



#### **University of Dundee**

#### Mouth Matters. Guide for trainers

Freeman, Ruth; Akbar, Tahira; Buls, Davis; Edwards, Maura; Everington, Tina; Richards, Derek

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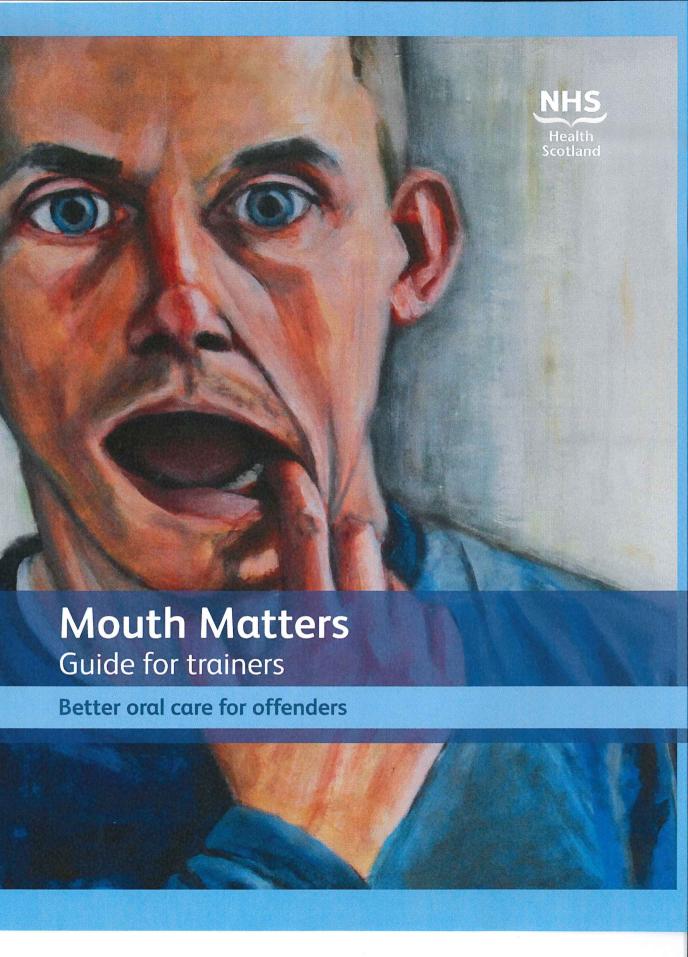
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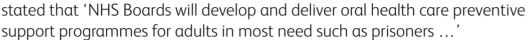
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#### **Foreword**

Improving the oral health of prisoners has been a priority as far back as the 2005 Dental Action Plan for Improving Oral Health and Modernising NHS Dental Services. It



Following the transfer of health care services from the Scottish Prison Service (SPS) to NHSScotland in November 2011, oral health was one of the 11 key areas for health improvement efforts outlined in the first joint health improvement framework *Better Health*, *Better Lives for Prisoners*. Responding to the complex oral health needs of prisoners and young offenders can present a considerable challenge and this training guide is intended as a resource for delivering training on oral health promotion, as well as a reference manual, for the wide range of professionals involved in the care and support of the prison population.

In 2011/12, the average daily population of prisoners was 8,178 people, almost all passing through the Scottish prison system. Prison provides a unique setting for health promotion as prisoners are confined within a defined environment for the duration of their sentence. The health improving capacity of this environment is often determined by prison policies and custodial procedures. The prison setting, therefore, presents significant opportunities to improve oral and general health. Poor oral health affects overall general health, nutrition, quality of life, communication, appearance and employability; which compound the many problems for individuals leaving prison. Scotland led the way with national prison dental surveys, first carried out with our prisoners in 2002. The results showed that the oral health of prisoners puts them at the very bottom of the oral health gradient across Scottish society. Poor oral health is strongly linked to poverty and most prisoners and young offenders come from socially excluded and deprived backgrounds.

Mouth Matters is a training pack for staff working with people in Scottish prisons and I encourage everyone in Scotland working with prisoners to embrace this opportunity and adopt the training offered, as we seek to help rehabilitate those people in and exiting the Scottish prison system.

Margie Taylor
Chief Dental Officer
Scottish Government

## Overview and learning outcomes

Welcome to *Mouth Matters* – an oral health toolkit for prison staff, support workers and health professionals to improve oral health for offenders in Scotland.



#### About this training guide

Mouth Matters is an evidence-informed oral health promotion resource. It has been compiled under expert guidance and is designed to enable health professionals, prison staff and support workers to meet the specific oral health needs of offender populations in Scotland. Its overall purpose is to raise awareness of the key factors that affect oral health and provide core motivational interviewing skills that can be used to support an oral health brief intervention tailored to offenders.

Within this guide the term offender is used rather than prisoner as the information provided and the intervention outlined is applicable to those in custody (both convicted and remand), across community justice settings and within through-care pathways.

#### How to use this guide

Mouth Matters is intended to be a resource for delivering training on oral health promotion as well as a reference manual for oral health improvement, regardless of training experience. The content of this training guide provides information for a wide variety of agencies and individuals involved in the care and support of the prison-based population.

#### The *Mouth Matters* guide has been organised into six units (and an introduction):

**Introduction** explains why improving oral health is important in the offender population and provides the context of government policy on oral health in Scottish prisons.

**Unit 1** describes what good oral health is, why it is important and how it can be maintained.

**Unit 2** describes the common risk factors that contribute to poor oral health including the role of diet, smoking, alcohol, substance misuse and methadone.

**Unit 3** provides an overview of the most common oral health problems experienced by the offender population and covers topics relevant to giving oral health advice about these problems and their prevention.

**Unit 4** provides an insight into the barriers and enablers that offenders experience to maintaining oral health care when inside and outside the prison environment.

**Unit 5** gives information on dental services available inside and outside prison, as well as through-care support.

**Unit 6** provides an intervention framework aimed at promoting and supporting behaviour change. It provides core communication skills necessary to establish good practitioner—offender relationships and tools to aid oral health promotion.

### Learning outcomes

*Mouth Matters* has 10 learning outcomes. Having worked through the guide, trainers and practitioners should be able to:

1	understand why improving oral health is important in the Scottish offender population	Testura di cati a ca	
2	understand the context of government policy to oral health in Scottish prisons	Introduction	
3	understand what good oral health is, and why it is important	Unit 1	
4	describe the core key steps to maintaining oral health		
5	recognise the common risk factors that contribute to poor oral health	11-4-2	
6	give basic health advice on the common risk factors for oral health	Unit 2	
7	understand the most common oral health problems in the offender population and give oral health advice	Unit 3	
8	understand the barriers and enablers to oral health for offenders inside and outside the prison setting	Unit 4	
9	refer offenders to dental services inside and outside of prison and provide information on through-care support	Unit 5	
10	carry out an oral health brief intervention tailored to the needs of the individual offender.	Unit 6	

### Training



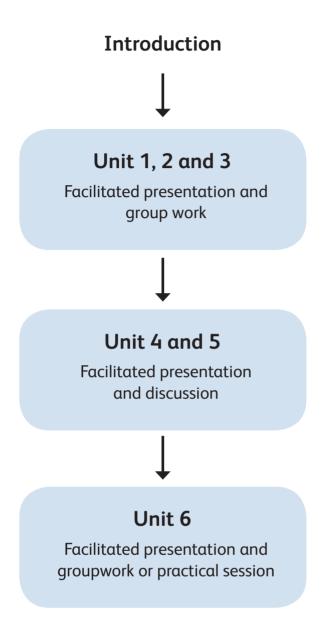
#### Preparing for training delivery

Responding to the complex oral health needs of offenders can present a considerable challenge, and requires a flexible response on the part of practitioners and service providers. This is particularly the case where offenders present with multiple healthcare treatment needs which must be balanced against available health service resources.

This training guide has been designed to be flexible and adaptable to support trainers in developing personalised training. Trainers are encouraged to know the knowledge and experience level of their audience and to adapt the training according to the needs of their audience.

Relevant staff should be given the opportunity to attend training on the delivery of *Mouth Matters*. Initial training sessions should cover both key oral health knowledge and the skills to provide the tailored intervention to offenders. It should also ensure that staff are aware of the pivotal role they can play in terms of assessing offenders' readiness to change and encouraging offenders to actively maintain their oral health making every contact a health improvement opportunity.

#### Suggested Mouth Matters training outline



#### **Notes:**

It is recommended that the training should be interactive with 70% consisting of activities involving audience participation and 30% of presented material.

Depending on the local circumstances, the training can be divided into several sessions. We recommend allocating 1 to 1.5 hours for each unit.

#### **Notes for trainers**



#### **Trainer approach**

NHS Health Scotland encourages trainers to continuously develop strong training and facilitation skills. Our values and beliefs, i.e. our 'trainer philosophy', means we are looking for individuals who can provide learning opportunities for others, whatever their role.

NHS Health Scotland wishes to promote an ethos of learning that is based on the following principles:

- Expose learners to the topic in advance
   get them 'on side' before training starts.
- Make learning meaningful link learning to real work and service improvement, connect past experiences and knowledge to new learning, and encourage learners to make these new interconnections. Help learners to realise their strengths and create positive states for learning.
- Allow time for learners to learn –
   include processing time between new
   concepts. Let them actively rehearse
   and apply their learning in practical
   ways, and encourage them to review
   their learning and its applications
   throughout sessions.
- Be clear clearly explain the purpose of the training and provide feedback or encourage learners to give each other feedback as a routine part of the learning process.
- Create stimulating training environments – appeal to all the senses, offer a 'safe' climate where people feel free to rehearse, express opinions and take risks.

 Create learning that is natural – that stimulates positive emotions, such as excitement and curiosity, and encourages learners to review their learning and its applications.

#### NHS Health Scotland also encourages trainers to:

- be flexible know your audience and be prepared to change what you and the group are doing if it isn't working
- vary the types and/or times of activity

   provide maximum stimulation so
   that everyone gets something from
- be well prepared lack of organisation is a major cause of anxiety. Make sure you know the training guide, equipment and resources well
- understand individual behaviours and motivations – tune into language patterns and non-verbal behaviour, to pick up clues about how people learn, what makes sense for them and where their needs lie.

#### Further information: NHSScotland – Health Improvement Trainers Scotland

A community of active and experienced trainers who share information and learning on health improvement.

#### http://elearning.healthscotland.com

### Introduction



## Why improving oral health is important in the offender population?

'Oral health is a human right and essential to general health and quality of life.' 7th WHO Global Conference on Health Promotion (Nairobi, Kenya 2009)

Good oral health enables us to eat, speak, smile, communicate and socialise without pain, discomfort and embarrassment. It is therefore an important part of overall health. By contributing to our physical, psychological and social wellbeing it affects our quality of life.

Surveys show that the quality of oral health is not equally distributed within society, with offenders being one of the social groups that have disproportionately poorer oral health compared to the general population.

In 2002, a survey of Scottish prisoners indicated that they had fewer teeth and more decayed and untreated teeth than the general population, with severe tooth decay (requiring tooth extraction) being three times higher in the prison population.<sup>1</sup> The extent of oral health disparity between the offender and the general population was most starkly indicated by the rate of female offenders' tooth decay – it was 14 times higher than the rate of tooth decay in the general female Scottish population. Despite the dental treatment needs identified, only four in 10 offenders reported attending the prison dentist during 2011.<sup>2</sup>

The most recent study of offenders' health concerns indicated that poorer oral health had a number of negative impacts on offenders' physical, social and psychological functioning (the offenders' oral health concerns are covered in Unit 4 in more detail).<sup>3</sup>

#### **Government policy**



#### Key message

Improving the oral health of offenders in Scotland is a key government priority.

Reducing the health inequalities found in prisons is considered to be a global issue with a number of Scottish Government health improvement directives identifying the need for action to reduce health inequity.<sup>4, 5</sup>

The Scottish Executive identified offenders as a priority group for oral health improvement in 2005<sup>4,6</sup> and recognised the need for 'NHS Boards to develop and deliver oral health preventive support programmes for adults most in need such as ... offenders'.<sup>6</sup>

Following the transfer of healthcare services from the Scottish Prison Service (SPS) to NHSScotland in November 2011, oral health was defined as one of the 11 key areas for health improvement efforts outlined in the first joint health improvement framework Better Health, Better Lives for Offenders.<sup>7</sup> The health improvement areas for the prison setting are:

- smoking
- alcohol
- illicit drugs
- mental wellbeing
- healthy eating
- oral health
- safer sex
- reduced blood-borne viruses (BBV)
- physical activity
- parenting
- chronic illness

## Prison environment: an oral health improvement opportunity

Reflecting worldwide trends, the prison population in Scotland is increasing and reached an average daily population of 8,178 in 2011/12.<sup>2</sup> This increase reflects both male and female convictions of varying sentence lengths in addition to those on remand and recalls. Healthcare services in prisons face increasing demand from a growing population and therefore there is a need to provide oral health care based on a preventive philosophy. Effective awareness raising will in turn increase the opportunities to identify and provide treatment to those most in need.

The transfer of health care services from SPS to NHSScotland has created opportunities for NHS Boards to work more closely with prison staff in their efforts to improve health experiences for offenders. By addressing the common risk factors for oral health and wider health concerns in the offender population, oral health improvement opportunities can become part of routine health promotion activities within a prison setting, and staff and offenders' capacity to promote health behaviours and prevent disease can be developed.<sup>8</sup>

Prison provides a unique setting for health promotion as offenders are confined within a defined environment for the duration of their stay. The health improving capacity of this environment is often determined by prison policies and custodial procedures. The prison setting, therefore, potentially presents significant opportunities to improve oral health and support the development of health promoting policies. The creation of health improving environments should be integral to the implementation of any oral health promotion intervention in prisons.



#### Key oral health messages

The following messages are given here to view at a glance and are the essential points that participants should take home from the training.

#### **Overall messages**

- Good oral health contributes to overall health and wellbeing.
- Improving the oral health of offenders in Scotland is a government priority.

