Department of Health

Choosing Better Oral Health

An Oral Health Plan for England

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CONTENTS

FOREWORD 3

EXECUTIVE SUMMARY 5

INTRODUCTION 9
- National context 9
- Oral health as part of public health improvement 9
- Improving Oral Health – the challenge 10
- Reducing inequalities and achieving sustained improvements 10
- Aim of the Oral Health Plan 10

ORAL HEALTH in ENGLAND – an overview 11
- Adult oral health 11
- Child oral health 12
- Periodontal (gum) disease 14
- Oral cancer 14
- Impacts of poor oral health 15
  - Social impacts 16
  - General health impacts 16
  - Financial impacts 17
  - At-risk groups 17

CAUSES OF POOR ORAL HEALTH 19
- Diet and nutrition 19
- Oral hygiene 20
- Exposure to fluorides 20
- Tobacco and alcohol use 21
- Injury 21
- Other medical conditions 21

IMPROVING ORAL HEALTH – PRINCIPLES OF GOOD PRACTICE 23
- Community support 23
- Integrated working – common risk approach 23
- Evidence based practice 24
- The targeted population approach 24
- Complementary actions 25
- Partnerships 25
- Evaluation 25

IMPROVING ORAL HEALTH – MAKING IT HAPPEN 27
- A system for delivery 27
- Implementation 28
- Key roles and responsibilities 29
  - Primary Care Trusts 29
  - Strategic Health Authorities 29
  - Regional Public Health Groups 29
  - Local Authorities and the Voluntary Sector 30
  - Public Health Teams 30
  - Oral Health Professionals 30
  - Freeing up capacity 31
  - The local health community 31
  - Individuals 32

GOOD PRACTICE 33
- Improving diet and reducing sugar intake 33
- Improving oral hygiene 35
- Optimising exposure to fluorides 36
- Tobacco control and promoting sensible alcohol use 37
- Reducing dento-facial injuries 38
- Professional training and support 39
- Research and development 40

WORKFORCE 41
- Requirements 41
- Oral health promoters 41
- Training and development 42

Appendix I Oral health and cross-cutting public health initiatives 43

Appendix II What works? The evidence 45

Appendix III Further information 49

Appendix IV References 53

Appendix V Glossary of terms 55

Appendix VI Members of Steering Group and Reference Group 57

FOREWORD

With the White Paper *Choosing Health: Making Healthier Choices,* the Government initiated a programme to help people adopt healthier lifestyles. Subsequently, the delivery plan *Delivering Choosing Health* identified the support and services people need to make healthier choices.

Good oral health is central to healthy living and this oral health action plan identifies the information and services that will enable people to take control of their oral health. Reducing sugar consumption and giving up smoking, as advocated in the documents referred to above, will bring direct benefits to oral health. Additionally, the advice and support that dentists and other members of the dental team give their patients regarding risks such as these can contribute to the Government's prime objectives on healthier living. In particular, the regular access that the dental team has to people – who may have no other contact with health professionals – offers new opportunities for building partnerships.

This plan draws on current evidence on the main causes and consequences of poor oral health and the measures by which improvements can be made within an integrated Primary Care Trust (PCT) led health promotion programme.

At the core of the plan is the need to integrate oral health into the wider public health agenda. Oral health should be considered part of general health, addressed through evidence-based interventions focusing on the underlying factors that put people at risk of disease. Health education helps, but is not enough to make a real difference by itself. I believe that it is important that we work together, across agencies and sectors, to develop a range of complementary approaches. We have included in the document some case studies from around the country that demonstrate this intersectorial working.

One reason we have developed this plan now as an important part of the Government's delivery plan for public health in England, is to help PCTs prepare for their new responsibilities for commissioning NHS primary care dental services.

Moving away from the traditional approach, with its emphasis on treating people when they've already developed oral health problems to a preventive approach involving fewer interventions, is a major step towards providing better dental care in the 21st Century.

I would like to put on record my appreciation and thanks to the team led by Tony Jenner for the work they have put into preparation of this plan.

Barry Cockcroft
Acting Chief Dental Officer

EXECUTIVE SUMMARY

1. INTRODUCTION

This action plan sets out to inform and provide support for dental practices as they focus more on preventive care under the new contractual arrangements which will be in place from 1st April 2006. Designed to improve oral health both nationally and locally, this plan also sets out to assist and support PCTs in meeting their new responsibilities for dental services under the Health and Social Care (Community Health and Standards) Act 2003. This legislation extends their remit to assessing local oral health needs and commissioning the appropriate services to tackle long standing oral health inequalities. For the first time since the foundation of the NHS, primary care dentists will be given the opportunity to focus on prevention and health promotion, as well as treatment within their contracts with the NHS

2. ORAL HEALTH – THE CURRENT PICTURE

Adult oral health in England has been and still is steadily improving. Today, more adults keep their teeth for life – although many still suffer from tooth decay – and the number of adults aged 65 with no teeth is high compared to some of the other EU countries. This presents challenges for dentistry in supporting people with an ageing dentition. (Para 14-16)

Child oral health has also been improving and far fewer children experience tooth decay than they did 30 years ago. Older children in England now have the best oral health in Europe. However, in spite of this overall improvement, national surveys still highlight inequalities which are strongly associated with social background. There are also variations according to other factors, such as water fluoridation. (Para 17-20)

Periodontal (gum) disease affects a large proportion of the population, especially in adulthood. It can result in teeth becoming loose and having to be extracted. (Para 21 -22)

Oral cancer incidence is rising, accounting for approximately 800 deaths each year. Survival rates increase dramatically if the disease is diagnosed in its early stages, but low awareness and the painless nature of early oral cancer means people generally only seek treatment when the cancer is more advanced and difficult to treat. (Para 23-25)

Impacts of Poor Oral Health

Improving oral health is part of the Government's wider public health strategy and many of the key factors that lead to poor oral health are risk factors for other diseases. People living in areas of material and social deprivation and other vulnerable groups in society have poorer oral health and they often access dental services less frequently. Poor oral

health has a major financial impact on both the individual and society at large. (Paras 26-32)

3. CAUSES OF POOR ORAL HEALTH

Diet and Nutrition

The majority of the English population consumes more sugar than is recommended. There is particular concern about high levels of consumption amongst pre-school children, adolescents, and older people particularly those living in institutions. Children who consume excessive amounts of fizzy drinks risk tooth erosion. (Paras 37-39)

Poor Oral Hygiene

Regular brushing of the teeth and gums from an early age with a fluoride toothpaste will help prevent tooth decay and periodontal disease. (Para 40)

Fluoride

Lack of exposure to fluoride can increase the risk of tooth decay occurring every time sugary foods and drinks are consumed. Fluoride tips the balance in favour of the 'repair' of teeth damaged by acids from the consumption of sugar in food or drinks. (Para 42)

Tobacco and Alcohol

Smoking increases the severity of periodontal disease and is one of the main risk factors for oral cancer. Smoking combined with excessive consumption of alcohol can lead to a 30 times greater risk of oral cancer. (Paras 43-44)

Injury

The health of teeth can be compromised by traumatic injury. Children and people who play contact sports are at particular risk. (Para 45)

4. KEY ROLES AND RESPONSIBILITIES FOR IMPROVING ORAL HEALTH

Primary Care Trusts (PCTs) – are responsible for the effective implementation of the new contractual arrangements for dentistry. To achieve this and meet the oral health needs of their population PCTs should consider:

- ensuring that improving oral health is an integral part of their Local Delivery Plans (LDPs)
- liaising with other organisations, especially local authorities, to ensure that improving oral health is included in joint planning objectives
- ensuring that the dental services that they commission have an evidence based preventive focus
- ensuring that they are able to obtain appropriate health needs information and advice in developing local programmes for implementation (Para 60)

Strategic Health Authorities (SHAs) – have a responsibility for:

- monitoring the progress of PCTs implementation of the new contractual arrangements for dentistry.
- undertaking local consultation on new water fluoridation schemes and implementing new schemes providing there is local support (Para 61)

Regional Public Health Groups (RPHGs) – as part of their overall responsibility for reducing health inequalities, RPHGs will need to promote oral health. (Para 62)

Local Authorities – educational establishments can give out oral health messages. For example, schools can provide staff training on oral health, including procedures to follow with dental trauma cases. (Para 63-64)

Voluntary Sector – voluntary groups can make a very worthwhile contribution. For example they can help develop healthy eating guidelines for residential homes and other institutions, and train carers of vulnerable people in the care of mouths, teeth and gums. (Para 65)

Oral Health Professionals – Consultants in Dental Public Health act as advisers and advocates for oral health improvement. They can support strategies to address inequalities, and ensure that oral health

is included in local health-related initiatives. Individually, primary care dentists can ensure that their teams have the skills and knowledge to promote oral health effectively to patients and recognise problems that need referral. (Para 67-68)

The Local Health Community – GPs, Health Visitors, Midwives, District, Community and School Nurse Advisers can also help to promote good oral health, and should be able to recognise when it is appropriate to refer patients to a dentist. Wherever possible they should prescribe sugar-free medicines. Health visitors and midwives in particular have a key role in advising families with young children on good oral hygiene. (Paras 71-73)

Pharmacists – can offer advice on customers' specific problems, and promote the use of sugar-free medicines, toothbrushes and fluoride toothpastes. (Para 72)

Commercial organisations and industry can improve oral health through promoting and producing sugar-free food and drinks, and enabling the public to make informed choices through clearer labelling. (Para 76)

5. IMPROVING ORAL HEALTH – KEY AREAS FOR ACTION

Sustainable improvements in oral health are obtained through:

- **Fluoride** – increasing the use of fluoride will help prevent tooth decay. The almost universal use of fluoride toothpaste is one of the main reasons for improvement in oral health over the last 30 years. Only one in ten of the population in England receives fluoridated water. SHAs working with PCTs now have a realistic option of implementing water fluoridation where there is local support. (Paras 41, 78)
- **Improving diet and reducing sugar intake** – reducing the frequency and amount of added sugars consumed in line with the Government's target of 11% of food energy. Increasing the consumption of fruit and vegetables to at least five portions a day and promoting the use of sugar free medicines. (Paras 37-39, 75-76)
- **Encouraging preventive dental care** – oral diseases are preventable; the new commissioning arrangements and contractual framework for NHS dentistry will promote an approach that involves fewer interventions and generates additional time and capacity that can be used to adopt a more preventive approach to dental care. (Paras 4, 67)
- **Reducing smoking** – in addition to the contract for dental care, PCTs may additionally wish to contract with dental practices to provide smoking cessation advice for patients as part of their smoking cessation programmes. Smoking is a significant risk factor for periodontal disease and oral cancer. (Paras 43-44, 79)
- **Increasing early detection of mouth cancer** – measures to raise awareness of mouth cancer should lead to early detection and a reduction in the high mortality rate. (Paras 23-25, 79)
- **Reducing dental injuries** – a safer play environment should be established and people playing contact sports should be advised to wear mouth shields. (Paras 45, 80)

6. WORKFORCE REQUIREMENTS

Implementing the oral health plan will need a skilled and diverse workforce as indicated by the roles and responsibilities detailed in section 4 of this document. Oral health promotion staff have often been drawn from a wide range of backgrounds and have been largely focused within the salaried dental services. They are becoming increasingly involved in work on general health promotion which, in the light of this plan's focus on the common risk factor approach, is to be welcomed and endorsed.

PCTs will want to ensure that such staff have appropriate training and qualifications and are a resource that can be used across the whole of primary care dental services supporting dental practices as they move in a preventive direction and take on wider public health roles. (Paras 83-89)

INTRODUCTION

NATIONAL CONTEXT

1 Published by the Department of Health in 1994, the last *National Oral Health Strategy* incorporated targets for the oral health of 5 and 12-year-old children and also adults in England by 2003.

