Evaluation of HMP Shotts Oral Health Improvement Project (ESOP) Final Report

Tahira Akbar
Markus Themessl-Huber
Steve Turner
Ruth Freeman

Oral Health and Health Research Programme
Dental Health Services Research Unit
University of Dundee

July 2011

Address for correspondence:
Dental Health Services Research Unit, Mackenzie Building, Kirsty Semple Way, Dundee DD2 4BF
Email: r.e.freeman@cpse.dundee.ac.uk
Introduction
Health improvement in prisons: Scottish context

Since the publication of the oral health survey in Scottish prisons in 2002 (1) a number of national health directives have recognised the prison population was a priority group, to improve oral health (2, 3). Despite the long-term efforts to reduce oral health inequalities, the current literature does not provide sufficient information about the health promotion programmes or their effectiveness. While the difficulties in conducting research in the prison setting are readily acknowledged (4), the need to inform healthcare services from robust evidence is a key process in translating health improvement programmes into economic benefits and health gains: a process which is scrutinised ever closer under current financial constraints (5).

In Scottish prisons, efforts to promote health & wellbeing are guided by the principles outlined in the 'Framework for Promoting Health in the Scottish Prison Service' (FPHP) which are underpinned by a ‘whole prison’ or ‘health settings’ approach (6, 7). The Oral Health Improvement Project developed by NHS Lanarkshire and HMP Shotts sought to implement multiple health promotion initiatives as outlined within the FPHP key principles:

**Empowerment:** supporting individuals to take control of factors which affect their oral health. The project sought to create opportunities to support and encourage prisoners, visiting families and prison staff to take control of, and responsibility for, their oral health through the ability to make informed choices.

**Partnership:** developing effective collaborative and co-ordinated programmes. The Project undertaken was a partnership between NHS Lanarkshire and HMP Shotts which sought to strengthen collaborations with internal departments and external organisations i.e. prison staff and service providers.

**Sustainability:** engagement across the prison establishment ensuring integration within structures and systems. The Project was implemented as multiple components which sought to make structural changes through integration within prison structures and systems.

**Equity:** fair and impartial healthcare provision. The project sought to improve access to dental healthcare services for all prisoners thorough the development of a best practices & improved understanding by service referrers (prison staff), providers (dentists) and users (prisoners).
An Overview of HMP Shotts

HMP Shotts is a maximum security prison for long-term adult male prisoners. Purpose built in North Lanarkshire in 1978, it has an operational capacity of approximately 540 prisoners who are in single cells. Prisoners are housed across 3 residential halls (B, C, and D) and two national facilities within HMP Shotts: National Induction Centre (NIC) and Kerr House (8). During 2011, staff and prisoners in HMP Shotts will begin the transition into a new purpose built building however, for the period of the evaluation, all prisoners and healthcare staff were still housed on the old estate.

An Overview of the Oral Health Improvement Project for HMP Shotts

In 2010 NHS Lanarkshire with support from HMP Shotts’ Health Care Department introduced an Oral Health Improvement Project (OHP) for HMP Shotts. The OHP was designed to follow a settings approach to promote an environment more supportive of good oral health experience. To achieve this goal an OHP coordinator was appointed who was based in HMP Shotts for the duration of the OHP. The OHP coordinator was tasked with delivering the OHP working in partnership with NHS Lanarkshire’s oral health promotion team and staff across HMP Shotts. The OHP was fully supported by the Health Care Department of HMP Shotts.

The purpose of the HMP Shotts Oral Health Improvement Project was to change knowledge, attitudes and behaviours of participants including prisoners, their families and staff at HMP Shotts in addition to creating an environment supportive of health promotion.

To meet the oral health promotion aims of the OHP, a number of activities were delivered in HMP Shotts. Each of the OHP activities sought to address a number of specific objectives across a range of specific target populations including prisoners, visiting families and staff employed in HMP Shotts. In addition, a mapping exercise was completed at the start of the evaluation and an overview of the activities included in the evaluation (Figure 1). The planned activities not included in this evaluation are described in Table 1.
Figure 1  HMP Shotts Oral Health Improvement Project Evaluation Framework
<table>
<thead>
<tr>
<th>Activity</th>
<th>Engagement</th>
<th>Capacity</th>
<th>Outcomes</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>DVD production</td>
<td>Prisoners involved in acting roles</td>
<td>Awareness of mouth cancer, methadone and other key OH topics</td>
<td>Increased awareness of OH messages</td>
<td></td>
</tr>
<tr>
<td>Peer education programme July 2009</td>
<td>7 prisoners (NIC) trained in communication skills</td>
<td>Training in communication skills Trained, offenders who have ability to take responsibility for own oral health</td>
<td></td>
<td>Prisoners withdrew from programme</td>
</tr>
<tr>
<td>Focus groups Aug 2009</td>
<td>Prisoners from each residential hall</td>
<td>Improved understanding of how offenders perceive the PDS referral process and issues in relation to access</td>
<td>Inform development of good practice for dental referrals</td>
<td>No access to PDS records</td>
</tr>
<tr>
<td>OHP play box May 2009</td>
<td>Children accessing visitors room</td>
<td>Raise awareness of OH message</td>
<td>Increase awareness of importance of OH</td>
<td>Materials from play box went missing</td>
</tr>
<tr>
<td>Fruit &amp; Vegetable Planters</td>
<td>Prisoners and their children accessing visitors room</td>
<td>Raise awareness of OH topics using appropriate materials (fathers with young children)</td>
<td>Increase knowledge &amp; understanding of OH messages</td>
<td>Planters went missing</td>
</tr>
<tr>
<td>OHP themed calendar 2009</td>
<td>Illustrations: drawings produced by visiting children</td>
<td>Raise awareness of OH topics: age appropriate resource for young children</td>
<td>Raise awareness and increase knowledge of OH messages</td>
<td></td>
</tr>
<tr>
<td>Dental referral policies Aug 2008 – Aug 2009</td>
<td></td>
<td>Develop good practice for PDS referrals</td>
<td>Increase number of routine treatments</td>
<td>No access to PDS records</td>
</tr>
</tbody>
</table>

PDS – Prison dental Service  
OH - Oral health
The Purpose of the Evaluation of HMP Shotts Oral Health Improvement Project

1. The aim of the evaluation was to assess the effectiveness of the HMP Shotts Oral Health Improvement Project (OHP) to achieve its declared purpose and to make recommendations with regards to good practice and future directions.

2. The specific objectives of the evaluation were:
   - To identify changes in oral health-related knowledge, attitudes and behaviours among participants
   - To identify good practice within the OHP
   - To explore the challenges of working in a prison environment and the impact of the OHP on the prison environment, structures and systems
   - Recommendations for future health improvement involvement within prison settings

Method

The evaluation of the OHP used material from the following sources:

(i) Oral health-related questionnaires administered by evaluator (ST) to prisoners in late March 2011 to NIC and D Hall prisoners

(ii) Oral health-related questionnaires administered by NHS Lanarkshire (SC) to prisoners in 2010, which had some common content with the DHSRU Dental Health Questionnaire

(iii) One-to-one interviews completed by evaluator (ST) and responses to the Nuffield Partnership Questionnaire assessing inter-agency collaboration

(iv) Focus groups with 20 prison officers and staff based in the prison health centre, including the current dental team

(v) Focus groups with 18 prisoners who had come into contact with the project

Ethical Considerations

Ethical approval for the evaluation was obtained from the Scottish Prison Service Research Ethics Committee on the 9th February 2011. The study was also granted favorable ethical opinion by West of Scotland Research Ethics Service on the 21st January 2011. Information sheets for prisoners and staff about the evaluation, and where applicable the evaluation questionnaires, focus groups and interviews were provided. Information and consent sheets
were provided for all prisoners and HMP Shotts and NHS Lanarkshire staff invited to take part in the evaluation. Informed consent was sought from all participants prior to taking part in the evaluation study and all data collected was anonymised (Appendix).
OHP Objective 1

- To identify changes in oral health-related knowledge, attitudes and behaviours among participants
1.1 Prisoners and their oral health-related knowledge

In the 2011 OHP survey (TR1) the prisoners were asked the following question to assess their oral health related knowledge with regard to the Oral Health Improvement Project (OHP):

‘Since you’ve been in Shotts prison, which of these messages about looking after your teeth and mouth have you heard about?’

Significantly larger proportions of prisoners in intervention and control groups knew about diet and oral health, smoking and mouth cancer and the need for regular dental examinations (Figure 2)

Figure 2  Prisoners’ awareness of oral health messages in 2011
A total knowledge score was calculated from the above 9 oral health messages including the 2 questions about denture wearing. A score of 1 was awarded when the prisoners knew of the oral health message with scores ranging from 0 (no knowledge) to 9 (knowledge of all messages). Only 39 participants answered all questions with 18% (7) scoring 0 and 18% (7) scoring 9. Prisoners in the intervention group (6.18 [2.51]) had significantly higher mean scores for total knowledge mean scores than the control group (3.91 [3.40]) (t=2.63: P=0.02).

A total knowledge score was calculated from the 7 oral health messages excluding the 2 questions about denture wearing. A score of 1 was awarded when the prisoners knew of the oral health message with scores ranging from 0 (no knowledge) to 7 (knowledge of all messages). One hundred and three participants answered all questions with 13% (13) scoring 0 and 35% (36) scoring 7. Prisoners in the intervention (5.18 [2.29]) compared with the control (3.94 [2.46]) group had significantly higher total knowledge mean scores (t=2.63: P=0.01).

From the qualitative evaluation of the prisoners’ oral health-related knowledge (TR 2) it emerged that the prisoners were able to demonstrate some level of knowledge across a range of oral health-related topics including the role of diet, toothbrushing and the importance of fluoride for oral health as well as knowing about the link between smoking and oral health, the role of the dentist, and the importance of using mouthwash to prevent oral diseases. However when questioned more closely many could not readily recall (without prompting) why the sugar-content of foods and drinks or why fluoride were important factors in an individual’s oral health experience. Despite the high risk character of this population, and popularity of the coasters raising awareness of oral cancer, many prisoners were unable to recall that smoking as an important factor in mouth and throat cancer.

The oral health-related knowledge, reported by prisoners, was further reinforced by comments from staff and managers (TR3, TR4). The following is illustrative:

‘I think prisoners have been really interested in, probably a lot that she has told and that the prisoner have learnt things they didn’t know beforehand - just by talking to her. I think prisoners have learned quite a bit from her.’
1.2 Prisoners and their oral health-related attitudes

Prisoners’ oral health-related attitudes were assessed in the 2011 oral health survey using 5 attitudinal questions. Responses to two questions regarding how prisoners rated their teeth and mouth and gums, were measured on a 5-point Likert scale ranging from very good (scoring 5) to very poor (scoring 1). The remaining attitudinal questions were derived from the Dental Neglect Scale developed by Thomson and Locker (2000). These 3 attitudinal questions were of a 5-point Likert format ranging from ‘definitely no’ (scoring 1) ranging to ‘definitely yes’ (scoring 5).

Figure 3 shows the proportions of prisoners who scored ‘very good’ for the rating of teeth, gums and mouth and ‘definitely yes’ for importance of dental care, self-assessed dental avoidance and perception of treatment needs met.

For the dental neglect attitudes there was a significant difference in mean scores between the control and intervention groups for the attitude ‘self-assessed dental avoidance’. No other statistically significant differences were demonstrated.
1.3 Prisoners and their oral health-related behaviours

Three oral health-related behaviours were examined. These were diet, toothbrushing with fluoride toothpaste, and smoking and drug use.

Figure 4 shows the percentages of all prisoners who consumed cakes, biscuits and confectionery as well as healthier snacks on at least a daily basis. The largest percentages of foods consumed were reported as being diluting squash, milk, water, pure juice and fruit.

Figure 4 Food and drink consumed by intervention and control groups in 2011

There were no statistically significant differences in the proportion of prisoners in the intervention and control groups who stated they consumed the foods and drinks itemised above.

Twenty percent (22) stated that they brushed their teeth at least twice a day with fluoride toothpaste, with 89% stating they brushed their teeth at least daily (including the 20%); 10% who stated they brushed at least weekly and 3% who stated they never brushed their teeth.

Despite challenges, the staff were also able to identify indicators of oral health-related behaviour change. For instance as one staff member commented:
‘There’s more guy’s buy fruit and ‘veg’ in here than ever before and that’s a, that’s a dietary input on the healthy stuff that, you know, that she’s been looking at as well so, that’s had a big impact.’

Significantly larger proportions of prisoners in the intervention (96%) compared with the control (80) stated they brushed their teeth at least daily with a fluoride toothpaste ($X^2[2]=7.58; P=0.01$).

From the qualitative evaluation data (TR2) there is evidence the OHP was successful in influencing prisoners’ oral health-related behaviours in relation to toothbrushing and dental floss use. As one participant stated:

‘Aye, .. just recently found out that you’re not meant to use a hard toothbrush meant to be soft. I’ve always used hard toothbrushes - oh I got one fae [the OHP coordinator] before on a health day and eh - it was a good soft one you know. So I think I’ve been messin’ my teeth up for years wi’ hard toothbrushes em.’

Sixty-four percent (68) stated that they smoked tobacco and/or used drugs. The mean number of cigarettes smoked per day was 14.20 (10.55). There was no significant difference in the mean number of cigarettes reported to be smoked each day between intervention (13.78 [10.97] and control (14.73 [10.29]), ($t=0.37; P=0.71$).

1.4 Visiting families and their oral health-related knowledge, attitudes and behaviours

Collecting information from visiting families was not possible within the scope of this evaluation. Nevertheless, there is relevant data which can be gleaned from the staff employed in HMP Shotts (TR3). They reported that the father-child oral health improvement intervention enabled messages to be cascaded out to families. Moreover, and perhaps an unintended outcome, was the improvement in father-child bond which was appreciated by both prisoners and staff. This comment by one of the health staff shows the effect of the father-child intervention:

‘She’s been up, sitting in the visits, and having chat with them and showing them different bits and pieces. Stuff that was more geared toward the kids but allowed
them [prisoners], you know, to have an input in it. The guys have really enjoyed that, and that’s obviously where the calendar came from [...] this makes a huge difference cause these guys feel as if their actually doing something for their family and for their kids outside. So that, that’s been a good setting to be able to go up and, kind’a tie in, obviously a community thing with obviously the guys who are in prison, so aye that’s been, been well received.’

