

Maternity Statistics Wales, 2015-16 (Experimental Statistics)

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SFR 58/2017

The Maternity Indicators data set was established in 2016 to capture data from maternity units in Wales with the purpose of providing the data which can be used to create the set of Welsh Maternity Indicators, a set of outcome indicators and performance measures established by the Welsh Government to measure the effectiveness and quality of Welsh maternity services.

This release aims to provide an overview of Welsh maternity services and to inform the monitoring and further policy development in this area.



30,284 deliveries

in Welsh maternity units
in 2015-16

Key points

- There were 30,284 deliveries in Wales in 2015-16.
- Of these pregnancies, 67 per cent had their antenatal initial assessment before 10 weeks of gestation. (6 health boards)
- These deliveries resulted in 30,675 births of which 30,513 were live births.
- Of the 30,675 births:
- 3 per cent (774 births) were multiple births (twins, triplets or higher order)
- 26 per cent were born by Caesarean section.
- 6 per cent of live births were less than 2,500g birth weight.
- 59 per cent of mothers intended to breastfeed their babies at birth (6 health boards).

About this release

This release provides statistics on maternity services in Wales including antenatal care, care at delivery and outcomes for babies. Data analysed in this release relates to births delivered in Welsh maternity units together with the relevant record of antenatal care. It does not include antenatal records for women whose pregnancy did not lead to a birth delivered in a Welsh maternity unit in 2015-16 nor does it include home births.

This is a new dataset and as a result these statistics are marked as '[Experimental](#)'.

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The Maternity Indicators data set

The Maternity Indicators data set (MI ds) was established in 2016 with the aim of providing data to populate a set of Maternity Indicators derived to monitor and develop maternity services in Wales. A series of data quality reviews were undertaken collaboratively by Public Health Wales (PHW) and the NHS Wales Informatics Service (NWIS); summary reports for each Health Board were prepared by PHW and NWIS and were used in Welsh Government performance meetings with Health Boards. Having established the data quality baseline, Welsh Government required the implementation of the Maternity Indicators data set (MI ds), which is sourced from Health Board maternity IT systems.

The first sets of Maternity indicators have been published by PHW in the [Pregnancy and childhood surveillance tool](#). Note that the 2015-16 extract on which the figures published by PHW are based was taken at a slightly different time to the one on which the figures in this release are based, and as a result the figures will not exactly align. However in future years both publications will be based on the same extract and figures will align. Please also note that PHW did not publish any indicators where data completeness was less than 80 per cent. This release shows all data but indicates where completeness is less than 80 per cent.

Further details of the development of the data set are provided in the [notes](#).

A list of the Welsh Government maternity Indicators is available in this document at [Annex 1](#) or online in the [Pregnancy and childhood surveillance technical guide](#).

The dataset includes all services provided in Wales, that is, antenatal care provided in Welsh maternity units and care of deliveries which occurred in Wales. This release profiles these services and therefore relates to any woman, wherever resident, who received care at delivery in Wales and the associated antenatal care. The Local Health Boards referred to, therefore, are those where the care was provided (either antenatally or at delivery); the analyses are based on health board provider rather than health board of residence.

The data set is managed by NHS Wales Informatics Service (NWIS) which provides anonymised extracts of antenatal and delivery data. The extract analysed in this release relates to births delivered in Welsh maternity units together with the relevant record of antenatal care ('initial assessment'). It does not include antenatal records for women whose pregnancy did not lead to a birth delivered in a Welsh maternity unit nor does it include home births.

Further information on the methodology used to join the birth and antenatal records together with additional information on data completeness and quality is provided in the [notes](#).

The following map shows the location of birth centres and obstetric units in Wales.

Areas of Wales within 20 Mile Drive Distance of a Maternity Unit



From August 2014 the obstetric services at Withybush Hospital ceased and became a midwife-led birth centre

Experimental statistics

This statistical release makes available data from the recently established Maternity Indicators data set (MIDs). The data and analysis presented are badged as Experimental Statistics. This is to inform users of the data that the MIDs and its reported statistics are still in a developmental phase and may have issues pertaining to data quality. However both the analysis and data are still of value provided that users view them in the context of the data quality information provided. As the data set matures the coverage and the quality of the data being reported will improve enabling the data to become fit for a wider variety of beneficial uses.

‘Experimental statistics’ are official statistics which are published in order to involve users and stakeholders in their development and as a means to build in quality at an early stage.

Data completeness varies across data items such that some data items align with counts derived from other sources of data and have little missing data eg birth weight and mother’s age but others are of variable quality and have more missing data or have coding issues eg mode of onset of labour and perineal trauma. Welsh Government and NWIS are working with Health Boards to improve completeness and quality. Where figures are based on data with less than 80 per cent completeness these are shown in italics.

Basic counts

Table 1 below shows the number of delivery records, and resulting live and still births, recorded in the Maternity Indicators Data set (MIDs) for 2015-16, the records for which have been joined to the relevant antenatal care (initial assessment) record.

The data set recorded 30,284 pregnancies / deliveries in 2015-16. These pregnancies / deliveries resulted in a total of 30,675 births of which 30,513 were live births.

Table 1: Delivery records, antenatal records and live births by Health Board providing the service, 2015-16 (a)

	Delivery records (b)	Antenatal records (a)	Live births	Still births (c)	Total births (d)
Betsi Cadwaladr ULHB	5,917	5,905	5,890	20	5,918
Powys Teaching LHB	231	472	231	0	231
Hywel Dda ULHB	3,190	3,197	3,221	16	3,237
Abertawe Bro Morgannwg ULHB	5,553	5,350	5,614	25	5,651
Cwm Taf ULHB	3,828	3,640	3,874	15	3,889
Aneurin Bevan ULHB	5,880	5,851	5,967	26	5,993
Cardiff and Vale ULHB	5,685	5,863	5,716	40	5,756
Not stated	-	6	-	-	-
Wales	30,284	30,284	30,513	142	30,675

Source: Maternity Indicators data set 2015-16

(a) This relates to *deliveries* in 2015-16. Note the initial assessment may have taken place in 2014-15.

(b) Includes delivery of live and still births

(c) Note that the pattern of still births across health boards may be affected by the location of the tertiary referral centre for foetal medicine in Cardiff.

(d) Includes births with no stated outcome

Antenatal care 2015-16

Data presented here refers to the 30,284 pregnancies in 2015-16.

Table 2 shows the proportion of women in each Health Board who had received antenatal care (had their initial assessment) in the Health Board where they delivered.

Table 2: Percentage of women (a) who received antenatal care and delivered in the same Health Board, by Health Board providing the service, 2015-16

	Number of women	Percentage of women (a)
Betsi Cadwaladr ULHB	5,905	100.0%
Powys Teaching LHB	229	48.5%
Hywel Dda ULHB	3,144	98.3%
Abertawe Bro Morgannwg ULHB	5,299	99.0%
Cwm Taf ULHB	3,569	98.0%
Aneurin Bevan ULHB	5,671	96.9%
Cardiff and Vale ULHB	5,611	95.7%

Source: Maternity Indicators data set 2015-16

(a) Percentage of women receiving initial assessment in each Health Board.

In 6 out of the 7 Health Boards more than 95 per cent of women went on to deliver in the same Health Board as they received their antenatal care in.

Less than half (49 per cent) of women who had antenatal care at Powys Teaching LHB went on to deliver there. Powys has no District General Hospital with a large maternity unit, the small maternity units there being suitable for low risk pregnancies only. Any pregnancy considered high risk would normally be delivered in a District General Hospital in a neighbouring Health Board.

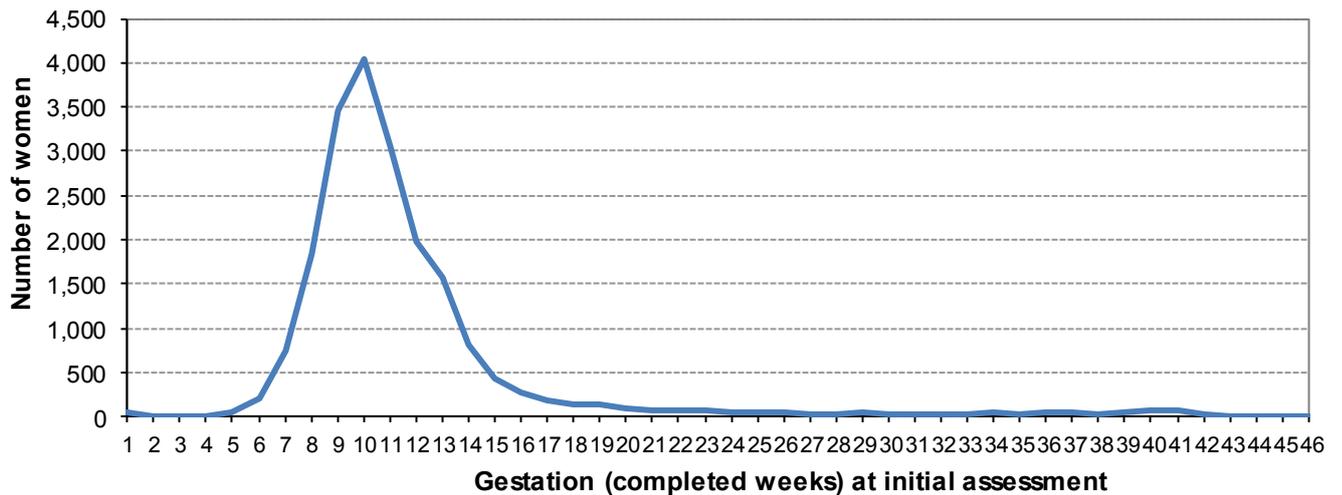
Initial assessments

The 'proportion of women whose initial assessment has been carried out by 10 completed weeks of pregnancy' is one of the Welsh Government Maternity Indicators (Performance Measure 2). The rationale for this indicator is that early access to maternity services increases the opportunity to promote and improve the health and well-being of pregnant women through early sign-posting to appropriate services and provision of evidence based information.

In 2015-16, 67 per cent of women who had an initial assessment ('booked in') with maternity services had received it before the 10th completed week of pregnancy. This is based on 6 health boards; Aneurin Bevan University LHB has been excluded from all analyses of gestation at initial assessment due to data quality concerns.

Chart 1 shows the number of women having their initial assessment by week of gestation.

Chart 1: Number of women having their initial assessment by week of gestation, Wales (a), 2015-16



Source: Maternity Indicators data set 2015-16

(a) Aneurin Bevan University LHB has been excluded from this chart due to data quality concerns.

The majority (84 per cent) of initial assessments took place between 7 and 13 completed weeks gestation.

Characteristics of women at initial assessment

Other indicators included in the Welsh Government Maternity Indicators and presented here are the ‘proportion of women who smoke at booking/initial assessment’, the ‘proportion who have a Body Mass Index (BMI) of 30+ at booking/initial assessment’ (both part of Outcome Indicator 1) and the ‘proportion of women with existing mental health conditions with a care plan in place’ (Performance Measure 3).