#### **Good oral health**

- Toothbrushing, diet and regular dental visits are the three main steps towards good oral health.
- Dental decay and gum disease (the most frequent cause of tooth loss in adults) are preventable.
- Brushing teeth twice a day for at least two minutes with fluoride toothpaste is an effective way of preventing tooth decay and gum disease.

#### **Sugar consumption**

- Foods and drinks containing table sugar (sucrose) and other added sugars are harmful to the teeth.
- Every time anything sugary is eaten or drunk, the teeth are under acid attack for up to one hour. This is because the sugar reacts with the bacteria in plaque and produces harmful acid. The acid destroys the tooth enamel and causes tooth decay.
- Frequent intake of foods and drinks containing these sugars should be reduced (ideally kept to mealtimes only).

#### **Smoking and alcohol**

- Smoking damages the mouth, teeth and gums it can cause tooth staining, gum disease, tooth loss and, in more severe cases, mouth and throat cancer.
- Alcoholic drinks can cause dental erosion, and frequent use of alcohol, like smoking, also increases the risk of mouth and throat cancer.
- Heavy drinkers and smokers are estimated to have more than 35 times the risk of mouth and throat cancer of non-drinkers and non-smokers.
- Regular dental attendance is crucial for early diagnosis of mouth and throat cancer.

#### Methadone

- Methadone is an acid which attacks tooth enamel. The mouth should be rinsed with water after taking methadone.
- Chewing sugar-free gum stimulates saliva flow and helps reduce the plaque acid in the mouth that develops after taking methadone, thus reducing the chance of tooth decay.

#### Key points on prisoners' oral health behaviours

- Poor oral health is strongly related to poverty. The majority of offenders come from socially excluded and deprived backgrounds.
- Compared with the general population, offenders tend to have more missing and decayed teeth, and fewer treated or filled teeth.<sup>1,3</sup>
- Compared with the general population, oral hygiene and the maintenance of oral health can be poorer for some offenders.
- In the community setting, offenders are more likely to attend the dentist only in emergency situations.<sup>3</sup>
- Offenders are often more proactive in engaging with dental health services while in prison, but a rising prison population continues to increase the demands on health services. Therefore, prison dental services can, in certain circumstances, be restricted to emergency only care.
- Offenders often have less nutritious diets characterised by frequent consumption of foods and drinks that are high in sugar.
- High sugar consumption is often exacerbated in the prison environment where sugary foods and drinks are easily accessible (e.g. canteen lists) and often consumed over prolonged periods of restricted regime.
- A high proportion (75%) of offenders smoke. Offenders report increased smoking while in prison.<sup>3</sup>
- Rehabilitative detoxification programmes in prison can unmask dental pain for some substance misusers.

## Unit 1 Oral Health

#### What is oral health?

#### Oral health is defined as the:

'standard of health of the oral and related tissues which enables an individual to eat, speak and socialise without active disease or embarrassment and which contributes to general wellbeing'.<sup>9</sup>

The term 'oral' instead of 'dental' is used, as 'dental' usually means just the teeth. The term 'oral' includes all areas of the mouth:

- Teeth and gums
- Hard and soft palate
- Soft mucosal lining of the mouth and throat
- Lips, tongue and salivary glands
- Chewing muscles
- Upper and lower jaws

#### What is a healthy mouth?

- Teeth are clean
- Tooth surface is covered in enamel and free of decay
- Gums are pink and firm
- Minimal recession of the gums
- Tongue is lightly coated
- All soft tissues are pink and moist



A cared-for, healthy adult mouth

## Why is good oral health important?



#### Key message

Good oral health contributes to overall health and wellbeing.

Oral health is a part of general health because it enables us to eat, speak, smile and socialise without pain, discomfort or embarrassment. It is essential for physical and psychosocial wellbeing and is a determinant of quality of life.<sup>10</sup> Poor oral health can result in malnutrition, low self-esteem and increased dental anxiety.

#### Good oral health:

#### ...prevents pain and suffering:

- A painful mouth can be debilitating and upsetting.
- Oral pain can affect mood and behaviour.

#### ...allows for adequate nutrition:

• A painful mouth, missing teeth or ill-fitting dentures prevents people from eating and drinking, and enjoying food.

#### ...is important for communication, socialising and appearance:

- Poor oral health can affect the ability to speak, smile and kiss.
- Many people dislike, or are embarrassed by, their appearance if their oral health is poor.
- A healthy mouth can improve self-confidence.

#### ...contributes to quality of life:

- Poor oral health can reduce the quality of life by lowering self-esteem via altered self-image.<sup>3</sup>
- Poor oral health and reduced quality of life increases the risk of depression. 11

### How to maintain good oral health: three key steps



#### Key message

Toothbrushing, diet and regular dental visits are the three main steps towards good oral health. Brushing teeth twice a day for at least two minutes with fluoride toothpaste is an effective way of removing plaque, which is the main cause of tooth decay.

Dental disease is not an inevitable part of life. Good oral health can be maintained, and poor oral health improved, by following the three key steps of oral health: toothbrushing, diet and regular dental attendance. The following key advice is the minimum (core) knowledge needed to maintain good oral health.

#### 1. Toothbrushing

Poor oral hygiene is the main cause of periodontal (gum) disease and is also implicated in dental caries (decay). Toothbrushing removes plaque and adds fluoride to the tooth surface. It is the best way, along with eating less sugar, of preventing both dental decay and gum disease.

#### **Guidelines**

- Brush teeth twice a day in the morning and last thing at night.
- Use fluoride toothpaste with age-appropriate fluoride concentration.
- Adults and children over 7 years old\*: paste containing at least 1350 to 1500 ppm (parts per million) fluoride.
- Brush teeth for at least two minutes.

\*under 7 years (may be relevant to fathers or mothers):

- 2–6 years: use a small pea-sized amount of paste containing at least 1000 ppm fluoride.
- 0-2 years: use a smear of paste containing at least 1000 ppm fluoride.

#### Toothbrushing technique and instructions

Toothbrushing technique varies (offenders are advised to discuss this with their dental hygienist, dentist, or an oral health promoter if they are unclear). The most important advice is to ensure all surfaces are thoroughly cleaned.

- Gently and systematically, using circular movements, scrub each tooth surface and gum margins (both inside and outside) thoroughly using a brush with a small head which has soft to medium bristles.
- 'Spit, don't rinse'. Spit the excess paste out and do not rinse the mouth with water after brushing it allows for the fluoride to stay in contact with the teeth and harden their outer surfaces.
- Brushing the tongue will help freshen breath and will help clean the mouth by removing bacteria.
- Replace the brush every three months, or sooner if the bristles become splayed.

#### Toothbrushing don'ts

- Don't brush teeth immediately after eating or drinking something acidic. The acid will weaken the enamel increasing mechanical abrasion from brushing. Allow at least 30 minutes to 1 hour before brushing teeth.
- Don't use toothbrushes belonging to other people, as there is a risk of catching Hepatitis B, Hepatitis C and other diseases.

#### What type of toothbrush to use

When choosing a toothbrush from the canteen sheet, or at any time, it is important to consider:

- Size: the toothbrush should be the right size for your mouth and teeth it should not be uncomfortable to use and it should be easy to brush the back teeth.
- Bristles: toothbrushes are available with soft, medium or hard bristles. For
  most people, a soft to medium bristle toothbrush is the most comfortable
  and safest choice. Hard-bristled brushes can potentially damage the tooth
  enamel so should not be used.

#### Interdental brushes

Interdental brushes are an alternative to dental floss and can be used to clean between the teeth. There are different kinds of interdental brushes and their availability in prison establishments will vary. A dentist will advise on whether to use interdental brushes and what type of brushes to use.

#### Toothbrushing resources available in prisons

The Scottish Prison Service issue a standard toothbrush and toothpaste with the correct amount of fluoride to offenders. These can be replaced every three months and local prisons may have a different mechanism in place for re-ordering. It is also possible for offenders to purchase, should they wish to do so, additional toothpaste and toothbrush varieties/brands while in prison (usually via a canteen sheet).

Many local NHS Boards will also provide toothbrush/toothpaste packs when the oral health improvement staff are visiting the prisons to deliver educational interventions.

#### Mouthwash

Mouthwash will help freshen breath but thorough brushing is sufficient to maintain good oral health. Mouthwash should never be used as an alternative to toothbrushing. If you choose to use mouthwash, use one that contains fluoride and do not use it immediately before or after brushing.

#### **Additional information**



Use of mouthwash containing alcohol could be harmful and should be avoided.

#### Denture hygiene methods

#### Denture cleaning

Unclean dentures can cause mouth infections (e.g. thrush) so it is important they are cleaned properly. Ensuring that partial dentures are cleaned properly will prevent further tooth loss and inflamed gums. Poor denture hygiene can lead to a build-up of dental plaque on dentures and cause denture stomatitis (an area of redness under an upper denture).

The guidelines below are generic and will need to be tailored to the specific needs of the offender.

#### Cleaning routine

- Clean dentures, morning and night, using a toothbrush and non-perfumed soap and water, or denture cream. Availability of denture cream will vary between prison establishments.
- Clean palate, gum ridges and tongue with a soft toothbrush.
- Ideally, dentures should be rinsed in water after every meal.
- At night, after cleaning dentures, leave them in plain water for the rest of the night.

#### **Additional information**



Chew sugar-free chewing gum (accessible outside prison).

Saliva fulfils a major protective role against tooth decay. Chewing sugar-free gum containing xylitol or sorbitol after eating or drinking may have a positive benefit for dental health by increasing saliva flow, which helps neutralise plaque acid activity. Xylitol also has antibacterial properties.

#### 2. Diet

The consumption of sugars – both the frequency and the amount – is a major factor that determines the risk of tooth decay. In general, the more sugar that is consumed, and the more frequently it is consumed, the higher the risk of tooth decay.

When sugars are consumed, they should be part of a meal rather than between meals. In between meals, food and drinks containing sugars, as well as acidic drinks (such as fruit juices and fizzy drinks) should be limited.

Snacks and drinks should be free of added sugars whenever possible. Frequent consumption of acidic drinks (such as fruit juice, squashes or fizzy drinks) should be avoided to help prevent dental erosion. Dietary advice is summarised below.

#### Key dietary advice

Restrict foods and drinks containing sugar to mealtimes.

Eat sugar-free snacks whenever possible.

Be aware of hidden sugars in some foods and the acid content of drinks.

Drink only water or, where possible, milk\* between meals.

Do not eat or drink after brushing at night.

#### **Additional information**



\* It is important to note that offenders in prison are unlikely to have fresh milk provided throughout the day.

Unit 2 covers diet and oral health in more depth.

#### 3. Regular dental visits

Everyone, irrespective of age and oral health, should have regular dental examinations:<sup>12</sup>

- 18 years and over at least once in two years
- Under 18 years at least once per year

This is so that cases of oral diseases, including oral cancer, can be detected early and treated. This advice also applies to those without any natural teeth, who should still visit the dentist to ensure the mouth is healthy.

#### **Additional information**



Children and those at increased risk from oral diseases, including smokers, may need to be seen more frequently, as advised by the dentist.

Unit 5 covers dental service accessibility for offenders inside and outside prison.

### Unit 2

# Oral health and common risk factors

It is widely accepted that oral health problems, such as those described in Unit 3, share 'common risk factors' with general health conditions, such as cancers, heart disease and obesity. Therefore, in order to maintain good oral health, the mouth cannot be isolated from the rest of the body. Adopting behaviours conducive to good oral health will have a positive impact on general health.

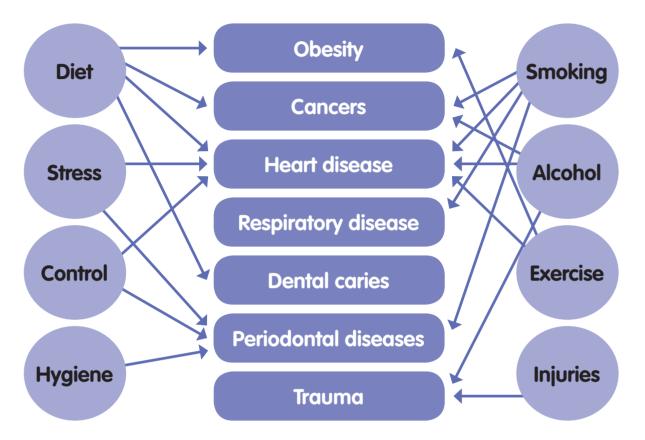


Figure 1. The common risk factor approach, modified after Sheiham & Watt (2000)<sup>13</sup>

A diet high in sugar and fat, and low in fibre and essential vitamins, is associated with conditions such as obesity, cancers, heart disease and dental decay.

Smoking is implicated in many diseases, including cancers of the lung, throat and mouth. In addition, smokers are more likely to have coronary heart disease, diabetes and periodontal (gum) disease, as well as other diseases of the soft tissues of the mouth.

Alcohol, especially excessive consumption of alcohol, increases the risk of developing oral cancer as well as head and neck cancer. Alcohol consumption is also implicated in dental trauma and facial injury.

Substance misuse is often accompanied by poor diet and high levels of carbohydrate consumption, particularly sugar, which increases tooth decay. People who misuse substances often have dry mouth and their drug use can mask dental pain which can lead to long-term neglect of teeth and gums.

#### 1. Diet

Please note: the following is generic dietary information. Not all of the foods listed will be available to offenders while in prison. Canteen lists vary between establishments, so this section should be adapted for training as necessary.



#### Key message

Foods and drinks containing sugars are harmful to the teeth, so the intake of such foods should be reduced.

#### Sugar

#### Different types of sugar – adapted from Foods Standards Agency (FSA) Eatwell website<sup>14</sup>

Sugar is present naturally in many foods, such as fruit and vegetables. Sugar is classified as either intrinsic or extrinsic.

