

Maternity Services Monthly Statistics

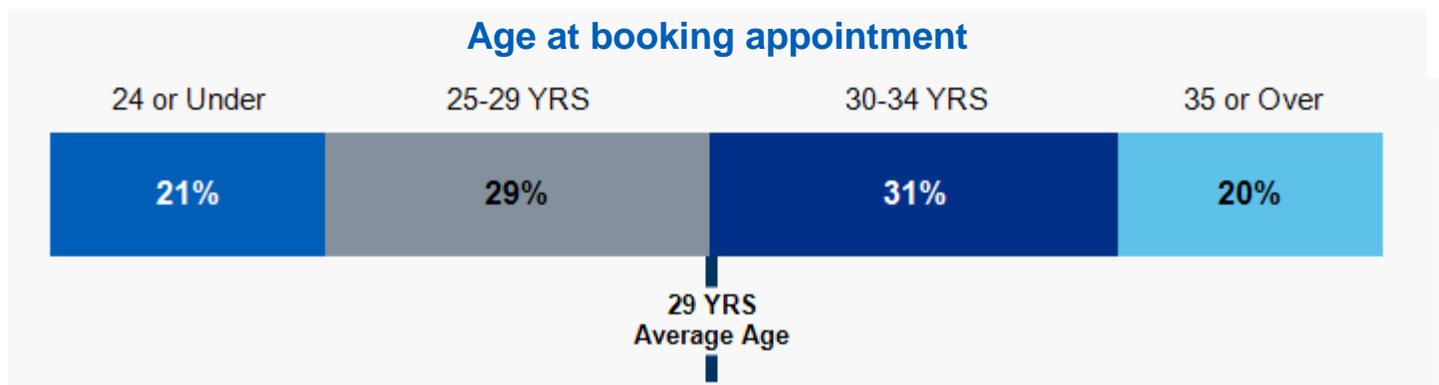
England, April 2016, Experimental Statistics

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This is a monthly report on NHS-funded maternity services in England using data submitted to the Maternity Services Data Set (MSDS) for April 2016 activity.

Key findings

- There were 92 maternity providers that submitted data for April 2016 activity.
- In this period **40,224** women attended an antenatal booking appointment.



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Contents

This is an Experimental Statistics publication	3
Introduction	4
Main Findings	5
Who Submitted?	6
What Was Submitted?	6
Age of Woman at Booking Appointment	7
Body Mass Index	8
Smoking Status of Woman at Booking Appointment	9
Previous Caesarean Sections	10
Further Information	11
Annex 1 - Data Quality Report	14
Contact Us	29

This is an Experimental Statistics publication



This document is published by NHS Digital,
part of the Government Statistical Service

Experimental statistics are official statistics which are published in order to involve users and stakeholders in their development and as a means to build in quality at an early stage. It is important that users understand that limitations may apply to the interpretation of this data. More details are given in the report.

All official statistics should comply with the UK Statistics Authority's Code of Practice for Official Statistics which promotes the production and dissemination of official statistics that inform decision making.

Find out more about the Code of Practice for Official Statistics at
www.statisticsauthority.gov.uk/assessment/code-of-practice

Find out more about Experimental Statistics at
https://gss.civilservice.gov.uk/wp-content/uploads/2016/02/Guidance-on-Experimental-Statistics_1.0.pdf

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This report may be of interest to members of the public, policy officials and other stakeholders to make local and national comparisons and to monitor the quality and effectiveness of services.

Introduction

This is a report on NHS-funded maternity services in England for April 2016, using data submitted to the Maternity Services Data Set (MSDS).

This report can be downloaded from the NHS Digital website at:

<http://www.digital.nhs.uk/pubs/msmsapr16exp>

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. It provides comparative, mother and child-centric data that will be used to improve clinical quality and reduce health 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:

