

NHS Cervical Screening Programme
Annual Review 2010

Excellence



Distinction

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Foreword



Paul Burstow

Minister responsible
for cancer services,
Department of Health

Cervical screening is a key tool in our fight against cervical cancer and I was pleased to see that uptake of cervical screening remained strong in 2010. Since the cervical screening call and recall system was implemented in 1988, both cervical cancer incidence and mortality have fallen dramatically. Because cervical screening identifies abnormalities before they could develop into cancer, incidence almost halved in the first ten years of organised screening.¹ Incidence rates now remain low, almost half that of the world average.² The dramatic benefits of this relatively simple test could not be more stark.

However, our fight against cancer cannot end there. The world class NHS Cervical Screening Programme continues to develop its excellent service, while the government has put improving patient outcomes at the forefront of its plans for cancer. Our aim is quite simple — we want to achieve cancer outcome rates among the best in the world. Public health and prevention is at the forefront of these plans and cervical screening is an integral part of this agenda.

This is why we will begin to incorporate HPV testing into the NHS Cervical Screening Programme from 2011, continuing to develop our world class service for women. HPV triage will lead to a more patient

centred and efficient service. We have also looked afresh at the Cancer Reform Strategy, moving away from arbitrary targets and towards delivering the best outcomes for patients, providing additional funding for cancer treatments through the Cancer Drugs Fund and devolving decision making to clinicians, who best understand the patient's needs.

I would like to take this opportunity to thank all the staff involved with the Programme for their hard work and dedication. They have been effective, efficient and professional and in the process saved thousands of women's lives.



¹ Incidence dropped by 42 per cent according to National Statistics, Health Quarterly Statistics 07, Autumn 2000
² The UK's age standardised rate of 8.8 per 100,000 population, almost half that of the estimated worldwide rate. To view in more detail please visit: <http://info.cancerresearchuk.org/cancerstats/types/cervix/incidence/>



World class

Introduction



Julietta Patnick

Professor Julietta Patnick CBE

Director of the NHS Cancer Screening Programmes

This year's statistics show that coverage, the proportion of eligible women being screened regularly, remains steady at just under the target rate of 80 per cent.³ One of the main benefits of cervical screening is that by identifying and treating cervical abnormalities before some can turn into cervical cancer, we can significantly reduce cancer incidence. As such, regular screening reduces the risk of cervical cancer.

This year's statistics also show that the Programme continues to deliver faster and more accurate results. Since the full roll-out of liquid based cytology (LBC) the number of inadequate tests has fallen dramatically, reducing the anxiety and concern that such a result and repeat testing can cause in a woman. Meanwhile, turnaround time⁴ for cervical screening continues to fall with 45 per cent of results available within two weeks and 72 per cent available within four weeks. This will continue to improve following the work that we have been doing with NHS Improvement.

The Programme continually seeks to improve. In 2011 we will start rolling out HPV triage across England. This year's annual review analyses how HPV testing is to be incorporated into the Programme to make the screening programme even more precise and Dr Tanya Levine at North West London Hospitals NHS Trust explains how they are taking part in the Sentinel Site Implementation Project aimed at reviewing how HPV testing can be incorporated into the Programme.

Despite the encouraging statistics of the past two years, it is vital that the Programme understands the barriers that may prevent women from taking up their screening invitation. Dr Jo Waller of Cancer Research UK explains her research, commissioned by the Programme, to better elucidate these emotional and practical barriers to cervical screening.

The call and recall system is the backbone of the Programme, essential to our world-class service. We speak to Julie Russell, Head of Screening Services Standards & Engagements for NHS Sheffield, about the day to day running of the service.

Being diagnosed with cervical abnormalities or cancer can make women feel isolated. Despite support from healthcare professionals and family many women want to be able to hear from other women who have had a similar experience. Healthtalkonline provides qualitative research into patient experiences, providing personal stories and information that can help women through this difficult time. We speak to its founding director, Dr Ann McPherson CBE, about the service.

Finally, with a number of similar new initiatives being developed and rolled-out in Sweden, we speak to Drs Bengt Andrae and Sven Törnberg about the Swedish cervical screening programme and how it compares to the NHS Cervical Screening Programme.

This year has again shown that the NHS Cervical Screening Programme continues to excel and is among the best in the world. I would like to take this opportunity to thank all those working within the Programme for their continued excellent work.

³ <http://www.ic.nhs.uk/statistics-and-data-collections/screening/cervical-screening/cervical-screening-programme-england-2009-10>

⁴ Turnaround time here is defined as the time taken from receipt of test sample to availability of test result



HPV testing, cervical cancer and the Sentinel Implementation Project

In 2011 the NHS Cervical Screening Programme will begin incorporating HPV triage into our screening programme. For several years, we have been investigating how to incorporate Human Papilloma Virus (HPV) testing into screening in England. The Sentinel Site Implementation Project, following on from the HPV pilot scheme,⁵ has reviewed how we could use HPV testing to deliver a more precise screening programme. Dr Tanya Levine, Programme Director and Consultant Cellular Pathologist at North West London Hospitals NHS Trust, talks about the Project.

The relationship between HPV and cervical cancer has been known for over twenty years. Although there are several additional risk factors,⁶ the virus is found in almost 100 per cent of cervical cancer cases. The relationship between them, however, is complex. Of over 130 different strains of HPV, types 16, 18, 45 and 31 are the most frequently associated with cervical cancer and about 13 are recognised as the “high risk” strains. It is now almost universally accepted that HPV is a prerequisite for cervical cancer. However, having HPV does not mean a woman will develop cervical cancer or abnormalities; HPV is very common and most people will have the infection at some point in their life and it will clear up before they are ever aware of it.

“It is now almost universally accepted that HPV is a prerequisite for cervical cancer. The relationship between them, however, is complex.”

In light of this complicated relationship, the Programme conducted the HPV pilot scheme, which completed in 2006, to investigate how this could be incorporated within the Programme. The pilot concluded that HPV testing could be beneficial for the triage of women with low grade cervical abnormalities and might also improve the wider screening programme. Based on this evidence, the Sentinel Site Implementation Project was launched in January 2008 examined the practical implementation of any national roll-out of HPV testing.

The North West London Hospitals NHS Trust is one of the six sites involved and has been conducting HPV testing since early 2008. Dr Tanya Levine, their lead for the Project, explains how HPV testing is being incorporated: “We test women for high risk HPV strains in two different ways to make screening more efficient and accurate. Firstly, there is ‘HPV triage’ – in which samples from women which contain cells with low-grade abnormalities

(borderline or mild dyskaryosis) are tested for high-risk HPV strains and, if positive, referred to colposcopy. These low grade cervical abnormalities only have a 15 per cent to 20 per cent chance of needing treatment and may clear up on their own but it does mean that women, whose samples are high-risk HPV negative can be returned to routine recall as they are at negligible risk of developing cervical cancer in their current screening round and have a comparable risk to a woman with an otherwise normal cytology screening result. Consequently this means that women with low grade abnormalities can be more effectively triaged into subgroups that do and do not require colposcopy assessment.