The intrinsic sugars found naturally in whole fruit are less likely to cause tooth decay because the sugars are contained within the structure of the fruit. But, when fruit is juiced or blended, the sugars are released and become extrinsic. Once released, these extrinsic sugars can damage teeth, especially if fruit juice is drunk frequently. These are now a type of non-milk extrinsic sugars, all of which cause tooth decay. They are defined as 'non-milk extrinsic sugars' because milk contains lactose (an extrinsic sugar), but it is not a prime contributor to tooth decay.

Other non-milk extrinsic sugars include sugar which is added to many types of food, such as:

- fizzy drinks and juice drinks
- sweets, cakes and biscuits
- chocolate, chocolate products and chocolate-coated products
- breakfast cereals and cereal bars
- jam, marmalade and sweet spreads
- cakes, pastries and puddings
- ice cream and ice lollies.

Foods and drinks containing added sugars are often high in calories but equally have few other nutrients, so should only be eaten/drunk occasionally. Sugary foods and drinks can cause tooth decay, particularly if they are consumed between meals or before bedtime. This includes fruit juice and honey. It is best to stick to having these kinds of foods and drinks at mealtimes.

It is also important to avoid sipping sugary drinks or sucking sweets too often. This is because sugar reacts with bacteria in the mouth and produces acid. The longer the exposure of the teeth to acid, the more damage it can do.

Fruit juice is a healthy choice, and can count as one of the five portions of fruit and vegetables that should be taken every day, but it is best to drink fruit juice at mealtimes.

#### Cutting down on sugar

It is a good idea to try to cut down on foods and drinks that contain lots of added sugar, such as fizzy drinks, sweets and biscuits. This will help to keep teeth healthy. Many foods that contain added sugar can also contain lots of calories, so eating less of these foods may help with weight control.

Some foods and drinks that may be perceived as 'healthy' can still contain significant amounts of sugar and thus contribute to tooth decay:

- Dried fruit has a high concentration of sugars so should be restricted to mealtimes.
- Pure fruit juice and fruit smoothies are not recommended between meals.
   Frequent exposure to the sugars and acids present when fruit is juiced can lead to tooth decay and dental erosion.
- Some flavoured milks and drinking yoghurts can contain a significant amount of added sugar.
- Some flavoured yoghurts and fromage frais can be high in sugar, particularly those containing chocolate, fudge or toffee.

- Sugar-free/diet fizzy drinks and sugar-free fruit squash are preferable to their sugary alternatives; however, due to their acidic nature, they can contribute to dental erosion.
- Fruit squash/cordial, fruit-flavoured water and sports drinks have a high sugar content and acidic nature.
- Yoghurt-coated fruit and nuts have a high sugar content.

#### When is the safest time to eat sugary foods and drinks?

If possible, sugary foods and drinks should be restricted to mealtimes. Saliva flow increases at this time and reduces the effects of plaque acid on the enamel.

Avoid sugary snacks and drinks between meals or at bedtime. If snacking between meals, healthy, sugar-free snacks are best. The list below provides a number of suggestions:

- Cheese (reduced fat)
- Oatcakes or crackers
- Plain yoghurt
- Plain or savoury scones (avoid sugary toppings like jam)
- Plain bagels, pancakes and crumpets (avoid sugary toppings like jam)
- Sandwiches
- Unsweetened or wholegrain cereal
- Fresh soup
- Raw vegetable pieces
- Fresh fruit
- Plain water
- Tea or coffee (without sugar)
- Milk

#### **Healthy eating**



#### The eatwell plate

This Food Standards Agency (FSA) education resource is a practical tool to help people understand and enjoy healthy eating.<sup>14</sup> It shows the types and proportions of foods needed to make up a well-balanced diet that promotes good health and protects against the common diet-related diseases including heart disease, some cancers, obesity and tooth decay.

The eatwell plate applies to children over five, young people, adults and vegetarians. The eatwell plate is widely used in a variety of settings to promote good nutrition for overall health.

The eatwell plate illustrated makes healthy eating easier to understand by showing the types and proportions of foods required for a healthy diet. This includes everything that is eaten during the day, including snacks.

The eatwell plate and the benefits of a balanced diet are promoted at induction in prison. Establishments may use systems, such as traffic light coding, to support healthier choices

For a balanced diet it is recommended that people eat a variety of foods every day from the four main food groups:

- Plenty of bread, rice, potatoes, pasta and other starchy foods (yellow section of eatwell plate)
- Plenty of fruit and vegetables (green section of eatwell plate)
- Some milk and dairy foods (blue section of eatwell plate)
- Some meat, fish, eggs, beans and other non-dairy sources of protein (pink section of eatwell plate)

These provide the wide range of nutrients that the body needs to remain healthy, function properly and help prevent illness.

Foods in the fifth food group add extra choice and enjoyment to the diet, but they should form the smallest part of the overall diet:

• Just a small amount of foods and drinks high in fat and/or sugar, so-called snack foods (purple section of eatwell plate)

#### 2. Smoking



#### Key message

Smoking damages the mouth, teeth and gums – it can cause tooth staining, gum disease, tooth loss, and in more severe cases, mouth and throat cancer.

#### How can smoking affect oral health?

Smoking stains the teeth yellow or brown due to the tar content. It can make the teeth yellow in a very short time. The teeth of heavy smokers are often almost brown after years of smoking.



Mouth/teeth of a heavy smoker

Smoking can lead to gum disease, which can be more rapid among smokers in comparison to non-smokers. Inflammation progresses and healing is reduced, because smoking reduces blood flow to the gums. Smoking may also mask the severity of gum disease, as the gums are less prone to bleeding. (Bleeding and inflamed gums are an early symptom of gum disease). As the supporting tissues are damaged, the teeth can become loose, and may eventually be lost.

Smoking or chewing tobacco increases the chance of developing mouth and throat cancer. Every year thousands of people die from mouth cancer caused by smoking (See Unit 3 – Oral cancer, page 51).

#### 3. Alcohol



#### Key messages

Alcoholic drinks can cause dental erosion. Frequent consumption of alcohol can increase the risk of mouth and throat cancer.

In combination, drinking and smoking multiplies the risk of mouth and throat cancer as alcohol aids the absorption of cancer-causing chemicals in tobacco into the mouth.

Heavy drinkers and smokers are estimated to have more than 35 times the risk of mouth and throat cancer of non-drinkers and non-smokers.

#### How can drinking alcohol affect oral health?

Most alcoholic drinks contain sugar. Some are acidic and will cause dental erosion by eroding the enamel on the teeth. Drinking over a long period of time means the teeth are under acid attack for that whole period.

Drinking alcohol is the second most common cause of mouth cancer after tobacco. Frequent or excessive alcohol consumption increases the risk of developing mouth cancer. According to Cancer Research UK, about 37% of mouth cancer in men and 17% in women is associated with alcohol use in the UK.<sup>15</sup>

Alcohol aids the absorption of cancer-causing chemicals in tobacco into the skin lining of the mouth and people who smoke and drink have a higher risk of mouth and throat cancer than people who either only smoke or drink, or abstain from both habits altogether. Heavy drinkers and smokers are estimated to have more than 35 times the risk of mouth and throat cancer of non-drinkers and non-smokers. For non-smokers, the amount and the frequency of alcohol consumption are the most important risk factors for mouth cancer.

#### 4. Methadone

#### What is methadone?

Methadone hydrochloride is a substance that has similar properties to a group of drugs often called opiates, opioids or narcotics, e.g. heroin, morphine.

Methadone works in a similar way to other opiates but without the euphoric side effects. Owing to these similar properties, methadone can be used to reduce cravings during withdrawal without causing the extreme highs and lows experienced with other opiates, thus making methadone a suitable therapy for the treatment and management of opiate addiction.

Prescribed methadone is typically taken orally once a day as a syrup formulation and is available in the standard (sugar-containing) formula or a sugar-free variety. The Scottish Prison Service currently provides sugar-free methadone.

#### Methadone and oral health

While there is no conclusive evidence that methadone (and other opiates like heroin, morphine) on its own can cause harm to oral health, there are some known risk factors and precautions that can be taken to reduce any potential harm to oral health in patients receiving methadone.<sup>17</sup>

**Diet:** It is frequently reported that opiates will induce dietary changes which are typically characterised as cravings for sugary foods. These dietary changes have been linked to dental decay as a consequence of the increased consumption of sugars. High or frequent sugar intake in the diet should be avoided (see Unit 2).

It is advisable to avoid snacking on sugary foods and drinks throughout the day, keeping sugars to mealtimes only.

**Dry mouth:** Opiates reduce the flow of saliva, which is the body's natural defence against acid, leading to dry mouth.

If dry mouth is a concern, a dental consultation is advised to discuss available products which can help reduce the effects of dry mouth.

**Acidity:** As an acidic compound, methadone can cause erosion of the tooth enamel (Unit 3).

#### **Additional information**



#### Inside prison:

It is advised to brush teeth before taking methodone as acid in the mouth will weaken the enamel increasing the mechanical abrasion from brushing.

Always ensure water, or fluoride mouthwash if advised by a dentist, is used to rinse methadone from the mouth straight after consumption. However, fluoride toothpaste and fluoride mouthwash should not be used together.

#### **Outside prison**

In the community setting there are additional steps which can be taken to protect teeth.

**Sugar content:** Some formulations of prescribed methadone contain sugar. Brushing teeth twice a day with fluoride toothpaste, and cleaning between the teeth with floss or interdental brushes, will help protect against gum disease and tooth decay (Unit 2).

**Acidity:** Chewing sugar-free gum (containing xylitol) after taking methadone can help stimulate saliva production. Saliva acts as a buffer to neutralise the acidity in the mouth, thus reducing the chance of enamel erosion.

#### 5. Substance misuse<sup>18</sup>

This section details the effects of substance misuse on oral health only. Substance misuse is often accompanied by poor diet and high levels of carbohydrate consumption, which increase tooth decay. People who misuse substances often have dry mouth and their drug use can mask dental pain which can lead to long-term neglect of teeth and gums.

#### **Cannabis**

- Because it is smoked, it is a major risk factor in mouth cancer.
- Tar from smoke stains teeth and tartar/calculus.
- Heat and smoke damage the lining of the mouth.
- Causes changes to the mucosa (gums): keratosis (thickening), stomatitis (inflammation) and melanosis (darkening).
- Risk factor in gingivitis and periodontitis (see Unit 3).
- Smokers also respond less well to periodontal therapy.

#### Cocaine

- Localised gum and bone damage (from rubbing cocaine onto the gums).
- Localised tooth decay (from street drugs being cut down with sugar or glucose powder).
- Spontaneous bleeding of the gums.

Cocaine use can be very dangerous since it can interact with dental anaesthetics. Patients should be advised to refrain from taking cocaine before undergoing dental treatment.

#### **Amphetamines and ecstasy**

- Stimulate carbohydrate intake and increase thirst.
- Increase motor activity, including teeth grinding (bruxism).
- Can increase bleeding after surgery.
- Can produce dry mouth (see page 41).

Increased thirst can lead to increased consumption of sugary drinks which, as with opiates, raises the risk of tooth decay. Teeth grinding can lead to increased tooth wear, especially in combination with consumption of acidic and sugary drinks.

#### Hallucinogens (LSD, mushrooms, angel dust)

- Potential of mouth and facial injuries (from risk-taking behaviour under the influence of drugs).
- Can encourage jaw and teeth grinding.
- Stressful situations (e.g. dental treatment) may cause panic attacks.
- Opiate painkillers should not be prescribed for offenders taking phencyclidine (angel dust) as there is a danger of respiratory failure.

#### Solvent misuse

- Skin irritation may be noted around the mouth and nose.
- Oral frost bite may be present (from inhaling aerosols).
- Mouth and facial injuries may occur (from risk-taking behaviour during intoxication).
- Dental anaesthetics containing adrenaline should not be used as solvent abuse can sensitise the heart muscle to adrenaline.
- General anaesthetics should be avoided because of possible liver damage.

#### **Anabolic steroids**

- Dependence can lead to high consumption of carbohydrates, which increases the risk of tooth decay.
- General anaesthesia should be avoided as these drugs can lead to heart problems.
- Post-operative bleeding is increased as clotting factors are reduced.
- Feelings of hostility and violence are common among users therefore there is a risk of mouth and facial injury.

Drug misusers report considerably more difficulty in accessing dental services. Any offenders wishing to do so should visit NHS Inform at **www.nhsinform.co.uk** for information on local Public Dental Service or Drug and Alcohol Services for their area, or call NHS24 on **111**.

#### 3

#### Unit 3

## Offenders' most common oral health problems

#### 1. Tooth decay (dental caries)



#### Key message

Every time anything containing table sugar (sucrose) is eaten or drunk, the teeth are under acid attack for up to one hour. This is because the sugar reacts with the bacteria in plaque and produces harmful acids which destroy the structure of teeth.

#### The most common oral health problems encountered by offenders are:

- 1. tooth decay (dental caries) and dental erosion
- 2. periodontal (gum) disease
- 3. dental trauma
- 4. oral cancer.

Each of these conditions is described below.

#### What is tooth decay?

Tooth decay is the destruction of enamel and dentine of teeth. Enamel is the outer layer and dentine is the middle layer of a tooth. When enamel is weakened it can break off and form a hole (cavity) in a tooth. When the decay reaches the dentine, it can cause pain and infection.



Tooth decay

#### What causes tooth decay?

A main cause of tooth decay is frequent consumption of foods and drinks (mostly confectionery, snack foods and soft drinks) high in sugars. Once ingested, sugars are converted to acid within a few minutes by the layer of bacteria on the tooth surface (known as plaque). The resulting build-up of acid attacks the enamel causing a loss of calcium and phosphate in the enamel (a process called demineralisation) — eventually leading to a cavity and, if left untreated, a destruction of a tooth. This can be accompanied by pain, discomfort and often infection.

Tooth decay increases with the amount and frequency of sugar in the diet. The more frequently sugary foods and drinks are consumed, the more often the teeth come under attack from the acid and the more likely tooth decay is to occur.

