

# Publication Report



## Scottish Cervical Screening Programme Statistics 2009/2010

Annual update to 31<sup>st</sup> March 2010

Publication date – 31<sup>st</sup> August 2010



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## About ISD

Scotland has some of the best health service data in the world combining high quality, consistency, national coverage and the ability to link data to allow patient based analysis and follow up.

Information Services Division (ISD) is a business operating unit of NHS National Services Scotland and has been in existence for over 40 years. We are an essential support service to NHSScotland and the Scottish Government and others, responsive to the needs of NHSScotland as the delivery of health and social care evolves.

**Purpose:** To deliver effective national and specialist intelligence services to improve the health and wellbeing of people in Scotland.

**Mission:** Better Information, Better Decisions, Better Health

**Vision:** To be a valued partner in improving health and wellbeing in Scotland by providing a world class intelligence service.

## Official Statistics

Information Services Division (ISD) is the principal and authoritative source of statistics on health and care services in Scotland. ISD is designated by legislation as a producer of 'Official Statistics'. Our official statistics publications are produced to a high professional standard and comply with the Code of Practice for Official Statistics. The Code of Practice is produced and monitored by the UK Statistics Authority which is independent of Government. Under the Code of Practice, the format, content and timing of statistics publications are the responsibility of professional staff working within ISD.

ISD's statistical publications are currently classified as one of the following:

- National Statistics (ie assessed by the UK Statistics Authority as complying with the Code of Practice)
- National Statistics (ie legacy, still to be assessed by the UK Statistics Authority)
- Official Statistics (ie still to be assessed by the UK Statistics Authority)
- other (not Official Statistics)

Further information on ISD's statistics, including compliance with the Code of Practice for Official Statistics, and on the UK Statistics Authority, is available on the [ISD website](#).

The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics. Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods, and
- are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.

## Introduction

Cervical screening was introduced in Scotland in the 1960s. Although large numbers of women were offered tests, the service at this time was not introduced as a population based programme. In 1978 committees were established by the UK Department of Health and a review was carried out in Scotland resulting in the Strong Report.

The national cervical screening programme was introduced in Scotland in 1988 with the aim of reducing the incidence of invasive cancer of the cervix. Cervical screening is routinely offered to eligible women aged 20-60 every three years. Women with an abnormal screening history will continue to be invited for follow-up as appropriate.

Cervical screening is used to identify pre-cancerous cell changes in women who otherwise have no symptoms; at this stage, any changes can be easily treated, and treatment is usually very effective.

Within Scotland (as part of the Scottish Cervical Screening Programme) data for publication and management information are compiled by ISD on a quarterly and annual basis. This present release includes data on uptake, reporting times, number of cervical screening tests processed and results. The cervical screening year runs from 1<sup>st</sup> April to 31<sup>st</sup> March; this current release includes data to 31 March 2010.

Eligible women are invited to attend cervical screening once every 3 years; uptake statistics are therefore based on women attending in the previous 3.5 years. The additional 0.5 year ensures that all data for women who have attended for screening within that 3 year time period are reported on.

## Key points

At 31st March 2010:

- Of eligible women, 73.7% had been screened in the previous 3.5 years, a rise of approximately 0.3% compared to 31<sup>st</sup> March 2009.
- In contrast to 31<sup>st</sup> March 2009, uptake rates for those women invited to attend cervical screening in the previous 3.5 years have increased in 9 out of 15 NHS Boards, including former Argyll & Clyde.
- Of those eligible women with a record of a previous cervical screening test taken within the last 3.5 years, uptake rates have improved across most five year age bands within the target age range.

In 2009 -10:

- Approximately 415,500 cervical screening tests were processed within the programme. This resulted in a decrease of almost 8% compared to 2008-09, which reported the largest number of cervical screening tests processed in any one year since 2001-02, with over 450,500 screening tests processed.
- Of all the tests processed, 97% were satisfactory. Approximately 91% of satisfactory tests had a negative result and 3.4% had some degree of pre-cancerous change.

## Results and Commentary

Please note that the following tables and charts are based on the pre-2006 Health Board configuration: NHS Highland does not include Argyll & Bute area and NHS Greater Glasgow does not include Clyde area.

Details of all cervical screening statistics included within this publication can be found on the [Cervical Screening](#) homepage.