“Secondly, we are using it as a ‘test of cure’ after a patient has been treated for abnormalities. Before implementing this programme women who had been treated for abnormal cells (known as cervical intra-epithelial neoplasia (CIN)), were recalled for screening annually for up to 10 years. From March 2008 we have been testing these women for abnormal cells and HPV, and if both are negative they re-enter the normal call and recall system. For these women it should reduce anxiety and stress, and make a significant difference to their lives, cutting the number of additional screenings they are subjected to by two thirds or more.”

HPV testing would not have been possible without the Programme moving to Liquid-Based Cytology (LBC). As well as being quicker to screen and with a reduced inadequate sample rate compared with the conventional direct smear test, LBC also allows several tests to be carried out on one cytological sample.

Tanya Levine explains how HPV testing has worked in practice: “HPV testing has embedded really well within our screening programme and has had a positive impact on the service we provide to patients. We have minimised unnecessary surveillance, while maintaining excellent diagnostic and treatment services”.



Dr Tanya Levine

Director, Consultant Cellular Pathologist at North West London Hospitals NHS Trust



“HPV testing has embedded really well within our screening programme and has had a positive impact on the service we provide to patients. We have minimised unnecessary surveillance, while maintaining excellent diagnostic and treatment services.”

“Our services cover three Primary Care Trusts (PCTs) and numerous GP practices. One of the first challenges we faced was to bring the sample-takers up to speed – HPV testing has had a significant impact on the wider patient care pathway and as such, all practitioners need to be aware of the implications. We carried out training sessions throughout the region, wrote to all practitioners providing information packs and have been available for questions on an ad hoc basis.

“The most significant challenge has been incorporating an extra layer of testing without increasing the time taken for a woman to receive her test results. The Project is working on a ‘hub and spoke’ basis. The hub, where all the HPV testing is being carried out, is Bristol and we are one of the spokes, sending the relevant samples through. Accordingly, when a relevant sample is highlighted we need to ensure that the extra test can be undertaken in a timely fashion. This does mean more administrative tasks in the laboratory but it has been implemented relatively smoothly and teething problems have been ironed out”.

“The number of women called for early re-screening due to a previous low-grade abnormality has fallen dramatically in our area and ‘test of cure’ has reduced the number of women requiring consecutive post treatment cytological surveillance by more than 85 per cent. This is more intelligent screening and I really think it’s a significant evolution to our screening programme.”

We will begin rolling out HPV triage across England next year.

5 Evaluation of HPV/LBC; Cervical Screening Pilot studies; Report to the Department of Health, Moss S.M.I., Gray A., Marteau T., Legood R., Henstock E., Maissi E. Available at <http://www.cancerscreening.nhs.uk/cervical/evaluation-hpv-2006feb.pdf>

6 Factors such as smoking, long term oral contraception use and parity can increase a woman’s risk of cervical cancer.



Understanding barriers: helping women take up their screening invitation

The proportion of women taking up cervical screening remains high, as the most recent NHS statistics show. However, there has been a downward trend in participation over the last 10 years, especially in younger women. Because of concern over this, the NHS Cervical Screening Programme commissioned research to understand the constant and emerging barriers preventing women from taking up their screening invitation. Dr Jo Waller at University College London, who carried out the research into these barriers, explains her work.

The proportion of eligible women who take up their screening invitation in England, known as “coverage”, has remained stable at 78.9 per cent since 2008,⁷ just under the target coverage of 80 per cent. However, the number of women attending screening appointments has fallen gradually over the last 10 years from 82.3 per cent to 78.9 per cent. This downward trend has been most significant in younger women. In order to reverse this trend, better understanding the barriers to uptake can inform how we go about providing screening. As Prof Julietta Patnick, Director of the NHS Cervical Screening Programme explains: “Ultimately screening is about encouraging women to make an informed choice. Women have the right not to attend their appointments but our aim is to remove any other barriers to screening, to help ensure that women are knowledgeable about the process, feel confident in their decision, and, if they choose, are able to conveniently attend appointments. The Programme strives to increase the number of women able to access screening and by identifying and tackling these barriers hopes to save even more lives.”

Dr Jo Waller, a Senior Research Associate at the Cancer Research UK Health Behaviour Research Centre, University College London, led research published in 2009 identifying and exploring barriers to screening.⁸ Dr Waller explains: “my research was investigating two particular issues – firstly we were exploring potential barriers to screening, and secondly we were investigating whether non-attendance might be due to a more general sense of disillusionment. There were two distinct types of barriers that we explored: ‘emotional’ and practical barriers. Emotional barriers include things like anxieties or concerns about cervical screening and cancer, while practical ones are more focused on difficulties in attending screening appointments.”

The research was conducted through face-to-face interviews with 580 women of screening age who were recruited using stratified random probability sampling as part of an omnibus survey. Questions assessed self-reported cervical screening attendance, barriers to screening, voting behaviour (as a marker of more general disillusionment) and demographic characteristics. Of those questioned 85 per cent were up to date with their screening, while 15 per cent were overdue or had never had screening.

“The Programme strives to increase the number of women able to access screening and by identifying and tackling these barriers hopes to save even more lives.”

Dr Waller continues: “The most common emotional barrier cited was embarrassment, with fear of pain and worries about the results also being cited. Sometimes previous screening experiences had become a barrier, for example where it had been notably painful or uncomfortable. Some women also have misapprehensions about screening including the belief that women are only able to be screened two weeks through their menstrual cycle or do not consider themselves to be ‘at risk,’ as they are not sexually active. However, the research showed that practical barriers were more predictive of screening uptake than emotional factors such as embarrassment. Dr Waller explains: “With work and family commitments many women struggle to find the time to attend their appointments.”



Dr Jo Waller

Senior Research Associate
at the Cancer Research UK
Health Behaviour Research
Centre, University College
London



For example, younger women are more likely to work longer hours and have young families and this perhaps goes some way to explain why we have had significantly lower take up levels among younger women. Many women also commute to work and so struggle to visit their local GP or GUM clinic. Others are not contacted because of changes in address, which is a particular issue for mobile populations, such as younger women and inner city populations.”

