National oral health improvement strategy for priority groups: frail older people, people with special care needs and those who are homeless.
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Acknowledgements

The Chief Dental Officer acknowledges the contribution made to the National Oral Health Improvement Strategy for Priority Groups by the National Older People’s Oral Health Improvement Group, the National Homeless Oral Health Improvement Group and by organisations and individuals who provided comments on the document.

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Edinburgh
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Produced for the Scottish Government by APS Group Scotland
DPPAS12092 (05/12)

Published by the Scottish Government, May 2012
For some groups, such as frail older people and those who are living with disability, maintaining oral health is particularly challenging.

Being homeless can also make this very difficult, as people in this situation may find achieving basic self-care problematic due to their circumstances. Using dental services in traditional ways may not be easy. People living with a disability or who are older and frail, and others who are experiencing homelessness, should have the same opportunities as others to enjoy good oral health. Such individuals should have the opportunity to prevent oral diseases and have the information they need to access services when they need to do so.

There are many effective measures we can take to prevent oral diseases if action is taken early and we have already begun to see substantial improvements in the oral health of children as the Childsmile preventive programme has been rolled out across Scotland. Many aspects of the programme could also help improve the oral health of vulnerable adults.

This Strategy introduces a range of new, specially tailored Smile programmes, targeted at preventing oral disease for these priority groups. Childsmile and the new Smile programmes will be brought together under the title Smile Scotland, ensuring a consistent approach to improving oral health across Scotland.

I look forward to seeing the increased benefits which the plans set out in the Strategy will bring as the programmes are rolled out across Scotland.
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Executive Summary

1. Introduction

Preventing oral diseases helps keep treatment simple, prevents pain and suffering and helps people to stay healthy.

The National Oral Health Improvement Strategy for Priority Groups sets out the means by which the 2005 Dental Action Plan commitment, to develop preventive programmes for adults vulnerable to oral diseases, is to be achieved.

The new core national preventive programme *Smile*, will build on the well-established national preventive programme for children, *Childsmile*.

*Smile Core*, will encourage and support toothbrushing and preventive care across the priority groups identified in the Strategy, bringing together a number of key principles which are applicable to all the groups. These include; needs assessment, evidence-based prevention of oral disease, accessible information, staff training and appropriate services.

However, we know that the circumstances in which prevention of oral disease is carried out in each setting are slightly different, and there will be additional elements to the basic programme which address the specific needs of each of the priority groups:

*Smile: Older People and those with Special Care Needs* and *Smile: Homeless* will build on the excellent work which is already taking place in NHS boards across Scotland to improve oral health for adults who are more vulnerable to oral disease.
2. Key Issues Impacting on the Oral Health of Dental Priority Groups

Older People and those with Special Care Needs

As the number of older people rises and their complexity of care increases, there will be an associated rise in demands on the service and a change in the nature of care required.

Homeless People

Homeless people have a variety of challenges facing them. Many are affected by poor general health, low self-esteem and poorer than average dental health. They may have problems accessing facilities to carry out oral self-care and often have difficulty in accessing dental services.

3. Recommendations

The Smile Programme should encompass the following activities for each of the Dental Priority Groups categories identified above:

Older People and those with Special Care Needs

- An oral care plan should be developed according to the assessed needs of the individual. This should incorporate oral hygiene, care and treatment needs.

- Referral and throughcare protocols should be developed to assist those with special care needs. These should be documented. Such protocols should facilitate the smooth transition from child to adult services for young people with special care needs.

- Managers of care establishments should ensure that the diet and standard of oral hygiene assistance available to clients meets the necessary standard to promote and maintain good oral health and should ensure documentation of daily oral care.

- Brushing with a fluoride toothpaste containing at least 1,350 ppm fluoride should be encouraged, together with the use of fluoride mouthwash where there is a special need for this.

- Those at high risk of caries should have fluoride varnish professionally applied twice yearly (2.2% F).
• Those with active crown or root decay should have the opportunity to have 2,800 or 5,000 ppm fluoride toothpaste prescribed professionally. Prophylactic use should be considered for those at very high risk of dental decay.

• Toothbrushes and interdental cleaning aids should be available to care home residents.

• Educational material and training should be made available to carers and care home managers. Managers should implement the NHS Quality Improvement Scotland (QIS) best practice statement and identify an oral health champion within the facility.

• Supporting resources for other adults with additional care needs should be developed to take account of the specific needs of younger dependent people.

• Carers and care home staff should be aware of the potential role of the whole team within the Salaried and General Dental Services in meeting client treatment needs and work with them to develop clear patient care pathways.

• Care home managers should raise client awareness of the National Care Standards and collaborate with key organisations such as Healthcare Improvement Scotland, Scottish Care and corporate care providers to implement them. Any future revisions of the standards should highlight the role of the Community Dental Service in the provision of oral healthcare to those with special care needs.

• NHS boards should collaborate with the salaried dental service in highlighting the role of non-dental staff can play in achieving good oral health for those with special care needs.

• Dental Health Support Workers should be fully supported to provide oral health education within care homes and to act as the key link between public health nurses and dental professionals for those being cared for at home.

Homeless People

• All homeless people should have the opportunity to have their oral health needs assessed by referral to an appropriate dental team member* and provision made for ongoing care according to their needs, in association with other staff members.
- Homeless people should have the opportunity to brush twice daily with a fluoride toothpaste containing at least 1,350 ppm fluoride and dental packs containing toothbrushes and paste should be distributed at key facilities such as hostels and night shelters. Drinking water should be made available to clients.

- Oral health education materials and information on dental services should be available to homeless people at key locations and oral health champions identified. Staff working in hostels and outreach teams should play a facilitating role in disseminating information and helping with the making of dental appointments for clients who need assistance.

- The Salaried Dental Services should continue to play a lead role in services for people who are homeless, including the training of oral health champions in collaboration with oral health promotion teams.

- Drop-in dental care services, which offer a staged approach to care and are closely aligned to other services for homeless people, should be available. An individualised basic care plan should be offered to clients.

- NHS boards should maintain a list of contact details for dedicated drop-in dental care facilities for the homeless and disseminate these to key services for the homeless.

- NHS boards should maintain a list of NHS dentists willing to accept homeless clients.

* If all of the natural teeth have been lost, patients can be referred to a dentist or directly to a registered clinical dental technician. However, it is important that all individuals access an assessment of the soft tissues of the mouth with onward referral to a dentist as appropriate.
Chapter One
Introduction
Access to preventive care, including oral health care, should be central to the health care of all individuals across Scottish society, regardless of life circumstances.

In 2005, the Dental Action Plan\(^1\) set out the commitment of the Scottish Executive to ensuring that the most vulnerable adults in our society should have access to preventive dental programmes which would assist them in maintaining good oral health. This work has had the ongoing support of the current Scottish Government, with significant investment in exploring the oral health needs of the most vulnerable adults, and in planning for how these needs might best be met. This strategy will build on the 2005 Dental Action Plan, bringing together the lessons learned from commissioned work across Scotland, and setting out a core national preventive programme for those with special care needs, including frail older people and those who are homeless.

**Key Issues**

- Some important risk factors for oral diseases such as poor diet, smoking and inappropriate alcohol consumption, are the same as those for major diseases, including cardiovascular disease, respiratory diseases, diabetes and cancer.\(^2\) Addressing these common risk factors will help maintain both oral and general health.

- Tooth loss is associated with psychological and social disability.\(^3\) Preventing oral diseases will help to reduce this.

- Dental problems are associated with pain and suffering.\(^3\) Preventing oral diseases early maintains a healthy functioning dentition and helps to reduce this.

- For older and vulnerable people, treatment can be more complicated, and preventing oral diseases helps keep treatment simple and helps people to stay healthy.\(^4\)
More people are keeping some natural teeth for life and will need continuing care into older age.\textsuperscript{5,6} It is important to plan for how these needs will be met.

The two most common oral diseases, dental decay and gum disease are largely preventable by reducing the frequency of sugar consumption and by carrying out good oral hygiene and using fluoride toothpaste.\textsuperscript{7} The most serious oral disease, oral cancer, is also amenable to prevention.\textsuperscript{7} The development of oral cancer is strongly linked to smoking and excess alcohol consumption, although the risk factors for this disease are more complex, with additional factors such as diet\textsuperscript{8,9} and deprivation playing a part.\textsuperscript{10}

Poverty and challenging life circumstances can often make it more difficult for people to stay healthy.\textsuperscript{11} \textit{Equally Well, report of the Ministerial Taskforce on Health Inequalities}\textsuperscript{12} has identified the need for specific, personalised programmes to improve the oral health experience of vulnerable groups, with improved access and quality of services.

Oral health services for vulnerable adults should be flexible enough to meet their needs in circumstances where they may not be ready or able to access services through traditional routes such as general dental practice. The Salaried Dental Services have a key role to play in signposting patients to appropriate services, providing special care dentistry where required, and in providing leadership in training. Staff with a remit for oral health improvement such as oral health promoters also have a key role to play in providing training to key staff groups.