Tables 3 and 4 and Charts 2 and 3 show some key statistics for these indicators for women at initial assessment. Note that data completeness was poor for some Health Boards and age groups. Those which are based on data which is less than 80 per cent complete are shown in italics and Wales figures are only shown where some data was returned for every Health Board.

Table 3: Antenatal care: key statistics by health board providing the service, 2015-16

Percentage (a) of women at initial assessment who:	Per cent			
	Had an initial assessment carried out by 10 completed weeks of pregnancy	Had existing mental health conditions with a care plan in place (b)	Smoking	Had a BMI 30+
Betsi Cadwaladr ULHB	74.2	57.4	18.5	27.6
Powys Teaching LHB	69.3	.	14.4	19.7
Hywel Dda ULHB	46.3	.	16.2	26.8
Abertawe Bro Morgannwg ULHB	70.4	25.4	17.5	28.7
Cwm Taf ULHB	73.3	.	24.3	34.9
Aneurin Bevan ULHB	.	.	20.0	32.2
Cardiff and Vale ULHB	70.9	.	14.6	23.1
Wales (c)	67.4	.	18.4	27.5

Source: Maternity Indicators data set 2015-16

(a) The percentages for each indicator are of the total records less records with a 'not stated' value. In 2015-16, 4,512 records had no stated gestation at booking (after Aneurin Bevan University LHB was excluded), 943 records had no stated care plan status, 1,250 records had no stated smoking status, 5,816 records had no stated BMI (includes BMI values of less than 10 or greater than 100).

(b) Percentage is of women who had a recorded mental health condition. For a list of conditions which are included see [notes](#).

(c) Total for Wales includes 6 records where LHB was not stated. Aneurin Bevan University LHB has been excluded from this chart due to data quality concerns.

Data in italics are based on data which is less than 80 per cent complete.

The proportion of women who had received an initial assessment with maternity services before the 10th completed week of pregnancy varied across Health Boards from 46 per cent at Hywel Dda University LHB to 73 per cent in Cwm Taf University LHB (Betsi Cadwaladr University LHB recorded a slightly higher percentage although had much missing data, with 76 per cent of their records having no stated gestation at initial assessment).

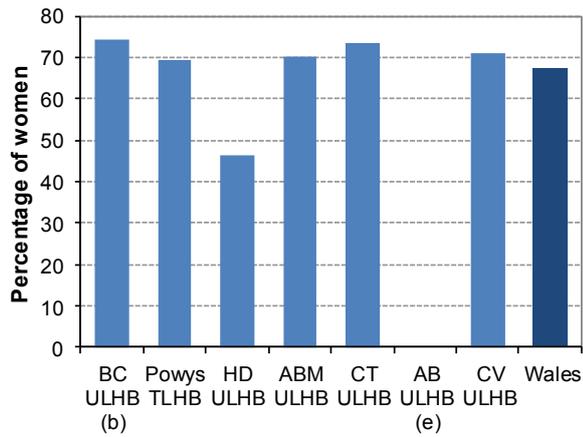
Completeness of data regarding mental health care plans was poor, with only 1 health board (Abertawe Bro Morgannwg University) having 100% complete data. 4 health boards (Cardiff and Vale University LHB, Cwm Taf University LHB, Hywel Dda University LHB and Powys Teaching LHB) had no data for this indicator. There is still much work to do to improve completeness of this indicator, including ensuring that maternity units are recording data correctly.

The proportion of women who were recorded as smoking at initial assessment varied between Health Boards from 14 per cent in Powys Teaching LHB to 24 per cent in Cwm Taf University LHB.

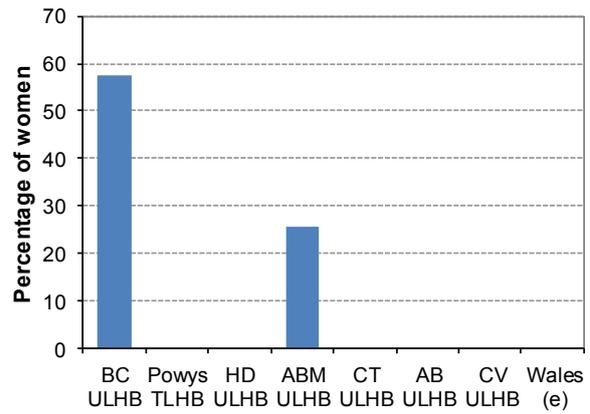
A pattern of healthier lifestyle choices can be seen; as well as having the lowest smoking rate, Powys Teaching LHB also had the lowest percentage of women who had a BMI or 30 or over (20 per cent), and Cwm Taf University LHB also had the highest (35 per cent).

Chart 2: Percentage (a) of women at initial assessment, by Health Board providing the service, 2015-16, who:

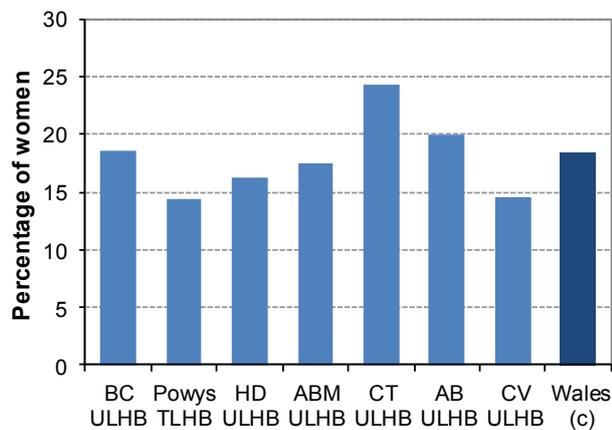
Had an initial Assessment by 10 completed weeks of pregnancy



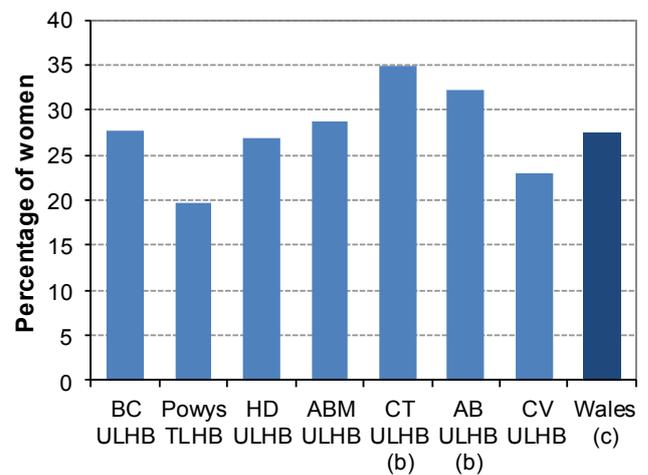
Had an existing mental health condition with a care plan in place (d)



Were recorded as smoking pregnancy



Had a BMI of 30+



Source: Maternity Indicators data set 2015-16

- (a) The percentages for each indicator are of the total records less records with a 'not stated value'. In 2015-16, 4,512 records had no stated gestation at booking (after Aneurin Bevan University LHB was excluded), 943 records had no stated care plan status, 1,250 records had no stated smoking status, 5,816 records had no stated BMI (includes BMI values of less than 10 or greater than 100).
- (b) Data was less than 80 per cent complete.
- (c) Total for Wales includes 6 records where LHB was not stated.
- (d) Percentage is of women who had a recorded mental health condition. For a list of conditions which are included see [notes](#).
- (e) Data not available - Wales figures are only shown where some data was returned for every Health Board.

Table 4: Antenatal care: key statistics by age of mother at initial assessment, Wales, 2015-16

Percentage (a) of women at initial assessment who:					<i>Per cent</i>
Age	Had an initial	Had existing mental	Smoking	Had a BMI	
	assessment carried out by 10 completed weeks of pregnancy (b)	health conditions with a care plan in place (c)(d)			
Under 16	<i>40.0</i>	<i>60.0</i>	28.6	9.4	
16-19	<i>64.4</i>	<i>29.1</i>	36.0	21.1	
20-24	<i>65.7</i>	<i>28.6</i>	26.6	28.8	
25-29	<i>68.9</i>	<i>31.3</i>	17.5	28.5	
30-34	<i>69.4</i>	<i>34.4</i>	12.3	26.5	
35-39	<i>65.3</i>	<i>30.0</i>	12.0	27.2	
40-44	<i>60.3</i>	<i>34.1</i>	11.1	32.0	
45 or over	<i>48.1</i>	<i>50.0</i>	9.1	43.3	
All ages (e)	67.4	31.4	18.4	27.5	

Source: Maternity Indicators data set 2015-16

- (a) The percentages for each indicator are of the total records less records with a 'not stated' value. In 2015-16, 4,512 records had no stated gestation at booking (after Aneurin Bevan University LHB was excluded), 943 records had no stated care plan status, 1,250 records had no stated smoking status, 5,816 records had no stated BMI (includes BMI values of less than 10 or greater than 100).
- (b) Aneurin Bevan University LHB has been excluded due to data quality concerns.
- (c) Percentage is of women who had a recorded mental health condition. For a list of conditions which are included see [notes](#).
- (d) Only Betsi Cadwaladr University LHB and Abertawe Bro Morgannwg University LHB provided data for this indicator.
- (e) 'All ages' includes records where mother's age was not stated.
Data in italics are based on data which is less than 80 per cent complete.

The proportion of women who had received an initial assessment with maternity services before the 10th completed week of pregnancy varied across age groups from two-fifths (40 per cent) for the Under 16 age group to around two-thirds in the older age groups. However there was a slightly higher percentage of missing data for the Under 16 age group. Data for Aneurin Bevan University LHB has been excluded due to data quality concerns.

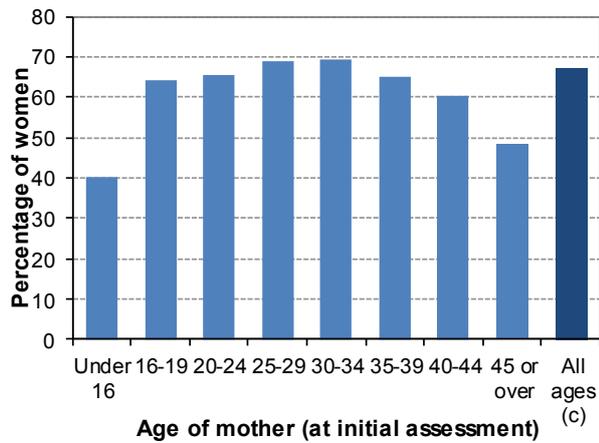
Completeness of data regarding mental health care plans was poor; data was less than 80 per cent complete across all age groups. As was seen in table 3 only Betsi Cadwaladr University LHB and Abertawe Bro Morgannwg University LHB provided data for this indicator.

The proportion of women who smoked at initial assessment was higher for younger women, with 29 per cent of women under 25 smoking at initial assessment.

