



Health & Social Care  
Information Centre

# Statistics on Women's Smoking Status at Time of Delivery: England

April 2015 to March 2016

## Data Quality Statement

Published 16 June 2016



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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 stop smoking services for pregnant women.

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## Introduction

Smoking during pregnancy can cause serious pregnancy-related health problems. These include complications during labour and an increased risk of miscarriage, premature birth, still birth, low birth-weight and sudden unexpected death in infancy<sup>1</sup>.

Reducing smoking during pregnancy is one of the three national ambitions in the Tobacco Control Plan published in March 2011, which is "to reduce rates of smoking throughout pregnancy to 11 per cent or less by the end of 2015 (measured at time of giving birth)"<sup>2</sup>.

This data collection is designed to provide a measure of the prevalence of smoking among women at the time of giving birth at a local level. It supplements the national information available from the Infant Feeding Survey (IFS)<sup>3</sup> and the Opinions and Lifestyle Survey<sup>4</sup> (OPN) although the last IFS was in 2010 and it has now been discontinued.

## Performance Cost and Respondent Burden

### Data collection and burden

The following data items should be submitted for each quarter:

- Number of maternities
- Number of women known to be smokers at the time of delivery
- Number of women known to be non-smokers at the time of delivery
- Number of women whose smoking status was not known at the time of delivery

These are defined as follows:

- Number of **maternities** - the number of pregnant women who give birth to one or more live or stillborn babies of at least 24 weeks gestation, where the baby is delivered by either a midwife or doctor at home or in an NHS hospital (including GP units). This count should be the number of pregnant women, not the number of babies (deliveries). It does not include maternities that occur in psychiatric hospitals or private beds / hospitals.
- **Women known to be smokers at the time of delivery** are defined as pregnant women who reported smoking at the time of delivery.
- **Women known to be non-smokers at the time of delivery** are defined as pregnant women who reported not smoking at the time of delivery. This count does not include women whose smoking status is not known (which is collected separately), or those who intend to give up smoking after delivery.
- **Women whose smoking status was not known at the time of delivery** are defined as those whose smoking status was not determined at the time of.

## Calculations

**Percentage of women known to be smokers at time of delivery:**

Number of women known to be smokers at the time of delivery / Number of maternities \*100

### **Percentage of women known to be non- smokers at time of delivery:**

Number of women known to be non-smokers at the time of delivery / Number of maternities  
\*100

### **Percentage of women whose smoking status was not known at time of delivery:**

Number of women whose smoking status was not known at the time of delivery /  
Number of maternities \*100

Note that this calculation effectively treats the unknowns as if they are non-smokers so the percentage of women known to be smokers at the time of delivery should be treated with caution if there are a high number of unknowns.

## **Change in responsibility**

On 1 April 2013, responsibility for commissioning services for women's smoking status at the time of delivery moved from Primary Care Trusts (PCTs) to Clinical Commissioning Group (CCGs). Therefore from April 2013 this data has been collected and reported at Commissioning Region, Region and Clinical Commissioning Group level rather than by Primary Care Trust and Strategic Health Authority (SHA). Please see the accompanying Announcement of Methodological Change Notice for further information<sup>5</sup>.

## **Status of data**

From 1 April 2014, CCGs were not able to revise data within the financial year so all quarterly data from 2014/15 onwards should be considered as final. Prior to this date, the data was subject to revisions until the final data submission in quarter 4. This change was intended to ensure that accurate and reliable data are collected at an earlier time to maximise the usefulness of the data for decision making purposes.

## **Relevance**

This report is used to measure progress against one of the three national ambitions in the Tobacco Control Plan published in March 2011, which is "to reduce rates of smoking throughout pregnancy to 11 per cent or less by the end of 2015 (measured at time of giving birth)"<sup>2</sup>.

It is also used to populate indicator 2.3 in the Public Health Outcomes Framework (PHOF) and indicator 1.14 in the CCG Outcome Indicator Set (CCGOIS).

