

# Cervical Screening Programme

*review 1999*



*a national priority*

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# Foreword by Yvette Cooper

***The NHS Cervical Screening Programme is a great success. Over 4 million women are screened each year in England and experts estimate that screening prevents up to 3,900 cases of cervical cancer each year. Over 8,000 lives were saved by the programme between 1988 and 1997. These figures are improving every year, and the staff of the programme should be rightly proud of their achievements.***



Despite this success, the programme is still subject to adverse publicity. This has been particularly in evidence this year with the Kent and Canterbury case, and the subsequent appeal. However, lessons have been rightly learnt and great improvements have been made to the service.

The new quality assurance measures are now in place and are working effectively, and providing more safeguards to the service. Dedication to a high quality screening service requires constant vigilance in order that any weaknesses can be immediately identified and corrected.

In addition, there continues to be misunderstanding over the nature and limitations of cervical screening. Cervical screening is not a test for cancer but for abnormalities which if left undetected and untreated may develop into cancer. No screening test can be 100% successful but most cervical cancers can be prevented if women attend for screening. Information strategies to get the right message across not only to women but also the wider public and health professionals are well advanced.

The Government would like to thank all the staff involved with the programme for their hard work and dedication. Without them the programme would not be the success that it is. They have responded exceptionally to the changes and challenges of the past year, and I am confident that they can meet the challenge of future changes, which are sure to come. I am sure all the staff share our commitment to a high quality service that continues to save more lives.

A handwritten signature in black ink, appearing to read 'Yvette Cooper'.

Yvette Cooper  
Under Secretary of State (Commons)

# Introduction to the

***The continuing success of the NHS Cervical Screening Programme has been acknowledged a number of times over the last 12 months.***



*Julietta Patnick*

Two papers in the British Medical Journal have calculated how many lives might be being saved by the cervical screening programme. Firstly, Quinn et al calculated that the programme prevents 800 women under the age of 55 from dying of cervical cancer each year. Additionally, Sasieni and Adams calculated that 1,300 lives a year and over 8,000 lives over the last 10 years had been saved.

In fact cervical cancer rates, as well as cervical cancer deaths, have fallen significantly over the last few years since organised cervical screening began. The graph on page 5, which shows incidence rates in England and Wales, displays how the number of cervical cancer cases has fallen by 42% in six years from 15.4 cases per 100,000 women in 1990 to 8.9 per 100,000 by 1996.

A robust quality assurance system for the cervical screening programme now covers the whole of England, and quality assurance teams are active in improving the programme in each region. We continue to work in partnership with the relevant Royal Colleges, professional and accreditation bodies and scientific societies to achieve this.

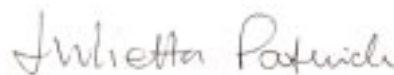
# Report

There is continued legal action over the events in Kent and Canterbury. However, as we continue to progress, to strengthen and to become more confident about our achievements, we are able to move further away from the events of years ago.

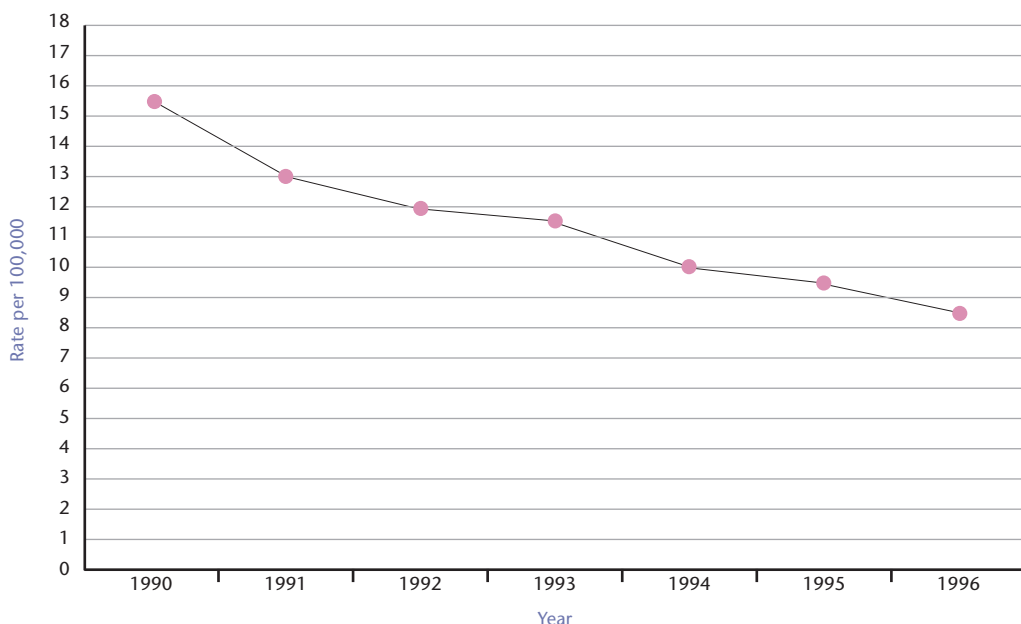
In looking to the future we are always open to advances in the technology available for the prevention of cervical cancer. 1999 has seen the publication of several scientific papers and a systematic review of the potential role of testing for the human papilloma virus as part of the cervical screening programme.

Together with new technologies being developed in laboratories the cervical screening programme could look very different in the next decade than it does now.

We still have many challenges to meet. Not least is the challenge of maintaining and developing our workforce – a task we have in common with other laboratory services. However, we look forward to the future eagerly.



**Julietta Patnick**  
National Coordinator



# A day in the life of a cytology

**Dr Christine Havelock is Consultant Cytopathologist & Clinical Director of Pathology Services at Wexham Park Hospital, Slough, Berkshire. Here she describes the daily work of the cytology laboratory and the aspirations and worries of her team.**

Linda Page (l) and  
Dr Christine Havelock (r)

The cytology laboratory annually processes some 30,000 gynaecological smears, plus a further 3,000 non-gynaecological diagnostic specimens. The staff consists of a head of biomedical sciences (BMS), and a chief BMS leading a team of seven BMSs and cytoscreeners and a trainee. In addition there are three clerks and two medical laboratory assistants.