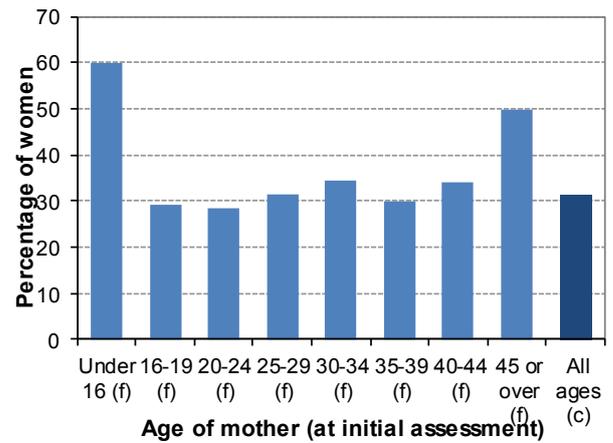
Conversely, the proportion of women with a BMI of 30+ at initial assessment was higher in older women. However the completeness of this indicator was less than 80 per cent complete for the younger age groups.

Chart 3: Percentage (a) of women at initial assessment, by age of mother (at initial assessment), 2015-16, who:

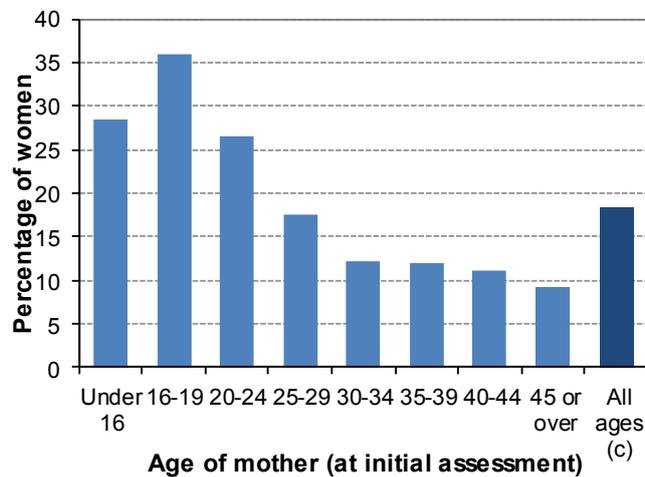
Had an initial assessment by 10 completed weeks of pregnancy (b)



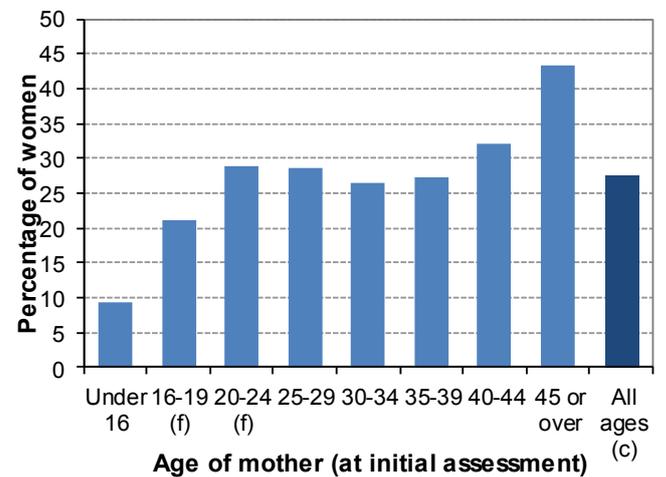
Had an existing mental health condition with a care plan in place (d)(e)



Were recorded as smoking pregnancy



Had a BMI of 30+



Source: Maternity Indicators data set 2015-16

- (a) The percentages for each indicator are of the total records less records with a 'not stated value'. In 2015-16, 4,512 records had no stated gestation at booking (after Aneurin Bevan University LHB was excluded), 943 records had no stated care plan status, 1,250 records had no stated smoking status, 5,816 records had no stated BMI (includes BMI values of less than 10 or greater than 100).
- (b) Aneurin Bevan University LHB has been excluded due to data quality concerns.
- (c) 'All ages' includes records where mother's age was not stated.
- (d) Percentage is of women who had a recorded mental health condition. For a list of conditions which are included see [notes](#).
- (e) Only Betsi Cadwaladr University LHB and Abertawe Bro Morgannwg University LHB provided data for this indicator.
- (f) Data was less than 80 per cent complete.

Care at delivery 2015-16 – delivery characteristics

Data here refers to the 30,284 deliveries which took place in 2015-16.

Onset of labour

Onset of labour is the method by which the process of labour began or delivery by a caesarean section occurred and includes methods that are used to induce labour, such as surgical or medical induction or a combination of the two. Methods that are used to accelerate labour are not included.

For more information see [notes](#).

Data was recorded in the MI ds for every Health Board but no labour onset was recorded as 'caesarean' for several Health Boards where elective caesarean sections were recorded. This data cannot therefore be presented until the data quality has improved.

Pain relief

In 2015-16, one third (25 per cent) of women had an epidural for pain relief before or during delivery (for labour or birth) (6 Health Boards – see note).

Table 5: Epidurals, by health board providing the service, 2015-16

Epidural				<i>Number</i>
	Epidural administered	Epidural not administered	Not stated	Total deliveries (a)
Betsi Cadwaladr ULHB	1,281	4,633	3	5,917
Powys Teaching LHB	0	231	0	231
Hywel Dda ULHB	635	2,555	0	3,190
Abertawe Bro Morgannwg ULHB (c)
Cwm Taf ULHB	634	3,194	0	3,828
Aneurin Bevan ULHB	867	1,364	3,649	5,880
Cardiff and Vale ULHB	1,566	3,311	808	5,685
Wales (c)	4,983	15,288	4,460	24,731
				<i>Per cent (b)</i>
Betsi Cadwaladr ULHB	21.7	78.3		100
Powys Teaching LHB	0.0	100.0		100
Hywel Dda ULHB	19.9	80.1		100
Abertawe Bro Morgannwg ULHB (c)	.	.		.
Cwm Taf ULHB	16.6	83.4		100
Aneurin Bevan ULHB	38.9	61.1		100
Cardiff and Vale ULHB	32.1	67.9		100
Wales (c)	24.6	75.4		100

Source: Maternity Indicators data set 2015-16

(a) In the case of a delivery of a multiple birth, *any* mention of an epidural is counted.

(b) The percentages are of the total records less records with a 'not stated' value. In 2015-16, 4,460 records had no stated epidural status.

(c) The figure for ABMU for has been omitted due to data quality concerns; the Wales figure, therefore, relates to 6 Health Boards. We will continue to investigate this as part of future data quality work.

Data in italics are based on data which is less than 80 per cent complete.

Care at delivery 2015-16 – Birth characteristics

Data here refers to the 30,675 births (live and still) which took place in 2015-16. Births are studied rather than deliveries, since twins or triplets could be delivered by different means.

Table 6 shows deliveries and births by maternity unit.

Table 6: Delivery and birth records by Health Board providing the service and maternity unit, 2015-16

	Deliveries	Births
Betsi Cadwaladr ULHB	5,917	5,918
Wrexham Maelor Hospital	2,276	2,276
Ysbyty Glan Clwyd	1,756	1,756
Ysbyty Gwynedd	1,885	1,886
Powys Teaching LHB	231	231
Powys Maternity Units (a)	231	231
Hywel Dda ULHB (b)	3,190	3,237
Bronglais General Hospital	427	429
Glangwili General Hospital	2,573	2,618
Withybush General Hospital	188	188
Not stated	2	2
Abertawe Bro Morgannwg ULHB (c)	5,553	5,651
Neath Port Talbot Hospital (c)	3	3
Princess Of Wales Hospital (c)	7	7
Singleton Hospital	2,390	2,447
Not stated (c)	3,153	3,194
Cwm Taf ULHB	3,828	3,889
Prince Charles Hospital	1,780	1,807
The Royal Glamorgan Hospital	1,976	2,010
Not stated (d)	72	72
Aneurin Bevan ULHB	5,880	5,993
Nevill Hall Hospital	1,934	1,984
Royal Gwent Hospital	3,593	3,656
Ysbyty Aneurin Bevan	20	20
Ysbyty Ystrad Fawr	333	333
Cardiff and Vale ULHB	5,685	5,756
University Hospital of Wales	5,685	5,756
Wales	30,284	30,675

Source: Maternity Indicators data set 2015-16

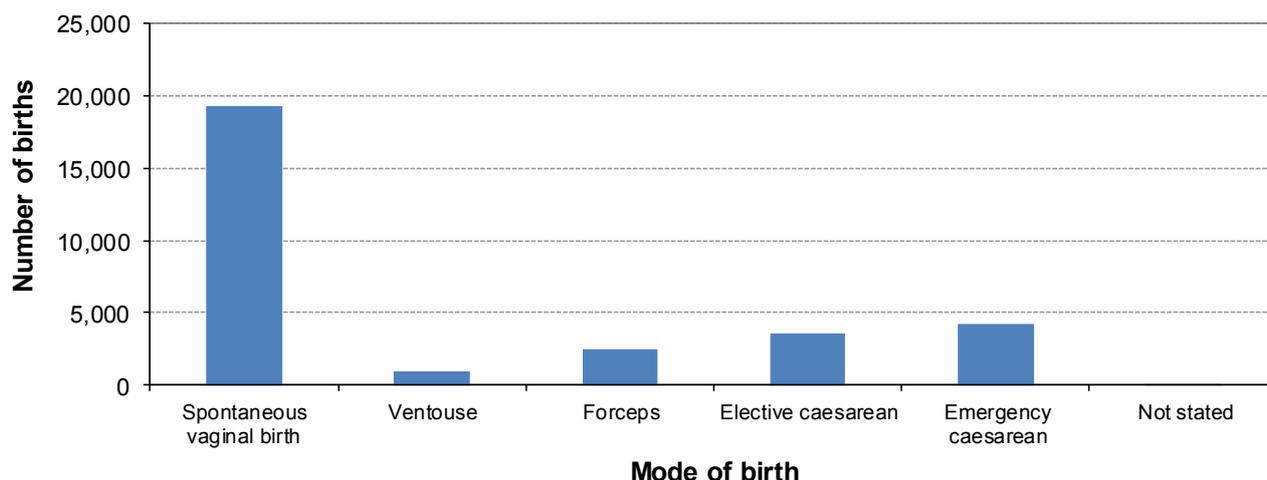
- (a) Powys Maternity Units consist of: Breconshire War Memorial Hospital, Bro Ddyfi Community Hospital, Builth Wells Cottage Hospital, Knighton Hospital, Llandrindod Wells Hospital, Llanidloes And District War Memorial Hospital, Montgomeryshire County Infirmary, Victoria Memorial Hospital and Ystradgynlais Community Hospital.
- (b) Total for Hywel Dda University LHB includes 2 deliveries and 2 births for which maternity unit was not stated.
- (c) Total for Abertawe Bro Morgannwg University LHB includes 3,154 deliveries and 3,194 births for which maternity unit was not stated, but are likely to have been incorrectly coded and in fact occurred at Neath Port Talbot Hospital and Princess of Wales Hospital.
- (d) Total for Cwm Taf University LHB includes 72 deliveries and 72 births for which maternity unit was not stated.

