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Introduction

The data presented here are mainly obtained from the Scottish Morbidity Record 02 (SMR02) submitted by maternity hospitals to the Information Services Division (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, weight, smoking history and previous obstetric history.
- Birth - induction, analgesia, method of delivery and outcome.
- Baby - sex, Apgar score, gestation and 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). Further information is available in Appendix A1.

Data for the most recent time period (1 April 2015 to 31 March 2016) were reported to be 99% complete at a national level (see SMR completeness estimates) at the time the data were extracted for the publication.

Historically, births recorded on SMR02 represent approximately 98% of the births recorded by NRS. Some of this shortfall will be due to data on home births not being available from SMR02. For the calendar year 2015, births recorded on SMR02 represented approximately 98.5% of the births recorded by NRS.

New interactive visual content

For the first time in this publication we have included some new interactive visual content in the Births in Scottish Hospitals Dashboard. Information on live births is presented over time, by deprivation area, maternal age group and method of delivery. We are considering presenting more information in this format in future and would welcome any feedback. Please email nss.isdmaternity@nhs.net by 28 February 2017.

Proposed changes to the ‘Births in Scottish Hospitals’ publication

ISD is committed to producing information that best meets the needs of our customers. We would like to seek your views on our proposal to make changes to the format of our ‘Births in Scottish Hospitals’ publication.

We are considering a number of changes to the publication including:

- Releasing more interactive visual content.
- Releasing open data. This is likely to be in aggregated format rather than individual records to avoid disclosure issues.
- Releasing summary data without commentary as soon as possible after data are complete (November 2017) and then releasing a more in depth report including commentary at a later date.
- Releasing some tables once every three years (rather than annually).
- Reducing content in areas where data are available elsewhere (for example, in management reports or NSS Discovery).
- Removing content which customers no longer find useful.

We welcome any comments on these proposals or other suggestions for improvements. If you wish to be involved please email nss.isdmaternity@nhs.net by 28 February 2017.
Main points

- Caesarean sections are increasing: the percentage of live singleton births in 2015/16 delivered by caesarean section has more than tripled since 1975/76.

- Mothers are getting older: the number of women giving birth aged 30 or over in 2015/16 has more than doubled since 1975/76.

- Mothers from deprived areas tend to give birth at a younger age: the most common age for mothers living in the most deprived areas to start a family in 2015/16 was 22 years compared to 31 years for mothers living in the least deprived areas.

- More mothers are overweight or obese than are of healthy weight: in 2015/16, 45.5% of mothers were of a healthy weight when they booked for antenatal care compared to 49.6% of mothers who were overweight or obese.

- Fewer women are smoking in pregnancy: the percentage of women known to be current smokers at the time of antenatal booking was 15.5% in 2015/16 compared to 20.8% in 2006/07.
Results and Commentary

NRS birth registrations and SMR02 births

There were 54,485 births (including live and stillbirths) recorded on SMR02 for the year ending March 2016.

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 calendar year 2015, births recorded on SMR02 represented approximately 98.5% of the births recorded by NRS.

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 2015 was 55,098, a decrease of 8.2% from the last peak in 2008. In England and Wales the number of live births in 2015 was 697,852, a decrease of 1.5% from 2008.

Chart 1: NRS live birth registrations v SMR02 live births; year ending 31 Dec 1855-2015

Source: NRS birth registrations and SMR02.

For more information on outcome of births see:

Table 1: Births by outcome
Maternal age

It is well established that women are having fewer children, and postponing childbirth until they are older. **Table 2** shows there has been a steady increase in births to mothers in the 30 or over age groups with contrasting decreases in births to mothers in younger age groups. In 2015/16 the percentage of mothers aged 30 or over was 52.4% 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. The data show that there are more births occurring in women from the most deprived areas than there are in the least deprived areas. The percentages of women of childbearing age (15-44 years) are broadly similar in these different areas of deprivation, ranging from 19.6% of women in the least deprived to 21.5% of women in the most deprived.

The number of first births to women from different deprivation areas by age is shown in Chart 2 below.