#### How can tooth decay be prevented?

- 1. By reducing the number of times that acid attacks occur. This can be achieved by trying to keep sugary foods and drinks to mealtimes where possible. (Saliva can replace the calcium and phosphate that is removed from the enamel surface during demineralisation. This process of remineralisation will start between 20 minutes and two hours after demineralisation. If sugars are eaten frequently throughout the day, demineralisation outweighs remineralisation and the result is tooth decay.)
- 2. Using fluoride toothpaste twice daily (see guidelines on page 28).

#### **Dental erosion**

Dental erosion is different from decay. It is a wearing away of the surface of the teeth, and is becoming an increasing problem. It occurs on plaque-free surfaces and results from the consumption of acidic foods and drinks, including diet or sugar-free drinks and fruit juices, which dissolve enamel.

Sipping and drinking from cans and bottles may cause considerable dental erosion on the upper front teeth. It is recommended that you avoid these drinks or, if you do drink them, use a straw placed well behind the front teeth.

Acids linked to erosion include citric acid and phosphoric acid, both of which are found in either fruit juices or soft drinks. In order to prevent acid erosion, acidic foods and drinks should be kept to mealtimes when possible, and brushing should be avoided immediately after eating and drinking to prevent further damage to the already weakened enamel. Gastric reflux and vomiting also brings acid into the mouth. Causes of this could be pregnancy, hiatus hernia, anorexia/bulimia, motion sickness or alcohol misuse.

#### 2. Periodontal (gum) disease



#### Key message

Periodontal (gum) disease is the most common cause of tooth loss in adults.

#### What is periodontal disease?

Periodontal disease is a set of related conditions that range from inflammation of gums (gingivitis) to destruction of tissue that surrounds and supports teeth (periodontitis). If it is left untreated, it can result in loosening and subsequent loss of teeth.

Unlike tooth decay, which is usually a rapid process, periodontal disease can take many years to reach the stage where teeth become loose and may be lost. Gingivitis can be diagnosed by redness, swelling and bleeding on brushing. When gingivitis is allowed to progress, the condition may cause destruction of the bone that supports the teeth, which results in tooth loss. About 50% of older people will have lost at least one tooth as a result of periodontal disease.

If gums recede as the result of gum disease, the exposed roots of the teeth can come under attack and root decay occurs. This is very difficult to treat, but regular dental examinations would help prevent this condition through early clinical interventions.





**Gingivitis** 

**Periodontitis** 

#### What causes gum disease?

- Poor oral hygiene
- Plaque
- Smoking:
  - can increase the risk of periodontitis and tooth loss
  - can make gum disease worse as it causes a lack of oxygen in the bloodstream which makes healing more difficult
  - may mask gum disease as gums may bleed less on brushing.

#### How is gum disease prevented?

It can be reversed by good oral hygiene: effective and methodical removal of plaque by thorough toothbrushing twice daily.

#### **Additional information**



Use dental floss or interdental brushes to clean in between the teeth if advised by the dentist. The availability of dental floss and interdental brushes will vary across prison establishments.

#### 3. Dental trauma<sup>19</sup>

Dental trauma can occur for a variety of reasons, including from sporting injuries or as a result of interpersonal violence. It is also common to break, chip or knock out a tooth after a blow to the face or even after eating something hard.

For chipped teeth – a non-emergency referral for a dental appointment (Unit 5) for smoothing down and filling the tooth is advised.

For knocked-out (or significantly broken) teeth — seek medical or dental advice immediately. While waiting to see a healthcare professional, you can follow the advice below on how to care for a knocked-out tooth.

#### A knocked-out tooth that you still have

The sooner a knocked-out tooth is re-implanted, the more likely it is to embed itself back into the gum\*. Re-implantation has better success if the tooth is put back into its socket within six hours. Contact the healthcare department or a dentist for an emergency appointment as soon as possible. In the meantime:

- Handle the tooth by the white bit at the top (crown), and avoid touching the root.
- Do *not* scrape or brush the tooth.
- Rinse the tooth with milk\*\* or a saline (salt water) solution if the tooth is dirty. Do *not* rinse the tooth with water or alcohol.
- Try to put the tooth back into its socket.
- Once the tooth is in its socket, gently bite down onto a clean piece of material (e.g. a handkerchief or a wet tea bag) to keep it in place and seek emergency dental care.
- If you cannot re-implant the tooth, hold it between your cheek and gum until you manage to see a dentist, or store the tooth in a clean container and cover it with milk or your saliva.

**Note:** if you manage to re-implant the tooth, it is still necessary to see a dentist as he or she will make sure that the tooth is placed correctly.

#### **Additional information**



\*Children's milk teeth should not be re-implanted as they will not grow back in their place.

\*\*It is important to note that offenders are unlikely to have fresh milk provided throughout the day.

#### A lost tooth

A missing tooth may affect the way your upper and lower teeth bite together, potentially making eating harder, and the neighbouring teeth may start to grow at an angle into the gap. A missing tooth might also affect the appearance of your smile. Thus, it might be a good idea to replace a missing tooth with one of the following options that may be provided by the NHS services inside prison (Unit 5):

- **a denture** removable acrylic (plastic) tooth that is clipped on to other teeth with metal clasps
- **a bridge** the false tooth is permanently fixed to the teeth either side of the gap using special cement.

#### 4. Oral cancer



#### Key messages

Smoking and alcohol consumption greatly increases the risk of oral cancer.

The high-risk type human papillomavirus (HPV) infection in the mouth has been shown to increase the risk of some types of oral cancer.

Regular dental attendance is crucial for early diagnosis.

Early detection of mouth cancer is important, so 'if in doubt, get checked out'.

Oral cancer can affect any of the soft tissues of the mouth: the lips, tongue, cheeks and throat. In the UK each year there are over 5,500 new cases and 1,800 deaths due to mouth cancer, a figure that is increasing.<sup>20</sup>

The highest rate of oral cancer in the UK, for both males and females, is in Scotland.

Each year there are over 600 new cases and 200 deaths in Scotland from oral cancer.<sup>21</sup>

#### **Risk factors**

The major risk factors for oral cancer are tobacco use (all tobacco products), alcohol consumption, and excessive exposure to the sun, which is linked to lip or skin cancer. The virus which causes cervical cancer, the human papillomavirus (HPV), can also cause oral cancer.

Oral cancer is most common in those over 50 years old and those who smoke or drink alcohol. Oral cancer is twice as common among males as females.

Smoking and drinking heavily increases the risk of oral cancer by up to 35 times. This is thought to be because alcohol assists the absorption of tobacco carcinogens (cancer causing chemicals) directly into the oral tissues. Therefore, people who both smoke and drink alcohol have a greater risk of oral cancer than those who either use tobacco or drink alcohol.<sup>15, 16</sup>

The high-risk HPV types that might be implicated in some cases of oral cancer are thought to be transmitted mainly via oral sex, but can also be passed on through vaginal and anal sex. The HPV infection is thought to change the infected cells which can then become cancerous. The risk of developing oral cancer through HPV infection is not high for most people as the body clears the virus within two years in 90% of cases.<sup>22</sup>

Oral cancer incidence is strongly related to social and economic deprivation, with the highest rates occurring in the most disadvantaged sections of the population.<sup>20</sup> This reflects the higher tobacco consumption and poor diet in the more disadvantaged groups. The association between deprivation and oral cancer is particularly strong for men.

#### **Prevention**

Regular dental attendance is crucial for early diagnosis of oral cancer. About half of diagnosed cases prove fatal, but survival chances are much improved with early detection. If oral cancer is diagnosed early, it will respond better to treatment and the chances of cure are increased. For this reason, it is important to visit the dentist regularly. Unfortunately, dental registration and regular attendance can be uncommon in the community for some offenders.

It is possible to reduce the risk of HPV infection by engaging in safer oral sex – using a condom on a penis or a dam (a thin latex barrier) on female genitals. $^{22}$ 

#### Tips for the prevention of oral cancer

Stop smoking

Keep to safe drinking limits.

Eat a healthy diet with lots of fruit and vegetables.

Use protection during oral sex.

Have an annual examination from a dentist.

#### Tips for the early identification of oral cancer

#### How do you spot oral cancer?

The first sign is often a non-healing mouth ulcer or a red or white patch in the mouth. If a mouth ulcer has not healed after three weeks, or there are any unusual changes in the mouth, people should visit a dentist as soon as possible for an examination. The number of deaths could be greatly reduced if people were more aware of the symptoms and went quickly for an oral examination.

#### What to look for

Any red, white, or speckled patches.

Ulcers or sores that do not heal within three weeks.

Lumps or bumps in the mouth or on the lip.

Unexplained speech patterns or difficulty in swallowing.

See also the sections on smoking and alcohol in Unit 2.

#### Unit 4

# Offenders' experience of oral self-care and dental services inside and outside prison

**Note:** content presented in this section is offenders' own views of their oral health issues and does not necessarily represent the official prison policy in question.

### Poor oral health and offenders' quality of life

Qualitative research with offenders in Scottish prisons (HMP&YOI Cornton Vale, HMP Shotts and HMYOI Polmont) has shown that poor oral health has a number of negative effects on offenders' quality of life – it has adverse effects on offenders' physical, social and psychological functioning.<sup>3</sup> Figure 2 provides a schematic overview of the effects offenders experience due to poor oral health.

#### Poor oral health

#### Physical impact

uncomfortable eating

difficulty talking clearly

toothache and painful aching

bleeding and sensitive gums

sensitive teeth

disturbed sleep bad breath

#### Psychological impact

depression

social anxiety

dental anxiety

feeling embarrassed

feeling self-conscious

low self-esteem

loss of confidence

#### Social impact

feeling judged

difficulty in building social relationships

lack of employment prospects

difficulty in speaking with people

embarassment when smiling and laughing

Figure 2. Impacts of poor oral health on offenders' quality of life

This unit will provide a summary of the most common barriers and enablers offenders experience when engaging in oral self-care and when accessing dental health services inside and outside the prison environment. The purpose of this unit is to provide you with a better understanding of the oral health challenges offenders face, which should aid you in carrying out oral health promotion work with offenders.

Both barriers and enablers to good oral health change as offenders either enter or leave the prison environment. The rest of this unit will cover offenders' barriers and enablers to good oral health inside and outside prison separately. At the end of each section, a diagram providing a visual summary of the barriers and enablers is included.

#### **Inside prison**

#### Barriers to good oral health care

#### 1. Prison routine

The prison regime provides a structure in which offenders can establish unhealthy oral health routines. Unhealthy behaviours can be facilitated by boredom during restricted regimes or when confined to cells – these have been the circumstances offenders often identify as the reason for eating 'junk foods' and snacking 'on sweets and biscuits', drinking 'bottles of Irn Bru or the big bottles of Coca Cola' and smoking cigarettes:

'I never used to eat chocolate before I come in here ... End up eating 3–4 bars of chocolate a night ... I think it is pure boredom.' (P4\_I)

#### 2. Prison policy

#### Inequitable access to dental care

Eligibility for dental treatment is not equal across the offender population.

Offenders on remand, who have short sentences or are subject to segregation, are either unable or not entitled to access dental care:

'You put in another form out, you get a form back saying ... because they don't normally see you if you're just on remand.' (P5\_P)

#### Waiting times

Offenders frequently identify long waiting times for dental treatment as causing a great deal of frustration. Anxious to be treated while in prison, cheating the system – by lying and feigning an emergency – is seen as the only option to see the dentist:

'You need to tell 'em you've got toothache, or you're in agony, and I think about 75% of the guys just tell lies cos they're just wantin' their teeth fixed you know. But em ... if you're putting in a [self-referral] form I think I need a filling or something in the form otherwise ... I din'nae think they'd ever see you.' (P9\_I)

More experienced offenders will also note differences within and between prison establishments, suggesting an uneven distribution of dental services:

'In this prison I've been to the dentist and in [second prison] and in [third prison]. In [the second prison] it was quite good and they were quite thorough – treated me well ...' (P7\_I)

#### Canteen sheet/sundry purchase

The canteen sheet is identified by prisoners as a resource for cheap, unhealthy snacks that offenders tend to favour over (fewer) healthier options due to limited choice and wages.

'What happens is every week you get a shop treat ... and obviously the stuff that is on it is unhealthy, not just for your teeth, but it's all sweets and crisps. Pot Noodles, high fat and salt stuff.' (P10\_CV)

The quality of fruit provided can also be off-putting for some offenders particularly within an environment where there is no option to readily store fresh foods:

'There's absolutely nothin. And what, you can order an apple –  $\pm 3$  for an apple or  $\pm 3$  for an orange, that's only started in the last couple of weeks but nobody's buyin' it because it's just that expensive eh.' (P2\_I)

'...sometimes the fruit that you get's no' in the greatest o' body, in the greatest nick...' (P1\_CV)

#### Prison meals

Offenders regard prison meals as unappetising and unhealthy: 'everything being greasy' with 'processed meats or reconstituted chicken', 'frozen vegetables' and puddings full of 'caster sugar' and a lack of fresh fruit. Offenders also associate the provision of unhealthy meals with other health concerns, e.g. hypertension, being overweight and other physical ailments.

#### Prison-issued toothpaste, toothbrush and dental floss

There is widespread criticism among offenders of the prison-issued toothpaste — 'I don't feel like it's cleaning or protecting teeth', 'it's too sweet', 'you can taste and feel the cheapness of it', 'it's like chalk, it leaves a horrible taste in your mouth'; and prison-issued toothbrushes — 'sore to use and don't last long', 'snaps', 'too thin', 'too sore to use', 'plasticky', 'too soft', 'makes your gums bleed'. Offenders also report distrust of the prison service — they suspect the prison authorities cut costs by providing low-grade dental products. Some offenders choose to purchase dental resources available on canteen lists, for most offenders the cost and availability is seen as prohibitive and acts as a barrier to improving oral health:

'We get £12 per week here and you've got to buy your tea bags, your sugar and if you smoke your cigarettes and then you've got to buy your toothpaste and that 'pro-enamel' is £3.50 in here.' (P8\_CV)

For security reasons dental floss is not always available within prisons.