Furthermore, this aspect of the OHP benefited the prison staff families since many of the prison staff took the oral health messages home:

‘You brush and things like that but, as a rule, not visiting the dentist, I’ve got two young kids now, so, I’m trying to encourage them to go so that’s, that’s my big thing as well, got the family.’

Therefore, over the course of OHP, there was increased opportunity to raise the awareness of oral health in HMP Shotts. It was indicated such increases in knowledge were important in reassuring families that the prison establishment was addressing the healthcare needs of those held on the estate.

1.5 Prison staff and their oral health-related attitudes

‘I can actually say hand on heart right now that for the staff and prisoners both at Shotts there has been a benefit. It’s whether we can maintain that benefit all the way through. If they can do it through the whole prison service I think there is a saving at the end of it which is people’s health – THE most important. Secondly – is monetary, because you won’t be getting these people that are ill.’

The qualitative evaluation provides evidence of an overwhelmingly positive attitude from prison staff toward the OHP and recognition that the project had the capacity to improve oral health-related knowledge, attitudes and behaviours in prisoners, visiting families and staff. Staff were particularly appreciative of the fact that some OHP resources had been allocated to them since previous initiatives had focussed on prisoners. Where challenges were discussed, staff reluctance to engage with the OHP from the beginning was acknowledged. This may be indicative that the endeavour was not viewed as a main concern by a minority of staff.
1.6 Prison staff and their oral health-related knowledge

Despite the challenges in staff-engagement during the planning and development phases of the OHP, staff responses (TR3) showed the majority of staff were aware of the OHP and accessed the interventions delivered. Moreover it emerged that, future initiatives particularly where resources for staff were to be incorporated would be welcomed. Staff generally felt that they had learned from the oral health interventions both specifically targeted toward them e.g. staff health events and those primarily developed and targeted toward prisoners e.g. posters.

Although the qualitative evaluation did not specifically seek to demonstrate oral health-related knowledge, staff were forthcoming with examples of their knowledge of various oral health topics including the impact of diet, the role of sugar in tooth decay experience, toothbrushing routines, fluoride content. One member of staff stated that the prisoners’ experience of tooth decay was linked to drug use and methadone treatment, which in this staff members view dried the mouth and increased risk of dental caries:

‘But one problem opioids and general value of saliva for ....which in turn ...and that causes ...but the methadone is sugar-free.’

The staff also acknowledged that the OHP had successfully raised awareness of other more general health-related issues such as alcohol and hypertension:

‘Actually learned myself other than prisoners as well... realised I had high blood pressure myself and before I knew where I was, I’m in the treatment room.’

1.7 Prison staff and their oral health-related behaviours

‘... getting involved with staff and making us aware and we’ve ended up with people who have might not have known they have an underlying problem who have suddenly been made aware. In that what she’s said there, I’m going to see my GP. I don’t know if that has been related into prisoners who have also done similar but I would suggest it would be the case because prisoners usually are the first to click on to say “Aw I’m feeling like that, I’m going to see the doctor now” and wee bits and pieces like that “Aw I’m going to see someone about smoking cause I want to stop smoking. Now I know about the processes, now I know about my lung. So there is all that. Education can’t go wrong at the end of the day’
An exploration of staff experiences over the course of the OHP provided some evidence of behaviour change achieved in the prison staff population. One staff member, for instance, reported he was attending for a dental treatment for the first time in two years. Another employee identified that the fruit provided was a resource frequently accessed by staff who would otherwise have not consumed fruit. In an environment where staff have limited access to healthy food this initiative was particularly appreciated:

‘You have never seen so many staff eat fruit you know and even she said that she said you know why don’t you go and buy it if you can get it for free and most of it was I can’t be bothered you know but if it’s put there it shows that they will eat it and I think the staff was kind of grateful that she was doing stuff with us as well.’

Similarly the prison staff were appreciative of the input from the OHP coordinator in the smoking cessation group where both staff and prisoners had successfully quit smoking:

‘Obviously I don’t smoke and I don’t take much in so it doesn’t affect me but, where I did see the big impact was the likes of staff that I worked with. I’ve got seven staff and there are 3 smokers down to one. I know four prisoners who are now totally off smoking.’

**Recommendations**

The findings suggest that for prisoners with experience of the OHP they had improved oral health-related knowledge and modified oral health-related attitudes compared with others. As was expected there was little change in their oral health-related behaviours. Of interest is the experience of the 9 elements of the OHP which although not easily recalled nevertheless had an impact on the prisoners’ oral health-related knowledge. There were few differences between the 2010 and 2011 OHP surveys (TR1); however there was some evidence of better oral health status in 2011 intervention group compared with all other groups. Therefore it may be concluded that the OHP had an impact on the prisoners’ oral health related knowledge, attitudes and self-report oral health status. The OHP improved oral health-related knowledge and modified oral health-related attitudes in both prisoner
and staff groups. There was little change in prisoner oral health-related behaviours. It is recommended that:

1. The OHP should explore reasons for difficulties the prisoners’ may have experienced in changing their oral health-related behaviours and use evaluated prison-based oral health interventions to address this aspect of oral health promotion in the prison setting.

2. The staff should be provided with evidence based and appropriate oral health information (e.g., accurate information on waiting times for dental treatment; information on appropriate recall interval for dental examinations for long term prisoners) to make every opportunity a oral health promotion opportunity.

3. The staff should be trained in oral health promotion and be provided with appropriate skills to tailor oral health interventions to prisoners.
OHP Objective 2:

- To identify good practice within the OHP
This section of the Report highlights areas of good practice for health promotion within the OHP. Three areas of good practice will be highlighted which are [1] the adoption of the Framework for Health Promoting Prison; [2] evidence-base oral health promotion; [3] the use of various methods of health promotion used within the prison environment.

2.1 Good practice adopting the Framework for Health Promoting Prison

The OHP was modelled on the Framework for the Health Promoting Prison. This whole prison approach to health promotion has its theoretical basis in the WHO Ottawa Charter for health promotion. Therefore integral to the OHP was the building of health public policies, creating a supportive environment, capacity building, improving skills and reorienting health services. The OHP using the FHPP incorporated dimensions of the Ottawa Charter and as such provides an example of good practice.

Various comments from the focus groups with staff and managers reflected their view that the whole prison approach taken by the OHP was important to build capacity and allow the prison to emerge as a supportive environment for oral health. Therefore of central importance were in-service training and health promotion events. These events provided a time for staff to improve their health promotion knowledge and skills and engender a team approach to make every opportunity an oral health promotion opportunity; such as the promotion of fitness regimes being linked to changes in dietary behaviours and gym events. The following two comments illustrate best practice with regard to in-service training and the inclusion of staff to build capacity for health promotion in the prison environment:

‘Yes its prison we work in but its not all about prisoners and I think the staff get really fed-up always being the ones that don’t really matter and what the OHP has done is made us feel we matter because there has been a lot of the staff as well.’

‘I would not have thought anyone was going to staff health promotion days but there were loads at lunchtime and it was fruit laid on and there was screening for your cholesterol; a massage, it was great. It was great for the staff to get something back ...and see to have that simple thing for the staff was great.’

While it was acknowledged that many barriers remained with regard to, for example, staff availability, it was nonetheless recognised by staff that the OHP required a wide and whole
prison remit in order to be effective. This example of best practice was awarded with HMP Shotts being awarded a ‘Healthy Working Lives Bronze Award.’

2.2 Good practice in relation to evidence-base of oral health education
The various aspects of oral health improvement detailed in the OHP were evidence-based exemplifying good practice. Examples of the use of the evidence-base are apparent in the promotion of the use of fluoride toothpaste in concentrations of 1450ppm as detailed in the Cochrane Review by Marinho et al (9) to prevent dental caries; the evidence with regard to the role of non-milk extrinsic sugars in dental caries and in particular the consumption of sugar-sweetened drinks as a causative factor in both dental caries and obesity (10); the evidence base linking smoking with mouth and throat cancers (11) as well as the NICE guidelines on recall interval for dental examinations (12).

2.3 Good practice in relation to the administration of the OHP
The presentation of the oral health messages and materials while grounded in the FHPP, also reflected the evidence base with regard to the tailoring of health messages to the client group. Three different approaches were used which illustrated good practice in the delivery of the OHP. These approaches were [1] information flow; [2] empowerment and support; [3] agenda setting.

[1] Information flow
Oral health messages were presented throughout the prison as leaflets and posters as well as DVDs and other reading materials such as coasters concerning smoking and mouth cancer. This approach was well received by staff as ‘raising awareness’ and knowledge of oral health matters in the prison client group. Highlighted by managers as good practice was the information flow surrounding oral cancer and smoking cessation. This was considered to be the most important element of the OHP, given the risk behaviours of the client group. The following comment highlights the value of the oral health written information for new prisoners at Induction:

‘You can always tell at Induction what information is left lying around and what’s not and [the oral health] stuff always were taken away which was good.’
[2] Empowerment and support
The reliance on empowering staff with oral health skills to promote oral health at every opportunity has been mentioned above. The staff's empowerment was reflected in the increased numbers entering smoking cessation programmes and quitting smoking. The health staff used various methods of working with the prisoners including group work and tailoring of oral health messages on a one-to-one with the prisoners. Using tailored messaging (13) was preferred by prisoners and allowed the health message to be specific to the prisoner's psychosocial needs. Face-to-face interventions permitted the prisoners to be supported and to be empowered. Nonetheless, the prisoners found it difficult to change their health behaviours but being more empowered, through the OHP, they were able to interact better and bond with their children.

[3] Agenda setting
Incorporated into the OHP was agenda setting. Agenda setting in this context referred to any set of competing issues and the requirement for prioritisation and solutions to be found. In the prison competing demands included challenges of the prison environment, conflicting opinions of the OHP between SPS and NHS staff; problems with staff engagement and so forth. During the OHP solutions found were through leadership and partnership working between the SPS and NHS. The necessity for agenda setting to be shared between the SPS and NHS was recognised as a means of ensuring sustainability of the OHP. This view was expressed by those taking part in one of the focus groups. They stated that there must be the establishment of dual management involvement early in the agenda setting process to sustain oral health improvement in the prison setting. Therefore agenda setting was acknowledged as being an example of good practice.

Recommendations
The OHP adopted the Framework for Health Promoting Prison in its whole prison approach and used the evidence-base to inform it oral health education. It used a variety of approaches to oral health improvement including information flow; empowerment and
support; agenda setting between SPS and NHS. Agenda setting was perceived as an area of
good practice since allowed for the mutual examination of issues and joint solutions for
sustained future partnership working.

1. It is therefore recommended that these examples of good practice should be
   maintained to allow the creation of a sustainable and supportive environment for
   oral health in HMP Shotts.
OHP Objective 3

- To explore the challenges of working in a prison environment and the impact of the OHP on the prison environment, structures and systems
The prison environment is often described as a challenging setting where an individual walking through the security gates will find themselves in a self-contained community. The population of this community are prisoners residing and accessing resources under the care of SPS employees, contractors, and visiting agency staff with wide-ranging responsibilities – including healthcare, education, PTI, addiction services, residential officers, procurement, and so forth. Undoubtedly, given the purpose of the prison estates, security is a constant factor to be taken into account in all movements and activities of prisoners, staff and visiting agencies. The OHP was unique in its undertaking as the OHP coordinator was tasked with ensuring interventions were appropriate for delivery within the challenges of the prison setting whilst creating a supportive environment for oral health for the community of HMP Shotts and families visiting the estate.

In order to ascertain the environmental factors (enablers and challenges) influenced the OHP, the evaluation data was examined to determine prisoner, prison staff and management perceptions of challenges and enablers they experienced within the context of oral health (TR1, TR2, TR3, TR4). For the purposes of this evaluation environmental factors (enablers and challenges) have been defined using the classification of environmental health developed at the WHO consultation in Sofia, Bulgaria (World Health Organization, 1993). For the purposes of this evaluation three environmental factors have been identified: [1] physical environment, [2] physical health (biological), and [3] social factors (Table 2). Each of these factors will be described to reflect the influence of environment upon health behaviour and will therefore start with the perceptions of the prison management, the staff (SPS and NHS) and finally the prisoners.

### 3.1 Management

While challenges were described in terms of the social environment (staff engagement, prison culture) and physical health (limited access to the dental service), from a management perspective it was the physical environment that presented the greatest challenges to the OHP. The managers pointed out the influence of policy, resources, communication, custodial requirements and management structure as challenges to the OHP. The management admitted that enablers, such as the introduction of health initiatives for staff and multidisciplinary working within the social environment were a strength underpinning the OHP. Therefore the impact of the OHP on the prison was to raise the importance of
oral health of prisoners and staff as well as the importance of working multidisciplinary to create a supportive environment for oral health in the prison setting.

3.2 Prison and NHS staff
Overall the staff felt that the OHP’s aim to create a supportive environment for oral health had been affected by the environmental challenges of the prison setting. Limited resources were frequently indicated within the context of access to events, dental treatment, and the cost of healthy options. Reduced access to dental care was acknowledged, by all staff as both an enabler and challenge to the creation of a supportive environment for oral health. It was recognised that the OHP had the capacity to decrease pressure on the dental service (enabler) but the reduced access to dental treatment was also a challenge with regard to the making the prison environment supportive for oral health improvement. Nonetheless, the staff acknowledged the OHP had the potential to decrease costs for the SPS and future projects should address the financial barriers prisoners face in accessing healthy options to maintain their oral health. The prison staff recognised the importance of the social environment as both an enabler and challenge to the OHP. Partnership working, for instance, was perceived as both a challenge and enabler with regard to the creation of a supportive environment for oral health. The impact of the OHP on the prison included the recognition of the importance of multidisciplinary working not only within SPS but also with colleagues within the NHS to create a supportive environment for oral health in the prison setting, and the importance of reducing pressure on the dental treatment service by promoting oral health and reducing costs of dental services.