## **Assessment of User Needs and Perceptions**

This publication is considered to be of particular interest to English NHS commissioning organisations. However, data and findings are likely also to be of interest to a much broader base of users. The HSCIC is keen to gain a better understanding of the users of this publication and of their needs; feedback is welcome and may be sent to [enquires@hscic.gov.uk](mailto:enquires@hscic.gov.uk) (please include 'Smoking at the Time Of Delivery' in the subject line).

There is currently a consultation taking place across all HSCIC statistical outputs which includes this report and closes on 27 June 2016.

<http://www.hscic.gov.uk/article/7041>

## Accuracy and Reliability

Validation at the point of entry checks that the sum of the number of women known to be smokers at the time of delivery; the number of women known to be non-smokers at the time of delivery and the number of women whose smoking status was not known at the time of delivery equals the number of maternities.

A secondary validation check is applied once the data has been collected and checks the number of maternities and smoking status reported in each quarter falls within an 'expected' range, by comparing to the average reported for the previous four quarters.

Previously, data that failed a validation check (e.g. percentage of women whose smoking status was not known >5 per cent) was not published. From quarter 1 of 2013/14, all data has been published. Accompanying data quality tables present information on the quality of the data, and also highlight any areas of concern to encourage improvements [Tables 7, 8 and 9](#).

The percentage of women where the smoking status is not known will result in the under reporting of the percentages for known smokers and non-smokers, this should be taken into account when interpreting these data.

[Table 7](#) contains data on the percentage of women where the smoking status is not known broken down by CCG, and shown by quarter and year.

[Table 8](#) contains the difference between the quarterly average of the previous four quarters and quarter 4 2015/16 for:

- Percentage change of Number of Maternities;
- Percentage point change in the percentage of women smoking at time of delivery;
- Percentage point change in the percentage of women not smoking at time of delivery;
- Percentage point change in the percentage of women not known smoking.

[Table 9](#) contains the difference between the annual figures for 2015/16 and 2014/15:

- Percentage change of Number of Maternities;
- Percentage point change in the percentage of women smoking at time of delivery;
- Percentage point change in the percentage of women not smoking at time of delivery;
- Percentage point change in the percentage of women not known smoking.

## Data Quality Analysis by Clinical Commissioning Groups

This section looks at data quality issues which have affected Q4 2015/16 data in particular and annual data. There are specific analyses of data quality issues which affected Q1, Q2 and Q3 data in the data quality statements which accompanied these reports. These, and previous quarterly publications can be seen at:

[http://www.hscic.gov.uk/article/1165/Search-catalogue?q=title:\"Statistics+on+Women's+Smoking+Status+at+Time+of+Delivery\"&area=&size=10&sort=RelevanceDesc](http://www.hscic.gov.uk/article/1165/Search-catalogue?q=title:\)

## Smoking Status Not Known

### Annual Analysis

There are fifteen CCGs where the percentage of unknowns was in excess of 10 per cent, eight of which are over 20 per cent [Table 7](#).

They were:

- NHS Ipswich and East Suffolk (59.7 per cent)
- NHS South West Lincolnshire (28.9 per cent)
- NHS Herefordshire (28.3 per cent)
- NHS Solihull (25.9 per cent)
- NHS Lincolnshire West (25.0 per cent)
- NHS Lincolnshire East (24.7 per cent)
- NHS Birmingham CrossCity (20.9 per cent)
- NHS West Suffolk (20.6 per cent)
- NHS West Lancashire (17.2 per cent)
- NHS Cambridgeshire and Peterborough (16.5 per cent)
- NHS Wirral (15.9 per cent)
- NHS Southport and Formby (14.8 per cent)
- NHS South East Staffs and Seisdon and Peninsular (12.2 per cent)
- NHS Walsall (11.2 per cent)
- NHS South Lincolnshire (10.9 per cent)

### Q4 Analysis

There are twelve CCGs where the percentage of unknowns was in excess of 10 per cent, three of which are over 20 per cent [Table 7](#).