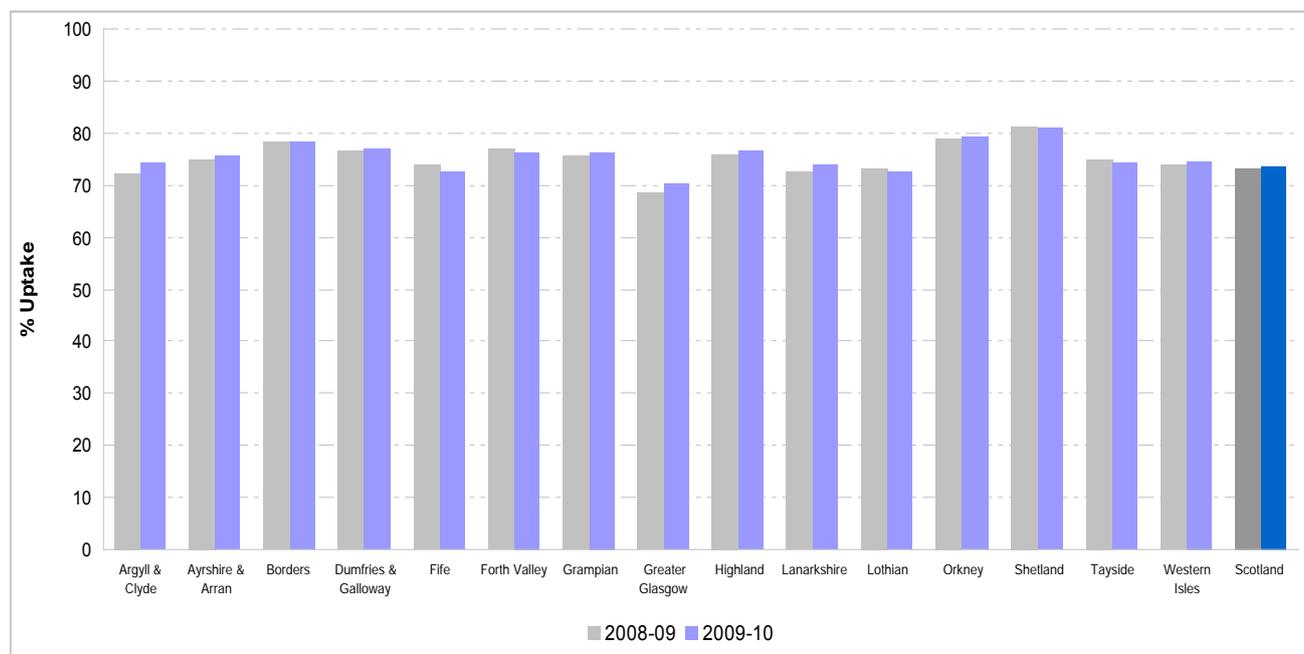
### Annual data

#### Uptake

The population denominator used for calculating uptake includes women aged 20-60 years (excluding medically ineligible women) with a record of a previous screening test in the last 3.5 years.

- Women are invited to attend cervical screening once every three years. Of eligible women, 73.7% had been screened in the previous 3.5 years, a rise of approximately 0.3% compared to 31st March 2009 (Figure 1 and Table 1).
- In contrast to 31st March 2009, uptake rates have increased in the majority of NHS Boards; the highest proportion was found in NHS Shetland, with a rate of 81% (Figure 1 and Table 1).

**Figure 1. Percentage uptake rates of females aged 20-60<sup>1</sup> with a record of a previous screening test taken within last 3.5 years, by NHS Board of Residence**



\*IMPORTANT: These data are based on the pre-2006 Health Board configuration (former Argyll & Clyde). Figures for NHS Highland do not include the Argyll & Bute area and figures for NHS Greater Glasgow do not include the Clyde area.

1. Based on SCCRS population denominator (excluding medically ineligible women).

**Table 1. Percentage uptake rates of females in Scotland aged 20-60<sup>1</sup> with a record of a previous screening test taken within last 3.5 years, by NHS Board of Residence**

NHS Board of Residence	Percentage uptake		
	2007-08	2008-09	2009-10
(Former) Argyll & Clyde*	67.1	72.4	74.2
Ayrshire & Arran	70.4	75.1	75.6
Borders	75.8	78.4	78.4
Dumfries & Galloway	73.8	76.7	76.8
Fife	71.2	73.8	72.6
Forth Valley	75.5	76.8	76.2
Grampian	72.2	75.7	76.1
Greater Glasgow*	64.2	68.7	70.1
Highland*	71.4	75.8	76.5
Lanarkshire	67.9	72.6	74
Lothian	70.3	73.1	72.5
Orkney	75.7	79	79.3
Shetland	77.9	81.4	81
Tayside	72.5	75	74.2
Western Isles	70.8	74	74.7
<b>Scotland</b>	<b>69.7</b>	<b>73.4</b>	<b>73.7</b>

