

# Quality Statement: Breast Screening Programme, England, 2010-11

## Introduction

Breast Screening Programme, England has been in existence for a number of years and publications are available on the NHS Information Centre (NHS IC)<sup>1</sup> and Department of Health websites dating back to 1997-98<sup>2</sup>. The report was originally published by the Department of Health. With the establishment of the NHS IC, responsibility for the publication transferred to the NHS IC in 2005.

The Breast Screening Programme, England, 2010-11 report presents information about the NHS Breast Screening Programme in England in 2010-11 and includes statistics on those invited for breast screening, coverage, uptake of invitations, outcomes of screening and cancers detected. It focuses on England but includes links to statistics for other UK countries where these are available.

The statistics in the report are used to inform policy and to monitor the quality and effectiveness of screening services.

Where appendices are referred to in this Quality Statement, they can be found in the Breast Screening Programme, England, 2010-11 report, available through the following link:

[www.ic.nhs.uk/pubs/brstscreen1011](http://www.ic.nhs.uk/pubs/brstscreen1011)

## Data Sources

The statistics are derived from information that is routinely collected by the NHS Cancer Screening Programmes for the operation of the screening programme including for quality assurance and performance management purposes.

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<sup>1</sup> The NHS Information Centre (the NHS IC) will in future be known as the Health and Social Care Information Centre (HSCIC). This is the formal, legal name of the organisation and reflects its broader social care responsibilities.

<sup>2</sup> Since 2004-05 this bulletin has been published by the NHS Information Centre. Previous editions published by the Department of Health, can be found at:  
[http://www.dh.gov.uk/en/Publicationsandstatistics/Statistics/StatisticalWorkAreas/Statisticalhealthcare/DH\\_4086491](http://www.dh.gov.uk/en/Publicationsandstatistics/Statistics/StatisticalWorkAreas/Statisticalhealthcare/DH_4086491)

Information on the NHS Breast Screening Programme is collected on the following NHS Information Centre returns:

- KC62 – information on invitations, uptake and outcomes from all 81 breast screening units (BSUs) across England. See Appendix H.
- KC63 – information on the population coverage of the programme is collected on all 151 Primary Care Organisations (PCOs). See Appendix I.

Data have been collected annually since 1988-89 through the KC62 and since 1994-95 through the KC63. The data from each of these returns are collected in aggregate form each year by the NHS Information Centre (NHS IC).

The NHS Data Model and Dictionary Service contains more information on the above returns including guidance on content, completion and definitions. Links to the returns are given below:

#### **KC62**

[http://www.datadictionary.nhs.uk/data\\_dictionary/messages/central\\_return\\_forms/community/kc62/kc62\\_fr.asp?shownav=1](http://www.datadictionary.nhs.uk/data_dictionary/messages/central_return_forms/community/kc62/kc62_fr.asp?shownav=1)

#### **KC63**

[http://www.datadictionary.nhs.uk/data\\_dictionary/messages/central\\_return\\_forms/community/kc63/kc63\\_fr.asp?shownav=1](http://www.datadictionary.nhs.uk/data_dictionary/messages/central_return_forms/community/kc63/kc63_fr.asp?shownav=1)

Further information on the underlying sources of information can be found in the NHS IC's List of Administrative Sources, available through the following link:

<http://www.ic.nhs.uk/statistics-and-data-collections/publications-calendar/administrative-sources/list-of-administrative-sources>

The data from each of the returns are collected at the end of each financial year. The KC62 data comes to the NHS IC via the NHS Breast Screening Programme regional Quality Assurance Reference Centres (QARCs) which collect it from breast screening units in their regions. The KC63 data comes to the NHS IC via the NHS Connecting for

Health (CfH) breast screening support team which collects it from the NHAIS<sup>3</sup> (Exeter) system and produce aggregate PCO level reports.

The QARCs are responsible for quality assuring the screening programme including the KC62 and KC63 returns before final submission. Further validation and quality assurance checks are carried out at the NHS IC as part of the publication process. Appendix F contains more information on the data validation process.

Regional QA Managers at the QARCs are asked to check the tables produced for publication by the NHS IC as part of the validation process.