3.3 Prisoners
Challenges to good oral health experience within the physical environment included limited dental treatment, limited access to good toothbrushes, and insufficient access to sundry purchases. However the prisoners also acknowledged that some changes to the canteen sheet had nevertheless made healthy options easier to identify. In terms of physical health the OHP was seen as a strength and 70% of prisoners reported brushing their teeth with fluoride toothpaste at least twice a day. The social environment was perceived by the prisoners as one of the greatest challenges to good oral health in HMP Shotts. With the majority of prisoners smoking and/or using drugs, together with a history of high sugar diet and the tendency for pain only attendance it appeared that physical health in conjunction
with the social environment had the ability to conspire against the creation of a supportive prison environment for oral health. Moreover, the 'spend limit' on their weekly personal allowance was reported as a barrier to accessing toothbrushes and toothpastes and healthy diet options. Oral health literacy was also voiced as a challenge to the effective use of oral health education materials such as leaflets and posters. The social environment where discussion about oral health with staff, prison officers and family members, participation and attendance at OHP events was acknowledged by the prisoners as strengths of the OHP and considered to act as an enabler for oral health. The OHP had an impact on the prisoners’ oral health related knowledge, attitudes and self-report oral health status.

**Recommendations**

The impact of the OHP on the prison was the creation of a supportive environment for oral health in the prison setting, increased awareness of the importance of oral health of prisoners and staff, the importance of working multidisciplinary with colleagues from SPS and NHS, and recognition of the possibility of the OHP to decrease pressure on dental treatment service by promoting oral health and reducing costs of dental services. Therefore it is recommended that the OHP promote the creation of a sustainable, supportive environment for oral health in the prison setting by:

1. Promoting multidisciplinary working with colleagues within SPS and the NHS to create a supportive environment for oral health in the prison setting.

2. Raising the importance of oral health of prisoners and staff within the prison management structure.

3. Acknowledging the potential to decrease pressure on dental treatment service by promoting oral health.
Table 2: Environmental factors identified during the OHP evaluation

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enablers</strong></td>
<td>1. Limited dental resources places greater importance on self-care to improve oral health experience</td>
<td>1. Limited number of dental appointments resulting in no treatment, incomplete treatment, no check-ups</td>
<td>1. Access across prison estate facilitated OHP to be embedded: ensured high visibility, staff involvement</td>
<td>1. OHP toothbrush resource was improvement on prison issue</td>
</tr>
<tr>
<td><strong>Challenges</strong></td>
<td>1. Limited number of dental appointments resulting in no treatment, incomplete treatment, no check-ups 2. Sundry purchases can only be made once a week (particular day and time) 3. Soft toothbrush OHP provided other toothbrushes cannot be accessed through prison resources</td>
<td>1. Only some staff could access events 2. Barriers to accessing resources 3. Resources inadequate to meet population needs</td>
<td>1. No mechanism/policy to ensure sustainability 2. Limited resources 3. Communication barriers 4. Custodial requirements 5. Management structure</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical health (biological)</th>
<th><strong>Enablers</strong></th>
<th><strong>Challenges</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enablers</strong></td>
<td>1. OHP 2. 70% brush their teeth with fluoride toothpaste at least twice daily</td>
<td>1. Nearly 50% of all prisoners have loose or decayed teeth; sensitive teeth; toothache or discomfort in their mouths. 2. Pain only attendance pattern 3. Sugar containing diet 4. 68% of all prisoners smoke and/or use drugs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social</th>
<th><strong>Enablers</strong></th>
<th><strong>Challenges</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enablers</strong></td>
<td>1. Discussions about oral health with health care staff; prison officers and family members. 2. Attendance at OHP events 3. Participation at OHP events</td>
<td>1. Changes to canteen sheet: healthy options were more readily identified by prisoners 1. Promotion of team approach reduced barriers &amp; increased multidisciplinary working 2. OHP has potential to decrease costs for SPS 3. Small increase in spending allowance has capacity to overcome barriers to accessing healthy options 4. Limited dental care access 5. OHP decreases pressure on dental service</td>
</tr>
<tr>
<td><strong>Challenges</strong></td>
<td>Poor oral health literacy 1. Personal allowance weekly spend limits limited access to healthy options 2. High dental treatment needs 3. Limited dentist availability 4. Literacy: barrier to accessing educational resources</td>
<td>1. Cost of healthy options is a drawback (service &amp; prisoners) 2. Limited access to dental service undermined potential of OHP 3. Weak partnership working between dental service and OHP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Limited access to prison dental service 2. Prison culture</td>
</tr>
</tbody>
</table>
OHP Objective 4

- Recommendations for future health improvement involvement within prison settings
The OHP adopted the Framework for Health Promoting Prison in its whole prison approach and used the evidence-base to inform its oral health education. It used a variety of approaches to oral health improvement including information flow; empowerment and support; agenda setting between SPS and NHS. Agenda setting was perceived as an area of good practice since it allowed for the mutual examination of issues and joint solutions for sustained future partnership working.

- It is recommended that these examples of good practice should be sustained to allow the creation of a sustainable, supportive environment for oral health in HMP Shotts.

The OHP raised the importance of oral health of prisoners and staff within the prison management structure to be recognised and highlighted the importance of multidisciplinary working with colleagues within SPS and the NHS to create a sustainable and supportive environment for oral health in the prison setting.

- It is recommended that in order to create and sustain a supportive environment for oral health in the prison setting multidisciplinary team working within the SPS, NHS and outside agencies must be promoted.

The OHP improved oral health-related knowledge and modified oral health-related attitudes in both prisoner and staff groups. There was little change in prisoner oral health-related behaviours.

- It is recommended that the OHP should explore reasons for difficulties the prisoners may have experienced in changing their oral health-related behaviours and use evaluated prison-based oral health interventions to address this aspect of oral health promotion in the prison setting

- It is recommended that staff should be provided with evidence base and appropriate oral health information (e.g. information on appropriate recall interval for dental examinations for long term prisoners) to make every opportunity a oral health promotion opportunity

- It is recommended that staff should be trained in oral health promotion and be provided with appropriate skills to tailor oral health interventions to prisoners.
Acknowledgements and References
Acknowledgements

We would like to acknowledge the funding from NHS Lanarkshire (Scotland) to allow this evaluation of the HMP Shotts Oral Health Improvement Project.

The evaluation of the HMP Shotts Oral Health Improvement Project would not have been possible without the cooperation of NHS Lanarkshire staff, HMP Shotts staff, and the prisoners in HMP Shotts.

We would like to thank Sheela Tripathee and Tom Radford for their assistance in transcribing, data analysis and preparation of this Report.
References
Appendices

Technical Report 1
Technical Report 2
Technical Report 3
Technical Report 4
Technical Report 5
Ethical Approval Documentation
Dental Health Questionnaire
Technical Report 1

Quantitative survey of prisoners
Methods

Two surveys with prisoners were conducted between 2010 and 2011. In 2010, the OHP coordinator (SC) surveyed prisoners in the National Induction Centre (NIC) and C-Hall. In 2011, the DHSRU survey used the same two settings and included D-Hall prisoners as a control group. Recruitment of prisoners to the DHSRU survey was facilitated by a Prison Officer assigned to the evaluation fieldwork. This Prison Officer was able to identify those prisoners who had participated in the OHP intervention in 2010 and he invited the prisoners to participate in this second survey. The prisoners who agreed to take part formed the intervention group. As a consequence of the recruitment strategy, survey participants constitute a convenience sample. Due to the recruitment strategy, it was not possible to calculate a response rate (ratio of prisoners approached vs. participating in the survey).

For the 2010 survey, SC conducted group work with prisoners during which they completed in the questionnaire. For the DHSRU survey, questionnaires were administered in a classroom setting, facilitated by the evaluator (ST). Prisoners were given an explanation of the aim of the survey and their rights regarding their participation. Written consent for participation was sought at this point. No prisoner refused. Completed consent forms are held in the prison health centre.

A number of caveats need to be acknowledged with respect to the data. First, the use of ‘Intervention’ and ‘Control’ implies a clear distinction between prisoners who had contact with the OHP and those who did not. While SC was actively and intensively involved in the NIC in 2010, some of these prisoners may have left the NIC by the time of the follow-up survey in March 2011. Secondly, it was not possible to identify whether any of the prisoners completed the baseline and follow-up surveys. As a result, it was not possible to compare responses from the same prisoners over time. Thirdly, all the data collected are based on prisoner self-reports rather than observed behaviour, for example with respect to their reported diet, oral hygiene, or state of dentition.

A total of 255 questionnaires (107 from 2011; and 148 from 2010) were completed. All completed questionnaires were coded and entered in an SPSS datafile. Where Oral Health topics were investigated by a series of linked questions (e.g. diet, OHP activities) counts
were computed to give an overall scores. This Technical Report contains reporting of statistical testing for differences between the two groups of prisoners, using Chi-square test and Analysis of Variance.

Results

A convenience sample of 107 prisoners took part in the survey in 2011. Fifty-eight were the intervention group and located in the National Intervention Centre and the remainder (49) were the control group.

The age group of the prisoners ranged from 21 to 60 years. The mean age was 34.60 (10.25). There was no significant difference in mean age between intervention (35.23 [10.62]) and control (33.98 [9.94]) (t=0.63; p=0.53) (Table 1). Length of time in HMP Shotts was 26.75 months for the intervention group and 39.64 months for the control group.

Figure 1.1 Comparison of prisoners’ age group by intervention and control group

Oral health and oral health-related behaviour before imprisonment

Nearly 50% of prisoners had their own teeth but had several missing. Over a third of prisoners reported that they attended the dentist when they were in pain or had an emergency. Another third stated they attended on a 6 monthly basis. Equivalent proportions of those in the intervention and control groups had similar patterns of dental attendance and dental health status (Figure 1.2 and Table 1.1).
Figure 1.2  Comparison of dental attendance pattern and dental health status between intervention and control groups prior to imprisonment

![Bar chart showing dental attendance pattern and dental health status comparison between intervention and control groups.]

Figure 1.3  Self-reported dental health status in 2011

![Bar chart showing self-reported dental health status by intervention and control groups.]

- All my own teeth are missing
- My own but some are missing
- False and my own teeth
- False teeth
Table 1.1  Comparison of dental attendance pattern and dental health status between intervention and control groups

<table>
<thead>
<tr>
<th></th>
<th>Intervention n (%)</th>
<th>Control n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before you were sentenced, how often did you go to your dentist?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Only when in pain/problem with teeth</td>
<td>21 (36)</td>
<td>17 (36)</td>
</tr>
<tr>
<td>Every 6 months</td>
<td>19 (33)</td>
<td>16 (34)</td>
</tr>
<tr>
<td>Once a year</td>
<td>9 (16)</td>
<td>3 (6)</td>
</tr>
<tr>
<td>Less often</td>
<td>5 (9)</td>
<td>6 (13)</td>
</tr>
<tr>
<td>Never</td>
<td>4 (7)</td>
<td>5 (11)</td>
</tr>
<tr>
<td>All my own teeth</td>
<td>12 (21)</td>
<td>9 (18)</td>
</tr>
<tr>
<td>My own teeth but some are missing</td>
<td>27 (47)</td>
<td>24 (49)</td>
</tr>
<tr>
<td>False teeth and my own teeth</td>
<td>14 (25)</td>
<td>14 (29)</td>
</tr>
<tr>
<td>Only false teeth</td>
<td>4 (7)</td>
<td>2 (4)</td>
</tr>
</tbody>
</table>

Do you have your own teeth, only false teeth or a mixture of both?

Experience of the Oral Health Project

Significantly greater proportions of prisoners in the intervention group stated that they had noticed posters about oral health (Table 1.2). While no other significant differences were shown greater proportions of prisoners in the intervention compared with the control group had experience of the 9 elements of the OHP. A total experience score was calculated ranging from 0 to 9. Prisoners in the intervention group (3.38 [2.64]) had significantly higher mean scores for total experience score compared with the control group (2.43 [1.92]) (t=2.08, P=0.04).
Table 1.2  Comparison of the experience of prisoners in intervention and control groups to the Oral Health Project

<table>
<thead>
<tr>
<th>The nine elements of the OHP</th>
<th>Intervention group n (%)</th>
<th>Control group n(%)</th>
<th>χ²</th>
<th>t</th>
<th>eta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seen posters about looking after their teeth and mouth</td>
<td>37 (65)</td>
<td>22 (49)</td>
<td>2.82</td>
<td>0.09</td>
<td></td>
</tr>
<tr>
<td>Read leaflets about looking after their teeth and mouth</td>
<td>27 (47)</td>
<td>13 (28)</td>
<td>3.78</td>
<td>0.05</td>
<td>0.19</td>
</tr>
<tr>
<td>Attended talks about oral health</td>
<td>26 (46)</td>
<td>20 (43)</td>
<td>0.16</td>
<td>0.69</td>
<td></td>
</tr>
<tr>
<td>Taken part in activities about oral health</td>
<td>18 (32)</td>
<td>10 (21)</td>
<td>0.19</td>
<td>0.65</td>
<td></td>
</tr>
<tr>
<td>Attended special events about oral health</td>
<td>18 (32)</td>
<td>15 (32)</td>
<td>0.73</td>
<td>0.39</td>
<td></td>
</tr>
<tr>
<td>Talked to other prisoners about oral health</td>
<td>19 (33)</td>
<td>10 (21)</td>
<td>0.05</td>
<td>0.14</td>
<td></td>
</tr>
<tr>
<td>Talked to health centre staff about oral health</td>
<td>23 (40)</td>
<td>10 (21)</td>
<td>2.18</td>
<td>0.14</td>
<td></td>
</tr>
<tr>
<td>Talked to prison officers about oral health</td>
<td>8 (14)</td>
<td>4 (9)</td>
<td>0.00</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Talked to family about oral health</td>
<td>17(30)</td>
<td>10 (21)</td>
<td>1.25</td>
<td>0.26</td>
<td></td>
</tr>
</tbody>
</table>

Eta: Effect sizes over 0.3 indicate there is a clinical relevance to the statistical significance

Prisoners and their oral health-related knowledge

In the 2011 the following question was asked to assess their oral health related knowledge with regard to the Oral Health Improvement Project (OHP):

'Since you’ve been in Shotts prison, which of these messages about looking after your teeth and mouth have you heard about?'
Table 1.3 shows that significant differences in the proportion of prisoners in intervention and control groups with regard to their oral health-related knowledge. Significantly larger proportions of prisoners in the intervention compared with control group knew about reducing sugar consumption for oral health, that smoking caused mouth cancer and that they should have a regular dental check-up (Figure1.5).

