

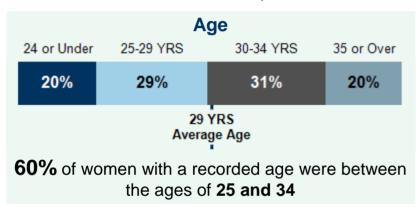
# **Maternity Services Monthly Statistics**

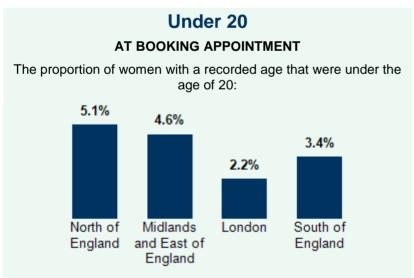
# **England, October 2015, Experimental Statistics**

This is a monthly report on NHS-funded maternity services in England.

There were 80 maternity providers that submitted data for October 2015 activity. Providers were mandated to collect data locally since November 2014 and submit data centrally since June 2015.

Of the data that was submitted: **36,069** women attended antenatal booking appointments in October 2015.





# Obesity 19% of women attending an antenatal booking appointment with a recorded BMI in October 2015 were obese Smoking

# 12% of women attending antenatal booking appointments with a recorded smoking status in October 2015 were smokers

### **Previous Caesareans**

Women with a known number of previous births and caesareans

43%

45%

13%

of women had no had a previous had at lea previous births birth but no previous caesareans caesa

had at least one previous caesarean

### **Publication Information:**

Author: Community Analysis

Team

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### Contact Us:

www.hscic.gov.uk enquiries@hscic.gov.uk 0300 303 5678



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# Introduction

This is a report on NHS-funded maternity services in England for October 2015, using data submitted to the Maternity Services Data Set (MSDS).

These statistics are classified as experimental and should be used with caution. Experimental statistics are new official statistics undergoing evaluation. They are published in order to involve users and stakeholders in their development and as a means to build in quality at an early stage. More information about experimental statistics can be found on the UK Statistics Authority website.

This report can be downloaded from the HSCIC website at: <a href="http://www.hscic.gov.uk/pubs/msmssep15exp">http://www.hscic.gov.uk/pubs/msmssep15exp</a>

### This release comprises:

- This report which presents analysis of key measures
- An Excel Data Quality report which presents data quality measures at provider level
- A CSV file which contains provider-level data in a machine readable format
- A metadata file to accompany the CSV file, providing contextual information
- Analysis by provider (interactive spreadsheet)
- Reference Data Tables

The MSDS is a patient-level data set that captures key information at each stage of the maternity service care pathway in NHS-funded maternity services, such as those maternity services provided by GP practices and hospitals. The data collected includes mother's demographics, booking appointments, admissions and re-admissions, screening tests, labour and delivery along with baby's demographics, diagnoses and screening tests.

The MSDS has been developed to help achieve better outcomes of care for mothers, babies and children. As a 'secondary uses' data set, it re-uses clinical and operational data for purposes other than direct patient care, such as commissioning, clinical audit, research, service planning and performance management at both local and national level. It will provide comparative, mother and child-centric data that will be used to improve clinical quality and service efficiency, and to commission services in a way that improves health and reduces inequalities.

It is intended that information from the data set will be made widely available to commissioners, providers, clinicians, service users, and the general public to inform choice through monthly and annual statistical publications.

Further information on the MSDS is available at: <a href="http://www.hscic.gov.uk/maternityandchildren/maternity">http://www.hscic.gov.uk/maternityandchildren/maternityandchildr

As well as this monthly report on maternity services, the HSCIC also produces annual NHS Maternity Statistics report. This annual publication utilises Hospital Episodes Statistics (HES) data submitted to the HSCIC and has been published annually since 2001-02. The latest report contains information on all deliveries in NHS hospitals during the twelve month period from April 2014 to March 2015 and can be viewed at:

http://www.hscic.gov.uk/pubs/maternity1415

# **Key Findings**

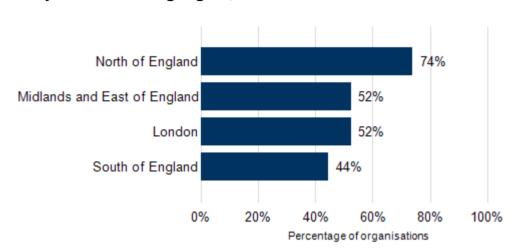
This report contains key information based on the submissions that have been made by providers and will focus on data relating to activity that occurred in October 2015.

- For October 2015 data, 80 providers successfully submitted data for the MSDS. This
  compares with 141 providers submitting data in HES for 2014-15. We are working closely
  with providers who did not respond and expect coverage and data quality to increase over
  time.
- The average age of a woman attending a booking appointment was 29 years. The average age varied by commissioning region from 29 years in the North of England Commissioning Region to 31 years in the London Commissioning Region.
- Women under the age of 20 accounted for 4.1 per cent of all women with a recorded age.
   The highest proportion of these pregnancies occurred in the North of England
   Commissioning Region, where 5.1 per cent of women were under the age of 20.
- The percentage of women attending antenatal appointments with a recorded height and weight that were obese (with a Body Mass Index (BMI) over 30) was 19 per cent. Those who were underweight (BMI less than 18.5), accounted for 9 per cent of women attending booking appointments with a recorded height and weight.
- At the time of their booking appointment, 12 per cent of women with a recorded smoking status were smokers, and 78 per cent were non-smokers.
- The percentage of women with a recorded number (between 0 and 20) of previous births and caesarean sections that had not given birth before was 43 per cent. Women who had given birth before, but had never had a caesarean section accounted for 45 per cent of all the women attending booking appointments. The percentage of women that had had at least one previous caesarean section was 13 per cent.

### Who Submitted?

From November 2014, providers of NHS-funded maternity services were required to collect information locally, and from June 2015 were required to commence making MSDS submissions in accordance with the Information Standards Notice<sup>1</sup>.