"We have a strong team, caring of each other and of the quality of the work we do. We all work incredibly hard to maintain the screening laboratory at maximum performance. We know we perform to the best of our ability. We monitor and quality assure all our processes. We know we are responsible for the successful treatment of approximately 20-25 cases of CIN 3 every month, which potentially represents 10 lives saved every month.

"We continually seek to improve through education, active risk management, sharing, discussion and mutual support. We are well supported by our Trust, who do their best in the present financial climate to meet our needs. Yet every day as I drive to work I have pangs of anxiety. Will today bring the case? Will today be the day that someone brings a case against me or the laboratory?"

"Newspaper headlines, and early morning radio, bring real heart sink. Does no one out there understand? We do a difficult job really well. Not perfectly, nobody can. Cervical screening

does not claim to be 100% effective – more like 80%. Why are the successes of the programme not broadcast? Why do we always hear the shortcomings?

"A number of our staff, most of whom have worked for us for well over 10 years, no longer like to say publicly what their job is. The reply is all too commonly 'Gosh, you're one of those who makes such a lot of mistakes.' Our day is long and hard. We start with a two hour quiet period when some



undertake rapid review and check through the previous day's work and others begin the task of primary screening. There's no time for chat or

niceties. We are working off an eight week backlog of smears. Like so many laboratories we have suffered from recruitment problems. For two years we were at least one whole-time screener short."

Poor pay and low morale have discouraged people from beginning the two year training period. Even when qualified, the personal scrutiny of workplace performance is high, if not higher than in any other branch of health care.

"We have daily individual performance and audit measures, and twice yearly national testing of every individual's ability to correctly report a test set of smears.

Wexham Park Cytology  
Laboratory

# laboratory



"As we work we have two overriding aims – not to miss or misinterpret any abnormal cells, and to screen as many slides as possible in the day. It's like hunting for a needle in a haystack. More than 90% of the smears are negative. Of the 10% abnormal ones, 5% will be strikingly abnormal – the others will have just a few abnormal cells which are easily missed. But on the other hand we cannot allow our anxiety to cloud our judgement of reporting a smear negative. Indecision and defensive reporting have a big knock-on effect, causing anxiety to women and overwhelming the colposcopy clinics.

"One of our main problems is smears that are unsuitable for screening. We are aware of the anxiety and cost this causes to women, smear-takers and to our laboratory. We have a feedback system whereby we

make the smear-takers aware of their performance and encourage improvement.

"It is very disappointing to read newspaper headlines purporting to have the answers to screening difficulties, through automation or new tests. Some of these new techniques will undoubtedly help screening in the future, but none have yet been shown to be better than the human eye.

"Our overriding concern is the wellbeing of the women from whom the smears are taken. This concern can be very hard to bear. The thought of missing an abnormality, and the potential consequences, weighs heavily. You just hope that the team and quality processes will pick up any errors before the results leave the laboratory.

"Why do we do this job? Despite what we read, when we shake off the pressures, and look at the results, we know we are doing a worthwhile job making a major contribution to saving human lives. Not many people can say that.

"I believe you have to be a special person to be a screener. The pay is low; the scrutiny of performance is high; the anxiety and stress is high, but there is a great feeling of satisfaction in a job well done."

*As part of its continual drive to raise standards the NHSCSP and the Royal College of Pathologists produced a new set of guidelines – 'Histopathology Reporting in Cervical Screening' in April.*

*They set about establishing agreed guidelines for the reporting of cervical biopsies arising as a consequence of the cervical screening programme. The final publication includes guidelines on:*

- *integrating histopathology audit into the NHSCSP programme*
- *reporting, (areas of particular importance being the reporting of mixed cervical intraepithelial neoplasms and borderline abnormalities)*
- *cytology laboratories*
- *classifying cervical carcinoma and pre-cancer in an appropriate manner for transfer to cancer registries and for correlation on Department of Health statistical forms (KC61)*
- *the handling of specimens*

# Nurse colposcopists

## point towards

***The idea of a nurse colposcopist is still relatively new, but the concept is quickly gaining acceptance and, where it has been tried, nurses, consultants and patients are enthusiastic about it.***

Consultant gynaecological oncologist Mr Mahmood Shafi, of Birmingham Women's Hospital, believes such practitioners will eventually become the norm in all colposcopy centres, not just in order to free up consultant time, but because of the added benefits they bring.

"Nurse colposcopists are a relatively rare breed at the moment, but they are increasing in number all the time," said Mr Shafi.

A nurse colposcopy association now exists covering nurses allied to the discipline. This includes nurses involved in the running of colposcopy clinics, nurses who have been trained to do diagnostic colposcopy but not treatment, and the nurse colposcopists, who are trained in both diagnosis and treatment.

The training requirements have been laid out by the British Society for Colposcopy and Cervical Pathology (BSCCP), in conjunction with the Royal College of Obstetricians and Gynaecologists.

Nurses need to attend a theory course, then undertake 50 supervised colposcopies with the trainers, 20 of which must be in new patients. Then they do another 100 unsupervised colposcopies, of which at least 30 must be in new patients, and these patients are discussed with the trainers. There is also training in cytology and histopathology, and the trainee has to present 10 case studies, which are



submitted to the national training body, through the BSCCP, for approval.

"The training that a nurse will have is exactly the same as, if not better than, for a doctor, because they are taught things that doctors have already been taught, but with a bit more emphasis on cytology and learning about audit."

Once judged competent, the nurses can undertake unsupervised work, but are encouraged to work in teams, rather than as individuals.

