



DEPARTMENT OF HEALTH

Reforming NHS Dentistry: Ensuring effective management of risks

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SUMMARY



1 Since the creation of the NHS in 1948, NHS dentistry has played an important part in improving oral health. Indicators of oral health have tended to focus on children and over the years children's oral health has improved significantly. Children in England have lower levels of decay than their European neighbours and a higher percentage of children have no dental decay, with results for 12 year olds being particularly good.

2 Dentistry is a £3.8 billion service industry provided by some 23,000 registered dentists, of whom some 18,300 are high street dentists operating under the General Dental Services scheme¹. Traditionally dentists are independent contractors who choose where to locate their practices and how much, if any, NHS treatment they provide. Since 1998, however, the Department of Health (Department) has been piloting Personal Dental Services contracts aimed at allowing the NHS to have more influence over where dental practices are located and how much NHS treatment they provide.² By September 2004 some 2,500 dentists in around 1,000 locations were voluntarily working in this way.

3 The NHS net funding contribution in 2003-04, of some £1.8 billion, covered NHS treatments provided by some 19,300 primary care dentists (dentists working under either the General Dental Service or Personal Dental Services contracts), together with specialist hospital and community dental services (Figure 1). Over the last ten years, private dentistry has grown several-fold, with over a quarter of adult patients visiting the dentist paying for some private treatment.³

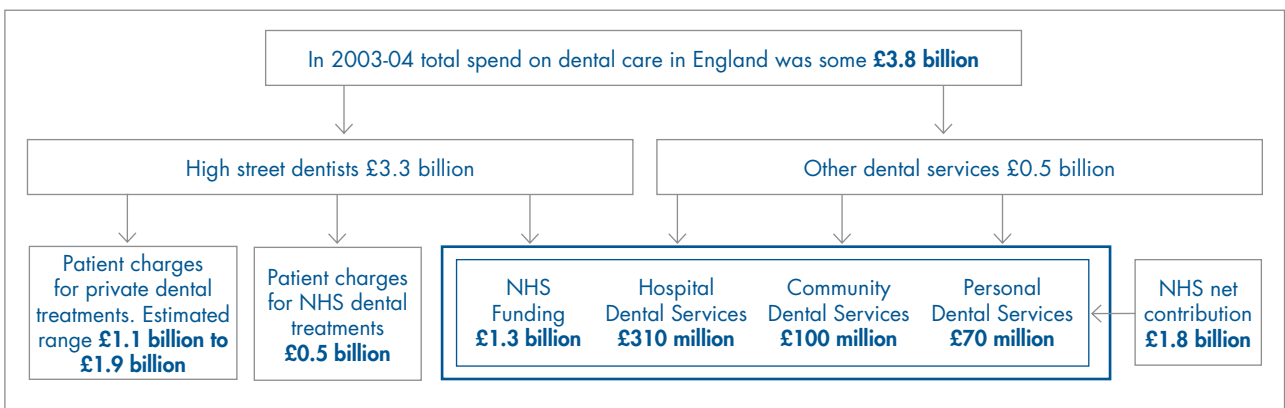
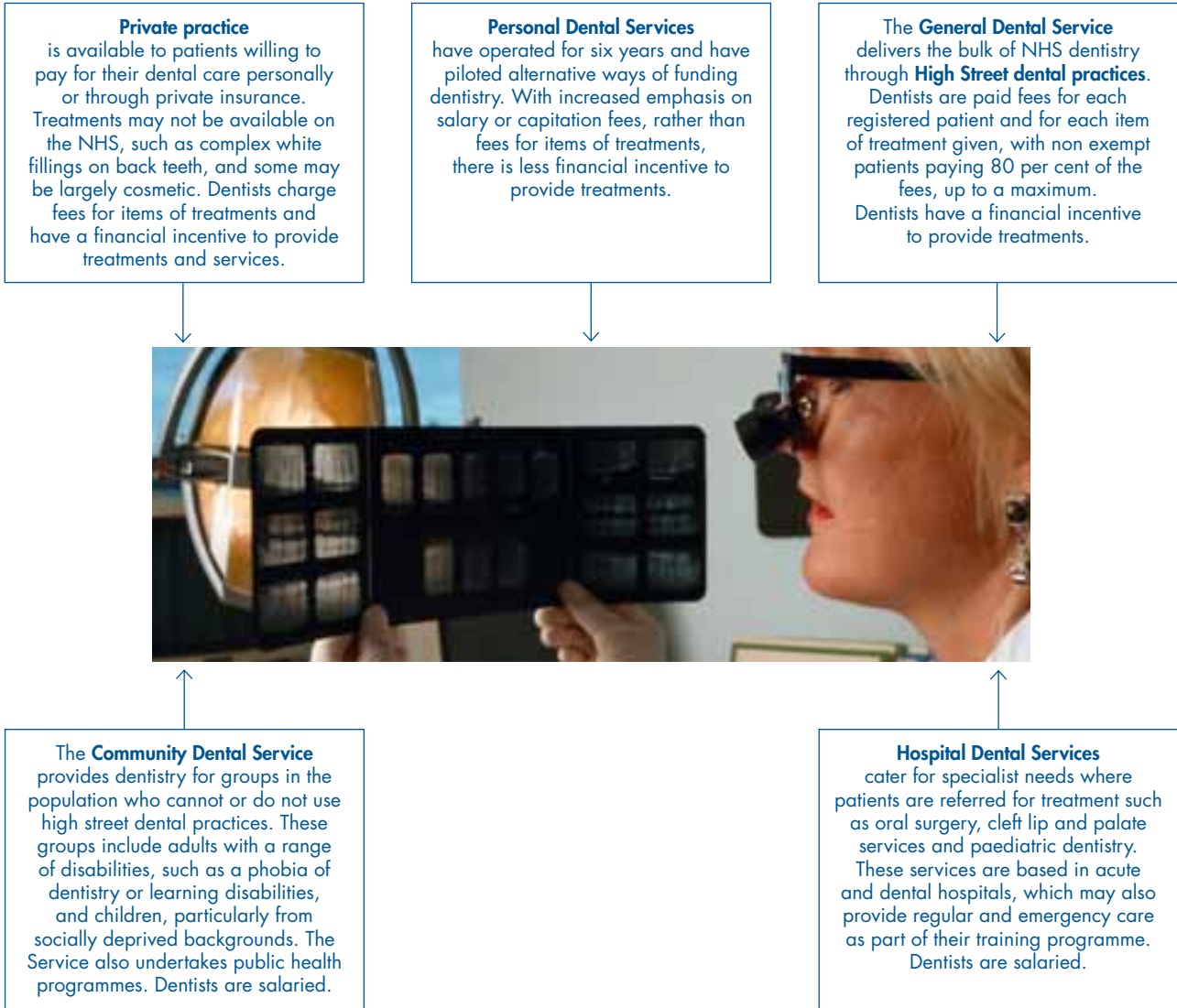
4 Historically, under the provisions of the General Dental Service Regulations, the NHS has paid fees to dentists according to the NHS treatments they provide, including since 1990 a fee for each registered NHS patient. This piece work arrangement had advantages in the early years of the NHS as it encouraged dentists to carry out items of treatment. Under a piece work system dentists have little financial incentive to improve the quality of their services or provide wider oral health promotion advice and education as they are not paid fees for these activities. There may also be a risk of over treatment. Many reports have argued for change, including our 1984 report⁴ and the Audit Commission's 2002 report.⁵

5 In addition to the calls for an overhaul of NHS dentistry, during the last ten years there has been an increase in reports of patients experiencing problems accessing NHS dentistry. In the early 1990s, many dentists reduced their commitment to the NHS and developed their private practice work. This has led to shortages of dentists providing NHS services in some more affluent areas. In other areas where there are high levels of social deprivation, dentists are in short supply and patients have experienced difficulties registering for NHS treatment.

6 Under the 1997 NHS (Primary Care) Act, the Department established Personal Dental Services contracts for dental practices to pilot new systems for paying dentists and new ways of working, including establishing dental access centres.² The pilots, which are based on locally negotiated contracts between dental practices and Primary Care Trusts, show that by paying dentists in a different way it is possible to maintain and increase their NHS commitment. In 2002, the Department published its Options for Change report proposing a radical reform of NHS dental services in England which builds on the Personal Dental Services pilots.⁶ The "Options" paper suggested that any new system should be voluntary and would operate alongside the existing piece work system.

1 The delivery of dental care

High street dentists deliver the majority of dental care in England with private dental charges approaching NHS funding and patient charges for NHS treatment.



Source: National Audit Office, Department of Health and UK Dental Care 2003, Laing & Buisson

7 In 2003, the Health and Social Care (Community Health and Standards) Act⁷ paved the way for major changes to dentistry. Primary Care Trusts will be required to commission dental services “to the extent that it considers necessary to meet all reasonable requirements”. They will be allocated funds specifically to commission local dental services in response to local needs. Dentists will be paid for delivering local contracts where they provide NHS dentistry to meet patients’ oral health needs, rather than for each item of treatment. The Department set an April 2005 target date for implementation but, in response to consultation, in July 2004 announced that the changes would be implemented from October 2005.

8 This report examines the rationale for the changes the Department is to make to NHS dentistry in England. It analyses the strengths and weaknesses of the existing system and identifies the risks that the Department and the NHS will need to manage if the new system is to overcome the problems facing NHS dentistry. We commissioned a comparative evaluation of different remuneration systems for dentistry and a patient survey. We visited Options for Change dental field sites and other providers of dental care, analysed the Dental Practice Board’s data, and convened an expert panel. We also drew on the work of the Audit Commission, the Commission for Health Improvement, the Office of Fair Trading and others who have all reported on Dentistry in recent years. Appendix 1 gives further details of our methodology.

There is a strong rationale for reforming NHS dentistry but significant risks will need to be managed if new systems are to be effective and provide value for money

9 While NHS dentistry has contributed to improved oral health, particularly in the early decades of the NHS, there is a need to modernise. Modern dental practice emphasises prevention rather than intervention but the current remuneration system does not provide sufficient incentives for such an approach. Given the overall shortages of dentists and the difficulties some patients are experiencing in accessing NHS dental treatment, NHS dentistry needs to provide a more responsive service. As Primary Care Trusts will be responsible for managing the new arrangements, they will need to develop appropriate expertise and resources to encourage dentists to maintain and increase their commitment to NHS dentistry. The Department will need to ensure it has effective oversight of the changes, capturing the necessary data for monitoring and analysis, and that it evaluates the changes during the three year transition.

Targets for NHS dentistry: improving oral health and access

10 The Department has set key targets for children's oral health: that by 2003, for children aged five the average number of decayed, missing or filled teeth should be no more than one, and in 70 per cent of five year olds there should be no dental caries. Over the years there has been good progress in reducing disease, but there is still some way to go to meet the targets (by 2003, the average number of decayed, missing or filled teeth was 1.5 and 59 per cent of five year olds had no dental caries). Indeed, since 2000 there has been a marginal increase in dental decay of five year olds.

11 While there has been a general improvement in oral health of adults and children since the establishment of the NHS, the reasons are complex. In addition to dental treatment, fluoride toothpaste, water fluoridation and healthier diet contribute to improved oral health. The Department, through the Dental Practice Board, has collected comprehensive data on the numbers of treatments over many years, primarily for reasons of financial probity. Data have also been used to consider cost effectiveness issues but the evidence base is not sufficiently developed to support strong conclusions on such issues. From our commissioned survey, 82 per cent of dental patients were satisfied with their oral health and 77 per cent considered NHS dentistry provided good value for money. Patients also rated highly their experience of visiting the dentist.

12 In addition to children's oral health, the Department has set targets for patients being able to access NHS dentistry. In September 1999 the Prime Minister pledged that by September 2001 anyone would be able to see an NHS Dentist just by phoning NHS Direct.⁸ NHS Direct provides access to information on local NHS dental services, using information provided by Primary Care Trusts. As for all its call services it does not as a matter of routine follow up with patients to determine whether they were satisfied with the information given or whether they obtained NHS treatment. The Audit Commission reported concerns about the accuracy of information provided to NHS Direct and we also found some inaccuracies.

13 From our analysis we identified problems of access, particularly in some areas:

a Expenditure on high street dentistry has increased steadily over the years, but has not kept pace with other NHS spending. Whilst 98.5 per cent of the population of England is within five miles of a high

street dentist providing NHS services, dentists may not provide a full range of NHS treatments, and many are not registering new NHS patients.

- b Poor oral health is associated with social deprivation. Some areas where there are high levels of social deprivation have relatively few dentists and consequently high levels of registrations per dentist, and most dentists who provide NHS treatments have full lists. It can be difficult to attract dentists to set up practices in these areas and for dentists to sell their practices.
- c In more affluent areas patients may experience difficulties registering for NHS treatments as dentists have reduced their commitment to NHS dentistry. In 1990 the Department introduced registration and fees for continuing care in an attempt to encourage regular attendance and more engagement in NHS dentistry by stabilising incomes. Dentists registered more patients than expected and there was a significant increase in treatments provided, resulting in NHS dentistry costs exceeding forecasts and dentists exceeding the approved pay targets recommended by the Doctors' and Dentists' Review Body. The Department responded by cutting fees in 1992, resulting in falling incomes and profits, and creating significant ill feeling in the dental profession. Some dentists scaled back their NHS work and expanded private treatment, for example only registering children for NHS services, with adults paying privately for their own treatment.
- d For patients, availability of treatment when required is more important than being able to register with a NHS dentist, a finding supported by our survey of 1,760 adult patients. The Department's support for dental access centres and NHS Direct's role in providing information on local services are, in part, responses to patients' concerns about access to necessary treatment.

14 In July 2004 the Department published *NHS Dentistry: Delivering Change*⁹, a report by the Chief Dental Officer for England. The report stated that the Department's vision is "to build an NHS dental service that:

- offers access to high quality treatment for patients when they need to see a dentist;
- focuses on preventing disease so that everyone, and in particular children can enjoy healthy teeth for life; and
- gives a fair deal to dentists and their teams and improves their working lives."

15 The Department has undertaken a number of initiatives to tackle the most pressing access difficulties. Forty-seven new NHS dental access centres have been opened in areas where people are experiencing particular difficulties, and these are now treating over 300,000 extra NHS patients a year. An NHS support team backed by £9 million is working with those Primary Care Trusts facing the greatest challenges in improving dental access and a further £50 million has been made available to the NHS to improve access. The Department nevertheless acknowledges that more still needs to be done.

16 In July 2004, the Department also published, on its website, the results of its Primary Care Dental Workforce Review. In this, the Department estimated in 2002 that, in 2003, there would be an overall shortage of 1,850 dentists (equivalent to an under supply of dental time of around nine per cent of that required to meet demand). Whilst the review took into account the role played by dental hygienists and dental therapists, given the timing of the review it did not take into account the proposed changes in contractual and remuneration arrangements or planned changes in working practices such as extensions in the range of duties that dental therapists and dental hygienists may carry out. Allowing for the impact of these changes, in July 2004, the Department set out plans to improve access by increasing the numbers of dentists by 1,000 whole time equivalents by October 2005.⁹

17 To achieve this increase in numbers, the Department has launched a Returning to Practice Scheme and expects to recruit additional dentists from overseas, focussing on countries where there is government to government agreement and an acknowledged surplus of dentists, for example India and Poland. For the longer term the Department is to expand training places (170 extra places at a cost of £29 million by 2010-11 with capital investment of £80 million over four years to support this expansion) and to make greater use of skills across the dental team. Professionals complementary to dentistry will undertake more routine work with dentists providing more complex treatments.

18 At the same time the Department also announced that from 2005-06, there will be additional funding of £250 million a year for NHS dentistry, an increase of 19.3 per cent compared with 2003-04 spending. The British Dental Association has welcomed the Department's announcement of additional funding for NHS dentistry and proposals to increase the workforce.

Improving effectiveness: redirecting resources and simplifying patient charges

19 Part of the rationale for changing the system is to improve the effectiveness of NHS dentistry by switching resources towards areas of need, reducing inequalities and promoting better oral health. There are a number of ways in which NHS resources are not being used effectively under current arrangements.

- a The current system encourages dentists to recall patients at fixed periods, traditionally six months, rather than intervals tailored to patients' needs. The National Collaborating Centre for Acute Care, commissioned by the National Institute for Clinical Excellence, investigated the recall period, although the absence of a comprehensive evidence base has limited the precision of its recommendations. Its October 2004 report calls for more flexibility with routine recall periods being determined for individual patients, tailoring recall intervals according to risk assessed clinical need. For some adults two years may well be appropriate, whilst others may need to be seen every three months.¹⁰
- b Over half of the courses of treatment provided by dentists under the General Dental Service arrangements are for examinations only or for examinations and scaling and polishing. The Audit Commission in 2002 considered that the NHS was spending £150 million a year on over-frequent examinations and unnecessary scaling and polishing.⁵
- c Where dental services are funded through salaries or capitation fees, rather than on a piece work basis, treatments such as fillings tend to fall by some 10 per cent. Our own commissioned evaluation work, comparing a matched sample of patients treated under salaried or per capita schemes and the traditional piece work system, showed a similar fall in treatments. Our work also demonstrated that the changes in treatment patterns did not impact on oral health as both groups of patients showed similar levels of oral health. There is, however, need for further research on the long term effects of changes in treatment patterns, examining larger groups of patients.

20 Fundamental to the introduction and stability of the new system will be the new base contract between Primary Care Trusts and primary care dentists. This is based on the Personal Dental Services contracts and is being developed jointly with the British Dental Association. It aims to offer financial security to practices as gross earnings will be guaranteed for three years, provided the practice continues to provide the same degree of NHS commitment. In the meantime, Primary Care Trusts are offering dentists Personal Dental Services contracts, to enable dentists to move to local contracts ahead of the October 2005 timetable (during the three year transitional period, dentist will be able to continue to operate under these contracts subject to any amendments necessary to reflect changes in patient charges and monitoring arrangements).

21 Under the present dental remuneration system patient charges are set at 80 per cent of piece work fees up to a maximum of £378 for one course of treatment and total some £500 million a year. With piece work fees being abolished from October 2005, there will no longer be such an obvious mechanism for calculating patient charges. For the new system to work there will be a simplified system of patient charges. The NHS Dentistry Patient Charges Working Group¹¹, which involved experts from national patient, consumer and dentist organisations, has made recommendations to Ministers who are currently considering them.

22 Since 1948 dentists have had to collect patient charges and submit details of treatments to the Dental Practice Board in order to get their NHS fees. Under the new arrangement, dentists will be contractually required to collect patient charges and submit timely activity data. Primary Care Trusts will monitor activity levels to ensure that dentists deliver a continuing commitment to the NHS for the level of payment agreed under their contract. As part of the Department's review of Arm's Length Bodies¹², the functions of the Dental Practice Board are to be assumed by the new NHS Business Services Authority. The detailed arrangements for this new body are yet to be announced.

Need for greater clarity over NHS and private dentistry

23 The NHS/private interface is blurred, with dentists providing both NHS and private treatment during a patient's visit. Many patients are unsure which treatments are provided under the NHS and which are paid for privately, a finding confirmed by our survey of patients. Dentists may provide NHS examinations but complex white fillings in back teeth can only be provided privately. The Office of Fair Trading published its findings on private dentistry in 2003¹³, calling for greater clarity of services and charges and proper procedures for dealing with complaints. The Government accepted the report's recommendations.

24 The Department is working with the General Dental Council to ensure that all dental staff comply with guidance on displaying prices, providing treatment plans and itemised accounts, and making explicit what NHS treatments are provided and what treatments are private. The Department and the General Dental Council are also reviewing the complaints procedure. In July 2004 the Department published a consultation paper on strengthening the role of the General Dental Council, together with proposals for establishing systems to take action when things go wrong in private practice and to provide assurance on the quality of patient care.¹⁴

International comparisons

25 Worldwide there are different systems for providing dentistry but with some common characteristics in the way services are delivered. Dentists are largely self-employed with state assistance available for some patient groups such as children and those on low incomes with other patients often being covered by insurance schemes. Most dentistry systems are based on fees for treatments provided. No country attempts to provide comprehensive care for all or operates a system similar to that proposed by the Department, underlining the risks that will need effective management if the new system is to prove value for money.

26 There are also wide variations between countries in the number of active dentists and other professions complementary to dentistry compared to the size of the population. Whilst England has a relatively high population per active dentist it also has relatively high numbers of dental hygienists and dental nurses providing dental services as part of the wider dental team.

New ways of working

27 In 2003 the Department's NHS Modernisation Agency set up a programme of Options for Change 'field sites' which build on the Personal Dental Services pilots, testing new remuneration systems and new ways of working to improve the quality of care received by patients. The Department is learning emerging lessons whilst developing detailed arrangements for implementation of the new system for NHS dentistry in England. The dental profession's initial reaction was sceptical of the proposed changes. In April 2004, the British Dental Association surveyed 25,000 dentists and, of the 7,500 who responded, 60 per cent stated that they will reduce their NHS work or abandon NHS dentistry altogether.¹⁵

28 However, in the six months to September 2004, there has been a notable increase in the number of dental practices transferring to a Personal Dental Services contract. Between September 2001 and September 2003 the number of participating schemes increased from 75 to 96, but in the year September 2003 to September 2004 the numbers more than doubled, from 96 to 196. As a result by September 2004 some 2,500 dentists (out of 19,300) in around 1,000 locations were working under a Personal Dental Services contract. The Department was also considering applications from 700 further dental practices.