<http://digital.nhs.uk/maternityandchildren/maternity>

Main Findings

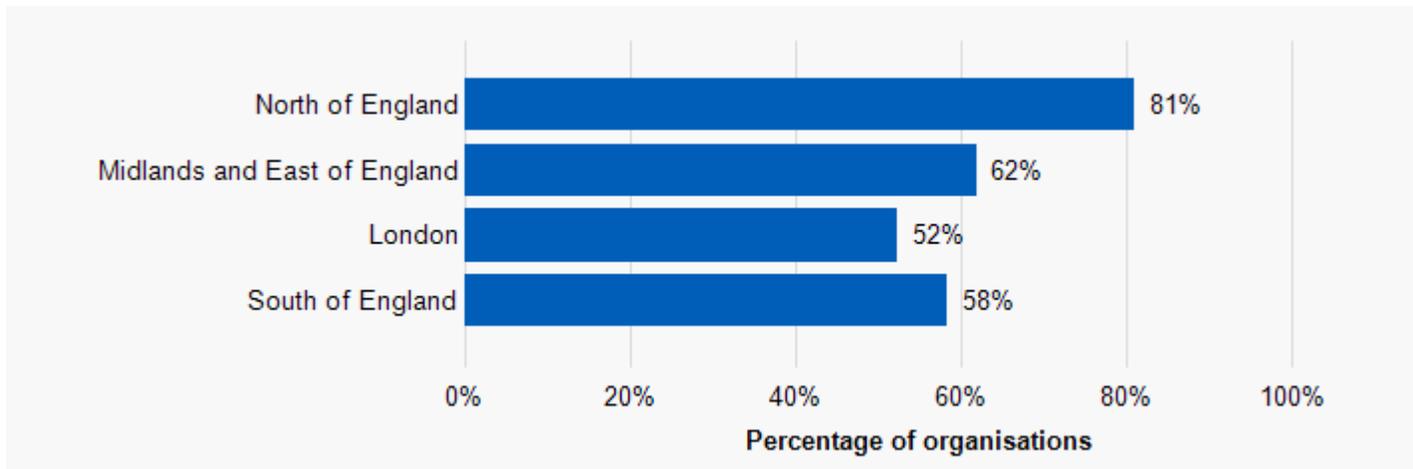
This report contains key information based on the submissions that have been made by providers and will focus on data relating to activity that occurred in April 2016.

- For April 2016 data, 92 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 4.3 per cent of all women with a recorded age. The highest proportion of these pregnancies occurred in the North of England Commissioning Region, where 5.2 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 20 per cent. Those who were underweight (BMI less than 18.5), accounted for 8 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.
- Only considering women with both a recorded number of previous caesarean sections (between 0 and 20) and a recorded number of previous births (between 0 and 20), the percentage of women that had not given birth before was 44 per cent. Women who had given birth before, but had never had a caesarean section accounted for 43 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 Notice¹.

Figure 1: Percentage of providers successfully submitting data for the MSDS by commissioning region, April 2016



Across England, 92 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, around 35 per cent of providers did not submit data for the Maternity Services Data Set in April 2016. 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 submission². They cover the mother's details and the mother's booking appointment details. For further information, on the data reported in each table in the reporting period please see the accompanying data quality document.

Initially, reporting has focused on simple measures at the beginning of the antenatal pathway, obtained from the mother's details and the booking appointment which is classed as the first official antenatal appointment³. As both coverage and data quality improve this report will be expanded to report on other areas of the maternity pathway.

1. [Information Standards Notice](#)
2. [Maternity Data Model](#)
3. [Maternity Services Data Set User Guidance](#)

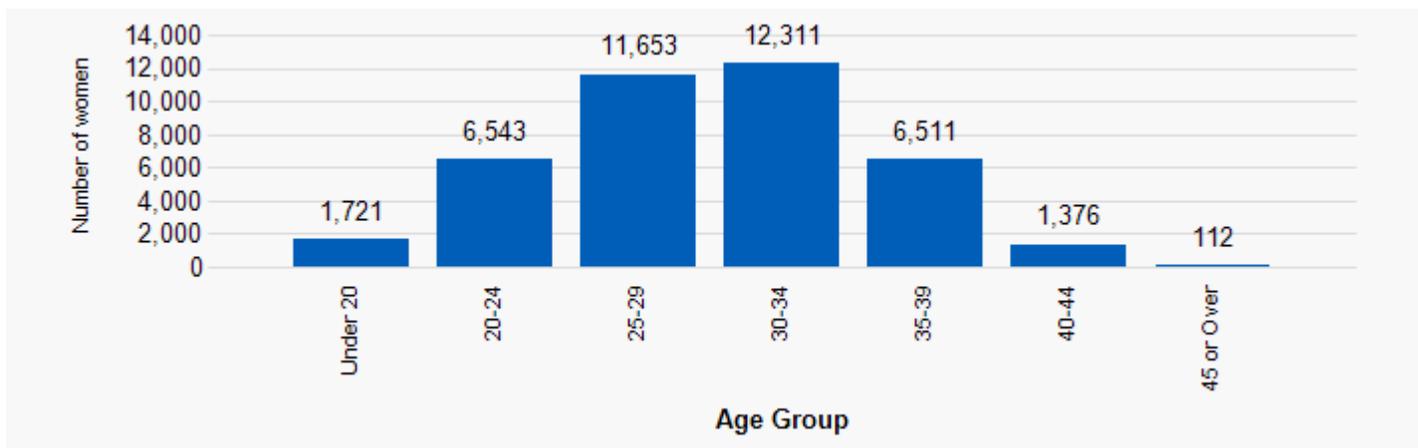
Age of Woman at Booking Appointment

Women that are 40 and over during pregnancy may have a higher risk of developing complications⁴. Therefore women over 40 may be offered additional care, extra tests or appointments with a consultant for example, during the pregnancy.

