9	**1,817**	34.2%
	Downe	0	0	64	0	1	**65**	0.0%
	Lagan Valley	≤5	0	187	≤5	≤5	**195**	≤5%
	Mater	0	0	198	≤5	≤5	**199**	0.0%
	Royal	823	820	3,329	767	17	**5,756**	28.6%
	SWAH	205	190	690	202	2	**1,289**	30.7%
	Ulster	632	634	2,376	581	10	**4,233**	30.0%
	Home/Other	≤5	1	9	≤5	26	**38**	<29.7%
	All infants	**3,742**	**3,492**	**13,832**	**3,262**	**108**	**24,436**	**29.7%**
Trust of residence of mother	Belfast	600	647	2,743	625	19	**4,634**	27.0%
	Northern	900	869	3,269	719	9	**5,766**	30.7%
	South Eastern	619	604	2,548	577	17	**4,365**	28.1%
	Southern	998	817	2,987	732	54	**5,588**	32.8%
	Western	625	555	2,285	609	9	**4,083**	29.0%
	All infants	**3,742**	**3,492**	**13,832**	**3,262**	**108**	**24,436**	**29.7%**

Table 8.2 continued: Births to Northern Ireland residents, by method of delivery, 2015/16

		Infants born by method of delivery, 2015/16						% infants born by Caesarean Section
		Elective C/S	Emergency C/S	Normal	Other	Not known	**Total**	
Council area (2014)	Antrim and Newtownabbey	275	254	1,026	244	5	1,804	29.4%
	Ards and North Down	289	263	974	229	6	1,761	31.5%
	Armagh City, Banbridge and Craigavon	531	417	1,623	389	40	3,000	32.0%
	Belfast	569	630	2,727	618	18	4,562	26.4%
	Causeway Coast and Glens	258	277	942	192	2	1,671	32.1%
	Derry City and Strabane	307	285	1,213	321	1	2,127	27.8%
	Fermanagh and Omagh	256	207	796	233	7	1,499	31.0%
	Lisburn and Castlereagh	239	211	1,041	242	8	1,741	26.0%
	Mid and East Antrim	222	236	902	186	2	1,548	29.6%
	Mid Ulster	356	311	1,205	294	7	2,173	30.8%
	Newry, Mourne and Down	440	401	1,383	314	12	2,550	33.1%
	All infants	**3,742**	**3,492**	**13,832**	**3,262**	**108**	**24,436**	**29.7%**
Deprivation quintile (SOA) based on residence of mother	Most deprived	693	774	3,407	707	18	**5,599**	26.3%
	2	791	762	2,971	700	16	**5,240**	29.7%
	3	851	773	2,831	700	32	**5,187**	31.5%
	4	799	664	2,565	661	25	**4,714**	31.2%
	Least deprived	608	519	2,058	494	17	**3,696**	30.6%
	All infants	**3,742**	**3,492**	**13,832**	**3,262**	**108**	**24,436**	**29.7%**

Source: Child Health System

Method of delivery – Categories (Child Health System data)

- **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**

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 relevant percentage / comparison to the NI value has been provided.

As a result of small numbers, the split between live and still births has been removed. The proportion of still births delivered by Caesarean Section in 2015/16 was 19.3%.

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 2015/16, 6.5% of infants were born with a low birth weight (Table 9.1, page 56). 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[39,40,41,42:]

- Younger (<17) / older mothers (>35)
- Low maternal BMI / poor maternal diet
- Maternal smoking (heavy) / drug use
- Maternal alcohol consumption (heavy)
- Multiple pregnancy
- Maternal hypertension and diabetes.

A birthweight below 2,500g contributes to a range of poor health outcomes, including infant mortality[43,44,45,46:,47]

- Respiratory problems
- Infections
- In later life - diabetes, high blood pressure, heart disease, obesity.

Programme for Government

The draft programme for Government sets out the priorities that the Northern Ireland Executive will pursue within the current Assembly and includes actions it will take to address them. Although still in draft, the Programme contains 14 strategic outcomes, supported by 42 indicators. One indicator "Improve health in pregnancy" will measure "the proportion of babies born at a low birth weight".

What can be done?

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

Studies suggest that encouraging women to take folic acid prior to conception and during early stages of pregnancy is associated with a significant reduction in the risk of delivering a small for gestation age infant[48].

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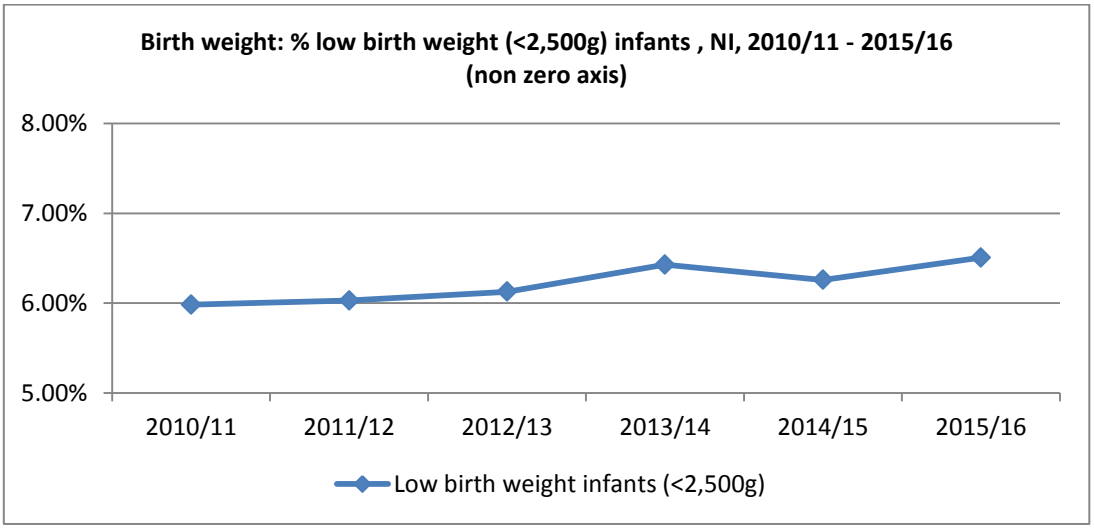
Key Points

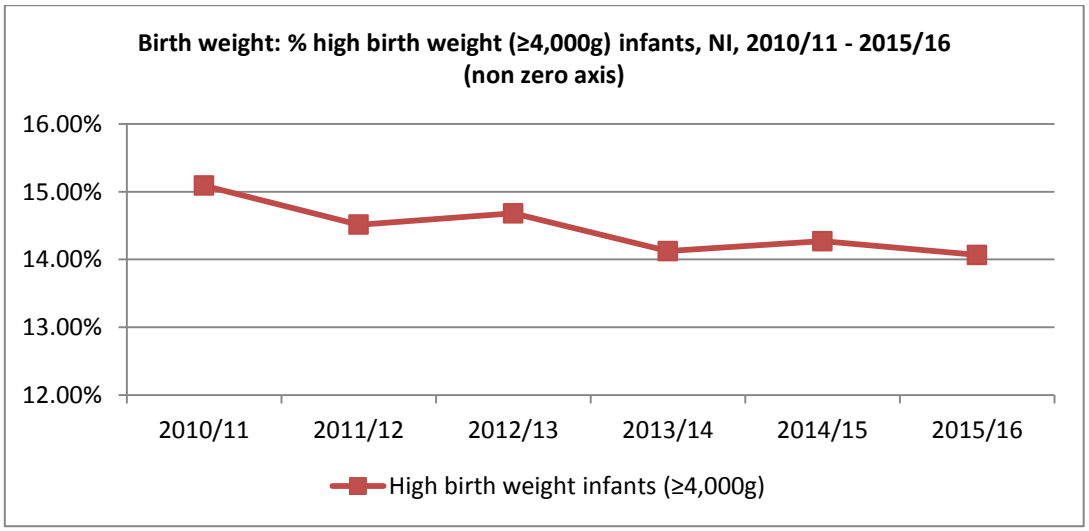
- In 2015/16, 6.5% of all births were measured as low birth weight i.e. less than 2,500g (6.3% of live and 64.6% of still births). *[Page 56]*
- In this year, 14.1% of live infants were born with a higher birth weight of 4,000g+ and 2.1% with a birth weight of 4,500g+. *[Page 56]*
- The proportion of low birth weight infants born to mothers residing in the most deprived areas of Northern Ireland in 2015/16 was higher at 7.6% than to mothers from least deprived areas (6.0%). *[Page 58]*
- In 2015/16, residents in Belfast Trust had a lower proportion of high birth weight infants (12.1%) compared to other areas which were close to the NI figure of 14.1%. *[Page 57]*
- Data at District Electoral Area level for 2015/16 show that 11.5% of infants born to mothers living in Oldpark DEA in Belfast LGD were born with a low birth weight, compared to 3.0% in Downshire East DEA (Lisburn and Castlereagh LGD). *[Page 59]*

Figure 9.1: Percentage low birth weight infants, Northern Ireland, 2010/11 – 2015/16



Source: Child Health System

Figure 9.2: Percentage high birth weight infants, Northern Ireland, 2010/11 – 2015/16



Source: Child Health System

Table 9.1: Births to Northern Ireland residents, by birth weight, 2010/11 - 2015/16

Year of birth		Infants born by birth weight – LIVE BIRTHS							Low birth weight infants (<2,500g)	High birth weight infants (≥4,000g)	High birth weight infants (≥4,500g)
		< 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%**

Year of birth		Infants born by birth weight – STILL BIRTHS					Low birth weight infants (<2,500g)
		< 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%**

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

Year of birth		Infants born by birth weight – ALL BIRTHS							Low birth weight infants (<2,500g)	High birth weight infants (≥4,000g)	High birth weight infants (≥4,500g)
		< 1,500g	1,500 - 2,499g	2,500 - 3,999g	4,000 - 4,499g	4,500+ g	Not known	**Total**			
2010/11	n	289	1,244	20,227	3,246	621	32	**25,659**	**1,533**	**3,867**	**621**
	%	1.1%	4.9%	78.9%	12.7%	2.4%	-	**-**	**5.98%**	**15.09%**	**2.42%**
2011/12	n	281	1,243	20,087	3,077	592	29	**25,309**	**1,524**	**3,669**	**592**
	%	1.1%	4.9%	79.5%	12.2%	2.3%	-	**-**	**6.03%**	**14.51%**	**2.34%**
2012/13	n	282	1,250	19,801	3,123	548	24	**25,028**	**1,532**	**3,671**	**548**
	%	1.1%	5.0%	79.2%	12.5%	2.2%	-	**-**	**6.13%**	**14.68%**	**2.19%**
2013/14	n	293	1,266	19,267	2,944	481	26	**24,277**	**1,559**	**3,425**	**481**
	%	1.2%	5.2%	79.4%	12.1%	2.0%	-	**-**	**6.43%**	**14.12%**	**1.98%**
2014/15	n	281	1,244	19,362	2,999	478	36	**24,400**	**1,525**	**3,477**	**478**
	%	1.2%	5.1%	79.5%	12.3%	2.0%	-	**-**	**6.26%**	**14.27%**	**1.96%**
2015/16	n	239	1,347	19,360	2,925	504	61	**24,436**	**1,586**	**3,429**	**504**
	%	1.0%	5.5%	79.4%	12.0%	2.1%	-	**-**	**6.51%**	**14.07%**	**2.07%**