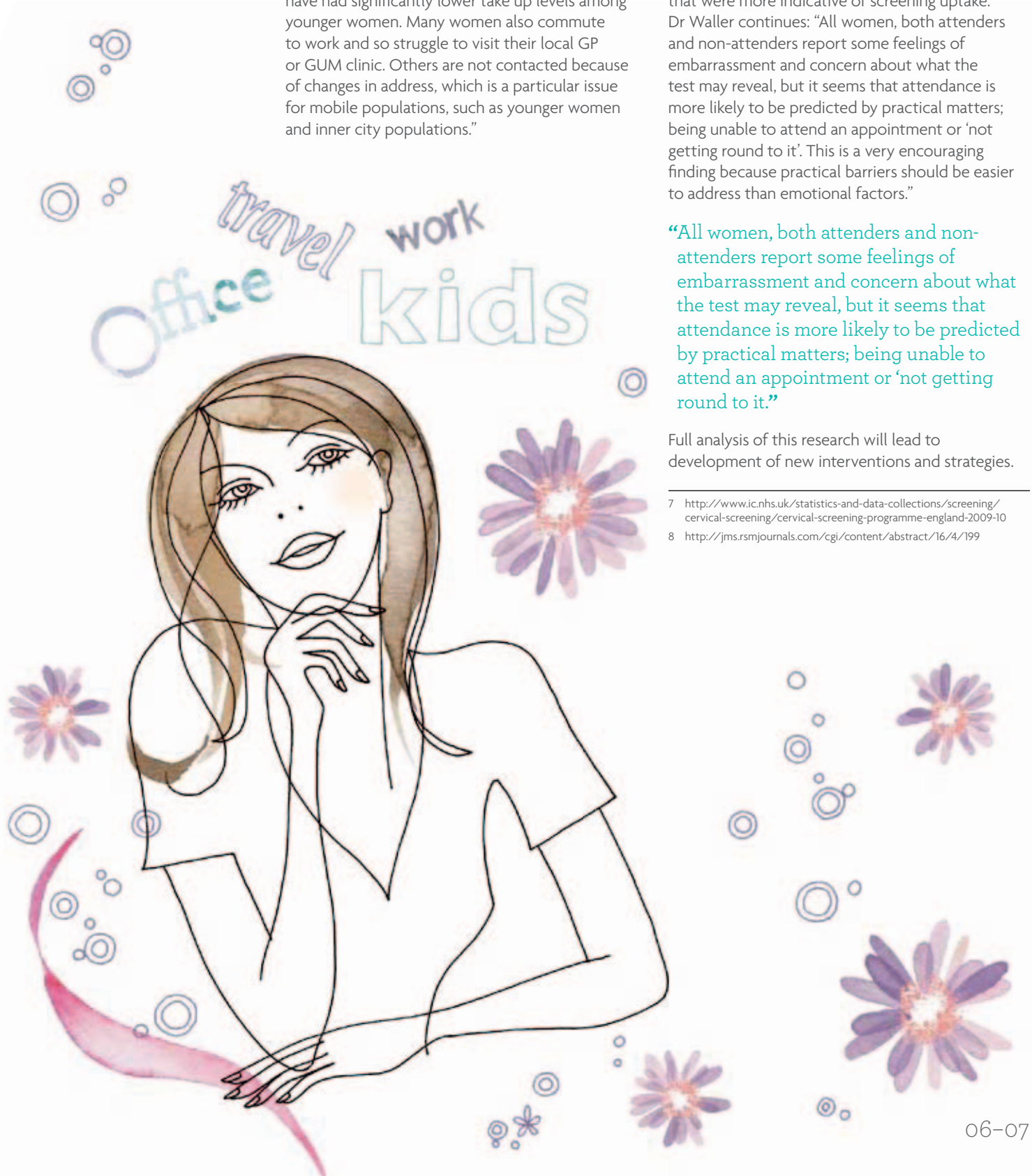
Dr Waller’s research concluded that while emotional barriers were commonly reported in other studies, it was the practical barriers that were more indicative of screening uptake. Dr Waller continues: “All women, both attenders and non-attenders report some feelings of embarrassment and concern about what the test may reveal, but it seems that attendance is more likely to be predicted by practical matters; being unable to attend an appointment or ‘not getting round to it’. This is a very encouraging finding because practical barriers should be easier to address than emotional factors.”

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Full analysis of this research will lead to development of new interventions and strategies.

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

8 <http://jms.rsmjournals.com/cgi/content/abstract/16/4/199>



Rigorous systems



Managing the Call and Recall System



Julie Russell

Head of Screening Services Standards & Engagements for NHS Sheffield

Anybody working within the NHS Cervical Screening Programme knows how much it relies on the vigilant and dedicated work of the call and recall officers. Julie Russell, Head of Screening Services Standards & Engagements for NHS Sheffield, explains how the system works and the ways it has developed over the past twenty years.

The fundamental aim of the call and recall system is to ensure that all eligible women are invited for screening at the appropriate time and receive their results accordingly. The officers work very closely with GP practices to make sure that women are included in the Programme in the first place and that those already in the Programme are recalled at the appropriate time. They manage the throughput of information to guarantee a smooth service in their respective regions.

Julie explains how she and her team in Sheffield manage the IT system and constantly update their databases: "It is a two-way process and we work very closely with our colleagues elsewhere in the NHS to make absolutely sure that we send our letters at the appropriate time. We have a fantastically close team approach and, by coordinating our work with the GP practices, laboratory services and colposcopy services, can guarantee consistency and accuracy in what we do."

"Everybody in the Programme is very dedicated to what we do. In fact, we are passionate about it. The women among us are users of the service and we want a service that delivers."

Julie has been involved with the Programme since 1987 and has seen at first hand the transformations in the call and recall process: "Of course, the IT systems have developed out of all recognition. Pre-1987, it was a totally manual process, with all the information stored on a card index system. I have to admit, I hadn't ever used a computer at this stage so the upgrade to IT was fairly daunting." Julie now sits on the National Computer User Group which reviews the system's software, taking suggestions from around the country and agreeing ways to make improvements. She explains: "We're the ones who use the systems day to day and we're best placed to try and make them work better."

If the Programme is to deliver a two-week turnaround time for test results, announced in the 2007 Cancer Reform Strategy, it is essential to have an efficient and effective call and recall system. Sheffield is currently involved in a pilot scheme, run by the Programme and NHS Improvement, which is using lean methodology to work towards meeting this turnaround target for cytology samples. Julie explains the ways in which the pilot has increased output: "Since the implementation of lean methodology, our office now receive two files of test results a day, rather than one. As the first of these now arrives [in the morning], we are able to generate letters in the same day. Achieving a shorter turnaround time is an important step to reducing anxiety for women, improving the early diagnosis of cancer and ensuring quicker treatment."

The call and recall system has been incredibly successful. Julie continues: "Luckily everybody in the Programme is very dedicated to what we do. In fact, we are passionate about it. The women among us are users of the service and we want a service that delivers. We know our work is appreciated, particularly by General Practice who value a system that produces reliable, up to date information. I am very proud of the new developments too and feel it is a comfort to know that the service is being delivered for me and the rest of the country in a consistent way."



Healthtalkonline: Sharing personal experiences of Cervical Screening

The website Healthtalkonline lets members of the public share and draw support from other people's experiences of a wide range of health and illness including cervical screening and cervical cancer. Based on qualitative research into patient experiences, the information is collected by experts at the University of Oxford. Founder Dr Ann McPherson CBE talks about the website and explains why the cervical screening pages help women prepare for and understand their own experiences.

Formerly DIPEX, Healthtalkonline was founded in 2001 by Dr Ann McPherson CBE and Dr Andrew Herxheimer after their own experiences of illness. Ann had been diagnosed with breast cancer and although she knew all the medical information, she couldn't find anyone else to talk to about what it was really like to live with the disease. Ann explains: "A small group of people from a variety of backgrounds was asked to form a Steering Group and after many meetings around my kitchen table, the idea flourished."

Funded by disease area, through charities, foundations and the Department of Health, the website has been a huge success – it now covers over 50 healthcare areas, including cervical screening. The information on the website is reliable, evidence-based information about illnesses and health problems. Women can watch or listen to personal accounts of cervical screening through filmed interviews, read about people's experiences and find reliable information about cervical disease, treatment choices and support across the UK. The audiovisual content is regularly updated and for each disease area there is an advisory panel comprising a group of experts.

