

# Programme Report

1 September 2010 – 31 August 2011



# Women's Charter

#### Screening commitment:

- CervicalCheck The National Cervical Screening Programme offers a free complete quality assured programme of care
- You choose your smeartaker from a wide range of eligible service providers registered with the Programme
- You may change your preferred provider for subsequent Programme screening
- All Programme staff will respect your privacy, dignity, religion, race and cultural beliefs
- Your screening records will be treated in the strictest confidence
- You will always have the opportunity to make your views known and to have them taken into account
- Once you become known to the Programme you will be invited every three years for screening while you are aged 25 to 44 and every five years while you are aged 45 to 60
- Your smear test will be screened in an accredited quality assured laboratory
- Your result and any treatment recommendation will be provided to you and your nominated smeartaker by the Programme within four weeks.

#### We aim:

 To ensure pleasant and comfortable surroundings during screening.

# If you require further treatment, we aim:

 To ensure that you will be offered an appointment at a quality assured colposcopy clinic (within four weeks for high grade cell changes and within eight weeks for low grade cell changes).

#### Tell us what you think:

- Your views are important to us in monitoring the effectiveness of our services and in identifying areas where we can improve
- You have a right to make your opinion known about the care you received
- If you feel we have not met the standards of this Charter, let us know by telling the people providing your care or in writing to the Programme
- We would also like to hear from you if you feel you have received a good service. It helps us to know that we are providing the right kind of service – one that satisfies you.

• Finally, if you have any suggestions on how our service can be improved, we would be pleased to see whether we can adopt them to further improve the way we care for you.

#### Ways you can help us:

- Please make your appointment with a registered smeartaker on receipt of your invitation letter from the Programme
- Please bring your PPS number with you to your appointment
- Please read any information we send you
- Please try to be well informed about your health.

#### Let us know:

- If you change your address
- What you think your views are important.

# Freephone 1800 45 45 55 www.cervicalcheck.ie

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# Outline of the National Cancer Screening Service

The National Cancer Screening Service (NCSS) was established by the Minister for Health and Children in January 2007. The establishment followed the launch of 'A Strategy for Cancer Control in Ireland 2006' which advocates a comprehensive cancer control policy programme in Ireland by the Cancer Control Forum and the Department of Health and Children.

The strategy set out recommendations regarding the prevention, screening, detection, treatment and management of cancer in Ireland and recommended the establishment of the National Cancer Screening Service Board.

Governance of the former Irish Cervical Screening Programme (ICSP) Phase One was transferred to the Board of the NCSS on its establishment. The NCSS was responsible for the establishment of CervicalCheck – The National Cervical Screening Programme and its launch in September 2008.

On 31 March 2010 the Board of the NCSS was dissolved. On 1 April 2010 the NCSS joined the National Cancer Control Programme (NCCP), part of the Health Service Executive (HSE). The NCCP provides the necessary governance, integration, leadership, operational and core support services to create the essential framework for cancer control in Ireland. The NCCP is responsible for all components of cancer control in Ireland. The NCSS operates as a business unit within the NCCP. The functions of the NCSS are as follows:

- To carry out or arrange to carry out an ongoing national breast screening service for the early diagnosis and primary treatment of breast cancer in women.
- To carry out or arrange to carry out an ongoing national cervical screening service for the early diagnosis and primary treatment of cervical cancer in women.
- To advise on the benefits of carrying out other cancer screening programmes where a population health benefit can be demonstrated.
- To advise the minister, from time to time, on health technologies, including vaccines, relating to the prevention of cancer through screening.
- To implement special measures to promote participation in its programmes by harder-toreach individuals within the population.

Since its establishment, the NCSS has aimed to maximise expertise and learning across populationbased screening programmes and improve efficiencies by developing a single governance model for screening. The NCSS currently encompasses BreastCheck – The National Breast Screening Programme and CervicalCheck – The National Cervical Screening Programme.

With experience in conducting population based screening programmes, the screening service is currently developing Ireland's first national colorectal screening programme to be introduced on a phased basis for men and women aged 55-74. The NCSS is also developing a national diabetic retinopathy screening programme.

There are many challenges currently facing the health service as the government plans for wideranging system reforms in the health services in Ireland. While these reforms are progressing, the NCCP and NCCS are committed to the continued delivery of the screening programmes.

Overview of cervical screening and update on the CervicalCheck programme

# In 2007 in Ireland, there were 286 cases of cervical cancer and 83 deaths due to cervical cancer.

CervicalCheck - The National Cervical Screening Programme was launched on 1 September 2008 and is available to over 1.1 million eligible women aged 25 to 60 years.

CervicalCheck aims to reduce the incidence of and mortality from cervical cancer by detecting changes in the cells of the cervix before they become cancerous.

Over time, a successful national, quality-assured cervical screening programme has the potential to significantly reduce the incidence of and mortality from cervical cancer by as much as 80 per cent in the screened population.

To achieve maximum public health benefit from this population-based screening programme, every aspect of the service delivered to women must be fully quality assured. Quality assurance is the foundation on which a successful programme is built.

CervicalCheck, a population-based screening programme, is built on the integration of different delivery components including programme administration, primary care smeartaking, cytology, colposcopy (diagnosis and treatment) and histology services.

Prior to the commencement of the national programme, the NCSS Quality Assurance (QA) Committee was established. The committee's remit was to develop standards for CervicalCheck. The QA Committee is independently chaired and addresses each step of the cervical screening process. All standards are available in 'Guidelines for Quality Assurance in Cervical Screening, First Edition'. This was reviewed by a panel of international experts before publication in January 2009. These guidelines are currently under review. Many of the programme screening commitments also included in the CervicalCheck Women's Charter (see inside front cover).

CervicalCheck completed the first three-year screening round on 31 August 2011.

This report includes screening statistics for the third year of operation (1 September 2010 to 31 August 2011). In addition, the report provides an overview of activity and developments within CervicalCheck up to the time of publication.

In the first four years since the programme launched on 1 September 2008, almost 1.3 million smear tests were processed and more than 805,000 eligible women aged 25 to 60 have had at least one CervicalCheck smear test.

The percentage of the eligible population screened in the first three years of the programme was over 60 per cent. This demonstrates that CervicalCheck has successfully achieved its target coverage during the first screening round. The programme's aim to achieve 80 per cent coverage of the eligible population by the end of the second three-year screening round in 2014 remains a challenging target.

Positive performance is demonstrated in the programme statistics published in this report.