29 years
was the average age of women attending booking appointments.

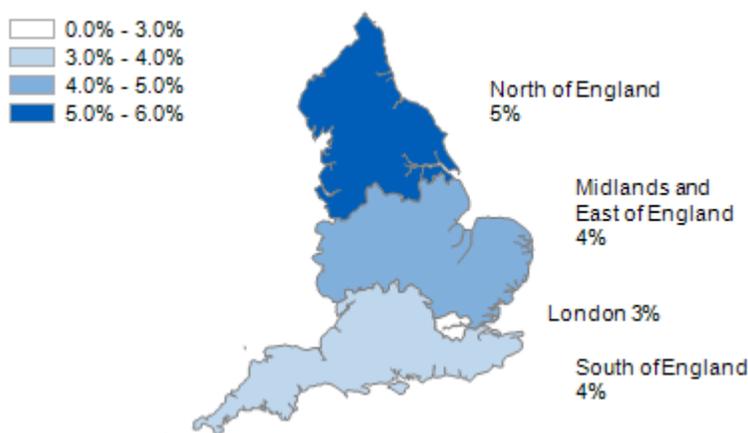
There were no records for booking appointments in April 2016 that did not contain a valid date of birth.

Figure 2: Number of women attending booking appointments by age group at booking appointment, all submitters, April 2016



The lowest reported age for a woman attending a booking appointment was 13 and the highest recorded age was 56. The most common age group for women attending a booking appointment was 30-34, as 12,311 women of this age attended booking appointments in April 2016.

Figure 3: Percentage of women with a recorded age attending booking appointments aged under 20 by age and commissioning region, all submitters, April 2016



The lowest proportion of booking appointments for women under the age of 20 was found in the London Commissioning Region, where only 3 per cent of women were under 20 years old. The highest proportion was found in the North of England Commissioning Region where 5 per cent of women seen were under 20.

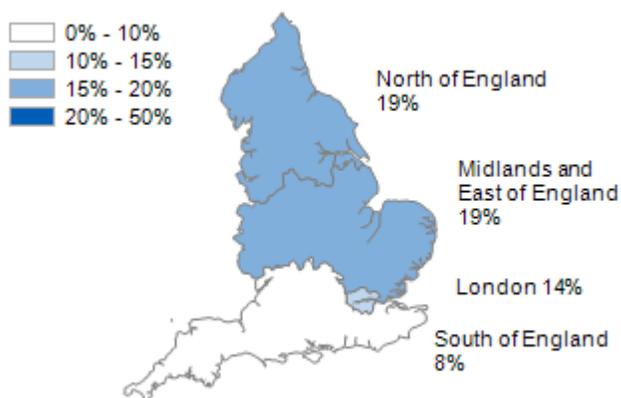
4. [NICE Guidance CG62 Appendix C: Women requiring additional care](#)

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 activity⁵.

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, April 2016



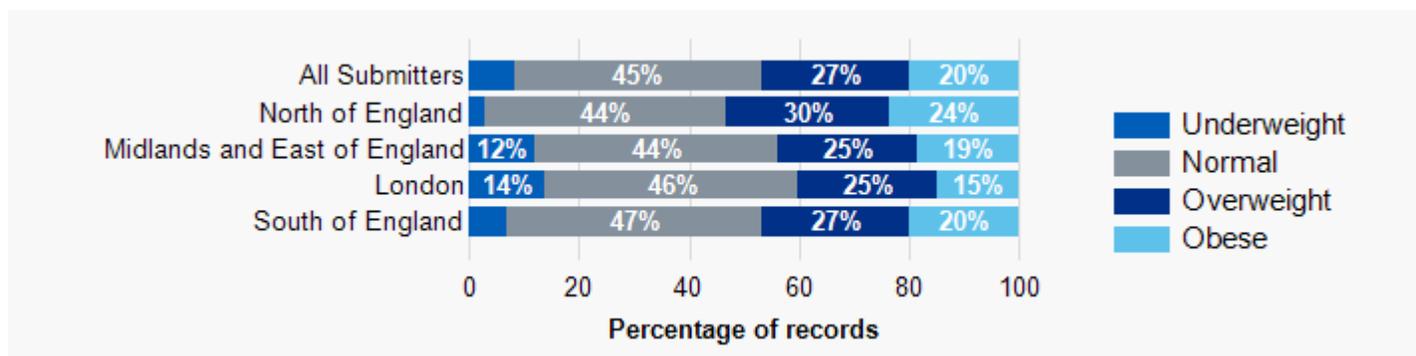
The South of England Commissioning Region did not contain data on height and / or weight for 8 per cent of women, however this figure increases to 19 per cent in the Midlands and East of England and the North of England Commissioning Regions.