Mode of birth

Three categories of mode of birth are summarised here, and are defined as:

- Caesarean section - Elective and emergency caesarean section deliveries
- Instrumental - Forceps cephalic deliveries and vacuum deliveries
- Spontaneous vaginal - Baby born by maternal effort

Chart 4: Number of births by mode of birth, Wales, 2015-16



Source: Maternity Indicators data set 2015-16

Chart 4 and Table 7 show that the majority (63 per cent) of births were spontaneous (unassisted) births. There is no real variation across health board, with the exception of Powys Teaching LHB. Powys has no District General Hospital with a large maternity unit, the small maternity units there being suitable for low risk pregnancies only. Any pregnancy considered high risk would normally be delivered in a District General Hospital in a neighbouring Health Board. There is much more variation however between instrumental and caesarean births.

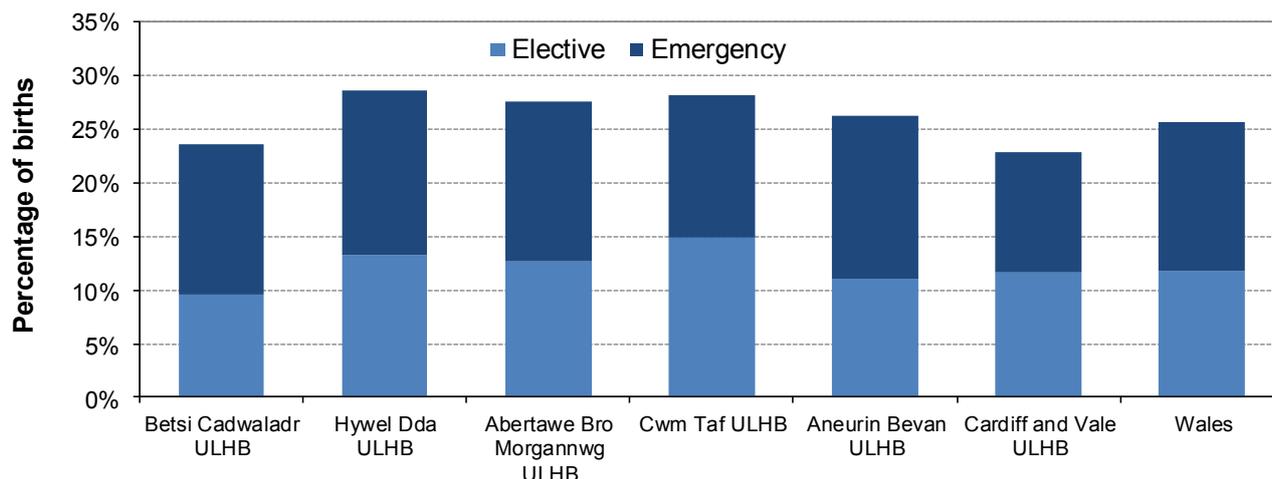
Table 7: Mode of birth, by health board providing the service, Wales, 2015-16

Mode of birth:							Number
	Spontaneous vaginal birth	Ventouse	Forceps	Elective caesarean	Emergency caesarean	Not stated	Total births
Betsi Cadwaladr ULHB	3,781	271	448	563	826	29	5,918
Powys Teaching LHB	231	0	0	0	0	0	231
Hywel Dda ULHB	2,013	126	172	428	498	0	3,237
Abertawe Bro Morgannwg ULHB	3,550	82	459	717	842	1	5,651
Cwm Taf ULHB	2,433	104	258	580	514	0	3,889
Aneurin Bevan ULHB	3,762	262	383	662	908	16	5,993
Cardiff and Vale ULHB	3,522	145	776	672	641	0	5,756
Wales	19,292	990	2,496	3,622	4,229	46	30,675
							Per cent (a)
Betsi Cadwaladr ULHB	64.2	4.6	7.6	9.6	14.0		100
Powys Teaching LHB	100.0	0.0	0.0	0.0	0.0		100
Hywel Dda ULHB	62.2	3.9	5.3	13.2	15.4		100
Abertawe Bro Morgannwg ULHB	62.8	1.5	8.1	12.7	14.9		100
Cwm Taf ULHB	62.6	2.7	6.6	14.9	13.2		100
Aneurin Bevan ULHB	62.9	4.4	6.4	11.1	15.2		100
Cardiff and Vale ULHB	61.2	2.5	13.5	11.7	11.1		100
Wales	63.0	3.2	8.1	11.8	13.8		100

Source: Maternity Indicators data set 2015-16

(a) The percentages are of the total records less records with a 'not stated' value. In 2015-16, 191 records had no stated mode of birth.

Chart 5: Percentage (a) of births (live and still) by caesarean section by health board, 2015-16



Source: Maternity Indicators data set 2015-16

(a) The percentages are of the total records less records with a 'not stated' value. In 2015-16, 191 records had no stated mode of birth.

Just over a quarter (26 per cent) of births were by caesarean section. This rate varied by health board from 23 per cent at Cardiff and Vale University LHB to 29 per cent at Hywel Dda University LHB.

Robson groups

The Robson classification is a system that classifies women into 10 groups based on their obstetric characteristics (parity, previous caesarean section, gestational age, onset of labour, foetal presentation and the number of foetuses). Since the system can be applied prospectively and its categories are totally inclusive and mutually exclusive, every woman that is admitted for delivery can be immediately classified based on these few basic characteristics.

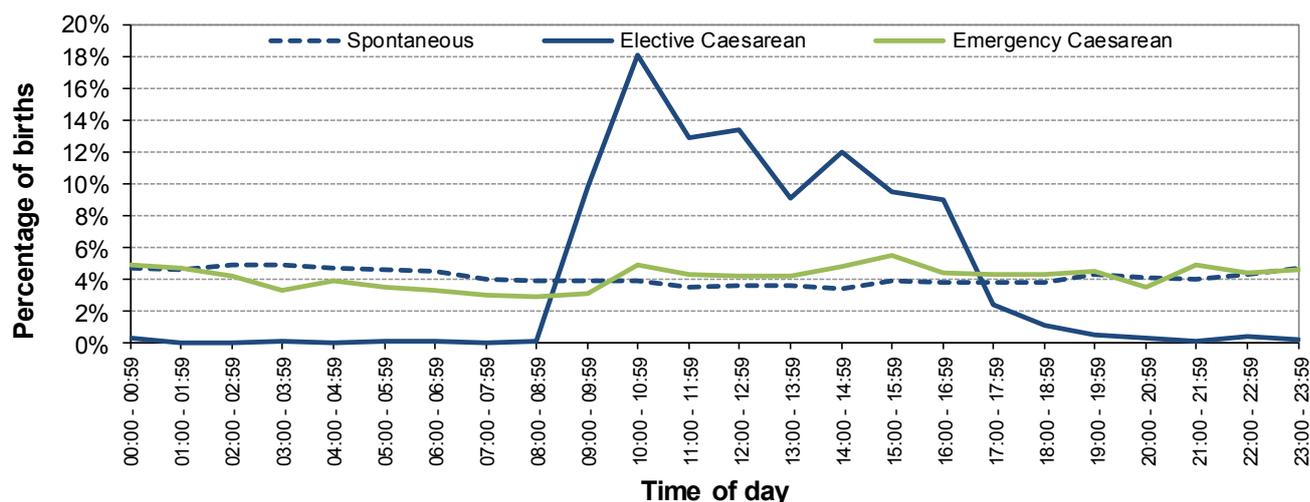
By looking at caesarean rates by Robson group, more detail can be provided into why caesarean rates vary between areas.

Completeness of some of the data items used to classify births into Robson groups was very poor in 2015-16 but it is hoped that it will improve in future years. Descriptions of the 10 Robson groups can be found within the list of Welsh Government Maternity Indicators at [Annex 1](#).

Time of birth

When looking at the 30,675 births (live and still) which took place in 2015-16, time of day data for Betsi Cadwaladr University LHB had been incorrectly recorded and so has been excluded from this chart. Therefore data here refers to the remaining 24,757 births (live and still).

Chart 6: Births (live and still) by time of birth and mode of birth, Wales (a), 2015-16



Source: Maternity Indicators data set 2015-16

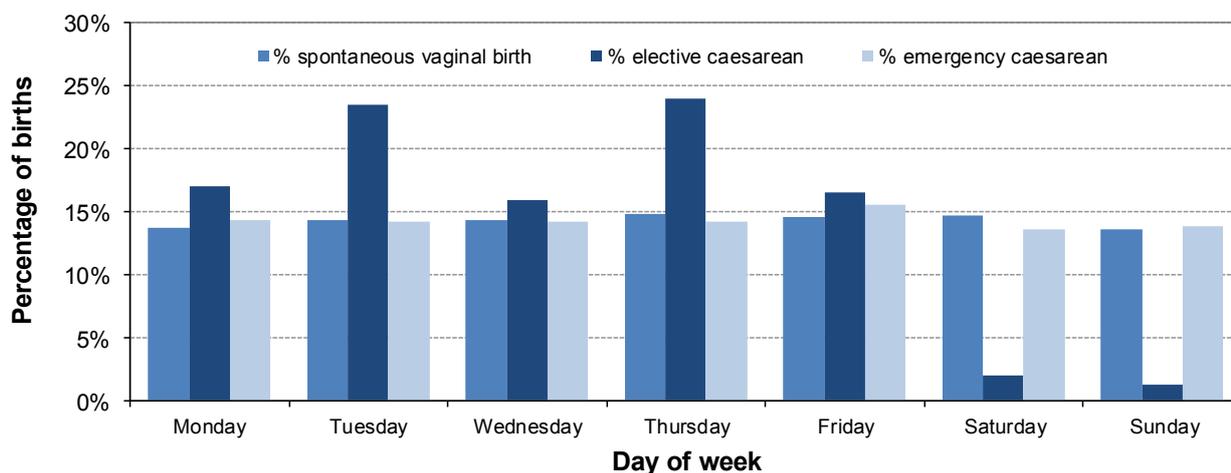
(a) Excludes data for Betsi Cadwaladr University LHB as time of birth was incorrectly recorded.

The distribution of live births by hour of the day is shown in Chart 6. For births by spontaneous vaginal delivery, most births in 2015-16 occurred between 2am and 3am and fewest between 2pm and 3pm. Slightly more emergency caesareans happened between the hours of 11 am and 4pm than other parts of the day. When looking at elective caesarean sections however, two-thirds of them occurred between 10am and 3pm.

Day of week

Data here refers to the 30,675 births (live and still) which took place in 2015-16.