**Chart 2: First birth\(^1,2\) by maternal age & deprivation area\(^3\); year ending 31 March 2016\(^p\)**

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.
Source: SMR02

The distribution of first births by mothers in the most deprived areas peaks at age 22. This is in contrast to those in the least deprived areas, where the most common age for a first birth is 31. In the under 20s, there were eleven times the number of births in the most deprived areas compared to the least deprived areas. For 20-24 year olds the ratio of babies born in the most deprived areas to those born in the least deprived areas is 4.8 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
Table 3: Maternities (first birth and all births) by maternal age and deprivation
Method of delivery

Singleton births
In singleton births, the percentage of normal vaginal (spontaneous vertex) deliveries has fallen steadily from 75.8% in 1975/76 to 56.4% in 2015/16. Chart 3 below illustrates the changes in assisted methods of delivery from 1975/76.

Chart 3: Live singleton births\(^1,2\) by method of delivery (excluding normal vaginal deliveries); year ending 31 March 1976-2016\(^p\)

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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.
Source: SMR02

The percentage of babies born by assisted vaginal delivery has been relatively stable over time, although the distribution between forceps and vacuum extraction methods has fluctuated. Vaginal breech deliveries have fallen slowly but steadily from 1.7% in 1975/76 to 0.2% in 2008/09, where they have remained stable up to 2015/16.

The percentage of babies born by caesarean section has risen from 8.6% in 1975/76 to 31.1% in 2015/16 with elective* caesarean sections increasing steadily from 4.7% to 14.3% and emergency caesarean sections from 3.9% to 16.9%. Possible explanations for this rise include demographic changes, differences in clinical practice, characteristics and views of the obstetrician, the organisation and availability of resources, and women's choices. The change in practice for delivery of breech presentation and preterm infants, and increasing numbers of women who have had a previous caesarean section, 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\(^1\) (see also Table 15.4).

Births where labour was induced fell from 47.6% in 1975/76 to a low of 20.3% in 1988/89 but since then has risen to 31.2% in 2015/16. 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\(^2\).

**Multiple births**

Multiple births are less likely to be delivered vaginally with 39.4% being delivered by elective caesarean section in 2015/16 (compared to 6.1% in 1975/76) and 35.9% by emergency section (compared to 4.5% in 1975/76).

*An elective caesarean section refers to a caesarean section which has been planned in advance and is usually carried out before labour starts. 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.*

For more information on method of delivery see:

Table 4: [Live births by method of delivery and induction](#)

References:

Birthweight and gestation

Singleton births
Low birthweight 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 preterm birth (before 37 weeks gestation), 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 percentage of low birthweight (under 2500g) and preterm singleton births for the time period 1997/98 to 2015/16.

Chart 4: Live singleton births$^1,2,3$ by birthweight & gestation; year ending 31 March 1998-2016$^p$

Data on live birth full term singleton babies with a low birthweight (under 2500g) are available by NHS Board, council area and intermediate zone on the ScotPHO website by selecting ‘click here to access the ScotPHO online profiles tool’ and then ‘health & wellbeing profiles’.

http://www.scotpho.org.uk/.

For more information on birthweight and gestation see:

Table 5: Live births (all, singleton and multiple) by birthweight and gestation
Table 6: All births (live and still), preterm and full term by birthweight
Table 7: Live births (all, singleton and multiple) by birthweight and deprivation

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.

p - Provisional.

Source: SMR02
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 singleton 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.

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 has remained stable at around 90%.

Chart 5: Percentage of babies of healthy birthweight (appropriate weight for gestational age), Scotland; year ending 31 March 2001-2016

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.
Source: SMR02
There is little variation observed across the different mainland NHS Boards when it comes to the percentage of babies with an appropriate birthweight for gestational age.

Chart 6: Percentage of babies of healthy birthweight (appropriate weight for gestational age)\(^1,2\) by NHS Board\(^3\), with upper and lower 95% confidence interval; year ending 31 March 2016\(^p\)

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 - Scotland data includes births where NHS Board of residence is unknown or outside Scotland.
   p - Provisional.
   Source: SMR02

For more information on appropriate birthweight for gestational age see:

Table 8: [Appropriate birthweight for gestational age](#)
Early access to antenatal services

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. Access to high quality, relationship based antenatal care with a strong focus on prevention, promotion of health, early intervention and support as early as possible in pregnancy is vitally important.

As such, ‘early access to antenatal services’ is currently being used by the Scottish Government as a Local Delivery Plan (LDP) standard. LDP standards are priorities that are set and agreed between the Scottish Government and NHS Boards. The ‘early access to antenatal services’ standard states that at least 80 per cent of pregnant women in each deprivation area, based on the Scottish Index of Multiple Deprivation (SIMD), will have booked for antenatal care by the 12th week of gestation.