Source: Child Health System

Table 9.2: Births to Northern Ireland residents, by birth weight, 2015/16

		Infants born by birth weight, 2015/16							% low birth weight infants (<2,500g)	% high birth weight infants (≥4,000g)
		< 1,500g	1,500 - 2,499g	2,500 - 3,999g	4,000 - 4,499g	4,500+ g	Not known	**Total**		
Age Group of mother	Under 20	9	50	600	51	9	1	**720**	8.21%	8.34%
	20 - 24	20	203	2,715	323	39	5	**3,305**	6.76%	10.97%
	25 - 29	53	330	5,351	738	113	20	**6,605**	5.82%	12.92%
	30 - 34	83	395	6,359	1,092	209	22	**8,160**	5.87%	15.99%
	35 - 39	54	282	3,533	631	117	12	**4,629**	7.28%	16.20%
	40 +	20	87	800	90	17	1	**1,015**	10.55%	10.55%
	Not known	0	0	2	0	0	0	**2**	0.00%	0.00%
	All infants	**239**	**1,347**	**19,360**	**2,925**	**504**	**61**	**24,436**	**6.51%**	**14.07%**
Multiple births	Single	163	974	19,095	2,925	504	59	**23,720**	4.81%	14.49%
	Multiple	76	373	265	0	0	2	**716**	62.89%	0.00%
	All infants	**239**	**1,347**	**19,360**	**2,925**	**504**	**61**	**24,436**	**6.51%**	**14.07%**
Ethnic group of mother (NIMATS)	White	235	1,292	18,726	2,876	493	53	**23,675**	6.46%	14.26%
	Non-white	2	49	588	49	7	1	**696**	7.34%	8.06%
	Not stated / Blank	0	3	25	0	4	0	**32**	9.38%	12.50%
	All infants	**237**	**1,344**	**19,339**	**2,925**	**504**	**54**	**24,403**	**6.49%**	**14.08%**
Ethnic group of infant (CHS)	White	227	1,246	18,218	2,816	480	58	**23,045**	6.41%	14.34%
	Non-white	7	85	801	67	10	2	**972**	9.48%	7.94%
	Not stated / Blank	5	16	341	42	14	1	**419**	5.02%	13.40%
	All infants	**239**	**1,347**	**19,360**	**2,925**	**504**	**61**	**24,436**	**6.51%**	**14.07%**
Place of birth	Altnagelvin	31	192	2,048	347	66	3	**2,687**	8.31%	15.39%
	Antrim	28	175	2,350	334	63	6	**2,956**	6.88%	13.46%
	Causeway	11	24	870	152	21	2	**1,080**	3.25%	16.05%
	Craigavon	36	255	3,265	470	77	18	**4,121**	7.09%	13.33%
	Daisy Hill	≤10	66	1,438	257	43	≤5	**1,817**	<6.51%	16.56%
	Downe	0	0	51	14	0	0	**65**	0.00%	21.54%
	Lagan Valley	0	0	167	21	7	0	**195**	0.00%	14.36%
	Mater	0	≤5	163	29	≤10	0	**199**	<6.51%	>14.07%
	Royal	100	374	4,579	579	105	19	**5,756**	8.26%	11.92%
	SWAH	≤5	47	1,045	163	31	≤5	**1,289**	<6.51%	15.07%
	Ulster	23	210	3,355	555	84	6	**4,233**	5.51%	15.12%
	Home/Other	≤5	≤5	29	4	≤5	0	**38**	10.53%	<14.07%
	All infants	**239**	**1,347**	**19,360**	**2,925**	**504**	**61**	**24,436**	**6.51%**	**14.07%**
Trust of residence of mother	Belfast	49	282	3,732	480	78	13	**4,634**	7.16%	12.08%
	Northern	70	283	4,614	674	112	13	**5,766**	6.14%	13.66%
	South Eastern	24	233	3,418	576	105	9	**4,365**	5.90%	15.63%
	Southern	55	309	4,423	674	106	21	**5,588**	6.54%	14.01%
	Western	41	240	3,173	521	103	5	**4,083**	6.89%	15.30%
	All infants	**239**	**1,347**	**19,360**	**2,925**	**504**	**61**	**24,436**	**6.51%**	**14.07%**
Council area (2014)	Antrim and Newtownabbey	16	92	1,486	178	29	3	**1,804**	6.00%	11.49%
	Ards and North Down	10	117	1,367	229	34	4	**1,761**	7.23%	14.97%
	Armagh City, Banbridge and Craigavon	31	186	2,365	343	62	13	**3,000**	7.26%	13.56%
	Belfast	47	275	3,690	466	71	13	**4,562**	7.08%	11.80%
	Causeway Coast and Glens	27	77	1,318	213	35	1	**1,671**	6.23%	14.85%
	Derry City and Strabane	26	137	1,640	264	57	3	**2,127**	7.67%	15.11%
	Fermanagh and Omagh	9	77	1,184	193	34	2	**1,499**	5.74%	15.16%
	Lisburn and Castlereagh	12	79	1,373	219	53	5	**1,741**	5.24%	15.67%
	Mid and East Antrim	18	88	1,224	180	33	5	**1,548**	6.87%	13.80%
	Mid Ulster	25	102	1,722	280	38	6	**2,173**	5.86%	14.67%
	Newry, Mourne and Down	18	117	1,991	360	58	6	**2,550**	5.31%	16.43%
	All infants	**239**	**1,347**	**19,360**	**2,925**	**504**	**61**	**24,436**	**6.51%**	**14.07%**

Table 9.2 continued: Births to Northern Ireland residents, by birth weight, 2015/16

		Infants born by birth weight, 2015/16							% low birth weight infants (<2,500g)	% high birth weight infants (≥4,000g)
		< 1,500g	1,500 - 2,499g	2,500 - 3,999g	4,000 - 4,499g	4,500+ g	Not known	**Total**		
Deprivation quintile (SOA) based on residence of mother	Most deprived	68	358	4,461	598	94	20	**5,599**	7.64%	12.40%
	2	51	286	4,151	647	95	10	**5,240**	6.44%	14.19%
	3	46	277	4,074	657	127	6	**5,187**	6.23%	15.13%
	4	37	243	3,725	590	105	14	**4,714**	5.96%	14.79%
	Least deprived	37	183	2,949	433	83	11	**3,696**	5.97%	14.00%
	All infants	**239**	**1,347**	**19,360**	**2,925**	**504**	**61**	**24,436**	**6.51%**	**14.07%**

Source: Child Health System
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 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, by birth weight, District Electoral Area, 2015/16

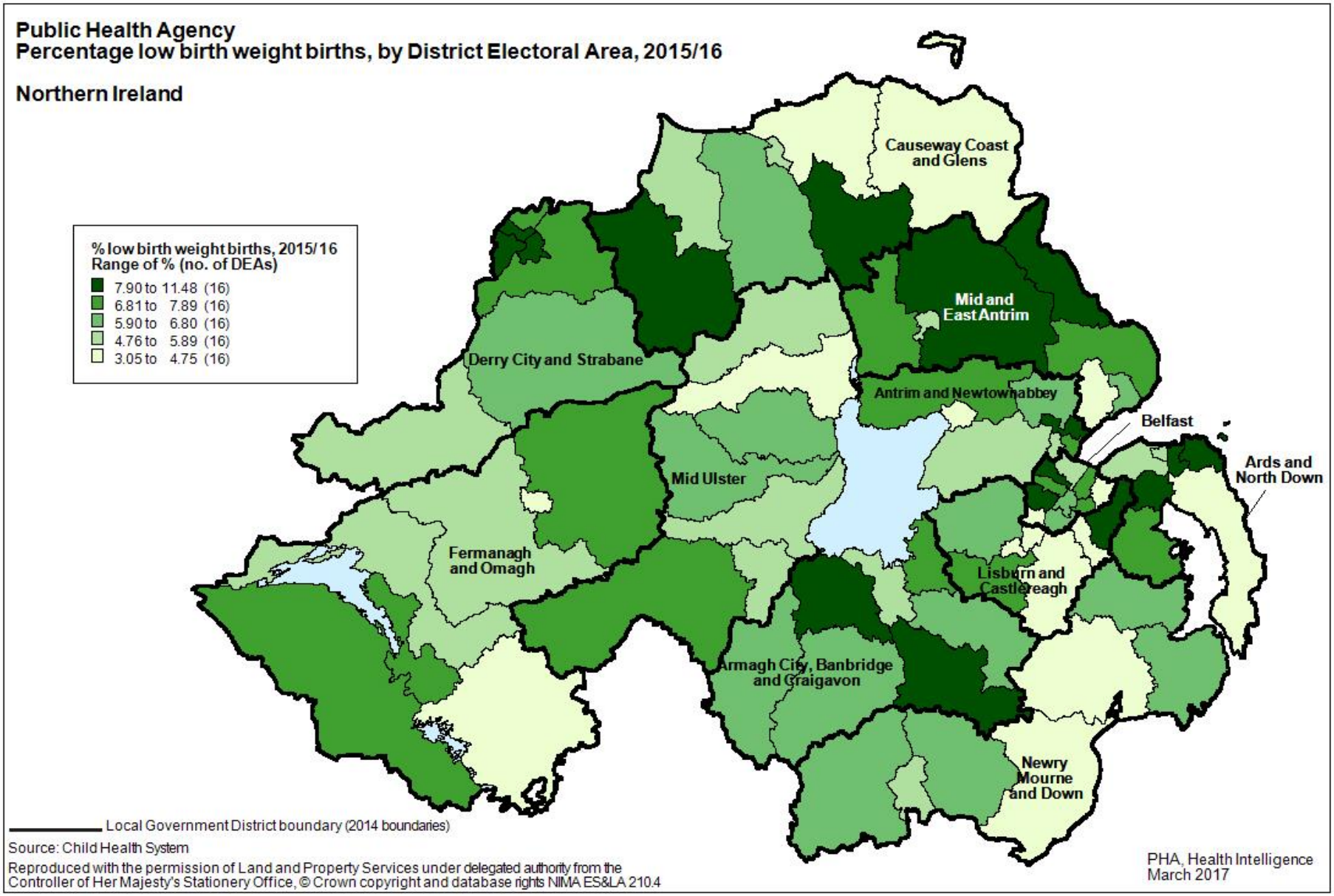
		Infants born by birth weight, 2015/16					% low birth weight infants (<2,500g)	% high birth weight infants (≥4,000g)
Council (2014)	**District Electoral Area**	< 2,500g	2,500 - 3,999g	4,000+g	Not known	**Total**		
Antrim and Newtownabbey	Airport	15	261	39	1	**316**	4.76%	12.38%
	Antrim	11	258	39	1	**309**	3.57%	12.66%
	Ballyclare	15	209	25	0	**249**	6.02%	10.04%
	Dunsilly	16	184	26	1	**227**	7.08%	11.50%
	Glengormley Urban	16	226	33	0	**275**	5.82%	12.00%
	Macedon	16	176	22	0	**214**	7.48%	10.28%
	Three Mile Water	19	172	23	0	**214**	8.88%	10.75%
	Total	**108**	**1,486**	**207**	**3**	**1,804**	**6.00%**	**11.49%**
Ards and North Down	Ards Peninsula	14	232	50	1	**297**	4.73%	16.89%
	Bangor Central	29	246	56	0	**331**	8.76%	16.92%
	Bangor East and Donaghadee	21	162	31	0	**214**	9.81%	14.49%
	Bangor West	11	159	32	0	**202**	5.45%	15.84%
	Comber	13	148	24	1	**186**	7.03%	12.97%
	Holywood and Clandeboye	11	150	28	1	**190**	5.82%	14.81%
	Newtownards	28	270	42	1	**341**	8.24%	12.35%
	Total	**127**	**1,367**	**263**	**4**	**1,761**	**7.23%**	**14.97%**
Armagh, Banbridge and Craigavon	Armagh	32	399	62	0	**493**	6.49%	12.58%
	Banbridge	41	324	78	2	**445**	9.26%	17.61%
	Craigavon	21	354	59	1	**435**	4.84%	13.59%
	Cusher	22	281	55	1	**359**	6.15%	15.36%
	Lagan River	21	249	39	3	**312**	6.80%	12.62%
	Lurgan	34	400	51	3	**488**	7.01%	10.52%
	Portadown	46	358	61	3	**468**	9.89%	13.12%
	Total	**217**	**2,365**	**405**	**13**	**3,000**	**7.26%**	**13.56%**
Belfast	Balmoral	17	219	33	1	**270**	6.32%	12.27%
	Black Mountain	51	443	56	3	**553**	9.27%	10.18%
	Botanic	30	415	41	1	**487**	6.17%	8.44%
	Castle	23	349	48	1	**421**	5.48%	11.43%
	Collin	22	417	72	0	**511**	4.31%	14.09%
	Court	35	409	60	1	**505**	6.94%	11.90%
	Lisnasharragh	25	269	48	2	**344**	7.31%	14.04%
	Oldpark	59	404	51	2	**516**	11.48%	9.92%
	Ormiston	17	342	47	1	**407**	4.19%	11.58%
	Titanic	43	423	81	1	**548**	7.86%	14.81%
	Total	**322**	**3,690**	**537**	**13**	**4,562**	**7.08%**	**11.80%**
Causeway Coast and Glens	Ballymoney	25	229	38	0	**292**	8.56%	13.01%
	Bann	13	143	41	0	**197**	6.60%	20.81%
	Benbradagh	23	204	41	0	**268**	8.58%	15.30%
	Causeway	8	200	28	0	**236**	3.39%	11.86%
	Coleraine	18	254	38	1	**311**	5.81%	12.26%
	Limavady	9	145	35	0	**189**	4.76%	18.52%
	The Glens	8	143	27	0	**178**	4.49%	15.17%
	Total	**104**	**1,318**	**248**	**1**	**1,671**	**6.23%**	**14.85%**
Derry City and Strabane	Ballyarnett	30	304	55	0	**389**	7.71%	14.14%
	Derg	15	207	42	1	**265**	5.68%	15.91%
	Faughan	17	174	40	0	**231**	7.36%	17.32%
	Foyleside	24	197	39	0	**260**	9.23%	15.00%
	Sperrin	23	258	61	0	**342**	6.73%	17.84%
	The Moor	20	197	35	1	**253**	7.94%	13.89%
	Waterside	34	303	49	1	**387**	8.81%	12.69%
	Total	**163**	**1,640**	**321**	**3**	**2,127**	**7.67%**	**15.11%**

Table 9.3 continued: Births to Northern Ireland residents, by birth weight, District Electoral Area, 2015/16