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](#)

Figure 5: Percentage of women attending booking appointments by recorded BMI Groups and commissioning region, April 2016



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 44 per cent to 47 per cent.

The regional proportion of overweight women ranged between 25 per cent and 30 per cent.

In the North of England Commissioning Region, 24 in every 100 pregnant women were obese at their booking appointment.

Nationally, of all the women with a recorded height and weight, 8 per cent of women were underweight and 20 per cent were obese. The two largest BMI categories were normal (45 per cent) and overweight (27 per cent). Percentages may not add up to 100 per cent due to rounding. Figures may be affected by data quality issues and so should be used cautiously.

5. [NICE Quality Standard Antenatal Care QS22 Quality statement 4: Risk assessment – body mass index](#)

Smoking Status of Mother at Booking Appointment

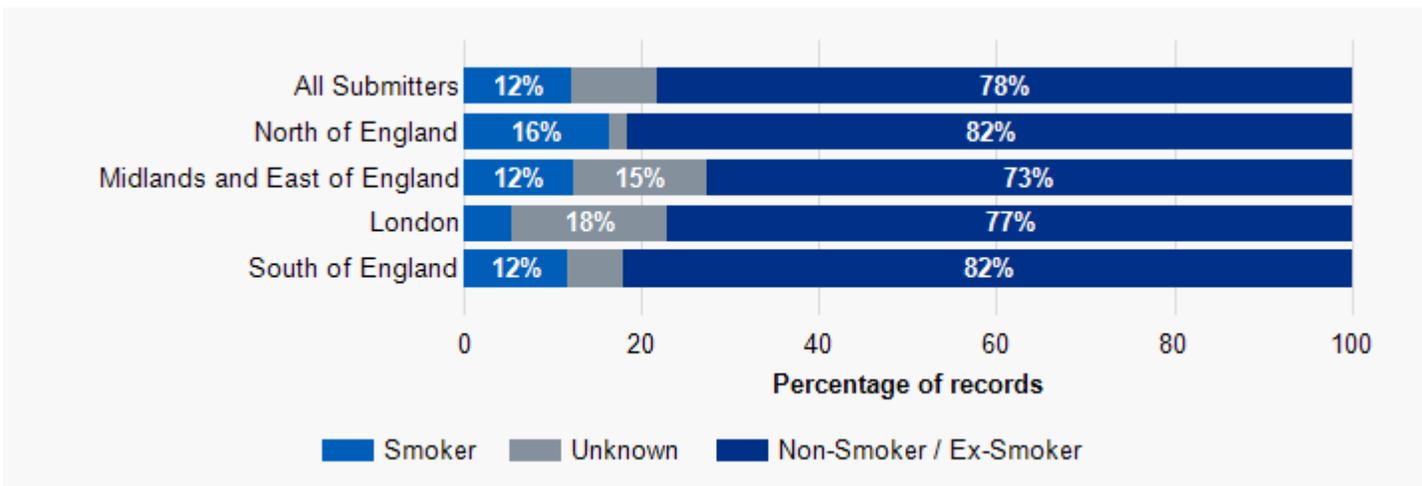
Smoking during pregnancy, or living with someone who smokes, can affect the baby both before and after birth.

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, April 2016



Figure 7: Percentage of women attending booking appointments by recorded smoking status and commissioning region, April 2016



The highest proportion of smokers at booking appointment was found in the North of England Commissioning Region where 16 per cent of women were classified as current smokers.

The North of England Commissioning Region smokers were the heaviest smokers, as the average number of cigarettes smoked per day in this region was 8.1.

The South of England Commissioning Region contained the highest proportion of non and ex-smokers, with 82 per cent of women here being non-smokers.