Chart 7: Births (live and still) by day of week and mode of birth, Wales, 2015-16



Source: Maternity Indicators data set 2015-16

(a) The percentages are of the total records less records with a 'not stated' mode of birth. In 2015-16, 191 records had no stated mode of birth.

Chart 7 shows how the pattern of the day of the week on which the births occurred varies with the mode of birth. Spontaneous vaginal births and emergency caesarean sections evenly spread across the week, however elective caesarean sections followed a more distinct pattern, which is likely to depend upon local workforce and resource availability across health boards.

Outcomes for baby

Table 8: Live births, still births and number of babies by Health Board providing the service, 2015-16

	Live births			Still births	Not stated	Total births
	Singletons	Multiples	Total			
Betsi Cadwaladr ULHB	5,888	2	5,890	20	8	5,918
Powys Teaching LHB	231	0	231	0	0	231
Hywel Dda ULHB	3,128	93	3,221	16	0	3,237
Abertawe Bro Morgannwg ULHB	5,420	194	5,614	25	12	5,651
Cwm Taf ULHB	3,752	122	3,874	15	0	3,889
Aneurin Bevan ULHB	5,743	224	5,967	26	0	5,993
Cardiff and Vale ULHB	5,577	139	5,716	40	0	5,756
Wales	29,739	774	30,513	142	20	30,675

Source: Maternity Indicators data set 2015-16

Of the 30,675 births in Wales in 2015-16, over 99 per cent of them (30,513) were live births. Of these live births, 2.5 per cent (774) were multiple births (twins, triplets or higher order). The multiple birth rate varied across health boards, from 2.4 per cent in Cardiff and Vale University LHB to 3.8 per cent in Aneurin Bevan University LHB. It seems unlikely that there were very few multiple births in two health boards and this will be investigated as a data quality issue.

The remainder of data presented refers to the 30,513 live births which took place in 2015-16.

Healthy births

The 'percentage of births considered to be healthy births' is a Welsh Government Maternity Indicator (Outcome Indicator 5). Only complete records are included in the healthy births analysis i.e. each record must have valid entries to all the fields related to the criteria below to be included in the denominator.

Any of the following criteria exclude the birth from being considered as 'healthy':

- An onset of labour other than spontaneous
- Augmentation in labour
- Caesarean section, use of forceps or ventouse
- A gestational age of less than 37 weeks
- Still birth
- Epidural in labour
- 3rd or 4th degree perineal trauma or episiotomy
- A birth weight of less than 2500g or greater than 4000g
- Blood loss of greater than 500ml
- Apgar score at 5 minutes less than 7

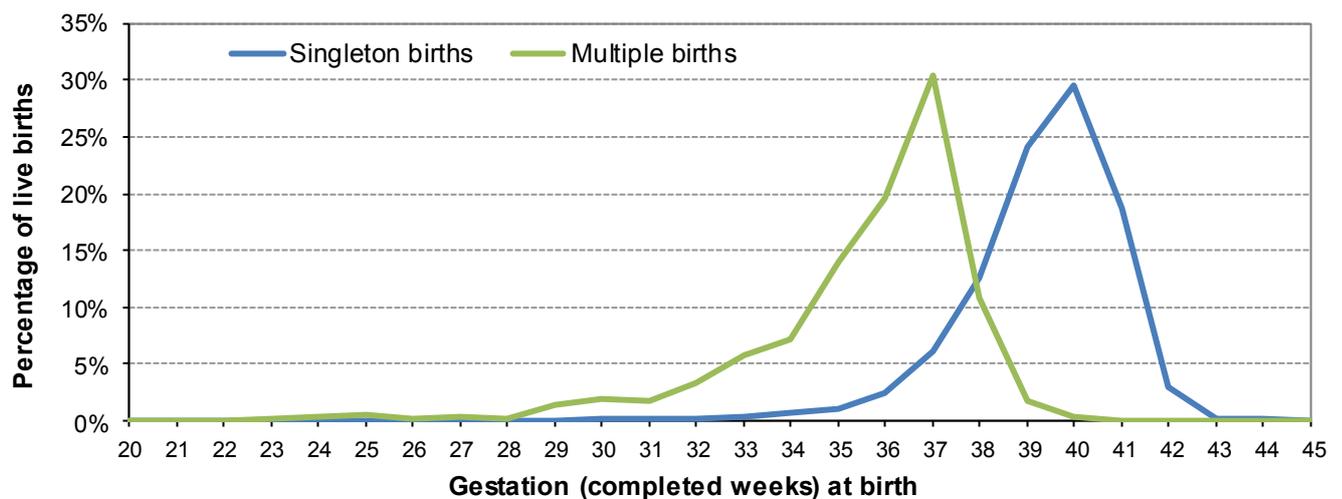
In 2015-16 completeness of the fields related to these criteria was too poor across the majority of health boards to provide an accurate estimation of the percentage of healthy births. In the two health boards that had the most complete data (78 per cent and 96 per cent complete) the percentage of healthy births was 80 per cent in Powys teaching LHB and 29 per cent at Cwm Taf University LHB.

More analysis of this indicator will be available in the future when the completeness of the data improves.

Gestational age

Chart 8 shows the distribution of live births by gestational age at birth. 91 per cent of singleton live births in 2015-16 were born at 37-41 weeks gestation, compared to 43 per cent of multiple births. It is known that babies born prematurely (before 37 weeks of pregnancy) may have a higher risk of immediate or longer-term health problems. 6 per cent of singleton live births were "pre-term", that is, at less than 37 weeks gestation compared to 57 per cent of multiple births. Completeness of gestational age at birth was 96 per cent for singleton births and 92 per cent for multiple births (1,294 records in total).

Chart 8: Live births by gestational age at birth, Wales, 2015-16



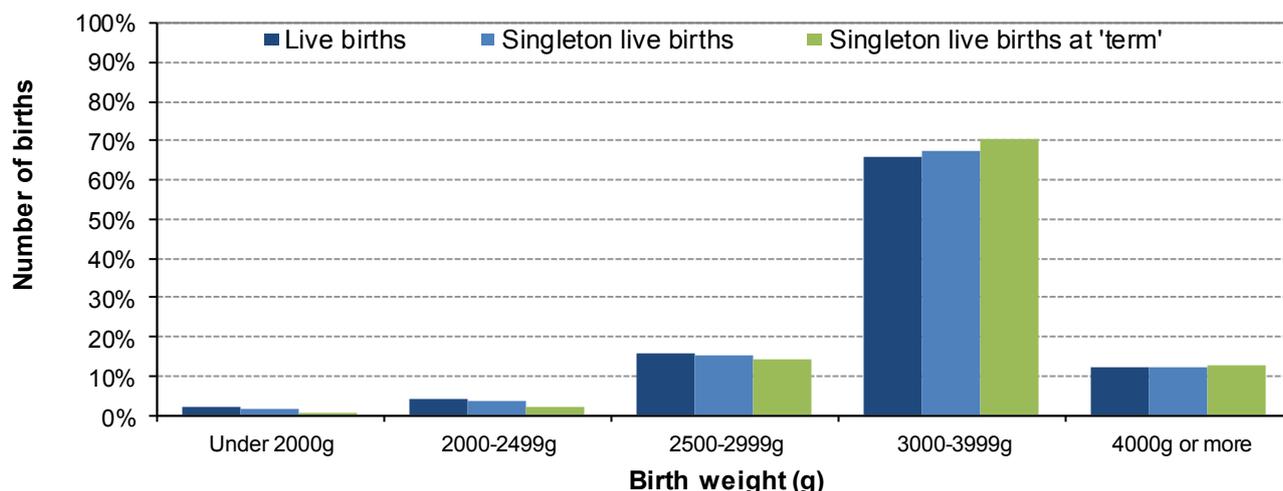
Source: Maternity Indicators data set 2015-16

The percentages are of the total live births less births with no stated gestational age: 1,297 births had no stated gestational age in 2015-16 (includes gestations of less than 20 weeks and more than 45 weeks).

Birth weight

Chart 9 shows the distribution of all live births, singleton live births and singleton live births at 'term' (37 to 43 completed weeks gestation) by birth weight (in grams). 82 per cent of all live births (with a stated birth weight) in 2015-16 were born with birth weights of between 2,500 and 3,999g. Table 8 shows birth weight by Local Health Board.

Chart 9: Live births by birth weight, Wales, 2015-16



Source: Maternity Indicators data set 2015-16

(a) The percentages are of the total live births less births with no stated birth weight: 81 live births, 76 singleton live births and 33 singleton live births at 'term' had no stated birth weight in 2015-16 (includes birth weights of less than 0.5kg or more than 6kg).

Low birth weight is associated with health risks in an infant's first year of life. Table 9 and Chart 10 shows the proportion of all live births and singleton live births weighing less than 2,500g at birth by Local Health Board. The proportions (of all live births with stated birth weight) varied from 1 per cent in Powys Teaching LHB (1 per cent of singletons) to 7 per cent in each of Abertawe Bro Morgannwg University LHB, Cwm Taf University LHB and Aneurin Bevan University LHB (5 per cent of singletons in each). Overall in Wales 6 per cent of all live births and 5 per cent of singletons weighed less than 2,500g at birth. No account is taken of differing LHB age distributions.

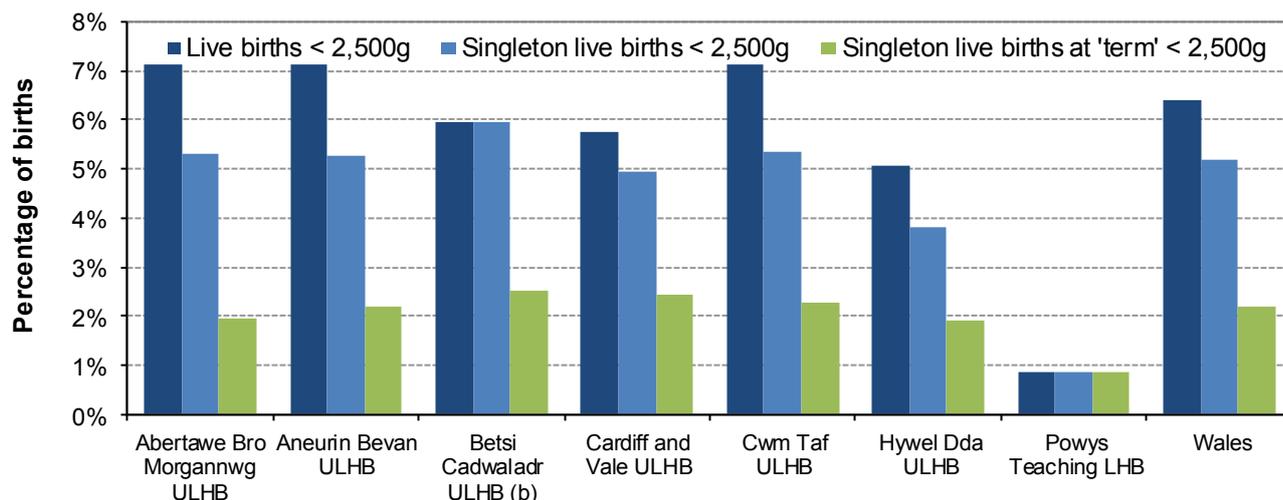
Table 9: Live births by birth weight and health board providing the service, 2015-16