# Summary performance points include

- CervicalCheck has over 4,800 smeartakers (general practitioners [GPs] practice nurses and other medical practitioners) registered in approximately 1,450 primary care locations across the country.
- In year one of operation 285,012 free smear tests were provided, in year two
  of operation 308,130 smear tests were provided and in year three of operation
  338,679 smear tests were provided. Attendance rates are within programme
  targets.
- The highest proportion of women who attend are in the younger age groups (25 to 44 years) and attendance gradually decreases with increasing age.
- A lower proportion of women over 50 years of age attend for a smear test. This is a challenge to be addressed by the programme and medical community to continue encouraging older women to attend cervical screening.
- In year three, over 84 per cent of satisfactory smear test results were negative or normal; 13.9 per cent showed low grade abnormalities; and 1.7 per cent showed high grade abnormalities.
- Over the years the programme has invested in colposcopy services and has implemented a standardised system of colposcopy care across 15 colposcopy clinics for women who require diagnosis and treatment.
- In year three, 17,437 women attended a colposcopy appointment for the first time, an increase of 626 women in comparison to the previous year (16,811). In addition, 20,769 women attended a follow-up colposcopy appointment, and 6,932 treatments were performed. Pre-cancerous abnormalities were detected in 8,091 women. 104 women were diagnosed with cervical cancer.
- Colposcopy waiting times for all 15 programme CervicalCheck colposcopy services were reduced in line with targets during 2011 and have remained within targets since.

A single smear test has little benefit to a woman. Regular smear tests at recommended intervals can prevent cervical cancer. Some women will be recalled for up to 11 routine smear tests and will remain part of the CervicalCheck programme for 35 years. Screening is only effective when women continue to be screened regularly.

The programme will continue to focus efforts on supporting women and smeartakers (general practitioners [GPs], practice nurses and other medical practitioners) on maintaining a high level of participation in the programme in the years ahead and addressing the challenges of age and geographical differences.

A number of new and exciting innovations were introduced to the programme and will be expanded on in the report. These include:

- HPV testing following treatment at colposcopy
- An e-learning resource for health professionals online learning centre
- A system of facilitated referrals that recommends a specific colposcopy service to a referring doctor, to help manage capacity and timely referrals.

Screening policy and implementation is continually reviewed. The introduction of HPV testing is important in the progress of the CervicalCheck programme and is likely to become more important into the future when HPV testing may replace current cytology screening technologies. In addition, the introduction of the HPV vaccination through the schools vaccination programme, has the potential to play an important long-term role in the prevention of cervical cancer. CervicalCheck demonstrates high levels of screening activity generally. In 2012 to date, the participation of women remains at a good level. This would not have been possible without the support of the medical community and smeartaking community. Tribute must be paid to all registered GPs, practice nurses and medical practitioners for their participation in and promotion of CervicalCheck, by delivering the programme to women nationwide. Furthermore, the colposcopy services are to be recognised for their role nationwide. With this support, cervical screening is delivered in an organised, efficient way across the country.

Every member of the staff and management within the programme is to be acknowledged for the part they have played in building the programme.

Finally, to the women who participate in the CervicalCheck programme – without their participation the goal to reduce the incidence of and mortality from cervical cancer will not be achieved.

#### Majella Byrne

Acting Director, National Cancer Screening Service

Dr Gráinne Flannelly Clinical Director, CervicalCheck

#### Dr Susan O'Reilly

Director, National Cancer Control Programme

# Encouraging women to participate in screening

It is a priority for the National Cancer Screening Service (NCSS) to ensure that its programmes are accessible to all eligible women in the population.

Some women experience challenges and barriers that hinder their access to screening services for different reasons including fear, anxiety, intellectual and physical disabilities, language barriers and literacy difficulties.

The NCSS has a comprehensive communications and screening promotion approach that aims to inform, educate and encourage women to participate in the CervicalCheck programme. Communication includes public relations, advertising and screening promotion.

The NCSS has a team of screening promotion officers based in Cork, Dublin, Galway and Limerick who work on a national basis. The overarching aim of screening promotion is to increase awareness. The team has implemented specific initiatives to help overcome barriers and to encourage eligible women, particularly harder-to-reach women to participate in CervicalCheck.

An NCSS access team, including access officers was established to provide equal access to screening for all women, including those with disabilities. The role of the team is to support the NCSS in its compliance with the Disability Act 2005. In line with this commitment, CervicalCheck has re-designed the CervicalCheck website to ensure it operates in line with the highest accessibility standards. Over 32,000 general users per month seek information on the CervicalCheck website. Women can check their details online and see when their next smear test is due.

All CervicalCheck information leaflets have simple content and messages and have been granted the National Adult Literacy Agency (NALA) Plain English mark. Braille versions are available and an information sheet, which has been translated into 12 different languages, is available to all women who attend for a free smear test.

CervicalCheck has a Freephone information and support line which receives over 1,000 calls per week.



CervicalCheck – information for women



#### **Primary care**

CervicalCheck has over 4,800 smeartakers registered in approximately 1,450 GP practices and clinics in the primary care setting across different locations in Ireland. Eligible women can choose to have their smear test free of charge with any registered smeartaker, in any location of their choice, including GP practices, Women's Health, Family Planning and Well Woman Clinics.

From 1 September 2010 to 31 August 2011, most women (91.3%) had their smear tests carried out in a primary care setting. For the remainder of women, the first CervicalCheck smear test occurred in a colposcopy clinic, public gynaecology service or STI/GUM clinic.

#### **Support for smeartakers**

The Smeartaker Training Unit is responsible for the co-ordination and delivery of all smeartaker educational and training initiatives.

The unit plans and implements smeartaker training including national and regional clinical updates for experienced smeartakers and facilitates training for those just starting out in practice.

To facilitate competency and quality in smeartaking, CervicalCheck is committed to developing and providing access to resources for clinically responsible doctors and smeartakers. The taking of a satisfactory smear test is a vital part of the programme. If a woman has a good experience of a CervicalCheck smear test, she is likely to return for her next smear test when re-called.

During the third year of the programme, a small percentage of smear tests processed were unsatisfactory (1.2%). This reflects the skill and professionalism of the smeartakers in all settings registered with CervicalCheck.

Learning is facilitated through the delivery of accredited smeartaker training modules in partnership with the Irish College of General Practitioners, the Royal College of Surgeons in Ireland, and the National University of Ireland, Galway. The unit facilitates learning through educational resources, including a Guide for Smeartakers, A Simple Guide to the Language Used in Cervical Screening and a training DVD.

The CervicalCheck programme continues to develop resources and facilities to further support smeartakers in the delivery of cervical screening. An online learning centre was launched in early 2012 to provide busy health professionals with a way to advance their knowledge and skills at a time and a pace to suit their schedule and in an accessible and flexible format. The learning centre hosts a growing bank of e-learning materials and resources for health professionals. It can be accessed through a simple login process: http://learning.cervicalcheck.ie/

The introduction early in 2012 of a facilitated referral process to colposcopy has proved in its initial stages to be of significant benefit to women, doctors and colposcopy services in terms of maintaining timely access while ensuring the effective management of available capacity.

