Issue date: December 2013

Oral health: local authority oral health improvement strategies

Appendices document

Contents

8 Appendix A: Sample search strategy

Database: Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations and Ovid MEDLINE(R) <1946 to Present>

Search Strategy: run 10/05/13

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1 (oral care or oral health or oral hygiene or dental care or dental health or dental hygiene or school dentist* or community dentist* or public health dentist*).ti,ab.

2 (promot* or improv* or advis* or advic* or program* or campaign* or scheme* or initiative* or prevent* strateg* or prevent* measure*).ti,ab.

3 ((oral care or oral health or oral hygiene or dental care or dental health or dental hygiene or school dentist* or community dentist* or public health dentist*) adj2 (promot* or improv* or advis* or advic* or program* or campaign* or scheme* or initiative* or prevent* strateg* or prevent* measure*)).ti,ab.

4 (oral disease* or oral neoplasm* or oral cancer* or dental disease* or mouth disease* or dental decay or mouth neoplasm* or mouth cancer* or gum disease* or DMF or caries or ((tooth or teeth) adj2 (decay* or loss)) or gingivitis or periodontal disease* or periodontitis or ((dental or oral) adj plaque)).ti,ab.

5 (prevent* or control* or reduc*).ti,ab.

6 ((oral disease* or oral neoplasm* or oral cancer* or dental disease* or mouth disease* or dental decay or mouth neoplasm* or mouth cancer* or gum disease* or DMF or caries or ((tooth or teeth) adj2 (decay* or loss)) or gingivitis or periodontal disease* or periodontitis or ((dental or oral) adj plaque)) adj2 (prevent* or control* or reduc*)).ti,ab.

7 (public health or school* or communit* or food bank* or shelter* or neighbourhood* or neighborhood* or region* or area* or population*).ti,ab. or Child Day Care Centers/ or Schools, Nursery/ or community health centers/ or substance abuse treatment centers/ or community mental health centers/ or child guidance clinics/ or maternal-child health centers/ or Sheltered Workshops/

8 6 and 7

9 (access* or inaccess* or obtain* or unobtain* or utili?ation or (service* adj4 (uptake or take?up)) or attend* or non-attend*).ti,ab.

10 ((oral care or oral health or oral hygiene or dental care or dental health or dental hygiene or school dentist* or community dentist* or public health dentist*) adj2 (access* or inaccess* or obtain* or unobtain* or utili?ation or (service* adj4 (uptake or take?up)) or attend* or non-attend*)).ti,ab.

11 3 or 8 or 10

12 toothbrushing/ or toothpastes/ or fluorides, topical/ or Mouthwashes/

13 "Pit and Fissure Sealants"/tu [Therapeutic Use]

14 ((fluorid* adj2 (varnish* or topical or milk)) or toothpast* or toothbrush* or fissure sealant* or mouthwash* or flossing or dental floss).ti,ab.

15 12 or 13 or 14

16 15 and (2 or 7)

17 (diet* or food* or nutrition* or smok* or tobacco* or alcohol*).ti,ab.

18 17 and 1 and 2

19 *Oral Health/ or exp *Dental Care/ or exp *Mouth Diseases/pc or *Periodontal diseases/pc or *Oral Hygiene/ or school dentistry/ or public health dentistry/ or community dentistry/

20 Health Promotion/ or Health Education, Dental/

21 preventive health services/ or Primary Prevention/ or Secondary Prevention/ or Cariostatic Agents/tu

22 exp health services accessibility/ or healthcare disparities/ or vulnerable populations/

23 Food habits/ or food preferences/ or Diet/ or diet therapy/ or exp Smoking Cessation/ or exp Alcohol Drinking/

24 19 and 20

25 19 and 21

26 19 and 22

27 19 and 23

28 24 or 25 or 26 or 27

29 (Brushathon or smile month or smile4life or smile 4 life or smile for life or brushing for life or designed to smile or national oral health plan or child-smile or child smile or childsmile or smile with a prophet or winning smiles or (smokefree adj2 smiling) or smileathon or creative smiles or city smiles or smile sack or bright smiles).ti,ab.

30 11 or 16 or 18 or 28 or 29

31 case report.tw. or letter/ or historical article/ or comment/ or editorial/ or (animal/ not (animal/ and human/))

32 30 not 31

33 limit 32 to english language

34 limit 33 to yr="1993 -Current"

35 limit 34 to yr="2003 -Current"

9 Appendix B: References for supplemental searches

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10 Appendix C: Sifting protocol

Parameters	Sifting criteria	Additional comments or decision frame for provisional includes
Programmes/ interventions that will be covered	Community based programmes and interventions that aim to reduce and prevent dental and periodontal disease, oral cancer or other oral disease and promote oral health.	
Programmes/ interventions that will not be covered	Population-level programmes/ interventions: • Water fluoridation • National media campaigns or websites • Screening programmes Community based programmes/interventions that: • Do not have a targeted oral health component (smoking cessation, alcohol or drug treatment programmes that do not also explicitly address oral health) • Look solely at dental trauma, preventing injuries (e.g. providing mouth guards); programmes in schools that include education about this alongside other interventions to promote oral health will be included, but trauma/injury outcomes will not be assessed Individual-level interventions: • Preventative information/advice and treatment provided by dental health practitioners to their patients • Oral health interventions for people with orthodontic and fixed appliances	Records excluded on these criteria will be tagged 'wrong intervention type' (WTIq).

	Oral health promotion and access to dental treatment in residential care or as part of clinical services: • Nursing and residential care homes for children, young people and adults • Interventions provided in dentists' surgeries • Prisons • In-patient drug or alcohol treatment programmes	
Populations that will be covered	Providers and/or users/participants of community-based oral health promotion programmes, including providers or users of programmes targeting the oral health of disadvantaged or high risk populations.	
Populations (groups) that will not be covered	Children, young people and adults living in residential care. Other non-community dwelling populations (e.g. prisoners, hospitalised patients).	Records excluded on these criteria will be tagged 'wrong population' (WPq).
Comparators that will be covered	Not applicable.	
Outcomes that will be covered	User or provider views of the barriers to implementation and/or uptake of community-based oral health programmes. User or provider views of the facilitators to implementation and/or uptake of community-based oral health programmes.	
Outcomes that will not be covered	Oral trauma or injury. Non-oral health, modifiable risk factor or determinant outcomes.	Records excluded on these criteria will be tagged 'wrong outcome qualitative' (WOq).

All study types will be included	Qualitative studies (either stand-alone studies or components of a larger mixed-method study). Quantitative studies (e.g. process evaluations and surveys) addressing barriers and facilitators to implementation of community based oral health programmes. Studies published since 2003, with provisional exclusion of studies published between 1993 and 2002 (see decision publication date decision tree). Studies conducted in OECD countries; UK studies prioritised, other OECD studies provisionally included.	**Publication date decision tree** Studies published since 1993 will be included in the search. Studies published between 1993 and 2002 will be excluded during first and second sifts. Studies published since 2003 will be sifted and appraised. In the absence of sufficient evidence for each population/setting and intervention target group, studies published between 1993 and 2003 will be revisited and included in if they will strengthen the quality of the review. A matrix for identifying gaps in the post-2003 evidence provided in Appendix 1. Criteria will include quantity, quality and applicability considerations: Three good quality (e.g. +, ++) UK based or partially or directly UK applicable studies will be required to meet criteria for 'sufficient evidence'. **Prioritisation of studies by country** As barriers and facilitators of programme implementation is context specific, studies conducted in the UK will be initially prioritised over research from other OECD countries. In the event that data saturation is not reached using UK studies, other research will be included in the qualitative review.
Studies that will not be included	Quantitative studies that do not explicitly address barriers and facilitators to community based oral health programme implementation. Non English language studies.	Records excluded on these criteria will be tagged 'wrong study type qualitative' (WSTq).

	Non OECD studies. Citations without an abstract.	

11 Appendix D: Excluded studies

Outcome

1. Albert DA, McManus JM, Mitchell DA. Models for delivering school-based dental care. Journal of School Health. 2005;75(5):157-61.

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Population

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Study type

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12 Appendix E: Characteristics of included studies

This section provides details on the aims, qualitative methods, limitations and applicability to the UK of the 26 studies included in the evidence review. This is to supplement the brief details given in the evidence statements and narrative summaries.

12.1 Arora et al. 2012 [+]; n=19 child and family health nurses; target population: new mothers; health education and advice, Australia.

Aim. This study aimed to analyse Child and Family Health Nurses (CFHNs) reflections on the usefulness of leaflets giving oral health advice to parents of preschool children in disadvantaged areas of South Western Sydney, Australia.

Qualitative methods. The study recruited 19 of 19 CFHNs contacted from details obtained from nurse unit managers in South Western Sydney. The CFHNs were recruited to represent all geographical sectors of the area. Participants were interviewed over the phone using in depth semi-structured interviews that were audio recorded and transcribed. Two researchers analysed the interview data which involved a post interview discussion of key findings ("interview debriefing") and thematic coding of the transcripts.

Limitations. One of the main limitations of this study was that it used a small convenience sample of nurses in a single location of South Western Sydney. A sample drawing in views from other professionals with regular contact with families, from multiple geographical locations would have produced more robust findings. A second limitation was that the study did not seek the views of those who were the intended recipients of the information leaflets, that is, mothers from disadvantaged areas. Sampling the direct views of the mothers' might have led to different views to the nurses. Consequently, the views expressed represent the nurses perceptions of the barriers disadvantaged women reading the leaflets might experience, rather than first hand barriers reported by the mothers themselves.

Applicability to UK. The small sample size and single geographical location in Australia limit the direct transferability and applicability of the findings to the UK setting. However, there was little evidence to suggest that the principle views expressed about tailoring the intervention resources to the target group would not be relevant to intervention planning and implementation in the UK setting, even if the specific content of the leaflets were different.

12.2 Blenkinsopp et al. 2002 [+]; n=NR client questionnaire; n=5 client interviews; n=9 pharmacist interviews; n= 7 project board interviews; target population: general public; health education and or advice, England.

Aim. The study aimed to evaluate the feasibility and acceptability of a community pharmacy health promotion scheme sampling both the views of service users (clients) and providers.

Intervention. The pharmacists received a specific training programme (six days in total) based on transtheoretical model (TTM) and motivational interviewing principles in order to offer health promotion advice to the general public about exercise, smoking cessation, dental health or medicines management from 11 community pharmacies in South Staffordshire, England.

Service users were offered a brief “Level 1” intervention with a second, extended “Level 2” intervention where the pharmacist and client thought it necessary. A brief intervention lasted up to ten minutes whereas an extended intervention would last for 20-30 minutes. In total there were 301 brief interventions recorded in the 3 month intervention period, 78 of which were oral health (25.9%), and 30 extended interventions, just 1 of which was oral health (3.3%). The pharmacists were paid a fee for each brief (£10) and extended (£30) intervention.

Qualitative methods. All 20 pharmacies in two localities were invited to take part in the scheme and twelve (60 per cent) agreed. Eleven of the twelve community pharmacies that originally agreed to participate in the scheme did so.

Qualitative data was collected and analysed in 4 parts:

1) All service users were asked to complete a short client questionnaire immediately after receiving a brief intervention asking about client age, to state who had initiated the interaction and its topic. A longer 5-item questionnaire was used after the extended interventions including Likert-type

rating from 1 to 5 about different aspects of the consultation with the pharmacist. The number of client questionnaires for brief interventions was not reported (n=NR/301), but was 30/30 of clients receiving an extended interventions.

2) Brief and extended follow-up interviews with clients who had used the service. Brief interventions: n=14/NR in total prior to 1998 including 5 for oral health, an additional 15/186 clients also sampled but only on smoking cessation and medicines use topics. Extended interventions: 2/30, both had also received a brief intervention. The client interview forms were coded and a content analysis of clients' comments was undertaken to identify key themes.

3) Semi-structured phone interviews with participating pharmacists (n=9/11, 9 pharmacists from each of the 11 eligible pharmacies in the pilot scheme were interviewed). The interview responses were subjected to content analysis by two members of the evaluation team.

4) Stakeholder interviews with all members of the project board (9/9 project board members comprising the Deputy Head of Health Promotion; the Health Authority Community Pharmacy Facilitator; National Pharmaceutical Association Regional Professional Development coordinator and four community pharmacists, one of whom was a participant in the scheme.) The stakeholder interview forms were subjected to content analysis by two members of the evaluation team.

Limitations. The study sample of clients completing the client questionnaire was not reported for the brief interventions and there was a small sample interviewed in comparison to the total number of consultations recorded (301 brief and 30 extended interventions). There was no justification for this sample, such as data saturation points being reached during interviews. Data analysis methods were also not reported in detail which makes the conclusions less convincing. There was limited description of the characteristics of the clients and pharmacists interviewed so it was not clear whether views differed by key participant characteristics. This was highlighted by the authors in relation to the clients' perceived "readiness to change" which

may have influenced how they perceived the need for the intervention. Only a minority of the interventions undertaken were for oral health and it was not clear how far views were influenced and differed by the intervention health topic discussed. Views were gathered from 9 of the 11 pharmacists taking part in the feasibility study so are likely to be broadly representative of the views of the wider group taking part.

Applicability to UK. The research involved community pharmacists and pharmacies based in England so the findings are likely to be applicable to the UK setting.

12.3 Blinkhorn 2008 [-]; n=549 health visitors completed a questionnaire; target population: under 5s in disadvantaged areas; "Brushing for Life" health education and or advice, England.

Aim. The main qualitative objective of the study was to look at the views and experiences of deliverers of the "Brushing for Life" programme.

Intervention. The intervention was a health visitor led programme called "Brushing for Life", designed to promote regular brushing of children's teeth using toothpaste with a middle range (1,000 parts per million) of fluoride content. It started in 2001 to target disadvantaged areas of England and initially targeted the 21 health authorities with the highest levels of tooth decay in young children. It was subsequently extended to the next 9 worst authorities and then offered nationally to Sure Start schemes in areas not already benefitting from fluoridation of water supplies. Where appropriate, packs containing toothpaste, a toothbrush and a health educational leaflet were distributed to the parents of infants at their 8, 18 and 36 month development checks. This was supported by advice from the health visitor on the care of the child's teeth. The aim was to encourage an early regular tooth brushing habit.

Qualitative methods. During the introductory phase of the programme a total of 549 of 747 health visitors contacted (73%) responded to a questionnaire to

ascertain the experiences of health visitors with the scheme, and their attitudes towards it. In addition the logistics of disseminating the programme in terms of training, operational procedures and general provider satisfaction were “separately assessed”. The sample methodology, participant characteristics, setting and data analysis were not reported for the questionnaire or for the separate assessment. An evaluation of the impact of Brushing for Life on the behaviour of parents and tooth brushing practices of their children was also conducted in Barnsley as part of a longitudinal study over 3 years. This focused on intervention effectiveness so is not relevant to this qualitative review.

Limitations. The study sample for the questionnaire was large, which was a strength. However, the lack of reporting of the methods of data collection, characteristics of the participants, context or analysis methods for the questionnaire and the separate assessment of other aspects of the intervention severely limited the reliability of the results and conclusions presented. This was the main driver behind the (-) study quality rating and the poor richness of the data presented. The authors’ stated that their work was drawn from published work, reports and other documentation potentially explaining why the key methodological results were missing.

Applicability to UK. The study was based in England so is directly applicable to the UK setting.

12.4 Burchell et al. 2006 [-]; sample NR; target group: complex needs (mental health illness); complex intervention “Dental as Anything”; Australia.

Aim. The report stated no specific research aim and was mainly a narrative description of the development of the “Dental as Anything” programme in Melbourne, Australia.

Intervention. The ‘Dental as Anything’ programme is a collaborative partnership between the mental health, dental and administration teams of the

Inner South Community Health Service (ISCHS) in Melbourne. It provides a flexible programme incorporating engagement, clinical care, education and support in response to client needs. Utilising a health promotion framework and an assertive outreach model, it accesses people who traditionally do not approach mainstream services. A dentist, dental assistant and a mental health outreach worker take dentistry and mental health support to a variety of settings to provide increased services to marginalised clients. The clients of Dental as Anything have chronic mental illness and associated psychiatric disability. They are likely to have been previously institutionalised before moving into the community. Clients may have a drug and/or alcohol dependency, are likely to be on psychiatric medication, have a low socioeconomic status and be living in insecure accommodation or be homeless.

Qualitative methods. No methods are described in this publication. The results section includes a small number of quotes from staff so there is a suggestion it may be an accumulation of more than the authors own opinions.

Limitations. This study has significant limitations contributing to its (-) quality rating. Primarily these relate to the fact that no qualitative methods were described throughout. Consequently, we do not know where the views reported in the study originate from and whether they are representative of reality. Due to the lack of methods, there is an unknown risk of a single perspective researcher bias in the interpretation of the programme, which could change the views expressed in the report. The views expressed in the report may not represent the variety of perspectives from different staff involved in the programme implementation. The results contain a small number of illustrative quotes from staff involved in the intervention implying that the views expressed may more than the authors alone, but this is not clear.

Applicability to UK. The study described the issues faced in implementing a complex intervention based in Australia. The context of such a complex and multifaceted intervention is likely to be important in shaping issues raised

about implementation so it is important to be mindful that this may limit the transferability of some of the findings to the UK setting. For instance, some of the views and opinions related to issues of funding, remuneration of staff and organisational collaborations. Some of the specifics may have limited applicability to the UK, but the more general principles they highlight, such as achieving stable funding, are likely to be applicable to the UK.

12.5 Coles et al. 2012 [+]; focus groups n=14 staff involved in the intervention (roles unspecified); target population: homeless people; health education and or advice "Something to Smile About"; Scotland.

Aim. This was an evaluation of the "Something to Smile About"(STSA) programme in Lanarkshire, Scotland. The specific objectives of the evaluation were to: explore the oral health capacity of staff; explore the degree to which staff used a client-centred approach to promote change in client oral health-related behaviours; explore strengths, weaknesses and areas for improvement; and to evaluate whether STSA had achieved its outcome 'to build the capacity of staff working within the local authority, health and voluntary sectors to deliver oral health interventions to people affected by homelessness'.

Intervention. "Something to Smile About" (STSA) is an NHS Lanarkshire collaboration with local organisations to provide staff with a framework to offer oral health advice to their homeless clients and signpost to dental services. The rationale behind STSA was that oral health messages aimed at homeless people would have a greater likelihood of success if they were delivered by the staff who worked closely with them. Therefore the stated outcome of STSA was 'to build the capacity of staff working within the local authority, health and voluntary sectors to deliver oral health interventions to people affected by homelessness'. The specific goals of STSA were to:

1. Develop a training programme to build oral health capacity by increasing the knowledge and skills of staff working with homeless

people, to enable them to communicate oral health messages and assist clients to access dental services.

2. Develop and implement an oral health intervention staff can use when working with homeless clients.

3. Develop and implement an oral health intervention for homeless clients.

The STSA programme comprised a resource manual and an intervention. The resource manual contained oral health information and training to enable staff to deliver relevant oral health advice to homeless clients, as well as including information on dental services within NHS Lanarkshire. The intervention itself aimed to enable staff to tailor oral health information and advice to their clients at the most appropriate point in the client's support plan, taking into account the homeless person's specific needs and concerns. Loosely based on the stages of change model, it used motivational interviewing as a means to support behaviour change. The intervention was available to target individuals at four stages: (1) pre-contemplation; (2) contemplation; (3) preparation; and (4) action. The fifth stage, maintenance, was not included due to time constraints. Staff working with the homeless client aimed to encourage the client progress to the next stage of change.

Qualitative methods. Ten of the 20 participating organisations agreed to take part in the evaluation citing time constraints and work commitments for non-participation. A purposive sample of 14 people from the 10 organisations was collected, 12 were women (no further characteristics reported). The participants were from a variety of professional backgrounds and involved in the intervention (no further specification). Three focus groups were held in September 2009, the first two consisted of five participants each and the third had four participants (n=14 participants in total). The focus groups were conducted, audio recorded and transcribed. Each focus group lasted one and a half hours. Staff were asked about their involvement and experiences in delivering the intervention, and their feelings about STSA and the resources

provided in terms of impact and effectiveness. The focus groups were conducted by an independent researcher who was unknown to the staff members.

Manifest content analysis was used to analyse the data. Unit of analysis was each focus group. Data analysis began by reading through the transcripts several times to gain a sense of the entire unit of analysis. Line-by-line open coding was undertaken independently by two researchers to allow concepts to emerge. The emerging themes were discussed by the two researchers; a discussion was held to reach consensus when there was difference in the interpretation of the data.

Limitations. The authors recognized that no clients (service users) participated in the evaluation so it was not possible to gauge their views on barriers and facilitators to implementation. A further limitation was that only 10 of the 20 organizations that took part in STSA were represented in the focus groups. There is a risk of selection bias as the views of those who could not take part may have been different to those who did. This may be particularly relevant considering the reasons given for non-participation (time constraints or other commitments) which raises the possibility that non-participants may have expressed more barriers related to time constraints when implementing the intervention than those who found the time to participate in the focus groups. The characteristics of the 14 people in the focus groups were not reported (e.g. job role/function within the intervention) so was how views did or did not vary by staff role or by key participant characteristics.

Applicability to UK. The study took place in Scotland so is directly applicable to the UK setting.

12.6 Dental Health Foundation 2007 [+]; n=NR oral health promoters; n=11 teachers and n=44 children; target

population: school children; complex intervention; Republic of Ireland and Northern Ireland.

Aim. To evaluate the 'Winning Smiles' school oral health promotion programme for 7 to 8-year-olds. The aim of the qualitative element of evaluation was to report on:

- oral health promoters' perceptions and concerns in delivering health promotion programmes in schools
- teachers' views on the programme
- an exploration of children's thoughts on the intervention.

Intervention. Winning Smiles was a 6 week school based oral health promotion programme for 7 to 8 year olds in areas of socioeconomic deprivation (no further definition reported) in Dublin and Belfast. It aimed to encourage fluoride toothpaste use, improve child oral health-related quality of life and self-esteem and increase oral health-related knowledge and attitudes among children living in relative poverty, and to assess changes in reported oral health behaviours.

Two schools were selected from the list of disadvantaged schools in the north Dublin area, and 5 schools selected from Belfast which had over 50% of children receiving school meals. The programme was provided to 3 randomly selected schools (1 in Dublin and 2 in Belfast), and the other schools acted as comparator schools which did not participate in the programme.

The programme included:

- 3 planned classroom visits by community dental staff, as well as homework and classroom worksheets to be completed between visits and a fourth visit to present awards for participation.
- teaching the children to brush their teeth with fluoride toothpaste and how to remove plaque, and challenging them to record their twice daily tooth brushing over a 4 week period
- an element of competition based on scoring of plaque levels at baseline and 4 weeks. Children received a certificate for participating, those who

showed significant improvement got an improvement certificate, and those who were ‘plaque free’ at the end of the project were given a medal. Classes and schools also competed against each other for awards/recognition.

- In the Dublin schools, children also received free fluoridated toothpaste and a toothbrush.

