

# Publication Report



## Births in Scottish Hospitals

Year ending 31 March 2015

Publication date – 24 November 2015



## Contents

|  |    |
|--|----|
| Contents.....  | 1  |
| Introduction .....   | 2  |
| Key Points.....  | 4  |
| Results and Commentary.....                                    | 5  |
| NRS birth registrations and SMR02 births.....                  | 5  |
| Maternal age .....   | 6  |
| Mode of delivery .....   | 8  |
| Birthweight and gestation .....                                | 10 |
| Appropriate birthweight for gestational age .....              | 11 |
| Early access to antenatal services .....                       | 13 |
| Smoking and pregnancy.....                                     | 15 |
| Level of care of newborn babies.....                           | 20 |
| Drug misuse in pregnancy.....                                  | 22 |
| Maternal body mass index (BMI).....                            | 23 |
| Alcohol use in pregnancy .....                                 | 24 |
| Glossary.....  | 27 |
| List of Tables.....  | 28 |
| List of Charts.....  | 29 |
| Contact.....   | 30 |
| Further Information.....                                       | 30 |
| Appendix .....   | 31 |
| A1 – Background Information .....                              | 31 |
| A2 – Publication Metadata (including revisions details).....   | 39 |
| A3 – Early Access details (including Pre-Release Access) ..... | 41 |
| A4 – ISD and Official Statistics.....                          | 42 |

## Introduction

The data presented here are mainly obtained from the Scottish Morbidity Record 02 (SMR02) submitted by maternity hospitals to ISD, who have collected this information since 1975.

A wide range of information is collected on the SMR02 - some of which is detailed below:

- mother - age, height, smoking history, previous obstetric history.
- birth - induction, analgesia, method of delivery, outcome.
- baby - apgar score, sex, gestation, weight.

Although there is no legal requirement to submit these data to ISD, the level of submission falls only slightly short of the known total number of births occurring each year. Further details are shown on the first chart in the Results and Commentary section - this shows a comparison of births recorded on SMR02 compared to the number of births registered with National Records of Scotland (NRS). See also background information ([Appendix A1](#)).

For the first time in this publication we have presented developmental data on mother's alcohol use during pregnancy. This data collection item was made mandatory in April 2011, however, there are issues with the quality of the data and much variability exists with the recording of this information by NHS Board.

The methodology used to produce the appropriate weight for gestational age tables has changed since previous publications and the United Kingdom - World Health Organisation (UK -WHO) standard growth charts are now used as the reference data on birth centiles. Please see [Appendix A1](#) for further details.

On 1<sup>st</sup> April 2014, NHS board boundaries were changed to align with those of local authorities. The purpose of the change was to help NHS Boards and local authorities work closer together in the provision of care in the local community. To allow direct comparisons over time between NHS Boards this alignment has also been applied to pre-2014 data. The main impact of the re-alignment affected NHS Lanarkshire and NHS Greater Glasgow & Clyde (approx. 2,600 postcodes changed from Greater Glasgow & Clyde to Lanarkshire). Further information including a list of those postcodes affected by the boundary changes is available at: <http://www.isdscotland.org/Products-and-Services/GPD-Support/Geography/NHS-Board-Boundary-Changes/>.

The August 2014 'Births in Scottish Hospitals' publication reported on data for the time period up to and including 31<sup>st</sup> March 2013. In this year's publication it has been possible to include data for the years ending 31<sup>st</sup> March 2014 and 31<sup>st</sup> March 2015. Although data for the most recent time period reported (1<sup>st</sup> April 2014 to 31<sup>st</sup> March 2015) were reported to be 97% complete at a national level (see [SMR Completeness Estimates](#)), some NHS Boards had submitted less than 95% of records at the time the data were extracted for the publication. In particular SMR02 submissions for NHS Highland for the year ending 31<sup>st</sup> March 2015 were 94% of that expected, NHS Lothian had submitted 92% of expected records and NHS Western Isles had submitted 5% of expected records. These figures are calculated based on NHS Board of treatment. Completeness levels for data based on NHS Board of residence will differ, due to some residents being treated in a different NHS Board to that which they are resident. For example, some NHS Borders patients will be treated in an NHS Lothian hospital. Completeness levels based on NHS Board of residence are estimated to be 97% complete nationally, 90% for NHS Borders, 93% for NHS Lothian and

19% for NHS Western Isles. All other NHS Boards are estimated to be above 95% completeness when looking at the data based on NHS Board of residence.

There were 53,976 births (including live and still births) recorded on SMR02 for the year ending March 2015.

Historically births recorded on SMR02 represent approximately 98% of the births recorded by National Records of Scotland (NRS). Some of this shortfall will be due to data on home births not being available from SMR02. For the year 2014, births recorded on SMR02 represented approximately 96% of the births recorded on NRS, due to lower SMR02 submissions from some NHS Boards.

## Key Points

- Mothers are getting older: There has been a steady increase in births to mothers in the over 30 age groups since 1975/76. In the most deprived areas mothers most commonly start a family at around 22 years old, in contrast to those in less deprived areas where the most common age for a first birth is 31.
- Caesarean section: In singleton births, elective\* caesarean section rates have increased steadily since 1975/76 (from 4.7% to 13.4%). Emergency caesarean section rates have also seen a general increase since 1975/76 (from 3.9% to 16.5%)  
[\*An elective caesarean section refers to a caesarean section planned in advance and in most cases will have been recommended for clinical reasons such as breech, multiple births or previous caesarean section. It may also be the case that the woman will have chosen this method of delivery for non-clinical reasons.]
- Body Mass Index: Of the 53,222 women delivering in 2014/15, 25,891 (48.6%) were overweight or obese. For those with known BMI, overweight and obese women were less likely to have a vaginal delivery and more likely to have a caesarean section delivery than underweight or healthy weight women.
- Smoking: The percentage of mothers smoking during pregnancy and after delivery continues to fall. In 2014/15 the percentage of women known to be current smokers at the time of antenatal booking was 17.3%.
- Antenatal booking: In 2014/15 over 80% of women from each Scotland level deprivation quintile booked for their antenatal care before 12 weeks of pregnancy.
- Premature and low birthweight babies: The percentage of babies born prematurely (before 37 weeks) or with a low birthweight has decreased slightly over the last 10 years. In 2014/15, 7.3% of babies were born prematurely compared to 8.2% in 2005/06 and 6.2% had a low birthweight in 2014/15 compared to 7.6% in 2005/06.

## Results and Commentary

### NRS birth registrations and SMR02 births

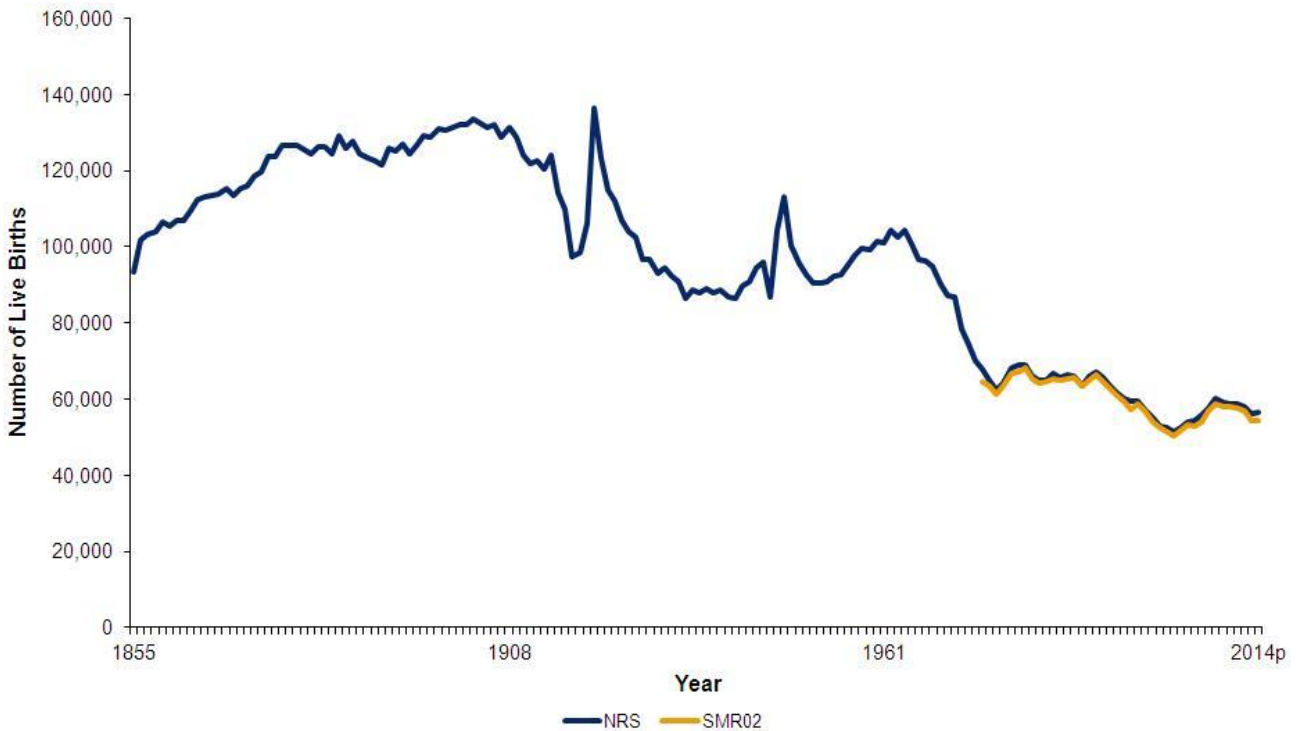
There were 53,976 births (including live and still births) recorded on SMR02 for the year ending March 2015.

Historically births recorded on SMR02 represent approximately 98% of the births recorded by National Records of Scotland (NRS). Some of this shortfall will be due to data on home births not being available from SMR02. For the year 2014, births recorded on SMR02 represented approximately 96% of the births recorded on NRS, due to lower SMR02 submissions from some NHS Boards.

Since 1855 all births in Scotland have been registered with NRS. The chart below shows live births rising to around 120,000 per year in the early 1900s then a general downward trend to just over 50,000 in 2002. Since then there was a steady year on year increase to a peak of 60,041 live births in 2008, before a further fall.

NRS figures show that the number of live births in 2014 was 56,725, a decrease of 5.5% from 2008. In [England and Wales](#) the number of births showed a generally increasing trend up until 2012 after which numbers have decreased.

**Chart 1: NRS live birth registrations v SMR02 live births; Year ending 31 Dec 1855 to 2014**



Sources: NRS birth registrations and SMR02.

For information on outcome of births see:

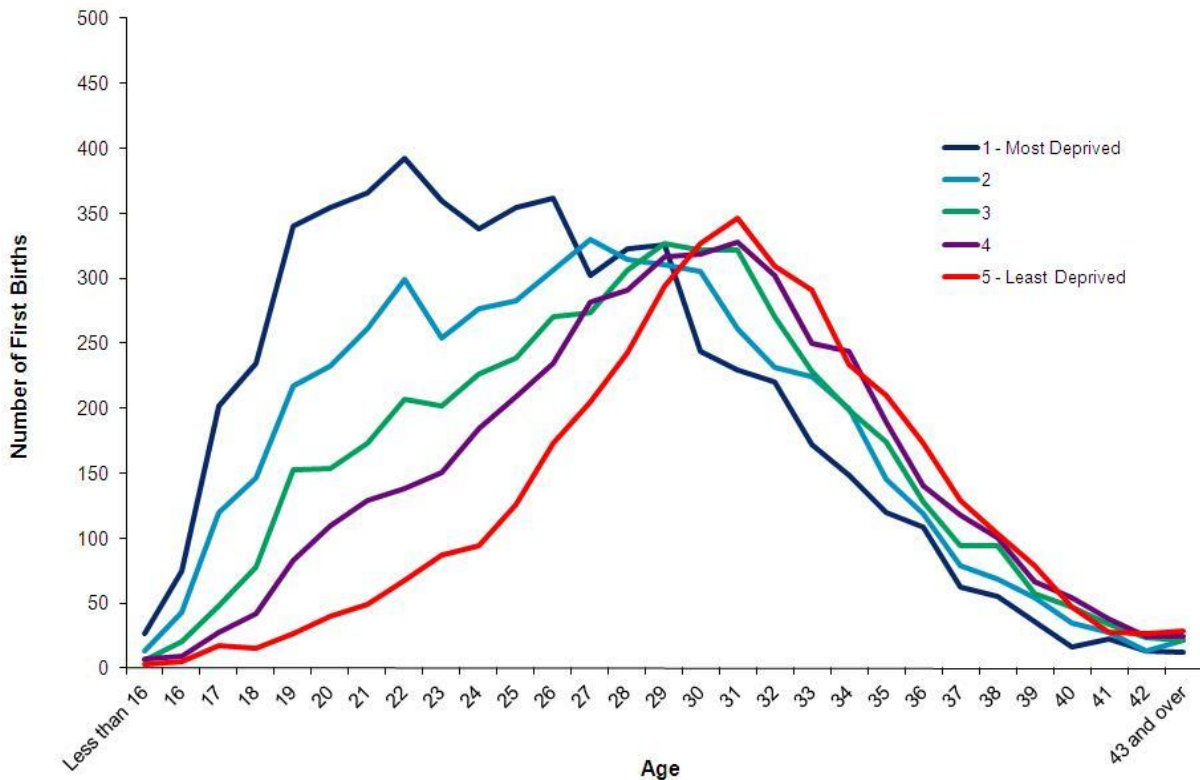
Table 1: [Births by outcome and year; Scotland, NHS Board and CA](#)

## Maternal age

It is well established that women are having fewer children, and postponing childbirth until they are older as shown in [Table 2](#). There has been a steady increase in births to mothers in the over 30 age groups with contrasting decreases in births to mothers in younger age groups. In 2014/15 the percentage of mothers aged over 30 was 51.2% compared to 19.4% in 1975/76. This change has obstetric implications and is a contributory factor in the rise in caesarean sections. It is well documented that age is correlated with increased risk of emergency caesarean section.

