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COMPTROLLER AND
AUDITOR GENERAL**

**HC 963
SESSION 2008–2009
12 NOVEMBER 2009**

Department of Health

Young people's sexual health: the National Chlamydia Screening Programme

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National Audit Office

Department of Health

Young people's sexual health:
the National Chlamydia Screening
Programme

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Amyas Morse
Comptroller and
Auditor General

National Audit Office

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Summary

1 In 2003 the Department of Health (the Department) launched the National Chlamydia Screening Programme in England; to date £150 million has been included in NHS allocations for the Programme. We estimate on the basis of survey data, that around £100 million has been spent on delivering the Programme. Funding is not 'ring-fenced' and local Primary Care Trusts (PCTs) decide local budgets. Chlamydia is the most commonly-diagnosed bacterial sexually transmitted infection and is increasing, especially in young people under the age of 25. The Programme aims to identify, treat and control this infection, which is often symptomless and can cause serious health problems including infertility.

2 The Programme has been coordinated nationally since November 2005 by the Health Protection Agency (the Agency), which facilitates and supports the implementation of the Programme and its monitoring and evaluation. The Agency does not allocate local budgets for the Programme, nor engage directly in performance management. The Programme is delivered locally by the 152 PCTs in England, who commission Chlamydia Screening Offices to coordinate the testing of young people under the age of 25.

3 Most testing under the Programme takes place in community health services such as doctors' surgeries and community sexual health services (family planning clinics). A significant amount of testing also occurs in other settings including schools, colleges and youth centres. Many PCTs also offer self-testing services in which young people order test kits from a website, produce a urine sample or swab and return the samples by post for laboratory analysis. This is because the Programme has an 'opportunistic screening' approach – in contrast to the systematic approach adopted by screening programmes for other conditions – aiming to reach young people without requiring them to visit a genito-urinary medicine clinic. This approach was adopted for chlamydia screening for a number of reasons, including the difficulty of maintaining an accurate register of young people, who tend to change their addresses frequently. The approach also reflects current government thinking which aims to increase access to sexual health services for young people by developing primary care and other community services.

4 Our examination of the Programme has explored two main concerns: whether the Programme will be able to achieve its stated aims of reducing the levels of chlamydia infection in the population and the related consequences of untreated infection; and whether the delivery model, in which individual PCTs are free to devise and deliver testing and treatment services locally, is providing value for money. These issues are examined in detail in Parts Two and Three of this report.

Our findings

The Programme's effect on chlamydia infection and associated disease

5 The scientific evidence upon which the Programme is based is subject to debate: both the level of infection in the general population and the probability of chlamydia leading to related and potentially severe health complications are not well understood. A screening programme was recommended by an expert group appointed by the Chief Medical Officer; the Programme was launched without generally agreed, robust data on the levels of chlamydia infection in the general population of young people in England, to provide a baseline against which the impact of the Programme could be measured. There was, however, evidence that infection rates in young people attending healthcare services were high.

6 Modelling by the Agency, published in 2006, indicated that testing between 26-43 per cent of 16-24 year-olds, along with robust arrangements to trace and treat the sexual partners of infected people, would secure a significant impact on the prevalence of chlamydia. In 2008-09, the Agency estimates that 50 per cent of PCTs reached 26 per cent, through a combination of testing under the Programme, other tests in community settings which were not reported to the Programme, and tests in genito-urinary medicine clinics. For infectious conditions such as chlamydia, testing and treatment rates need to be high enough to control the spread of the infection as well as treating those infected. Lower impacts would be seen at lower testing rates, the model predicted. The Agency has developed plans to monitor changes in the prevalence of chlamydia which it expects will contribute to evaluating the Programme and is seeking funding to implement these.

The Programme's local delivery by Primary Care Trusts

7 Following its launch in 2003, the Programme was rolled out in three successive phases. By March 2008, one year later than the Department's target date of March 2007, all PCTs were commissioning chlamydia testing under the Programme. During the financial year 2007-08, 4.9 per cent of 15 to 24 year-olds were reported to the Programme as having been tested, against a target of 15 per cent.

8 For 2008-09 onwards, the Department set PCTs a new national priority for local delivery, in the form of a 'Tier 2 Vital Signs indicator', including progressively increasing annual testing rates of 17, 25 and 35 per cent of under-25s, for the three years 2008-09 to 2010-11. This led to a step-change in activity by many PCTs in 2008-09 in an effort to deliver these rates. In fact, PCTs across England achieved an average testing level of 15.9 per cent by the end of 2008-09, a large increase from the 4.9 per cent achieved in the previous year, although around half of this increase was due to the inclusion of chlamydia tests in community settings not registered with the Programme and tests which, although they took place in registered settings, were not reported to the Programme. In the first quarter of 2009-10 PCTs screened 4.1 per cent of the target population, compared to 2.9 per cent in the first quarter of 2008-09.

Measurement of chlamydia testing

Performance of PCTs against the Vital Signs indicator includes all testing reported through the Programme, as well as other testing in community settings. The Vital Signs figures exclude, however, all testing activity in genito-urinary medicine (GUM) clinics. Assessment of the impact of testing on chlamydia prevalence in under-25s needs to include all testing activity regardless of setting. Hence, paragraph 6 discusses this overall testing rate (26 per cent, achieved by 50 per cent of PCTs), while the figure of 15.9 per cent in paragraph 8 focuses on the testing activity relevant to the Vital Signs indicator alone.

9 The costs of delivering the Programme are highly variable from place to place, indicating that there is scope for efficiency savings. In 2008-09 we estimate that the average cost per test delivered under the Programme was £56, including follow-up activities such as treatment of positive patients and partner notification, and local overheads. PCTs who have achieved higher testing rates tend to have lower costs per test; the Agency estimates, based on a detailed review of seven PCTs who achieved the Vital Signs indicator of 17 per cent testing in 2008-09, that they paid around £45 per test, including follow-up activities and local overheads. However, some PCTs managed to pay much less and still reach the indicator. The Agency estimates that a cost of £33 per test is achievable, as screening volume increases, chlamydia screening gets better integrated in all community sexual health pathways, and collaborative procurement develops. This is in alignment with the evidence from our survey data. The Agency expects to have produced guidance for commissioners on costs at around the time of publication of this report.

10 There has been duplication of effort and cost in several aspects of the Programme which have been purchased in a fragmented way by multiple local commissioners: the marketing and advertising of chlamydia testing services (with at least 45 different brands across England); IT support including website development; and the procurement of testing kits, laboratory processing and treatment. It is likely that it would have been more cost-effective to deliver these elements of the Programme regionally or nationally, which would have produced economies of scale.

11 In 2008-09, 88 per cent of people who tested positive for chlamydia were recorded as having received treatment, against the Programme's standard of 95 per cent and three attempts to contact infected people. This means that an estimated 6,480 people who tested positive for chlamydia were not recorded as having received treatment. Without treatment, testing is wasted for the individuals concerned, since these people remain infected and may go on to infect others. The Agency intends to further prioritise collection of treatment data and promote local treatment structures and processes, with the aim of meeting the Programme standard of 95 per cent of patients being recorded as treated, by the end of 2010-11.

12 Most areas are not achieving the Programme's standards for tracing and treating the sexual partners of people who test positive. In 2008-09, nearly three-quarters of programme areas (72 per cent) failed to meet the Programme's recommended standards for partner treatment. Partners are very likely to be infected and failure to trace and treat them means that the infection will continue to spread. Partner notification rates in genito-urinary medicine clinics, which are outside the Programme, are also lower than recommended standards.

13 There is evidence that young people's awareness of chlamydia as a serious health issue is high. Those who have had a chlamydia test report positive feelings about the experience, but in our survey 40 per cent of young people who were tested for chlamydia said that they had not received advice on issues such as contraception and safer sex when tested. Programme guidance, including a mandatory information leaflet for patients, promotes condom use which can prevent sexually transmitted infections including chlamydia, but at the local level, our survey indicates that some of those delivering the Programme have focused on the ease of testing and treatment for chlamydia to the detriment of guidance on prevention. The test should be used as an opportunity to provide wider guidance and promote safer sex, so helping to reduce infection rates in the long-term.

Wider lessons for other NHS programmes

14 The Programme is an example of the difficulties which can arise when a national initiative is introduced into a locally-managed NHS, when influences and incentives for PCTs are not adequately addressed from the beginning and all aspects are locally commissioned, regardless of economies of scale. The Programme's implementation was limited until a Tier 2 Vital Signs indicator was introduced in 2008-09. The bias towards local commissioning of support services such as marketing and IT has led to inefficiencies.

Overall conclusion on value for money

15 The delivery of the Programme to date has not demonstrated value for money. Annual testing of between 26 and 43 per cent of young people is needed in order to significantly reduce the prevalence of chlamydia; only half of PCTs reached 26 per cent or more in 2008-2009, six years after the Programme's launch. While aspects of the Programme such as making contact with and treating infected young people and their sexual partners can be challenging, the core of the Programme involves delivering a straightforward test to a well-defined group of people. The Department introduced the Programme in a phased manner, in line with the availability of funding, reflecting the need to increase local capacity for testing, and the intention to develop new ways of engaging with young people about their sexual health. A more rapid roll-out, however, would have allowed PCTs to reach the necessary level of testing earlier, which is the key objective of the Programme.

The potential benefits which devolved delivery through PCTs and the phased roll-out could have offered, by refining the efficiency of local programmes before increasing activity, were not realised because the Department did not monitor PCT spending on the Programme, seek to evaluate the most cost-effective local programmes, or set up effective joint commissioning structures to secure economies of scale.

Furthermore, due to uncertainties in the scientific evidence on chlamydia, the Department does not know how often infection leads to serious health problems and hence whether it is cost-effective to invest so much public money in tackling this problem.

We estimate that savings of £17 million could have been made in 2008-09, if all PCTs had delivered tests for £33 (the Agency's calculation of an achievable cost per test in established local programmes). Economies of £40 million per year could be made from 2010-11, when the Vital Signs indicator will increase to 35 per cent.