Qualitative methods. Oral health promoters’ perceptions and concerns in delivering health promotion programmes in schools were evaluated using a story dialogue workshop. The process of storytelling was structured around generative themes, in order to produce high volume and free-flowing data, as opposed to closed and negative responses. The theme chosen by the workshop participants was ‘tensions’. The story dialogue method uses ‘narratology’ as a method of examining the ways in which narrative structures the participants’ perceptions of their professional culture, society and the issues pertinent to the Winning Smiles oral health promotion programme. How the oral health promoters were recruited for the workshop was not reported.

Teacher "debriefing" involved a questionnaire and interview. All the teachers in the intervention schools in Dublin (6 teachers) and Belfast (5 teachers) were invited to take part. A questionnaire/interview schedule was designed to explore the teachers’ views on the programme in relation to curriculum requirements, the children’s enjoyment of it, the role of both the teachers and the oral health promoters in the implementation of the programme and the various component parts of the resource pack provided. Views on the Teachers’ Workshop that was part of the programme were also explored.

The exploration of children’s thoughts on the Winning Smiles intervention was originally to be carried out through focus groups but the children didn't focus so it was switched to a mixture of task (writing) and picture drawing to help the children to keep to the task at hand - reflecting on the tooth brushing programme. The evaluation centred on the tooth brushing rules worksheet and drawings; and results contained illustrative quotes. A total of 10 focus groups with 44 children were conducted in Dublin and Belfast between 13

November 2003 and 26 May 2004. How the children were recruited for the groups was not reported.

Limitations. The authors noted that in Dublin the teacher debriefing was carried out by means of one-to-one interviews in the intervention school. It was not possible to carry out one-to-one interviews with the teachers in the two Belfast intervention schools due to industrial action; however, they agreed to fill in the questionnaires themselves. As a result, it was not possible to explore fully their views on the initiative so there was not as much clarity and richness of information as the authors would have liked from these two schools.

Sample selection methods were not clear, so it is unclear whether the diversity of views from wider group involved in the intervention programme. The link between the data collected and the conclusions drawn/summary description was not often clear or explicit. This link was most clear for the data from children, but less clear from teachers and oral health promoters.

Applicability to UK. The results of this study are likely to be applicable to the UK, as it was carried out in the Republic of Ireland and Northern Ireland.

12.7 Diamond et al. 2003 [-]; n=27 people with affiliations to the programme; target population: school children; complex intervention; US

Aim. The aim of the study was to report key findings of a process evaluation of a community-based oral health care programme primarily targeting children in dentally underserved communities.

Intervention. The Community DentCare Network (DentCare) was established by the Columbia University School of Oral and Dental Surgery (SDOS) by partnering community-based organisations, public schools, and community health care providers, in the Harlem and Washington Heights/lnwood neighbourhoods of northern Manhattan. Intermediate schoolchildren in these areas had been identified as having higher levels of untreated dental disease than other areas in the country. The aim of the intervention was to shift

primary care services from New York Presbyterian Hospital and SDOS to neighbourhood settings with emphasis on providing preventive care in New York City (NYC) public schools.

Dental clinics were initially established in 5 NYC schools. These clinics provided preventive services including oral examinations, prophylaxis, scaling, fluoride, sealants, and patient education in home care procedures. In addition, one school clinic provided basic restorative treatment and simple extractions.

Qualitative methods. The method used in the process evaluation was open-ended qualitative interviewing. The interviews were carried out by a sociologist with extensive experience in this methodology aided by a participant-observer within the DentCare programme. Further information on methods was not provided.

The interviews were conducted with 27 people with affiliations to one of four categories: public schools (6 people), community leaders (6 people), Columbia University (6 administrators), and DentCare (9 staff). The size of the source population and method of sampling were not described.

Limitations. The sample recruitment method was not described, and could be a source of selection bias. It was unclear whether all 5 schools in the network were represented in the interviews, as they may have experienced different barriers and facilitators. The method of interview analysis was not reported, so the risk of bias in this aspect of the study could not be assessed.

Applicability to UK. The intervention involved reorganisation of services in the US. This limits its direct applicability to the UK, where dental structures and organisations may be different.

12.8 Douglass et al. 2005 [-]; n=3 mobile dental clinic programmes; target population: school children; improving access; US

Aim. The study aimed to describe implementation issues of the three mobile dental clinic programmes in Connecticut and document their productivity and on-going costs.

Intervention. Mobile dental clinics for children. All mobile dental clinics contained two operatories, an x-ray unit, waiting area and office space. They predominantly served medically healthy elementary aged children. The aim is to improve access for children from low socio-economic status families who are underserved.

Qualitative methods. After preliminary investigative visits to each mobile clinic, a 29-item structured survey was designed and sent to each programme. Information on programme age, issues encountered in planning and implementation, and on-going costs and productivity for the last financial year were obtained. The survey was followed-up with personal interviews. Information was predominantly collected from the person responsible for programme administration. No further details of the methods were described.

Limitations. Population and sample selection methods and criteria were not reported. It was not clear who was eventually interviewed or responded to the survey outside of statement that is was predominantly "the person responsible for programme administration". The views collected may represent a narrow segment of the diversity of views of all staff involved in the programme. Service user views were not sought.

Applicability to UK. The intervention involved service delivery in the US. This limits its direct applicability to the UK, where dental services and organisations may be different. This could influence the specific barriers and facilitators encountered impacting of the transferability of the views expressed.

12.9 Holme et al. 2009 [++]; n=NR parents of children in Scotland and professionals involved in Childsmile

programme delivery; target population: under 5s, complex intervention; Scotland

NB: this study reviewed the same Childsmile programme as Macpherson et al. 2010 (See section 12.12).

Aim. The study aimed to inform the communication strategy and the development of local social marketing campaigns to improve uptake of the Childsmile programme. It included a literature review (not described further here) and qualitative research that aimed to assess and further understand:

- current knowledge, understanding and perceptions of Childsmile and the programme's main components (Childsmile Practice, Nursery and School)
- which family members hold the most influence over the children's oral health and the main facilitators and barriers to engagement with dental services generally and in relation to the Childsmile programme
- how best to promote the programme as the routine dental service available from birth
- how best to market the programme to meet the needs of expectant mothers, families with new-born and/or young children
- how best to market the programme to facilitate the registration of babies and young children.

Intervention. The Childsmile programme: a childhood oral health service being rolled out across Scotland. It aims to provide 'universal' access to Childsmile care from birth for every child, and includes four main components:

- a core tooth brushing programme in nurseries and distribution of tooth brushing packs (0-5 years) and drinking cups
- Childsmile Practice: promoting oral health from birth. All children are offered a tailored programme, incorporating oral health promotion (dietary advice and tooth brushing demonstration/ fluoride advice) and clinical prevention including fluoride varnish applications within dental services 6 monthly from the age of 2 years. Those identified as having greatest need

are offered an enhanced component e.g. more home visits and longer or more frequent appointments at dental services

- Childsmile Nursery: preventive programmes for children in nurseries drawing pupils from the lowest quintile, incorporating fluoride varnishing
- Childsmile School: school-based dental service for children aged 4 and over in deprived areas (lowest quintile), incorporating fluoride varnishing and, in some areas, fissure sealants.

The programme involves specific Childsmile staff and other dental and oral health providers, as well as support from a range of professionals working with young children and families. It was at varying stages of implementation in Scotland's three administrative regions.

Qualitative methods. An exploratory approach was adopted, enabling understanding of perceptions and experiences among service users (i.e. parents/carers who are eligible to participate or who are already participating) and service providers (i.e. local health professionals responsible for supporting and delivering the service) of the various programme components and the factors that facilitate and hinder engagement and delivery.

Focus groups and mini-groups were adopted in interviewing parents (10 groups of up to 8 parents) and relevant professionals (8 mini-groups). These groups allow participants to interact with each other, to voice their own views and experience and to respond to others in the group.

The parent sample comprised parents/carers living in disadvantaged areas who were the main carers for a child aged 0-3 years; some also had children aged 4-8 years. The parents/carers had not all experienced Childsmile, and all groups included some single parents. Participants were selected from urban and rural areas, and from all three administrative areas. Participants were mainly mothers, with only 2 fathers participating.

The key professionals interviewed were responsible for supporting and/or delivering programme components, and included: Childsmile Extended Duty Dental Nurses and Dental Health Support Workers; public health nurses/health visitors, who are the main referrers to Childsmile Practice;

midwives who have a potential role in referral; and nursery/nursery school and family centre staff who support Childsmile Nursery and core tooth brushing programmes. The staff served rural and urban areas.

Groups were moderated by experienced qualitative interviewers, held in convenient ‘neutral’ locations such as community halls or other venues connected to the place where the respondent was recruited (e.g. family centres, work places). A topic guide was used in all groups to act as a check list of key topic areas to be covered, but was not used a rigid structure for groups. The topic guides reflected the research questions and were informed by the initial stakeholder interviews, literature review and input from the Steering Group.

The focus groups were audio-recorded and transcribed for thematic analysis. Transcripts were organised using a thematic framework based on topics specified in the discussion guide and emerging themes identified through familiarisation with transcript texts.

Limitations. It was unclear how the sample of parents and staff were recruited. Numbers eligible, recruited, or taking part in the groups were not reported. At least one parent/carer focus group was reported to be carried out in response to low turnout for other groups, but no reasons for the poor turnout were described. The direct experience of Childsmile Practice and Childsmile Nursery and School was reported to be mixed and so many interviewees were responding to the concept of service components rather than from direct experience.

Applicability to UK. The Childsmile programme and the current research took place in Scotland, so findings are likely to be directly applicable to a UK setting.

12.10 Kranz et al. 2011 [+], n=309 teachers, 18 programme directors, 20 health coordinators, target population: under 5s, Health Education and/or Advice, US

Aim. The aim of the study was to report on the oral health activities of teachers in Early Head Start (EHS) programmes in North Carolina, describe variation among programmes, and identify teacher and programme-level factors associated with these activities that could potentially be modified through training programmes or other interventions.

Intervention. EHS programmes are federally funded and designed to address the social, educational and health needs of pregnant women and children younger than three years of age. It targets families with household incomes at or below 135% of the federal poverty level. The frequency and types of oral health activities conducted in EHS programmes were not clear, although it was noted by the study authors to be "an attractive setting in which to implement preventive dentistry programmes" as children are seen at an early age before most of them will have experienced any dental disease.

Qualitative methods. The study carried out a cross-sectional survey of staff in home-based and centre-based North Carolina EHS programmes in June 2005. The survey used a self-completed questionnaire, which was delivered in person to each of the EHS programmes by research staff. A designated EHS staff member collected and returned all questionnaires.

The 18 EHS programmes in the state were identified with assistance from the state's Head Start collaborator and confirmed by published lists and communication with the federal regional oversight office. All 18 EHS programme directors and all 20 health coordinators in the programmes were surveyed and their data analysed. A total of 98% (n=485) of the EHS programme staff members returned the survey. Analysis was restricted to teachers (n=309) because they regularly interact with children and families. A total of 231 teachers were analysed for child oral health activity outcomes (teachers who worked only with infants were excluded as oral care recommendations for infants differ), and 260 teachers for parent oral health

activities. Missing data was imputed for about 2% of staff. If data was missing for one question in a multi-question (item) construct, the missing data was imputed using the average score for other items in the construct.

The study analysed what modifiable factors were associated with oral health activities.

Limitations. The authors' note that findings must be interpreted cautiously to avoid inferring causality from associations observed because of its cross-sectional design. Although EHS programmes follow federal standards, they say that the results may not be transferable beyond North Carolina because variation in adherence is likely to exist among states and programmes. Also, because the findings were based on self-completed questionnaires the results might be biased if teachers miss-stated their level of participation in oral health promotion activities or incorrectly recalled their activities.

Some staff groups who responded to the survey were excluded from analysis after they had submitted their views. The main analysis was restricted to teachers, and their views may not be representative of those of other staff. The research instrument used scales rather than open ended questions, restricting the range of views possible to be expressed.

Applicability to UK. The main intervention was based in the US in early head start centres. While there are similar centres and programmes in the UK, such as Sure Start Centres, they are not the same and operate in different organisational contexts limiting the applicability to the UK. Differences between the US and UK programmes should be carefully considered.

12.11 Lemay et al. 2010 [+], n=71 people with HIV/AIDS; and Lemay et al. 2012 [+], n=25 people with HIV/AIDS; target population: complex needs, improving access; US

Aim. The objectives of the year 1 evaluation (Lemay et al. 2010) were to measure access to and satisfaction with dental services for people living with HIV/AIDS as well as explore the role of the dental case manager (DCM) in

improving access and satisfaction with dental care received. The objective of the second study (Lemay et al. 2012) was to examine the perceptions, attitudes, and beliefs of dental patients living with HIV/AIDS on the role and value of the DCM and the effect of DCM services on their oral or overall health.

Intervention. The intervention was the HIV Oral Health Collaborative model, designed to increase accessibility and affordability of dental services for Cape Cod residents living with HIV/AIDS over a 5 year period. The Collaborative included medical case managers from Cape Cod Healthcare-Infectious Disease Clinical Services, the AIDS Support Group of Cape Cod, the Nantucket AIDS Network, and a dental case manager (DCM) from the Community Dental Centres on Cape Cod. The DCM acted as a point of service contact, and was an important part of the model. They scheduled appointments, ensured that all intake and insurance documentation were completed, assisted clients in applying for dental benefits, obtained all relevant medical information needed to provide care, coordinated transportation and provided follow-up to primary care and social service providers on visit outcomes.

Qualitative methods. The year 1 evaluation used a cross sectional tailored design method postal survey to assess access to dental care and satisfaction with the facility and dental provider, as well as to examine the role of the dental case manager as it related to access and satisfaction.

The 23-item dental satisfaction survey was sent in October 2007 to all dental patients living with HIV/AIDS who had received services at either of 2 community dental centres on the Cape between October 2005 and September 2007 (n = 160). The survey included both closed and open-ended questions. Participants could return the survey with anonymous returned mailings.

Of the mailed surveys, 71/160 (44.3%) were returned completed. Three people were no longer eligible (1 had died, and 2 had relocated due to hurricane Katrina) and 26 surveys were returned undeliverable. Excluding these individuals gave a revised response rate of 71/131 (54.2%).

The evaluation used frequencies, chi-squared tests and odds ratios to analyse quantitative data and compare closed survey questions. For open questions, content analysis was used. Verbatim responses were coded independently by two investigators with very high inter-coder agreement (95%), and emergent themes were identified.

The subsequent study (Lemay et al. 2012) involved 5 focus groups with people who had received DCM services, held between December 2009 and June 2010. Everyone who had received DCM services at the 2 dental clinics from November 2007 through November 2009 (n = 216) were mailed focus group invitations. Of those invited, 28 agreed to participate, and 25 actually participated. Participants were required to be aged 18 or older, living with HIV/AIDS, and English-speaking.

A focus group guide was drafted based on previous research, and then revised based on comments from members of a multi-professional team that included an evaluator, a dentist, and a DCM who reviewed the draft questions for appropriateness and comprehension. The guide included content areas relating to problems and experiences with obtaining dental care prior to having the DCM; the role of the DCM and ways of improving it; the value of having a DCM; and the effect of the DCM on oral or overall health.

The focus groups were run by an experienced focus group facilitator using “recommended focus group procedures”. The exact setting for these groups was not described.

Digital recordings of the focus groups were transcribed verbatim. Transcripts were coded then imported into Microsoft Excel for sorting and cross-referencing. One investigator read the transcripts several times to identify emerging themes and to develop a coding scheme on the basis of the original research questions and spontaneous comments. Two investigators categorised textual data separately according to directed qualitative content analysis. They calculated the percentage of inter-coder agreement and revised the coding scheme after each round until they reached agreement (85%). Disputed responses were reviewed until coders had achieved 100%

agreement. Comments expressed most frequently were identified as major themes.

Limitations.

The authors noted that the year 1 evaluation survey had several limitations (Lemay et al. 2010). These included the small sample size, and the possibility that the opinions of individuals responding to the survey were different from those who did not respond. The project did not address other factors that could be influencing the findings of increased access to dental care for patients living with HIV/AIDS on Cape Cod, including policy changes and modifications to benefits structure. Additionally, responses to the question regarding whether the patient had a dental case manager indicated that there may be measurement error – although all individuals who received the survey had been contacted by and/or had received services from the dental case manager, only 49% reported that they had one. The fact that the survey was anonymous did not allow for analyses of the non- responders, the dose effect of contact with the DCM or for improvement in oral health over time. Finally, surveying patients connected to care does not provide information pertaining to needs of the population not yet connected to care.

The response rate to the survey was relatively low so the sample may be more prone to bias.

The authors of the focus group study noted that the focus group approach meant that the sample size was small. There may have been participation bias, as the study participants may not accurately represent all dental clients receiving DCM services. As the study was conducted in only 1 place this limited transferability of views.

The sample was restricted to English speaking adults with HIV/AIDS, and almost all (23/25, 92%) were non-Hispanic white. This demographic may not be representative of overall target population of people living with HIV/AIDS, for example, the study reported Latino and black men outnumber white men in new HIV/AIDS cases. The response rate was low 11.6% (25 participated of 216 eligible).

Applicability to UK. The study was focussed on an intervention in the context of AIDS/HIV support services and dental services in a single area of the US, Cape Cod (Massachusetts). This limits the applicability to the UK which may have difference service configurations, which may mean different barriers and facilitators are encountered or reported.

12.12 Macpherson et al. 2010 [-]; narrative report (not primary research); Complex Intervention; target population: under 5s; Scotland

NB: this study reviewed the same Childsmile programme as Holme et al. 2009 (See section 12.9).

Aim. To describe the development and implementation of the Childsmile national oral health improvement programme for children in Scotland over its initial three-year period and into its second phase of development

Intervention. The Childsmile programme has 4 interlocking elements combining both targeted and population based approaches. 1) Childsmile Practice - provision and prevention interventions targeting under 2s in deprived communities from a dental practice. 2) Childsmile Nursery and 3) Childsmile School – provide clinical prevention activities delivered through salaried primary care dental services for children attending priority nursery and primary schools. 4) Childsmile Core - free distribution of toothpaste/toothbrush packs to every child in Scotland on at least 6 occasions during their first 5 years, plus the offer of free daily tooth brushing to every 3 and 4-year old child attending nursery in Scotland.

Qualitative methods. The paper describes the development of the child oral health improvement programme in Scotland over initial the 3 years of the intervention between January 2006 and to December 2008, and the second phase from 2009 to 2011. Methods for preparation of the paper's content were not described. It appears to describe the study authors' perspective. It includes reference to "two pieces of embedded research with a focus on barriers and facilitators of uptake of Childsmile services". One appeared of

relevance as was included in this review, see Holme et al. 2009 (See section 12.9).

Limitations. The origins of the views, conclusions and description are not reported. This was a narrative description of the development of the programme including embedded research on barriers and facilitators. No formal qualitative methods were used in this paper so views expressed may be biased by the author and may not be representative of the different staff groups and participants involved in the programme.

Applicability to UK. The study described an intervention in Scotland should appears directly applicable to the UK.

12.13 Maher et al. 2012 [-]; 60 health professionals involved in programme implementation; target population: under 5s; complex intervention; Australia

Aim. The study aimed to evaluate the Early Childhood Oral Health (ECOH) programme to determine if the model of shared responsibility for early childhood oral health had been implemented, to identify its key achievements and the factors enabling these; and to determine whether the programme was effective in reaching populations with a higher burden of oral disease in New South Wales (NSW), Australia.

Intervention. The ECOH programme involved a partnership between child health professionals, oral health professionals and parents of young children, to facilitate the primary prevention, early identification and early intervention of early childhood caries. Parents were provided with anticipatory guidance, resources and support to enable positive oral health behaviours in the home, and to encourage parental monitoring of their child's oral health. The programme also supports oral health professionals to focus on early management of dental disease, and to incorporate promotion and prevention into their services, working in partnership with parents and families.

Qualitative methods. Data were obtained through programme document review, surveys and interviews with programme implementers, and analysis of

the Information System for Oral Health (ISOH) database for public oral health services activity in NSW.

The evaluation included four elements, and was carried out 2010.

1) The main qualitative element consisted of semi-structured interviews with 24 health professionals involved in ECOH programme implementation. The health professionals to be interviewed were selected from 3 areas that have higher levels of dental disease. These settings were selected without prior knowledge or consideration of the coverage or success of the programme in those areas. The final sample included 5 ECOH programme co-ordinators, 14 child and family health nurses from the 3 higher risk settings and 5 staff from the Centre for Oral Health Strategy NSW Health.

Open ended questions were used to explore the participants' experiences of developing, implementing, and monitoring the programme, and their perception of associated successes and challenges. All interviews were conducted face-to-face by one of the study authors and lasted approximately 60 minutes.

The interviews were recorded and transcribed before content analysis using a qualitative template approach. Units of meaning were identified in the interview text concerning participants' ECOH programme experience and perceptions of success. Sub-categories, categories, and themes were then identified. Each new piece of data was compared with subsequent ones allowing key patterns to emerge. The coding was discussed between three authors to improve the veracity of the analysis, and consensus reached.

The other elements of the evaluation were: 2) a 5-item preliminary phone survey of child and family health nurses was carried out. The survey assessed the frequency with which they conducted oral health promotion and screening within routine child health checks, and their participation in oral health professional development activities of the ECOH. Forty nurses were selected for interview by their local ECOH programme co-ordinator. 3) Documents including clinical guidelines, policies and training manuals, as well as unpublished documents such as programme proposals, reports, presentations

and the results of monitoring activities were reviewed. 4) The demographic status of children referred, as well as the number of referrals was identified using the ISOH database.

Limitations. The rationale behind the ECOH programme co-ordinator's sample selection of the 40 survey participants was not given. This is a potential source of selection bias as a local person selected participants, and may have selected a well performing sample.

Applicability to UK. The programme implementation involved forming and fostering professional partnerships in Australia which may have a different dynamic from place to place. This limits the direct applicability of the findings to the UK setting.

12.14 Mariño et al. 2005 [+]; focus groups n=151 service users; target population: older persons; complex intervention; Australia

Aim. The study aimed to assess the views of older Greek and Italian adults living in Melbourne, Australia about the format, content and delivery of a community-based oral health promotion programme.

Intervention. The Oral Health Information Seminars/Sheets (ORHIS) oral health promotion programme was offered through community ethnic clubs, and aimed to improve the use of oral health services, oral health knowledge, attitudes, and practices of older Greek and Italian adults.

It included three main components: 9 interactive oral health seminars; provision of oral care products related to the content of each seminar session; provision of oral health information sheets to reinforce seminar content.

The original evaluation of the effect of ORHIS on use of oral health services, oral health knowledge, attitudes, and practices included control clubs which did not receive the intervention.

Qualitative methods. This qualitative study consisted of 15 focus groups with a sample of programme participants (n=151) aged 55 and over, drawn from 9

Italian clubs (n=81 participants, average age 70.8 years) and 6 Greek clubs (n=70 participants, average age 66.9 years) which participated in the intervention. The evaluation was carried out from April to June 2002.