KEY FACTS ABOUT NHS DENTISTRY

- There are over 19,300 dentists in primary care, more than in previous years, but many spend a lower proportion of their time on NHS work which has left some people unable to get the routine treatment they want on the NHS, unless they are prepared to travel.
- Some 17 million adults (45 per cent) and 7 million children (62 per cent) are registered with an NHS dentist. Between 1994 and 1998, adult registrations fell by 5 million but for the last few years have decreased only marginally. Part of the reason for fall in registrations was due to the change in registration period from 24 to 15 months introduced in 1996.
- Everyone is entitled to see an NHS dentist for emergency or urgent treatment, whether registered or not.
- NHS dentists currently receive a capitation fee for each registered patient and a fee per each item of treatment.
- Oral health in England is improving generally, with oral health in 12 year olds the best in Europe.
- There are inequalities, with children in parts of the north of England having on average twice as much decay as children in other parts of the country.
- All treatment necessary to maintain oral health is available on the NHS, although some are only provided through the hospital dental service. Overall there are some 400 items of treatment.
- Patients liable for dental charges currently pay 80 per cent of the dentist's fee, ranging from £3.50 for one X-ray to £297.70 for a fixed orthodontic appliance – 'train tracks' braces. The maximum charge is £378 for one course of treatment. Full exemptions from fees apply to all patients under 18 years of age and expectant and nursing mothers; full remission of fees applies to adults in receipt of tax credits, job seekers allowance and income support. Additionally, some patients on low incomes are entitled to partial remission of fees.
- NHS treatment does not include purely cosmetic procedures such as tooth whitening. Complex tooth-coloured fillings on back teeth are generally not permitted, primarily because they are generally less reliable than silver amalgam.
- Some treatments are provided free to all patients. These include denture repairs, arrest of haemorrhage, removal of sutures, home visits and attendance to open the surgery in an emergency.
- From 2005-06 investment in NHS dentistry is set to increase with Primary Care Trusts set to receive an increased allocation of £250 million a year (a 19.3 per cent increase over the equivalent spend in 2003-04).
- The NHS Workforce is set to increase by the equivalent of 1,000 dentists by October 2005 when a new contract is to be introduced and dentists will no longer be tied to fees for treatment but will be able to decide treatment on the basis of clinical need.



CONCLUSIONS AND RECOMMENDATIONS

29 Part of the Department's rationale for changing NHS dentistry is to encourage dentists to maintain and increase their NHS commitments. To that effect the Department has announced additional funding to provide the necessary incentives for growing the service. But given the scepticism of some dentists compounded by a lack of detail on how the new system will operate we consider that there is a risk that dentists will reduce their NHS commitments, as they did in the 1990s following cuts in fees. As dentists are being guaranteed gross earnings for three years, the risk continues through the transition and may not materialise until the end of the period.

30 The Department has set itself an ambitious programme and some key milestones have been delayed and new initiatives have been introduced. Given the radical nature of change and the opportunity to reform NHS dentistry for the first time since 1948, it is vital that the Department gets it right. The Department's decision to postpone implementation to October 2005, in response to concerns of dentists and the NHS, is welcomed. The Department now needs to be more transparent about their plans and timetable for managing the change process to achieve the revised target date, and ensure that these are conveyed to dentists and patients.

31 In addition we have identified the following risks that the Department will need actively to manage, together with our recommendations which show how these risks might be mitigated:

Contracting arrangements

- a** While Primary Care Trusts have commissioned hospital and community dental services since April 2002, they have little experience of high street dentistry. With the emphasis and current resources directed to implementing the general medical practitioner contract, Primary Care Trusts have limited capacity and they will need to develop new expertise in dentistry. The Department have allowed a longer lead-in time to set up these contracts and have allowed three years transitional period to full local commissioning. Primary Care Trusts will need to ensure that priority is given to delivering appropriate contracting arrangements, including providing sufficient expertise and resources.
- b** The Department has guaranteed dental earnings for three years where dentists demonstrate continuing commitments to provide similar levels of NHS dental care, with its focus on patient needs rather than activity. Measurement will not be as simple as the current system where dentists are paid for items of treatment. Contracts must make clear what is to be delivered and who is accountable. All Primary Care Trusts will need to analyse dentists' broad patterns of working by numbers of patients treated under the NHS taking account of complexity of treatment. It will be important to ensure that whatever data are collected, and whatever methods of monitoring of standards of care are adopted, they aid the evaluation of the new system and ensure probity.

Utilising and increasing capacity

- c** Unless there are clear incentives for dentists to extend access and take on socially disadvantaged patients, there is a risk that freed up capacity potentially flowing from more flexible recall periods and changes in the methods of working may not be used effectively for the NHS. The Department and Primary Care Trusts will need to monitor the position closely to ensure that appropriate spare capacity is utilised to the benefit of the NHS.
- d** In moving away from piece work systems, there is a risk of 'under treatment' replacing 'over treatment' as a perverse incentive. The Department will need to monitor national data and sample the quality of care provided to ensure this does not happen. Equally, the Department and Primary Care Trusts will need to establish effective clinical audit and evidenced based quality assurance arrangements, and disseminate lessons. The Dental Reference Service project to examine clinical effectiveness and performance of practitioners should provide further support to Primary Care Trusts to help mitigate this risk.
- e** The Department has set ambitious targets for increasing the capacity of NHS dentistry, including recruiting dentists from abroad, increasing the NHS commitment of existing dental practices, and expanding the numbers of dentists in training for the longer term. There is a risk that these targets will not be met and there will continue to be shortages of dentists. Overseas recruitment poses other risks and the Department will need to monitor the success of its initiatives.
- f** Given that the Workforce Review noted that it was unable to measure precisely the gap between demand and supply because of the unknown effects of the proposed changes to NHS dentistry, there is a risk that planning assumptions will not be soundly based. Primary Care Trusts, together with Strategic Health Authorities, should monitor their dental workforce numbers in relation to needs, taking into account the development of new roles and skills within the dental team. This should feed into a national review prior to the end of the transition period in 2008.

Income from patient charges may fall

- g** With a move towards prevention, there is a risk that treatments patterns may affect the overall level of charge income. The Department, together with the new NHS Business Services Authority, will need to develop a system to monitor overall charges to ensure that it continues to recover a similar contribution

towards the overall cost of NHS dentistry. Primary Care Trusts will need to establish effective audit arrangements to monitor dentists' compliance with this and take timely action to ensure collection of patient charge income. Underpinning this, the Department will need to agree a charging system and set charge levels to reflect the new treatment patterns likely under local commissioning so that it continues to recover a similar contribution towards the overall cost of NHS dentistry.

Monitoring and evaluation

- h** The Department has collected data on dentistry through the Dental Practice Board for many years but the evidence base does not provide conclusive answers to issues such as the appropriateness of the recall period, how accessible NHS dental services are, and what role dentistry plays in promoting oral health. The Department and the NHS Business Services Authority will need to review their data requirements to ensure that available data can support further research on cost effectiveness.
- i** NHS Direct has an important role to play in promoting access but there is a risk that it cannot fulfil this role effectively because of the inaccuracies in the information provided to it on local NHS dental services. Primary Care Trusts need to ensure that, when they commission NHS Direct services to provide information on dentists supplying NHS services, this data is accurate and up to date.

Patients' services

- j** There is a risk that patients will not understand their entitlements, will still not know what services are available on the NHS and what they are paying for. In developing new arrangements for patient charges, the Department should aim for simplicity, recognising that in any new system there may be winners and losers. As part of their monitoring, Primary Care Trusts and Patient Advisory and Liaison Groups should monitor whether dentists are providing information on patient charges and entitlements.

Learning lessons

- k** Given the time constraints required to get the new contracting arrangements in place, there is a risk that good practice developments in Options for Change field sites and Personal Dental Service pilot sites may not be used effectively. It is important that the Department and Primary Care Trusts continue to evaluate and disseminate the lessons that emerge from these sites.

PART ONE

The piece work system encourages treatment but not necessarily value for money



1.1 Most dentists are independent contractors, operating as sole practitioners or as part of a dental practice, and can choose the extent to which they provide NHS treatments. Since 1948, dentists providing NHS treatments have been paid on a piece work system, receiving fees for carrying out each individual treatment. Most adult patients pay a proportion of these fees as NHS dental charges. The Department seeks to control its total expenditure on dentistry by setting the fee rates but cannot control how much NHS treatment dentists choose to provide or where they provide it.

1.2 There is currently a serious mismatch between the supply, demand and need for NHS dentistry in England, with reports of patients experiencing difficulties in getting NHS dental treatment. The piece work system contributes to that mismatch because it encourages provision of treatment which may have been appropriate in the early years of the NHS but is out of step with modern approaches to dentistry. Alternative arrangements for funding dentistry through salaried or capitation schemes, which the Department has been piloting since 1998, show a decrease in treatments and a freeing up of capacity without compromising oral health.

Historically, the Department has been unable to respond to shortages of dental services as it has lacked effective levers

1.3 Nationally there is a mismatch between the numbers of dentists and where they are located, and the demand for dental services. The position is exacerbated locally where in some areas of poor oral health, there is a real need for dental services which is not being met and where dentists have little spare capacity. In more affluent areas, some people cannot get NHS dental services, particularly where dentists have reduced their NHS commitment.

The Department has had limited control over funding, service delivery and allocating resources to priority treatments or patient groups

1.4 The Department has had few levers for influencing NHS dentistry as most services are provided by high street dentists who can to a large extent set up where they like and determine the level of their involvement in delivering NHS dentistry. The report begins by analysing the ways in which dentists engage with NHS dentistry, the Department's overall funding for NHS dentistry and how patients access dentistry.

As independent contractors, most dentists determine their location and level of involvement in the NHS

1.5 Most dentists are not employed by the NHS. They are independent contractors running their practices as small businesses. Whilst delivering oral health, dental practices have to meet business needs and dentists naturally follow demand. Primary Care Trusts have no powers to compel dentists to take on NHS patients as they have for general medical practitioners.

1.6 Almost all dentists offer some NHS services, if only to children, but the mix of NHS and private dentistry is their decision. However, the NHS/private sector relationship can be blurred. For example dentists might offer NHS examinations and treatments but patients may pay privately for the services of hygienists or for white fillings. The patient may then pay one bill which covers both the NHS examination and the private hygienist. Consumer groups have complained about the absence of clear information on charges and the confused NHS/private boundary, despite rules on 'mixing' NHS and private treatments.

1.7 In February 2003 the Office of Fair Trading reported on the private dentistry market in the UK following complaints regarding the absence of clear charges and the confused NHS/private boundary. The report recommended clearer pricing and information from dentists about their services, and a more rigorous complaints system. The Government accepted the report's recommendations. As part of the Government's June 2003 action plan, the Office of Fair Trading produced information leaflets for the public setting out how to find a dentist, payment options and questions patients may want to ask.

1.8 The Department is working with the General Dental Council to ensure that all dental staff comply with guidance on displaying prices, providing treatment plans and itemised accounts, and making explicit what NHS treatments are provided and what treatments are private. The Department and the General Dental Council are also reviewing the complaints procedure in private dentistry. In July 2004 they published a consultation paper on strengthening the role of the General Dental Council, together with proposals for establishing systems to take action when things go wrong and to provide assurance on the quality of patient care.

1.9 Our survey of dental patients (**Appendix 1**) showed similar concerns on transparency of charges and the blurring of NHS and private dentistry. Over a fifth of patients felt that NHS and private treatments were not clearly explained. One third of patients considered that they had been treated privately compared with estimates suggesting that one quarter of patients are treated privately. Some patients receiving NHS services considered they were being treated privately because they paid NHS charges.

Funding of NHS dentistry has not kept pace with the growth in overall NHS spending

1.10 In 2003-04, total spend on dentistry in England was some £3.8 billion a year. The NHS funds £2.3 billion, recovering £0.5 billion from patient charges, and expenditure on private dentistry accounts for around £1.5 billion (Figure 1). Expenditure on private dentistry has increased significantly in recent years, with some estimates suggesting the increase may be as much as ten fold. Over a quarter of all adult patients visiting the dentist now pay for some private dental care.

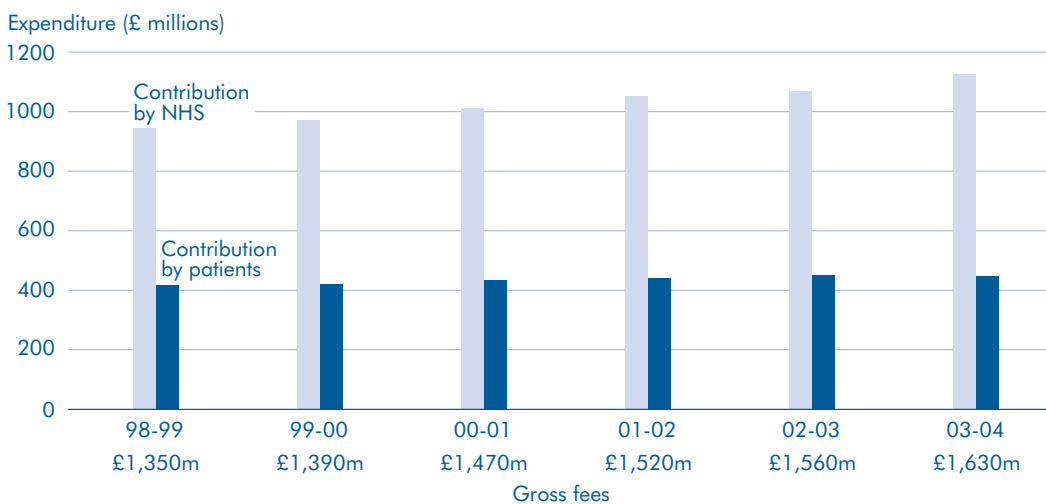
1.11 NHS dentistry is largely provided through the General Dental Service, the dental practices located in high streets throughout the country. Gross NHS fee

expenditure under General Dental Service contracts in England, has increased by 4 per cent a year since April 1997, with patient contributions also increasing by the same rate (**Figure 2**). Growth in orthodontics (such as straightening children’s teeth) accounts for part of this increased funding. Under the present General Dental Service contract, expenditure trends are determined mainly by the level of fee scale increases and the volume of NHS dental treatment provided to patients. The first factor is determined by the Government on the basis of the recommendations of the Doctors’ and Dentists’ Review Body; the latter factor is largely determined by the willingness of dentists to undertake NHS work.

1.12 The Dental Practice Board is responsible for approving payments to dentists and monitoring activities and, for over 50 years, has maintained an extensive database of dental treatments. Its analysis of expenditure on dentistry in the past decade found that NHS spending on General Dental Services per capita has increased by 9 per cent since 1990-91, compared with a 75 per cent increase in overall NHS funding per capita (**Figure 3**). Investment in other forms of dentistry, such as Personal Dental Services (introduced in 1998), may account for some of these variations. As part of the Department’s review of Arm’s Length Bodies, the functions of the

2 Gross fees paid to dentists providing NHS services in England (in cash terms)¹

There have been modest annual increases in gross fees paid to dentists providing NHS dentistry and in patient charges collected.



Source: Dental Practice Board and Department of Health

NOTE

¹ This represents gross fees paid to dentists. The Department funds other items such as seniority, business rates and superannuation. When added to gross fees the Department’s contribution to primary care dentistry totalled some £1.8 billion in 2003-04

Dental Practice Board are to be assumed by the new NHS Business Services Authority. The approach and functions of this new body have yet to be announced.

The number of people registered with an NHS dentist has remained constant for the last five years

1.13 Our survey shows that over 70 per cent of the 1,761 adults surveyed reported visiting the dentist for a check up at least once a year. Others visit the dentist only in emergency and some never attend. Patients who wish to receive regular NHS dental treatment are required to register with a NHS dentist. Registration lasts for 15 months, down from 24 months since September 1996. Patients who do not see their dentist during the 15 month period are automatically de-registered by the Dental Practice Board. In comparison, patients may not see their doctor for years, but will still remain on the practice list.

1.14 In 2003-04 some 17 million adults and 7 million children are registered with a NHS dentist, representing 45 per cent of the adult population and 62 per cent of children. During the last 10 years adult registrations have

fallen by 5 million from its 1994 peak of 23 million, partly because of the reduction in the registration period from 24 to 15 months and dentists reducing their NHS workload. Since 1998 the fall in the number of people registered with an NHS dentist has generally halted but between 2003 and 2004 the adult and child registrations have marginally declined by 2.1 and 2.3 per cent respectively (Figure 4).

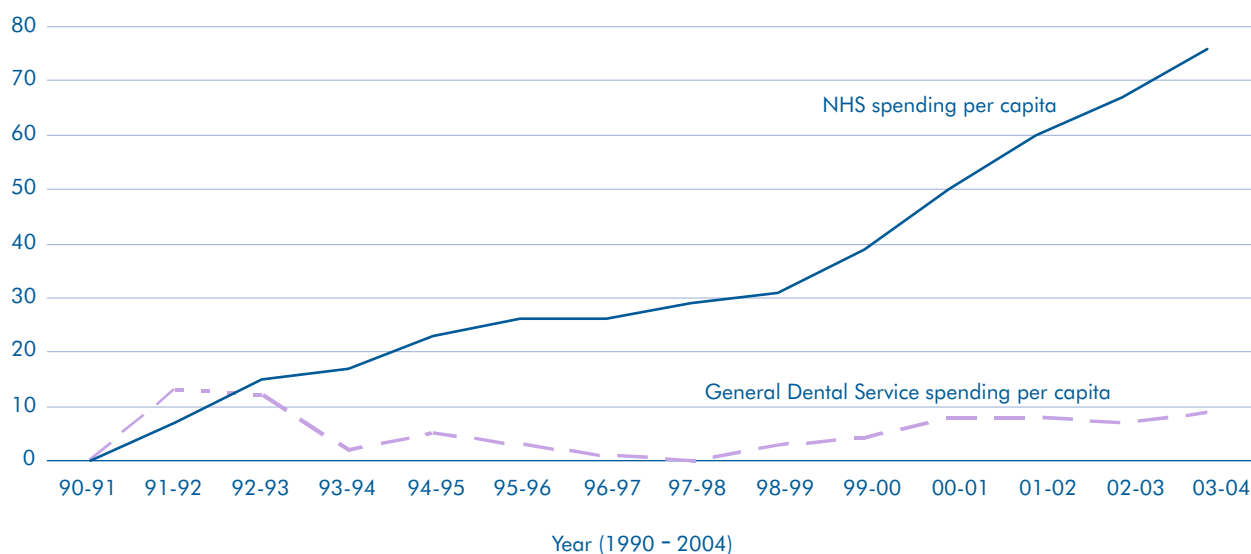
The remuneration system for NHS dentistry is complex

1.15 High street dentists who provide NHS treatments under the General Dental Services contract receive two main forms of payment: a capitation fee for all registered patients, accounting for a quarter of General Dental Service funding; and payments for each item of treatment, for example carrying out an examination or filling a tooth. Piecework payments comprise three quarters of General Dental Service funding. The Department sets the scale of payments in its annual 'Statement of Dental Remuneration' comprising some 400 individual fees. Dentists also receive commitment payments and seniority allowances.

3 Growth of expenditure on NHS Dentistry in England

NHS spending per capita on dentistry has remained stable whilst total NHS expenditure has accelerated.

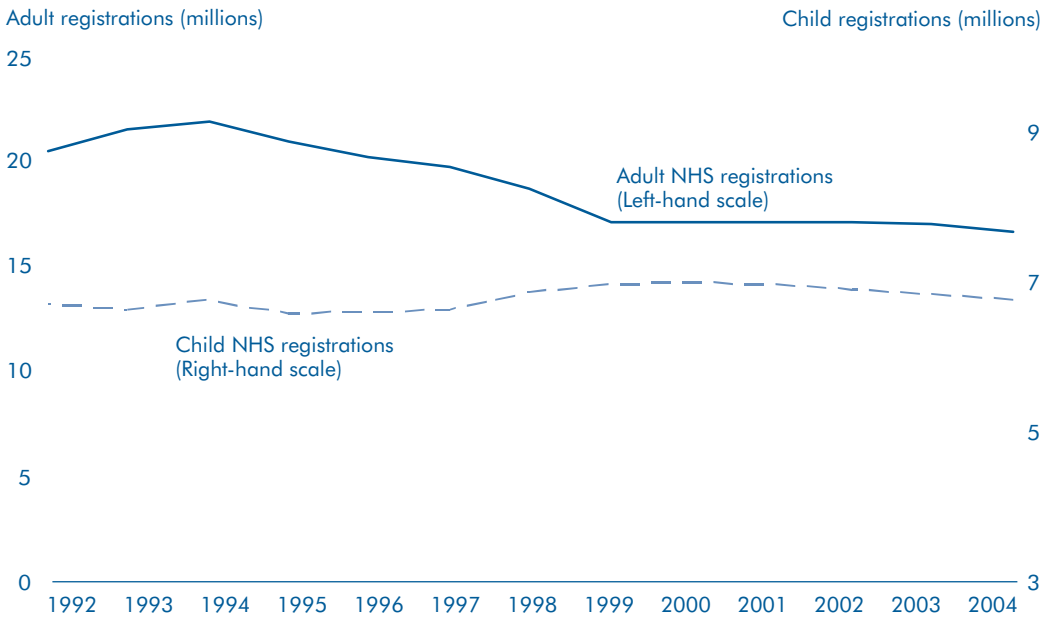
Percentage increase in expenditure since 1990-91



Source: Dental Practice Board

4 Adult and child NHS registrations in England

Adult registrations have fallen by 5 million from their 1994 peak. Child registrations increased gradually and have remained relatively static since 1998.



NOTE

The change in the registration period from 24 months to 15 months in September 1996 caused registration numbers to fall between November 1997 and August 1998.

Figures as at end of March

Source: Dental Practice Board

5 The distribution of gross NHS fee earnings for Principal Dentists¹ in £50,000 bands in 2002-03

Gross NHS earnings	Total	Percentage distribution
Under £50,000	4,688	32
£50,000 - £99,999	3,572	25
£100,000 - £149,999	3,484	24
£150,000 - £199,999	1,564	11
£200,000 - £249,999	576	4
£250,000 - £299,999	230	2
Over £300,000	335	2
	14,449	100

Source: Department of Health

NOTE 1: Principal dentists are those who are contracted to provide general dental services and have worked for a full year. The table excludes those dentists who work for a Body Corporate, Assistants and dentists on Vocational Training.

1.16 Earnings vary widely (**Figure 5**). These data relate to the gross earnings of principal dentists in the General Dental Service, out of which the dentist would have to pay all practice expenses including staff wages and payments to assistant dentists. On average the expense element of gross earnings is about 56 per cent, however, some dentists involved in highly technical work may have a significantly higher expense ratio. The Department estimates that average annual net earnings are £69,000 for a dentist providing reasonable NHS commitment. Additional income may be earned from treating private patients.