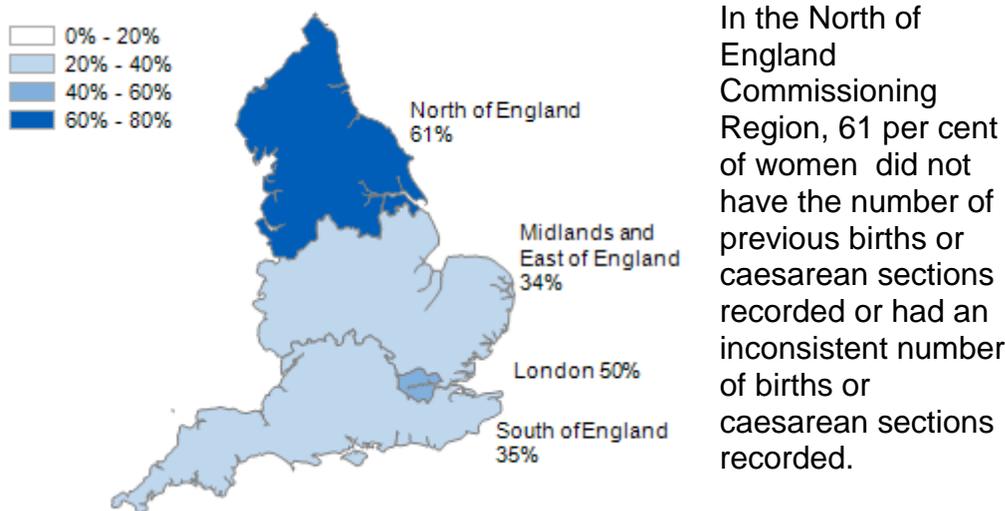
The London Commissioning Region smokers were the lightest smokers, smoking 6.0 cigarettes per day on average.

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 required⁶.

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, April 2016



In the North of England Commissioning Region, 61 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.

Of those with a known number of previous births and caesareans:

44%

of women had no previous births.

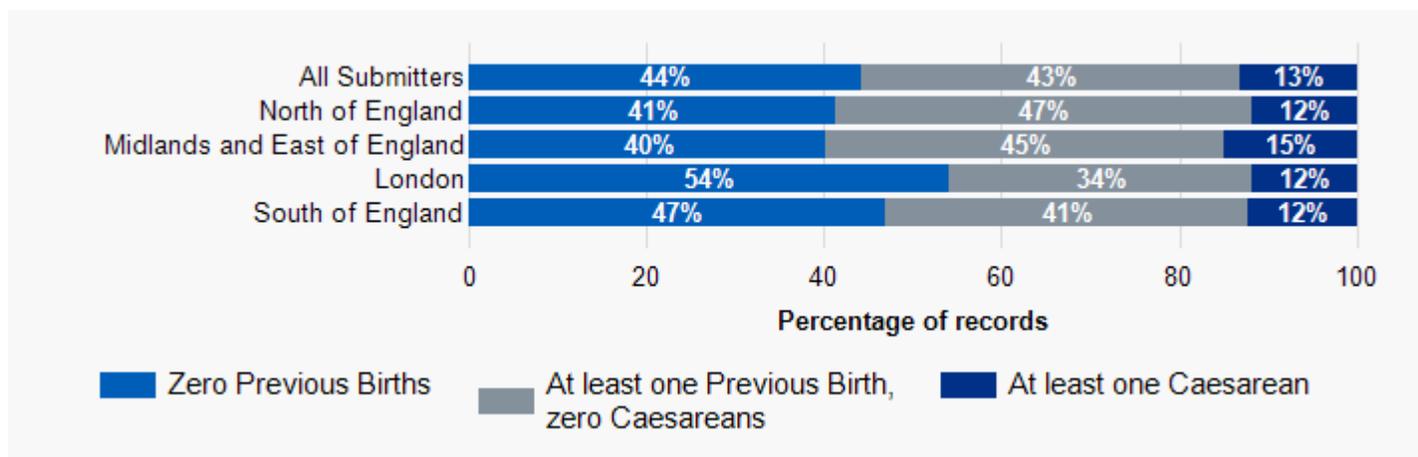
43%

had a previous birth but no caesareans.

13%

had at least one previous caesarean

Figure 9: Percentage of women attending booking appointments by recorded number of previous births and previous caesarean sections and commissioning region, April 2016



The London Commissioning Region contained the highest proportion of women attending booking appointments that had not given birth before (54 per cent).

The percentage of women that had given birth before but had never given birth by caesarean section ranged between 34 and 47 per cent.

The percentage of women with a previous caesarean ranged from 12 in the North of England Commissioning Region to 15 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.

6. [NHS Choices - Caesarean section](#)

Further Information

Related NHS Digital publications and data sets

iViewPlus Maternity Booking Appointment Data Cube

Additional information reported within the MSDS regarding mother's details at the booking appointment is available to access through the Maternity Booking Appointment Data Cube on iViewPlus. This is newly developed system that is still being enhanced with further functionality and data and enables free to use interactive data visualisations that allows users quick and easy access to health and social care data. Statistics from this data asset are classified as experimental.