Further information about the early access to antenatal services LDP can be found on the ‘Scotland Performs’ Antenatal LDP webpage.

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 LDP standard, the deprivation areas are derived using SIMD at individual NHS Board level (the population of each NHS Board divided into five areas). The deprivation figure for the whole of Scotland uses SIMD derived from the total population.

Prior to the August 2014 publication, deprivation was calculated using SIMD based on postcode which is population weighted. The change to SIMD described above was made in order to be consistent with other LDP Standards. 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 about the differences between population weighted and non population weighted SIMD can be found in 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 LDP standard is presented.

For more information on early access to antenatal services see:

Table 9: [Early access to antenatal services](#)
Percentage of all maternities\(^1\) booked by 12 weeks gestation by NHS Board of residence\(^2\) and deprivation area\(^3,4\), year ending 31 March 2016\(^p\)

<table>
<thead>
<tr>
<th>NHS Board</th>
<th>Deprivation area 1-Most deprived</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5-Least deprived</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scotland</td>
<td>85.9</td>
<td>88.6</td>
<td>89.4</td>
<td>90.4</td>
<td>90.9</td>
</tr>
<tr>
<td>Ayrshire &amp; Arran</td>
<td>88.0</td>
<td>92.7</td>
<td>91.2</td>
<td>91.8</td>
<td>93.9</td>
</tr>
<tr>
<td>Borders</td>
<td>89.0</td>
<td>88.3</td>
<td>87.0</td>
<td>81.0</td>
<td>88.5</td>
</tr>
<tr>
<td>Dumfries &amp; Galloway</td>
<td>82.3</td>
<td>87.6</td>
<td>87.6</td>
<td>87.8</td>
<td>89.8</td>
</tr>
<tr>
<td>Fife</td>
<td>88.3</td>
<td>90.0</td>
<td>90.6</td>
<td>89.7</td>
<td>92.1</td>
</tr>
<tr>
<td>Forth Valley</td>
<td>88.3</td>
<td>89.2</td>
<td>91.4</td>
<td>92.8</td>
<td>91.4</td>
</tr>
<tr>
<td>Grampian</td>
<td>86.7</td>
<td>86.9</td>
<td>88.7</td>
<td>89.6</td>
<td>89.3</td>
</tr>
<tr>
<td>Greater Glasgow &amp; Clyde</td>
<td>83.1</td>
<td>85.0</td>
<td>85.5</td>
<td>88.4</td>
<td>90.0</td>
</tr>
<tr>
<td>Highland</td>
<td>89.5</td>
<td>89.9</td>
<td>91.5</td>
<td>93.6</td>
<td>92.8</td>
</tr>
<tr>
<td>Lanarkshire</td>
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<td>88.3</td>
<td>88.4</td>
<td>87.8</td>
<td>88.5</td>
</tr>
<tr>
<td>Lothian</td>
<td>88.3</td>
<td>91.5</td>
<td>92.2</td>
<td>92.6</td>
<td>91.9</td>
</tr>
<tr>
<td>Orkney</td>
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<td>93.5</td>
<td>83.3</td>
<td>90.0</td>
<td>88.1</td>
</tr>
<tr>
<td>Shetland</td>
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<td>72.7</td>
<td>69.6</td>
<td>68.6</td>
</tr>
<tr>
<td>Tayside</td>
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<td>90.1</td>
<td>92.5</td>
<td>94.1</td>
<td>93.8</td>
</tr>
<tr>
<td>Western Isles</td>
<td>87.5</td>
<td>91.9</td>
<td>74.0</td>
<td>92.2</td>
<td>95.1</td>
</tr>
</tbody>
</table>

1 - Excludes records where mother has delivered at home or at non-NHS hospital.
2 - Scotland data includes delivery records where NHS Board of residence is unknown or outside Scotland.
3 - Deprivation in the boards is based on SIMD health board quintile, whereas deprivation in Scotland is based on SIMD Scotland quintiles.
4 - SIMD based on datazone populations has been used for consistency with other Scottish Government targets.
5 - Provisional.

At Scotland level, the standard has been met with over 80% of women from all deprivation quintiles booking by 12 weeks, although women from the most deprived areas remain the least likely to book early.