Said Mr Shafi: "A team encourages set standards; you can audit your work and you can link in with cytology and histopathology to make sure that you are

*Mr Mahmood Shafi,  
Tracy Smith and  
Amanda Lloyd*

*Nurse colposcopist  
at work*

# future

providing a high quality service." He added: "We have two nurse colposcopists in our department, Tracy Smith and Amanda Lloyd, and they are absolutely excellent. It is something that nurses are keen to take on, and I think it will be a growth area."

Mr Shafi said that because the nurses could concentrate solely on colposcopy, unlike consultants who frequently had other responsibilities, they could build up particular, albeit limited, expertise.

"Doctors will have a far greater understanding of the complex areas, so there will be some patients the consultant needs to be involved with. But for the majority of patients who require colposcopic assessment and treatment, the nurses are as good as, if not better, than many consultants. It's standards that matter, not their backgrounds."

Mr Shafi said the approach was not aimed at overcoming recruitment problems in colposcopy, but was part of a drive to improve quality across the whole service.

"I don't care whether it is nurses providing the service or doctors – but they have to attain the same goals. It does potentially free up a consultant to work differently and concentrate on those areas that they have additional expertise in, but it's part of working in a team environment."

He added: "Patients like the nurses. We know that because we've done questionnaires on this. The patients want a competent colposcopist and if you can guarantee that, they are more than happy with a nurse doing their colposcopies. In fact, some patients will express a preference for the nurse to do their diagnosis and treatment."

Mr Shafi concluded: "I think we will see a lot more nurse colposcopists in the future. In Birmingham we did develop the whole idea of nurse colposcopists and their training, but now it has been taken up around the country.

"Our nurse colposcopists here provide a superb integrated service and we are very fortunate to have them."



*In April the British Medical Journal published a paper in which the authors, Quinn, Babb, Jones and Allen, found that cervical screening had prevented about 800 deaths in 1997 among women under 55.*

*This message was reinforced in May when the BMJ reported on the results of a further study which showed that since 1992 the number of women dying from cervical cancer in England and Wales has fallen by over 25%.*

*The second study, by Sasieni and Adams, found that mortality fell progressively from the mid-1980s and the authors estimate that there were about 8,250 fewer deaths from cervical cancer between 1988 and 1997 as a result of screening.*

*Approximately 1,300 deaths a year were prevented by the screening programme.*

# Putting **quality** at the heart of the

**Quality and quality assurance (QA) are central to the service and considerable time and resources are dedicated to this activity, both within the programme and through the use of external assessment.**



*Dr Phil Wilson*

**Dr Phil Wilson, quality assurance director for the London region, explained that quality efforts occurred at all levels, nationally, regionally and locally, each serving to reinforce the other.**

At a regional level, the Regional Directors of Public Health have specific responsibilities for ensuring the quality of the cervical screening programme. This work is implemented through the QA team, which aims to monitor and strengthen the performance of the service. The teams cover laboratories, colposcopy, primary care and health authorities. The performance of departments is monitored against national standards.

“We want to identify problems before they spill over into affecting the quality of screening services to the extent of putting lives at risk. The aim of quality management is to prevent potential problems developing into major incidents,” said Dr Wilson.

“We try not to regard ourselves as the quality police – we are not there only to seek out poor performance. Our mission is to enable, to facilitate, local programmes to perform well. We aim to share best practice and to advise how the service should be structured locally.

“We are there to help – not to shame and blame. We are not a threat – we are there to help Trusts to perform the best service they can.”

*Cheryl Blair (l)*

As part of the quality process, external laboratory accreditation is carried out by CPA – Clinical Pathology Accreditation (UK) Ltd.

The company was formed in 1992. It is a not-for-profit organisation. It has six parent organisations, they are:

- The Royal College of Pathologists
- The Institute of Biomedical Science
- The Institute of Healthcare Management  
*(formerly The Institute of Health Services Management)*
- The Association of Clinical Pathologists
- The Association of Clinical Biochemists
- The Independent Healthcare Association.

The company inspects laboratories against a defined standard of practice in order to grant a “hallmark” of performance. It inspects all pathology laboratories, not just cytology.

CPA inspectors are drawn from practising consultant pathologists, equivalent grade clinical scientists and senior biomedical scientists.

Two professionals, one doctor and one scientist, visit each laboratory for a period of one and a half days at least once every four years unless the laboratory circumstances change, necessitating a fresh visit.

Laboratories are obliged to provide a written declaration each year of their continuing compliance with CPA standards and any changes must be listed as they occur.

# programme

Said Dr Wilson: "CPA is a very important quality management tool, and complements the work of the regional QA team. They provide an external audit of the ability of an institution to provide a laboratory service of high quality. Being external does add validity to their findings."

Dr Wilson said women could be reassured that everyone in the programme was concerned to offer a high quality service.

Cheryl Blair, Executive Manager of CPA, said the company had around 1,100 laboratories registered with it, out of a possible total of some 1,300 NHS and private laboratories in the UK. Registration for cytology, unlike other disciplines, is now mandatory and by the end of this year all 171 cytology laboratories in England will have been visited at least once by the inspectors.

The accreditation procedure is based on structures, processes and outcomes. Forty-four individual standards are applied, covering organisation and management, policy and procedures, health and safety, education and evaluation.

Said Mrs Blair: "We provide a service to the people who use the service. Accreditation is a tool for people who purchase the service to look at and say 'do they have this Kite mark?' and if they don't the purchasers shouldn't use the service.

"The regional QA teams are aware of all the deficiencies we find. On behalf of the

consumer they make a judgement about letting that service continue to work or not. They are the watchdogs." Mrs Blair said standards were constantly being revised and pushed forward in order to raise quality.

"This is why there will never be 100% accreditation across the country – there can't be. Each year we look at the prevailing standards in the country and as those standards are raised, the overall standard itself is raised. If 90% can meet the standard, the standard isn't high enough. You have to push it further, otherwise everyone will sit on their laurels."