The focus groups were conducted in the ethnic clubs during normal club hours by two bilingual facilitators (one Italian/English, one Greek/English), and the groups were conducted in either Italian or Greek. Each group lasted 30-40 minutes. The facilitators were trained to use a recursive semi-structured interviewing method, based on a list of open-ended questions. The list consisted of three main themes, each with prompt questions to stimulate the discussions. The focus groups sought participants' views about all aspects of the programme and its delivery. The discussions were recorded and transcribed verbatim for analysis. After familiarisation with the content of transcripts, a thematic coding schedule was developed with reference to the topics discussed during the focus groups.

Limitations. The authors noted that the focus groups consisted of volunteers recruited from participating clubs, which may have resulted in a positive bias in views expressed. They reported that the limitations of the group dynamic established were: the desire to please, which could affect participants' responses and participation; and that disclosure of alternative views may be less likely to occur.

Applicability to UK. The intervention sample two older migrant populations in a single location in Australia, this limits its applicability to the UK setting where the views of migrant populations may differ.

12.15 O'Neill and O'Donnell 2003 [-]; school health education co-ordinators, teaching staff and parents, children at 79 schools; target population: school children; common risk factors; Northern Ireland

Aim. To evaluate the Smart Snacks Scheme. The evaluation included an assessment of perception, effectiveness and attitudes to the scheme and how it could be supported and improved in the school environment.

Intervention. The Smart Snacks Scheme is a healthy breaks initiative in the school environment that targets schoolchildren in primary and special schools and nurseries/playgroups. The scheme included written healthy snacks policies and placing restrictions on the types of break time snacks and drinks that could be consumed, and informing parents of intentions.

Qualitative methods. The evaluation had three phases and took place in 2000. Phase 1 involved a postal questionnaire being sent to the health education coordinator or primary schools (n=52) within the scheme, and to a control sample of schools (n=27) who had not participated, and were matched for socio-economic, geographic, demographic and religious beliefs (quantitative). Phase 2 involved one-to-one interviews with teaching staff and a sample of parents. Phase 3 involved focus groups with school children. Phases 2 and 3 were qualitative and involved visits to the schools. Analysis methods were not reported.

Limitations. The authors noted that overall, improvements in schoolchildren health could not be attributed alone to the introduction of the Smart Snacks Scheme, but it possibly could in part contribute to the overall improvement.

Methods of data analysis and detail of data collection methods was limited. Similarly, there was no explicit link between underlying interview/focus group data and analysis results, reducing the reliability of the findings.

Applicability to UK. The results are likely to be applicable to the UK as the study was carried out in Northern Ireland.

12.16 Owens 2011a. [+] Owens 2011b; n=15 parents or carers of children with disabilities, plus 18 non-dental professionals; target population: complex needs (children with disabilities); complex intervention; Republic of Ireland

Aim. To qualitatively evaluate a multi-sector oral health promotion intervention in the Republic of Ireland for children with disabilities. A core aim was to identify barriers that prevented children with disabilities from achieving

optimum oral health, and to provide a greater understanding and possible solutions to these barriers.

Intervention. A multi-sector oral health promotion intervention carried out in three counties in the Republic of Ireland that aimed to reduce the level of dental need in children with disabilities by involving parents and healthcare and voluntary sector workers involved with these children. Over a period of two years, the intervention included:

- a half day course in oral health promotion to educate 700 non-dental professionals who were regularly in contact with children with disabilities and their parents
- oral health promotion packs for use by the non-dental professionals
- training and placement of oral health promoters in the community, who could advise mothers and non-dental professionals
- oral health promotion packs for parents.

Qualitative methods. A purposive sample was chosen with one researcher interviewing 15 parents or carers of children with disabilities on a one-to one basis in a location of their choosing. In addition, 4 non-dental professionals, from a variety of backgrounds – voluntary, health and social care and ancillary care – were also interviewed on a one-to-one basis. Three focus groups including were also carried out with a mixture of 14 non-dental professionals with 3 to 10 per group (NB: the figure of 14 was calculated and not reported directly in the study publication: the study abstract reported 18 participants took part, the main text suggested 4 were interviewed one to one, leaving 14 who participated in the focus groups). A narrative or stories approach was taken for the interviews.

All interviews were taped and transcribed by one researcher.

A blend of ethnography, narrative and constructivism was used to inform the methods and conduct the qualitative research. It was also reported to use techniques similar to the process of grounded theory. The transcripts were read and re-read and compared and contrasted with areas in existing research. The themes and categories that were emerged were triangulated

with the researcher's observations, and other stories told by parents and healthcare professionals. They could also be checked against published health care documents and multiple theories and perspectives.

The social model of disability was used as a lens through which to view data. This meant that the researcher was looking for structural barriers to oral health promotion, rather than viewing children and parents as a problem.

Limitations. The author noted that the small sample size was a limitation of the study. In addition, the author was not involved in the initial process of building and evaluating the intervention. The data collection was affected by the fact that the Health Service Executive was in a state of flux at the time of the study, with an embargo on all staff, job vacancies not being filled, and people unsure of their job status.

It was unclear how the study samples were chosen, or what the size of the source population was that they were drawn from. Therefore, it was unclear if the views sampled represented the views of the source population. A high risk of selection bias was highlighted by the study author, as many professionals involved in the intervention refused to participate in the interviews/focus groups.

Applicability to UK. The intervention was carried out in the Republic of Ireland, and is likely to be applicable to the UK.

12.17 Prokhorov et al. 2002 [+], n=4089 health care professionals and community-based educators, target population: school children, health education and/or advice, US

Aim. To assess personal spitting tobacco (ST) use and characteristics associated with ST prevention and cessation counselling among health care professionals and community-based educators, who could influence on adolescent ST use through their prevention and cessation activities.

Intervention. There was no active intervention. The study assessed existing ST counselling attitudes and practices of professionals in non-school settings.

Qualitative methods. The study was a survey of health-care professionals (family medicine and paediatric physicians, nurses, dentists and dental hygienists) and community based educators (the '4-H' youth organisation and family consumer science (FCS) extension agents, agricultural science teachers, high school baseball coaches, drug abuse resistance education (DARE) officers, and 4-H volunteer leaders). The 4-H and FCS extension agents provide education programmes to people in the state of Texas in the areas of agriculture, FCS (including nutrition and health), and youth development.

The self-completed survey was conducted in summer of 1998. With the exception of the DARE officers, individuals were surveyed by mail. DARE officers were surveyed during a national convention. Different survey groups received different surveys although they had common questions. The researchers carried out a descriptive analysis and frequency tables of survey responses.

Limitations. The study used survey data only and it did not appear to include any open ended questions, meaning that participants' responses were limited to those pre-specified by the research team. There were no interviews or triangulation of other qualitative methods. Survey response rates were low for nurses (38.0%), physicians (48.0%), high school coaches (41.0%) and agricultural science teachers (59.0%). In other groups response rates were above 60%.

Applicability to UK. The findings have some applicability to the UK; however, readers should consider the potential impact of differences in the user profiles and prevalence of split tobacco use between the UK and US. For example, this study suggested spit tobacco use was most common in some rural adolescent populations, whereas in the UK it has been reported that use is particularly prevalent in people in South Asian communities, that is, people with ancestral links to Bangladesh, India, Nepal, Pakistan or Sri Lanka.

12.18 Rajabiun et al. 2012 [+]; n=39 people living with HIV/AIDS; target population: complex needs, improving access; US

Aim. To explore the impact on oral healthcare knowledge, attitudes, and practices among people living with HIV/AIDS (PLWHA) participating in a national initiative aimed at increasing access to oral health care in this population group.

Intervention. The Oral Health Initiative intervention aimed to improve access to oral health care by using dental care coordinators, improving coordination with HIV medical care, providing transportation assistance, enhancing patient education, and setting up mobile dental units.

Qualitative methods. An open-ended interview guide was used to capture participant perceptions and experiences in their own words. Participants were interviewed at the initial receipt of dental care and approximately 12 to 15 months later to ascertain participants' perceptions of the programme and its effect on their self-care practices, as well as their desire to come back for care.

Six study sites (two rural and four urban) volunteered to recruit 8 to 10 participants each for the study. Participants were selected to reflect each site's patient demographic distribution. Sixty participants were recruited and 39 (65%) completed both interviews.

Interview transcript content was analysed using thematic analysis. Relevant themes emerged based on frequency of discussion and expression of importance by participants. The researchers at the participating sites and multisite research centre read each transcript and developed an initial list of codes representing these themes. The coding list was used to assign segments of the narrative data at both initial and follow-up interviews using the qualitative analysis software NVivo version 8. Two researchers at the multisite centre checked and validated the interpretations of the data.

Limitations. The authors noted that their study consisted of a small sample of PLWHA who had access to and the opportunity for continuous dental care and treatment. The results represent the attitudes and perceptions of this small group; however, the authors believe they may be widespread among PLWHA. The study was based on interviews and self-reported changes and was not designed to conduct observations of patient practices.

Participants had been living with HIV an average of 11 years so may not represent views of people recently diagnosed. About 54% (21/60) of those eligible were lost to follow up or moved from the area, their views may differ from the group that remained in the study. There is a possibility that the participants may have provided more positive feedback about participating in the programme in an effort to ensure sustainability for dental services.

Applicability to UK. The study was based in the US and concerned local configuration and coordination of services that may differ from those in the UK. This limits the applicability to the UK setting.

12.19 Riedy 2010 [-]; n=not reported; target population: indigenous (Alaskan Native); complex intervention; US.

Aim. The study aimed to describe efforts to conduct a community level dental intervention study in an Alaska native population, the anticipated and unanticipated challenges, and lessons learned.

Intervention. The intervention was a chlorhexidine rinse followed by zylitol gum provided to pregnant native Alaskan women. The researchers wanted to see if the intervention would reduce dental decay in the women’s infants. Although not explicitly stated in the publication, the rationale for this appeared to be to reduce the vertical transmission of bacteria from mother to infant during pre-mastication of solid food for infant feeding, an activity practiced by some Alaskan natives.

Qualitative Methods. The intervention was provided as part of a community-based, randomised, double blind, placebo controlled trial. Prior to the start of the RCT, pre-recruitment work included focus groups with the target group to understand how they would feel about the intervention. The number of women in these groups was not reported. No qualitative study methods describing how challenges were identified were reported.

Limitations. No limitations to the study were described by the authors. Origins of the views expressed are unclear. No qualitative study methods were described, only lessons learned, and these were not linked back to qualitative data.

Applicability to UK Applicability to the UK is likely to be limited due to the very specific community being assessed (Alaskan native). Similarly, oral health infection transmission through the practice of pre-masticating food for children appears to be part of the reason this community was targeted for an oral health intervention; this had very limited applicability to the UK.

12.20 Stokes et al. 2009 [++], n=22 coordinators of local Healthy Schools programmes; target population: school children, Common risk factors, England

Aim. To gain a broad contextual understanding of issues around the delivery of oral health promotion as part of Healthy Schools programmes and to investigate the barriers and drivers to the incorporation of oral health promoting activities in schools taking this holistic approach to health promotion.

Intervention. “Healthy Schools” programmes, which are internationally established as mechanisms for improving the health of school communities by supporting the health education curriculum through the school ethos and environment.

Qualitative Methods. Semi-structured telephone interviews were carried out with coordinators of 22 local Healthy Schools programmes (LHSPs) in the North-West of England. This region is 1 of the 9 regions in the English

national HSP, and was selected as it included 2 large conurbations as well as some rural areas, and both some of the most deprived areas and most affluent areas in England. The 22 coordinators were identified as key informants as they are responsible for managing LHSPs and had the potential to provide both strategic and practical insights. They were invited to participate by a mailed invitation, which also gave them information about the study. If they did not reply they were contacted by telephone and/or email. All 22 coordinators agreed to participate. The interview transcripts were coded using a framework derived from themes in the interview schedule. Transcripts were examined manually to identify codes using thematic content analysis and a system of constant comparison. Coding was carried out by the interviewer and was verified by a second rater. Differences in opinion were resolved by consensus discussion.

Limitations. The authors noted that it was difficult to disentangle the intervention being studied from other interventions. For example, the results indicate that there are several other influences on policy and practice in schools such as legislation related to healthy eating and creating smoke-free environments. They suggest that care is necessary in extrapolating the results of this study to wider national and international contexts. However, they say that there is no evidence that the North-West region is different from other English Healthy School regions in the way in which its Healthy Schools programmes engage with oral health promotion.

The researchers' relationship and influence on conducting interviews not described, and may be a source of potential bias.

Applicability to the UK The study's findings are likely to be applicable to the UK, as it assessed an English national programme, although the authors' suggest caution in extrapolating the results of this study to wider national and international contexts.

12.21 Trubey and Chestnutt 2013 [+]; n=24 community dental service staff; target population: under 5s; supervised tooth brushing; Wales.

Aim. The study aimed to examine attitudes of staff involved in a national school-based daily tooth brushing programme to how it should be delivered, and to investigate if there were geographical or job role differences in these attitudes.

Intervention. A national school-based daily supervised tooth brushing programme, called “Designed to Smile” in Wales operated by the Community Dental Service (CDS). Schools were recruited from the 150 most deprived areas in North and South Wales. After 12 months, 515 schools and 30,442 children aged 3-5 years were participating in daily in-school tooth brushing.

Qualitative Methods. Q-sort methodology was used; this combines qualitative and quantitative methods to systematically investigate people’s subjective beliefs.

A sample of 24 community dental service staff managing or delivering the Designed to Smile programme was selected to take part in the study. The sample was structured to ensure a balance of job roles (manager, dental health educators, and support workers) and geographical location (North and South Wales). Participants took part in a face to face semi-structured interview. They were showed 49 statements (Q-statements) about the tooth brushing programme that were derived from 15 previous qualitative interviews, and had been found to be understandable in a pilot study of three CDS staff. These statements were on cards that the participants had to read and place into three piles: those that they broadly agreed with, those that they broadly disagreed with, and those that they felt neutral or undecided about. They then placed the cards in each pile sequentially onto a fixed two dimensional grid (Q-sort) in which the card’s position on the grid indicated (ranked) how much they agreed or disagreed with each statement, with each place on the grid being occupied by one card only. They were given the opportunity to rearrange the cards before the layout was recorded. By sorting

the statements the respondents give subjective meaning to the statement set and so reveal their subjective viewpoint. Principle components factor analysis using varimax rotation was used to group people with similar Q-sorts into a small number of shared viewpoints.

Limitations. The statements to be ranked were prewritten, and there was no room for expansion outside these statements. Not all staff interviewed could be placed into the 3 factor solution, with 7 participants either failing to load significantly on to any of the factors (‘null sorts’) or were correlated with multiple factors (‘confounded sorts’) and so were excluded from the analysis. This left only 17 participants (71%) contributing to the final analysis.

Applicability to UK. This study is likely to be applicable to the UK as it was carried out in Wales.

12.22 Wolfe and Huebner 2004 [-]; n=91 dental and non-dental health professionals and childcare professionals; target population: under 5s, complex Intervention; US

Aim. The study aimed to report on successes and impediments to training and implementation encountered in the early stages of the “Oral health Programme to Engage Non-dental health and human service Workers in Integrated Dental Education” (OPENWIDE) programme in Connecticut, and make recommendations to improve the curriculum and its delivery to families and children.

Intervention. OPENWIDE is a comprehensive multimedia modular education programme aimed at non-dental health and childcare professionals. The programme aims to motivate, educate, and enable the professionals to integrate oral health promotion and disease prevention into their day to day practices. The aim is to close the gap in prevention services that occurs in early life before young children first see dental health professionals, particularly among high-risk, low income children. OPENWIDE lead trainers receive at least six hours of training, and they then organize and conduct

OPENWIDE sessions for non-dental health and childcare professionals. The lead trainers include community dental and dental hygienists as well as non-dental health and childcare professionals.

Qualitative Methods. Details of the qualitative methods and theoretical approach were not described.

A brief description of 2 qualitative studies carried out since the OPENWIDE programme started were given. First, there was a survey of a sample of individuals attending one OPENWIDE presentation in one community health centre. Attendees included dental, non-dental health and childcare professionals. The self-report survey included attendee demographic information, six true/false questions that measured oral health awareness and knowledge pre- and post-presentation, and questions about the quality of the OPENWIDE material and presentation. About 60 people attended the presentation and were given the survey; 44 (73%) returned it, and 31 (52%) had completed all pre- and post-test questions.

Second, to examine the impact of training on practice, 15 to 20 minute telephone interviews were conducted two to six months after the OPENWIDE training for Early Head Start and Head Start (EHS/HS) programmes. EHS/HS are nationwide federally funded programmes serving low income pregnant women and children birth to three and three to five years of age. A student research assistant conducted all interviews and entered all responses, additional discussions, and comments made by the respondents. Interviews were scripted and included 23 questions, including items covering demographics, OPENWIDE presentation attendance, current practices, and perceived obstacles to strengthening oral health aspects to their programme. Staff were selected at random from staff rosters to be interviewed (aimed to select 1 health manager, 1 family service coordinator, 1 teacher from each of the 28 EHS/HS sites); they did not have to have attended OPENWIDE training to be interviewed. Eight-four EHS/HS staff were selected for interviews, and 47 staff (56%) from 26 sites completed them.

Limitations. The authors note that the small sample size and disproportionate response rates among the different EHS/HS professional staff (i.e., relatively few teachers participated in the telephone interviews). They also note that numerous concurrent oral health promotion and disease prevention programmes are on-going in Connecticut, not just OPENWIDE. Therefore it was not possible to control for diffusion effects of other sources of oral health information to the professional community (specifically to the health managers) or the wider community.

The description of the methods of the 2 qualitative studies nested within the report is very limited; therefore the risk of bias was unclear. The survey sample was at just one event location so may not represent opinions of those at the majority of sessions. The OPENWIDE curriculum was designed by one of the paper's authors (S.H. Wolfe), so there may be a risk of reporting bias in the balance of positive and negative elements in the report. However, failures are reported and discussed in the report, for example, highlighting that there were no changes in practice in some cases.

Applicability to UK. Some of the data originated from interviews with staff involved in Early Head Start and Head Start programmes which are specific to the US. Similar programmes exist in the UK but are likely to have key differences that limit the applicability of these findings to the UK setting.

12.23 Yuen and Pope 2009 [-]; feasibility study in n=2 adults with tetraplegia; target population: complex needs (adults with tetraplegia); health education and/or advice; US.

Aim. This small-scale pilot study aimed to test the feasibility, acceptability and influence of an individualised programme of oral home telecare training delivered by an occupational therapist to adults with unique dental care challenges due to tetraplegia.

Intervention. The intervention was an individualised programme of oral health home telecare using PC-based, real-time interactive videoconferencing via the

Internet with the occupational therapist. Participants were given an electric toothbrush and cordless dental water jet. The therapist along with a dental hygienist used videoconferencing to incorporate repeated training, supervise practice of oral hygiene, and offer immediate, corrective feedback and positive reinforcement for correct, safe, and independent use of adaptive oral hygiene devices. There were four 20 to 30 minute sessions with the therapist on four different days.

Qualitative Methods. Recruitment of the two participants was not described. They both had incomplete spinal injuries and problems with manual dexterity which made oral care challenging. Both completed the intervention and interview afterwards. The theoretical approach was not described. After the four sessions of the intervention participants were interviewed by one study author and completed an 18-item Likert-type scale questionnaire (Oral Home Telecare Questionnaire, OHTQ) which was adapted from the Telemedicine Satisfaction and Usefulness Questionnaire (TSUQ) and the Telemedicine Perception Questionnaire. The OHTQ assessed the participants' satisfaction with the quality of oral care and interaction with the therapist, and perceptions about the mode of service delivery. Each item was rated on a five point scale from 1 = strongly disagree to 5 = strongly agree, with a higher score indicating greater satisfaction and a more positive perception of the experience.

Limitations. No limitations were reported by the study authors. This feasibility study recruited just 2 female white adults so may not reflect views of the wider group of people who might experience this intervention (which may be modified) if rolled out as part of a programme. No interview methods or analysis were described (only those of the survey) so their link with the conclusions and reported findings were not clear.

Applicability to UK. The conclusions drawn from the study may be broadly applicable to adults with similar complex needs using a similar intervention in the UK. However caution should be exercised in extrapolating the views of just 2 adults any further than the immediate context.

12.24 Yusuf et al. 2012 [++]; survey (737 parents or carers); interviews (5 tooth champions, 2 dentists, 2 oral health promoters); focus groups (2 groups of 6 to 8 parents or carers), target population: under 5s and school children; complex intervention; England.

Aim. The study aimed to provide a qualitative and quantitative evaluation of the pilot “Keep Smiling” programme. The evaluation aimed to understand the local context, barriers and facilitators in implementing this type of health improvement.

Intervention. The “Keep Smiling” pilot programme, which involved providing fluoride varnish and tooth brushing to children aged 3 to 7 at five state primary schools and one children’s centre in the ward of White City and Northolt. This was one of the most deprived areas of the borough where local health needs were high. Information on good oral health practices and finding an NHS dentist was also provided.

The intervention was delivered by local dentists (fluoride varnish applied in school time at the dentist’s office) and oral health promoters (supervised group tooth brushing in school), but also involved collaboration between a variety of health professionals, school staff (including school nurses) and community champions. The 18 community champions had been trained as part of the Well London Health Champions project. Those who were interested in being advocates for oral health in the community received two oral health training sessions and a review session (numbers attending sessions not reported). The sessions focused on key oral health messages, causes of dental disease, fluoride varnish, and the Keep Smiling programme. They were given an oral health information pack (including patient leaflets) and information on how to signpost to relevant services (dentists, smoking cessation, alcohol services). The community champions promoted oral health in the community and at community events, as well as supporting implementation of Keep Smiling programme in schools by supporting parents and carers. Some schools organised tooth themed classroom activities to

reinforce the programme's messages. Within each school/centre there was also an internal "tooth champion". The children also took home leaflets on key oral health messages.

For the nursery age children, parents were present at the oral health sessions as well as the children. The children were shown tooth brushing on two occasions with their parents, and had fluoride varnish applied on two days. Oral health information was provided for the parents, and dental role play organised for the children.

Qualitative Methods. The evaluation included:

- Semi-structured face-to-face interviews (30-45 minutes) with tooth champions at the pilot settings (all 6 invited, 5 interviewed)
- Semi-structured face-to-face interviews (about 45 minutes) with the 2 dentists who applied the fluoride varnishes as part of the programme, carried out at their practices
- Questionnaire survey (9 short questions) sent to all 737 parents/carers of 3-7 years olds in 4 schools that agreed to participate (£30 voucher prize draw incentive for completion)
- 2 focus group discussions (about 45 minutes) each with 6-8 parents of children in 2 schools (£10 voucher incentive for participation)
- Semi-structured face-to-face interviews (about 30 minutes) with a sample of community champions (6 invited, 5 interviewed)
- Semi-structured face-to-face interviews (about 30 minutes) with the 2 oral health promoters responsible for the tooth brushing part of the programme

Interview scripts were developed to explore key themes identified in the aims of each interview, and a topic guide developed to explore views in the focus groups. Interviews were recorded. Recordings of the community champion interviews were and parent focus groups were transcribed and thematic analysis adopted.