Table 1.3 Prisoners’ awareness of oral health messages in 2011

<table>
<thead>
<tr>
<th>Message</th>
<th>Intervention n (%)</th>
<th>Control n (%)</th>
<th>$\chi^2$</th>
<th>p</th>
<th>eta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reducing sugar consumption</td>
<td>41 (81)</td>
<td>32 (61)</td>
<td>4.43</td>
<td>0.04</td>
<td>0.21</td>
</tr>
<tr>
<td>Cleaning teeth regularly</td>
<td>46 (90)</td>
<td>41 (79)</td>
<td>2.53</td>
<td>0.11</td>
<td></td>
</tr>
<tr>
<td>Using fluoride toothpaste</td>
<td>33 (65)</td>
<td>26 (50)</td>
<td>2.27</td>
<td>0.13</td>
<td></td>
</tr>
<tr>
<td>Using mouthwash</td>
<td>38 (75)</td>
<td>32 (62)</td>
<td>1.99</td>
<td>0.16</td>
<td></td>
</tr>
<tr>
<td>Smoking can cause mouth cancer</td>
<td>40 (78)</td>
<td>31 (60)</td>
<td>6.04</td>
<td>0.04</td>
<td>0.23</td>
</tr>
<tr>
<td>Getting a check-up regularly at the dentist</td>
<td>31 (61)</td>
<td>17 (33)</td>
<td>8.17</td>
<td>0.004</td>
<td>0.28</td>
</tr>
<tr>
<td>A new toothbrush every 3 months</td>
<td>34 (65)</td>
<td>26 (50)</td>
<td>2.94</td>
<td>0.08</td>
<td></td>
</tr>
<tr>
<td>Cleaning dentures</td>
<td>10 (56)</td>
<td>8 (44)</td>
<td>2.74</td>
<td>0.09</td>
<td></td>
</tr>
<tr>
<td>Leaving dentures out at night</td>
<td>6 (25)</td>
<td>3 (27)</td>
<td>0.05</td>
<td>0.81</td>
<td></td>
</tr>
</tbody>
</table>

$\gamma$ only prisoners who wore dentures included

eta: Effect sizes over 0.3 indicate there is a clinical relevance to the statistical significance
A total knowledge score was calculated from the above 9 oral health messages including the 2 questions about denture wearing. A score of 1 was awarded when the prisoners knew of the oral health message. This gave a total score of 0 (no knowledge) to 9 (knowledge of all messages). Only 39 participants answered all questions with 18% (7) scoring 0 and 18% (7) scoring 9. Prisoners from the intervention (6.18 [2.51]) compared with the in total and control (3.91 [3.40]) group (t=2.40: P=0.02) had significant higher mean total knowledge scores.

A total knowledge score was calculated from the 7 oral health messages excluding the 2 questions about denture wearing. A score of 1 was awarded when the prisoners knew of the oral health message. This gave a total score of 0 (no knowledge) to 7 (knowledge of all
Prisoners and their oral health-related attitudes

Prisoners’ oral health related attitudes were assessed in the 2011 oral health survey using 5 attitudinal questions. Responses to two questions regarding how prisoners rated their teeth and, mouth and gums, were measured on a 5-point Likert scale ranging from very good (scoring 5) to very poor (scoring 1). The remaining attitudinal questions were derived from the Dental Neglect Scale developed by Thomson and Locker (2000). These 3 attitudinal questions were of a 5-point Likert format ranging from ‘definitely no’ (scoring 1) ranging to ‘definitely yes’ (scoring 5). Figure 1.6 shows the proportions of prisoners who scored ‘very good’ for the rating of teeth, gums and mouth and ‘definitely yes’ for importance of dental care, self-assessed dental avoidance and treatment need met.

Figure 1.6 Prisoner oral health-related attitudes
There was no significant difference in mean scores between the control (3.26 [1.14]) and intervention groups (2.88 [1.23]) for the attitude ‘how do you rate the state of your teeth’ (t=1.63: P=0.10). Similarly, there were no significant difference in mean scores between control (3.00 [1.15]) and intervention (2.68 [1.09]) for the attitude ‘How to do your rate the state of your mouth and gums (t=1.26:P=0.21). For the dental neglect attitudes there was a significant difference in mean scores between the control and intervention groups for the attitude ‘self-assessed dental avoidance’ (Table 1.4).

Table 1.4 Comparison of self-reported dental neglect attitude between intervention and control groups

<table>
<thead>
<tr>
<th>Dental neglect attitudes</th>
<th>Intervention Mean (SD)</th>
<th>Control Mean (SD)</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance of dental health</td>
<td>4.49 (1.17)</td>
<td>4.22 (1.31)</td>
<td>1.05</td>
<td>0.29</td>
</tr>
<tr>
<td>Self-assessed dental avoidance</td>
<td>1.50 (1.13)</td>
<td>2.36 (1.63)</td>
<td>2.91</td>
<td>0.005</td>
</tr>
<tr>
<td>Treatment needs met</td>
<td>1.78 (1.27)</td>
<td>1.47 (0.95)</td>
<td>1.40</td>
<td>0.16</td>
</tr>
</tbody>
</table>

Prisoners and their oral health-related behaviours

1. Oral health-related behaviours: toothbrushing with fluoride toothpaste
   Twenty percent (22) stated that they brushed their teeth at least twice a day with fluoride toothpaste, with 89% stating they brushed their teeth at least daily (including the 20%), 10% who stated they brushed at least weekly and 3% who stated they never brushed their teeth (Table 1.5).
Table 1.5  Reported frequency of toothbrushing with fluoride toothpaste between intervention and control groups

<table>
<thead>
<tr>
<th>How often do you clean your teeth?</th>
<th>Intervention Group n (%)</th>
<th>Control Group n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater than twice a day</td>
<td>12 (21)</td>
<td>10 (210)</td>
</tr>
<tr>
<td>Twice a day</td>
<td>32 (56)</td>
<td>24 (50)</td>
</tr>
<tr>
<td>Once a day</td>
<td>10 (18)</td>
<td>6 (13)</td>
</tr>
<tr>
<td>Every 2-3 days</td>
<td>1 (2)</td>
<td>7 (15)</td>
</tr>
<tr>
<td>Once a week</td>
<td>1 (2)</td>
<td>1 (2)</td>
</tr>
<tr>
<td>Never</td>
<td>1 (2)</td>
<td>0 (0)</td>
</tr>
</tbody>
</table>

Significantly larger proportions of prisoners in the intervention (96%) compared with the control (80) stated they brushed their teeth at least daily with a fluoride toothpaste ($X^2[2]=7.58: P=0.01$).

**Oral health related behaviours: frequency of food and drink consumption**

Figure 1.7 shows the percentages of all prisoners who consumed cakes, biscuits and confectionery as well as healthier snacks on at least a daily basis. It is interesting to note that the largest percentages of prisoners stated that they consumed diluting squash, milk water, pure juice and fruit on at least a daily basis.
Oral health related behaviours: smoking and drug use

Sixty-four percent (68) stated that they smoked tobacco and/or used drugs. The mean number of cigarettes smoked per day was 14.20 (10.55). There was no significant difference in the mean number of cigarettes reported to be smoked each day between intervention (13.78 [10.97] and control (14.73 [10.29]), (t=0.37; P=0.71).
There were no significant differences in the proportion of prisoners in the intervention and control groups’ oral health-related behaviours (Table 1.6).

Table 1.6 Comparison of prisoners’ oral health-related behaviours

<table>
<thead>
<tr>
<th>Oral health related behaviour</th>
<th>Intervention group n (%)</th>
<th>Control group n (%)</th>
<th>X²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugary food &amp; drinks confined to meal times</td>
<td>17(32)</td>
<td>13 (26)</td>
<td>0.46</td>
<td>0.50</td>
</tr>
<tr>
<td>Clean teeth regularly with fluoride toothpaste</td>
<td>47(32)</td>
<td>39(77)</td>
<td>2.71</td>
<td>0.12</td>
</tr>
<tr>
<td>Use mouthwash</td>
<td>32(60)</td>
<td>22(43)</td>
<td>3.09</td>
<td>0.08</td>
</tr>
<tr>
<td>Don't smoke</td>
<td>15(28)</td>
<td>19(35)</td>
<td>1.46</td>
<td>0.53</td>
</tr>
<tr>
<td>Have a check-up at the dentist every 6 months</td>
<td>14(26)</td>
<td>7(12)</td>
<td>4.46</td>
<td>0.08</td>
</tr>
<tr>
<td>Renew toothbrush every 3 months</td>
<td>37(70)</td>
<td>33(65)</td>
<td>0.31</td>
<td>0.56</td>
</tr>
<tr>
<td>Clean False teeth</td>
<td>13(87)</td>
<td>13(59)</td>
<td>3.24</td>
<td>0.07</td>
</tr>
<tr>
<td>Leave false teeth at night</td>
<td>3(20)</td>
<td>5(23)</td>
<td>0.04</td>
<td>0.84</td>
</tr>
</tbody>
</table>
Comparison of the HMP Shotts’ OHP 2010 Survey and OHP Survey 2011

Two oral health-related knowledge attitudes and behaviour surveys were conducted in HMP Shotts in 2010 and 2011. While the survey items varied there were several elements within the questionnaire which were the same and allowed a comparison of prisoners across the two time points. The 2010 and 2011 surveys had the following elements in common:

- Age group,
- Dental health status,
- Frequency of toothbrushing with a fluoride toothpaste,
- Oral health problems,
- Risk behaviours,
- Oral health-related behaviours

- Age group
The age distributions were similar in the two surveys, with 49% being at least 30 years of age in 2010 and 43% in 2011.

- Dental health status
Equivalent proportions of prisoners in 2010 (19%) and 2011 (20%) had their own teeth. Lower proportion of prisoners in 2010 (25%) compared with 2011 (37%) had complete or partial dentures.

- Frequency of toothbrushing with a fluoride toothpaste
In 2010, 70% of prisoners stated that they brushed their teeth at least twice daily with fluoride toothpaste compared with 74% in 2011.

- Reported Oral Health Problems
Prisoners in 2010 and 2011 were asked if they had any of the following problems: loose or decayed teeth; sore or bleeding gums, pain or discomfort in the mouth, mouth ulcers, difficulty in eating, dry mouth, sensitivity when eating/drinking, badly fitting false teeth, any other problem. The most commonly reported problems were:
  - Loose or decayed teeth (44%),
  - Sensitivity when eating/drinking (43%),
  - Pain or discomfort in the mouth (32%).
Figure 1.8  Comparison of reported oral health problems between intervention and control groups in 2010 and 2011
The mean number of reported oral health problems was 2.2 (1.88). The grouping variable year and group status explained a significant difference in the mean total of reported oral health problems. Therefore the 2011 intervention group had significantly lower mean total reported oral health problem scores compared with other groups (\( F=2.96, \, df=3, \, p=0.05 \)).

- Risk behaviours
  There were no significant differences between the four groups with respect to the prisoners’ reported high sugar consumption or smoking/drug use.

- Oral health-related behaviours
  There were no significant differences between the four groups with respect to the prisoners’ reported frequency of consumption of sweets, diluted juice, fizzy drinks, sugar in tea or coffee, biscuits/cakes, milk, water, fruit juice or fruit as well as frequency of toothbrushing with fluoride toothpaste, use mouthwash, have a dental examination every 6 months, renewing their toothbrushes every 3 months and denture hygiene.
Technical Report 2

Prisoners’ focus groups
**Methods**

In 2011, three focus groups were conducted by OHP evaluator (ST). Prisoners who had had contact with the OHP were identified by SC. On the days of the focus groups, these prisoners were recruited by a Prison Officer who also escorted them to the interview room. The focus groups were conducted by a member of the evaluation team. Prisoners were given an explanation of the aim of the focus groups and their rights regarding their participation. Written consent for participation was sought at this point. No prisoner refused. Completed consent forms are held in the prison health centre of HMP Shotts.

The following topics provided a framework for the focus group discussions:

- Familiarity with the Project’s methods
- Their view of the importance of the Project’s aim
- Their assessment of the different tactics used
- Activities they feel worked well
- Activities they feel worked less well
- Impact on staff
- Impact/relevance to prisoners
- Overall view of the Project
- Opportunities to develop health promotion work
- Barriers?
- Importance of oral health compared with other health promotion work
- Organisational change to NHS provision in prisons: any views?

All focus groups were audio-recorded; the audio-recording was deleted once a transcript of the session had been produced. Analysis of the recordings focused on the identification of patterns in the data. The relevant literature and discussions with the project staff provided key themes that had guided the development of the focus group topics as well as their analysis. Additionally, themes emerged from the focus group data. Selected quotations are included for illustrative purposes.
Results

Five offender focus groups were planned. One focus group was cancelled due to lack of participants. Another planned focus group comprised of a single participant and was completed as a one-to-one interview. The three focus groups involved 2, 7 and 4 participants, respectively. Including the single interview, this means a total of 14 prisoners participated in this part of the project.

1. Importance of good oral health

Good oral health was an important issue for most but not all of the prisoners. Aesthetics and appearance related to their teeth emerged as the most important reason for having good oral health. Prisoners linked appearance to confidence, developing close relationships (outside prison), giving right impression at family visits (in prison), and avoid being teased (in prison). The following quotes capture prisoners’ reasoning about the importance of their teeth’s appearance:

‘Em, looks. Eh don’t want em smelling. And I don’t want em breaking up, falling apart, but I think it’s probably mostly looks and obviously too for chewing purposes, chewing your food.’

‘It’s the only thing you’ve got is a wee bit of pride in your appearance in here… it’s important with a visit for us, you know when seeing people to try and least look your best.’

In addition to appearance, being able to eat comfortably was mentioned as another important reason for good oral health.

Prisoners were well aware that their oral health status was not just a consequence of imprisonment although prison may contribute to oral health problems:

‘I don’t think it’s just because of prison. Although I know some that have come in with really nice teeth and their quite like deteriorated.’