"A small group of people from a variety of backgrounds were asked to join a Steering Group and after many meetings around my kitchen table, the idea flourished."

"Being diagnosed with a disease or caring for someone newly diagnosed can be a very daunting and lonely experience." says Ann. "This website gives anyone the opportunity to investigate a disease and treatment and is designed to answer the questions and problems that matter to people, which will help them make informed decisions about their healthcare."

For the cervical cancer pages, Ann and her colleague Suman Prinjha have recently added a section devoted to CIN3 (severe cell changes or severe dyskaryosis) where 39 women describe their experience of having severely abnormal screening results. Suman comments: "There was an outpouring of emotion following Jade Goody's diagnosis and women really wanted to share their own experiences of the disease. Jade's honesty persuaded many women to come forward and tell their stories online as well as to attend cervical screening."

"People feel the site tells the 'real story' – it doesn't just provide dry clinical information but gives an insight into personal experiences and thoughts – candidly and honestly."


Colleen Flynn from London saw the Healthtalkonline advertisement in a local newspaper shortly after being told by her doctor she was six months away from developing invasive cancer. "As Jade was dying, I was about to go on holiday in India. I had attended my cervical screening appointment in January but didn't receive my results until I returned from holiday. I was worried all the time I was away. The day I got back, I found I had lots of missed calls from my doctor and it turned out I had severe cell changes or CIN3."

Colleen was then booked for a colposcopy and LLETZ: "At the time it was terrifying. But it only takes 30 minutes, doesn't hurt and can save your life. My experience shows just how important it is to get the right perspective. That is why I was willing to be interviewed by Suman and the researchers at Oxford. I don't want other women to be as afraid as I was of having subsequent treatment. It's a fantastic way to hear first-hand about other women's experiences."



Dr Ann McPherson, CBE
Medical Director of the
Health Experiences
Research Group





While maintaining and updating the content on the website is critical, it is equally important for the public to know that this resource is available. As Ann explains: “We are constantly looking at ways of raising awareness of the website. For example we have been placing leaflets in GP surgeries, holding lectures, publishing articles and we are also in the process of encouraging GPs to put weblinks to our site on their own local websites.”

Ann says that feedback on Healthtalkonline has been overwhelmingly positive: “People feel the site tells the ‘real story’ – it doesn’t just provide dry clinical information but gives an insight into personal experiences and thoughts – candidly and honestly.”

Importantly, the website doesn’t simply focus on the best case scenarios; it gives a spectrum of experiences. For example, on the cervical screening pages you can watch a woman talk about her very painful experience of screening but also see those women who experienced no discomfort at all.

“There is no other resource like this in the world and we have had a lot of international interest in the website recently. Representatives from countries across including Japan, Spain, Germany, Korea, Australia and Israel have visited us to look at the methods we use to collate our data and to get trained by our group of experts in Oxford. At some point in the future I hope that we might be able to do some comparative analysis.”

In the meantime Ann and her colleagues will be celebrating the 10th anniversary of the website next year. They hope that this valuable resource and collection of personal and patient experiences will continue to help people make informed decisions backed by solid evidence. You can visit the website at www.healthtalkonline.org.

Cervical screening in Sweden

Cervical screening in Sweden is 40 years old and this year the Swedish Society of Obstetricians and Gynaecologists updated its *'Guidelines for the management of cervical intraepithelial neoplasia'*. Here, Drs Bengt Andrae and Sven Törnberg discuss the history and development of the Swedish screening programme, highlighting the similarities and differences between it and the NHS Cervical Screening Programme.

Screening in Sweden, and healthcare in general, is decentralised, unlike England's services. The National Board of Health and Welfare issues guidelines and recommendations and how these are implemented can vary across each of Sweden's 21 counties, but strong efforts are made to coordinate the services offered.

Women in Sweden are screened between the ages of 23 and 60. A starting age of 23 is intended to ensure that all women have been screened once by the time they are 25 years old, and Sweden sees similarly low rates of cervical cancer in the under 25s as we do in the UK. After 60 years of age women are no longer invited to be screened but may be followed by their gynaecologist if they had an earlier abnormal test result.

Since the introduction of the programme, the incidence of and mortality from cervical cancer have both dropped by nearly 70 per cent and the prognosis for women with screen-detected cancer is excellent.

A call and recall system operates in Sweden and women are sent reminders by a computerised system. Invitations are connected to the population register, with everyone in Sweden having a personal ID number. Many women in urban areas choose to be screened privately. Women being privately screened will not receive an invitation, but will be sent a reminder when screening is due. An exception to this is if a woman moves across a county border. This will trigger the system to send her an invitation.

The Swedish call and recall system also tracks if a woman has been screened privately and includes the opportunistic screening of women who have seen their midwife or gynaecologist for other reasons, and have ended up being screened. This is quite different from the English system, where the vast majority of screening is carried out by GP practices, with further investigations being carried out by gynaecologists normally.

County morphology laboratories issue the invitations, while screening itself has been carried out by midwives since the 1970s. Stockholm is an exception as Dr Sven Törnberg explains: "Stockholm County includes about one-fifth of the national population, around 1 to 2 million people. We have three morphology laboratories, recently reduced from seven, and so here it makes sense to issue invitations centrally by the Oncology Coordination Centre. Screening is then carried out in any of 60 antenatal clinics and all abnormalities are referred to gynaecologists in one of 15 clinics."

All tests are recorded in 30 databases across the 21 counties and these send data files annually to the national register, so that national statistics can be calculated. Data is available from the 1960s onwards, nationwide from 1993, which is why the Swedish system is a favourite of researchers trying to calculate the impact of screening on the morbidity and mortality of cervical cancer. More recently nationwide audits of screening data are available and these capture all invitations, smears, morphology data and incidence rates. However, data relating to private screening appointments is not captured.

"Guidelines and recommendations are implemented, though they can often vary across each of Sweden's 21 counties. Strong efforts are made to coordinate the services."

Coverage can range between 70-90 per cent in different parts of the country with differences seen between urban and rural communities. Dr Törnberg explains: "In the rural part of Stockholm County, coverage is around 90 per cent. In the city centre we only invite around 30 per cent of eligible women and this is largely due to the amount of private screening, but together private and programme-based screening delivers around 80 per cent coverage. We see similar patterns in other rural and urban parts of the country but overall coverage is good."



Dr Bengt Andrae

Department of Obstetrics and Gynaecology, Gävle Hospital, Gävle, Sweden



Dr Sven Törnberg

Dept Cancer Screening, Oncologic Center S3, Karolinska University Hospital, Stockholm Sweden.

Efforts are being made to further increase coverage by making the appointments system more flexible. Dr Bengt Andrae continues: "For example, 40 per cent of women want to change their appointment to another time or place and in some parts of Sweden they can do this using a web-based rebooking system."

"In Sweden cervical screening was computerised from the 1980s. The IT runs as a network of local systems and, supported by the new guidelines, the counties are working together to make their IT systems compatible and to develop them to a national standard to ensure that all available services can be offered in every region."