CervicalCheck has begun working with Healthlink, cytology laboratories and the General Practice Information Technology group (GPIT) - the Information Technology group of Irish College of General Practitioners and the Health Service Executive. The aim is to move towards providing electronic cytology results for doctors registered with the programme. Implementation is planned for early 2013.

The programme hosted a national study day in September 2012 for health professionals and advocates of cervical screening in keeping with clinical training. The day included national and international speakers and examined the achievements and challenges of the programme and looked at ways of improving the cervical screening experience for women and included an overview of the future directions in cervical screening.



CervicalCheck - educational resources for smeartakers

### **Cytology services**

For the final year of the reporting period to August 2011 and continuing to the end of July 2012, cytology services for CervicalCheck were organised by two laboratories contracted by the National Cancer Screening Service (NCSS) following a public procurement process - Quest Diagnostics Inc. and MedLab Pathology Ltd.

Following a public procurement process undertaken in early 2012, Quest Diagnostics Inc. and MedLab Pathology Ltd. were awarded contracts to continue to provide cytology services for CervicalCheck for the period commencing August 2012. In addition, planning is in progress for the designated National Cytopathology Training Centre, located in the cytology department of the Coombe Women and Infants University Hospital, Dublin, to also process a proportion of the annual smear test volume for CervicalCheck.

An issue to be addressed by the programme is a more tailored approach to protocols for management of women with low grade abnormalities. The 13.9 per cent of low grade abnormalities referred to in this report is above the expected norm and while this percentage reduced during year four of operation, it will be further considered by the programme.

### **Colposcopy services**

Colposcopy services play a key role, by ensuring optimal management of women with smear test detected abnormalities through accurate diagnosis and effective treatment.

Improving colposcopy services in Ireland has been a key priority for the CervicalCheck programme since its establishment. The NCSS has made significant investments in 15 colposcopy services nationwide to increase capacity and support the needs of the CervicalCheck programme.

The 15 programme colposcopy services that provide colposcopy support to the CervicalCheck programme are based in the following hospitals: The Adelaide & Meath National Children's Hospital, Dublin; St Finbarr's Hospital, Cork; Coombe Women & Infants University Hospital, Dublin; Louth County Hospital; University College Hospital, Galway; Kerry General Hospital; Letterkenny General Hospital; Limerick Regional Maternity Hospital; Mayo General Hospital; National Maternity Hospital, Dublin; Rotunda Hospital, Dublin; Sligo General Hospital; South Tipperary General Hospital; Waterford Regional Hospital; and Wexford General Hospital.

From 1 September 2010 to 31 August 2011, over 84 per cent of satisfactory smear tests were found to be negative or normal. Over 13 per cent showed low grade abnormalities and high grade abnormalities were detected in 1.7 per cent of smear tests.

As the result of an abnormal smear test result, or for clinical reasons, 17,437 women attended colposcopy for the first time in this reporting period, representing an increase of 626 women in comparison to the previous year (16,811 women).

There were 20,769 follow-up appointments for women who had a treatment as well as women with low grade abnormalities who are under surveillance. Over 6,900 treatments were performed at colposcopy and pre-cancerous abnormalities were detected in 8,091 women and 104 women were diagnosed with cervical cancer.

The NCSS has set strict guidelines for referral to colposcopy, as outlined in the NCSS 'Guidelines for Quality Assurance in Cervical Screening'. An infrastructure was introduced to enable the effective audit of performance against the standards set for colposcopy services as part of the programme. Information was gathered centrally and analysed to produce the results presented in this report.

The programme is committed to offering an appointment to women who need it, at a quality assured colposcopy service within two weeks for urgent referrals, within four weeks for high grade cell changes and within eight weeks for low grade cell changes. During the initial years of operation, waiting times at some services were longer than those specified by the NCSS guidelines. Significant progress has been made in ensuring timely access to colposcopy services for women. In addition, an active process was introduced to significantly increase capacity. This has resulted in marked improvements in waiting times for women referred to the 15 programme colposcopy services which were reduced to within targets during 2011 and have remained within targets since then. This has ensured that women who need a colposcopy appointment are seen promptly, which avoids unnecessary anxiety or delay in diagnosis and treatment. The programme colposcopy services are provided by clinicians who are certified by the British Society for Colposcopy and Cervical Pathology (BSCCP).

Since 2008, there has been an increase in the number of qualified nurse colposcopists. This allows for a greater capacity in colposcopy. Training of nurse colposcopists is provided through web-based education by the NCSS. In Ireland there is now a valuable career opportunity for nurse colposcopists.

#### **HPV testing**

Persistent infection with the human papillomavirus (HPV) can result in the development of cervical cancer. The presence of certain sub-types of HPV has been linked to underlying high grade cervical



CervicalCheck - information resources

\*Image removed due to copyrights

intraepithelial neoplasia (CIN). As part of the cervical screening process, the introduction of tests for this virus, has been evaluated in recent years.

As part of the CervicalCheck programme, HPV testing was successfully introduced for the posttreatment of women in colposcopy clinics in May 2012. The introduction will result in a HPV test being carried out at six months and 18 months post-treatment at colposcopy. The outcome of HPV testing should help to identify women who are at increased risk of developing high grade cell changes or cervical cancer. In the majority of cases, this will reduce the need for 10 annual follow-up smear tests for women who are post-treatment. Like all CervicalCheck tests, investigations and treatments, the HPV test is free of charge to women.

The introduction of HPV testing is an important milestone and may become more important as a primary screening tool in the future, when it may replace current cytology screening technologies.

## **Histopathology services**

Biopsy samples taken at colposcopy are analysed by histopathologists. Histopathology provides the final diagnosis of cervical neoplasia and is the basis on which treatment is planned when required. Histopathology is an important part of the screening programme and is required to diagnose the degree of abnormality.

Links with histopathology are being strengthened and this will be a key focus for the programme over the next year. Improvements have been made in histopathology engagement for colposcopy-led multidisciplinary team meetings.

# Positive predictive value for CervicalCheck programme smear tests

The positive predictive value (PPV) is considered a measure of the likelihood that a woman with a positive test truly has a pre-cancerous cervical abnormality or a cancer diagnosis.

It is one of the most important quality measures for a screening programme as it reflects the probability that a positive test has detected the underlying condition being tested.

Cervical screening programmes aim to balance early detection of high grade abnormalities with the avoidance of unnecessary investigations, anxiety and possible overtreatment. The value of cytology as a test takes into account both the sensitivity (ability to detect a problem-avoidance of false negatives) and specificity (avoidance of false positives).