However, prisoners also acknowledged that various behaviours they had learned over their lifetime acted as barriers to change or increased their risk of oral health problems.
2. The role of the prison dental service

Linked to the importance prisoners assign to their teeth and gums was the fact that oral health appears to be a frequent topic of discussion amongst prisoners. However, the long waiting list to access the prison dentist, the subsequent lack of dental treatment as well as the limited treatment available were mentioned as the main reason for the regularity of these discussions. Some of these issues are addressed in the following quote:

‘See a difference in the dentist in here. See if you want a dentist to pull a teeth out, they’ll just pull it out nae bother but see if you go outside, oh no I can save it, I can save it [laughter].’

Prisoners also mentioned a limited number of available dental appointments, having insufficient or false information about waiting times for dental treatment, difficulties completing treatment courses, and having no regular dental check-ups. Indeed, the lack of dental treatment appeared to act as a disincentive and demotivating factor with respect to prisoners’ oral health self-care. The following quote illustrates this finding:

‘Prisoners do want to keep healthy, you know, I believe they do want to, it’s just totally … when they’ve no got the services to help em.. it’s a catch 22, you know, they maybe want to do it but, you know it’s doesnae actually improve the looks you know.’

At the same time, some mentioned that the limited number of dental appointments gave even more importance to looking after their own oral health.

3. Availability of healthy diet options

Prisoners acknowledged changes made to the canteen sheet. They were received positively by one participant who found them easy to use. Other prisoners reportedly enjoyed the healthy options offered in the canteen. However, the option of buying fruit through sundry purchase required the prisoners’ willingness to spend some of their personal allowance on healthy food. Given the limited weekly spend available, these options often ended up not being used. Additionally, sundry purchases could be easily missed as they are only available once a week. Other prisoners indicated, of course, that they prefer other dishes over the
healthy options, which they found less appealing. Some of these challenges are addressed in the following quote:

‘Fruit would be great you know cos you can order fruit, if you’ve go the money, you can order fruit from special em.. sundry purchase but, a lot of the time you forget to order it and a lot of the guys havenae go the money either...And you can only order it one day so, if you forget, you’re snookered. It’s always a week in advance as well you know so.. I’ve not had fruit for a couple of months, eh. Cos I keep forgetting to put it down on a Thursday; you have to have it in on a Thursday morning and sometimes I remember on a Thursday afternoon and it’s too late and then you have to wait till next Thursday before you can order it again you know.’

4. Awareness of oral health promotion messages
   
a. Diet

Many but not all prisoners appeared to be aware of the importance of a healthy diet and that this includes choosing low-sugar options and avoiding consumption of sugary food throughout day. They were also able to name foods with high-sugar contents and knew that sugary foods can lead to tooth decay. Prisoners also indicated that although healthy options were available, canteen options were predominantly high in sugar content

b. Oral hygiene

Prisoners demonstrated awareness of the need to brush their teeth regularly for a minimum of two minutes, twice a day. They knew to use a soft toothbrush, to brush in right direction, i.e. not up and down, not to brush immediately after eating, and to use toothpaste with fluoride content. Some prisoners also mentioned the importance of using mouthwash and dental floss. Some of this knowledge is exemplified in the following quotes:

   ‘Em, meant to brush your tooth for a couple of minutes at least. Aye, .. just recently found out that your not meant to use a hard toothbrush meant to be soft.’

   ‘I think Colgate is good and the actual jail one seemingly is alright but, it’s a horrible ..jus tastes .. you know.’
Prisoners were not able, however, to identify the recommended fluoride content for toothpastes or to explain how fluoride works to improve oral health.

Some mentioned that soft toothbrushes were only available from the OHP but were not standard prison issue. Indeed, the prison issue toothpaste and toothbrush were frequently described as being disliked by prisoners, as described by one prisoner below:

**c. The relationship between smoking and oral health**

Prisoners were aware of some of the effects of smoking on their oral health, including bad breath, stained teeth and receding gums. This awareness is expressed in the quote below:

‘Stains em like hell you know .. it stains them.. and I think that recedes your gums em’

Prisoners, generally, are a high risk population with respect to oral cancer. Many prisoners, however, were not aware of the link between smoking and oral cancer. When prompted, the oral cancer message was a welcome surprise. They indicated a desire for further information in the form of posters / reading materials were indicated as desirable.

**5. Awareness of oral health improvement project components**

A few prisoners specified they had received a talk from the OHP coordinator. Most prisoners were aware of and using the OHP toothbrush and toothpaste packs. The pack was generally welcomed as it was perceived as better than the prison issue or other oral health resources. Prisoners preferred the OHP pack over the prison issue toothbrushes and toothpastes but found it difficult to access them.

Equally, most prisoners were aware of oral health-related posters and leaflets. They thought posters and leaflets were very visible and easily accessible throughout the prison, although some posters had disappeared. One participant indicated he was involved in process of producing OHP materials and enjoyed the process, in particular being able to use his IT skills.

In terms of OHP resources, prisoners emphasised coasters with oral cancer message were indicated as good resource. Health events were also received positively and they were seen
to highlight general health issues and provide access to fruit. One participant reported winning a competition held at a health event he enjoyed.

Yet, access to OHP resources, including toothbrush packs, and health events appeared to be a challenge for some prisoners.

6. Impact and sustainability of the oral health improvement project

Most prisoners thought that the OHP successfully increased awareness of oral health matters and also successfully facilitated behaviour change in terms of improved tooth brushing routine and increased use of dental floss. These notions are illustrated in the following quotes:

‘She’s maybe made the guy’s a wee bit more aware you know. I wouldnae say dramatically but, a wee bit, a wee bit jus a wee bit but, you know.’

‘...before that I never even think about it. .....not to use water after you brush your teeth… cos I always rinsed.’

‘I have changed....I now floss....I see other boys in the hall are doing thing and in fact if it was not for that I would be ....’

Based on comments by some prisoners, certain of the behaviour changes may have pre-dated any input from OHP.

A concern raised by the prisoners related to the sustainability of changes affected by the OHP. They mentioned that many of the resources put in place have ceased to be available or offered. The following quote contains one such reference:

‘See the soup and all that they made and all the stuff they made with the cooks that day, it’s not been made since – so what was the point of that you know what I mean.’

Many prisoners also alluded to a missing link between the OHP and appropriate dental treatment. They thought that without the availability of timely and effective dental treatment, the OHP had little or no impact on their oral health. The following quote highlights this issue:
'Tell us to look after it when we know it can be really frustrating if you know your teeth are... no matter how much you brush em if you have em still full of it's still decay happening and you can't do anything about it so, you kinda get the work done to make em look good in the first place to look after em, that's the problem.'
Technical Report 3

Themes from staff focus groups
Methods

In 2011, seven staff focus groups, involving 20 staff members. Focus group participants including gym, catering, induction and visits staff, and health centre staff from outside agencies. One focus group was held with the dental team. Because this followed a different structure, with most content based on the dental team’s work and their perception of the oral health of prisoners, this material has not been included with those from the other groups, but is presented separately at the end of this technical report. All focus groups were conducted by a member of the evaluation team (ST). Staff were given an explanation of the aim of the focus groups and their rights regarding their participation. Written consent for participation was sought at this point. No staff member refused. Completed consent forms are held by the evaluation team.

Themes extracted from staff focus group summaries follow the guidelines developed to structure the recorded sessions. Not all groups produced comments under all headings. Selected quotations are included for illustrative purposes.

Results

1. Staff perception of the purpose and activities of the OHP

Staff members saw the purpose of the OHP in promoting healthy lifestyles and diets, improving oral hygiene, affecting oral health-related behaviour change and increasing prisoners’ responsibility for their own health. Overall, staff were aware of a range of activities associated with the OHP. They included health days and other special events, some of which included guests and giveaways. The OHP was also seen to include a range of health education and oral health awareness activities as well as the provision of literature to prisoners. The OHP included prisoners, staff and families. Table 3.1 provides an indication of the relative awareness of the OHP purpose and activities among focus group participants.
### Table 3.1 Relative awareness of OHP purpose and activities

<table>
<thead>
<tr>
<th>HEALTH DAYS/ SPECIAL EVENTS WITH GUESTS, ACTIVITIES AND GIVEAWAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Includes staff and families</td>
</tr>
<tr>
<td>- Promoting healthy lifestyles/diet</td>
</tr>
<tr>
<td>- Improving oral hygiene/behaviour change</td>
</tr>
<tr>
<td>- Increase responsibility for own health</td>
</tr>
<tr>
<td>- Health education</td>
</tr>
<tr>
<td>- Raising awareness</td>
</tr>
<tr>
<td>- Literature</td>
</tr>
</tbody>
</table>

Key: **bold**=two similar comments under this theme; **bold**=three; **BOLD**=four or more.

### 2. Importance of oral health for prisoners

Staff thought that prisoners generally considered their oral health and the availability of healthy diet options as very important. The following quote illustrates this point, even though it is specific to prisoners with dentures:

> ‘They actually keep dentures a lot cleaner than they do their own teeth because you give them the dentures and, they’re obsessed with white teeth. Absolutely obsessed with white teeth considering how poor their dental state is, it’s amazing how vain they are.’

However, staff members also indicated that prisoners tend to enter the prison with poor oral health and oral hygiene. Moreover, particularly prisoners with a history of drug abuse rate their oral health and oral hygiene as low. Many of these prisoners appear to blame their poor oral health on the effects of methadone.

The importance prisoners put onto their oral health and their overall bad oral health status led staff to emphasise existing issues in terms of prisoners’ access to dental treatments within the prison. Table 3.2 provides an overview of the relative frequency of these views held by focus group participants.
Table 3.2  Perceived importance of oral health for prisoners

<table>
<thead>
<tr>
<th>• High importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Prisoners arrive with poor OH and hygiene</td>
</tr>
<tr>
<td>• Importance of healthy options in diet</td>
</tr>
<tr>
<td>• Important to address issue of access to treatment within prison</td>
</tr>
<tr>
<td>• Many prisoners rate OH and oral hygiene low – blame effect of methodone</td>
</tr>
</tbody>
</table>

Key: bold=two similar comments under this theme; bold= three; BOLD=four or more.

3. Staff views of the OHP delivery

The OHP project, overall, was positively received by staff. Focus group participants applauded that oral health related information and messages were not imposed or pushed onto prisoners but conveyed in dialogues with prisoners. Similarly, the OHP team appeared to have promoted a team approach, which managed to address and reduce barriers to the service provision. At the same time, it was highlighted that the OHP appeared to have worked despite the prisoners’ problems with accessing dental care.

Overall, the OHP was perceived as ground breaking and achieved high visibility among and involvement of prisoners. It was acknowledged that the OHP addressed health problems that were related to prisoners’ lifestyle and behaviours they started prior to imprisonment. Nevertheless, it was viewed as having given the impetus for introducing other health-related resources and activities. One focus group member indicated that prisoners were more likely to accept oral health-related messages, if they were delivered by the OHP staff rather than prison officers. Participants also mentioned that prisoners preferred one-on-one talks to group delivery settings. Most importantly, the delivery was seen as flexible and adaptable to individual prisoner’s needs. Finally, one staff member suggested that to further improve the OHP delivery, more family oriented work might be needed. Another indicated that staff do know how to access oral health resources, including toothbrushes and pastes.

Table 3.3 provides an overview of the relative frequency of these views held by focus group participants.
**Table 3.3  Staff views of the OHP delivery**

- **RECEIVED POSITIVELY BY STAFF**
  - Change, info not imposed or pushed, but based on dialogue
  - One to one preferred by prisoners over group talks
  - OHP high visibility, involvement
  - Promoted a team approach, reduced barriers
  - Ground-breaking
  - OHP impetus for introducing other activities health resources e.g. dietician
  - More family orientated work needed
  - Prisoners less likely to accept OH messages from POs than from OHP
  - Battling lifestyle, drug risk-factors, Problems happening on the inside started on the outside
  - Worked despite dental care access problem
  - Difficult to address poor OH due to drugs, lifestyle
  - Staff don’t know how to access supplies
  - Helps embed the OHP in the prison
  - Can be flexible, adapt to need to explain

Key: **bold**=two similar comments under this theme; **bold**=three; **BOLD**=four or more.
4. Review of OHP initiatives and tactics

(i) Distribution of toothbrush/toothpaste packs

Focus group participants appreciated the distribution of toothbrush and toothpaste packs. They were viewed to prompt behaviour change and increase oral health hygiene motivation. These packs also give prisoners much needed incentives to engage with the OHP and, at the same time, are a better quality product compared to the prison issue toothpaste and brushes. The following quotes illustrate this aspect:

‘That’s the only way you get them coming, for nothing they would not turn up.’

‘She pointed out the actual free jail toothpaste they get is actually quite good and that went down really because I think it took away the stigma that some guys felt using that as opposed to buying the expensive stuff - but they love the freebees, absolutely love it.’

One staff member also like the fact that these packs were distributed to children and their families. Table 3.4 provides an overview of the relative frequency of these views held by focus group participants.

Table 3.4 Staff members’ review of OHP initiatives and tactics

| • Prompts behaviour change |
| • Increases motivation |
| • Need incentives |
| • Better quality products |
| • Can’t afford regular brands |
| • Also distributed to children - links families |

Key: bold=two similar comments under this theme; bold=three; BOLD=four or more.

(ii) Distribution of written materials

Staff members felt that written materials were used and appreciated by prisoners because they addressed their actual needs. Additionally, written materials are also
accessible to staff who benefit from them as well. Both of these aspects are addressed in the following quote:

‘You can always tell at induction what information is left lying on the seat and what’s not, and here stuff always were taking away which was good.’

Staff emphasised the importance of frequently changing written materials made available to prisoners. These materials also need to be succinct and easily accessible to prisoners. Where possible, a stepped approach to access information provision was suggested, where additional information on a topic is made available to prisoners if needed. It was envisioned that NHS staff will have access to new and better quality resources and services than are routinely available within the SPS.

While the written materials were helpful, staff emphasised that having a person to deliver health messages was more engaging. Relying solely on written materials may not enable prisoners to fully take the health messages on board, as alluded to in the following quote:

‘A lot of people just glance at them rather than stop and read them.’

Table 3.5 provides an overview of the relative frequency of these views held by focus group participants.