Recommendations

- a** **The Programme is approaching the volume of testing where models suggest it will have a significant impact on the prevalence of chlamydia and the Agency is currently developing mechanisms to evaluate this. However, the Department needs to set out clearly what the Programme is trying to achieve.** The Department, working with the Health Protection Agency, should:
- i** define criteria for the success of the Programme, which should include the reductions in chlamydia prevalence which it aims to achieve, by when;
 - ii** complete current work to produce a clear picture of the total population coverage of chlamydia testing in each PCT by drawing together data which are used currently to report progress against the Vital Signs national indicator on chlamydia screening with that from genito-urinary medicine clinics;
 - iii** put in place the means to measure the agreed criteria for the success of the Programme including its impact on chlamydia prevalence and disease, in order to demonstrate whether the theoretical models which are a central factor in the justification for the Programme, are reflected in reality. The Department and the Agency should produce recommendations on this by summer 2010, when the results of the second year of the Programme's national operation will be available; and
 - iv** pursue research, in the longer term, to understand better the probability of chlamydia progressing to severe health complications and use this to inform the setting of further criteria for the Programme's success.
- b** **NHS resources are being poorly used because of limited guidance on the most efficient way to deliver testing and this may get worse now the programme is being rapidly expanded.** The Department should introduce a number of key changes to improve the cost-effectiveness of the Programme:
- i** **PCTs have had limited benchmarks to guide their spending. The costs incurred by PCTs are highly variable.** The Agency should make available results from its recent costing review. Further investigations should be conducted to investigate the reasons for cost variations at PCT level, to identify the most cost-effective testing strategies and provide guidance for commissioners on chlamydia screening, including a pricing guideline. The cost-effectiveness assessment should include an evaluation of outreach events and 'remote' testing services such as those provided through websites.

- ii Many of those who take a chlamydia test are not receiving any advice about safer sex or the prevention of infection.** The Department should ensure that the Programme supports and reinforces the key messages of its own advertising campaigns on sexual health, by making education and advice about sexual health an integral part of the testing process. Otherwise, any reductions in the level of chlamydia infection will only be sustained through the continuation of high levels of testing and treatment, which may not be cost-effective.
- iii If people who test positive for chlamydia are not treated, the money spent on testing is wasted for these individuals. Overall, an estimated 6,480 people, or 12 per cent of those who tested positive, were not recorded as having received treatment in 2008-09. Only 28 per cent of Programme areas met recommended levels for treating the partners of infected people.** The Agency needs to improve data collection on the treatment of infected people, to highlight for poorer-performing PCTs how other areas are achieving much higher treatment levels, and also help them to meet the Programme's standards for tracing and treating partners. This should include an investigation of the effectiveness of different testing venues in securing treatment of people who test positive and their partners.
- iv Some aspects of the Programme are inherently more suitable for delivery at the national or regional level, rather than locally by PCTs.** Alongside its plans for a national campaign on chlamydia testing, due in 2010, the Department should consider ways in which the message about chlamydia testing can be reinforced nationally while ensuring that consistent messages are delivered locally. The Department should also undertake reviews of online screening, data-gathering and testing kit procurement, with a view to putting national or regional arrangements in place.
- v The local strategic planning, commissioning and delivery models for chlamydia screening vary, both in approach and in degree of success. Most PCTs have assigned dedicated coordinating teams, but the scope of influence, seniority and management experience of those recruited also varies.** Local PCTs need to provide appropriate support and training on key aspects of programme delivery, based on guidance provided by the Agency, to ensure that local co-ordinators can meet the requirements of their role and deliver efficient and effective local programmes.
- vi Mechanisms for influencing PCTs' spending or plans for chlamydia testing have been of limited effectiveness.** The Department should establish arrangements which will better enable the Agency and Strategic Health Authorities to more effectively influence PCTs' strategies for chlamydia testing and to pursue more focused and cost-effective delivery arrangements for the Programme, including commissioning at a regional or national level.

Part One

Introduction

1.1 This report examines the National Chlamydia Screening Programme (the Programme), a major Department of Health initiative to identify the sexually transmitted infection (STI) *Chlamydia trachomatis* ('chlamydia'), treat those infected and reduce transmission to others. Chlamydia is the most common bacterial STI and is increasing in young people under 25. Between 2004 and 2008 the number of young people diagnosed with chlamydia in genito-urinary medicine clinics rose by 14 per cent, to more than 71,000¹. The infection can be easily identified and treated, but if left untreated may cause long-term health effects including pelvic inflammatory disease, ectopic pregnancy and infertility in women.

1.2 The Programme is a leading element of the government's national strategy for sexual health and HIV. Since 2003 we estimate, on the basis of survey data, that the National Health Service (NHS) has spent around £100 million on the Programme, delivering a total of 1.7 million chlamydia tests. Activity is expected to more than double by March 2011. On the basis of an estimated £42 million spent in 2008-09, expenditure will need to reach around £100 million per annum at current unit costs, to achieve this. Our examination of the Programme has explored two main concerns: whether the Programme will be able to achieve its stated aims of reducing the levels of chlamydia infection in the population and the related consequences of untreated infection (Part 2); and whether the delivery model, in which individual PCTs are free to devise and deliver testing and treatment services locally, is providing value for money (Part 3). This Part provides background information and context.

Chlamydia infection and its effects

1.3 Chlamydia is the most commonly diagnosed sexually transmitted bacterial infection, which can be prevented by using condoms and treated easily with antibiotics. Infection does not usually cause any noticeable symptoms. This increases the likelihood of the infection spreading, since people may not realise that they are infected and will not seek treatment or change their sexual behaviour. Although the current level of infection in the general UK population is not known, a national sample of more than 3,500 people in 2000 found infection rates of around three per cent in people aged 16-24. In the most recent data from the Programme, on average 6.8 per cent of young people tested were infected with chlamydia.

¹ Rates of chlamydia diagnosis in genito-urinary medicine clinics may not reflect patterns of chlamydia infection in the general population, since chlamydia infection is often symptomless so infected people will not visit genito-urinary medicine clinics for treatment. However, diagnoses in genito-urinary medicine clinics tend to be used to show trends since there is no annual data on chlamydia infection in the general population.

1.4 Although chlamydia is known to cause complications such as pelvic inflammatory disease, ectopic pregnancy and infertility, the probability of an individual infected with chlamydia going on to develop them is not well understood. For example, there are several causes of pelvic inflammatory disease in women and the symptoms, such as fever and lower abdominal pain, are not specific to the condition. Estimates of the proportion of women with chlamydia who will develop pelvic inflammatory disease range from five to 30 per cent.

Identification and treatment of chlamydia

1.5 Chlamydia tests in the Programme are based on laboratory analysis either of a urine sample or a genital swab. In 2008-09, 67 per cent of tests in the Programme were based on urine samples. Samples are analysed in specialist laboratories using a process known as the Nucleic Acid Amplification Test (NAATs). In 2004-05 the Department provided £7 million to fund the equipment required to conduct NAATs in NHS laboratories, although this allocation was not specific to the Programme. The usual treatment for chlamydia is a single tablet of azithromycin, an antibiotic which reliably clears the infection but which, like all antibiotics, does not protect against reinfection².

The public service response to rising diagnoses of chlamydia infection

1.6 The Department of Health's initial impetus to address chlamydia came from a 1998 report³ by a group of experts in sexual health appointed by the Chief Medical Officer. This recommended that women under 25, especially teenagers, should be offered 'opportunistic' screening when they visited their GP or used other health services such as community sexual health services.

Opportunistic screening

The opportunistic approach used in the National Chlamydia Screening Programme involves offering chlamydia tests in various NHS venues such as GP practices and community sexual health services ('family planning clinics'), but also in settings such as schools, colleges and youth centres. Some local programmes run 'outreach' events offering tests in settings such as nightclubs and bars and many offer web-based 'remote' testing services, which enable young people to order kits from a website, produce the samples at home and post them to the laboratory for testing. The opportunistic approach contrasts with screening programmes for other conditions such as cervical cancer, targeting older age groups, which have a 'systematic' or 'register-based' approach. This involves maintaining a register of patients deemed to be at risk of the condition who are requested, usually by personal letter, to take a test at regular intervals. The Department told us that the opportunistic approach was adopted for the Programme for a number of reasons, including young people's low response to testing invitations, their regular attendance at GPs, and the difficulty of maintaining a register of young people, who tend to change their addresses frequently. In 2006, the World Health Organisation published guidance recommending opportunistic screening for chlamydia of people aged 25 and under accessing sexual health or primary care services.

² Widespread use of antibiotics can encourage the development of strains of bacteria which are resistant to antibiotic treatment. The Agency has a study under way to investigate whether the treatment which the Programme provides is likely to lead to antibiotic-resistant strains of chlamydia.

³ *Main report of the CMO's Expert Advisory Group on Chlamydia trachomatis*, Department of Health, December 1998.

1.7 Following the expert group's report, the Department of Health held pilot screening projects in Portsmouth, Hampshire and Wirral, Merseyside in 1999 and 2000, to evaluate the costs, acceptability and feasibility of an opportunistic screening programme. The pilots focused on women aged 16-24. They found that in Portsmouth, 9.8 per cent of those tested were infected and in Wirral, 11.2 per cent of tests were positive. The Department's sexual health and HIV strategy⁴ for England, published in 2001, announced that a national chlamydia screening programme would be launched, to reduce the prevalence of chlamydia and prevent the development of associated health problems. In June 2003, the Health Select Committee in Parliament recommended national rollout of the Programme⁵. During 2002-03 to 2005-06, the Department provided £23 million of initial funding to PCTs.

1.8 The launch of the Programme took place in three phases (**Figure 1**). By the end of the financial year 2003-04, 30 Primary Care Trusts (PCTs), the NHS bodies responsible for planning and commissioning local health services, were providing chlamydia screens under the Programme, followed by a further 54 PCTs during 2004-05. In total, this represented just over a quarter of the 303 PCTs which existed in England prior to October 2006, when PCT numbers were reduced to 152. In 2005, as part of the implementation of the *Choosing Health* White Paper⁶, the Department of Health advised PCTs collectively to allocate £80 million for the Programme over the three financial years 2005-06, 2006-07 and 2007-08, to support the third and final phase of roll-out, but under the principles of local management of the NHS, the Department could not compel PCTs to do this. In 2007-08 4.9 per cent of young people were tested, against a target of 15 per cent. Those involved and expert observers attribute this largely to circumstances prevailing in the NHS at the time, with PCT structures being reorganised and many under financial pressure. Public health programmes such as chlamydia screening were, as a consequence, not always seen as a priority at a local level.

1.9 In 2007 the Department announced the introduction of a new national priority for local delivery, in the form of a 'Tier 2 indicator' under the Vital Signs performance framework⁷. For 2008-09 this was set at 17 per cent of the target age group and produced a sharp rise in testing rates in that year, to an average of 15.9 per cent, although around half of the increase was due to the inclusion of chlamydia tests in community settings not registered with the Programme and tests which, although they took place in registered settings, were not reported to the Programme⁸. From March 2008 all PCTs were involved in the Programme, a year later than the Department's aim of March 2007. The indicator, which is monitored by the Department of Health via the 10 Strategic Health Authorities as part of PCTs' overall performance⁹, has been set at 25 per cent in 2009-10 and 35 per cent in 2010-11.