During year three of the CervicalCheck programme, the PPV of cytology was 79.5 per cent and shows a slight increase from year two of the programme when PPV was 77 per cent. The PPV of 79.5 per cent compares favourably to figures that are published by the Cervical Screening Programme in the National Health Service (NHS), UK.

The combination of high uptake of screening, high PPV performance and quality assured colposcopy services reflects the effectiveness of the programme in detecting and treating abnormalities.

# **Programme statistics**

### Introduction to the statistics 2010/2011

CervicalCheck became a national screening programme on 1 September 2008. The figures reported in this section relate to the period 1 September 2010 to 31 August 2011. During this period the programme operated both an invitation entry system whereby eligible women received an invitation letter to screening and "direct entry" whereby a woman could be screened by a smeartaker who could check her eligibility using an on-line facility.

This differs to the first year (CervicalCheck Programme Report 1 September 2008 - 31 August 2009) where there was an open invitation to all new eligible women to screening, and to the second year of the programme (CervicalCheck Programme Report 1 September 2009 - 31 August 2010) where an "invitation only" entry system was used. These changes were implemented to maximise uptake of screening by ensuring that all eligible women were invited and that "hard to reach" groups could access the programme via their health professional.

The response to the programme has been very positive with 309,366 women attending for screening during the reporting period. Quality assurance underpins every aspect of the CervicalCheck programme. The programme's performance is measured against Key Performance Indicators (KPIs) as outlined in "Guidelines for Quality Assurance in Cervical Screening" First Edition 2009. Many programme KPIs are presented in this report alongside the standard which is to be achieved.

The third year of CervicalCheck saw 309,366 women receiving a cervical smear test (Table 1). Higher proportions of women were in the younger age groups, broadly consistent with the age profile of the eligible population.

Age group	Number of women screened	%
<25*	2,457	0.8
25 - 29	58,095	18.8
30 - 34	55,665	18.0
35 - 39	50,346	16.3
40 - 44	42,572	13.7
45 - 49	36,861	11.9
50 - 54	30,381	9.8
55 - 59	24,179	7.8
60	3,562	1.2
≥61	5,248	1.7
Total:	309,366	100.0

#### Table 1: Number of women screened by age group

\* Based on evidence to date, there is no additional public health benefit in starting cervical population screening below the age of 25. Screening in women under the age of 25 may lead to many women receiving unnecessary treatment for lesions that would never have developed into invasive cancer. Certain exemptions apply where some women over the age of 60 and under the age of 25 are considered eligible. Such exemptions may include women of any age who are post colposcopy, women over the age of 60 who have never had a smear test and women aged 20 and over who are on renal dialysis, have HIV infection, are post organ transplant or who have had a previous abnormal smear test result and are within the recommended follow-up period.

### Programme coverage

Coverage is a measure of how well the screening programme is reaching the target population and is a good indicator of whether women are taking up screening. The target coverage after a complete round of screening is >60 per cent. The overall percentage of eligible population screened in the first three years of the national programme was 60.9 per cent nationwide. This demonstrates that CervicalCheck has successfully achieved its target coverage during the first screening round.

The geographical spread of screening coverage based on the eligible population of each county is shown in Figures 1 and 2. Seventeen counties have surpassed the target of 60 per cent and nine counties did not reach the target.

Counties Limerick, Clare and Tipperary North Riding were the counties where the pilot Irish Cervical Screening Programme was in place from October 2000 to August 2008; hence many women in these counties had availed of free smear tests under the pilot programme prior to September 2008.

Some of these women may not have been due for a re-call for five years which could partially explain the slightly lower coverage in these counties.



# Figure 1: Percentage of eligible women screened based on county of residence\* from 1 September 2008 to 31 August 2011

\* Population based on Census 2011

\*\* ICSP Phase One Region (some women may be on 5 year re-call cycle)



Figure 2: Map showing percentage of eligible women screened by county from 1 September 2008 to 31 August 2011

Data analysed using Health Intelligence Ireland. Population based on Census 2011 Coverage of the programme by age group for the first three years is shown in Figure 3. These figures represent the number of women screened compared to eligible women as outlined in Census 2011. Highest proportions of women who attend are in the youngest age groups, and attendance gradually decreases with increasing age. This is in contrast to the National Health Service (NHS, UK) experience where coverage is lowest among younger women. Experience from other cancer screening programmes has shown that once a client attends for screening they are more likely to re-attend in future. This is encouraging for CervicalCheck insofar as these screened younger women may remain part of the programme over their screening lifetime. Encouraging women over 50 years of age to attend for a smear test remains a challenge for the programme. Targeted promotional incentives continue to encourage older women to attend screening.



#### Figure 3: Coverage of women by age group

Most women (91.3%) had their smear tests carried out in a primary care setting; 93.2 per cent of these attended a GP practice. For the remainder of women, the first CervicalCheck smear test occurred in a colposcopy clinic, public gynaecology service or STI/GUM clinic.

## Laboratory turnaround time

One of the criteria for the selection of laboratories for the provision of cytology services was the capacity and ability to process smear tests within 10 days to facilitate the provision of results to women within four weeks from the date of the smear test. Table 2 shows how the laboratories performed over the third year of the programme. Overall for the reporting period 95 per cent of test results were received by the programme within two weeks. There has been a sustained improvement in this measurement since the first year of the programme.

# Table 2: Laboratory turnaround time - time from receipt of sample at laboratory to results returned to the programme

Performance parameter	2010/11	Target
% results returned within two weeks of receipt of sample at Laboratory.	95.0%	>90%

# CervicalCheck women's charter

The CervicalCheck women's charter includes the commitment that "your result and any treatment recommendation will be provided to you and your nominated smeartaker by the programme within four weeks". Laboratories typically provide written results to doctors within three weeks of receiving samples. The programme is notified that the result is available, and women are issued a letter from the programme outlining the next step and any recommendation following their smear test.

By the end of August 2011 over 72 per cent of women received a results letter from the programme within four weeks (over 96 per cent within six weeks) of their smear test date (Table 3 and Figure 4). Ongoing monitoring and actions are taken to progressively improve this response time, working with smeartakers on samples submission and within the programme office. Over the first three years of the national programme steady improvements have been made in improving the timeliness of the provision of results letters to women, with the number of women sent results letters within four weeks increased from 40.5 per cent in 2008-2009 to 72.5 per cent in 2010-2011.

#### Table 3: Percentage of women sent results letter within four weeks of smear test date

Time from smear test to results letter printed date	2010/2011	Target
Within 4 Weeks	72.5%	>90%



#### Figure 4: Time in weeks for results letter to be sent to women (%)

# Cytology

Cytology findings reported in Tables 4 and 5 are based on smear test results received by the programme in the period 1 September 2010 to 31 August 2011, rather than the smear test date. Of the 338,679 smear tests taken, a small number was unsatisfactory (Table 4). The outcomes of the remaining 334,540 satisfactory smears are reported in Table 5.