### **Methods used to compile the statistics**

The NHS IC validates and analyses the KC62 and KC63 data using databases and spreadsheets (Microsoft Access and Excel).

Most of the figures presented in the report and tables are in the form of simple counts, percentages (rounded to one decimal place) or rates (e.g. number of cancers detected per 1,000 women screened).

Definitions and formulae detailing how coverage, uptake and the breast cancer detection rate are calculated are given below. The column numbers shown in the formulae refer to column numbers on the KC62 or KC63 returns which can be found in Appendices H and I. Definitions and formulae for other statistics used in the report are given in Appendix B.

### **Coverage**

Coverage is the percentage of women in the population who are eligible for screening at a particular point in time (31st March 2011 in this instance), who have had a test with a recorded result at least once within the screening round, i.e. in the previous 3 years. Women are eligible for screening if they are in the screening age range and are not ineligible due to bilateral mastectomy.

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<sup>3</sup> National Health Application & Infrastructure Services (NHAIS)

Coverage is routinely reported only for the age range invited for screening. Currently coverage is best assessed using the 53-70 age group as women may be first called at any time between their 50th and 53rd birthdays<sup>4</sup>.

National coverage is calculated from the KC63 return as follows:

$$\frac{\text{Number of women screened in the last 3 years (column 14)}}{\text{Number of women resident (column 3) – Number of ineligible women (column 4)}} \times 100$$

Coverage statistics in this report are calculated using data from the NHAIS<sup>5</sup> (Exeter) system and include all women registered with an NHS GP practice. NHAIS data supports many primary care services including the NHS Breast Screening Programme's call and recall system for inviting women for screening. It is the only data source that can identify both the eligible population and those women who have been tested in the last three years.

Coverage at a PCO level is based on the PCO responsible population but excludes women who are not registered with an NHS GP practice. A PCO's coverage therefore includes all women who are registered with a GP practice which forms part of that PCO regardless of the women's area of residence. Thus a woman may be resident within one PCO area but, if she is registered with a GP practice which is responsible to a different PCO, she will be the responsibility of the latter.

Some women who are not registered with a GP practice are known to the NHS and are recorded on the NHAIS (Exeter) system. These women accounted for only 0.1% of the total resident population aged 53-70 at 31<sup>st</sup> March 2011 and so do not have a significant impact on the national coverage figures.

There are also some women who are not registered with a GP practice and who are not otherwise recorded on the NHAIS (Exeter) system. As the size of this population and their

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<sup>4</sup> With the extension of the Breast Screening Programme, some women will now be invited before the age of 50. It is expected that coverage will continue to be calculated for the 53-70 age range until full rollout of the age expansion is completed.

<sup>5</sup> National Health Application & Infrastructure Services (NHAIS)

screening status is not known, it is not possible to estimate how overall coverage rates might be affected by them.

## **Uptake**

Uptake is the percentage of women invited for screening in the year, who were screened adequately<sup>6</sup> within 6 months of invitation. The uptake rate is calculated from the KC62 return as follows:

$$\frac{\text{Number of women screened adequately (column 3)}}{\text{Number of women invited for screening (column 1)}} \times 100$$

NB: Uptake is based only on women invited for screening and so excludes self/GP referrals.

## **Cancer Detection Rate**

This is the number of cancers detected per 1,000 women screened and is calculated from the KC62 return as follows:

$$\frac{\text{Total number of women with cancer (column 25)}}{\text{Total number of women screened adequately (column 3)}} \times 1000$$

## **Accuracy and Reliability**

These are established collections based on complete data, i.e. not a sample.

Appendix F contains further information on data validation and data quality. All validation queries that were raised through the NHS IC's data validation processes were resolved satisfactorily.

## **Note on Selected Diagnostic and Outcome Statistics**

Data in tables 14, 14a, 15 and 15a in the Data Tables present diagnostic and outcome statistics for each local screening programme. More information about the statistics in these tables is given in Appendix B on Definitions.

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<sup>6</sup> A technically adequate screen is defined as one which gives sufficient detail to allow a decision to be made to refer for assessment or to return to a routine recall status.

