Cervical Screening Programme Coverage Statistics

[Management Information]

Interactive Dashboard Data Quality Statement

This document is designed to accompany the interactive dashboard and includes contextual information, the methods used to compile the statistics and other background information readers may find useful.

Author: Screening & Immunisations Team, NHS Digital
Responsible Statistician: Sally Jones

Copyright © 2020 Health and Social Care Information Centre.
## Contents

<table>
<thead>
<tr>
<th>Introduction</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Data Source</td>
<td>3</td>
</tr>
<tr>
<td>1.2 Methods used to compile the statistics</td>
<td>4</td>
</tr>
<tr>
<td>1.3 Relevance</td>
<td>5</td>
</tr>
<tr>
<td>1.4 Accuracy and Reliability</td>
<td>5</td>
</tr>
<tr>
<td>1.5 Timeliness and Punctuality</td>
<td>6</td>
</tr>
<tr>
<td>1.6 Accessibility and Clarity</td>
<td>6</td>
</tr>
<tr>
<td>1.7 Coherence and Comparability</td>
<td>6</td>
</tr>
<tr>
<td>1.8 Performance Cost and Respondent Burden</td>
<td>8</td>
</tr>
<tr>
<td>1.9 Confidentiality, Transparency and Security</td>
<td>8</td>
</tr>
</tbody>
</table>
Introduction

This publication presents quarterly coverage statistics about the NHS Cervical Screening Programme in England. Data are presented at clinical commissioning group (CCG), upper tier local authority (LA) and GP practice levels. CCG and LA data is available for the previous three years, whereas GP data is available for the past two years.

It includes statistics on the number of women eligible and screened in the age groups 25 to 49 and 50 to 64 years old, as well as coverage rates for LAs, CCGs and GP practices.

The three dashboards are a presentation of coverage statistics in an interactive online report, including contextual information and guidance provided by Public Health England and Jo’s Cervical Cancer Trust (whom NHS Digital have collaborated with to produce this resource). There is an accompanying open data file in comma separated values (CSV) format which contains all the raw data featured in the dashboards.

The statistics in this report are used to inform policy and to monitor the quality and effectiveness of screening services at local area and GP practice level. Coverage is defined as the percentage of women in a population eligible for screening at a given point in time who were screened adequately within the specified period.

1.1 Data Source

The statistics are downloaded from information that is routinely collected by the NHS Cancer Screening Programmes (NHSCSP) and is obtained from the Public Health Outcomes Framework (PHOF) and Practice Profile reports produced by the Open Exeter system. These data are updated on a monthly basis, approximately 3 months in arrears. Prior to 2019, data was available approximately 6 months in arrears. NHS Digital and Public Health England (PHE) have worked together to make this information available sooner.

Due to only minor variations between monthly figures, data are reported quarterly within the dashboard to show greater trends.

Data is collected on all LAs, CCGs and GP practices operating during the two-year rolling period.

- PHOF – data on coverage is collected on all LAs
- Practice Profile – data on coverage is collected on CCGs and GP practices operating during the two-year reporting period

---

1 NHS Digital ‘Exeter’ system (NHAIS), Cancer Screening Statistics - [https://digital.nhs.uk/NHAIS/open-exeter](https://digital.nhs.uk/NHAIS/open-exeter)

A woman is assigned to a population based on the following definitions:

- **GP** – the GP practice the woman is registered with
- **CCG** – based on the postcode of the GP practice the woman is registered with
- **LA** – based on the woman’s postcode of residence

### 1.2 Methods used to compile the statistics

NHS Digital downloads the data from Open Exeter and performs minimal processing using automated processes developed in SAS\(^3\) as well as spreadsheets (Microsoft Excel). Data are then further processed within the Microsoft Power BI software\(^4\) application before being made available on the internet.

Most of the figures presented in the report and tables are in the form of simple counts and percentages.

**Small number suppression:**

Small number suppression is a technique used to mitigate potential identification of individuals, especially at a local level. Throughout the dashboards, any counts of women eligible or screened with values lower than 6 are suppressed. In cases where either number is suppressed, subsequent values for the same organisation, time period and age group are also suppressed (e.g. coverage, rank, etc.). Secondary suppression is also carried out. This means when only one organisation (GP practice) within a CCG has small numbers (<6), a second GP practice also has data suppressed (even though its counts may be greater than 5). This prevents calculation of the lone GP practice’s values by subtraction from the CCG total. The practice chosen for secondary suppression is the one with the next smallest eligible population.