She added: "We don't know what the perfect standard is. It moves on as technology evolves – we have to keep moving the goal posts to raise the standard. In my opinion we can be proud of the cytology service, although we can't afford to be complacent."



*In April of this year a new special health authority, the National Institute of Clinical Excellence (NICE), came into existence. It is the first central body to exist to provide health professionals with expert advice and guidance on the clinical and cost effectiveness of new and existing clinical interventions.*

*One of the first technologies NICE has been asked to appraise is liquid-based cytology. It has been asked to consider the evidence and advise on whether this technology would offer worthwhile benefits to the NHS.*

*Around 30 to 50 technologies a year will be selected by the Department of Health for appraisal by NICE and it is hoped that the results will provide health authorities, NHS trusts and primary care groups with a single, authoritative source of advice.*

# Reducing unnecessary

***The debate about whether women, particularly young women, with mildly abnormal smears are over-treated and could be better managed with reassurance rather than repeat smears and colposcopy, has raged for some time.***

At the other end of the spectrum there have been a number of suggestions that older women with a long normal history could be safely released from the programme.

Studies underway on both areas could help clarify the issues, but the preferences of women – and wider resource implications also have to be considered.

*Dr Ian Duncan*

Dr Ian Duncan, consultant gynaecologist at Ninewells Hospital, Dundee, who has examined the issues, pointed out that one major barrier to ceasing the regular screening of older women would be fears of extra cancers being missed.

Earlier this year, Sherlaw-Johnson and colleagues from University College London, constructed a mathematical model of the costs and benefits of withdrawing low risk women from the screening programme at age 50 (BMJ 6 February 1999). They concluded there could be resource savings of 25% for smears and 18% for colposcopies, but at the cost of two extra invasive cancers per 100,000 women – about 600 new cases each year.

The issue was looked at in 1997 when the document Guidelines for Clinical Practice and Programme Management was published. In regularly normal women very few cancers were found beyond the age of 50.



But Dr Duncan points out “It can’t be done unilaterally or in one given area – it needs to be done from the centre. It is being looked at, but a decision is on hold.

“There would be tremendous financial benefits, and tremendous relief for the vast majority of women, but at the cost that one or two will slip through. What kind of price do you put on that?”

“My view is that women could be discharged from the programme at 50 provided they have had three consecutive normal results, the most recent one no more than three years previously.”

Dr Duncan said using HPV testing might in theory help clarify the process a little, but this would have to be balanced against the cost of these additional tests.

*Northwick Park  
Cytology Laboratory*

# screening

“Just like the question of more frequent screening, it boils down to what extra do you get for your money?”

In terms of over-treating women with possibly transient mild abnormalities, great hopes are resting on the results of the newly launched TOMBOLA study (Trial Of Management of Borderline and Other Low grade Abnormal smears).

The £3.5 million trial is being run at Aberdeen, Dundee and Nottingham, jointly funded by the MRC and the NHS, and aims to recruit 10,000 women over the next three years. There will be three years of treatment, followed by another three years of follow-up.

The women with two borderline smears or one mildly dyskaryotic smear will have HPV testing at point of entry, but the doctors treating them will not be made aware of these results. They will be randomised to smears every six months by their GP or referred for immediate colposcopy.

If they are referred to colposcopy, they will be further randomised to see and treat any abnormality or wait and treat only high grade abnormalities, CIN 2 or 3. After three years they will have an exit colposcopy and an exit HPV test.

“We will have a study at the end that has the power to show us if there are benefits from any one of these different arms. We hope it will also shed light on how useful HPV testing might be.

“The problem with HPV itself is there is nothing you can do to get rid of it. If you make the woman aware she has got HPV, how does she react psychologically?

The study will not attempt to cost the different trial arms, but it will attempt to assess the psychological impacts on women of the different regimes. “Some women may prefer the invasive treatment, in order to reduce anxiety, rather than the watch and wait approach.

“It’s a very important study, because there are so many women in this situation with mild or borderline abnormalities,” said Dr Duncan.



*There has been considerable interest over the past twelve months in HPV and its links to cervical cancer.*

*A number of newspapers and magazines have called for the HPV test to be included as part of the regular screening process. The Journal of Pathology published the results of a study by Walboomers et al, which concluded that 99.7 per cent of invasive cervical cancers worldwide contain human papilloma virus (HPV). Other studies looked at using HPV status to manage low grade abnormalities and a Health Technology Assessment (HTA) systematic review has been published.*

*The effectiveness of HPV testing alongside the smear is included in the TOMBOLA trial and the current position is being kept under review by the Advisory Committee on Cervical Screening and the National Screening Committee.*

# The link between smoking and

***Smoking has been suggested as an additional risk factor in cervical cancer for a number of years, although the exact mechanism by which it might cause the damage is still unclear.***

*Preparing a slide for reading*

**The link is worrying given the rising number of young women who are taking up smoking, but is there any evidence that giving up cigarettes could allow the cervix to repair itself?**

One study suggests that there are clear benefits. It was carried out by Dr Anne Szarewski and colleagues, from the Department of Mathematics, Statistics and Epidemiology at the Imperial Cancer Research Fund.

The researchers looked at 82 women with low grade cervical lesions seen at colposcopy (CIN 1) who attempted to quit smoking for six months. Smoking histories were taken at three-monthly visits, and verified by cotinine levels in saliva. At each visit a photograph of the cervix was taken, and computer images used to assess the size of lesions.

Of the 82 women, 17 stopped smoking completely, and 11 others reduced their cigarette consumption by three-quarters. Of these 28 women, 23 of them (82%) showed a reduction in lesion size of at least 20% or 4mm compared with 28% of the 47 non-quitters.

The researchers concluded: "Our findings support a link between smoking and cervical disease, and suggest that smoking cessation could have a beneficial effect on early cervical abnormalities."



Dr Szarewski said: "There is quite a lot of evidence that smoking is one of the factors involved in cervical cancer. HPV, the human papilloma virus, is the most important risk factor, but it is thought that smoking generally doubles the risk."