To use iView you need to register for a NHS Digital account which can be done through the following link

<https://iviewplus.hscic.gov.uk/>

You can then request access to the Maternity Booking Appointment Data Cube by emailing enquiries@nhsdigital.nhs.uk please quote 'Maternity iViewPlus Data Access' in the subject line)

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 NHS Digital website:

<http://digital.nhs.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://digital.nhs.uk/catalogue/PUB19127>

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 (MSDS):

<http://digital.nhs.uk/catalogue/PUB17333>

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 NHS Digital 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:

<http://www.nisra.gov.uk/demography/default.asp8.htm>

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>

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:
<http://www.chimat.org.uk/maternity>

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:
<http://digital.nhs.uk/catalogue/PUB18472>

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:
<http://newbornphysical.screening.nhs.uk/statistics>

Statistics on NHS Stop Smoking Services

The NHS Stop Smoking Services offer support to help people quit smoking. NHS Digital produces an annual report on the NHS Stop Smoking Services (NHS SSS) in England. The 2014-15 report is available here:
<http://digital.nhs.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:
<http://www.screening.nhs.uk/kpi>

Annex 1 - Data Quality Report

Purpose of this Document	15
Assessment of Statistics Against Quality Dimensions and Principles	16
Relevance	17
Accuracy & Reliability	17
Timeliness and Punctuality	21
Coherence and Comparability	21
Accessibility and Clarity	22
Trade-offs between output quality components	23
Assessment of User Needs and Perceptions	23
Balance between performance, cost and respondent burden	24
Confidentiality, Transparency and Security	24
Appendix	25

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 [here](#)). 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 enquiries@nhsdigital.nhs.uk 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. NHS Digital 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 NHS Digital:

- 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:

- DQ_001_001 Organisation Code (Local Patient Identifier (Mother))
- DQ_001_002 Organisation Code (Residence Responsibility)
- DQ_001_003 NHS Number (Mother)
- DQ_001_004 NHS Number Status Indicator Code (Mother)
- DQ_001_005 Person Birth Date (Mother)
- DQ_001_006 Postcode Of Usual Address (Mother)
- DQ_001_007 Ethnic Category (Mother)
- DQ_001_008 Person Death Date Time (Mother)
- DQ_003_001 General Medical Practice Code (Patient Registration (Mother))
- DQ_003_002 Organisation Code (Code Of Commissioner)
- DQ_101_001 Pregnancy First Contact Date
- DQ_101_002 Estimated Date Of Delivery Method (Agreed)
- DQ_101_003 Care Professional Type Code (Pregnancy First Contact)
- DQ_101_004 Last Menstrual Period Date
- DQ_101_005 Physical Disability Status Indicator (Mother At Booking)

- DQ_101_006 First Language English Indicator (Mother At Booking)
- DQ_101_007 Employment Status (Mother At Booking)
- DQ_101_008 Support Status (Mother At Booking)
- DQ_101_009 Employment Status (Partner At Booking)
- DQ_101_010 Pregnancy Previous Caesarean Sections
- DQ_101_011 Pregnancy Total Previous Live Births
- DQ_101_012 Pregnancy Total Previous Stillbirths
- DQ_101_013 Pregnancy Total Previous Losses Less Than 24 Weeks
- DQ_101_014 Substance Use Status (Mother At Booking)
- DQ_101_015 Smoking Status (Mother At Booking)
- DQ_101_016 Cigarettes Per Day (Mother At Booking)
- DQ_101_017 Weekly Alcohol Units (Mother At Booking)
- DQ_101_018 Status Of Folic Acid Supplement (Mother At Booking)
- DQ_101_019 Mental Health Prediction And Detection Indicator (Mother At Booking)
- DQ_101_020 Person Weight (Mother At Booking)
- DQ_101_021 Person Height (Mother At Booking)
- 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 April 2016 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 April 2016, 92 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 NHS Digital per organisation for the particular reporting period. For any calculated total value presented in this report a woman is only counted once in relation to the activity related to the booking appointment. For example if a woman 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 6 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://digital.nhs.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 information submitted via the MSDS is used to create the Maternity Booking Appointment Data Cube available on [iViewPlus](#). However data queried using iViewPlus may produce results that differ slightly from those published within this report as the processing rules used in creating that data asset differ from that which is used in this report further details of these differences are communicated to users of that data asset when they are invited to query the data using iViewPlus.

As well as this monthly report on maternity services, NHS Digital has also published the NHS Maternity Statistics 2014-15 report. This annual publication utilises Hospital Episodes Statistics (HES) data submitted to NHS Digital 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 NHS Digital 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://digital.nhs.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 NHS Digital website:

<http://digital.nhs.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 NHS Digital resources and production time. NHS Digital 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.