The first step for the transcripts was familiarisation with the data followed by thematic analysis. This was used to develop a coding system for the interview

themes, followed by summarising the data under the different themes in a framework chart. A classification emerged from the charts which supported the analysis of the emerging data. For the focus group transcripts, the initial themes/codes/subcategories were examined with the focus group topic guide to identify broader themes. A thematic chart was then developed, with data organized under the identified themes. The data was re-examined and categorisations refined to ensure a logical and consistent pattern. Data from the two focus groups was compared and described and summarised.

Limitations. The authors note that 81% of the parents who responded to the questionnaire had children who had fluoride varnish applied to their teeth. These parents are over-represented in the sample of questionnaires returned (they represent a total of 81% questionnaire responses compared to an overall percentage of 66.5% children in the four schools having fluoride varnish). The questionnaire was limited (only 9 questions) and did not provide rich information on why some children did not take part in the pilot.

Views were not sought from families or carers involved in the pilot through the children's centre, only through the primary schools. The response rate was low overall and biased towards parents who had given consent for their child to take part in the pilot programme. Views of those who had not given consent to participate were not explored in depth.

Applicability to the UK The study is likely to be applicable to the UK as it was carried out in England. It was carried out in a deprived area of London, and results may be less applicable to less deprived areas.

13 Appendix F: Description of results by theme

This section describes the study by study text coded as barriers or facilitators from the underlying study publications to give an explicit link between the text coded and the authors' interpretation of it for this review. These study by study descriptions were used to form the narrative summaries and evidence statements for each of the sections 4.2 to 4.7 in the main document. The structure mirrors the theme headings used in the best fit qualitative framework.

Text coded directly from the study authors' is given in italics while quotes from study participants are given in quotation marks as well as being in italics.

13.1 Community level themes

13.1.1 Funding

Study by study results

Facilitators

Blenkinsopp et al. 2002 [+] England.
Potential business opportunities were reported as motivating factors to participation by the pharmacists delivering the intervention in Blenkinsopp et al. 2002. The pharmacists reported the level of pay they received for taking part in the intervention was reasonable and that it was not perceived as a barrier to participation.

> *Page 12: Financial aspects and potential business opportunities were another motivating factor:*
>
> *"I thought it was different... extra... and we would get paid". (HP6)*
>
> *"We would be remunerated for doing something positive for patients." (HP4)*

Page 17: pharmacists considered the amounts reasonable and this does not seem to have been an inhibitory factor.

Burchell et al. 2006 [-] Australia.

In an overview of the programme development of the complex, Australian based, “Dental as Anything” programme, the authors identified a block funding model as having many advantages to their programme implementation including guaranteeing a free service to users, allowing adequate time to deliver the service, and aiding recruitment and retention of key staff.

Page 3: Block funding model, which guarantees a fee-free service
Page 4: The block funding models allows dentists adequate time per client to address the issues noted earlier—of complex treatment needs, dental phobia, regular breaks during a treatment sessions and unpredictable behaviour.
Page 7: Funding is required to continue Dental as Anything on an on-going basis. Funders must accept outreach services, long consultations and health promotion as essential programme components and fund accordingly.
[...]Skilled dental, mental health, administration and reception staff are essential, therefore funding needs to ensure adequate remuneration to attract, continually up-skill and retain appropriate staff.

Diamond et al. 2003 [-] US.

Diamond et al. 2003 reported that a key facilitator to the sustainable implementation and development of their programme was to ensure long term funding. This concerned implementing a community-based oral health care programme through a network of dental care providers in the US called DentCare.

Withdrawal of funding in an early collaboration also acted as a barrier to implementation and programme development. In their specific case establishing a sustainable funding base had meant increasing the number of patient visits per day and shifting funding sources from less secure grants to

patient revenue. Scheduling and billing procedures were also made more efficient, allowing more time for treating patients.

> *Page 3: DentCare's first collaboration was as a participant in NY [New York] Presbyterian Hospital's effort to establish five off- site community-based medical clinics,*
> *[...] the hospital then decided that this dental unit was not profitable enough to merit an expansion. Plans for the four additional oral health clinics were cancelled.*
> *Page 4: The dean of SDOS [Columbia University School of Oral and Dental Surgery], however, was strongly committed to DentCare and gained faculty support by replacing dwindling state and federal funding with grants for community services and fees from the redesigned dental clinics.*
> *[...]The crucial aspect of phase II, the sustainable development phase, was to assure long-term economic stability by increasing the number of patient visits per day and shifting funding sources from grants to patient revenue. In phase II, scheduling and billing procedures were made more efficient, allowing more time for treating patients*

Douglass et al. 2005 [-] US.

Douglass et al. 2005 described the implementation, planning considerations and productivity of mobile dental vans in the US to target underserved school children. The authors' reported the scheme ran at a loss but provided no further detail on whether this acted as a barrier or a facilitator. However, given it was a loss making activity external funding would have been needed to sustain it.

> *Page 3: The majority of patients served were on Medicaid*
> *[...] the revenue generated by the programs did not cover the salaries and on-going costs of the units*

Barriers: related to lack of funding

Owens 2011a [+] Republic of Ireland.

In summarising the views of parents and non-dental health professionals interviewed about the barriers to oral health promotion in the Republic of Ireland, Owens 2011a briefly highlighted a range of barriers related to a perceived lack of adequate budget to implement the multi-sector complex intervention in children with disabilities effectively. Views were also expressed that inconsistency in budgets may also act as a barrier to programme implementation, which was reported as evident from perceived variations in resources from county to county. These were perceived to affect levels of service delivery.

> *Page 5: Budgets play a large part in shaping service delivery; an embargo on staff recruitment, coupled with staffing shortages, such as the shortages of liaison assessment officers, occupational therapists, dentists, psychologists and speech and language therapists meant that there were delays in parents accessing services*
> *[...] For example, it could influence the service provider's ability to make or respond to referrals, which means that a child with disabilities is experiencing delays in receiving necessary services at a stage when they can be of most benefit.*
> *[...]Inconsistency in budgets may also constrain service delivery. It was obvious that budgets differed from county to county because there were variations [...] in resources as to what various service providers could offer (transport, health, education, and housing). This led to very different experiences for children with disabilities depending on their geographical location.*

Wolfe and Huebner 2004 [-] US

Not having enough funding was reported alongside staff and time constraints as a barrier to implementation for the OPENWIDE scheme; an oral health promotion and prevention programme in the setting of Early Head Start (EHS) and Head Start (HS) programmes in the US targeting low income children and families.

Page 8: Nearly 20 percent of the EHS/ HS professionals reported not having enough funding, not enough staff, and not enough time to introduce a new programme.

Yusuf et al. 2012 [++] England

The stakeholders interviewed for the evaluation of the Keep Smiling dental public health pilot programme targeting 3-7 year olds in White City, Hammersmith & Fulham highlighted that roll out of the programme across the borough was costly and may act as a potential barrier to sustainability. Solutions proposed to reduce the cost of the programme related to increasing the non-dentist skill mix of the dental teams involved in the intervention. These were only proposed solutions so do not represent facilitators directly encountered. Changing the skills mix links with the theme “specific staffing considerations” (Section 4.5.3).

Page 81: Furthermore, although the dental teams were satisfied with the payment mechanisms, it was acknowledged that rolling out the programme across the borough was costly. Dentists working in primary care are running a business and any time spent in an outreach setting will lead to the loss of their potential earning. One option would be that dental teams adopt the skill-mix in their practice. This proposal would mean that dentists could lead on the coordination of the fluoride varnish programme and ensure adherence to the set protocols. In addition, additional duties dental nurses (nurses who have received additional training on fluoride varnish) would be employed to deliver the fluoride varnish applications thereby reducing the cost of the programme.

Funding not a barrier in some situations

Prokhorov et al. 2002 [+] US

In a large survey of 4,089 health-care professionals and educators about spit tobacco prevention and cessation counselling and activities in the US, Prokhorov et al. 2002 remarked how funding was not reported as a barrier by any of the health-care professionals sampled. It was not clear if they had based this view on having attempted to implement a counselling intervention

or whether they were reporting views on the prospect of doing so. The language of the report tended to suggest no interventions were on-going or had been tried and that the views were of potential barrier and facilitators, rather than those directly encountered. However, this was by no means clear.

> *Page 10: Surprisingly, time and costs of counseling did not emerge as prevalent barriers to ST counseling in any of the clinician subgroups.*

13.1.2 Policies

Study by study results

Barriers

Diamond et al. 2003 [-] US.

In describing the establishment of a community-based oral health care programme through a network of dental care providers in the US, Diamond et al. 2003 highlighted how the reward policies inherent in universities acted as a barrier to the development of the oral health network and to prioritising dental health in the different institutions within the dental network. Specifically, university policy meant the institution had no incentive to increase the role of its community dental interventions because their policies and structures were not geared up to reward such activity. The barrier about university structure was interwoven with the issue of financial reward which has relevance to funding (See Section 4.2.1).

> *Page 4: The faculty had little incentive to elevate its community service programme into a primary mission for the school because the structure of the university promotes and rewards faculty on the basis of teaching and re- search.*

Yusuf et al. 2012 [++] England

The dental providers taking part in the Keep Smiling pilot programme in White City, Hammersmith and Fulham expressed the view that the current dental contract provides no financial incentive for dentists to participate in programmes like Keep Smiling. They described the present system as target driven and reported there was a lot of pressure on most dental practices.

Page 50: The current dental contract does not facilitate payment for providing such activities.

Page 51:"present system is target driven and the pressure is a lot on most practices, so financially there is no incentive for the dentist to do it, that's the truth isn't it". (Dentist 1)

Page 52: one of the dentists preferred to be paid on a sessional basis rather than per child payment. The reason given was that to compensate for loss of clinical time and therefore income in the dental surgery taking into account the unpredictable consent rate in different schools

Again this issue had strong funding overtones, but was coded as policy because it appeared to stem from pressure and issues with the dental contracts and target driven pressures, rather than solely a pay issue.

The authors of the evaluation of the Keep Smiling programme suggested a protocol on the Keep Smiling Programme aimed at schools would be beneficial.

Page 80: Considering this is a new initiative in schools, and the fact that there is considerable variation between schools in terms of staffing levels, structure and organisation, a protocol on the Keep Smiling Programme aimed at schools would be beneficial. This needs to include specific information on the programme, the variety of teams who will be involved in delivery of the programme, what is expected from schools in terms of planning and support required for the delivery of the programme, roles and responsibilities of school staff, duration of the programme and logistics of implementation

Stokes et al. 2009 [++] England

A sample of the Local Healthy School Coordinators delivering oral health promotion as part of healthy schools programme in North West England suggested the low profile of oral health acted as a potential barrier to

integrating oral health into Healthy School programmes as it was excluded from National Healthy Schools guidance.

> *Page 7: The low profile of oral health was discussed by twelve respondents as a potential barrier to promoting oral health in Healthy Schools*
> *[...] Interviewees cited the exclusion of oral health from National Healthy Schools guidance, although they did recognise that oral health may be promoted as part of the CRF [common risk factor] approach, despite the lack of national guidance.*

By contrast other Local Healthy School Coordinators revealed some schools were able to integrate elements of oral health promotion into the healthy school context despite a lack of awareness of national and international guidance in relation to oral health in schools.

> *Page 8: Local and national directives […] in some areas oral health was a local priority:*
>
> *"we've specifically said good practice is linked to dental health"*
>
> *Respondents were unaware of the existence of any national strategies or directives that would support the promotion of oral health as part of Healthy Schools:*
>
> *"we've not got any sort of directives, not sort of nationally"*
>
> *Page 9: The integration of OHP [oral health promotion] within Healthy School programmes was occurring despite participants' lack of awareness of international and national guidance in relation to oral health"*

This implied a lack of awareness of local and national policies did not act as an absolute barrier to the implementation of oral health within healthy school programmes in North West England, but may be a potential barrier for some.

Facilitators

Maher et al. 2012 [-] Australia

The nurses interviewed in Maher et al. 2012 expressed the view that the incorporation of oral health checks in regional policy (the New South Wales personal Health Record) had facilitated the incorporation of oral health checks within their professional practice. This was in relation to The Early Childhood Oral Health Programme which involved promotion, prevention and timely intervention of early childhood caries in New South Wales through shared care model.

> *Page 3: The key achievements for the ECOH Programme [Early Childhood Oral Health Program]*
>
> *[...] the development of resources including guidelines,*
>
> *Page 4: The nurses identified a number of factors that had enabled them to assume responsibility for oral health, particularly the inclusion of oral health checks in the NSW Personal Health Record. The nurses reported that they follow this record during the regular child health checks, and the inclusion of oral health checks in the record guided their professional practice.*

13.2 Provider characteristics

13.2.1 Perceived need for innovation/new programme or intervention

Study by study results

Shared views between studies were identified so were grouped together into sub-themes below.

Barriers: priorities

Coles et al. 2012 [+] Scotland

Staff working with homeless people as part of the “Something to Smile About' (STSA) programme in Scotland acknowledged the need for the intervention. But they questioned whether oral health was a priority for their clients or

whether the timing of intervention was appropriate for their client group, particularly when their client could be at a stage of crisis including facing significant other pressures of securing money, shelter and food. Staff in the intervention acknowledged that variation in the perceived need influenced how effective the intervention was. They also reported engaging with clients on oral health issues was challenging.

> *Page 7: The participants agreed with the importance of STSA as an appropriate adjunct to the social and healthcare plans for homeless clients*
> *[...]Acknowledging the varied and complex needs of homeless people was of central importance; oral health needs were of secondary importance. Consequently, the participants realized that STSA was less successful with some client groups and more successful with others.*
> *Page 8: Engaging clients with the intervention was acknowledged as challenging*

Owens 2011a [+] Republic of Ireland

Very similar issues were reported by parents or carers of children with disabilities as part of a complex intervention in the Republic of Ireland (Owens 2011a.)

> *Page 4: Parents identified the demands on their resources.*
> *[...]Marie: "I've an appointment for her every day this week, I'm in Northern Ireland tomorrow, the Lourdes Wednesday, Thursday I've occupational therapy, and Friday speech therapy which we are doing privately. Saturday we are doing private OT and that's my week. Week done. There's a lot of work so the teeth are only just starting to feature*

The competing daily responsibilities and pressures appeared to reduce the ability of the parent or carer to engage with oral health. This was reinforced as an issue by professionals involved in delivering the service.

> *Page 5: Professionals confirmed the daily responsibility of care on parents:*

Grainnie (social worker): ‘‘It (oral health) is a very small part of their lives; it depends on level of disability and the stage that they are at.”

[...]The strain on parents’ individual learning skills, financial and energy resources are apparent from their narratives, and are triangulated against professional reports.

This was also reinforced in a narrative overview of the qualitative evaluation of the same intervention, published separately (Owens 2011b.).

Page 3: The analysis of parents’ responses showed that some children needed many services and dental services were felt as equally important as others, but not more. Simultaneously, many parents were fighting for services that they considered more immediate. In addition, services often failed to recognize the duality of the parent’s role: carer and parent. In many instances children with profound needs were discharged into the care of their parents with medical equipment such as oxygen cylinders and tube feeding equipment, and the need for frequent hospital visits; the greater the level of impairment, the higher the number of competing demands.

Macpherson et al. 2010 [-] Scotland

A similar issue was discussed in the description of the development of the complex Childsmile intervention targeting under 5s from deprived backgrounds in Scotland (Macpherson et al. 2010). The authors’ described how oral health may not be a high priority for some of the families of the target group who were balancing other life pressures.

Page 4: Many of the most hard-to-reach families have serious health issues and possible psychopathology, including substance misuse and mental health problems. Faced with having to prioritise needs, these parents may understandably avoid or overlook Childsmile participation opportunities.

Holme et al. 2009 [++] Scotland

The issue was explored in more depth, still in regard to the Childsmile programme, in Home et al. 2009. Health visitors (HVs) reported the salience of oral health as a specific barrier to implementing the intervention, and consequently voiced the view that there was a need to respect that oral health may be low in the list of priorities for some parents.

> *Page 34: Health visitors recognised the importance of oral health, although, as below, they generally had concerns about relative salience in the context of other parenting issues.*
>
> *Page 37: Professionals raised identified a number of barriers which they faced with parents including; parental dental fears, and the need to respect oral health often being low in the list of parental priories:*
>
> *“there’s also an issue about engaging parents you know, if you’ve got adults who are terrified of the dentist it’s very difficult to encourage them you know...” (Public Health Nurses/HVs, East)"*
>
> *"this would be way down their priority list, if they’re worried about being evicted or dad’s beating mum up and one of the children’s got ADHD and then you’re going in and saying, ‘have you been to the dentist?’” (Public Health Nurses/HVs, East)*

Barrier: reluctance to engage

Blenkinsopp et al. 2002 [+] England

One study (Blenkinsopp et al. 2002) reported how pharmacists taking part in a health advice intervention to the general public in England may feel reluctance in delivering opportunistic health advice because of a perception it may not be welcomed by clients and may be seen as intruding or interfering in people’s lives. This view was balanced by positive feedback from the clients using the intervention that suggested this may not be the case.

> *Page 17: Apart from individuals’ tendency to more or less proactive behaviour, possible reasons for not intervening opportunistically may be pharmacists’ concerns about offering advice that might not be*

> *welcome, or that might be seen as 'interfering' in peoples' lives. The positive response from clients in the South Staffordshire scheme should give pharmacists confidence and reassurance that their input is likely to be valued*

This view did not come from the pharmacist themselves but was raised by the authors in their discussion of the feedback from pharmacist interviews. Hence, it represents a potential barrier to implementation of community pharmacy interventions in England rather than one directly reported from experience.

Maher et al. 2012 [-] Australia

A very similar view was echoed by the programme implementers of The Early Childhood Oral Health Programme in New South Wales, Australia.

> *Page 4: they perceived considerable variation in the willingness of parents to receive the information, and reported exercising caution when providing anticipatory guidance to avoid alienating parents who may perceive that they were being told what to do.*

The reason for the parent's reluctance was not explored in the study, but at least from the programme implementers' perspective, there appeared to be some level of barrier related to perceived need for the intervention in the client group.

Wolfe and Huebner 2004 [-] US

Wolfe and Huebner 2004 highlighted that the majority of respondents sampled from one of the seminars of the education and training programme OPENWIDE perceived a need for oral health promotion and prevention in the setting of Early Head start and Head start programmes in the US. The Head Start programme is government funded and provides education, health, nutrition, and parent involvement services to low-income children and their families. Early head start targets low income families with pregnant women, infants, and toddlers up to age 3. However, they also reported a lack of perceived need for the interventions by some parents, which may act as a barrier to educating the parents.

Page 7: Sixty-five percent of respondents reported oral health promotion and disease prevention education in the EHS/HS [Early Head Start/Head Start] setting is necessary. The most common two oral health promotion objectives were: finding a dentist for their clients (44 percent) and tooth brushing in the classroom (27 percent). [...]Fifty-eight per- cent of the forty-seven participants explained that it was difficult to educate parents about oral health because of parents' personal health beliefs and priorities; parents' lack of interest.

Individual issues

Other studies presented views on perceived need that were more mixed and implied perceived need could be a barrier and a facilitator, although this explicit link was not often made. The views of perceived need were brief and often not further explored in the study publication.

Barrier: perception that child too young for the dentist

Holme et al. 2009 [++] Scotland
Health professionals identified parent's perception that the child was too young to go to the dentist as a major barrier to registering the child with a Childsmile dentist. This suggested there was a lack of perceived need to engage with this part of the Childsmile programme in some parents.

Page 32: Childsmile Dental Practice" "In addition to issues such as dental fears already discussed, a major barrier to registering with a Childsmile dentist was the parent's perception that the child was too young to go the dentist

13.2.2 Perceived benefits of innovation/new programme or intervention

Study by study results

Many studies provided statements from stakeholders that the intervention was perceived to be a benefit to the participants and to the wider community. However, these views were not expressed in a way that specified the

perceived benefit acted as a specific facilitator to implementation, although there was some implication of this. For example, there are many elements of the intervention implementation that rely on the participation and enthusiasm of staff members e.g. pharmacists delivering opportunist oral health advice, so their perceived benefit of the intervention, or lack of it, may influence implementation of the intervention.

Studies reporting this type of information have been grouped together below.

Facilitator

Holme et al. 2009 [++] Scotland
Qualitative research into the Childsmile programme reported that parental perception that oral health was important was a facilitator for registering their children with Childsmile practice. Health professionals also reported they perceived benefits to the programme, specifically enabling them more time to address the oral health issues of vulnerable families over a prolonged period of time, professional development and the opportunity to work with children.

The consensus from parental focus groups was that most parents were willing to let their children take part in Childsmile Nursery and School if their child was willing and happy to take part themselves. Trust and a positive perception of the staff involved in the Childsmile Nursery and School programme were also identified as specific facilitators for engaging with oral health.

> *Page 30: Many of the facilitators for parents registering their child with Childsmile Practice relate to the general facilitators for engaging with dental services. These include seeing oral health as important [...]*
>
> *Page 36: Professionals also recognised benefits from the programme, enabling more time to be given to addressing oral health issues with vulnerable families over a prolonged period:*
>
> *Page 43: Facilitators. All of the parents who took part in the focus groups were willing to have their children take part in Childsmile Nursery and School, based on the child themselves being willing and happy to take part. In addition to the general facilitators for engaging*

with oral health (e.g. recognition of oral health as an important issue) the main facilitator for parents in terms of Childsmile Nursery and School appeared to be the parent's trust and positive perception of the nursery and the Childsmile staff.

Page 45: Parents are generally happy to engage with the service as long as their children are willing to participate.

Page 48: The Childsmile staff saw participating in the service as a positive enhancement to their work experience, both in terms of skills and professional development and the opportunity to work with children in a 'fun' service.

Intervention was perceived as beneficial but not explicitly specified as a facilitator

Blenkinsopp et al. 2002 [+] England
Pharmacists who delivered oral health brief interventions to the general public in England reported they perceived the intervention would be beneficial for two reasons.

Page 13: [pharmacists'] felt the topic [oral health] was important in informing people about local out of hours services and encouraging registration of children with a dentist.

This suggests the pharmacists (the main intervention deliverer) saw value in the information provided in the dental health intervention. This may not be surprising as these were the views of the pharmacists who chose to take part in the intervention. The views of pharmacists who did not take part may be less positive but were not assessed. Whether this specifically facilitated their participation in the intervention, and hence its implementation, was not further explored in the study.

Blinkhorn 2008 [-] England
The overall view of 549 health visitors expressed in the appraisal of Brushing for Life indicated the programme was well received and the health visitors wanted to scheme to continue.

O'Neill and O'Donnell 2003 [-] Northern Ireland

O'Neill and O'Donnell 2003 in their qualitative assessment of the Smart snacks scheme in Northern Ireland indicated parents and pupils were very positive about the implementation of the scheme. This may be indicative of the perception that it was beneficial, but was not explicitly reported as such in the underlying study.

> *Page 3: Schools reported that teachers have shown an excellent response and parents and pupils a good-excellent response to the implementation of the scheme.*

Yuen and Pope 2009 [-] US

One of the participants in the oral home telecare intervention feasibility study for adults with tetraplegia clearly reported a perceived a benefit of the intervention one it was introduced and benefits conferred in the more long term.