Council (2014)	District Electoral Area	Infants born by birth weight, 2015/16					% low birth weight infants (<2,500g)	% high birth weight infants (≥4,000g)
		< 2,500g	2,500 - 3,999g	4,000+g	Not known	**Total**		
Fermanagh and Omagh	Enniskillen	17	175	28	0	**220**	7.73%	12.73%
	Erne East	9	179	26	0	**214**	4.21%	12.15%
	Erne North	10	153	32	1	**196**	5.13%	16.41%
	Erne West	14	153	30	0	**197**	7.11%	15.23%
	Mid Tyrone	14	153	38	0	**205**	6.83%	18.54%
	Omagh	10	194	31	0	**235**	4.26%	13.19%
	West Tyrone	12	177	42	1	**232**	5.19%	18.18%
	Total	**86**	**1,184**	**227**	**2**	**1,499**	**5.74%**	**15.16%**
Lisburn and Castlereagh	Castlereagh East	20	185	30	0	**235**	8.51%	12.77%
	Castlereagh South	8	199	51	0	**258**	3.10%	19.77%
	Downshire East	5	136	23	1	**165**	3.05%	14.02%
	Downshire West	14	155	27	2	**198**	7.14%	13.78%
	Killultagh	20	236	45	1	**302**	6.64%	14.95%
	Lisburn North	10	213	49	1	**273**	3.68%	18.01%
	Lisburn South	14	249	47	0	**310**	4.52%	15.16%
	Total	**91**	**1,373**	**272**	**5**	**1,741**	**5.24%**	**15.67%**
Mid and East Antrim	Ballymena	17	242	39	2	**300**	5.70%	13.09%
	Bannside	15	168	34	0	**217**	6.91%	15.67%
	Braid	27	226	37	2	**292**	9.31%	12.76%
	Carrick Castle	12	146	27	0	**185**	6.49%	14.59%
	Coast Road	16	141	24	0	**181**	8.84%	13.26%
	Knockagh	6	164	22	0	**192**	3.13%	11.46%
	Larne Lough	13	137	30	1	**181**	7.22%	16.67%
	Total	**106**	**1,224**	**213**	**5**	**1,548**	**6.87%**	**13.80%**
Mid Ulster	Carntogher	13	180	41	0	**234**	5.56%	17.52%
	Clogher Valley	24	253	46	0	**323**	7.43%	14.24%
	Cookstown	22	263	53	2	**340**	6.51%	15.68%
	Dungannon	22	316	48	0	**386**	5.70%	12.44%
	Magherafelt	17	216	40	1	**274**	6.23%	14.65%
	Moyola	9	198	49	1	**257**	3.52%	19.14%
	Torrent	20	296	41	2	**359**	5.60%	11.48%
	Total	**127**	**1,722**	**318**	**6**	**2,173**	**5.86%**	**14.67%**
Newry, Mourne and Down	Crotlieve	22	276	75	2	**375**	5.90%	20.11%
	Downpatrick	18	219	51	0	**288**	6.25%	17.71%
	Newry	22	350	60	0	**432**	5.09%	13.89%
	Rowallane	16	201	34	0	**251**	6.37%	13.55%
	Slieve Croob	9	213	64	0	**286**	3.15%	22.38%
	Slieve Gullion	34	406	83	2	**525**	6.50%	15.87%
	The Mournes	14	326	51	2	**393**	3.58%	13.04%
	Total	**135**	**1,991**	**418**	**6**	**2,550**	**5.31%**	**16.43%**
Northern Ireland	**All infants**	**1,586**	**19,360**	**3,429**	**61**	**24,436**	**6.51%**	**14.07%**

Source: Child Health System

Figure 9.3: Percentage low birth weight births, by District Electoral Area, 2015/16



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*[49]. 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 explains 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*". Infants who are breastfed are at a lower risk of [50,51]:

- Chest and ear infections
- Respiratory illness
- Becoming obese
- Developing allergies and food intolerances
- Bowel complications e.g. diarrhoea, constipation
- Sudden Infant Death Syndrome (cot death)

Benefits to the mother include:

- Improved relationship with the infant (bonding) which can help with emotional/mental health and wellbeing
- A lower risk of osteoporosis
- A lower risk of developing Type 2 diabetes and certain cancers e.g. breast or ovarian
- The ability to lose weight gained during pregnancy more easily.

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

What can be done?

In the Strategy above, the Department of Health recognise that there are many reasons why a mother chooses not to breastfeed. These include lack of knowledge about how to breastfeed, lack of support from health care staff particularly in the early days after giving birth, problems experienced during feeding, embarrassment, lack of suitable facilities to breastfeed (public areas/workplace).

The Strategy has suggested the following to help increase breastfeeding rates in Northern Ireland:

- Protecting breastfeeding by ensuring marketing of milk substitutes does not undermine breastfeeding, and that women have the right to breastfeed in public;
- Promoting breastfeeding by informing and influencing mothers, families, and the public about the benefits of breastfeeding;
- Supporting breastfeeding by having health services and communities which actively support antenatal preparation for breastfeeding, and postnatal breastfeeding initiation and maintenance; and
- Normalising breastfeeding so that it is seen as the normal social and biological way to feed babies.

In January 2017, the Department of Health announced that it would bring forward legislation to protect mothers who breastfeed their children in public spaces. The legislation "*is a pro-active and necessary approach to ensure that the rights of mothers and their children are fully protected. It will ensure that breast and bottle-feeding mothers are given equal access to feed their children with confidence and without interruption in a public place*"[52].

Initiatives such as the WHO/UNICEF Baby Friendly Initiative[53] provides 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. 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".

[49] Department of Health, "Breastfeeding – A Great Start. A Strategy for Northern Ireland 2013 – 2023 https://www.health-ni.gov.uk/publications/breastfeeding-strategy
[50] As [49]
[51] Health Service Executive, Republic of Ireland, 2008 "*The Evidence for Breastfeeding*" https://www.breastfeeding.ie/Uploads/The-evidence-for-breastfeeding.pdf
[52] Department of Health, Statement by Minister, 9 January 2017 https://www.health-ni.gov.uk/news/oneill-law-protect-breastfeeding-mothers-be-introduced-0
[53] WHO/UNICEF, The Baby Friendly Initiative http://www.unicef.org.uk/BabyFriendly/

Key Points

Breastfeeding at discharge

- In 2015/16, almost 46% of live infants were breastfed (total/partial feeding) at discharge. *[Page 64].*

- Only 19.8% of infants born to mothers under 20 were breastfed at discharge, compared to 56.4% of infants to mothers aged 40 and over. *[Page 65].*

- Breastfeeding rates were slightly higher for infants born to first time mothers at 50.0%. Mothers who have previously given birth = 43.6%. *[Page 65].*

- 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 65].*

- The proportion breastfeeding was markedly lower in more deprived areas. In 2015/16, 30.4% of mothers from most deprived areas were breastfeeding at discharge compared to 62.7% 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 66]*

- Breastfeeding rates at District Electoral Area level range from 19.1% in Court DEA (Belfast LGD) to 68.8% in Castlereagh South DEA (Belfast LGD). *[Page 67].*

Breastfeeding at later stages

- Duration of breastfeeding data is not yet available for 2015/16.

- Of mothers who delivered in 2014/15, the proportion breastfeeding gradually decreased with time e.g. less than 7% of mothers were still breastfeeding 12 months after the baby was born. This percentage increased with age of mother – 1.7% of mothers aged less than 20 years up to 9.3% of mothers aged 40+ were still breastfeeding after 12 months in this year. *[Page 69]*

- At all stages where breastfeeding was recorded, the rate was higher in those infants born to mothers who lived in less deprived areas, when compared to those mothers from more deprived areas. In 2014/15, breastfeeding at 12 months old was higher at 12.1% in the least deprived areas than in the most deprived areas of Northern Ireland (3.9%). *[Page 70]*

- Breastfeeding in multiple birth infants falls off quicker when compared to single births. *[Page 69]*

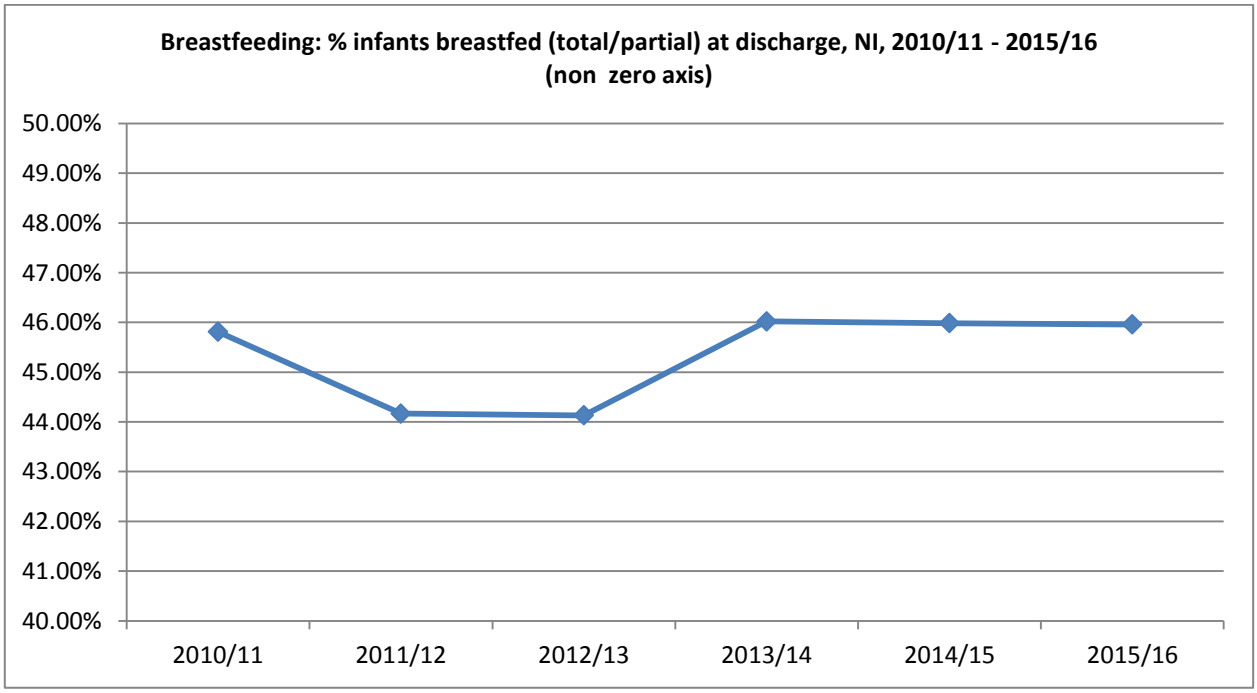
Breastfeeding data on the Child Health System is recorded as either 'Total', 'Partial' or 'Not at all'. Total – where the child is breastfed fully with no other feed given. Partial – where the child is breastfed alongside another feeding method. Not at all - where the child is not breastfed at all, but rather other feeding methods are used.

Table 10.1: Breastfeeding status (at discharge) of live infants born to Northern Ireland residents, 2010/11 - 2015/16

Year of birth		Infant breastfeeding status at discharge					Infants breastfed (partial/total)
		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	9,158	1,889	12,990	311	**24,348**	**11,047**
	%	38.1%	7.9%	54.0%	-	**-**	**45.96%**

Source: Child Health System

Figure 10.1: % infants breastfed (total/partial) at discharge, Northern Ireland, 2010/11 – 2015/16



Source: Child Health System

Table 10.2: Breastfeeding status (at discharge) of live infants born to Northern Ireland residents, 2015/16

		Infant breastfeeding status at discharge					% infants breastfed (partial/total)
		Total	Partial	Not at all	Not known	**Total**	
Age Group of mother	Under 20	114	26	567	11	**718**	19.80%
	20 - 24	787	167	2,301	42	**3,297**	29.31%
	25 - 29	2,185	449	3,886	65	**6,585**	40.40%
	30 - 34	3,527	679	3,809	107	**8,122**	52.48%
	35 - 39	2,097	457	1,992	70	**4,616**	56.18%
	40 +	448	111	433	16	**1,008**	56.35%
	Not known	0	0	2	0	**2**	0.00%
	All ages	**9,158**	**1,889**	**12,990**	**311**	**24,348**	**45.96%**
Multiple births	Single	9,048	1,760	12,561	272	**23,641**	46.25%
	Multiple	110	129	429	39	**707**	35.78%
	All infants	**9,158**	**1,889**	**12,990**	**311**	**24,348**	**45.96%**
First time mothers	First time mother	3,606	938	4,554	116	**9,214**	49.95%
	Not a first time mother	5,440	932	8,254	190	**14,816**	43.57%
	Not known	112	19	182	5	**318**	41.85%
	All infants	**9,158**	**1,889**	**12,990**	**311**	**24,348**	**45.96%**
Ethnic group of mother (NIMATS)	White	8,790	1,696	12,965	141	**23,592**	44.71%
	Asian	119	86	75	0	**280**	73.21%
	Black	69	36	18	3	**126**	85.37%
	Mixed/Other	174	40	74	0	288	74.31%
	Not stated / Blank	12	7	13	0	**32**	59.38%
	All ethnic groups	**9,164**	**1,865**	**13,145**	**144**	**24,318**	**45.62%**
Ethnic group of infant (CHS)	White	8,504	1,656	12,527	280	**22,967**	44.78%
	Asian	101	78	56	3	**238**	76.17%
	Black	73	32	15	3	**123**	87.50%
	Mixed	186	48	130	4	**368**	64.29%
	Other	130	47	56	4	**237**	75.97%
	Not stated / Blank	164	28	206	17	**415**	48.24%
	All ethnic groups	**9,158**	**1,889**	**12,990**	**311**	**24,348**	**45.96%**
Place of birth	Altnagelvin	864	94	1,700	20	**2,678**	36.04%
	Antrim	1,028	219	1,686	12	**2,945**	42.52%
	Causeway	426	33	608	6	**1,073**	43.02%
	Craigavon	1,631	357	2,063	56	**4,107**	49.07%
	Daisy Hill	700	120	963	29	**1,812**	45.99%
	Downe	36	≤10	23	≤5	**65**	>45.96%
	Lagan Valley	107	9	73	6	**195**	61.38%
	Mater	82	≤5	111	≤5	**199**	<45.96%
	Royal	1,771	646	3,211	103	**5,731**	42.95%
	SWAH	600	76	597	14	**1,287**	53.10%
	Ulster	1,906	326	1,952	36	**4,220**	53.35%
	Home/Other	7	0	3	26	**36**	70.00%
	All places of birth	**9,158**	**1,889**	**12,990**	**311**	**24,348**	**45.96%**
Trust of residence of mother	Belfast	1,630	458	2,471	59	**4,618**	45.80%
	Northern	2,083	426	3,175	57	**5,741**	44.14%
	South Eastern	1,775	367	2,162	50	**4,354**	49.77%
	Southern	2,177	452	2,838	99	**5,566**	48.09%
	Western	1,493	186	2,344	46	**4,069**	41.74%
	All infants	**9,158**	**1,889**	**12,990**	**311**	**24,348**	**45.96%**