1.17 Since 1993 the Department has set patients' contributions at 80 per cent of the treatment fee. Fees range from £3.50 for one X-ray, to £297 for the most expensive fixed orthodontic appliance. The maximum patient charge is £378 (April 2004) for one course of dental treatment. Not all patients are required to pay for their dental treatment. All children receive free NHS dental care. For adults, patients receiving job seekers allowance, working families' tax credit and income support are entitled to relief from charges. In 2003-04 patients in receipt of benefits accounted for 28 per cent

of adult fees paid to dentists providing NHS treatments. Expectant and nursing mothers are exempt charges and accounted for 3 per cent of fees paid. Unless receiving other benefits, pensioners pay the full charge (**Figure 6**).

1.18 In addition to the 18,300 or so high street dentists, the NHS funds other dental services. For example in 2003-04, working under General Dental Services contracts, some 2 million patients were treated through hospital, community dental services with 21 per cent of the dental profession employed in delivering these services in 2003-04 (**Figure 7**).

- NHS hospital dental services provide more complex treatments. While some wisdom teeth extractions and orthodontics are carried out by high street dentists, more difficult cases may be referred to hospital dentists. Since 2000 all treatments requiring general anaesthetic have to be carried out in hospitals. Hospital dentists are salaried and are paid on a similar scale to other medical staff.
- Community dental services are provided by Primary Care Trusts to complement the work of high street dentists. The service provides dental care for specific groups in the population who cannot or do not use high street dentists. They also provide specialist dental services and undertake public health programmes including screening, health promotion and dental surveys. The Community Dental Service has subsumed the role of the school dentist. Many of these services are being incorporated into Personal Dental Services. Dentists working in the community services are salaried, being employed directly by the Primary Care Trust, with a Senior Dental Officer typically earning between £42,000 and £56,000 a year, based upon a nationally agreed pay scale.
- In 1997 the NHS (Primary Care) Act established Personal Dental Services pilots. The Act allowed Health Authorities, NHS Trusts, Primary Care Trusts and dentists to join together to establish new ways of working and set up new services to provide dental treatment to disadvantaged groups who may have difficulty registering with a NHS dentist, including access centres and in the community. Personal Dental Services are staffed by dentists who are paid salaries or funded through capitation arrangements, rather than the piece work payment mechanism for high street dentists. Salaries vary widely but on average are around 10 per cent above hospital dentists. The developments in relation to the Personal Dental Services Scheme are explored further in paragraphs 1.58 to 1.61 and Appendix 2.

6 Adults paying NHS dental charges and exemptions 2003-04

	Per cent adults	Per cent of adults
Full charges paid		69
Charges remitted		
a) Income support	15	
b) Working family tax credits	3	
c) Jobseekers allowance	3	
d) Tax Credit (Including Disabled Tax Credit)	4	
e) NHS low income scheme	3	
Sub total		28
Charges exempted		
a) New mothers	2	
b) Expectant mothers	1	
Sub total		3
Total		100

Source: Dental Practice Board

NOTE: Over two thirds of adults paid their full dental charges in 2003-04.

7 Number of dentists providing NHS treatment in England (at 31 March 2004)

Almost four fifths of registered dentists work as high street dentists in general practice.

	Number of registered dentists	
	Number	Per cent
General Dental Service (GDS)	18,274	79
Hospital Dental Service (HDS)	2,245	10
Community Dental Service (CDS)	1,518	6
Personal Dental Services (PDS)	1,039	5
Total	23,076	100

Source: Department of Health

NOTE: Some dentists may work in more than one service i.e in GDS and in CDS and some 467 of the GDS dentists also work in PDS.

1.19 The Department is undertaking a review of salaried primary dental care services provided by Primary Care Trusts to ensure that dentists are appropriately trained and rewarded, and that structures are in place to equip them to make a full contribution to the future delivery of primary dental care.

The Department’s spending on NHS dentistry has varied from forecast in recent years

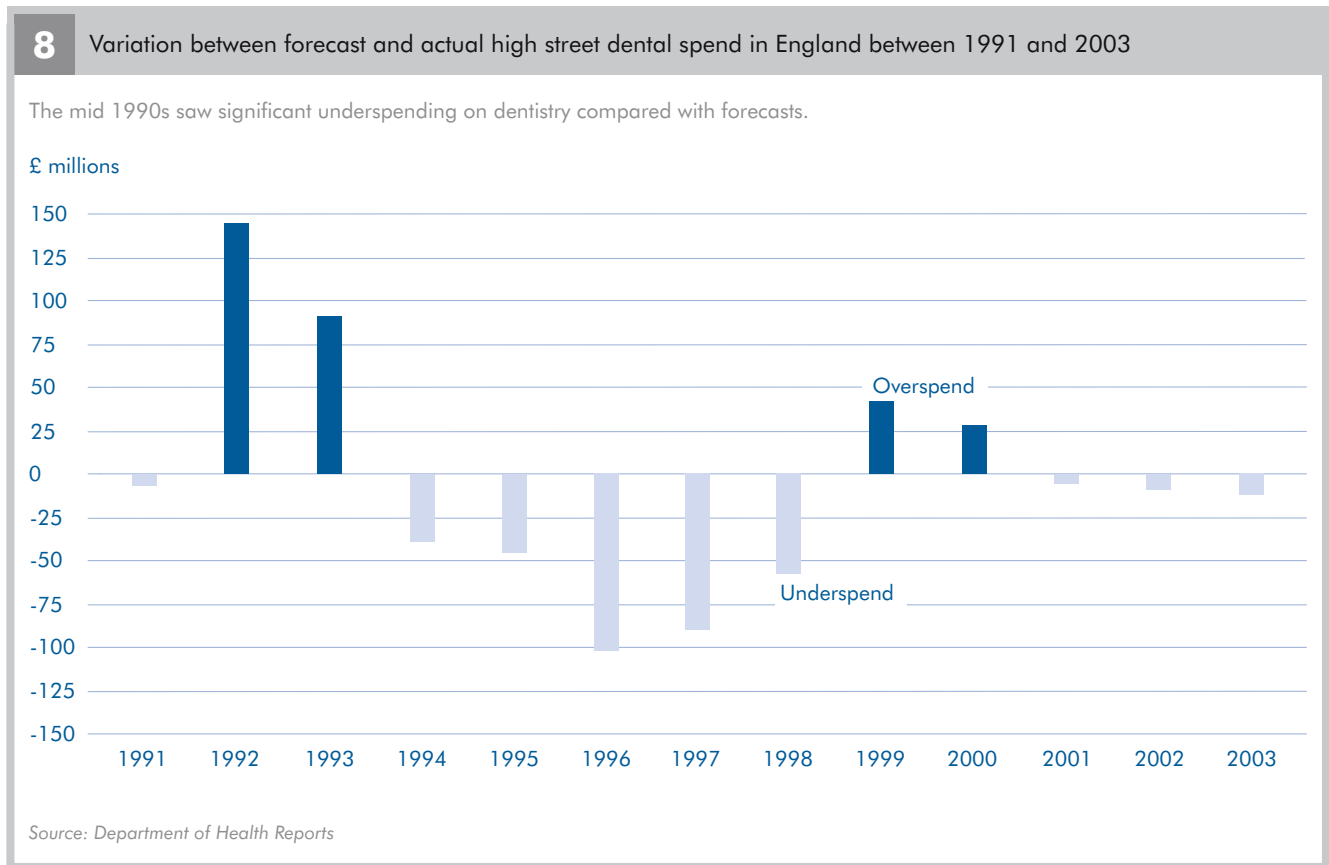
1.20 For planning purposes the Department forecasts its spending on dentistry each year but as the service is determined by capacity, actual spend can vary from forecast. In 1992 and 1993 there was significant overspending compared with forecast, followed by five years where there was year on year underspends, totalling £330 million, some 5 per cent of gross expenditure. More recently outturn has been more in line with forecast (**Figure 8**).

1.21 The reasons for significant variations between actual spend and forecast are to be found in changes in the remuneration system. In 1990, the Department introduced registration fees paid to dentists, hoping to encourage a larger, more settled patient base and indeed mounted an advertising campaign to encourage registration.

Dentists registered many more patients than expected, particularly patients who had not been examined for some time and who were likely to require treatment. There was a significant increase in treatments provided, resulting in NHS dentistry costs exceeding the Department’s expenditure forecasts and dentists earnings exceeded the pay targets recommended by the Doctors’ and Dentists’ Review Body. In 1992 the Department responded by reducing fees paid for treatments to bring down the overall level of spending. Falling incomes and profits led to significant ill feeling in the dental profession and a number of dentists decided to reduce their NHS commitment and take on more private dentistry.

There is a mismatch between demand and need for dental services and their supply

1.22 There is a mismatch between the numbers of dentists and where they are located, and the demand for dental services. Whilst oral health has improved overall, there are some areas of social deprivation and poor oral health, and a real need for dental services which is not being met. The reduction in NHS commitments by some dentists has tended to exacerbate access problems locally.



Whilst oral health has improved, demand for dental services has increased

1.23 Oral health of the UK population has improved dramatically since 1948, as demonstrated by successive Adult Dental Health reports.¹⁶ These show increasing numbers of adults retaining their teeth with increasing age, and lower prevalence of dental disease among a large proportion of those who have retained their teeth. These improvements are the result of several factors including healthier diet, availability of fluoride through toothpaste and water fluoridation, improved self care and better dental care and oral health education.

1.24 Children's oral health has been improving during the last four decades and compares well with children in Europe, particularly for older children where 12 year olds have the best oral health in Europe.¹⁷ Across the UK children in England have better oral health. Currently some 59 per cent of five year old children starting school have no decay but this is still the seventh best in Europe. Government dental health targets in England are set for five year olds, focusing on the number of decayed, missing or filled teeth and proportion of children having no dental caries. While there has been good progress, targets in 2003 were not achieved (**Figure 9**).

1.25 Local NHS surveys demonstrate that disease is more prevalent in certain sections of the population, especially in Manchester, Liverpool, Leeds, Sheffield and inner city London. Children in some parts of northern England have

on average twice the level of dental decay of children in other parts of the country. Adult oral health has also improved with the most recent Adult Dental Health survey in 1998 showing that adults now enjoy the best dental health for 30 years and the percentage of adults with no teeth has fallen from 37 per cent in 1968 to 12 per cent in 1998. Again there are regional variations with adults in northern England twice as likely to have no natural teeth as those in the south.

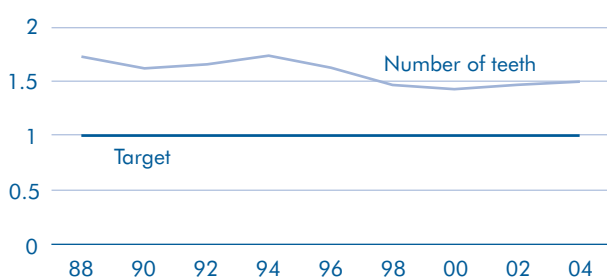
1.26 One factor explaining the increased demand for dental services is that there are more adults with a greater number of teeth to look after and people wish to avoid dentures. Demand for current treatments might well peak in 2020-2030, when the last generation experiencing significant dental decay in childhood will require significant maintenance and replacement of fillings. In contrast a growing proportion of adults aged under 40 have not had any fillings and are likely to be free of any dental disease for many years. The future treatment requirements of these adults are unknown.

1.27 Attitudes to dental health have also changed in recent years. Whilst many patients no longer experience dental disease, they are more concerned about appearance. Hence, they demand purely 'cosmetic' treatment which is not available on the NHS. Even if treatments are allowable under the NHS, some dentists may choose only to provide the treatment privately.

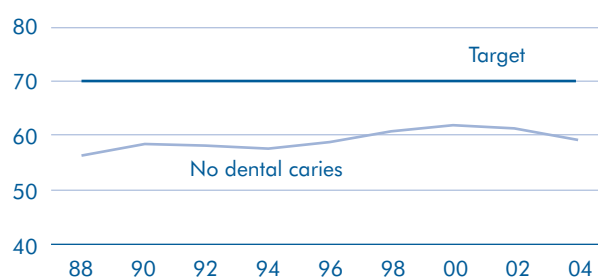
9 Progress against oral health targets for five year olds in England

The general trend is a decrease in decayed, missing or filled teeth, and an increase in children with no dental caries, though the Department still has some way to go.

Average number of decayed, missing or filled teeth in five year olds in England



Percentage of five year olds with no dental caries in England



Source: British Association for the Study of Community Dentistry biennial surveys of five year olds in England and Children's Dental Health Survey 2003

1.28 Professional opinion tends to support a ‘watch and wait’ preventative approach with limited interventions such as fillings but for some patients this may require more frequent examinations. There is a debate as to whether this approach represents ‘appropriate treatment’ or ‘under treatment’. Our evaluation of different arrangements for funding dentistry shows no evidence of major under treatment where dentists adopt more of a monitoring approach (paragraph 1.62).

1.29 The Department has not developed systems for monitoring patient satisfaction. The Health Service Ombudsman deals with complaints regarding healthcare professionals. In the last 2 years the Ombudsman has received fewer complaints against dentists compared with doctors – 0.7 for each 1,000 dentists compared with 1.8 for each 1,000 doctors.¹⁸ Half of the complaints against dentists were upheld as opposed to over two thirds of complaints against doctors. Most complaints about dentists relate to charges and that for most adults, NHS dentistry is not free at the point of delivery.

1.30 We commissioned a survey of adults to ask about their experience of dentistry (Appendix 1). The results for adults who had visited their dentist within the previous 12 months show high levels of satisfaction with oral health, the services provided by dentists, and overall assessments of value for money (Figure 10). Patients surveyed visit the dentist regularly, with 55 per cent (939 adults), reporting that they attended at least once every six months, and 73 per cent (1,243) at least once each year. Dental Practice Board data suggest that 30 per cent of patients may attend every six months with 60 per cent attending once a year and 80 per cent attending at least once every five years.

Access to NHS dentistry can be patchy

1.31 The Dental Practice Board has examined access to NHS dentistry across the country, analysing distance from a dental surgery and the average population for each dentist. The vast majority (98 per cent) of the population is within five miles of a dentist with 100 or more registered NHS patients (Figure 11).

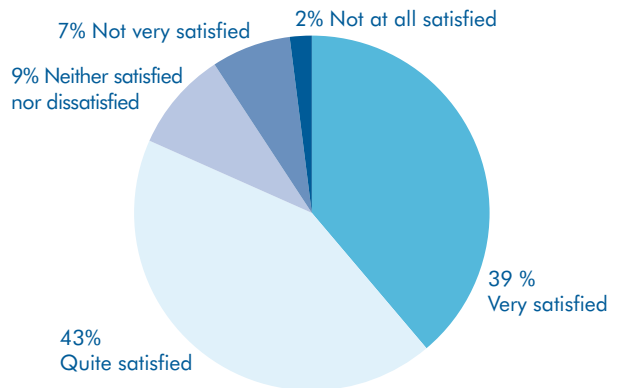
1.32 The fact that a nearby dentist may provide some NHS treatments does not necessarily mean that the dentist is taking on new patients or that the dentist is providing a range of NHS treatments. Patients may not therefore be able to access the services they demand or need. Consequently, the overall picture of access to NHS dentistry is complex and there is a need for local analysis.

10 Analysis of survey questions on patient satisfaction and value for money

A Satisfaction with overall oral health.

Most of the 1,761 adults questioned in the survey appear to be satisfied with the health of their mouth, teeth and gums, with eight out of ten adults saying that they are either quite satisfied or very satisfied:

Satisfaction with overall health of mouth, teeth and gums



B Evaluation of satisfaction with their visit to a dentist

Of those adults questioned in the survey, who had visited their dentist at least once in the last two years (1,355 adults), most were positive about their experience.

Mean satisfaction scores range from +2 very satisfied and -2 not at all satisfied

	NHS treatment
General surgery environment	1.47
Treatment received	1.40
Information about treatment	1.37
Information provided by the surgery	1.27

Of the reasons for not seeing a dentist in the last 2 years, the most common responses were that the patients did not have any pain, or felt that they needed no treatment (59 per cent of all reasons).

C Value for Money.

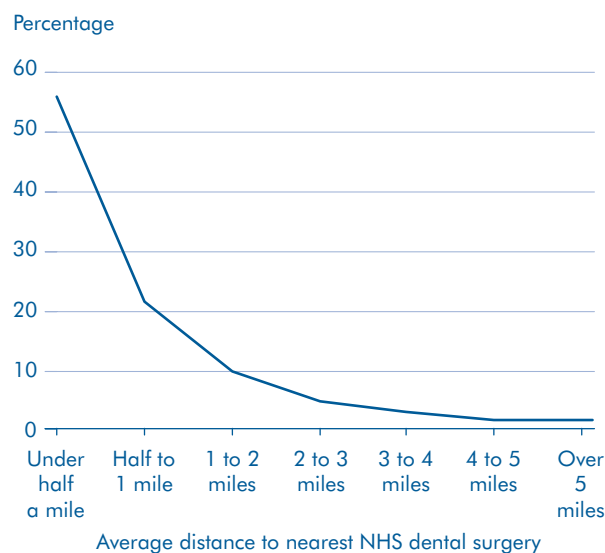
Nearly three quarters of adults surveyed rated their dental treatment as good value for money (71 per cent saying that it was very good or good). Those who considered that they had received NHS funded dental treatment rated the value for money of their treatment more positively than those receiving private treatment (77 per cent of adults who considered that they had received NHS treatment rated it as good or very good value for money).

Source: NAO commissioned omnibus survey of 1,761 adults

NOTE: All respondents were over 18 years of age and had visited the dentist at least once in the last two years (n= 1,355)

11 Measures of access to NHS dentistry in England

Ninety-eight per cent of people in England are within 5 miles of a dentist having 100 or more NHS registrations.



Source: Dental Practice Board

There remain areas with high dental disease levels and areas where demand for NHS dental care is not being met

1.33 Areas of concentrated poor oral health are largely correlated with social inequality, and in socially deprived areas oral health tends to be poorer. There are regional variations in adult registrations in England, ranging from a low of 31 per cent in the Thames Valley, to a high of 57 per cent in the North East (**Figure 12**).

1.34 Of the 30 most deprived areas, registration rates tend to be above average apart from in London. In Tower Hamlets only 32 per cent of adults are registered with dentists providing NHS treatments. In contrast, in the north east, Sunderland, Newcastle, Middlesbrough and Hartlepool have over 55 per cent registrations, and Liverpool has over 50 per cent registrations. In these areas there are high numbers of patients for each dentist. With relatively high levels of registrations and high numbers of patients for each dentist, dentists may have full lists and have difficulty changing working practices. Individual patients might then have problems accessing the NHS dental services they want.

1.35 Our patient survey revealed wide variations in their perception of the ease with which patients can access dentistry services for themselves and their children for routine and emergency treatment (**Figure 13**). There are also significant geographical variations (**Figure 14**).

1.36 One of the main concerns raised about dental care by patients is the difficulty in accessing a dentist willing to provide treatment under the NHS. The Commission for Health Improvement 2003 national patient survey¹⁹ found the most frequently cited reason for not attending was a lack of available NHS places. This concern has been highlighted by media reports with pictures of queues of people forming when a dentist offers to register additional NHS patients, for example in July 2003 in Carmarthen and in February 2004 when a new practice attempted to open in Scarborough. It is not clear how many people queuing were actually requiring immediate treatment or simply wished to register with a dentist.

1.37 For those who have difficulty finding a dentist, NHS Direct lists those dentists who are willing to accept NHS patients. The Government has pledged that anyone calling NHS Direct will be able to find a NHS dentist to provide emergency or urgent treatment. NHS Direct receives some 20,000 enquiries a month from patients looking to access NHS dentistry. The information it provides is supplied by Primary Care Trusts and NHS Direct does not monitor whether patients are satisfied with the information given or if they are able to get the dental treatment they are seeking. In 2002 the Audit Commission found that 60 per cent of practices on the NHS Direct database were accepting NHS patients, a slight increase over the previous year. However, the number of practices listed had fallen from over 700 to under 500.