Figure 1: Percentage of providers successfully submitting data for the MSDS by commissioning region, October 2015



NHS Commissioning Regions are part of the new NHS geography from April 2013.

Find out more at the Office for National Statistics website.

### References:

- 1. <u>Information</u> Standards Notice
- 2. <u>Maternity Data</u> Model

Across England, 80 providers successfully submitted data for the MSDS. The Hospital Episode Statistics 2014-15 annual maternity publication contains details relating to in-hospital births. There were 141 providers that submitted birth data for this publication.

Therefore, 43 per cent of providers did not submit data for the Maternity Services Data Set in October 2015. We are working closely with providers who did not respond and expect coverage and data quality to increase over the coming months. It is also worth noting that currently providers whose capture and recording systems are paper based are exempt from this collection.

A list of trusts that successfully made a submission can be found in the CSV file accompanying this publication and in the accompanying data quality report.

# What was Submitted?

There are 42 tables in the MSDS that contain information relating to a specific event or type of information in the maternity pathway. However, only 3 of these tables must be submitted each time activity occurs in the reporting period and must be completed in each submission<sup>2</sup>. They cover the mother's details and the mother's booking appointment details.

Most maternity providers were unable to submit the full set of data outlined in the MSDS specifications. For further information, please see the accompanying data quality report.

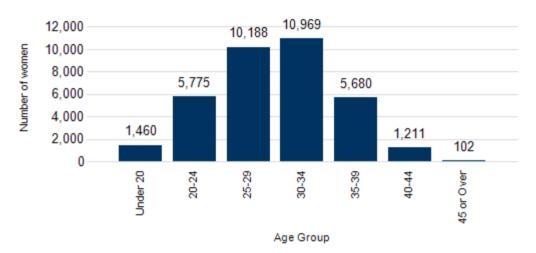
Initially, reporting will focus on simple measures at the beginning of the antenatal pathway, specifically, measures that can be obtained from the mother's details and the booking appointment. Trusts have only been required to submit data relating to women who had their booking appointment from April 2015. Therefore, it is unlikely that reporting on births will occur until later reporting periods.

# **Age of Woman at Booking Appointment**

Women that are 40 and over during pregnancy may have a higher risk of developing complications<sup>3</sup>. Therefore women over 40 may be offered additional care, extra tests or appointments with a consultant for example, during the pregnancy.

There were 685 records for booking appointments in October 2015 that did not contain a valid date of birth.

Figure 2: Number of women attending booking appointments by age group at booking appointment, all submitters, October 2015



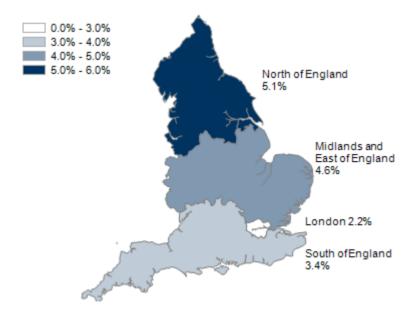
Generally, the booking appointment is the first official antenatal appointment. The technical definition of a booking appointment in this dataset can be found here.

Public Health England provides a wealth of resources on teenage conceptions at the <a href="CHIMAT">CHIMAT</a> knowledge hub.

Reference
3. NICE Guidance

The lowest reported age for a woman attending a booking appointment was 13 and the highest recorded age was over 60, which is currently classified as being outside the reporting parameters. The most common age group for women attending a booking appointment was 30-34, as 10,969 women of this age attended booking appointments in October 2015. The average age of the women attending booking appointments was 29.

Figure 3: Percentage of women with a recorded age attending booking appointments aged under 20 by age and commissioning region, all submitters, October 2015



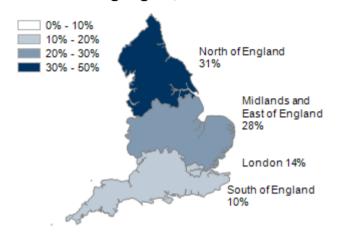
The lowest proportion of booking appointments for women under the age of 20 was found in the London Commissioning Region, where only 2.2 per cent of women were under 20 years old. The highest proportion was found in the North of England Commissioning Region where 5.1 per cent of women seen were under 20.

# **Body Mass Index**

Healthy eating and physical activity are considered to be important during pregnancy. Therefore, pregnant women with a body mass index of 30 or more at the booking appointment should be offered personalised advice from an appropriately trained person on healthy eating and physical activity<sup>4</sup>.

Height and weight are required data items, which must be submitted to the MSDS if they are locally recorded. Regionally, there is a large difference in the percentage of records that contain a valid height and weight.

Figure 4: Data Quality: Percentage of women attending booking appointments with a missing or invalid height and/or weight value by commissioning region, October 2015



The South of England Commissioning Region did not contain data on height and / or weight for 10.3 per cent of women, however this figure increases to 30.6 per cent in the North of England Commissioning Region.

BMI can be calculated from a person's height and weight:

Under 18.5 Underweight 18.5 to 25 Normal 25 to 30 Overweight Over 30 Obese

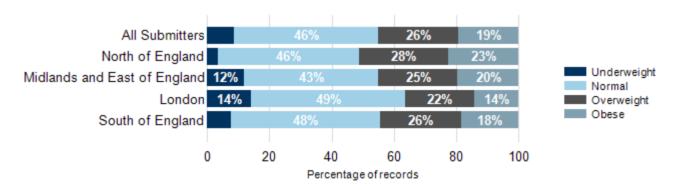
Calculate your BMI at NHS Choices

The HSCIC publishes an annual report on the subject of obesity, physical activity and diet. The 2015 report can be found here.

### Reference:

4. NICE Quality Standard

Figure 5: Percentage of women attending booking appointments by recorded BMI Groups and commissioning region, October 2015



The highest proportion of underweight women was in the London Commissioning Region where 14 per cent were underweight.

The regional proportion of women with a BMI considered to be normal ranged from 43 per cent to 49 per cent.

The regional proportion of overweight women ranged between 22 per cent and 28 per cent.

In the North of England Commissioning Region, 23 in every 100 pregnant women were obese at their booking appointment.