The screening programmes vary enormously in size; with the smallest screening just over 5,000 women aged 50-70 per year and the largest over 47,000. Prevalent screening<sup>7</sup>, which is shown in tables 15 and 15a, accounts for only 16.2% of women aged 50-70 screened. Rates for smaller units, particularly for prevalent screening, are therefore often based on a very small numbers of cases. Such rates may be subject to considerable fluctuation from year to year and caution should be exercised in interpreting some of the data.

### **Timeliness and Punctuality**

The breast screening data are made available annually as soon as possible after they have been compiled and validated (usually January or February each year). The time delay in publishing the statistics is because the data returns are produced 6 months after the year end (sufficient time to allow most screening episodes to be completed).

The statistics published in this report reflect data submitted as of 12 December 2011. At the time of publication (22 March 2012), no amendments to these data had been received.

A copy of last year's report can be found at:

<http://www.ic.nhs.uk/statistics-and-data-collections/screening/breast-screening/breast-screening-programme-england-2009-10>

### **Accessibility and Clarity**

Most data fields are published in the Data Tables as part of the main report which is available on the NHS IC breast screening web pages:

<http://www.ic.nhs.uk/statistics-and-data-collections/screening/breast-screening>

The tables are also available as Excel files and as CSV files which, again, are accessible through the web pages. The graphs are also available as a PowerPoint file from the website. Further analysis may be available on request, subject to resource limits and compliance with disclosure control requirements.

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<sup>7</sup> Prevalent screening refers to women being screened for the first time within the breast screening programme. In this statistical bulletin, prevalent screening figures relate to first invitations for routine screening and routine invitations to previous non-attendees.

Printed copies of this report are available on request. For further information contact: [enquiries@ic.nhs.uk](mailto:enquiries@ic.nhs.uk) or telephone 0845 300 6016.

## **Coherence and Comparability**

The NHS IC maintains awareness of changes that may impact on the data through regular meetings/communication with the NHS Cancer Screening Programmes and the Department of Health.

## **Breast Screening Policy**

Screening policy changed in 2001. Prior to this, only women aged 50-64 were invited for screening as part of the NHS Breast Screening Programme. In April 2001 the age range was extended to include women aged 65-70, and the last screening unit began inviting older women in April 2006.

A further extension of the breast screening programme to cover women aged 47-73 was announced in 2007 and the phasing in of this age extension began in 2010. Nearly a half of the 81 breast screening units had started implementing the age extension by the end of 2010-11 collection year, but in many cases this was in the last quarter of the year.

The latest extension is being randomised to provide evidence on the effectiveness of screening in the 47 to 49 and 71 to 73 age groups, and the randomisation project will run for two, three-year screening rounds as set out in 'Improving Outcomes: A Strategy for Cancer' (January 2011) – see link below:

[http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_123371](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_123371)

Further information on the randomised control trial can be found at:

<http://www.controlled-trials.com/ISRCTN33292440>  
<http://clinicaltrials.gov/ct2/show/NCT01081288>

The analysis and commentary section of this report continues to primarily focus on the 50 to 70 age group as all eligible women in this group are currently invited for screening. In future years, as coverage of the new extended age group increases and data become

available, these data will be presented in this report. The Data Tables at the end of this report also cover the 50-64 age group (the target screening population prior to the 2001 age extension) to maintain the time series.

In January 2012 the Advisory Committee on Breast Cancer Screening (ACBCS) agreed practical guidance for the NHS on the surveillance of women of all ages assessed to be at a higher risk of breast cancer<sup>8</sup>. The NHS Breast Cancer Screening Programme has started managing the surveillance of these higher risk women according to specified protocols. As information on the surveillance of higher risk women becomes available it will be reported in this publication.

### **Time series**

The main tables in the publication contain time series which enable examination of trends over a period of years. Throughout the report statistics are compared with the previous year.

The changes in policy described above under the section on Breast Screening Policy need to be borne in mind when considering trend data.

Time series for the 50-70 age group (on which the Analysis and Commentary section focuses) are shown from 2002-03 which was the first year the data were available for this distinct age grouping.

### **Local and Regional Comparisons**

The statistics are presented by Primary Care Organisation (PCO), Strategic Health Authority (SHA), and breast screening unit (BSU).

### **Comparisons with other countries**

Some of the statistics in this report can be compared with other UK countries - see sections 2.1.3, 2.4.3 and 2.6.2.