In the event of an abnormal smear, seen in about 4-5 per cent of women, the morphology laboratory will refer the woman to a gynaecologist. Until now, that gynaecologist will then follow the woman for some time, screening her every year, but efforts are now being made to try and return these women to the screening programme, and continuing after the age of 60.

Dr Andrae explains: "We are introducing HPV testing to triage those women with ASC-US (borderline abnormalities) and CIN1 (low grade abnormalities) and to follow-up with those women who have been treated having had CIN2/3 or AIS. As with the other elements of the screening programme, this is being delivered locally, with microbiology laboratories responsible for the testing, but a national protocol for reporting HPV test results between labs has been developed." This is very similar protocol to the English Sentinel Sites Implementation Project being carried out in the NHS Cervical Screening Programme (see page 4).

Dr Andrae continues: "Now the counties and SFOG are working to develop an algorithm or pathway suitable for all the counties to follow which maps out whether and when women can return to the screening programme. A central model is in development which will be able to be adapted locally. It will make recommendations to the county programmes on how to do the testing, who does it, what type of tests to use, and HPV typing. Each county will have to implement the protocol in order to start HPV testing."

LBC is being introduced this year and is understandably seen as essential if HPV testing is to be made available to a significant proportion of the population and to ensure it is clinically and cost-effective. Efforts to coordinate the IT and reporting structures are also underway. Similarly, the NHS Cervical Screening Programme has fully rolled out LBC across England, making screening more robust.

With these planned changes to the programmes starting to be introduced, does the decentralised system help or hinder the process?

Dr Törnberg: "It's easier to bring in innovations in big cities. Typically, there is better access to new therapies and the guidelines are more closely followed - in Stockholm we have a contract with all the units involved, with all the doctors and midwives."

Dr Andrae: "That's true and smaller programmes often lack the size and personnel to implement and get the best out of the new infrastructures. However, these smaller centres can often move more quickly and come up with local, model solutions to some of the challenges delivering the programme can pose."





Statistics

2009 – 2010 cervical screening statistics

This year's statistics show that cervical screening coverage, the proportion of eligible women being screened regularly, remains steady at almost 80 per cent for 2009 to 2010, the same as the previous year. Importantly, coverage in women aged 25 to 39 years old, an age-group where participation has been low for some time, increased from 72.5 per cent to 74 per cent. Coverage is a good indicator of the effectiveness of a screening programme as it is a measure of the percentage of women in the target age group (in this case 25 to 64) who have been screened in the last three (in the under 50s) or five years (in the 50-64 year olds). If coverage of 80 per cent overall can be achieved, the evidence suggests that a 95 per cent reduction in mortality is possible long term.

Jade Goody's diagnosis of cervical cancer in 2008 and subsequent death in March 2009 saw a massive public outpouring of emotion and a significant increase in the number of younger women taking up their screening invitation. This year's figures may include a number of women who were spurred on to take up their screening invitation during the months after her death. As such, it will only be in 2010/2011 when we will know whether her death has had a lasting affect on uptake and coverage.

The coverage is not uniform. There continues to be a downward trend in coverage in women aged 50 and over. For the first time, coverage has dipped below 80 per cent, although only slightly. Historically, this has been a group that has good uptake. However, over the past few years their uptake has reduced.

The number of inadequate or persistently inadequate test results remains very low following the full roll-out of liquid-based cytology (LBC). This is a welcome evolution in the screening programme, minimising the concern and anxiety that such test results can have on a woman.

Finally, the screening programme is working faster than ever before, with 79 per cent of authorised reports being produced within four weeks of receipt of sample. The NHS Cervical Screening Programme is currently working with NHS Improvement to reduce this yet further.



2009 – 2010 cervical screening statistics

Figure 1. Number of women screened aged 25-64

The number of women screened in 2009/2010 dropped by over 300,000 compared to the peak in 2008/09 after Jade Goody's death. However, this is still many more women screened than in 2007/08. Because women are only routinely screened once every three years many of the women who were moved to take up their screening invitation because of the media attention will not be eligible to be screened for another few years. As such, this drop in the number of women screened was expected, coming after such a significant spike in participation.

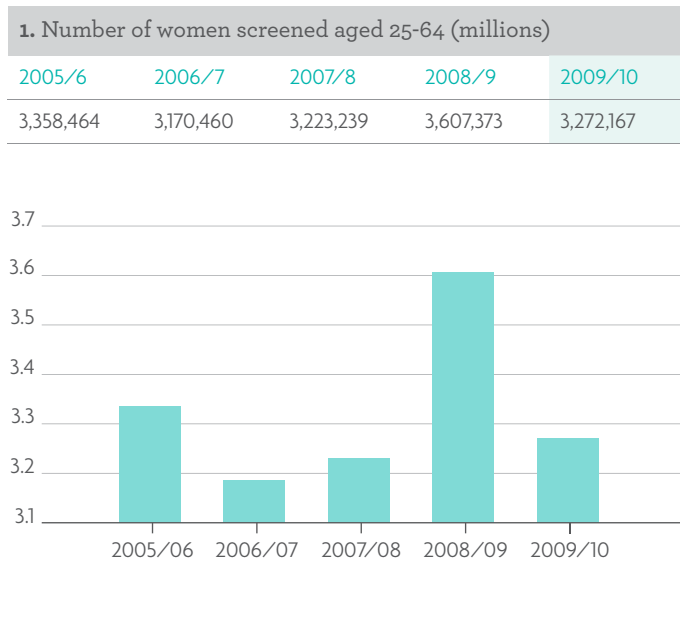


Figure 2. Coverage of women aged 25-64

Coverage is a good indicator of whether women are being screened regularly. It is the proportion of eligible women who have been screened within either 3.5 or 5 years. This is because round length for cervical screening is dependent on age: women aged between 25 to 49 years old are screened every 3 years, while women aged 50 to 64 years old are screened every 5 years. As women are generally not screened annually, the number of women screened in any particular year can be misleading.

Coverage remained constant at 78.9 per cent from 2008/09 to 2009/2010. The 3.5 year coverage for women aged 25 to 49 increased, halting the downward trend. This is the group that was particularly affected by Jade Goody's death in 2009.

However, the coverage of women aged between 50 and 64 continued to fall, although only slightly, from 80 per cent in 2008/09, to 78.9 per cent in 2009/2010. This continues a downward trend in uptake in this age group and is the first time coverage has fallen below the target of 80 per cent.