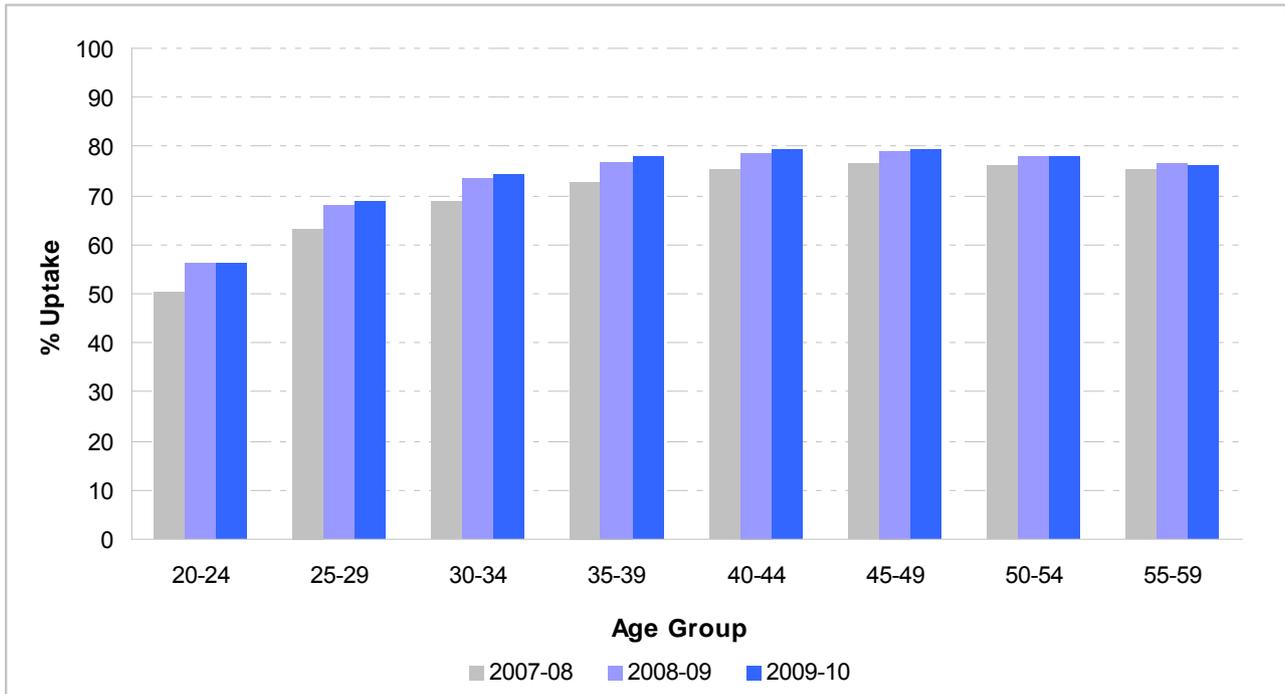
\*IMPORTANT: These data are based on the pre-2006 Health Board configuration (former Argyll & Clyde). Figures for NHS Highland do not include the Argyll & Bute area and figures for NHS Greater Glasgow do not include the Clyde area.

1. Based on SCCRS population denominator (excluding medically ineligible women).

Cervical screening year runs from 1st April to 31st March.

- Of those screened in the previous 3.5 years, the number of women attending cervical screening has improved across most five year age bands within the target age group of 20-60 years (Figure 2).
- Where slight decreases have been reported in some age bands compared to 31st March 2009, it should be noted that uptake rates still remain higher than those achieved at 31st March 2008 (Figure 2).

**Figure 2. Percentage uptake rates of females in Scotland aged 20-60<sup>1</sup> with a record of a previous screening test taken within last 3.5 years, by age group**



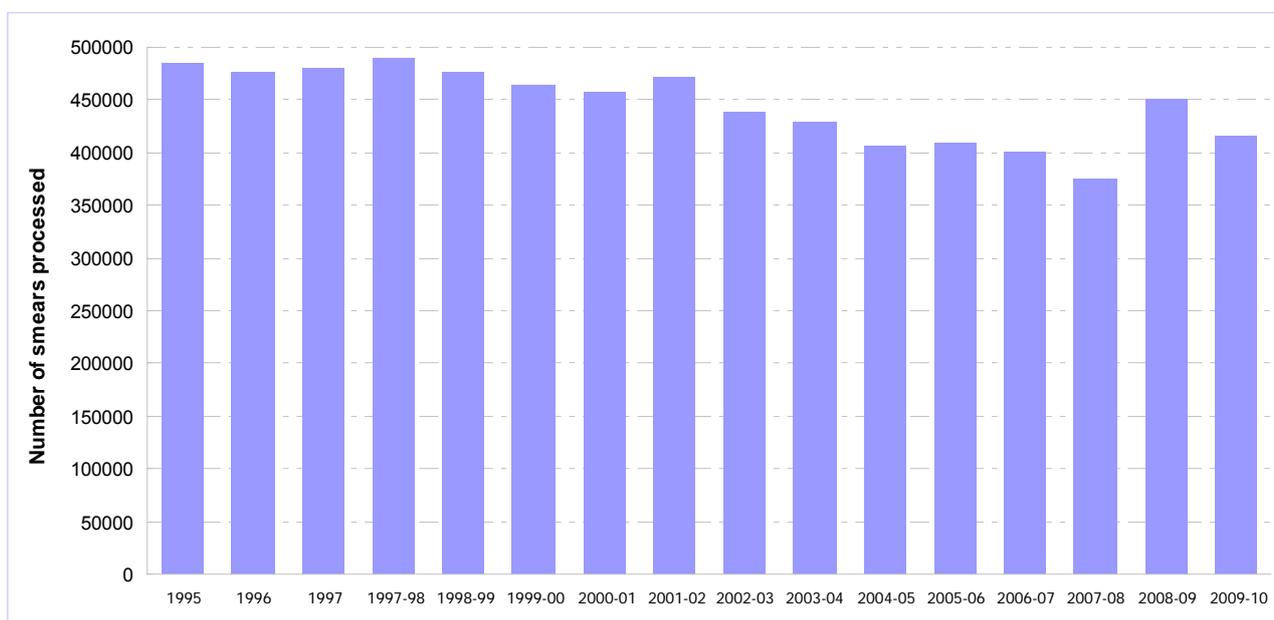
1. Based on SCCRS population denominator (excluding medically ineligible women).