An issue has been identified with SMR02 submissions from Island NHS Boards which affects cases where the mother has delivered in a mainland hospital. The majority of the affected cases have had the original date of booking, which took place in the Island NHS Board, overwritten with the date the woman was first seen at the mainland hospital. In some cases this will be the date of delivery. This will affect the number of maternities booked by 12 weeks gestation for the Island NHS Boards and will result in a lower percentage than is actually the case. We are currently working with NHS Boards to establish the extent of this issue. However, in the meantime the data reported in Table 9 for Island NHS Boards should be interpreted with caution.
Smoking and pregnancy

It is widely accepted that smoking during pregnancy is harmful to both mother and baby. Maternal smoking is associated with preterm and/or low birthweight babies and smoking in pregnancy is also associated with increased risk of miscarriage, stillbirth and sudden unexpected death in infancy. The Scottish Stillbirth Perinatal and Infant Mortality and Morbidity Report provides information on the incidence of stillbirth and sudden unexpected death in infancy in Scotland. The MBRRACE-UK collaboration provides more recent data on perinatal death for the whole UK.

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 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 birth. Data from the first visit is recorded on the Pre-school component of the Child health systems programme. The Child health systems programme (pre-school) was introduced in 1991 and the number of participating NHS Boards has increased over the years. All NHS Boards in Scotland now use the Child health systems programme (pre-school).

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 Child health systems programme (pre-school) data does not record whether the woman was a 'former' smoker. The label of 'missing' in the Child health systems programme (pre-school) 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\(^1\), although routine use of carbon monoxide breath testing will encourage accurate reporting. Carbon monoxide is a poisonous gas which you can't see or smell and is dangerous to both the mother and the baby. National guidelines recommend that all women are offered carbon monoxide testing during pregnancy. Monitors are used to establish how much carbon monoxide is in the body and it is measured through a quick and simple breath test. In smokers, or those exposed to high levels of second hand smoke, carbon monoxide levels will be high. Midwives will discuss the result with the woman and where applicable will refer her on to support from the stop smoking services.

Charts showing overall smoking rates and variation across NHS Boards, deprivation area and mother’s age are available in Tables 10 and 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. These data illustrate that smoking behaviour has declined between 2006/07 and 2015/16 across all age groups. Mother’s age is correlated to her smoking behaviour - with increasing age there is a decrease in smoking behaviour. The tables also demonstrate the strong relationship between smoking and deprivation, with smoking at booking in 2015/16 ranging from 26.2% in the most deprived areas to 4.2% in the least deprived areas.

For more information on smoking and pregnancy see:

Table 10: Smoking history at booking
Table 11: Smoking at health visitor’s first visit
Reference:

Overall smoking rates

Smoking at booking; year ending 31 March 2007-2016

The SMR02 data demonstrate a fall in the level of women who are smokers at booking from 20.8% in 2006/07 to 15.5% in 2015/16. The level of 'Not known' has decreased from 12.0% in
2006/07 to 2.4% in 2015/16. It should be noted that the percentage of ‘unknowns’ may include a proportion of smokers. Nevertheless, the SMR02 data are supported by the Child health systems programme (pre-school) data and suggest a reduction in the level of smoking in recent years. The percentage of current smokers recorded on Child health systems programme (pre-school) 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 at booking data is also available on the ScotPHO ‘health and wellbeing profile’ at NHS Board, council area and intermediate zone geographies: http://www.scotpho.org.uk/.

A recently published European perinatal health report compares the proportion of women smoking during pregnancy by country in 2010 (page 65, Table 4.1). Scotland had the highest percentage of pregnant women smoking of any of the countries studied, suggesting considerable scope for further reduction in maternal smoking levels: http://www.europeistrat.com/images/doc/EPHR2010_w_disclaimer.pdf
**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). It is possible that some particularly early miscarriages are either managed solely by General Practitioners or may not be recognised by the women, who as such 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 4,663 in 2015/16. The table in the link below shows the number of miscarriages by NHS Board of residence and age group with the most recent year ending 31 March 2016.

For more information on miscarriage see:

Table 12: Miscarriages by maternal age
**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 specialist neonatal care. The main levels/types of neonatal 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.
- **Transitional care**: transitional care is where babies who are almost ready for discharge home receive most of their care from the parents, supported by medical and nursing staff as required.