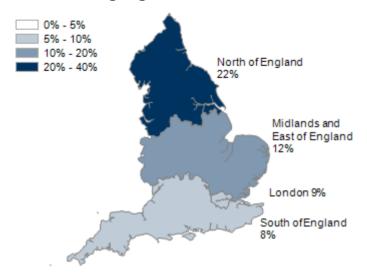
Nationally, of all the women with a recorded height and weight, 9 per cent of women were underweight and 19 per cent were obese. The two largest BMI categories were normal (46%) and overweight (26%). Percentages may not add up to 100% due to rounding.

# **Smoking Status of Mother at Booking Appointment**

Smoking during pregnancy, or living with someone who smokes, can affect the baby both before and after birth.

The smoking status of the woman at the booking appointment is a required data item, and must be submitted if it is collected locally.

Figure 6: Data Quality: Percentage of women attending booking appointments with a missing or invalid smoking status by commissioning region, October 2015



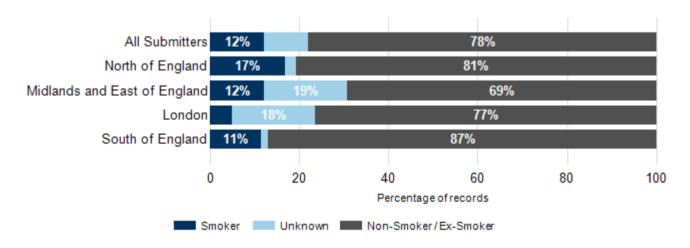
In the South of England Commissioning Region, 8.0 per cent of women did not have a valid smoking status recorded. In the North of England Commissioning Region, missing or invalid smoking status values accounted for 22.0 per cent of women.

The risks of smoking during pregnancy are serious, from premature delivery to increased risk of miscarriage, stillbirth or sudden infant death.

The NHS provides information about the risks of smoking during pregnancy at the Smokefree site.

Find your local **Stop Smoking Services** here.

Figure 7: Percentage of women attending booking appointments by recorded smoking status and commissioning region, October 2015



The highest proportion of smokers at booking appointment was found in the North of England Commissioning Region where 17 per cent of women were classified as current smokers.

The North of England Commissioning Region contained the heaviest smokers, as the average number of cigarettes smoked per day in this region was 8.0.

The South of England Commissioning Region contained the highest proportion of non and exsmokers, with 87 per cent of women here being non-smokers.

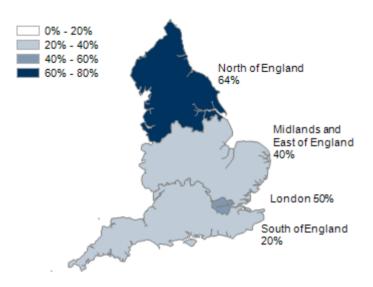
The London Commissioning Region smokers were the lightest smokers, smoking 6.1 cigarettes per day on average.

### **Previous Caesarean Sections**

The decision on the method of delivery should take into account women's needs and preferences. Caesarean sections can be performed electively, or as an emergency where it is clinically required⁵.

Previous live births, stillbirths and caesarean sections are required data items, which must be submitted to the MSDS if they are locally recorded.

Figure 8: Data Quality: Percentage of women attending booking appointments with a missing or inconsistent number of previous births and caesareans by commissioning region, October 2015



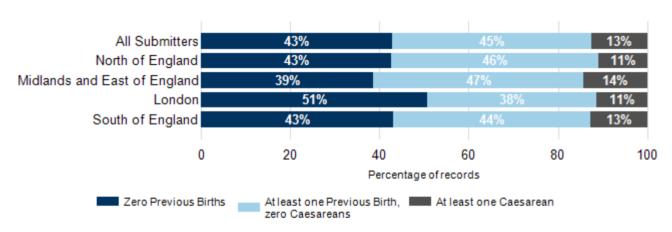
In the North of England
Commissioning
Region, 63.6 per cent of women did not have the number of previous births or caesarean sections recorded or had an inconsistent number of births or caesarean sections recorded.

Sometimes, the safest option for the delivery of a baby is to have a caesarean section. This involves major surgery, and is therefore only performed when there is a need for this type of delivery.

More information about caesarean sections can be found on the <u>NHS Choices</u> website

Reference 5. NHS Choices

Figure 9: Percentage of women attending booking appointments by recorded number of previous births and previous caesarean sections and commissioning region, October 2015



The London Commissioning Region contained the highest proportion of women attending booking appointments that had not given birth before (51 per cent).

The percentage of women that had given birth before but had never given birth by caesarean section ranged between 38 and 47 per cent.

The percentage of women with a previous caesarean ranged from 11 in the North of England Commissioning Region to 14 in the Midlands and East of England Commissioning Region.

The figures are likely to be affected by data quality issues and so should be used cautiously.

# **Further Information**

### Related HSCIC publications and data sets

### **Maternity and Children's Data Set**

The Maternity and Children's Data Set (MCDS) has been developed to help achieve better outcomes of care for mothers, babies and children. The data set incorporates the MSDS from which the data in this publication is derived. Further information on the MCDS is available at the HSCIC website:

http://www.hscic.gov.uk/maternityandchildren/

### **Hospital Episode Statistics – Maternity**

NHS Maternity Statistics have been published annually since 2001-2002 and report the number of maternities and births in England. The 2014-15 report is available here: http://www.hscic.gov.uk/pubs/maternity1415

### **Compendium of Maternity Statistics**

Published in April 2015, the Compendium of Maternity Statistics brought together maternity data from many different sources to provide an overview of maternity statistics prior to the introduction of the Maternity Services Data Set (MCDS):

http://www.hscic.gov.uk/catalogue/PUB17333

### **Maternity Knowledge Hub**

Public Health England's National Child and Maternal Health Intelligence Network (CHIMAT) website brings together a searchable range of resources relating to maternal health and maternity services: <a href="http://www.chimat.org.uk/maternity">http://www.chimat.org.uk/maternity</a>