Cervical screening year runs from 1st April to 31st March.

## Workload

- In 2009-10, approximately 415,000 cervical screening tests were processed within the programme, resulting in an overall decrease of 8% (over 35,000 tests) compared to the previous year (Figure 3).
- Although there has been a decline in the last year, the data reported in 2009 -10 is the second largest number of cervical screening tests processed in any one year since 2003-04 (Figure 3).
- Over 122,000 smears were processed in Quarter 1 of 2009 -10, the second highest number reported in that quarter since 1999.

**Figure 3. Number of cervical screening tests processed<sup>1</sup> at NHS laboratories: Scotland, 1st January 1995 to 31st March 2010<sup>2</sup>**



1. Data includes unsatisfactory screening tests.
2. Cervical screening year runs from 1st April to 31st March.

- The percentage of satisfactory screening tests that show some degree of pre-cancerous change has remained around 3-3.5% since 2000 (Table 2).

**Table 2. Total number of satisfactory screening tests and percentage results showing dyskaryosis (pre-cancerous outcome): Scotland, 1st April 2000 to 31st March 2010<sup>1</sup>**

Year	Total satisfactory screening tests	Percentage Dyskaryosis (Pre-cancerous outcomes)		
		Mild	Moderate	Severe
2000-01	418 727	1.8	0.7	0.6
2001-02	430 430	2.0	0.7	0.6
2002-03	407 157	1.8	0.7	0.5
2003-04	412 693	2.0	0.7	0.6
2004-05	397 367	1.8	0.7	0.6
2005-06	401 301	2.0	0.6	0.6
2006-07	392 219	2.0	0.7	0.7
2007-08	364 842	1.9	0.6	0.6
2008-09	436 881	2.1	0.7	0.7
2009-10	402 905	2.2	0.6	0.6

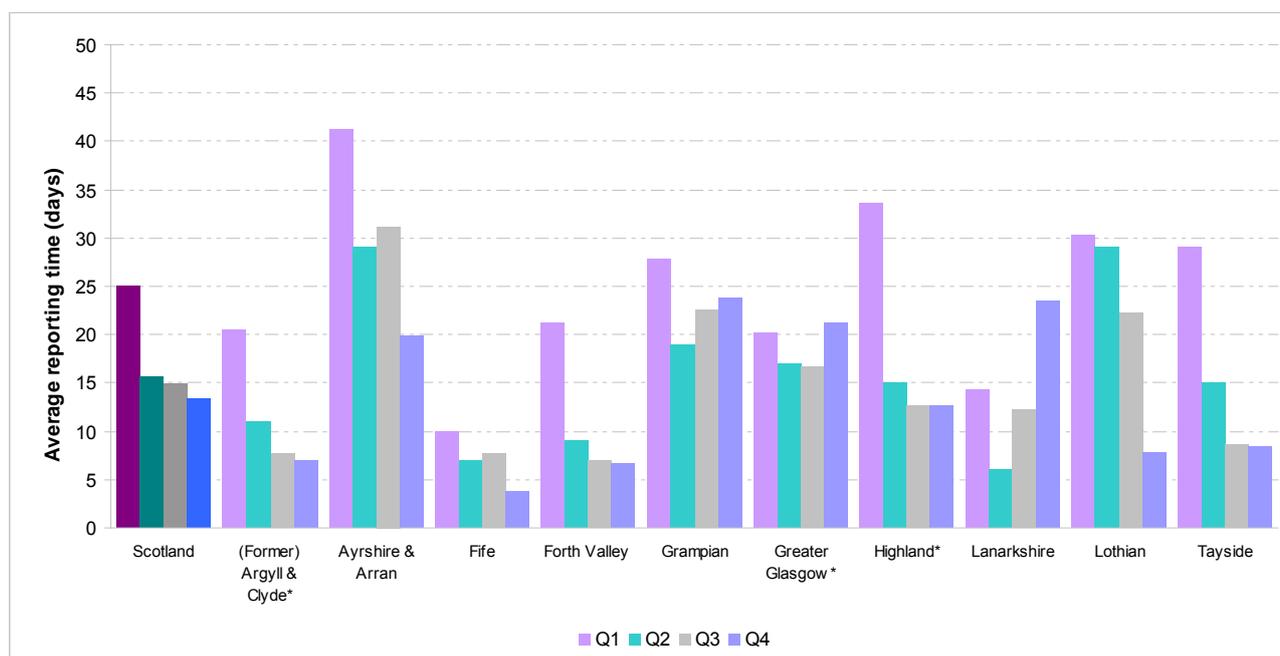
1. Cervical screening year runs from 1st April to 31st March.