Smear tests	Cytology findings			
Total number of smearUnsatisfactorytests processedinadequate sm		Unsatisfactory/ inadequate smear test		est
N	N	%	N	%
338,679	4,139	1.2	334,540	98.8

#### Table 4: Cytology findings for smear test results

Over 84 per cent of satisfactory smear test results in the period were found to be negative or normal. Of the remainder 13.8 per cent showed low grade abnormalities and 1.7 per cent showed high grade abnormalities (HSIL (moderate or severe), query invasive squamous carcinoma or query glandular neoplasia). The somewhat high rate of low grade abnormalities may represent a relatively unscreened population at the start of a national screening programme. In addition it should be borne in mind that not all of the smear tests carried out in the reporting period were primary smears; some were repeat smears that were recommended following a previous low grade smear test result.

Cytology results	Ν	%
NAD (no abnormality detected)	282,736	84.51
ASCUS	30,964	9.26
ASC-H	2,093	0.63
LSIL	13,102	3.92
HSIL (moderate)	1,941	0.58
HSIL (severe)	2,229	0.67
Query invasive squamous carcinoma	26	0.01
AGC (borderline glandular)	1,239	0.37
AGC (atypical glandular cells-favour neoplastic)	168	0.05
Query glandular neoplasia AIS/adenocarcinoma	42	0.01
Total	334,540	100.00

#### Table 5: Cytology results excluding unsatisfactory smear tests

Of smear tests performed outside of colposcopy clinics 15,028 (4.8%) resulted in a referral to colposcopy.

# **Diagnosis and treatment**

The provision of high quality colposcopy services with timely diagnosis and treatment is a crucial component of successful cervical screening programmes and has been a key priority for the CervicalCheck programme. Fifteen colposcopy services nationwide work with the programme, each with agreed individualised service plans delivered by dedicated multidisciplinary teams. Information is collected electronically and a centralised data extraction created. These data form the basis of this section of the report.

	First	visits	Follo	w-ups	То	tal
	N	%	N	%	N	%
Attended	17,437	69.5	20,769	54.7	38,206	60.6
Cancelled	6,098	24.3	13,023	34.3	19,121	30.3
DNA	1,490	5.9	4,128	10.9	5,618	8.9
On waiting list	21	0.1	1	0.0	22	0.05
Scheduled	24	0.1	5	0.0	29	0.05
Not recorded	11	0.1	20	0.1	31	0.1
Total	25,081	100	37,946	100	63,027	100

#### Table 6: Outcome of appointments at colposcopy clinics

During the year 17,437 women attended colposcopy for the first time representing sustained increased growth year on year (Figure 5). It is important to note the number of women referred and the number of new referrals attended will not concur in any given time period. This is because of the lead time between the colposcopy referral and the date of the first colposcopy visit as well as additional referrals for non-programme smears.



#### Figure 5: Attendance at colposcopy services from 1 September 2008 to 31 August 2011

Follow up appointments include women who have had a treatment as well as women with low grade abnormalities who are under surveillance. During the year there were 20,769 such attendances. Of the 17,437 new attendances at colposcopy, information on the age of the woman was available for 17,294 (99.2%). The mean age at referral was 36 years. The majority of women were aged between 25 and 45 years, with 4.6 per cent aged under 25 years and 11.5 per cent over 50.

According to the standards for colposcopy for the CervicalCheck programme the rate of defaulted appointments where no prior notice was given (DNA) should be kept to a minimum and maintained below 15 per cent. The recorded rate for the third year of the programme was 8.9 per cent which met this standard.

Attendance at colposcopy services according to CervicalCheck standards					
Performance parameter	2010/2011	Target			
The percentage of women who do not attend and who do not notify the clinic should be maintained at a low level to maximise the efficiency of the clinic and to avoid the loss of women to follow-up.	8.9%	<15.0%			

The rate of DNA appointments is presented according to the type of visit and the age of the woman (Table 7). The DNA rate is higher for return visits than for first visits. In general, younger women were more likely to default than older women.

Age in years at first offered appointments	Number of first appointments	First visit DNA rate (%)	Number of follow-up appointments	Follow-up visit DNA rate (%)
<25	1,198	11.1	3,476	17.6
25 - 29	6,350	7.0	10,504	11.8
30 - 34	5,495	6.3	7,967	11.1
35 - 39	3,817	5.8	5,162	10.2
40 - 44	2,870	3.7	4,056	9.4
45 - 49	2,332	4.4	2,705	6.4
50 - 54	1,455	3.6	1,702	7.4
55 - 59	829	3.6	798	6.3
60	108	1.9	126	5.6
61+	300	5.3	289	6.2
Not recorded	327	11.9	1,161	9.0

#### Table 7: DNA rates for appointments offered to women by age group

# **Reasons for referral**

Women were referred to colposcopy on the basis of an abnormal smear test result or for clinical reasons such as symptoms of abnormal vaginal bleeding or a suspicion of an anatomical abnormality of the cervix.

Of the 17,437 new referrals who attended colposcopy services, consent information was available for the CervicalCheck programme for 17,392 women (99%). The reasons for referral to colposcopy for these women are presented in Table 8. Eighty six per cent were referred on the basis of an abnormal smear and 14 per cent for clinical reasons.

	New referrals for whom consent is available		
Reason for referral to colposcopy	N	%	
Abnormal smear test result	14,897	85.6	
Clinical indication – non urgent	1,496	8.6	
Clinical indication – urgent	999	5.7	
Total*	17,392	100	

#### Table 8: Reason for referral to colposcopy

\* 11 women had no reason recorded

The numbers of women who attended CervicalCheck colposcopy services since September 2008 are illustrated in Figure 6. The increased numbers are a reflection of the increased numbers of women screened as well as a dedicated initiative to increase the capacity of colposcopy services.





Of the 14,881 women who presented with an abnormal smear, 3,320 (22%) were referred following detection of a high-grade abnormality (Table 9). ASCUS with suspected high-grade abnormality was the presenting cytological abnormality in 1,345 women (9%). The detection of a low-grade smear test result (LSIL or ASCUS) was the reason for referral in 9,552 (61%) women and a smear test showing AGC (borderline glandular) was the reason for referral in 1,377 cases (7.4%). The numbers of women referred with persistently unsatisfactory or inadequate results (55) remained consistently low.