### Definitions:

#### Coverage

Coverage is defined as the percentage of women in a population who were eligible for screening at a given point in time (e.g. for Q1 2017-18 the time point is the end of that financial quarter, 30 June 2017) and who were screened adequately within a specified period. Women are eligible for screening if they are in the screening age range and are not ineligible because their recall has been ceased for clinical reasons (most commonly due to hysterectomy).

As the frequency with which women are invited for screening is dependent on age, coverage is calculated differently for different age groups, as follows:

---

\(^3\) Statistical Analysis System (SAS) is an integrated system of software products which enables functions such as data management, statistical analysis and quality improvement.

\(^4\) Microsoft Power BI, is an analysis and visualisation tool in the suite of BI products offered by Microsoft. More information can be found [here](https://powerbi.microsoft.com) on the Power BI website.
**Women aged 25 to 49 years old**
Coverage is calculated as the number of women in this age group who have had an adequate screening test within the last 3.5 years as a percentage of the eligible population aged 25 to 49 years old.

\[
\frac{\text{Total number of eligible women aged 25 to 49 with an adequate screening test in the last 3½ years}}{\text{Total eligible population aged 25 to 49}} \times 100
\]

**Women aged 50 to 64 years old**
Coverage is calculated as the number of women in this age group who have had an adequate screening test within the last 5.5 years as a percentage of the eligible population aged 50 to 64 years old.

\[
\frac{\text{Total number of eligible women aged 50 to 64 with an adequate screening test in the last 5½ years}}{\text{Total eligible population aged 50 to 64}} \times 100
\]

**1.3 Relevance**
The publication page and the introductory page of each of the three interactive reports gives details of who the statistics in this publication are aimed at and what they might want to use them for. There are separate dashboards for LA, CCG and GP practice level data. Further guidance is also offered to those who may want to act on the findings in the data.

**1.4 Accuracy and Reliability**
These are established collections based on complete data (i.e. not a sample).

**GP practice name changes:**
GP practice codes are specific to an organisation and generally do not change. GP practice names do, on occasion, change without a subsequent code change. If a GP practice name changes during the reporting period, only the most recent GP practice name is used throughout this report (i.e. name changes are backdated for the whole reporting period). As GP practice codes are more consistent than GP practice names, they are more suitable to use when comparing different datasets. The GP practice names used in this report are based on those reported on Open Exeter as at 1 July 2020.

In the LA and CCG machine readable format CSV files, Cerv_Cov_MachRead_LA_Q4_1920.csv and Cerv_Cov_MachRead_CCG_Q4_1920.csv, the national totals for eligible and screened do not match the sum of LA/CCG totals. The national totals include counts of eligible and screened at ‘Unknown’ LA/CCG. Unknown figures are not reported here.
1.5 Timeliness and Punctuality
The data are made available as soon as possible after they have been finalised on Open Exeter and processed by NHS Digital (around 2 to 3 months after the end of the financial quarter to which the data relate).

1.6 Accessibility and Clarity
All data is published in the interactive online report which is available on the publication webpage: https://digital.nhs.uk/data-and-information/publications/statistical/cervical-screening-programme/cervical-screening-programme-coverage-statistics-management-information
The data within the dashboard are also available as a CSV, accessible through the webpage linked above.

As data are published on a two-year rolling basis, users are advised to download data using the quarterly CSV files if they wish to build a longer time series for their own reporting purposes.

In the dashboard coverage is shown rounded to 1 decimal place.

Maps display coverage based on categories (e.g. less than 70%, 70% to less than 75%). These categories are based on the raw coverage figures.

In some cases, the rounded coverage value will not match the coverage category. e.g. 79.97% would be rounded to 80.0%, however, it would be categorised as being in the ‘75% to less than 80%’ category.

1.7 Coherence and Comparability
The Screening and Immunisations team at NHS Digital maintain awareness of changes that may affect the data through regular meetings and communications with the NHS Cancer Screening Programmes (operated within PHE) and the Department of Health and Social Care. The dashboard build has been a joint-working initiative between PHE, NHS Digital and Jo’s Cervical Cancer Trust.