[Table 3](#) shows the number of first births by deprivation quintile, which are derived from the total population rather than just the childbearing population. Although 20% of the total population are classified into each quintile, there is an imbalance between the least and the most deprived quintiles of the childbearing population with a higher proportion of births in quintile 1 (most deprived) compared with quintile 5 (least deprived). When the data are examined by age, there are strong patterns as shown in the chart below.

**Chart 2: First birth<sup>1,2</sup> by maternal age & deprivation quintile<sup>3</sup>; Year ending 31 March 2015<sup>p</sup>**



Source: SMR02

1 - Excludes home births and births at non NHS hospitals.

2 - Where four or more babies are involved in a pregnancy, birth details are recorded only for the first three babies delivered.

3 - Scottish Index of Multiple Deprivation (SIMD). Appropriate SIMD for year has been used (see note in appendix).

p Provisional.

Note: SMR02 submission levels based on NHS Board of residence for 2014/15 are estimated to be 97% complete for Scotland. Boards with submission levels lower than 95% are NHS Lothian (93%), NHS Borders (90%) and NHS Western Isles (19%).

The distribution of first births in the most deprived mothers peaks at age 22. This is in contrast to those in the least deprived category where the most common age for a first birth is 31. In the under 20s, there were thirteen times the number of births in the most deprived group compared to the least deprived. In the 20-24 year olds the ratio of babies born in the least deprived quintile to those born in the most deprived quintile is 5.4 to 1. This starts to reverse at approximately 30 years, and for the combined age groups 30-34 and 35 plus, the ratio is approximately 0.6 to 1.

A similar pattern is seen when all births are examined rather than just first births.

For more information on births by maternal age see:

Table 2: [Maternities by maternal age and year; Scotland, NHS Board and CA](#)

Table 3: [Maternities \(first birth and all births\), by maternal age and deprivation \(SIMD\); Scotland and by NHS Board by year](#)

The data support the view that the trend for delaying reproduction is occurring in all sections of society.

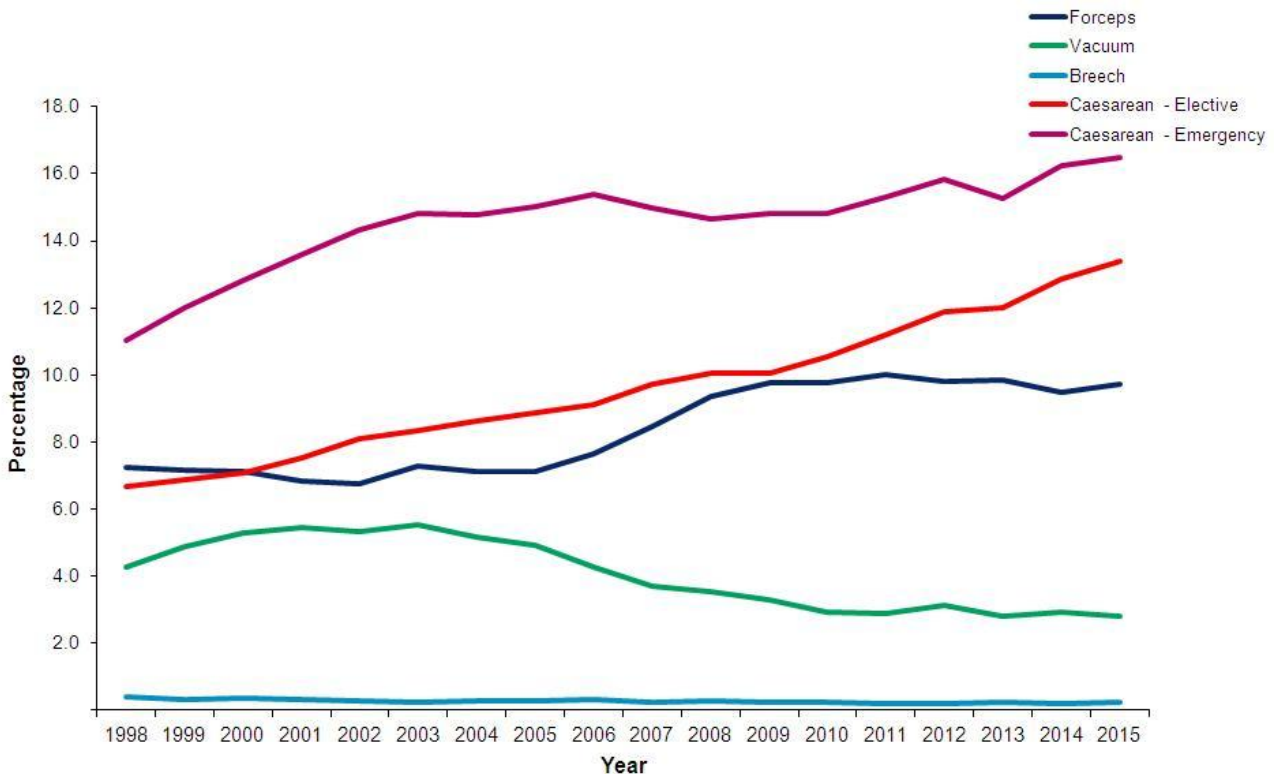


## Mode of delivery

### Singleton births

In singleton births, spontaneous vertex (normal vaginal) deliveries have fallen steadily from 75.8% in 1975/76 to 57.4% in 2014/15. Forceps deliveries fell from 13.3% in 1975/76 to a low of 6.8% in 2001/02 before rising again then remaining relatively stable between 2008/09 and 2014/15. The percentage in 2014/15 was 9.7%. The chart below illustrates the changes in mode of delivery from 1997/98.

**Chart 3: Live singleton births<sup>1,2</sup> by mode of delivery (excluding SVD); 1998-2015<sup>P</sup>, Year ending 31 March**



Source: SMR02

1 - Excludes home births and births at non NHS hospitals.

2 - Where four or more babies are involved in a pregnancy, birth details are recorded only for the first three babies delivered.

P Provisional.

Note: SMR02 submission levels based on NHS Board of residence for 2014/15 are estimated to be 97% complete for Scotland. Boards with submission levels lower than 95% are NHS Lothian (93%), NHS Borders (90%) and NHS Western Isles (19%).

The percentage of babies born by caesarean section has risen from 8.6% in 1975/76 to 29.9% in 2014/15 with elective\* caesarean sections increasing steadily from 4.7% to 13.4% and emergency caesarean sections from 3.9% to 16.5% in 2014/15. Possible explanations for this rise include demographic changes, differences in clinical practice, characteristics and views of the obstetrician, the organisation and availability of resources, one to one support in labour and women’s choices. The change in practice for delivery of breech presentation, repeat caesarean section and delivery of preterm infants are all contributing to the overall rise. In addition, maternal weight is rising and this has been shown to correlate with a rise in caesarean section <sup>1</sup> (see also Table 15.4).

Ventouse (vacuum extraction) was less than 1% until 1989/90, rose to 5.6% in 2002/03 then gradually declined until 2009/10. Recently it has remained relatively stable with the percentage in 2014/15 being 2.8%. Vaginal breech deliveries have fallen slowly but steadily from 1.7% in 1975/76 to 0.2% in 2014/15. Births where labour was induced fell from 47.6% in 1975/76 to a low of 20.3% in 1988/89 but since then there has been a steady rise and

the rate for 2014/15 is 29.3%. Population studies which have shown a rise in perinatal and neonatal morbidity and mortality in prolonged pregnancies have led to current recommendations for considering induction of labour after 41 completed weeks <sup>2</sup>.

### **Multiple births**

Multiple births are less likely to be delivered vaginally, with 38.1% being delivered by elective caesarean section in 2014/15 (compared to 6.1% in 1975/76) and 32.7% by emergency section in 2014/15 (compared to 4.5% in 1975/76).

\*An elective caesarean section refers to a caesarean section, which has been planned in advance and in most cases will have been recommended for clinical reasons such as breech or multiple births or previous caesarean section. It may also be the case that the woman will have chosen this method of delivery for non-clinical reasons.

For more information on mode of delivery see:

Table 4: [Live births by mode of delivery \(and induced\) by year; Scotland, NHS Board and hospital.](#)

### References:

1. National Sentinel Caesarean Section Audit Report. October 2001
2. Gülmezoglu AM, Crowther CA, Middleton P. Induction of labour for improving birth outcomes for women at or beyond term. Cochrane Database of Systematic Reviews 2006, Issue 4. Art. No.: CD004945. DOI: 10.1002/14651858.CD004945.pub2.

## Birthweight and gestation

### Singleton births

Low birthweight (LBW) is a major determinant of infant mortality and morbidity. In addition, as it is associated with a variety of social and environmental factors, it is often used as a health status indicator. Low birthweight may result from being born too soon (i.e. a preterm birth), from poor intrauterine growth or from a combination of the two.

A number of factors are associated with low birthweight and/or preterm births. These include maternal smoking, maternal age (older and younger mothers are more likely to have a low birthweight baby), deprivation, previous obstetric history, low pre-pregnancy maternal weight, drug/alcohol use, hypertension and multiple births. Information on some of these factors is available in this publication.

The chart below shows the proportion of low birthweight (under 2500g) and pre-term (before 37 weeks gestation) singleton births for the time period 1997/98 to 2014/15. Both have shown a general decrease since 2003/04.

**Chart 4: Live singleton births <sup>1,2</sup> by birthweight & gestation; 1998-2015<sup>P</sup>, Year ending 31 March**



Source: SMR02

1 - Excludes home births and births at non NHS hospitals.

2 - Where four or more babies are involved in a pregnancy, birth details are recorded only for the first three babies delivered.

3 - Includes births where the birthweight is unknown.

<sup>P</sup> Provisional.

Note: SMR02 submission levels based on NHS Board of residence for 2014/15 are estimated to be 97% complete for Scotland. Boards with submission levels lower than 95% are NHS Lothian (93%), NHS Borders (90%) and NHS Western Isles (19%).

For more information on birthweight and gestation see:

Table 5: [Live births by birthweight, gestation and year; Scotland and NHS Board](#)

Table 6: [Births by term, birthweight and year; Scotland and NHS Board](#)

Table 7: [Live births by birthweight, deprivation and year; Scotland and NHS Board](#)

## Appropriate birthweight for gestational age

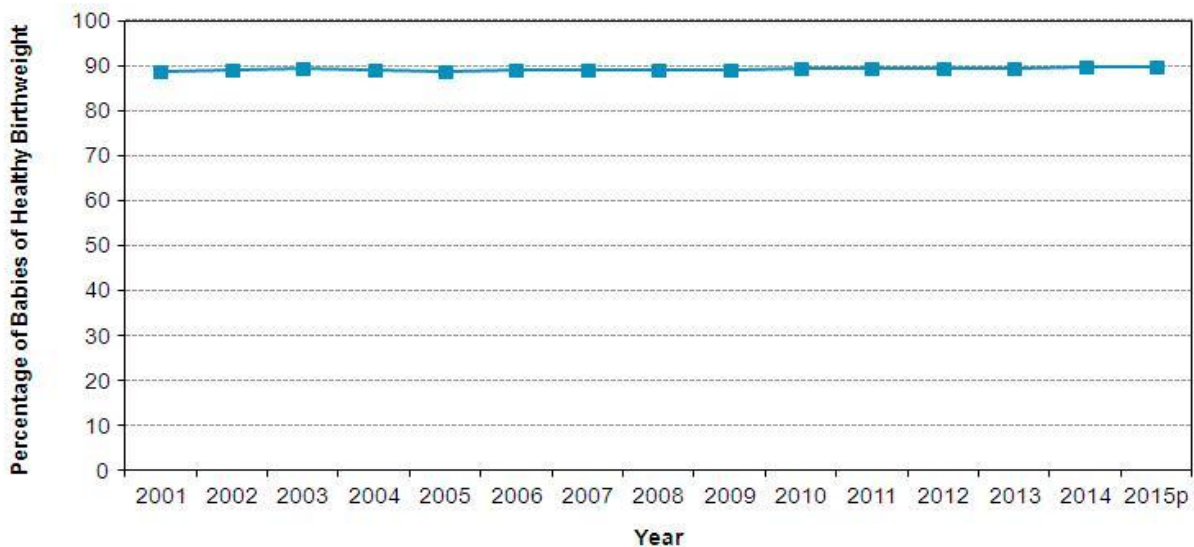
Birthweight is one of the important indicators used to assess the health of an infant at birth and there has been an overall rise in mean birthweight in recent years. However, it is important to be able to differentiate between babies who are light because they are preterm and those who are inappropriately light after adjustment for gestational age at birth. Such babies, known as ‘small for gestational age’ may be growth restricted and have an increased risk of other complications. Some of the babies who are large for gestational age may be macrosomic, perhaps secondary to maternal diabetes.

Birthweight that is not within normal ranges has a strong association with poor health outcomes in infancy, childhood and across the whole life course, including long term conditions such as diabetes and coronary heart disease.

The data in the accompanying tables are presented for live births and have been produced by comparing the birthweights and gestations with a set of standard tables based on the UK-WHO Child Growth Standards. This is a change to previously published data on appropriate birthweight for gestational age which used standard tables derived from Scottish reference data. Details of both sets of standard tables, including reasons for the change and the impact of the change on the resulting data are included in [Appendix A1](#).

The percentage of babies born at or post term that are small for gestational age has decreased over recent years. This is in contrast to the large for gestational age babies which have shown a slight increase over the last 10 years. The percentage of babies of healthy birthweight remains stable at around 90%.

**Chart 5: Percentage of babies of healthy birthweight (appropriate weight for gestational age) <sup>1</sup>, Scotland <sup>2</sup>, 2001-2015<sup>p</sup>**



1 - Centiles for Birthweight Charts for Gestational Age for Singleton Births, UK-WHO

In order to match to the birthweight standard charts cases with unknown gestation and birthweight were excluded as were cases with estimated gestation outwith the range 24-42 weeks and undetermined gender

2 - Excludes home births, births at non-NHS hospitals and multiple births.