	New referrals for whom consent is available		
Referral smear abnormality	N	%	
ASCUS	4,686	31.5	
ASC-H	1,345	9.0	
LSIL	4,380	29.4	
HSIL (moderate)	1,560	10.5	
HSIL (severe)	1,686	11.3	
Query invasive squamous carcinoma	49	0.3	
AGC (borderline glandular)	1,095	7.4	
Query glandular neoplasia AIS/adenocarcinoma	25	0.2	
Unsatisfactory/inadequate	55	0.4	
Total *	14,881	100	

#### Table 9: Reason for referral to colposcopy as a result of an abnormal smear test result

\* Referral cytology not recorded for 16 women

## Waiting times

One of the key challenges faced by the CervicalCheck programme in the first three years was the provision of access to colposcopy in a timely fashion for women. Standards for waiting times state that 90 per cent of women with high grade cytological abnormalities should be seen in less than four weeks and 90 per cent of all women should be seen in less than eight weeks for the first visit to colposcopy. An active process to significantly increase capacity resulted in marked improvements in waiting times for women referred to colposcopy with most of the targets achieved during the third year (Figure 7).





Waiting times for colposcopy measured against colposcopy standards					
Performance parameter	2010/2011	Target			
All women referred to colposcopy should be offered an appointment within eight weeks of date the letter was received in the clinic.	70.2%	>90%			
All women referred to colposcopy with a smear suggestive of CIN 2 or CIN 3 should be offered an appointment within four weeks of date the letter was received in the clinic.	92.8%	>90%			
All women referred to colposcopy with a suspicion of invasive cancer on a smear should be offered an appointment within two weeks of date the letter was received in the clinic.	97.2%	>90%			
All women referred to colposcopy with a smear suggestive of glandular neoplasia should be offered an appointment within four weeks of referral.	96.0%	>90%			

For the period 1 September 2010 to 31 August 2011, information on waiting times was available for 16,899 of the new attendances. Overall, for women with valid data, 29 per cent of women experienced waiting times of longer than eight weeks and in 14.1 per cent of cases the wait was longer than 12 weeks (Table 10). The median waiting time for women who presented with a high grade cytological abnormality on their smear was 21 days (interquartile range 14-34 days). The median waiting time for women presenting with a low grade abnormality was 48 days (interquartile range 28-77 days).

Time to first offered appointment	High	grade	Low	grade	То	tal
	N	%	N	%	N	%
Less than 2 weeks	1,340	29.4	1,003	10.0	2,343	16.1
Between 2 and 4 weeks	1,693	37.1	1,602	16.0	3,295	22.6
Between 4 and 8 weeks	1,061	23.3	3,500	35.0	4,561	31.3
Between 8 and 12 weeks	235	5.2	1,815	18.2	2,050	14.1
Greater than 12 weeks	232	5.1	2,071	20.7	2,303	15.8
Total	4,561	100	9,991	100	14,552	100

#### Table 10: Waiting times for women referred to colposcopy grouped by grade of referral smear test

### **Biopsy rate**

The purpose of colposcopy is to facilitate diagnosis and treatment of women with abnormal smear test results. Where an abnormality is suspected at colposcopy it is good practice to perform a biopsy where possible to confirm the diagnosis. There are two main types of biopsy performed – a diagnostic biopsy, which involves sampling a portion of the abnormal area only, and an excisional biopsy which removes the abnormal area in its entirety. Figure 8 illustrates the numbers of biopsies performed by CervicalCheck colposcopy clinics since the start of the programme. The increased capacity has resulted in a sustained increase in the numbers of biopsies performed over time.

During the reporting period 11,591 diagnostic biopsies and 6,267 excisional biopsies were performed. Miscellaneous other biopsies were recorded in 42 cases. The initial colposcopy visit determines the presence or absence of an atypical Transformation Zone. An immediate biopsy was performed in 87.8 per cent of cases where the Transformation Zone was documented as atypical and in almost 95 per cent of cases where an invasive cancer was suspected (Table 11).

Biopsy rates measured against colposcopy standa	rds	
Performance parameter	2010/2011	Target
A biopsy should be performed in the presence of an atypical Transformation Zone and a smear test which suggests underlying CIN.	87.8%	>95%
If there is a suspicion of invasive disease a biopsy must be performed immediately.	94.7%	>90%



#### Figure 8: Number of women undergoing biopsy at colposcopy services

The biopsy rates according to the grade of the referral smear test and reasons for referral are presented in Table 11. Eighty five per cent of women presenting with a high grade cytological abnormality had a biopsy performed at the first visit compared with 60 per cent of women presenting with a low grade cytological abnormality. Sixty eight per cent of women presenting with AGC (borderline glandular) had a biopsy at the first visit which included an excisional biopsy in 15.5 per cent of cases.

			Bio	opsy perfo	rmed			
	Excis bio	ional psy	Diagı bio	nostic psy	No b tal	iopsy ken	То	tal
Grade of cytology result of referral smear	N	%	N	%	N	%	N	%
AGC (borderline glandular)	170	15.5	578	52.8	347	31.7	1,095	100
High grade	1,465	31.4	2,484	53.2	716	15.3	4,665	100
Low grade	419	4.6	5,028	55.5	3,619	39.9	9,066	100
Unsatisfactory/inadequate	0	0	15	27.3	40	72.7	55	100
Total	2,054	13.8	8,105	54.5	4,722	31.7	14,881	100

#### Table 11: Biopsies performed during first visit to colposcopy according to referral smear grade

## **Treatment at colposcopy**

Effective treatment of high grade CIN and Adenocarcinoma in Situ with subsequent reduction of the risk of invasive cancer is vital to the success of any cervical screening programme. This treatment should be effective, safe and acceptable. It should aim to eradicate all CIN from the cervix and should be tailored to the circumstances of the individual woman.

The standards for the CervicalCheck programme state that treatments be performed as an outpatient procedure under local anaesthetic more than 80 per cent of the time. During the third year of the programme treatment was performed as an outpatient using local anaesthetic 93 per cent of the time surpassing this target.

The outcome of use of local anaesthetic measured	against colposcopy stan	dards
Performance parameter	2010/2011	Target
The majority of women should have treatment performed as an outpatient under local anaesthetic.	92.9%	>80%

During the reporting period, 6,932 treatments were recorded at colposcopy (consented women only) (Figure 9). Large loop excision of the Transformation Zone (LLETZ) was performed in 6,190 cases and ablative treatment was used in 661 cases. Twenty nine knife cone biopsies and 52 hysterectomies were performed. Of the total treatments, 6,446 were performed following an abnormal smear test.



#### Figure 9: Treatment at colposcopy

The increased capacity of colposcopy services resulted in increased numbers of women treated with sustained increased volumes year on year (Figure 10).