Table 10.2 continued: Breastfeeding status (at discharge) of live infants born to Northern Ireland residents, 2015/16

		Infant breastfeeding status at discharge					% infants breastfed (partial/total)
		Total	Partial	Not at all	Not known	**Total**	
Council area (2014)	Antrim and Newtownabbey	659	164	960	16	**1,799**	46.16%
	Ards and North Down	729	150	863	17	**1,759**	50.46%
	Armagh City, Banbridge and Craigavon	1,138	260	1,532	56	**2,986**	47.71%
	Belfast	1,499	440	2,548	60	**4,547**	43.21%
	Causeway Coast and Glens	600	68	978	18	**1,664**	40.58%
	Derry City and Strabane	673	71	1,354	20	**2,118**	35.46%
	Fermanagh and Omagh	673	103	697	22	**1,495**	52.68%
	Lisburn and Castlereagh	809	168	735	22	**1,734**	57.07%
	Mid and East Antrim	588	135	806	13	**1,542**	47.29%
	Mid Ulster	821	145	1,170	26	**2,162**	45.22%
	Newry, Mourne and Down	969	185	1,347	41	**2,542**	46.14%
	All infants	**9,158**	**1,889**	**12,990**	**311**	**24,348**	**45.96%**
Deprivation quintile (SOA) based on residence of mother	Most deprived	1,311	360	3,825	81	**5,577**	30.40%
	2	1,887	340	2,934	62	**5,223**	43.15%
	3	2,077	366	2,653	73	**5,169**	47.94%
	4	2,007	416	2,223	52	**4,698**	52.15%
	Least deprived	1,876	407	1,355	43	**3,681**	62.75%
	All infants	**9,158**	**1,889**	**12,990**	**311**	**24,348**	**45.96%**

Source: Child Health System

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 10.3: Breastfeeding status (at discharge) of live infants born to Northern Ireland residents, District Electoral Area, 2015/16

		Infant breastfeeding status at discharge					% infants breastfed (partial/total)
Council (2014)	**District Electoral Area**	Total	Partial	Not at all	Not known	**Total**	
Antrim and Newtownabbey	Airport	127	35	150	4	**316**	51.92%
	Antrim	108	23	178	0	**309**	42.39%
	Ballyclare	88	17	142	1	**248**	42.51%
	Dunsilly	100	23	103	0	**226**	54.42%
	Glengormley Urban	109	26	134	5	**274**	50.19%
	Macedon	62	18	130	2	**212**	38.10%
	Three Mile Water	65	22	123	4	**214**	41.43%
	Total	**659**	**164**	**960**	**16**	**1,799**	**46.16%**
Ards and North Down	Ards Peninsula	114	18	164	1	**297**	44.59%
	Bangor Central	148	31	150	2	**331**	54.41%
	Bangor East and Donaghadee	89	21	100	4	**214**	52.38%
	Bangor West	89	13	97	3	**202**	51.26%
	Comber	77	12	93	4	**186**	48.90%
	Holywood and Clandeboye	97	28	64	1	**190**	66.14%
	Newtownards	115	27	195	2	**339**	42.14%
	Total	**729**	**150**	**863**	**17**	**1,759**	**50.46%**
Armagh, Banbridge and Craigavon	Armagh	193	43	244	11	**491**	49.17%
	Banbridge	185	35	213	11	**444**	50.81%
	Craigavon	164	30	234	5	**433**	45.33%
	Cusher	135	36	182	4	**357**	48.44%
	Lagan River	137	31	135	9	**312**	55.45%
	Lurgan	150	38	287	8	**483**	39.58%
	Portadown	174	47	237	8	**466**	48.25%
	Total	**1,138**	**260**	**1,532**	**56**	**2,986**	**47.71%**
Belfast	Balmoral	137	38	90	3	**268**	66.04%
	Black Mountain	103	36	408	6	**553**	25.41%
	Botanic	204	87	184	8	**483**	61.26%
	Castle	146	41	226	7	**420**	45.28%
	Collin	121	42	339	8	**510**	32.47%
	Court	68	27	403	7	**505**	19.08%
	Lisnasharragh	178	40	121	4	**343**	64.31%
	Oldpark	88	40	379	6	**513**	25.25%
	Ormiston	225	41	136	5	**407**	66.17%
	Titanic	229	48	262	6	**545**	51.39%
	Total	**1,499**	**440**	**2,548**	**60**	**4,547**	**43.21%**
Causeway Coast and Glens	Ballymoney	103	11	173	4	**291**	39.72%
	Bann	81	10	104	2	**197**	46.67%
	Benbradagh	91	≤10	166	≤5	**268**	<40.58%
	Causeway	119	10	104	2	**235**	55.36%
	Coleraine	93	16	195	5	**309**	35.86%
	Limavady	56	≤5	127	≤5	**188**	<40.58%
	The Glens	57	9	109	1	**176**	37.71%
	Total	**600**	**68**	**978**	**18**	**1,664**	**40.58%**
Derry City and Strabane	Ballyarnett	123	13	250	3	**389**	35.23%
	Derg	88	≤5	170	≤5	**265**	<35.46%
	Faughan	78	12	139	2	**231**	39.30%
	Foyleside	91	≤10	159	≤5	**258**	<35.46%
	Sperrin	93	11	232	5	**341**	30.95%
	The Moor	66	9	175	0	**250**	30.00%
	Waterside	134	15	229	6	**384**	39.42%
	Total	**673**	**71**	**1,354**	**20**	**2,118**	**35.46%**

Table 10.3 continued: Breastfeeding status (at discharge) of live infants born to Northern Ireland residents, District Electoral Area, 2015/16

		Infant breastfeeding status at discharge					% infants breastfed (partial/total)
Council (2014)	**District Electoral Area**	Total	Partial	Not at all	Not known	**Total**	
Fermanagh and Omagh	Enniskillen	111	11	93	4	**219**	56.74%
	Erne East	91	13	104	6	**214**	50.00%
	Erne North	87	17	90	2	**196**	53.61%
	Erne West	81	15	95	4	**195**	50.26%
	Mid Tyrone	97	14	92	1	**204**	54.68%
	Omagh	96	27	109	3	**235**	53.02%
	West Tyrone	110	6	114	2	**232**	50.43%
	Total	**673**	**103**	**697**	**22**	**1,495**	**52.68%**
Lisburn and Castlereagh	Castlereagh East	91	23	117	3	**234**	49.35%
	Castlereagh South	145	29	79	4	**257**	68.77%
	Downshire East	88	15	60	2	**165**	63.19%
	Downshire West	115	16	63	2	**196**	67.53%
	Killultagh	139	26	129	6	**300**	56.12%
	Lisburn North	117	30	124	2	**273**	54.24%
	Lisburn South	114	29	163	3	**309**	46.73%
	Total	**809**	**168**	**735**	**22**	**1,734**	**57.07%**
Mid and East Antrim	Ballymena	109	24	165	1	**299**	44.63%
	Bannside	89	20	104	4	**217**	51.17%
	Braid	106	30	151	3	**290**	47.39%
	Carrick Castle	80	13	89	2	**184**	51.10%
	Coast Road	59	10	111	1	**181**	38.33%
	Knockagh	77	15	98	1	**191**	48.42%
	Larne Lough	68	23	88	1	**180**	50.84%
	Total	**588**	**135**	**806**	**13**	**1,542**	**47.29%**
Mid Ulster	Carntogher	77	12	144	1	**234**	38.20%
	Clogher Valley	154	24	138	6	**322**	56.33%
	Cookstown	93	22	215	5	**335**	34.85%
	Dungannon	193	32	154	5	**384**	59.37%
	Magherafelt	99	20	147	7	**273**	44.74%
	Moyola	85	11	159	1	**256**	37.65%
	Torrent	120	24	213	1	**358**	40.34%
	Total	**821**	**145**	**1,170**	**26**	**2,162**	**45.22%**
Newry, Mourne and Down	Crotlieve	147	29	195	3	**374**	47.44%
	Downpatrick	88	17	178	4	**287**	37.10%
	Newry	132	36	251	11	**430**	40.10%
	Rowallane	112	17	118	3	**250**	52.23%
	Slieve Croob	122	27	135	1	**285**	52.46%
	Slieve Gullion	202	38	268	15	**523**	47.24%
	The Mournes	166	21	202	4	**393**	48.07%
	Total	**969**	**185**	**1,347**	**41**	**2,542**	**46.14%**
Northern Ireland	**All infants**	**9,158**	**1,889**	**12,990**	**311**	**24,348**	**45.96%**

Source: Child Health System

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

Table 10.4: Duration of breastfeeding of live infants born to Northern Ireland residents, 2014/15

		Total live infants born	% infants breastfed (total/partial) by time period					
			Discharge	Primary visit (10-14 days old)	6 weeks	3 months	6 months	12 months
Age Group of mother	Under 20	708	19.6%	13.6%	7.8%	4.8%	2.3%	1.7%
	20 - 24	3,424	27.7%	18.6%	12.1%	8.8%	4.9%	3.1%
	25 - 29	6,600	41.3%	31.1%	23.3%	17.3%	10.7%	5.5%
	30 - 34	8,196	51.7%	40.5%	33.2%	26.2%	15.8%	8.4%
	35 - 39	4,378	55.3%	44.0%	35.4%	28.6%	16.8%	9.3%
	40 +	1,000	52.4%	43.4%	36.0%	28.5%	17.6%	9.3%
	Not known	3	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%
	All infants	**24,309**	**45.2%**	**34.8%**	**27.3%**	**21.2%**	**12.7%**	**6.9%**
Multiple births	Single	23,603	45.6%	35.0%	27.6%	21.5%	12.9%	7.0%
	Multiple	706	32.4%	28.0%	18.3%	13.9%	7.5%	2.8%
	All infants	**24,309**	**45.2%**	**34.8%**	**27.3%**	**21.2%**	**12.7%**	**6.9%**
First time mothers	First time mother	9,420	48.7%	36.7%	27.6%	20.9%	12.7%	6.8%
	Not a first time mother	14,596	43.1%	33.7%	27.2%	21.6%	12.8%	7.0%
	Not known	293	38.6%	31.1%	24.2%	16.0%	9.2%	4.8%
	All infants	**24,309**	**45.2%**	**34.8%**	**27.3%**	**21.2%**	**12.7%**	**6.9%**
Ethnic group of infant (CHS)	White	22,972	44.1%	33.7%	26.1%	20.4%	12.2%	6.5%
	Asian	221	79.2%	68.3%	65.2%	51.6%	29.9%	23.1%
	Black	112	85.7%	73.2%	71.4%	54.5%	40.2%	17.0%
	Mixed	367	60.8%	46.9%	42.0%	30.2%	19.3%	12.0%
	Other	290	74.5%	64.8%	55.5%	41.7%	24.8%	16.2%
	Not stated / Blank	347	46.4%	37.5%	30.0%	21.0%	10.4%	6.6%
	All infants	**24,309**	**45.2%**	**34.8%**	**27.3%**	**21.2%**	**12.7%**	**6.9%**
Place of birth	Altnagelvin	2,727	33.0%	24.8%	17.4%	12.9%	8.3%	3.5%
	Antrim	2,874	42.9%	36.2%	26.5%	20.7%	14.9%	8.0%
	Causeway	1,181	42.8%	35.6%	26.5%	21.9%	15.7%	8.7%
	Craigavon	3,994	48.8%	36.6%	29.0%	22.0%	14.2%	4.5%
	Daisy Hill	1,820	46.1%	34.9%	26.0%	21.0%	13.8%	6.0%
	Downe	65	55.4%	41.5%	27.7%	16.9%	3.1%	4.6%
	Lagan Valley	184	49.5%	41.3%	28.8%	22.8%	4.3%	7.6%
	Mater	195	44.6%	34.4%	28.2%	23.6%	15.4%	9.2%
	Royal	5,910	43.9%	33.4%	26.7%	21.0%	12.3%	7.6%
	SWAH	1,212	46.5%	37.1%	28.5%	20.4%	16.3%	7.3%
	Ulster	4,108	53.1%	39.2%	33.7%	26.5%	11.0%	9.2%
	Home/Other	39	41.0%	59.0%	53.8%	46.2%	35.9%	23.1%
	All infants	**24,309**	**45.2%**	**34.8%**	**27.3%**	**21.2%**	**12.7%**	**6.9%**
Trust of residence of mother	Belfast	4,702	46.6%	33.8%	28.6%	22.1%	13.4%	7.2%
	Northern	5,822	44.5%	37.2%	27.8%	22.5%	16.4%	9.0%
	South Eastern	4,304	48.0%	36.4%	29.6%	23.4%	6.6%	8.5%
	Southern	5,479	48.3%	36.3%	28.5%	21.8%	14.3%	4.6%
	Western	4,002	37.5%	29.0%	21.0%	15.4%	11.0%	4.8%
	All infants	**24,309**	**45.2%**	**34.8%**	**27.3%**	**21.2%**	**12.7%**	**6.9%**
Council area (2014)	Antrim and Newtownabbey	1,740	46.7%	39.5%	29.8%	23.8%	17.5%	9.0%
	Ards and North Down	1,722	50.2%	35.1%	32.0%	25.6%	6.9%	9.0%
	Armagh City, Banbridge & Craigavon	2,927	47.1%	35.0%	28.2%	21.5%	14.1%	4.3%
	Belfast	4,654	43.3%	31.5%	26.2%	20.2%	11.9%	6.9%
	Causeway Coast and Glens	1,752	39.0%	32.1%	22.8%	18.6%	13.0%	7.2%
	Derry City and Strabane	2,065	31.7%	23.9%	16.5%	12.4%	7.9%	3.2%
	Fermanagh and Omagh	1,475	47.6%	37.7%	28.5%	20.5%	16.7%	7.9%
	Lisburn and Castlereagh	1,744	57.1%	44.7%	35.8%	28.4%	10.7%	9.3%
	Mid and East Antrim	1,562	45.9%	39.6%	29.8%	24.1%	18.6%	10.5%
	Mid Ulster	2,146	47.3%	35.7%	28.0%	21.0%	13.8%	5.0%
	Newry, Mourne and Down	2,522	46.0%	36.0%	26.6%	20.9%	11.3%	6.8%
	All infants	**24,309**	**45.2%**	**34.8%**	**27.3%**	**21.2%**	**12.7%**	**6.9%**