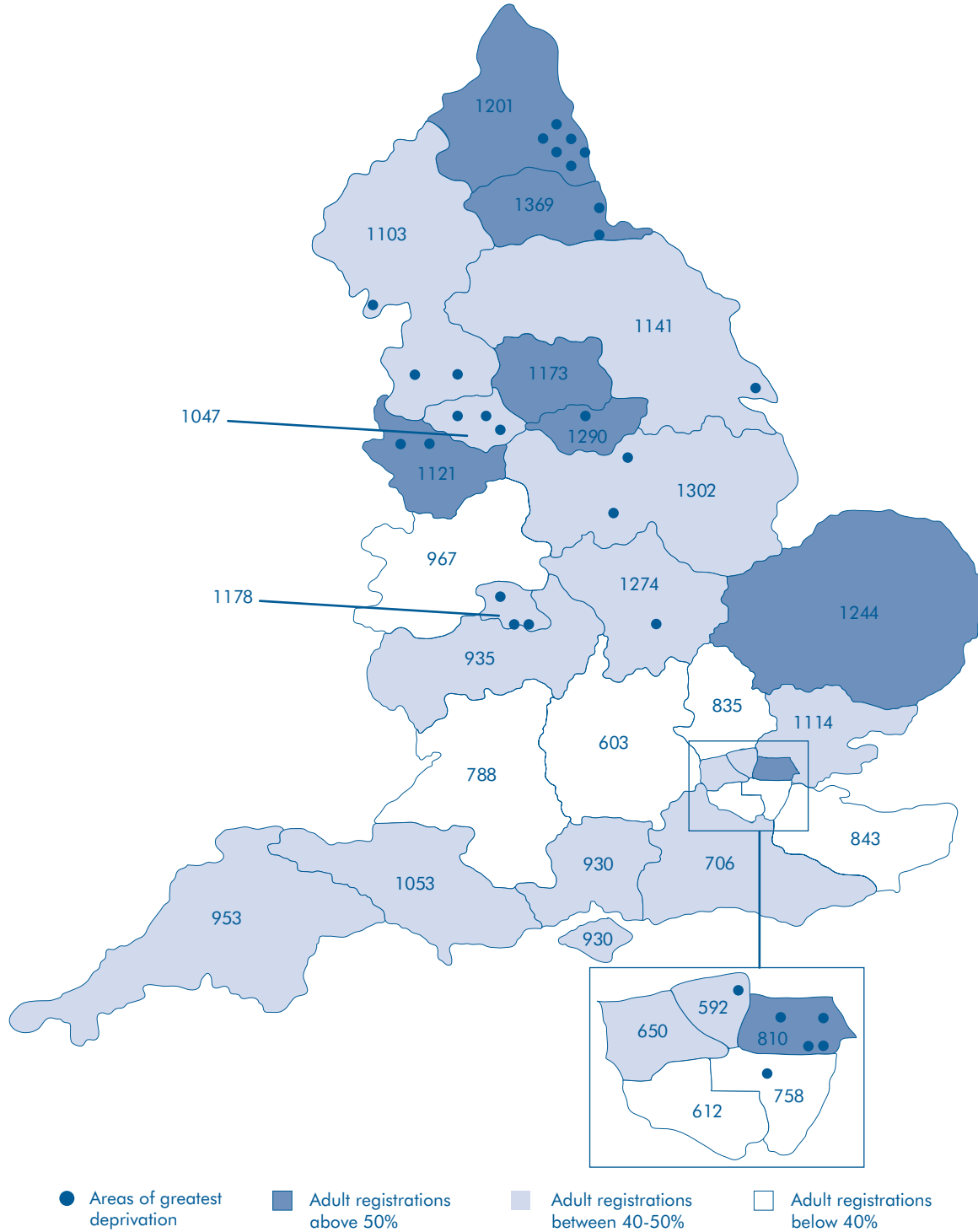
1.38 The Office of Fair Trading Report noted that 40 per cent of surgeries were accepting new adult NHS patients and 48 per cent were accepting exempt adults. In 2004 the Department estimated that some 35 per cent of surgeries were accepting exempt adults as patients and 30 per cent were accepting new adult NHS patients. As part of its study, the Audit Commission found that the information provided to NHS Direct on practices' willingness to accept NHS registrations was inaccurate for one third of practices. We re-performed this analysis to establish the latest position and found inaccuracies in information for one fifth of practices.

There are shortages of NHS dentists and other professional dental staff

1.39 Since 1990 the population for each high street dentist has fallen from 3,100 to under 2,600. Indeed between 1998-99 and 2003-04 the number of dentists in General and Personal Dental Services contracts has increased from 17,200 to 19,300. But they are increasingly spending a lower proportion of their time on NHS work and there are particular shortages in some areas.

12 Adult registration and average list size by Strategic Health Authority, as at December 2003

Areas of social deprivation are not always associated with the low levels of adult registrations. Variations in list sizes are affected by private provision. The national average list size is 1025



Source: Dental Practice Board and Office of Deputy Prime Minister

NOTE: Numbers represent the average list size (number of patients registered with a dentist for NHS treatment) in the strategic health authority

13 Access to NHS Dentistry

Access to NHS dentistry for routine and emergency treatment.

Most adults in our survey found it relatively easy to get an appointment to see their dentist, although it was generally deemed to be easier to get a routine appointment than an emergency appointment. Many adults who found it difficult to get an appointment pointed to a lack of dentists in the local area (18 per cent), with others suggesting dentists were too busy (6 per cent) or that they often have a long wait (5 per cent).

Those who find it easy or very easy to obtain appointments

Routine (self)	76%
Routine (children)	70%
Emergency (self)	63%
Emergency (children)	54%

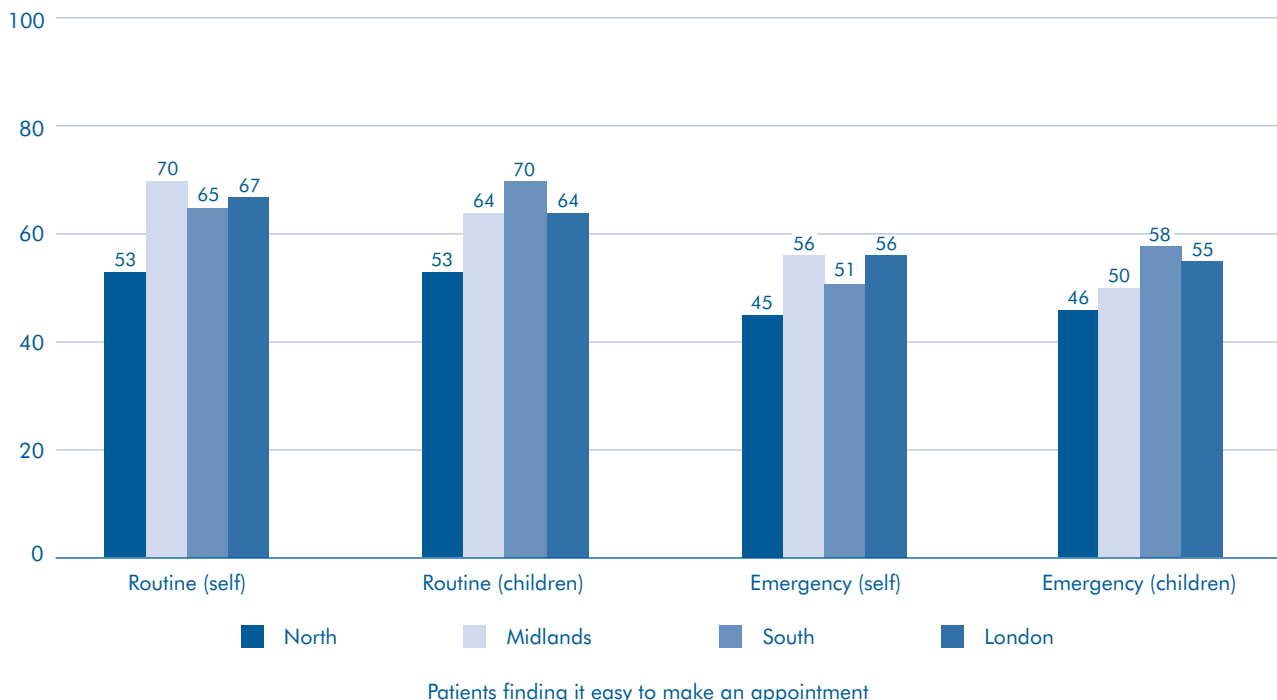
Source: NAO Commission Survey of 1760 adults

1.40 Following the 1987 workforce review²⁰ fewer dentists have been trained due to the closure of Edinburgh and University College London dental schools, and the reduction in places at others. In 2001 the Department commissioned a new workforce review of the primary care dental workforce to examine the requirement for dentists, professionals complementary to dentistry and numbers of training places and how the dental team can best operate. The review took place at a time when major changes in the contractual and remuneration arrangements for the General Dental Service were in train (Part 2).

14 Geographical access to NHS dentistry

There are regional differences in ease of access in different parts of the country. Specifically, those who live in the North find it harder to get appointments than those who live in other parts of the country. Lists tend to be larger in the North.

Percentage



Source: NAO commissioned survey of 1,760 adults

1.41 In July 2004, the Department published the review's findings on its website. Based on analyses undertaken in 2001-02, the review estimated that in 2003 there was a shortage of 1,850 whole time equivalent dentists, 9 per cent of the workforce. Without additional resources, by 2011 the shortfall would increase to between 3,640 and 5,100 dentists, 16 per cent to 21 per cent. There are also shortages of dental hygienists, therapists and nurses, with many changing their work patterns and moving to the private sector because of better pay and conditions. This results in highly qualified and skilled dentists performing very basic procedures which could be done by other dental professionals.

1.42 In July 2004, the Department also announced its proposals for improving access to NHS dentistry by increasing the size of the dental workforce providing NHS treatment. In the short term it has launched a return to NHS dentistry campaign and expects to recruit additional dentists from overseas, aiming to increase by the equivalent of 1,000 the numbers of dentists providing NHS treatments by October 2005. International recruitment campaigns are being conducted under the Department's ethical recruitment policy, targeted at countries where there is a government to government agreement to recruit. Attention has focussed on countries like India and Poland where there is an acknowledged surplus of dentists. The Department has also agreed with the General Dental Council that the process of registration of overseas dentists will be speeded up, in particular the opportunities to take the International Qualifying Examination, which is a pre-requisite of practice for non-European Union nationals. Attention is being directed at reducing the backlog of 400 overseas dentists on the waiting list to take the exam.

1.43 Longer term the Department is to expand training places, increasing the number of dental training places by 170 (a 25 per cent increase) and quadrupling the number of dental therapist places. It is working with the dental profession to make greater use of skills across the dental team, with dentists undertaking more complex treatments.

1.44 The dental profession has been sceptical of Government intentions and the timetable for change. In submitting evidence to the Doctors' and Dentists' Review Body in October 2003,²¹ the British Dental Association noted that patients were experiencing serious problems accessing dental services. The British Dental Association identified workforce issues as significant. In 1992-93 the vast majority (98 per cent) of dentists were engaged in providing significant NHS treatments but ten years later only two thirds of dentists were providing such a level of NHS treatments,

although most dentists continue to provide some NHS treatments. The British Dental Association has, however, welcomed the Department's plans to expand the dental workforce and the additional funding for NHS dentistry.

1.45 An international comparison of oral healthcare systems in the extended European Union²² showed that member countries operate different systems for providing dental healthcare. We examined data from this review, together with data from other G7 countries, to compare dental workforces across the world and found wide variations in the ratio of active dentists to head of population and also in the numbers of professions complementary to dentistry that are employed in different countries (Appendix 5). For England, if all active dentists providing treatment are included in the analysis, the ratio is 1 dentist to 2,276 people, which is higher than the average of 1 dentist to 1,700 people. However, England, like a number of the other countries in the comparison, employs a higher proportion of dental hygienists and dental nurses etc. as part of the dental team.

There are fundamental weaknesses with the piece work system which is now out of kilter with modern approaches to dentistry

1.46 The current piece work system provides perverse incentives which can result in over-treatment⁶. Where alternative funding systems have been introduced, different treatment patterns can be observed with fewer interventions, without adversely affecting oral health.

Under a piece work system there are perverse incentives

1.47 Whilst the piece work system provided undoubted advantages in the early years of NHS dentistry when there was a need to encourage a high volume of treatments to tackle oral health problems, the system is no longer appropriate today. The current payment system, based on a set fee for each item of service provided by dentists, has been largely unchanged since 1948. It encourages high levels of treatments and efficiency, of critical importance in the 1940s and 1950s when there were very high levels of dental disease. Under such arrangements dentists are paid only for the treatments performed, and similarly patients are only charged for treatments received. The system therefore provides clarity for both dentists and patients.

1.48 A number of reports have been critical of the NHS dentistry remuneration system, including Tattershall (1964),²³ National Audit Office (1984), Schanschieff (1984),²⁴ Bloomfield (1992),²⁵ the Health Select Committee (2001)²⁶ and the Audit Commission (2002). Criticisms have focused on the incentives dentists have to provide treatment, referred to as 'over-treatment', and the lack of incentives to provide advice on prevention.

1.49 From an analysis of Dental Practice Board data, the most common items of NHS treatment are examinations, scaling and polishing, X-rays, crowns and fillings. These five treatments account for 70 per cent by value of all adult treatments in England (**Figure 15**). Over half of dental courses of treatment did not require active dental interventions - examinations, scales and polishes, and X-rays, rather than fillings or extractions. These 'non intervention' course of treatment have grown steadily in recent years, from 40 per cent in 1993. While such an increase can raise questions about whether NHS resources are being put to best use, it is also an indicator of improving oral health.

1.50 To remain profitable a common option for practices is to maintain lists of dentally fit patients and see them regularly, providing examinations and scales and polishes. Hence dental resources may benefit those who are 'dentally fit' whilst those who are most in need of dental care may not be able to access NHS dentistry.

1.51 As regards the clinical value of six monthly examinations and polishes, the Audit Commission has argued that many of these treatments may well be unnecessary and that the £150 million resources might be better directed to areas of need. The National Institute for Clinical Excellence commissioned the National Collaborating Centre for Acute Care to review the standard recall period. They found that the recall interval should be determined according to individual patient needs and that it may be appropriate to see children every 12 months and for some adults an appropriate recall period could be up to 2 years. Some patients may need to be examined more frequently. The main difficulty identified is the lack of any scientific evidence base on which to base recall periods.¹⁰

1.52 **Figure 16** shows the changes in the numbers of dentists, patients and treatments provided over the past five years. During that period the number of high street dentists increased by 1,000 (6 per cent). During the same period, the number of patients registered has remained stable as have the number of courses of treatment provided to adult patients.

15 Adult dental items of treatments in England 2003-04

Over half the treatments carried out by dentists involved no dental intervention and cost £332 million, 33 per cent of treatment fees.

Treatment	Treatments		
	By Value £m	%	By Volume %
Involving no dental intervention:-			
examinations	149	15	26
X-rays	45	4	10
scale and polishing	138	14	16
sub total	332	33	52
Fillings	181	18	18
Crown	159	16	5
Other treatments	327	33	25
Total	980	100	100

Source: Dental Practice Board

1.53 Dentists are required to record each NHS treatment performed and send details to the Dental Practice Board which is responsible for approving and paying all claims. During 2003-04 it approved some 79 million claims for payments at a total cost of around £1.8 billion.

1.54 Since 1998 the NHS Counter Fraud Service has been responsible for countering dental fraud carried out by patients and dentists, and has estimated that its work has resulted in savings of £18 million. For example, it considers that it has helped reduce fraud losses by patients claiming exemptions when they were not entitled to them by £3 million (24 per cent) and that recalled attendance payments, where dentists claim fees for opening surgeries in emergencies, have been reduced by £7 million (46 per cent). Overall, it estimates that its work has led to the successful prosecution of five dentists.

16 The scale of NHS dentistry in England

Adult patients registered per dentist has remained stable as have courses of treatments provided to adult patients.

A Number of dentists, patients and treatments

	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
Practising dentists	17,300	17,800	18,100	18,200	18,400	18,300
Adult patients registered (millions)	17.2	17.1	17.2	17.1	17.1	16.7
Courses of treatment given to adults (millions)	26.2	25.9	26.4	26.3	26.3	26.4

B Dentists' workload

Courses of treatments received by each patient	1.51	1.51	1.53	1.54	1.54	1.58
Adult patients registered per dentist	994	961	952	939	932	913

Source: Dental Practice Board

1.55 NHS dentists' work is subject to Dental Practice Board quality review but post treatment examination cannot determine original need with certainty. The Board undertakes random checks of claims to monitor both the quality of treatments given and the completeness and accuracy of the claim through the Dental Reference Service. In 2003-04 the Dental Reference Service examined some 95,000 patients, which meant that over three quarters of NHS dentists had at least two patients examined. They concluded that standards were not met in less than two per cent of cases. Quality monitoring, together with the emphasis given to providing patients with clear information (paragraph 1.6), are the main ways in which the Department is working to balance the relationship between dentists and patients.

1.56 Only specified treatments can be provided on the NHS, for example white fillings in front teeth. Treatments for purely cosmetic reasons, such as tooth whitening are generally not eligible for NHS funding nor are complex tooth coloured fillings on back teeth as they are generally seen as less reliable than silver amalgam. Whilst dentists can make a case to the Dental Practice Board to use a non specified treatment if this is in the best interest of the patient, they rarely do so.

1.57 Dentists view the piece work system as a 'treadmill', particularly following the 1992 reduction in fees as they were having to provide higher volumes of treatment in order to maintain income. The treadmill does not fit well with modern approaches to treatment in terms of quality, 'watch and wait' monitoring and prevention. The dental profession has also argued that management of staff and resources, continuing professional development and research are not well remunerated.

The piloting of Personal Dental Services contracts from 1998, introduced alternative remuneration systems to help target resources to areas of greatest need

1.58 Before 1997 NHS dental services could only be delivered by primary care dentists on the basis of a national contract and a nationally negotiated scale of fees. Following recommendations in a number of external reports of NHS Dentistry - (the Bloomfield Report published in January 1993; Health Select Committee fourth report 1993; and the White Paper Improving NHS Dentistry 1994 - details in Appendix 3), the Department started to explore alternative methods of remuneration, including local commissioning of primary care dental services. The NHS Primary Care Act 1997 paved the way for the introduction of Personal Dental Services pilots aimed at exploring alternative ways of paying dentists and new ways of working so as to improve access to NHS dentistry and oral health.

From 1998 new alternatives to the General Dental Service contract have been piloted to help improve access by improving commitment to NHS dentistry

1.59 The first wave of Personal Dental Services contracts for dental practices was launched in 1998. Based on locally negotiated contracts between the then local health authority and one or more providers of dental services (including independent contractors or community or other NHS salaried dentists), the contracts aimed to allow flexibility from the national General Dental Services contract and its piece work payment system. All of the pilots shared an objective to improve access to NHS dental and oral health services. Some aimed to promote access and the use of services by high needs groups who demonstrate low levels of demand, others attempted to improve access in response to high levels of demand. The Personal Dental Services scheme was also used to develop the provision of specialised treatment in a primary care setting, following referrals from other local dentists. Although there were similarities amongst pilots most had their own unique characteristics.

1.60 In 1998, the Department commissioned the University of Birmingham to review the implementation of the Personal Dental Service pilot scheme. The review focussed on all 15 first wave pilots and five of the second wave pilots and examined developments over the first three years of operation.²⁷ As the aim of each pilot was unique the review reviewed each pilot's progress against its specific objectives and did not compare relative performance. The review's key findings were that the Personal Dental Service system improved access to NHS dental services and provided greater flexibility to provide NHS services; changes in the method of payment changed the nature of professional work undertaken; the specialist pilots were successful in providing specialist dental care in a non-hospital setting; and most pilots had a key person whose enthusiasm was central to facilitating progress.

1.61 Some of the barriers to the expansion of the scheme included the capacity within health authorities and Primary Care Trusts to provide the level of support to facilitate and monitor progress and outcomes effectively. Also uncertainty as to the future of the pilot sites compounded with structural changes to the NHS had led to difficulties in recruitment, retention and management support.

Where piece work remuneration systems are replaced, activity levels fall with no impact on oral health

1.62 Where dentists are no longer remunerated on a piece work basis, activity levels commonly fall by some 10 per cent. We commissioned the University of Birmingham to extend the work they had carried out for the Department (paragraph 1.60) by undertaking a comparative evaluation of dentistry remuneration arrangements which examined dentists working in a capitation system alongside dentists operating in the traditional piece work system. Overall results show significantly reduced numbers of scales and polishes, and also fewer fillings, although the latter reduction was not statistically significant. The evaluation showed broadly similar levels of oral health, despite the changes in treatment patterns. The samples were small and time scales limited and there is a need for longer term research (**Case Study 1**).

CASE STUDY 1



The University of Birmingham Evaluation

We commissioned the University of Birmingham School of Dentistry to undertake an evaluation comparing the treatment characteristics of two groups of dentists: one providing a Personal Dental Services scheme, funded through a capitation fee; and the other under the current General Dental Service fee-per-item payment system.

The objectives of the study were to compare the number of clinical interventions made for adult patients under both payment regimes and to compare the oral health of both groups of patients by means of an Oral Health Index. Both sets of patients were long standing attendees at the dental practices.

The Oral Health Index provides a numerical measure of oral health, with assessments of the adequacy of fillings and restorations, caries, periodontal disease, presence of calculus (plaque), adequacy of occlusion (how teeth fit together when biting), health of gums and patient comfort.

Findings

The oral health of the two groups of patients treated under the differing remuneration systems was similar using the Oral Health Index scores, and there was no evidence of 'under treatment' or neglect under the Personal Dental Services.

The Personal Dental Service dentists provided significantly fewer simple periodontal treatments (scaling and polishing) than their General Dental Service counterparts. They also provided fewer fillings, although the reduction was not statistically significant.

The Personal Dental Service dentists provided more routine examinations and may therefore be providing more of a monitoring approach.

Both groups of dentists provided similar numbers of extractions and crowns for their patients.

Source: NAO commissioned evaluation

Increased participation in the Personal Dental Services Schemes have taken place against a background of radical reform of NHS dentistry

1.63 As a result of paying dentists in different ways under the Personal Dental Services pilots, NHS commitment has been maintained or increased. By September 2004, some 2,500 dentists had Personal Dental Services contracts and a further 700 dental practices were in the process of moving over to these arrangements.

1.64 Appendix 2 illustrates the increase in take up of the Personal Dental Service contracts since 1998, including the surge in participation since April 2004. These increases in participation have taken place against the background of radical reforms proposed for NHS dentistry which build on the experience of operating the Personal Dental Services Scheme. Part 2 reviews the details of the proposed changes and identifies the risks that will need to be managed, including some of the risks identified in the Department's review of the first two waves of the Personal Dental Service scheme.

PART TWO

Proposed changes hold out the prospect of improved value for money but there are significant risks



2.1 In 2002, the Department published *NHS Dentistry: Options for Change*, with proposals for a radical reform of NHS dentistry. This built on the Government's *Modernising NHS Dentistry: Implementing the NHS Plan* strategy published in September 2000 and the Department's experience of operating Personal Dental Services pilots since 1998. This Part examines the proposed reforms and the extent to which they might deliver improved value for money. It highlights the risks that will need to be managed, including the risks associated with: changes in commissioning arrangements; dentists being paid for delivering oral health rather than by activity; and issues relating to workforce planning, clinical pathways and patient charges.

From October 2005 Primary Care Trusts will commission dental services and dentists will be paid for their commitment to the NHS

2.2 Appendix 3 details a timeline of the major developments in NHS dentistry, since the inception of NHS dental services in 1948. Many reports have argued the need for change, including the 1984 report by the Committee of Public Accounts (Appendix 4) and the Audit Commission's Report in 2002. Indeed, the Department has been considering reforming NHS dentistry for a number of years.