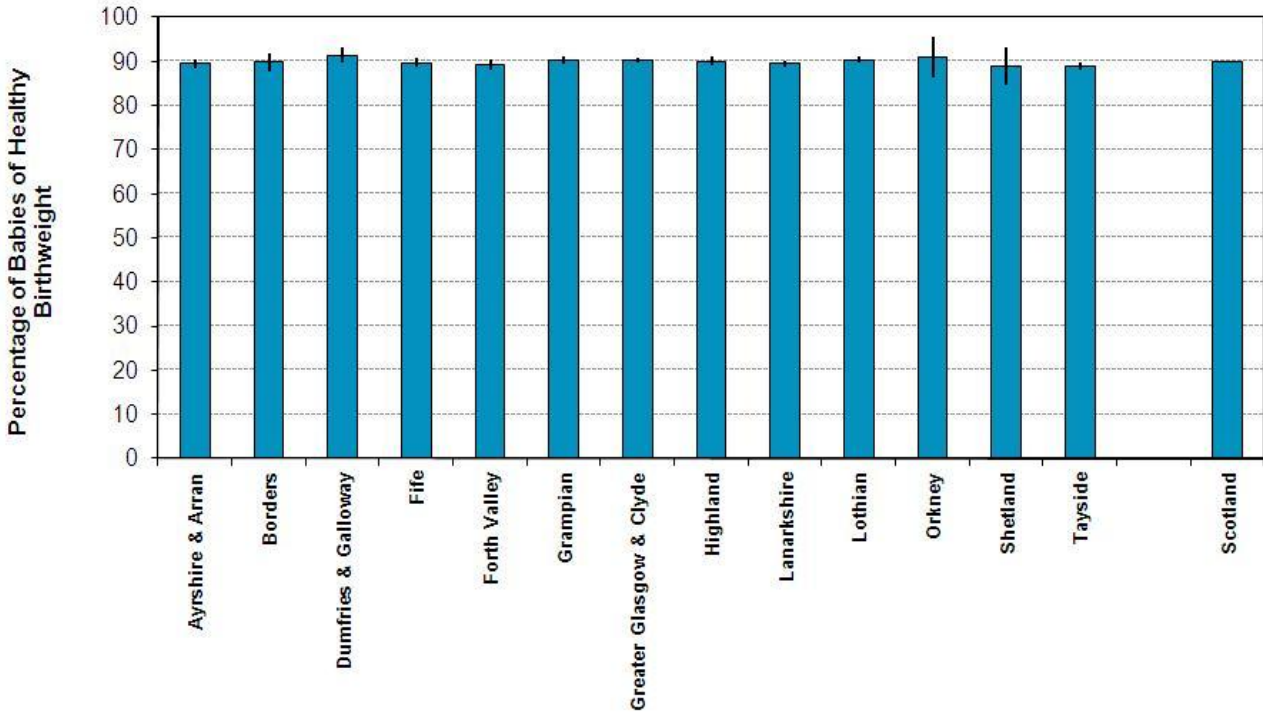
p Provisional

Note: SMR02 submission levels based on NHS Board of residence for 2014/15 are estimated to be 97% complete for Scotland. Boards with submission levels lower than 95% are NHS Lothian (93%), NHS Borders (90%) and NHS Western Isles (19%).

Source: SMR02  
ISD Scotland

Little variation is seen across the different mainland NHS Boards in the percentage of babies with an appropriate birthweight for gestational age.

**Chart 6: Percentage of babies of healthy birthweight (appropriate weight for gestational age) <sup>1,2</sup>, Year ending March 2015<sup>p</sup>, by NHS Board <sup>3,4</sup>, with upper and lower 95% confidence interval**



1 - Centiles for Birthweight Charts for Gestational Age for Singleton Births, UK-WHO  
 In order to match to the birthweight standard charts cases with unknown gestation and birthweight were excluded as were cases with estimated gestation outwith the range 24-42 weeks and undetermined gender

2 - Excludes home births, births at non-NHS hospitals and multiple births

3 - On 1st April 2014, NHS board boundaries were changed to align with those of local authorities. The purpose of the change was to help NHS boards and local authorities work closer together in the provision of care in the local community. To allow direct comparisons over time between NHS boards, this alignment has been applied to pre-2014 data. Further information is available at: <http://www.isdscotland.org/Products-and-Services/GPD-Support/Geography/NHS-Board-boundary-Changes/>

4 - Scotland data includes births where NHS board of residence is unknown or outside Scotland.

p - Provisional

Note: SMR02 submission levels based on NHS Board of residence for 2014/15 are estimated to be 97% complete for Scotland. Boards with submission levels lower than 95% are NHS Lothian (93%), NHS Borders (90%) and NHS Western Isles (19%).

Source: SMR02  
 ISD Scotland

For more information on appropriate birthweight for gestational age see:

Table 8 [Appropriate birthweight for gestational age](#)

## Early access to antenatal services

The Scottish Government has developed a 'Health, Efficiency, Access and Treatment' (HEAT) target for early access to antenatal services. Full details are available here: <http://www.scotland.gov.uk/About/Performance/scotPerforms/partnerstories/NHSScotlandperformance/AntenatalAccess>. The rationale for this target is that the advice and interventions available during antenatal care are likely to have the greatest effect if they are started early. In particular, there is evidence that those women at highest risk of poor pregnancy outcomes are less likely to access antenatal care early and /or have a poorer experience of that care.

The target specifies that: 'At least 80% of pregnant women in each SIMD quintile will have booked for antenatal care by the 12<sup>th</sup> week of gestation by March 2015 so as to ensure improvements in breast feeding rates and other important health behaviours.' The gestation at booking (in completed weeks) is calculated by subtracting the time between the delivery and booking date from the gestation at delivery (in completed weeks).

It should be noted that for the purpose of the HEAT target, the SIMD quintiles are derived at individual NHS Board level (ie the population of each NHS Board divided into five SIMD quintiles). The figure for the whole of Scotland uses SIMD derived from the total population.

Prior to the August 2014 publication this was completed using SIMD based on postcode which is population weighted. The change to SIMD based on datazone was made in order to be consistent with other Scottish Government HEAT targets. The impact of this is negligible, although it should be noted that these data are not directly comparable with other deprivation-based data reported in this publication. More information on population weighted SIMD and SIMD based on datazones can be found on page 6 of the [Guidance on Deprivation Measures](#).

Data for earlier years are available in previous 'Births in Scottish Hospitals' publications and on the ['Scotland Performs' website](#), where the official data for the target will be presented.

For more information on early access to antenatal services see:

Table 9: [Early access to antenatal services](#)

**Percentage of all maternities<sup>1</sup> booked by 12 weeks gestation by NHS Board of residence<sup>2,3</sup> and deprivation quintile<sup>4,5</sup>, Year ending 31 March 2015<sup>p</sup>**

| NHS Board               | SIMD Quintile   |      |      |      |                  |
|-------------------------|-----------------|------|------|------|------------------|
|                         | 1-Most deprived | 2    | 3    | 4    | 5-Least deprived |
| Scotland                | 82.3            | 85.7 | 87.1 | 88.4 | 89.4             |
| Ayrshire & Arran        | 88.0            | 86.9 | 90.4 | 90.0 | 93.0             |
| Borders                 | 88.3            | 86.4 | 84.1 | 87.6 | 86.7             |
| Dumfries & Galloway     | 81.7            | 84.9 | 89.0 | 87.8 | 88.5             |
| Fife                    | 88.1            | 91.2 | 90.8 | 93.2 | 91.5             |
| Forth Valley            | 87.3            | 88.7 | 88.6 | 88.8 | 90.5             |
| Grampian                | 86.2            | 88.9 | 88.4 | 89.0 | 89.9             |
| Greater Glasgow & Clyde | 75.0            | 76.5 | 77.1 | 81.2 | 83.0             |
| Highland                | 86.5            | 87.4 | 87.3 | 88.5 | 91.0             |
| Lanarkshire             | 83.0            | 83.5 | 85.1 | 85.9 | 86.5             |
| Lothian                 | 89.0            | 89.1 | 89.9 | 92.4 | 93.1             |
| Orkney                  | 80.6            | 89.5 | 96.4 | 90.9 | 95.2             |
| Shetland                | 75.6            | 79.2 | 83.7 | 81.8 | 90.4             |
| Tayside                 | 90.1            | 91.1 | 92.8 | 93.5 | 93.7             |

1. Excludes records where mother has delivered at home or at non-NHS hospital.

2. On 1st April 2014, NHS board boundaries were changed to align with those of local authorities. The purpose of the change was to help NHS boards and local authorities work closer together in the provision of care in the local community. To allow direct comparisons over time between NHS boards, this alignment has been applied to pre-2014 data. Further information is available at: <http://www.isdscotland.org/Products-and-Services/GPD-Support/Geography/NHS-Board->

3. Scotland data includes delivery records where NHS Board of residence is unknown or outside Scotland.

4. Deprivation in the boards is based on SIMD health board quintile, whereas deprivation in Scotland is based on SIMD Scotland quintiles.

5. SIMD based on datazone populations has been used for consistency with other Scottish Government HEAT targets.  
p - Provisional.

Note: SMR02 submission levels based on NHS Board of residence for 2014/15 are estimated to be 97% complete for Scotland. Boards with submission levels lower than 95% are NHS Lothian (93%), NHS Borders (90%) and NHS Western Isles (19%). Because of its particularly low submission rate data for NHS Western Isles are not shown.



## Smoking and pregnancy

It is widely accepted that smoking during pregnancy is harmful to both mother and baby. As mentioned in the Birthweight and Gestation section, maternal smoking is associated with preterm and/or low birthweight babies. Smoking in pregnancy is also associated with increased risk of miscarriage, stillbirth and sudden unexpected death in infancy (SUDI). [The Scottish Stillbirth Perinatal and Infant Mortality and Morbidity Report](#) provides information on the incidence of stillbirth and SUDI.

Smoking behaviour in pregnancy is collected at a woman's first antenatal booking appointment which usually takes place within the first three months of pregnancy. These booking appointments take place either at hospital or in the community and are recorded on the Scottish Woman Held Maternity Record, with data being subsequently transcribed onto the Scottish Morbidity Record (SMR02). Information on maternal smoking is also recorded at the health visitor's First Visit to the mother and baby which usually takes place about 10 days after the birth. Data from the First Visit is recorded on the Pre-school component of the Child Health Systems Programme (CHSP-PS). The CHSP-PS was introduced in 1991 and the number of participating boards has increased over the years. All NHS Boards in Scotland now use the CHSP-PS.

In recent years, there have been concerns about the completeness and quality of the SMR02 data, and to a lesser extent, the CHSP-PS data. In the following charts, we present the data so that the reader can see the level of recording of all responses including 'unknown', and they can also compare the two systems. It should be noted that the CHSP-PS data does not record whether the woman was a 'former' smoker. The label of 'missing' in the CHSP-PS data is assumed to be equivalent to the label of 'Not Known' in the SMR02 data.

There is considerable pressure on women not to smoke during pregnancy, and there is evidence of under-reporting by women of their smoking behaviour at the booking clinic<sup>1</sup>. The health visitors perform their First Visit at home, so it is less easy for the mother to hide evidence of smoking.

Charts showing overall smoking rates and deprivation categories for 'Smoking history at booking' and 'Smoking at health visitor's first visit' are shown on the following pages with additional charts showing NHS Board and mother's age in the links below.

Links to the tables are available here:

Table 10: [Smoking history at booking; Scotland, NHS Board, deprivation and maternal age](#)

Table 11: [Smoking at health visitor's first visit; Scotland, NHS Board, deprivation and maternal age](#)

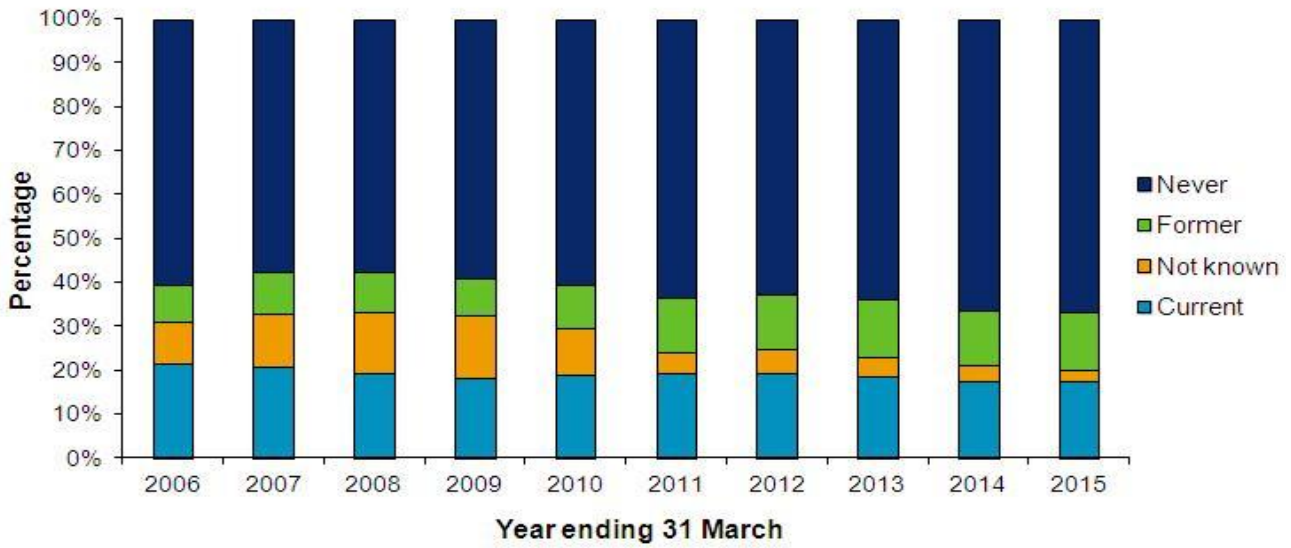
Reference:

1. Shipton D, Tappin D, Vadiveloo T, Crossley J, Aitken D, Chalmers J. Reliability of self reported smoking status by pregnant women for estimating smoking prevalence: a retrospective, cross sectional study. *BMJ* 2009;339:b4347.