### **National policy frameworks**

### **NHS Outcomes Framework**

The NHS Outcomes Framework sets out the outcomes and corresponding indicators used by the Secretary of State to hold NHS England to account for improvements in health outcomes. The indicators are available on the HSCIC website:

https://indicators.ic.nhs.uk/webview/

### **Public Health Outcomes framework**

The Public Health Outcomes Framework sets out a vision for public health and measures these outcomes via the published indicators:

http://www.phoutcomes.info/

### **CCG Outcomes Indicator Set**

The CCG Outcomes Indicator Set provides clear, comparative information about the quality of health services commissioned by CCGs and the associated health outcomes: http://www.england.nhs.uk/ccg-ois/

### **Birth Statistics for the United Kingdom**

### Births and Fertility Statistics, England and Wales

The Office for National Statistics publishes conception, maternity and birth statistics annually for England and Wales:

http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=Births+and+Fertility

### Birth Statistics. Scotland

The National Records of Scotland publishes birth statistics for Scotland:

http://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/births

### Birth Statistics, Northern Ireland

The Northern Ireland Statistics and Research Agency publishes birth statistics for Northern Ireland: <a href="http://www.nisra.gov.uk/demography/default.asp8.htm">http://www.nisra.gov.uk/demography/default.asp8.htm</a>

### Other related publications and data sets

### **Breastfeeding Statistics**

NHS England collects and publishes breastfeeding statistics:

http://www.england.nhs.uk/statistics/statistical-work-areas/maternity-and-breastfeeding/

### Maternal 12 week risk assessment

This NHS England collection reports on the number and proportion of women seen and assessed by a healthcare professional within 12 weeks and 6 days of their maternity:

http://www.england.nhs.uk/statistics/statistical-work-areas/maternity-and-breastfeeding/

### **National Antenatal Infections Screening Monitoring**

Public Health England centrally collates, analyses and publishes infectious disease in pregnancy surveillance data for England. The data provides information on the uptake of antenatal screening for infectious diseases in pregnancy:

https://www.gov.uk/government/publications/national-antenatal-infections-screening-monitoring-annual-data-tables

### **NHS Immunisation Statistics**

This annual publication reports on immunisation coverage in England. The data on childhood immunisations is from the Cover of Vaccination Evaluated Rapidly (COVER) data collection: <a href="http://www.hscic.gov.uk/catalogue/PUB18472">http://www.hscic.gov.uk/catalogue/PUB18472</a>

### **NHS Newborn and Infant Physical Examination Programme**

Public Health England publishes information relating to the NHS Newborn and Infant Physical Examination (NIPE) Programme which was established by the UK National Screening Committee to promote improvements and consistency in the newborn and infant physical examinations: <a href="http://newbornphysical.screening.nhs.uk/statistics">http://newbornphysical.screening.nhs.uk/statistics</a>

### **Statistics on NHS Stop Smoking Services**

The NHS Stop Smoking Services offer support to help people quit smoking. The HSCIC produces an annual report on the NHS Stop Smoking Services (NHS SSS) in England. The 2014-15 report is available here:

http://www.hscic.gov.uk/catalogue/PUB18002

### **UK** screening portal

Key performance indicators (KPIs) for the NHS Screening Programmes were introduced in 2011 to provide a way of measuring how well the screening programmes are doing in important areas: <a href="http://www.screening.nhs.uk/kpi">http://www.screening.nhs.uk/kpi</a>

# **Annex 1 - Data Quality Report**

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# **Purpose of this document**

This document aims to provide users with an evidence based assessment of the quality of the statistical output of the Maternity Services Monthly Statistics Reports publication by reporting against those of the nine European Statistical System (ESS) quality dimensions and principles appropriate to this output.

In doing so, this meets our obligation to comply with the UK Statistics Authority (UKSA) Code of Practice for Official Statistics, particularly Principle 4, Practice 2 which states:

"Ensure that official statistics are produced to a level of quality that meets users' needs, and that users are informed about the quality of statistical outputs, including estimates of the main sources of bias and other errors and other aspects of the European Statistical System definition of quality".

For each dimension this paper describes how this applies to the publication and references any measures in the accompanying monthly data quality measures report that are relevant for assessing the quality of the output.

These statistics are classified as experimental and should be used with caution. Experimental statistics are new official statistics undergoing evaluation. They are published in order to involve users and stakeholders in their development and as a means to build in quality at an early stage. More information about experimental statistics can be found on the UK Statistics Authority website.

Figures presented from the MSDS data set are badged as Experimental Statistics in order to reflect that the data set and associated statistics are new and still in development to best meet user needs. As part of this development we have refined the methodology used in calculating a number of the VODIM data quality measures presented. As such some of the historical data shown in this document relating to the period before September 2015 may not match that published in earlier data quality documents from statistical releases relating to reporting periods prior to this date.

# Assessment of statistics against quality dimensions and principles

### Relevance

The degree to which the statistical product meets user needs in both coverage and content.

This publication comprises a set of reports which have been produced from NHS-funded maternity service providers' monthly MSDS submissions. It provides the timeliest information from the MSDS.

The MSDS does not cover non-NHS funded maternity services provided by independent organisations (e.g. private clinics).

There are currently 42 tables in the MSDS that each contain information relating to a specific event or type of information in the maternity pathway. However, only 3 of these tables must be reported when recording each occurrence on the pathway and must be completed in each submission (details of these tables are found <a href="here">here</a>). They cover the mother's details, GP registration information and booking appointment details.

Initial reporting of the Maternity Services Monthly Statistics will focus on simple measures at the beginning of the antenatal pathway derived from the 3 core tables mentioned above. This is because the national collection of the MSDS is becoming established and a number of trusts were unable to submit data for the whole scope of the MSDS, and so have only submitted data for mothers at the very beginning of the antenatal pathway.

As trusts begin to submit data for events that occur in the later stages of pregnancy, these monthly reports will also evolve to report on these events.