Key reports in 2002 and 2004 provide the context for modernising NHS dental services

2.3 The Department's 2002 report *NHS Dentistry: Options for Change* outlined the policy for a major reform of NHS dental services.⁶ It drew on the *Dentistry Modernisation Steering group reports*²⁸ and took into account the Report of the House of Commons Select Committee in 2001 which concluded that the system of remuneration in the General Dental Service was a main factor in dissatisfaction amongst dentists and patients and called for a workforce review of primary dental care and a long term strategy.²⁶

2.4 In July 2004, the Chief Dental Officer, in his report *NHS Dentistry: Delivering Change* set out the Department's plans for delivering the change. In this the Department signalled its commitment to "investing in and reforming NHS dentistry to ensure that everyone can have access to treatment when they need it". The Department acknowledged that the way to improve both oral health and access is to both change the way that NHS dentists are paid and increase the number of dentists providing NHS treatment.⁹

2.5 The Department put in place immediate measures to improve recruitment and retention of dentists with an announcement that the equivalent of 1,000 extra NHS dentists would be recruited by October 2005 and that additional funds of some £368 million was to be made available, of which £250 million is for meeting additional service costs (**Figure 17**).^{9, 29}

17 Additional Departmental funding to support reforming NHS Dentistry^{9, 29}

Funding injection	Proposed use of funds
£250 million	By 2005-06 NHS dentistry will receive a 19.3 per cent increase in funding to support new ways of working.
£29 million plus £80 million	To fund an extra 170 undergraduate dental training places (a 25 per cent increase) from October 2005 - revenue costs expected to reach £29 million by 2010-11 and capital investment of £80 million to support this expansion.
£9 million	To support dental practices in training their staff in preparation for the changes coming into effect in October 2005.
£368 million	Total

Source: Department of Health

Primary Care Trusts have a crucial role as commissioners of dental services

2.6 Under the Department's proposals for NHS dentistry from October 2005 Primary Care Trusts will be responsible for the new contractual arrangements for dentists with responsibility for commissioning all dental care and will be able to direct resources to areas of most need.

Figure 18 summarises the current and proposed contracting arrangements.

2.7 The NHS dentistry budget will be allocated to all Primary Care Trusts. Current national levels of funding will be maintained, but areas identified with the most need will have most growth. The Department issued indicative allocations for 2004-05 and 2005-06 for validation to Primary Care Trusts in August 2004.

2.8 The Department has guaranteed dentists' gross earnings for three years in return for agreed levels of commitment and any shortfall in patient NHS charges will rest with Primary Care Trusts and the Department. Although the Department made clear in the Framework document issued in February 2004 that the range of services to be provided will be broadly as now, updated by improvements in clinical practice.³⁰ Dentists tell us, however, that it is still not clear what services dentists will be contracted to provide, what services patients can expect or what charges patients will pay.

2.9 Fundamental to the introduction and stability of the new system is the introduction of the new base contract that Primary Care Trusts will be able to offer to dentists. This is expected to be based on the Personal Dental Service contract and is being developed in consultation with the British Dental Association. Primary Care Trusts will offer a transitional or base contract to all dentists who hold NHS General Dental Service contracts in September 2005 and will guarantee dental earnings for three years to September 2008, provided they maintain their NHS commitment. Dentists that operate under the Personal Dental Service contracts will be able to continue to operate under those contracts, subject to any amendments needed to reflect expected changes in patient charges and monitoring arrangements, during the three year transitional phase.

2.10 Any practice, that wishes to, will be supported to move to a Personal Dental Services contract in advance of October 2005. As identified in paragraph 1.63 and Appendix 2, since April 2004 there has been a significant increase in the number of dentists and dental practices negotiating a Personal Dental Services contract in advance of the October 2005 change over date. Part of the reason appears to be the attraction of certainty now, rather than waiting for the details of the new contract. Also, Primary Care Trusts have been issued with guidance to help them support practices in moving to local Personal Dental Service contracts and prevent them leaving the NHS because of delays in offering alternatives. There is a risk that some of these transfers might have been agreed locally without the financial controls which are expected to be inherent in the new base contract.

2.11 Primary Care Trusts will monitor patient satisfaction once they begin to commission dental services. The Healthcare Commission will also monitor patient satisfaction as part of its review of Primary Care Trusts.

2.12 For the first three years, Strategic Health Authorities supported by the Dental Practice Board (and its successor body the new NHS Business Services Authority) will play a critical part in supporting Primary Care Trusts in placing contracts with dentists. The Dental Practice Board will also be responsible for making payments under the contract.

Dentists will be paid to meet patients' oral health needs, not according to activities

2.13 In February 2004 the Department issued its framework proposals for dental services as part of their consultation process with the dental profession. These proposals cover the issue of a new base contract, prospective earnings, expected outputs, changes in working practices, the introduction of a new patient charges system and new monitoring procedures. The full details of the new contract, however, were still being worked on in November 2004.

2.14 Contracts will be rolled forward annually during the first three years, with service level agreements established for delivering oral health and dental services - providing broadly similar levels of service as in the base year. Base year funding for Primary Care Trust dentistry budgets will be determined on historic grounds adjusted to reflect local needs.

18 Key questions and answers about the current and proposed contracting arrangements

Question	Current Arrangements	New Arrangements
Which dentists are entitled to a contract?	A dentist registered with the General Dental Council and who is accepted onto a Primary Care Trust list is entitled to practise under the General Dental Services contract.	A dentist who is providing General Dental Services or Personal Dental Services in September 2005 will be entitled to a contract under the new arrangements. Other dentists registered with the General Dental Council may be offered new contracts from October 2005 at the discretion of the Primary Care Trust.
Where can dentists practise?	Anywhere the dentist chooses. A dentist is free to set up a practice without restriction.	Primary Care Trusts will be able to decide where new dental practices should be located.
What are the payment arrangements?	Dentists are paid fees for providing treatments. There are 400 fees ranging from £7.05 for a clinical examination to £297.70 for a single orthodontic appliance. In addition, dentists are paid for every patient registered with them.	Gross earnings will be protected, provided NHS commitment is maintained, for the transitional three years. Agreed gross earnings will be paid in 12 monthly instalments.
How are funds controlled?	Dentists can vary their work (and therefore their earnings) without reference to the Primary Care Trust.	Primary Care Trusts will have control over their budgets and dentists will need to agree contract variations with their Primary Care Trust, increasing contract value for greater commitment.
What treatments are allowed?	All treatments necessary to secure oral health are allowed. Some modern materials, such as white fillings as opposed to mercury amalgam subject to prior approval obtained from the Dental Practice Board.	Dentists will have more freedom to provide the treatments they consider to be clinically appropriate.
What incentives are there?	Dentists are paid for providing treatments but not for prevention or advice. The arrangements created a number of well recognised problems for practitioners including a disincentive to invest clinical time in prevention rather than treatment and more frequent recalls than clinically necessary.	The new arrangements will enable dentists to undertake prevention work and to exercise clinical judgement within the contract value without being penalised financially.
Which patients are dentists required to look after?	All patients registered with the dentist. Registrations lapse after 15 months unless the patient re-attends. This encourages dentists to focus on a list of healthy patients for whom they perform regular check-ups in order to ensure a consistent level of income. Dentists can provide treatment on an occasional basis to non-registered patients.	Dentists will have a practice list of patients who attend at intervals appropriate to their clinical needs. The new arrangements should release capacity as has been shown in Personal Dental Service pilots. This will both enable dentists to get off the so called treadmill of fee per item and additional patients to be seen. Primary Care Trusts will also be able to fund additional services to meet local priorities.
What charges do patients pay?	Currently set at 80 per cent of fees up to a maximum charge of £378 for patients who are not exempt.	The new simplified system of patient charges was submitted to Ministers in March 2004 but the final details were still under consideration at the beginning of November.

Source: Department of Health

The Department is pursuing complementary initiatives on workforce planning, clinical pathways and patient charges

2.15 In 2001, the Department commissioned a working group, to undertake the first dental workforce review since 1987 and to recommend appropriate action. The review, which covered dentists and professions complementary to dentistry, was carried out at the same time as the major changes to NHS dentistry were being considered. As the full implications of the changes were unclear, the review provided a “best estimate of future demand and supply based on the data currently available”. The report of the review, which was published on the Department’s website, focused on primary dental care service, sets out the scope for making most effective use of the whole dental team (paragraphs 1.41 to 1.43).

2.16 The Department is reviewing the ways in which patients access dentistry. The National Collaborating Centre for Acute Care, commissioned by the National Institute for Clinical Excellence examined the recall period and recommended the traditional six month recall period be replaced. Dentists will determine the most appropriate recall period for individual patients and this could be up to 2 years for some adults and as often as every three months for those whose teeth need frequent attention (paragraph 1.49). The Department has commissioned the University of Dundee to develop clinical pathways for provision of dental care. Work on oral health assessment is to be piloted in late 2004. These various initiatives complement modern approaches where dentists assess patients’ oral health and determine individual strategies for managing their oral health. Our evaluation work showed how an Oral Health Index can be useful when undertaking examinations and agreeing treatment plans with patients (paragraph 1.62).

2.17 The Health and Social Care Act 2003 has given the Department new powers to determine patient charges. As the fee per item system is replaced a new system of patient charges is required. A key aim is for this to be a simpler, more transparent system for dentists to operate and patients to understand. The NHS Dentistry Patient Charges Working Group, which involved experts from national patient, consumer and dentist organisations, has made recommendations to Ministers who are currently considering them. In moving from some 400 individual charges to a simplified system there may well be winners and losers. The details of the new charging system are critical to the new base contract and the delays in announcing the details are creating uncertainty and anxiety.

New systems have the potential to improve value for money but the Department faces significant risks

2.18 Whilst there is scope for improved value for money from the proposed changes to NHS dentistry, there are significant risks that will need to be managed, including Primary Care Trust commissioning and risks associated with system change. The Department has guaranteed dentists’ gross earnings in return for an agreed level of NHS commitment and that any risk from patient charge income will not be borne by dental practices. We consider that there are a number of risks associated with this approach, given the proposed changes in recalling patients for examinations and the reduced number of treatments which tend to occur when piece work systems are replaced.

New arrangements are expected to enable resources to be channelled more effectively and address the shortcomings of the piece work system

2.19 The new dentistry arrangements have a number of potential advantages:

- Primary Care Trusts have the key role in improving dental public health and tackling shortages of dental services, and their local knowledge is expected to ensure that resources are directed appropriately.
- Productivity incentives to provide treatments are to be replaced by obligations to deliver oral health and to provide a continuing commitment to the delivery of NHS dentistry services. With dentists no longer being incentivised to provide additional treatments to patients, new payment arrangements should support modern patient-centred approaches to dentistry, with greater emphasis on oral health assessments, individual treatment plans, flexible recall periods, and more preventative work.
- Professionals complementary to dentistry will take on a greater role in treating patients, undertaking tasks appropriate to their skills and experience, which should free up dentists’ time to improve access. Any major change in roles of the dental team members may, however, require legislation.

2.20 As part of its preparations for implementation and building on six years of the Personal Dental Services, in 2003 the NHS Modernisation Agency set up 48 ‘Options for Change’ field sites to test new ways of working, new remuneration arrangements and local commissioning, and to identify lessons prior to the roll out of the new

system in April 2005. The first sites became operational in October 2003 with the remainder becoming operational by June 2004. Lessons learned from the early field sites were fed onto the later sites. Further lessons to develop and shape the reform process are expected to follow the NHS Modernisation Agency's Learning event in November 2004. Significant outputs are posted on the Department's website to allow wider access.

2.21 The main change reported so far from the pilot sites has been in how dentists work, with a consequent improvement in their satisfaction levels in delivering NHS dental care. The pressure to maintain a constant flow of patients to generate sufficient income for the practice has been removed:

- Dentists are able to allocate sufficient time with patients to undertake the procedure, explain options and give advice on oral health and prevention. Oral health assessments can be scheduled for longer than the traditional 5 minutes.
- Dentists can agree treatment plans, including tailored recall periods rather than the traditional six months.
- Dentists are adopting more of a monitoring approach.
- Treatments can be provided that were previously uneconomic. For example the Barnsley fieldsite has treated patients who would previously have had to go to hospital. Another site has introduced pain clinics and special access sessions to cover emergency treatments. Other practices have used sessions to improve the training and expertise of individual dentists.
- A number of practices have sought to use the NHS logo as part of their branding, naming the practice as a 'NHS Dental Clinic', using NHS headed paper and leaflets, and ensuring all staff wear the NHS logo and the practice name.

2.22 With fewer treatments provided overall, patient charge income could fall, our research estimated a fall of 10 per cent. Some Options for Change pilot sites have noted a drop in patient charge income. It should however be noted that these field sites are trying out new remuneration arrangements within an item for service based charging system not designed for local contracting. At the Barnsley field site (**Case study 2**) patient charge income has fallen by 30 per cent, in part because of a change in the patients being treated.

CASE STUDY 2

Barnsley Field Site

The site has seen increased capacity and a fall in fee per item treatments following changes in remuneration.

Aims

To provide high quality healthcare in a caring manner to the benefit of the patient, enabling the dental team to derive professional satisfaction.

Results

Patients are seen and treated according to clinical need. More time is spent with less healthy patients resulting in some examinations lasting 30 minutes rather than 10 minutes. An hour a day is set aside for new patients and toothache clinics. Dentists have time to provide oral health advice and to explain treatments and charges to patients. Patients can see short films on smoking cessation and oral health issues.

Recall periods have been extended to up to 12 months in line with draft guidelines, increasing capacity. Patients who might previously have been referred to the Hospital Dental Service have been treated. For example, a patient needed root canal therapy. The patient was nervous and previously would have been referred to the hospital. With the additional capacity, the site allocated more time and was able to provide the full treatment. If referred the patient would have had to wait for a hospital assessment and a further wait for treatment. Treating the case in primary care saved time, money and discomfort of the patient, as well as the resources of the hospital.

Patient charges collected have fallen by some 30 per cent as a result of reduced fee per item treatment activity and a change in patient mix with more exempt patients seen. A new IT system installed in the practice enables patients to see their examination charts and charges on screen, increasing transparency.

The practice has been renamed and uses the NHS logo widely. The team are less stressed, having time for other tasks during working hours, such as implementing cross-infection control guidance and practice administration.

Risks to be managed and lessons learned

The 30 per cent drop in patient charges is greater than expected, and the shortfall in income will have to be met by the Primary Care Trust and the Department.

Not all treatments have been recorded in detail. Codes which carry no associated charge, relating to oral health advice given, are now important for monitoring purposes but are not always recorded.

The principal has a much greater managerial role, including the management of patients' appointments and associates' activity.

The IT system required considerable investment from the practice. Until NHS IT is fully running, it may create the problem of incompatible systems between practices, increasing time spent on administration and bureaucracy.

2.23 Improved access to dental care is a key aim of many field sites. Cornwall has problems of poor geographical access to dentistry, and the field site has tackled this by integrating services across the county (**Case study 3**). More patients have been able to access care, with a reduced cost per patient. It has achieved this through good communication with patients and the community.

2.24 Local contracting of NHS dentistry practices is complex and requires careful management. Wirral, one of the largest field sites, has contracted a large number of practices across the region. It plans to expand access significantly but IT systems are a constraint to developing better services and monitoring (**Case study 4**).

Primary Care Trusts have little experience in commissioning and monitoring dental services

2.25 While Primary Care Trusts have experience of commissioning hospital and community dental services, they have no experience of commissioning services from primary care dentists. With 19,300 primary care dentists in England, it is vital that the 300 Primary Care Trusts develop close relations with their dental practices. Initially many Primary Care Trusts are having to rely on their Public Health Advisors, many of whom have limited knowledge of dentistry. Some Primary Care Trusts have, however, appointed a specialist dental adviser and more dentistry commissioners are expected to follow suit.

CASE STUDY 3

Cornwall Personal Dental Service

Dental services have been extended in areas where there were significant access problems.

Aims

To integrate the salaried and community dental services and so provide a flexible and countywide cost-effective dental access service for unregistered residents and visitors to the county who are unable to obtain care from a general dental practitioner.

Increase the availability and accessibility of dental services in Cornwall, provide community dental services for special needs client groups and improve the dental health of the population.

Improve recruitment and retention of staff, and the overall quality of the service.

Results

Demand for Personal Dental Services has been high, with the number of patients receiving completed treatments rising from 21,000 to 24,200 in 2003. Meanwhile, the cost per patient has fallen from £63 to £57, still greater than the national average £32 per patient course of treatment.

Most patients (88 per cent) accessed care within ten miles of their home address, and 9 per cent within 20 miles. Only 3 per cent travelled over twenty miles, but some of these patients were referrals to specialist community role colleagues or to general anaesthesia sessions.

Information from user satisfaction surveys of 200 randomly chosen patients showed that 96 per cent were happy or very happy with the service.

There is an emphasis on staff appraisal, training and personal development. This has been rewarded in recruitment success and good retention rates, as well as improved quality and job satisfaction.

Risks to be managed and lessons learnt

The practice uses IT widely and has an effective central booking system. There remain problems of failed appointments and short-notice cancellations.

Gathering, understanding and acting on patient opinion is necessary for success and is rewarded by strong local appreciation from patients.

Communicating the work of the Personal Dental Service is important for good local understanding

CASE STUDY 4

Wirral Field Site

The site has extended services, including emergency care access, for a large population.

Aims

To reduce oral health inequalities, improve access and patient choice, based on local dental public health needs, through an integrated and comprehensive range of primary and specialist care dental services.

Results

Wirral is one of the largest field sites, covering over 50 practices employing 130 dentists serving a potential population of 360,000 in two Primary Care Trusts. The site employs a dedicated manager and went live in January 2004. It has engaged most current providers, including General Dental Services, Personal Dental Services, Orthodontic Specialist practices and Community Dental Services.

New Service Level Agreements for each practice have been tailored to meet local needs and include performance and activity levels:

- Each practice aims to increase patient numbers by 5 per cent.
- Where practices are growth funded, they are expected to increase patient numbers by 20 per cent.
- The Primary Care Trusts retain 1 per cent of the budget for patients who cannot obtain NHS treatment.

Practices are paid a fixed monthly income, based on the historic gross practice income for the calendar year 2002, and are responsible for the collection of patient charges, with the Department underwriting the risk of any shortfall in patient charge income. The site carries out quarterly reviews of each practice and is working with the Dental Reference Service on new ways of assessing practices, including treatment plans.

Examples of new ways of working include: freeing up daily clinics for emergency patients; a Children's Preventive Unit run by nurses and hygienists under supervision to promote oral health; and a gum clinic.

Initial indications are that more patients have registered and access to emergency treatment has improved.

Risks to be managed and lessons learned

Well developed and integrated IT systems are vital to the success of the Field Site, to monitor progress, collect patient data and allocate patients to practices. Delays in obtaining funds to upgrading IT systems and subsequent software package problems have hindered data collection and evaluation of treatment and patient patterns.

Local Dental Reference Officers will play an increased role under the new system as practices, rather than individual dentists, will be supported and assessed and this will take additional time. The roles and responsibilities of the different inspection bodies need clarification and there may some overlap with the Healthcare Commission.

2.26 For many Primary Care Trusts, commissioning dentistry will be one of many other competing priorities and there are risks that their lack of resources and experience in this arena will reduce the effectiveness of commissioning arrangements. The introduction of the new General Medical Practitioner contract in April 2004 has been a high priority and will continue to be so until the system has been bedded in properly. But if NHS dentistry is to be invigorated, Primary Care Trusts will need to identify sufficient management resources for handling the commissioning of dental services during the transitional three years. They will also need to collect and analyse data to determine priorities for local dentistry and evaluate the provision of dental services in a timely manner.

2.27 The Dental Practice Board set up a Modernising Dentistry project team at the Dental Practice Board in September 2003 to monitor activities arising from the proposed system change. Their role includes: creating an appropriate payment system; producing indicative budgetary information for Primary Care Trusts and dentists before the new contract implementation; and providing input to the working groups on patient charges, clinical pathways, base contract negotiations and workforce review. The faster take up of Personal Dental Service schemes before implementation of the base contract means that they have had to adjust their existing systems to cope. This experience has highlighted to them that Primary Care Trusts need help in understanding existing

Personal Dental Service schemes and all existing and proposed new aspects of the General Dental Services scheme. The Department has commissioned the Dental Practice Board to set up a Primary Care Trust liaison team to provide direct support to Primary Care Trusts for the expansion of the Personal Dental Services as they assume responsibility for local commissioning.

2.28 The Modernisation Agency's ongoing reviews of the field sites, as part of the Modernising Dentistry Programme, indicate that setting up and agreeing the baseline contract value for each field site practice has been both the most time consuming and challenging of the tasks necessary to move to a locally managed and commissioned dental service from the General Dental Service arrangements. It has required dentists within practices and commissioning Primary Care trusts to share expectations and detailed financial information in a way not previously experienced. Information collation by, and support of, the Dental Practice Board has also been an essential element. Overall, however, building local relationships is seen as the main generic learning point. Lessons from one Primary Care Trust include: "the work up to going live is more time consuming than anticipated; agreement of funding is vital; and its hard work, but worth the effort".

2.29 Under the new base contract, dentists will be expected to deliver a similar level of commitment in providing the full range of services for NHS patients as they currently do for similar levels of earnings. While freed up capacity could be used to help meet access problems, dentists may choose to spend more time with existing patients, rather than take on new patients.

2.30 In March 2004 the British Dental Association surveyed 25,000 dentists and reported that 60 per cent of the 7,500 dentists who responded would either reduce their provision of NHS services or opt out of the NHS altogether. Primary Care Trusts will therefore need to establish effective arrangements for monitoring access, oral health and patient satisfaction. They will need to monitor the oral health of the population and ensure dentists provide their contracted NHS commitments.

2.31 As part of the rationale for change is to encourage dentists to increase their NHS work, Primary Care Trust funding will need to incorporate sufficient room for growth of NHS dentistry to accommodate dentists moving back into the NHS and extending their NHS commitments. The Department's announcement of 16 July 2004 that funding of NHS dental service would increase by £250 million in 2005-06 (net of patient charges) an increase of 19.3 per cent on 2003-04 levels, should help provide for this situation.