There are a variety of theories about how smoking increases the risk, but one suggestion is that it depresses the immune system. It's known that women with compromised immune systems, such as kidney transplant patients on immunosuppressive drugs or those who are HIV-positive, are at greater risk of cervical cancer.

"It's possible smoking in some way depresses the immune system, and this would allow the virus to take hold. Almost

*Dr Anne Szarewski*

# cervical abnormality



everyone seems to get the virus, but in young women it's transient. They catch it like a cold, but their immune system deals with it and it goes away. It's only if the infection doesn't go away that it seems to be important. It may be that if you smoke your immune system is not as efficient and it allows the virus to take hold."

Other suggestions are that there may be a direct effect of some of the poisons in cigarette smoke on the cervix, such as the breakdown products of nicotine which are known to be carcinogenic. These have been found to be present in the cervical mucus of smokers.

Another possible mechanism may be a link with diet. Even if smokers have the same diet as non-smokers they are known to absorb less vitamins, so they may have low levels of antioxidants, such as vitamins C and E, to fight cancer.

"There are so many potential ways in which smoking could act. We don't know which one it is, and probably it's a bit of all of them," said Dr Szarewski.

Although the link is disturbing, it's possible to see the evidence as welcome, not just in terms of another reason to persuade women not to take up smoking, but also to help women with cervical abnormalities to help themselves.

Explained Dr Szarewski: "One of the things that women always want to know when they've got an abnormal smear, apart from the obvious 'have I got cancer' or 'what caused it,' is 'is there anything I can do to try to make it go away?'"

"Stopping smoking is one thing we can say that is worth trying – we can't guarantee it will make them get better, but it's worth trying. Given that giving up smoking is so good for you in every other way, it's a very positive intervention. And, of course, it's yet more evidence not to start."

Dr Szarewski said she was not in favour of more frequent screening being targeted at women smokers, in case this stigmatised them yet further, but it was worth publicising the link with smoking as part of wider health education messages.

"Women with cervical abnormalities often want to take some herbal medicine to help themselves, when there's zero evidence these help. The one thing they really could do is to try to give up smoking.

"People have known for ages that many of the women you see in colposcopy clinics are smokers. If quitting smoking would stop them needing to have treatment – because there was quite a decent proportion of my women whose lesions just vanished – this would seem to be quite an incentive."

*The National Screening Committee (NSC) was established by the UK Department of Health in 1996, as a body to produce clear policy analysis and advice for ministers.*

*Its work centres around two main themes – policy development and quality management.*

*It is important that policies justifying the continuation of current screening programmes as well as for introducing new programmes are based on sound clinical and scientific evidence and in particular the population's health needs. The NSC considers all screening activity and looks to the Advisory Committee on Cervical Screening for detailed knowledge of the NHSCSP.*

*Further information about the National Screening Committee can be found by visiting their web site:*

**[www.doh.gov.uk/nsc/aboutnsc.htm](http://www.doh.gov.uk/nsc/aboutnsc.htm)**

# A smear can

***Frances Orchover gets angry when she hears criticisms that the screening programme is too expensive and only succeeds in causing anxiety in millions of healthy women. She believes a smear may have saved her life.***

## CASE STUDY



**Frances had always attended for her regular smears, but after the birth of her first child, Lily, in August 1998, her smear showed high grade abnormalities. She was told she would have to go for a colposcopy.**

Frances, 34, a barrister who lives in London, had done her homework, reading books and Internet articles about the significance of abnormal smears, but she was still worried. She went for her colposcopy at the Royal Free Hospital in north London.

"They were very good, I have to say, although I did find it stressful. They were also terribly concerned about a woman being invaded. There was a video which I watched beforehand which told you everything you needed to know.

"The colposcopy was relatively painless, although rather undignified, and after just having had a baby you do feel you've had enough of being examined in that area. I was told at the time they probably had found something and they might have to operate. My main concern at the time was if they invaded the cervix whether I would be able to have another child."

After a six week wait for the results Frances was told she had CIN 3. "They do say in the letter this is not cancer. Rationally I knew it wasn't cancer, but I thought to myself 'I've just had a baby – this isn't fair. I'm going to get cancer.' I did cry a bit and think why is this happening to me? I knew it wasn't cancer, but it slightly did my head in thinking that it might be.

"I was very pleased they had found it at the pre-cancerous stage. That was the key word for me – 'pre-cancer.' That's a good word – that's the word we want to hear."

Frances had loop diathermy. "It wasn't painful; I bled for a bit but compared with having a baby it's a walk in the park."

# save your life

Frances has just had her three-month check-up and was found to be fine, but she admits to worrying about this almost more than the original diagnosis, in case something else was seen.

"It seemed logical to me that if the cells had turned abnormal once, they would be more prone to a repetition. I wanted to know if you had had an operation on the cervix was the chance of getting cancer the same as the general population or higher? I was reassured."

Frances believes she and thousands of women like her are a living rebuttal to critics of the screening programme.

"If I had not had that smear it's possible I would have got cancer. I know it was pre-cancer, not cancer, but if I had run away from it, it might have got bigger.

"I think screening is extremely important. It catches women at risk. I know it is not 100% perfect but if it catches people at risk it must be worth doing. I know there's a lobby against it, but there's a lobby against everything."

Frances rejects the argument that the programme imposes needless worry on healthy women.

"If there is to be a way forward then medicine has to be preventive. I'm delighted that most women are healthy – but when they are not, they will be caught and treated. When you go to the dentist for a check-up and you don't need a filling you don't come out thinking 'that was a waste of time' – you feel pleased.

"I don't feel it's a waste of time at all – they found something wrong with me and now it's gone."

Frances argues that the cost of the programme is money well spent in terms of improving the health of women, and a relative pittance compared with spending on some defence equipment.