Table 10.4 continued: Duration of breastfeeding of live infants born to Northern Ireland residents, 2014/15

		Total live infants born	% infants breastfed (total/partial) by time period					
			Discharge	Primary visit (10-14 days old)	6 weeks	3 months	6 months	12 months
Deprivation quintile (SOA) based on residence of mother	Most deprived	5,590	31.0%	22.7%	16.2%	12.1%	7.6%	3.9%
	2	5,293	42.4%	32.5%	24.2%	18.2%	10.7%	5.6%
	3	5,138	46.3%	35.6%	28.3%	21.4%	13.6%	6.6%
	4	4,728	51.1%	40.2%	31.4%	25.0%	15.1%	8.2%
	Least deprived	3,560	62.6%	49.1%	42.5%	34.8%	19.4%	12.1%
	All infants	**24,309**	**45.2%**	**34.8%**	**27.3%**	**21.2%**	**12.7%**	**6.9%**

Source: Child Health System
Note that for some ethnic groups, hospitals, age groups the number of infants will be very small

Section 11: 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*"[54].

WHO states that "*childhood obesity is associated with a higher chance of premature death and disability in adulthood*"[55]. "*Obese children are more likely to be ill, be absent from school due to illness, experience health-related limitations and require more medical care than normal weight children*"[56]. A child who is obese may have a greater risk of[57]:

- Type 2 diabetes
- Asthma
- Musculo-skeletal problems
- Low self-esteem/mental illness/eating disorders

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

What can be done?

The Royal College of Paediatrics and Child Health (RCPCH) states[58]: "*Prevention and treatment of obesity depends on all levels of society and government taking action – from health professionals, in educating teachers, parents and children themselves, regulating and working with the food manufacturing industry, and using fiscal measures where appropriate. This has the objective of achieving the cultural shift in improved nutrition and increased exercise to achieve a sustained decrease in the numbers of children that are overweight or obese*".

Further reading:
http://www.noo.org.uk/NOO_about_obesity/child_obesity
https://www.gov.uk/government/policies/obesity-and-healthy-eating
https://www.nice.org.uk/guidance/cg189/resources/obesity-identification-assessment-and-management-35109821097925
https://www.nice.org.uk/guidance/ph47/resources/weight-management-lifestyle-services-for-overweight-or-obese-children-and-young-people-1996362978757

[54] World Health Organisation http://www.who.int/dietphysicalactivity/childhood/en/
[55] World Health Organisation http://www.who.int/dietphysicalactivity/childhood_consequences/en/
[56] Public Health England (National Obesity Observatory) "Health risks of childhood obesity" http://www.noo.org.uk/NOO_about_obesity/obesity_and_health/health_risk_child
[57] As [56]
[58] Royal College of Paediatrics and Child Health http://www.rcpch.ac.uk/obesity

Key Points

Primary 1

- Of those children measured in Primary 1 in 2015/16, 21.9% were considered overweight or obese, a slight increase on the previous year. *[Page 72].*
- In 2015/16, a higher proportion of girls were overweight/obese (26.0%) compared to boys (17.9%). *[Page 73].*
- 31% of children living in Antrim and Newtownabbey Council area were measured as overweight/obese, compared to 18.2% in Lisburn and Castlereagh. *[Page 73].*
- 25.0% of children living in the most deprived areas of Northern Ireland were measured as overweight/obese, compared to 19.4% of children from the least deprived areas. *[Page 73].*

Year 8

- In 2015/16, over 28% of children were measured as overweight/obese, an increase on the previous year. *[Page 75].*
- At this age, there is little difference in the proportion overweight/obese between the two genders (28.1% male, 28.7% female). *[Page 76].*
- A larger proportion of children from more deprived areas in Northern Ireland were measured as overweight/obese (34.1%) in 2015/16, compared to those living in the least deprived areas (23.2%) *[Page 76].*

PRIMARY 1

Table 11.1: BMI levels in Primary 1 children across Northern Ireland, 2008/09 - 2015/16

	% Primary 1 children							
BMI category	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Thinness grade 1 to 3	3.02%	3.24%	2.79%	3.54%	4.59%	3.44%	3.97%	3.69%
Normal	75.19%	75.12%	74.75%	75.30%	73.66%	74.81%	74.82%	74.42%
Overweight	16.72%	16.49%	17.04%	15.74%	16.51%	16.52%	15.71%	16.09%
Obese	5.07%	5.15%	5.42%	5.43%	5.24%	5.23%	5.50%	5.81%
% children overweight/obese	**21.79%**	**21.64%**	**22.46%**	**21.17%**	**21.75%**	**21.75%**	**21.21%**	**21.90%**

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

Figure 11.1: % Primary 1 children overweight or obese, Northern Ireland, 2008/09 – 2015/16

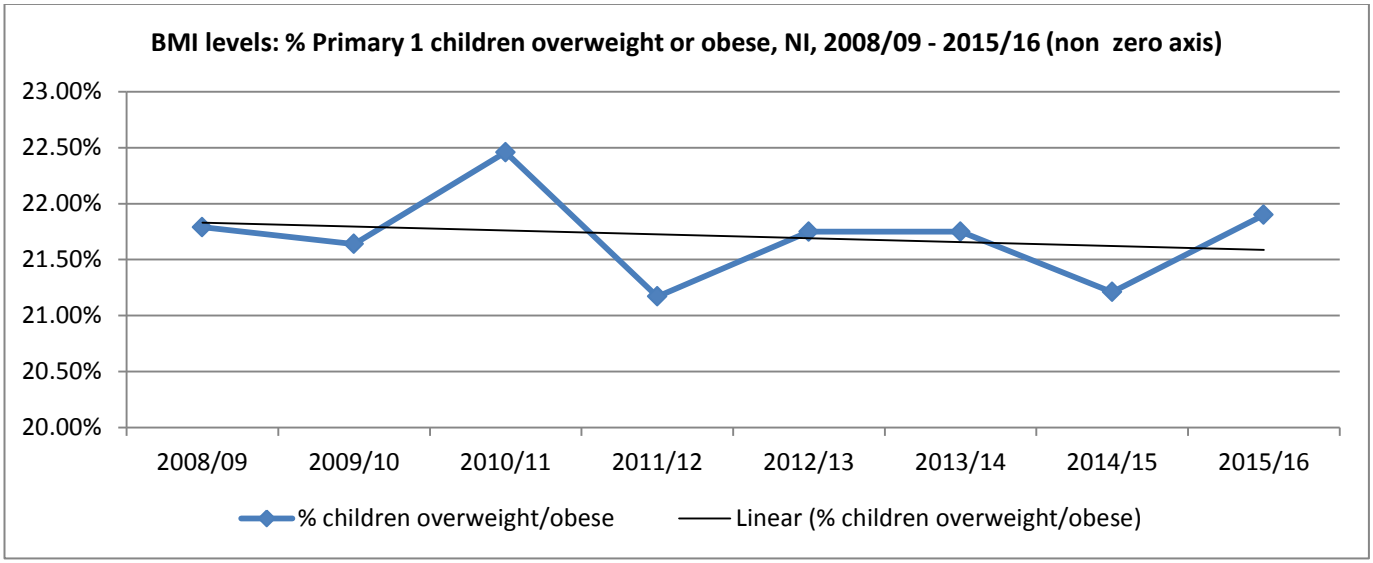


Table 11.2: BMI levels in Primary 1 children across Northern Ireland, 2015/16

		No. of children by BMI category					% children overweight or obese
		Thinness grade 1 to 3	Normal	Overweight	Obese	**Total**	
Gender	Male	485	9,452	1,584	585	**12,106**	17.92%
	Female	397	8,355	2,265	806	**11,823**	25.97%
	All persons	**882**	**17,807**	**3,849**	**1,391**	**23,929**	**21.90%**
Trust of residence of child	Belfast	174	3,137	655	261	**4,227**	21.67%
	Northern	180	4,292	1,089	335	**5,896**	24.15%
	South Eastern	185	3,445	598	234	**4,462**	18.65%
	Southern	211	4,119	816	348	**5,494**	21.19%
	Western	131	2,768	687	208	**3,794**	23.59%
	Not known	1	46	4	5	**56**	16.07%
	All persons	**882**	**17,807**	**3,849**	**1,391**	**23,929**	**21.90%**
Council area (2014)	Antrim and Newtownabbey	36	1,168	411	131	**1,746**	31.04%
	Ards and North Down	80	1,431	259	80	**1,850**	18.32%
	Armagh City, Banbridge and Craigavon	117	2,298	464	202	**3,081**	21.62%
	Belfast	171	3,044	643	259	**4,117**	21.91%
	Causeway Coast and Glens	54	1,281	296	97	**1,728**	22.74%
	Derry City and Strabane	64	1,473	362	107	**2,006**	23.38%
	Fermanagh and Omagh	53	964	236	74	**1,327**	23.36%
	Lisburn and Castlereagh	80	1,415	223	110	**1,828**	18.22%
	Mid and East Antrim	66	1,186	264	84	**1,600**	21.75%
	Mid Ulster	66	1,611	322	116	**2,115**	20.71%
	Newry, Mourne and Down	94	1,890	365	126	**2,475**	19.84%
	Not known	1	46	4	5	**56**	16.07%
	All persons	**882**	**17,807**	**3,849**	**1,391**	**23,929**	**21.90%**
Deprivation quintile (SOA) based on residence of child	Most deprived	180	3,498	851	375	**4,904**	25.00%
	2	164	3,671	775	312	**4,922**	22.08%
	3	191	3,917	815	286	**5,209**	21.14%
	4	193	3,601	783	260	**4,837**	21.56%
	Least deprived	153	3,074	621	153	**4,001**	19.35%
	Not known	1	46	4	5	**56**	16.07%
	All persons	**882**	**17,807**	**3,849**	**1,391**	**23,929**	**21.90%**

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

Table 11.3: BMI levels in Primary 1 children across Northern Ireland, by Sure Start area, 2015/16