#### 3. Dental anxiety and fear

Dental anxiety and fear is a common barrier to accessing dental services for offenders:

'as I was sayin' ta girls yesterday who were ... waitin' ta go ta their appointments, we're really worried an' anxious.' (P1\_CV)

The dental treatment item which causes the most anxiety is the local anaesthetic injection or 'the fear of the needle'. Comments, such as 'I hate needles aye' or 'I'm sort of nervous to go to see the dentist [because of] the needle' are commonplace in offenders' descriptions of what they feared most about dental treatment. Dental anxiety is exacerbated by taking part in or overhearing other offenders' conversations with lurid images of dental treatment – of 'butcher dentists', of prison dentists being 'rough' and 'just taking out teeth':

'I don't trust that dentist at all, I've heard some horror stories about him.' (P22\_CV)

For some offenders dental anxiety results in putting off treatment requests:

'I'm too scared to go the dentist here – I just take paracetamol – painkillers.' (P31\_CV)

#### 4. Dental professional factors

#### Limited dental treatment provision

The most frequent complaint raised was the infrequency of visits of the dentist, the dental hygienist and the dental team:

'... there's only one dentist in here and he comes round what is it, twice a month for the whole day.' ( $P29\_CV$ )

#### Quality of dental care

Offenders felt dental appointments were often hurried and rushed. Some offenders felt that the lack of communication between the dentist and them indicated that the treatment was incomplete:

'Would only be a matter of 10, 15 minutes [with dentist] – after six months of waiting.' (P6-G)

For those requiring treatment, anxiety about teeth extraction is a major concern – particularly when the prison dentist has gained a reputation for favouring extraction over any other treatment option:

'They [the dentists] aren't so interested in what's wrong, they just want to get it over and done with and away quickly, so it's easier to pull them out ... so he can go ... and the reason 'cos there's that many people going to him.' (P8\_I)

The absence of sedation services is an additional barrier for those who are dentally anxious:

'In [another prison] they sedated me. That was great. It was jus' lie back an' you were there, but you were nae quite there you know what I mean.' (P1\_I)

#### 5. Oral health promotion

Offenders who were interested in caring for their teeth felt that there was a lack of oral health promotion within prisons. For example, some offenders noted the absence of leaflets or posters with information on oral health:

'But if you go about the prison and have a look at all the posters, you just can't see how many posters you see about teeth. Cos, I cannae think of where there's one.' (P2\_P)

#### **Enablers to good oral health care**

#### 1. Patient factors

#### Perceived dental need

Prior to imprisonment most offenders were aware of their dental treatment need only when in pain and thus were reliant on accessing dental services on an emergency basis only. The prison environment, in contrast, seems to create a better perception of dental health needs through oral health posters, oral health promotion talks and information provided on prison dental services. Other offenders' or prison officers' recommendations also can act as a motivator:

'I was recommended when I was in for over a year, for something, to go  $\dots$  so I went to the dentist.' (P\_8G)

Welcoming and positive attitude on the part of prison dental staff was recounted as a positive influence on oral health experience:

'(S)he makes you feel quite welcomed and there's no messing about. (S)he explains everything to you ... and so there is no misunderstanding or anything like that.' (P\_I2I)

#### **Prison routine**

As the offenders spoke of their dental health regimes it became apparent that the routine of the prison provided them with a structure in which they could promote their oral health. This routine provided offenders with opportunities to brush their teeth and maintain their oral health:

'In here I found it quite easy to get into the routine of doin' it because you're sharing a cell with one maybe two other folk. And the other boys in the cell are brushing their teeth in the morning, it's like it must be my turn now.' (P6\_P)

'... it's just there [in the cell] so you brush and when you go out you can't forget.' (P5 G)

The routine of prison work life also appeared to enhance tooth brushing:

'I like brushing teeth before I go for work I think it just refreshes your mouth.'

(P3\_G)

#### 2. Policy factors

#### Eligibility for exemption from NHS dental charges

Many offenders reported that knowing that they were exempt from the NHS fees for dental treatment enabled them to access dental care and seek treatment.

Figure 3. A schematic view of reported barriers and enablers offenders experience when adopting oral self-care inside prison

#### Adopting oral self-care inside prison

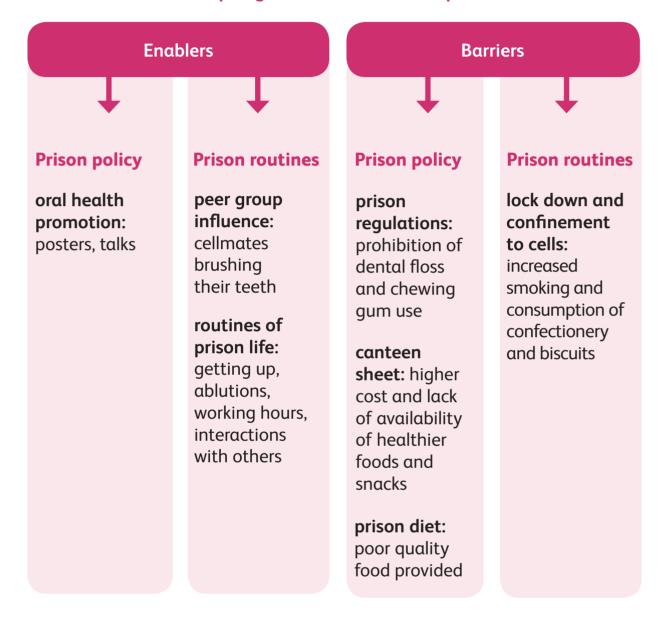
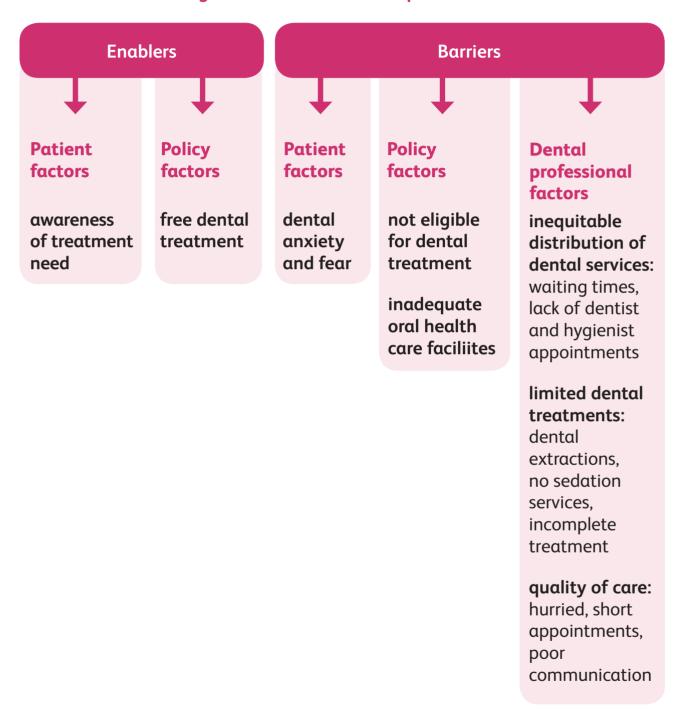


Figure 4. A schematic view of barriers and enablers offenders experience when accessing dental services inside prison

#### Accessing dental services inside prison



#### **Outside prison**

#### Barriers to good oral health care

In this section, we explore the concerns relating to maintaining oral health and accessing dental services that offenders anticipate upon returning to the community setting.<sup>3</sup>

#### 1. Patient factors

#### Perceived need for dental treatment

Other life circumstances become more important outside prison and oral health loses its priority status. It's only when toothache gets 'out of control' and quality of life suffers (e.g. pain experience increases), that offenders will consider attending dental emergency care.

'Until [my] teeth are actually aching, I don't bother going to the dentist. I don't think a lot of people would bother, you don't care of these sort of things, there are more important things in your life – so you sit in agony rather than go.' (P2 G)

For some offenders there is a reliance on 'partners', 'mothers' and 'the Mrs' to instigate and encourage otherwise absent, regular dental attendance:

'The majority of them, I don't think they have a dentist, they don't go to the dentist. A lot of people in jail say that they will do this and that and when they actually get out they'll never get around to actually doing it.' (P4\_I)

#### Drug and alcohol addiction

A range of harmful drug taking behaviours can lead to significant numbers of extracted teeth within the offender population. Substance misuse is often linked with self-neglect and oral self-care becoming a low priority:

'I was just taking drugs and drinking all the time and that's why my teeth are in the state that they are in now.' (P2\_G)

#### Social anxiety

Offenders with a history of substance misuse and poor dental health feel their lifestyle is visible to all as 'broken, discoloured and sore teeth'. Thoughts of being an 'ex-offender' also stir up feelings of alienation and judgement inhibiting access to dental services as offenders believe they are outsiders and therefore not welcomed as patients by dentists. Feelings of embarrassment and 'self-consciousness' coincide with reduced confidence and low self-esteem:

'I can't do that [smile]. I'm always conscious of the fact that I haven't got the top teeth and everyone's smiling and laughing, I'm always trying to keep my mouth shut, I've got no teeth.' (P26-CV)

#### Dental anxiety and fear

Dental anxiety and fear remains a substantial barrier to accessing dental services for offenders and, for some, anxiety is more intense when outside of the prison setting. As a consequence, offenders are 'put off' making appointments or have 'talked themselves out of going' into dental surgeries for treatment.

'I've got a phobia ... I'm scared of the dentist like, all my life as far back as I can remember. If I hadn't been in here [this prison] I would have suffered sore teeth and broken teeth at home.' (P6\_I)

#### Lack of knowledge about dental service availability

Inaccessibility of dental services in the community setting is a concern for many offenders in part due to difficult experiences prior to their imprisonment. There is a general perception that waiting lists are long and registering with an NHS dentist is a difficult and cumbersome process. Lack of knowledge about exemption from NHS dental fees and current regulations regarding entitlement to dental registration also leads to uncertainty.

'I don't know how it works ... I don't know if it works the same way ... if I'm still registered or whether I've got to re-register.' (P1\_CV)

#### 2. Dental professional factors

#### NHS dental services

The financial cost of dental treatment is a prohibitive barrier with limited opportunities for paid employment compounding the issue of access to dental treatment outside prison:

'I couldn't get a dentist's – I didn't have any money – I didn't have a job.' (P2\_I)

For a minority of offenders who have been employed their weekly or monthly income was such that if they paid for their dental care they would have little money left for day-to-day living expenses:

'If you need to pay for it and you are only getting 200 quid a week in your job surely your money is not going to be paid in your tooth.' (P2\_G)

Some offenders find themselves de-registered with their family dentist after missed appointments and receiving penalties they cannot afford to pay:

'If you miss your first appointment they make you pay the £40, that's it, you've lost it. Then your second appointment if you miss after that you pay another £40 and then that's you, you've been struck off your dentist. Some people were just struck off and a letter sent out to them with an explanation was that they'd gone private, and there were hundreds of people that didn't have a dentist because of this.' (P5-CV)

#### 3. Policy factors

The most commonly voiced accessibility factor relating to policy is eligibility for the exemption of NHS dental fees and getting treatment while having no fixed address on release from prison. A minority of offenders raised the issue of availability of NHS dental care, and long waiting lists within the context of their revolving-door prison lifestyle:

'It's hard to get a dentist outside of prison, it's really hard and  $\dots$  it's the same old story, waiting lists and you're on an NHS waiting list and then in all the time of waiting – I'm back in prison.' (P10\_I)

# **Enablers to good oral health care**

# 1. Policy factors

When offenders were aware of their eligibility for exemption of NHS fees this acted as an enabler to accessing dental services. In one instance an offender noted that (s)he was told about 'free treatment' (P13\_CV) when attending a drug testing centre:

'There was this place where you go and get a drug test every two weeks and they have a dentist and I was getting my teeth seen for free.' (P13\_CV)

Figure 5 provides a visual summary of both the barriers and enablers to oral health that offenders face outside the prison environment.

# Adopting oral self-care outside prison Enablers Barriers Patient factors Living on the outside: chaotic lifestyle, drug and alcohol use, poor diet

Figure 5. A schematic overview of the barriers and enablers offenders experience when adopting oral self-care and accessing dental services outside prison.

# Accessing dental services outside prison

from drug

and alcohol problems

financial costs

appointment fees, costs of emergency

lack of access:

of dental treatment. missed

care

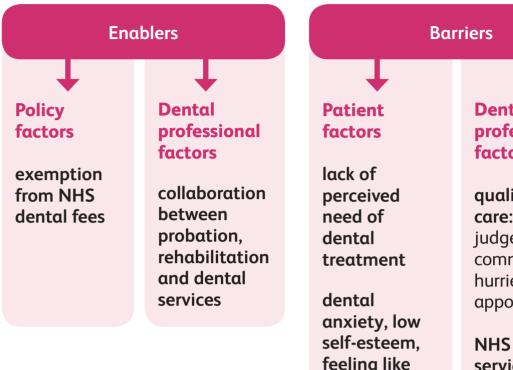
lack of

knowledge about how to access dental services and

how to apply

for exemption

of NHS fees



Dental professional factors quality of care: being judged, poor communication, hurried appointments NHS dental feeling like services: an outsider, private dentistry being judged, costs, missed recovering appointment

fees

Figure 5 (cont). A schematic overview of the barriers and enablers offenders experience when adopting oral self-care and accessing dental services outside prison.

# Unit 5 Dental services and through-care

# **Dental services inside prison**

Owing to the significant demand placed on many healthcare services in prisons there are likely to be waiting lists for access to treatment, including dental services. When offenders are placed on a waiting list, the severity of their complaint is taken into account. While procedures for seeking healthcare treatment may vary between prison establishments, most have a process whereby offenders seeking treatment can self-refer by completing a form.

# Referral for dental treatment

The referral process for dental treatment is likely to vary between establishments and may differ depending on the severity of the problem. For example there may be a self-referral form for offenders to complete or triage requests can sometimes be made directly to the healthcare team. It is therefore important to take time to identify the protocol and procedures in place in each establishment.