NHS Digital 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 NHS Digital risk assessment prior to issue. Disclosure control is implemented where deemed necessary.

Please see links below to relevant NHS Digital policies:

Statistical Governance Policy (see link in 'user documents' on right hand side of page)
<http://digital.nhs.uk/pubs/calendar>

Freedom of Information Process
<http://digital.nhs.uk/foi>

A Guide to Confidentiality in Health and Social Care
<http://digital.nhs.uk/article/4979/Assuring-information>

Privacy and Data Protection
<http://digital.nhs.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

Number of trusts submitting MSDS data by month	Commissioning Region				Total number of providers
	North of England	Midlands and East of England	London	South of England	
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
November 2015	31	25	11	18	85
December 2015	31	25	11	17	84
January 2016	32	26	11	19	88
February 2016	30	28	10	19	87
March 2016	33	26	11	20	90
April 2016	34	26	11	21	92
Number of trusts submitting HES deliveries for 2014/15	42	42	21	36	141
% HES submitters compared to latest MSDS month submitters	81%	62%	52%	58%	65%
Number of providers that submitted MSDS data at least once between April and April 2016	36	30	12	24	102

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

Table 2: Comparison of the number of mothers with booking appointments in MSDS (April 2016) with the average number of HES deliveries per month 2014-15, for providers submitting MSDS data in April 2016

Organisation		MSDS mothers with booking appointments April 2016	HES deliveries average per month 14/15	MSDS booking appointments / HES deliveries average
ALL	All Submitters	40,224	53,054	0.8
R1K	London North West Healthcare NHS Trust	530	600	0.9
RA7	University Hospitals Bristol NHS Foundation Trust	540	435	1.2
RAJ	Southend University Hospital NHS Foundation Trust	365	305	1.2
RAL	Royal Free London NHS Foundation Trust	875	245	3.6
RAP	North Middlesex University Hospital NHS Trust	520	420	1.2
RAS	The Hillingdon Hospitals NHS Foundation Trust	515	335	1.5
RAX	Kingston Hospital NHS Foundation Trust	535	465	1.2
RBD	Dorset County Hospital NHS Foundation Trust	180	155	1.2
RBK	Walsall Healthcare NHS Trust	430	390	1.1
RBL	Wirral University Teaching Hospital NHS Foundation Trust	285	280	1.0
RBN	St Helens and Knowsley Hospital Services NHS Trust	320	315	1.0
RBT	Mid Cheshire Hospitals NHS Foundation Trust	295	215	1.4
RBZ	Northern Devon Healthcare NHS Trust	170	115	1.5
RC1	Bedford Hospital NHS Trust	305	245	1.2
RC9	Luton and Dunstable University Hospital NHS Foundation Trust	445	420	1.1
RCB	York Teaching Hospital NHS Foundation Trust	445	410	1.1
RCD	Harrogate and District NHS Foundation Trust	185	155	1.2
RCF	Airedale NHS Foundation Trust	225	180	1.3
RD1	Royal United Hospitals Bath NHS Foundation Trust	460	320	1.4
RD3	Poole Hospital NHS Foundation Trust	230	365	0.6
RDD	Basildon and Thurrock University Hospitals NHS Foundation Trust	390	370	1.1
RDE	Colchester Hospital University NHS Foundation Trust	400	305	1.3
RDU	Frimley Health NHS Foundation Trust	1,020	440	2.3
RE9	South Tyneside NHS Foundation Trust	125	110	1.1
REF	Royal Cornwall Hospitals NHS Trust	410	365	1.1
REP	Liverpool Women's NHS Foundation Trust	840	680	1.2
RF4	Barking, Havering and Redbridge University Hospitals NHS Trust	795	655	1.2
RFF	Barnsley Hospital NHS Foundation Trust	330	230	1.4
RFR	The Rotherham NHS Foundation Trust	180	215	0.9
RH8	Royal Devon and Exeter NHS Foundation Trust	375	320	1.2

Maternity Services Monthly Statistics, England, April 2016, Experimental Statistics