Sure Start area	Total children	% children by BMI category				% children overweight or obese
		Thinness grade 1 to 3	Normal	Overweight	Obese	
Abbey	265	1.9%	61.1%	25.7%	11.3%	37.0%
Antrim	<100	0.0%	65.8%	25.3%	8.9%	34.2%
Ards	267	6.0%	75.3%	12.7%	6.0%	18.7%
ArKe	170	2.9%	76.5%	13.5%	7.1%	20.6%
Ballymena	188	4.8%	75.0%	14.4%	5.9%	20.2%
Bangor	<100	2.0%	73.7%	19.2%	5.1%	24.2%
Beechmount	<100	6.3%	78.1%	12.5%	3.1%	15.6%
Blossom	262	7.6%	72.5%	13.7%	6.1%	19.8%
Cherish	189	6.3%	73.0%	14.8%	5.8%	20.6%
Clan Mor	100	2.0%	71.0%	20.0%	7.0%	27.0%
Clogher Valley	144	2.8%	80.6%	9.7%	6.9%	16.7%
Coleraine	189	4.2%	69.3%	21.2%	5.3%	26.5%
Colin	323	2.8%	79.9%	11.1%	6.2%	17.3%
Dalriada	180	3.3%	75.6%	16.1%	5.0%	21.1%
Downpatrick	312	3.5%	75.3%	14.4%	6.7%	21.2%
Dungannon	311	3.2%	72.3%	13.8%	10.6%	24.4%
Dungiven	254	3.1%	72.0%	19.3%	5.5%	24.8%
East Belfast	441	4.8%	71.9%	15.2%	8.2%	23.4%
Edenballymore	236	3.4%	69.5%	18.6%	8.5%	27.1%
Glenbrook	311	3.5%	72.7%	14.5%	9.3%	23.8%
Gold	294	2.4%	75.2%	18.7%	3.7%	22.4%
Horizon	156	5.8%	69.9%	17.3%	7.1%	24.4%
Kilkeel	<100	8.2%	69.4%	14.3%	8.2%	22.4%
LAST	240	2.1%	74.6%	18.8%	4.6%	23.3%
Lisburn	120	1.7%	72.5%	17.5%	8.3%	25.8%
Little Hands	194	3.1%	72.7%	17.0%	7.2%	24.2%
Newry City	282	2.5%	73.8%	15.6%	8.2%	23.8%
Outer West Belfast	275	3.6%	76.7%	14.2%	5.5%	19.6%
Rainbow	133	3.0%	75.2%	16.5%	5.3%	21.8%
Saol Ur	172	1.7%	77.3%	12.2%	8.7%	20.9%
Shankill	391	2.0%	73.9%	14.8%	9.2%	24.0%
Shantallow	305	1.6%	74.1%	20.7%	3.6%	24.3%
Smile	249	5.2%	68.7%	19.3%	6.8%	26.1%
South Armagh	383	3.1%	74.7%	17.5%	4.7%	22.2%
South Belfast	294	5.8%	73.1%	13.6%	7.5%	21.1%
Splash	302	5.0%	65.6%	18.5%	10.9%	29.5%
Star	<100	0.0%	66.7%	20.6%	12.7%	33.3%
Strabane	319	3.4%	76.8%	13.8%	6.0%	19.7%
Waterside	251	3.2%	71.3%	20.7%	4.8%	25.5%
Children living in Sure Start areas	8,856	3.6%	73.1%	16.4%	7.0%	23.3%
Children not living in Sure Start areas	15,019	3.8%	75.2%	15.9%	5.1%	21.1%
All children	23,875	3.7%	74.4%	16.1%	5.8%	21.9%

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 Task Force measures
Figures above exclude children whose area of residence is not known
Note that in any year all children may not be measured and so coverage may not be complete
Note that some percentage above are based on small numbers
Disclosure controls have been applied to the data

YEAR 8

Table 11.4: BMI levels in Year 8 children across Northern Ireland, 2010/11 - 2015/16

	% Year 8 children					
BMI category	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Thinness grade 1 to 3	6.18%	6.36%	7.74%	6.05%	6.87%	6.16%
Normal	64.89%	64.98%	65.44%	64.56%	65.38%	65.41%
Overweight	21.53%	21.60%	20.00%	21.76%	20.61%	21.60%
Obese	7.41%	7.05%	6.82%	7.64%	7.14%	6.82%
% children overweight/obese	**28.94%**	**28.65%**	**26.82%**	**29.40%**	**27.75%**	**28.42%**

Source: Child Health System
Year refers to school year
Children measured are typically between 11½ and 12½ years of age
Figures above are categorised using International Obesity Task Force 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

Figure 11.2: % Year 8 children overweight or obese, Northern Ireland, 2010/11 – 2015/16

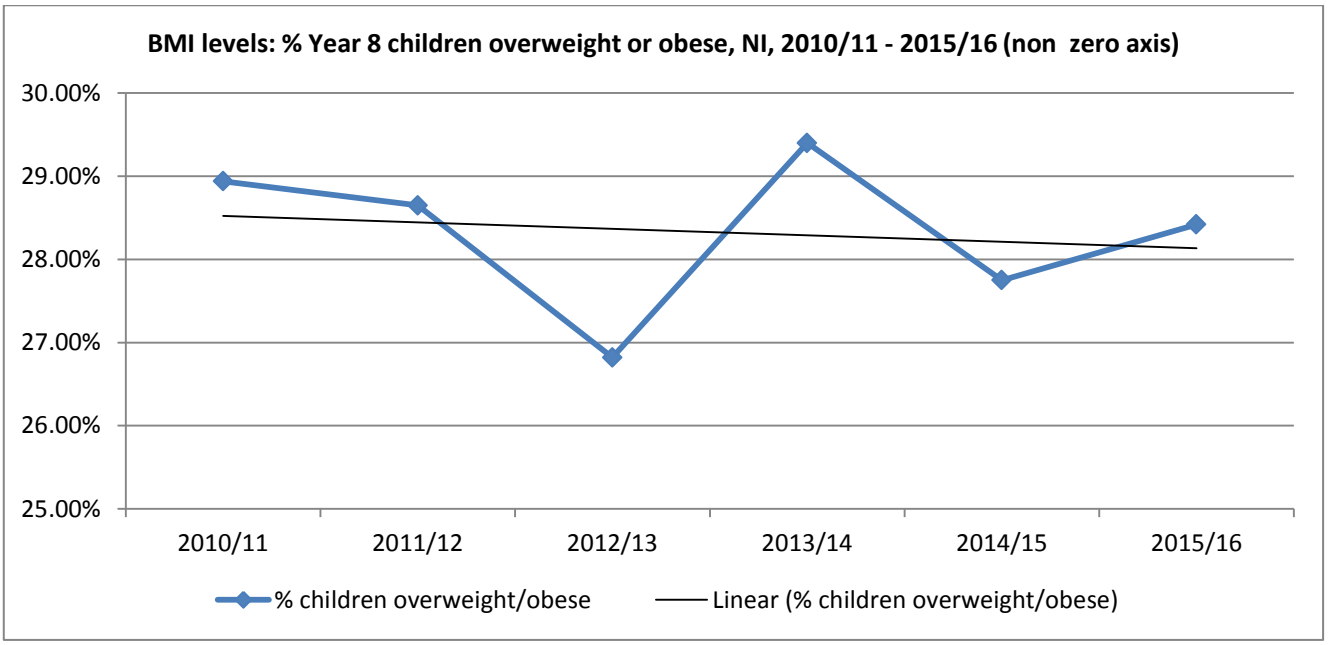


Table 11.5: BMI levels in Year 8 children across Northern Ireland, 2015/16

		No. of children by BMI category					% children overweight or obese
		Thinness grade 1 to 3	Normal	Overweight	Obese	**Total**	
Gender	Male	507	6,090	1,950	633	**9,180**	28.14%
	Female	611	5,773	1,968	604	**8,956**	28.72%
	All persons	**1,118**	**11,863**	**3,918**	**1,237**	**18,136**	**28.42%**
Trust of residence of child	Belfast	195	1,925	591	184	**2,895**	26.77%
	Northern	314	3,157	1,062	370	**4,903**	29.21%
	South Eastern	214	2,246	647	190	**3,297**	25.39%
	Southern	240	2,592	916	261	**4,009**	29.36%
	Western	147	1,903	685	229	**2,964**	30.84%
	Not known	8	40	17	3	**68**	29.41%
	All persons	**1,118**	**11,863**	**3,918**	**1,237**	**18,136**	**28.42%**
Council area (2014)	Antrim and Newtownabbey	93	861	282	117	**1,353**	29.49%
	Ards and North Down	118	984	275	83	**1,460**	24.52%
	Armagh City, Banbridge and Craigavon	129	1,393	510	130	**2,162**	29.60%
	Belfast	186	1,848	579	184	**2,797**	27.28%
	Causeway Coast and Glens	93	956	344	117	**1,510**	30.53%
	Derry City and Strabane	77	902	340	116	**1,435**	31.78%
	Fermanagh and Omagh	55	764	254	74	**1,147**	28.60%
	Lisburn and Castlereagh	68	874	248	69	**1,259**	25.18%
	Mid and East Antrim	91	882	341	119	**1,433**	32.10%
	Mid Ulster	90	1,111	321	110	**1,632**	26.41%
	Newry, Mourne and Down	110	1,246	406	115	**1,877**	27.76%
	Not known	8	42	18	3	**71**	29.58%
	All persons	**1,118**	**11,863**	**3,918**	**1,237**	**18,136**	**28.42%**
Deprivation quintile (SOA) based on residence of child	Most deprived	186	1,903	781	300	**3,170**	34.10%
	2	177	2,374	812	274	**3,637**	29.86%
	3	247	2,604	834	261	**3,946**	27.75%
	4	272	2,621	858	247	**3,998**	27.64%
	Least deprived	228	2,321	616	152	**3,317**	23.15%
	Not known	8	40	17	3	**68**	29.41%
	All persons	**1,118**	**11,863**	**3,918**	**1,237**	**18,136**	**28.42%**

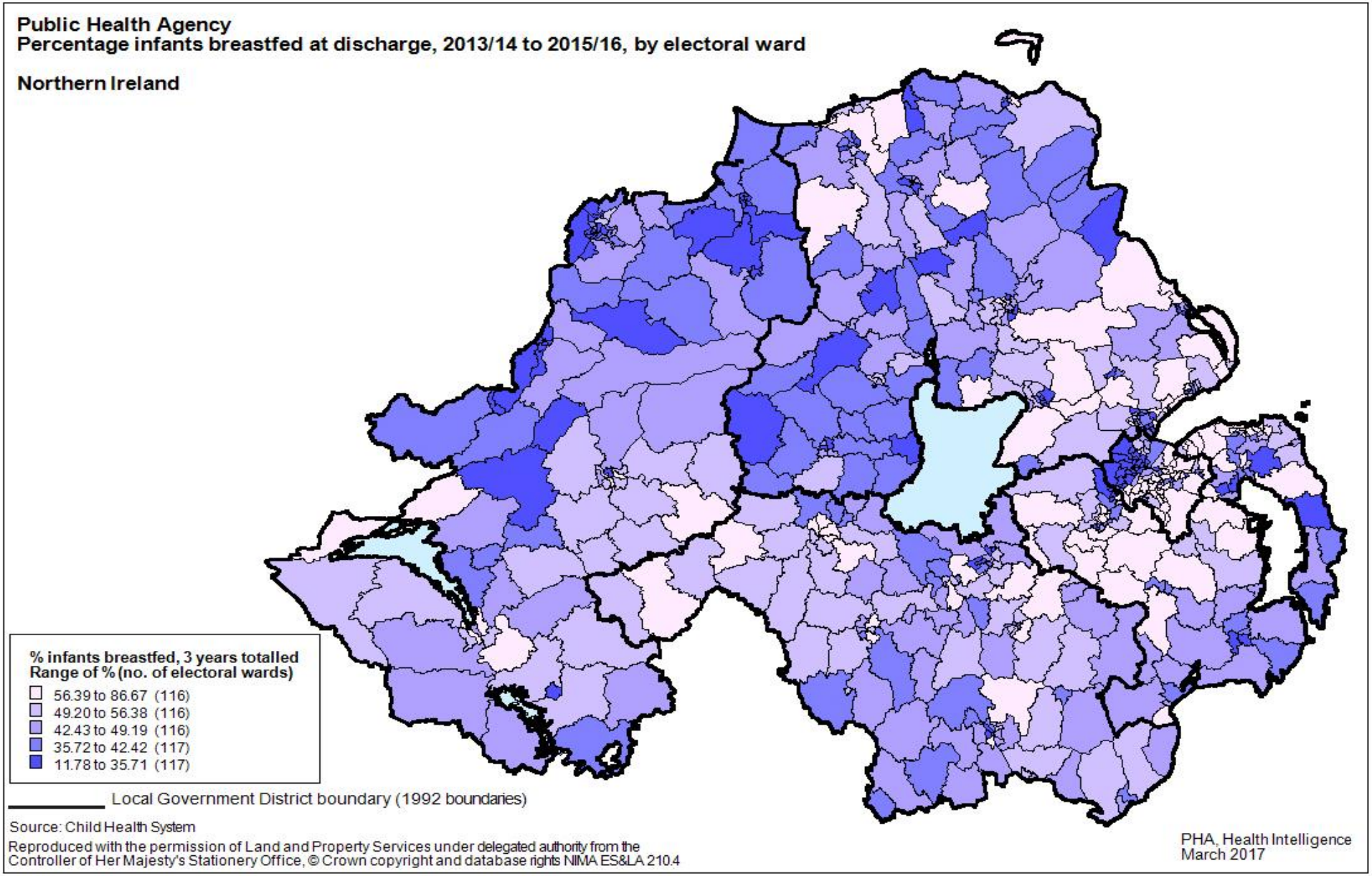
Source: Child Health System
Year refers to school year
Children measured are typically between 11½ and 12½ years of age
Figures above are categorised using International Obesity Task Force measures
Note that in any year all children may not be measured and so coverage may not be complete