⁴ *The national strategy for sexual health and HIV*, Department of Health, July 2001.

⁵ *Sexual Health*, Third Report of Session 2002-03, House of Commons Health Committee.

⁶ *Choosing Health: Making healthy choices easier*, Department of Health, November 2004.

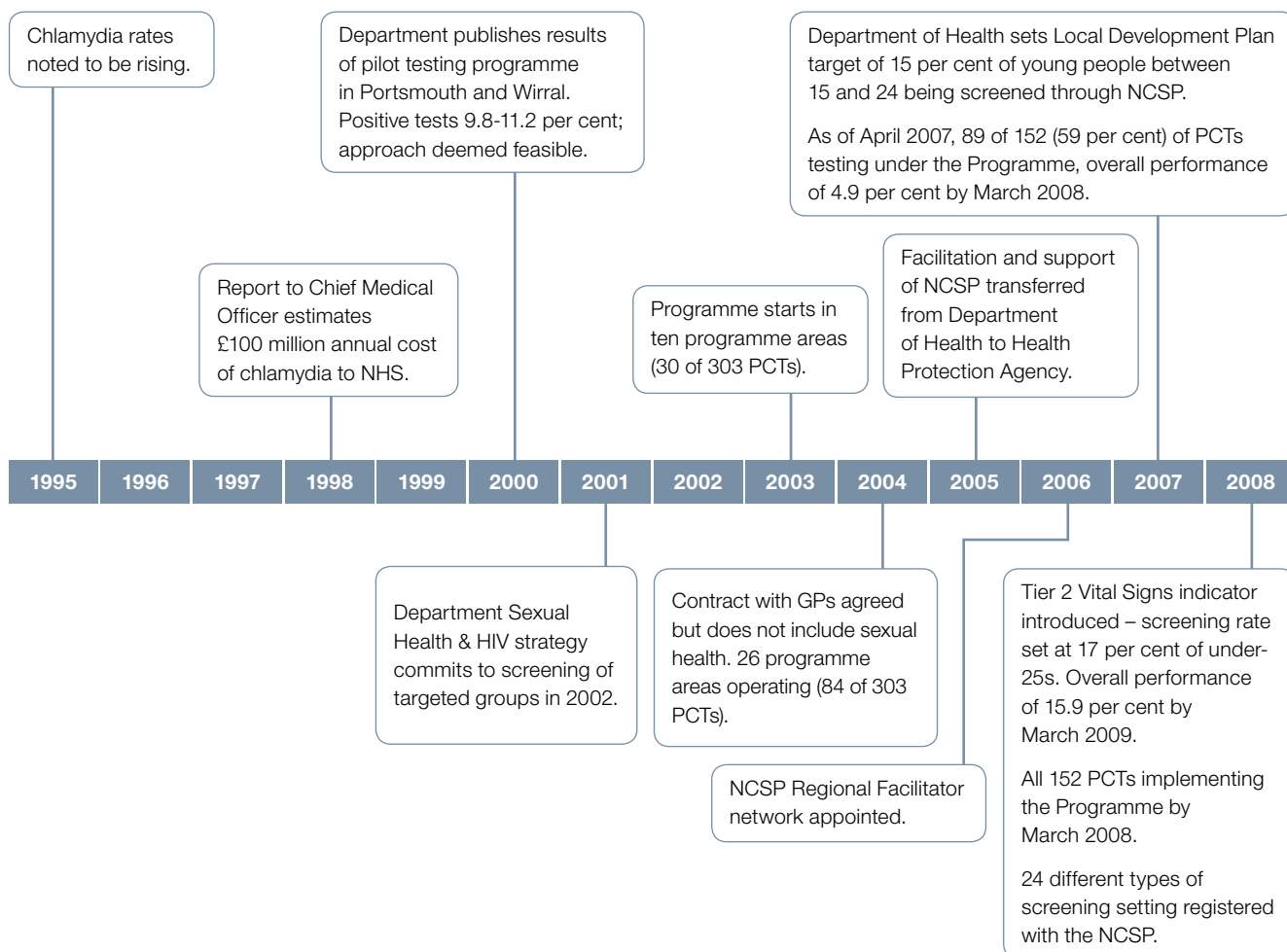
⁷ The Vital Signs framework contains three tiers of indicators: Tier 1 indicators set out specific national requirements, which are 'must dos', and subject to performance management by the Department via the Strategic Health Authorities; Tier 2 indicators set out national priorities for local delivery, allowing for flexibility in implementation, and a differentiated approach to performance management by SHAs; Tier 3 indicators are for local prioritisation and delivery, with no performance management by the Department and SHAs.

⁸ The Agency collects this data from the laboratories which analyse chlamydia samples.

⁹ PCTs' performances against Vital Signs indicators, including the chlamydia testing indicator, are also published by the Care Quality Commission, the body responsible for health and social care regulation.

Figure 1

Timeline for the development of the National Chlamydia Screening Programme



Source: National Audit Office, based on information from the Health Protection Agency

NOTE

In October 2006 PCT boundaries were reorganised and the number of PCTs in England halved, from 303 to 152.

1.10 A new national structure was introduced in November 2005 (**Figure 2**), when the Department appointed the Health Protection Agency to oversee the Programme. The Agency is responsible for supporting the introduction, development and establishment of local testing programmes and for collecting data on local programmes' activities. PCTs commission local Chlamydia Screening Offices, headed by a Chlamydia Screening Co-ordinator, which manage and promote the programme locally, plan services, coordinate testing activities, recruit new testing providers and train staff to deliver testing. The offices also collect testing data from venues in their area and report back to the Agency on the number of tests, positive results and other details specified by the Agency. An advisory group of experts in infectious disease control, screening, and sexual health, along with NHS providers, commissioners, and other stakeholders, works with the Programme's national structure and reports to the Department. The Agency also employs Regional Facilitators to support the Strategic Health Authorities in developing chlamydia screening regional strategies and to guide local coordinators and commissioners in the effective implementation of the screening Programme.

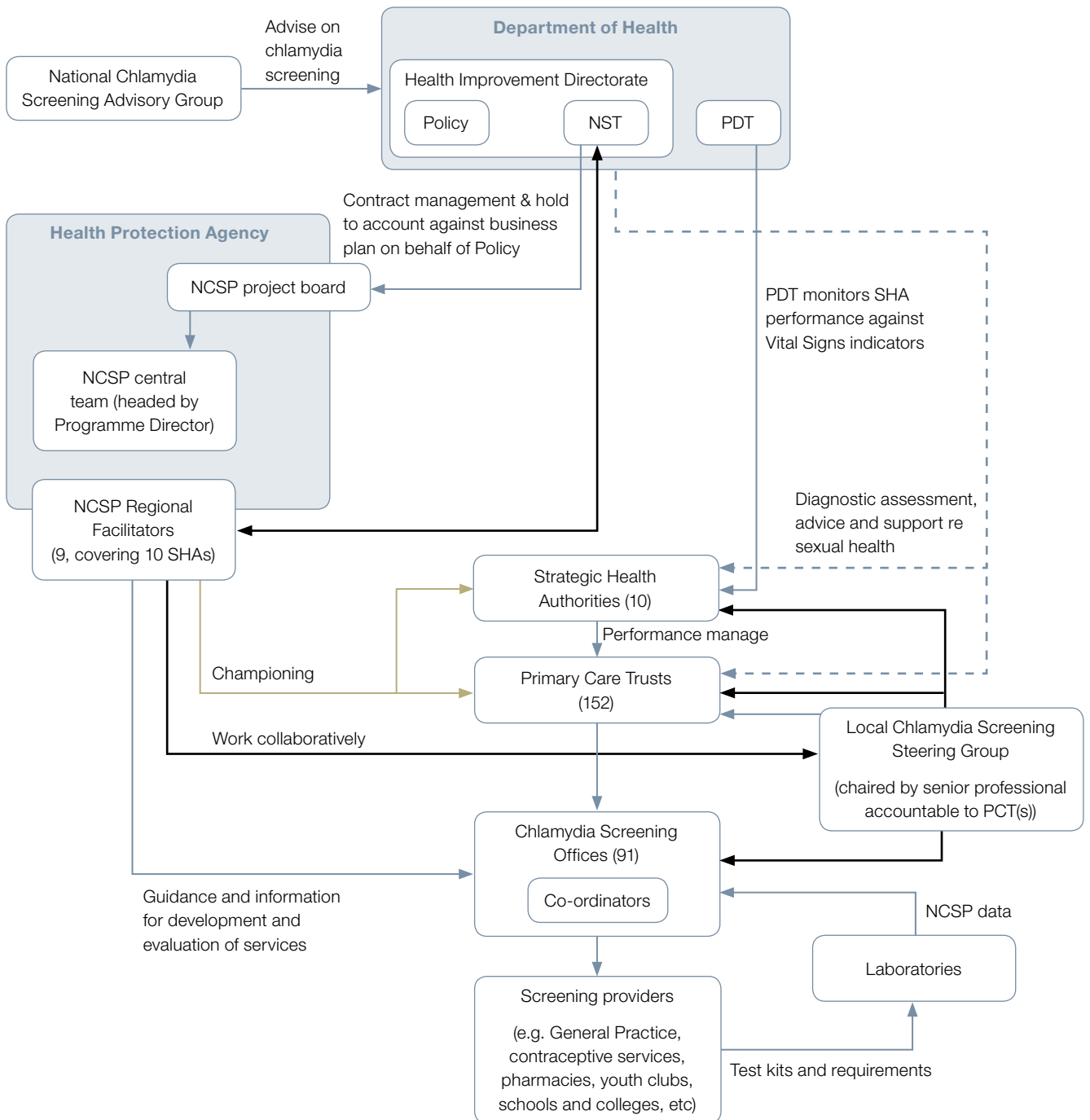
1.11 The Department agreed to pay the Agency £3.9 million over the financial years 2006-07 and 2007-08, but £1.6 million, or 41 per cent of this, was not used in the period. The Agency attributes the underspend to difficulties in recruiting key staff. When the first service level agreement between the Department and the Agency expired in March 2008, the two bodies had not renewed it. A second agreement was not signed until 18 months later in September 2009, during a period when testing activities under the Programme were rapidly increasing. The Department and the Agency point out that an agreed business plan was in place throughout this time.

1.12 The Agency, which does not have any remit in regard to PCTs' spending or strategies for chlamydia testing, reported delays in rolling out testing nationally. As described above (para 1.9) many PCTs did not implement the Programme until the Tier 2 Vital Signs indicator came into effect.