2a. Five yearly coverage

Age	2005/6	2006/7	2007/8	2008/9	2009/10
25-49	79.5%	79.2%	78.6%	78.9%	78.9%
50-64	80.7%	80.5%	80.3%	80.0%	78.9%

2b. 3.5 yearly coverage (%)

Age	2005/6	2006/7	2007/8	2008/9	2009/10
25-49	69.6%	69.2%	69.3%	72.5%	74.0%

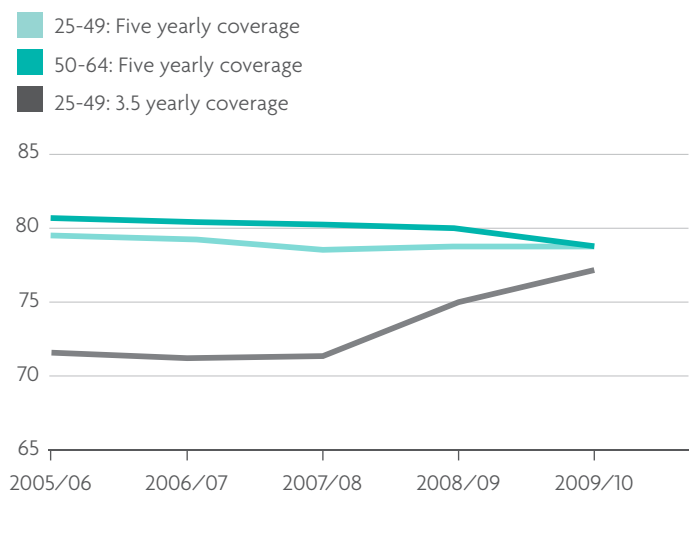
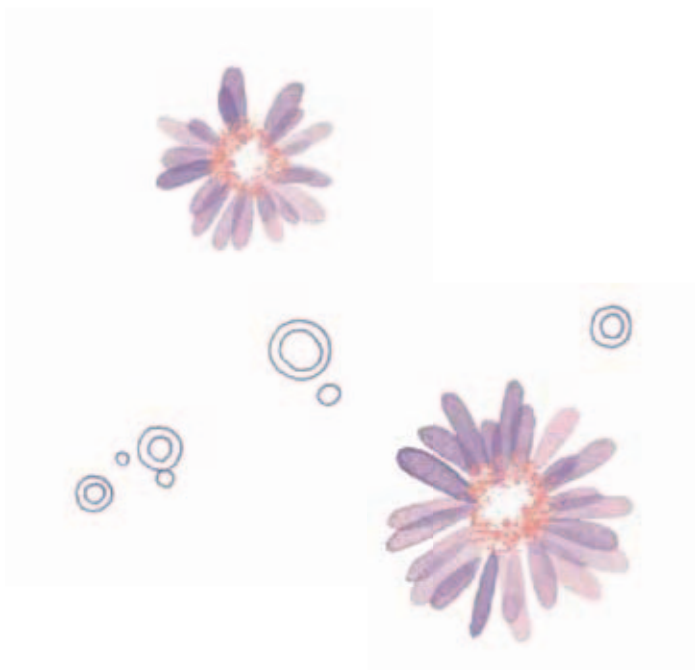


Figure 3. Women screened under 25

Since 2003, when the age of a woman's first screening test changed to 25 years old, the number of women screened in their early 20s (and before) has continued to fall steadily. Our policy on screening women age is in line with the best and most up-to-date research on cervical screening and the recommendations of the WHO's Institute Agency on Research for Cancer. The number of women screened under the age of 25 fell by over 20,000 compared with last year.

Screening under the age of 25 has the potential to do more harm than good, making the steady decrease in the number of woman under 25 being screened welcome and demonstrating that the policy is gradually taking effect.

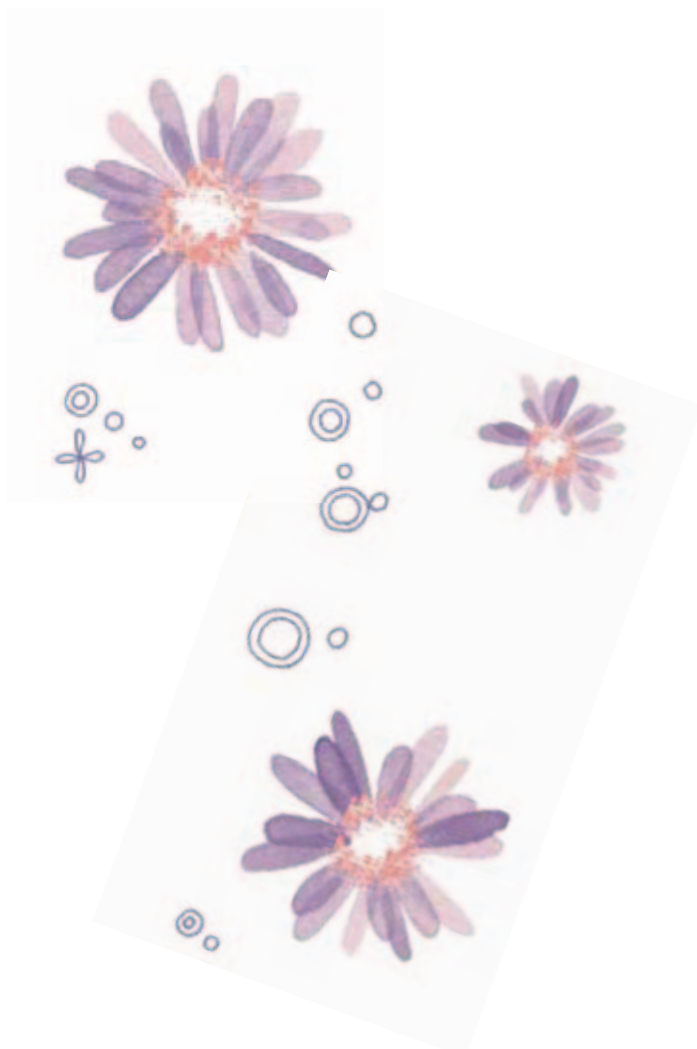
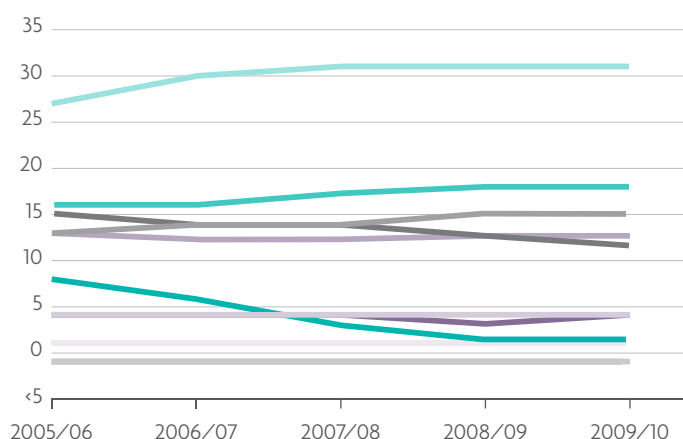
3. Women screened under 25					
Age	2005/6	2006/7	2007/8	2008/9	2009/10
15-19	5,009	3,508	2,840	3,595	2,874
20-24	186,567	138,935	96,926	76,661	55,068

Figure 4. Colposcopy clinic referrals

The split of women being referred for colposcopy according to their different screening results has remained similar to last year (2007/08). However, the percentage of referrals for persistent inadequate screening results remains constant at 1.6 per cent, the same as last year, following significant reductions over four consecutive years dropping from 8 per cent in 2005/06. This is because the full roll-out of LBC across England has made the Programme more efficient and cost-effective, and has in particular meant that women do not need to be recalled so often for persistent inadequate smears, alleviating much stress and concern.

The effect of recommending referral for a single occurrence of mild dyskaryosis can also be seen now, with referrals remaining at a constant 31 per cent for a third year in a row. The previous universal policy was to repeat the cervical screening and only refer on the second occurrence of mild dyskaryosis.