2 *Modernising NHS Dentistry: Implementing the NHS Plan* published in 2000 flagged up the importance of developing a preventive focus within dentistry and gave a commitment to tackle oral health inequalities. *NHS Dentistry – Options for Change* published in 2002 identified prevention as a key function for a modernised NHS dental service allowing General Dental Practitioners "*for the first time, to focus on preventive measures to combat dental disease and to tackle the serious oral health inequalities particularly in children*".

3 The Health and Social Care (Community Health and Standards) Act 2003 legislated for far-reaching reform of NHS dental services to deliver the *Options for Change* objectives. To meet their new responsibilities for dental services under the Act, PCTs will assess local oral health needs in order to tackle long standing oral health inequalities. Moreover, for the first time since the foundation of the NHS, primary care dentists will be given the opportunity to focus on prevention and health promotion, as well as treatment within their contracts with the NHS. A significant part of the overall reform is a new system of dental charges. Draft regulations for general dental services contracts and personal dental services agreements and for a new system of dental charges have now been published. For the first time since the foundation of the NHS, all primary care dentists will be given the opportunity to work in ways that involve fewer interventions and promote a greater focus on prevention and health promotion – in line with evidence-based practice

ORAL HEALTH AS PART OF PUBLIC HEALTH IMPROVEMENT

4 With the Public Health White Paper, *Choosing Health*, the Government initiated a major programme to provide appropriate choices for people wishing to adopt healthier lifestyles. Oral health was referred to in the light of the proposed new contractual changes for dentistry, which will give a new focus to advice on the prevention of disease, lifestyle advice and discussing the appropriate options for care. The delivery plan for the White Paper, *Delivering Choosing Health*, identified the support and services needed to enable people to make healthier choices. The publication of this *Oral Health Plan* as part of *Delivering Choosing Health* will be reinforced by implementation of the new contractual arrangements for dentistry, for which PCTs will be accountable to SHAs.

5 The importance of the common risk approach to improving oral health was demonstrated by the publication of the food and health action plan, *Choosing a Better Diet*, which set out to reduce the average sugar intake to 11% of food energy (currently 12.7%). Since sugar is the main risk factor in dental decay, there are already close synergies in action.

IMPROVING ORAL HEALTH – THE CHALLENGE

6 People living in England should continue to enjoy a standard of oral health which is amongst the best in the world. Within this context the aims of Government policy are to reduce inequalities by enabling people to take control of their own oral health. The challenge is to create the opportunity and conditions to enable individuals and communities to enjoy good oral health as an important part of overall good health.

REDUCING INEQUALITIES AND ACHIEVING SUSTAINED ORAL HEALTH IMPROVEMENTS

7 Action is needed to reduce oral health inequalities across the population. It is unacceptable and unjust that disadvantaged sections of society experience the highest levels of oral diseases. Oral health initiatives need to link with the government's broader inequalities programme to ensure that the causes of the differentials are addressed.

8 Oral diseases are largely preventable but no easy or quick fixes exist to promote oral health. Interventions need to be developed that will achieve sustained long term improvements in oral health. Action is needed to create conditions that support and encourage good oral health. For example, policy changes which promote healthier food and drink choices in schools help to create a school environment conducive to good oral health.

AIM OF THE ORAL HEALTH PLAN

9 This action plan is designed to complement the new contractual arrangements for NHS Dentistry. It sets out a framework for action which PCTs could take into account in the coverage they give to dentistry in their Local Delivery Plans (LDPs) in connection with the statutory duty they will assume from April 2006 with regard to commissioning primary care dental services. It should therefore be a useful resource for commissioning managers and professional advisers for evidence based commissioning. It will also inform and provide support for dental practices as they focus more on preventive care under the new contractual arrangements.

10 The plan encourages a range of organisations to work together to improve oral health and also complements and supports the important work being undertaken in terms of oral health and general health improvement.

11 The key aim of the action plan is therefore to reduce both the prevalence of oral disease and oral health inequalities across all age groups in England by providing the NHS, dental practices and other organisations with the information and guidance needed to improve oral health.

ORAL HEALTH IN ENGLAND – AN OVERVIEW

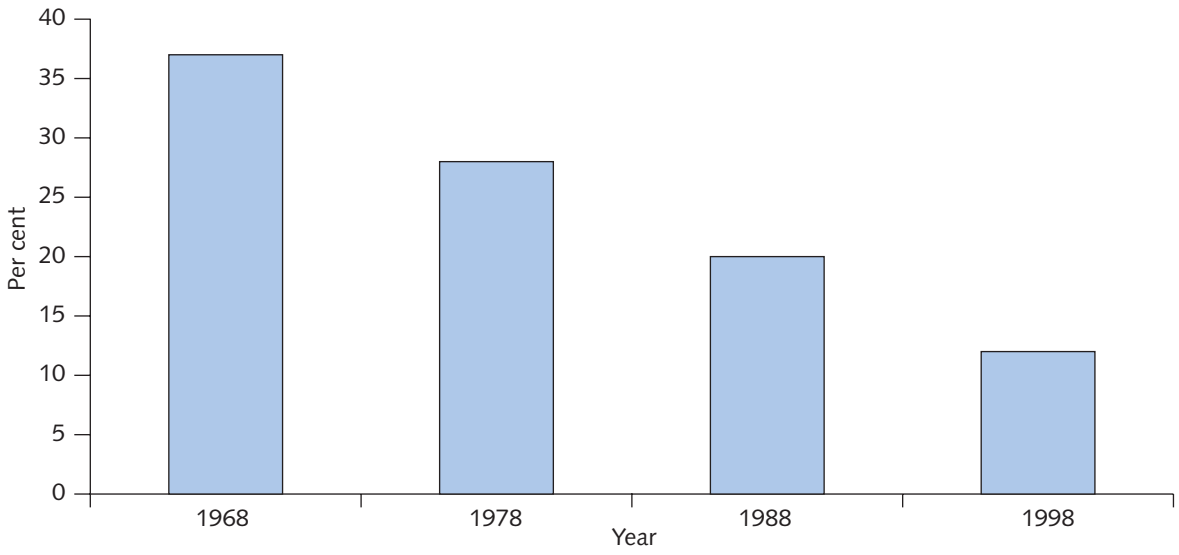
12 Although we have seen significant improvements in oral health in the last 30 years, many people still suffer unnecessarily from pain and discomfort because of oral diseases, which are still a major public health problem in this country.

13 When we refer to oral health we are talking about the health of people's teeth, gums and supporting bone, and the soft tissues of the mouth, tongue and lips. Oral diseases are largely preventable. Indeed many sections of our society now experience very good levels of oral health but vulnerable, disadvantaged and socially excluded groups still face particular problems. We need to tackle these inequalities and improve oral health across the whole population.

ADULT ORAL HEALTH

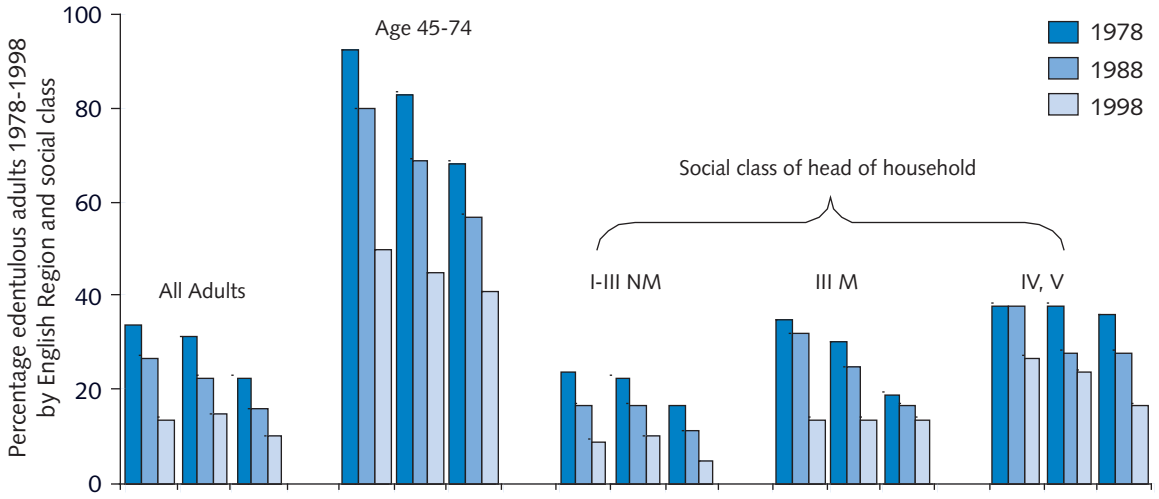
14 National surveys conducted in the UK every 10 years have shown considerable improvements in oral health. Nowadays more adults keep their teeth for life. In 1968 as many as 37% of adults in England and Wales had no natural teeth; by 1998 in England this figure had fallen to 11% (Figure 1). However, the number of adults with

Figure 1 Proportion of adults with no teeth in England, 1968 to 1998



Source: National Adult Dental Health Survey, 1968 to 1998 (Kelly M, Steele J, Nuttall N, Bradnock G, Morris J, Nunn J, Pine C, Pitts N, Treasure E and White D (2000). *Adult Dental Health Survey 1998*

Figure 2: Variations in the numbers of adults with no teeth



no teeth is still high compared to some other European countries.

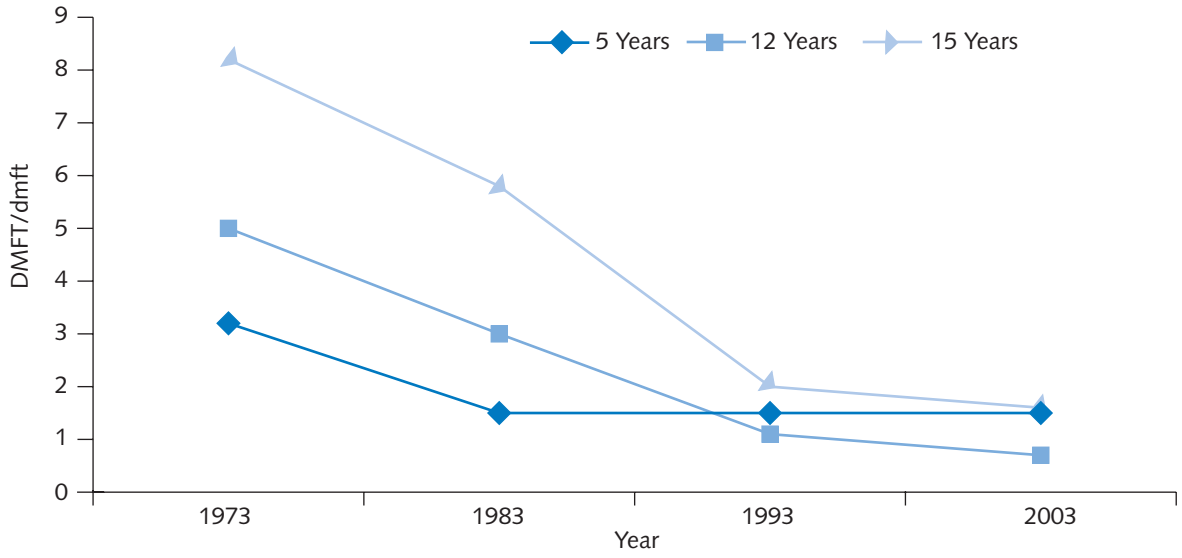
15 Tooth decay still affects a large proportion of the population and a significant proportion of people over the age of 75 are still without any natural teeth. Although more middle-aged people have their own teeth, many of these teeth have been filled and these fillings need maintenance and repeated repair. This changing pattern in the demand for dental services needs to be taken into account in future workforce planning.