Table 3.5 Staff members’ views on written resources

- **Important that material was frequently changed**
- **Being non-SPS: access to new, better quality resources, service**
- **Impacts on staff too**
- **People do pick up leaflets especially when relevant to something they are experiencing**
- **That linked to diet options and fitness worked well**
- **Having a person deliver the message is more engaging**
- **Prisoners don’t taken in the message**
- **Message short succinct; easily accessible**
- **Stepped approach where additional info can be accessed if needed**

Key: \(\textbf{bold} = \)two similar comments under this theme; \(\textbf{bold} = \)three; \(\text{\textbf{BOLD}} = \)four or more.
(iii) Talks with new prisoners in National Induction Centre

Focus group participants thought it a good idea to approach new prisoners in the NIC as part of the OHP. This way they would get an early introduction to health promotion and it was seen to help embed the OHP in the overall prison system. Caveats were raised with respect to the danger of overloading prisoners, particularly during their induction period or with respect to pacing the delivery. Any staff delivering health messages would also need to be prepared for ‘daunting’ discussions with prisoners. Table 3.6 provides an overview of the relative frequency of these views held by focus group participants.

Table 3.6 Approaching prisoners in NIC

| • Gives early intro to HP |
| • One to one preferred by prisoners over group talks |
| • Need to be careful/paced to avoid overload |
| • Helps embed the OHP in the prison |
| • Can be flexible, adapt to need to explain |
| • need to be prepared for ‘daunting’ discussions |

Key: **bold** = two similar comments under this theme; **bold** = three; **BOLD** = four or more.

(iv) Link-up with events and groups eg father-child programme

Focus group members highlighted the cascading effect of working with prisoners on their oral health. They mentioned that this work will also reach the prisoners’ families and communities. The father-child sessions were mentioned as an excellent example of this aspect of the OHP work. Participants did not just emphasise the potential ripple effects of this approach but also the actual delivery of the linking events. They appreciated the engaging nature and diversity of activities offered. These characteristics of the activities also allowed for added interaction of prisoners and families with the prison staff, as described in the quote below:

‘Once she (started the OHP) she comes to see us and she organizes different events here throughout the year and different themes and ...a lot of the prisoners get to know
her through ...different fund raising activities events and stuff so we are getting to know her through that.’

Table 3.7 provides an overview of the relative frequency of these views held by focus group participants.

Table 3.7 Staff members' views on link-up events

| • FAMILY WORK CASCADES MESSAGES OUT TO FAMILIES |
| • Engaging, varied activities |
| • Promotes father-child bond |
| • added interaction with staff |

Key: bold=two similar comments under this theme; bold=three; BOLD=four or more.

(v) Work on diet, healthy eating choices

The OHP work had some tangible impact on prisoner behaviours and the prison environment. Focus group participants thought that the prisoner group work led to more healthy food choices and prisoners overall appeared to be healthier, fitter. Additionally, the canteen menu had changed dramatically (this was mainly due to the local chef) and links between diet changes and gym events.

The costs associated with healthy food options remain a challenge for both the prison as well as individual prisoners. However, even if healthy food options are available it remains difficult to change the dietary habits of adults:

‘Problem is to try and change the eating habit of a grown man, they might not really want to do that – that’s the side you are trying to change.’
Table 3.8 provides an overview of the relative frequency of these views held by focus group participants.

Table 3.8  
Staff views on the success and challenges of healthy food options in prison

<table>
<thead>
<tr>
<th>Topic</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prisoner group work led to choosing more healthy options</strong></td>
<td>1/3 to ½</td>
</tr>
<tr>
<td><strong>Prisoners now healthier, fitter</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Cost of healthy options a drawback (to service as well as to prisoners)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Menu has changed dramatically</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Link-up between diet changes and gym events</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Improvement predates OHP</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Hard to change adult diet</strong></td>
<td></td>
</tr>
</tbody>
</table>

Key: bold = two similar comments under this theme; **bold** = three; **BOLD** = four or more.

(vi) **Work around oral cancer and smoking cessation**

The OHP oral cancer and smoking cessation work also managed to change the behaviour of prisoners as well as staff. Some of this success was attributed to the way these sessions were delivered but also the nature and quality of resources used. Nevertheless, prisoners remain a high risk population and the actual success rate remains small as well. Engagement of staff is a particular challenge as participation in such sessions was offered outside working hours. Table 3.9 provides an overview of the relative frequency of these views held by focus group participants.
Table 3.9  Staff views on oral cancer and smoking cessation sessions

- **Changed behaviour of staff and prisoners**
- **Mode of delivery was fun, interactive, innovative, engaging (eg DVD)**
- **Written info effective**
- raised awareness
- **Remains high risk population**
- Fewer staff now smoking
- Staff can be hard to motivate, esp. outside hours, but raised interest
- Few influenced to quit

Key:  **bold**=two similar comments under this theme; **bold**= three; **BOLD**=four or more.

5. Benefits for the prison staff

Over time, many prison staff learned to appreciate the OHP approach, even if they had been sceptical at the beginning. They also derived practical benefits from this work as demonstrated in the following quote:

‘There were loads in lunch time and it was fruit laid on and it screening for your cholesterol, a massage it was great. It was great for staff to be get something back out as well because one thing you find out about prison is everything goes to prisoners and see to have that simple thing for staff was great.’

The OHP work, for example, led to an increase in knowledge about oral health and also to actual behaviour change among staff with respect to diet, smoking, seeking of advice, and personal and family oral hygiene habits. Staff also found the written resources helpful. Precisely because of these benefits, participants were eager to ensure that all staff have opportunities to engage with the OHP work. Table 3.10 provides an overview of the relative frequency of these views held by focus group participants.
Table 3. 10  OHP related benefits for prison staff

- **CHANGED KNOWLEDGE/BEHAVIOUR OF STAFF RE DIET AND SMOKING RISK**
  - Changed personal and family oral hygiene habits
  - Changed behaviour/diet change
  - Written material helpful
  - Initial reaction from staff: suspicious / sceptical about benefits. Over time opinions have changed.
  - Now more likely to seek advice
  - Only some staff attended: can’t all attend events

Key: bold=two similar comments under this theme; bold= three; BOLD= four or more.

6. Particularly successful aspects of the OHP

Some effects of the OHP work were highlighted above others. Focus group participants particularly emphasised the OHP’s role in increasing prisoner and staff awareness of oral health issues. Particularly, oral health events lead to benefits for staff and prisoners. SC as the OHP coordinator was seen as playing a vital role in the success of this project. Her approach to the OHP delivery was appreciated by prisoners as well as prison staff. The following quotes demonstrate this view:

‘Certainly from my point of view ... I was happy to facilitate any events that SC had proposed and I would just support her and facilitate what she was looking for’

‘The prison got along quite well with her and I think she has done her job very well.’

‘Yes its prison we work in but it’s not all about prisoners and I think staff really get fed up always being the ones that don’t really matter and what she has done is she has made us feel we matter as well because she has put on a lot of stuff for the staff as well.’

Participants also felt that the OHP project was set up well from the start, which made it easier to work with and engage staff as well as navigate the prison environment. Table 3.11
provides an overview of the relative frequency of these views held by focus group participants.

Table 3.11  Particularly successful aspects of the OHP

- **INCREASED PRISONER STAFF AND OWN AWARENESS**
- **EVENTS BENEFITED PRISONERS AND STAFF**
- **SC TREATED AS SPS STAFF**
- **SC’S APPROACH, PRESENCE, PREFERRED BY PRISONERS TO POs**
  - Set up well from the start
  - HWL award
  - Work with staff
  - Staff engaged – been a proactive approach

Key: **bold**=two similar comments under this theme; **bold**= three; **BOLD**=four or more.

7. More challenging areas

Among the challenging areas focus group participants identified were the alleged poor access prisoners have to dental care, particularly compared to other health care services in prison. The quotes below addressed this issue:

‘All we can do is to say you know I am outside I am not a prisoner and I still wait 3 months, so stop moaning but that’s just a part of being in the prison you know but off course they are justified, especially all other services are so quick for them.’

‘If your gonnae encourage guys to take better care of their dental hygiene, be more aware of their oral health and things like that then you need to be able to support it, you know.... it becomes a kind of pointless exercise if you’re telling the guy to look after his mouth and brush his teeth and when he says to you, you know, like I’ve got problems here, I need to see the dentist and I’m having to wait 6, 8 10, 12 weeks, sometimes more’
Focus group participants thought this would negatively affect prisoners’ readiness to engage with oral health related matters. This argument is outlined by the following quote:

‘It’s never gonna be an easy thing ... to approach, you know, because the minute they heard somebody was here discussing oral hygiene, dentistry, or that kinda thing, it’s like, ‘oh, why?’... guys want to tell you likes I’ve no seen this, I’ve no done this, ... regardless how slow it was phased in, was always gonna be about, ‘aye that’s no what we need, we need, d’you know, the dentist in every day, we need this, we need that.’

Also mentioned was the overall poor oral health of prisoners and the fact that oral health and oral hygiene were often the result of lifelong habits and behaviours and therefore difficult to address. Linked to the prisoners’ oral (ill) health was the challenge for staff to manage prisoners in pain.

In addition to prisoner-focused challenges, some were also raised by working within the prison environment. One such challenge was the OHP dependence on prison staff to get access to prisoners. This challenge is illustrated in the following quote:

‘You need to initially convince staff, which is just as hard as anything else to convince them to go and them saying to prisoners you should be going to that.’

Other prison-related challenges included the missing link with or lack of involvement of the dental team, the fact that no measurable outcomes had been established at the start of the project and difficulties engaging some prison staff. Table 3.12 provides an overview of the relative frequency of these views held by focus group participants.
Table 3. 12  Challenges experienced by the OHP team

- **POOR ACCESS TO DENTAL CARE**
- **POOR OH AND DENTAL TREATMENT IS A LONG TERM PREPRISON ISSUE FOR PRISONERS**
  - Prisoners in pain harder to handle for staff
  - Dependant on staff to access prisoners
  - No link with dental Rx data
  - No measurable outcomes established at start
  - Sometimes difficult to engage staff
  - Staff can do nothing to improve service
  - Poor follow-up of treatment

Key: **bold**=two similar comments under this theme; **bold** three; **BOLD**=four or more.

8. Legacy and sustainability of the OHP

Focus group participants were adamant that the OHP should be continued beyond the project time. The following quote presents one reason for this:

‘We have a never ending, you know, chain of guys coming through here who, access the service. If that gets forgotten about - you know, the promotional side of the health issues, you know, oral hygiene, whatever it may be, diet, that kinda stuff - The minute that gets forgotten about, wi these guys, they’ll forget about it, you know. They all go back to, just being easy, what’s easiest for them is to get up and have a, you know, buy their rubbish.’

Sustainability will be a challenge, though, which needs to be actively addressed. Suggestions towards increasing the chances of having a sustainable OHP included establishing links with the dental services, making oral health initiatives permanent, on-going or at least a regular feature within the prison, and demonstrating its cost-effectiveness. This aspect is addressed in the following quote:

‘I can actually say hand on heart right now that for the staff and prisoners both at Shotts, there has been a benefit. It’s whether we can maintain that benefit all the way through. If they can do it through the whole prison service I think there is a saving at
the end of it which is people’s health – the most important. Secondly – is monetary, because you won’t be getting these people that are ill.’

Other challenges relate to affordability issues. These include resources for oral health events and available finances for the prison and prisoners to pay for healthy options. Another group of challenges include staffing issues. These range from allocating responsibilities, staffing events and expanding the project by including additional professions, i.e. hygienists or dieticians, or generally expanding health promotion activities. These challenges all have to be regarded with a view the transition of health care responsibilities from the SPS to the NHS in October 2011.

Aspects of the OHP, which should be continued, include using a collaborative and supportive approach to the OHP delivery (as opposed to imposing changes). Further discussions are warranted with respect to whether the OHP should be delivered by an SPS or non-SPS person as both are associated with potential advantages and disadvantages. Table 3.13 provides an overview of the relative frequency of these views held by focus group participants.
Table 3.13 Legacy and sustainability of the OHP

<table>
<thead>
<tr>
<th>SUPPORT SUSTAINED OHP</th>
<th>Sustainability in doubt post OHP</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Link HP to better dental service</td>
<td>• Make initiatives permanent, ongoing, regular</td>
</tr>
<tr>
<td>• Cost-effectiveness needs to be measured and proven</td>
<td>• Advantage that SC was not SPS – prisoners listen more</td>
</tr>
<tr>
<td>• Based on dialogue and prisoner/staff/management involvement</td>
<td>• Supportive role as opposed to imposing changes</td>
</tr>
<tr>
<td>• For some staff this (non-SPS) was a barrier</td>
<td>• Small increase in spending allowance to spend on healthy options</td>
</tr>
<tr>
<td></td>
<td>• Add hygienist role to dental team</td>
</tr>
<tr>
<td></td>
<td>• Difficulty of working in prison acknowledged</td>
</tr>
<tr>
<td></td>
<td>• Maintain staff events</td>
</tr>
<tr>
<td>• Emphasise self-responsibility</td>
<td>• Loss of OHP would put pressure on dental service</td>
</tr>
<tr>
<td>• NHS ultimately has responsibility</td>
<td>• After changeover will still not be comparable to community service</td>
</tr>
<tr>
<td>• Changeover will improve prisoners’ perception of prison health service</td>
<td></td>
</tr>
<tr>
<td>• Pressure on resources will limit improvement</td>
<td></td>
</tr>
<tr>
<td>• Develop a wider HP programme</td>
<td></td>
</tr>
<tr>
<td>• Some barriers as a result in accessing resources</td>
<td></td>
</tr>
</tbody>
</table>

Key: **bold**=two similar comments under this theme; **bold**=three; **BOLD**=four or more.
9. Views of the Dental Team

The dental team understood the OHP project as giving diet and oral health advice, running oral health related events and offering discussions about the need for dental treatment. They recognised the need for a OHP due to the high need for restorative care amongst prisoners:

‘Maybe a slightly younger prison and clientele here so they’ve got slightly more teeth here which in turn means more holes and more fillings.’

The Dental Team received direct and indirect feedback from the prisoners about the OHP. This included the prisoners being aware of good brushing techniques, had an appreciation of soft tissue as well as oral cancer problems, which is vital for this high risk group. The OHP approach also afforded prisoners with opportunities to discuss their own and their families’ oral health and the oral health care system in the prison. The following quote outlines the benefits for this for prisoners:

‘Quite often they feel like their support system’s collapsed and like a number almost. Whereas if they get somebody actually speaking to them one to one and actually taken a bit of active interest in their health they could motivate them a lot more.’