4. Colposcopy clinic referrals (per cent)					
	2005/6	2006/7	2007/8	2008/9	2009/10
Persistent inadequate	8	5	3	1.6	1.6
Borderline changes	16	16	17	18	18
Mild dyskaryosis	27	30	31	31	31
Moderate dyskaryosis	15	14	14	13	12
Severe dyskaryosis	13	14	14	15	15
Potential invasive cancer	<1	<1	<1	<1	<1
Potential glandular cancer	1	1	1	1	1
Clinical indication urgent	4	4	4	4	4
Clinical indication non-urgent	13	12	12	13	13
Other	4	4	4	3	4



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Figure 5. Number of tests examined

In line with the number of women being screened, the number of tests being examined fell from nearly 4 million, to 3.6 million tests. However, the number of tests reviewed is more than those of 2007/08. This is in line with the larger number of women being screened. As with previous years, the vast majority of tests came through GP and community clinics.

5. Number of tests examined – all ages (millions)					
	2005/6	2006/7	2007/8	2008/9	2009/10
All sources	3,973,697	3,654,133	3,614,725	3,972,998	3,676,196
GP & community clinics	3,701,100	3,403,028	3,379,349	3,721,709	3,415,425



* The figures for number of women screened are included in figure 1.

Figure 6. Proportion of tests that are inadequate

The percentage of inadequate samples rose slightly from 2.5 per cent in 2008/09 to 2.8 per cent in 2009/2010, but remains at almost the lowest level since recording of inadequate tests began. As with figure 4, this low rate of inadequate results is due to the impact of LBC, which was fully rolled-out last year. Results are shown over the last decade; in 1998/99 inadequate rates were at over 9 per cent, but with piloting and then full roll-out of LBC, this has significantly dropped. This benefits women, primary care sample takers and the entire service. Despite this year's minor increase, the system is now much more robust than it was 10 years ago.

6. Proportion of tests that are inadequate (%)					
1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
9.2	9.7	9.6	9.1	9.4	9.3
2004/05	2005/6	2006/7	2007/8	2008/9	2009/10
9.0	7.2	4.7	2.9	2.5	2.8

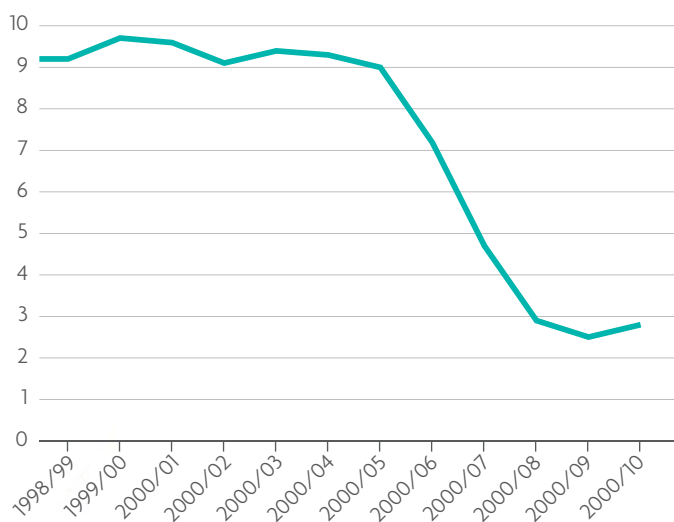


Figure 7. Proportion of tests which are inadequate: regional data

The roll-out of LBC was completed in 2008, so the statistics for 2009/2010 are the first full year since that point. The proportion of inadequate tests across England varies slightly. The lowest rates are in Yorkshire and Humber for the second year running. The highest rates are seen in the South West.

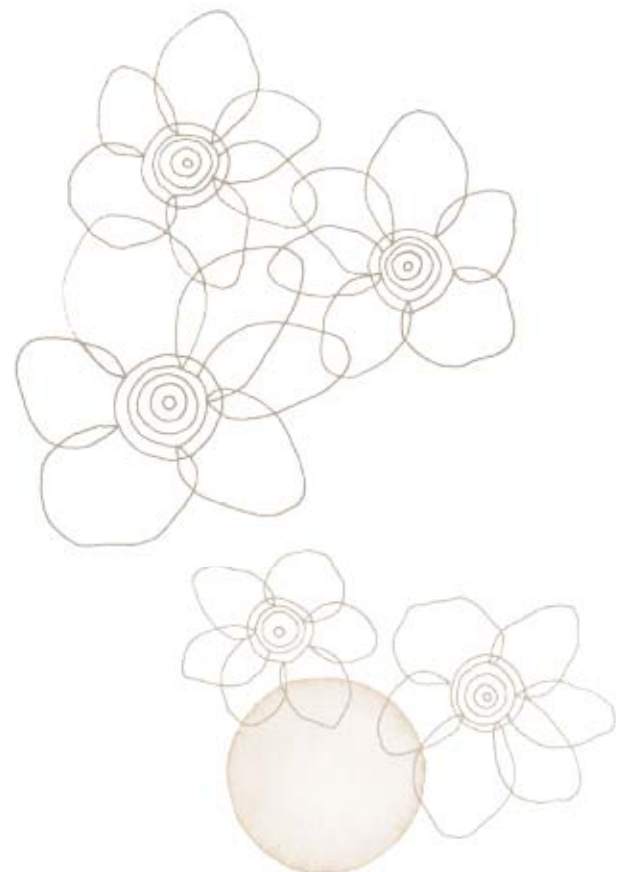
7. Proportion of tests which are inadequate: regional data (%)		
	2008/09	2009/10
North East	1.3	1.5
North West	3.0	3.0
Yorks & Humber	1.2	1.3
East Midlands	2.2	2.2
West Midlands	2.3	2.7
East of England	2.6	2.7
London	3.1	3.7
South East Coast	2.2	2.7
South Central	2.2	2.4
South West	3.8	4.4



Figure 8. Tests showing abnormality: GP & community clinics

After several years where abnormality rates fell, this year has seen a fourth consecutive annual rise. A number of reasons have been suggested for this the increased sensitivity with the now widespread use of LBC; caution in the laboratories as they gain experience in LBC, and the general fall in coverage. If a woman is not attending as frequently as she did, this would be expected to lead to higher rates of abnormalities and potentially cancer once they are found through testing.

8. Tests showing abnormality: GP & community clinics					
	2005/6	2006/7	2007/8	2008/9	2009/10
All ages	222,799	213,228	217,124	250,746	234,587
	6.0%	6.3%	6.4%	6.7%	7.0%
25-64	185,674	184,820	193,706	230,487	216,027
	5.4%	5.8%	6.0%	6.5%	6.7%



2009 – 2010 cervical screening statistics

Figure 9. Tests showing high-grade abnormalities: GP & community clinics

The table shows all tests with a result of moderate dyskaryosis or worse. All these women were immediately referred for colposcopy and from the beginning of 2009 have been included in “cancer waits” processes to ensure speedy investigation and treatment, i.e. to be seen with 2 weeks of referral.

The number of high-grade abnormalities detected through screening dropped this year, after a significant high in 2008-09. This drop is in line with the lower number of women screened and this does not necessarily imply a drop in the number of abnormalities present in the general population.