They were:

- NHS Ipswich and East Suffolk (46.4 per cent)
- NHS West Suffolk (20.7 per cent)
- NHS Lincolnshire East (20.2 per cent)
- NHS Lincolnshire West (18.9 per cent)
- NHS South West Lincolnshire (18.6 per cent)
- NHS West Essex (15.8 per cent)
- NHS West Lancashire (12.1 per cent)
- NHS Herefordshire (11.3 per cent)
- NHS Castle Point and Rochford (11.3 per cent)
- NHS Cambridgeshire and Peterborough (10.9 per cent)
- NHS Wirral (10.2 per cent)
- NHS Southend (10.0 per cent)

With such a large proportion of unknown data, the percentage of women smoking at the time of delivery should be viewed with caution for these CCG's.

### Differences to Previous Periods

As well as looking at missing data items, it is important to look at how data has changed over time and highlight any large differences. Large differences may represent problems with the latest submission or they may represent problems with previous submissions.

## Annual Analysis

Table 9 shows the differences between 2015/16 and 2014/15.

The largest differences are shown below:

- Percentage change in the number of maternities.
  - NHS Warrington (decrease 43.4 per cent)
  - NHS Stafford and Surrounds (decrease 28.0 per cent)
  - NHS North West Surrey (decrease 19.5 per cent)
  - NHS Rotherham (decrease 13.1 per cent)
  - NHS East and North Hertfordshire (decrease 12.1 per cent)
  - NHS Central London (Westminster) (decrease 10.6 per cent)
  - NHS Eastern Cheshire (increase 10.1 per cent)
  - NHS Rushcliffe (increase 10.2 per cent)
  - NHS Havering (increase 10.4 per cent)
  - NHS Surrey Heath (increase 13.3 per cent)
  - NHS Cambridgeshire and Peterborough (increase 14.5 per cent)
  - NHS Cannock Chase (increase 56.1 per cent)
  - NHS South Norfolk (increase 71.5 per cent)
  - NHS North Norfolk (increase 87.0 per cent)
  - NHS Norwich (increase 93.5 per cent)
  
- Percentage point change in the percentage of women smoking at time of delivery.
  - There were no changes bigger than 10 percentage points.
  
- Percentage point change in the percentage of women not smoking at time of delivery.
  - NHS Ipswich and East Suffolk (down 31.2 per cent)
  - NHS West Suffolk (down 12.2 per cent)
  - NHS Lincolnshire East (up 10.3 per cent)
  - NHS Lancashire North (up 11.0 per cent)
  
- Percentage point change in the percentage of women with an unknown smoking status at time of delivery.
  - NHS Lancashire North (down 11.4 per cent)
  - NHS Lincolnshire East (down 11.1 per cent)
  - NHS South West Lincolnshire (up 11.8 per cent)
  - NHS West Suffolk (up 15.5 per cent)
  - NHS Ipswich and East Suffolk (up 34.0 per cent)

## Q4 Analysis

Table 8 shows differences compared to a quarterly average taken over the previous four quarters. The largest differences are shown below:

- Percentage change in the number of maternities.
  - NHS Warrington (decrease 89.6 per cent)
  - NHS East Staffordshire (decrease 30.1 per cent)
  - NHS Cannock Chase (decrease 27.9 per cent)
  - NHS Basildon and Brentwood (decrease 15.8 per cent)
  - NHS North Lincolnshire (decrease 15.5 per cent)
  - NHS Nottingham West (decrease 15.3 per cent)



- NHS Sutton (decrease 14.3 per cent)
- NHS Halton (decrease 14.3 per cent)
- NHS South East Staffs and Seisdon and Peninsular (decrease 14.1 per cent)
- NHS Newark & Sherwood (decrease 13.8 per cent)
- NHS Milton Keynes (decrease 13.6 per cent)
- NHS Thurrock (decrease 12.6 per cent)
- NHS Isle of Wight (decrease 12.2 per cent)
- NHS Lambeth (decrease 11.9 per cent)
- NHS Bracknell and Ascot (decrease 11.3 per cent)
- NHS Oxfordshire (decrease 11.2 per cent)
- NHS West Suffolk (decrease 10.9 per cent)
- NHS Chorley and South Ribble (decrease 10.3 per cent)
- NHS North East Lincolnshire (decrease 10.3 per cent)
- NHS Eastbourne, Hailsham and Seaford (increase 11.1 per cent)
- NHS North Norfolk (increase 18.1 per cent)
- NHS South Norfolk (increase 24.4 per cent)
- NHS Norwich (increase 25.5 per cent)
  
- Percentage point change in the percentage of women smoking at time of delivery.
  - There were no changes bigger than 10 percentage points.
  