The MSDS has been developed to help achieve better outcomes of care for mothers, babies and children. It provides an Executive Summary and Provider Level Analysis, a summary of key information based on those trusts that submitted data, including visual representations. A monthly data file containing the underlying data is also provided. These files are supported by national and provider-level data quality measures, which include validation of key data items from the MSDS.

This publication also includes a detailed metadata file describing all of the measures in the Executive Summary, Provider Level Analysis and the monthly data file. This includes, for each measure, how it has been constructed from providers' submissions and how and where it is used.

The statistics in this publication series are presently marked as 'experimental' and may be subject to further change as we develop our statistics. Feedback is very welcome via our <a href="mailto:enquiries@hscic.gov.uk">enquiries@hscic.gov.uk</a> address (please quote 'Maternity Services Monthly Statistics' in the subject line).

# **Accuracy & Reliability**

Accuracy is the proximity between an estimate and the unknown true value. Reliability is the closeness of early estimates to subsequent estimated values.

### **Accuracy**

The MSDS is a rich, person level dataset that records packages of care received by individuals in contact with NHS-funded maternity services. The HSCIC provides a number of different reports at different stages in the data flow to ensure that the submitted data reflect the services that have been provided:

For data suppliers only:

At the point of submission:

• Providers receive immediate feedback on the quality of their submission through a validation file. This file includes details of record-level reports of any submission errors, giving the data providers detailed information of which records produced which errors.

On receipt of processed data by HSCIC:

• A variety of data quality checks are run as part of the validation and load process for monthly data, prior to production of this monthly release. Where there are concerns about data quality we contact providers directly so that any issues with local data extraction processes can be addressed for a future submission. Please note that initial reporting of the data records that might be identified as having possible data quality issues in terms of entered content based on the data quality checks that will be mentioned below will not be specifically ignored in calculated outputs. However as data providers become accustomed to these additional data quality requirements over the coming reporting periods these rules will be enforced in the reporting of figures.

### For all users:

As part of this publication:

• Organisation level data quality measures that validate a selection of key data items by provider.

These show the proportion of records as counts and percentages which have 'valid', 'other', 'default', 'invalid' and 'missing' values for the following fields:

Organisation Code (Local Patient Identifier (Mother))
Organisation Code (Residence Responsibility)
NHS Number (Mother)
NHS Number Status Indicator Code (Mother)
Person Birth Date (Mother)
Postcode Of Usual Address (Mother)
Ethnic Category (Mother)
Person Death Date Time (Mother)
General Medical Practice Code (Patient Registration (Mother))
Organisation Code (Code Of Commissioner)
Pregnancy First Contact Date
Estimated Date Of Delivery Method (Agreed)
Care Professional Type Code (Pregnancy First Contact)
Last Menstrual Period Date
Physical Disability Status Indicator (Mother At Booking)
First Language English Indicator (Mother At Booking)
Employment Status (Mother At Booking)
Support Status (Mother At Booking)
Employment Status (Partner At Booking)

DO 404 040

o DQ_101_010	Pregnancy Previous Caesarean Sections
o DQ_101_011	Pregnancy Total Previous Live Births
o DQ_101_012	Pregnancy Total Previous Stillbirths
o DQ_101_013	Pregnancy Total Previous Losses Less Than 24 Weeks
o DQ_101_014	Substance Use Status (Mother At Booking)
o DQ_101_015	Smoking Status (Mother At Booking)
o DQ_101_016	Cigarettes Per Day (Mother At Booking)
o DQ_101_017	Weekly Alcohol Units (Mother At Booking)
o DQ_101_018	Status Of Folic Acid Supplement (Mother At Booking)
o DQ_101_019	Mental Health Prediction And Detection Indicator (Mother At Booking)
o DQ_101_020	Person Weight (Mother At Booking)
o DQ_101_021	Person Height (Mother At Booking)
o DQ_101_022	Complex Social Factors Indicator (Mother At Booking);

• This report which describes data quality issues relevant to the analysis in the release and is produced each time as part of the publication.

Users of the data must make their own assessment of the quality of the data for a particular purpose, drawing on these resources.

In addition, local knowledge, or other comparative data sources, may be required to distinguish changes in volume between reporting periods that reflect changes in service delivery from those that are an artefact of changes in data quality.

The analysis in this report is based on the latest data submitted by providers during the two month window to provide data. Any data which are re-submitted by a provider will be used in place of an earlier submission only within the submission window.

We invite and welcome feedback from users on our constructions.

### Reliability

### Coverage - are all eligible providers submitting data?

All providers of NHS-funded maternity services should submit MSDS data. However, at present only some providers are making submissions. DQ\_000\_001 in the accompanying data quality measures file provides a full list of providers submitting data each period. When an organisation starts or ceases to submit data this can affect overall record numbers.

This publication reports on activity that was submitted for the October 2015 reporting period. Providers have only been required to submit data relating to women who had their booking appointment from April 2015. As a new national level dataset there are a number of issues in terms of non-response from providers which in turn has an impact in regards to the geographical coverage expected of the dataset hence caution should be taken when interpreting the data at levels higher than individual provider level. Because of this no figures derived from the MSDS data are presented as England total figures rather they are presented in terms of all providers who submitted data to the MSDS for the reporting period in question.

In October 2015, 80 organisations submitted data for the MSDS. The Hospital Episode Statistics 2014-15 annual maternity publication contains details relating to in-hospital births. There were 141 providers that submitted birth data for this publication. It is not expected that each organisation reporting to the MSDS should also be submitting data to HES as this covers activity outside of a hospital setting however it is expected that over the coming months all organisations reporting to HES in the aforementioned HES publication should be reporting to the MSDS and therefore this does serve to act as a useful comparison for national coverage. Information in table 1 in the Appendix provides information comparing submission coverage at National and NHS Commissioning Region level to that of previous reporting periods. Additionally information is provided on how many distinct organisations have made successfully submitted information to the MSDS since April 2015. Please note this maybe higher than the total observed for any individual reporting periods shown as different trusts maybe reporting between one reporting period and the next.