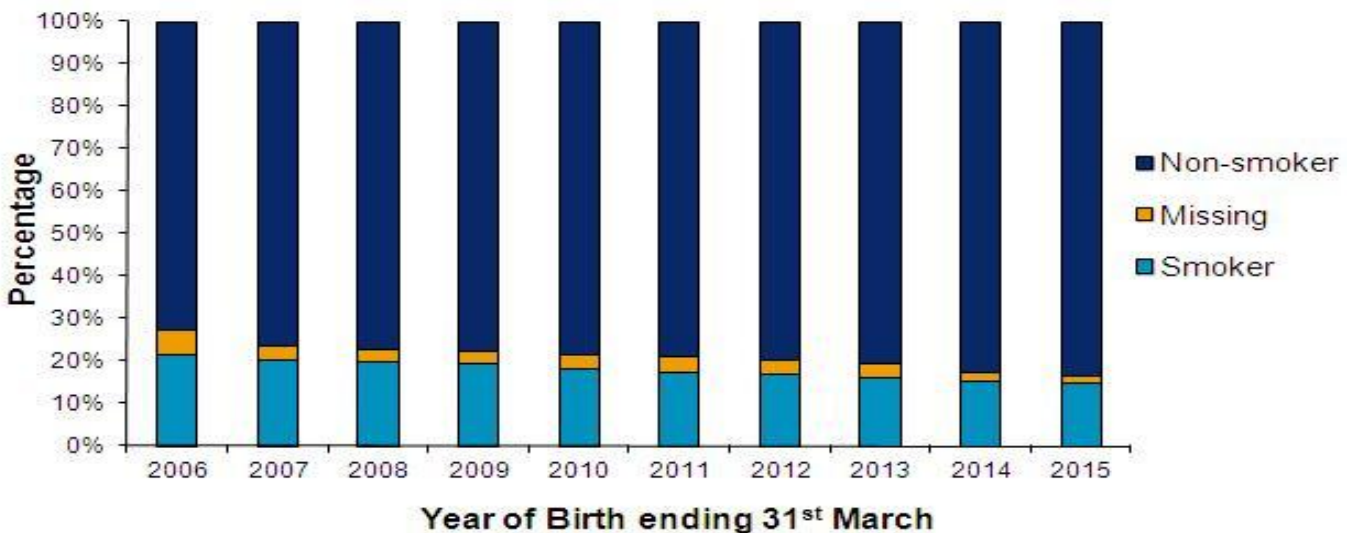
Overall smoking rates

Smoking at booking; 2006-2015<sup>p</sup>, Year ending 31 March



p – Provisional  
 Source: SMR02  
 Please refer to footnotes at end of section.  
 Note: SMR02 submission levels based on NHS Board of residence for 2014/15 are estimated to be 97% complete for Scotland. Boards with submission levels lower than 95% are NHS Lothian (93%), NHS Borders (90%) and NHS Western Isles (19%).

Smoking at the first visit, all participating NHS Boards of residence; 2006-2015<sup>p</sup>, Year ending 31 March



p – Provisional  
 Source: CHSP-PS  
 Please refer to footnotes at end of section.

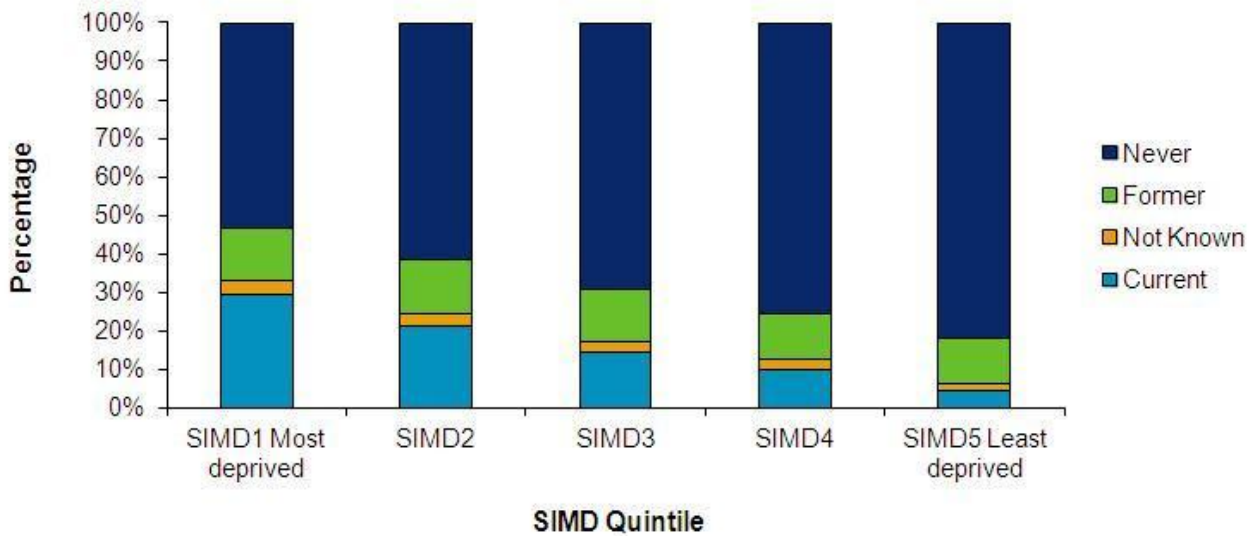
The SMR02 data demonstrate a fall in the level of women who are smokers at booking from 21.7% in 2005/06 to 17.3% in 2014/15. The level of 'Not Known' has decreased from 9.4% in 2005/06 to 2.9% in 2014/15. It should be noted that the percentage of 'unknowns' may include a proportion of smokers. Nevertheless, the SMR02 data are supported by the CHSP-PS data and suggest a reduction in the level of smoking in recent years. The percentage of current smokers recorded on CHSP-PS is generally lower than on SMR02

which suggests that some women have stopped smoking after their booking appointment and not restarted by the time of the health visitor’s first visit.

**Smoking by deprivation category**

For the following charts, the woman's deprivation has been derived using the Scottish Index of Multiple Deprivation 2012 (SIMD). SIMD1 is the most deprived and SIMD5 is the least deprived quintile.

**Smoking at booking by SIMD; Year ending 31 March 2015<sup>p</sup>**

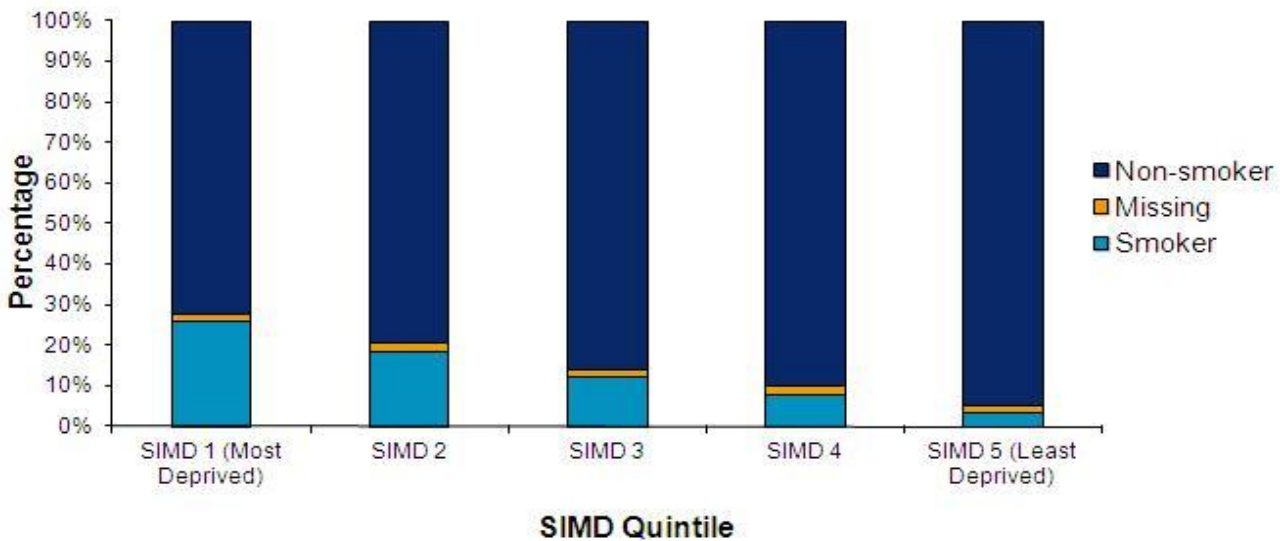


p – Provisional  
Source: SMR02

Please refer to footnotes at end of section.

Note: SMR02 submission levels based on NHS Board of residence for 2014/15 are estimated to be 97% complete for Scotland. Boards with submission levels lower than 95% are NHS Lothian (93%), NHS Borders (90%) and NHS Western Isles (19%).

**Smoking at first visit by SIMD; Year ending 31 March 2015<sup>p</sup>**



p – Provisional  
Source: CHSP-PS

Please refer to footnotes at end of section.

These charts demonstrate clearly the strong relationship between smoking and deprivation, with smoking at booking in 2014/15 ranging from 29.3% in SIMD1 to 4.5% in SIMD5.

### **Smoking by NHS Board and maternal age**

Charts showing the variation in smoking across NHS Boards and mother's age are available in Tables 10 & 11. When interpreting these please note the wide variation in the 'not known' category, especially in the table for smoking at booking by NHS Board.

Data also show that a mother's age is correlated to her smoking behaviour. With increasing age there is a decrease in smoking behaviour. These data illustrate that smoking behaviour has declined between 2005/06 and 2014/15, across all age groups.

For more information on smoking see:

Table 10: [Smoking history at booking; Scotland, NHS Board, deprivation and maternal age](#)

Table 11: [Smoking at health visitor's first visit; Scotland, NHS Board, deprivation and maternal age](#)

## Miscarriage

Accurate assessment of the number of miscarriages (previously referred to as 'spontaneous abortions') that occur is not possible as only miscarriages that require hospital inpatient or day-case treatment are recorded. Hospital based information is derived from two sources: the acute hospital inpatient and day-case record (SMR01) and the maternity inpatient and day case record (SMR02), with individual episodes being derived from only one of these sources. It is possible that some, particularly early, miscarriages are either managed solely by General Practitioners or may not be recognised by the women and so are never referred to hospital.

There is a general downward trend in the number of recorded miscarriages, falling from 7,546 in 1997/98 to 4,442 in 2014/15. The table in the link below shows the number of miscarriages by NHS Board of residence and age group for year ending 31<sup>st</sup> March 2015.

Table 12: [Miscarriage by NHS Board](#)

## Level of care of newborn babies

Although the majority of newborn babies adapt rapidly to life outside the womb, a proportion of babies need extra care. We have used data from the Scottish Birth Record (SBR) to display the numbers and percentages of babies requiring different types of care. The main types of extra care are:

- Intensive care: This is care provided for babies who are the most unwell or unstable and have the greatest needs in relation to staff skills and staff to patient ratios. The 2010 standards document from the British Association for Perinatal Medicine (BAPM) suggests that the ratio of suitably qualified nursing staff to babies would be one nurse to one baby.
- High dependency care: This is care provided for babies who require highly skilled staff but where the ratio of nurse to patient is less than intensive care. The BAPM standards suggest that this ratio would be one nurse to two babies.
- Special care: Special care is provided for babies who require additional care delivered by the neonatal service but do not require either Intensive or High Dependency care. The BAPM standards suggest that this ratio would be one nurse to four babies.

For each baby, we have sought the most intensive type of care used following birth. So if a baby had initially been admitted to 'Special care' and then required to be transferred to 'Intensive care', the baby would be recorded in this table as requiring 'Intensive care'.

The data for the Scottish Birth Record are collected in different ways in the various hospitals in Scotland. Some enter data directly onto the system and for others the data may be collected onto a separate system and transferred electronically to the SBR. Some units only collect minimal data on healthy babies and this is reflected in the high levels of data for which 'Level of Care' is labelled as 'Missing/Unknown'. Further investigation of the data by birthweight, including linkage to SMR02 data to obtain more complete information, suggests that the majority of such births were of normal birthweight (2500-5999g) and therefore less likely to have required extra care.

The tables here are presented by the NHS Board of residence rather than by hospital. They suggest that approximately 10.3% of babies require some sort of extra care, with 2.7% of these babies requiring intensive care. The balance of the different types of extra care varies by Board of residence and this probably reflects the availability of different types of provision in the main hospitals serving the NHS Boards.