16 There is a strong association between oral health and social disadvantage with people in social classes III, IV and V being three times more likely to have lost all their teeth than those in I & II (Figure 2)

CHILD ORAL HEALTH

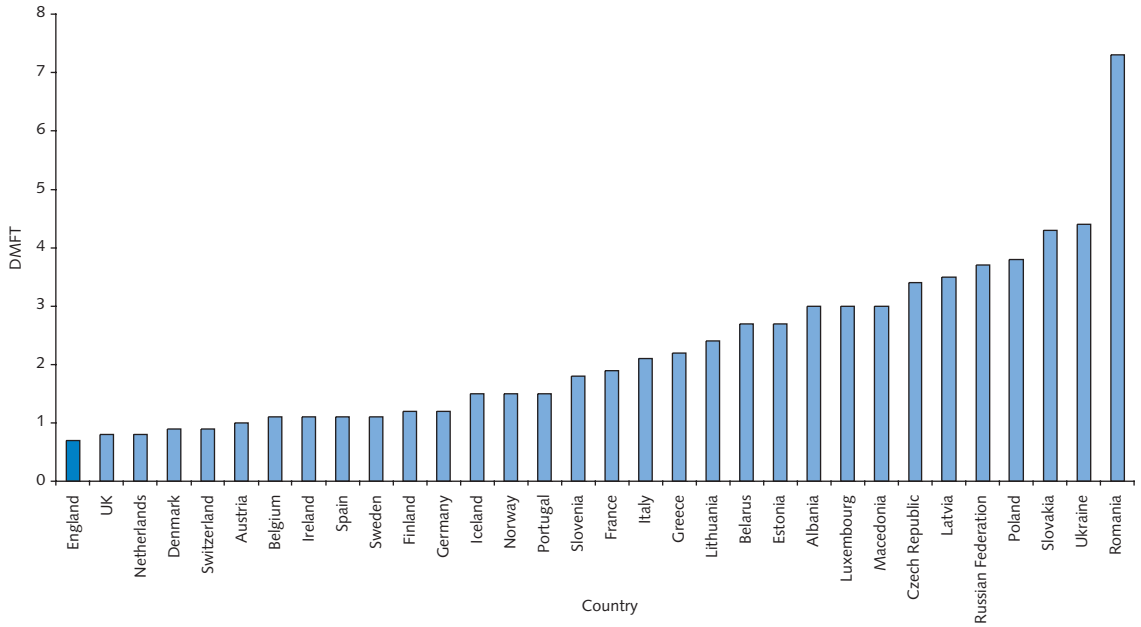
17 The oral health of children in England is the best since records began. National surveys of children's oral health are undertaken every 10 years together with more frequent local NHS surveys. In the early 1970s, around 30% of

Figure 3 Average DMFT/dmft per child in England, 1973 to 2003



Source: National Children's Dental Health Surveys 1973 to 2003. Harker R and Morris J (2005). Office for National Statistics, London.

Figure 4 Average levels of tooth decay in 12 year old children in Europe



Source: WHO Oral Health Country/Area Profile programme, 2005

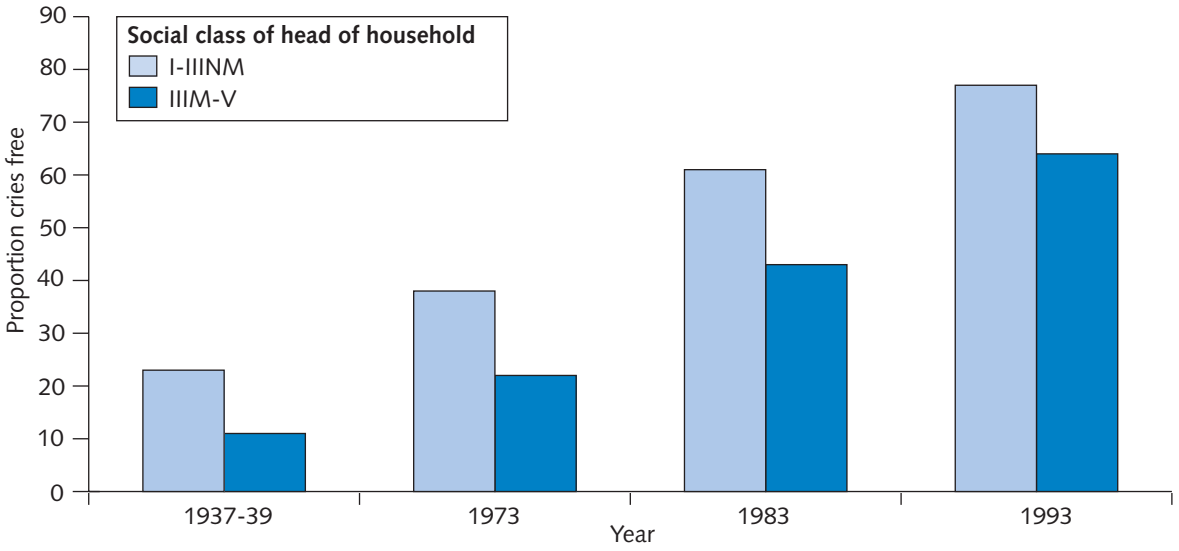
children started school with no experience of tooth decay; by 2003 this figure had risen to 59%. The proportion of older children with decayed, missing, or filled (DMFT) permanent teeth has also dropped. In 1973, 93% of 12-year-old children had tooth decay in England; by 2003 this had fallen to a historic low of 38%.

18 The average number of decayed, missing or filled teeth in all children has fallen since 1973 in all age groups. The most significant change has been in older children. In 12-year-old children in this period the fall has been from 5.0 to 0.7 affected teeth (Figure 3), which means that this age group now has the best oral health in Europe as measured by the World Health Organization (WHO) global database (Figure 4). In 5-year-old children, improvements have been achieved since 1973. However, since 1983, these have now levelled out. Further action is needed in respect of oral health in young children

19 In spite of this overall improvement, a gap between the oral health status of children in lower socio-economic groups and children in higher socio-economic groups still exists (Figure 5). The 2003 National Survey of Child Dental Health highlights inequalities by social background, for example, the probability of having obvious decay experience of the primary teeth was about 50% higher in the lowest social group than in the highest social group. Among 15 year olds from managerial and professional backgrounds, 47% had obvious decay experience compared with 65% from routine and manual socio-economic backgrounds.

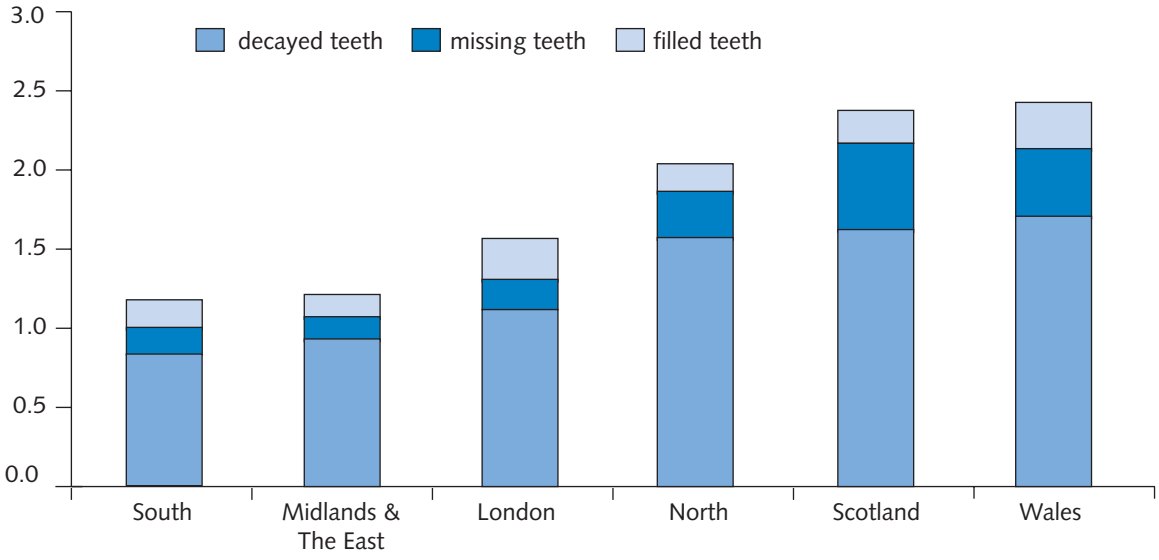
20 Regular NHS surveys of children's oral health have been nationally co-ordinated by the British Association for the Study of Community Dentistry (BASCD: www.BASCD.org). These surveys have proved invaluable in monitoring progress towards targets. The latest survey of 5 year old children carried out in 2003/04 continues to demonstrate disparities in oral health across and within regions in England with a seven-fold difference between PCTs with the best dental health and those with the worst. Figure 6 shows the regional variations in oral health taken from the results of this survey.

Figure 5 Social class inequalities in 5 year old children's oral health in Britain 1937-1993



Source: National Children's Dental Health Surveys 1973 to 1993

Figure 6 Dental caries experience (dmft) of 5-year-old children in Great Britain. BASCD co-ordinated NHS Dental Epidemiology Programme surveys 2002/2003 Scotland and 2003/2004 England and Wales



Source: The dental caries experience of 5-year-old children in England and Wales (2003/2004) and in Scotland (2002/2003). Surveys co-ordinated by the British Association for the Study of Community Dentistry N.B. Pitts(1), J. Boyles(2), Z.J. Nugent(1), N. Thomas(3), and C.M. Pine(4).

PERIODONTAL (GUM) DISEASE

21 Diseases of the periodontal tissues and supporting structures of the teeth affect a large proportion of the population and become more common with increasing age. The most recent national adult dental health survey found that 54% of adults aged over 16 had moderate signs of periodontal disease in one or more teeth (pocket depth > 3.5mm). More severe periodontal disease (pocket depth > 5.5mm) was found in 5% of the population, the majority of whom were aged over 65 years.

22 Periodontal disease can lead to a loss of the supporting structures holding the teeth in position. This 'loss of attachment' becomes more prevalent

in older people. The prevalence and severity of periodontal disease is greater in smokers.

ORAL CANCER

23 Oral cancer is a malignant tumour of the mouth and accounts for 4% of all cancer cases in the UK. In 2000, there were nearly 2,300 new cases of cancer of the oral cavity. Approximately 800 deaths are attributed to oral cancer each year. Oral cancer is more common in males, with a male to female ratio of 1.6 to 1. More than nine out of 10 patients with oral cancer are aged over 40 years when they are diagnosed, the average age at diagnosis being 64 years for males and 61 years for females.

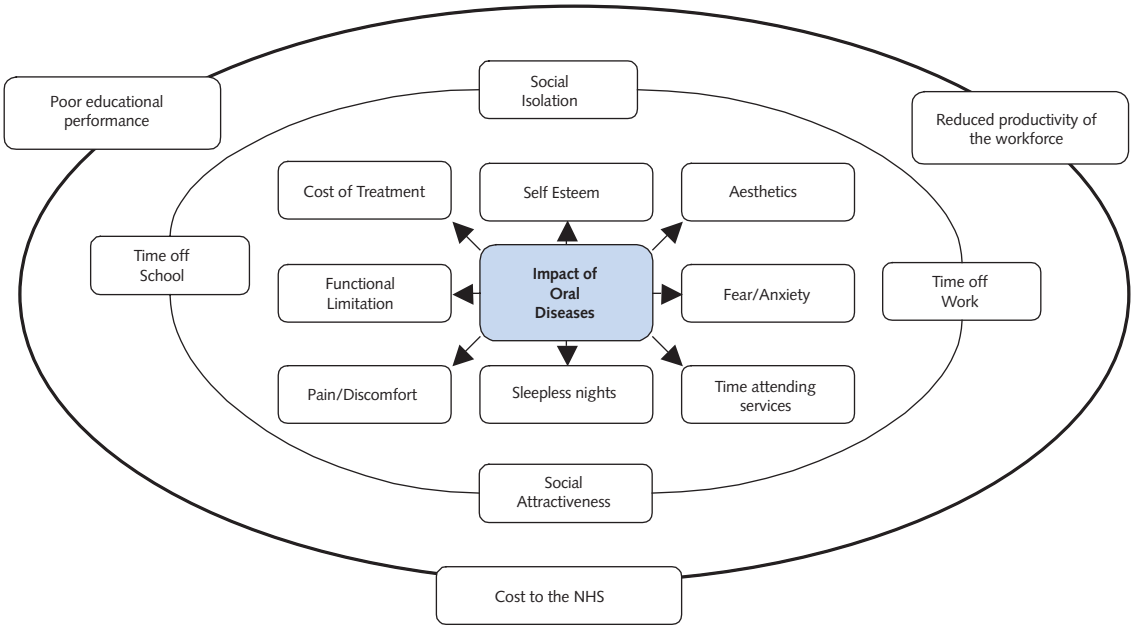
24 After a steady decline over the past few decades, the incidence of oral cancers is now rising, particularly in women, and there is evidence of an increasing minority of younger people being affected. Despite recent improvements in the prevention and survival rates of many cancers, there has been no similar improvement for oral cancer. The painless nature of early oral cancer that is either invisible or appears as a seemingly harmless mouth ulcer makes detection difficult, Low awareness among the public leads to people seeking treatment only when the cancer has reached an advanced and more difficult to treat stage.