# **Tips**

Locate the self-referral forms in your prison establishment and consider making a few copies — ensure these are good quality prints which can be easily read.

Note the designated area(s) where completed forms should be posted alongside any time restrictions in place.

There may also be forms available that an offender or young offender can use to order repeat prescriptions – this may be helpful when someone is receiving (long-term) dental treatment.

Literacy and writing in prison has been established as a potential barrier to healthcare access. Some offenders will struggle to complete a self-referral form and may ask for assistance, be seen to be hesitant, or may frequently indicate that they are in pain or worried. Consider asking if you can assist with completing a self-referral form.

# Dental services outside prison (post-release)

Regular dental attendance is recommended to make sure the teeth are checked for signs of early decay, allowing the dentist to provide preventive care or restore the tooth before the decay progresses. Teeth can be restored relatively easily if decay is detected and treated early. Visits to the dental surgery also allow dentists and hygienists to offer oral health promotion and other dental advice, preventive treatments, and identify and diagnose oral health problems earlier.

Everyone, irrespective of age and dental condition, should have regular oral examinations – at least yearly for those under 18 years of age and at intervals of no more than two years for all adults.

This advice also applies to those without any natural teeth. Children and those at risk from oral diseases may need to be seen more frequently, as advised by the dentist. Smokers and drinkers have an increased risk of oral disease so may need to be seen more frequently by a dentist.

# Registration

In order to receive the full range of dental treatment and care under the NHS, a patient must be registered with a dentist. Practitioner Services have agreed what should be recorded when a patient has no address.

Since 1 April 2010, when a patient registers with an individual dentist, they are registered for life unless they or the dentist request the registration to be withdrawn. If a patient attends another dentist for treatment, their registration will automatically transfer to a dentist within that practice.

Once registered, a dentist should provide an NHS patient with treatment which they need to secure and maintain their oral health. Offenders should discuss their individual dental needs with the dentist.

When attending for treatment, an NHS patient will be asked to sign a GP17 form. This form must be signed only in the appropriate places, particularly regarding whether the patient will have to pay. At the end of the treatment, the patient will be required to sign to confirm that treatment has been completed.

# **General dental services**

General dental services (GDS) provides the majority of dental services in Scotland. 81.8% of the Scottish population (across all age groups) are registered with a GDS dentist. General dental practitioners (GDPs) or high street dentists are independent contractors who are paid through the NHS to treat patients. Most GDPs accept NHS and private patients, but some undertake only private work.

Patients who are not registered with an NHS dentist but wish to register should contact NHS24 on **111**.

# **NHS** dental treatment charges

NHS dental examinations (check-ups) are now free to all patients resident in Scotland. There may be charges for follow-up treatment (see below).

# Changes made in line with benefit revisions in November 2013:

# A person can get free dental treatment if, when the treatment starts, they are:

- aged under 18
- aged 18 and in full-time education
- pregnant or have borne a child within the 12 months before treatment starts
- an NHS in-patient and the treatment is carried out by the hospital dentist
- an NHS Hospital Dental Service outpatient\*
- a Community Dental Service patient.\*

# or, if when the treatment starts or when the charge is made:

- the person is getting, or their partner gets\*\*: Income Support, Income-related Employment and Support Allowance or Income-based Jobseeker's Allowance (Incapacity Benefit, Employment and Support Allowance (Contributory) and Disability Living Allowance do not count as they are not income-related), Pension Credit Guarantee Credit, or Universal Credit
- the person is entitled to, or named on, a valid NHS tax credit exemption certificate
- the person is named on a valid HC2 certificate issued under the terms of the NHS Low Income Scheme.

<sup>\*</sup> There may be a charge for dentures and bridges.

<sup>\*\*</sup> Need to have been included or taken into account when the benefit was calculated.

# Partial help:

• If the person is named on a valid HC3 certificate, they might get some help towards the cost of their NHS dental treatment.

# War pensioners:

• Help may be available (consult HCS 1 form for more information).

If patients are not entitled to free treatment or help with the cost then they will be expected to pay 80% of the cost of the treatment up to a maximum of £384 per course of treatment.

# The following list outlines some examples of costs to patients:

- Basic examination free
- Extensive clinical examination free
- Simple scale and polish £10.20
- Two small X-rays and one small filling from £13.32
- Two small X-rays and one large filling from £24.16
- A precious metal crown from £102.32
- A full set of plastic dentures from £140.28
- An upper or lower metal denture from £123.64

The total cost of NHS treatment may be different from these examples because of the number, or types, of treatment involved. However, this list gives some indication of treatment cost. Dental charges are subject to review and modification

# Help with NHS dental charges

If patients are on low incomes but are not automatically exempt from charges, they may be eligible for help. To find out, they must complete the form HC1 – Claim for help with health costs. This asks for details of individual circumstances, such as the level of income, savings, etc. The claim will then be assessed.

# If the application is successful, patients will receive either an HC2 or HC3 certificate:

- Certificate HC2 provides full help. The patient will not need to pay health costs.
- Certificate HC3 provides partial help. The patient will need to pay some of the costs.

Certificates are normally sent to the claimant's home address within four weeks of a claim being received. They are usually valid for six months. If individual circumstances remain unchanged after six months then, if necessary, a new claim should be made before the current certificate expires.

Patients should complete the special short claim form HC1 (SC) if either of the following applies:

- The patient lives in a care home paid for in part or in full by the local authority.
- The patient is aged 16 or 17, has recently left local authority care and is supported by the local authority.

HC1 forms can be found at Jobcentre Plus offices, NHS hospitals, pharmacies, doctor surgeries, or dental surgeries.

More details can be found in the official information booklet HCS 1 *Help with health costs*, which is available online at:

www.scotland.gov.uk/Publications/2011/03/30092604/0 and at GP surgeries, community pharmacies, Citizens Advice Scotland and Jobcentre Plus.

# The Public Dental Service

The Public Dental Service (PDS) has been formed from the community dental service (CDS) and the salaried general dental services (SGDS) in Scotland. The PDS aims to complement the dental care provided by general dental practitioners.

The PDS only treats patients who, for some reason, cannot access general dental services, i.e. they provide dental care for patients who have particular medical or other special care requirements that make it difficult for some types of dental treatment to be provided in a general practice setting.

The types of patients treated by the Public Dental Service include:

- children with dental anxiety or with high levels of dental disease
- children deemed to be vulnerable
- patients with learning disabilities
- medically compromised patients
- patients with a range of physical and psychiatric conditions
- pregnant and nursing mothers.

Patients are seen by appointment only. To make an appointment, or for further information, telephone the local Public Dental Service office (see the Further information section on page 101).

# Homeless dental service

In some NHS Board areas, the PDS provides a service for people experiencing homelessness who find it difficult to access mainstream dental services. The service will usually treat patients until they become dentally fit and will then encourage them to register with local dental practices for continuing care.

Children whose families access dental services through the homeless dental service may be referred to the PDS for an appointment in a local clinic.

# **Emergency dental services (out of hours)**

If patients need emergency treatment out of hours, and they are registered with a local dentist, then they should contact their dentist. The dentist will either have his or her own arrangements for emergency care or will be a member of the local NHS Board Emergency Out of Hours service. Whichever it is, there should be a message on the dentist's answering machine instructing the patient.

Patients who are not registered with a dentist and need emergency treatment during working hours can telephone their local NHS Board helpline. Outside working hours, assistance is available by dialling NHS24 on **111**.

# **Patient rights**

The NHS is not bound to provide patients with an NHS dentist in the same way that they are with a doctor. However, they will help by providing names of dentists who are accepting NHS patients. It is then up to the patient to contact a dentist themselves.

If a patient is registered with an NHS dentist, the dentist must offer the patient appropriate treatment to make him or her 'dentally fit' or free from any active dental disease. NHS fillings are guaranteed for one year and will be replaced free of charge within this time if necessary.

Cosmetic treatment that is not clinically necessary, such as tooth whitening, is not available on the NHS.

If a patient is required to pay for treatment, practices can ask that they pay at the end of treatment, after every appointment or at the beginning of treatment. It is a good idea to find out what the arrangements are at each dental practice. The dentist must give them a written estimate of the cost of all treatment. The patient can refuse any treatment that he or she does not want to have.

The dentist is only required to issue a treatment plan on first examination and then in other prescribed circumstances, not for every course of treatment, but the patient can request this.

Since 1 April 2010, when patients register with an NHS dentist they will be registered for life unless they or the dentist request registration to be withdrawn.

Dentists can remove patients from the register for any of the following reasons:

- Regular missed appointments
- Persistent lateness
- Not paying for treatment
- Failure to follow dental recommendations

- Threatening or abusive behaviour
- Breakdown of professional relationship

For information on local dental services, please consult the NHS Inform website **www.nhsinform.co.uk** 

# Through-care

Offenders who have not completed a course of treatment in prison should be encouraged on release to return to their own dentist, if they have one, to complete care. The PDS, who provide the majority of dental services in prisons, are currently developing arrangements to enable offenders to have an opportunity to have an on-going course of treatment completed at a PDS facility close to their 'home location' following release should they wish to do so. It is anticipated that this service will be available during 2014.

# Unit 6

# Working with offenders: promoting and supporting oral health behaviour change

This unit is concerned with the promotion of oral health behaviour change. It is divided into two parts. Part 1 explains factors that motivate health behaviour change and form the basis of Mouth Matters oral health intervention. Part 2 provides a generic 4-step oral health intervention workflow for interacting with offenders in an oral health promotion capacity.

# Part 1

# What helps motivate behaviour change?

# There are two key factors that motivate behaviour change:

- 1. An empathetic, supportive and collaborative practitioner-client relationship.
- 2. An oral health promotion approach that is sensitive to a client's readiness to change.

Formerly the standard approach to promoting health in a public health setting has been largely based on the underlying assumption that it is sufficient to give information to patients and – once they know what is unhealthy for them – the adoption of healthier behaviours would follow.<sup>23</sup> Health promotion experience has shown that behaviour change does not simply occur because a person is informed about the ill effects of unhealthy behaviours. Often you will find that people are aware of the health consequences of their behaviours, yet they don't make any positive changes.<sup>24, 25</sup>

Ambivalence about behaviour change is usually the reason why people are resistant to making changes. Ambivalence is when a person feels two ways about a particular issue – they might have both positive and negative feelings about a problem behaviour which can make it difficult to decide on choosing the healthier course of action.<sup>25</sup>

On the practitioner's side, it is often the communication approach adopted during health promotion that can hinder the process of behaviour change. Research has shown that a positive intervention outcome is more likely to occur if an empathetic interpersonal approach to consulting is adopted where information is exchanged rather than passed down to the client, and is done in a way that corresponds to the individual's readiness to change.<sup>23</sup> Confrontational communication, where the client is the passive recipient of information and is being told what would be the best course of action (from the point of view of the practitioner), without regard for the actual needs of the individual, can create resistance to change.<sup>23</sup>

# Thus, there are two factors that make any oral health intervention more likely to be successful:

- 1. A good practitioner-client relationship.
- 2. Sensitivity to the client's readiness to change.

These two factors have been central to developing the *Mouth Matters* oral health intervention: it is important to establish a good practitioner—client relationship and adopt an oral health promotion approach that is suited to the individual's readiness to change. These two factors are explained in the next two sections.

# Practitioner-client relationship



# Key messages

Empathetic, supportive interaction that seeks to understand the perspective of the individual as the ultimate decision-maker increases the chances for motivating behaviour change.

The **OARS** communication skills needed for establishing and maintaining a good practitioner–client relationship are:

Open questions

**A**ffirmations

Reflective listening

**S**ummarising

# **OARS**

Communication skills are important in creating an empathetic, collaborative and supportive environment within which the individual can explore their oral health issues and feelings surrounding them.

OARS – the core communication skills of motivational interviewing should be part of every oral health encounter. The acronym stands for the following key communication skills:<sup>23, 25</sup>

**O**pen questions (to elicit information and facilitate expression)

**A**ffirmations (to recognise and emphasise the individual's strengths)

**R**eflective listening (to make sure you understand the individual)

**S**ummarising (to summarise what has been said/discussed)

# **Open questions**

Questions are open-ended if they cannot easily be answered with a simple response, e.g. 'yes' or 'no'. By adopting this questioning style, the client will provide information about their current views and thoughts, which will inform further discussions. Typically, open questions start with phrases, such as 'Why...' 'How...' or 'Tell me about...'

# For example:

Closed question:

'How often do you brush your teeth?' elicits a number response.

# Open question:

'Tell me about your toothbrushing routine.' elicits an open narrative.

# Open-ended questions can often be used to:

- review an individual's typical day
- revisit past experiences or their thoughts about the future
- list helpful and problematic aspects of current behaviour
- discuss the stages of change.

# **Affirmations**

Recognising and emphasising the individual's strengths, even if unrelated to oral health, is a useful way of building confidence. Affirmations are statements that recognise and emphasise the client's efforts or achievements when attempting to improve their oral health behaviours:

'It looks like you've put a lot of thought into this ...'

'You are brushing teeth more often now ...'

'You have made an effort to find out about how to see a dentist ...'

Affirmations are useful in building confidence and reassuring the individual. Affirmations should be sincere and can be used throughout the intervention to build rapport, convey interest and build the client's confidence.

# Reflective listening

Reflective listening is an active listening process whereby the practitioner is making sure he or she understands what the client means. It is a way of making sure you have understood the other person correctly and demonstrating that by making reflective statements in response to what he or she is saying during the conversation.

Simply repeating what individuals say helps to reduce resistance by acknowledging that they have been understood. Repeating statements can be done in two ways:

- 1. Content reflections short summaries of what the person has just said.
- 2. Meaning reflections goes beyond the stated content and reflects the meaning implied by what has been said.

Here is an example illustrating content and meaning reflections.

#### Client's statement:

'I should start brushing my teeth more regularly, I don't feel like going to the dentist often.'