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 SBR are collected in different ways in the various hospitals throughout Scotland. A minority of hospitals use the SBR as their main clinical information system for all babies within maternity services, whereas the majority just enter clinical information into SBR on sick babies requiring neonatal care. This is reflected in the high levels of data for which ‘level of care’ is labelled as ‘missing/unknown’. It is reasonable to assume that babies with missing level of care were healthy babies that did not require admission to a neonatal unit. Linkage of SBR and SMR02 data has shown that the vast majority of babies with missing level of care within SBR were term babies with normal birthweight (at least 2500g), further supporting this assumption.

The table is presented by NHS Board of residence rather than by hospital. It suggests that approximately 12.1% 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 NHS Board of residence. This probably reflects variation in how hospitals serving the different NHS Boards categorise the levels of care they provide.

For more information on level of care of newborn babies see:

Table 13: [Level of care](#)
Drug misuse in pregnancy

This section is based on drug misuse information recorded on maternity data (SMR02) and on neonatal discharges (SBR). 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 A1 in Appendix A1.

There is variation in the rate of maternities with recorded drug misuse by mainland NHS Board and council area (Table 14.1). Results should be interpreted with caution as much of the variation could be caused by differing levels of data recording and the number of ‘unknowns’ across hospitals. This table also shows numbers and rates for Scotland by age of mother, highlighting higher rates of drug misuse in the younger age groups. Between 2013/14-2015/16 women aged under 20 had a rate of 27.9 per 1,000 maternities compared to a rate of 11.1 per 1,000 for those aged 35+.

In 2015/16 the number of maternities with recorded drug misuse was 707(13.2 per 1,000 maternities). Around 1.3% (about 1 in 76) of maternities in Scotland recorded drug misuse with roughly 42% of those (299) having a recorded misuse of opioids (Table 14.2).

In 2015/16, of the 718 births by mothers with recorded drug misuse, 78.4% were reported as having a full term normal birthweight (563). This compared to 89.6% of all births recorded as having a full term normal birthweight (Table 14.3).

The rate of births with recorded drug misuse was more than 5 times as many in the most deprived areas (21.5 per 1,000 births) as in the least deprived (3.8 per 1,000 births) in 2015/16 (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 requiring neonatal care) was 5.3 per 1,000 live births for the period 2013/14-2015/16 (Table 14.5).

For more information on drug misuse in pregnancy see:

Table 14: Drug misuse in pregnancy
Maternal body mass index

Body mass index 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\(^2\)) and gives an indication of whether weight is in proportion to height. Whilst body mass index 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 body mass index 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

Mother’s height and weight have been recorded as mandatory data items on SMR02 since April 2011. Where a mother’s height or weight was not available, or either value was considered to be an outlier, an ‘unknown body mass index’ category was assigned. Of the 53,720 women delivering in 2015/16, 1,222 (2.3%) had unknown body mass index at antenatal booking. The proportion of women living in different NHS Board areas who had unknown body mass index has reduced in recent years reflecting better quality and completeness in the recording of these data (Table 15.1).

Overall, 2.7% of women delivering in 2015/16 were known to be underweight at the time of booking, 45.5% were healthy weight, 27.4% were overweight and 22.2% were obese (with the remaining 2.3% having an unknown body mass index). The proportion of women known to be underweight, healthy weight, overweight or obese was broadly consistent between NHS Boards (Table 15.2).

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 the least deprived areas. Likewise, they are also more likely to be obese than mothers from the least deprived areas.

The risk of unhealthy weight also varies by maternal age (Table 15.5). Of the age groups presented, mothers aged under 20 were the most likely to be underweight or of a healthy weight (combined 63.1%), while those aged 40+ were most likely to be overweight or obese (combined 53.9%).

Maternal body mass index 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 than underweight or healthy weight women (Table 15.6). Overweight or obese women are also more likely to have a heavy (birthweight ≥ 4000g) baby (Table 15.7). Conversely, underweight women are more likely to have a baby with low birthweight (< 2500g).

For more information on maternal body mass index see:

Table 15: Maternal body mass index
Alcohol use in pregnancy

The 2015 publication was the first time we presented data on mother’s alcohol use during pregnancy. This data is still developmental and as such, 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.