## Additional cervical screening statistics

### Reporting times

- In 2009-10 the average reporting time in Scotland ranged from 25 days in Quarter 1 to 13 days in Quarter 4.
- The figure of 25 days is the highest reporting time since 1999 and is most likely to be as a result of the large volume of screening tests processed in Quarter 1 of 2009-10.

**Figure 3. Average quarterly reporting times<sup>1</sup> for cervical screening tests processed at NHS laboratories: Scotland, 1st April 2009 to 31st March 2010<sup>2</sup>**



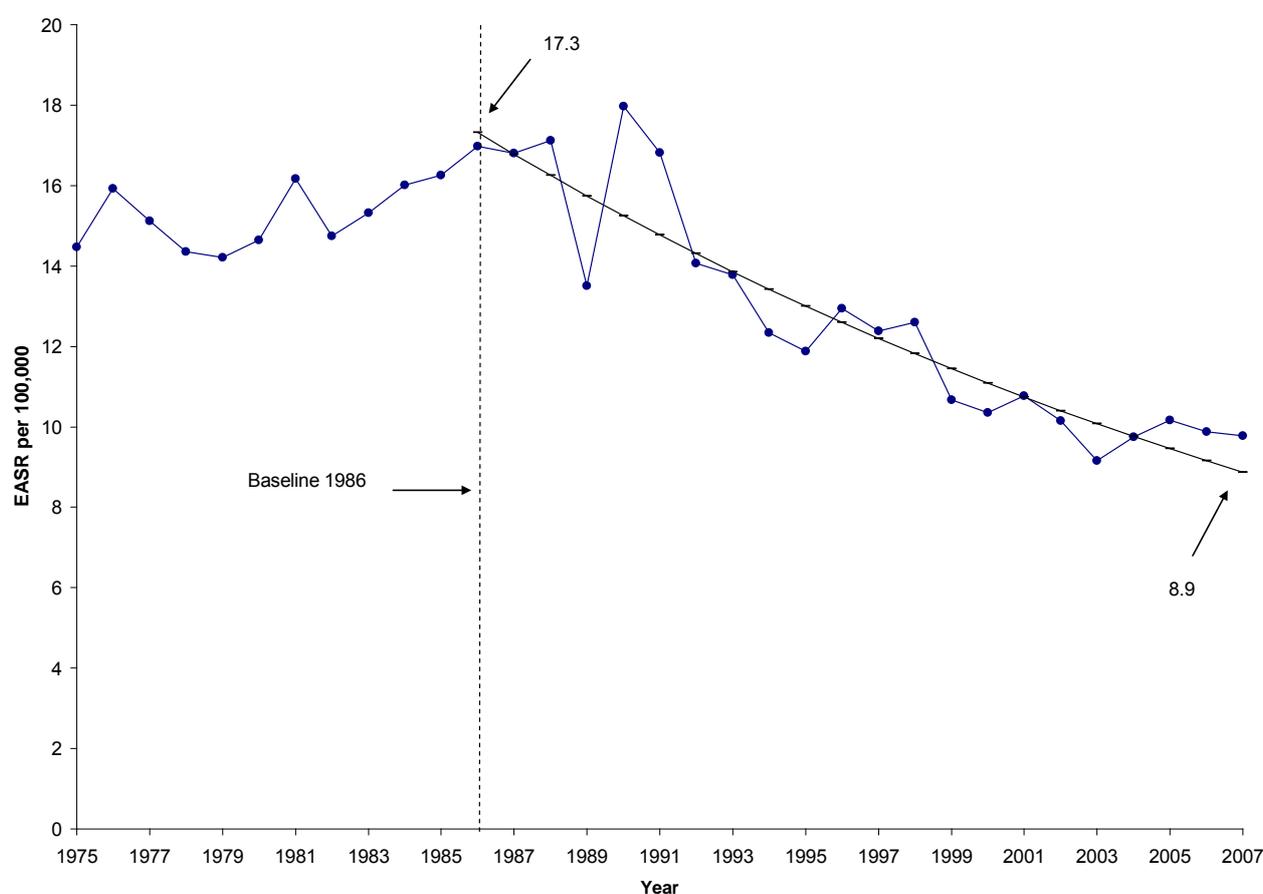
\* IMPORTANT: These data are based on the pre-2006 Health Board configuration (former Argyll & Clyde). Figures for NHS Highland do not include the Argyll & Bute area and figures for NHS Greater Glasgow do not include the Clyde area.

1. The reporting time is defined as the number of days from the date the sample was received by the laboratory to the date the report was issued by the laboratory.
2. Cervical screening year runs from 1st April to 31st March.