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<sup>8</sup> 'Improving Outcomes: A Strategy for Cancer' (Jan 2011),  
[http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_123371](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_123371)



## Assessment of User Needs and Perceptions

The Breast Screening Programme, England report includes a User Feedback section inviting users to comment on the report. The publication web pages also have an on-line “Have your say survey” – standard feedback forms, which ask for user comments. Responses/feedback received from users is published in Appendix E of the publication report.

Known users of the report and the purposes for which they use the statistics are detailed below. All these users have found the information in the report useful for the purposes set out.

The Department of Health (DH) use the statistics from this publication to inform policy and to monitor the quality of screening services through regional quality assurance teams. The statistics used in the report are also used by DH to respond to public and Parliamentary business.

The NHS Cancer Screening Programme (NHSCSP) uses the bulletin as a reference document to monitor the quality and effectiveness of the NHS Cancer Screening Programmes and progress against their key targets for screening the eligible population in England.

The Regional QA co-ordinators utilise the report as part of their role in ensuring the screening process is achieving its’ primary targets across England.

The statistics are used at both Trust and SHA level to monitor local screening programme performance.

Breast screening units use the statistics for planning and performance monitoring purposes.

Statistics from the publication are supplied to the Care Quality Commission<sup>9</sup> which publishes them as benchmarking data.

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<sup>9</sup> The Care Quality Commission is the independent regulator of all health and social care services in England. See: <http://www.cqc.org.uk/public/about-us>

The Cancer Epidemiology Unit, University of Oxford use the raw data supplied by the NHS IC and supplement it with additional data to provide a more evaluative analysis to improve the performance of the national screening programmes through peer reviewed research papers and the dissemination of such information through appropriate channels e.g. QA Directors.

The screening statistics are supplied to the OECD by the NHS Information Centre and are used in OECD Health Database and also for the Health care Quality Indicator project.

Indicators from the publication are included in the Compendium of Population Health Indicators which is widely used within the NHS as well as outside it. See: <https://indicators.ic.nhs.uk/webview/>

Breast screening statistics are also used in the following products:

NHS Choices <http://www.nhs.uk/Pages/HomePage.aspx>

NHS Comparators <http://www.ic.nhs.uk/nhscomparators>

Indicators for Quality Improvement (IQI)

<http://www.ic.nhs.uk/services/measuring-for-quality-improvement/how-did-we-develop-the-indicators-for-quality-improvement>

The data are used to underpin articles in newspapers, journals etc on matters of public interest.

The NHS IC receives ad hoc requests for information from health professionals, medical researchers and academic units around the UK and Internationally.

All information is accessible for general public use for any particular purpose and the data are used to answer Parliamentary Questions (PQs).

### **Performance cost and respondent burden**

The publication is based on information that has been routinely collected by the NHS Breast Screening Programme for a number of years as part of the performance management of the individual screening programmes.

All data collections used in this publication are subject to the Review of Central Returns (ROCR) process and licensed by ROCR. 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.

### **Confidentiality, Transparency and Security**

The standard NHS IC security and confidentiality policies have been applied in the production of these statistics. The data are received in aggregate form. An annual risk assessment is undertaken prior to publication which addresses any potential issues around disclosure.

No disclosure issues were identified in relation to this publication and no disclosure controls have been applied.

### **Data Revisions**

The CSV files for the 2009-10 publication were originally issued on 14 June 2011. These were removed on 11 July 2011 as an error had been identified in Table 1.csv and to correct some minor formatting issues in other CSV tables. These elements of the publication were corrected on 18 July 2011. NB: The Excel and main PDF report files published on 22 February 2011 remain unaffected.

The re-issued Excel tables and an Errata Note detailing the revisions can be found on the publication webpage:

<http://www.ic.nhs.uk/statistics-and-data-collections/screening/breast-screening/breast-screening-programme-england-2009-10>

Where this report references 2009-10 statistics, they are the correct statistics.

Where any data are re-submitted post-publication in the future, the NHS IC will assess whether the resubmitted data has a significant impact on England-level data. Where this is the case, the affected Excel tables will be re-issued. Where the impact to England level data is not significant, footnotes will be made to the affected tables.