The Strategy sets out where we are now and what we are doing to improve the oral health of those adults who are most vulnerable to poor oral health. It will build on the lessons we have learned from local and national pilot projects, and will set out what steps we will take to ensure that NHS boards and local authorities in Scotland play their part in preventing oral diseases and the suffering which flows from these. The voluntary sector also has a valuable role to play.
The Healthcare Quality Strategy for NHSScotland\textsuperscript{13} made a commitment to bringing about measureable improvements to the healthcare experience of patients in Scotland, with a focus on understanding the needs of different communities, eliminating discrimination, reducing inequality, protecting human rights, and building good relations by breaking down barriers which prevent people accessing the care and services they need.

As the National Oral Health Improvement Strategy for Priority Groups is taken forward, it will be fully assessed in terms of its impact on equalities, through a Health Inequalities Impact Assessment (HIIA). This will include a mandatory Equalities Impact Assessment (EQIA), optimising its potential for reducing oral health inequalities across Scotland. These measures will help prevent oral diseases amongst those who are most susceptible to the problem.
This chapter looks at changes over time in the number of people in each of the priority groups; older people and those who have special care needs, and people who are homeless.

2.1 Population Trends: Scotland

On June 30th 2010, the estimated population of Scotland was 5,222,100, the highest recorded since 1977. The greatest increase was seen in older age groups. A 14% increase was observed in those aged 75 and over. (Figure 1). Similar growth was seen in the 45-59 age group, a factor which will continue to feed growth in the population of older people over the next 30 years.

Figure 1.
The changing age structure of Scotland’s population, 2000-2010

Trend data indicate that the number of older people in Scotland will continue to rise in future, outpacing other population groups. Based on 2010 estimates, it is predicted that by 2020 the number of people of pensionable age will grow by 3%, rising more rapidly thereafter, to reach 1.32 million by 2035. This represents a 26% rise from 2010 figures. The number of people aged 75 and over is also projected to rise, by 82% from 2010 levels (Figure 2), reaching 0.74 million in 2035.\textsuperscript{15}

**Figure 2.**

The projected percentage change in Scotland’s population by age group, 2010-2035

![Percentage change chart](http://www.gro-scotland.gov.uk/statistics/theme/population/projections/scotland/2010-based/figures.html)
2.2 Population Trends: The Dental Priority Groups

2.2.1 Adults Living with a Disability, Health Problem or Long-term Condition

It has been estimated that 952,500 (18.5%) of people in households in Scotland have a long-standing illness, health problem, or a disability. Conditions include: blindness or severe visual impairment, deafness, physical disability, mental health problems, learning disability or chronic illness. The proportion affected has remained steady over the past 10 years and is very similar to the number of people reported to be suffering from such conditions in the 2001 Census (20%).

People Cared for within the Care Home Setting

The 2010 Scottish Care Home Census identifies the number of people cared for within the care home setting.

- At March 2010 there were 38,042 residents being looked after in 1,375 registered care homes; 33,941 people were accommodated in care homes for older people, and 545 residents were accommodated in care homes for physically disabled people. Eighty-two care homes provided care for 1,063 adults with mental health problems and a further 2,214 adults were looked after in care homes for adults with learning disabilities.

- A further 279 people were cared for in accommodation for adults with brain injury, alcohol- and drug-related problems. A number of people with HIV and AIDS and mothers and babies were also accommodated in this setting.

The Scottish Dental Needs Assessment Programme (SDNAP) recently highlighted the changing nature of the population of people looked after in the care home setting as changes in national policy encouraged people to remain in their own homes for as long as possible. Those entering care homes are commonly frailer and more vulnerable than was previously the case.

People Cared for at Home

As of the last week in March 2010, there were 66,222 people identified as people receiving care at home. The number has declined over the last three years. Table 1 sets out the profile of this client group.
# Table 1.

## Age, Client Group and Gender of Clients Receiving Home Care Services, 2010

<table>
<thead>
<tr>
<th>Client Group</th>
<th>Age Groups</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-64</td>
<td>65-74</td>
</tr>
<tr>
<td>Older people</td>
<td>84</td>
<td>4,193</td>
</tr>
<tr>
<td>People with dementia</td>
<td>108</td>
<td>400</td>
</tr>
<tr>
<td>People with mental health problems</td>
<td>1,733</td>
<td>641</td>
</tr>
<tr>
<td>People with learning disabilities</td>
<td>3,487</td>
<td>420</td>
</tr>
<tr>
<td>People with physical disabilities</td>
<td>5,072</td>
<td>3,729</td>
</tr>
<tr>
<td>People with addiction problems</td>
<td>272</td>
<td>192</td>
</tr>
<tr>
<td>Palliative care</td>
<td>60</td>
<td>49</td>
</tr>
<tr>
<td>Carer</td>
<td>60</td>
<td>18</td>
</tr>
<tr>
<td>People in other vulnerable groups</td>
<td>916</td>
<td>178</td>
</tr>
<tr>
<td>Not known</td>
<td>757</td>
<td>15</td>
</tr>
<tr>
<td>Male</td>
<td>6,106</td>
<td>4,067</td>
</tr>
<tr>
<td>Female</td>
<td>6,443</td>
<td>5,768</td>
</tr>
<tr>
<td><strong>Total clients</strong></td>
<td><strong>12,549</strong></td>
<td><strong>9,835</strong></td>
</tr>
</tbody>
</table>

Source: Home Care Statistical Return

All figures relate to the last week in March (that is the week which includes 24 March 2010).

To assist independent living for as long as possible, local authorities provide home care which includes personal care services, such as oral hygiene services for those with assessed need.\(^1\)
2.2.2 People who are Homeless

An estimated 55,227 applications were made to local authorities under the Homeless Persons Legislation in 2010-11, a 3% decrease compared to 2009-10.19

People experiencing homelessness include:

- Roofless people: rough sleepers, victims of fire or flood, newly arrived immigrants.
- Houseless people: those living in emergency or temporary accommodation provided for homeless people: night shelters, hostels, refuges.
- People staying in bed and breakfast accommodation unsuitable for long stay as they have no other accommodation.
- People staying in institutions because they have nowhere else to stay.
- People facing eviction.
- People with insecure tenure.
- Squatters and young people who have been asked to leave the family home.
- People with short-term permission to stay with friends or relatives.
- People sharing housing in unreasonable circumstances.

The majority of households applying under legislation were single-person households (61%, and predominantly male). Single parents, mainly women, accounted for the next largest group (24%).19 However, the true number of people experiencing homelessness remains unknown.
Chapter Three
Oral health
This chapter considers the various oral diseases, changes to oral health over time and the impact of deprivation on oral health. It looks at each of the priority groups and considers their oral health status. It also considers the impact of medical conditions and cognitive disorders.

3.1 Oral Health in the United Kingdom

3.1.1 Tooth Loss

Since 1998 oral health has improved steadily across the United Kingdom. The latest Adult Dental Health Survey in 2009\(^3\) showed that 94% of adults across England, Wales and Northern Ireland had some natural teeth compared to only 87% in 1998. Comparable data available for Scotland reported that 88% of Scottish adults had some natural teeth.\(^5\) This is a considerable improvement on the previous figure of 82% reported in 1998.

3.1.2 Periodontal Disease

Periodontal disease* is an important cause of tooth loss, particularly in older age. In 1998, 12% of all UK adults with their own teeth had moderate periodontal disease\(^3\) (gum pocketing of 4mm or more).

Poor oral hygiene contributes to both tooth decay and gum disease. Many older patients suffer from long-term conditions such as diabetes, which increases the risk of developing periodontal disease.\(^20\) Rheumatoid arthritis, which influences the ability of patients to adequately control oral hygiene, also increases the risk.\(^21\) Medications such as calcium channel blocking agents for cardiovascular problems are linked to enlargement of gingival tissues.\(^22\) Smoking is also known to contribute significantly to the development of periodontal disease.\(^23\)

* Disease of the gums and supporting structures of the teeth.
3.1.3 Oral Cancer

Oral cancers* are among the most serious of oral diseases. In 2007, 5,410 people across the UK were diagnosed with some form of oral cancer, with 673 of these cases occurring in Scotland. The disease occurs more commonly in men than women, and incidence increases with advancing age. In 2008, across the UK 1,822 deaths from one of the oral cancers were reported, 228 of which were in Scotland. Survival is poor, with approximately half of those diagnosed dying from their condition within five years of diagnosis. Early detection is important for improved survival, and dental SIGN guidelines include checking for signs of oral cancers during routine dental visits. Major risk factors for the oral cancers are smoking and drinking, as well as poor diet and nutrition. Human papillomavirus and immunosuppression have also been identified as significant risk factors.

3.2 Oral Health in Scotland

3.2.1 Tooth Loss and Dental Decay

The 2010 Scottish Health Survey, which reports on the health of adults in Scotland, found that 89% of adults in Scotland had some natural teeth (91% of men and 88% of women), very close to the national target of 90% of adults to have some natural teeth by 2010. The number of teeth lost rose steadily through the age ranges, until by the age of 75 and above, 57% of men and 46% of women had some natural teeth. There was a small improvement in oral health between the 2008 Survey and that carried out in 2010.