- Percentage point change in the percentage of women not smoking at time of delivery.
  - NHS West Essex (down 10.2 percentage points)
  - NHS Ipswich and East Suffolk (up 10.7 percentage points)
  - NHS Southport and Formby (up 11.1 percentage points)
  - NHS Cambridgeshire and Peterborough (up 11.5 percentage points)
  - NHS South East Staffs and Seisdon and Peninsular (up 16.1 percentage points)
  - NHS Herefordshire (up 19.2 percentage points)
  - NHS Birmingham CrossCity (up 25.4 percentage points)
  - NHS Solihull (up 29.5 percentage points)
  
- Percentage point change in the percentage of women with an unknown smoking status at time of delivery.
  - NHS Solihull (down 36.3 percentage points)
  - NHS Birmingham CrossCity (down 29.2 percentage points)
  - NHS Herefordshire (down 22.0 percentage points)
  - NHS South East Staffs and Seisdon and Peninsular (down 18.0 percentage points)
  - NHS Southport and Formby (down 15.1 percentage points)
  - NHS Walsall (down 13.5 percentage points)
  - NHS Ipswich and East Suffolk (down 12.7 percentage points)
  - NHS West Lancashire (down 11.8 percentage points)
  - NHS Cambridgeshire and Peterborough (down 11.6 percentage points)
  - NHS West Essex (up 10.7 percentage points)

## Known Issues

Some of the issues mentioned previously were flagged to us as part of the data collection process and more information on the reasons for these issues follow. These data quality

issues need to be taken into account when looking at these data for quarter 4 2015/16 and also when making comparisons with earlier periods:

- Due to a change in Electronic Patient Record System (EPR) system and staff retraining, Addenbrookes Hospital are experiencing ongoing data quality issues. This has resulted in a large number of maternities with an unknown smoking status in Q4 for NHS Ipswich and East Suffolk (46.4%), NHS West Suffolk (20.7%) and NHS Cambridgeshire and Peterborough (10.9%).
- A large number of maternities had an unknown smoking status for NHS Lincolnshire East (20.2%), NHS Lincolnshire West (18.9%) and NHS South West Lincolnshire (18.6%). This is due to data quality issues at the main trust supplying data to these CCG's.
- Changes to IT systems at a variety of providers, meant that a large number of maternities had an unknown smoking status for NHS West Essex (15.8%), NHS West Lancashire (12.1%) and NHS Herefordshire (11.3%).
- A large number of maternities had an unknown smoking status for NHS Wirral (10.2%), this is due to data quality issues at Wirral University Teaching Hospital.
- Barking, Havering and Redbridge University Hospitals did not submit any data for Q4, resulting in a large percentage decrease in the number of maternities from the average of the preceding four quarters for NHS Basildon and Brentwood (-15.8%). This also resulted in a large number of maternities with an unknown smoking status for NHS Castle Point and Rochford (11.3%) and NHS Southend (10.0%).
- Due to a change in IT systems, the Norfolk and Norwich University Hospital did not submit any data in Q3 and Q4 2014/15. Data has been provided for subsequent quarters which has resulted in a large difference in the number of maternities compared to the average of the preceding 4 quarters for NHS Norwich, NHS North Norfolk and NHS South Norfolk.
- Due to the implementation of a new IT system Warrington and Halton Hospitals NHS Foundation Trust were not able to submit any data for Q3 and Q4 2015/16. This has resulted in a large reduction in the number of maternities for NHS Warrington (-89.6%).
- A new IT system at one of their providers, resulted in a large percentage change in the number of maternities from the average of the preceding four quarters for NHS Cannock Chase (-27.9%) and NHS East Staffordshire (-30.1%).
- No explanation was provided for the large percentage change in the number of maternities from the average of the preceding four quarters for NHS North Lincolnshire (-15.5%) and NHS Nottingham West (-15.3%).
- Explanations for large changes for 2015/16 Q1 to Q3 can be found in the Data Quality statements for those reports.