25 Oral cancer has a high death rate, similar to that of cancer of the cervix. The survival rate for oral cancer in England is about 50% at five years. Survival rates increase dramatically if the disease is diagnosed in its early stages. The five-year survival rate is over 80% when the cancer is diagnosed at an early stage, but falls to below 20% for those who have distant metastatic disease (spread to other parts of the body).

IMPACTS OF POOR ORAL HEALTH

26 Oral health is an integral element of general health and well-being. Good oral health enables individuals to communicate effectively, to eat and enjoy a variety of foods, and is important in overall quality of life, self-esteem and social confidence. However oral diseases are very common and their impact on both society and the individual are significant (Figure 7). Pain, discomfort, sleepless nights, limitation in eating function leading to poor nutrition, and time off school or work due to dental problems are all common impacts of oral diseases.

Figure 7: Impact of oral diseases



Source: Modified from Department of Human Services (1999)

SOCIAL IMPACTS

27 Improving oral health is part of the Government's wider public health strategy. Oral health is central to healthy living and a key marker of the health of a community. Good oral health makes an important contribution to an attractive appearance, self-esteem and quality of life. Missing or decayed teeth and ill-fitting dentures can make people feel self-conscious and lead to loss of confidence and social isolation.

28 The most common oral diseases, tooth decay and periodontal disease, can both cause pain and infection as well as eventual tooth loss. This discomfort often results in lost sleep and disruption to family life, leading to time off work and/or school. Acute dental infection can cause swelling and severe pain and in extreme cases can be life-threatening. Chronic infection also tastes and smells unpleasant. It also results in loss of working days and days of schooling. Poor oral health can also affect food choices and lack of teeth can impact adversely on nutritional status and socialising.

29 Dental treatment has become much more acceptable due to advances in technology and behaviour management techniques. However, extensive treatment can still be stressful, especially for the very young. Many children still have teeth extracted under general anaesthetic, a distressing experience and an avoidable, albeit small, risk to life.

GENERAL HEALTH IMPACTS

30 Many of the principal factors that can lead to poor oral health are also risk factors for other diseases, emphasising the need to include oral health in initiatives designed to promote health in general.

31 The common risk factors are:

- diets high in sugary foods and drinks, including 'hidden' added sugars in foods that would not be expected to contain sugars;
- inappropriate infant feeding practices;
- poor oral hygiene;
- dry mouth (xerostomia);
- smoking/use of tobacco and other carcinogenic substances; and
- excessive alcohol consumption

FINANCIAL IMPACTS

32 Dental treatment is expensive for the individual, for the NHS and for society as a whole. The total spend on dental care in England in 2003/04 was approximately £3.8 billion including private dental treatment. Indirect costs, such as time off work to attend for dental treatment, are also a significant financial burden to society.

AT-RISK GROUPS

33 Despite the general improvement in oral health there remain very marked inequalities in oral health. People living in areas of material and social deprivation have much higher levels of tooth decay. They are more likely to have diets high in sugary foods and drinks and they brush their teeth less often. Vulnerable groups of society also have poorer oral health and less access to oral health care services. For example, children and adults with a learning disability and people with mental illness tend to have fewer teeth, more untreated decay and more periodontal disease than the general population.

34 Other groups at risk of poor oral health include people with disability, those in long-term institutional care (such as residential homes, psychiatric hospitals and prisons), homeless people and some refugee and asylum seeker groups. Some minority ethnic groups may face an increased risk of oral disease because they are more likely to be living in areas of disadvantage, and some groups may encounter language and cultural barriers to accessing care and advice.

35 Elderly people living in residential care tend to have a poorer diet than those living in their own homes. Adolescents, especially young men from semi-skilled or unskilled manual backgrounds, have been identified as a group in which there is a dramatic reduction in dental visits in the transition from childhood to adult life. Children, expectant mothers and women of childbearing age require special consideration. Other vulnerable groups include people requiring palliative care and people undergoing chemotherapy, radiotherapy or a bone marrow transplant.

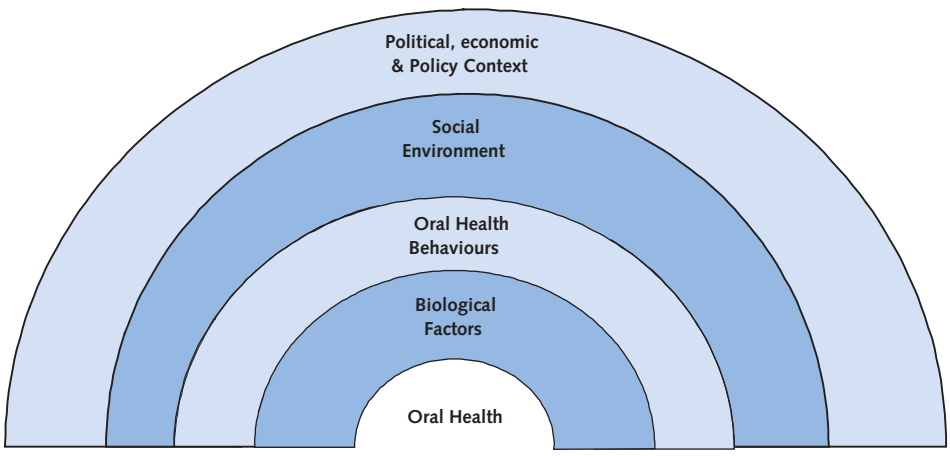
CAUSES OF POOR ORAL HEALTH

36 To achieve sustainable oral health improvements and reduce inequalities, action is needed to tackle the underlying causes of oral diseases. Contemporary public health research and policy recognises a spectrum of determining factors. These range from decisions taken nationally on economic and social policy through the impact that these have on the social environment matched with health behaviours adopted by individuals in the population. (Figure 8). Focusing on these 'upstream' factors that cause poor oral health and create inequalities is fundamentally important. Actions that only seek to change individual behaviour and lifestyles will have a limited long term effect.

DIET AND NUTRITION

37 The frequent and high consumption of sugars is the major cause of dental decay. The majority of the English population consumes more sugar than the recommended 60g per day. Soft drinks, confectionery and biscuits are the main sources of sugars in the diet. There is particular concern about the high levels of consumption among pre-school children, adolescents and older people particularly those living in institutions. A range of factors influence what people eat and drink but costs, availability, access and clear information are all important.

Figure 8 Underlying causes of oral health



Source: Modified from Watt (2005)

38 Tooth wear occurs naturally with time but excessive wear at any age may lead to pain and the need for treatment. In children and young people, tooth wear is more commonly seen as erosion (chemical dissolution of teeth). Children and young people who consume excessive amounts of acidic fizzy drinks, including diet and sugar free varieties, are more likely to be affected.

39 Eating a healthy balanced diet which contains plenty of fruit and vegetables and is low in fat, salt and sugar and, based on whole grain products, is important for promoting good health. All age groups of the population consume less than the current recommendation of at least five portions of fruit and vegetables a day. Snacking on fruit and vegetables rather than snacks high in sugar can help to promote oral health and particularly help to reduce the risk of dental caries.

ORAL HYGIENE

40 The health of periodontal tissues, the mucous membrane lining the mouth, and the bone supporting the teeth can be compromised when teeth and gums are not brushed regularly and dental plaque accumulates. Oral hygiene practices are best learnt in early childhood as part of body hygiene and cleanliness.

EXPOSURE TO FLUORIDES

41 Tooth decay occurs when acid is produced by bacteria found in the plaque on the surface of the teeth. This results in the loss of some of the tooth calcium and phosphate minerals. This demineralisation happens every time sugary foods and drinks are consumed. Once the plaque acid has been neutralised some of the minerals can be deposited back into the teeth – a process known as remineralisation. Fluoride tips the balance in favour of this 'repair'. Increasing the availability of fluoride can therefore help prevent tooth decay.

42 Since the 1970s, fluoride has been added to most toothpastes and this is the main reason for the improvement in oral health seen in the UK and Europe. Effective, twice-daily toothbrushing has the additional benefit of improving periodontal health. In areas with high levels of disease, water

Case study 1: Incentivising smoking cessation pays off in Sheffield

A pilot to encourage dental teams' involvement in smoking cessation in Sheffield was established in August 2002. Dental practices received a one-off payment for every client referred to the Stop Smoking Service who set a quit date. There was no requirement for dental team members to deliver smoking cessation advice themselves beyond identifying those who were ready to quit.

A formal evaluation of the pilot revealed that clients referred by dental teams were less likely to set quit dates than those referred by other healthcare workers. Also, although there was an initial increase in referral rate from dental teams, after one year it had returned to that existing prior to pilot commencement.

As a consequence, through continuing collaborative work with the Stop Smoking Service, dental teams have now been offered smoking cessation training and given the opportunity to become accredited stop smoking practices – and eligible to receive the same payments as accredited medical practices. Currently there are 15 practices looking to work towards accreditation status. Successful practices will be able to offer smoking cessation counselling services on a one-to-one or group basis and will be an integral part of the citywide Stop Smoking Service.

fluoridation is an effective and safe public health measure to reduce decay and more beneficial than the use of just fluoride toothpaste alone.

TOBACCO AND ALCOHOL USE

43 Tobacco use, especially smoking, increases the prevalence and severity of periodontal disease. It is by far the greatest risk factor for oral cancer. Smoking 20 or more cigarettes a day increases the risk to six times that of non-smokers. Although less harmful than smoking, the chewing of tobacco products, common in some Asian communities, is also associated with an increased risk of oral cancer. So too is chewing betel. Tobacco use is also linked to a range of other oral health problems and reduces the success rates of dental treatments such as implant surgery.

44 Excessive alcohol consumption, particularly spirits, is a further risk factor for oral cancer, especially when combined with smoking and a poor diet. Heavy drinkers and smokers are 30 times more likely to develop oral cancer than non-smokers and non-drinkers (Blot et al (1998)).

INJURY

45 Broken (traumatised) teeth are a common problem amongst certain groups such as adolescent boys. Broken teeth can adversely affect people's appearance and self-confidence, and are expensive and difficult to treat. Dental injuries may occur for a variety of reasons including playing contact sports, violence and falls. Binge drinking, violence and non-accidental injury are also causes of facial injury and broken teeth.

OTHER MEDICAL CONDITIONS

46 A range of medical conditions may adversely affect oral health. For example people with eating disorders, particularly bulimia may have problems with excessive tooth wear due to the acidic pH of the mouth. Also, people with chronic diseases on multiple long-term medications may have problems with dry mouth.