* Oral cancers are defined here by ICD-10 codes: C00-06, C09, C10, C12-14, which includes cancers of the lip, oral cavity, tonsil, pyriform sinus, hypopharynx and other, ill-defined sites of this area.
Dental health also is improving amongst younger people. The 2009/2010 National Dental Inspection Programme (NDIP) Report on the oral health of 5-year-old children in Scotland\textsuperscript{33} reported that 64% of this age group were now free from obvious dental decay and encouragingly, the 2011 NDIP Report on the oral health of Primary 7 children found that 69% of children were free from dental decay.\textsuperscript{34}

These improvements should be reflected in the dental health of the Scottish adults of the future if recent trends are sustained.

### 3.2.2 Periodontal Disease

The 2008\textsuperscript{32} Scottish Health Survey reported that 30% of men and 27% of women in Scotland had experienced bleeding gums within the last month, following tooth brushing or flossing, indicating underlying gum disease. The problem was commoner than toothache and declined with advancing years as teeth were lost. For adults with natural teeth, the proportion of those teeth affected by gum conditions was found to be higher with advancing years.

### 3.2.3 Oral Cancer

In 2007, 673 new cases of cancer of the oral cavity were reported in Scotland. Scotland saw a steeper rise in the number of new cases than elsewhere in the United Kingdom.\textsuperscript{24} Although oral cancer is relatively rare in those under 45 years of age, worrying, the disease has also been increasing in younger people. Progress to reduce deaths from oral cancer is proving difficult to achieve, with approximately half of those who develop the disease still dying from their condition.\textsuperscript{26}

### 3.2.4 The Impact of Deprivation on Oral Conditions

Being from a deprived community makes it more likely that a person may suffer from poorer oral health. The effect is observed from childhood, and shows a clear gradient across society.\textsuperscript{35}

- The 2010 National Dental Inspection Programme\textsuperscript{33} reported ongoing inequalities in the oral health of Primary 1 children, with only 46.5% of children in the most deprived communities having no obvious dental decay experience compared to 78.7% in the least deprived.
• Only 5% of men from more affluent communities had no natural teeth, compared to 13% in the most deprived areas. For women, the difference is even greater, with equivalent total tooth loss figures of 8% and 20%.  

• Oral cancer incidence is also linked to deprivation. Between 1976 and 2002, there was a general increase in oral cancer incidence with increasing deprivation. The effect is more pronounced in men than women. Smoking and alcohol consumption constitute major risk factors, acting together to increase oral cancer risk. While smoking has reduced across all social groups, cigarette use is lower in more affluent communities. The relationships between alcohol consumption, deprivation and oral cancer incidence are less clear in Scotland. Oral cancer is also associated with reduced consumption of fruit and vegetables, which is seen more commonly in more deprived communities.

3.3 The Oral Health of Dental Priority Groups

3.3.1 The Oral Health of those with Special Care Needs

Adults with either physical or intellectual impairments may face significant challenges in maintaining oral health. Their dental treatment may also be more difficult to carry out, either due to a pre-existing medical condition, disability or frailty. The condition of the mouth may be compromised by prescribed medication.

Dental disease may also place medically compromised individuals at increased risk of ill health, exacerbating existing medical conditions. For adults with special care needs who are affected by these issues, preventing dental disease is central to the management of their overall condition, helping to reduce the complexity of care required.

For those who care for dependent or frail people, the effects of lack of attention to oral health may not always be obvious without training, and the information available on the oral health of people in care homes in Scotland identifies that there is scope for improvement.
A survey of residential and nursing home residents in Glasgow\textsuperscript{36} reported that dental treatment was needed by approximately half of residents, with 6% needing urgent treatment. Living without care and attention to oral health treatment needs often leads to unnecessary pain and discomfort and difficulty when eating. In the survey, three-quarters of residents had lost all their natural teeth and some of them had no dentures. The provision of dentures when teeth have been lost restores dignity and allows an individual to eat and speak without embarrassment.

In many cases, residents in care homes only require basic oral care provision and ongoing daily preventive maintenance. This could easily be provided if carers had the information and training they need to care for the oral health of patients, and to refer to a dentist when this is needed.

In the Glasgow survey:

- Over three-quarters of care home residents needed attention to basic oral hygiene.
- A third needed fillings or extractions (33%).
- Of those who had kept some of their own teeth, 73% had tooth decay.
- A worrying 38% showed signs of disease in the soft tissues of the mouth.

Despite a genuine willingness to do the best for their residents, the survey found that care home staff are not always aware of the best ways to look after oral health.
3.3.2 The Oral Health of Homeless People in Scotland

Homeless people may find it difficult to maintain oral health. A recently commissioned survey\textsuperscript{37} as part of the “Smile4life” Programme organised by the National Homeless People’s Oral Health Improvement Group, to find out more about how being homeless affects the health and oral health of people in Scotland, found that homeless people suffer from problems likely to affect both general health and oral health:

- 85% smoke cigarettes.
- 31% drink alcohol at least once per day.
- 68% have used drugs.
- Depression is common.

With respect to oral health:

- Tooth decay is common, with homeless people tending to opt for extractions rather than for fillings.
- Losing all the natural teeth is relatively uncommon (6%), but in this situation is much more common in some areas than others.
- Attending the dentist may be difficult for homeless people with the vast majority only attending when they have problems.
- Although 42% had attended the dentist within the last year, only a third were registered.
- Over three-quarters would like to drop in for dental treatment without an appointment.
- Just under half found it difficult to get dental treatment.
- Many experienced extreme dental anxiety.
- Over a quarter of the participants were “always” embarrassed and self-conscious about the appearance of their teeth.
3.4 The Impact of Medical Conditions and Intellectual Problems on Oral Health

3.4.1 The Impact of Medical Conditions

A number of vulnerable and dependent adults have medical conditions which complicate the provision of dental care. These include those suffering from bleeding disorders such as haemophilia, patients with cardiovascular disease and individuals who are immuno-compromised. For these groups of patients, the prevention of oral diseases will reduce the need for complex oral healthcare and help to safeguard general health. These disorders present with a wide spectrum of clinical severity. In some cases, treatment can be delivered by the normal primary care provider in the practice setting. At the more severe end of the spectrum, hospitalisation may be required.

Bleeding Disorders

Those undergoing anticoagulant therapy, those with coagulation defects and those suffering from thrombocytopenia fall within this group. Dental extractions and oral surgery procedures may be more complicated for these groups of patients. In many cases, patients may be treated within general practice or by arrangement in dedicated units. However, management may need to be carried out within a specialist unit.
Cardiovascular Disease

Patients suffering from cardiovascular disorders cover a wide spectrum of conditions, ranging from mild ischaemic heart disease and heart valve defects to complex cardiac disorders. At the simple end of the spectrum treatment may be provided in dental practice, with minor adjustments to treatment regimes, whereas for those with complex conditions, management within the hospital setting may be essential.4

The dental management of those suffering from heart valve disease remains controversial and has recently been the subject of guidance from the National Institute for Health and Clinical Excellence.38 The risk of bacteraemia following tooth brushing and following procedures such as dental scaling and extraction is recognised. However, for the majority of patients, oral healthcare, including dental scaling and dental extractions, can be provided within the primary care dental surgery setting without the need for antibiotic cover. It is extremely important that such patients are encouraged to maintain good standards of oral healthcare to reduce the risk of transient bacteraemia and that tooth decay is minimised to reduce the need for dental extractions.

Immuno-compromised Patients

Oral diseases such as candidiasis, herpes infections, ulcers, periodontal disease and spontaneous oral bleeding are seen more often in immuno-compromised patients. Oral lesions may also be seen in patients who are HIV positive or suffering from AIDS.39 Oral problems include: ulcers, xerostomia, and interference with salivary gland function.

Candida infection is commonly found in such patients.40 Conditions such as hairy leukoplakia are also seen commonly in those with HIV infection but are also seen in other patients suffering from compromised immune systems.41
3.4.2 The Impact of Intellectual Impairment

It is acknowledged that adults with learning disabilities frequently have poorer oral health than non-impaired individuals.\textsuperscript{42,43,44} A number of problems are commonly seen:

- Poor oral hygiene.
- More gum disease and gingivitis.
- Oral mucosal pathology.
- More extractions and lower levels of restorative care than in the rest of the population.

Individuals with intellectual disability are also more likely to suffer from a range of co-existing medical problems and are therefore more likely to be admitted to hospital for dental procedures than those without such disabilities.

Active oral health risk assessment and prevention of disease reduces the risk of developing oral disease and therefore reduces the requirement for hospital admission.

A recent survey of Community Dental Service Clinical Dental Directors in Scotland has highlighted inconsistencies in the approach to risk assessment for the intellectually disabled and in the use of standardised protocols and documentation systems specifically designed for this patient group.\textsuperscript{45}
Chapter Four
Preventing oral diseases
This chapter considers how oral diseases can be prevented through healthy dietary choices which limit sugar consumption, good oral hygiene and abstinence from smoking. Sensible drinking also contributes to maintaining oral health.