#### Figure 10: Number of women undergoing treatment at colposcopy services

One of the principles of screening is the avoidance of overtreatment. This is of particular relevance to cervical screening because treatment has the potential to have an adverse effect on future pregnancies. In this regard treatment at the first visit should only be for women with suspected high grade disease (Table 12).

Reason for referral to colposcopy	No	o treatment on first visit	Tr	eatment on first visit	Total r women	number of attended
	N	%	N	%	N	%
Clinical indication – non urgent	1,400	93.6	96	6.4	1,496	100
Clinical indication – urgent	941	94.2	58	5.8	999	100
AGC (borderline glandular)	930	84.9	165	15.1	1,095	100
High grade	3,217	69.0	1,448	31.0	4,665	100
Low grade	8,657	95.5	409	4.5	9,066	100
Unsatisfactory /inadequate	55	100	0	0.0	55	100
Total	15,200	87.5	2,176	12.5	17,376	100

#### Table 12: Treatment at first visit to colposcopy

In particular, treatment at the first visit for women who present with low-grade abnormalities should be avoided and kept below 10 per cent. During the third year of the programme this figure was within the target at 4.5 per cent.

It is generally accepted that in most women who undergo excisional procedures, CIN should be found on the excised specimen. This is particularly true if the procedure is performed at the first visit to colposcopy. During the third year of the CervicalCheck programme this target was reached - 90 per cent of women treated at the first visit had CIN on histology.

The performance of colposcopy treatment parame	ters measured against co	olposcopy standards
Performance parameter	2010/2011	Target
Treatment at first visit should not be performed on women who present with low grade cytological change even if there is a colposcopic suspicion of high grade disease (except in special circumstances).	4.5 %	<10%
Women treated by excisional treatments at first visit should have CIN on histology.	90.2%	>90%
Women treated by excisional treatments at any visit should have CIN on histology.	89.5%	>80%

Colposcopy plays an important role in the evaluation of women with suspected cervical abnormalities. It allows the identification of the site of the abnormality as well as an estimation of the grade of the abnormality, including the presence or absence of features suggestive of invasive cancer. As a procedure used alone however, it has diagnostic limitations with documented lack of correlation between the colposcopic and histological diagnosis. During the third year the predictive value of a colposcopic impression of high grade disease was 75 per cent, which is in excess of the CervicalCheck standard (>65%).

The positive predictive value of colposcopy measu	ired against colposcopy s	standards
Performance parameter	2010/2011	Target
Compliance between colposcopic impression of high grade disease and histologically proven high grade CIN.	75%	>65%

# Histology

A primary objective of any screening programme is the detection and treatment of high grade CIN and the yield of these abnormalities is one of the hallmarks of a successful programme. The histology is presented in Figure 11 and demonstrates that the yield of high-grade abnormalities remained consistently high year on year, again reflecting the sustained high levels of activity in the colposcopy services.



### Figure 11: Detection of CIN and cancer

	No CIN/ (nor	No HPV mal)	HPV / Ce onl	ervitis y	CIN	-	IJ	N 2	CI	<u>8</u>	Adenoca in situ	rcinoma / CGIN	Can (inclu micro in	cer ding vasive)
Grade of cytology result of referral smear	z	%	z	%	z	%	z	%	z	%	z	%	z	%
ASCUS	770	25.9	423	14.2	1,029	34.6	407	13.7	333	11.2	7	0.2	4	0.1
ASC-H	126	11.8	85	8.0	221	20.7	192	18.0	426	39.9	∞	0.7	10	0.9
TSIL	523	16.8	388	12.5	1,153	37.1	576	18.5	463	14.9	9	0.2	2	0.1
HSIL (moderate or severe)	170	5.4	121	3.8	355	11.3	495	15.7	1,920	61.1	21	0.7	62	2.0
Query invasive squamous carcinoma	5	13.5	0	0.0	-	2.7	0	0.0	14	37.8	m	8.1	14	37.8
AGC (borderline glandular)	273	34.0	78	9.7	230	28.7	65	8.1	106	13.2	38	4.7	12	1.5
Query glandular neoplasia AIS/ adenocarcinoma	Q	27.3	Ŋ	22.7	m	13.6	-	4.5	Ŋ	22.7	2	9.1	0	0.0
Unsatisfactory / inadequate	5	33.3	4	26.7	5	33.3	0	0.0	-	6.7	0	0.0	0	0.0
Not recorded	2	28.6	0	0.0	4	57.1	0	0.0	-	14.3	0	0.0	0	0.0
Total	1,880	16.8	1,104	9.9	3,001	26.8	1,736	15.5	3,269	29.2	85	0.8	104	0.9

# Table 13: Histology results for women presenting to colposcopy from 1 September 2010 to31August 2011

# Performance measures for CervicalCheck programme smear tests

Cervical screening programmes have to balance the early detection of high grade abnormalities with avoiding unnecessary investigations and possible overtreatment. Performance measures have been developed which look at how valid the screening tests are within organised programmes. These include the positive predictive value (PPV), abnormal predictive value (APV), total predictive value (TPV) and referral value (RV).

Measures of the performance of cytology	
PPV	79.5%
APV	26.6%
TPV	46.5%
RV	2.15

The positive predictive value (PPV) is reported as the percentage of women referred with high-grade cytological abnormality who have a histological diagnosis of CIN2 or worse. During the current reporting year the PPV was 79.5 per cent.

The abnormal predictive value (APV) calculates the percentage of samples reported as borderline or lowgrade that led to referral to colposcopy and subsequent histological diagnosis of CIN2 or worse. During the current reporting year the APV was 26.6 per cent.

The total predictive value (TPV) examines the percentage of all women referred to colposcopy on the basis of an abnormal smear who have a histological outcome of CIN2 or worse. During the reporting year 46.5 per cent of women referred to colposcopy had CIN2 or higher demonstrated on histology.

The referral value (RV) looks at this in another way and examines the number of women referred to colposcopy for the detection of one case of CIN2 or worse. During the current reporting year, for every 2.15 women referred to colposcopy one had CIN2 or higher detected (i.e. for every 215 women referred to colposcopy 100 had CIN2 or higher detected).

# Glossary

#### Ablation

Treatment which involves the destruction of the cervical abnormalities using a variety of techniques. It does not allow for histological examination of the whole abnormal area and strict criteria must be followed therefore to minimise the risk of inadvertent treatment of hidden microinvasive cancer.

# Abnormal/not normal smear test

A smear test which shows cells which are not typically normal or where pre-cancerous or cancerous cells are identified.

#### Adenocarcinoma

A cancer affecting the cervix, but involving the columnar (endocervical) cells rather than the squamous cells. The columnar cells are involved in glandular activity.

#### Adenocarcinoma in situ

A pre-cancer affecting the cervix, but involving the columnar (endocervical) cells rather than the squamous cells.