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

http://www.gov.scot/Topics/Health/Services/Alcohol/safer-drinking

Typical weekly alcohol consumption during pregnancy was made a mandatory SMR02 data collection item in April 2011. Midwives undertaking the antenatal booking appointment were asked to record in the Scottish Woman Held Maternity Record (SWHMR) the number of units of alcohol that the woman stated she drank ‘in an average week’. Concerns had been raised that simply considering the week prior to the booking appointment would not capture whether a woman was drinking very early in pregnancy, possibly before confirmation of pregnancy. The revised current advice for midwives in Scotland as of 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 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 units 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\(^1\). Women are likely to underestimate their actual alcohol intake, particularly during pregnancy, as there is a perceived risk of being judged as irresponsible.

For more information on alcohol use in pregnancy see:

Table 16: Typical weekly alcohol consumption
Chart 8: Typical weekly alcohol consumption during early pregnancy\textsuperscript{1,2,3}, Scotland; year ending 31 March 2006-2016\textsuperscript{p}

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.

p - Provisional.

Source: SMR02
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, 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.

1 Jayne et al., 2012a, Graham and Mackinnon, 2010, Stockwell et al., 2012, Stockwell and Room, 2012
2 Growing up in Scotland

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.
p - Provisional.
Source: SMR02
Glossary

All births When four or more babies are born, only details about the first three delivered are recorded on the SMR02. However, the total number of births is still recorded.

Analgesia Can be used to relieve pain during labour.

Antenatal Occurring before birth.

Apgar score The common scoring method of the baby's well being after the birth. It's based on a combination of the heartbeat, respiration, skin colour, muscle tone and movement.

Delivery A delivery is a pregnancy resulting in a live or stillbirth.

Deprivation area The Scottish Index of Multiple Deprivation (SIMD) has seven domains (income, employment, education, housing, health, crime, and geographical access) which have been combined into an overall index, which allows areas to be ranked from most to least deprived.

Elective caesarean Caesarean section which has been planned in advance and in most cases will have been recommended for clinical reasons such as breech, multiple births or previous caesarean section. Woman may also choose this method of delivery for non-clinical reasons.

Full term If the delivery occurs during or after the 37th week of gestation.

Gestation Gestation is the period of time between conception and birth.

Induction When labour is started artificially.

Live 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 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 When 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.
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Further Information
The Information Services Division publishes a wide range of information on birth, pregnancy and sexual health including teenage pregnancies and terminations of pregnancy in Scotland. Further information can be found on our Maternity and Births and Sexual Health pages.

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Appendices
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).

In this year’s publication it has been possible to include data for the year ending 31 March 2016. Data for the most recent time period reported (1 April 2015 to 31 March 2016) were reported to be 99% complete at a national level (see SMR Completeness Estimates) at the time the data were extracted for the publication.

NHS Lothian have experienced problems submitting some of their SMR02 records (particularly those for stillbirths or very premature/sick babies) since moving to a new data recording system (TrakCare) in 2011. Prior to 2011 SMR02 delivery records for NHS Lothian were on average 96.0% complete per year compared to National Records of Scotland (NRS) records. For the period 2012/13 to 2014/15 SMR02 delivery records were 93.5% complete compared to NRS records. For 2015/16 this increased to 98.0% for total births, however, submissions for stillbirths are still an issue. For the period 2012/13 to 2015/16 SMR02 submissions for stillbirths in NHS Lothian were only 27.5% complete compared to NRS records for the same period.

Births
In Scotland the most reliable number of births is based on the civil registration system administered by 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 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% of all births recorded by NRS. For the year 2015 births recorded on SMR02 represented approximately 98.5% of all births. SMR02 records returned following an episode of care involving a delivery include a wide range of clinical data such as birthweight, gestational age, method of delivery, induction and outcome of pregnancy. Delivery records account for approximately half of all SMR02 discharges each year with antenatal, postnatal and abortion episodes forming the remaining discharges.

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 2016 should be regarded as provisional and will be revised in next year’s report. Throughout this publication, figures shown for each year relate to live births, stillbirths, maternities, or pregnancies which occurred in the year ending 31 March. The one exception to this is the section on NRS birth registrations versus SMR02 births, which is based on the calendar year ending 31 December.

Population data used for calculating age specific rates are provided by NRS.
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 methodology was implemented as of the November 2015 release of this publication, which was a change from standard tables derived from Scottish reference data.