Table 11.6: BMI levels in Year 8 children across Northern Ireland, by Sure Start area, 2015/16

Sure Start area	Total children	% children by BMI category				% children overweight or obese
		Thinness grade 1 to 3	Normal	Overweight	Obese	
Abbey	200	8.5%	59.0%	20.5%	12.0%	32.5%
Antrim	<100	3.9%	62.7%	19.6%	13.7%	33.3%
Ards	232	9.5%	65.1%	19.8%	5.6%	25.4%
ArKe	<100	4.1%	67.3%	20.4%	8.2%	28.6%
Ballymena	140	5.0%	53.6%	25.0%	16.4%	41.4%
Bangor	<100	4.8%	71.4%	20.2%	3.6%	23.8%
Beechmount	<100	8.1%	70.3%	10.8%	10.8%	21.6%
Blossom	171	5.8%	60.2%	26.9%	7.0%	33.9%
Cherish	210	4.3%	65.2%	22.4%	8.1%	30.5%
Clan Mor	<100	3.1%	68.8%	18.8%	9.4%	28.1%
Clogher Valley	125	5.6%	69.6%	15.2%	9.6%	24.8%
Coleraine	129	7.8%	63.6%	20.2%	8.5%	28.7%
Colin	211	4.3%	68.7%	19.4%	7.6%	27.0%
Dalriada	158	4.4%	65.2%	21.5%	8.9%	30.4%
Downpatrick	208	7.2%	63.0%	22.1%	7.7%	29.8%
Dungannon	231	9.1%	60.6%	22.9%	7.4%	30.3%
Dungiven	197	5.6%	60.9%	24.9%	8.6%	33.5%
East Belfast	273	5.1%	64.5%	21.2%	9.2%	30.4%
Edenballymore	157	5.1%	65.0%	22.9%	7.0%	29.9%
Glenbrook	213	4.7%	59.6%	25.8%	9.9%	35.7%
Gold	204	3.9%	72.1%	19.1%	4.9%	24.0%
Horizon	121	9.9%	53.7%	24.0%	12.4%	36.4%
Kilkeel	<100	3.6%	67.9%	17.9%	10.7%	28.6%
LAST	158	6.3%	62.0%	26.6%	5.1%	31.6%
Lisburn	<100	5.1%	52.5%	30.5%	11.9%	42.4%
Little Hands	145	5.5%	62.8%	23.4%	8.3%	31.7%
Newry City	157	4.5%	56.1%	29.9%	9.6%	39.5%
Outer West Belfast	193	3.1%	66.3%	26.4%	4.1%	30.6%
Rainbow	<100	9.0%	60.7%	21.3%	9.0%	30.3%
Saol Ur	123	7.3%	65.0%	17.1%	10.6%	27.6%
Shankill	278	5.8%	58.3%	27.7%	8.3%	36.0%
Shantallow	239	5.0%	59.0%	29.7%	6.3%	36.0%
Smile	146	9.6%	58.2%	23.3%	8.9%	32.2%
South Armagh	295	7.1%	63.1%	22.4%	7.5%	29.8%
South Belfast	189	11.6%	63.5%	16.4%	8.5%	24.9%
Splash	206	5.8%	59.2%	29.1%	5.8%	35.0%
Star	<100	2.9%	68.6%	22.9%	5.7%	28.6%
Strabane	209	5.3%	62.2%	20.1%	12.4%	32.5%
Waterside	153	4.6%	60.8%	27.5%	7.2%	34.6%
Children living in Sure Start areas	6,216	6.1%	62.6%	23.0%	8.3%	31.3%
Children not living in Sure Start areas	11,854	6.2%	66.9%	20.8%	6.1%	26.9%
All children	18,070	6.1%	65.4%	21.6%	6.8%	28.4%

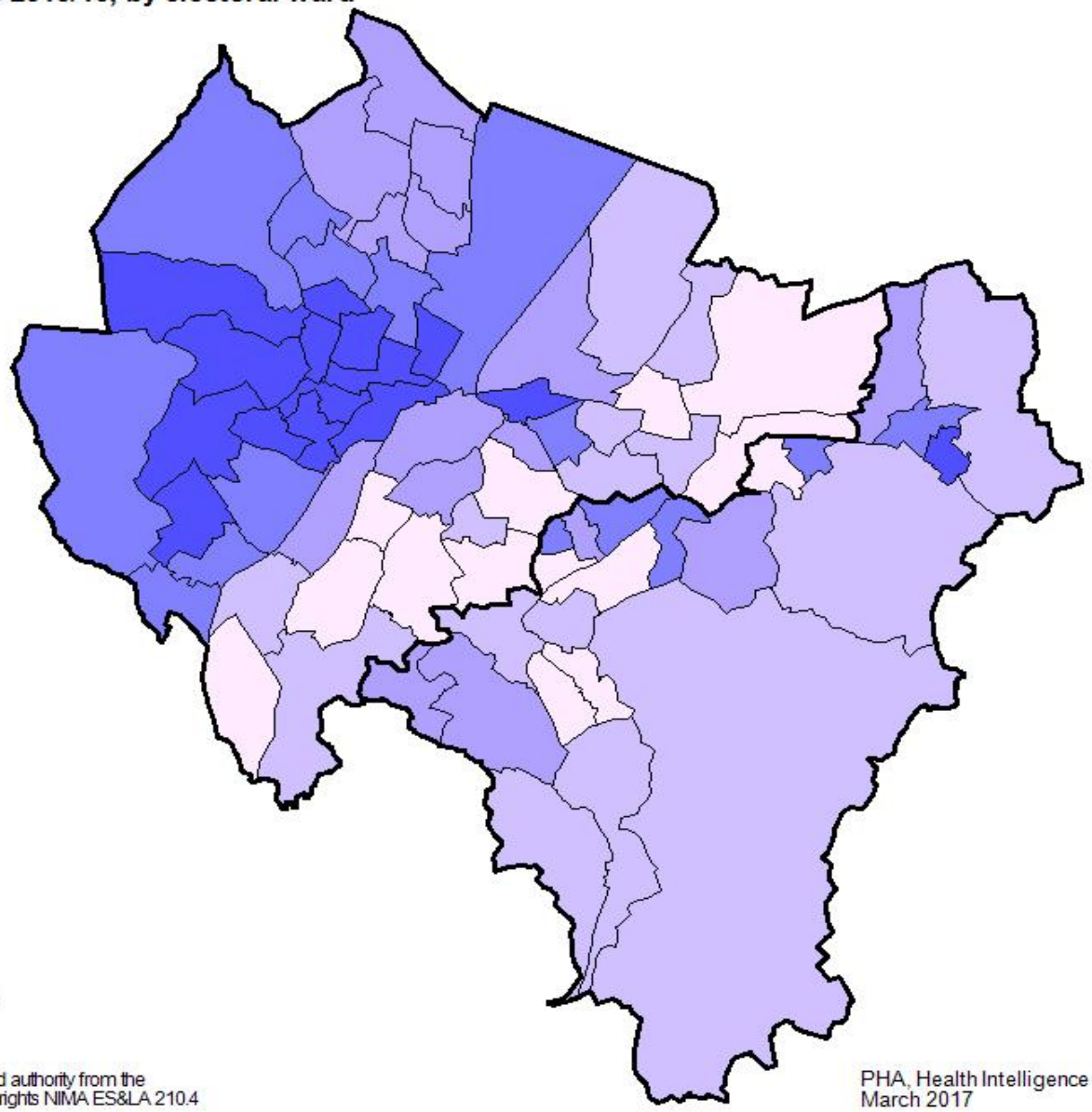
Source: Child Health System
Year refers to school year
Children measured are typically between 11½ and 12½ years of age
Figures above are categorised using International Obesity TaskForce measures
Note that in any year all children may not be measured and so coverage may not be complete
Figures above exclude children whose area of residence is not known
Disclosure controls have been applied to the data

Appendix 1: Breastfeeding at discharge



Public Health Agency
Percentage infants breastfed at discharge, 2013/14 to 2015/16, by electoral ward

Belfast Health and Social Care Trust



% infants breastfed, 3 years totalled
Range of % (no. of electoral wards)

- 65.87 to 84.18 (14)
- 56.37 to 65.86 (15)
- 41.95 to 56.36 (15)
- 29.59 to 41.94 (15)
- 11.78 to 29.58 (15)

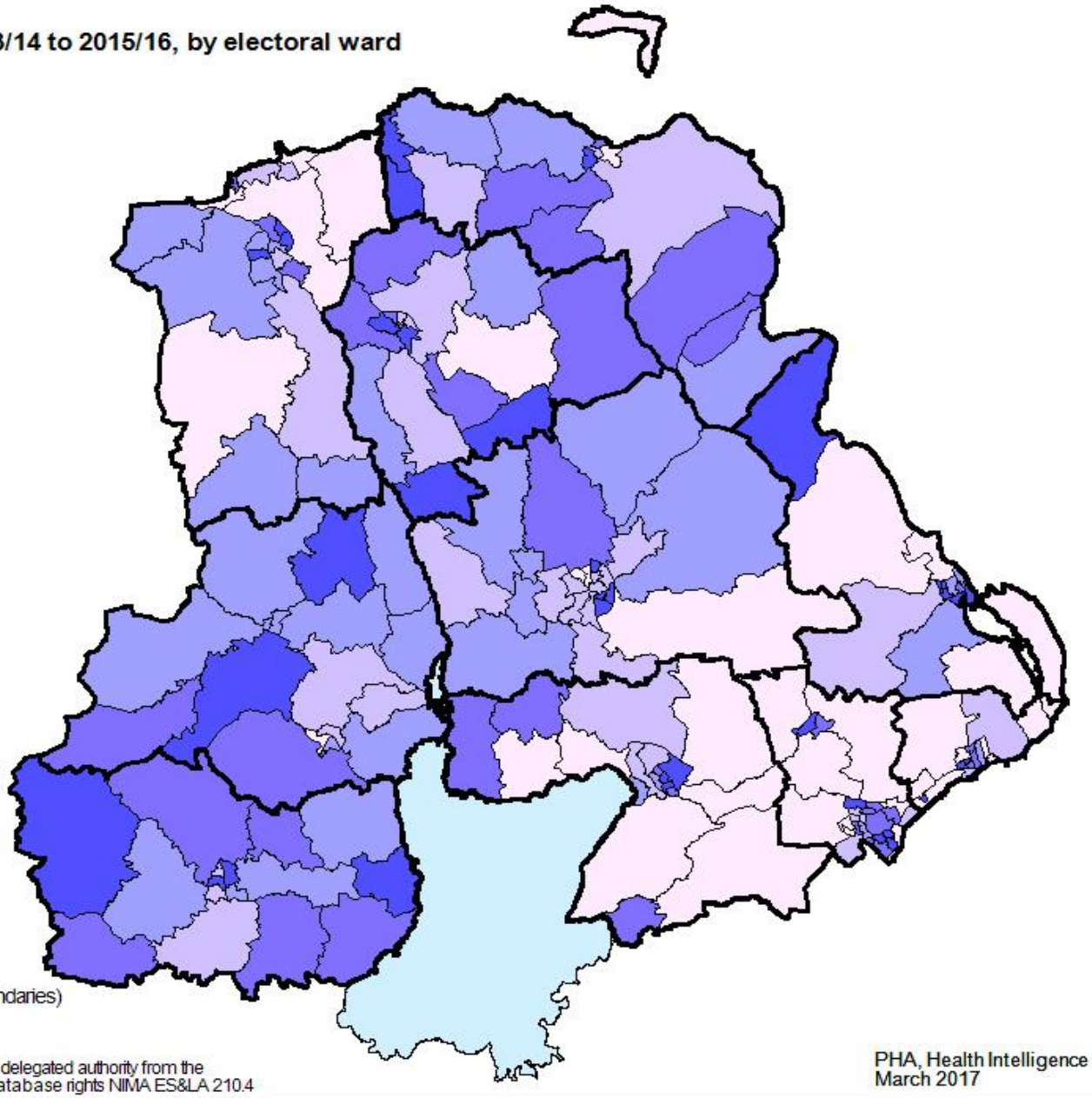
Local Government District boundary (1992 boundaries)

Source: Child Health System

PHA, Health Intelligence
March 2017

Public Health Agency
Percentage infants breastfed at discharge, 2013/14 to 2015/16, by electoral ward

Northern Health and Social Care Trust



% infants breastfed, 3 years totalled
Range of % (no. of electoral wards)

- 54.62 to 74.58 (37)
- 46.91 to 54.61 (37)
- 40.31 to 46.90 (37)
- 34.63 to 40.30 (37)
- 19.51 to 34.62 (37)