The means by which the oral health of children in Scotland might be improved was extensively reviewed to inform the policies set out in the 2005 Dental Action Plan. The role of diet, oral hygiene and fluoride in reducing dental decay were fully explored, together with the need for dental services to be underpinned by a preventive philosophy, resulting in the development of the national preventive programme for children, Childsmile. Many of these principles, such as providing support to encourage regular toothbrushing are also applicable to adults.

In addition to personal awareness and healthy choices, achieving oral health also requires effective partnership between the individuals, health and social services, and local authorities, particularly in the care of vulnerable people. Partnership working is also of great importance in oral cancer prevention, where those at greatest risk may be unable or unwilling to access advice or examination through dental services. In such circumstances the medical practitioner and their team has a role to play in referring patients with suspicious lesions early and in the provision of smoking and alcohol advice in relation to oral cancer prevention.

We know that there are many positive steps we can take to prevent oral diseases if action is taken early.
The British Association for the Study of Community Dentistry has produced updated guidance on this issue.46 There are steps people can take for themselves, or where they are unable to do so, carers can assist them. A number of preventive measures are outlined below. However, it is important to be aware that preventive regimes for frail vulnerable individuals should always be formulated to take account of the patient’s individual medical history and in collaboration with their medical practitioner or hospital specialist.

Mouthwashes used to help prevent tooth decay and gum disease, such as fluoride and chlorhexidine, may be difficult for some patients with special needs or dementia to spit out after use, resulting in potential overdosage. The use of high dosage, 5,000 parts per million (ppm) fluoride toothpaste could also prove problematic in such circumstances and decisions on the suitability of such measures must be made with full consideration of individual patient medical history.

It is important that all vulnerable people have the opportunity to carry out routine oral care or to have assistance when this is needed. In addition, ongoing checkups with a dentist are important as these provide an opportunity to diagnose and treat oral diseases early.
4.1 Preventing Dental Decay

Core preventive messages, which should be adapted to take account of specific patient needs and the patient’s medical history, include:

- Brushing twice daily with a fluoride toothpaste containing at least 1,350 ppm fluoride.
- Reducing the amount and frequency of consumption of sugary foods and drinks, and restricting sugary foods to mealtimes.*
- Eating sensibly, and drinking enough water to avoid dehydration.

Adults at particularly high risk of dental decay should take additional measures to help prevent decay. This includes adults with active decay, a dry mouth or who have special needs.

- Using a fluoride mouthwash (0.05% Na F) in addition to toothbrushing if appropriate.
- Having fluoride varnish professionally applied twice yearly (2.2% F).
- People at high risk of dental decay such as those with active decay in the crown or roots of teeth should use 2,800 or 5,000 ppm pap fluoride toothpaste prescribed professionally.

* Distinctions should be made between the nutritionally well and those who are nutritionally vulnerable and advice modified to take account of the patient’s overall requirements.
### 4.2 Preventing Gum Disease

All adults should have the support they require to prevent gum disease. The following measures are effective:

- Brushing teeth twice daily with an appropriate manual toothbrush or powered toothbrush with an oscillating/rotating action.
- Not smoking.
- Cleaning between the teeth using interdental brushes or floss.
- For short periods if people are unable to clean normally due to illness or disability, they will benefit from using Chlorhexidine mouthwashes (10 ml of 0.2% or 15 ml of 0.12%) with toothbrushing. Gel may be more appropriate for patients with difficulty expectorating.

### 4.3 Preventing Oral Cancer

The risk of developing oral cancer is linked to smoking and alcohol misuse. Alcohol acts together with smoking to multiply the risk of developing the disease.

It has also been associated with the use of smokeless tobacco products such as snuff or paan which is chewed, often incorporating other substances such as betel leaf, areca nut or lime. Chewing tobacco is used more commonly in Asian communities, where the practice may be transferred down through families and cultural traditions.

Oral cancer or pre-cancerous oral conditions may be difficult for patients to detect and are often painless in the early stages, resulting in late presentation to health professionals. Homeless people and those who have worn full dentures for many years may lose contact with local dental services and therefore be less likely to attend for an oral examination, reducing the opportunity for early detection of oral cancer.
Having an examination by a suitably trained dental professional is important, both to receive advice which will help to prevent the disease, and to help detect any signs of disease as early as possible. Health professionals or carers should arrange for an early referral to a dentist for an examination of the mouth to be carried out for any patients with suspicious or unexplained symptoms.

Health professionals also have an opportunity to provide advice on smoking cessation and have a valuable role in signposting clients to smoking cessation services. A number of resources are available through the NHS Health Scotland website in the bibliography, for example, “A guide to Smoking Cessation in Scotland”. Any ulcer which has not healed after three weeks should be referred for further investigation.

Key messages include:

- Abstaining from the use of tobacco products, both smoking and smokeless tobacco.

- Avoiding excessive alcohol consumption.

- Having a regular dental examination by a trained dental professional.
Chapter Five
Making the best use of professional skills
This chapter considers the provision of services, both dental services and those provided by other health professionals and people working in the social care sector. It also highlights the National Care Standards and how they relate to dental health.

Traditionally, dental services have been provided by teams which could potentially include a dentist and a range of dental care professionals such as dental nurses, dental hygienists, dental therapists and dental technicians.

However, a number of new roles have emerged which have played a particularly valuable role in the prevention of oral disease in children. These are already starting to play an important role in supporting key staff and in improving the care of vulnerable adults outside the traditional practice setting.

Examples of new roles include:

- Dental Health Support Workers who reach into communities to deliver oral healthcare messages. This approach is still being evaluated for children within the Childsmile programme and is being developed to include working with older people.

- Clinical Dental Technicians who have undertaken training to develop their clinical skills and may make full dentures directly for patients and may provide a number of additional clinical devices to patients on the prescription of a dentist.

5.1 General Dental Services (GDS)

In Scotland, the majority of General Dental Practitioners (GDPs) are independent contractors, working within the NHS General Dental Services framework. Payments to dentists comprise item of service fees, continuing care payments and payments derived from a range of grants and allowances. Enhanced continuing care fees are paid for the provision of treatment to those with special needs and those over the age of 65. Under GDS arrangements,
patients access NHS treatment from the complex item-of-service fee structure set out in the Statement of Dental Remuneration and, unless exempt from charges, contribute up to 80% of the total fee, up to a maximum of £384 at the time of writing.49

At 30 September 2011, 3,053,394 adults in Scotland (75.6%) were registered within the GDS. Registration declined steadily from the age of 55.

In the 55-64 year age group, 67.8% of adults were registered, declining to 53.5% registration amongst those over the age of 75 years.50

From 1 April 2010, dental registration became continuous in Scotland,51 ending lapse from registration “by default”, a situation which had the potential to impact significantly on those who may not have fully understood the process and obligations of dental registration. These changes should assist continuity of care for all patients, particularly the vulnerable.

A range of dental treatment is available under NHS terms and conditions.49 This includes examination and advice, oral hygiene instruction, the application of fissure sealants and fluoride, periodontal treatment including scaling and polishing, all of which may be provided within the GDS. The current list also includes a wide range of restorative and surgical treatment.

Dental practitioners can provide treatment at home (domiciliary care) to patients who have special care needs and who cannot reach a dental surgery. However, provision of this service by general dental practitioners has gradually declined.18 In the years between 1992-93 to 1999-2000 domiciliary treatments by general dental practitioners accounted for approximately 30,000 visits per year. However, this declined sharply between 2000 and 2007-08, when only 13,771 visits were carried out.18 Figure 3 shows this reduction for the whole of Scotland.
Reasons for the gradual decline are thought to include: the level of current remuneration, the constraints of the physical environment, lack of portable equipment, together with the need to transport an extensive range of emergency drugs and oxygen. Concerns about infection control have also been identified as a potential barrier to the provision of domiciliary services through general dental services.\(^{18}\)

### 5.2 The Salaried Dental Services

The Salaried Dental Services include both Salaried General Dental Practitioners (GDPs) and the Community Dental Service. It is a directly managed salaried service. The role of the modern Community Dental Service includes the delivery of a Public Health role, including screening for oral disease, health promotion and preventive programmes for children and adults with special needs. The service provides annual inspection of children’s teeth as part of the National Dental Inspection Programme. The Community Dental Service provides a safety net service to those who have special care needs and cannot access General Dental Services. Salaried GDPs provide general dental services in areas where there is a gap in provision by general dental practitioners.
The Salaried Dental Services play a key role in delivering care to the most vulnerable people in the community, particularly when care is required at home, or in the care home setting. It has also played a central role in many of the priority group pilot programmes ongoing across Scotland.

The Community Dental Service makes a significant contribution to the provision of domiciliary services in Scotland. The number of domiciliary visits carried out by Salaried GDPs has risen from 396 in the year 2000 to 1,246 in 2008, as shown in Table 2. However, this is still a relatively small proportion of the overall GDS provision of domiciliary dental care.