Major risks posed by the new system must be properly managed

2.32 The Department needs to ensure that there is no repeat of the early 1990s which led to a reduction in many dentists' commitment to the NHS. Whilst the three year initial period should provide some stability during the transition phase, the Department working with Primary Care Trusts and strategic health authorities should ensure that they monitor dentists' views on a regular basis so as to avoid simply deferring the risk until 2008.

2.33 The pace of change is such that the Department will not be able to evaluate fully the Options for Change field sites before October 2005. Rather, the Department is learning lessons from the field sites in parallel. There is a risk that problems will not be identified and good practice will not be captured.

2.34 Any shortfall in income from patient charges must be made up by Primary Care Trusts as the commissioner and the Department as the funder, but the revised charging mechanism has yet to be agreed and the effects of any changes are unknown. Indeed, dental activity levels for patients paying charges may well fall, putting at risk the £500 million annual patient contribution:

- Dentists may well extend recall periods in line with National Institute for Clinical Excellence recommendations and adopt preventative 'watch and wait' approaches.
- Where practices move from piecemeal to other forms of remuneration, there may be a 10 per cent reduction in activity levels as demonstrated in our comparative

evaluation of Personal Dental Services and dentists operating under the General Dental Services arrangements.

- At one field site we visited patient revenue was estimated to have fallen by 30 per cent, in part because of changing mix of patients with a greater proportion of patients who are exempt from charges (Case Study 2).
- Patients may resist changes to treatment patterns, believing that their oral health is due to regular examinations and scale and polishing.
- Dentists may see a higher proportion of patients with exemptions from fees.
- Dentists may choose to offer private treatment to NHS patients at lower fees than the NHS patient charge.

2.35 With guaranteed earnings dentists may be faced with a number of new perverse incentives:

- Fillings may be too costly in terms of ‘chair time’ and prove not cost effective for the dentist. Dentists would have an incentive to provide treatments that do not consume expensive materials.
- Dentists may not undertake services requiring laboratory work without financial incentives. Crowns and dentures are costly on materials and chair time.
- Patient charges will no longer be linked directly to a detailed set of treatments and may well be broadly banded. There may therefore be pressure to provide treatments up to the maximum of the band so that patients do not feel ‘short changed’. Or conversely to do a little extra, to push the patient into the next band.
- Dentists will not have such a direct financial incentive to collect patient charges as they do under the current piece work system and there is a risk of not providing the resources to undertake this work or of under recording activity. Whilst Primary Care Trusts will be required to monitor patient charge income to check the dentist is meeting his NHS commitment, some Option for Change field sites have shown a lag in submitting

information and Primary Care Trusts may struggle to keep up to date with their monitoring.

2.36 While dentists have to maintain patient records for clinical purposes, they will also be contractually required to submit timely activity data but there is no longer a requirement to provide data on individual treatments. Traditional activity monitoring has enabled the Dental Practice Board to audit dental practices and individual dentists. As well as supporting anti-fraud work, activity monitoring has provided an important source of data for research and quality analysis.

2.37 The Dental Practice Board has played a key role in establishing both the Personal Dental Service pilot field sites and the Option for Change field sites. The support includes the production of historic earnings information, advice and support on monitoring and IT requirements; to the detailed process management involved in moving from a General Dental Services contract to local commissioning arrangements. As noted in paragraph 2.27, sites have been closely supported by a dedicated team at the Dental Practice Board.

2.38 With the introduction of the new contract and the cessation of items of service claims for payment the monitoring presently used by the Dental Reference Service will be difficult to sustain. As a result the Dental Practice Board has work in progress to develop new methods of monitoring, based on examining clinical effectiveness of treatment provided and assessing the clinical performance of practitioners. This supports the Department’s aim to move to a system whereby activities are conducted within a framework of clinical governance and clinical quality. The Dental Practice Board has identified that in light of the reduction in the range of information that will be available; the balance of potential risks to public funds under the new arrangements is likely to be significantly different from that under the current arrangements. Therefore new approaches such as patient audit questionnaires, patient record checks and an expansion of checks on patient payment status are being developed in order to continue to provide assurance to commissioners.

2.39 Dentistry systems worldwide have common characteristics – practitioners are largely self-employed and there is a state ‘safety net’ for special groups such as children or those on low incomes (Appendix 5). However, a large contracted service with local commissioning such as the new system now proposed for England is unique.

2.40 Attempts to integrate dentistry within the NHS bring into focus the lack of NHS superannuation for dental nurses and receptionists. Whilst dentists providing any NHS treatments are entitled to join the NHS Pension Scheme, other staff are employed by the dental practice and are not eligible to join the Scheme. Some practices bear the cost of running a pension scheme for their staff, whilst others leave their staff to make private pension arrangements. In contrast staff working in a general medical practice do have the option of joining the NHS Pension Scheme. The question of pension rights for dental nurses and receptionists has been raised by a number of field sites. There is a risk that different entitlements could create instability.

2.41 As part of its reforms, the Department wishes to integrate NHS dentistry into the wider healthcare community. Information Technology is to play an important part and, as part of the National Programme for IT, in time the Department is to link dental practices to national systems such as the National Care Records System and Choose and Book. Field sites have also seen the advantages of linking practices so as to provide better services for patients and collect data for monitoring services.

2.42 In September 2003 the Department announced that £30 million would be provided over three years to integrate dentistry with the National Programme for IT. The National Programme is examining the dental requirement for IT and how best to utilise these funds. The National Programme Board for IT are expected to meet to consider this in October 2004, in the meantime, field sites such as Wirral are not able to develop services as they would wish (paragraph 2.24).

2.43 The Department’s reform programme for NHS dentistry is ambitious and there is a challenging timetable. A number of important milestones have been postponed (Figure 18). Given current and future contractual reforms for professional groups such as general medical practitioners, hospital consultants and pharmacists, Primary Care Trusts will be under pressure to deliver all the changes and many have established dedicated teams to undertake this work. Primary Care Trusts should also look to maximise and exploit the transferable commissioning skills between the contracts, that is between personal medical service contracts and personal dental service contracts. To aid the delivery of the changes in NHS dentistry the Department have allowed Trusts 12 months to set up initial contracts and a further 3 years in which to move to full local commissioning.

19 Timetable for reforming NHS dentistry as set in August 2003

Actions	Target date	Position as at end October 2004
New Special Health Authority shadow arrangements working with the Dental Practice Board	August 2003	In July 2004 the Department's Arm's Length Bodies review concluded that the Special Health Authority would not be established – the role and functions of the Dental Practice Board would be assumed by the new NHS Business Services Authority
Next Steps for IT for Dentistry	September 2003	£30 million earmarked for Dentistry IT as part of the National Programme for IT
Historical information to Primary Care Trusts	November 2003	Data available to Primary Care Trusts on request in January 2004
Next Steps in Dental Workforce review	September 2003	Published July 2004
Contract templates	January 2004	Dependent on base contract
Notional Primary Care Trust dentistry budgets for 2004-05 issued	February 2004	Proposed indicative budgets issued for validation in August 2004
Patient Charges Review completed	March 2004	Proposals submitted to Ministers in March 2004 and still under discussion
Base contract finalised	March 2004	Still under discussion
Likely Primary Care Trust allocations for 2005-06	July 2004	Initial information August 2004
National Institute for Clinical Excellence Guidance on recall interval	August 2004	Published in October 2004
Final report on review of salaried services	Summer 2004	Expected November 2004
Primary Care Trust main allocations 2005-06	Autumn 2004	Expected January 2005
Strengthening the role of the General Dental Council	July 2004	Consultation completed in October 2004
Local Commissioning goes live	April 2005	Now set for October 2005

Source Department of Health: *NHS Dentistry Guidance to Primary Care Trusts – Transition to Local Commissioning from 2005 – issued 12 August 2003*

APPENDIX 1

Methodology

1 Our major sources of original evidence were a comparative evaluation of different remuneration systems for NHS dentistry and a patient survey, both carried out under a consultancy contract on behalf of the National Audit Office. We visited a number of Option for Change dental field sites. In addition we analysed the Dental Practice Board's extensive database and visited other providers of dental care. Throughout the investigation we were advised and guided by members of our expert advisory panel.

Comparative evaluation of pilot Personal Dental Services and General Dental Services

2 In 1998 the Department established pilot sites for Personal Dental Services. These sites looked at new methods of remuneration for dentists to provide dental care. The Department commissioned the School of Dentistry, University of Birmingham to undertake an evaluation of these sites, looking at whether objectives and targets were met. We extended this evaluation by commissioning the School of Dentistry, University of Birmingham, to address the relative effectiveness of dental services through a comparison of the incidence of treatments and the oral health of patients.

3 The evaluation which we commissioned was carried out between June 2003 and May 2004 and was in three parts. It began with an analysis of the number and type of treatments from pilot sites and traditional high street dentists with similar population characteristics selected in discussion with the Dental Practice Board. Secondly, our consultants assessed the oral health of 500 patients, from both pilot sites and traditional high street dentists, using the 'Oral Health Score' developed by Professor Trevor Burke of the University of Birmingham. Finally, our consultants carried out face to face interviews with the dentists involved to obtain reasons for the differences in numbers and types of treatments and to receive some feedback. The consultants report on this evaluation is available on our website www.nao.org.uk.

Omnibus patient survey

4 We commissioned IPSOS UK to use an omnibus survey to obtain information on patient experiences of dentistry and their attitudes to dentists and treatments. Omnibus surveys are carried out regularly by research organisations to obtain opinions on a range of subjects with samples drawn from national databases such as post codes and stratified by region and social group. Around 2,000 respondents are normally interviewed in their own homes, using Computer Assisted Personal Interviewing.

5 Our Omnibus survey comprised 1,760 adult respondents and was carried out during September 2003. Of these around 77 per cent had visited their dentist within the last two years. The main areas addressed were:

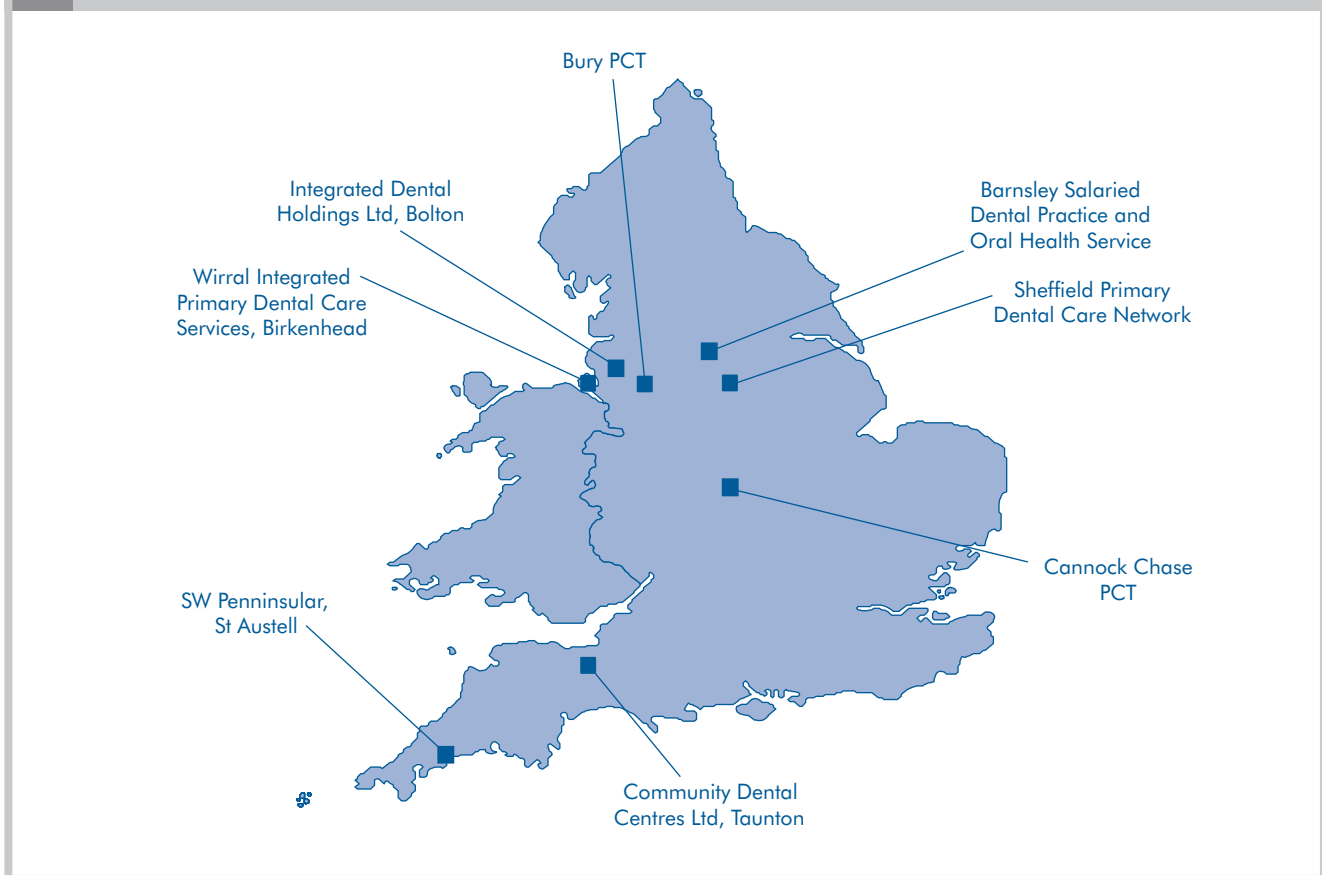
- General behaviour patterns in respect of selection of dentists, frequency of visits and oral hygiene practices;
- Public attitudes to dentists, the treatment, advice and services provided;
- The cost of treatments, what it covered and the explanations given; and
- Future expectations of the dentists and the proposed changes to the service.

A copy of the questionnaire and report by the consultants is available on our website – www.nao.org.uk

Visits to 'Options for Change' pilot sites

6 We visited a number of field sites established by the Department to test new procedures under 'Options for Change'. The sites selected were those testing new methods of remuneration, where Primary Care Trusts were involved, and those addressing access problems. The sites visited are shown in **Figure 20**.

20 Options for Change field study sites visited by the Study Team



Analysis of the data held by the Dental Practice Board

7 The Dental Practice Board has maintained a unique and extensive database of patients, dentists, treatments and costs over a number of years, taken from the payment claim forms submitted by dentists. These data, which are stored in a data warehouse, cover NHS high street dentists funded under the General Dental Service scheme in England and Wales and the Personal Dental Service sites. Data include: all expenditure on the General Dental Service; the number and cost of treatments; and dentists' workloads. The Dental Practice Board's research team helped us analyse how access and oral health have changed and examined regional and social variations (graphics related to these analyses are included in Part 1). An analysis of the growth in the Personal Dental Services since 1998 is included in Appendix 2. We are particularly grateful for the help, support and advice provided by Dr Steve Lucarotti, Senior Statistician at the Dental Practice Board.

Other providers of dental care

8 We contacted other providers of dental care to see whether there are any lessons that could be learned or good practices that may be taken into account. The other providers included Denplan, one of the largest providers of private care through insurances and the Defence Dental Agency, which employs some 150 dentists providing treatment to 180,000 Service personnel. We also researched how dental care is provided in other countries (Appendix 5).

Expert Panel

9 We established an expert panel to advise on our methodology and emerging findings. We are very grateful to the following experts who provided comments and advice throughout the study:

- a) Barry Cockcroft; Deputy Chief Dental Officer
- b) Andy Taylor; Dental Policy Branch (until September 2003)
- c) Pam Scoular; Dental Policy Branch (until September 2003)
- d) William Burns; Dental Policy Branch
- e) Almas Mithani; Deputy Group Head and Head of Policy Primary Care Dental & Ophthalmic Services Group
- f) Chris Audrey; Head of Legislation Policy Branch Primary Care Dental & Ophthalmic Services Group
- g) Steve Lucarotti; Senior Statistician, Dental Practice Board
- h) Hew Mathewson; representing the General Dental Council
- i) Gordon Watkins; representing the British Dental Association
- j) Darshan Patel; representing the British Dental Association
- k) Mike Mulchay; representing the Faculty of General Dental Practitioners
- l) Paul Batchelor; Senior Lecturer/ Consultant in Dental Public Health
- m) Eleanor Grey; representing patients
- n) Trevor Burke; Professor of Primary Dental Care, University of Birmingham
- o) John Morris; University of Birmingham
- p) Kirsty Hill; University of Birmingham
- q) Jacqueline Rainsbury; National Collaborating Centre for Acute Care, Guideline Group for Routine Dental Recall
- r) David Wonderling; National Collaborating Centre for Acute Care, Guideline Group for Routine Dental Recall
- s) Dick Waite; Audit Commission (for part of the Study)
- t) Wendy Buckley; Audit Commission (for part of the Study)
- u) Kieran Sweeney; Commission for Health Improvement then Commission for Healthcare Audit and Inspections

APPENDIX 2

The Growth of Personal Dental Services Schemes from 1998 to September 2004

1 The NHS (Primary Care) Act of 1997 allowed for the implementation of new ways of working to deliver dentistry. These Personal Dental Service Schemes allowed dental practitioners and other providers of dental services to enter into locally determined contracts with health authorities to provide services. The general objectives of these schemes were to trial new ways of working by improving access to NHS dental and oral health services, provision of specialised treatment in a primary care setting and developing new professional roles within local dental services.

2 Broadly these schemes were classified by the Dental Practice Board as:

- **Ex General Dental Service (ex-GDS):** Schemes which provide services which previously were, or would have been, provided under the GDS - this includes those schemes where existing GDS dentists transfer their GDS patients into the PDS scheme at the beginning of the scheme.
- **Non General Dental Service (non GDS):** Schemes which target a population which would not normally gain access to the GDS. This includes Dental Access Centres, conversions of salaried and community dental services, and schemes targeted at particular sections of the community, such as the homeless or the housebound.
- **Specialist:** Schemes which concentrate on particular dental procedures and generally not providing the full range of treatments available within the GDS. E.g. Orthodontics and Oral Surgery.

3 The first “wave” of Personal Dental Services pilot schemes comprised of some 15 schemes, 11 classed as ex GDS, 2 as non GDS and 5 as specialist. The number of dentists working under these new contracts was 140. The schemes were up and running by March 1999.

4 Between March 1999 and March 2002 the second and third wave pilots increased the number of Personal Dental Services schemes by 75 to 90. The majority of these were non GDS schemes or Access centres (62 schemes approved). The number of dentists working under these new contracts increased to 830.

5 From March 2002 the Personal Dental Services legislation was used to set up and facilitate the Options for Change Field Sites. The Options for Change field sites were broadly divided into four types of sites: **Remuneration site:-** looking at different ways of paying dentists and testing different forms of contract; **IT sites:-** introducing new models of on-line booking and developing practice websites. **Developing the Dental Team:-** developing new skill mixes and extending the dental team. **Patient experiences:-** testing models to improve communications between patients and professionals and introducing patient forums to examine patient experiences. The last options field site came on stream in June 2004. The majority of these schemes were Ex GDS type schemes.

6 From June 2004 the number of ex GDS type schemes has increased as dental practices adopted the ‘twelve equal monthly payments’ method of remuneration proposed for the new base contract which is to be introduced from October 2005. By September 2004 there were 2,500 dentists working under PDS contracts.

7 There has been a significant upsurge in the numbers of dental practices applying for PDS status. To date there are some 700 practices either expressing an interest or in the process of being approved.

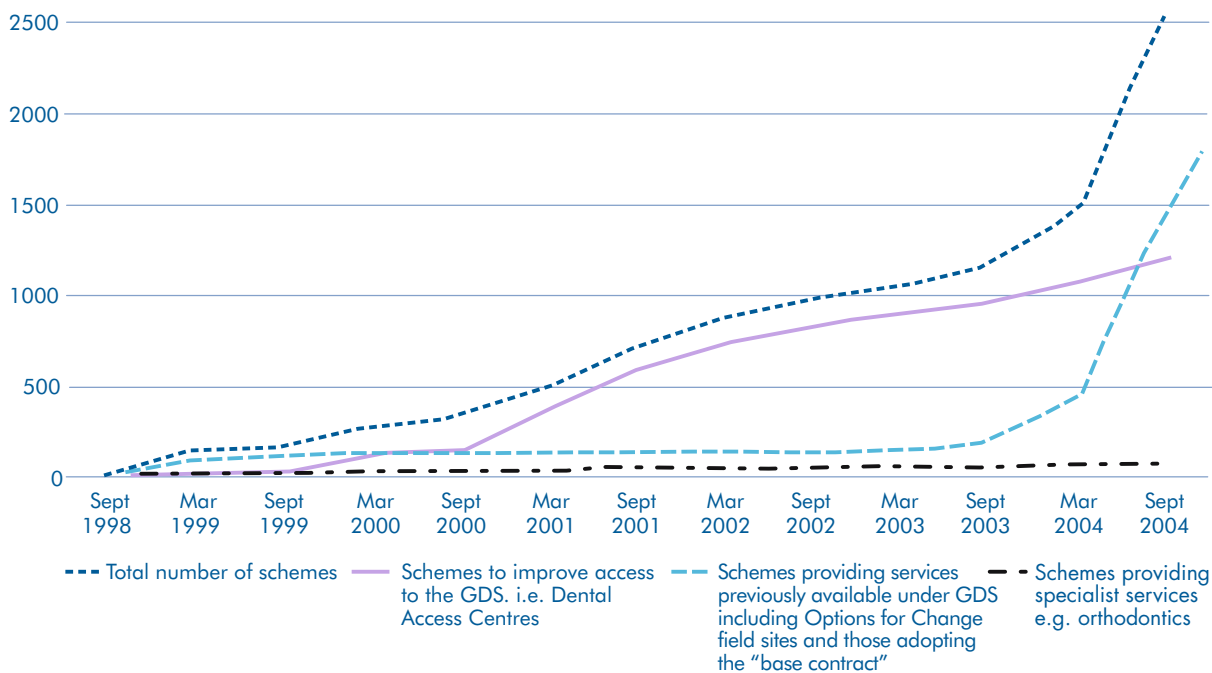
Distribution of Personal Dental Services schemes

- The PDS schemes were fairly well distributed across the country. However there were concentrations in North West of England and South West of London.