RHM	University Hospital Southampton NHS Foundation Trust	525	470	1.1
RHQ	Sheffield Teaching Hospitals NHS Foundation Trust	930	570	1.6
RHW	Royal Berkshire NHS Foundation Trust	600	455	1.3
RJ1	Guy's and St Thomas' NHS Foundation Trust	640	560	1.1
RJ6	Croydon Health Services NHS Trust	110	285	0.4
RJC	South Warwickshire NHS Foundation Trust	335	210	1.6
RJE	University Hospitals of North Midlands NHS Trust	470	515	0.9
RJF	Burton Hospitals NHS Foundation Trust	*	280	0.0
RJL	Northern Lincolnshire and Goole NHS Foundation Trust	415	375	1.1
RJN	East Cheshire NHS Trust	170	140	1.2
RJR	Countess of Chester Hospital NHS Foundation Trust	280	240	1.1
RJZ	King's College Hospital NHS Foundation Trust	520	870	0.6
RK5	Sherwood Forest Hospitals NHS Foundation Trust	415	280	1.5
RK9	Plymouth Hospitals NHS Trust	380	360	1.1
RKB	University Hospitals Coventry and Warwickshire NHS Trust	550	495	1.1
RKE	The Whittington Hospital NHS Trust	355	285	1.2
RL4	The Royal Wolverhampton NHS Trust	455	340	1.3
RLN	City Hospitals Sunderland NHS Foundation Trust	5	250	0.0
RLQ	Wye Valley NHS Trust	170	140	1.2
RLU	Birmingham Women's NHS Foundation Trust	1,245	660	1.9
RM1	Norfolk and Norwich University Hospitals NHS Foundation Trust	520	480	1.1
RM2	University Hospital of South Manchester NHS Foundation Trust	395	355	1.1
RMC	Bolton NHS Foundation Trust	535	515	1.0
RMP	Tameside Hospital NHS Foundation Trust	265	195	1.4
RN5	Hampshire Hospitals NHS Foundation Trust	475	470	1.0
RN7	Dartford and Gravesham NHS Trust	510	415	1.2
RNA	The Dudley Group NHS Foundation Trust	480	360	1.3
RNQ	Kettering General Hospital NHS Foundation Trust	395	285	1.4
RNS	Northampton General Hospital NHS Trust	405	365	1.1
RNZ	Salisbury NHS Foundation Trust	220	195	1.1
RP5	Doncaster and Bassetlaw Hospitals NHS Foundation Trust	530	420	1.3
RPA	Medway NHS Foundation Trust	455	385	1.2
RQW	The Princess Alexandra Hospital NHS Trust	105	345	0.3
RR1	Heart of England NHS Foundation Trust	1,025	825	1.2
RR7	Gateshead Health NHS Foundation Trust	10	150	0.1
RR8	Leeds Teaching Hospitals NHS Trust	965	785	1.2
RRF	Wrightington, Wigan and Leigh NHS Foundation Trust	235	230	1.0
RTD	The Newcastle Upon Tyne Hospitals NHS Foundation Trust	590	600	1.0

Maternity Services Monthly Statistics, England, April 2016, Experimental Statistics

RTE	Gloucestershire Hospitals NHS Foundation Trust	645	510	1.3
RTF	Northumbria Healthcare NHS Foundation Trust	485	185	2.6
RTH	Oxford University Hospitals NHS Foundation Trust	425	685	0.6
RTR	South Tees Hospitals NHS Foundation Trust	500	430	1.2
RTX	University Hospitals of Morecambe Bay NHS Foundation Trust	*	260	0.0
RVJ	North Bristol NHS Trust	635	575	1.1
RVV	East Kent Hospitals University NHS Foundation Trust	535	565	0.9
RW3	Central Manchester University Hospitals NHS Foundation Trust	815	735	1.1
RW6	Pennine Acute Hospitals NHS Trust	900	785	1.2
RWA	Hull and East Yorkshire Hospitals NHS Trust	440	445	1.0
RWE	University Hospitals of Leicester NHS Trust	910	865	1.1
RWG	West Hertfordshire Hospitals NHS Trust	5	455	0.0
RWH	East and North Hertfordshire NHS Trust	550	435	1.3
RWJ	Stockport NHS Foundation Trust	320	265	1.2
RWP	Worcestershire Acute Hospitals NHS Trust	525	460	1.1
RX1	Nottingham University Hospitals NHS Trust	925	795	1.2
RXC	East Sussex Healthcare NHS Trust	285	275	1.0
RXF	Mid Yorkshire Hospitals NHS Trust	*	515	0.0
RXL	Blackpool Teaching Hospitals NHS Foundation Trust	300	260	1.2
RXN	Lancashire Teaching Hospitals NHS Foundation Trust	430	380	1.1
RXW	Shrewsbury and Telford Hospital NHS Trust	450	375	1.2
RY2	Bridgewater Community Healthcare NHS Foundation Trust	20	*	0.0
RYJ	Imperial College Healthcare NHS Trust	765	805	0.9
RYR	Western Sussex Hospitals NHS Foundation Trust	465	415	1.1

Notes:

* Suppressed data where data is less than 5, provider level only.

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

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

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

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