**Table 2.**

**Number of domiciliary visits undertaken by GDPs, non-salaried and salaried, for year ending March (Scotland)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Non-salaried</th>
<th>Salaried</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>30,316</td>
<td>396</td>
<td>30,712</td>
</tr>
<tr>
<td>2001</td>
<td>27,108</td>
<td>366</td>
<td>27,474</td>
</tr>
<tr>
<td>2002</td>
<td>24,494</td>
<td>266</td>
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<td>23,495</td>
<td>342</td>
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<tr>
<td>2004</td>
<td>21,008</td>
<td>511</td>
<td>21,519</td>
</tr>
<tr>
<td>2005</td>
<td>18,915</td>
<td>333</td>
<td>19,248</td>
</tr>
<tr>
<td>2006</td>
<td>14,898</td>
<td>446</td>
<td>15,344</td>
</tr>
<tr>
<td>2007</td>
<td>13,272</td>
<td>933</td>
<td>14,205</td>
</tr>
<tr>
<td>2008</td>
<td>12,525</td>
<td>1,246</td>
<td>13,771</td>
</tr>
</tbody>
</table>


The number of domiciliary visits carried out by the CDS across Scotland, shown in Figure 4, has stayed relatively steady between 1996-97 and 2006-07, averaging around 25,000 visits per year.
In 2006, the Taylor Report\textsuperscript{52} carried out an extensive review of the role, remit and structure of the primary care salaried dental services, recommending a New Scottish Public Dental Service, with a merged Community Dental Service and Salaried GDS Service. The review found that such an approach would be able to provide an enhanced service, and would enable better use to be made of the skills of the professionals complementary to dentistry, and enable improved targeting of services in areas where need is greatest.

A revised service could work in partnership with the general dental services, offering enhanced flexibility. Such a service would potentially be more responsive to the needs of priority groups such as the elderly, the housebound and those with special needs.
5.3 **Hospital Dental Services**

Hospital dental services in Scotland are responsible for the provision of secondary care services, normally confined to more complex dentistry which is beyond the scope of primary care. Services are accessed via referral from primary care. In addition to the provision of complex care, hospital services may be involved in undergraduate and postgraduate teaching and dental research.

5.4 **NHS Hospital In-patient Services**

In the urban setting treatment to hospital in-patients is provided by the CDS. Such patients do not require to pay for services. Delayed discharge of patients from hospital has the potential to impact on the provision of dental services, as extended in-patient stays are likely to increase the need for dental treatment whilst in hospital. Significant efforts have been made to address this issue in Scotland and data indicate that delayed discharge has declined substantially over the last 10 years. However, this situation has the potential to impact on service use if recent improvements in delayed discharge are not sustained.

5.5 **Dental Care Professionals**

Dental Care Professionals (DCPs) play an important role in the care of vulnerable individuals and encompass a wide range of professionals, including: dental nurses, dental hygienists, dental therapists, dental technicians and clinical dental technicians. Their roles are complementary to that of the dentist. DCPs must register with the General Dental Council (GDC). At June 2010 there were 5,798 DCPs in Scotland.
Recently, the GDC acknowledged the need to shift the focus of DCP education away from highly prescribed topics and subject-based training to one which focuses more on desirable educational outcomes. In practical terms this provides for a much more flexible approach to the delivery of clinical services through enhanced roles which have considerable potential to contribute to the needs of priority groups, including frail and dependent older people. For example, the range of duties for dental nurses may now include the application of fluoride varnish to the teeth, a measure which may be important in developing preventive programmes for priority groups.

The roles of dental hygienists and dental therapists have undergone significant changes within the last 10 years. Since 1 July 2002, subject to completing the necessary training, dental hygienists and dental therapists may now carry out a wide range of clinical duties including scaling and polishing of teeth, the application of fissure sealants and fluoride as a preventive measure and deliver oral health education.

Dental therapists may carry out a range of restorative procedures for children and adults work in general dental practice as well as the Salaried Dental Service.

Post-qualification training for DCPs includes a number of courses directly relevant to the provision of services to vulnerable people. In 2009, 18 DCPs participated in training to achieve the Certificate in Special Care Nursing, 34 attended training to achieve the Certificate in Oral Health Education and nine attended courses to achieve the Certificate in Dental Sedation Nursing.

5.6 Working Across Disciplines to Improve Oral Health

A number of organisations and professions other than the dental team also have a valuable role to play in helping to support good oral healthcare for vulnerable people and in the prevention of oral diseases. Local authorities and NHS boards have a particularly important role in ensuring a joined-up approach to care though the development of Single Outcome Agreements, and through the process of shared assessment and the development of Health and Homelessness Plans.
Local authorities also have responsibility for the delivery of education and training to frontline care staff through the Scottish Vocational Qualification (SVQ) Programme, complementing that of NHS Education for Scotland as the main provider of education to medical, dental and nursing professionals. The Care Inspectorate is responsible for regulating and inspecting care services in Scotland.

5.6.1 Staff who Care for Adults Vulnerable to Poor Oral Health

The provision of oral health training for care staff varies considerably throughout Scotland. To obtain long-term changes in practice it is important to ensure that staff training for those who care for vulnerable people is ongoing and that staff understand the value of oral healthcare and the difference which it can make to the quality of life of clients. Oral and dental health is not consistently included in needs assessments or admission and discharge protocols, which potentially compromises oral health and continuity of care.

It is important that a national preventive programme for those who are dependent or who have special needs supports the training needs of frontline care staff and raises awareness of oral conditions and the actions required to maintain good daily personal oral care. This includes the carrying out of an assessment of residents’ oral health and care needs, both on first admission and on an ongoing basis. The development of oral care plans is an important part of this process as the ability to understand when it is appropriate to refer to an oral health professional. The documentation of daily oral care is important to show when oral hygiene has been carried out and also acts as a useful prompt to undertake care.

The National Older People’s Oral Health Improvement Group working in close collaboration with NHS Health Scotland, have recently produced a comprehensive training guide for oral health professionals, *Caring for Smiles*. It supports oral health professionals working in care establishments, and has been disseminated to key interest groups across Scotland. The guide offers comprehensive information, guidance and practical support on caring for the oral health of dependent older people and guidance on patient risk assessment and the development of patient care plans. However, hands-on practical training is still required. This is best delivered by an individual appropriately trained in oral health.
The training guide also highlights some of the barriers which might be encountered when training care staff, and gives advice on the challenges of undertaking personal care for those who have dementia.

For homeless people, support staff in settings where homeless people stay have a valuable role in providing information for clients and in signposting clients to dental services. NHS Health Scotland and Dundee University are working together to produce a training programme to improve the oral health of homeless people called the Smile4life Intervention. The guide is intended to be used by dental and social care professionals working with homeless people.

5.6.2 Social Care and Nursing Staff

The Joint Future Group was set up in 1999-2000 to agree a list of joint measures which agencies need to have in place to deliver effective community care services and identify and share good practice.

The principles and process of Single Shared Assessment (SSA) to inform basic health were subsequently outlined in guidance. The SSA process includes an assessment of health, housing and social care needs, with a view to streamlining the process of care for individuals.

The core data sets provided in the guidance specify that oral health should be one of the components of assessment, and there is provision in the care plan data set for the meeting of oral health needs. Local SSA protocols for older adults have been developed in local authority/NHS areas but there is considerable variation as to whether oral health issues have been included.

In July 2002, the Scottish Executive implemented free personal and nursing care within the home and hospital setting, subject to assessment of needs by the local authority, recognising that patients should not be forced to move prematurely into residential care as a result of having to pay for care in the home, where that care could be provided free in the hospital setting.
In Scotland, free personal and nursing care is now available free to everyone over the age of 65 who requires it, whether the individual is in their own home, in hospital or in a care home. The type of care provided is based on the Single Shared Assessment. Additional allowances, available only to Social Work-funded clients are available for enhanced care for the “elderly mentally incapacitated”, and “very dependent elderly”. Payments towards residential care are complex and may require residents who can afford to do so to contribute to their care.

Several of the tasks which fall within the definition of “personal care” are of direct relevance in maintaining the oral health of those receiving care, notably, personal toilet, eating and drinking and management of prescribed medication. Therefore it is important that any future strategy addresses this issue.

Those entering care homes will increasingly be the frailest individuals for whom care at home is no longer a suitable option. For health planners, this should be reflected in a shift in the model of care from an institutionalised care model for older people to one which also reflects the needs of those whose care may be provided within the home setting, as older people encouraged to remain in their own homes for as long as possible.

A national care home contract has been developed for all local authorities. These make provision for toiletries, including toothpaste and brushes, to be supplied free of charge. However, the recent SDNAP Domiciliary Report has suggested that this policy not applied consistently across all establishments. The use of “own brand” products is expected to be self-funded. Loss of dentures is often problematic with inconsistency in denture marking contributing to the problem. Problems have also been reported with respect to facilities for oral care. Staff in care home settings should be aware of how to assist patients who may need to apply for financial help with dental charges.
5.6.3 National Care Standards

As a result of the Regulation of Care (Scotland) Act 2001\textsuperscript{62} there are now no legal differences between residential and nursing homes. The National Care Standards Committee was set up to develop national standards from the point of view of people who use the services. They describe what each individual person can expect from the service provider and focus on the quality of life that the person using the service actually experiences.