## Cervical cancer incidence

- Rates of cancer of the cervix have decreased by approximately 49% between 1986 and 2007.
- Over the last 30 years, European age-standardised rates have fallen from 14.4 per 100,000 in 1978 to 9.8 in 2007 (Figure 4), as expected in the presence of a cancer screening programme.

**Figure 4. Cervical Cancer Incidence (European Age Standardised Rates<sup>1</sup>)  
Females of All Ages, Scotland 1975 - 2007**



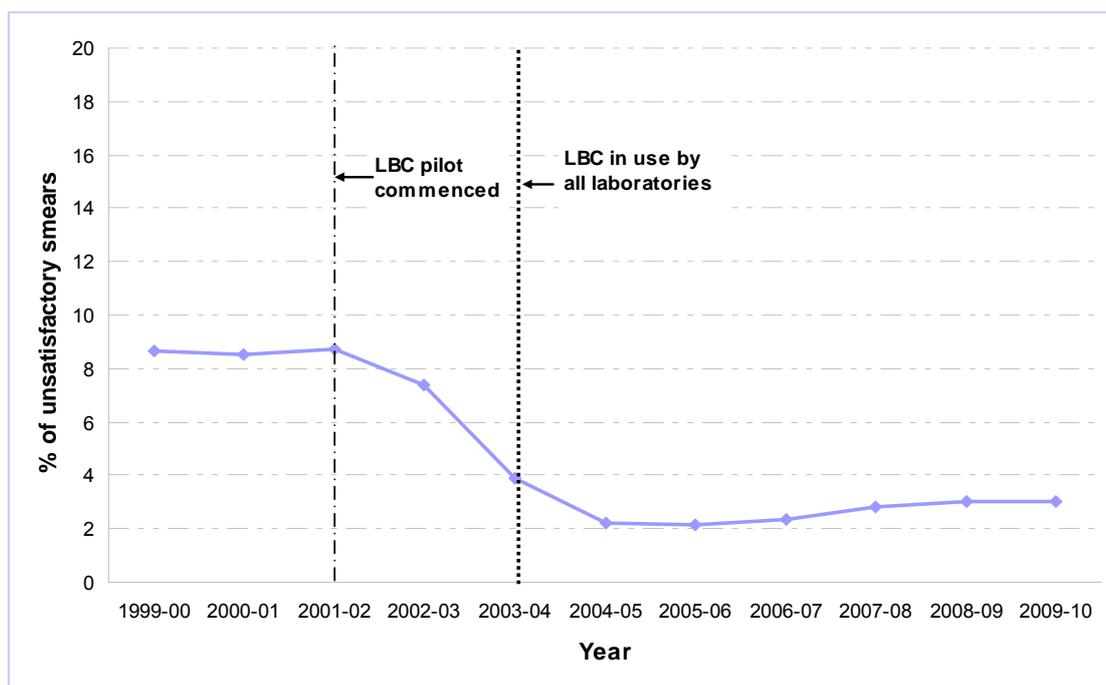
<sup>1</sup> Incidence rates have been age-standardised to the European Standard Population and cover females of all ages.

Detailed cervical cancer incidence and mortality data, lifetime risk, prevalence and survival statistics can be found on the [cervical cancer statistics](#) page of the Cancer website.

## Unsatisfactory screening test results

- In 2009-10 the percentage of unsatisfactory screening tests, where insufficient cells have been taken for testing, has remained constant at 3% and has fallen by more than 5% in the last 10 years (Figure 5). The main reason for this improvement is the introduction of Liquid Based Cytology (LBC) as a new method of processing tests during the screening year 2003-2004. LBC reduces the rate of unsatisfactory tests and low grade results, and therefore the need for repeat examinations.

**Figure 5. Percentage of unsatisfactory screening results: Scotland, 1st April 1999 to 31st March 2010<sup>1</sup>**



A new method of processing screening tests was piloted in 2001/2002 in four laboratories and fully implemented in all laboratories during 2003/2004. Liquid based cytology (LBC) reduces the rate of unsatisfactory screening results and low grade screening results, and therefore the need for repeat screening tests.

1. Cervical screening year runs from 1st April to 31st March.

## Glossary

cytology: the study of cells

dyskaryosis: abnormal cell changes

cervical screening test: a test which detects abnormal changes in the cells of the cervix and enables affected women to have early treatment

adeno-carcinoma: a particular type of malignant tumour arising from glands

liquid based cytology (LBC): a method of assessing cell changes

satisfactory screening test: a test that is of sufficient quality that the diagnosis given is likely to be correct

Cervical screening terms relating to the data within this publication can be found within our [Glossary](#) document on the [Cervical Screening](#) homepage.