#### Adequate smear test result

A smear test which is deemed satisfactory for evaluation by the laboratory.

#### AGC

Atypical glandular cells.

#### AGUS

Atypical glandular cells of undetermined significance.

#### ASC-H

Atypical squamous cells for which a high-grade lesion cannot be excluded.

#### ASC-US

Atypical squamous cells of undetermined significance.

#### **Atypical Transformation Zone**

The term used when changes are detected by colposcopy in the Transformation Zone. These changes can include a variety of patterns including: leukoplakia, acetowhite epithelium and abnormal vascular patterns.

#### Biopsy

The removal of a sample of tissue from the body for examination using a microscope.

#### **Cervical cancer**

Cancer of the cervix. Cancer cells have spread beyond the natural basement membrane boundary of the cervical skin. Cervical cancer can be of squamous origin (approximately 85%) or glandular origin (approximately 15%).

#### Cervical intraepithelial neoplasia (CIN)

CIN is not cancer but is the histological term referring to the abnormal growth of precancerous cells in the surface layers of the cervix. It describes varying degrees of abnormality of the cells within and confined to the epithelium. There are three grades of CIN: CIN 1, CIN 2 or CIN 3.

#### **Cervical screening**

A process which involves the application of a screening test at regular intervals to a defined population of women to detect pre-cancerous changes.

#### **Cervical cytology**

A microscopic examination of a single layer of cells scraped from the surface of the cervix.

#### Colposcopy

An examination of the cervix using a specialised optic instrument (colposcope) that provides magnification to allow direct observation and study of vaginal and cervical epithelium. It identifies lesions on the cervix which can be biopsied and treated.

#### Cone biopsy

A surgical removal of a coneshaped section of the cervix to remove abnormal cells.

#### Coverage

The proportion of women aged 25-60 years who have had a screening result recorded on the screening register over a complete screening round.

#### Diagnosis

A process aimed at the clarification of cervical abnormalities to inform decision-making regarding treatment.

#### Dyskaryosis

Term used in cytology to describe nuclear abnormalities in cervical cells.

#### **Eligible for screening**

Women aged 25-60 years for whom CervicalCheck recommends and funds screening according to national policy.

#### Excisional treatment

Treatment which involves the removal of the abnormality in its entirety thereby allowing histological examination of the entire Transformation Zone.

#### HSIL

High grade squamous intraepithelial (moderate and severe) lesion encompassing moderate (CIN 2) and severe dysplasia (CIN 3/CIS).

#### Histology

The microscopic study of the structure and composition of body tissue.

#### Human papillomavirus (HPV)

A group of wart viruses of which a high proportion are sexually transmitted. Over 100 different types of HPV have been identified and each is known by number. Types 6 and 11 are associated with genital warts and types 16 and 18 are associated with high grade lesions.

#### Hysterectomy

The surgical removal of the uterus (womb) – called total if it includes the cervix or subtotal/partial if the cervix is not entirely removed.

#### Incidence

The number of new cases of a disease or happening that occurs in a given period in a specified population

#### **Informed consent**

The giving of all the necessary information by the smeartaker to the woman in order that she fully understands the smear test procedure and possible results so that she can make an educated decision to participate in the programme. For the CervicalCheck informed consent process, the necessary information covers participation in the programme, the transfer of data to third parties, limitations of screening, results, associated tests and treatment.

#### **Invasive cancer**

Abnormal cells, not limited to the outer layer of the epithelial but which breach the basement membrane to invade the underlying stroma (layer of tissue).

#### Key performance indicators (KPIs)

A metric used to help an organisation define and measure progress toward organisational goals or standards.

#### Large loop excision of the Transformation Zone (LLETZ)

Large loop excision of the Transformation Zone is a diagnostic and/or treatment method to remove the cervical areas of abnormality. The procedure involves removal of the entire Transformation Zone using a thin wire electrode charged with electric current to provide a sample for examination by the pathologist.

#### Lesions

A zone of tissue with impaired function as a result of damage by disease or wounding.

#### Liquid based cytology (LBC)

The placement of harvested cells into a special transport solution for sending to the laboratory, where the slide is made ready for examination.

#### LSIL

Low grade squamous intraepithelial lesion encompassing HPV infection or mild dysplasia (CIN 1).

#### **Microinvasive cancer**

This represents early stage cervical cancer where the abnormal cells breach the basement membrane and invade to not greater than 5mm in depth and not more than 7mm in width.

#### Mortality

The number of deaths from a specified disease during a defined period of time in a given population.

#### NAD

No abnormality detected (normal).

#### **Positive predictive value (PPV)**

The proportion of test-positive women who are truly positive. It can be considered a measure of the likelihood that a woman with a positive test truly has a precancerous cervical abnormality.

#### **Primary care setting**

First contact care that is not hospital or specialist care - general practice, Well Woman and Family Planning Clinics.

#### **Quality assurance**

A programme for the systematic monitoring and evaluation of the various aspects of the National Cervical Screening Programme to ensure that standards of quality are being met.

#### Screening programme

An organised approach to screening a defined population to determine the likelihood of a specific disease within the population with the aim of reducing the risk of the disease and improving the quality of life through early diagnosis.

#### **Select and treat**

A process whereby women with suspected high grade disease are selectively treated at the first visit to colposcopy.

#### **Smear test**

A screening test where cells from the surface of the cervix are sampled, preserved immediately and sent to the laboratory for cytological analysis.

#### **Smeartakers**

A doctor or nurse who takes smear tests.

#### **Specimen**

A sample of tissue removed from the body for microscopic examination.

#### **Squamous**

A type of multi-layers cells, which line the vagina and outer layer of the cervix.

#### Squamous cell carcinoma/ cancer

The most common form of cervical cancer involving the squamous cells.

#### Standard

A minimum requirement against which performance can be measured.

#### Transformation Zone (TZ)

The region of the cervix where the columnar cells of the inner cervix have or are changing to outer squamous cells. The process of change is called metaplasia. It is the area most at risk of abnormal change.

#### Treatment

A process aimed at the eradication of cervical abnormalities thus restoring normal cytology and reducing the chance of subsequent cancer by 90 per cent.

#### Unsatisfactory colposcopy

A term used to describe the inability to visualise the whole of the Transformation Zone colposcopically.

# Unsatisfactory/inadequate smear test result

An 'inadequate' or 'unsatisfactory' smear test that cannot be assessed by the cytology laboratory.







The National Cancer Screening Service is part of the Health Service Executive National Cancer Control Programme. It encompasses BreastCheck – The National Breast Screening Programme and CervicalCheck – The National Cervical Screening Programme.

QA - CS/PR/PM-16 Rev 1 ISBN number: 978-1-907487-10-1