*National Care Standards: Care Homes for Older People*\textsuperscript{63} include measures which are relevant to oral health. There is emphasis on a balanced nutritious diet within the standards but no specific reference to reducing sugar frequency. It is recognised that there is the potential for conflict between the oral health promotion agenda, which seeks to reduce sugar intake and the nutritional needs of older people. Addressing these issues must be balanced by the respecting the individual’s freedom of choice.

The standards for care homes require staff to regularly review anything that affects clients’ ability to eat or drink, such as dental health, and to arrange for advice. There is also a reference within the current standards to the need to maintain registration with a general dental practitioner and a recommendation that staff should help individuals to register as quickly as possible. The standards require that staff provide information about preventive healthcare, including screening.

There is no specific mention of the role of the Community Dental Services, who provide a “safety net service”. This would be helpful in pointing staff to services for the most vulnerable clients, who may require more specialised care than can normally be provided in the general dental practice setting.

*Standards for Care at Home*, which were revised in 2005\textsuperscript{64} highlight the need for good nutrition, and require home care workers to obtain help obtain professional help for a client if it is wanted, if the ability to eat or drink is being affected by dental health.

Those in positions of leadership have a particularly important role and can play their part by creating a culture which encourages good oral health. Adopting policies within workplaces which support the efforts of staff working directly with client groups will help staff to value good oral health themselves and will motivate them to prioritise good oral health for client groups. Support for staff training is also essential if progress is to be made.
Chapter Six
Learning from previous work
This chapter considers preventive programmes which could be applied to the priority groups.

6.1 Childsmile

The value of individuals and organisations working together to improve health was recognised in many of the responses received to Scotland’s Consultation on children’s oral health. As a result, a number of preventive programmes targeted at children have now been successfully put in place across Scotland.

The Childsmile Programme which includes: Childsmile Core, Childsmile Practice, Childsmile Nursery, and Childsmile School, works through a combination of local measures such as toothbrushing, and by making best use of the skills of a wide range of professionals from across a range of disciplines. New roles play an important part. There is a strong emphasis on partnerships in education and health. We have found that this approach is effective in preventing dental disease and in safeguarding the oral health of children.

The Programme distributes toothbrushes and fluoridated toothpaste to children, and supports families, by giving them the information and guidance they need to care for the oral health of their children from birth through nursery and on to primary education. Public Health Nurses and trained dental health support workers help families, and play a vital role in linking to the dental team. Children in the nursery and school schemes also have fluoride varnish applied directly to the teeth. Schools play their part in supporting Childsmile in schools and nurseries.

There are important lessons which can be learned from what is already working for Childsmile. Many elements of this programme may also benefit vulnerable and dependent adults and these are already being incorporated into the priority group pilots ongoing across Scotland to improve the oral health of vulnerable adults.
6.1.1 How the “Childsmile” approach might help Vulnerable Adult Patients:

Targeted prevention of oral disease for those most in need.
Providing information and training, dental care materials and appropriate preventive services.
Using the skills of professionals in new roles such as Dental Health Support Workers and Extended Duties Dental Nurses.
Using the skills of a wider range of health and social care professionals who come into contact with vulnerable and dependent adults.

6.2 Dental Priority Group Pilots

6.2.1 Older People and those with Special Care Needs

A number of authoritative documents have been published which set out guidelines and standards for the oral health care of those in care homes.\textsuperscript{65,67,68}

Much good work is already taking place across Scotland to prevent oral diseases and to improve the oral health of the most vulnerable in our society. A number of models are outlined below:

Looking after older people:

The Lifesmile Project, NHS Lothian

The \textit{Lifesmile Project} in NHS Lothian\textsuperscript{69} has piloted an initiative to improve the oral health of older people in care homes, by supporting staff to implement the NHS QIS Best Practice Statement: \textit{"Working with dependent older people to achieve good oral health"}. The project works with volunteer homes across Lothian.

The key elements of the programme include:

- Delivering oral healthcare training to all nursing/care staff.
- Providing oral healthcare materials to all residents.
- Providing additional support from dental health support workers.
- Establishing a new referral process for residents requiring dental treatment.
The Fife Oral Care Award

The *Fife Oral Health Care Award*\textsuperscript{70} seeks to raise standards of oral care provision for residents within care homes in Fife. Currently 52 care homes across Fife are taking part in the scheme. The Award is made for successful completion of a number of good practice criteria.

Key elements of the programme include:

- Staff training in oral care in DVD and online formats.
- Completion of an oral health assessment for residents within one week of admission and on a rolling basis every 12 weeks.
- Ensuring that teeth are brushed on a regular basis, using an appropriate toothpaste.
- A dental referral for residents.
- Joint working between the community dental service and the care home to ensure patient’s mouths are healthy.
- Six-monthly fluoride varnish for residents at high risk of decay.
- Information for family members.

The North Ayrshire Pilot Project

The *North Ayrshire Pilot Project*\textsuperscript{78} differs from the *Lifesmile Project* in that it worked with all care homes across North Ayrshire, not just those which volunteered. The project has been implemented in 25 care homes in North Ayrshire and the key elements of the project are:

- Implementation of a training and support programme to improve the oral health outcomes of older people in care homes in North Ayrshire.
- Development of a resource pack which includes recommended oral health assessment tools and other paperwork, relevant oral health related information, referral advice and contact information.
- To implement a strategy to raise awareness of the Community Dental Service within care homes and to encourage care homes to ensure all residents are appropriately referred for preventive care and dental treatment when necessary.
Many of the features of these initiatives could also be applied to the care of other vulnerable groups. We are able to learn from this work and to build upon it when seeking a common approach to preventing oral diseases for vulnerable people.

The “Open Wide” Project

Some care homes provide more specifically for adults with additional needs. The Open Wide project, which is focussed on adults with additional needs within care homes in East Ayrshire, has broadly the same three elements as the North Ayrshire Pilot for older people.

This training aims to enable care support workers in:

- Referring to dental services as required.
- Training for staff in daily oral healthcare.
- The use of appropriate paperwork to support oral care, including: an oral health risk assessment, an oral care plan and documentation of daily care.

6.2.2 People Experiencing Homelessness

For individuals and families experiencing homelessness, simple things which are normally taken for granted by those with a permanent home, such as keeping clean, and finding and preparing food, are not always easy. Basic survival often takes a higher priority than healthcare. The lack of a permanent address means that keeping in touch with the doctor or dentist is often very difficult, making the practical side of attending the dentist and ongoing care with health professionals challenging.

Partnership between the full range of organisations in contact with people experiencing homelessness is the key to successfully improving the oral health of homeless people. Organisations involved in the provision of care and shelter to homeless people include:

- NHS boards.
- Local authorities.
- Social Work departments.
- Voluntary sector organisations.
Homeless people themselves also have a valuable contribution to make in identifying their needs.

The *Smile4life*\(^{37}\) survey showed that people experiencing homelessness prioritised their lives in accordance with their perceptions of their specific and complex needs. How people experiencing homelessness prioritise their current life circumstances is of central importance to their readiness to access oral healthcare and influences the degree of engagement which they are willing to accept.

Some progress is being made with organisations and individuals working together. However, this has often been patchy and has not been consistent across Scotland. A number of examples of good practice have already been developed through implementation of Health and Homelessness Action Plans within NHS boards.

**NHS Highland: The Streetwise Directory**

The *Streetwise Directory*\(^{75}\) has been developed through a partnership with NHS Highland, Inverness Council for Single Homeless and Highland Council. The Directory assists service providers in pointing homeless people to the right services. The programme has helped to develop a network of service providers that did not previously exist.

The services that are included in the Directory are based on a broad interpretation of the range of services that homeless people may wish to access, bringing together leisure and educational opportunities and information on accessing health services. This is achieved by giving homeless people information about the health services that are available, and information on how these can be accessed.
NHS Lanarkshire: *Something to Smile About*

The “*Something to Smile About*” initiative was developed by NHS Lanarkshire to support staff working with homeless people within the health, local authority and voluntary sectors. The key aims of the project are:

- To help homeless people change their oral health-related behaviours.
- To encourage them to carry out regular oral hygiene.
- To provide them with information to enable them to attend a dentist.

**Key features:**

- Assisting staff to give oral health promotion messages by providing an oral health training resource for staff working with homeless people.
- Helping staff to make referrals to dental services.
- Assisting general dental practitioners to be more aware of the issues facing the homeless and providing training to help to engage appropriately with homeless people.

The training resource used in “*Something to Smile About*” included advice about good oral hygiene, healthy eating and modifying harmful behaviour such as smoking and excess alcohol consumption.