## List of Tables

Table No.	Name	Time period	File & size
1	<a href="#">Annual uptake data</a>	1st January 1995 to 31st March 2010	Excel [22kb]
2	<a href="#">Annual workload data</a>	1st January 1995 to 31st March 2010	Excel [105kb]
3	<a href="#">Number of screening tests processed</a>	1st April 1999 to 31st March 2010	Excel [37kb]
4	<a href="#">Reporting times</a>	1st April 1999 to 31st March 2010	Excel [30kb]
5	<a href="#">Percentage of unsatisfactory screening test results by quarter</a>	1st April 1999 to 31st March 2007	Excel [33kb]
6	<a href="#">Screening test results by quarter</a>	1st April 1999 to 31st March 2007	Excel [274kb]
7	<a href="#">Screening test results by quarter</a>	1st April 1999 to 31st March 2007	Excel [296kb]
8	<a href="#">Crosstabulation by quarter</a>	1st April 1999 to 31st March 2007	Excel [281kb]
9	<a href="#">Cervical cancer incidence</a>	1st January 1975 to 31st December 2007	Excel [23kb]

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## Further Information

Further information can be found on the [ISD website](#)

Further information regarding the Cervical screening programme and the Cervical screening test can be found in [leaflets](#) produced by Health Scotland.

For any other general enquiries about Cancer screening programmes, please contact Carol Colquhoun, National Screening Coordinator [Carol.Colquhoun@nhs.net](mailto:Carol.Colquhoun@nhs.net)

## Appendix

### A1 – Background Information

The use of cervical screening to detect pre-cancerous cells has been proven to reduce cervical cancer incidence and further mortality. The test involves analysing cells which have been taken from the neck area of the womb; also known as the cervix. Routine checks ensure that any abnormal changes in cells can be picked up, monitored and treated if necessary.

In Scotland, eligible women between 20 and 60 years of age are routinely invited to attend cervical screening once every 3 years. Uptake rates are therefore based on women attending in the previous 3.5 years, with the additional 0.5 year to ensure that all data for women who have attended for screening within that 3 year time period, have been reported

Cervical screening uptake data is also reported based on a 5.5 year period. The main reason for this is to reference against indicators from the Quality and Outcomes Framework (QOF); a voluntary source of potential income for general practices across the UK. The indicator in question (CS1) measures the percentage of patients aged from 21 to 60 whose notes record that a cervical smear has been performed in the last 5 years. As above, the 0.5 is to ensure that data on all women who have attended within the previous 5 years have been reported. For further information on QOF please visit [here](#). The uptake data for 5.5 years is also used to compare against other cervical screening programmes within the United Kingdom.

Until May 2007, Cervical Cytology Statistics were collected quarterly from laboratories on form ISD(D)1Q and annually from health boards on form ISD(D)4, with data being compiled by the Epidemiology and Statistics Group (ESG) in ISD Scotland. More information can be found on our [Data Sources](#) page.

In May 2007, following a review of local call recall arrangements in Scotland, a new national IT system, the Scottish Cervical Call Recall System (SCCRS), was introduced across NHS Scotland. Cervical screening data are currently collected by each of the laboratories in Scotland and retained on the Scottish Cervical Call Recall System (SCCRS). SCCRS collects information relating to each step as a woman moves through her screening episode. More information on SCCRS can be found on the [National Services Division website](#).

For publication and management reporting, ISD extracts data from SCCRS on cervical screening tests carried out in Scotland on a quarterly basis, for periods ending 31st March, 30th June, 30 September and 31st December. In addition to this, ISD also extract information on cervical screening uptake figures on an annual basis, for years ending 31st March. Until 31st March 2009, uptake rates for those women invited to attend cervical screening in the previous 3.5 years had declined year on year across Scotland. The majority of the decrease, almost 7%, occurred between 31st March 2007 and 31st March 2008. This decline coincided with the implementation of a new standardised recording system, which has improved the quality of the data collected and could explain some of the decrease.

All analytical support of the Scottish Cervical Screening Programme is provided by ISD Scotland.

**A2 – Publication Metadata (including revisions details)**

<b>Metadata Indicator</b>	<b>Description</b>
Publication title	Scottish Cervical Screening Programme Statistics 2009/2010
Description	Annual and quarterly cervical screening statistics including uptake by age group and NHS Board, average reporting times, number of cervical screening tests processed and results of tests, all reported by NHS Board/laboratory.
Theme	Health and Social Care
Topic	Conditions and Diseases
Format	Excel workbooks
Data source(s)	Scottish Cervical Call Recall System (SCCRS) from 2007/08. Any data previous to May 2007 were collected from laboratories using ISD(D) forms 4 and 1Q.
Date that data is acquired	July 2010
Release date	31 <sup>st</sup> August 2010
Frequency	Annual
Timeframe of data and timeliness	Data up to 31 March 2010. No delays between receipt and processing of data for publication.
Continuity of data	<p>Annual uptake figures (of females who had a record of a previous screening test taken within last 3.5 years) by NHS Board are reported from 1995.</p> <p>Annual uptake figures (of females who had a record of a previous screening test taken within last 5.5 years) by NHS Board are reported from 1995.</p> <p>Annual uptake figures (of females who had a record of a previous screening test taken within last 3.5 years) by age group are reported from 2001.</p> <p>Annual uptake figures (of females who had a record of a previous screening test taken within last 5.5 years) by age group are reported from 2001.</p> <p>Annual workload data showing the number of cervical screening tests processed by NHS Board/laboratory are reported from 1995.</p> <p>Annual workload data showing the results and % results of cervical screening tests by NHS Board/laboratory are reported from 2009.</p>