IMPROVING ORAL HEALTH – PRINCIPLES OF GOOD PRACTICE

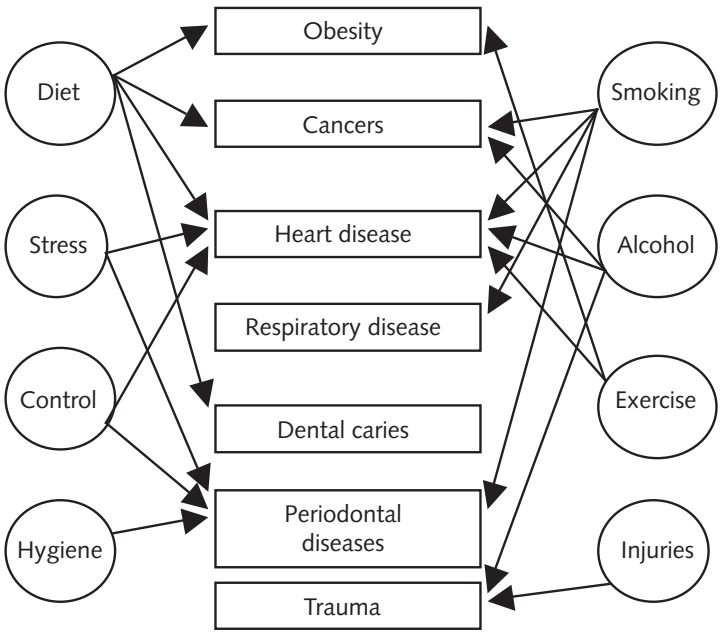
COMMUNITY SUPPORT

47 In the past, traditional preventive interventions, rather than decreasing inequalities, may have had the reverse effect of widening the health gap between the rich and poor. Improving oral health is a shared responsibility between government, education, health professions, the public and the wider society. Community involvement is essential for achieving sustainable oral health improvements. This is a time consuming process. Health professionals have an important role to play in enabling and encouraging community action.

INTEGRATED WORKING – COMMON RISK APPROACH

48 A major criticism of preventive and educational programmes has been the narrow and isolated approach adopted. This uncoordinated approach can at best lead to a duplication of effort, but often in fact results in conflicting and contradictory messages being delivered to the public. The common risk approach recognises that chronic non-communicable diseases and conditions such as obesity, heart disease, stroke, cancers, diabetes, and oral diseases share a set of common risk

Figure 9 Common risk factor approach



Sheiham & Watt, 2000

conditions and factors (Figure 9). For example a poor quality diet, smoking, inadequate hygiene, excessive alcohol intake and trauma are factors linked to the development of several chronic conditions including oral diseases.

49 The key concept of the integrated common risk approach is that by directing action on these common risks and their underlying social determinants, improvements in a range of chronic conditions will be achieved more efficiently and with greater effectiveness. The common risk approach provides a rationale for partnership working. A wide range of government health initiatives exists, which provide an ideal opportunity to integrate oral and general health actions (Appendix I).

EVIDENCE BASED PRACTICE

50 In recent years, in line with the evidence based movement in clinical medicine and dentistry, the effectiveness of preventive interventions has been scrutinised to determine what interventions are effective, and identify those that produce minimal benefit or even cause harm. A collection of effectiveness reviews of the oral health literature has been published in recent years. These provide useful indications for developing effective practice. (Kay and Locker 1996, Sprod et al 1996) A summary of the evidence base for oral health interventions is outlined in Appendix II.

THE TARGETED POPULATION APPROACH

51 There are two complementary approaches to improving oral health

- the population approach, in which the aim is to lower the average level of risk factor in the population; and
- the high-risk approach, in which people at particularly high risk are identified through screening, and offered appropriate advice and treatment

Both are important, but initiatives designed to reduce inequalities in health can be structured in

another way, the *targeted population approach*. This involves identifying communities at greater risk of disease and using population strategies within these targeted groups. Such an approach is used in a range of health and social policy initiatives such as the neighbourhood renewal strategy.

COMPLEMENTARY ACTIONS

52 Public health research has shown that implementing educational interventions alone does not produce sustained improvements in health and has a limited effect on reducing the health gap. The WHO and other international organisations recommend the need for implementing a complementary range of actions to promote health. Based upon the Ottawa Charter (WHO, 1986), these include

- promoting oral health through public policy: by focusing attention on the impact on health of public policies from all sectors, and not just the health sector
- creating supportive environments: by assessing the impact of the environment and clarifying opportunities to make changes conducive to oral health
- developing personal skills: by moving beyond the transmission of information, to promote understanding, and to support the development of personal, social and political skills that enable individuals to take action to promote their oral health
- strengthening community action: by supporting concrete and effective community action in defining priorities, making decisions, planning strategies and implementing them to achieve better oral health
- reorienting oral health services: by refocusing attention away from the responsibility to provide curative and clinical services, towards the goal of achieving improvements in oral health

PARTNERSHIPS

53 A core theme of government public health policy is to promote partnership working across the NHS and beyond. The adoption of an integrated common risk approach forms the basis of joint working. Oral health professionals need to collaborate with the relevant agencies and sectors to place oral health upon a wider agenda for change. In sections that follow, details are provided of possible partners and their roles in promoting oral health.

EVALUATION

54 Evaluation is a very important area of practice. Sufficient resources and appropriate methods should be directed to the evaluation and monitoring of oral health strategies. Both process and outcome evaluation measures should be used. Better training and more support are needed to develop the capacity of oral health professionals to evaluate their activities fully.

IMPROVING ORAL HEALTH – MAKING IT HAPPEN

55 As previously stated, this plan outlines the key steps that can be taken to improve oral health and supports *Delivering Choosing Health: Making Healthier Choices Easier*.

Progress against its objectives can be measured through:

- Improvements in the oral health of the population; and
- Increased delivery of high quality preventive dental services.

A SYSTEM FOR DELIVERY

At the same time, local authorities and PCTs share a responsibility to improve oral health by:

- Leading partnerships to improve oral health;
- Identifying local oral health needs and targets to reduce inequalities; and
- Commissioning and delivering preventive dental services.

Case study 2: LPSA drives child oral health initiative in Blackburn

Blackburn with Darwin Borough Council and the Primary Care Trust are starting a borough wide second generation Local Public Service Agreement (LPSA) aimed at improving oral health in children, which will be available to all 2-3 year olds. State and private nurseries, playgroups, Sure Start centres and primary schools will be used for targeting and accessing children whose parents will be engaged by a mail shot and encouraged to take part. An experienced oral health promotion project worker will track this cohort of children throughout their nursery years and on to reception.

A dental health culture will be encouraged through regular education sessions and by distributing toothpaste and toothbrush packs every four months. Furthermore, a dentist and dental nurse will be made available for those children who are not already registered with a dentist. The project worker will help to identify those children who need access to dental treatment, whilst posters and leaflets will help to advertise the service to parents. A preventive dental health routine and culture will be instilled at this young age, and improve the dental health of all children who feed into the borough's primary schools. A common risk approach will be adopted. When the children enter primary school, the project worker will focus specifically on those in the 25 schools with the worst dental health (56% of 5 year olds). These children will benefit from intensive educational sessions and further toothpaste and toothbrush packs. In addition, they will continue to have access to the dentist. The project aims to reduce the mean dmft of 5 year olds by 40%.

56 Partnership working and a common risk approach provide a range of opportunities for the promotion of oral health. This is the responsibility of regional public health groups, strategic health authorities and primary care trusts. It involves dental leads (public health, clinical and primary care) and oral health promotion teams within primary care trusts. Through references to oral health and dentistry in their local delivery plans, PCTs can drive this agenda forward with the primary care dental and medical care teams working together and with other partner organisations.

57 Improvements in oral health will not be achieved by doing 'more of the same'. Progress will only come through change in the way the public are 'engaged' in improving and maintaining their own oral health. New contractual arrangements for NHS dentistry will also give dentists and the wider team a new focus to advise on general public health issues and lifestyle.

IMPLEMENTATION

58 The good practices which PCTs could adopt to implement this action plan include:

- coverage of oral health and dentistry in local delivery plans;
- planned local information surveys to identify local oral health inequalities and priorities;
- oral health information linked and integral to public health information; and
- any planned oral health and well-being equity audits.

59 PCTs may wish to consider setting local targets that focus on disadvantaged communities where the prevalence of disease is above the national average. PCTs will also need to consider how they can commit resources (staff, time and funding) to improve the oral health of their population.

Case study 3: 'Start Smiling' – Oral Health Promotion within Sure Start

In 2001, Shropshire Oral Health Promotion started working with the Sure Start schemes in Telford and Oswestry to help improve the oral health of children living in the Sure Start areas. A project team with members from oral health promotion, health visitors and Sure Start staff was formed and the 'Start Smiling' project was born.

To encourage the use of fluoride toothpaste and help children to develop effective oral hygiene practices, Sure Start funding was used to purchase toothbrush and fluoride toothpaste packs and parents received packs for their children on a regular basis. To encourage the early transition to a cup, parents were also given a first drinking cup for their child. An information pack and recipe cards for parents were produced to encourage good weaning practices and healthy eating for young children. Cooking, shopping and budget management sessions were held for parents and grandparents. To help children reduce their sugar consumption and increase their intake of fruit and vegetables the Sure Start setting adopted a healthy eating policy devised by the project team.

After small beginnings with funding from both Primary Care Trusts the 'Start Smiling' project broadened to encompass the whole of Telford & Wrekin and Shropshire County. Sure Start schemes in both areas provided funding for dental services to help improve access for Sure Start children. Oral health promoters, health visitors and Sure Start workers throughout the county work in partnership to increase awareness of the value of good oral health both to children and the community and help change the focus from treatment of disease to the prevention of oral health problems.

The 2004 survey showed a marked improvement in the oral health of 5 year olds in Shropshire County and Telford & Wrekin proving that partnership working is not only enjoyable but can result in a significant oral health gain for children!

KEY ROLES AND RESPONSIBILITIES

Primary Care Trusts

60 PCTs are responsible for the effective implementation of the new contractual arrangements for dentistry. To achieve this and meet the oral health needs of their population PCTs should consider

- ensuring that improving oral health is an integral part of their Local Delivery Plans (LDPs);
- liaising with other organisations, especially local authorities, to ensure that improving oral health is included in joint planning objectives;
- ensuring that the dental services that they commission have an evidence based preventive focus;
- ensuring that they are able to obtain appropriate health needs information and advice in developing local programmes for implementation;
- whether water fluoridation might be appropriate for improving oral health locally.

Strategic Health Authorities (SHAs)

61 SHAs will have responsibility for monitoring and managing the progress of PCTs' implementation of the new commissioning arrangements, including the promotion of good oral health. SHAs also have primary responsibility for fluoridation schemes. When requested to do so by PCTs, they may undertake a public consultation on water fluoridation. If there is local support, the SHA can make arrangements with the local water company to fluoridate its water. CDO's letter of September 2005 (Gateway ref: 5136) provides guidance on implementation of the changes to the legislative framework governing fluoridation.

Regional Public Health Groups (RPHGs)

62 Reducing inequalities in health, including oral health, is now a key policy objective for the nine government offices for the regions in England. It follows that Regional Directors of Public Health will

Case study 4: Motivating success with the Adopt-a-school campaign

The Dental Public Health Department at Ipswich PCT in partnership with the local Community Dental Service developed a proposal for a scheme to reduce the high referral rate of children with dental decay for dental treatment. The "Adopt a School" scheme has been initiated mainly by the Dental Health Education Team of the CDS, which as its name suggests 'adopts' a whole school for one term and year 6 of the school for the entire year.

The process involves 3 stages:

1. Brush In: Each child is provided with a toothbrush to be kept at school and also a toothbrush to be taken home. There will be supervised tooth brushing session every week for a whole term for the whole school.
2. Sweets out: Each child is given a diet record sheet, which is checked every week for the whole year by a dental health educator – lessons are also given on 'hidden sugars' and alternative snacks.
3. Fluoride: Year 6 is given weekly-supervised fluoride mouth rinses for the duration of a year.