# Content reflection:

'So you have decided to brush your teeth more regularly.'

#### Meaning reflection:

'It sounds like you feel toothbrushing might improve your teeth and keep you away from the dentist.'

# Reflective listening:

- makes the person feel understood
- encourages the person to clarify what he or she means
- gives the practitioner space to process meaningful clinical information
- develops and maintains good rapport
- enables individual to explore their current behaviour, how they would like to be, and how they feel about making changes
- helps the practitioner to understand the patient's perspective on health behaviour change.

# Summarising

You should frequently summarise key points covered over the course of a conversation. Summaries are similar to reflections but they are slightly longer and cover several points discussed during the conversation.

# Here is an example of a summarising statement:

'OK. Let me make sure that I have understood what you are concerned about ...'

'So, today we have discussed ...'

# This technique can be used:

- to summarise the key points discussed
- to link together related issues the client has brought up
- to end the discussion.

# Readiness to change

# Key message

Successful oral health promotion hinges on adopting an intervention appropriate to the individual's readiness to change.

The readiness to change concept comes from the transtheoretical 'stages of change' approach which recognises that people can be at different stages of behaviour change (see Figure 6).<sup>26</sup> The stages of behaviour change in which people can be ranges from not thinking about changing behaviour ('Pre-contemplation') to doing things necessary to sustain healthy behaviours ('Maintenance'). An important thing to note is that stages of change are not linear and people can move from one stage to the next over time. For example, a person who is in the action stage can relapse into contemplation (or 'earlier') stage.

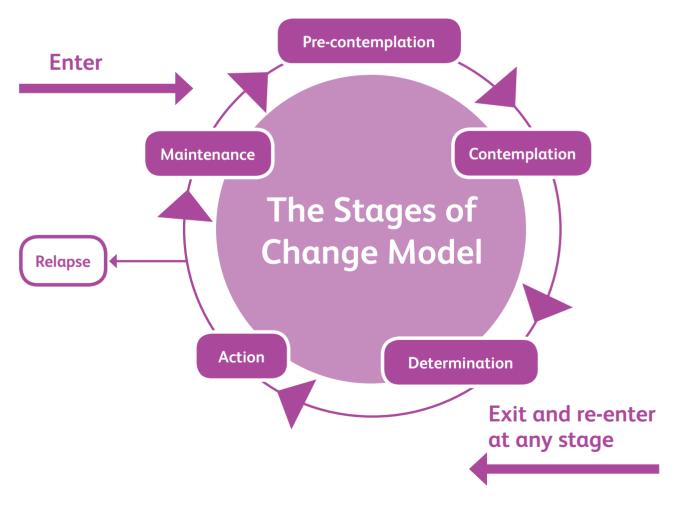


Figure 6. Stages of Change (adapted from Prochaska & DiClemente<sup>26</sup>).

The purpose of presenting the stages of change model is to make you aware that people can be at different points in the process of changing their behaviour. Depending on what stage the person is at, their readiness to change will be determined by that stage. For example, an individual who is in 'Contemplation' stage ('is considering behaviour change') will be less ready to change his or her behaviours than someone who is in 'Action' stage ('is initiating change').

Resistance to change, a reactive attitude that can stall oral health promotion, can be created if the practitioner adopts an intervention approach that is not suited to the stage of behaviour change the client is at.<sup>25</sup> For example, resistance to change can surface if a practitioner starts discussing concrete steps of arranging a visit to a dentist when the individual is afraid to go to the dentist and might only be contemplating it as a remote possibility. Offering to book an appointment would be assuming an individual's readiness state higher than the actual and thus might create resistance in the individual by inducing anxiety about an upcoming dentist's appointment.

A crucial part of a successful encounter with clients, then, is to recognise how ready to change the individual is and use oral health promotion appropriate to his or her readiness state: what information to provide, how to communicate with the individual and what the best tools are for promoting behaviour change will depend on their level of readiness to change. How to assess readiness to change is an integral part of the *Mouth Matters* intervention and is explained in Part 2 of this unit.

# Importance and confidence

Readiness to change is influenced by two factors – the subjective importance and confidence the person assigns to behaviour change.<sup>24, 25</sup>

If the person sees the change in behaviour as important to them, and they are also confident that they can make the desired changes, their readiness to change will be high. In contrast, their readiness to change is likely to be low if they either lack the confidence in their ability to make changes or perceive the behaviour change as not important to them.

Working with concepts of importance and confidence will be relevant when dealing with individuals who are 'Unsure' (ambivalent) about behaviour change. How to work with this client group is also explained in Part 2.

# Part 2

# Mouth Matters intervention: Steps 1 to 4

# Practitioner's role:

Provide a non-confrontational and cooperative environment that facilitates information exchange and exploration of the client's oral health problems (using OARS communication skills) and adopt an oral health intervention suited to the individual's readiness to change.

# Client's role:

To decide on the course of the action by weighing the options and possibilities discussed with the practitioner.

The following section of the training guide will take you through each of the *Mouth Matters* intervention steps, outline the purpose of each step and provide useful techniques that can be implemented.

The *Mouth Matters* intervention is divided into four steps (Figure 7):

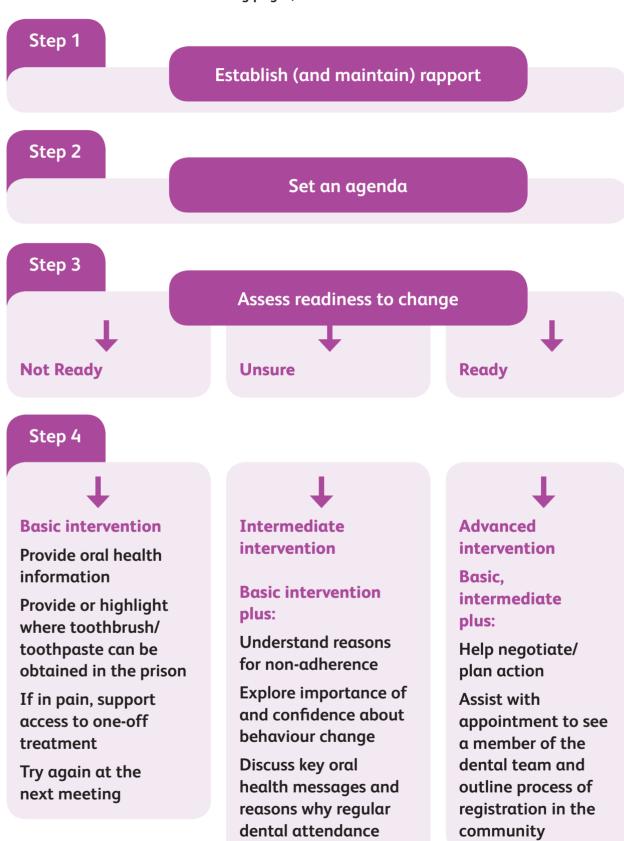
Step 1: Establish (and maintain) rapport

Step 2: Set an agenda

Step 3: Assess readiness to change

Step 4: Use basic, intermediate or advanced level interventions

Figure 7. The four steps of the *Mouth Matters* intervention (each intervention level is described in detail on the following pages)



is important

a later date

Ask client to return at

# Step 1: Establish (and maintain) rapport

For oral health promotion to be effective, the individual should feel that he or she can freely and honestly discuss their oral health problems. Good rapport builds a bridge and creates trust between the client and the practitioner. Thus, establishing good rapport should be the first step of every oral health promotion encounter and, to make the oral health promotion opportunity successful, it is important to maintain it throughout the interaction with the individual.

Good rapport does not always require a lot of effort as sometimes it can be established quickly. Good rapport can be established by adopting a positive and welcoming attitude towards the client and the use of good listening skills and expression of empathy throughout the interaction helps maintain the rapport with the individual

Making eye contact and addressing the client by name can help build rapport. Avoid jumping straight into discussing specific oral health issues at the start of the interaction. Instead – you can, for example, start the encounter by asking open-ended questions that would allow you to get to know the individual better.

# Step 2: Set an agenda

Once good rapport has been established, it is possible to explore the oral health behaviours that the individual has concerns about. Sometimes it will be apparent to you both what behaviour needs modifying, when at other times it might not be immediately obvious.

If it is not clear what behaviours are problematic, a good strategy is to use open-ended questions to start exploring any potential oral health issues. Here are a few examples:

'Is there anything that is concerning you about your mouth, teeth or oral health?'

'How satisfied are you with your oral health?'

If you already know the client and his or her main oral health concerns from previous interactions, more specific, follow-up type open-ended questions can be asked depending on the situation, e.g:

'How did the appointment with the dentist go?'

'How are you feeling about visiting the dentist again?'

'Has your toothache gone since our last meeting?'

The Behaviour Choice Tool<sup>23</sup> (Figure 8) can be used in order to facilitate this part of the intervention. The Behaviour Choice Tool depicts five different oral health behaviours and one question mark which allows the individual to suggest a topic (or topics) of their choice. The practitioner can present the Behaviour Choice Tool to the client and ask him or her to point out an oral health issue (or issues) to discuss.

Figure 8: Behaviour Choice Tool



# **Step 3: Assess readiness to change**

Once the agenda has been established and potential problem oral health behaviour(s) identified, the next step is to assess how ready the individual is to change the behaviour(s). Knowing their readiness to change will enable you to choose the most appropriate intervention level (described in the next step) to adopt.

The readiness to change can often be ascertained without using any formal tools – it might be apparent from the way the individual relates to his or her oral health concerns. However, if it is difficult to judge the client's readiness to change, there is a simple tool that can help you with this task.

The 'readiness rule' (Figure 9) is a simple, quick readiness to change assessment tool.<sup>24</sup> The client can be presented with the rule and asked to indicate where on the scale ('Not ready' – 'Unsure' – 'Ready') he or she thinks they are with regards to changing the problem oral health behaviour.



Figure 9: The Readiness Rule

Once readiness to change has been determined, it is time to decide what intervention level to adopt.

# Step 4: Use basic, intermediate or advanced level intervention

Mouth Matters has three levels of intervention – basic, intermediate and advanced. The three intervention levels have been designed to match the level of the client's readiness to change:

- **Basic** if the client is 'not ready'
- Intermediate if the client is 'unsure'
- **Advanced** if the client is 'ready'

**Note:** readiness to change can fluctuate over time. An individual who might be unsure about changing behaviour today might be ready to make changes the next day or next week. Although less likely, readiness state can also change during an oral health intervention encounter. If necessary, flexibility in adopting the intervention level is encouraged to match the changes in the client's readiness state. You might, for example, start off with intermediate level intervention with a client who is unsure about behaviour change and might notice that he or she becomes more ready and thus it would be advisable to switch to the advanced level intervention.

## **Basic** intervention

This level of oral health care intervention is directed at clients who are currently 'not ready' to change their behaviour. Healthcare professionals have a duty of care towards the individuals but cannot impose their views on them. In addition, it can be counterproductive to try to persuade the client to take a course of action (even if it might be in their own interest to do so) when they are not ready to take the required steps towards behaviour change or they do not perceive the behaviour change as necessary.

The role of the staff member here is to provide access to the information resources and talk about how the individual's behaviours have an impact on their oral health.

Depending on what oral health issues are relevant to the individual, your task might be to:

- provide oral health information
- provide or highlight where toothbrushes/toothpaste can be obtained in the prison (This will be dependent on local implementation.)
- (if the person is in pain) support access to one-off treatment (This may include directing to any existing triage system.)
- try again at the next meeting.

#### Communication skills:

- Open questions
- Reflective listening
- Summarising

## Resources for implementation:

- Toothbrush and toothpaste
- Health promotion leaflet
- Information on dental services

## Intermediate intervention

The intermediate level of intervention is designed for clients who are 'unsure' about changing their oral health behaviours. This group is ambivalent about behaviour change and will need more time and your help to come to a decision.

Depending on what oral health issues are relevant to the client, your task might be to:

- explore feelings and concerns relating to behaviour change
- explore importance and confidence relating to behaviour change
- raise awareness (increase importance) or help build confidence about desired behaviour change or work with both, if necessary
- explore reasons for non-adherence
- discuss key oral health messages and reasons why regular dental attendance is important
- provide oral health information
- provide or highlight where toothbrush/toothpaste can be obtained in the prison (This will be dependent on local implementation.)
- (if the person is in pain) support access to one-off treatment (This may include directing to any existing triage system.)
- positively offer an option for another meeting at a later date.

There will be times when, despite the provision of oral health information, clients will continue with their current patterns of oral health-related behaviours. One part of them may want to change while another part is quite resistant to change. They may access the health-related resources offered to them but also indicate their current dental behaviours are acceptable. The uncertainty is a natural occurrence in the change process, which should not be interpreted as a sign of unwillingness to change, denial or resistance.

The task with this group is to explore the perceptions and feelings that the individual has about the behaviour change so that target issues giving rise to ambivalence can be uncovered and examined.

A good place to start the discussion about their ambivalence about behaviour change is to ask the client an open-ended question as to why they think it is that they are unsure about changing their behaviour.

# Importance and confidence

It is very likely that the client's readiness to change ('unsure') about behaviour change is related either to the lack of perceived importance of the oral health behaviour or their lack of confidence in making changes to the behaviour. In this situation, it can be fruitful to explore these two factors.

# How to assess and explore importance

The perceived importance of health behaviour can be assessed informally by using reflective listening skills and summarising what the client has said. The importance can often be apparent from the way the person talks about their problem behaviour(s).

If it is difficult to glean the importance from the conversation alone, a formal assessment can be used. You could ask the individual a question similar to one the following:<sup>24</sup>

'How do you feel about change at the moment?'

'How important is changing behaviour X to you personally?'

'On a scale from 0 to 7, where 0 is "unimportant" and 7 is "very important", how important would you say changing X is for you?'

If the individual does not perceive the behaviour in question as important, an exploration of reasons why the behaviour is not important can be useful. A good strategy is to ask open-ended questions about reasons why the behaviour has low importance for the person and if there is anything that could make it more important for them:<sup>24</sup>

'Is there anything that could happen for behaviour X to become more important to you?'