1.13 The Programme aims to achieve a major increase in chlamydia testing actively offered to young people in the locations that they normally frequent, away from genito-urinary medicine clinics which are not part of the Programme. The Programme takes this approach to detect infection in people who do not have any symptoms, who would not otherwise seek care, and to develop sexual health services in community settings, in line with the principles outlined in the 2006 White Paper *Our Health, Our Care, Our Say*¹⁰. The Department sees the Programme as leading a new approach to sexual health services delivered in the community, as laid out in its 2001 sexual health strategy. The Department considers that the Programme has helped the modernisation of sexual health services around the needs of service users. For example, the additional benefits of the Programme include the promotion of condom use to prevent sexually transmitted infections including HIV and effective contraception to avoid unintended pregnancies, especially in teenagers.

10 *Our health, our care, our say: a new direction for community services*, Department of Health, January 2006.

Figure 2
Roles and responsibilities



Source: National Audit Office, based on information from the Health Protection Agency

NOTES

NST: National Support Team.

PDT: Performance Delivery Team.

Part Two

The impact of the National Chlamydia Screening Programme

2.1 This Part of the report examines the evidence base on which the Programme was launched and the implications of this for any assessment of the Programme's cost-effectiveness. It also examines the testing rates achieved to date and the expected future impact on the numbers of young people infected with chlamydia. Finally, we conclude with an assessment of the wider effects of the Programme, such as its effect on young people's attitudes to sexual health.

The evidence base for the Programme

2.2 A good understanding of two key aspects of chlamydia – the prevalence of the infection in the general population of young adults, and the probability of chlamydia leading to severe health complications – are crucial to any assessment of the Programme's impact and its cost-effectiveness. The scientific evidence in both these areas is limited and the interpretation of the existing data is subject to debate. Some of the studies which have been carried out since the Programme's launch have not strengthened the case for testing.

2.3 The National Screening Committee (NSC), the body responsible for advising the UK governments on screening programmes, supported the pilot programmes in Portsmouth and Wirral which preceded the Programme's launch. Since then, the NSC has not formally reviewed the Programme, but has defined it, because of its opportunistic approach, as a 'disease management' programme rather than a 'screening programme' and as such, outside the remit of the Committee.

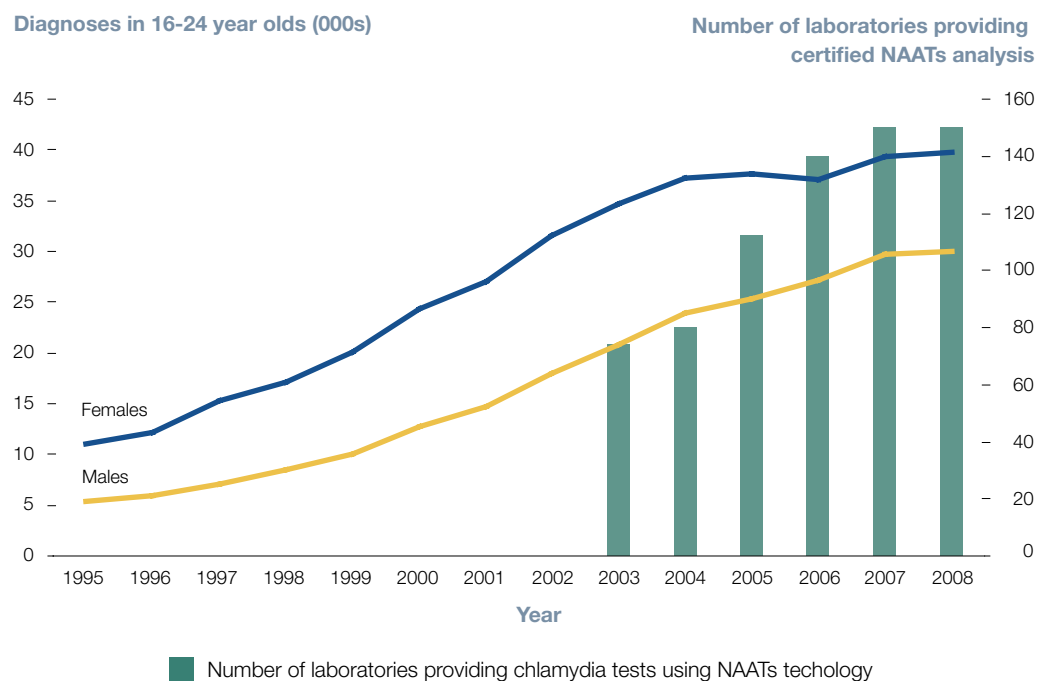
The Programme's expected effect on the prevalence of chlamydia

2.4 The Programme was launched without generally agreed, robust data on the amount of chlamydia infection in the general population of young adults in England, although levels in young people attending healthcare services were high. Such data are difficult and costly to collect, but could in principle have provided a baseline level of infection against which the Programme's impact could be seen. What was known, however, was:

- Levels of infection in under-25s, the key target group for the Programme, were in part based on data gathered from genito-urinary medicine (GUM) clinics by the Agency, which showed a marked increase in diagnoses from 1995 onwards (see **Figure 3**). Such results are not a good indicator of an increase in general prevalence, however, since the increases in diagnoses coincided both with the introduction of more accurate testing technology and increased numbers of tests being performed, and people attending GUM clinics often have symptoms or perceive themselves to be at risk¹¹.

Figure 3

Chlamydia diagnoses in young people aged 16-24, in genito-urinary medicine clinics



Source: National Audit Office, based on data supplied by the Health Protection Agency

NOTES

- 1 The numbers of diagnoses shown above are higher for females because more female than male patients visit clinics for a chlamydia test.
- 2 The chart also shows (columns) the increase in the number of laboratories providing the new and more accurate NAATs analysis of chlamydia tests, which may account for some of the increase in numbers of recorded diagnoses. The numbers shown are those laboratories participating in the recognised quality assurance scheme for chlamydia testing, known as NEQAS.

- According to a review by the Agency, data from tests taken in various NHS settings, from the 1980s onwards, showed varying rates of chlamydia infection¹². In those aged under 20 years, rates ranged from 8.1 per cent in general practice to 17.3 per cent in GUM clinics; whilst in those aged 20 to 24 years rates ranged from 5.2 per cent in general practice to 11.6 per cent in GUM clinics. Overall, the Agency review estimated that in the general population 4.9 per cent of women under 20 years of age, and 3.2 per cent of women aged 20-24, were infected with chlamydia. There was not enough data available to produce an estimate for chlamydia prevalence in men.

2.5 In order to track the impact of the Programme on chlamydia infection, the Department and the Agency need a composite picture about all chlamydia tests on under-25s and also require information about the prevalence of chlamydia in the population. Work is in train to address these issues:

- The Agency gathers data about testing by some health services which provide chlamydia testing but which do not report to the Programme, such as GP practices which have not registered with the Programme or have not submitted information to the local Chlamydia Screening Office. These account for nearly a third of all community tests counted against the Vital Signs indicator, and are included in the results published by the Agency on individual PCT performance. The published performance statistics do not, however, currently include information from GUM clinics. The Agency does not have a composite picture on the number of tests conducted overall, but estimates that GUM clinic testing amounts to around eight per cent of those aged 15 to 24¹³. The Agency has been working to develop a data system which will provide a composite picture of chlamydia testing and diagnosis and anticipates that a PCT-level picture of all tests carried out will be available in the financial year 2010-11;
- A model developed by the Agency in 2006¹⁴ (**Figure 4**) indicated that testing coverage of 26-43 per cent¹⁵ of the 16-24 year old population, combined with robust systems for notifying, testing and treating the sexual partners of those who test positive, could be expected to produce a substantial reduction in the prevalence of chlamydia infection. If estimated numbers of tests from GUM clinics, on the target age group, are added to those already included in the Vital Signs data, total testing in 2008-09 was around 24 per cent. The Programme is therefore reaching the point where its effect on chlamydia prevalence should be measurable, if the underlying assumptions of the model are fulfilled. The Agency has developed a proposal for a population-based survey to monitor changes in chlamydia prevalence and is seeking funding to implement this.

¹² *Chlamydia trachomatis in the United Kingdom: a systematic review and analysis of prevalence studies*, Adams *et al*, Sexually Transmitted Infections 2004, 80 (5): 354:362.

¹³ Age groups for the Programme and for treatment in genito-urinary medicine clinics are overlapping but defined differently; the Programme targets under-25s while GUM clinics collect data on those aged 15 to 24.

¹⁴ *Modelling the effectiveness of chlamydia screening in England*, Turner *et al*, Sexually Transmitted Infections 2006, 82:496-502.

¹⁵ The model assumes that 85 per cent of young people attend a healthcare setting each year and that all of those attending are offered a chlamydia test. It predicts that when 30-50 per cent of people attending accept the offer of a test each year (equivalent to 26-43 per cent of all young people), large reductions in chlamydia infection will result.

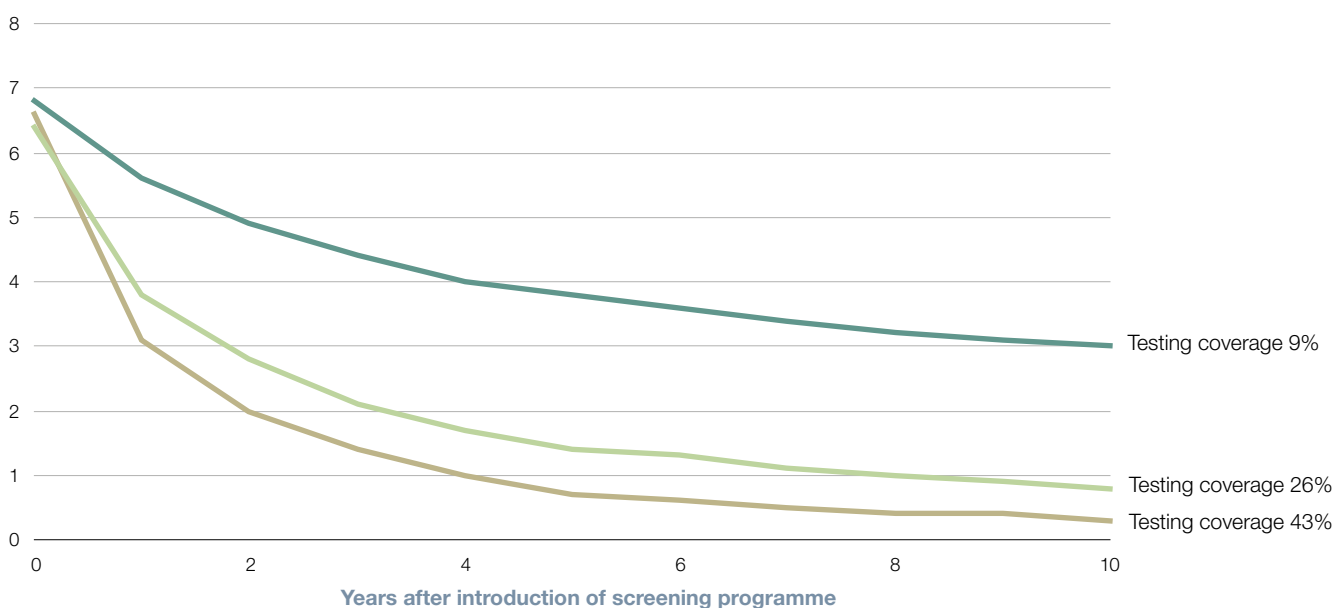
2.6 There are other questions about the Programme's likely impact on infection and associated health complications:

- The interpretation of time trends in data about chlamydia positivity rates in other countries has been questioned. In particular, the decrease in chlamydia infection rates in Sweden that was observed after chlamydia became a notifiable infection in 1988 and doctors were obliged to provide free testing and treatment, occurred during the same time period as a national campaign to raise awareness about HIV/AIDS and reduce sexual practices and behaviours associated with the spread of all sexually transmitted infections¹⁶. Critics also question whether outcomes of chlamydia testing activities in other countries are applicable to the Programme in England. Chlamydia testing activities in other countries are described in Appendix 2.

Figure 4

The effect of testing 16-24 year old men and women for chlamydia: predictions based on Health Protection Agency model

Prevalence: percentage of people aged 16-24 infected with chlamydia



Source: Health Protection Agency – Turner et al, *Modelling the effectiveness of chlamydia screening in England*, *Sexually Transmitted Infections*, 2006, 82:496-502

NOTE

Key assumptions of model: Baseline chlamydia prevalence of ~6.5 per cent, partner notification of 20 per cent, and few cases treated in the absence of a screening programme (5 per cent of female and 0.05 per cent of male cases).

- The Programme's current delivery, to both women and men in a wide variety of settings, is different from the model envisaged by the expert advisory group in 1998. The group suggested a programme aimed at women and delivered in GP practices and community sexual health services; the Department told us that it decided in 2003 to involve men as well as women, with the aim of influencing men's sexual behaviour and raising awareness of sexual health issues. The inclusion of men was also in line with a recommendation by the Health Select Committee in Parliament, in its June 2003 report on sexual health services. Many local programmes have chosen to deliver tests in a range of settings, as examined in Part 3 of this report.

Cost-effectiveness of the Programme

2.7 The expert group report published in 1998, which led to the launch of the Programme, estimated that the consequences of chlamydia infection cost the NHS £100 million per year, excluding the costs of treating infertility resulting from chlamydia, and that a screening programme would produce cost savings as well as benefits to patients. More recent analyses have, however, concluded that the cost-effectiveness of the Programme is uncertain:

- A model developed by the Agency in 2007¹⁷ found that the Programme would not be cost saving to the NHS, but could be cost-effective in terms of benefits for patients¹⁸. It estimated that the programme could cost the NHS £755 million in net terms over ten years.
- A major research study also published in 2007¹⁹ considered the cost-effectiveness of various chlamydia testing programmes, including the Programme in England and found that "No firm conclusions could be drawn...because of methodological flaws in most studies conducted to date".

2.8 The uncertainty arises because cost-effectiveness assessments crucially depend on accurate knowledge of the probability of chlamydia infection resulting in pelvic inflammatory disease, and the probability of subsequent severe complications such as infertility and ectopic pregnancy. Experts have only a limited understanding of the probabilities of chlamydia infection causing disease; for example, estimates of the proportion of chlamydia-infected women who will go on to develop pelvic inflammatory disease range from five to 30 per cent (**Figure 5**).

17 *The cost-effectiveness of screening for genital chlamydia infection in the UK*, E Adams 2007, PhD thesis for the London School of Hygiene and Tropical Medicine, University of London.

18 The second approach is that used by the National Institute for Health and Clinical Excellence (NICE), the body responsible for assessing medical interventions and advising the NHS on whether to fund them. NICE uses a standardised approach based on 'quality-adjusted life years' (QALYs), a measure of the benefits which the intervention will deliver for patients, and has a threshold of £20,000-£30,000 per QALY. It recommends that the NHS does not fund interventions which cost more than £30,000 per QALY. Those within the threshold range can be recommended by NICE for specific reasons. Interventions costing less than £20,000 per QALY will generally be recommended to the NHS by NICE.

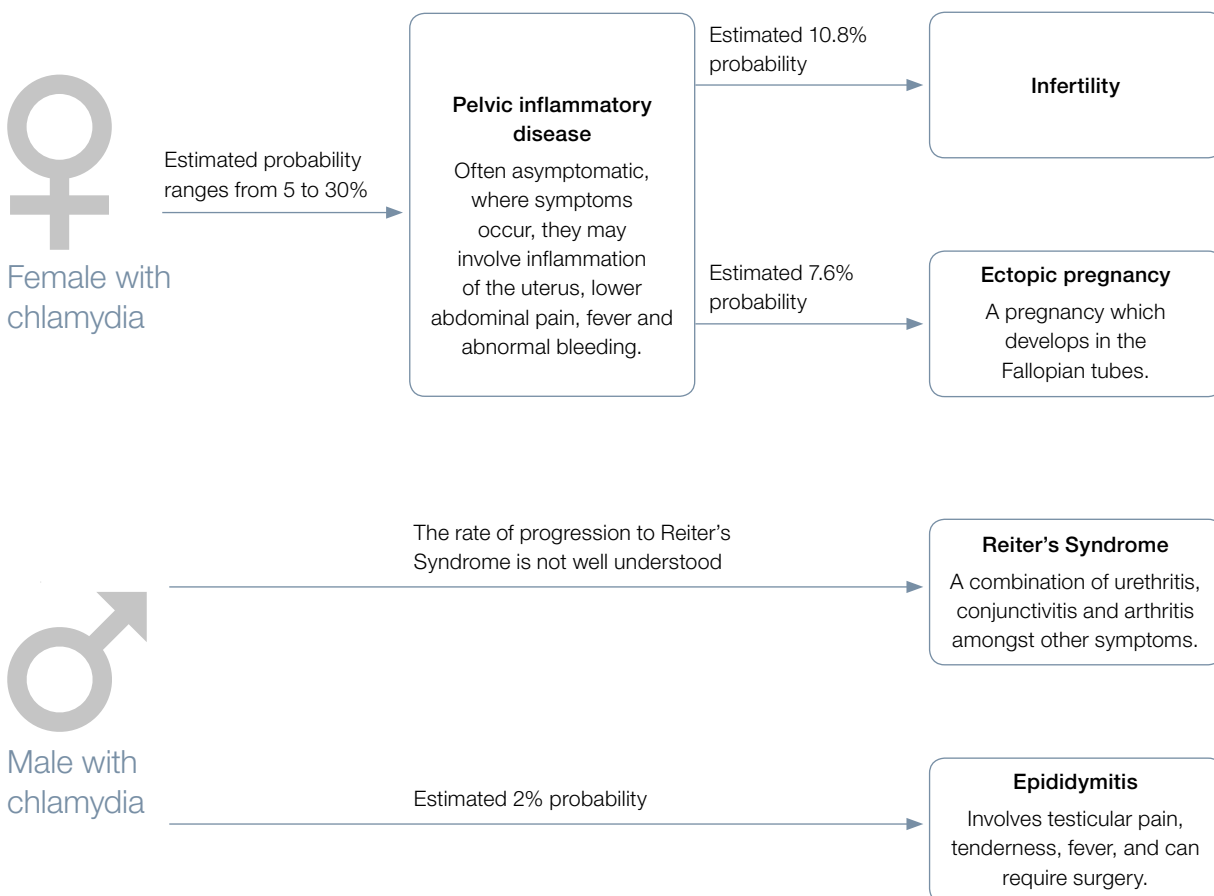
19 *Epidemiological, social, diagnostic and economic evaluation of population screening for genital chlamydial infection*, Health Technology Assessment vol 11, number 8. This series of linked studies, known as the ClaSS studies, involved seven research institutions coordinated by the Department of Social Medicine at the University of Bristol. It took place between 2000 and 2007 with funding from the NHS's National Institute for Health Research.

Testing activity to date

2.9 The Department's 2007 decision to introduce a Tier 2 Vital Signs indicator for PCTs has led to a dramatic increase in the numbers of young people being tested by the Programme (**Figure 6** overleaf). In 2008-09 PCTs were required to test 17 per cent of 15-24 year olds in their area. More than one million tests were performed that year and screening coverage rose to 15.9 per cent of the target population, a significant increase from coverage of 4.9 per cent in the previous year. Nevertheless, more than half of PCTs failed to reach 17 per cent and individual PCTs' testing performance ranged from four to 36 per cent (**Figure 7** overleaf). In the first quarter of 2009-10 PCTs screened 4.1 per cent of the target population against a new aim for the year of 25 per cent.