"An average cost of £35 per women is nothing – it's not even a weekly shop. What could you buy for £35 that might save your life? You're a fool, a short-sighted fool, if you don't support the screening service."



# Statistics

***Each health authority and each cytology laboratory in England is required to send an annual return into the Department of Health. These statistics are then collated by a team at the Department to develop a picture of what is happening across the country in cervical screening.***

Currently the information available covers only cytology and screening invitations. However, a great deal of effort has been put into improving the quality of data in recent years. From this firm footing we now hope to go forward and widen the scope of information about the programme for the future.

The information presented in this review covers the three years from 1996 to 1999. It follows the progress of 13 million smears taken from women in England during that period. Screening is offered to women in England every three to five years and by accepting the invitation regularly a woman can reduce her risk of developing cervical cancer by 80 to 90%.

The screening programme has been highly successful in controlling cervical cancer in this country. The rate of cervical cancer has fallen to 8.9 per 100,000 women in 1996 compared with over 16 per 100,000 women in 1986. It has been estimated to save around 1,300 lives per year and the death rate continues to fall.



## 1. Acceptance of screening: women aged 25-64

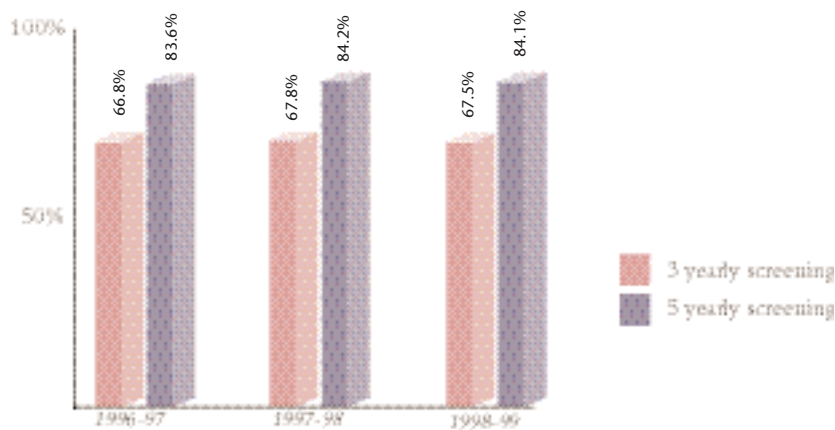


Table 1:

This table shows the proportions of women who have accepted an invitation for screening in the past 36 months and the past 60 months. While there was a slight decrease last year, the coverage of the population by the cervical screening programme has remained high over the three year period shown. The national target is at least 80% of women to have had a cervical smear within the previous five years.

## 2. Cervical screening: Coverage by age, at 31 March 1997 to 31 March 1999

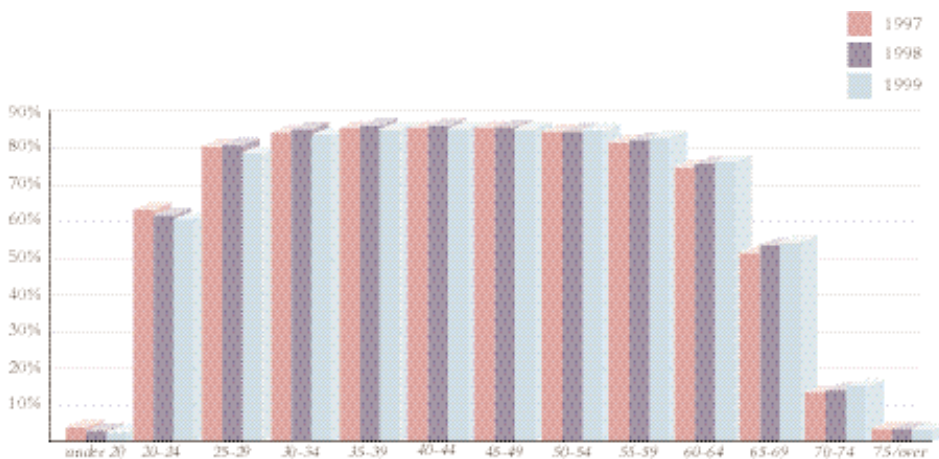


Table 2:

This table splits the coverage rates into five yearly age groups. A slight decline in screening can be seen in the younger age groups and a slight increase in older age groups. Women aged 65 and over who have a recent history of abnormal smears or who have never had a smear continue to be eligible for the screening programme. Women begin to receive invitations for cervical screening from the age of 20 and should have had their first smear by the age of 25.

Table 3:

The number of women screened declined slightly last year, but is higher than in 1996/97. There are around 13½ million women in this age group in England with around 1 million having ceased being screened for clinical reasons (i.e. they have no cervix). Therefore this number of women represents around a quarter of the eligible population being screened each year.

3. Number of women screened aged 25-64

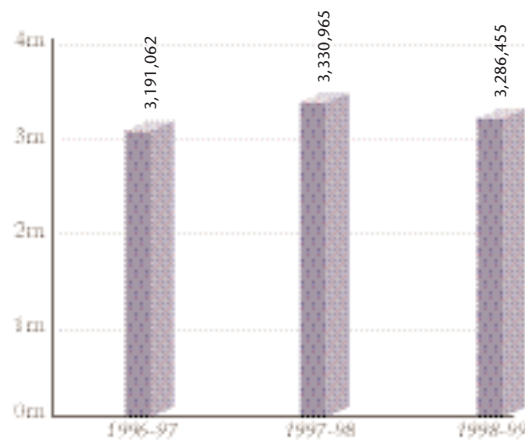
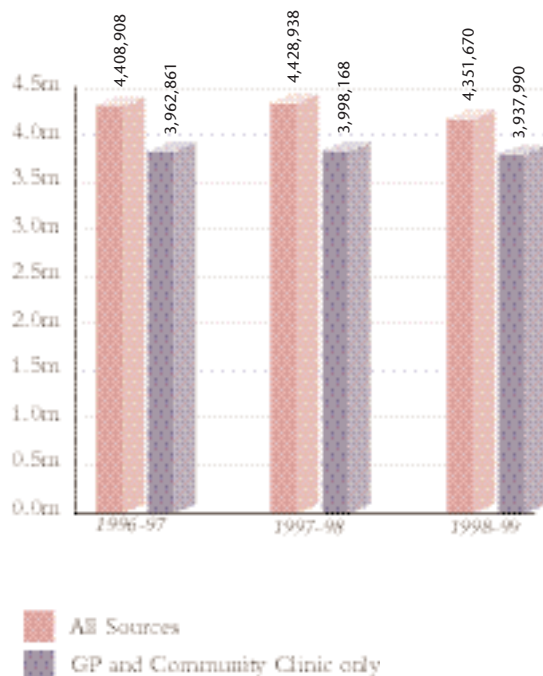