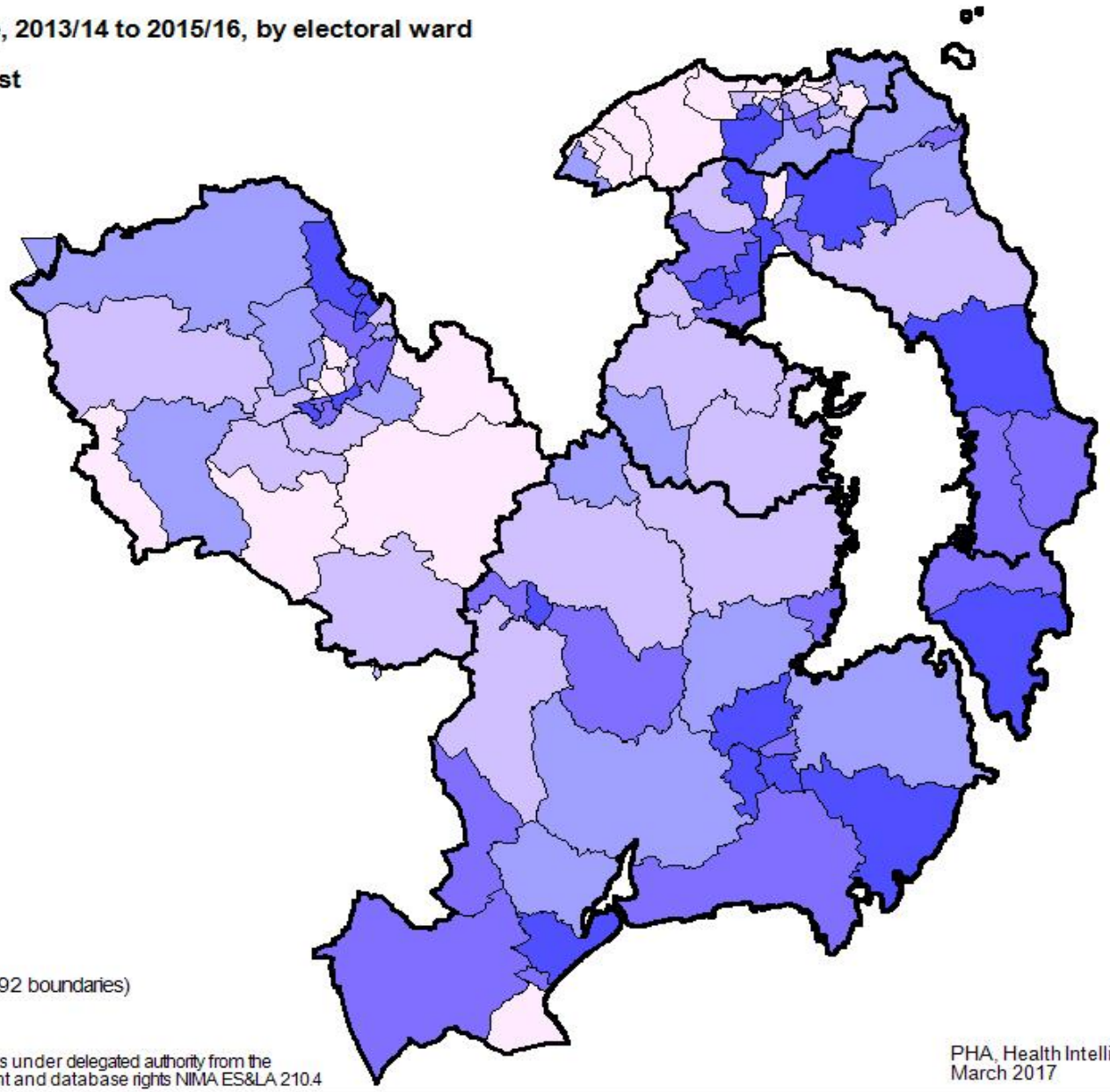
Local Government District boundary (1992 boundaries)

Source: Child Health System

PHA, Health Intelligence
March 2017

Public Health Agency
Percentage infants breastfed at discharge, 2013/14 to 2015/16, by electoral ward

South Eastern Health and Social Care Trust



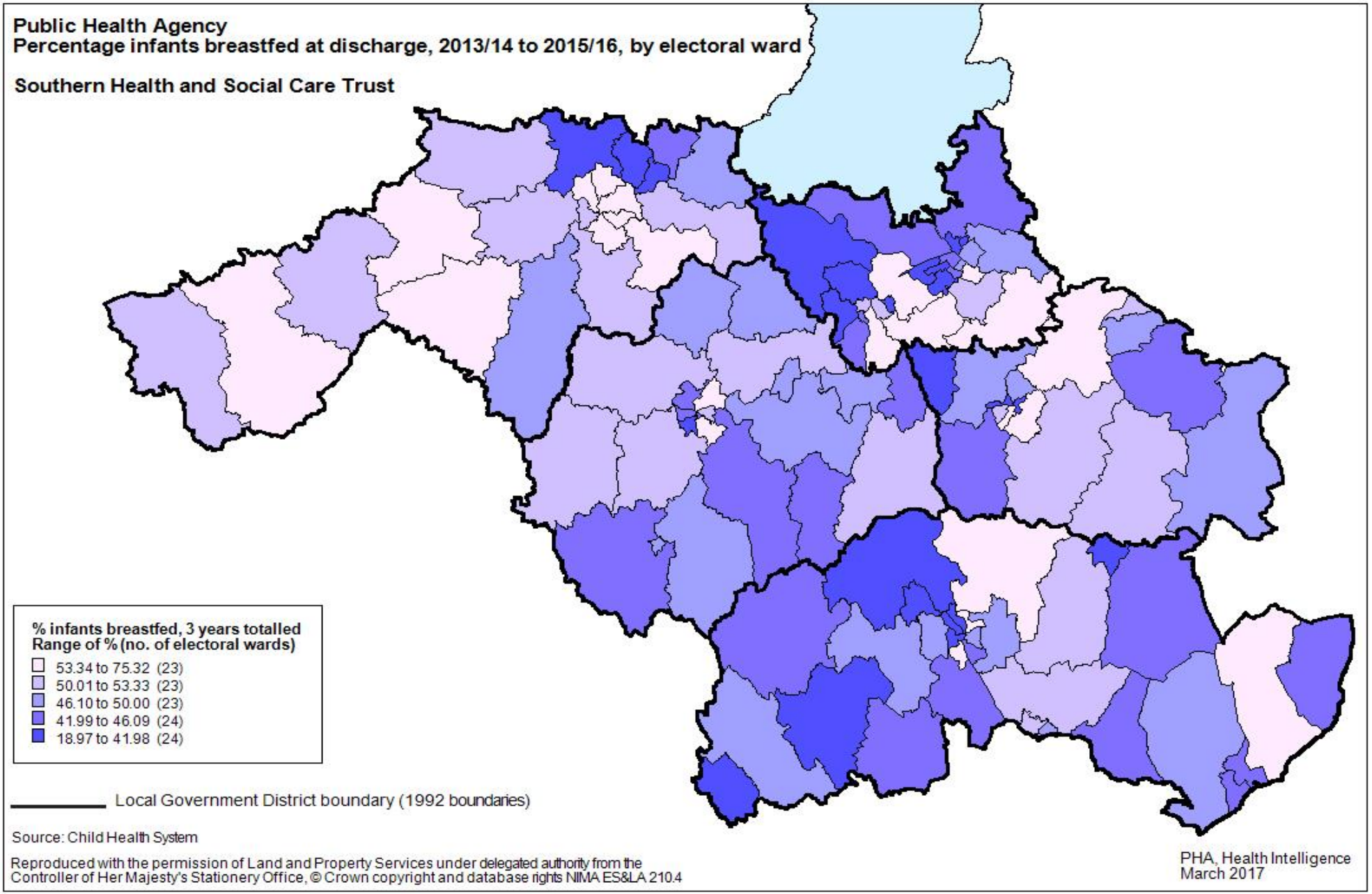
% infants breastfed, 3 years totalled
Range of % (no. of electoral wards)

- 62.17 to 86.67 (20)
- 55.27 to 62.16 (20)
- 47.07 to 55.26 (20)
- 40.01 to 47.06 (20)
- 14.86 to 40.00 (21)

Local Government District boundary (1992 boundaries)

Source: Child Health System

PHA, Health Intelligence
March 2017


Public Health Agency
Percentage infants breastfed at discharge, 2013/14 to 2015/16, by electoral ward
Southern Health and Social Care Trust
% infants breastfed, 3 years totalled
Range of % (no. of electoral wards)
53.34 to 75.32 (23)
50.01 to 53.33 (23)
46.10 to 50.00 (23)
41.99 to 46.09 (24)
18.97 to 41.98 (24)
Local Government District boundary (1992 boundaries)
Source: Child Health System
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PHA, Health Intelligence
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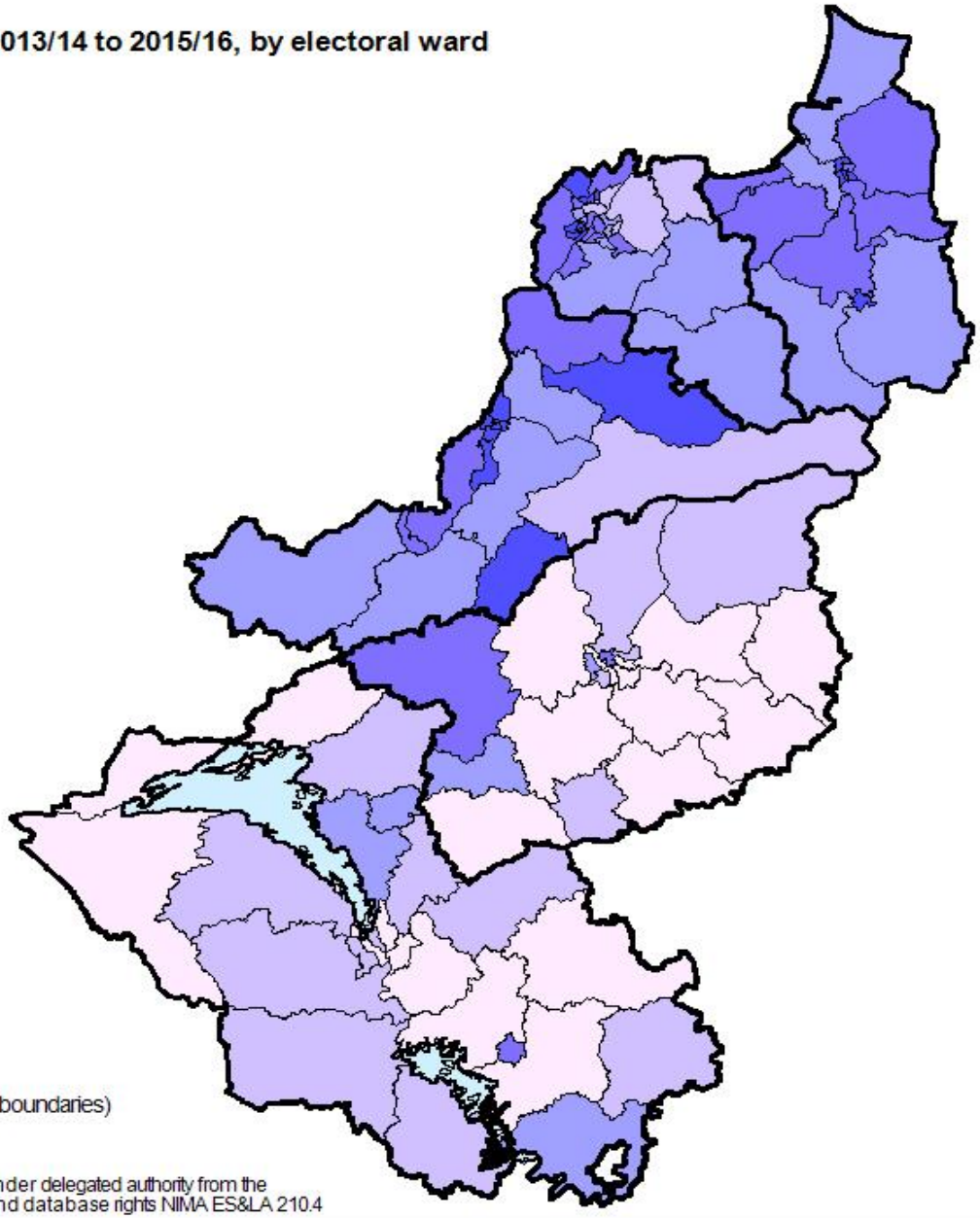
Public Health Agency
Percentage infants breastfed at discharge, 2013/14 to 2015/16, by electoral ward

Western Health and Social Care Trust



% infants breastfed, 3 years totalled
Range of % (no. of electoral wards)

- 51.40 to 64.58 (21)
- 43.95 to 51.39 (21)
- 37.21 to 43.94 (21)
- 29.77 to 37.20 (21)
- 17.81 to 29.76 (21)

Local Government District boundary (1992 boundaries)

Source: Child Health System

PHA, Health Intelligence
March 2017

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Health Intelligence Unit

For further information, please contact:
Adele Graham (adele.graham@hscni.net)
Joanne Murphy (joanne.murphy@hscni.net)