### Coverage - how complete is data for NHS Commissioning Region?

It should be noted that the measures in this monthly data file are presented by NHS Commissioning Region. Detail is provided in Figure 1 in the report on the number of organisations which have submitted data by this breakdown and also detail is provided in each section of the report on the individual data items that have been reported upon. Table 1 in the Appendix provides a comparison on the numbers of organisations reporting to MSDS compared to those reported in the Hospital Episode Statistics 2014-15 annual maternity publication.

### Coverage – is data for all eligible people included in the submission?

Local knowledge may be required to assess the completeness of a submission, based on information about local caseload. This publication provides detailed information about activity and providers and commissioners are encouraged to review this to ensure that submissions accurately reflect the local situation. Providers should also use all the aggregate record counts produced at the point of submission as part of the Data Summary Reports to check coverage in key areas (e.g. Number of booking appointments.

This reports on information captured as part of the latest recorded formal booking appointment for each reporting organisation. Whilst it is not given that this booking appointment will lead to a birth for that pregnancy within a reporting organisation it is useful to use the average reported number of births for each reported organisation as a proxy figure against which to benchmark the levels of activity reported in the MSDS for each organisation. Table 2 in the Appendix seeks to make this comparison for all the organisations which reported activity within MSDS for the reporting period against the average number of hospital births reported for that organisation within the period.

### **Duplication of maternities**

It is possible that one woman may have multiple booking appointments recorded for the same pregnancy for different providers. Validations are in place to ensure that there is only one booking appointment for the mother submitted to the HSCIC per organisation for the particular reporting period. For any calculated total value presented in this report a women is only counted once in relation to the activity related to the booking appointment. For example if a women is reported for a booking appointment by two separate organisations within the same NHS Commissioning region then they would be counted in any total for each of these providers presented at the provider level but would only be counted once for the overall NHS Commissioning region. However if the woman was reported by two separate providers within two separate NHS Commissioning Regions then they would be counted in the overall total calculated for each NHS Commissioning region. If a woman is reported for a booking appointment by two separate organisations within the same NHS Commissioning region and different data are submitted by each provider then this woman may be counted twice for the overall NHS Commissioning region total. For example where a woman has an age recorded as 39 by one provider and 40 by another provider this woman would be counted in the NHS Commissioning region total twice, once in the 35-39 age group and once in the 40-44 age group.

### Timeliness of recording events on local systems

Whilst local systems may be continuously updated, the MSDS submission process provides just one opportunity for data relevant to each month to be submitted. The submission window opens one month following the end of the reporting month and remains open for two months. This means that the timeliness of recording all relevant activity on local systems has an impact on the completeness of the MSDS submission. For example, a booking appointment made in April 2015, but not entered onto the local system until the beginning of July 2015, will not be included in the final April 2015 submission (deadline 3rd week in June 2015). Providers should use the Data Summary Reports produced at the point of submission to ensure that all relevant data has been included.

The submission requirements for MSDS are that all appropriate activity (e.g. Booking appointment, Dating Scans, etc.) be included in the submission for each month in which they start, continue or end. It is important that data providers ensure that NHS numbers are submitted consistently because this is a key piece of information for creating the person identifiers in our records.

### **Quality of Experimental Analysis**

It should be noted that these statistics are presently experimental in nature and are likely to be subject to further refinement; reference should be made to all accompanying footnotes and commentary when using these statistics.

# **Timeliness and Punctuality**

Timeliness refers to the time gap between publication and the reference period. Punctuality refers to the gap between planned and actual publication dates.

The monthly publication is based on the most recent available final data. For this publication, the MSDS is published within 5 weeks of the submission window closing. Both the timeliness and punctuality of the MSDS will improve markedly as improvements and automation are made to the extraction, transformation, loading and reporting processes associated in the reports production. Information regarding submission deadlines for MSDS is published here: http://www.hscic.gov.uk/maternityandchildren/maternity

The MSDS will be published on the pre-announced publication date and is therefore deemed to be punctual.

# **Coherence and Comparability**

Coherence is the degree to which data that are derived from different sources or methods, but refer to the same topic, are similar. Comparability is the degree to which data can be compared over time and domain.

### Coherence

There is no other monthly publication that includes the same measures as are included in this publication. However, measures that provide a snapshot count as at the end of the month are comparable with measures as at the end of a year.

As well as this monthly report on maternity services, the HSCIC has also published the NHS Maternity Statistics 2014-15 report. This annual publication utilises Hospital Episodes Statistics (HES) data submitted to the HSCIC and has been published annually since 2001-02. The latest report contains information on all deliveries in NHS hospitals during the twelve month period from April 2014 to March 2015. Reference to this HES data as a means of providing an indication of the reliability of reported activity in the MSDS is made in the earlier described reliability section.

The Office for National Statistics also publishes annual data on births in England and Wales. The data are collated from local registrar records. The latest data available is for the annual period from January 2014 to December 2014.

### **Comparability**

The Executive Summary presents monthly data for the measures reported at regional level. DQ\_000\_001 shows where a failure to submit or the discontinuation or introduction of services will have an impact on national counts.

# **Accessibility and Clarity**

Accessibility is the ease with which users are able to access the data, also reflecting the format in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of the metadata, illustrations and accompanying advice.

### **Accessibility**

Alongside this background quality document, an Executive Summary is made freely accessible via the HSCIC website as a PDF document together with a supporting monthly data file in machine-readable format (with an accompanying metadata document). The monthly data files are also available on the data.gov website, here:

https://data.gov.uk/dataset/maternity-services-monthly-statistics-england

Re-use of our data is subject to conditions outlined here: http://www.hscic.gov.uk/data-protection/terms-and-conditions

Providers are able to obtain a record level data extract for their patients from the Open Exeter Bureau Service Portal

### **Clarity**

The monthly data file is presented as a .csv file, with an accompanying metadata file in MS Excel format. A broad definition of each indicator, including the data items used in the analysis and constructions and current or intended uses are provided. Terminology is defined where appropriate.