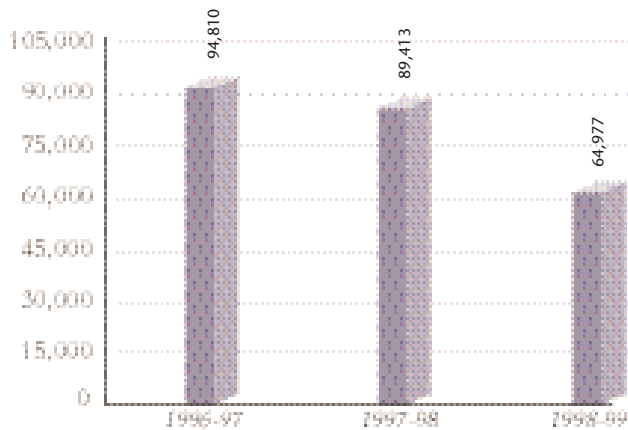
Table 4:

The number of smears examined in the cervical screening programme exceeds the number of women screened. This is because some women have more than one smear for clinical reasons. For example, a woman with a smear that showed borderline nuclear change or mild dyskaryosis would be invited for a repeat smear in six months time to see if the abnormality had resolved or remained present. Another source of repeat smears is the colposcopy clinic, where smears might be taken when a woman attends following her referral after a previous history of abnormal smears. In 1998/99, the number of smears taken fell. The fall was greater amongst smears taken from all sources than among GP and community clinic smears. GP and community clinic smears generally represent smears taken from women without symptoms, whereas the 'all sources' smears include smears taken at colposcopy, gynaecology and genito-urinary medicine clinics.

4. Number of smears examined



5. Screening of teenagers: number of women screened aged below 20



6. Percentage of smears which are inadequate

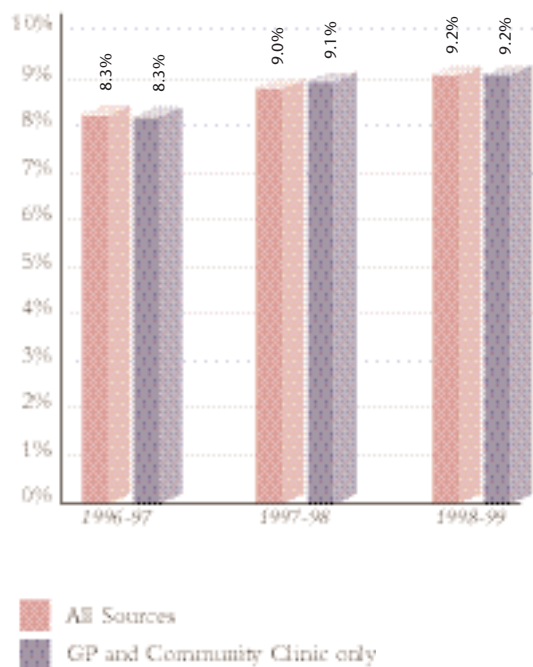


Table 5:

The screening programme begins to invite women from the age of 20. Screening of teenagers is not recommended as the cervix of a girl in her teens is rapidly developing. These rapid changes often cannot be distinguished on a smear from the changes seen when there is a low grade abnormality in the smear of a mature woman. Thus a teenager has a much higher chance than an older woman of the smear being reported as abnormal and, if this apparent abnormality persists she may be referred for colposcopy and have her cervix treated. The risk of developing cervical cancer in a girl's teens is extremely low. In England and Wales in 1993, the last year for which we have data, there was only one case of invasive cancer of the cervix in a girl between the ages of 10 and 19. It is therefore felt that the risk of doing harm to a teenage girl through screening her is greater than the benefits. This guidance was emphasised in the NHSCSP publication 'Guidelines for Clinical Practice and Programme Management'. The number of smears taken in teenagers dropped in 1997/98 by a few thousand, and dropped by more than a quarter in 1998/99. This is a trend which should be welcomed.

Table 6:

The proportion of smears reported as inadequate has been rising for a number of years now. The increase this year, however, is small and the rate of increase may be beginning to slow. A great deal of emphasis is placed on the training of smear-takers and the definitions of smear adequacy have been reviewed.

Table 7:

The proportion of smears which are reported as abnormal has risen marginally this year. However, the actual number of smears reported as being abnormal fell slightly. The increase is amongst smears reported as showing borderline nuclear change or mild dyskaryosis rather than the higher grades of abnormality.