Figure 5

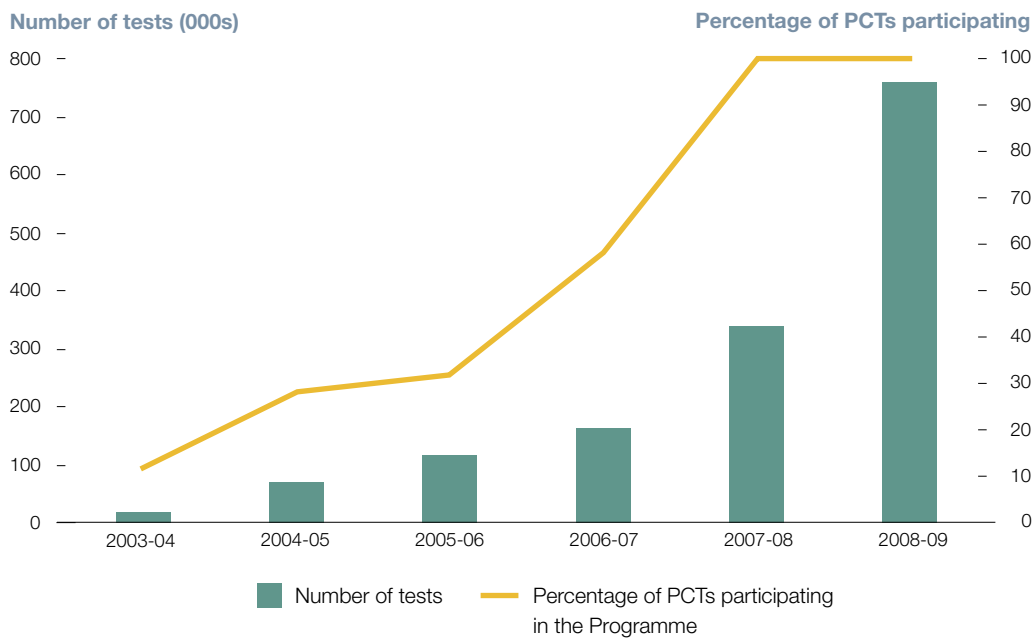
The association between chlamydia infection and subsequent health complications



Source: National Audit Office, based on information supplied by the Health Protection Agency

Figure 6

Annual testing numbers for the National Chlamydia Screening Programme

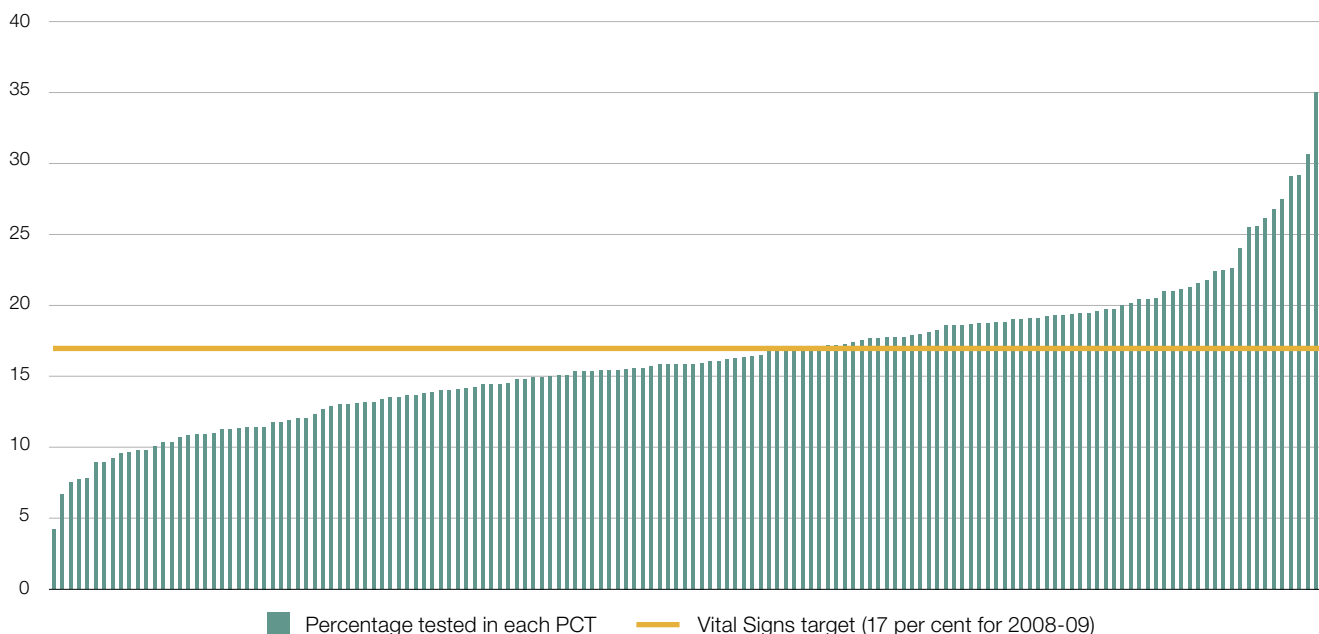


Source: National Audit Office, based on data from the Health Protection Agency

Figure 7

PCT performance against the 17 per cent Vital Signs indicator on chlamydia testing, 2008-09

Percentage of people aged 15-24 tested for chlamydia



Source: Health Protection Agency

The quality of the Programme's data

2.10 Data on local testing activities which is collated and published by the Programme may contain inaccuracies. The 91 Chlamydia Screening Offices which collect the Programme's key data on the numbers of chlamydia tests carried out within the Programme in their area have differing IT systems and processes to check and submit their data. The Agency has audited the quality of data submitted by laboratories on testing outside the Programme which is counted towards the Vital Signs Indicator. This showed that three-quarters of the 60 PCTs audited had correctly extracted data – where problems were revealed they were rectified and data re-submitted. The Agency is also conducting a review of data management processes by CSOs to ensure data are of a satisfactory quality.

Identification and treatment of infected people and their partners

2.11 Results from the first full year of the Programme, 2008-09, show a wide range in the proportion of positive tests in each PCT, from 3.5 to 12.8 per cent of tests carried out. Overall, 7.3 per cent of tests were positive, lower than the rates of 9.8 and 11.2 per cent which were seen in the pilot programmes run in 1999 and 2000 before the launch of the Programme. The variation in the number of positive tests between PCTs arises from various causes including the different approaches adopted by local programmes, their different stages of development and variations in the level of risk among young people tested. The Agency expects that the number of positive tests in each PCT will continue to fluctuate unpredictably as the programme continues to develop. The Agency does not recommend that local programmes try to focus their testing efforts towards particular groups of young people, since evidence suggests that this would not improve the Programme's effectiveness.

2.12 In 2008-09, 88 per cent of people who tested positive for chlamydia were recorded as having received treatment, against the Programme's standard of 95 per cent. This means that an estimated 6,480 people who tested positive were not recorded as having received treatment in 2008-09. This may reflect either low treatment rates or some treatment going unrecorded. Testing without treatment is wasted for the individuals concerned, since these people may suffer complications from infection and spread chlamydia to others.

Tracing and treating the partners of infected people

2.13 Identifying and treating the sexual partners of infected people is important to prevent both reinfection and further transmission to other people²⁰. According to Programme data, nearly three-quarters of programme areas (72 per cent) are not reaching the standard required for this important activity in 2008-09. A partner of an infected person has a much greater chance of testing positive than the average person; 40 per cent of partners tested positive under the Programme in 2008-09, compared to 7.3 per cent of initial tests. Infected people, known as 'index cases', should be asked for information about their partners when they receive their test results. They will then be advised to inform their partners and should also be offered 'provider notification', where a health professional will contact the partners to offer treatment²¹ or to ask them to take a chlamydia test. The Programme's guidance has adopted the standard developed by the British Association for Sexual Health and HIV (BASHH), which recommends that PCTs should aim to treat four in ten partners in large cities, and six in ten partners elsewhere²² within three months of discussing the issue with the infected person. The Agency requires local programmes to report partner treatment data, but in 2008-09 six of the 91 local programme areas did not report any such data. Of the 85 who could provide data, only 24 had reached the recommended standard. Partner notification rates in genito-urinary medicine clinics, which are outside the Programme, are also lower than recommended standards, however.²³

Young people's awareness of chlamydia and experiences of testing

Efforts to raise awareness of chlamydia testing

2.14 Local areas have purchased their own branding and marketing to promote the Programme; we estimate, based on information from our survey of PCTs, that this cost £5.5 million in 2008-09. There are at least 45 different local brands being used to promote the Programme across England, in addition to the patient information leaflets, posters and website which are nationally branded by the Programme. This risks diluting and confusing the Programme's message, while also wasting money.

20 *Modelling the effectiveness of chlamydia screening in England*, Turner *et al*, Sexually Transmitted Infections 2006, 82:496-502.

21 Since there is a high chance that the partner of an infected person will be infected with chlamydia, some local programmes choose to offer treatment to partners without testing them first.

22 The Programme's internal target for partner notification and treatment is lower in cities since it is usually more difficult to trace the sexual partners of urban residents, who tend to have less stable and more short-term sexual relationships. This target is not monitored for the purposes of the Vital Signs indicator.

23 A recent audit of genito-urinary medicine clinics by the British Association for Sexual Health and HIV found that the national average for partner testing was 0.45 partners per infected person, with a range of 0.29-0.73 (McClean, *H et al* Int J STD AIDS 2008 Jul, 19(7):473-6).

2.15 At the time of the Programme's launch in 2003, the Department decided not to launch a national marketing campaign for the Programme because it felt it was inappropriate to urge young people to seek out testing before testing services were in place across the country. Now that the Programme is operating nationally, the Department plans to launch a national campaign to encourage acceptance of a chlamydia test when it is offered, in January 2010.

2.16 The Programme has not been linked to previous national sexual health campaigns funded by the Department and the Department for Children, Schools and Families, which are aimed at similar age groups and aim to influence safer sex behaviours. The two government departments are currently jointly reviewing their existing communications strategies on sexual health and teenage pregnancy.

Young people's attitudes and experiences

2.17 Young people's awareness of chlamydia is high, although it is not possible to judge how far this is due to the Programme or to other sources of information. Our survey found that 93 per cent of young people had heard of chlamydia and 58 per cent of those were worried about the infection. The Department's own research²⁴ with young people also found a high awareness of the infection.