Previous methodology
Prior to the November 2015 ‘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 the November 2015 publication and 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 of using the UK-WHO growth charts. Overall it was thought that the advantages of changing outweighed the disadvantages. We also took 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 (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 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.

Deprivation
Deprivation is allocated using the 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 2016 use SIMD2012.
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:

**Smoking at booking**
Data on smoking behaviour is based on self-reported information obtained from mothers at their antenatal 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 over time. Due to concerns regarding the quality of 'smoking at booking' data, care should be taken in interpreting the results.

**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). This 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.

The number of NHS Boards using the **Child Health Systems Programme** Pre-School system and recording data has increased since 2001/02 from 10 to all 14 in Scotland. NHS Western Isles have recorded data from 2006/07, NHS Shetland from 2008/09, NHS Grampian and NHS Orkney from 2010/11. Data for NHS Grampian and NHS Orkney for 2010/11 are partial. These NHS 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 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 NHS Boards have a small number of births each year and therefore the impact of data not being available on the ‘Scotland’ rate and trend is negligible. However NHS Grampian has a relatively large number of births each year and did not start recording data on the system until 2010/11. The reported smoking rates in NHS 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.

**Drug misuse in pregnancy**
This section is based on maternity data (SMR02) and neonatal discharges (SBR) 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). 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 Table 14.

Drug misuse can be recorded as a hard-coded data item (there are 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 and made mandatory as of April 2011. 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 2013/14 to 2015/16.

Table A1. Recording of the data item ‘Drug misuse during this pregnancy’, by NHS Board of residence, 2013/14 to 2015/16

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<tr>
<td>Scotland</td>
<td>161,749</td>
<td>25,924</td>
<td>16.0</td>
</tr>
<tr>
<td>Ayrshire &amp; Arran</td>
<td>10,479</td>
<td>183</td>
<td>1.7</td>
</tr>
<tr>
<td>Borders</td>
<td>2,882</td>
<td>635</td>
<td>22.0</td>
</tr>
<tr>
<td>Dumfries &amp; Galloway</td>
<td>3,723</td>
<td>81</td>
<td>2.2</td>
</tr>
<tr>
<td>Fife</td>
<td>11,218</td>
<td>82</td>
<td>0.7</td>
</tr>
<tr>
<td>Forth Valley</td>
<td>8,879</td>
<td>174</td>
<td>2.0</td>
</tr>
<tr>
<td>Grampian</td>
<td>18,679</td>
<td>208</td>
<td>1.1</td>
</tr>
<tr>
<td>Greater Glasgow &amp; Clyde</td>
<td>36,131</td>
<td>17,940</td>
<td>49.7</td>
</tr>
<tr>
<td>Highland</td>
<td>8,507</td>
<td>767</td>
<td>9.0</td>
</tr>
<tr>
<td>Lanarkshire</td>
<td>20,167</td>
<td>5,374</td>
<td>26.6</td>
</tr>
<tr>
<td>Lothian</td>
<td>26,841</td>
<td>202</td>
<td>0.8</td>
</tr>
<tr>
<td>Tayside</td>
<td>11,921</td>
<td>118</td>
<td>1.0</td>
</tr>
<tr>
<td>Islands</td>
<td>1,893</td>
<td>61</td>
<td>3.2</td>
</tr>
<tr>
<td>Not known</td>
<td>429</td>
<td>99</td>
<td>23.1</td>
</tr>
</tbody>
</table>

1 - Cases recorded as ‘Not known’ over the 3 year period 2013/14 to 2015/16 are included.

Source: SMR02

In addition to being recorded as a hard-coded data item, drug misuse can also be recorded on SMR02 using the following ICD10 codes (which provide additional information about the type of drugs used):

<table>
<thead>
<tr>
<th>ICD10</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F11</td>
<td>Opioids</td>
</tr>
<tr>
<td>F12</td>
<td>Cannabinoids</td>
</tr>
<tr>
<td>F13</td>
<td>Sedatives or Hypnotics</td>
</tr>
<tr>
<td>F14</td>
<td>Cocaine</td>
</tr>
<tr>
<td>F15</td>
<td>Other Stimulants</td>
</tr>
<tr>
<td>F16</td>
<td>Hallucinogens</td>
</tr>
<tr>
<td>F18</td>
<td>Volatile Solvents</td>
</tr>
<tr>
<td>F19</td>
<td>Multiple / Other Psychoactive Substances</td>
</tr>
<tr>
<td>O35.5</td>
<td>Maternal care for suspected damage to foetus by drugs</td>
</tr>
</tbody>
</table>