Live births<sup>1</sup> by level of care and Health Board of residence, Scotland

Year ending March 2015

| Health Board of Residence | Level of Care  |             |              | Total Requiring Extra Care | Other <sup>2</sup> | Missing/Unknown <sup>3</sup> | Total         |
|---------------------------|----------------|-------------|--------------|----------------------------|--------------------|------------------------------|---------------|
|                           | Intensive Care | HDU         | Special Care |                            |                    |                              |               |
| Ayrshire & Arran          | 157            | 48          | 158          | 363                        | 416                | 2,839                        | 3,618         |
| Borders                   | 9              | 13          | 81           | 103                        | 815                | 24                           | 942           |
| Dumfries & Galloway       | 29             | 6           | 119          | 154                        | 1,053              | 47                           | 1,254         |
| Fife                      | *              | *           | 394          | 426                        | 281                | 3,081                        | 3,788         |
| Forth Valley              | 100            | 59          | 115          | 274                        | 45                 | 2,719                        | 3,038         |
| Grampian                  | 174            | 73          | 435          | 682                        | 1,282              | 4,284                        | 6,248         |
| Greater Glasgow & Clyde   | 302            | 171         | 533          | 1,006                      | 1,453              | 10,180                       | 12,639        |
| Highland                  | 84             | 50          | 170          | 304                        | 2,107              | 595                          | 3,006         |
| Lanarkshire               | 276            | 194         | 573          | 1,043                      | 449                | 5,682                        | 7,174         |
| Lothian                   | 184            | 6           | 684          | 874                        | 8,527              | 46                           | 9,447         |
| Orkney                    | *              | *           | 8            | 13                         | 101                | 67                           | 181           |
| Shetland                  | *              | *           | 16           | 26                         | 114                | 110                          | 250           |
| Tayside                   | 126            | 50          | 240          | 416                        | 3,230              | 73                           | 3,719         |
| Western Isles             | *              | *           | 5            | 9                          | 162                | 33                           | 204           |
| Unknown                   | 20             | 11          | 57           | 88                         | 518                | 69                           | 675           |
| <b>Total</b>              | <b>1,503</b>   | <b>690</b>  | <b>3,588</b> | <b>5,781</b>               | <b>20,553</b>      | <b>29,849</b>                | <b>56,183</b> |
| Ayrshire & Arran          | 4.3%           | 1.3%        | 4.4%         | 10.0%                      | 11.5%              | 78.5%                        | 100%          |
| Borders                   | 1.0%           | 1.4%        | 8.6%         | 10.9%                      | 86.5%              | 2.5%                         | 100%          |
| Dumfries & Galloway       | 2.3%           | 0.5%        | 9.5%         | 12.3%                      | 84.0%              | 3.7%                         | 100%          |
| Fife                      | *              | *           | 10.4%        | 11.2%                      | 7.4%               | 81.3%                        | 100%          |
| Forth Valley              | 3.3%           | 1.9%        | 3.8%         | 9.0%                       | 1.5%               | 89.5%                        | 100%          |
| Grampian                  | 2.8%           | 1.2%        | 7.0%         | 10.9%                      | 20.5%              | 68.6%                        | 100%          |
| Greater Glasgow & Clyde   | 2.4%           | 1.4%        | 4.2%         | 8.0%                       | 11.5%              | 80.5%                        | 100%          |
| Highland                  | 2.8%           | 1.7%        | 5.7%         | 10.1%                      | 70.1%              | 19.8%                        | 100%          |
| Lanarkshire               | 3.8%           | 2.7%        | 8.0%         | 14.5%                      | 6.3%               | 79.2%                        | 100%          |
| Lothian                   | 1.9%           | 0.1%        | 7.2%         | 9.3%                       | 90.3%              | 0.5%                         | 100%          |
| Orkney                    | *              | *           | 4.4%         | 7.2%                       | 55.8%              | 37.0%                        | 100%          |
| Shetland                  | *              | *           | 6.4%         | 10.4%                      | 45.6%              | 44.0%                        | 100%          |
| Tayside                   | 3.4%           | 1.3%        | 6.5%         | 11.2%                      | 86.9%              | 2.0%                         | 100%          |
| Western Isles             | *              | *           | 2.5%         | 4.4%                       | 79.4%              | 16.2%                        | 100%          |
| Unknown                   | 3.0%           | 1.6%        | 8.4%         | 13.0%                      | 76.7%              | 10.2%                        | 100%          |
| <b>Total</b>              | <b>2.7%</b>    | <b>1.2%</b> | <b>6.4%</b>  | <b>10.3%</b>               | <b>36.6%</b>       | <b>53.1%</b>                 | <b>100%</b>   |

Notes

1 - Live singleton and multiple births. Stillbirths are excluded.

2 - On 1st April 2014, NHS Board boundaries were changed to align with local authorities to allow them to work closer together in the provision of care in the local community. To allow direct comparisons over time between NHS boards, this alignment has been applied to pre-2014 data. Further information is available at: <http://www.isdscotland.org/Products-and-Services/GPD-Support/Geography/NHS-Board->

3 - 2015 data are provisional

4 - Other includes mainly normal and transitional care, although a very small number of births requiring medical and home care are also included.

5 - Where boards have a large proportion of births recorded in the Missing/Unknown category the majority are thought to have required normal care.

\*Indicates values that have been suppressed due to the potential risk of disclosure and to help maintain patient confidentiality.

Source : SBR

## Drug misuse in pregnancy

This section is based on drug misuse information recorded on maternity data (SMR02) and on neonatal discharges (Scottish Birth Record). The 'Drug Misuse During This Pregnancy' data item was made mandatory on SMR02 in April 2011 and care should be taken when comparing numbers over time as:

- recording of these data items improved in anticipation of them becoming mandatory
- it is still possible to record 'unknown' as a valid response and this can affect the rate of maternities recording drug misuse. The level of 'unknown' varies significantly by NHS Board and further information can be found in Table A2 in [Appendix A1](#).

The number of maternities recording drug misuse was 681 (12.8 per 1,000 maternities) in 2014/15. Rates were higher in 2010/11, possibly as a result of improved coding in the build up to the data becoming mandatory. More recently the rates have decreased from 20.8 in 2010/11 to 12.8 per 1,000 maternities in 2014/15.

There is variation in the rate of maternities recording drug misuse by mainland NHS Board (See [Table 14.1](#)). Results should be interpreted with caution as much of the variation could be caused by differing levels of data recording and numbers of 'unknowns' across hospitals. More information on this is provided in Appendix A1.

In 2014/15, around 1.3% (about 1 in 78) of maternities in Scotland recorded drug misuse. More than half (50.2%) of those (342) recorded misuse of opioids. (See [Table 14.2](#).)

In 2014/15, of the 684 births to mothers recording drug misuse, 80.1% were reported as having a full-term normal birthweight (548). This compared to 90.6% of all births recorded as having a full-term normal birthweight. 13.5% of births recording drug misuse were preterm, almost double that for all births at 7.3%. (See [Table 14.3](#).)

The rate of births recording drug misuse was more than 6 times as many in the most deprived area (22.0 per 1,000 births) as in the least deprived (3.5 per 1,000 births) in 2014/15. (See [Table 14.4](#).)

The rate of babies affected by maternal use of drugs (the baby was affected by or had withdrawal symptoms from maternal use of drugs of addiction) was 6.0 per 1,000 live births for the period 2012/13-2014/15. (See [Table 14.5](#)) In 2014/15, 313 babies (not shown in table) were recorded as being affected by maternal use of drugs.

## Maternal body mass index (BMI)

Body Mass Index (BMI) is one of the most widely used methods for assessing body composition in adults. It is calculated by dividing an individual's weight (in kilograms) by their height squared (in metres<sup>2</sup>) and gives an indication of whether weight is in proportion to height. Whilst BMI generally gives a good indication of body composition, it can occasionally misclassify individuals with heavy musculature as being overweight or obese.

In adults there are static cut off values for BMI indicating underweight, healthy weight, overweight and obese:

Below 18.5 = Underweight

Between 18.5 and 24.9 = Healthy

Between 25 and 29.9 = Overweight

BMI of 30 or more = Obese

Where a mother's height or weight was not available, or either value was considered to be an outlier, an 'unknown BMI' category was assigned. Of the 53,222 women delivering in 2014/15, 1,067 (2.0%) had unknown BMI at antenatal booking. The proportion of women living in different NHS Board areas who had unknown BMI has reduced in recent years reflecting better quality and completeness in the recording of these data ([Table 15.1](#)).

Overall, 2.9% of women delivering in 2014/15 were known to be underweight at the time of booking, 46.4% were healthy weight, 27.4% were overweight and 21.2% were obese (with the remaining 2.0% with unknown BMI). The proportion of women known to be underweight, healthy weight, overweight or obese was broadly consistent between boards with high BMI data completeness ([Table 15.1](#)).

The risk of unhealthy weight varies by deprivation ([Table 15.4](#)). Mothers from the most deprived areas are more likely to be underweight than mothers from more affluent areas. Mothers from the most deprived areas are also more likely to be obese than mothers from more affluent areas.

The risk of unhealthy weight also varies by maternal age ([Table 15.5](#)). Mothers aged under 20 are more likely to be underweight or of healthy weight than older mothers. Mothers aged 35 and over are more likely to be overweight or obese than younger mothers.

Maternal BMI status at booking is associated with a range of pregnancy outcomes. For example, overweight or obese women are less likely to have a vaginal delivery and more likely to have a caesarean section delivery than underweight or healthy weight women ([Table 15.6](#)). Overweight or obese women are also more likely to have a heavy (birthweight  $\geq 4000\text{g}$ ) baby ([Table 15.7](#)). Conversely, underweight women are more likely to have a baby with low birthweight ( $< 2500\text{g}$ ).



## Alcohol use in pregnancy

For the first time in this publication we have presented developmental data on mother's alcohol use during pregnancy. As these data have not been published before readers are encouraged to treat the data as provisional and to contact ISD if they think there are important discrepancies between what they expect to see and the data that are displayed. It is often by publishing such data that problems can be identified and the data improved.

The use or abuse of alcohol during pregnancy can have a severe and damaging impact on pregnancy and the health of a baby. Alcohol misuse during pregnancy increases the risk of stillbirth, fetal growth restriction and fetal alcohol spectrum disorder (FASD).

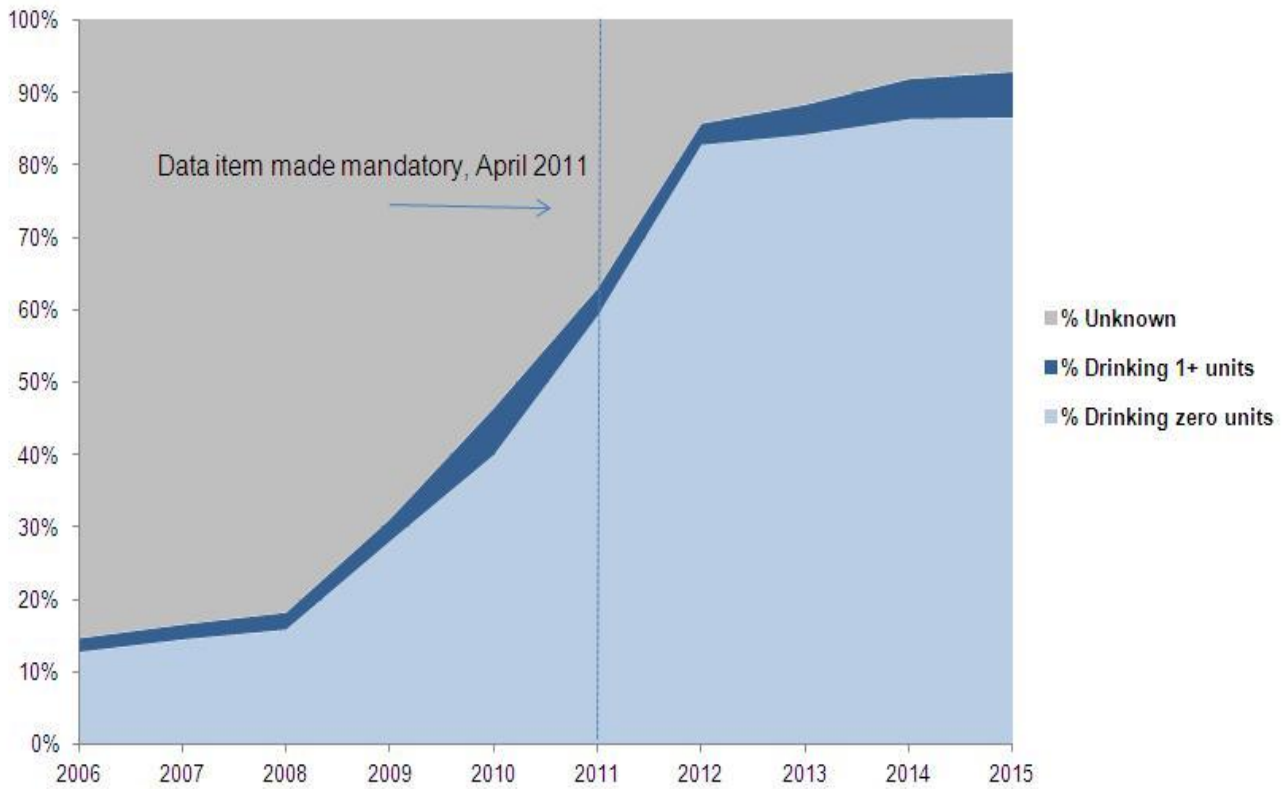
There is no evidence of a safe level at which alcohol can be consumed during pregnancy. Therefore, current advice from the UK Chief Medical Officer for women who are pregnant or trying to conceive is that they should avoid drinking alcohol.

Typical weekly alcohol consumption during pregnancy was made a mandatory SMR02 data collection item in April 2011. Midwives undertaking the antenatal booking appointment are asked to record in the Scottish Woman Held Maternity Record (SWHMR) the number of units of alcohol that the woman states she has drunk 'in an average week'. Concerns had been raised that simply considering the week prior to the booking appointment will not capture whether a woman was drinking very early in pregnancy, possibly before confirmation of pregnancy. The revised current advice for midwives in Scotland from April 2013 is to ask women about their average weekly consumption of alcohol over the three months prior to booking.

If a woman says she has not drunk any alcohol at all over the last three months, number of units would be recorded as '0'. If the woman states that she has consumed an average of 0 to 1 unit per week over the three months this would be recorded as '1'. Otherwise the nearest number averaged over the three months would be recorded.

The reliability of self-reported alcohol consumption is well known to be problematic<sup>1</sup>. Women are likely to underestimate their actual alcohol intake, particularly during pregnancy, as there is a perceived risk of being judged as irresponsible.