> *Page 3: [she] stressed the overall health benefits of oral home telecare, not just the immediate dental health that she thought the programme would confer. Once communication with the therapist/dental professional was initiated and adjusted, the interaction was judged as "Great", with long-term benefits. She commented,*
>
> *"It [Oral home telecare] doesn't replace the dentist, but ... gives you knowledge you can use*."

Yusuf et al. 2012 [++] England

A range of stakeholders sampled in the evaluation of the Keep Smiling pilot programme reported consistent views that the intervention was perceived to benefit the children and wider community in a variety of different ways. This view was usually reported about the impact of the programme and wasn't explicitly linked to its implementation in the evaluation. Nonetheless, having an intervention workforce who shared a positive view about the benefits of the intervention may have had some facilitatory influence on implementation. Or by contrast, it implies that lack of perceived benefit was not reported as a significant barrier in this intervention. Some views highlighted how not all

participants appreciated the specific benefits of applying fluoride varnish (FV) to decayed teeth.

Community champions

Page 59: The programme was perceived to have a positive impact on the children and the community.

[...] They also cited the importance of prevention and the relevance of educating the community.

[...] Although the programme was positively received by the communities, some of them could not appreciate the benefits of applying fluoride varnish decayed teeth.

Dental Providers

Page 51: The perceived impact on children and the community was encouraging. It raised awareness about oral health, facilitated reaching children who had not visited a dentist before and presented dentists in a positive light to children who may have feared them

[...] The FV applications were perceived to be fun and the children enjoyed the experience.

Oral Health Promoters

Page 56: They cited that the concept of the programme was very good as it targeted those children who may be hard to reach or would have not visited the dentists otherwise.

[...]The perceived benefits of the programme was [sic] positive for the children, as well as the community.

Tooth Champions

Page 46: The general consensus of the impacts of the programme on children was very positive and it was generally cited that the children were excited to take part.

[...]The school staff cited a number of benefits of Keep Smiling programme: it increased the children's as well as the parent's awareness of dental health. It also familiarised children with dental teams outside a dental surgery setting and hence dentists could be

perceived in a positive light by children and parents.

Page 48: The tooth champions felt that the school was an appropriate setting for promoting oral health and it was advantageous to have dental teams coming into schools especially for those children who had never visited a dentist previously.

[...]Fundamentally, they agreed with the concept of a health promoting school in which the school is perceived as an educational setting which provides a healthy environment for improvements in health and well-being as well as educational attainment. Furthermore, they were keen to collaborate with health professionals in order to ensure that children benefitted from such programmes.

Summary of findings from all stakeholders

Page 77: The Keep Smiling Pilot Programme received positive feedback from parents, school tooth champions, dental teams, oral health promotion teams and community champions. The perceived positive impacts on children included: excitement from being part of the programme, raising their awareness of dental health, it provided children with a unique experience of dental teams in a school setting and dentists were perceived in a positive light, it encouraged positive health behaviour among children as they were more likely to brush their teeth and visit the dentist

Page 79: They perceived that the children enjoyed participating in the Keep Smiling Programme and was beneficial to those children who otherwise do not access dental services.

Barriers: priority of oral health

In a similar vain to section 4.5.1 a number of views indicated oral health might not be a priority for the clients targeted, which had acted as a barrier to implementing oral health advice until after more immediate needs had been met. This seemed to be reported mainly for those with complex needs, including families of children with disabilities (Owens 2011a) people working with homeless people (Coles et al. 2012) and vulnerable families (Holme et al. 2009).

Coles et al. 2012 [+] Scotland

The evaluation of the "Something to Smile About" programme in Scotland indicated staff working with homeless people saw oral health very much within a hierarchy of competing priorities in meeting their client's needs. Oral health was relatively low in their list of priorities and came only after other needs such as shelter food and money had been met. Likewise, they reported that their homeless clients weren't too interested in oral health until they experienced pain. Both dimensions appeared to have presented barriers to implementing the intervention, specifically, hindering the engagement of the homeless people in the topic of oral health when both parties did not perceive a benefit. Specific concerns were raised about the appropriateness of attempting to raise oral health issues at a time of crisis.

> *Page 7: The majority of participants were keen to address their clients' oral health only after other needs such as shelter, food, and money had been met. Other concerns included time and the appropriateness of discussing oral health with clients who were in crisis.*
> *Page 8: The general view, therefore, was that many homeless people were only interested in dental services when they experienced pain, which proved a stumbling block to engagement.*

Owens 2011a [+] Republic of Ireland.

In the discussion section of Owens 2011a the author reflected on views from parents and non-dental professional involved in the multi-sector complex intervention in children with disabilities. This highlighted how the perceived benefit of an oral health intervention, or specific elements of it such as an oral health pack containing information, was perceived to be low in the day to day priorities of the families of the children. The author suggested that one-to-one approaches might be more engaging or effective, but made no guarantees, and these assumptions weren't tested. We shouldn't assume from this that the parents don't value oral health, but it does suggest that intervention planners need to properly consider the competing demands placed on these families and how best, and when, to introduce and engage on the topic of oral health.

Page 5: The reality is that many parents of children with profound disabilities are so firmly entrenched in day-to-day living that an oral health pack will have little impact on their existence whereas a one-to-one approach that supports them and adapts approaches takes their needs and wants into consideration, and more crucially can recognize when they have the capacity to [Page 6] incorporate more information and alter their daily lives, but this is idealistic and still does not guarantee a reduction in inequalities.

Holme et al. 2009 [++] Scotland

Public health nurses and heath visitors involved in the Childsmile programme also reported how oral health may be low on the priority list for many vulnerable families. They expressed the view that having multiple consultations on prevention measures and expecting families to go to the dentist more than was required without necessarily looking in the child's mouth, may be an unrealistic expectation of the programme.

"it's very difficult for them to explore the importance of dental health for their children you know, if it's not been an issue for themselves and you know, this is a small part of what [name] and I are doing, working with vulnerable families and a small part, and yes, it is important and I perfectly appreciate that but you know, there's a whole host of other things you know, the overwhelming poverty and deprivation and unfortunately engaging people to go to a dentist more times than is required than just it's time for a check up is maybe a little unreal. you're expecting quite a lot of families in areas of regeneration or deprivation to engage to that extent that they're going for several consultations and their child's teeth aren't necessarily being looked at, then I think you'll struggle perhaps" (Public Health Nurses/HVs, East)

Prokhorov et al. 2002 [+] US

A large scale survey of activity and views on spit tobacco (ST) prevention and cessation counselling among non-school based health-care professionals and educators in the US revealed a low perception of the benefit of spit tobacco interventions in some professional groups. No further details were reported for

the interventions in question. However, pessimism and lack of perceived benefit for oral health interventions amongst educators and dentists could potentially act against engagement and adoption of future oral health initiatives, although this was not explored further in this study.

> *Page 2: Fewer than 50% of educators believed that the ST [spit tobacco] programme they taught was effective.*
> *Page 10: Pessimism about patients' ability to quit ST use was most common among dentists.*
> *Page 18: The perceived effectiveness varied substantially across the educator subgroups. Remarkably, in all subgroups, fewer than 50% of educators reported that the programme was effective.*

Wolfe and Huebner 2004 [-] US
A sample of attendees at an OPENWIDE education presentation in north eastern Connecticut described how parents were perceived to be the primary barrier to improving oral health practices within the programme.

> *Page 8: Additionally, more than half the EHS/HS [Early Head Start/Head Start] respondents surveyed identified "parents" as a primary obstacle to improving oral health practices within the programme.*
> *[...] When queried further, they cited parents' lack of interest, unavailability, lack of concern regarding oral health, and the like.*

The Early Head Start and Head Start staff had been trained and educated in oral health disease prevention so appeared to be suggesting that the parents were the main barrier to using their newly acquired knowledge to improve oral health practices. This was not explored any further.

Barrier: waning interest

Holme et al. 2009 [++] Scotland
Concerns were raised by health professionals involved in the qualitative assessment of the Childsmile programme that interest may wane for parents who attend repeat sessions and receive only preventative information or

discussion as there was a parental expectation that their child's mouth would be examined in some way. Some parents could not see the point of attending multiple sessions without anyone looking inside their child's mouth. This potentially reflected the perception that nothing beneficial was going on in the early appointments, which focussed more on preventative oral health measures.

> *Page 38: Issues around the programme itself also caused concern. These included the challenge of maintaining interest for those who attended repeat sessions, parental expectations, perhaps expecting to see a dentist each time, and demands placed on parents, already preoccupied with child care and other issues in taking part in the educational programme, for example, by going to the surgery or telephoning for appointments:*
>
> *"I think parents will go for the talk, but they expect when they go to the dentist that someone looks in the child's mouth, because I had a mum and she said, 'that's my third visit and no one's really looked in the child's mouth, so what's the point?' and I said, 'well, it is information for prevention at this stage, so when the teeth come through, then you'll be ready, you'll know what to do'. But, parents do expect, like, something more than chat" (DHSWs & EDDNs, West)*

Indigenous population

Riedy 2010 [-] US

The intervention described in Riedy 2010 was a community-based intervention nested within double-blind, randomised placebo control trial among pregnant women in an Alaskan native population. It aimed to give a chemotherapeutic intervention (chlorhexidine rinse followed by xylitol gum) to mothers to see if their infant experienced less dental decay than infants whose mothers received placebo. This was linked to the cultural practice amongst Alaskan native women of pre-masticating food for their infants. Due to the difficulties in recruiting participants, the study was ended early but the lessons learned were outlined. One was that oral health was not perceived to

be a benefit to the indigenous participants, which was described as potential barrier to recruitment into the study. Although oral health issues related to pre-mastication in Alaskan natives are specific, the more conceptual themes it highlights may have some applicability to community oral health interventions targeted toward recent migrants or minority ethnic groups in the UK. For instance, it may be falsely taken for granted by programme implementers that oral health will be perceived as beneficial or that the safety of receiving oral health treatment during pregnancy is, or will be understood, within all communities.

> *Page 3: dental care for most participants was not perceived as a benefit.[...] Not only did the need for restorative care elicit fear and embarrassment in some participants but receiving care during pregnancy was not understood as a safe activity. The study did not spend a considerable amount of time encouraging the safety of receiving dental care during pregnancy either for the participants or health care providers potentially leading to a fewer number of interested potential participants.*

13.2.3 Self-efficacy

Study by study results

Facilitator: increases in self-efficacy

Coles et al. 2012 [+] Scotland

Staff working with homeless people as part of the “Something to Smile About' programme in Scotland spoke of an increase in self-efficacy in relation to how they felt more confidence and empowered to introduce oral health and tailor advice to their service users as a result of the intervention. The programme provided a manual and motivational interviewing training to staff working with homeless people so they could offer tailored oral health advice and signpost to dental services. So increasing self-efficacy was both an aim, an outcome, and a facilitator to implementing the intervention.

> *Page 8: Speaking of their increased confidence, they felt empowered to introduce and tailor oral health to their clients' needs.*

Unclear potential facilitator: Dental Health Foundation 2007 [+] Republic of Ireland and Northern Ireland

Views on the teachers' role in the Winning Smiles schools oral health promotion programme for 7 to 8-year-olds in Dublin and Belfast indicated a high level of self-efficacy but also an appreciation of other collaborating staff.

> *Page 30: The majority of teachers in both areas indicated that they felt that teachers should take the lead role and that they were very happy with their role in teaching the programme. However, they indicated that they very much appreciated the support of the oral health promoters.*

Facilitator

Kranz et al. 2011 [+] US.

Analysis of teachers views on whether oral health interventions or advice were being given within Early Head Start (EHS) programmes - a federally funded programme designed to address the social, educational and health needs of pregnant women and children younger than three years of age - highlighted self-efficacy as associated with increased oral health related activities in both parents and children.

> *Page 5: For teachers, placing a high value on oral health or having high perceived oral health self-efficacy was positively associated with parent activities (P=0.017 and P<0.001, respectively). [...] Teachers with high perceived oral health self-efficacy engaged in child activities more often than teachers with low self-efficacy (P=0.013), having scores 1.9 points higher.*

The outcome variable for parent-directed activities was constructed using teachers' responses to four questions about how often they talked to parents about: (1) cleaning their child's teeth; (2) whether all the child's dental needs had been met; (3) food choices to promote good dental health; and (4) the parents' own dental health.

The variable for child activities was derived from four questions that asked teachers how often they: (1) have children brush their own teeth; (2) brush children's teeth for them; (3) use toothpaste to brush; and (4) provide classroom education to children about dental health.

Yusuf et al. 2012 [++] England

The community champions (CC) and dentists sampled for their views as part of the Keep Smiling evaluation report of a dental public health pilot programme targeting 3-7 year olds in White City, Hammersmith & Fulham consistently reported increases in self-efficacy as a result of the programme. Although positive, none were explicitly linked to facilitating the intervention.

Community champions

> *Page 60: The programme had also positive impacts on the CC. They both felt that they have benefitted from being involved in the programme. They gained knowledge, confidence and were able to engage with the local communities and advocate good oral health.*

Dentists

> *Page 51: both dentists enjoyed working in an outreach setting in terms of their personal and professional development.*

Barriers: lack of self-efficacy

Maher et al. 2012 [-] Australia

The author's reflections in the evaluation report of The Early Childhood Oral Health (ECOH) Programme in New South Wales (NSW), Australia outlined barriers related to self-efficacy that were known to affect a model of shared care and highlighted how the intervention had addressed these.

> *Page 5: Identified barriers to implementing a model of shared care include child health professionals lacking knowledge about oral health, not feeling confident to deliver oral health promotion messages, and feeling it may cross professional boundaries to do so. [...]The ECOH Programme addressed these barriers in turn, providing clear and consistent oral health information through a guidelines document and*

training, and legitimising the role of the child and family health nurses as oral health promoters by the re-inclusion of oral health information in the NSW Personal Health Record.

Owens 2011a [+] Republic of Ireland

Self-efficacy was identified as barrier for some non-dental professionals taking part in a multi-sector complex oral health promotion intervention in children with disabilities in the Republic of Ireland.

Page 5: when interviewed, all non-dental professionals were aware of the health promotion initiative but due to role ambiguity admitted to problems discussing oral health care on a one-to- one basis with parents and with referral for children with disabilities.

Prokhorov et al. 2002 [+] US

This was consistent with the views expressed of non-school based educators' surveyed as part of the qualitative study into the views of spit tobacco (ST) prevention and cessation counselling of health-care professionals and educators in the US.

Page 2: Compared with clinicians, educators generally felt less obligated to provide ST counseling.

Trubey and Chestnutt 2013 [+] Wales

Counterintuitive views were expressed in the assessment of attitudes towards establishing a multi-component daily supervised school-based tooth brushing programme. This concerned the view amongst health educators taking part in the programme felt it was not their role to talk about diet and nutrition and that they should just focus on the tooth brushing scheme. This was described as surprising because the oral health educators were well qualified to do so and were described as having a background in dental nursing or dental hygiene and had further qualifications in oral health education or a post-qualification diploma in education. The study authors described how this apparent mismatch in skills and self-efficacy may be a reflection of what the educators thought the schools would realistically take on, rather than what they felt comfortable implementing.

Page 5: Health Educators [...] felt that it was not their role to talk about diet and nutrition, and that they should just focus on the tooth brushing scheme. This is perhaps surprising given the job role of the group members.

[...]Indeed, it seems inconsistent with the interviews conducted with Health Educators, who were clearly aware of the importance of diet in dental health.

[...]it may come back to [Page 6] pragmatism: the feeling that the scheme should simply 'focus on the tooth brushing' is possibly more a reflection of what they believe the schools will realistically take on board.

13.2.4 Self-proficiency

Study by study results

Facilitators

Blenkinsopp et al. 2002 [+] England

Blenkinsopp et al. 2002 reported pharmacists expressed a belief that the profession should be taking an active role in health promotion and some appeared to want to take part in the intervention from a personal development point of view. Hence, the desire to increase self-proficiency may have acted as facilitator for participation for some.

Page 12: Why did pharmacists take part? Pharmacists' comments demonstrated a mix of influencing factors. Personal development was an important factor:

To further my knowledge, be proactive in learning. (HP2)

I just like to be involved in anything new. (HP9)

I always thought the pharmacy would be a good place to practice health promotion and I hoped this would make me more efficient. (HPI)

It is an area we should be involved in. (HP7)

Coles et al. 2012 [+] Scotland

Staff working with homeless people as part of the “Something to Smile About' (STSA) programme in Scotland reported how they had felt they increased their skills with regard to tailoring oral health messages for their clients during the intervention. This appeared to aid the implementation of the intervention through enabling them to identify new methods of broaching the subject of oral health with their clients. Hence, increased self-proficiency was both an aim of the intervention, but also a key element to its implementation.

> *Page 8: using skills learnt the staff recognized that simply asking if a client was registered with a dentist was a method of introducing the subject of oral health [...] It became apparent that STSA involvement had allowed the participants to develop their skills as was reflected in innovative engagement methods, such as speaking to younger clients about the effects of cannabis on oral health*

Yusuf et al. 2012 [++] England

The evaluation of the Keep Smiling programme - a dental public health pilot programme targeting 3-7 year olds in White City, Hammersmith & Fulham – showed the community champions had reported elements of increasing their self-proficiency within the intervention. This was not explicitly reported in the qualitative data collection of other stakeholder groups involved in the intervention.

Community Champions

> *Page 60: The programme had also positive impacts on the CC [community champions]. They both felt that they have benefitted from being involved in the programme. They gained knowledge, confidence and were able to engage with the local communities and advocate good oral health.*

Barriers

Prokhorov et al. 2002 [+] US

The state-wide survey of health-care professionals and educators on spit tobacco (ST) prevention and cessation counselling in the US identified a lack of self-proficiency (that also overlapped with self-efficacy) in significant minorities of the staff groups surveyed. These represented staff groups in contact with adolescents and so potentially in a position to deliver spit tobacco prevention and cessation counselling (not all were delivering spit tobacco interventions at the time).

> *Page 10: About one fifth of physicians, one-quarter of dentists, and one-third of dental hygienists and nurses did not feel adequately prepared to provide ST counselling*
> *Page 13: Overall, knowledge was fairly high across all the subgroups; however, certain professional groups exhibited surprising problems in this domain. More than 10% of dentists and dental hygienists failed to report that ST use causes gum disease. More than 10% of DARE [Drug Abuse Resistance Education] officers and agricultural science teachers believed that ST use is a safe alternative to smoking. Educators were more likely than clinicians to report that ST use is harmful only if the juices are swallowed, and DARE officers were most likely to report this belief. This finding was surprising because DARE officers are supposed to be specifically trained in preventing ST use among young people.*

Stokes et al. 2009 [++] England

Lack of expertise was identified by the Local Healthy School Coordinators as a challenge in delivering oral health promotion within the Healthy School context in England.

> *Page 7: Lack of expertise. Seven [of 22] respondents discussed that lack of expertise was a challenge in delivering OHP [oral health promotion]:*
>
> *'we don't go into the secondaries ... we haven't got enough medical knowledge' (22)*

13.3 Programme/Intervention characteristics

13.3.1 Compatibility

Study by study results

Facilitator: home visits

Holme et al. 2009 [++] Scotland.
The act of sending dental health support workers (DHSW) out to the houses to provide targeted support to some families was reported to be positive and have logistical benefits by some of the families.

> *Page 31: The logistical advantages of having someone come to the house were also recognised as positive. Some respondents felt that it was easier to have someone come to the house as they found it difficult to keep appointment times due to travelling with young children. In addition the home was recognised as a positive environment where the children were more likely to be comfortable (e.g. not to be shy) and less likely to misbehave.*

> *[Note in the study] It should be noted that initial response among parents tended to be to assume home visits by DHSWs were a substitute for visits to the dental surgery. However, it should be made clear that these visits do not incorporate oral checks or treatment. The visit in the home of a DHSW will provide information, advice and arrange and facilitate regular visit to the dental practice.*

> *Page 45: Taking the service to the client, i.e. providing it in a routinely used setting, contributed considerably to uptake. [This related to uptake of the Childsmile Nursery and School part of the programme]*

However, the focus on certain families appeared to create a feeling of being left out in some parents who were not targeted. It was reported that the programme staff needed information and tools to address this issue.

> *Page 39: Professionals reported instances of parents feeling left out of programme components. This could reflect poor levels of referral, but*

could also be related to some not being seen as requiring more targeted additional support, such as DHSW visits. Professionals needed information and tools to address the issue of universally available and targeted services positively, whilst recognising these demands indicated the strength of word of mouth in these communities.

Facilitator: conceptual fit with existing routines

Holme et al. 2009 [++] Scotland.
Seeing the Childsmile Nursery and School component as connected to the type of activity normally carried out by the dentist services and linked with the concept of regular checkups was reported as facilitator for participation, highlighting a conceptual compatibility of the programme with existing services.

Page 44: An additional facilitator seems to be parents seeing the Childsmile Nursery and School component as connected to the type of activity normally carried out by the dentist services and linked with the concept of regular check ups

Facilitator: minimising disruption

Holme et al. 2009 [++] Scotland.
Furthermore minimising the disruption for the nursery and school elements in recognition of time pressures was reported as a specific facilitator by Extended Duty Dental Nurses (EDDNs) and Dental Health Support Workers (DHSWs).

Page 47: Similarly, willingness of the Childsmile staff to minimise disruption for the nursery and school in recognition of time pressures was a facilitator:

“when they’ve already got all these other things to fit into their day, so really if you’re going to introduce anything into schools, it has to be with the minimum effort on the school’s part and just slot into what they do without them to make extra effort because they’ve already got so much they have to do” “because when we go in, the school doesn’t really

need to do anything apart from provide us with a room and a kettle" (DHSWs & EDDNs, East)

Incompatibility between intervention aims and the target population

Coles et al. 2012 [+] Scotland.

The evaluation of the capacity-building oral health intervention for staff working with homeless people 'Something to Smile About' (STSA) in Scotland provided rich data on issues of compatibility. Some staff reported problems in the congruence of the programme aims and the needs of the homeless client group.

Page 7: In general the participants felt that STSA had to fit in with other routine procedures and organizational requirements. Some organizations built STSA into their induction procedures, while others waited for trust to be built with clients since some oral advice was considered to be 'too personal' or 'embarrassing'
[...] It emerged that the issue of oral health had to be woven into the staff's work pattern, and therefore was placed within a hierarchy of priorities and felt needs of staff and their individual clients, respectively
Page 8: Many participants felt that, in practice, STSA was difficult to implement because the ultimate goals of the intervention – dental registration followed by attendance at initial and further appointments – were unrealistic for this client group, and that dental registration alone should be considered an interim goal [...] For the intervention to be successful with homeless people, it was felt the clients had to be at a phase in their lives where they were prepared to address personal issues . [...] a support worker who noted that clients who completed the intervention tended to be:

"At the stage of having goals, an action plan and were working through that . . . but for some homeless people who are nowhere ready, you can make an average of seven appointments before they will turn up once, it's just where your client is at".

They further outlined how the incongruence between the intervention and lives of the client group may have an impact on some measures of success of the intervention or the perceived need of oral health in the client group.