Full details of the way that MSDS returns are processed, which will be of use to analysts and other users of these data, are provided in the MSDS User Guidance, available on the HSCIC website: http://www.hscic.gov.uk/maternityandchildren/maternity

In order to prevent disclosure of identities or information about service users, all figures (except national) for all organisations which submitted, are rounded to the nearest five. All figures between 0 and 4 are suppressed (\*).

# Trade-offs between output quality components

### This refers to the extent to which different aspects of quality are balanced against each other

The format of this publication meets user needs for a greater wealth of information on maternity services in England. Benefits to users include the publication of detailed data on a monthly basis together with associated data quality measures, as well as a visual representation of the national picture on a monthly basis.

The aggregate underlying data provides a much greater scope of analysis and will support a variety of local uses as well as meeting our obligations under the Code of Practice for National Statistics and the Transparency Agenda.

The format of this publication balances the need for increased frequency of reporting and scope of analysis with HSCIC resources and production time. The HSCIC is publishing the data in innovative new formats, an interactive Excel document, whilst supporting the Open Data initiative by also publishing data in a machine-readable format.

By publishing a range of clearly defined measures in a timely fashion we hope to support discussions between providers and commissioners about caseload and activity and promote a virtuous cycle of improving data quality, through use.

We produce a basic suite of data tables as part of this publication. However the machine-readable data file is very detailed and allows data users to easily produce custom tabulations as required for their own analytical purposes.

# **Assessment of User Needs and Perceptions**

This refers to the processes for finding out about users and uses, and their views on the statistical products.

The purpose of the MSDS monthly reports is to provide maternity service providers, commissioners and other stakeholders with timely information about activity. This is intended to support changes in commissioning arrangements as services move from block commissioning to commissioning based on activity and outcomes for mothers and babies.

For members of the public, researchers and other stakeholders, the release provides up to date information about the people in contact with services.

The HSCIC held a number of workshops for maternity service providers and system suppliers, providing updates on the development of the data set and allowing clinicians, system administrators and informatics staff to provide feedback during the development stage.

# Balance between performance, cost and respondent burden

This refers to the effectiveness, efficiency and economy of the statistical output.

As a 'secondary uses' data set, the MSDS does not require the collection of new data items by maternity providers. It re-uses existing clinical and operational data for purposes other than direct patient care.

Providers are not required to submit data held only on paper records as no provision has been made in the MSDS for the cost of transcribing these records to an electronic format.

Only three of the data tables are required to flow each time any activity is reported within the MSDS (MAT001, MAT003 and MAT101); completion of the remaining tables is only necessary when activity has occurred that is captured within these tables.

# **Confidentiality, Transparency and Security**

This refers to the procedures and policy used to ensure sound confidentiality, security and transparent practices.

All publications are subject to a standard HSCIC risk assessment prior to issue. Disclosure control is implemented where deemed necessary.

Please see links below to relevant HSCIC policies:

Statistical Governance Policy (see link in 'user documents' on right hand side of page) <a href="http://www.hscic.gov.uk/pubs/calendar">http://www.hscic.gov.uk/pubs/calendar</a>

Freedom of Information Process http://www.hscic.gov.uk/foi

A Guide to Confidentiality in Health and Social Care http://www.hscic.gov.uk/confguideorg

Privacy and Data Protection http://www.hscic.gov.uk/privacy

# **Appendix**

Table 1: Number of providers successfully submitting data for the MSDS and those reported in the Hospital Episode Statistics 2014-15 annual maternity publication by commissioning region

	Commissioning Region				
Number of trusts submitting MSDS data by month	North of England	Midlands and East of England	London	South of England	Total number of providers
April 2015	28	21	8	19	76
May 2015	31	19	10	17	77
June 2015	30	21	11	16	78
July 2015	30	20	11	16	77
August 2015	32	22	11	17	82
September 2015	32	19	11	16	78
October 2015	31	22	11	16	80
Number of trusts submitting HES deliveries for 2014/15	42	42	21	36	141
% HES submitters compared to latest MSDS month submitters	73.8%	52.4%	52.4%	44.4%	56.7%
Number of providers that submitted MSDS data at least once between April and October 2015	33	25	12	19	89

Data source: Maternity Services Data Set (MSDS)

HSCIC NHS Maternity Statistics - England, 2014-15

Table 2: Comparison of the number of mothers with booking appointments in MSDS (October 2015) with the average number of HES deliveries per month 2014-15, for providers submitting MSDS data in October 2015

Organisation		MSDS mothers with booking appointments October 2015	HES deliveries average per month 14/15	MSDS booking appointments / HES deliveries average
ALL	All Submitters	36,069	53,054	0.7
R1K	London North West Healthcare NHS Trust	615	600	1.0
RA7	University Hospitals Bristol NHS Foundation Trust	510	435	1.2
RAL	Royal Free London NHS Foundation Trust	875	245	3.6
RAP	North Middlesex University Hospital NHS Trust	505	420	1.2
RAS	The Hillingdon Hospitals NHS Foundation Trust	535	335	1.6
RAX	Kingston Hospital NHS Foundation Trust	575	465	1.2
RBD	Dorset County Hospital NHS Foundation Trust	180	155	1.2
RBK	Walsall Healthcare NHS Trust	480	390	1.2
RBL	Wirral University Teaching Hospital NHS Foundation Trust	235	280	0.8
RBN	St Helens and Knowsley Hospitals NHS Trust	120	315	0.4
RBT	Mid Cheshire Hospitals NHS Foundation Trust	270	215	1.3
RBZ	Northern Devon Healthcare NHS Trust	160	115	1.4
RC1	Bedford Hospital NHS Trust	255	245	1.0
RC9	Luton and Dunstable University Hospital NHS Foundation Trust	530	420	1.3
RCB	York Teaching Hospital NHS Foundation Trust	450	410	1.1
RD1	Royal United Hospitals Bath NHS Foundation Trust	505	320	1.6
RD3	Poole Hospital NHS Foundation Trust	220	365	0.6
RDD	Basildon and Thurrock University Hospitals NHS Foundation Trust	435	370	1.2
RDE	Colchester Hospital University NHS Foundation Trust	395	305	1.3
RDU	Frimley Health NHS Foundation Trust	1,025	440	2.3
RDZ	The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	250	25	10.2
REF	Royal Cornwall Hospitals NHS Trust	475	365	1.3
REP	Liverpool Women's NHS Foundation Trust	845	680	1.2
RF4	Barking, Havering and Redbridge University Hospitals NHS Trust	770	655	1.2
RFF	Barnsley Hospital NHS Foundation Trust	360	230	1.6
RFR	The Rotherham NHS Foundation Trust	*	215	*
RGN	Peterborough and Stamford Hospitals NHS Foundation Trust	475	400	1.2
RGR	West Suffolk NHS Foundation Trust	230	210	1.1
RH8	Royal Devon and Exeter NHS Foundation Trust	385	320	1.2
RHM	University Hospital Southampton NHS Foundation Trust	580	470	1.2
RHQ	Sheffield Teaching Hospitals NHS Foundation Trust	935	570	1.6