The children's dental health cleanliness status is recorded at the commencement of the programme and recorded again at the completion of the programme. 'Motivators' by way of stickers and certificates are issued throughout the programme and a prize is on offer for the best achievement of a child in each year group at the end of the programme.

wish to ensure that this oral health action plan informs their general health policy and that oral health initiatives link with government schemes targeted at deprived areas, such as Sure Start. Regional Public Health Groups will therefore need to promote oral health

Local Authorities and the Voluntary Sector

63 Local authority and the voluntary sector's policies and guidance need to include an oral health component.

64 In the education sector for example, pupils, head teachers, school nurses, teachers, other staff and school governors can all contribute to promoting oral health. For example, schools can provide:

- healthy snack foods and drinks in tuck shops and vending machines;
- safe recreation areas to reduce the risk of dental trauma; and
- staff training on oral health, particularly procedures to follow with dental trauma cases.

65 There is a wide range of voluntary groups that can be involved and with whom links should be developed to ensure protocols to protect and improve oral health are in place in residential homes and other institutions. The protocols should include training for carers of children, people with disabilities and older people, in the care of mouths, teeth and gums.

Public Health Team

66 The public health team can support strategies to address inequalities, and ensure that oral health is included in local health-related initiatives, programmes and reports.

Oral Health Professionals

67 Under the new contractual arrangements being implemented for NHS dentistry, the dental team will have the opportunity to give a strengthened focus on the prevention of disease, lifestyle and options for care. General Dental Practitioners, the Salaried Primary Care Dental Service, dental care professionals (DCPs), Consultants in Dental Public Health and other dental specialists have a key role to play in improving oral health, whether working

in primary or secondary care settings. This may include acting as advisers and advocates to influence decision-makers, PCTs, healthcare colleagues, community leaders and others, and generally giving out consistent oral health messages.

68 Individually, dentists can ensure that their team has the skills and up to date knowledge to promote oral health effectively to patients, including at-risk groups, and recognise problems that need referral to the wider primary healthcare team.

Freeing up capacity

69 This plan has been prepared in anticipation of the delegation of the commissioning of primary care dental services to PCTs from April 2006. The present *item of service* remuneration system, which offers dentists little incentive to undertake oral health promotion, will be replaced by local contractual arrangements. In negotiating local contracts, PCTs will be required to take account of recent guidance from the National Institute of Clinical Excellence (NICE) on the intervals at which patients should be recalled for routine dental examinations. NICE has advised that the interval between oral health reviews should be determined on the basis of an assessment of disease levels and disease risk in individual patients. Having regard to the improvement in oral health, NICE has indicated that the *shortest* interval for oral health reviews for all patients should be 3 months although this is not normally needed for a routine dental recall. The *longest* interval for patients younger than 18 years should be 12 months and the *longest* interval for adults should be 24 months for people who are not at risk of oral disease. (NICE, 2004)

70 Observance of the NICE guidelines, supported by the changed balance of incentives within the new contractual framework, should free up capacity that can be used to support a more preventive approach and to improve access to NHS dentistry. The new arrangements are also designed to improve the quality of dentists' working lives by removing the 'treadmill' effect, for which the current item of service remuneration system has often been criticised, and by allowing more time for prevention and health promotion.

The local health community

71 Other health professionals can help promote good oral health, and should also be able to recognise when it is appropriate to refer patients to a dentist.

72 GPs, pharmacists and district, community and specialist nurses can include oral health within their promotion of health and well-being. Specifically, they can:

- integrate oral health within health promotion programmes and projects whenever possible;
- ensure oral health messages and interventions are consistent and effective;
- ensure medicines are sugar-free wherever possible, particularly for people on long-term medication
- be alert to the signs of oral disease in vulnerable people.

73 There is a need to equip better the wider healthcare workforce to deliver improved oral health:

- health visitors and midwives have a key role in advising parents on oral health particularly on reducing sugar in their child's diet. They can encourage good oral hygiene practice by demonstrating the use of a toothbrush and fluoride toothpaste in infants so that parents commence brushing as soon as the first teeth erupt. They can also encourage night time supervised brushing with fluoride toothpaste in young children as part of developing a bedtime routine;
- health promotion staff and other members of public health teams can help develop oral health promotion policies and provide advice and training in health promotion skills to dental teams;

- pharmacists and their staff are in a position both to offer advice on customers' specific problems, which may need referral to a dentist, for example, a persistent mouth ulcer, and to promote the use of sugar-free medicines, toothbrushes and fluoride toothpastes.

Individuals

74 To have the best chance of good oral health, individuals are recommended to adopt the following behaviours:

- reduce the consumption and especially the frequency of sugary foods and drinks within the context of a healthy diet;
- clean teeth effectively twice a day with a fluoride toothpaste;
- do not smoke or chew tobacco;
- follow safe limits on alcohol consumption; and
- have a dental check-up at appropriate intervals, as agreed with their dentist, in line with guidelines published by NICE.

GOOD PRACTICE

75 This section documents a range of good practices which can improve oral health. Details are presented for each of the underlying risk factors for oral disease. The target populations and key partners are listed for each action point. In addition actions on professional training and support, and research and development are outlined.

76 Improving diet and reducing sugars intake

- Promoting breastfeeding and recommended weaning practices;
- Reducing both the frequency and amount of added sugars consumed in line with Department of Health target (11% of energy from added sugars);
- Increasing the consumption of fruit and vegetables to at least 5 portions per day;
- Reducing consumption of acidic soft drinks; and
- Promoting use of sugar free medicines.

Topic	Good Practice	Target Group	Participants
Infant feeding	Promote breastfeeding in line with DH recommendations. Ensure weaning advice conforms to COMA/SACN recommendations. Ensure oral health input into local infant feeding strategies and guidelines.	Nursing mothers and babies	Midwives, health visitors and GPs Sure Start Community groups PCTs Children's Centres Public Health Practitioners Dentists and DCPs
Policy guidelines	Promote the development and adoption of nutrition and healthy eating guidelines which include action on sugars in organisations where food and/or drinks are prepared and/or sold.	Pre-school children School children Students Patients Prisoners Older people in care and nursing homes	Preschools and nurseries Schools and colleges Hospitals Prisons Local authorities PCTs Public Health Practitioners Dentists and DCPs

Topic	Good Practice	Target Group	Partners
Labelling	Improve labelling information on foods and drinks to specify percent sugars and pH levels of drinks.	Whole population	Industry Government
Sugar based medicines	Increase proportion of sugar free medicines prescribed and sold.	Whole population, especially children and chronically ill on long term medication	GPs and hospital doctors Pharmacists Pharmaceutical Industry Dentists and DCPs
Sugar content	Discourage addition of sugars to weaning foods, drinks and vitamin supplements.	Infants and young children	Food Industry and Parents
	Encourage reduction in sugars content of soft drinks, breakfast cereals, confectionery and other sugary foods and drinks.	Whole population	Food Industry
	Encourage caterers to reduce sugars content of prepared foods.	Whole population	Caterers
	Encourage vending machine providers to include sugar free choices.	Whole population	Schools, Leisure facilities etc.
Public information and support	Improve the consistency of all dietary messages, and in particular stress the importance of reducing the frequency of sugary drinks and foods.	Whole population	Midwives, health visitors and GPs PCTs Children's Centres Teachers Public health practitioners Dentists and DCPs
	Ensure effective dietary education for those at risk of dental caries and erosion.	Children and adults at high risk	
	Restriction of promotion of food and drink high in sugar particularly to children.		

77 Improving oral hygiene

- encouraging the early adoption of oral hygiene practices in young children;
- promoting effective oral hygiene self care practices across the population; and
- supporting parents, health professionals and carers of people who need help in maintaining their oral hygiene.

Topic	Good Practice	Target Group	Partners
Early toothbrushing	Encourage parents and carers to start toothbrushing with fluoride toothpaste within the first year of child's life.	Parents and infants	Health visitors and GPs Sure Start Community groups Children's Centres Dentists and DCPs
Body and oral hygiene	Incorporate oral hygiene teaching within general body cleanliness in Personal and Social Education teaching.	Schoolchildren	Teachers Dentists and DCPs
	Ensure individuals in residential and care settings have access to toothbrushing facilities and advice on oral hygiene.	People in residential care	Local authorities
Training and support	Improve the effectiveness of oral hygiene instruction provided by oral and other health professionals.	Whole population	Nurses, midwives and health visitors Carers Dentists and DCPs

78 Optimising exposure to fluorides

- Promoting water fluoridation in areas with poor oral health and where local communities support this action; and
- Encouraging the use of fluoride toothpastes across the population, especially young children in disadvantaged areas.

Topic	Good Practice	Target Group	Partners
Water fluoridation	In line with government legislation, in areas with high caries levels PCTs should explore the need and feasibility of water fluoridation. When requested by PCTs, SHAs should undertake a public consultation to assess local support.	Whole population	PCTs SHAs Water Industry Dentists and DCPs Public health
Fluoride toothpastes	Increase the use of fluoride toothpaste, especially by young children in disadvantaged communities. Ensure recommendations on appropriate use of toothpastes are given by health professionals and other care staff. Assess the feasibility of distributing fluoride toothpastes and brushes to young children in disadvantaged communities.	Whole population, especially young children in disadvantaged areas	Health visitors and GPs Sure Start Community groups PCTs Children's Centres Public health practitioners Dentists and DCPs Toothpaste manufacturers
Other fluorides	Development of other options to deliver fluorides where required e.g. varnishes with special needs groups, fluoride milk in schools etc.	High risk populations	PCTs Education Local authorities Dentists and DCPs

79 Tobacco control and promoting sensible alcohol use

- Supporting smokers to stop;
- Referring motivated smokers who wish help in stopping to NHS Stop Smoking Services;
- Improving early detection of early stage malignant lesions and referral to specialist care; and
- Encouraging sensible patterns of alcohol consumption.

Topic	Good Practice	Target Group	Partners
Smoking cessation	Encourage dental teams routinely to enquire about their patients' use of tobacco and to give advice and support on stopping. When appropriate refer smokers to local NHS Stop Smoking Services.	Smokers	Dentists and DCPs NHS Stop Smoking Services PCTs Public health practitioners
Smokeless tobacco	Encourage dental teams to provide advice and support to individuals to stop the use of smokeless tobacco. Support community wide initiatives on tobacco use.	Users of smokeless tobacco	Dentists and DCPs Public health practitioners Community groups
Tobacco control	Support broader tobacco control agenda.	Whole population	Dentists and DCPs Public health practitioners PCTs and SHAs Professional Associations e.g. BDA Industry/Employers
Early detection	Train and support dentists to examine routinely the oral mucosa of all patients. Encourage and train GPs to undertake examination of the oral mucosa of tobacco users, heavy drinks and older people. Encourage and train pharmacists to recognise oral health problems that need referral to dentists or specialist care.	Whole population Smokers, heavy drinks and older people Whole population	Dentists and DCPs GPs Pharmacists PCTs

80 Reducing dento-facial injuries

- Creating a safer environment for play, recreation and travel;
- Reducing trauma caused by violence and binge drinking; and
- Implementing guidelines on first aid for dental injuries.

Topic	Good Practice	Target Group	Partners
Safe environment	Promote improvements in the quality of the environment e.g. safer play areas, leisure facilities, schools and colleges. Advocate guidelines on the use of protective head wear and gum shields during contact sports. Encourage availability of affordable gum shields.	Children and young people	Dentists and DCPs Schools Sports and leisure organisations Local authorities Public health practitioners PCTs
Reducing violent trauma	Support policies on reducing binge drinking amongst young people. Train and support dental teams in the recognition of children at risk of non-accidental injuries.	Young people and heavy drinkers Children	Dentists and DCPs Local authorities Police Drinks Industry Public health PCTs
First aid guidelines	Ensure schools, colleges and other settings are aware and adopt guidelines on first aid for dental injuries.	Children and young people	Dentists and DCPs Schools Sports and leisure organisations Local authorities Public health PCTs

81 Professional training and support

- Developing the health promoting knowledge and skills of the dental team;
- Incorporating oral health input into the training of other health professionals;
- Providing support if implementing and evaluating the oral health component of the LDPs; and
- Developing oral health links with other areas of health improvement.