21 Growth in the number of Dentists working under Personal Dental Services contracts from September 1998 to September 2004

At September 2004 there were nearly 2,500 dentists providing treatments under Personal Dental Services contracts, an increase of 1,400 over the past 12 months. Some 1,250 dentists were in schemes providing high street dentistry.

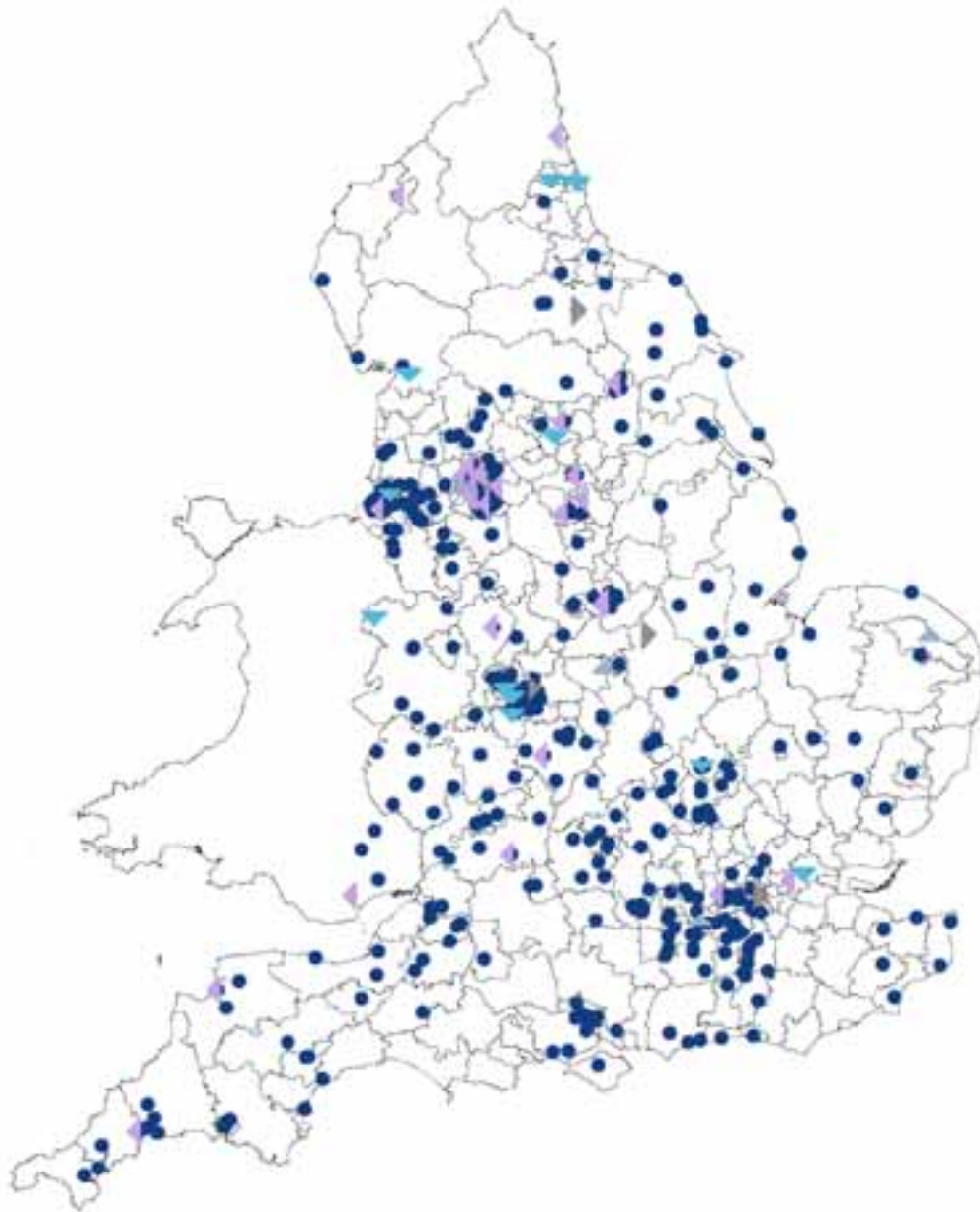
Number of Dentist



Source: Dental Practice Board

22 Distribution of Personal Dental Schemes in England as at August 2004

Personal Dental Service Schemes are distributed across the country, but are concentrated in the North West around Manchester and Merseyside and in the South around Surrey and Sussex



There are five different types of Personal Dental Services schemes

- PDS
- ▼ Dental team
- ◀ Remuneration
- ▶ Patient experience
- ▲ IT

Source: Dental Practice Board

APPENDIX 3

Timeline of major developments linked to the NHS dentistry reforms

<p>1948 -1967 Early years of NHS Dentistry</p>	<p>Dentistry was included when the NHS was established in 1948, initially as a free service. The General Dental Services (GDS) contract was set up with dentists rewarded on a piece work system. Charges for dental services were introduced in 1952 along with prescription charges. In 1955 the first UK fluoridation schemes were launched.</p>
<p>1968 -1987 Introduction of national assessments of dental health</p>	<p>In 1968 the first national assessment of dental health in adults was introduced and is now repeated every 10 years. In 1973 the first assessment of dental health in children was introduced and again, is undertaken every 10 years.</p>
<p>1987 First dental workforce review</p>	<p>The review of the dental workforce covered dentists, but not the wider dental team, resulted in the closure of two dental schools in England, from 1992 reducing the number of dentists being trained by 10 per cent.</p>
<p>1990 Introduction of a new national contract for dentists</p>	<p>The new General Dental Services contract introduced different fee arrangements for adults and children and also registration for adults and children whereby dentists would be paid capitation fees in addition to piece work fees for individual treatments.</p>
<p>1992-1994 Concerns about NHS dentistry start to grow</p>	<p>The new contract costs rise rapidly and in 1992 a seven per cent fee cut is imposed by Government. The private sector starts to grow. In 1993 a report by Sir Kenneth Bloomfield suggests changes to the fee system and other aspects of NHS dentistry. In 1994 the White Paper, Improving NHS Dentistry, was published in response to the findings of the Bloomfield and Health Committee reports. An oral health strategy was also published, setting national targets.</p>
<p>1997 NHS (Primary Care) Act</p>	<p>The Act allows Health Authorities, NHS Trusts, Primary Care Trusts and dentists to join together to set up new services to improve access and provide services such as dental access centres to people who are not registered with a NHS dentist. Remuneration for these services could include salary and capitation payments.</p>
<p>October 1998 The first wave of Personal Dental Services contracts for dental practices launched</p>	<p>Fifteen first wave Personal Dental Services pilots were established based on locally negotiated contracts between the then local health authority and one or more providers of dental services (including independent contractors, community providers or other NHS salaried dentists). The contracts were held by a 'provider' — either an individual or organisation with responsibility to its host health authority. 'Performers' within PDS pilots (dentist, therapists and hygienists) were usually employees with contractual responsibility to the 'provider'. The contracts aimed to allow flexibility from the national General Dental Services contract and its piece work payment system. Two main remuneration models developed: a relatively simple salaried model and a capitation payment system.</p>

September 2000
Modernising NHS Dentistry
– Implementing the NHS Plan

The Government published its strategy document for modernising NHS dentistry in line with the core principles of the NHS Plan 2000. The strategy built on the principle that good accessible NHS dentistry and better oral health were important to the Government’s plans for a healthier nation. It focussed mainly on improving access for un-registered patients seeking immediate treatment, and included an expansion of the role for NHS Direct and access centres.

March 2001
Select Committee on Health First
Report: Access to NHS Dentistry

The Select Committee announced its intention “To examine whether the Government’s strategy, Modernising NHS Dentistry, will improve access to NHS dentistry in the long term”. The report, published in 2001, concluded that the General Dental Service (GDS) remuneration system was at the heart of the access problem, with the fee structure encouraging the move of dentists out of the NHS and discouraging preventative care. It recommended the need for urgent action to reform NHS dentistry to bring it into the mainstream of the NHS and reduce inequalities in oral health. It called for a workforce review of primary dental care, and a longer term strategy for NHS dentistry with a strict timetable for implementation.

August 2002
Options for Change paper⁴

The paper set out a range of proposals for the modernisation of NHS dental services. A key proposal in the report was a new NHS dental service, Primary Care Trust led, and responsive to local need. The proposed new primary dental service should integrate services currently provided under the General, Personal and Community Dental Services to focus on preventative measures to combat dental disease and to tackle the serious oral health inequalities, particularly in children. The paper also recommended that treatment options should be evidence based, and patient focused with patient charges, currently numbering over 400 individual items, being simplified.

November 2003
Health and Social Care
(Community Health and
Standards) Act

The key measures are:
Primary Care Trusts (PCTs) will have a legal obligation to commission primary care dental services to the extent it considers necessary to meet all reasonable requirements. They will be responsible for assessing local needs and commissioning dental services. The emphasis will be on preventative care and improving quality and access. PCTs also have responsibility for dental public health.
PCTs will have financial resources directly allocated to them to commission dental services to meet local oral health needs and will be responsible for commissioning out-of-hours services separately with interested dental practices.
NHS dentists will be paid an agreed contract value for meeting patients’ reasonable requirements rather than on an item of service basis. The base funding is determined using historic earnings, and guaranteed for 3 years in return for an agreed NHS commitment.
The Act provides for a new regime for patient charges for dental treatment. The Act plans for the transfer of the functions of the Dental Practice Board, its infrastructure and staff to a new Special Health Authority which will continue to be responsible for payments and deliver the management support for Primary Care Trust commissioning.

November, 2003
Water Act

The Water Act gives Strategic Health Authorities, rather than water companies, the responsibility for deciding whether water supplies should have levels of fluoride optimally adjusted to reduce the incidence of caries (decay) following local consultation.

February 2004 Framework
Proposals published

Framework proposals for primary dental services in England were published and consultations undertaken with British Dental Association, Faculty of General Dental Practitioners, British Orthodontic Society and British Society of Community Dentistry (BASCD).

September 2003	An NHS Dentistry support team was set up with funding of £9 million over two years to tackle areas with particular access difficulties and further funding of £50 million to increase capacity. The Department's Director for Patients and the Public was asked to review patient charges and the Government announced a £30 million investment in NHS dentistry IT.
March 2004	Patient Charge Working Group report submitted to Ministers.
July 2004 Department of Health Report of the Primary Care Dental Workforce	The result of the first review of the dental workforce in England since 1987 was published on the Department's website. It included detailed modelling of demand and supply and concluded that in 2003 there was an under supply of dental time of around 9 per cent of that needed to meet demand. It acknowledged that it is difficult to be precise about the future gap because of uncertainties about the impact of the new proposals.
July 2004 Reconfiguring the Department of Health Arm's Length Bodies	As a consequence of the Department's review of Arm's Length Bodies, the Special Health Authority for Dentistry will not be established and the functions of the Dental Practice Board will be taken over by the new NHS Business Services Authority, covering contracting, payments and transactions and information analysis.
July 2004 Announcement by Secretary of State	<p>The Secretary of State for Health, John Reid MP, unveiled a £368 million funding injection for NHS dentistry as part of 'the biggest reforms since the service began in 1948'. The plans included recruiting the equivalent of 1000 more dentists by October 2005 and reforming the dental system to improve the long term oral health of the nation. The investment covered:</p> <ul style="list-style-type: none"> ■ from 2005-06 an increase of £250 million a year for Primary Care Trust Commissioning over the 2003 - 04 baseline; ■ an increase of 170 new dental training places from October 2005, with revenue funding of £29 million by 2010-11 and capital investment of £80 million ■ £9 million to help dental practices prepare for the change to a new dentist contract
July 2004 NHS Dentistry: Delivering Change – Report by the Chief Dental Officer (England)	<p>The report focuses on delivering the changes highlighted in "Options for Change". Its stated aim is to improve oral health and access by increasing the number of dentists and introducing a new set of working arrangements that make more effective use of NHS resources and make NHS dentistry more attractive to patients.</p> <p>The report notes that the Department has put in place immediate measures to recruit the equivalent of 1,000 extra dentists, the increase in training places, the introduction of return to work schemes and how the investment of £368 million will be used.</p>
October 2004	School of Professionals Complementary to Dentistry opens at the University of Portsmouth (the first in-take of pre-clinical students was in February 2004).
October 2004 NICE Guidance on recall intervals for dentistry published	National Institute of Clinical Excellence (NICE) guidance recommends that the shortest and longest intervals between routine dental check ups are between 3 and 24 months in line with clinical need rather than the traditional 6-monthly approach.
October 2004 National Children's Dental Health Survey 2003 published	<p>The survey reported that, in the UK, the obvious dental decay in 8, 12 and 15 year olds' permanent teeth had decreased since 1983 to its lowest level.</p> <p>Variations across the countries of the UK was evident with the lowest levels of obvious decay being in England. Within England, however, there were variations across geographical regions with the north generally having higher levels of obvious decay than the south.</p>

APPENDIX 4

Seventeenth Report from the Committee of Public Accounts Session 1984-85 National Health Service: General Dental Service, Treasury Minute response and action taken

The Committee of Public Accounts Finding	Treasury Minute Response	Action taken
<p>National surveys since 1968 had shown improvements in dental health in Great Britain.</p>	<p>The Department expects the level of dental health throughout Great Britain to maintain a steady improvement.</p>	<p>Oral health has improved since 1968 as a result of several factors including diet, fluoridation, improved self care and better dental care.</p>
<p>The Department should consider setting target dates for implementing the outstanding recommendations of the Dental Strategy Review group and monitoring progress against them.</p>	<p>Progress in implementing the recommendations is monitored within the Department, and target dates may be used when it is feasible to do so.</p>	<p>Recommendations included changes to dental skill mix and incentives to increase numbers of dentists in areas of need. New dentistry arrangements include a number of these changes.</p>
<p>The Department should consider whether the remuneration fee system is compatible with the policy of encouraging preventative rather than curative dentistry.</p>	<p>A pilot study for paying dentists under a capitation scheme has been initiated in respect of children to discover whether such a system will encourage preventive dentistry. It is important that the fee scale be responsive to developments in dental practice such as the greater emphasis being given to prevention.</p>	<p>Personal Dental Services pilots have carried on the study of capitation and salaried schemes across the country. Our comparison shows that there are reduced numbers of treatments but broadly similar levels of oral health.</p>
<p>The policy of reliance upon market forces to ensure a better geographical distribution of dentists throughout Great Britain has met with only limited success and the Department should consider a more vigorous approach to the use of incentives and other experimental schemes.</p>	<p>The Department believes that market forces have been and are continuing to have a useful effect in improving the geographical distribution of dentists. The general question of distribution is, however, under consideration as part of the Government's review of primary care services.</p>	<p>There remain significant variations in the distribution of dentists but the position is further complicated as dentists choose their level of engagement with the NHS. Whilst the south has higher numbers of dentists, they may choose not to provide NHS treatments.</p>

The Committee of Public Accounts Finding	Treasury Minute Response	Action taken
<p>We expect the Department to give serious consideration to the staffing levels of the Dental Reference Service ... work has fallen to less than 50 per cent of that recommended in the 1979 Royal Commission on the NHS.</p>	<p>Staffing levels in the Dental Reference Service are being kept under regular review and the appointment of an additional three dental officers in England has recently been authorised.</p>	<p>The Dental Reference Service examined 95,000 patients in 2002-03, and over three quarters of NHS dentists had at least two patients examined. This is still short of the level of 4-5 patients per dentist recommended by the 1979 Royal Commission.</p>
<p>We consider it important for the Department to seek to develop a statistically sound method to calculate the annual cost of unsatisfactory treatments provided by dentists, so that it could more fully evaluate the cost effectiveness and deterrent effect of the Dental Reference Service.</p>	<p>The Department is actively seeking to develop methods of estimating the annual cost of unsatisfactory treatments provided by dentists.</p>	<p>Less than 2 per cent of the 95,000 patients examined in 2002-03, were found to be unsatisfactory.</p>
<p>We share the concern of the Department and the profession that the present system of payments might be abused by some dentists.</p>	<p>The Schanschieff Committee of Enquiry into Unnecessary Dental Treatment is expected to report to Ministers later this year.</p>	<p>The Schanschieff Report was published in 1984, recommending that fee scales are reviewed to encourage more preventative dentistry and more capitation schemes are considered. These recommendations were not implemented.</p>

APPENDIX 5

Comparison of international dental services

1 Worldwide there are different systems for providing dentistry. Most countries have some element of state assistance, either for all patients or a select group such as children, and some private provision. No country has a comparable system to the new system now proposed for the NHS in terms of local commissioning of dentists.

2 A report based on an international survey of oral healthcare systems in the extended European Union in 2003, identified six broad patterns of dental healthcare all of which have their roots in national historical, political and socio-economic traditions. The patterns for administering and financing oral healthcare are defined as the Beveridgian, Bismarkian, Eastern European (in transition), Nordic, Southern European and Hybrid. The extent and nature of Government involvement in planning and co-ordinating oral healthcare services and the numbers and pay of the dental workforce varied between the different models. Whilst general healthcare in most of the member states is financed either through general taxation or via social insurance, oral healthcare generally does not follow the same model, operating outside the main healthcare system. The role of the private services is therefore much more significant.

3 England spends more public money per head of population on dentistry than the average of the countries considered, and children in England have good oral health. However, England is poorer as regards population per dentist, a rough measure of ease of access.

Brief synopsis of oral healthcare systems in some of the comparative countries.

Australia

The majority of dentistry in Australia is private, with a small proportion of state funded dentistry provided for school children and low income groups. All dentists must be registered by the state or territory board, but there are no recommended fee scales as this would contravene Australian competition law.

Canada

Canadian dentistry is almost entirely private with many employers supporting insurance arrangements. The state national health system does not cover dental treatments, although most provinces provide some dental care to those on welfare assistance. The amount of care varies between the provinces.

Denmark

Dental care is free for under-18s. Around 30 per cent of dentists work in public school clinics, and are government salaried. Everyone is entitled to state care, although only basic treatments are available. Consequently, most adults receive private care, 35 to 60 percent of which is reimbursed depending on the age of the patient and the type of treatment. Many Danes have private health insurance to cover the additional cost of treatments not provided under the public system.

Finland

Dental care is split between the public and private sectors. Municipal health centres provide free care to children, with adults paying a third of the corresponding private fee. The service and range of treatment offered varies between centres. Most dentists are self-employed in private practice, earning fees collected from patients. Patients born after 1956, war veterans and the disabled visiting private clinics are entitled to reimbursement from the national health insurance system. The level of reimbursement depends on the treatment – 75 per cent of the fees for examinations, X-rays and prevention, and 60 per cent of other items such as fillings.

France

France has a state-subsidised medical system which allows doctors and dentists to establish private practices, with patients free to choose their own providers. Social insurance, paid for by employers and employees, gives reimbursement of some three quarters of medical costs; full reimbursement for those on low incomes. Most people are also covered by voluntary top-up insurance to meet any additional payments not covered by the state.

Germany

There is a free dental public health service which examines and refers patients to dentists and runs screening programmes in schools. About 85 per cent of the population is covered by the social health insurance scheme, which provides fully for preventative and medically necessary dental treatments, as well as half the fee for dentures. A further 10 per cent of the population has private medical insurance to cover fees. Other, non-essential, dental treatments require some patient contributions, but are restricted to 2 per cent of the patient's gross income. Those on low incomes are exempt from these extra payments and have dental fees paid by the state.

Netherlands

All dentists practise privately, although 90 per cent are also contracted to a public dental scheme. The national healthcare scheme is financed by both employers and employees and is for children and those on low incomes. Treatment for adults on the scheme constitutes examinations, plaque removal and instruction on cleaning; children are entitled to a wider range of treatments such as restorative work, extractions and preventative care. To claim treatment, patients must see the dentist at least once a year. If they do not do so, they have to pay the costs of making themselves dentally fit. Approximately two thirds of the population are insured under the public scheme, and patients may subscribe to private health insurance to supplement the cost of treatment. Maximum fees for private dentistry are set nationally and regulated by the government.

New Zealand

Dentistry is largely privately funded, but there is no set fee scale due to competition laws. School dental clinics provide free treatment for under-13s, and hospital dental departments treat in-patients, special referrals and those on low incomes. Public treatment is available for children and low-income adults; children receive many basic treatments, but adults are only entitled to emergency treatment.

Norway

The dentistry system is entirely private, with fees determined by market forces. Care is free for under-18s, and 19 and 20 year olds pay only a quarter of the charges. Dentists are required to provide patients with comprehensive price information, and to advertise their range of treatments widely. Dentists are also expected to record the diagnosis and discussion of treatment options in the patient's records, and give the patient a written estimate if treatment exceeds a given amount.

United States

The dentistry market is mainly private, with a small percentage of public funded dentistry for patients under the Medicaid and Medicare schemes. Benefits and eligibility for free and public care vary from state to state.

Source of data for comparative analyses

4 There are no consistent sources of international comparative data for dentistry. A number of organisations amass data but do not specifically commission and collect it. We accessed these databases to compare the service provided in England with other countries. The main sources used are 'The Private Dentistry Market in the UK' Office of Fair Trading report, March 2003, information from Organisation for Economic Co-operation and Development (OECD) database; the Federation Dentaire Internationale (FDI) the international trades association website, www.fdiworlddental.org. and the report on Oral Healthcare Systems in the Extended European Union (by Eeva Widström and Kenneth A Eaton, published in *Oral Health and Preventative Dentistry* 2004; vol 2; No 3; p.155-194).