Organisat	tion	MSDS mothers with booking appointments October 2015	HES deliveries average per month 14/15	MSDS booking appointments / HES deliveries average
RHW	Royal Berkshire NHS Foundation Trust	615	455	1.4
RJ1	Guy's and St Thomas' NHS Foundation Trust	545	560	1.0
RJ6	Croydon Health Services NHS Trust	65	285	0.2
RJE	University Hospitals of North Midlands NHS Trust	425	515	0.8
RJF	Burton Hospitals NHS Foundation Trust	100	280	0.4
RJL	Northern Lincolnshire and Goole NHS Foundation Trust	350	375	0.9
RJN	East Cheshire NHS Trust	160	140	1.1
RJR	Countess of Chester Hospital NHS Foundation Trust	290	240	1.2
RJZ	King's College Hospital NHS Foundation Trust	545	870	0.6
RK9	Plymouth Hospitals NHS Trust	420	360	1.2
RKB	University Hospitals Coventry and Warwickshire NHS Trust	590	495	1.2
RKE	The Whittington Hospital NHS Trust	435	285	1.5
RL4	The Royal Wolverhampton NHS Trust	560	340	1.7
RLT	George Eliot Hospital NHS Trust	295	160	1.9
RLU	Birmingham Women's NHS Foundation Trust	1,350	660	2.0
RM1	Norfolk and Norwich University Hospitals NHS Foundation Trust	55	480	0.1
RM2	University Hospital of South Manchester NHS Foundation Trust	400	355	1.1
RMC	Bolton NHS Foundation Trust	615	515	1.2
RMP	Tameside Hospital NHS Foundation Trust	285	195	1.5
RN7	Dartford and Gravesham NHS Trust	470	415	1.1
RNA	The Dudley Group NHS Foundation Trust	470	360	1.3
RP5	Doncaster and Bassetlaw Hospitals NHS Foundation Trust	500	420	1.2
RQW	The Princess Alexandra Hospital NHS Trust	425	345	1.2
RR7	Gateshead Health NHS Foundation Trust	155	150	1.0
RR8	Leeds Teaching Hospitals NHS Trust	840	785	1.1
RRF	Wrightington, Wigan and Leigh NHS Foundation Trust	240	230	1.0
RTD	The Newcastle Upon Tyne Hospitals NHS Foundation Trust	600	600	1.0
RTE	Gloucestershire Hospitals NHS Foundation Trust	655	510	1.3
RTF	Northumbria Healthcare NHS Foundation Trust	460	185	2.5
RTG	Derby Teaching Hospitals NHS Foundation Trust	695	510	1.4
RTR	South Tees Hospitals NHS Foundation Trust	415	430	1.0
RTX	University Hospitals of Morecambe Bay NHS Foundation Trust	*	260	*
RVV	East Kent Hospitals University NHS Foundation Trust	570	565	1.0
RW3	Central Manchester University Hospitals NHS Foundation Trust	810	735	1.1
RW6	Pennine Acute Hospitals NHS Trust	685	785	0.9
RWA	Hull and East Yorkshire Hospitals NHS Trust	470	445	1.1

Organisatio	on	MSDS mothers with booking appointments October 2015	HES deliveries average per month 14/15	MSDS booking appointments / HES deliveries average
RWG	West Hertfordshire Hospitals NHS Trust	10	455	0.0
RWH	East and North Hertfordshire NHS Trust	555	435	1.3
RWJ	Stockport NHS Foundation Trust	345	265	1.3
RWP	Worcestershire Acute Hospitals NHS Trust	535	460	1.2
RWW	Warrington and Halton Hospitals NHS Foundation Trust	250	245	1.0
RX1	Nottingham University Hospitals NHS Trust	960	795	1.2
RXF	Mid Yorkshire Hospitals NHS Trust	575	515	1.1
RXL	Blackpool Teaching Hospitals NHS Foundation Trust	300	260	1.2
RXN	Lancashire Teaching Hospitals NHS Foundation Trust	435	380	1.1
RXW	Shrewsbury and Telford Hospital NHS Trust	485	375	1.3
RY2	Bridgewater Community Healthcare NHS Foundation Trust	30	*	*
RYJ	Imperial College Healthcare NHS Trust	815	805	1.0
RYR	Western Sussex Hospitals NHS Foundation Trust	475	415	1.1

### Notes:

Data source

Maternity Services Data Set (MSDS) HSCIC NHS Maternity Statistics – England, 2014-15

<sup>\*</sup> Suppressed data where data is less than 5, provider level only.

All unsuppressed values have been rounded to the nearest 5, provider level only.

# **Contact Us**

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- Which information was the most useful
- Any changes you would like to see to improve this publication

Email: <a href="mailto:enquiries@hscic.gov.uk">enquiries@hscic.gov.uk</a> Telephone: 0300 303 5678

Health and Social Care Information Centre 1 Trevelyan Square Boar Lane Leeds LS1 6AE

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### **Responsible Statistician**

Dominic Gair, Section Head ISBN: 978-1-78386-647-2

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For further information www.hscic.gov.uk 0300 303 5678 enquiries@hscic.gov.uk

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