## Comparability and Coherence

These data supplement the Infant Feeding Survey<sup>3</sup> (IFS), which was carried out in the UK every 5 years up to 2010 and the results published by the Health and Social Care Information Centre in 2012. The IFS collected data on mothers who smoked at some point in the 12 months immediately before or during their pregnancy and presented the information by age, socio-economic classification and region. The survey has now been discontinued.

The Opinions and Lifestyle Survey<sup>4</sup> (OPN) provides information on smoking rates, average number of cigarettes smoked and smoking during pregnancy at a national level during 2013. This continues the series of releases on smoking; previously provided by the General Household Survey (GHS) and the General Lifestyle Survey (GLF).

## Timeliness and Punctuality

### Timeliness

#### Launch and submission dates 2015/16

Quarter	Period	Launched	Submission Deadline	Publication Date
1	1 April 2015 - 30 June 2015	1 July 2015	22 July 2015	15 September 2015
2	1 July 2015 - 30 September 2015	1 October 2015	22 October 2015	16 December 2015
3	1 October 2015- 31 December 2015	4 January 2016	22 January 2016	17 March 2016
4	1 January 2016 - 31 March 2016	1 April 2016	22 April 2016	16 June 2016

### Punctuality

These publications have not suffered any delay to their pre-announced release date and are published within 3 months of the end of the period which they refer to.

## Accessibility and Clarity

All reports are accessible on the HSCIC website as PDF documents. All tables in the report are provided in Excel format and as csv files, as part of the government's requirement to make public data public.

The publication may be requested in large print or other formats through the HSCIC's contact centre: [enquiries@hscic.gov.uk](mailto:enquiries@hscic.gov.uk) (please include 'SATOD' in the subject line).

### Confidentiality

These publications are subject to a HSCIC risk assessment prior to issue. The reports include analyses at England, Commissioning Region, Area Team and Clinical Commissioning Group level. Statistical units are women who have given birth in a given quarter. The report presents mothers smoking at the time of delivery as a percentage of maternities.

Information is disseminated at a high level of aggregation and the only small numbers that occur do not require suppressing as they are not considered identifiable or disclosive. This is because they occur in a non-sensitive column in the tabulations (mothers whose smoking

status was not known). There are no breakdowns in the output (e.g. age, socio-economic group) which would lead to small numbers in sensitive columns.

## Publication

At the end of each quarterly reporting period the report *Statistics on women's smoking status at time of delivery: England* will be published. These reports are available at:

<http://www.hscic.gov.uk/searchcatalogue?q=smoking+delivery&area=&size=10&sort=Relevance>

The HSCIC has produced SATOD reports since Quarter 3 2011/12. Prior to this the Department of Health produced these reports.

The DH reports are available at:

[http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Statistics/StatisticalWorkAreas/Statisticalpublichealth/DH\\_124185](http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Statistics/StatisticalWorkAreas/Statisticalpublichealth/DH_124185)

[http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/Publichealth/Healthimprovement/Tobacco/Tobaccogeneralinformation/DH\\_4139682](http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/Publichealth/Healthimprovement/Tobacco/Tobaccogeneralinformation/DH_4139682)

## Trade Offs Between Output Quality Components

None.

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3. The Infant Feeding Survey – UK 2010. The Health and Social Care Information Centre, 2012.  
[www.hscic.gov.uk/catalogue/PUB08694](http://www.hscic.gov.uk/catalogue/PUB08694)
4. Opinions and Lifestyle Survey, Smoking Habits Amongst Adults, 2014. Office for National Statistics, 2015.  
<http://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/bulletins/adultsmokinghabitsingreatbritain/2014>
5. Methodological changes to Statistics on Women's Smoking Status at Time of Delivery: England. Health and Social Care Information Centre, 2013.  
[http://www.hscic.gov.uk/media/13188/Methodological-changes-SaTOD/pdf/Methodological\\_Change\\_Notice\\_-\\_SaTOD.pdf](http://www.hscic.gov.uk/media/13188/Methodological-changes-SaTOD/pdf/Methodological_Change_Notice_-_SaTOD.pdf)

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