Maternities reported in the drug misuse section of this publication are drawn from both the hard coded and the ICD10 coded data items.
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 ISD in April 2010. 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 comes from the SBR and relate to the total number of individual babies, not discharges. A baby may be admitted to and discharged from neonatal care more than once. Babies affected by maternal use of drugs are identified using the following ICD10 codes:

<table>
<thead>
<tr>
<th>ICD10</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P04.4</td>
<td>Foetus and newborn affected by maternal use of drugs of addiction.</td>
</tr>
<tr>
<td>P96.1</td>
<td>Neonatal withdrawal symptoms from maternal use of drug addiction.</td>
</tr>
</tbody>
</table>

The figures presented cover 3 year aggregates, 2009/10-2011/12 to 2013/14-2015/16. Data for all years shown are revised, so may differ 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 Boards or council areas.

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/.

## A2 – Publication Metadata (including revisions details)

<table>
<thead>
<tr>
<th>Metadata Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publication title</td>
<td>Births in Scottish Hospitals.</td>
</tr>
<tr>
<td>Description</td>
<td>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.</td>
</tr>
<tr>
<td>Theme</td>
<td>Health and Social Care.</td>
</tr>
<tr>
<td>Topic</td>
<td>Maternity and pregnancy services.</td>
</tr>
<tr>
<td>Format</td>
<td>Excel workbooks and interactive content.</td>
</tr>
<tr>
<td>Data source(s)</td>
<td>SMR02 (maternity hospital discharge summary), Scottish Birth Record (SBR), SMR01 (acute hospital discharge summary) and CHSP-PS (child health systems programme-pre school).</td>
</tr>
<tr>
<td>Date that data are acquired</td>
<td>September 2016 (two months prior to release).</td>
</tr>
<tr>
<td>Release date</td>
<td>29 November 2016.</td>
</tr>
<tr>
<td>Frequency</td>
<td>Annual.</td>
</tr>
<tr>
<td>Timeframe of data and timeliness</td>
<td>Data up to and including financial year ending 31 March 2016. 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.</td>
</tr>
<tr>
<td>Continuity of data</td>
<td>Reports data from 1975/76</td>
</tr>
<tr>
<td>Revisions statement</td>
<td>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.</td>
</tr>
<tr>
<td>Revisions relevant to this publication</td>
<td></td>
</tr>
<tr>
<td>Relevance and key uses of the statistics</td>
<td>Making information publicly available for planning, epidemiology, provision of services and the statistics provide comparative information.</td>
</tr>
<tr>
<td>Accuracy</td>
<td>SMR02 data are subjected to validation on submission. The figures are compared to previous figures and 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: <a href="http://www.isdscotland.org/Products-and-Services/Data-Quality/Previous-Projects/DQA-Assessment-of-Maternity-Data-SMR02-2008-to-2009.pdf">http://www.isdscotland.org/Products-and-Services/Data-Quality/Previous-Projects/DQA-Assessment-of-Maternity-Data-SMR02-2008-to-2009.pdf</a></td>
</tr>
</tbody>
</table>
| Completeness       | There is generally around a 1-4% shortfall in the number of births when compared to NRS birth registrations. 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 versus NRS registrations see: [http://www.isdscotland.org/Health-](http://www.isdscotland.org/Health-)
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, for example, birthweight or gestation. Where directly comparable, Scottish maternity data are regularly provided to ONS and the Department of Health for contribution to both UK and international reports/databases such as UK Health Statistics, Social Trends and the European Health for All database. In these comparisons, data are provided only at national 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 published guidelines.

Coherence and clarity | Births in Scottish Hospitals tables are accessible via the ISD website at [http://www.isdscotland.org/Health-Topics/Maternity-and-Births/Births](http://www.isdscotland.org/Health-Topics/Maternity-and-Births/Births) Drop down menus are presented where appropriate such as for the selection of geography or year.

Value type and unit of measurement | Numbers and unadjusted rates are presented.


Last published | 24 November 2015.


Date of first publication | 1975.

Help email | nss.isdmaternity@nhs.net

Date form completed | November 2016.
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
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.