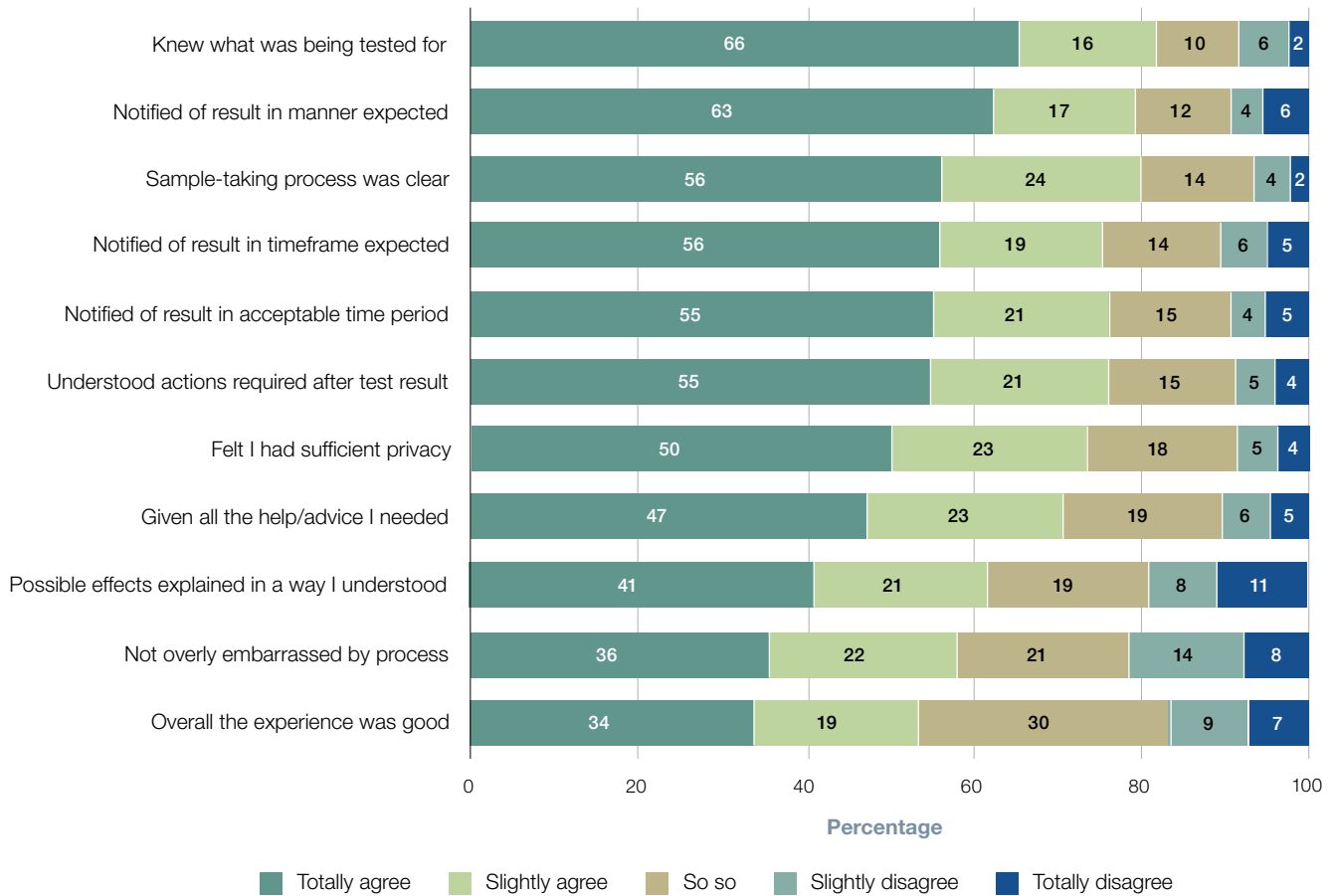
2.18 Young people generally understand the potential effects of chlamydia, the testing process and treatment; in our research, three-quarters of respondents identified infertility as a long-term effect of the infection and 84 per cent knew that antibiotic tablets were the treatment. Most of those we surveyed who had received a chlamydia test (46 per cent) had positive feelings about the experience (**Figure 8** overleaf) and most intend to get tested again; 74 per cent said they would take a test at least every one to five years.

2.19 Some 40 per cent of those in our survey who had been tested said that they had not received advice on issues such as contraception and safer sex when they took the test. Two-thirds (67 per cent), said they had not changed their behaviour in any way after taking a chlamydia test. Even where people tested positive, 39 per cent still stated that they did not change their sexual behaviour.

²⁴ *Chlamydia Screening and Sexual Health Marketing – Research with Stakeholders*, COI for Department of Health, February 2009.

Figure 8

Young people's experiences of testing



Source: FreshMinds research for the National Audit Office (based on responses from young people who received a chlamydia test; the number of responses ranged from 446 to 464 depending on the question asked)

Part Three

The operation of the Programme

3.1 This Part of the report examines the delivery of the Programme at local level, including costs and patterns of activity, and evaluates the regional and national structures which support local delivery. In evaluating the efficiency with which the Programme is being delivered, it considers the commissioning and procurement arrangements underpinning the Programme, cost variations at local level and the factors which contribute to these variations.

Local delivery

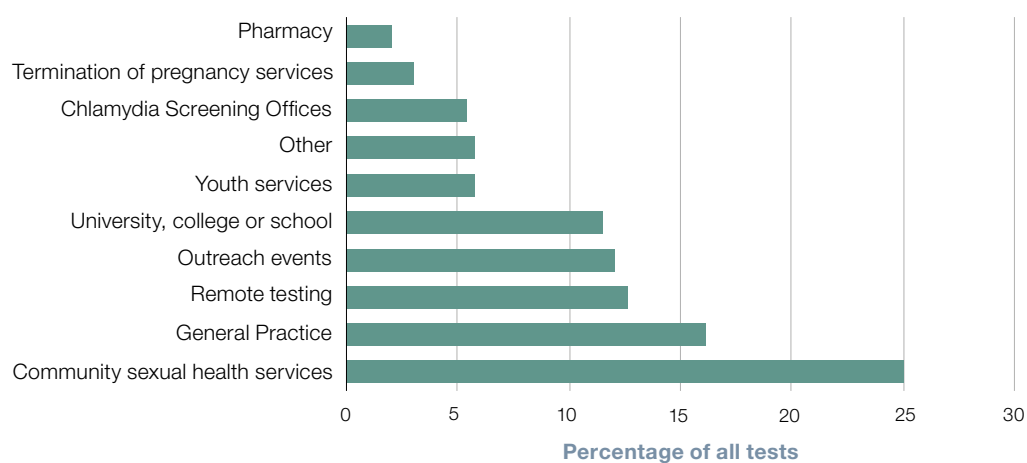
3.2 Primary Care Trusts are responsible for local delivery of the Programme. They determine local budgets for chlamydia testing and are held accountable by the Department for their performance against the Tier 2 Vital Signs indicator for levels of testing. PCTs submit their plans for achieving the indicator to the Strategic Health Authorities, for the SHAs' sign-off. PCTs commission local testing activity, primarily through Chlamydia Screening Offices, which manage and promote the Programme locally, plan services and coordinate testing activities, recruit new testing providers and train staff to deliver testing. The Offices are also responsible for the performance management of providers, quality assurance procedures and for collecting Programme data. Some Chlamydia Screening Offices are jointly commissioned by more than one PCT, since there are 91 Offices and 152 PCTs in England. Each local programme area also has a Local Chlamydia Screening Steering Group, which provides the overall strategy for the implementation of the Programme and works with the PCT (see Figure 2 in Part 1). The Agency employs Regional Facilitators to support the Strategic Health Authorities in developing regional strategies for chlamydia screening and to guide local Co-ordinators and commissioners in the effective implementation of their screening programme.

3.3 In addition to commissioning Chlamydia Screening Offices (CSOs), PCTs can also directly encourage the provision of chlamydia testing in local NHS settings such as GP practices, community sexual health services and pharmacies. According to our survey, 59 per cent of PCTs have set up Local Enhanced Services (LES) contracts which pay GPs to provide chlamydia testing or other sexual health services, on top of their normal remuneration, while 65 per cent have similar LES contracts with pharmacists. The payment structures of LES contracts vary: for example, one PCT we surveyed paid its GPs £5 per chlamydia test until they had tested 17 per cent of young people on their patient list, and £10 per test above this level, while another PCT paid £6 per test initially and £9 once more than 10 per cent of young people had been tested. The Agency told us that according to its own review of LES structures in 2008, payments varied from £1 to £15 for testing activity and from £8 to over £100 for treatment and partner notification services. In response to this lack of consistency, the Agency has recently conducted a costing review of the Programme. The Agency is also developing model contract specifications for chlamydia screening in GP practices and pharmacies. There is a primary care service framework developed by NHS primary care commissioning, for PCTs to use in commissioning Local Enhanced Services for sexual health.

Testing locations and population coverage

3.4 Faced with the requirement to significantly and quickly increase their testing activities in order to meet the 17 per cent indicator, PCTs have adopted a wide range of strategies with testing conducted in a wide variety of venues (**Figure 9**). Tests are most commonly carried out in community sexual health services (25 per cent), GP practices (16 per cent), or through 'remote testing' by post or internet (13 per cent).

Figure 9
Location of National Chlamydia Screening Programme tests in 2008-09



Source: Health Protection Agency

3.5 The original vision for the Programme, as expressed in the 1998 expert group report, saw GPs and community sexual health services as central. Most stakeholders we consulted felt that GP involvement was vital to the success of the Programme and its long-term sustainability, but in our survey of local screening coordinators, a majority (50 of 82, or 61 per cent) said difficulty engaging with GPs was one of the greatest obstacles to achieving higher testing rates. There is no reference to chlamydia testing in the Quality and Outcomes Framework (QOF) which forms part of the payment package for GP services and, as discussed above (paragraph 3.3), many PCTs have established LES agreements to provide additional payments. The National Institute for Health and Clinical Excellence (NICE) has been responsible, since April 2009, for reviewing, prioritising and developing new QOF clinical and health improvement indicators. Proposals for new indicators on chlamydia testing could be considered by NICE under the new procedures for recommending indicators for the QOF, the Department told us²⁵.

3.6 In 2008-09, women accounted for 67 per cent of tests under the Programme and men 33 per cent. Marginally more tests were performed on 15-19 year olds, 57 per cent, than on 20-24 year olds. In most areas the Programme reached people from diverse ethnicities, reflecting the make-up of the population in England.

Costs of the Programme

3.7 There are no exact figures available on the costs of the Programme to date, since there is no standard approach which PCTs use to record what they have spent on implementing the Programme. In some cases, for example, the cost of chlamydia tests provided as part of the Programme may be included in block contracts for other sexual health and public health services. We estimate that £150 million was included in NHS allocations for the Programme from 2003 to March 2009, and (on the basis of survey data) that around £100 million has been spent on delivering the Programme. The difference between the two figures is due to the fact that funding for the Programme was, like most NHS funding, not 'ring-fenced', i.e. allocated only for a specific purpose, and PCTs decide local budgets. Those involved with the Programme report that many PCTs did not spend the full amount intended by the Department when it allocated £80 million for the Programme's third phase of implementation, between 2005-08, but used the funding for other purposes.