Birthweight							Number		
	Under 2000g	2000-2499g	2500-2999g	3000-3999g	4000g or more	Not stated	Total live births	Singleton birth <2500g	Total singleton with stated birthweight
Betsi Cadwaladr ULHB	117	234	866	3,875	796	2	5,890	351	5,886
Powys Teaching LHB	0	2	27	178	24	0	231	2	231
Hywel Dda ULHB	43	120	477	2,141	440	0	3,221	119	3,128
Abertawe Bro Morgannwg ULHB	158	243	862	3,691	660	0	5,614	288	5,420
Cwm Taf ULHB	100	177	725	2,502	370	0	3,874	201	3,752
Aneurin Bevan ULHB	155	271	930	3,882	729	0	5,967	302	5,743
Cardiff and Vale ULHB	83	242	907	3,767	638	79	5,716	273	5,503
Wales	656	1,289	4,794	20,036	3,657	81	30,513	1,536	29,663
	<i>Per cent</i>								
Betsi Cadwaladr ULHB	2.0	4.0	14.7	65.8	13.5		100.0	6.0	
Powys Teaching LHB	0.0	0.9	11.7	77.1	10.4		100.0	0.9	
Hywel Dda ULHB	1.3	3.7	14.8	66.5	13.7		100.0	3.8	
Abertawe Bro Morgannwg ULHB	2.8	4.3	15.4	65.7	11.8		100.0	5.3	
Cwm Taf ULHB	2.6	4.6	18.7	64.6	9.6		100.0	5.4	
Aneurin Bevan ULHB	2.6	4.5	15.6	65.1	12.2		100.0	5.3	
Cardiff and Vale ULHB	1.5	4.3	16.1	66.8	11.3		100.0	5.0	
Wales	2.2	4.2	15.8	65.8	12.0		100.0	5.2	

Source: Maternity Indicators data set 2015-16

(a) The percentages are of the total live births less births with no stated birth weight: 81 births had no stated birth weight in 2015-16 (includes birth weights of less than 0.5kg or more than 6kg).

Chart 10: Percentage of live births less than 2,500g birth weight by health board providing the service, 2015-16



Source: Maternity Indicators data set 2015-16

- (a) The percentages are of the total live births less births with no stated birth weight: 81 live births, 76 singleton live births and 33 singleton live births at 'term' had no stated birth weight in 2015-16 (includes birth weights of less than 0.5kg or more than 6kg).
- (b) Betsi Cadwaladr University LHB recorded few multiple births and therefore the live births and singleton live births percentages are the same.

The percentage of live single births with a birth weight of under 2,500g is one of 46 national indicators put in place under the Well-being of Future Generations Act 2015. The indicator will be based on singleton births and will be calculated as the percentage of births that are less than 2,500 grams. Data for this National indicator is available on the [StatsWales](http://StatsWales.gov.wales) website by local authority area and LHB But note that the official source for this is NCCHD and not this Maternity Indicators data set.

Breastfeeding

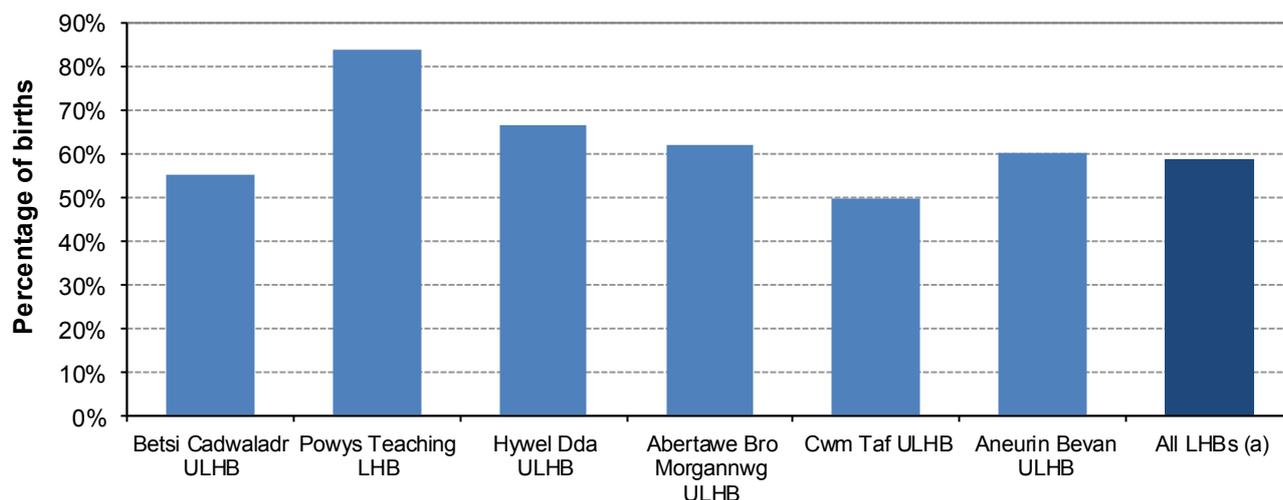
Breastfeeding is recognised as being of crucial importance for the health of babies and their mothers.

The Maternity Indicators data set records the mother's intention to breastfeed rather than whether breastfeeding at birth actually occurred.

Since the indicator is about the mother, data presented refers to the 30,284 deliveries (mothers who delivered) in 2015-16. There is much missing data, 12 per cent (3,378 records) of all pregnancies had no stated intention to breastfeed status. This figure will have been greatly affected by the fact that there was much missing intention to breastfeed data at one local health board, Cardiff and Vale University LHB. When data for this health board is removed, the percentage of records in Wales for which no intention to breastfeed status is recorded drops to 6 per cent.

Charts and commentary for this section of the release only will exclude Cardiff and Vale University LHB, that is, Chart 11 relates only to 6 Health Boards.

Chart 11: Intention to breastfeed by health board providing the service, 2015-16 (a)

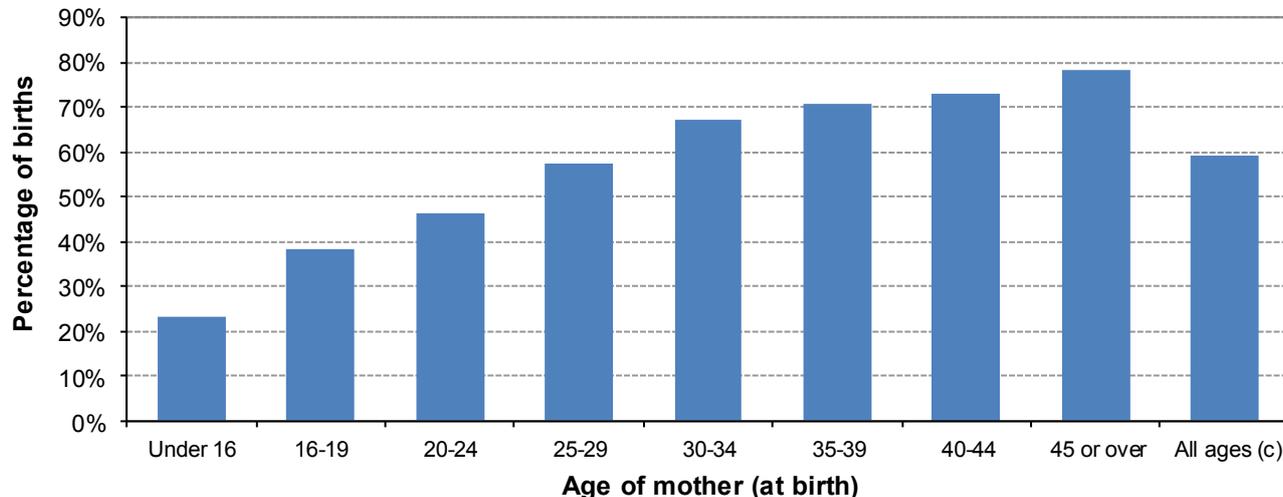


Source: Maternity Indicators data set 2015-16

- (a) The percentages are of the total deliveries less births with no stated intention to breastfeed status: 3,778 births had no stated intention to breastfeed status in 2015-16.
- (b) Cardiff and Vale University Local Health Board is excluded from this chart.

Overall the proportion of mothers in 2015-16 who intended to breastfeed their babies at birth can be estimated as 59 per cent. There is wide variation between health boards, with the proportion ranging from 50 per cent at Cwm Taf University LHB to 84 per cent at Powys Teaching LHB.

Chart 12: Intention to breastfeed by age of mother, Wales (a), 2015-16 (b)



Source: Maternity Indicators data set 2015-16

- (a) Cardiff and Vale University Local Health Board is excluded from this chart.
- (b) The percentages are of the total deliveries less births with no stated intention to breastfeed status: 1,581 births had no stated intention to breastfeed status in 2015-16 (when Cardiff and Vale University LHB was excluded).
- (c) 'All ages' includes 9 records where mother's age was not stated.

Chart 12 shows how the mother's intention to breastfeed varies by age group of mother. Older mothers were more likely to breastfeed than younger mothers, with proportions ranging from just 23 per cent for mothers aged under 16 years old to 79 per cent for those aged 45 years and over.

Table 10: Intention to breastfeed by Health Board providing the service and age of mother, 2015-16

Intention to breastfeed	<i>Per cent (a)</i>
Mothers who had intention to breastfeed at birth	
<i>Health Board:</i>	
Betsi Cadwaladr ULHB	55.2
Powys Teaching LHB	84.0
Hywel Dda ULHB	66.5
Abertawe Bro Morgannwg ULHB	62.1
Cwm Taf ULHB	49.9
Aneurin Bevan ULHB	60.0
Cardiff and Vale ULHB (b)	.
Wales	59.0
<i>Age of mother:</i>	
Under 16	23.3
16-19	38.5
20-24	46.5
25-29	57.5
30-34	67.1
35-39	71.0
40-44	73.0
45 or over	78.6
All ages (c)	59.0

Source: Maternity Indicators data set 2015-16

- (a) The percentages are of the total deliveries less births with no stated intention to breastfeed status: 1,581 births had no stated intention to breastfeed status in 2015-16 (when Cardiff and Vale University LHB was excluded)
- (b) Cardiff and Vale University Local Health Board is excluded from this chart.
- (c) 'All ages' includes 9 records where mother's age was not stated

ANNEX: Maternity indicators

Following the publication of the Welsh Government's "[Strategic Vision for Maternity Services in Wales](#)" in 2011 set of maternity indicators were developed to monitor progress. Note that a number of the original indicators are not currently measured and therefore are not part of the MI ds. These are shown in grey below. Note that the indicator relating to exclusive breastfeeding at 10 days is derived from the National Community Child Health database rather than from the Maternity Indicators data set.