Local authority regions - Data presented in this quarterly report reflects the PHOF data reported by Open Exeter. This differs from the annual National Statistic report, published by NHS Digital, which recalculates regional LA data to reflect the areas of responsibility within the cervical screening programme. Therefore, direct comparison of the regional coverage figures, between this quarterly report and the NHS digital annual report, are not appropriate for the following regions:

- South East
- South West
- East of England

See Table 1 in the annual report’s quality statement for more details on the changes made in the annual report.
Time series

The CCG level report presents time series data covering the period Q4 2016/17 to Q4 2019/20.

The LA level report presents time series data covering the period Q4 2016/17 to Q4 2019/20.

GP practice level statistics are fixed to the 9 most recent available quarters, in this case, Q4 2017/18 to Q4 2019/20.

Local and regional comparisons

Across the three dashboards, data are presented to allow for both local and regional comparisons where appropriate. For example, LA and CCG data are grouped into regions and can be selected within drop-down menus to permit immediate comparisons.

On 1 April 2019, local authority boundaries changed.

'Bournemouth' and 'Poole' upper tier local authorities combined with the 'Christchurch' lower tier local authority to form a new organisation, 'Bournemouth, Christchurch and Poole' upper tier local authority.

Dorset LA also has changed because, prior to the re-organisation, Christchurch was part of Dorset.

Although this change came into effect on 1 April 2019, the Open Exeter system which produces the LA level PHOF data, reported the Q4 2018-19 data using the new boundaries. Earlier data are unaffected by this change. Table A, below, summarises how these changes affect the report.

Table A

<table>
<thead>
<tr>
<th>Upper Tier Authority</th>
<th>Upper Tier Authority Code 9</th>
<th>Upper Tier Authority Code 4</th>
<th>Period used in this report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bournemouth</td>
<td>E060000028</td>
<td>00HN</td>
<td>Prior to Q4 2018-19</td>
</tr>
<tr>
<td>Poole</td>
<td>E060000029</td>
<td>00HP</td>
<td>Prior to Q4 2018-19</td>
</tr>
<tr>
<td>Dorset</td>
<td>E100000009</td>
<td>19</td>
<td>Prior to Q4 2018-19</td>
</tr>
<tr>
<td>Bournemouth, Christchurch and Poole</td>
<td>E060000058</td>
<td>00HQ</td>
<td>Q4 2018-19 onwards</td>
</tr>
<tr>
<td>Dorset</td>
<td>E060000059</td>
<td>00HR</td>
<td>Q4 2018-19 onwards</td>
</tr>
</tbody>
</table>
1.8 Performance Cost and Respondent Burden

The publication is based on information that has been routinely collected by the NHS cervical screening programme for a number of years as part of the operation and performance management of the cervical screening programme.

All data collections used in this publication are subject to the Challenging Burden Service (CBS) procedure (previously known as Burden Advice and Assessment Service (BAAS). This is to ensure that data collections do not duplicate other collections, minimise the cost to all parties and have a specific use for the data collected. Information on CBS can be found at: https://digital.nhs.uk/services/the-challenging-burden-service

1.9 Confidentiality, Transparency and Security

The standard NHS Digital security and confidentiality policies have been applied in the production of these statistics. The data are received in aggregate form via the Open Exeter system. The following disclosure controls have been applied to this publication:

At GP practice level, any counts of women eligible or screened with values lower than 6 are suppressed. In cases where either number is suppressed, subsequent values for the same organisation, time period and age group are also suppressed (e.g. coverage, rank, etc.). Secondary suppression is also carried out. This means when only one organisation (GP practice) within a CCG has small numbers (<6), a second GP practice also has data suppressed (even though its counts may be greater than 5). This prevents calculation of a single GP practice’s values by subtraction from the CCG total.
Information and technology for better health and care

www.digital.nhs.uk/
0300 303 5678
enquiries@nhsdigital.nhs.uk
@nhsdigital

This publication may be requested in large print or other formats.

Published by NHS Digital, part of the Government Statistical Service

Copyright © 2020 NHS Digital.

OGL

You may re-use this document/publication (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence v3.0.

To view this licence visit
www.nationalarchives.gov.uk/doc/open-government-licence
or write to the Information Policy Team, The National Archives, Kew, Richmond, Surrey, TW9 4DU;
or email: psi@nationalarchives.gsi.gov.uk