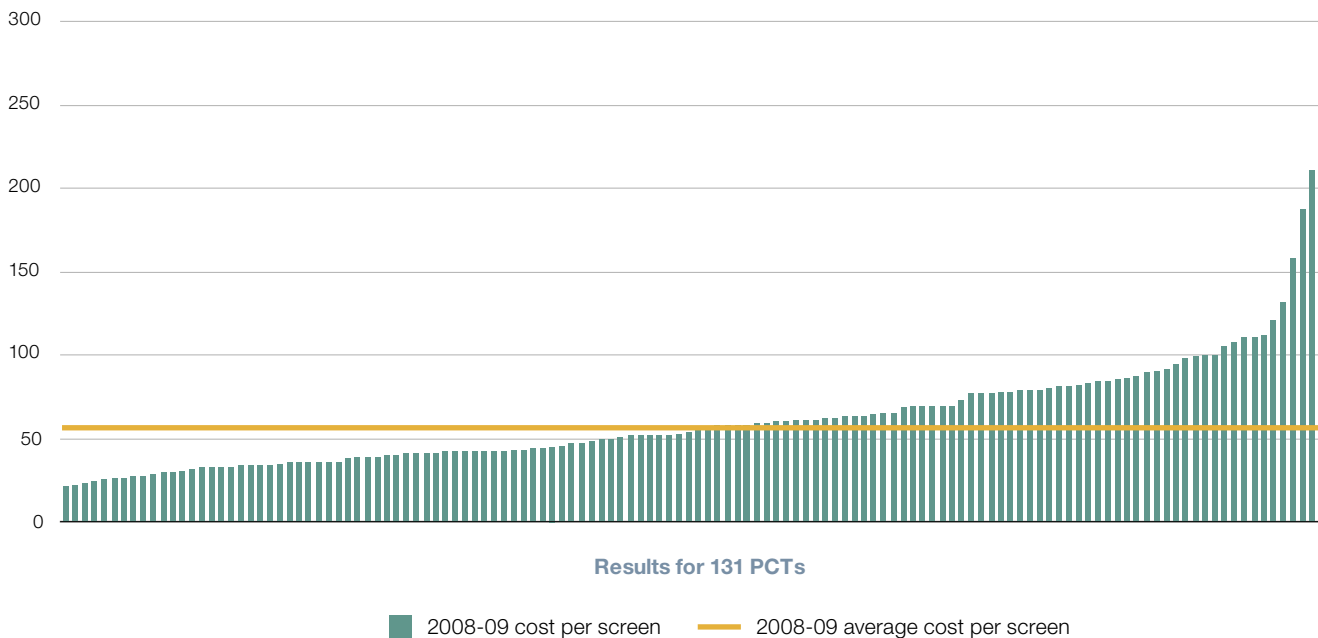
²⁵ Under the new procedures, NICE will be responsible for producing a menu of indicators for the QOF with advice on cost-effectiveness evidence. NHS Employers and the British Medical Association will continue to be responsible for negotiating which indicators are included in the QOF and at what price.

3.8 There is a wide variation in local costs (**Figure 10**)²⁶. The costs of delivering the Programme are highly variable from place to place, indicating that there is scope for efficiency savings. In 2008-09 we estimate that the average cost per test delivered under the Programme was £56, including follow-up activities such as treatment and partner notification, and local overheads. PCTs who have achieved higher testing rates tend to have lower costs per test; the Agency estimates, based on a detailed review of seven PCTs who achieved the Vital Signs indicator of 17 per cent testing in 2008-09, that they paid around £45 per test, including follow-up activities and local overheads. However, some PCTs managed to pay much less and still reach the indicator. The Agency estimates that a cost of £33 per test is achievable as screening volume increases, chlamydia screening gets better integrated in all community sexual health pathways, and collaborative procurement develops. The Agency expects to have produced guidance for commissioners on costs at around the time of publication of this report. In comparison, the genito-urinary medicine clinic tariff, which will include a sexual infection screen, is £139 for a first contact and £82 for each follow up attendance.

Figure 10

Local variation in costs – cost per screen by PCT in 2008-09

Cost per screen (£)



Source: National Audit Office analysis of Programme data

26 Cost figures quoted in this section of the report are drawn from our survey of PCTs. The information from the survey of PCTs has not been subject to audit and therefore the spending figures which respondents provided may be affected by different interpretations of our guidance for completing the survey, by individual organisations. All completed questionnaires were signed off by the PCTs' Chief Executives.

Local procurement of equipment and support services

3.9 Another important factor which contributes to local cost variations is the local procurement of equipment such as testing kits, laboratory analytical services and data collection systems. There are no regional or national bulk purchasing arrangements under the Programme, which could deliver better value for money through economies of scale. A few PCTs have joined together in consortia, with the aim of securing such cost benefits through their greater purchasing power as well as operating joint marketing programmes, but the majority procure the goods and services they need individually.

3.10 This fragmented local purchasing has led to a broad range in the prices paid for equipment:

- For testing kits (the sample bottles and swabs used by patients), local areas paid between 50 pence and £44 per kit in 2008-09, with an average price of £6.42 per kit. Some of the higher costs quoted are likely to include the costs of analysing samples in the laboratory, or of additional costs for specially-designed packaging. The total spend by PCTs on kits was £4.9 million. The Agency's costing review, based on seven PCTs who achieve the *Vital Signs* indicator in 2008-09, found an average cost per kit of £2.50 with a lowest cost of £1.50.
- Each local area has its own IT system, operated by the Chlamydia Screening Office, which is used to collate local data and to provide reports to the Health Protection Agency. Although the Agency has produced guidelines on the minimum requirements for an IT system, there is no standard specification. Prices paid by local areas have varied from £1,000 to £100,000, with an average of £29,900. We estimate that IT spend across the programme totalled £3.08 million.

3.11 Services which support the Programme, such as marketing activities to encourage young people to get tested, and websites which allow them to order testing kits through the post, are also locally procured. As examined in Part 2, this has contributed to the 45 different local 'brand identities' produced for local delivery of the Programme. PCTs' average spend on marketing and communications was £36,400 in 2008-09, according to our survey, ranging from £910 to £481,000 and totalling £5.5 million across all PCTs.

Chlamydia Screening Offices

3.12 The Agency has issued guidance on the operation of local offices, usually headed by a Co-ordinator who manages a small team of clinical and administrative staff, but some concerns remain about their effectiveness:

- Local Chlamydia Screening Co-ordinators are often recruited with clinical experience and skills but may not have the strategic, project management, or administration skills which are required to effectively develop a local testing programme. In our survey of Co-ordinators, 27 per cent stated that the role was not what they had expected. Many felt they needed further training in non-clinical skills; 84 per cent wanted training in commissioning and half felt that they needed further training in IT, project management and data management.
- In our discussions with local Co-ordinators and with the Agency it was suggested that staff in some local offices are spending time packaging testing kits for distribution to settings. Although we have not been able to quantify the costs of time spent packing kits, this is an inefficient use of skilled staff whose time would be better spent on activities such as liaising with testing providers.

Performance management of the Programme

3.13 Performance management of PCTs against Vital Signs indicators is the responsibility of the ten Strategic Health Authorities (SHAs), which oversee PCTs regionally. The introduction of a Tier 2 Vital Signs indicator for chlamydia testing has meant that since 2008-09 SHAs have had a direct role in the performance management of PCTs against that indicator. However, the Agency is responsible for collecting and collating data from local Chlamydia Screening Offices and producing information on PCTs' performance against the indicator.

3.14 The introduction of a Vital Signs indicator has also involved direct intervention in the Programme's local operation by the Department's National Support Team for Sexual Health. In the first year of the Programme the team, one of a number of such national teams which provide support to PCTs which are underperforming against national indicators for NHS services, visited a number of PCTs. Our research suggests that interventions by the National Support Team, as an arm of the Department, often involve discussions with the PCT chief executive and have a strong influence on PCTs' delivery of the Programme.

Appendix One

Methodology

1 We designed this study to consider the evidence behind the introduction of the Programme, the way it is delivered and the impact it has on its target population. The main strands of our methodology were:

- A survey of Primary Care Trusts. The survey was completed between April and June 2009 and 144 of 152 PCTs (95 per cent) submitted a return.
- A survey of Local Chlamydia Screening Co-ordinators. The survey was completed between April and June 2009 and 82 of 91 Co-ordinators (90 per cent) submitted a return.
- Interviews with many current and former key staff from the Department of Health, the Health Protection Agency and local programme areas.
- Interviews with a range of external stakeholders, including academics, clinicians, representatives of professional bodies, service providers and users of the service.
- An 'expert panel' discussion of the emerging findings of our report.
- Consultation with young people, via the specialist research firm Freshminds, who surveyed 1,023 young people, 467 of whom had been tested for chlamydia, and interviewed 34 about their attitudes to sexual health and chlamydia and their experiences of testing.
- Review of existing data and research.
- Analysis of data supplied by the Agency, on testing rates to date by PCT and on other aspects of the Programme such as positivity rates and partner notification.

Appendix Two

Chlamydia screening activities in other countries

1 England is the only country in the UK with an established programme in response to chlamydia. Health Protection Scotland has issued guidance on the provision and targeting of testing and there are plans for the introduction of a chlamydia testing programme in Northern Ireland.

2 The table in **Figure 11** outlines activities in other countries. Australia and the Netherlands are currently evaluating pilots, with approaches that differ significantly from the Programme in England.

Figure 11
Chlamydia screening activities in other countries

Country	Type	Status
US	The US Preventive Services Task Force, a panel of experts in primary care which makes recommendations on preventive services, recommends annual screening for chlamydial infection for all sexually active non-pregnant women aged 24 and younger.	Activity ongoing
Sweden	Nationwide opportunistic screening available to both symptomatic and asymptomatic patients. Although screening is widespread in Sweden, chlamydia control activities are funded and implemented by each county and are not coordinated nationally.	No national oversight or strategy. Results published twice a year.
Australia	Eighteen month pilot programme of GP-based opportunistic chlamydia testing with a recall register to encourage regular testing. This pilot covers approximately 34 geographical areas (e.g. towns or suburbs).	Evaluation of pilot not complete
Netherlands	Pilot programme of randomised implementation of postal register-based invitations for annual screening of sexually active 19-29 year olds in Amsterdam, Rotterdam and South Limburg.	Evaluation of pilot not complete
Denmark	Opportunistic testing for selected asymptomatic individuals with frequent sexual partners and women under 26 before intrauterine device insertion. In two communities in Denmark, there is an annual postal invitation in operation for young people in the age group 16-25.	Activity ongoing
Estonia	Opportunistic testing for selected asymptomatic individuals with frequent sexual partners, women that are pregnant and those that have been sexually assaulted. Youth counselling centres test around 40 per cent of female visitors each year. There is no national screening programme at present.	Activity ongoing
Finland	Opportunistic testing is targeted at women starting on contraceptive pills or seeking a termination. Organised systematic screening for all first-year university students and for students making gynaecological visits.	Activity ongoing
Norway	Opportunistic testing targeting asymptomatic women presenting for termination or antenatal care and those under 25 with recent partner changes. A proactive register-based postal screening programme is planned following a randomised controlled trial in one region. There is no national screening programme.	Activity ongoing

Source: National Audit Office, advised by Dr Nicola Low, University of Bern, Switzerland



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