> *Page 9: the participants spoke of the failure of STSA to incorporate the life circumstances of the homeless person into the intervention. [...] the participants understood that the lack of incorporating the complexity of the client groups' emotional difficulties and lifestyle choices within the structure of STSA meant that many homeless people appeared to be non-adherent, when in fact this apparent disinterest was a reflection of difficulties experienced in other aspects of their lives [...] oral health considerations remained a low priority compared to the need for shelter, food, clothing and money.*

Specific reservations were expressed about the length and complexity of some of the intervention resources. These were described as acting as a barrier to implementing the intervention fully, which aimed to progress the client through stages of the transtheoretical model of health behaviour change.

> *Page 9: The majority of staff felt that the paperwork associated with the initiative should have been simpler or shorter.*
> *[...] Although the baseline client questionnaire was welcomed and was incorporated into initial assessment procedures, the monitoring form was viewed as 'another piece of paperwork' which was perceived as a barrier to moving through the stages.*

Owens 2011a [+] Republic of Ireland

The views expressed in Coles et al. 2012 were echoed in Owens 2011a. Views on the barriers to implementing a multi-sector complex oral health promotion intervention in families of children with disabilities in the Republic of Ireland reported problems raising oral health issues with the clients, suggesting a friction, an incompatibility, between the aims of programme and the immediate needs of the families of children with disabilities.

> *Page 4: Liam, psychologist:*

"It would be great to be able to talk about oral health, and you know we really should, but to be honest we are constantly fire fighting, you know, dealing with the immediate issues that families need sorting, oral health sort of isn't on the radar."
[...] Sonja, speech and language therapist:

"To be honest if I get to talk about teeth it's a bonus, there are so many other problems for parents."

Prokhorov et al. 2002 [+] US
A state wide survey gathering views on spit tobacco (ST) prevention and cessation counselling in the US showed that health-care professionals identified patient resistance and lack of community services that treat spit tobacco use as the most common perceived barriers reported. The reasons for this were not further explored. However, this appears to highlight a lack of compatibility. Firstly, in the perception that the intervention was not supported by additional effective cessation services. And secondly, in the perception that the service users would be resistant to the intervention itself.

Page 2: The most prevalent barriers to ST counseling among clinicians were perceptions of patient resistance to referral to ST cessation programs

Page 10: Across all the subgroups, the most prevalent perceived barriers were patient resistance to referral to ST cessation programs and lack of community services that effectively treat ST use.

Wolfe and Huebner 2004 [-] US
Staff views on the Oral health Programme to Engage Non-dental health and human service Workers in Integrated Dental Education (OPENWIDE) intervention reported difficulties in educating parents relating to their lack of interest and language barriers. This illustrated potential incompatibilities between the aims of the intervention and the motivation of the some of the parents.

Page 7: Fifty-eight per- cent of the forty-seven participants explained that it was difficult to educate parents about oral health because of parents' personal health beliefs and priorities; parents' lack of interest, follow-through, and time; and language barriers that exist between parents and HS [Head Start] staff.

Barrier: distrust of outsiders by the target community

Both Diamond et al. 2003 and Riedy 2010 highlighted how some communities had an inherent distrust of outsiders and described how this had acted as a barrier to programme implementation. The studies reported issues specific to a native Alaskan population and a deprived neighbourhood in Harlem, both US. The reasons for the distrust of outsiders in these communities are likely to be relatively specific to geographical setting and cultural histories of the populations that aren't found in the UK. Hence, they have very limited direct applicability to UK. Nonetheless, what they tell us about the broader issue of encountering potential distrust of outsiders and the need to gain trust and acceptance in the target community may apply to some extent in different communities in the UK, for example, but not necessarily, in deprived neighbourhoods, traveller communities or other traditionally close knit groups. Distrust of outsiders may equally occur in highly advantaged groups, but they are unlikely to be the target of oral health interventions, so less relevant.

Diamond et al. 2003 [-] US.

In describing the lessons learned from implementing a community-based oral health care dental network (DentCare), Diamond et al. 2003, highlighted how the there was a distrust of outsiders in Harlem, one of two deprived communities they targeted. Only after sustained efforts at trust building did the programme gain support and acceptance in this community. This was not an issue with the inhabitants of Washington Heights and Inwood, highlighting how not all "deprived communities" are the same. This highlights a situation where a lack of congruence between the intervention and the community was present from the outset and acted as a barrier to implementing the intervention.

Page 2: The process evaluation suggests that WH/I [Washington Heights/Inwood] and Harlem are two very distinct poor urban communities.

Page 3: It was the unanimous opinion of the interviewees that the population of Harlem had a deep suspicion of outside agencies due to a long history of racism and exploitation. Gaining support for the DentCare programme was not easy, even for an African-American dentist who had lived in Harlem for seven years. Ultimately, this dentist needed the endorsement of another African-American Harlem resident, who was the director of the Harlem Hospital Dental Service and a long-standing, widely known, and respected community leader.

Riedy 2010 [-] US.

Riedy 2010 highlighted similar issues but in the highly specific context of recruiting an Alaskan Native population into a clinical trial involving a community dental intervention.

Page 2: One of the most difficult challenges to overcome in studies within vulnerable subject populations such as Alaska Natives is the inherent distrust the community has of research/ researchers. Historical mistreatment of Alaska Natives in health care and research has created a sense of distrust of outsiders. [...] we had to take into consideration the community's distrust of dental-related drugs because of a previous experience with fluoride in one community. Furthermore, we needed to be sensitive to their feeling of being a guinea pig in the research process

Page 3: another unanticipated challenge was discovered during the process of gathering individual community support. We learned that in some communities gum chewing during pregnancy and lactation was highly discouraged because of culturally held beliefs. It may also have been a reason for individuals declining to participate.

Barrier: burden on the intervention workforce.

Yusuf et al. 2012 [++] England

The Oral Health Promoters expressing views on the Keep Smiling dental public health pilot programme targeting 3-7 year olds in White City, Hammersmith & Fulham indicated the programme added a significant burden to their workload. This suggested there was a degree of incompatibility in fitting intervention related work into the existing work commitments of some of the staff involved in delivering it. This wasn't explicitly stated for other staff groups contributing to this intervention.

> *Page 56: The oral health promoters cited that the programme added a significant burden to their workload as they were involved in other projects.*
> *Page 78: In terms of planning of future programmes, more generous time lines would be required and that the fluoride varnish and tooth brushing sessions could be separated to avoid confusion and reduce the workload on schools.*

The pilot programme itself was delivered within just over a month, with a lead time of just over two months. These short timescales may explain some of the views on work load burden along with the view that more generous timelines would be needed for the programme in the future, expressed elsewhere.

13.3.2 Adaptability/flexibility

Study by study results

Potential barrier: inflexibility

Blenkinsopp et al. 2002 [+] England

Some of the pharmacists informing the evaluation of the feasibility and acceptability of a community pharmacy health promotion scheme in England indicated that more flexibility in the intervention structure (a brief "Level 1" intervention progressing to a longer extended "Level 2" intervention if needed) would be helpful and allow them to respond more flexibly to their clients' needs, which may not fall into the set brief or extended intervention structure.

Page 15: Suitability of the Level 1/Level 2 approach When asked whether one Level 2 session was enough some pharmacists felt that flexibility to respond to the client's needs would be helpful [...]Some respondents felt that while more than one session was needed this did not necessarily have to be a 'full' Level 2.
Page 17: Respondents' comments about the framework of one 'brief' and one' extended' 20-minute intervention used in this scheme suggests that greater flexibility is needed.

Facilitator: flexibility in response to over demand

Burchell et al 2006 [-] Australia
The author's description of the evolution of the "Dental as Anything" Inner South Community Health Service Dental Outreach to People with a Mental Illness highlighted how programme flexibility was key to its implementation and sustainability when faced with pressure of over demand.

Page 5: During 2004 the Dental as Anything programme was struggling to meet demand. Without additional resources to extend outreach and clinical hours the programme revised several programme parameters. Firstly the eligibility criteria were tightened to clients in receipt of government pensions only, predominantly Disability Support Pensions, where previously clients on unemployment benefits had been eligible. This in turn targeted outreach visits to SRSs [Supported Residential Services] over rooming houses. As a result the average client's level of disability and complexity of issues increased. The number of clients seen per visit was capped to ensure adequate time was available for each client.

Facilitator: intervention adaptability to homeless client group

Coles et al. 2012 [+] Scotland.
People working with homeless people who informed the evaluation of the 'Something to Smile About' (STSA) programme acknowledged how the requirement to tailor the programme to the homeless clients was important to its implementation. They highlighted how oral health remained a low priority

for the clients so decisions were taken to adapt the programme by reconsidering the timing of the intervention and to whom it was delivered to make it more suitable to the clients.

> *Page 8: The requirement to tailor STSA into the lives of homeless individuals was appreciated by those staff members who had experience of STSA*
> *[...] Speaking of their increased confidence, they felt empowered to introduce and tailor oral health to their clients' needs*
> *Page 9: With increased awareness of the need to tailor oral health advice*
> *[...] oral health considerations remained a low priority compared to the need for shelter, food, clothing and money. Therefore, decisions were made with regard to the timing of STSA, and to whom it should be delivered.*
> *[...] skills were needed to tailor the oral health message to the specific requirements of the individual homeless client within the context of the client's current life experiences.*
> *Page 10: it was felt that, in order to introduce the topic of oral health or to dispense information, the intervention had to be relevant and tailored to the complex needs of the homeless person.*

Facilitator: adaptability to different target communities

Diamond et al. 2003 [-] US

Flexibility in strategy and adaptability of the programme through its life course were also described as crucial in establishing and developing a community-based oral health care programme through a network of dental care providers in the US (DentCare). Particularly in relation to establishing DentCare in two low income neighbourhoods with very different characteristics, necessitating different strategies.

> *Page 1: Fundamental changes were required of SDOS [Columbia University School of Oral and Dental Surgery], over a 10 year period, beginning with prioritizing community service into a primary mission*

Page 3: different strategies were used to establish DentCare in the two communities due to qualitative differences in community structure [...]We found that parent-teacher associations (PTAs) were an important vehicle for reaching and involving the parents of schoolchildren in the WH/I [Washington Heights/lnwood]schools. The process evaluation determined that parental cooperation was essential to ensure that students followed through on referrals, brushed regularly at home, and provided insurance information for billing purposes. Only the WH/I public schools had active PTAs; thus, it was easier to gain parental cooperation in WH/I than in Harlem.

[...]There were five major modifications a t SDOS required to make DentCare work the establishment of a patient- centered education curriculum, the creation of an onsite SDOS faculty practice, the creation of offsite dental clinics, the hiring of faculty with public health expertise, and the establishment of a postgraduate curriculum in community dental services.

[...]The process evaluation identified two distinct phases in the establishment of DentCare. These two phases were the start-up phase and the sustainable development phase.

Facilitator: adaptability to variations in gaining consent

Macpherson et al. 2010 [-] Scotland

Macpherson et al. 2010 reported that in the Childsmile Nursery programme, the success of the fluoride varnish intervention largely depended on gaining consent from parents. Routine monitoring indicated that consent levels and number of successful applications varied considerably between individual nursery schools. This prompted key modifications to the consent seeking process.

Page 4: Further examination of these discrepancies has led to the development of local responses to the consent-taking process. One example is the introduction of sessions to allow familiarisation of parents, children and teachers with both the varnish application procedure and Childsmile staff. A second is the provision to school staff

of lists of children who are signed- up to Childsmile, allowing staff to 'chase up' unreturned consent forms. The consent form itself has been revised following local consultation.

Yusuf et al. 2012 [++] England

This was echoed by the Tooth Champions involved Keep Smiling dental public health pilot programme targeting 3-7 year olds in White City, Hammersmith & Fulham. They expressed the view that flexibility was an important facilitator in implementing the programme and also reported the example of gaining consent from parents as an area where adaptability had occurred.

Page 43: It was emphasised that in order to achieve the successful implementation of health promotion programmes, flexibility was required from dental teams as well as schools which was considered to be an important factor.
[...]In terms of gaining positive consent from parents, there were different approaches adopted by the settings. The Children's Centre adopted a different approach from the schools.
[...]The staff at the Children's Centre approached parents face to face as they were doing the drop-off or pick-up. They decided to adopt this approach as their previous experience have shown that forms are not returned unless a more personal style is assumed and this was also facilitated by the availability of staff for parental engagement.
Page 49: There was an emphasis that each school works differently and that these variations will impact the delivery of the programme.

Inconsistency: in views on flexibility by staff group

Trubey and Chestnutt 2013 [+] Wales

Research into the attitudes towards establishing the daily supervised school-based tooth brushing programme "Designed to Smile" in Wales reported some differences in the strength of views about flexibility. Groups working in the schools reported the view that there should be more flexibility in the local

delivery of the programme whereas views coming from groups with more managers felt the same guidelines should be followed throughout.

> *Page 6: There was general agreement that teams from different geographical localities should have freedom, within this national scheme, to try out new approaches to see what does and does not work*
> *[...] The group containing the managers felt more strongly that the same guidelines for the programme should be followed throughout, whereas those working in the schools, health educators and support workers, want more flexibility in how the in-school brushing programme could be operated.*

Facilitator: adaptability during implementation.

Yusuf et al. 2012 [++] England
Reflections from the Dental Public Team of the Keep Smiling dental public health pilot programme targeting 3-7 year olds in White City, Hammersmith & Fulham highlighted how they had adapted to their experience during the course of the intervention by incorporating specific practical changes that had facilitated on-going implementation.

> *Page 75: During the course of the programme, the oral health promotion teams doing the tooth brushing learned the value of visiting the schools the day before the tooth brushing session to open toothbrush and toothpaste packs ready for use with the children (to be able to see more children more quickly on the day). It was also useful to have this opportunity to talk to the school staff about the arrangements and locations for the activities and answer any questions, and check consent numbers.*

13.3.3 Intervention resources

Study by study results

Barrier: patient information leaflets not tailored to audience

Arora et al. 2012 [+] Australia

The views of 19 child and Family Health Nurses (CFHNs) were sampled for reflections on the usefulness of leaflets giving oral health advice to parents of preschool children in disadvantaged areas of South Western Sydney, Australia. The authors grouped the interview findings into 3 main themes. Theme 1: information in the leaflets may be overwhelming for people with low literacy. Theme 2: the leaflet would benefit from more pictures. Theme 3 – It didn't' have enough teeth-related information.

Theme 1. The CFHNs repeatedly and consistently reported they thought the leaflets were targeted towards 'middle-class' families and there was a need to tailor these towards disadvantaged families, in particular, culturally and linguistically diverse groups and Indigenous groups, Indigenous groups - who were the intended beneficiaries of the intervention. They felt parents with lower levels of literacy may find the language and content overwhelming. This was consistent with the view expressed that there was a need to use simple language that is free of medical or dental jargon, particularly the term "dental sealant" which they perceived was unlikely to be understood by the majority of mothers.

> *Page 3: The majority of the CFHNs (n=15) were concerned that health authorities prepare the education material for 'middle-class' people and do not consider those with low levels of literacy. The CFHNs also generally agreed (n=17) that most leaflets do not meet the needs of people from disadvantaged backgrounds, in particular the culturally and linguistically diverse populations. Most of the CFHNs (n=14) noted that some of the messages were unclear and rather confusing. Some of the CFHNs (n=5) also noted that there was use of dental jargon which may not be understood by the parents [such as "sealant or fluoride treatment"]*
>
> *Page 4: The CFHNs identified that the leaflet used the phrase 'dental sealants' which the majority of parents did not understood [sic]. This has also been identified by recent research in Australia and the United*

States which highlights that medical/dental jargon should be avoided in patient communication.

Theme 2. The usefulness of pictures was also reiterated. However, specific problems were highlighted with some of the existing illustrations in the leaflets as there was a view by some that they were not culturally appropriate for the intended audience.

Page 3: All the CFHNs (n=19) agreed that the use of pictures is useful. They noted that not only does it make the leaflet attractive to gain attention, but it is also quite valuable for mothers to understand and make appropriate health-related decisions. […] Some of the CFHNs (n=8) pointed out that the target audience should be taken into consideration by health authorities when designing health education material. It was also generally agreed by the CFHNs (n=9) that the use of pictures would be quite useful for culturally diverse readers. [...] Some of the CFHNs (n=4) reported that some illustrations were unclear and could lead to misunderstanding. The most commonly reported fault was the picture of a toothbrush with dentifrice placed on it and a written descriptor of using a 'pea-sized' amount of toothpaste. The respondents working with culturally diverse families noted that these may not be culturally appropriate.

Theme 3. The CFHNs reported that some oral health concerns were not addressed in these leaflets and they didn't contain enough teeth-related information.

Page 3: [...]Theme 3 – It doesn't have enough teeth-related information The CFHNs reported that they generally see mothers who were worried about teething when the baby starts to dribbling saliva and feels unsettled. They pointed out that some of the information on teething may be helpful.
[...]The CFHNs reported that one of the most common queries from parents/guardian is regarding the child's first dental visit. They noted that they are given different information on this area.

[...]Some of the CFHNs (n=5) noted that there should be more information on fluoride and its benefit to teeth. They also reported that mothers generally ask when they should start brushing the child's teeth.

The authors summarised the views of the CFHNs on improvements to the information leaflets.

Page 4: [...] The CFHNs recommended that leaflets be more specific in terms of number of drinks, frequency of drinking throughout the day and types of drinks that are actually sugary.
[...]The CFHNs suggested that there is a need to improve the current health education material, as many dental concerns among new parents are inadequately addressed. Most of these concerns relate to inadequate information on infant teething, contradictory messages on appropriate age for the first dental visit, and age of starting to brush the child's teeth with fluoride toothpaste.

Concerns that the information given to parents was not appropriate was also highlighted in Yusuf et al. 2012.

Yusuf et al. 2012 [++] England.
The Tooth Champions in the Keep Smiling evaluation report of a dental public health pilot programme targeting 3-7 year olds in White City, Hammersmith & Fulham highlighted concerns with the information given to parents, some saying it was too long and detailed for the intended audience, and that certain parts may confuse parents. They also suggested the information for parents should be translated into the language of the target audience to overcome language barriers.

Page 42: Although the tooth champions felt that there was adequate information given to parents, a number of issues were raised. Some of the tooth champions thought that the information given was too long and detailed. Some parents may have had difficulties with reading and understanding the content of the information sheet and the consent forms and required some support from school staff or other members of

the community.

[...]The section enquiring about a child's medical history seemed confusing to some parents.

[...]A number of tooth champions felt that the information targeting parents may need to be translated to Somali and Arabic (the most common languages in the designated schools) in order to overcome language barriers.

Main area for improvement: simplify and tailor resources

Coles et al. 2012 [+] Scotland.

The authors of the evaluation of 'Something to Smile About': a capacity-building oral health intervention for staff working with homeless people suggested some resources were helpful and potentially acting as facilitators. However, simplifying the paperwork was reported as the main area for improvement and views were also expressed about the need for tailored resources to be available, accessible, clear, informative and straightforward.

Page 9: Programme resources. The participants were vocal of the need for tailored resources to be available, readily accessible and to be 'clear, informative and straightforward'.

Page 10: participants found the resource manual, oral health leaflets and fluoride toothpaste and toothbrushes to be particularly helpful. [...]The simplification of the paperwork emerged as the most significant area for positive change.

Facilitator: appropriate resources

Dental Health Foundation 2007 [+] Republic of Ireland and Northern Ireland.

The teachers involved in the Winning smiles school oral health promotion programme for 7 to 8-year-olds also highlighted key resources that had facilitated the intervention.

Page 29: This question explored the teachers' views on the various resources provided in the Teachers' Pack. All teachers in both Dublin

and Belfast responded very positively to the materials provided, and the general view was that they were appropriate, colourful and child-friendly

[...] Teachers in the Dublin school commented on the quality of the paper and said that they appreciate d getting the original copies and the fact that they did not have to rely on photocopies.

Page 30: The Winning Smiles Progress Chart was consistently used by all Teachers and was perceived to be a very useful element of the pack. The children's involvement in filling it in was highlighted by a number of the respondents. However a number of teachers indicated that it was too small and could be more colourful.

Owens 2011a [+] Republic of Ireland.

The picture was less clear in Owens 2011a. In taking about communicating oral health as part of the intervention, parents, social workers and community nurses reported using information packs designed as part of the intervention, but their use was patchy. They identified pictures and diagrams as being particularly useful.

Page 4: Communicating oral health Community nurses and family social workers reported using the information packs; parents triangulated this data by confirming their use, but overall their use was patchy:

[...]the picture of the sugar hits was useful and some of the information, especially for children with Down's syndrome."

[...]The diagrams were definitely useful because they kind of showed you'd be having your lunch and then chocolate or something after and leaving decay in the mouth."

Barrier: administrative burden

Diamond et al. 2003 [-] US.

Oral examination forms were streamlined as part establishing a community-based oral health care programme (DentCare) through a network of dental care providers in the US. Although, not explicitly stated this appeared to be a

way of reducing the administrative burden of form filling and a way to saving time.

> *Page 4: DentCare changed its [oral] examination form from a lengthy research-oriented form to one that is shorter and clinically oriented, collecting all pertinent data and reducing the time required for the [oral] examination and data entry.*

Coles et al. 2012 [+] Scotland.

Staff working with homeless people in the 'Something to Smile About' (STSA) capacity-building oral health intervention reported a monitoring form was perceived as a barrier to implementing helping their client transition through the stages of change model they were using (that is, moving from pre-contemplation, to contemplation, to preparation, to action). The study publication reported they used a four-stage monitoring form that was more suited to stable, resettlement settings and not use at a point of emergency or crisis. No further information was provided.

> *Page 9: Although the baseline client questionnaire was welcomed and was incorporated into initial assessment procedures, the monitoring form was viewed as 'another piece of paperwork' which was perceived as a barrier to moving through the stages. It was at this point in STSA that some staff reported losing touch with clients, which meant that they were unable to complete all the required paperwork and it became impossible to accurately gauge the number of clients who had taken part.*

Yusuf et al. 2012 [++] England.

Administrative burden was also identified by both the 2 dental providers taking part in the Keep Smiling dental public health pilot programme targeting 3-7 year olds in White City, Hammersmith & Fulham.

> *Page 54: both dentists cited that the administration associated with the programme remained cumbersome. Several reasons were given including: Children's names being entered manually into a database as class lists were not available electronically (dentists do not have secure*

emails to handle patient sensitive data), and to enter activity data and dentists carrying out the administrative duties instead of nurses in order to ensure that mistakes were not made.

The Oral Health Promoters of the Keep Smiling pilot also described how they felt they needed more time (in itself a resource) to organise and implement the programme and that the short time span and intensity of the pilot programme implementation had acted as barriers.

Page 57: They also felt that they needed more time to organize and implement the programme. [...] a number of barriers that were identified including: short time span and intensity of implementation (separation of fluoride varnish from tooth brushing programme)

The tooth champions of the Keep Smiling pilot suggested an additional intervention resource, a programme protocol aimed at school staff, might facilitate implementation of the programme in future. It also briefly highlighted further administrative burdens on key stakeholder in the Keep Smiling Pilot.