7. Smears showing abnormality

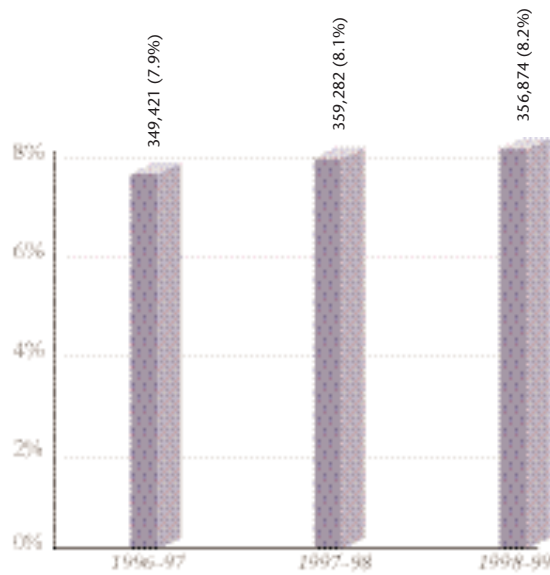
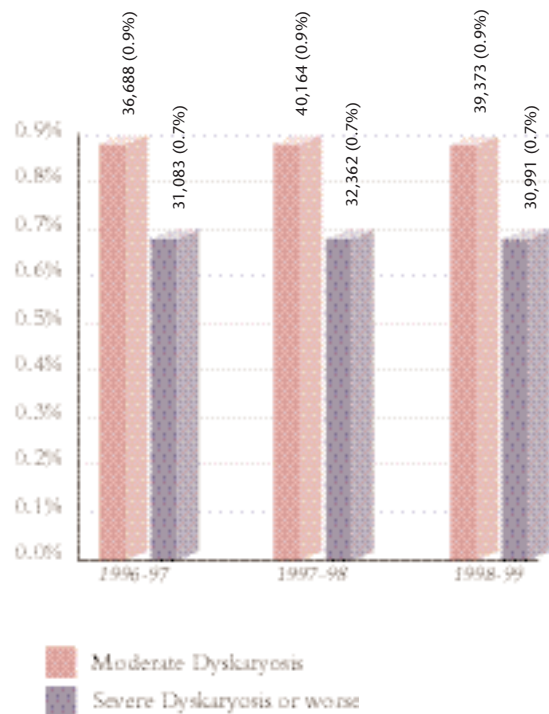


Table 8:

Smears which are reported as showing moderate dyskaryosis, or severe dyskaryosis or worse, mean that the woman is referred for colposcopy immediately, rather than waiting to see if the condition resolves itself. The proportion of smears in this category has remained constant for the last few years although the actual number has fallen in 1998/99.

8. Smears requiring immediate referral for colposcopy



### 9. Smears showing potential glandular abnormality

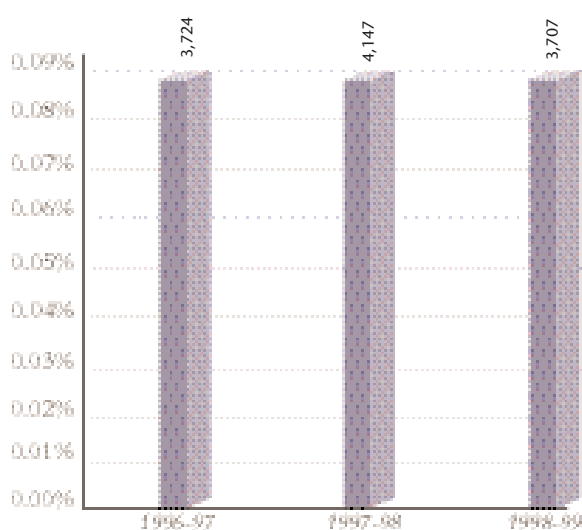


Table 9:

Glandular abnormalities are being found increasingly frequently at colposcopy. Adenocarcinomas (glandular cancers) now comprise around 20 to 25% of all invasive cervical cancers and an increase in numbers is seen across a number of countries. However, glandular abnormalities are very difficult to pick up on a cervical smear and the number of smears reported with a potential glandular abnormality remains a very small proportion of all smears reported at 0.09% in each of the years shown.

### 10. Smears showing possible invasive cancer

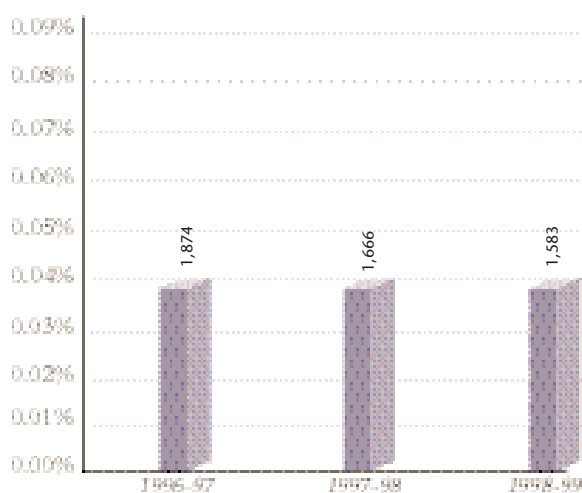
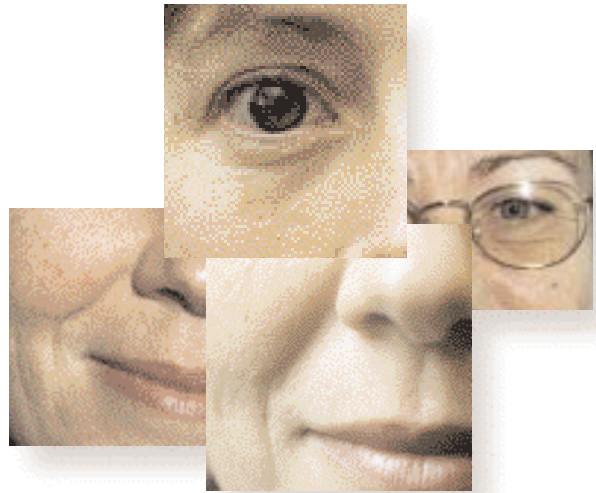


Table 10:

The number of smears reported as showing a possibly invasive cancer is falling year on year. This is consistent with the overall fall in invasive cervical cancers which has been seen in recent years. Only 0.04% of all smears are reported as possibly showing an invasive cancer in each of the years shown.

Tables 7, 8, 9 and 10 refer to percentages of all smears taken



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