9. Tests showing high-grade abnormalities: GP & community clinics					
	2005/6	2006/7	2007/8	2008/9	2009/10
All ages	38,227	36,229	35,540	42,933	39,177
25-64	32,442	31,443	31,738	39,456	35,954

Figure 10. Tests showing possible invasive cancer: GP & community clinics

Following several years of falling numbers, the number of tests showing evidence of invasive cervical cancer rose last year and dropped off this year. Again, this is likely to be because there was a spike in the number of tests taken last year, with a dip this year.

Possible invasive cancer is a rare finding in the Programme and represents fewer than 2 in 10,000 women screened. About 56 per cent of these women are eventually proven to have cancer.

10. Tests showing possible invasive cancer: GP & community clinics					
	2005/6	2006/7	2007/8	2008/9	2009/10
All ages	666	625	570	775	678
25-64	609	582	535	731	643

Figure 11. Tests showing possible glandular abnormalities: GP & community clinics

In line with the last two tables, following last year's spike in possible glandular abnormalities, this year has seen a significant drop. However, in 2009/10 glandular abnormalities were significantly below those reported in 2007/08, continuing that overall downward trend.

11. Tests showing possible glandular abnormalities: GP & community clinics					
	2005/6	2006/7	2007/8	2008/9	2009/10
All ages	1,527	1,492	1,443	1,557	1,342
25-64	1,414	1,373	1,344	1,485	1,266

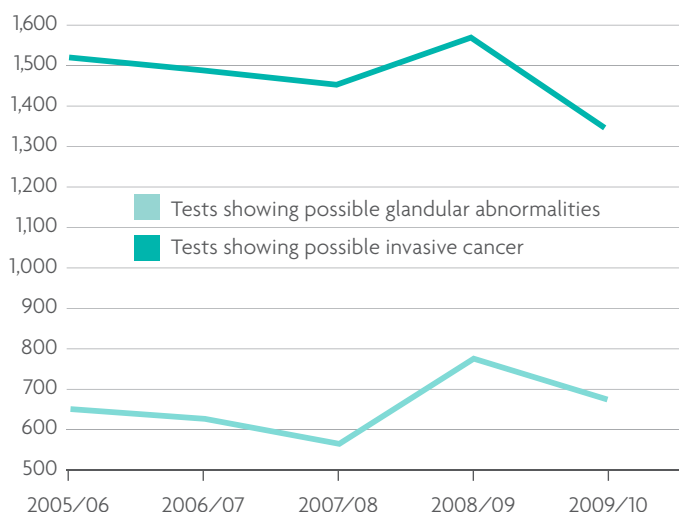
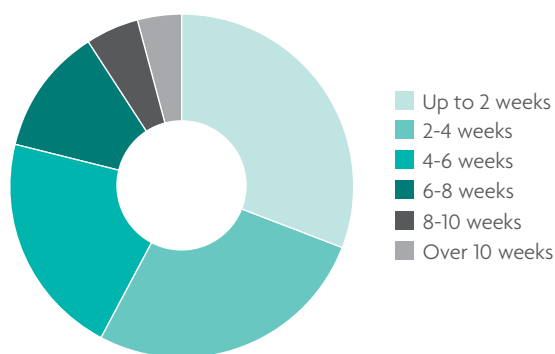


Figure 12. Samples examined by pathology labs: Time from receipt of sample to authorisation of report

The time from receipt of sample to authorisation report is becoming quicker year on year. Now 60 per cent of authorised reports are produced within two weeks of receipt, while 79 per cent are received within four weeks. The continued improvement seen over the last few years should be further increased by the implementation of the NHS Improvement pilot scheme, which is going through its second phase. Phase 1 was successful at reducing turn-around times and phase 2 is currently ongoing.

12a. Samples examined by pathology labs: Time from receipt of sample to authorisation report (%)					
	2005/6	2006/7	2007/8	2008/9	2009/10
Up to 2 weeks	31	43	49	54	60
2-4 weeks	27	31	34	29	19
4-6 weeks	21	13	10	11	11
6-8 weeks	12	7	4	4	5
8-10 weeks	5	4	2	1	3
Over 10 weeks	4	1	1	0.2	0.8

2005-06 turn around times from receipt of sample to **authorisation** of report (%)



2009-10 turn around times from receipt of sample to **authorisation** of report (%)

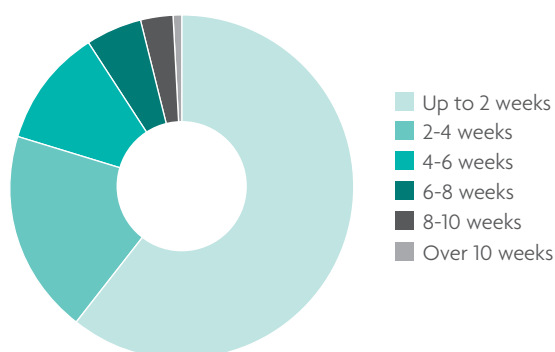
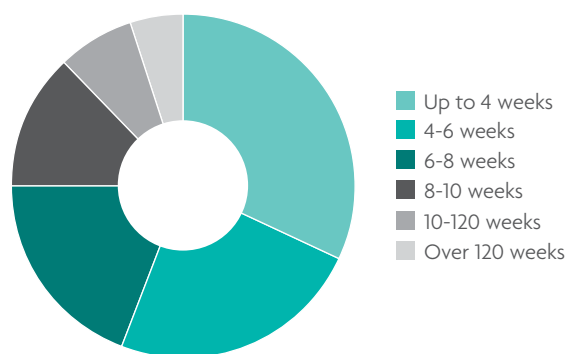


Figure 13. Time from screening to availability of report at call and recall office

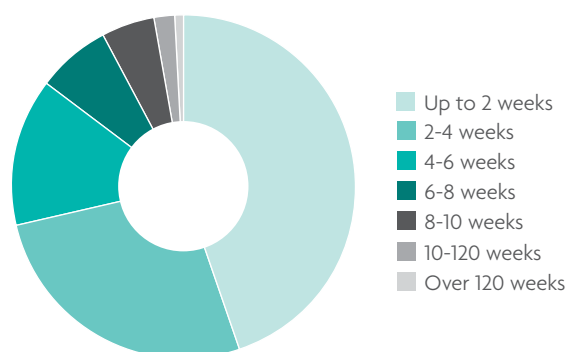
Screening results are now available more quickly than ever. Within four weeks of the test being taken 72 per cent of cytology results are available on the call and recall system, and are ready to be sent out to women, following a third year of massive improvements in our service. The number of test results available within two weeks is more than double this year compared to last year, from 21 per cent in 2008/09 to 45 per cent in 2009/10.

13. Time from screening to availability of report at call and recall office (%)						
	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10
Up to 2 weeks				11	21	45
Up to 4 weeks	29	32	48	60	65	72
4-6 weeks	28	24	26	23	21	14
6-8 weeks	20	19	14	9	8	7
8-10 weeks	13	13	7	4	4	5
10-12 weeks	6	7	4	2	1	2
Over 12 weeks	4	5	2	1	0	0.6

2005-06 turn around times from **availability** of report (%)



2009-10 turn around times from **availability** of report (%)



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