The Dental Team expected a reduction in demand of the dental service, as alluded to in the quote below:

‘It makes our job a lot easier as well because if they’re taking care of their own teeth obviously less work’s required, we can get through it bit quicker, get the waiting list down and less emergency pain appointments to slot in.’

Generally, they saw the oral health status and self-care skills of prisoners in Shotts comparable to prisoners in other institutions. This also meant that the level of dental services offered was inadequate; 2 or 2½ days of dentist time were needed to address the oral health issues of prisoners in Shotts, particularly in order to establish a routine check-up system that is equal to the existing demand and timelines involved.
The Dental Team also agreed that the OHP toothbrushing pack was of better quality than the prison issue one and generally applauded the variety of resources used. However, the Dental Team commented on the poor links between the OHP and dental treatment service:

‘I started here in August and I didn’t know SC or her role even existed till I went to the SPS conference in November and she was there, that was the first I knew. .. . Nobody here had said to her, we’ve got another dentist. We didn’t really cross wires and so, I think if there was a bit more. Like at (X prison) there’s a lot more, like.. there’s co-operation between oral health and we were a massive part in the oral health wellbeing day there whereas here, it’s been an outside role.’

Other challenges faced by the Dental Team include queue jumping by prisoners as illustrated in the following quotes:

‘We get a lot of referrals from the nurses ‘saying .. they need an appointment – could he see you straight away as an emergency?’. And then they come in and they’re like ‘my filling’s came out.’

‘There is a, there is a lack of honesty as well when their putting them through, trying to triage system in .., and it falls down because they think that if they say – say they’ve chip a tooth and it's not sore at all, if they say ‘oh my face was really swollen, I’ve not slept in weeks’, And that’s obviously a problem as well. Prisoners fail to take responsibility for OH – rely on restoration.’

With respect to the legacy and sustainability of the OHP, the Dental Team also highlighted the need for more funding and service hours and expanding the oral health team, i.e. including a hygienist.
Technical Report 4

Themes from one-to-one interviews with OHP steering group members
The source material for this report is: 8 one-to one interviews with SPS and NHS-L managers, with a total transcript time of 5 hours, 39 minutes. Note that some content is common with that covered by staff focus groups (Technical Report 4) and some themes that have emerged are similar. Equally, the one-to-one interviews also cover issues relating to interagency working, dealt with in Technical Report 5. Given the small number of participants, themes reflecting the view of one person are included.

1. Managers’ perceptions of the overall approach taken by the OHP

   a. Behaviour, attitude and knowledge change
   b. Aim to move from treatment to prevention, raise OH standards in the prison
   c. A finite project, but with a view to sustainability
   d. Broad remit, holistic approach, whole settings approach – environment, policies, health promotion, and not just health education
   e. Relevant to a broad range of prisoners e.g. those in different stages of sentence
   f. Context of a high need population /substance misuse/poor self-care

Challenges to this approach mentioned were:

   a. The delivery of these planned aims, in particular establishing environmental changes which support health (point 4 above)
   b. That these aims were not necessarily fully shared by the two institutions, resulting in different ambitions re the OHP
   c. Problems in engaging staff were not anticipated
   d. The environment proved more challenging than anticipated

2. Importance of Oral health for prisoners

   a. Poor OH a product of background, and good indicator of wellbeing
   b. Value of self-esteem and confidence. Build on motivation to improve health
   c. Link between OH and behaviour. May be an unconscious link to less reoffending
   d. Context of prison responsibility to deliver HP
Challenges

a. OH is a low priority for prisoners
b. OHP restricted by inadequate access to prison dental service

3. Review of OHP initiatives and tactics

(i) distribution of toothbrush/toothpaste packs

a. Increased involvement
b. Changed behaviour, increases self-confidence
c. Better than the prison issue, low priority for purchases/high proportional cost
d. Freebies were a necessary tactic, but not an important one

Limitations

a. Diversion from whole setting/environment approach
b. Short term tactic

(ii) distribution of written materials

a. Effective, varied, tailored to environment and prisoner tastes
b. Appropriate materials recognised that standard approaches (e.g. leaflets) not effective
c. Coasters were effective medium carrying permanent message

Limitations

a. Represents health education approach at odds with emphasis on whole setting approach
b. Literacy issues reduce impact

(iii) Talks to new prisoners in NIC

a. Exploited opportunity to get message across at early stage
b. Can identify motivators for getting behaviour change
Limitations

a. Less effective than interactive group approach
b. Labour intensive
c. Danger of information overload at induction
d. Better to adopt one-to-one approach at dental chairside
e. No mechanism to ensure sustainability

(iii) Input into existing groups, eg father-child sessions

a. Strengthens f-c bond, eases engagement with family
b. Approach has developed to become more interactive and less didactic
c. Has had high impact

Limitations

a. HP at individual level may be less effective than in healthcare setting
b. Highly depend on SPS staff support, engagement for sustainability
c. Mismatch of hours with activities (e.g. Saturday visits)

(iv) Work on diet, healthy eating choices

a. Non-directing, low pressure approach, so did not raise resistance
b. Subtle influence on diet
c. Resulted in great change in menu/healthy food
d. Represents example of success in creating supportive environment
e. Achieved strong commitment from key staff in prison was key for change

Limitations

a. Changing menu may not change food choice
b. Junk food/drink has prison currency value
c. Mismatch of hours with activities (e.g. Saturday visits)
d. Resources, staff commitment will undermine sustainability
e. Improvement in menu predates OHP
(iv) Work around oral cancer and smoking cessation

a. An example of how the OHP was integrated with other agency working (smoking cessation), employing a multidisciplinary approach
b. OH aspect of smoking cessation is under-stressed
c. The most important element of the OHP given the high risk behaviour of prisoners
d. Good visual aids, variety of approaches required and adopted
e. Fits HP theory re tailoring approach to client
f. Whole system approach, in that it impacts on both staff and prisoners

Limitations

a. Need to recognise that impact will be limited (as with smoking cessation generally).
b. Managed from outside prison environment could impede progress
c. Staff/prisoner availability limits delivery of OHP

(iv) Work with prison staff

a. Essential for the OHP to have broad remit
b. Successfully pre-empted any resentment from staff re focus on prisoners
c. Led to gaining of Healthy Working Lives Bronze award

Limitations

a. Some staff remained reluctant to engage with OHP

4. Particularly successful aspects of the OHP

a. Father-child activities: innovative, engaging, parenting skills
b. Healthy eating activities
c. Work in NIC
d. Getting people to participate
e. Group work, increasing motivation within groups
f. Oral cancer, despite small numbers impacted
g. Increased knowledge/ awareness in prison staff led to increased participation/ contribution
h. OH presence in general health-related events, targeting prisoners and staff
i. Cultural change achieved – useful model established

5. More problematic areas
   a. May have missed other groups of prisoners
   b. Sustainability
   c. Staff resistance, lack of involvement in HP among some staff
   d. Lack of resources
   e. Management structure, prison culture
   f. Insufficiently linked to clinical service
   g. Staff low participant in Healthy Working Lives initiative

6. Building on the OHP
   a. Be less ambitious in range of target groups
   b. Improve dental service in parallel to OH Promotion
   c. Drop staff element
   d. Ensure adequate resources
   e. Integrate project better to Management structure, prison culture
   f. Improve link with clinical service
   g. Recognise issue of low staff participant in Healthy Working Lives initiative
   h. Direct some funds from OHP to service provision

7. Extent to which staff have gained from OHP
   a. Varied - concept of HP is better understood by some, especially those who have worked with OHP
   b. Where there has been engagement – improved knowledge & understanding
   c. No evidence of health improvement
   d. Healthy environment is not well understood
   e. Impact limited OHP being sponsored by outside agency
   f. Low participation in Health Working Lives initiative
8. **Organisational and Partnership issues**
   a. Had governor approval and senior prison management were involved
   b. Senior management is committed but speculation whether this reflects whole staff attitudes
   c. Ring-fenced NHS funds important
   d. Stages when management drove the direction of the project
   e. Fits HP theory re tailoring approach to client
   f. Whole system approach, in that it impacts on both staff and prisoners

**Limitations**

   d. Establishing relationships / responsibilities problematic at times
   e. Some imbalance on steering group, and in day to day management
   f. Some barriers in gaining access and promoting change
   g. Staff engagement patchy
   h. Resources, including staff time limited
   i. Funding and therefore ownership unequal
   j. HP and OH both low priority within NHS
   k. Friction between custodial requirements and Project activity
   l. Communication/ split base issues

9. **Future opportunities and challenges**

   a. Develop project within a national OHP strategy for prisons
   b. Establish early and sustained dual management involvement
   c. Consider whether discharging prisoners may be more appropriate target
   d. NHS takeover will improve NHS-L profile and representation in prison
   e. Continuity of staff important
   f. Health improvement is more accepted in prison now after establishing potential over OHP life – inform future direction
   g. OHP initiatives may be appropriate in other settings e.g. young prisoners, Staff college
      Implies cross-boundary working
   h. Teach trainee POs re self-esteem and oral health – will spread the message
i. Agencies may have different priorities
j. Broader HP role may not work
Technical report 5

Outcomes of the Nuffield Partnership Assessment Tool
Methods

Participants also completed the Nuffield Foundation’s interagency working questionnaire, a well-established management and research tool designed to record the views of partners regarding the extent to which the building blocks for successful partnership are in place. It is based on six Partnership Principles, each with 6 component elements, on which participants are asked to numerically score their agreement or disagreement on how well it has been achieved. A score of 4 indicates strong agreement, and 1 strong disagreement. The principles and elements are listed in detail in Appendix 1. The maximum score possible for each of the 6 principles is 24. This would indicate participants’ strongly agreeing that partnership was working well across all principles. The minimum possible score is 6, which would indicate that participants do not think that partnership is working at all. The Nuffield questionnaire manual suggests that an individual score of 19 or above for any one principle indicates good interagency working. Scores between 18-13 indicate generally good interagency working with some areas needing further attention or exploration.

Participants were also asked to rate each principle in terms of its importance, and the extent to which the project was achieving its aims and objectives. A final question asked participants to rate if the project was achieving its aims and objectives on a 4 point scale from 4 (strongly agree) to 1 (strongly disagree).

Results

Overall, the achieved aggregate partnership score resulting from the Nuffield Partnership Assessment Tool was in the highest possible score range (Table5. 1). This indicates that the people involved in the oral health project were working well together.

NHS participants’ partnership scores were slightly higher than their SPS counterparts, with SPS participants indicating that some areas of the partnership working related to the oral health project may need further exploration and attention.
Table 5.1  Nuffield Partnership Assessment tool: Aggregate scores

<table>
<thead>
<tr>
<th>Aggregate Partnership Score</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Across all participants</td>
<td>110.13</td>
<td>111.5</td>
</tr>
<tr>
<td>(n=8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NHS (n=4)</td>
<td>115.00</td>
<td>115.5</td>
</tr>
<tr>
<td>SPS (n=4)</td>
<td>105.25</td>
<td>109.50</td>
</tr>
</tbody>
</table>

Legend:

109–144: The partnership is working well enough in all or most respects to make the need for further detailed work unnecessary.

73–108: The partnership is working well enough overall but some aspects may need further exploration and attention.

NHS participants’ partnership scores were slightly higher than their SPS counterparts, with SPS participants indicating that some areas of the partnership working related to the oral health project may need further exploration and attention.

The Nuffield Assessment Tool also allowed for a more detailed analysis into six different partnership principles. Figure 5.1 provides an overview of the partnership scores across all participants and principles. Three of the six partnership principles were implemented to a degree that satisfied the participants. These principles relate to the clarity and realism of the oral health project’s purpose, the partnership arrangements and the monitoring, assessment and learning procedures.
figure 5.1 Aggregate scores by partnership principles relating to the OH project

Legend:

A. The partnership is working badly enough in all respects for further detailed remedial work to be essential.
B. The partnership may be working well in some respects but these are outweighed by areas of concern sufficient to require remedial action.
C. The partnership is working well enough overall but some aspects may need further exploration and attention.
D. The partnership is working well enough in all or most respects to make the need for further detailed work unnecessary.
With respect to the other three partnership principles, there appears to be some areas that would benefit from further attention. There is some scope for efforts to improve the recognition and acceptance of the need for partnership working, to ensure commitment and ownership of the oral health project, and to develop and maintain trust across the people and services involved.

Across the six partnership principles, there were also some differences between NHS and SPS respondents (Figure 5.2). NHS participants scored slightly higher on five of the six principles, whereas SPS participants were marginally more convinced that the oral health project had sufficient commitment and ownership across the organisations and people involved. It has to be noted, that even the lowest score was well within the range of scores indicating that this partnership aspect was working reasonably well. Indeed, not a single aspect of the partnership received any scores indicating poor or non-existent partnership working.

Figure 5.2  Rating of the extent to which the OH Project had achieved each of the 6 principles (maximum score possible=24: n=8)
All partnership principles were deemed important by the participants. However, it was still possible to rank the principles in terms of the relative importance the participants assigned to them. Ensuring Commitment and Ownership emerged as the most important partnership principle across all participants. This was followed by Creating Clear and Robust Partnership Arrangements. Developing and Maintaining Trust received the same average score as Monitoring, Measuring and Learning but were deemed less important compared to the first two principles. Developing Clarity and Realism of Purpose and Recognising and accepting the Need for Partnership were deemed second and least important.

The final question asked participants to rate if the project was achieving its aims. Seven of the eight participants thought the oral health project was achieving its aim.

The overall impression, based on the Partnership Assessment Tool, is that the partnership of people and services involved in the Oral Health project appeared to have worked well. This is reinforced by each aspect of the partnership analysis process. Participants also felt that partnership working was important, particularly the need to ensure commitment to and ownership of the oral health project across people and services. Differences between respondents were marginal but still worth noting. Compared to their NHS colleagues, for example, SPS participants saw slightly more room for improvement across selected aspects of partnership working. Finally, all but one participant felt that the NHS-SPS partnership managed to achieve the OHP’s aims and objectives.
Appendices

- Ethical Approval Documentation
- Dental Health Questionnaires
Ethical Approval Documentation

- NHS Guidance
- SPS Research Access
Dear [Name],

Full title of project: Evaluation of the Shotts Oral Health Programme (ESOP)

You have sought advice from the West of Scotland Research Ethics Service Office on the above project. This has been considered by the Scientific Officer and you are advised that it does not need ethical review under the terms of the Governance Arrangements for Research Ethics Committees (REC) in the UK. The advice is based on a similar project presented within the NHS in Scotland. Your project is dealing with prisoners and staff within HMP Shotts and therefore you are required to take advice from the SPS Research Access and Ethics Committee regarding approval requirements for your study.