The Lanarkshire Programme has now been evaluated and we know that the training provided is important and highly valued by staff. However, overcoming the immediate and pressing problems of the homeless people remains challenging and must be recognised when helping homeless people. We know that information about local dentists is extremely helpful to staff working with homeless people. However, homeless clients have different needs and not everyone will be at the same stage when engaging with a programme. Not all will be ready to visit a dental practice, so flexibility is needed when planning services.
Again, many common themes such as training and information needs have emerged from the development of new models of care for homeless people. The findings of the various pilots taking place across Scotland will help to inform the direction of future dental programmes to improve the oral health of homeless people in Scotland. However, the problems and lifestyle of the individual homeless person or family will also influence what will be successful. Therefore, some elements of the core preventive programme will have to be tailored to an assessment of individual need.
Chapter Seven
Discussion
7.1 Older People and those with Special Care Needs

It is important that future oral health improvement programmes and dental services for older people and those with special needs reflect the changing needs of society, including the expectations of a generation of adults, many of whom will retain natural teeth throughout life. Deprivation, cost, access barriers and the low priority placed on oral health by individuals, carers and family have all been cited as factors which may contribute to poor oral health for frail or dependent people, many of whom may also have potentially complex dental care needs. These issues are likely to have a significant impact on demand for dental care, and on the resources and nature of services needed to meet the needs of the population.

Dependent and disabled adults face constraints on health and mobility which may make accessing dental care from the “family dentist” within the community more difficult. Oral health services for such vulnerable adults should therefore be flexible enough to meet their needs in circumstances where they may not be able to access services through traditional routes. The Salaried Dental Services have a key role to play in signposting patients to appropriate services, providing special care dentistry where required, and in providing leadership in the training of staff who provide day-to-day care for frail older people and those with special care needs. Oral Health Educators also have a key role to play in providing training to key staff groups.

Local authorities and NHS boards both play a key role in the delivery of services to such individuals and must work in close partnership to develop high quality services which fully meet the health and social care needs of those with special care needs. The Single Shared Assessment (SSA) process includes an assessment of health, housing and social care needs, providing an opportunity for streamlining the process of care for individuals. Currently, the Single Shared Assessment makes brief reference to oral health issues and includes “dental services” in the Core Plan Data Set, but with no further guidance on the specific criteria to be measured.
Local SSA protocols for older adults have been developed in local authority/NHS areas. However, there is considerable variation as to whether oral health issues have been included. Subject to successful evaluation of ongoing pilots, consideration should be given to incorporating an assessment of oral health into any future revisions of the Single Shared Assessment.

Despite much good work, oral healthcare for vulnerable people is not always consistently good across Scotland. Policies and protocols for oral health needs assessment and care are not always available within the residential care home setting. Staff training is inconsistent, resulting in a lack of knowledge in relation to oral health and disease, despite a willingness amongst staff to assist residents with oral care. Carers are frequently the gatekeepers to a professional oral health assessment and to routine and specialist dental services. The role of the “informed carer” as gatekeeper to care is particularly important in relation to oral cancer detection and prevention.

Training programmes such as Caring for Smiles provide a valuable resource for dental professionals training care home staff in the delivery of day-to-day oral healthcare. The resource helps to raise oral health awareness amongst carers and to support the delivery of good oral healthcare practice amongst staff working with frail and dependent older people. Work is ongoing with key stakeholders including Healthcare Improvement Scotland, Scottish Care and corporate care providers to ensure successful roll out across Scotland.

The Fife Oral Care Award provides encouragement to key staff to achieve excellence in the provision of oral care to clients and also provides a demonstrable measure of achievement. Such an approach may be helpful in rewarding good practice in oral healthcare across the sector and consideration should be given to adopting this approach more widely across Scotland.
7.2 Homeless People

Those experiencing homelessness are a diverse group including both individuals and homeless families.

Circumstances leading to homelessness, including ongoing physical or mental health issues affect an individual’s readiness to engage with services. The experience of homelessness may be either short or long term. Therefore a number of factors will determine the type of support and services which are required to meet the needs of this population. A common risk factor approach will benefit both oral and general health. Community planning processes should take account of the oral health needs of homeless people and oral health promotion should be included in the development of Single Outcome Agreements, NHS Boards’ Health and Homelessness Plans and Local Authority Shared Assessments.

Those who find themselves temporarily homeless may be able to maintain links with previous health service providers and access services in the normal way. Here, efforts should focus on supporting people to keep connected with their regular healthcare providers during a short period of homelessness. Continuous dental registration will make it easier for such individuals and families to achieve this.

For those who are experiencing homelessness for an extended period, maintaining links with primary care providers may become very difficult as contact with the former home and associated local health services is lost. Moreover, the lack of continuity of health service provider acts as a major barrier to accessing health and dental health services. For these individuals and families, information on how to access services appropriate to their needs, and the provision of tailored oral health education messages, which recognise the barriers imposed by their current life circumstances, will help homeless people to engage with services which meet their needs and improve their oral health. Support staff in settings where homeless people stay have a valuable role in providing information for clients and signposting clients to dental services.

Stigmatisation and poor self-esteem may make it particularly difficult for vulnerable homeless people to approach health traditional oral health services. Providers of oral healthcare in turn may find it difficult to deal with mentally ill or addicted homeless individuals and may be reluctant to accept such patients for treatment within general dental practice.
There is currently little information on the extent to which general dental practitioners offer care to homeless individuals. The introduction of enhanced payments to practitioners for treating patients from the most deprived postcodes, may encourage dentists to accept more homeless patients for treatment. However, for homeless people, the requirement to produce a full and valid postcode may still be perceived as a barrier to care within the general dental services.

The Salaried Dental Services therefore play a key role in the delivery of services to special needs groups, including homeless people whose chaotic lifestyles may make it difficult for them to complete their care within a general dental practice setting. It is important that there are dentists able to work closely with health promotion colleagues and who can work to strengthen links with providers of services to those experiencing homelessness.

Good dental health depends on good oral hygiene and the ability to restrict sugar consumption through access to suitable, non-cariogenic foods. For the homeless, maintaining good health, including oral health, often competes with meeting more pressing personal needs. Low incomes restrict food choices, making it more difficult to restrict sugar and to choose foods appropriate to the maintenance of good dental and general health. Lack of access to suitable cooking facilities increases reliance on ready-prepared foods. Access to fresh drinking water may also be limited. Lack of ready access to fresh water encourages reliance on soft drinks and may make tooth cleaning difficult or impossible. Lack of access to suitable cooking facilities encourages increased sugar consumption through unsuitable foods and snacks and soft drinks.

Local actions to improve oral health for homeless people should include measures to make it easier to carry out routine toothbrushing as a means of delivering fluoride to the teeth to minimise the impact of poor diet and oral hygiene, e.g. the provision of toothbrushes and toothpaste as part of hygiene packs. Staff should be trained to be aware of the importance of oral health and know how to assist people to access key oral health services.

Smoking and excessive alcohol consumption are closely linked to the development of oral cancer and it is important that information is provided to people who are homeless to raise awareness of these links and to encourage smoking cessation and alcohol moderation.
Figure 4.
Key Elements of the Core Preventive Programme for Improving the Oral Health of Dental Priority Groups

- Needs assessment
- The right services
- Evidence-based prevention
- Staff training
- Accessible information

Quality of care
Chapter Eight
The way forward
A number of promising initiatives have been piloted to help improve the oral health of adults who may be more likely to suffer from poor oral health. The Core Preventive Programme will build on these existing models bringing together the best of this work and will be underpinned by six key elements: needs assessment, evidence-based prevention, staff training, the right services, accessible information and quality of care (Figure 4).

We recognise that circumstances may vary across NHS boards and that sometimes a different approach will be needed in different settings. However, the key planks of the programme should be the same across Scotland.

The Core Preventive Programme, Smile will build on the principles of the Childsmile Programme. Smile Core will encourage and support toothbrushing and preventive care across the priority groups identified in the Strategy. The principles of the Core Programme which are applicable to all the dental priority groups are: needs assessment, evidence-based prevention of oral disease, accessible information, staff training and services. The Programme will be underpinned by the NHSScotland Quality Ambitions, for care which is safe person-centred and effective.

However, what is needed in each setting is slightly different and it is recognised that there will be additional elements to the overall programme which address the specific needs of each of the priority groups: Smile: Older People and those with Special Care Needs, and Smile: Homeless.

Each of these will address the specific needs of the named client groups and will build on the excellent work which is already taking place in NHS boards across Scotland.
From the model developed for Childsmile is has been identified that the key strategic elements required to support oral health improvement programmes are:

- Evidence-based care.
- Needs assessment.
- Appropriate service model.
- Accessible information.
- Training of appropriate staff.

From Childsmile, it has been learned that a nationally consistent approach to the development of these elements is required for priority groups who are more vulnerable to poor oral health, with appropriate programmes designed to deliver better preventive care where it is needed. However, it is appreciated that, like Childsmile, the local implementation of the elements should be tailored to local need and circumstance.
Chapter Nine
Recommendations:
What we will do next
This chapter makes recommendations and describes how they relate to each of the priority care groups.