<u>Indicator/ Measure</u>	<u>Description</u>
Outcome indicator 1	% who smoke during pregnancy
Outcome indicator 1	% who drink five or more units of alcohol per week during pregnancy
Outcome indicator 1	% who misuse substances during pregnancy
Outcome indicator 1	% who have a BMI 30+ at booking/initial assessment
Outcome indicator 2	% babies with birth weight <2500g
Outcome indicator 3	% babies exclusively breastfed at 10 days following birth (all ABM residents, NCCHD data)
Outcome indicator 4	% women and partners who felt confident to care for their baby
Outcome indicator 5	% 'healthy' births
Performance measure 1	Group 1: Nulliparous, Single Cephalic, >=37 wks in spontaneous labour
Performance measure 1	Group 2: Nulliparous, Single Cephalic, >=37 wks induced or CS before labour
Performance measure 1	Group 3: Multiparous (exc previous CS), single cephalic, >=37 wks in spontaneous labour
Performance measure 1	Group 4: Multiparous (exc previous CS), single cephalic, >=37 wks induced or CS before labour
Performance measure 1	Group 5: Previous CS, single cephalic, >=37 wks, all onset of labour types
Performance measure 1	Group 6: All nulliparous breeches
Performance measure 1	Group 7: All multiparous breeches (inc previous CS)
Performance measure 1	Group 8: All multiple pregnancies (inc previous CS)
Performance measure 1	Group 9: all abnormal lies, all gestations
Performance measure 1	Group 10: All single cephalic, <37 wks (inc previous CS)
Performance measure 1	Caesarean section rate (overall)
Performance measure 2	% women whose initial assessment has been carried out by 10 completed weeks of pregnancy
Performance measure 3	% women with existing mental health conditions with a care plan in place
Performance measure 4	% women and partners who said they were treated well by maternity services
Performance measure 5	% women who gave up smoking during pregnancy
Performance measure 5	% women who gave up drinking >=5 units of alcohol per week during pregnancy
Performance measure 5	% women who gave up misuse of substances during pregnancy
Performance measure 5	% women who gained no more than the recommended amount of weight during pregnancy

Key quality information

Source

The source of the data presented in these statistics is the Maternity Indicators data set (MI ds) which was established by [Data Standards Change Notice \(DSCN\) 2016/02](#) and official letter WHC/2016/020 on 28th June 2016. This data set provides data from maternity units in Wales; data which has not been available from other sources.

Development of MI ds: As part of the development of “A Strategic Vision for Maternity Services in Wales” (published in 2011) a set of outcome indicators and performance measures were established by the Welsh Government to measure the effectiveness and quality of Welsh maternity services. In addition to these, Public Health Wales (PHW) developed a set of reproductive and early year’s surveillance indicators, which included measures relevant to pregnancy and the neonatal period. In July 2012 the Chief Executive of NHS Wales wrote to Welsh Health Boards (HBs) to set out requirements for them to demonstrate improvements in the care provided by their maternity services.

Existing data sets did not provide the information required to produce the various maternity indicators and measures. The two national data sets that relate to maternity services are:

The Admitted Patient Care data set (APCds) mother’s record and “maternity tail”:

- The requirements of the Maternity Indicator data set are not met by the data collected within the APCds – for example, the Maternity Indicators data set includes antenatal data and home births, as well as hospital delivery data.
- The APCds is predominantly populated from data captured in Health Board Patient Administration Systems (PAS), rather than the dedicated maternity IT systems used by Welsh HBs.

National Community Child Health Database (NCCHD):

- Records in the Health Board Child Health System databases (which are the source of NCCHD) are started at birth, whereas the requirements of the Maternity Indicator data set also relates to the antenatal period.

In light of the current lack of usable data on maternity services, a national programme of work was initiated to establish a baseline of the quality of data associated with NHS Wales maternity services, with a view to ensuring that LHBs could collect and store data of sufficiently high quality so as to enable the production of a consistent, reliable and valid set of performance reports in relation to the national indicators. A series of data quality reviews were undertaken collaboratively by Public Health Wales (PHW) and the NHS Wales Informatics Service; summary reports for each Health Board were prepared by PHW and NWIS and have been used in Welsh Government performance meetings with Health Boards.

Having established the data quality baseline, Welsh Government required the implementation of the Maternity Indicators data set (MI ds), which is sourced from HB maternity IT systems. This new data set replaces the existing flow of maternity data (the “maternity tail” found in the APCds).

The first sets of Maternity indicators have been published by Public Health Wales in the [Pregnancy and Childhood Surveillance Tool](#).

The Maternity Indicators Data Set captures data relating to the woman at initial assessment and to mother and baby (or babies) for all births. This relates to initial assessment and birth activity undertaken in Wales only. Each Health Board makes available data in relation to the initial assessments and/or birth events which they managed. Where the initial assessment and birth events take place in different Health Boards, data will be linked nationally by the NHS Wales Informatics Service.

For the extract used for this statistical release NWIS have followed the methodology developed by Public Health Wales, joining delivery records to relevant antenatal records and deleting duplicated and inconsistent records and records without identifiers. There is work still to be done in establishing a standard process for the collection of the data and in the production of a finished database as well as defining data quality standards for the data set.

Coverage

Statistics in the release relate to NHS antenatal and delivery activity in maternity units in Wales.

Definitions

Specifications for the data items used in this release are listed below.

General data items

The data set includes a number of general data items identifying mother's demographic characteristics at both initial assessment/booking and at delivery together with the site where the care was delivered. Site code and organisation code are standard NHS Wales codes but note that the provider of the antenatal care may not be the same as the provider of delivery care.

Data items relating to the Initial assessment

Initial assessment: This is the date on which a pregnant woman was first assessed by hospital staff and arrangements were made for antenatal care. This is not necessarily the occasion on which arrangements were made for delivery.

Date of initial assessment / booking visit: The date of the initial maternity assessment / booking visit where a full Health & Social Care Needs Assessment is undertaken and the antenatal sections of the maternity hand held record are completed.

Gestation period at initial assessment / booking visit: The gestation period at initial assessment / booking visit, in completed weeks (rounded down).

Gravida: Gravida indicates the number of times the woman has been pregnant, regardless of whether these pregnancies were carried to term. A current pregnancy, if any, is included in this count.

Maternal height at initial assessment / booking visit: The height of the woman (in cm) as measured at the Initial Assessment (Booking Visit), or within the 10-12 week gestation period (when not undertaken at Initial Assessment).

Maternal weight at initial assessment / booking visit: The weight of the woman (in kg, to the nearest 100g), as measured at the Initial Assessment (Booking Visit), or within the 10-12 week gestation period (when not undertaken at Initial Assessment).

Smoker at initial assessment / booking visit: The smoking status of the woman at the time of the Initial Assessment / Booking Visit – i.e. is the woman a smoker? Wherever possible, this should be validated via Carbon Monoxide testing (i.e. CO-validated). Where not CO-validated, this should be the self-reported smoking status of the mother.

Existing mental health condition: The woman reports that she has one of the following mental health conditions:

- Puerperal psychosis (severe postnatal depression)
- Bi-polar affective disorder/manic depression
- Psychosis
- Psychotic depression
- Schizophrenia
- Other

Mental health care plan: To establish whether the woman has had a Mental Health Care Plan put in place within 4 weeks following the initial assessment.

A Mental Health Care and Treatment plan will:

- a) Be developed by a care coordinator in consultation with the service users and mental health providers (although the plan may be developed without the input of the patient where the outcomes cannot be agreed between all parties);
- b) Record the outcomes that the provision of mental health services for the relevant patient are designed to achieve;
- c) List these outcomes, record the services and/or actions that are to be provided to achieve each outcome, including when they will be provided, and state who is responsible for providing the service as well as where it will take place;
- d) Be kept under review and updated to reflect any changes in the type of care and treatment which may be required by the service user over time.

Parity: The parity group of the mother. Parity is the number of times a woman has given birth to a live neonate (any gestation) or at 24 weeks or more, regardless of whether the child was viable or non-viable (i.e. still births). Includes:

Nulliparous – the mother has never previously given birth

Primiparous – the mother has previously given birth once only

Multiparous – the mother has previously given birth more than once

Previous caesarean sections: The number of previous caesarean sections performed on the woman. A caesarean section is an operation to deliver a baby. It involves making a cut in the front wall of a woman's abdomen and womb. The operation can be a planned (elective) procedure – when a medical need for the operation becomes apparent during pregnancy or if it's requested by the mother in advance.

Data items relating to labour and delivery

Maternal weight at 36-38 weeks or onset of labour: The weight of the woman (in kg, to the nearest 100g), as measured at 36-38 weeks, or at onset of labour. The aim is that the information relates to a point as late in the pregnancy as is practically possible.

Smoker at 36-38 weeks or onset of labour: The smoking status of the woman at 36-38 weeks, or onset of labour – i.e. is the woman a smoker?

Wherever possible, this should be validated via Carbon Monoxide testing (i.e. CO-validated).

Where not CO-validated, this should be the self-reported smoking status of the mother. The aim is that the information relates to a point as late in the pregnancy as is practically possible.

Mode of onset of labour: This is the method by which the process of labour began or delivery by a caesarean section occurred. Only those methods that are used to induce labour, such as surgical induction, medical induction or a combination of the two, should be recorded. Methods that are used to accelerate labour should not be recorded. Includes:

- Spontaneous; the onset of regular contractions whether or not preceded by spontaneous rupture of the membranes.
- Any caesarean section carried out before the onset of labour; or a planned elective caesarean section carried out immediately following the onset of labour, when the decision was made before labour.
- Surgical induction; by amniotomy
- Medical induction; including the administration of agents either orally, intravenously or intra vaginally with the intention of initiating labour.
- Combination of surgical induction and medical induction.

Augmentation in labour: Whether medical or surgical augmentation of labour was undertaken in order to accelerate labour. The augmentation of labour is an intervention that is intended to increase the intensity of labour, usually when the caregiver feels the labour is not 'progressing', or is progressing too slowly. Augmentation of labour differs from induction, in that the labour has already started in some way, but is not progressing, has slowed or stopped. This can also include interventions to stimulate contractions after the waters have broken on their own (although some caregivers will refer to this as an induction). Augmenting the labour involves artificial stimulation of the contractions. This may be needed if the contractions have become weak, not coordinated (or irregular), far apart, not lasting long enough or have ceased for a period. If the labour needs augmenting, it means the contractions are not efficient enough to dilate the cervix.

Gestation at onset of labour: The gestation period at onset of labour, in completed weeks (rounded down). Gestation is the carrying of an embryo or foetus inside a woman. The time interval of a gestation is known as the gestation period.

Number of foetus at onset of labour: The number of foetus at onset of labour.