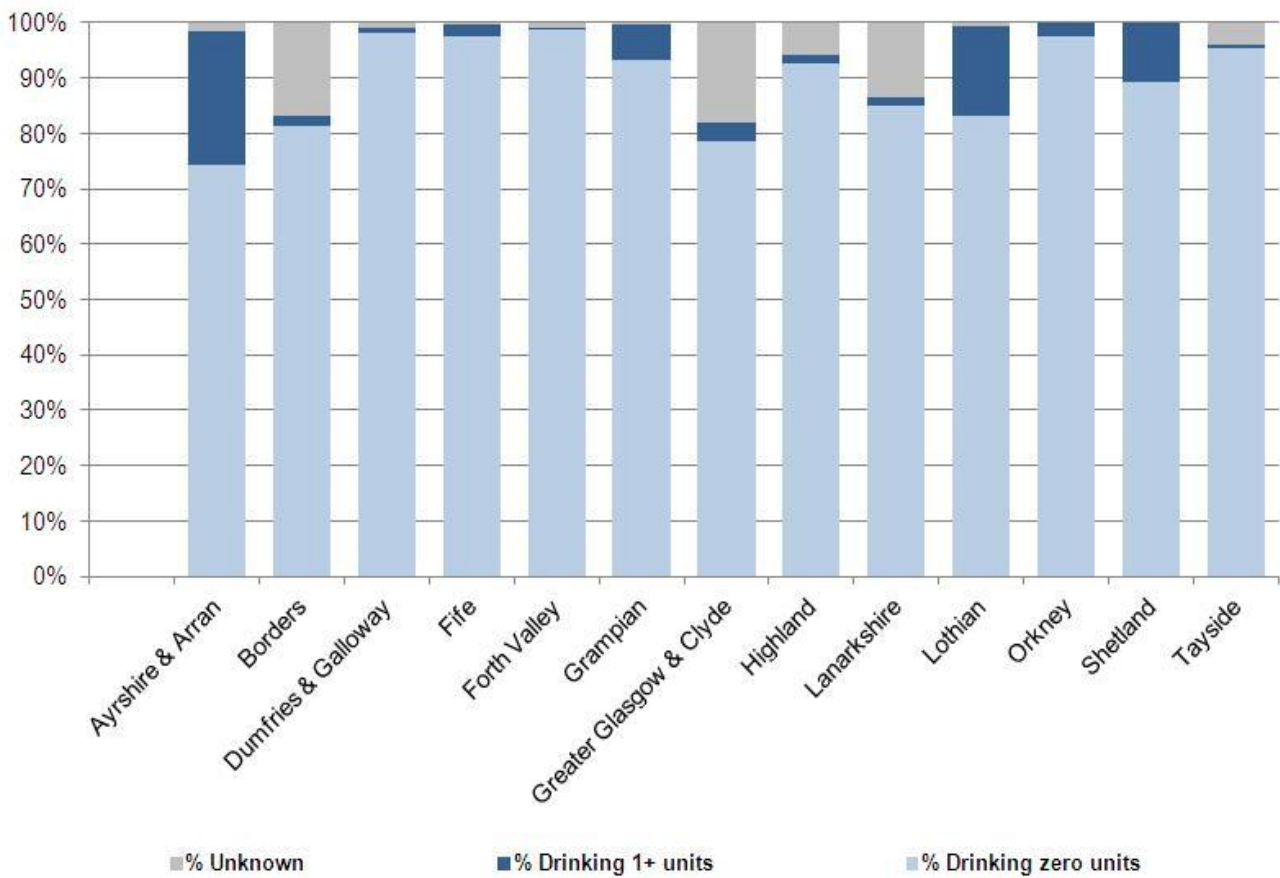
**Chart 8. Typical weekly alcohol consumption during early pregnancy, Scotland, 2006 to 2015<sup>p</sup>**



1 -Typical weekly alcohol consumption was made a mandatory SMR02 data collection item in April 2011. From April 2013 women were asked for their average weekly consumption of alcohol over the three months prior to booking.  
 2 - There are data quality issues around the self-reporting of alcohol consumption during pregnancy  
 3 - Excludes home births and births at non-NHS hospitals.  
 Note: SMR02 submission levels based on NHS Board of residence for 2014/15 are estimated to be 97% complete for Scotland. Boards with submission levels lower than 95% are NHS Lothian (93%), NHS Borders (90%) and NHS Western Isles (19%).  
 p - Provisional.

Source: SMR02  
 ISD Scotland

**Chart 9. Typical weekly alcohol consumption during early pregnancy<sup>1,2,3</sup>, 2014/15<sup>p</sup>, by NHS Board<sup>4</sup>, Percentage of those drinking no units and those drinking 1+ units of alcohol**



1 - Typical weekly alcohol consumption was made a mandatory SMR02 data collection item in April 2011. From April 2013 women were asked for their average weekly consumption of alcohol over the three months prior to booking.  
 2 - There are data quality issues around the self-reporting of alcohol consumption during pregnancy  
 3 - Excludes home births and births at non-NHS hospitals.  
 4 - SMR02 submission levels based on NHS Board of residence for 2014/15 are estimated to be 97% complete for Scotland. Boards with submission levels lower than 95% are NHS Lothian (93%), NHS Borders (90%) and NHS Western Isles (19%). Because of its particularly low submission rate data for NHS Western Isles are not shown.

p - Provisional.

Source: SMR02  
 ISD Scotland

The above chart shows large variations across NHS boards in the reporting of typical weekly alcohol consumption during pregnancy.

Comparisons with similar data from [Growing up in Scotland<sup>2</sup>](#), which reports on a sample of mothers giving birth in 2010/11, shows a higher level of alcohol consumption during pregnancy than that recorded in SMR02. It is likely that the SMR02 data presented here, for some NHS boards, do not reflect the true average weekly alcohol consumption during pregnancy due to under reporting of the data. The data should therefore be interpreted with caution.

<sup>1</sup> Jayne et al., 2012a, Graham and Mackinnon, 2010, Stockwell et al., 2012, Stockwell and Room, 2012

<sup>2</sup> [Growing up in Scotland](#)

## Glossary

|                      |   |
|----------------------|---|
| All births           | When four or more babies are born, details about the babies are only recorded on the SMR02 for the first three babies delivered. However, the total number of births resulting from the pregnancy are recorded.   |
| Antenatal            | Occurring before birth.   |
| Datazone             | A small geographical area with a population between 500-1,000 household residents. They are based on groups of 2001 Census output areas.  |
| Delivery             | A delivery is a pregnancy resulting in a live or still birth.   |
| Deprivation Category | There have been SIMD releases in 2004, 2006, 2009 and 2012. This report uses the most appropriate SIMD for each financial year: the years 1998 to 2004 use SIMD2004, years 2005 to 2007 use SIMD2006, years 2008 to 2010 use SIMD2009 and years 2011 to 2015 use SIMD2012.  |
| Elective Caesarean   | An elective caesarean section refers to a caesarean section, which has been planned in advance and in most cases will have been recommended for clinical reasons such as breech or multiple births or previous caesarean section. It may also be the case that the woman will have chosen this method of delivery for non-clinical reasons. |
| Full term            | A birth is considered full-term if the delivery occurs during or after the 37th week of gestation.  |
| Live Births          | A live birth is defined as a birth where the baby was born breathing or showing other signs of life.  |
| Low birthweight      | Babies with a birthweight of less than 2,500 grams.   |
| Macrosomic           | Babies with an abnormally large body size.  |
| Maternity            | A pregnancy resulting in a live or stillbirth, with multiple births being counted only once.  |
| Multiple birth       | A baby from a pregnancy resulting in more than one live or stillbirth.  |
| Parity               | Refers to the number of previous pregnancies resulting in a live or stillbirth.   |
| Postnatal            | Occurring after birth.  |
| Pregnancy            | The period during which a woman is pregnant.  |
| Preterm              | A birth is considered preterm if the delivery occurs before the 37th completed week of gestation.   |
| Singleton birth      | A baby from a pregnancy resulting in only one live or stillbirth.   |
| Stillbirths          | The Registration of Births, Deaths and Marriages (Scotland) Act 1965 defines a stillbirth as a child which was born after the 24th week of pregnancy and which did not breathe or show any other sign of life.  |
| Very low birthweight | Babies with a birthweight of less than 1,500 grams.   |

## List of Tables

| Table No. | Name  | Time period                                  | File & size      |
|-----------|---|--|------------------|
| 1         | <a href="#">Births by outcome</a> <ul style="list-style-type: none"> <li>• Scotland</li> <li>• NHS Board of residence</li> <li>• Council Area</li> </ul>  | 1998 - 2015<br>1998 - 2015<br>1998 - 2015    | Excel<br>[130kb] |
| 2         | <a href="#">Maternities by maternal age</a> <ul style="list-style-type: none"> <li>• Scotland</li> <li>• NHS Board of residence</li> <li>• Council Area</li> </ul>                                    | 1976 - 2015<br>1998 - 2015<br>1998 - 2015    | Excel<br>[88kb]  |
| 3         | <a href="#">Maternities (first birth and all births) by maternal age and deprivation</a> <ul style="list-style-type: none"> <li>• Scotland</li> <li>• NHS Board of residence</li> </ul>               | 1998 - 2015                                  | Excel<br>[249kb] |
| 4         | <a href="#">Live births by mode of delivery and induction</a> <ul style="list-style-type: none"> <li>• Scotland</li> <li>• NHS Board of residence</li> <li>• Hospital</li> </ul>                      | 1976 - 2015<br>1998 - 2015<br>2005,2010,2015 | Excel<br>[265kb] |
| 5         | <a href="#">Live births (all, singleton and multiple) by birthweight and gestation</a> <ul style="list-style-type: none"> <li>• Scotland</li> <li>• NHS Board of residence</li> </ul>                 | 1976 - 2015                                  | Excel<br>[426kb] |
| 6         | <a href="#">All births (live and still), pre-term and full term by birthweight</a> <ul style="list-style-type: none"> <li>• Scotland</li> <li>• NHS Board of residence</li> </ul>                     | 1976 - 2015                                  | Excel<br>[161kb] |
| 7         | <a href="#">Live births (all, singleton and multiple) by birthweight and deprivation</a> <ul style="list-style-type: none"> <li>• Scotland</li> <li>• NHS Board of residence</li> </ul>               | 1998 - 2015                                  | Excel<br>[407kb] |
| 8         | <a href="#">Appropriate for gestational age</a> <ul style="list-style-type: none"> <li>• Summary</li> <li>• Small</li> <li>• Appropriate</li> <li>• Large</li> <li>• Exclusions</li> </ul>            | 2015   | Excel<br>[169kb] |
| 9         | <a href="#">Early access to antenatal services</a> <ul style="list-style-type: none"> <li>• Scotland</li> <li>• NHS Board of residence</li> </ul>   | 2015   | Excel<br>[125kb] |
| 10        | <a href="#">Smoking history at booking</a> <ul style="list-style-type: none"> <li>• Scotland</li> <li>• NHS Board of residence</li> <li>• deprivation</li> <li>• maternal age</li> </ul>              | 2006 - 2015                                  | Excel<br>[92kb]  |
| 11        | <a href="#">Smoking at health visitor's first visit</a> <ul style="list-style-type: none"> <li>• Scotland</li> <li>• NHS Board of residence</li> <li>• deprivation</li> <li>• maternal age</li> </ul> | 2006 - 2015                                  | Excel<br>[93kb]  |

|    |  |             |                  |
|----|--|-------------|------------------|
| 12 | <a href="#">Miscarriages by maternal age</a><br><ul style="list-style-type: none"> <li>NHS Board of residence</li> </ul>                                     | 1998 - 2015 | Excel<br>[40kb]  |
| 13 | <a href="#">Level of care</a><br><ul style="list-style-type: none"> <li>NHS Board of residence</li> </ul>  | 2015        | Excel<br>[35kb]  |
| 14 | <a href="#">Drug misuse in pregnancy</a><br><ul style="list-style-type: none"> <li>Scotland</li> <li>NHS Board of residence</li> <li>Council Area</li> </ul> | 2009 - 2015 | Excel<br>[45kb]  |
| 15 | <a href="#">Body mass index (BMI)</a><br><ul style="list-style-type: none"> <li>Scotland</li> <li>NHS Board of residence</li> </ul>                          | 2011-2015   | Excel<br>[139kb] |
| 16 | <a href="#">Typical weekly alcohol consumption</a><br><ul style="list-style-type: none"> <li>Scotland</li> <li>NHS Board of residence</li> </ul>             | 2015        | Excel<br>[148kb] |

### List of Charts

| Chart No. | Name   | Time period                    | File & size  |
|-----------|--|--------------------------------|--------------|
| 1         | <a href="#">NRS birth registrations v SMR02 births</a>             | 1855 - 2014<br>SMR02 from 1980 | Excel [24kb] |
| 2         | <a href="#">First birth by maternal age and deprivation</a>        | 2015                           | Excel [19kb] |
| 3         | <a href="#">Live singleton births by mode of delivery</a>          | 1998 – 2015                    | Excel [19kb] |
| 4         | <a href="#">Live singleton births by birthweight and gestation</a> | 1998 - 2015                    | Excel [20kb] |
| 5         | <a href="#">Healthy birthweight, Scotland, 2001-2015</a>           | 2001 - 2015                    | Excel [33kb] |
| 6         | <a href="#">Healthy birthweight, by NHS Board, 2015</a>            | 2015                           | Excel [20kb] |
| 7         | <a href="#">Smoking at booking by deprivation</a>                  | 2006 - 2015                    | Excel [21kb] |

## Contact

### **Celina Davis**

Principal Information Analyst

[nss.isdmaternity@nhs.net](mailto:nss.isdmaternity@nhs.net)

0131 275 6199

### **Kenny McIntyre**

Senior Information Analyst

[nss.isdmaternity@nhs.net](mailto:nss.isdmaternity@nhs.net)

0131 275 6557

### **Stuart Wigglesworth**

Information Analyst

[nss.isdmaternity@nhs.net](mailto:nss.isdmaternity@nhs.net)

0131 275 7128

## Further Information

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## Appendix

### A1 – Background Information

#### Maternity Data Source (inpatients and day cases)

Hospital based maternity and birth data are derived from the maternity inpatient and day case record (SMR02).