Topic	Good Practice	Target Group	Partners
Capacity building	Provide high quality training to develop dental teams' health promoting knowledge and skills. Expand health promotion input into BDS and other training programmes. Develop role of DCPs in delivering high quality health promotion.	Dental students Dentists DCPs	Dentists and DCPs Universities and colleges Trainers NHS Workforce Confederation GDC
Training	Expand and develop oral health input into professional training of relevant health workers.	Midwives and health visitors GPs and practice nurses Pharmacists Sure Start staff Teachers Carers	Dentists and DCPs Universities and colleges Trainers
On-going support	Improve provision of health promotion resources and materials. Provide evidence-based guidelines for future interventions.	Dentists and DCPs	PCTs Universities and colleges NICE
Links	Review common risks for oral and general health and develop shared agenda for action.	Public health	Dentists and DCPs PCTs

82 Research and development

- Assessing the effectiveness and cost effectiveness of oral health interventions, particularly in relation to reducing inequalities;
- Determining the impact on oral health of other areas of health improvement; and
- Developing evaluation and monitoring systems.

Topic	Good Practice	Target Group	Partners
Effectiveness of oral health interventions	Improve the evidence base for oral health interventions, especially in relation to inequalities. Assess the cost effectiveness of different interventions. Encourage involvement of the dental team in the research agenda.	Dentists and DCPs	Universities and colleges NICE
Evaluation and monitoring	Improve the quality of the evaluation and monitoring of oral health interventions.	Dentists and DCPs	Universities and colleges NICE Postgraduate deans Primary care research networks

WORKFORCE

REQUIREMENTS

83 A diverse and skilled workforce is needed to implement this plan. PCTs will firstly wish to consider the advice that they receive on meeting the oral health needs of their residents. Consultants in Dental Public Health are trained specifically to assess oral health needs and provide advice on how these needs should be met. They are able to provide advice either individually or by heading up an advisory network covering a number of organisations. Oral health promotion is currently provided by a wide range of health professionals including dentists, other members of the dental team, oral health promoters, health visitors, school nurses, midwives and district nurses in a wide variety of settings. These can range from individual advice in a dental practice to child health clinics, children's centres, schools and other community development locations. The focus may be directly on oral health or as a contribution to other programmes like Sure Start or smoking cessation. However, there is a lack of information on the size of the wider oral health promotion workforce, the range of activities that are being undertaken and the extent to which they match need.

84 The *Primary Care Dental Workforce Review* (DH, 2004) estimated the future demands for, supply of, and training needs for the dental workforce. The review predicted an undersupply in clinical time in the range of 16% to 21% by 2011. However, the impacts of the new contractual arrangements for the provision of primary care NHS dentistry and the push towards a service that is focused on prevention have yet to be taken fully into consideration. The review made recommendations for the development of the dental workforce concentrating mainly on dental attendance and dental treatment provided by dentists, dental therapists and dental hygienists. The review did not include information on numbers of oral health promoters and their training needs. Consideration will be given to including this staff group in any updating of the review.

85 "*Shaping the Future of Public Health: Promoting Health in the NHS*" published in July 2005 is for and about all those who recognise themselves as the specialised health promotion workforce in the NHS in Primary Care and defines roles, functions and development needs and makes recommendations to improve the fitness for purpose of this workforce.

ORAL HEALTH PROMOTERS

86 Although dental teams will be more involved in health promotion, oral health promoters will continue to have a key role. They come from a wide range of backgrounds including that of a dental care professional or generic health promoter.

They are usually based within the salaried primary care dental services, but are becoming increasingly involved in the work of general health promotion departments. This is to be welcomed in the light of the plan's advocacy of joint working in line with the common risk approach. But the specialist skills of oral health promoters should be maintained and PCTs need to review career pathways to encourage recruitment and retention.

TRAINING AND DEVELOPMENT

87 Current oral health promotion training is provided as a diploma, a Certificate in Oral Health Education, open to and available at a number of colleges.

88 It is recommended that SHAs/NHS Workforce Development Confederations should work with Postgraduate Dental Deans to:

- train members of the dental team in health promotion interventions such as level I and level II smoking cessation interventions in collaboration with smoking cessation co-ordinators, as suggested in *NHS Dentistry: Options for Change* (DH, 2004);
- provide continuing professional development for oral health promoters, and consideration should be given to the inclusion of an oral health promotion element in both basic and masters' degrees in health promotion;.
- ensure oral health promoters have the necessary skills to train other members of the dental team and the wider public health workforce and inform managers and policy makers of the relevance of these skills to improving oral health; and
- provide training in health promotion evaluation methods. In this context academic establishments will be able to contribute to the updating of the evidence base for oral health promotion and its wider dissemination.

89 The Department of Health will work with the General Dental Council and Deans of Dental Schools to ensure that dental public health and preventive dentistry underpins dental education and the underlying principles are covered satisfactorily in undergraduate and other pre-qualification training courses.

APPENDIX I: ORAL HEALTH AND CROSS-CUTTING PUBLIC HEALTH INITIATIVES

Aims

- Our fundamental aim must be to create a society where more people (especially disadvantaged) are encouraged and enabled to make healthier choices. *Choosing Health*
- Important that people can act on messages about health – communicate consistent messages with partnership working and ensure that people can follow them up easily. *Choosing Health*

Targets

- Reduce the average intake of added sugar to 11% of food energy (currently 12.7%) *Food and Health Action Plan*
- Reduce adult smoking rates (from 26% in 2002) to 21% or less by 2010, with a reduction in prevalence among routine manual groups (from 31% in 2002) to 21% or less. *Delivering Choosing Health*

Delivery

- Defra to facilitate industry action to reduce sugar, fat and salt levels through jointly sponsored scientific scoping studies and research by March 2006. *Food and Health Action Plan*
- PCT Directors of Public Health are already expected to produce annual public health reports. Local partners should respond formally and set out actions they intend to take and progress against the previous years' recommendations. *Choosing Health*
- Standard set health information that can be linked to other local data sets for publication. Public health observatory reports for local communities at local authority level that will support Directors of Public Health. *Choosing Health*
- Local services can/will be delivered by:
  - Primary care and hospital trusts and other NHS organisations
  - Children's services, including schools
  - Other local authority services, such as housing, social care, leisure and recreation
  - The voluntary sector and community based organisations
  - Private businesses

Delivering Choosing Health

SUPPORTING INFORMATION

A. Main source of non-milk extrinsic sugars is from beverages, including soft drinks and alcoholic drinks, with a majority from carbonated drinks. *Food and Health Action Plan*

B. 34% of consumers in the IGD's Consumer Watch report of June 2003 identified clearer food labelling as the main way the food industry could help them make healthier food choices. *Food and Health Action Plan*

C. A quarter of children under 16 drink alcohol – on average around 10 units per week. *Delivering Choosing Health*

D. 22% of 15 year-olds smoke regularly. *Delivering Choosing Health*

E. Strongest predictors of dietary change are:

- knowledge of the recommendation to eat five or more servings of a variety of fruit and vegetables per day
- taste preferences
- self-efficacy (in particular confidence in food preparation). *Food and Health Action Plan*

F. DEFRA to facilitate industry action to reduce sugar, fat and salt levels through jointly sponsored scientific scoping studies and research by March 2006. *Food and Health Action Plan*

H. More accessible and responsive 'stop smoking' services, wider availability of nicotine replacement therapy *Delivering Choosing Health*

APPENDIX II: WHAT WORKS? THE EVIDENCE

Oral health interventions should be evidence-based. Common findings from effectiveness reviews of oral health promotion initiatives are outlined here and may be helpful in planning local interventions.

ORAL HEALTH EDUCATION

Improving individuals' knowledge of oral health can be achieved through oral health education but the clinical, behavioural and health significance of this is unknown.

Oral hygiene education on an individual level is effective for reducing plaque levels. However these produce only short-term changes. Recent evidence shows that school-based tooth brushing campaigns can be effective if toothbrushes and fluoridated toothpaste are supplied over a period of time and home and long-term school support is provided.

Oral health messages should be simple, appropriate and build on existing beliefs. Simple teaching methods and materials can be used effectively for complex scientific messages.

Preventive and clinical approaches to oral health promotion can be effective in preventing tooth decay. However those in greatest need are least able to benefit from this.

Mass media campaigns are ineffective at promoting either knowledge or behaviour change. They may have some value in raising awareness and agenda setting.

JOINT WORKING

Information alone does not produce long-term behaviour changes. Focusing action on common risk/health factors provides an opportunity for joint working with other health professionals and agencies. Such an approach reduces duplication of effort.

Personnel from non-health sectors, such as schools and workplaces, have effectively conducted several oral health promotion activities focusing on improving oral health knowledge. There is evidence of spread of effect to other family members from these settings.

SUGAR CONSUMPTION

Very few studies have assessed the effect of oral health promotion on sugar consumption. Those studies that have attempted to alter sugar consumption have used self-reported outcome measures that have limited validity. More recent evidence shows that policies which reduce sugar consumption may be a useful way of preventing tooth decay.

FLUORIDATION

Water fluoridation is effective at preventing dental caries particularly in areas of poor oral health. Epidemiological studies and independent reviews of the relevant literature have consistently failed to find evidence that fluoride in water, at or around one part per million, has any effect on the health of the body other than reducing tooth decay. Fluoride toothpaste is another effective method of delivering fluoride. The use of fluoride supplements in schools has been shown to be effective in caries prevention but regular use is unlikely to be sustained at home by those most in need.

TRAUMA

Regulating and encouraging the use of properly fitted mouth-guards by players in high contact team and field sports can reduce oral trauma.

CANCER SCREENING

Limited evidence exists on the effectiveness of screening for the early detection of oral cancers and cannot be recommended for a whole population strategy.

OLDER PEOPLE

Most interventions have focused upon school children. Older people can however benefit from oral health promotion provided the appropriate support is given. For example, programmes providing oral health education and oral hygiene skills training for the carers of older people.

BEHAVIOURAL CHANGE

Programmes using more innovative approaches than the medical/behavioural model have more potential for achieving longer-term behaviour changes. Additionally, tailored approaches based upon active participation and addressing social, cultural and personal norms offer longer-term changes in behaviour compared with simple one-off interventions.

Environmental factors influence the ability to change behaviours. Interventions need to focus upon creating supportive environments for oral health. For example, programmes that seek to alter the availability, cost and appeal of food and drink choices in schools are altering the social environment to facilitate healthier actions e.g. by increasing the consumption of water in schools throughout the day.

COST

It is difficult to quantify the cost effectiveness of oral health promotion programmes and little evidence has been published to date. Traditional oral health education using health professionals is relatively costly and this therefore highlights the need to consider and plan activity carefully in order to maximise long term impact.

DEVELOPING INTERVENTIONS TO IMPROVE ORAL HEALTH

These are some of the main recommendations from oral health promotion effectiveness reviews.

- Researchers and practitioners need to improve the quality of the design of interventions.
- There is also a need to improve the quality of the evaluation used. Both quantitative and qualitative approaches are needed.
- A set of standardised and validated outcome measures is required to evaluate interventions.
- There should be wider use of appropriate, theoretical models that adopt a more progressive approach.
- Practitioners should adopt a combination of strategies in addition to educational approaches – using other public health strategies beyond the development of personal skills and the re-orientation of health services.
- It is essential to conduct full and detailed needs assessments. Developing appropriate interventions based on the needs of the target population is more likely to produce an effective outcome.

- Decision-makers should be targeted more through advocacy and lobbying for policy changes.
- Ways of integrating oral health into general health promotion need to be explored.
- Community development approaches focusing on oral health issues need to be implemented and fully evaluated.

Based upon these findings, the following recommendations can be made for the development, implementation and evaluation of oral health promotion interventions.