9.1 Assessment of Need

Smile programmes should incorporate an assessment of an individual's oral health needs.

This will help to establish what care and treatment is needed for each individual patient and will help to plan this.

What should happen now?

9.1.1 Older People and those with Special Care Needs

• For dependent people being cared for at home, the District Nurse (DN) should provide the initial link between the medical team and local dental teams, providing a first point of contact for an preliminary assessment of oral healthcare needs which would facilitate referral to a dentist for a full clinical examination.*

• For care home residents, an oral health risk assessment should ideally be undertaken within 48 hours of admission, as part of the overall health assessment in line with the NHS QIS Best Practice Statement. This risk assessment can be undertaken by an appropriately trained nurse or carer. Any issues of concern should trigger an immediate referral to a dentist for a full clinical assessment.

• Arrangements should be in place for patients to access routine dental care. These should be documented.

• Assessment of oral health needs should lead to the development of an individual care plan which shows the daily oral healthcare support needed by the dependent adult. The process should incorporate an ongoing review of patient needs on a regular basis.
9.1.2 Homeless People

- All homeless people should have the opportunity to have their oral health needs assessed by referral to a dentist.*

- A basic care plan should be provided to homeless people attending for dental care, a copy of which should be retained by the patient and updated at dental visits.

9.2 Evidence-based Prevention

Smile programmes should be underpinned by effective, evidence-based activity.

It is important that people have the opportunity to prevent dental disease in ways which we know are effective.

What should happen now?

9.2.1 Older People and those with Special Care Needs

- Future revisions of the national care standards for care homes for older people should reflect the impact of sugar consumption on the development of dental caries.

- Prevention of oral disease and the maintenance of good oral hygiene amongst dependent people should be an integral part of the routine personal care undertaken by care staff.

- All residents should have the opportunity to brush twice daily with a fluoride toothpaste containing at least 1,350 ppm fluoride. Daily oral care should be documented.

- Managers of care establishments should offer a range of healthy food choices which will allow clients to limit the amount and frequency of consumption of sugary foods and restrict sugary foods to mealtimes, whilst taking account of the needs of the nutritionally vulnerable.

- To avoid dehydration, clients should be encouraged to drink water in preference to sugar-containing drinks.

* If all of the natural teeth have been lost, patients can be referred to a dentist or directly to a registered clinical dental technician. However, it is important that all individuals access an assessment of the soft tissues of the mouth with onward referral to a dentist as appropriate.
• Those at particularly high risk or with special needs should use a fluoride mouthwash* on the advice of a dentist or other healthcare professional (0.05% Na F) in addition to toothbrushing.

• Those at high risk of caries should have fluoride varnish professionally applied twice yearly (2.2% F).

• Those with active crown or root decay should have the opportunity to have 2,800 or 5,000 ppm fluoride toothpaste prescribed professionally.

• Prophylactic use should be considered following consultation with a dentist in those at high risk of decay.

• Toothbrushes and interdental cleaning aids should be available to care home residents.

• Those who are ill or disabled should have the opportunity to use Chlorhexidine mouthwashes* (10 ml of 0.2% or 15 ml of 0.12 %) with toothbrushing.

9.2.2 Homeless People

• Homeless people should have the opportunity to brush twice daily with a fluoride toothpaste containing at least 1,350 ppm fluoride.

• Dental packs containing toothbrushes and paste should be distributed at key facilities such as hostels and night shelters.

• Drinking water should be available at key facilities used by homeless people to encourage hydration using non-sugared drinks and to encourage toothbrushing.

* Where chlorhexidine or fluoride mouthwashes are unsuitable for medical reasons, for example when patients are unable to expectorate, alternative regimes, utilising gel or varnish should be used.
9.3 Accessible Information

*Smile* programmes should ensure that suitably tailored oral health information should be made available to vulnerable individuals and to those who care for them.

People should have access to information which informs them how best to maintain oral health and allows them to take responsibility for their own oral healthcare in the best way possible. Where this is not an option, those caring for them, or with responsibility for their well-being, should have the information they need to provide the best care possible. Staff should know when to refer someone in their charge to a dentist when this is needed.

What should happen now?

9.3.1 Older People and those with Special Care Needs

- NHS Health Scotland, together with the National Older People’s Oral Health Improvement Group should support, develop and distribute an information resource focussed on the prevention of oral disease and improvement of the oral healthcare of older people. This should be used by those with responsibility for the care of dependent older people: carers, families, care home managers and relevant organisations.

- Care home managers should be made aware of the NHS Quality Improvement Scotland (QIS) Best Practice Statement (BPS) Working with Dependent Older People to Improve Oral Health.

- Care home managers should ensure that on admission, all care home residents are made aware of oral health issues within the national care standards for care homes for older people.

- Care home managers should work in collaboration with key stakeholders, including Healthcare Improvement Scotland, Scottish Care and corporate care providers to implement the national care standards.

- Supporting resources for other adults with additional care needs should be tailored to take account of the specific needs of younger dependent people.
9.3.2 Homeless People

- Oral health education materials should be available to homeless people at key locations used by homeless people.

- NHS boards should maintain a list of contact details for dedicated drop-in dental care facilities for the homeless and disseminate this to key services for the homeless.

- NHS boards should maintain a list of NHS dentists willing to accept homeless clients.

- Information leaflets and posters providing a list of useful telephone contact details, including NHS 24, local Primary Care Services and local dental care providers, should be displayed at places in which homeless people are accommodated and at local pharmacies.

9.4 Staff Training

*Smile* programmes should include staff training on key oral health messages and should be provided for all staff caring for vulnerable groups.

Staff caring for dental priority groups who are vulnerable to poor oral health should have access to training on key oral health messages and should be aware of when dental professional help is required. Messages should be reinforced at regular intervals.
What should happen now?

### 9.4.1 Older People and those with Special Care Needs

- The Salaried Dental Service and oral health promotion teams should play a lead role in the delivery of training to staff with responsibility for caring for dependent people and those with special needs.

- Training for care home staff should be undertaken as part of an ongoing programme and should be based on an appropriate training tool such as “Caring for Smiles” which was developed for this purpose.

- All care home staff, including managers should attend training on the delivery of day to day oral healthcare to residents.

- Oral health champions should be identified to promote ongoing awareness of oral health issues within the care home setting. Such individuals should attend ongoing training to support their role.

### 9.4.2 Homeless People

- The Salaried Dental Service should continue to play a lead role in services for homeless people, including training in conjunction with oral health promotion teams or oral health champions.

- Oral health champions should be identified from within establishments which work with homeless people and should be offered training to support the oral health of homeless people. This should be based on the Smile4Life Intervention.
9.5 The Right Services

Smile programmes should develop services for priority groups which are flexible and are developed in ways which maximise the contribution of new roles.

We know that making best use of a number of services and using the combined skills of the whole dental team will provide the best approach for preventing oral diseases and improving oral health for vulnerable people.

What should happen now?

9.5.1 Older People and those with Special Care Needs

- NHS boards should work with dental clinical leads to raise awareness amongst key stakeholders of the role of the salaried services in providing dental services to those with special care needs. Such key stakeholders might include non-dental staff such as Public Health Nurses, District Nurses, carers, Social Work staff and voluntary organisations.

- Any future revisions of the national care standards for care homes for older people should highlight the role of the Salaried Dental Service in the provision of oral healthcare care to those who have special care needs.

- Referral protocols should be developed to ensure the smooth and timely referral to appropriate services for those with special care needs.

- Appropriate through care protocols and referral pathways should be developed to ensure a smooth transition to adult services for children with special care needs.

- Dental Care Professionals such as Extended Duties Dental Nurses and Clinical Dental Technicians should play a key role in a preventive programme for older people.
• NHS boards across Scotland should support the employment of Dental Health Support Workers to provide ongoing support in the delivery of oral health messages to care home staff.

• Registered dental staff should continue to provide support for Dental Health Support Workers within the care home setting.

• Dental Health Support Workers should provide a key link between public health nurses and dental health professionals in providing ongoing support on oral health matters to those being cared for at home.

9.5.2 Homeless People

• Community dental services and salaried services should continue to play a key role in encouraging homeless people on low incomes to utilise services.

• NHS boards and local authorities should ensure that dental services are closely aligned with other successful health initiatives and in close proximity to other services used by homeless people if these are provided locally to encourage uptake.

• Local authority staff such as health and homeless outreach teams, hostel staff and public health nurses should play a key role in assisting those who have difficulty in obtaining information about dental services, making appointments to help maintaining continuity of care.

• NHS boards should provide dental drop-in services as required, where homeless people can access an assessment of oral health needs and a care plan based on their individual needs.

• A staged approach to services should be adopted to allow those who are homeless and unwilling to access routine care to access care on an ad hoc basis.
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**Oral Health and Nutrition Guidance for Professionals**


Useful Links


Explanatory Note

SIGN – Scottish Intercollegiate Guidelines Network
xerostomia – dry mouth