The August 2014 'Births in Scottish Hospitals' publication reported on data for the time period up to and including 31<sup>st</sup> March 2013. In this year's publication it has been possible to include data for the years ending 31<sup>st</sup> March 2014 and 31<sup>st</sup> March 2015. Although data for the most recent time period reported (1<sup>st</sup> April 2014 to 31<sup>st</sup> March 2015) were reported to be 97% complete at a national level (see [SMR Completeness Estimates](#)), some NHS boards had submitted less than 95% of records at the time the data were extracted for the publication. In particular SMR02 submissions for NHS Highland for the year ending 31<sup>st</sup> March 2015 were 94% of that expected, NHS Lothian had submitted 92% of expected records and NHS Western Isles had submitted 5% of expected records. These figures are calculated based on NHS Board of treatment. Completeness levels for data based on NHS Board of residence will differ, due to some residents being treated in a different NHS Board to that which they are resident. For example, some NHS Borders patients will be treated in an NHS Lothian hospital. Completeness levels based on NHS Board of residence are estimated to be 97% complete nationally, 90% for NHS Borders, 93% for NHS Lothian and 19% for NHS Western Isles. All other NHS Boards are estimated to be above 95% completeness when looking at the data based on NHS Board of residence.

#### Births

In Scotland the most reliable number of births is based on the civil registration system administered by National Records of Scotland (NRS). However, NRS numbers are based on the date of registration of the births rather than the date of birth, so that a child born in late December of one year may not be registered until the following year. The data presented on these web pages are derived from SMR02 (maternity hospital records) and are based on date of discharge from hospital. Unlike civil registrations, there is no legal requirement to complete the maternity return, and home births are not recorded.

#### Coverage and completeness

Since 1975/76 the SMR02 system has achieved national coverage of approximately 98 per cent of all births and pregnancies recorded by NRS. For the year 2014 births recorded on SMR02 represented approximately 96% of all births, due to lower submissions from some NHS boards. SMR02 includes a wide range of clinical data such as birthweight, gestational age, mode of delivery, induction and outcome of pregnancy. More recently, information on smoking during pregnancy (1993/94) and drug and alcohol misuse (2003/04) were introduced. There are, however, concerns about the completeness and accuracy of the recording of these variables. See note below on issues regarding smoking data.

Delivery records account for approximately half of all SMR02 discharges each year with antenatal, postnatal and abortion episodes forming the remaining discharges (see also Teenage Pregnancy and Abortion Act Statistics).

Tables in this publication which are based on SMR02 information exclude home births. Detailed birth information about the fourth or subsequent babies (third prior to 1997) in a multiple delivery is also not available from this source, as the SMR02 can only facilitate the recording of information on three babies (two prior to 1997).



The data for year ending 31 March 2015 should be regarded as provisional and will be revised at the update next year. Throughout this publication, figures shown for each year relate to live births, still births, maternities, or pregnancies which occurred in the year ending 31 March. The one exception to this is the section on NRS birth registrations v's SMR02 births, which is based on year ending 31 December.

Population data used for calculating age specific rates are provided by National Records of Scotland (NRS).

### **NHS Board Boundary Change, 2014**

On 1<sup>st</sup> April 2014, NHS board boundaries were changed to align with those of local authorities. The purpose of the change was to help NHS boards and local authorities work closer together in the provision of care in the local community. To allow direct comparisons over time between NHS boards this alignment has also been applied to pre-2014 data. The main impact of the re-alignment is on NHS Lanarkshire and NHS Greater Glasgow & Clyde (approx. 2,600 postcodes changed from Greater Glasgow & Clyde to Lanarkshire). Further information including a list of those postcodes affected by the boundary changes is available at: <http://www.isdscotland.org/Products-and-Services/GPD-Support/Geography/NHS-Board-Boundary-Changes/>.

### **Appropriate Birthweight for Gestational Age**

The data in the Appropriate Birthweight for Gestational Age section of the report have been produced by comparing the birthweights and gestations with a set of standard tables based on the UK-WHO Child Growth Standards. This is a change to previously published data on appropriate birthweight for gestational age which used standard tables derived from Scottish reference data.

### ***Previous methodology***

In the August 2014 'Births in Scottish Hospitals' publication, data on appropriate birthweight for gestational age was produced using standard tables derived from Scottish data on all births from the years 1998-2003, by Sandra Bonnellie (Napier University) and Jim Chalmers (ISD). Details of the way in which the standards were derived are available here: <http://www.biomedcentral.com/1471-2393/8/5>.

### ***Current methodology***

In this 'Births in Scottish Hospitals' publication, and in future publications, data on appropriate birthweight for gestational age have been produced using tables based on the UK-WHO child growth standards developed by the Royal College of Paediatrics and Child Health, see: <http://www.rcpch.ac.uk/child-health/research-projects/uk-who-growth-charts>

There are advantages and disadvantages (listed below) in changing to the new methodology based on the UK-WHO growth charts. Overall it was thought that the advantages of changing to the new methodology outweigh the disadvantages. We have also taken into consideration clinical advice which recommended that this approach would be preferable.

Advantages of changing to using UK-WHO reference data:

- Comparability to the rest of the UK.
- Exclusion of stillbirths in the reference data (stillbirths are over represented at low gestations and tend to be lighter than live born infants).
- Congruence with usual clinical practice in Scotland (i.e. the growth charts used in NHS Scotland).

- Ability for others to replicate our work.

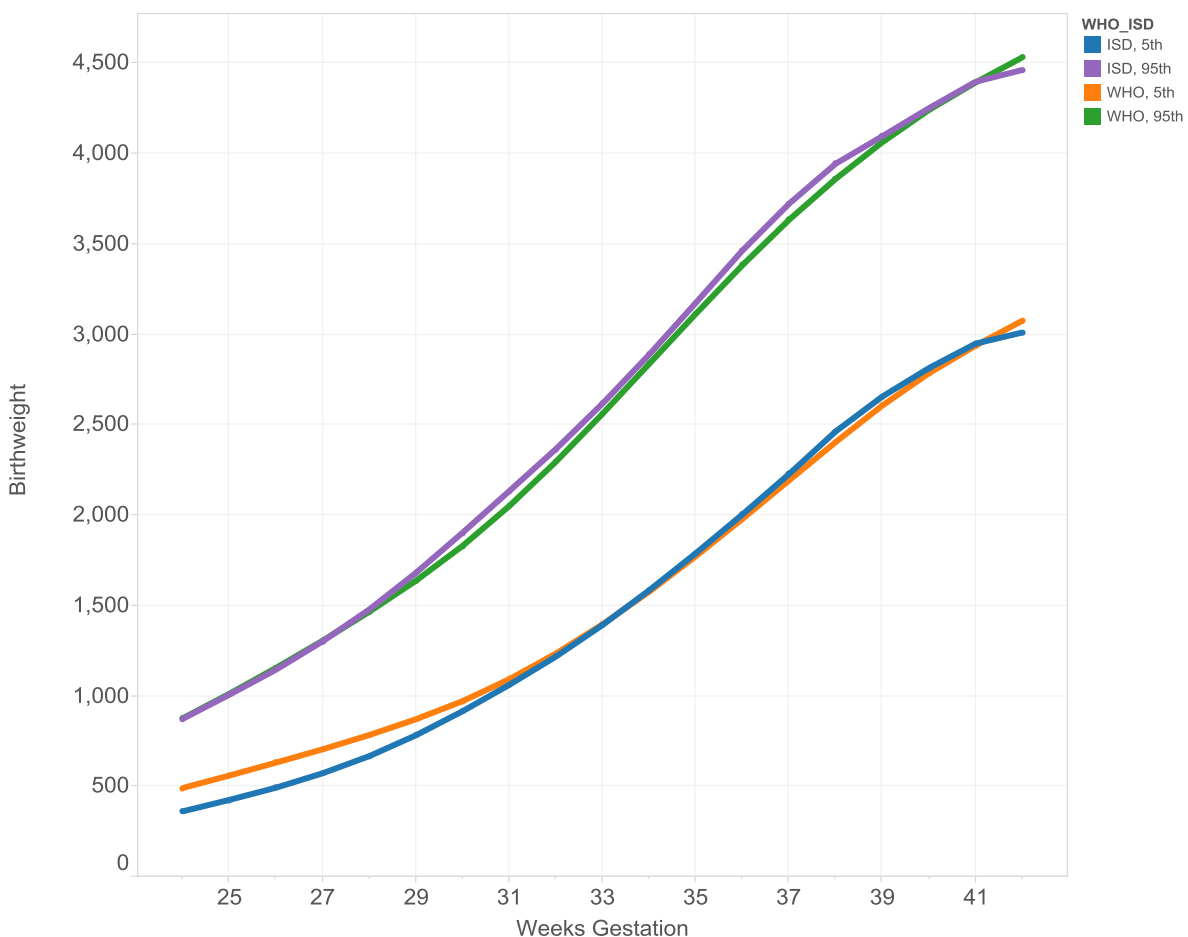
Disadvantages of changing to using UK-WHO reference data:

- No breakdown of data by parity which was available using the previous reference data.
- Not as recent as previous reference data (UK-WHO reference data for birthweights are from the 1980s to early 1990s whereas the previous ISD reference data are from 1998 to 2003).

**Impact**

We have investigated the difference in results when using one reference dataset compared to the other and the results are below. The differences overall are small. The largest difference is for the very premature babies (24-31 weeks) and this is because the previous (ISD) reference data included stillbirths in addition to live births whereas the UK-WHO reference data exclude stillbirths.

**Chart A1. Comparison of birthweight centiles reference datasets, UK-WHO growth charts compared to ISD reference data**



## Comparison of results

**Table A1. Percentage of babies of small, appropriate and large birthweights for gestational age, year ending March 2013, based on UK-WHO growth charts compared to ISD reference data**

|               | Gestation |       |       |      |      |
|---------------|-----------|-------|-------|------|------|
|               | 24-31     | 32-36 | 37-41 | 42   | All  |
| <b>ISD</b>    |           |       |       |      |      |
| Small         | 2.6       | 3.4   | 3.9   | 2.0  | 3.9  |
| Appropriate   | 92.7      | 89.1  | 90.2  | 89.4 | 90.2 |
| Large         | 4.7       | 7.5   | 5.8   | 8.6  | 6.0  |
| <b>UK-WHO</b> |           |       |       |      |      |
| Small         | 4.7       | 3.5   | 3.3   | 3.5  | 3.3  |
| Appropriate   | 89.7      | 87.6  | 89.6  | 90.0 | 89.5 |
| Large         | 5.6       | 8.9   | 7.1   | 6.5  | 7.2  |

### Scottish Index of Multiple Deprivation (SIMD)

Deprivation for individuals is estimated from aggregated data derived from the Census and other routine sources.

There have been SIMD releases in 2004, 2006, 2009 and 2012. This report uses the most appropriate SIMD for each financial year: the years 1998 to 2004 use SIMD2004, years 2005 to 2007 use SIMD2006, years 2008 to 2010 use SIMD2009 and years 2011 to 2015 use SIMD2012. Previous versions of this publication used SIMD2012 for all years.

Further information on SIMD is available at:

<http://www.isdscotland.org/Products-and-Services/GPD-Support/Deprivation/SIMD/>

A more detailed explanation about the application of SIMD, its advantages and disadvantages is available at:

<http://www.isdscotland.org/Products-and-Services/GPD-Support/Deprivation/docs/PHI-Deprivation-Guidance-version-2.2-100615.pdf>

## Smoking and pregnancy

### Accuracy of smoking at booking data

Data on smoking behaviour is based on self-reported information obtained from mothers at their ante-natal booking visit in the community or at hospital. The 'smoking at booking' data item was made mandatory in 1993/94 and it should be noted that this information is not always recorded, although completeness has improved more recently. Because of concerns about the quality of 'smoking at booking' data, care should be taken in interpreting the results. Data exclude home births and births at non-NHS hospitals.

### Smoking at first visit

These statistics are derived from data recorded at the health visitor First Visit review (at around 10 days old), for NHS Boards in Scotland which participate in the Child Health Systems Programme Pre-School system (CHSP-PS). The CHSP-PS system facilitates the call/recall of children for reviews from shortly after birth until school entry and records results. The system is dynamic, with ongoing updating of records. For this reason there can be very minor changes to the published data for previous years, however any changes are negligible. Please refer to the notes pages at:

[Smoking at health visitor's first visit; Scotland, NHS Board, deprivation and maternal age](#) for further information.

The number of Boards using the CHSP Pre-School system and recording data has increased since 2001/02 from 10 to all 14 NHS Boards in Scotland. NHS Western Isles have recorded data from 2006/07, NHS Shetland from 2008/09, and NHS Grampian and NHS Orkney from 2010/11. Data for NHS Grampian and NHS Orkney for 2010/11 are partial. These Boards implemented the system in June 2010 and July 2010 respectively and therefore data are not available for babies born in the first quarter of 2010/11 who had a First Visit before the implementation date. In addition it should be noted that NHS Highland did not fully implement the system until May 2007, though data are available for the area of NHS Highland inherited from former NHS Argyll & Clyde (i.e. Argyll & Bute Council Area) for financial years 2001/02 to 2006/07.

Three of the four NHS Boards that don't have data available for all years are island boards (Orkney, Shetland and Western Isles). These boards have a small number of births each year and therefore the impact of data not being available for these boards on the 'Scotland' / 'All participating NHS Boards' rates and trend is negligible. However NHS Grampian has a relatively large number of births each year (around 10% of all births in Scotland). Grampian did not start recording data on the system until 2010/11 and the reported smoking rates in Grampian in 2010/11 and 2011/12 are lower than the Scotland average. This means that if Grampian data had been available for years 2001/02 to 2009/10, it is likely that the 'Scotland' level reported smoking rates at the First Visit would have been slightly lower for these years. This should be borne in mind when comparing the 'Scotland' rates for 2010/11 and 2011/12 with previous years.