- Place emphasis on addressing inequalities to achieve sustainable long-term improvements in oral health;
- Adopt a common risk factor approach in which oral health interventions focus upon altering conditions and risks common to other chronic conditions and diseases;
- Recognise the importance of addressing the underlying social, economic and environmental determinants of oral health, thus, working 'upstream';
- Develop locally sensitive interventions that address local needs and priorities by joint working between health professionals and local communities;
- Adopt a range of complementary public health strategies in addition to oral health education activities;
- Work in collaborative partnerships across sectors, agencies and organisations to promote oral health;
- Use appropriate evaluation methods and outcome measures to assess the effects of interventions.

APPENDIX III: FURTHER INFORMATION

CURRENT INITIATIVES

In *Saving Lives: Our Healthier Nation*, the Government first set out a national strategy for improving health. To underpin this, a new health poverty index is being developed that combines data about health status, access to health services, uptake of preventive services, and opportunities to pursue and maintain good health. Oral health and the determinants of oral health should form an integral part of this drawing on existing data sources like those referred to in paragraphs 9-15.

The Government has launched a range of initiatives to tackle health inequalities and the wider problems associated with social exclusion, with an emphasis on tackling the root causes of ill health to improve the health of all and reduce inequalities. The aim is to address social exclusion through community participation, joint working across agencies, a recognition of the need for early interventions to prevent lifetime disadvantage, and trying out innovative solutions which if successful can be adopted as mainstream working practices.

The Public Health White Paper *Choosing Health: Making Health Choices Easier*, published in November 2004, sets out key principles for providing the support that people need in making their own choices to improve health. The aim is for everyone to achieve better health and wellbeing through healthier choices and for people in disadvantaged areas to have the opportunities of living healthier lives. The White Paper recognised that many of the issues affecting people's general health are important for oral health too.

http://www.dh.gov.uk/PublicationsAndStatistics

Delivering Choosing Health: Making Healthier Choices Easier was published in March 2005 and is the delivery plan for Choosing Health. It recognises that in order to help people make healthier choices, support and services for people need to be provided at a local level. It recognises the vital importance of co-delivery between the NHS and local government and other partners in local communities, business and the voluntary and community sectors. National , Regional, sub-regional and local responsibilities are identified for the new focus on prevention and lifestyle advice within NHS dentistry.

http://www.dh.gov.uk/PublicationsAndStatistics

Modernising NHS Dentistry: Implementing the NHS Plan highlighted that oral health promotion can be worked into other initiatives supporting children, older people, black and ethnic minority ethnic groups and deprived populations. The Government is currently working with the Transcultural Oral Health Centre to fund a training package for health promoters and the dental profession on ethnicity and oral health issues.

More information on *Modernising NHS Dentistry: Implementing the NHS Plan* can be found on the Department of Health website at

http://www.dh.gov.uk/PublicationsAndStatistics

Modernising Dentistry: Delivering Change points out that while oral health for both adults and children in England is the best that it has ever been, inequalities still exist between and within regions in the country. Better access to NHS dentistry must be assured. To this end, by 2006 investment in NHS dentistry will be running at £250 million a year extra compared with 2003-04. The equivalent of 1,000 more dentists will be recruited by October 2005 and there will be a 25% increase in training places for dentists from 2005. Local commissioning of dentistry will be implemented from April 2006, and PCTs will be required to provide the appropriate services to meet the local population's reasonable oral health needs.

More information on *Modernising Dentistry: Delivering Change* can be found on the Department of Health website at

http://www.dh.gov.uk/PublicationsAndStatistics

The National Service Framework (NSF) for Children, Young People and Maternity Services identifies that oral health is an integral part of general health. The oral health needs of children and young people, particularly those who are vulnerable, should be identified in local health promotion programmes. PCTs should ensure adequate service provision for all children. Sugar-free medicines should be prescribed wherever possible.

More information on the NSF can be found on the Department of Health website at http://www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/ChildrenServices/ChildrenServicesInformation/fs/en

A number of ongoing initiatives related to oral health are outlined below.

Brushing for Life schemes involve the distribution of toothbrushes and toothpaste to parents of young children by health visitors.

The **national healthy school standard** requires that a school presents consistent, informed messages about healthy eating through the food on offer in vending machines, tuck shops and school meals, provides, promotes and monitors healthier food at lunch, breaktime and breakfast clubs, and includes education on healthier eating on its curriculum.

More information on the healthy schools programme can be found at http://www.wiredforhealth.gov.uk

Under the **school fruit and vegetable scheme**, every child aged four to six in LEA maintained infant and primary schools is entitled to a free piece of fruit each school day.

More information on the School Fruit and Vegetable Scheme can be found at http://www.5ADAY.nhs.uk

Health action zones (HAZs) bring together a range of organisations to tackle health inequalities in some of the most deprived areas in England. The 26 health action zones cover approximately 13 million people.

More information on health action zones can be found at http://www.haznet.org.uk

The **healthy living centre** initiative has a budget of £300 million through the New Opportunities Fund. The programme promotes health in its broadest sense. Priority is given to projects that focus on areas of deprivation and the needs of people who experience worse than average health. There is no one model for a project – many are not based in a building but are outreach.

More information on healthy living centres can be found on the Department of Health website at http://www.dh.gov.uk

More than 500 **Sure Start** local programmes work with parents and parents-to-be to improve children's life chances through better access to family support, advice on nurturing, health services and early learning. Sure Start programmes are concentrated in neighbourhoods where a high proportion of children are living in poverty. They aim to improve local services for families with children under four, and spread good practice to everyone involved in providing services for young children.

More information on Sure Start can be found at http://www.surestart.gov.uk

The **neighbourhood renewal** strategy aims to narrow the gap between the most deprived neighbourhoods and the rest of England, and make a real impact in poorer neighbourhoods through better health, skills, housing and physical environment, and lowering unemployment and crime. Local strategic partnerships bring together the different parts of the public sector and the private, business, community and voluntary sectors at local level. A local neighbourhood renewal strategy sets out the key issues in that particular area, including health and oral health where it is considered a local priority, and the action to be taken.

More information on neighbourhood renewal can be found at http://www.neighbourhood.gov.uk

The **5 A DAY programme** aims to promote the consumption of fruit and vegetables to reduce the risk of heart disease and some cancers. Community initiatives to reduce inequalities in consumption and increase access to fruit and vegetables are currently underway funded by the Big Lottery Fund. More information on the 5 A DAY programme can be found at http://www.5ADAY.nhs.uk

Details of other relevant initiatives can be found on the following websites.

Children and Young People's Unit
http://www.cypu.gov.uk

Food Standards Agency http://www.food.gov.uk

Health Development Agency
http://www.hda-online.org.uk (now merged with NICE)

Social Exclusion Unit
http://www.socialexclusion.gov.uk

There are details of the national cancer plan and the national service frameworks for coronary heart disease, mental health, children, diabetes and older people on the Department of Health website at http://www.dh.gov.uk

GUIDANCE

Guidelines for oral health care for a number of vulnerable groups have been produced by:

- The British Society for Disability and Oral Health (for people with learning disability, physical disability, mental illness, living in residential care, requiring palliative care), available at http://www.bsdh.org.uk/guidelines.html;
- The Royal College of Surgeons of England (people with a learning disability, undergoing chemotherapy/radiotherapy/ bone marrow transplant), available at http://www.rcseng.ac.uk/dental/fds/clinical_guidelines; and
- The British Dental Association (older people, homeless people), available at http://www.bda-dentistry.org.uk.

A simple oral health assessment proforma is available as an appendix to the British Society for Disability and Oral Health guidelines on oral health care for long-stay patients and residents, at http://www.bsdh.org.uk/guidelines/longstay.pdf. This can be used to identify the oral health care needs of vulnerable people entering long-stay institutions such as residential homes, psychiatric hospitals and prisons.

APPENDIX IV: REFERENCES

Blot WJ, McLaughlin JK, Winn DM. et al. (1988) Smoking and drinking in relation to oral and pharyngeal cancer. *Cancer Res* 1988 **48**: 3282-87

Department of Health (1998). *Our Healthier Nation*. The Stationery Office. London.

Department of Health (2000). *Modernising NHS Dentistry*. The Stationery Office. London.

Department of Health (2002). *NHS Dentistry – Options for Change.* Department of Health, London.

Department of Health (2003). Health and Social Care (Community Health and Standards) Act 2003. Department of Health, London.

Department of Health (2004). *Choosing Health: Making Healthier Choices Easier.* Department of Health, London.

Department of Health (2004). Report of the Primary Care Dental Workforce Review. Department of Health, London.

Department of Health (2005). *Delivering Choosing Health: Making Healthier Choices Easier.* Department of Health, London.

Department of Health (2005). *Choosing a Better Diet: a Food and Health Action Plan.* Department of Health, London.

Department of Human Services (1999). *Promoting oral health 2000-2004: Strategic directions and framework for action*. Health Development Section. Melbourne.

Harker R and Morris J (2005). Children's Dental Health in England 2003. Office for National Statistics, London.

Kay, E and Locker, D (1996). *Is dental health education effective? A systematic review of current evidence*. Community Dentistry and Oral Epidemiology, **24**, 231-235.

Kelly M, Steele J, Nuttall N, Bradnock G, Morris J, Nunn J, Pine C, Pitts N, Treasure E and White D (2000). *Adult Dental Health Survey 1998*. The Stationery Office, London.

National Institute for Clinical Excellence (2004): Dental Recall - Recall interval between routine dental examinations. London, NICE.

Pitts NB, Nugent ZJ, Thomas N, and Pine CM. (2005) BASCD Survey Report: The dental caries experience of 5-year-old children in England and Wales (2003/4) and in Scotland (2002/3). Surveys co-ordinated by the British Association for the Study of Community Dentistry Community Dental Health **22**:46-56.

Sheiham A and Watt R. (2000). The common risk factor approach: a rational basis for promoting oral health. *Community Dentistry and Oral Epidemiology,* **28**, 399-406.

Sprod A, Anderson R and Treasure L (1996). *Effective oral health promotion*. Health Promotion Wales. Cardiff.

Watt R (2005). Strategies and approaches in oral disease prevention and health promotion. Bulletin of the World Health Organization, **83**, 1-7.

World Health Organization (1986). *The Ottawa Charter for Health Promotion.* World Health Organization, Geneva.

WHO Oral Health Country/Area Profile Programme website (2005). http://www.whocollab.od.mah.se/countriesalphab.html

APPENDIX V: GLOSSARY OF TERMS

Oral health: A standard of health of the oral and related tissues which enables an individual to eat, speak and socialise without active disease, discomfort or embarrassment and which contributes to general well-being (Department of Health, 1994).

Oral mucosa: The mucous membrane lining the mouth.

DMFT/dmft: An indicator of the level of dental decay obtained by calculating the number of decayed, missing and filled teeth (dmft score). DMFT refers to decay experience in the permanent or secondary dentition and dmft to the decay experience in the primary dentition. The average score is reported for a population.

Oral cancer: Malignant tumour of the mouth.

Dental caries: The material remaining after tooth substance has been destroyed as a result of attack by acids produced by plaque bacteria from sugars in the diet. Commonly referred to as tooth decay.

Periodontal disease: Disease of the gums and supporting structures of the teeth. Commonly referred to as gum disease.

Erosion: Chemical dissolution of teeth.

Fluoride: A chemical compound that helps to prevent dental caries.

Water fluoridation: Addition of fluoride to a population's drinking water to reduce tooth decay. Fluoride may be added to other substances e.g. milk, toothpaste.

Dental trauma: Tooth loss or damage caused by physical injury.

Fissure sealants: A plastic-like material placed in the grooves and pits of the biting surfaces of the back teeth to prevent decay starting in these susceptible sites.

Common risk factor approach (CRFA): An approach to promoting general health by controlling a small number of risk factors which can have a major impact on a large number of diseases. This is a cost-effective alternative to disease-specific approaches.

Dental Care Professionsals (DCPs): This term commonly refers to members of the wider dental team, such as dental therapists, hygienists, and dental nurses.

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