- The project is an evaluation seeking the views of prisoners, their families and staff on a service development.
- Recruitment is invitation and responses to the questionnaire are fully anonymous, and transcripts from face to face interviews and focus/discussion groups will be irreversibly anonymised so that the respondent's identity is fully protected.
- It is not possible to identify the individual from any direct quotation used in the reporting of your project.

If during the course of your project the nature of the study changes and starts to generate new knowledge and/or it inadvertently becomes research then the changing nature of the study would necessitate REC review at that point, before any further work was undertaken. A REC opinion would be required for the new use of the data collected.

Note that this advice is issued on behalf of the West of Scotland Research Ethics Service Office and does not constitute a favourable opinion from a REC. It is intended to satisfy journal editors and conference organisers and others who may require evidence of consideration of the need for ethical review prior to publication or presentation of your results.

However, if you, your sponsor/funder or any NHS organisation feels that the project should be managed as research and/or that ethical review by a NHS REC is essential, please write setting out your reasons and we will be pleased to consider further.

Continued...

Delivering better health

www.nhsggc.org.uk
Where NHS organisations have clarified that a project is not to be managed as research, the Research Governance Framework status that it should not be presented as research within the NHS.

Kind regards

[Signature]

Dr Judith Godden
WESGRO Scientific Officer/Manager
REGULATIONS CONCERNING RESEARCH ACCESS TO PRISON ESTABLISHMENTS FOR THE PURPOSES OF CONDUCTING RESEARCH

All access to prison establishments for the purposes of conducting research is conditional on the researcher(s) agreeing to abide by the undernoted requirements.

1. All data and research material arising out of the study must be dealt with in an anonymous, unattributable and confidential basis. No individual should be named or identified. Researchers must comply with the Data Protection Act (1990).

2. If the study is to involve interviewing of subjects, all such subjects must give voluntary consent and be informed of the purpose of the study; anticipated uses of data; identity of funder(s) (if applicable); and the identity of the interviewer.

3. All research data and material of whatever kind (i.e. interview notes, questionnaires, tapes, transcripts, reports, documents, specifications, instructions, plans, drawings, patents, models, designs, whether in writing or on electronic or other media) obtained from the Scottish Prison Service shall remain the property of the Crown. Information collected during the course of a research project must not be supplied to another party or used for any other purpose other than that agreed to and contained in the original research proposal. All confidential research data obtained from SPS must be destroyed within 12 months of completion of the research project.

4. All researchers must abide by the ethical guidelines of their profession or discipline and must nominate below the guidelines to which they will adhere. (e.g. Social Research Association, British Sociological Association etc.) All researchers must arrange to be Disclosure Scotland cleared.

5. Where appropriate, research proposals may require to be submitted to the Ethics Committee of the local Area Health Board (or MREC) and to receive its approval before access is granted.

6. The Chair of the SPS Research Access and Ethics Committee (RAEC) must be informed in writing and agree to any changes to the project which involve alterations to the essential nature of the agreed work.

7. The Scottish Prison Service reserves the right to terminate access to SPS establishments at any time for any Operational reason that may arise or for any breach by the researcher of the Access Regulations or for any failure on the part of the researcher to conduct the study as agreed with the RAEC. In the event of access being terminated for any reason whatsoever, all data obtained from SPS during the course of the research shall be returned to the Scottish Prison Service.

8. The Scottish Prison Service will not have liability in respect of any loss or damage to the researcher's property or of any personal injury to the researcher which occur within SPS premises. The researcher (or, if applicable, the researcher's institution or organisation) will be responsible for arranging all relevant personal indemnity to cover the conduct of research within SPS premises.

9. It is a condition of access that a copy of any final report or dissertation or other written output arising from the research MUST be submitted to SPS to be lodged in its Research Library. Any material resulting from access which is intended to be presented publicly must also be submitted to SPS. In principle, the Scottish Prison Service supports the publication and dissemination of research findings arising from approved work, but the Service reserves the right to amend factual inaccuracies.

10. Reports and presentations should be sent to the Chair of the Research Access and Ethics Committee, Analytical Services, SPS Headquarters, Calton House, Redbroughs Rigg, Edinburgh EH12 5HW.

Ethical guidelines nominated

I have read the above regulations and agree to be bound by them.

Eunna Freeman (Signature)

19-01-01 (Date)
HMP SHOTTS ORAL HEALTH IMPROVEMENT PROGRAMME: PRISONER FOCUS GROUPS

PARTICIPANT INFORMATION SHEET

We would like to ask for your help in an evaluation about the dental health promotion work taking place in HMP Shotts. The NHS has asked Dundee University to investigate whether recent health promotion work here has improved prisoners’ dental health and knowledge. We believe this work could help in planning future health programmes in the prison.

What is the study about?
NHS Lanarkshire and HMP Shotts have been working together to improve oral health in the prison. The project has been running for three years now and the team would like to find out how well it has worked. To do this we would like to find out about your views and experiences. Can you help us to learn where things worked well and how things could be improved?

What would I have to do?
You will talk with an evaluator in a group session along with a few other inmates. The session will be taped and will last about an hour. It will cover dental health, what you think of the dental health care in the prison e.g. dental care and dental talks, where you feel you have been helped and where you think improvements can be made.

Will what I say be confidential?
Yes. What you say will not be passed on to your doctor, dentist or prison staff. The exception to this is if it becomes clear you may harm yourself or others or disclose any criminal activity. The tapes will be typed up and only the evaluators will read them. We may use some of what you say as quotes in the results of the evaluation. Your name will not be used.

Do I have to take part?
No, it is up to you. If you agree you will be asked to sign a consent form showing that you understand what’s involved and that you have agreed to take part.

Can I change my mind?
Yes. You can withdraw at any time without giving a reason. Your care from prison and health staff won’t be affected.

What's in it for me?
We cannot promise the evaluation will help you personally but what you say may help us come up with ways to improve prisoners’ dental health.

How do I find out more about the study?
You can ask a member of the prison staff to pass on your questions to the evaluation team. The team will either answer your question or, if needed, arrange to contact you directly.

Will I find out the results?
When the evaluation is finished a short report will be made available in the prison.

Thank you for taking the time to read this information sheet
CONSENT FORM

PLEASE SIGN YOUR NAME TO CONFIRM THAT

1. The evaluator has explained to me what is involved in the study.

2. I have read and understand the information sheet (version 1.7).

3. I understand that the focus group will be taped.

4. I understand that the group session will be written up and anonymised quotes may be published.

5. I understand that I can withdraw from the study at any time for any reason without it affecting my care from prison or health centre staff.

6. I understand that the prison authorities will be notified if I say anything about behaviour likely to be of harm to myself or others.

7. I have had the chance to ask questions about the study.

8. I agree to take part in the study.

Name (please print) _______________________

Signature___________________________ Date___/___/___
Dental Health Questionnaire
HMP Shotts Dental Health Project

Dundee University Questionnaire for Prisoners

This questionnaire is about your dental health and how you look after your teeth.
Your answers are confidential – no names will be used.
Please remember that answers that you give will not fast track you for a dentist appointment, so if you need one please self-refer as normal.
Most questions just need a tick in a blue box, but some you need to write in.
Thank you for your help.

1. How old are you?

2. How long have you been in Shotts prison?

3. Do you have: (Please tick one box only)
   - All your own teeth
   - Only your own teeth but some missing
   - Only false teeth
   - Some false teeth and some of your own
   - No teeth at all

4. How often do you clean your teeth? (Please tick one box only)
   - More than twice a day
   - Twice a day
   - Once a day
   - Every 2-3 days
   - Once a week
   - Less often
   - Never
   - Don’t know

   **IF YOU HAVE FALSE TEETH – please answer these two extra questions**

   What type of false teeth do you have? (Please tick all boxes that apply)
   - Full TOP denture
   - Full BOTTOM denture
   - Part TOP denture
   - Part BOTTOM denture

   Do you wear your false teeth?
   - Yes
   - No
   - Sometimes
(please tick one box only)

5. How do you rate the state of your teeth?
   [ ] very good
   [ ] good
   [ ] good
   [ ] fair
   [ ] poor
   [ ] poor

6. How do you rate the state of your mouth and gums?
   [ ] very good
   [ ] good
   [ ] good
   [ ] fair
   [ ] poor
   [ ] poor

7. Do you have any of these problems?  (Please tick 'yes' or 'no' for each row)
   [ ] Loose or decayed teeth
   [ ] Sore or bleeding gums
   [ ] Pain or discomfort in your mouth
   [ ] Mouth ulcers
   [ ] Difficulty in eating
   [ ] Dry mouth
   [ ] Sensitivity when eating/drinking
   [ ] Badly fitting false teeth
   [ ] Other – please detail:

8. Which of these do you think prevents you from having a healthy mouth in prison? (Please tick 'yes' or 'no' for each row)
   [ ] I use tobacco and/or other drugs
   [ ] I have too many sugary drinks and snacks
   [ ] I don’t know enough about how to look after my mouth
   [ ] I can’t access the dentist as often as needed
   [ ] I can’t afford mouthwash
   [ ] I can’t afford my preferred toothpaste
   [ ] I can’t afford my preferred toothbrush every 3 months
   [ ] I can’t get access to smoking cessation services
   [ ] Other – please detail:

9. How often do you have any of the following? (Please tick one box for each row)

<table>
<thead>
<tr>
<th></th>
<th>Several times a day</th>
<th>Once a day</th>
<th>2-3 times a week</th>
<th>Once a week</th>
<th>Less than once a week</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diluted juice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fizzy drinks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugar in tea or coffee</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milk (as a drink on its own)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water (as a drink on its own)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fruit Juice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fruit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biscuits / Cakes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10. Do you smoke? (Please tick 'yes' or 'no')

<table>
<thead>
<tr>
<th></th>
<th>yes</th>
<th>no</th>
</tr>
</thead>
<tbody>
<tr>
<td>IF YES:</td>
<td>How many on average do you smoke in a day?</td>
<td>Cigarettes/roll-ups</td>
</tr>
</tbody>
</table>

11. How much are the statements below true for you? (please circle a number)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Definitely no</th>
<th>Definitely yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>I receive the dental care I should</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>I need dental care, but I put it off</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>I consider my dental health to be important</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

12. The following actions all help to keep your mouth healthy: which do you do? (Please tick 'yes' or 'no' for each one)

<table>
<thead>
<tr>
<th>Action</th>
<th>yes</th>
<th>no</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keep sugary food and drinks to mealtimes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clean my teeth regularly with a toothbrush and toothpaste</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use mouthwash</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Don't smoke</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have a check-up at the dentist every 6 months</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renew my toothbrush every 3 months</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IF YOU HAVE FALSE TEETH:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clean my false teeth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leave my false teeth out at night</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. Before you were sentenced, how often did you go to the dentist? (Please tick one box only)

<table>
<thead>
<tr>
<th>Frequency</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>When I had toothache or trouble with my mouth</td>
<td></td>
</tr>
<tr>
<td>Regularly every 6 months</td>
<td></td>
</tr>
<tr>
<td>Regularly once a year</td>
<td></td>
</tr>
<tr>
<td>Less often</td>
<td></td>
</tr>
<tr>
<td>I never wanted to a dentist</td>
<td></td>
</tr>
<tr>
<td>Other – please detail:</td>
<td></td>
</tr>
</tbody>
</table>

14. When was the last time you saw a dentist? (Please tick one box only)

<table>
<thead>
<tr>
<th>Time</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>In the last month</td>
<td></td>
</tr>
<tr>
<td>1-6 months ago</td>
<td></td>
</tr>
<tr>
<td>7-12 months ago</td>
<td></td>
</tr>
<tr>
<td>Over 1 year ago but less than 2 years ago</td>
<td></td>
</tr>
<tr>
<td>Over 2 years ago</td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td></td>
</tr>
<tr>
<td>Can't remember</td>
<td></td>
</tr>
</tbody>
</table>

Where was that? (Please tick one box only)

<table>
<thead>
<tr>
<th>Location</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Shotts prison</td>
<td></td>
</tr>
<tr>
<td>Other prison/remand centre</td>
<td></td>
</tr>
<tr>
<td>Dental practice or clinic</td>
<td></td>
</tr>
<tr>
<td>Dental hospital</td>
<td></td>
</tr>
<tr>
<td>Can't remember</td>
<td></td>
</tr>
</tbody>
</table>
15. Since you've been in Shotts prison, which of these messages about looking after your teeth and mouth have you heard about? (Please tick 'yes' or 'no' for each one)

- Cutting down on sugar and sugary drinks
- Cleaning teeth regularly with a toothbrush and toothpaste
- Using fluoride toothpaste
- Using mouthwash
- That smoking can cause mouth cancer
- Getting a check-up at the dentist every 6 months
- Renewing your toothbrush every 3 months

**IF YOU HAVE FALSE TEETH:**
- Cleaning false teeth
- Leaving false teeth out at night

Anything else? (please detail)

---

16. Which of these have you done since you've been in Shotts prison? (Please tick 'yes' or 'no' for each one)

- Seen posters about looking after your teeth and mouth
- Read leaflets about looking after your teeth and mouth
- Been to talks about dental health
- Taken part in activities about dental health – for example in education or father-child sessions
- Gone to special events about keeping healthy
- Talked to other prisoners about looking after your teeth and mouth
- Talked to health centre staff about looking after your teeth & mouth
- Talked to prison officers about looking after your teeth and mouth
- Talked to your family about looking after their teeth and mouth

Anything else? (please detail)

---

17. Do you think telling prisoners how they can look after their teeth and mouth is a good idea, or a waste of time? (Please tick one box only)

- A good idea
- A waste of time
- I don't know

Why do you say that?

---

18. Is there anything else you think could be done to improve prisoners' dental health?

---

THANKS FOR YOUR HELP