Page 78: Considering this is a unique pilot programme, the tooth champions cited that a programme protocol aimed at school staff may improve knowledge, communication as well as expectations.
Page 79: There were also significant burden on dental teams and oral health promotion teams in terms of time, completing monitoring forms, and the organization of resources

Holme et al. 2009 [++] Scotland

Having to fill in and return consent forms at regular intervals was identified by the parents as being a barrier to giving consent for their child to participate in the Childsmile programme. They reported how they were given many forms and reported finding it difficult to keep track and ensure they were all returned. The authors indicated that this administrative barrier had attempted to have been addressed by computerising records, but indicated this had not entirely resolved the issue.

For the tooth brushing elements of the programme barriers related to practical requirements such as time, staff numbers, as well as intervention resources such as suitable space and the availability of a sink.

> *Page 44: Only two barriers were highlighted in the focus groups in relation to the fluoride varnishing and fissure sealant; the practicalities of repeated consent forms and the [Page 45] level of children's own willingness to participate, the former having the greatest impact. Parents reported regularly receiving consent forms for a variety of purposes and sometimes found it difficult to keep track and ensure they were all returned, especially if they had more than one child. Non-uptake would seem to be related to the practicalities of returning/signing the consent forms rather than reluctance to participate.*

> *Page 51: Regarding tooth brushing programmes, in addition to parental consent issues, barriers were related to the practicalities of the requirements such as time, staff numbers, and suitable space, ideally with a sink. The main barrier seems to have been the need for on-going informed consent coupled with an updated medical background. While there seems to have improvements e.g. though computerising records, this is likely to continue to pose some problems.*

Differences in views about paper work involved

Trubey and Chestnutt 2013 [+] Wales.
The attitudes towards establishing a daily supervised school-based tooth brushing programme showed there were differences in opinion between staff groups on the amount of paper work involved, and some staff groups thought too much time had been wasted on "glossy" paper work.

> *Page 3: All but one of the participants who loaded to this Factor was a Support Worker [...]The group was also relatively sceptical about the benefits of promoting the tooth brushing scheme to schools through the Designed to Smile website, promotional DVDs or letters sent to the head-teachers before telephoning them. Despite recognising the*

importance of a professional image for the scheme, the participants in Factor 1 felt valuable time had been wasted on the producing 'glossy' paperwork.

Page 5: this group, consisting of managers, perceived that paperwork was more of a problem than groups consisting largely of Support Workers and Health Educators who typically deal with the forms day-to-day.

Page 7: Clearly there are differences in opinion between different staff groups, for example over the amount of "paperwork" involved.

Programme specific barriers and facilitators

A number of programme specific intervention resource issues were identified.

Barrier: resource storage

Blinkhorn 2008 [-] England.

The appraisal of brushing for life highlighted that some health visitors had experienced difficulty in storing stocks of tooth brushing packs (toothpaste, a toothbrush and a health educational leaflet) during the intervention implementation. This along with additions and amendments to the information leaflet used were the two most common suggestions for improvements.

Page 2: Additional information that health visitors believed would be helpful included

Page 3: how to choose toothpastes, and lists of local dentists.

[...]Only 2% did not find it easy to order stocks of brushing packs but 22% had experienced some difficulty in storing them.

[...]Of the remainder, the two most common suggestions concerned amendments or additions to the leaflet and improved arrangements for storage.

[...]One of the concerns expressed by a small number of respondents was the conflicting advice from some local dentists

Douglass et al. 2005 [-] US.
Finding power sources and garage space were highlighted as specific facilitators and barriers respectively in the implementation of a mobile dental van intervention.

> *Page 1: Power sources were strongly recommended for medium sized units, such as Generations that have on-board generators [...] adequate garage space was difficult for all three programs to locate.*

Yuen and Pope 2009 [-] US.
Despite minor frustrations with the teleconferencing equipment the 2 women who took part in the oral home telecare feasibility study for adults with tetraplegia valued the addition of the technology and also reported finding the electrical toothbrush a positive factor in the intervention.

> *Page 3: Subjects were only mildly annoyed at occasional audio feedback and echoes in transmission, pointing out how much they appreciated being able to see the therapist's facial expressions to reinforce messages*
> *[...] The electric toothbrush was identified as a positive factor. Each subject had to learn to use the cordless Waterpik [a brand of water flosser] differently (one used it with a two-handed grasp; the other used it with a protective hand covering to avoid splashing).*

Barrier: lack of awareness or access to intervention resources

Maher et al. 2012 [-] Australia.
Nurses involved in The Early Childhood Oral Health Programme in NSW reported a lack of awareness of some key resources available, or barriers accessing and printing them.

> *Page 4: The nurses were also satisfied with the Lift the Lip and See my Smile oral health promotion resources, which they distributed to parents and used as educational aids. Many nurses reported that they did not access the versions of the resources in other languages which are available online, either because they were unaware they were*

available, or the process of accessing and printing the resources was difficult.

Facilitator: resource pack

O'Neill and O'Donnell 2003 [-] Northern Ireland.
The majority of schools taking part in the Smart snacks scheme - a healthy breaks initiative in the school environment in Northern Ireland - suggested they would find a resource pack and assistance with the provision of fruits and vegetables useful in facilitating their continuation in the scheme.

Page 3: Seventy three percent and seventy one percent of schools respectively stated that they would find a resource pack and assistance with the provision of fruits and vegetables useful in helping them stay in the scheme.
Page 4: Teachers and parents were asked what sup - port would be useful in the development and implementation of the scheme. Teachers stated that the following would be useful [...] resources and support materials for teaching

Facilitator: protected time, appropriate resources

Holme et al. 2009 [++] Scotland.
Staff identified how protected time for the programme had helped their working practices, and that structural intervention resources such as small class sizes, sufficient staff, and sinks had made it easier to run the programme.

Page 48: Staff commented that allocation of more protected time for the programme had made a big difference to working practices. Structural aspects such as small class sizes, sufficient staff to supervise the tooth brushing and sufficient sinks also helped make the programme easier to run.

13.3.4 Contact time

Study by study results

Barrier: not having enough contact time

Not having enough contact time between elements of the intervention and clients was identified as an implementation issue in 2 studies (Coles et al. 2012 and Yusuf et al. 2012).

Coles et al. 2012 [+] Scotland.
Coles et al. 2012 reported how the staff working with homeless people as part of the Something to Smile About intervention saw the short length of time they were in contact with their client as a barrier to helping them transition through the behaviour change model they were attempting to implement. That is, the stages of change from the transtheoretical model of behaviour change: moving from pre-contemplation, to contemplation, to preparation, to action.

> *Page 10: time was seen as a barrier to client transition through the intervention given the relatively short length of time that clients were in direct contact with organizations, suggesting the need for a dynamic intervention tailored to the needs of the client.*

Yusuf et al. 2012 [++] England.
The Community Champions taking part in the Keep Smiling pilot programme targeting 3-7 year olds in White City, Hammersmith & Fulham highlighted time was a barrier when explaining the intervention to parents. One reported these conversations were restricted to approaching parents when the children were dropped off or collected from school.

> *Page 61: One shortcoming was that the CCs did not have sufficient time to discuss in detail the programme as they were restricted to approaching the parents when they did the drop-off and the pickup times.*

Facilitator: linked to funding

Burchell et al 2006 [-] Australia.
The "Dental as Anything" Inner South Community Health Service Dental Outreach to People with a Mental Illness attributed the adequate contact time between dentists and clients to the block funding they had secured.

Page 4: The block funding models allows dentist's adequate time per client to address the issues noted earlier—of complex treatment needs, dental phobia, regular breaks during a treatment sessions and unpredictable behaviour.

For discussion on barriers and facilitators relating to funding see section 4.2.1.

13.4 Organisational capacity

13.4.1 General organisational factors

Study by study results

Facilitator: supportive organisational structure and teamwork

Holme et al. 2009 [++] Scotland

The main organisational facilitators mentioned by professionals in facilitating the Childsmile programme included using a shared base, having supportive structures, having time to work with the family in the home, and general awareness raising and increased prioritisation of oral health among other professionals.

Page 36: The main facilitator mentioned by professionals was the importance of a supportive organisational structure for communication and team work between professionals. In particular, a shared base appeared to facilitate the process. Supportive structures resulted in improved referrals by the health visitor and via other routes, for example invitations at events such as weaning fairs, and meant parents being introduced to the service by a valued professional. In terms of working practice, having time to work with the family in the home and gain trust was clearly important. General awareness raising and increased prioritisation of oral health among other professionals and among parents were also important to success.

A different set of facilitators were identified for the running of the Childsmile Nursery and School elements of the programme.

Page 47: The facilitators for effective running of Childsmile Nursery and School included a positive attitude to oral care within the Nursery (often indicated by active tooth brushing programmes); active promotion of Childsmile Nursery and School and the individual sessions; and additional support in consent procedures.

Barriers: lack of support from management, lack of communication

Holme et al. 2009 [++] Scotland

The barriers identified by the Childsmile staff included lack of communication between different professions and between management and staff as well as a lack of input and connection with the Childsmile programme and lack of follow up to see if unregistered children did attend dentists. These were reported alongside other barriers relating to staffing issues (See section 4.5.3) and lack of time (See Section 4.4.3).

Page 50: Childsmile staff also reported facing a number of barriers such as lack of time, being taken out of Childsmile work to cover staff shortages in other areas, lack of support from management, having to move heavy equipment, lack of communication between different professions and between management and staff, lack of input and connection with the Childsmile programme and lack of follow up to see if unregistered children did attend dentists

Integration of new programme

Yusuf et al. 2012 [++] England.

In summarising the views from all stakeholders in the Keep Smiling programme Yusuf et al. 2012 reported how the organisation of the programme was perceived to be acceptable by all stakeholders and the communication between the dental public health team and the different stakeholders was cited as good or very good. The reflections from the Dental Public Team also indicated that despite tight timescales there had been extensive planning and scheduling before programme delivery in each school. Both the strong planning and effective communication reported may have facilitated the integration of the programme into the school within the tight timescales.

Page 73: The programme itself was delivered within just over a month, with a lead time of just over two months.
Page 74: Despite the tight timescales, extensive planning and scheduling took place in advance of the delivery of the programme in each of the schools.
Tooth champions *Page 48: The amount of time dedicated varied by school and there were different approaches taken in implementing the programme according to local circumstances.*

Barrier: burden on existing workload and routines

However, some stakeholders had concerns that the short timescales had made it difficult to meet the expectations of all staff groups involved in the intervention. Furthermore, they reported that although the schools had integrated the pilot programme, it had a large impact on the school staff in terms of time, space and workload. There was also a significant burden on dental teams and oral health promotion teams. This raised the issue of whether the time and resource used to ensure the success and integration of the pilot programme would be feasible to replicate in other schools as part of school roll out.

Page 78: [...] There were some concerns expressed about the short timescales in implementation of the programme and meeting expectations: expectation of dental teams and expectation of school staff.
[...]Although the schools welcomed health initiatives to improve the dental health of children, they cited that there were significant impacts on the school staff in terms of time, space and workload.
Page 79: There were also significant burden on dental teams and oral health promotion teams in terms of time, completing monitoring forms, and the organization of resources.

Barrier: recruitment

Riedy 2010 [-] US.

A key lesson learned from the efforts to recruit pregnant Alaskan native women into a dental intervention as part of a randomised control trial was that the programme recruitment style, using a centralised location outside of the women's usual community setting, hampered enrolment into the programme. This appeared to be an example of how the recruitment strategy had not managed to integrate into the lives and decision making processes of the target population.

> *Page 3: recruiting women in a central location a few weeks before delivery was not adequate to gain participation. What was discovered once the study had been implemented was that asking women to consider a study after they had left their community and family went against their decision making process. In order to gain the family and community input, recruitment efforts went out to the individual communities.*

Wolfe and Huebner 2004 [-] US.

In describing the OPENWIDE oral health programme for non-dental health and human services providers, Wolfe and Huebner 2004, found that only a minority of respondents felt that existing Early Head Start and Head Start programmes lacked the time, staff or financial resources to integrate oral health education to their present curriculum. Hence, integration did not appear to be acting as a barrier to the integration of oral health into the existing workloads and programmes in this particular setting.

> *Page 7: [...] Only 19 percent of the forty-seven respondents commented that EHS/HS programs lacked the time, staff, or financial resources to add oral health education to their present curriculum and responsibilities*

Facilitator: shared vision

Burchell et al 2006 [-] Australia.

The author's description of the development of the "Dental as Anything" Inner South Community Health Service Dental Outreach programme for people with

a mental illness reported that commitment and cross team collaboration from key staff teams was a key facilitator to programme success, and so by association, its implementation. It also reported how the program's integration into existing heath and support services were perceived to be important to the programme sustainability.

> *Page 3: The commitment and collaboration from the dental, mental health and administration/ reception teams is a primary success of the programme.*
> *[...]It is unlikely that any of these teams on their own would be successful in engaging and facilitating oral health treatments for this client group.*
> *Page 6: Mental health outreach team members and the dental programme staff are exposed to new opportunities and issues through this project. They have been active in the conceptualisation, development, implementation and running of the programme.*
> *Page 7: Dental as Anything's integration into the existing health and support service system assists sustainability. The programme does not operate in isolation, does not duplicate nor conflict with other programs, and encourages coordination across multiple support providers.*

Diamond et al. 2003 [-] US.

In describing the process evaluation of implementing a community-based oral health care programme targeting school children (DentCare) Diamond et al 2003, reported how collaborating with organisations with a shared vision had facilitated the formation of the network. Also, how a highly regarded leader had facilitated much of the early activity of establishing the network.

> *Page 1: Collaborating with medical clinics facilitated the implementation of the network when the partners shared the same philosophical goals.*
> *Page 3: The second collaboration was with a community health center in Harlem. This health center shared DentCare's goal of creating access for the greatest possible number of people rather than maximizing profits*

Page 4: In the start-up phase, much was accomplished in an ad hoc and flexible manner under the leadership and in- tuition of a highly regarded leader, rather than strict adherence to a formal business plan. It took approximately 10 years for the dean to make all the changes necessary to institute DentCare.
[...]Dentcare's partnership with the community health center worked well because institutional goals were closely aligned.

Dental Health Foundation 2007 [+] Republic of Ireland and Northern Ireland.

The evaluation of the Winning Smiles school oral health promotion programme for 7 to 8-year-olds highlighted tensions between schools and oral health promoters, as well as between teachers and health promotion practitioners as a result of different views on keeping disturbances to the flow of everyday school life to a minimum. This was suggested to be due to different reasons for being involved in health promotion programmes and differences in relation to the importance of oral health. This suggested a lack of shared vision amongst key implementers of the programme. It wasn't explicitly stated if, or how, these tensions acted as a barrier to the implementation of the programme, but the evaluation authors put forward the suggestion that openness and awareness of the tensions would facilitate the delivery of the programme.

Page 23 [...] An explicit understanding of tensions that can affect the implementation and outcomes of health promotion programmes can help facilitate the delivery of such programmes.
[...]Sharing their knowledge and experience of tensions with schools, teachers and evaluators can help health promoters to become sensitive to how their work might inadvertently create tension between themselves, teachers, and the children whose interests the intervention is designed to serve. Explicit consideration of the sorts of tensions the health promoter might encounter is therefore an important aspect of good-quality health promotion.

Potential barrier to fostering shared vision: having universal and targeted elements

Holme et al. 2009 [++] Scotland

The Childsmile programme had a dual aim of providing universal access with additional targeted support to those most in need. While this was not cited as a specific barrier it was reported to cause confusion for both professionals and parents. It was suggested that professionals develop a rationale to explain the targeted approach.

> *Page 7: The operation of 'universal' access with additional 'targeted' support to those in most need is unclear for both professionals and parents. Professionals require an [Page 8]: easy, non-stigmatising rationale to explain targeting and eligibility criteria application e.g. in relation to home visits in Practice and selective Nursery input.*

Barriers and facilitators: communication between professionals

Maher et al. 2012 [-] Australia.

The Early Childhood Oral Health Programme (ECOH) co-ordinators working on an intervention promoting prevention and timely intervention of early childhood caries reported problems rolling out the programme to child health professionals other than child and family health nurses. Difficulties were attributed to lack of time and confidence amongst the ECOH co-ordinators to approach other health professionals and lack of willingness of other health professionals to receive information. Lack of willingness to engage may point to a potential lack of shared vision amongst health professionals on the issue of oral health, or lack of awareness and shared vision of the aims of this particular intervention.

> *Page 4: ECOH co-ordinators: [...] They reported variable success in rolling out the programme to other child health professionals, including general practitioners, Aboriginal health workers, and paediatric and emergency department hospital staff. The co-ordinators cited their available time and confidence to approach these groups, as well as the willingness of those professionals to receive that information and*

develop partnerships, as significant factors influencing the degree to which these other child health professionals were reached within their region.

This was in contrast to the successes in child and family health nurses who reported successful integration of aspects of the intervention into their routine practice and was one of two of the main outcomes of the ECOH Programme.

Page 5: [...] This evaluation identified two main outcomes of the ECOH Programme to date. [...] child and family health nurses […reported…] changing their routine practice since the programme began to now incorporate oral health anticipatory guidance, screening, early identification and referral.

The same study also highlighted key successes that appeared related to establishing decentralised responsibility, ownership and working partnerships, which implied a certain degree of shared vision and commitment was achieved. However, a disadvantage of this localised approach was non-uniform implementation across the state of New South Wales.

Page 5: [...] The organisation of the ECOH programme, with central co-ordination and regional implementation by identified co-ordinators, has enabled the development of effective multi-disciplinary relationships locally, and context-specific approaches to implementation. This structure decentralised responsibility and ownership of the programme, which has fostered significant achievements, successes and creativity across the different regions. However, this approach has also resulted in non- uniform programme implementation across the state.

Stokes et al. 2009 [++] England.

The qualitative research into the promotion of oral health within the Healthy School context in England revealed how successful integration was dependent on what were described as historical patterns of working, partnerships, resources and priorities. These appeared related to a notion of shared vision of the importance of oral health across the schools and stakeholders involved. A lack of consensus was also highlighted by

differences in opinion from stakeholders on who was responsibility for oral health promotion in Healthy Schools.

> *Page 1: Healthy Schools coordinators participated and all reported some engagement of their Healthy Schools scheme with oral health promotion [OHP]. The degree of this engagement depended on factors such as historical patterns of working, partnerships, resources and priorities.*
> *Page 3: Responsibility for OHP in Healthy Schools (iii) Eight participants gave schools or school nurses the responsibility for OHP, others felt that the responsibility lay solely with specialist OHP teams or jointly between Healthy Schools teams, schools and OHP teams:*
> *Page 8: This study suggests that indeed there are some areas where oral health issues are fully addressed, but there are also other areas where oral health issues are only partly addressed; and full coverage of oral health within the Healthy Schools programme is often dependent on historical ways of working and input from specialised dental personnel working on health promotion and supporting the school activity.*

13.4.2 Specific practices and processes

Study by study results

A large body of data surrounded issues of communication and coordination, both internally within the intervention staff, and externally between intervention staff and clients. The study by Yusef et al. 2012 provided a large amount of data for this section and identified specific barriers and facilitators experienced by different stakeholder groups, so these are presented separately.

Barrier: lack of communication

Holme et al. 2009 [++] Scotland.
Multiple barriers relating to specific practices and processes were identified by the professionals of the Childsmile intervention. These included lack of communication in terms of communication between professionals and also

about not being kept up to date about changes to advice or resources. Poor inter-professional relationships and communication were also reported. Although it was suggested this could be overcome through organisational support with clear pathways for interaction and shared learning between professionals. In relation to coordination it was reported that professional boundaries and role must be clear and referral routes should be standardised where possible.

> *Page 38: Professionals also faced a number of organisational and structural barriers including; changing paper work, half completed referral forms, lack of staff, lack of clear professional roles and lack of awareness of Childsmile roles, lack of communication between different professionals, and not being kept up-to-date about changes to advice or resources:*
> *Page 39: There were also suggestions that poor inter-professional relationships and communications regarding the content of service delivery could limit effectiveness, although potentially overcome*
> *Page 40: Organisational support is critical to overcoming professional barriers. Communication and team work between professionals must be supported by the organisational structure with clear pathways for interaction and shared learning.*
> *Page 41: Professional boundaries and responsibility must be clear, and as much as possible practices and referral routes should be standardised across localities. In cases where standardisation is not possible there should be a clear rationale given and awareness of this as an exception.*

> *Page 50 [...] communication between Childsmile staff and other professional groups was often limited. There was a need for organisational structures and clear pathways to support referrals and information sharing.*

Barriers: coordination with existing dental services

Holme et al. 2009 [++] Scotland.

The parents of children eligible for the Childsmile programme reported that having their child already receive the treatment from their own dentist; the dentists not supporting fluoride varnishing; and parents believing that it wasn't needed as they attended the dentist, were barriers to their child's participation. It appeared parents were not clear on how the Childsmile programme fitted in with existing dental services and check-ups which led some to decide not to enrol their child.

> *Page 50: Other parental barriers reported were children already receiving the treatment at their own dentist, the dentists not supporting fluoride varnishing or parents believing that it wasn't needed as they attended the dentist.*

Barrier: engagement of frontline referrers

Holme et al. 2009 [++] Scotland.

It was reported that a number of frontline workers responsible for referring to the Childsmile programme needed to be engaged. It was also reported that many do not have oral health as part of their remit and may experience conflicting demands on their time and so protected time is needed to ensure effective implementation.

> *Page 50: A wide range of key frontline referrers such as HVs [health visitors] and pre-school and educational professionals need to be engaged, with MWs [midwives] also having a potential role. Many of these do not have oral health as the main part of their remit and experienced time pressures and conflicts with other topic issues making it difficult to prioritise oral health. In addition, Childsmile staff with other duties were sometimes under pressure from competing demands and needed protected time.*

Barrier: coordination and collaboration with agencies and people

Holme et al. 2009 [++] Scotland.

Among a list of other related barriers the Childsmile staff reported how a lack of communication between different professions and between management and staff acted as a barrier to implementation, as well as a lack of input and connection with the Childsmile programme.

> *Page 50: Childsmile staff also reported facing a number of barriers such as lack of time, being taken out of Childsmile work to cover staff shortages in other areas, lack of support from management, having to move heavy equipment, lack of communication between different professions and between management and staff, lack of input and connection with the Childsmile programme.*

Facilitator: coordination and collaboration with agencies and people

Diamond et al. 2003 [-] US.

Diamond et al. 2003 highlighted how parent teacher associations and forming a working group of community leaders had facilitated mobilising community support for the DentCare programme.

> *Page 3: PTAs [parent teacher associations] were not the only institutional resources available for mobilizing community support. The director of the DentCare programme in WH/I [Washington Heights/lnwood] gained community support by engaging an existing community umbrella organization, whereas the director of the Harlem programme gained community support by forming a working group of community leaders composed of dedicated middle class professionals and clergy.*

Stokes et al. 2009 [++] England.

Stokes et al. 2009 cited how involving parents and staff was a vital part of the whole school approach to promoting oral health within Healthy School programmes in England. They also reported homogenous views reporting that external expertise and input into the programme was necessary and valued.

Page 6: Involving parents and staff in Healthy School programmes is a vital part of the whole school approach. Parents were more commonly involved in OHP [oral health promotion] in the primary than the secondary sector
Page 9: There was consensus among participants in this study that expert input was necessary. Expertise was valued in relation to raising the profile of oral health and providing input to schools, local programmes and strategic groups.