	<p>Annual workload data showing the results and % results of cervical screening tests processed in Scotland are reported from 1999.</p> <p>Annual workload data showing the % of unsatisfactory screening tests by NHS Board/laboratory are reported from 1999.</p> <p>Quarterly workload data on the number of cervical screening tests processed by NHS Board/laboratory are reported from 2003.</p> <p>Average reporting times by quarter and NHS Board/laboratory are reported from 2003. Historical quarterly data on the number of cervical screening tests processed and the corresponding results are reported from June 1999 to 31<sup>st</sup> March 2007.</p>
Revisions statement	<p>A new national IT system, the Scottish Cervical Call Recall System (SCCRS), was introduced across Scotland in May 2007 to standardise the recording of cervical screening information. The SCCR system has improved the quality of the data collected. Data included in the publication prior to May 2007 is compiled from legacy applications.</p>
Concepts and definitions	<p>Please see Cervical Screening <a href="#">FAQ</a> and <a href="#">Glossary</a> document found at the bottom of the <a href="#">Cervical Screening</a> homepage.</p>
Relevance and key uses of the statistics	<p>ISD's Scottish Cervical Screening Programme statistics are designed for monitoring and evaluating the effectiveness of the Scottish Cervical Screening Programme. The statistics are used for a variety of purposes, including:</p> <ul style="list-style-type: none"> <li>• informing Scottish Government planning, including NHS spending and the development of the Scottish cancer care action plan<sup>5</sup>;</li> <li>• informing Health Boards' planning and commissioning of cancer services;</li> <li>• health services research and clinical audit;</li> <li>• promoting changes in societal behaviour, such as increasing screening uptake rates; and</li> <li>• providing information to compare with UK and international health data.</li> </ul>

Accuracy	<p>All cervical screening data are subject to validation when entered onto SCCRS.</p> <p>Further checks on figures are carried out by individual laboratories on a quarterly basis. Any inaccuracies are then reported back for investigation and correction, if necessary.</p>
Completeness:	<p>At time of extraction, data for the most recent year are estimated to be complete. See above note on Revisions.</p>
Comparability	<p>Currently, cervical screening statistics are not generally compared with other areas of the UK &amp; NI. The eligible age range for invitation to cervical screening varies within the UK.</p>
Accessibility	<p>It is the policy of ISD Scotland to make its web sites and products accessible according to published guidelines. For further details go to our <a href="#">accessibility page</a>.</p>
Coherence and clarity	<p>All Cervical Screening tables are accessible via the <a href="#">Cervical Screening</a> homepage.</p> <p>Cervical Screening data are presented within Excel spreadsheets for each table.</p>
Value type and unit of measure	<p>Number of cervical screening tests, results of tests and average reporting times are reported as a count; uptake and % results are reported as a percentage.</p>
Disclosure	<p>The protocol on <a href="#">Statistical Disclosure</a> is followed. For this publication, at the levels of aggregation presented, the risk of disclosure was assessed as being low risk and so no further statistical disclosure control methods were employed.</p>
Official Statistics designation	National Statistics
UK Statistics Authority Assessment	Assessment by UK Statistics Authority for National Statistics designation completed.
Help email	<a href="mailto:nss.isdcancerstats@nhs.net">nss.isdcancerstats@nhs.net</a>
Date form completed	19 <sup>th</sup> August 2010

### **A3 – Early Access details (including Pre-Release Access)**

#### **Pre-Release Access**

Under terms of the "Pre-Release Access to Official Statistics (Scotland) Order 2008", ISD are obliged to publish information on those receiving Pre-Release Access ("Pre-Release Access" refers to statistics in their final form prior to publication). The standard maximum Pre-Release Access is five working days. Shown below are details of those receiving standard Pre-Release Access and, separately, those receiving extended Pre-Release Access.

Standard Pre-Release Access:  
Scottish Government Health Department  
NHS Board Chief Executives  
NHS Board Communication leads

#### **Extended Pre-Release Access**

Extended Pre-Release Access of 8 working days is given to a small number of named individuals in the Scottish Government Health Department (Analytical Services Division). This Pre-Release Access is for the sole purpose of enabling that department to gain an understanding of the statistics prior to briefing others in Scottish Government (during the period of standard Pre-Release Access).

Scottish Government Health Department (Analytical Services Division)

These statistics will also have been made available to those who needed access to 'management information', ie as part of the delivery of health and care:

Scottish Cervical Screening Programme Health Board Coordinators  
Scottish Cervical Screening Programme Laboratories

These statistics will also have been made available to those who needed access to help quality assure the publication:

Scottish Cervical Screening Programme National Co-ordinator and Programme Manager -  
National Services Division  
Scottish Government Health Directorate (Policy contact)