Estimated blood loss: The estimated post-partum blood loss (measured in millilitres – ml)

Epidural status: Epidural administered for pain relief. An Epidural is an injection of a local anaesthetic into the space outside the dura mater of the spinal cord in the lower back region to produce a loss of sensation especially in the abdomen or pelvic region.

Episiotomy: Did the woman have an episiotomy during childbirth?

Episiotomy is a surgical cut made at the opening of the vagina during childbirth, to aid a difficult delivery and prevent rupture of tissues.

Perineal trauma: Did the woman experience a 3rd or 4th degree tear during childbirth? This can be recorded as 'not applicable', if for example the woman has had a caesarean section.

Foetal lie at onset of labour: The lie of the foetus at onset of labour including transverse, oblique, longitudinal and other. A foetal lie of transverse is compatible with a foetal presentation of other or not known only. It must not be used if the presentation is cephalic or breech. Conversely, a foetal lie of oblique or longitudinal may only be used where the foetal presentation is cephalic, breech or other

Foetal presentation at onset of labour: The presentation of the foetus at onset of labour including cephalic, breech, other – i.e. a transverse / other lie or not known. The reported presentation may be different for each baby born in a multiple birth.

Mode of birth: The mode of birth of a baby. Note that this may be different for different foetuses in the same delivery. Includes: spontaneous vaginal birth, ventouse, forceps, elective caesarean section - caesarean section before, or at onset of labour, emergency caesarean section.

Outcome of birth: An indicator of whether the birth was a live or a stillbirth (a birth on or after a gestation of 24 weeks (168 days) where the baby shows no identifiable signs of life at delivery).

Birth weight: The weight of the baby at birth, recorded in grams.

Time of birth: This is the time of birth of the child.

Birth order: The order of the birth where more than one birth resulted from pregnancy.

Apgar score: The apgar score is a measure of the physical condition of a newborn baby. It is obtained by adding points (2, 1, or 0) for heart rate, respiratory effort, muscle tone, response to stimulation and skin coloration; a score of ten represents the best possible condition. The Maternity Indicators data set records the total Apgar score for a baby at 5 minutes after birth.

Breast feeding: Did the Mother intend to breastfeed the baby at birth?

Healthy births: the percentage of births considered to be healthy births. Any of the following criteria exclude the birth from being considered as 'healthy':

- An onset of labour other than spontaneous
- Augmentation in labour
- Caesarean section, use of forceps or ventouse
- A gestational age of <37 weeks
- Still birth
- Epidural in labour
- 3rd or 4th degree perineal trauma or episiotomy
- A birth weight of <2500g or >4000g
- Blood loss of >500ml
- Apgar score at 5 minutes <7

Only complete records were included in the healthy births analysis i.e. each record must have valid entries to all the fields related to the above criteria to be included. Some unhealthy births are identifiable from incomplete records but they have not been included in the analysis as a healthy birth can only be identified where the record is complete.

Published statistics on births in Wales

The Health, Social Services and Population Statistics unit of the Welsh Government currently publishes two main annual outputs on births and deliveries in Wales. These utilise different sources of data and are used in different circumstances:

Maternity Statistics, Wales: This release summarises deliveries occurring in Welsh hospitals together with the relevant antenatal experience, focusing on analysis in relation to the Welsh Government maternity indicators. The data source is the Maternity Indicators data set (MIDs). In 2017 this replaced the previous series of Maternity Statistics: Method of delivery releases which used hospital data as its source (PEDW).

Births in Wales: data from the National Community Child Health Database, 2005-2015: The current release summarises birth data items on the NCCHD including data which is not available for Wales from other sources such as births by gestation and breastfeeding. The release covers live births to Welsh residents but NCCHD can also provide counts of births in Welsh maternity units and these are included in a StatsWales table.

Registered births and infant mortality statistics are routinely produced by the Office for National Statistics and should be used as the main source of birth statistics for Wales.

Other published birth data for Wales includes the interactive tool Health Maps Wales published by NHS Wales Informatics Service (NWIS): [Health Maps Wales](#).

Data access, confidentiality and disclosure control

The extract supplied to Welsh Government by NWIS has been anonymised so that it contains no personal identifiable information.

Our statistics take into account our disclosure control guidance and follow ONS confidentiality guidelines for Health statistics available from: [ONS best-practice guidelines](#).

Revisions

MI ds is a live database and is refreshed monthly. If reports are run from subsequent versions of the database counts will differ from published figures. Historical data is not revised unless errors are discovered.

What are the potential uses of these statistics?

These statistics will be used in a variety of ways. Some examples of these are:

- advice to Ministers;
- to inform debate in the National Assembly for Wales and beyond;
- to make publicly available data on child health statistics in Wales;
- monitoring service delivery;
- policy development;
- providing advice on birth choices.

Who are the key potential users of this data?

Ministers and the Members Research Service in the National Assembly for Wales;

- Local Health Boards;
- The research community;
- Students, academics and universities;
- Those concerned with child health, Individual citizens and private hospitals.
- NHS organisations
- Voluntary birth organisations

Relevance

The statistics provide an overview of maternity services in Wales and additional analysis of the Welsh Government Maternity Indicators.

In our statistical outputs we provide background to our statistics and information for users. We encourage users of the statistics to contact us to let us know how they use the data.

We consult with key users prior to making changes, and where possible publicise changes on the internet, at committees and other networks to consult with users more widely. We aim to respond quickly to policy changes to ensure our statistics remain relevant.

Accuracy

The Maternity Indicators data set is newly established and data quality is mixed as yet. Welsh Government and NWIS are working with Health Boards to improve completeness and quality. In comparison with other sources of births and maternity data, overall counts and key statistics align reasonably well. There are however specific issues with a few of the data items where the data provided does not wholly align with the specification and others where specific Health Boards have difficulties providing the required data. Only a selection of the available data items has been included in this statistical release but as the data quality improves we hope to expand its scope and depth.

Completeness

Data completeness varies across data items such that some data items align with counts derived from other sources of data and have little missing data e.g. birth weight, mother's age but others are of variable quality and have more missing data e.g. mode of onset of labour and perineal trauma.

MI ds is a live database and is refreshed monthly. If reports are run from subsequent versions of the database counts will differ from published figures. Historical data is not revised unless errors are discovered. In the case of incorrect data being published, revisions would be made and users informed.

Timeliness and punctuality

In future it is planned that the Health, Social Services and Population Statistics unit of the Welsh Government will receive an extract of data from NWIS annually in the autumn for maternity activity occurring in the previous financial year. The MI ds is refreshed from data derived from local maternity systems every month.

All outputs adhere to the Code of Practice by pre-announcing the date of publication through the [Upcoming calendar](#) web pages. Furthermore, should the need arise to postpone an output this would follow our standard arrangements on [Revisions, errors and postponements](#).

We publish releases as soon as practical after the relevant time period.

Accessibility and clarity

The statistics are published in an accessible, orderly, pre-announced manner on the Welsh Government website at 9:30am on the day of publication. An RSS feed alerts registered users to this publication. Simultaneously the releases are also published on the National Statistics Publication Hub. We also publicise our outputs on [Twitter](#). All releases are available to download for free.

It is hoped that in future more detailed data will be available on the [StatsWales website](#).

We aim to use Plain English in our outputs and all outputs adhere to the Welsh Government's [accessibility policy](#). Furthermore, all our headlines are published in Welsh and English.

Further information regarding the statistics can be obtained by contacting the relevant staff detailed on the release or via stats.healthinfo@wales.gsi.gov.uk

Comparability and coherence

Where there are changes to the data provided, this is shown clearly in the outputs. Where advance warning is known of future changes these will be pre-announced in accordance with Welsh Government arrangements. Every year the data are all collected from the same source and adhere to the national standard; they will also be coherent within and across health organisations.

For England, NHS Digital publish monthly [experimental data](#) from the Maternity services Data Set as well as data from the [Hospital Episodes Statistics](#) (HES) data warehouse.

The [ISD publishes information for Scotland on child health](#) and on [maternity & births](#).

Northern Ireland statistics on public health are available from the [Northern Ireland Public Health Agency and demography statistics from the Northern Ireland Statistics & Research Agency \(NISRA\)](#).

Experimental statistics

This statistical release makes available data from the recently established Maternity Indicators data set. The data and analysis presented are badged as Experimental Statistics. This is to inform users of the data that the MIDs and its reported statistics are still in a developmental phase and may have issues pertaining to data quality. However both the analysis and data are still of value provided that users view them in the context of the data quality information provided. As the data set matures the coverage and the quality of the data being reported will improve enabling the data to become fit for a wider variety of beneficial uses.

These statistics are classed as 'Experimental statistics' which are official statistics which are published in order to involve users and stakeholders in their development and as a means to build in quality at an early stage.

All official statistics should comply with all aspects of the Code of Practice for Official Statistics. They are awarded National Statistics status following an assessment by the UK Statistics Authority's regulatory arm. The Authority considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

It is Welsh Government's responsibility to maintain compliance with the standards expected of National Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the Authority promptly. National Statistics status can be removed at any point when the highest standards are not maintained, and reinstated when standards are restored.

Well-being of Future Generations Act (WFG)

The Well-being of Future Generations Act 2015 is about improving the social, economic, environmental and cultural well-being of Wales. The Act puts in place seven well-being goals for Wales. These are for a more equal, prosperous, resilient, healthier and globally responsible Wales, with cohesive communities and a vibrant culture and thriving Welsh language. Under section (10)(1) of the Act, the Welsh Ministers must (a) publish indicators (“national indicators”) that must be applied for the purpose of measuring progress towards the achievement of the Well-being goals, and (b) lay a copy of the national indicators before the National Assembly. The 46 national indicators were laid in March 2016 and this release includes data relating to one of the national indicators namely

- Percentage of live single births with a birth weight of under 2,500g.

Low birth weight is associated with health risks in an infant's first year of life. The indicator will be based on singleton births and will be calculated as the percentage of births that are less than 2,500 grams.

Numerator: Singleton live births with a birth weight less than 2500g.

Denominator: All singleton live births.

The usual source for this indicator is the National Community Child Health Database (NCCHD) and the indicator relates to births to Welsh residents rather than births occurring in Welsh maternity units.

Information on indicators and associated technical information - [How do you measure a nation's progress? - National Indicators](#)

As a national indicator under the Act they must be referred to in the analyses of local well-being produced by public services boards when they are analysing the state of economic, social, environmental and cultural well-being in their areas.

Further information on the [Well-being of Future Generations \(Wales\) Act 2015](#).

The statistics included in this release could also provide supporting narrative to the national indicators and be used by public services boards in relation to their local well-being assessments and local well-being plans.

Further details

The document is available at: <http://gov.wales/statistics-and-research/maternity-statistics/?lang=en>

Next update

February 2018 (provisional)

We want your feedback

We welcome any feedback on any aspect of these statistics which can be provided by email to stats.healthinfo@wales.gsi.gov.uk.

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