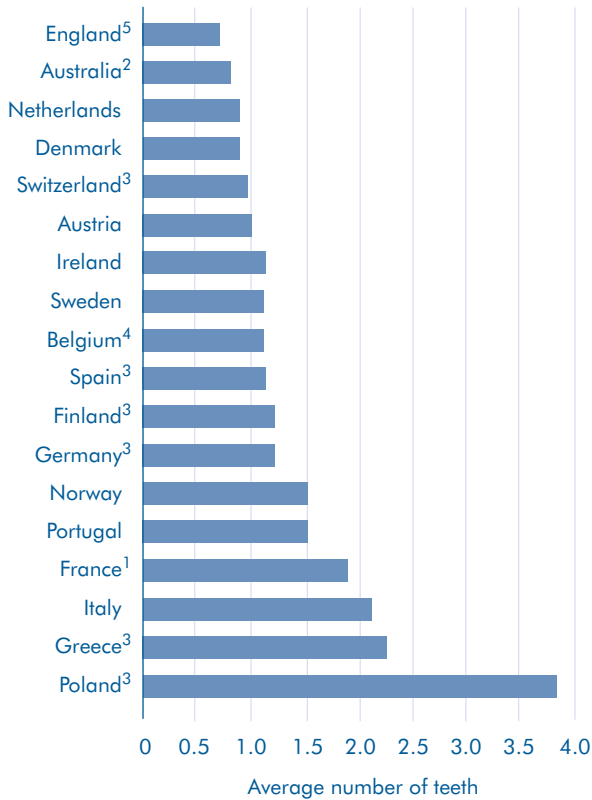
Comparative Analyses

5 England compares favourably when considering the number of decayed, missing or filled teeth in 12 year olds, an indicator of oral health (**Figure 23**).

6 England compares less well against other countries on total dentistry spending per person. The £83 figure is below average but the £44 public spending figure is well above average (**Figure 24**).

7 The results of the survey of the systems for the provision of oral healthcare in the extended European Union (paragraph 2 above) identified different patterns for the administration and financing of oral healthcare. To try and understand the comparative ease of access to oral healthcare we included data from 24 European countries (all with populations over 1 million) and 3 other G7 countries (**Figure 25**).

23 Average number of decayed, missing or filled teeth in children aged 12

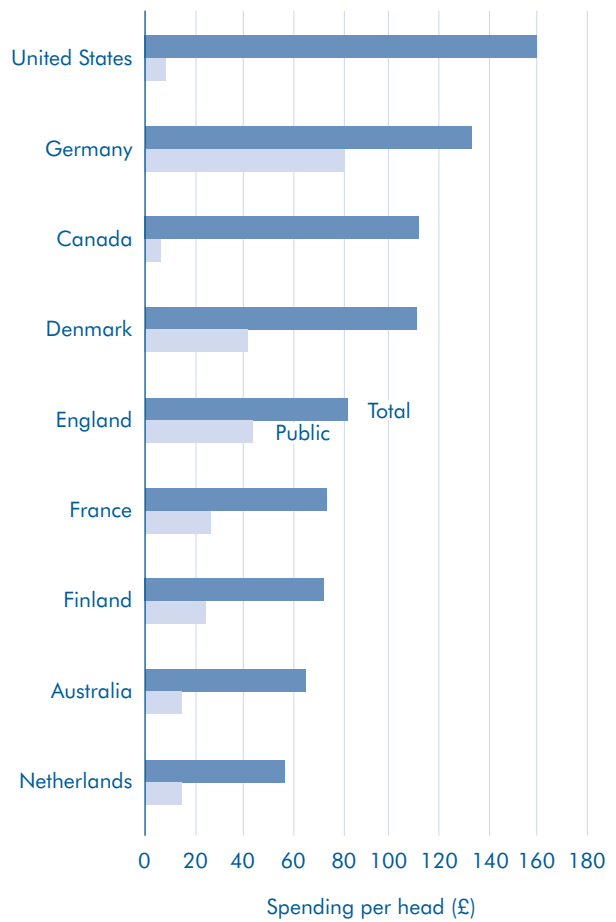


Source: The data for England are from the 2003 Children's Dental Health Survey Preliminary Findings, Office for National Statistics July 2004. Data for other countries are from the World Health Organisation Country Programme data base.

NOTE: All data from 2002, apart from
 1 Data from 1988 2 Data from 1999 3 Data from 2000
 4 Data from 2001 5 Data from 2003

24 Dentistry spending per head of population

Average spending per head: total £96, public £29.

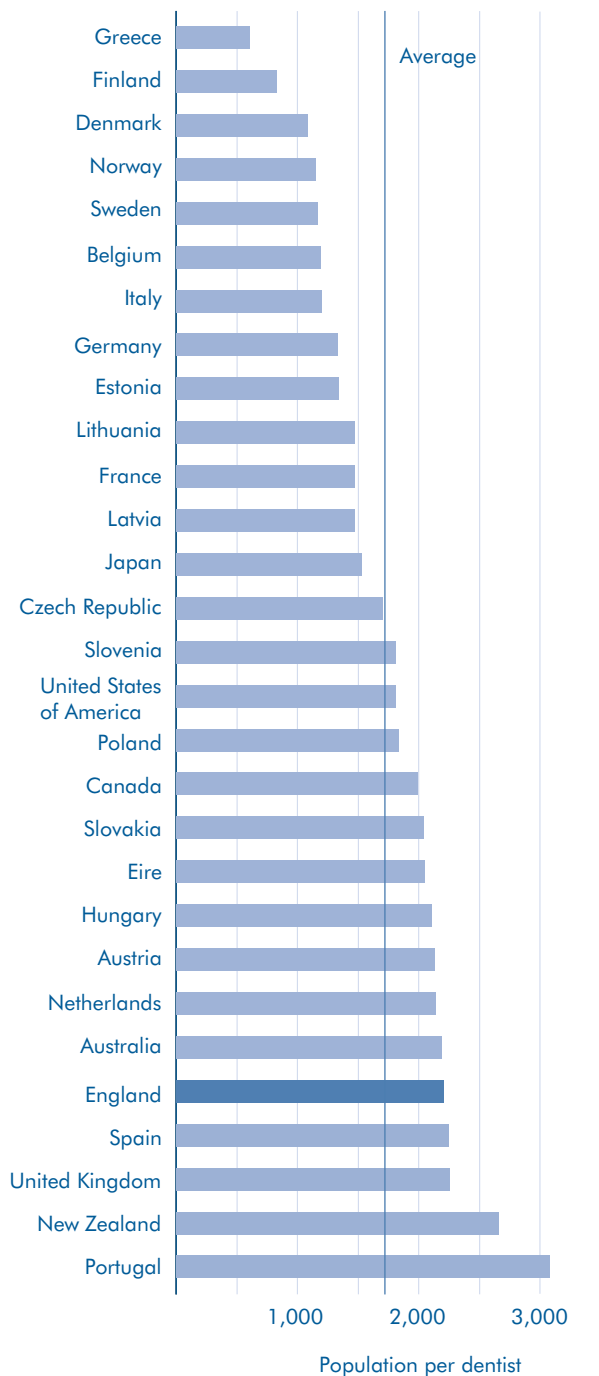


Source: Organisation for Economic Co-operation and Development, Health Data 2003

25 Population per active dentists in the extended European Union², the Commonwealth and G7 group of countries³ in 2000

This figure shows that in England the population per active dentist is 1:2,276, which is higher than the average for all countries (1:1,720).

Countries¹



NOTE

- 1 Countries with populations under 1 million have been excluded (Malta, Iceland, Cyprus, Liechtenstein and Luxembourg).
- 2 The Chief Dentist Officer's or their equivalents in each country were asked to provide details of the number of active dentists for 2000. For England this included dentists working under General Dentist Services and Personal Dental Services contracts and in the Hospital and Community Dental Services.
- 3 The G7 countries comprise of the following seven countries - the United States, Japan, Germany, France, United Kingdom, Italy and Canada.

8 England ranks 25th out of the 29 countries in the table as regards the size of the population to each active dentist (with the top ranked countries having the smallest ratios of population per dentist). For example there are fewer people per dentist in Greece, Denmark, Norway, Sweden, Germany and Italy, compared with England, Australia and the Netherlands etc. Spain, the United Kingdom, New Zealand and Portugal having the highest ratio of population to dentist. The study also indicated that apart from Portugal and Spain, where there is dynamic growth in the number of dentists, the overall size of the European Union dental workforce is expanding very slowly.

9 However, for many countries, as in England, other members of the dental team provide oral healthcare, for example dental hygienists and dental nurses (Figure 27). Indeed some of the countries with low numbers of population per dentist, such as Greece, have fewer dental hygienists and dental nurses. Many of these dentists will be single handed and undertaking all of the clinical procedures themselves. In England, like Sweden, Canada and Japan there are large numbers of dental hygienists and dental nurses and Germany and Italy have large number of dental nurses. The roles and responsibilities of these staff vary in relation to the type and amount of clinical treatment that is provided.

Source: Oral Health and Preventative Dentistry, Vol. 2 No 3, 2004, Widstrom and Eaton; and Federation Dentaire Internationale World Dental website 2004

27 Population and number of dentists, hygienists and nurses involved in delivering dental care in the Extended European Union and selected G7 countries in 2000

Country	Population ('000)	Active Dentists	Dental Hygienists	Dental Nurses (1)
Australia	18,700	8,500	420	10,500
Austria	8,110	3,802		7,000
Belgium*	10,161	8,514		900
Canada	30,200	16,486	14,104	25,000
Czech Republic	10,272	6,735	200	7,060
Denmark*	5,293	4,884	935	7,200
Eire	3,786	1,800	174	2,700
England	49,856	21,902	3,680	27,700
Estonia	1,370	1,032	2	930
Finland*	5,176	4,890	1,270	6,834
France*	59,079	40,153		18,500
Germany	82,187	63,202	100	122,830
Greece*	10,645	12,858		2,000
Hungary	10,211	4,800	230	5,000
Italy*	57,748	48,319	1,480	60,000
Japan*	126,000	85,518	56,466	135,212
Latvia*	2,373	1,611	105	667
Lithuania*	3,500	2,611	112	1,224
Netherlands	15,926	7,284	1,750	11,800
New Zealand	3,800	1,431	157	2,700
Norway*	4,470	3,900	1,010	3,500
Poland	38,646	21,300	2,300	3,500
Portugal	10,211	3,320	172	3,200
Slovakia	5,401	2,714	216	2,500
Slovenia	1,977	1,163		1,273
Spain	39,424	17,538	1,000	20,000
Sweden*	8,872	7,594	2,780	14,000
United Kingdom	59,756	26,500	3,984	30,000
United States of America	270,300	149,350	83,900	162,500

* Countries with less than 1,500 people per dentist

Source Oral Health and Preventative Dentistry, Vol. 2 No. 3 2004 Widstrom and Eaton, and the Federation Dentaire Internationale World Data Website 2004.

NOTE: The data set for dental nurses are mostly estimates provided by that country's principal dental advisors as, unlike dental hygienists, they are not registered in many member states.

APPENDIX 6

Proposals for dental services provided in Northern Ireland, Scotland and Wales

The Department's paper 'NHS Dentistry: Options for Change' proposed reforms to the provision of primary care dentistry in England. Northern Ireland, Scotland and Wales are considering the changes in England.

Northern Ireland

The Department of Health, Social Services and Public Health is monitoring the implementation of Options for Change in England. It has recently completed reviews of the oral health strategy for the province and the community dental service. Consultation on the Oral Health Strategy, which will set the oral health agenda for the next 10 years, commenced in September 2004. The strategy identified the oral health needs of the Northern Ireland population, determined desired outcomes and identified areas where oral health can link into the wider health agenda.

The Department has recently started work on the development of a strategy for the delivery of primary care dental services. This strategy will also take account of the new Oral Health Strategy and recent reviews of the dental workforce and the community dental service and consider whether any of the new contractual arrangements, developed recently in England, should be introduced here. The aim is to have the necessary legislation in place to introduce any changes from April 2006.

Scotland

In 2003 NHS Scotland undertook a consultation on "Modernising NHS Dental Services in Scotland". The consultation is to determine the type of service needed, possible contractual changes and how patients' contributions are to be determined.

Wales

The National Assembly for Wales is committed to reforming NHS dentistry, improving access to services for patients and providing a better working life for dentists and their teams by ending the treadmill. The Assembly has followed England and is to introduce a new contract for dentists in 2005. In May 2004 the Assembly announced £5.3 million additional funding for dentistry over three years. Local Health Boards are to manage and support practices help improve access in areas of specific need and develop dental advisory committees.

GLOSSARY

British Dental Association	The British Dental Association is the professional association and trade union for dentists in the UK. It develops policies to represent dentists working in every sphere, from general practice, through community and hospital settings, to universities and the armed forces.
Community Dental Service	The Community Dental Service provides NHS dentistry for those unable to access easily the General Dental Service. These may include patients with special needs, elderly and housebound patients. The Community Dental Service also provides some specialist dental services.
Deciduous Teeth	Primary or baby teeth which are normally lost as adult teeth come through.
Dental Body Corporate	A Dental body corporate which carries on the business of dentistry within the meaning of section 40 of the Dentists Act 1984 (i.e. to receive payments for providing dental treatment). In 2004 there were currently 26 bodies registered with the General Dental Council to carry out the business of dentistry.
Dental Access Centres	Dental Access Centres help in improving the access problem, bringing NHS dentistry to everyone who needs it. The centres provide a complete range of services, including routine as well as urgent care. Patients do not need to register to see a dentist in an access centre, and the centres are open at times when patients can get to them.
Dental Assistant	A dentist who is a salaried employee of a Primary Care Trust-contracted dentist. He/she does not appear on the PCT dental list.
Dental Hygienist	Professionals, complementary to dentistry, who specialise in cleaning teeth and gum treatments under the direction of a dentist, and provide guidance on oral health programmes. They work in the NHS, for example in a general dental practice or in private practice.
Dental Practice Board	The statutory body set up originally under the National Health Services Act 1946 and now under the National Health Service Act 1977 as amended by the Health and Medicines Act 1988 (with procedures governed by the Dental Practice Board regulations 1992). Its statutory role is to approve payment applications, calculate and transfer payments to dentists who undertake NHS treatments. The Dental Practice Board has a monitoring and quality control function and maintains and provides extensive dental health information to the public and professionals. As part of the Department's review of Arm's Length Bodies, some of its functions are to be assumed by the new NHS Business Services Authority.
Dental Reference Service	Part of the Dental Practice Board, the Dental Reference Service examines patients who have undergone NHS treatment, providing assurances that the diagnosis and treatment was necessary and of a high standard.

Dental Technician	Healthcare professionals whose scope of work includes the design, construction, repair or alteration of dental prosthetics, restorative and orthodontic appliances or devices. They work in general dental practices, hospitals, community dental clinics, or commercial dental laboratories.
Dental Therapist	Professionals complementary to dentistry who may extract deciduous teeth, undertake fillings and scale and polish teeth under the direction of a dentist.
DMFT	<i>Decayed, missing, filled teeth</i> – a measure of the level of dental health often used in surveys of the dental health of populations. The higher the value the poorer the dental health. DMFT refers to permanent teeth, dmft refers to primary teeth.
Doctors' and Dentists' Review Body	The review body which recommends the future earning and salary for doctors' and dentists' working in the primary and secondary sectors in the NHS.
General Dental Practitioner	The high street dentist who provides services to the General Dental Service as an independent contractor, working for the NHS or privately or a mixture of both.
General Dental Service	The service through which NHS primary care dentistry is largely provided to the public.
General Dental Council	The General Dental Council is the regulatory body for dental professionals in the United Kingdom. It acts to protect the public by maintaining a register of professionals able to practise in the UK, setting standards of practice and conduct and assuring the quality of dental education.
High Street Dentists	A term that has traditionally been used as a colloquial synonym for dentistry provided by the general dental service. However since the introduction of Personal Dental Services in 1998, the term now encompasses primary care dentistry which is provided by independent contractors and directly by services managed by the Primary Care Trusts, such as Dental Access Centres.
Hospital Dental Service	The provision of NHS dentistry through secondary care providers. The services provided include oral surgery, procedures requiring anaesthetics, specialist services and particularly complex treatments.
Keeping in touch scheme	The scheme whereby dentists on career or maternity break, who intend to return to practice are kept in touch with current initiatives, given support, training and assistance from NHS funds to be maintained on the Dentist Register.
National Collaborating Centre for Acute Care	One of a number of National Collaborating Centres established by the National Institute for Clinical Excellence to harness the expertise of the Royal Medical Colleges, professional bodies and patient/carer organisations when developing clinical guidelines.
National Institute for Clinical Excellence	The National Institute for Clinical Excellence is part of the NHS. It is the independent organisation responsible for providing national guidance on treatments and care for people using the NHS in England and Wales. Its guidance is intended for healthcare professionals, patients and their carers to help them make decisions about treatment and healthcare. NICE guidance is developed using the expertise of the NHS and wider healthcare community including NHS staff, healthcare professionals, patients and carers, industry and the academic community.

National Programme for Information Technology in the NHS	The National Programme for Information Technology in the NHS was established by the Department of Health to create an information infrastructure for the NHS that will improve patient care and increase the efficiency and effectiveness of clinicians.
NHS Counter Fraud and Security Management Service	Set up in 1998 to counter all fraud and corruption in the NHS, with specific priority for the Family Health Services. As part of the Department's review of Arm's Length Bodies, its functions are to be assumed by the NHS Business Services Authority.
NHS Direct	An NHS body set up to provide information on local services to the public.
Orthodontics	The area of dentistry concerned with the correction of malformations or misalignments of teeth and jaws.
Oral Health Assessment	The oral health assessment will ultimately be the gateway to NHS Dentistry and will include: a patient history; oral, head and neck examinations; diagnoses and risk assessment (with the risk assessment helping to inform the recall interval) and prevention advice.
Oral Health Review	The oral health review will update previous information and should take place after a recall interval determined by incorporating a risk assessment with best practice as outlined in the National Institute for Clinical Excellence guidelines.
Oral Health Index	A recently developed index to provide a numerical measure of oral health. It includes an assessment of general health of the mouth, presence of disease and patient comfort.
Personal Dental Services	Introduced as a result of the 1997 Primary Care Act, which enabled health authorities to trial new ways of delivering dental services. The first wave of 15 pilot sites in October 1998 included pilots testing different remuneration models.
Primary care dentists	Dentists who were previously operating under both the General Dental Services and the Personal Dental Services scheme who will, from October 2005, provide Primary Care Trust commissioned services for the local health area under either the new arrangements using either the base contract or a Personal Dental Services contract.
Primary Dental Services	From 1st October 2005, in England, the General Dental Service and Personal Dental Service will cease to exist. In NHS primary care there will be Primary Dental Services only.
Principal	A dentist who is contracted to provide General Dental Services.
Professionals Complementary to Dentistry	The collective grouping for all the non dentist professionals involved in the provision of dental care.
Returning to Practice in NHS Dentistry	A scheme complementary to Keeping in Touch, with the addition of a "welcome" back grant of £4,000, refresher courses and continued professional development.

REFERENCES

- 1 The National Health Service (General Dental Service) Regulations 1992; Statutory Instrument 1992 No. 661. www.legislation.hmso.gov.uk/si/si1992/uksi_19920661
- 2 The National Health Service (Primary Care) Act 1997, January 1997, Personal Dental Services arrangements
- 3 UK Dental Care 2003 – Laing and Buisson, 2003
- 4 Report by the Comptroller and Auditor General, National Health Service: General Dental Service, November 1984, HC 24
- 5 Primary dental care services in England and Wales – Audit Commission, 2003
- 6 NHS Dentistry: Options for Change – Department of Health, 2002. www.doh.uk/cdo/optionsforchange
- 7 Health and Social Care (Community Health and Standards) Act 2003 November 2003
- 8 Speech by the Prime Minister at Labour Party Conference, 28 September 1999
- 9 NHS Dentistry: Delivering Change Report by the Chief Dental Officer (England) July 2004
- 10 National Collaborating Centre for Acute Care; Dental recall; Recall interval between routine dental examinations. National Institute for Clinical Excellence October 2004
- 11 NHS Dentistry Patient Charges Working Group
- 12 Reconfiguring the Department of Health's Arm's Length Bodies; Department of Health, 2004 (ref. 40378)
- 13 The private dentistry market in the UK – Office of Fair Trading, 2003
- 14 Strengthening the General Dental Council a paper for consultation July 2004
- 15 Response to the Department of Health's Framework Proposals for Primary dental Services from 2005, British Dental Association, May 2004
- 16 Adult Dental Health Survey: Oral Health in the United Kingdom 1998, HMSO 2000
- 17 2003 Children's Dental Health Survey Preliminary Findings, National Statistics July 2004
- 18 Annual Reports 2001-02 and 2002-03 – Health Service Ombudsman
- 19 Primary Care Trust Survey 2003 – Commission for Health Improvement, 2003
- 20 1987 Workforce Review – Department of Health
- 21 Review Body on Doctors' and Dentists' Remuneration: Thirty Third Report 2004
- 22 Oral Healthcare Systems in the Extended European Union Eeva Widström and Kenneth Eaton - Oral Health Prevention Dentistry 2004 Vol 2 No 3 page 155 -194

- 23 Tattershall Report, 1964
- 24 S G Schanschieff, D Shovelton & J Toulmin Report of the Committee of Enquiry into unnecessary Dental Treatment HMSO 1986
- 25 Sir Kenneth Bloomfield: Fundamental Review of Dental Remuneration, HMSO 1992
- 26 House of Commons Health Select Committee March 2001= HMSO Publications, PO Box 276, London SW8 5DT
- 27 Personal Dental Services (PDS) Pilots: Final Report of the National Evaluation by University of Birmingham (November 2003) (ISBN 07044 24169)
- 28 Dentistry Modernisation Steering group –CDO Digest February 2002 (full reports of the Task Groups are available online: www.doh.gov.uk/cdo)
- 29 16 July 2004 announcement by the Secretary of State for Health 'Reforms with bite -1000 more dentists by 2005. www.dh.gov.uk/PublicationsAndStatistic/PressReleases
- 30 Framework proposals for primary dental services in England from 2005 Department of Health (publication date February 2004) 34803/March 2004