Please refer to the notes pages at:

[Smoking at health visitor's first visit; Scotland, NHS Board, deprivation and maternal age](#) for further information.

**Drug misuse in pregnancy**

This section is based on maternity data (SMR02) and neonatal discharges (Scottish Birth Record) collected by ISD. Care should be taken when comparing numbers over time as hospitals have improved recording of drug misuse data items over the last 5 years. These items were made mandatory as of April 2011, so there was improved recording of these items in anticipation of that change, although considerable variation between NHS Boards still exists around levels of unknown data (see below). This will mean that more will be known about drug use in pregnancy in comparison to previous years. The number of babies affected by maternal use of drugs (SBR) has remained relatively steady. Note that a greater number of births than maternities can be recorded because multiple births are recorded as only one maternity. To minimise the potential risk of disclosure where data are shown by NHS Board and Council Area, data have been grouped up into 3-year rolling aggregates in Tables 14.1 and 14.5.

Drug misuse can be recorded as a hard-coded data item (ie – there is a small number of possible choices rather than the broad range of codes available in a system such as ICD10), which was introduced in April 2003. However, not all hospitals are able to submit using the hard-coded data item, as their patient administration system (PAS) has not been modified to allow this. This data item was made mandatory as of April 2011, and there was improved recording of this item in anticipation of that change. Although mandatory, it is possible to record ‘unknown’ as a valid response. The data item asks whether there has been ‘drug misuse at any time during the current pregnancy’ and the possible responses are ‘Yes’, ‘No’ and ‘Unknown’. The following table indicates the levels of recording of these responses by NHS Board for the period 2012/13 to 2014/15.

Drugs misuse can also be recorded on SMR02 using the following ICD10 codes:

| ICD10 | Description   |
|-------|---|
| F11   | Opioids   |
| F12   | Cannabinoids  |
| F13   | Sedatives or Hypnotics                                |
| F14   | Cocaine   |
| F15   | Other Stimulants                                      |
| F16   | Hallucinogens   |
| F18   | Volatile Solvents                                     |
| F19   | Multiple / Other Psychoactive Substances              |
| O35.5 | Maternal care for suspected damage to foetus by drugs |

**Table A2. Recording of the data item 'Drug Misuse During This Pregnancy', by NHS Board, 2012/13 to 2014/15**

|                         | <b>Total Maternities</b> | <b>Number not recorded or recorded as 'Not Known'<sup>1</sup></b> | <b>% Not Known or Not Recorded</b> |
|-------------------------|--------------------------|---|------------------------------------|
| <b>Scotland</b>         | 162,550                  | 21,879  | 13.5                               |
| Ayrshire & Arran        | 10,602                   | 123   | 1.2                                |
| Borders                 | 2,936                    | 703   | 23.9                               |
| Dumfries & Galloway     | 3,799                    | 66  | 1.7                                |
| Fife                    | 11,403                   | 50  | 0.4                                |
| Forth Valley            | 8,993                    | 130   | 1.4                                |
| Grampian                | 18,499                   | 243   | 1.3                                |
| Greater Glasgow & Clyde | 36,747                   | 14,429  | 39.3                               |
| Highland                | 8,658                    | 479   | 5.5                                |
| Lanarkshire             | 20,328                   | 5,169   | 25.4                               |
| Lothian                 | 26,048                   | 240   | 0.9                                |
| Tayside                 | 12,101                   | 86  | 0.7                                |
| Islands                 | 1,838                    | 49  | 2.7                                |
| Not known               | 598                      | 112   | 18.7                               |

<sup>1</sup> Cases recorded as 'Not Known' over the 3 year period 2012/13 to 2014/15 are included.

Source: SMR02

Due to the differing levels of recording of this information by NHS Board care should be taken when interpreting results from Table 14.1. More information on the recording of this data item can be found at:

<http://www.ndc.scot.nhs.uk/Data-Dictionary/SMR-Datasets/SMR02-Maternity-Inpatient-and-Day-Case/Drug-and-Alcohol-Misuse/Drugs-Misuse-During-This-Pregnancy.asp>

### **SMR02 quality assurance assessment**

An assessment of SMR02 data quality was carried out by the Data Quality Assurance Team at ISD. Results were published in April 2010 and are available at [www.isdscotland.org/data\\_quality\\_assurance](http://www.isdscotland.org/data_quality_assurance). This audit assessed 34 data items from the maternity dataset (SMR02) against information found in the medical record or Scottish Woman-Held Maternity Record (SWHMR). While 18 of the data items did match in 90% or more of the records, the remaining 16 data items matched with less than 90% of the records, five of these were very poorly recorded with fewer than 40% matching. One of the recommendations from this report was that 4 of the 5 data items that were very poorly recorded should become mandatory, rather than remain optional, to improve the quality of this data. These included the following 3 drug misuse related items:

- (1) Drug Misuse During this Pregnancy
- (2) Ever Injected Illicit Drugs
- (3) Drugs Used

As a result of the report recommendation, the 'Drug Misuse During this Pregnancy' data item changed from optional to mandatory in April 2011.

### **Babies affected by maternal use of drugs**

Data in table 14.5 relates to the total number of individual babies, not to the number of discharges. A baby may be admitted to and discharged from neonatal care more than once. Neonatal discharges were originally recorded using SMR11 records (including from neonatal units and postnatal cots), with records being generated for sick babies who fall into one of the following categories:

Babies who require medical care (other than resuscitation immediately after birth or routine screening),

Babies who have a congenital anomaly (whether or not medical treatment is given at that time).

ICD10 Description

P04.4 Foetus and newborn affected by maternal use of drugs of addiction

P96.1 Neonatal withdrawal symptoms from maternal use of drug addiction

The figures presented here cover 3 year aggregates, 2008/09-2010/11 to 2012/13-2014/15. Data for all years shown are revised, so may be different from previously published figures. Care should be taken when comparing numbers over time, as there has been an improvement in drug misuse recording over the last five years. However, it is also worth noting that recording practice of drug misuse diagnoses may vary between hospitals, which may explain some of the variation between NHS health boards or Council Areas. The replacement of SMR11 with the SBR, which occurred incrementally across Scotland, may also have had an impact on these figures.

### **Further information**

Information on the background of the Scottish Birth Record and current development is available at:

<http://www.isdscotland.org/Products-and-Services/Scottish-Birth-Record/>.

Further statistics relating to births are available at:

<http://www.isdscotland.org/Health-Topics/Maternity-and-Births/Births/>.

The Data Quality Assurance, Assessment of Maternity Data (SMR02) 2008-2009 is available at:

[www.isdscotland.org/data\\_quality\\_assurance](http://www.isdscotland.org/data_quality_assurance).

**A2 – Publication Metadata (including revisions details)**

| <b>Metadata Indicator</b>                | <b>Description</b>   |
|--|--|
| Publication title                        | Births in Scottish Hospitals.  |
| Description                              | Annual update to information on births in Scottish NHS hospitals. This includes information on the mother, the delivery and the baby, available at various geographies including NHS Board, Council Area and hospital level.   |
| Theme                                    | Health and Social Care.  |
| Topic                                    | Maternity and pregnancy services.  |
| Format                                   | Excel workbooks.   |
| Data source(s)                           | SMR02 (maternity hospital discharge summary), Scottish Birth Record (SBR), SMR01 (acute hospital discharge summary) in miscarriage data and CHSP-PS (child health systems programme-pre school).   |
| Date that data are acquired              | September 2015 (two months prior to release).  |
| Release date                             | 24 November 2015.  |
| Frequency                                | Annual.  |
| Timeframe of data and timeliness         | Data up to and including financial year ending 31 March 2015. The delay between data timeframe and date of publication timeliness is mainly due to delays in data submission from some NHS Boards. Publication of data is generally delayed until SMR02 submission is estimated to be around 95% complete. |
| Continuity of data                       | Reports data from 1975/76  |
| Revisions statement                      | Data are generally noted as provisional (due to a small shortfall in completeness of data) at time of publication. The data are then revised at next year's update.  |
| Revisions relevant to this publication   | Data on mother's use of alcohol during pregnancy has been included for the first time in this publication.<br>NHS board boundaries have been updated to incorporate the 2014 changes.<br><br>The methodology used to calculate the data on appropriate birthweight for gestational age has been revised.   |
| Concepts and definitions                 | <a href="http://www.isdscotland.org/Health-Topics/Maternity-and-Births/Births">http://www.isdscotland.org/Health-Topics/Maternity-and-Births/Births</a>  |
| Relevance and key uses of the statistics | Making information publicly available for planning, epidemiology, provision of services and the statistics provide comparative information.  |
| Accuracy                                 | SMR02 data are subjected to validation on submission. The figures are compared to previous years' figures and to expected trends. The SMR02 data are also occasionally assessed for accuracy by ISD's Data Quality Assurance - see latest report 'Data Quality Assurance (Assessment of                    |



|                                    |  |
|------------------------------------|--|
|                                    | Maternity Data) 2008-09' Report at:<br><a href="http://www.isdscotland.org/Products-and-Services/Data-Quality">http://www.isdscotland.org/Products-and-Services/Data-Quality</a>   |
| Completeness                       | There is generally around a 1-4% shortfall in the number of births when compared to National Records of Scotland (NRS) birth registrations, formerly General Register Office Scotland (GROS). Some of this shortfall is due to data on home births not being available from SMR02 and lower submission levels from some NHS boards. For comparison of SMR02 births v NRS registrations see:<br><a href="http://www.isdscotland.org/Health-Topics/Maternity-and-Births/Publications/2014-08-26/mat_bb_chart1.xls">http://www.isdscotland.org/Health-Topics/Maternity-and-Births/Publications/2014-08-26/mat_bb_chart1.xls</a> |
| Comparability                      | Maternity data for England are published by NHS information Centre at HES Online. Some of this will be directly comparable with Scottish published data e.g. birthweight, gestation. Where directly comparable, Scottish maternity data are regularly provided to ONS, Department of Health for contribution to both UK and International reports/databases e.g. UK Health Statistics, Social Trends, European Health for All database. In these comparisons, data are provided only at national (Scotland) level or may be aggregated to UK.  |
| Accessibility                      | It is the policy of ISD Scotland to make its web sites and products accessible according to <a href="#">published guidelines</a> .   |
| Coherence and clarity              | Births in Scottish Hospital tables are accessible via the ISD website at <a href="http://www.isdscotland.org/Health-Topics/Maternity-and-Births/Births">http://www.isdscotland.org/Health-Topics/Maternity-and-Births/Births</a><br>Drop down menus are presented where appropriate e.g. for selection of geography i.e. NHS Board/Council Area or for selection of singleton/multiple/all births or live/stillbirths/total births.  |
| Value type and unit of measurement | Numbers and crude rates are presented.   |
| Disclosure                         | The <a href="#">ISD protocol on Statistical Disclosure Protocol</a> is followed.   |
| Official Statistics designation    | National Statistics.   |
| UK Statistics Authority Assessment | <a href="http://www.statisticsauthority.gov.uk/assessment/assessment-report-110---statistics-on-maternities-and-births-in-scotland.pdf">http://www.statisticsauthority.gov.uk/assessment/assessment-report-110---statistics-on-maternities-and-births-in-scotland.pdf</a>  |
| Last published                     | 27 August 2014.  |
| Next published                     | November 2016.   |
| Date of first publication          | 1975.  |
| Help email                         | <a href="mailto:Nss.isdmaternity@nhs.net">Nss.isdmaternity@nhs.net</a>   |
| Date form completed                | November 2015.   |

## **A3 – Early Access details (including Pre-Release Access)**

### **Pre-Release Access**

Under terms of the 'Pre-Release Access to Official Statistics (Scotland) Order 2008', ISD are obliged to publish information on those receiving Pre-Release Access ('Pre-Release Access' refers to statistics in their final form prior to publication). The standard maximum Pre-Release Access is five working days. Shown below are details of those receiving standard Pre-Release Access.

### **Standard Pre-Release Access:**

- Scottish Government Health Department
- NHS Board Chief Executives
- NHS Board Communication leads

### **Early Access for Quality Assurance**

These statistics will also have been made available to those who needed access to help quality assure the publication:

- NHS Board Analytical contacts

## A4 – ISD and Official Statistics

### About ISD

Scotland has some of the best health service data in the world combining high quality, consistency, national coverage and the ability to link data to allow patient based analysis and follow up.

Information Services Division (ISD) is a business operating unit of NHS National Services Scotland and has been in existence for over 40 years. We are an essential support service to NHSScotland and the Scottish Government and others, responsive to the needs of NHSScotland as the delivery of health and social care evolves.

**Purpose:** To deliver effective national and specialist intelligence services to improve the health and wellbeing of people in Scotland.

**Mission:** Better Information, Better Decisions, Better Health

**Vision:** To be a valued partner in improving health and wellbeing in Scotland by providing a world class intelligence service.

### Official Statistics

Information Services Division (ISD) is the principal and authoritative source of statistics on health and care services in Scotland. ISD is designated by legislation as a producer of 'Official Statistics'. Our official statistics publications are produced to a high professional standard and comply with the Code of Practice for Official Statistics. The Code of Practice is produced and monitored by the UK Statistics Authority which is independent of Government. Under the Code of Practice, the format, content and timing of statistics publications are the responsibility of professional staff working within ISD.

ISD's statistical publications are currently classified as one of the following:

- National Statistics (ie assessed by the UK Statistics Authority as complying with the Code of Practice)
- National Statistics (ie legacy, still to be assessed by the UK Statistics Authority)
- Official Statistics (ie still to be assessed by the UK Statistics Authority)
- other (not Official Statistics)

Further information on ISD's statistics, including compliance with the Code of Practice for Official Statistics, and on the UK Statistics Authority, is available on the [ISD website](#).

The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics. Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods, and
- are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.