'Why do you think it is of low importance to you?'

'Can you see anything happening that would make you score behaviour X higher?'

There are a few strategies that can facilitate an increase in importance:<sup>25</sup>

- raising awareness of the ill effects of current behaviour
- discussing disadvantages of the status quo
- discussing advantages of change
- exploring the decisional balance (pros and cons of the behaviour).

A decisional balance sheet can be used for the last strategy. If there is enough time, a list of pros and cons both of changing and not changing the current oral health behaviour can be listed and discussed. Figure 10 shows a sample decisional balance sheet:

Figure 10. Sample decisional balance sheet

No change	Change
Costs  • Feel unattractive  • Difficult to smile  • Difficult to kiss partner	<ul><li>Costs</li><li>Will upset my routines</li><li>Will take too much time</li><li>Increase in dental expenses</li></ul>
<ul><li>Benefits</li><li>Little effort required</li><li>No treatment fees</li></ul>	<ul><li>Benefits</li><li>Increased self-esteem</li><li>Can smile and kiss without embarrassment</li></ul>

# How to assess and explore confidence

Confidence can be assessed informally as part of the encounter by using reflective listening. If that does not work, formal questions can be used:<sup>24</sup>

<sup>&#</sup>x27;How confident do you feel about making changes?'

<sup>&#</sup>x27;On a scale from 0 to 7, where 0 is "not confident at all" and 7 is "very confident", would you say you are about changing/doing X?'

If the client's confidence about behaviour change is low, it can be explored similarly to importance with open-ended questions:<sup>24</sup>

'Is there anything that could make you more confident about making changes?'

'What is it about behaviour X that makes you less confident about changing it?'

If the individual lacks confidence in making changes to the oral health behaviour, there are several strategies that can be used to increase the person's confidence: <sup>24, 25</sup>

- Evocative open questions (eliciting the individual's own experience and ideas about change, e.g. 'What would be your first steps in making changes?').
- Building on past successes (acknowledging past achievements as an indication of the client's ability to bring about change).
- Brainstorming (collaboratively generating potential courses of action).

## Communication skills (OARS):

- Open questions
- Affirmations
- Reflective listening
- Summarising

# Resources for implementation:

- Toothbrush and toothpaste
- Health promotion leaflet
- Information on dental services

# Advanced intervention

The advanced level intervention is meant to be for clients who clearly show interest in behaviour change and are 'ready' to change.

Depending on what issues are relevant to the individual, your task might be to:

- provide oral health information
- provide or highlight where toothbrushes and toothpaste can be obtained in the prison (This will be dependent on local implementation.)
- (if the person is in pain) support access to one-off treatment (This may include directing to any existing triage system.)
- assist with attending the appointment and arranging follow-up treatment to care
- help build plans for oral behaviour change.

The task of the practitioner is to help negotiate, support and encourage the client to set their oral health goals. There are two formal frameworks than can help to do this:

- S.M.A.R.T.
- Implementation intentions

Both frameworks share the underlying idea that behaviour change is more likely to occur if a specific rather than a general action plan is established, but they differ in their approach to making oral health behaviour change plans. Both frameworks are described below and the practitioner can choose which one to use based on personal preference and/or experience.

## S.M.A.R.T.

S.M.A.R.T. is a framework that defines how goals should be set so that the likelihood of them being achieved is increased. S.M.A.R.T. is a mnemonic and denotes five characteristics of attainable goals.<sup>27</sup> When planning on behaviour change, the goals should be:

Specific

Measurable

Attainable

Relevant

Time-related

Specific goals can be set by answering three questions – 'What  $\dots$ ', 'Why  $\dots$ ' and 'How  $\dots$ ' I want to accomplish.

Measurable goals are targets that can be assessed against some previously set criteria (for example, the reduction of the number of decayed teeth after attending a dentist appointment).

Attainable goals should be possible, as judged by the time, knowledge and resources available to the person desiring to make changes. Motivation is low if the goal is either too easy or too difficult to achieve.

Relevant goals are the ones that the person personally cares about and is thus willing to move towards them.

Time-related goals are the ones that have a target timeframe set.

The oral health goals relevant to the client can be jointly discussed between the practitioner and the client and developed in line with the S.M.A.R.T criteria. The goals can be written on a piece of paper so that the individual can take them away from the meeting and access them independently of the oral health intervention encounter. A sample S.M.A.R.T. questionnaire is available in the appendices (page 103).

# Implementation intentions

Implementation intentions<sup>28</sup> rest on the understanding that simply setting health goals does not necessarily mean that these are achieved. In fact, they rarely are. Implementation intentions are future action plans in the form of 'if—then' or 'when—then' where oral health behaviours are linked to target situational cues.

For example, an oral health-focused implementation intention for someone who tends to forget to brush their teeth in the evenings, could be as follows:

'...before I climb into bed I will try to remind myself about toothbrushing, take my toothbrush, put toothpaste on it and brush my teeth for two minutes.'

In this case, a concrete target action 'toothbrushing' is linked with situational cue – 'before climbing into bed'. If the individual responds well to this type of approach, implementation intentions of this sort can be developed for the individual's problem oral health behaviours.

As with the S.M.A.R.T framework, the more personalised and concrete the details that can be added, the better. This technique, although very simple, counters common barriers to action, including simply forgetting to act, not being aware of opportune times, having second thoughts at critical moments or relapsing into old habits

#### Communication skills (OARS):

- Open questions
- Affirmations
- Reflective listening
- Summarising

# Resources for implementation:

- Toothbrush and toothpaste
- Health promotion leaflet
- Information on dental services and, as appropriate, information on registering with a dentist in the community

# Time constraints, your job role and practitioner– client relationship

There are a few factors that will determine the nature of your interaction with the individual:

- Time available for intervention
- Job role
- Relationship with the client

The *Mouth Matters* interaction workflow is generic and has been written for the circumstances that would, by default, assume:

- that there is a significant amount of time for the encounter (15–30 minutes)
- that the practitioner has knowledge, capacity and that their job role entails discussing oral health topics in significant depth
- that the client and the practitioner meet for the first time.

However, encounters with clients will not always follow this pattern due to time constraints, different staff job roles and the nature of the staff—client relationship.

#### Time constraints

The shorter the time frame for the oral health encounter, the less can be achieved in terms of health promotion. For relatively short encounters you will have to judge the scope and the depth of issues to be tackled. You're always encouraged to adopt an understanding and empathic communication style and use the OARS skills; however, within a relatively short encounter (5–15 minutes), there will be less opportunity to explore ambivalence about behaviour change with the individual and thus encounters of short duration might have to be limited to more practical concerns – such as providing oral health information, arranging for another oral health meeting, providing information on dental services and so on.

### Your job role

All staff can contribute to improving client health and wellbeing, but you will need to identify how and when you can best undertake health behaviour brief interventions within your day-to-day work. There is a potential oral health improvement opportunity in even short encounters with clients and, as previously outlined, you should adapt your approach accordingly.

# Practitioner-client relationship

The practitioner—client relationship will also have an effect on the nature of the oral health promotion. The encounter with the individual will be different when you meet them for the first time to when you have met them before and have already managed to establish a relationship. The rapport might already be there with individuals who you have met previously and less will be required at the start of the current session to build a trusting environment. An established practitioner—client relationship is also more likely to provide the agenda for the current session as issues discussed in the previous encounter might still be relevant or would require a follow-up discussion.

# **Appendices**



# **Further information**

# **Useful websites**

#### **Mouth Matters**

Mouth Matters related resources.

www.dundee.ac.uk/sohipp

#### **NHS 24**

Health Information and Self Care Advice for Scotland

www.nhs24.com

#### **NHS Inform**

Health information

www.nhsinform.co.uk

#### Scottish Dental

Information about dentistry in Scotland. Explains the costs of NHS dental care, how to find a dentist, and how to access emergency care: click on the section entitled 'Public.'

www.scottishdental.org

#### **British Dental Association Patient Website**

A useful website with a FAQs section that explains different types of dental treatment.

www.bdasmile.org

#### **British Dental Health Foundation**

A charity dedicated to raising public awareness of oral health and promoting good dental health practices. The FAQs section will answer most of the questions people may ask: click on the section entitled 'For the Public'.

www.dentalhealth.org.uk

# Cancer Research UK

Mouth cancer information page

www.cancerresearchuk.org/cancer-help/type/mouth-cancer

Mouth cancer information site (British Dental Health Foundation) www.mouthcancer.org

#### Childsmile

National oral health initiative for Scottish children **www.child-smile.org.uk** 

# **Healthier Scotland**

Tips and advice on healthy lifestyle **www.takelifeon.co.uk** 

#### EatWell

Hints and tips for healthy eating.

www.eatwellscotland.org

# NHS Health Scotland

Information about the organisation, library service, resources and news **www.healthscotland.com** 

# **Motivational Interviewing**

Information on motivational interviewing techniques

www.motivationalinterview.org

# S.M.A.R.T. sample questionnaire

Goal:
Specific. What will the goal accomplish? How and why will it be accomplished?
Measurable. How will you measure whether or not the goal has been reached?
Attainable. Is it possible? Do you have the necessary resources and opportunity to attain the goal?
Relevant. Is this goal personally relevant to you?
Time-related. When will the goal be accomplished?

# References

- 1. Jones CM, McCann M and Nugent Z. *Scottish Prisons' Dental Health Survey*. Scottish Executive: 2002. www.scotland.gov.uk/Resource/Doc/47210/0013527.pdf (accessed September 2013).
- 2. James Carnie and Róisín Broderick. *Prisoner Survey 2011*. Edinburgh: Scottish Prison Service (SPS); 2011.
- 3. Freeman RE, Akbar T, Buls D, Edwards M, Everington T, Richards D, Themessl-Huber M and Watt C. *The Oral Health and Psychosocial Needs of Scottish Prisoners and Young Offenders*. Dundee: DHSRU, Dundee University; 2013.
- 4. The Scottish Government. *Equally Well: implementation plan*. Edinburgh: 2008.
- 5. World Health Organization (WHO). *Ottawa charter for health promotion*. Geneva: WHO: 1986.
- 6. Scottish Executive. An Action Plan for Improving Oral Health and Modernising NHS Dental Services in Scotland. Edinburgh: Scottish Executive; 2005.
- 7. Scottish Public Health Network (ScotPHN) (2012). Better Health, Better Lives for Prisoners. www.scotphn.net/pdf/2012\_06\_08\_Health\_improvement\_for\_prisoners\_vol\_1\_Final\_(Web\_version)1.pdf (accessed September 2013).
- 8. Kwan S, Petersen PE, Blas E and Kurup AS. Oral health: equity and social determinants. *Equity, social determinants and public health programmes*. 2010; 159-176.
- 9. Department of Health. *An Oral Health Strategy for England*. London: Department of Health; 1994.
- 10. Sheiham A. Oral health, general health and quality of life. *Bulletin of the World Health Organization*. 2005; 83(9): 644.
- 11. Coles E, Chan K, Collins J, Humphris GM, Richards D, Williams B and Freeman R. Decayed and missing teeth and oral health-related factors: predicting depression in homeless people. *Journal of Psychosomatic Research*. 2011; 71:108-112.
- 12. National Institute for Clinical Excellence (NICE). Clinical Guideline 19, Dental recall: Recall interval between routine dental examinations. *NICE guidelines*. London: NICE; 2004. www.nice.org.uk/CG019NICEguideline www.nice.org.uk/nicemedia/live/10952/29486/29486.pdf (accessed September 2013).

- 13. Sheiham A and Watt RG. The Common Risk Factor Approach: a rational basis for promoting oral health. *Community Dent*. Oral Epidemiol. 2000; 28 (6): 399–406.
- 14. The Food Standards Agency. *The eatwell plate*. http://food.gov.uk/scotland/scotnut/eatwellplate (accessed September 2013).
- 15. Cancer Research UK. www.cancerresearchuk.org/cancer-info/cancerstats/types/oral/riskfactors (accessed September 2013).
- 16. Cancer Research UK. www.cancerresearchuk.org/cancer-info/healthyliving/alcohol/ (accessed September 2013).
- 17. Tripathee S, Akbar T, Richards D, Themessl-Huber M, Freeman R. The relationship between sugar-containing methadone and dental caries: a systematic review. *Health Education Journal*. 2013; 72(4): 469-85
- 18. NHS North West Dental Health. www.northwestdentalhealth.nhs.uk/
  Dental+Advice/Adults/Substance+Misusers.aspx (accessed September 2013).
- 19. NHS Choices. www.nhs.uk/Conditions/broken-tooth/Pages/Introduction. aspx (accessed September 2013).
- 20. Cancer Research UK. http://info.cancerresearchuk.org/cancerstats/types/oral/incidence/ (accessed September 2013).
- 21. Cancer Research UK. www.cancerresearchuk.org/cancer-info/cancerstats/types/oral/mortality (accessed September 2013).
- 22. NHS Choices. www.nhs.uk/Livewell/STIs/Pages/oral-sex-andcancer. aspx (accessed September 2013).
- 23. Ramseier C and Suvan JE (Eds). Health Behavior Change in the Dental Practice. Bognor Regis: Wiley-Blackwell; 2010.
- 24. Butler C, Mason P and Rollnick S. *Health Behaviour Change: A Guide for Practitioners*. London: Churchill Livingstone, Elsevier; 1999.
- 25. Miller WR and Rollnick S. *Motivational interviewing: Preparing people for change.* Second edition. Guilford press; 2002.
- 26. Prochaska JO and DiClemente CC. The transtheoretical approach. *Handbook of psychotherapy integration*. 1992; 2, 147-171.
- 27. Doran GT. There's a SMART way to write management's goals and objectives. *Management Review* 1981;70(11), 35-36.
- 28. Gollwitzer PM. Implementation intentions: strong effects of simple plans. *American Psychologist* 1999;54(7), 493.