Blinkhorn 2008 [-] England.
The appraisal of brushing for life programme identified the Community Dental Service oral health promoters as pivotal in the implementation of the intervention. Aside from the staff themselves (see section 4.5.3) their contribution in linking, communicating and coordinating with people and agencies as well as forming networks were highlighted as facilitators.

Page 3: Whilst the cooperation of health visitors was viewed as essential, facilitation of the scheme by Community Dental Service (CDS) oral health promoters was pivotal.
[...]The latter had provided a conduit between the regional coordinators, health visitors and Sure Start staff. Although regional and local differences existed, generally the oral health promoters had facilitated the training of health visitors and other staff, provided information on location and requisition points for NHS deliveries, and formed networks with Sure Start programmes which sometimes had not existed before.

Facilitator: cooperation and engagement around consent forms

Diamond et al. 2003, Macpherson et al. 2010, Holme et al. 2009 and Yusef at al. 2012 all reported how parental engagement and cooperation was key to gaining parental consent for implementing different aspects of the oral health interventions. Parental consent was repeatedly reported as crucial to the intervention success and implementation in the complex school based interventions of Childsmile (Macpherson et al. 2010, Holme et al. 2009) and

Keep Smiling (Yusef at al. 2012). Parental consent is also mentioned in sections 4.4.2, 4.4.3, 4.5.1 and 4.5.3.

Diamond et al. 2003 [-] US.

> *Page 3 [...]Parental cooperation was essential for children who required dental treatment not provided at the preventive clinics*

Macpherson et al. 2010 [-] Scotland.

> *Page 4: For Childsmile Nursery, the success of the fluoride varnish programme largely depends on gaining consent from parents.*

Yusuf et al. 2012 [++] England

The oral health promoters in Yusef et al.2012 reported that raising awareness among parents with active engagement may overcome some of the barriers in gaining positive consent for children participating in the tooth brushing element of the programme. The community champions also reported how parent advocates and using community champions who had children in the school had helped facilitate consent for participation. The summary of findings from all stakeholders reported that giving information leaflets and consent forms in the local language (Somali and Arabic in the case of the Keep Smiling pilot programme in White City, London) may further facilitate informed consent.

> ***Community champions*** *Page 45: In some of the schools, consent for participation was facilitated by engagement of parents acting as advocates for the programme or dedicated Community Champions who also had children in the school. Some of the Community Champions were part of the Somali community and they supported parents by giving them information, advocating the programme and helping with consent.*

> ***Summary of findings from all stakeholders*** *Page 78: […] providing the information leaflets and consent forms in two languages Arabic and Somali to help parents make an informed decision whether they wanted their children to take part in the programme was suggested*

Holme et al. 2009 [++] Scotland

The development of new managerial approaches were reported to facilitate the provision of the Childsmile service and clear working roles were reported to facilitate the consent process.

> *Page 48: The development of new managerial approaches also made provision of the service easier, for example greater recognition of the unpredictable periods spent in nurseries because of varying successes in obtaining consent, especially at the last minute.*
>
> *Clear working roles also facilitated the consent process, with Childsmile staff establishing close connections with the person gaining consent (especially nursery staff) and parents. In particular, the development of computerised record keeping meant this process was more streamlined. Obtaining written consent for tooth brushing was also important as well as for fluoride varnish. This was greatly facilitated by getting the consent form filled in at the nursery during enrolment rather than in the home. It was also felt that there were higher rates of tooth brushing in those nurseries and schools which linked the consent for tooth brushing and the Childsmile Nursery and School consent form*

Barrier: parental engagement for consent forms and medical information updates

The staff of Childsmile reported that parental engagement in returning consent forms was a major barrier. Awareness raising efforts were reportedly tried but were of limited success; hence, nursery staff took a more proactive role in gaining consent reportedly by standing at the door hoping to catch parents. It wasn't clear how effective this approach had been.

> *Page 49: The challenge of parental engagement in returning the consent forms was mentioned as the major barrier by Childsmile staff. In conjunction with nursery staff, there had been attempts to hold a number of awareness-raising sessions for parents, including obtaining consent. However these tended to have a poor turnout and nursery*

staff now take a more proactive role in obtaining individual consent, with Childsmile staff also standing at the door, hoping to catch parents.

The Childsmile staff also reported on-going difficulties relating to the need for repeated consent forms and updated medical information. Local solutions were attempted such as targeting parents at children drop off times, but again problems were reported with this approach as not all people dropping the children off were parents or carers so were not always in a position to give consent or update medical information.

Page 49: The need for repeated consent and medical information updates was also seen as an on-going difficulty and could result in lower numbers participating.

Page 49:

"because they're having to fill in a form every six months as well, they think, 'Oh, I can't be bothered this time', and they send another letter saying they need to give it in, and I feel, our schools anyway, the consent rate has gone down just because they have to fill in a form every six months just because of the medical side" (DHSWs [Dental Health support workers] & EDDNs [extended duty dental nurses], East)

While it was recognised that the one of the best ways of getting the medical update forms signed was in the nursery at delivery and collection of children, this was not straightforward. It was not uncommon for others to drop off the child rather than the parent and, in addition, dropping off and picking up times were very rushed.

Page 7: The main barriers to participation in Nursery and School are the need to obtain informed consent and maintaining up-to-date medical information rather than declining the service. Whilst improvements have been made, e.g. through computerised record-keeping, this is likely to continue to pose problems

Barrier: finding a dentist

Kranz et al. 2011 [+] US.
Directors and health coordinators reported finding a suitable dentist was a barrier to implementing oral health activities in early head start centres directed toward children and parents from low-income households in the US.

> *Page 6: Most directors and health coordinators reported finding a dentist who sees young children or accepts Medicaid as barriers.*

Unclear views

Trubey and Chestnutt 2013 [+] Wales.
In assessing the attitudes of community dental service staff towards establishing a daily supervised school-based tooth brushing programme, Trubey and Chestnutt 2013 reported there was strong disagreement across all 3 staff groups with the statement "I think it's important to develop close links with local dentists". The authors highlighted how this was in contrast to national policies that encouraged greater integration and links between NHS dental services.

> *Page 6: a number of areas where consensus between the groups was also apparent […] The lack of need to develop closer links with local dentists was one such area. [NB: the actual question reported elsewhere was "close links" not "closer links", an important distinction]*
> *Page 7: all staff categories disagreed that there was a need for closer [see NB above] links with local general dental practitioners. This is an important finding for programme commissioners (the Welsh Assembly Government) as closer integration of different branches of NHS dental services is a policy objective.*

The study publication was inconsistent in reporting the exact phrase the staff were asked to agree or disagree with. In a table the statement was described as "I think it's important to develop close links with local dentists". Whereas later this was discussed as the wish to develop "closer" links with local dentists, rather than close links. This is an important distinction as people might disagree with the statement that "closer" links should be made if they already had close links that didn't need improving. Whereas, if they disagreed

with the statement that “close links” were needed, this is a stronger statement that any closeness was not necessary. Due to the inconsistency in the underlying study, it is not clear whether the strong disagreement was about close links with dentists, or closer links with dentists.

Facilitator: outreach

Burchell et al 2006 [-] Australia.
The description of the implementation of the "Dental as Anything" programme - a Community Health Service Dental Outreach programme to People with a Mental Illness - highlighted how the combination of health promotion and an assertive outreach model was “critical” in delivering the intervention.

> *Page 3: The combination of health promotion and assertive outreach appears to be critical in delivering effective programs to this client group*

The assertive outreach was described as:

> *Page 3: A “client-seeking” approach, where the worker actively locates the client (or client target group) in their environment and then take responsibility through an engagement process, to ensure that the client’s needs are identified and addressed. It is a relationship-based style of interaction where workers need to be seen, become known and be available, so as to become accepted by the client.*

The authors’ also reported the potential facilitatory effect of returning to the same venues on different outreach trips to allow peer modelling and build familiarisation with dental services in an unintimidating environment.

> *Page 4: The periodic return to venues not only familiarises current or future clients with the service, it also provides the opportunity for peer modelling. Some of the most anxious and reluctant potential clients see their peers undergo examinations and attend the dental clinic for follow-up treatment. Concurrently they become familiar with dental staff and outreach staff in an environment less intimidating than a dental clinic.*

The "peer modelling" works particularly well in outreach sessions in park settings where higher ratios of people are homeless.

Peer modelling is also mentioned in sections 4.5.3.

Facilitator: bringing together resources

Coles et al. 2012 [+] Scotland.

The evaluation of the capacity-building "Something to Smile About" oral health intervention for staff working with homeless people identified a list of local NHS dental practitioners that accepted homeless patients as the single most important piece of paperwork distributed as part of the programme. This appeared to help overcome barriers to access experienced by some service users who reported some dentists' charged a registration fee or refused to accept patients with a hostel address. The support of an oral health contact within the NHS to provide a referral pathway was also reported as very important. This is also reported under section 4.4.3.

Page 9: The 'singular most important piece of paperwork' in the STSA resource was the list of local NHS dental practitioners that accepted homeless patients. This was significant given that many participants spoke of dentists charging homeless people a registration fee, or refusing to accept patients with a hostel address.
[...]The confidence provided by this oral health knowledge – that dentists working within NHS dental practices could not charge advance fees – and the support of an oral health contact within NHS Lanarkshire to provide a referral pathway for dental treatment was regarded as vitally important.
Page 10: The list of dental practices was welcomed by all the participating organizations

Yusuf et al. 2012 [++] England - Keep smiling

The Keep Smiling pilot programme evaluation reported rich data on the specific practices and processes theme so are presented separately below by key staff group. Some of the most prominent and recurring sub-themes within the specific practices and processes theme were issues of internal and

external communication and collaboration, which the study had in common with those described above.

Facilitator: collaboration and coordination

Collaboration and coordination between teachers, dental providers, community champions (CCs), school tooth champions, the dental public health (DPH) team and parents appeared key to implementing the Keep Smiling pilot programme and were highlighted by multiple stakeholders in the evaluation of the programme. Different stakeholders highlighted areas where coordination went well but also numerous areas for improvement where engagement or communication was less than optimal.

> ***Community Champions*** *Page 60: In being part of the community and being involved in the programme, the CCs cited that they were able to form partnerships with the DPH team, dental teams, schools and the community effectively.*

Some dental providers highlighted they would have liked more community engagement and improved organisation in some schools, but overall the organisation and collaboration was reported as very good.

> ***Dental providers*** *Page 52: One of the dentists cited that more community engagement could have been carried out prior to the programme, a more generous time frame, improved organisation within some of the schools, administrative support and payment mechanisms Page 55: They perceived that the programme was well organised and the quality of collaboration between the dental public health team, dental teams and schools was very good. They valued the input from the Consultant in Dental Public Health in creating links between schools, local council and primary dental care teams.*

The summary of findings from all stakeholders in the Keep Smiling pilot evaluation reported strong and recurring themes on communication, collaboration and engagement identifying them as necessary and essential for successful implementation of the programme. This was in respect to both

communication and engagement between different staff groups involved in the delivering the programme, and between the programme staff, parents and the wider community. Many recommendations were made in order to strengthen communication, collaboration and engagement for future development of the programme. In brief the improvements centred on:

- Strengthening communication chains within schools and with parents
- Strengthening engagement with parents in order to gain consent for their child to participation in the program
- Strengthening engagement across staff groups and with parents.
- Supporting integration of community champions into the early and on-going implementation of the programme.

Strengthening communication

> ***Summary of findings from all stakeholders*** *Page 78: there were some concerns in some of the schools in terms of limited communication between head teachers, tooth champions and staff. [...] It was expressed that communication within schools may need to be strengthened in order to ensure that there is no breakdown in communication. [...] Communication between dental teams and parents could be improved by providing more comprehensive information sheets which included illustrations of the fluoride varnish. Page 80: Levels and extent of communication within schools varied and these need to be strengthened especially between head teachers and tooth champions.*
>
> ***Feedback from Parents*** *Page 64: Parents cited that there is limited communication between parents and class teachers in terms of how much information is was given by teachers about the Keep Smiling programme and suggested that teachers imbed this into their learning activities.*

Engagement and collaboration

> **Summary of findings from all stakeholders** *Page 78: Dental teams and oral health promotion teams perceived that engagement of dental public health teams with head teachers via the head teacher's forum was necessary for successful implementation of the programme. […] Furthermore, engagement with parents needs to be extended including coffee mornings, assembly, and parental sessions.[…] The oral health promotion teams cited that involving Page 79: school staff was essential in delivering health promotion programmes in order to ensure universal implementation with wider engagement from class teachers/ class room assistants.[...]Dental teams and oral health promotion teams welcomed collaboration with local schools and children's centre and enjoyed working in an outreach setting.*

Integration of community champions.

> **Summary of findings from all stakeholders** *Page 82: In relation to CCs, their involvement varied by school. Schools have not been exposed to CCs in the past, and their potential input into schools needs to be recognised and coordinated in the early stages of implementation. They are part of the community and are considered to be a valuable resource. Therefore, CCs need to be supported to integrate into future programmes, especially in terms of community engagement. [...]Furthermore, engagement and identification of local dental teams and the oral health promotion teams was essential in delivering the FV and tooth brushing sessions.*

Facilitator: collaboration and engagement with dental teams and school staff

The oral health promoters were involved mainly in the tooth brushing section of the Keep Smiling pilot programme. They perceived that dental teams had an important role in promoting oral health in schools and Children's Centres and how despite school staff being busy with academic commitments, their involvement was essential in the delivery and sustainability of health promotion programmes.

Barriers: coordination, communication and parent and community engagement

The oral health promoters also highlighted a number of barriers encountered during implementation of the tooth brushing element of the programme around coordination, communication and local community engagement (adapted from page 57 and 58 Yusuf et al. 2012) including:

- difficulties in engaging with schools
- perceived lack of school staff involvement
- language barriers
- limited community and parental engagement
- lack of formal links between dental practices and schools

One of the oral health promoters felt that engagement with schools and teachers could be challenging and their active involvement was vital to the success of future programmes. Similarly, considering time constraints, there was limited engagement with parents.

Both oral health promoters referred to the importance of parental and community engagement prior to the implementation of the tooth brushing programmes. The oral health promoters also made a number of suggestions for ensuring the successful delivery of future programmes including:

- active engagement with parents and schools
- training of teaching staff on oral health
- a protocol for delivering the tooth brushing programme
- liaising with a named person in each school and increasing oral health promotion capacity

They further highlighted how raising awareness among parents with active engagement may overcome some of the barriers in gaining positive consent for children participating in the programme.

Barriers identified by the Dental Public Health Team

Despite very positive feedback on organisation and communication the Dental Public Health Team highlighted that it was not possible to plan everything in advance and there were last minute consent forms being returned in most of the schools, which created more work on the day of delivery of the programme.

Similarly, they commented it was not possible to be aware of all other scheduled or unscheduled activities in each school in advance of the programme and recommended it would be useful to have single point of contact for the school to communicate with; someone who knew about the different programmes being delivered.

They also recommended that in future programmes tooth brushing and fluoride varnish sessions of the programme should be performed on separate days because doing it on the same day was considered challenging in terms of delivery for school staff and the dental teams.

The tooth champions also highlighted numerous, specific and detailed communication related barriers and facilitators that may be of relevance to oral health implementers considering using tooth champions as part of a school based oral health programme.

Communication issues highlighted by the tooth champions

Tooth champions identified a number of facilitatory factors inducing effective communication between the community champion and the DPH team and having a single point of contact within the dental public health team.

> ***Tooth Champions*** *Page 39: Communication between DPH teams and schools [...] the majority of tooth champions thought communication between DPH and the schools was good to excellent and the preferred method was by email. The tooth champions appreciated having a single point of contact within the DPH team.*

They also identified a number of concerns including:

- Short timescales for communication

- Little communication between head teachers and tooth champions and teachers.
- Communication to one person – there was a suggestion that communication could be to more than one person in the school to ensure messages were acted upon in cases of absence.
- confusion among some staff about the aims of the programme and what it involved in practice

> ***Tooth Champions*** *Page 39: [...]There were some concerns expressed around the timings of the communication and they requested that these should be more generous in the future as schools were busy settings. Page 40: In terms of the frequency and volume of communication, some of the tooth champions suggested that communication should be directed to more than one person at the school in order to ensure messages are relayed and acted upon if one person was busy/absent and the burden is shared among several school staff.*
> *Page 41: Communication within schools [...] number of tooth champions expressed their concerns that there was little communication between head teachers and tooth champions and teachers. [...]There also some confusion among some staff about the aims of the programme and what it involved. I was evident that schools varied in their process for internal communication about the programme.*

Views were also expressed that the coordination and communication could have been improved prior to implementation as it was apparent not all of the tooth champions understood what was expected from different members of school staff, or when and where the fluoride varnish or tooth brushing programmes would be taking place, or if they required special equipment.

> *Page 42 Some tooth champions required further information in order to gain a further understanding about the programme which included identifying the teams […] Page 43: [who would be] visiting the schools, what would be expected from school staff to ensure smooth running of the programme and how many staff would be required on the day of*

the programme. They also suggested that knowing where the fluoride varnish or tooth brushing programmes would be taking place and necessary equipment required as well as when the programme was expected to be carried out and which teaching sessions would be affected, was important.

13.4.3 Specific staffing considerations

Study by study results

Barrier: recruiting and retaining staff

Problems recruiting and retaining key staff necessary for intervention or programme implementation was cited by 3 studies. Burchell et al 2006 reported the view that this was due to funding, which did not allow their project to pay staff a competitive rate compared with other sectors. A similar funding-staff link was highlighted in Owens 2011a, which discussed how budgets had played a large part in shaping service delivery. They reported that an embargo on staff recruitment, coupled with staffing shortages had caused delays in parents accessing the intervention services. Douglass et al. 2005 reported that of the 3 mobile dental van interventions they assessed, all had problems recruiting and retaining dentists. They did not go on to discuss if this was specifically because of pay issues or funding. Barrier and facilitators relating to funding are discussed in Section 4.2.1.

Burchell et al 2006 [-] Australia.

Page 6: Recruiting and retaining dentists, dental assistants, social workers and psychiatric nurses to the community healthcare sector is problematic, primarily as funding does not allow for remuneration that is competitive with other sectors (including private practice and the acute health sector). ISCHS [Inner South Community Health Service] aims to meet this challenge by providing staff with stimulating work environments, skills expansion and professional development opportunities

Douglass et al. 2005 [-] US.

Page 2: all had problems recruiting and retaining dentists

Owens 2011a [+] Republic of Ireland.

> *Page 5: Budgets play a large part in shaping service delivery; an embargo on staff recruitment, coupled with staffing shortages, such as the shortages of liaison assessment officers, occupational therapists, dentists, psychologists and speech and language therapists meant that there were delays in parents accessing services*

Facilitator: key intervention or programme staff members

Specific roles within the intervention or programme team were reported as being important in facilitating implementation many studies. Often there was more than one key staff role highlighted, particularly in the more complex interventions or programmes.

Douglass et al. 2005 [-] US.

Douglass et al. 2005 reported how the driver of the mobile dental health vans was very important in the intervention implementation. The report described how an integrated role, covering not only driving the vehicle but also maintenance, set-up and shepherding children between class room and mobile unit, was the preferred set up. They also reported how they had employed more dental hygienists than dentists, had effective programme coordinators, managers and data management that appeared to be important facilitatory elements of the interventions.

> *Page 2: [...] The driver is integral to the programme and is responsible for driving the unit from the garage to the site in the morning and returning it at the end of the day. Additionally the driver managed vehicle maintenance, appropriate parking, unit set-up, and vehicle and patient safety. Some programs tried part-time drivers but this required a staff person to shuttle the driver between the site and garage. Ideally the driver is an integral part of the care delivery team, assisting with unit set-up, shepherding children between classrooms and the dental unit and stowing equipment at the end of the day.*
>
> *[...] the staff had to function well as an independent team and assume a wide range of duties. Overall, more hygienists were employed than*

dentists
[...]Effective Care Coordinators and Programme Managers combined with strong data management were important in maintaining a full schedule for all providers.

Maher et al. 2012 [-] Australia.
The evaluation of the Early Childhood Oral Health (ECOH) programme highlighted how clear roles and responsibilities had been achieved and, similar to Douglass et al. 2005, programme coordinators were reported to have been valued by nurses in facilitating referral elements of the programme.

Page 3: The key achievements for the ECOH Programme
[...] establishment of a governance system for the programme, the development of a clear structure for programme implementation with clear roles and responsibilities outlined,
Page 4: establishing programme co-ordinators across the state and supporting these positions was a key component of the role of COHS.[Centre for Oral Health Strategy NSW Health]
[...] Many nurses reported that they had developed an effective working relationship with their regional ECOH Co-ordinator and that this was helpful, particularly when arranging referrals to oral health services for children identified as being at risk of ECC [Early childhood caries].

Rajabiun et al. 2012 [+] US.
The clients' perspectives on improving oral health-care practices among people living with HIV/AIDS revealed they valued friendly staff and a comfortable dental environment. This was cited as a main reason why some were able to re-engage with oral health care and increase their motivation to improve their oral health. They also reported valuing having an HIV knowledgeable dentist and a care coordinator to facilitate oral hygiene education and reinforce oral health messages from dental staff. The authors of the qualitative study stated that the roles played by the dentist, dental staff, and the general environment of the dental setting appeared critical to participants seeking and returning for dental services.

Page 5: Friendly staff and dental environment. Treatment by the dental staff was cited as the main difference in oral health care and the desire to continue care. Participants described "feeling comfortable in the environment" and "not worrying about my privacy." Other critical factors were not having to wait for services and having things done quickly with the utmost professionalism.

[...] Finding an HIV-knowledgeable dentist. Participants valued having a dentist who knew about HIV and its treatment. They valued dentists who could identify problems, take the time to help "save my teeth," and explain procedures

Page 6: Care coordinators also played a role in patient oral hygiene education. Participants described how the staff member took the time to explain how to take care of the mouth and teeth. The care coordinator could answer the questions and educate and reinforce messages shared by other dental staff. […]. Participants described care coordinators as contributing to their reasons for returning to care. For example, participants described how care coordinators helped with referrals to specialists, provided reminder phone calls and messages about appointments, and facilitated communication between their medical and dental providers.

Page 8: HIV and dental professionals can also play a critical role by establishing a friendly dental setting that fosters trust, support, and education to encourage the adoption of healthy behaviours.

Holme et al. 2009 [++] Scotland

As reported in Rajabiun et al. 2012, friendly staff were identified as a facilitator in encouraging participation in the Childsmile Nursery element of the Childsmile programme.

Page 47: From the perspective of nursery staff, key issues were the child-friendly approach taken by Childsmile staff. [...] parents generally supported participation as long as their children were happy and in those cases where the child was unhappy the staff play a critical role in encouraging participation

Yusuf et al. 2012 [++] England.

It was clear from the evaluation of the Keep Smiling pilot programme that tooth champions, that is, advocates for oral health and the programme selected from within the schools, were viewed as essential for programme implementation, even though the extent of involvement and delivery of the programme varied by school. The intervention was reported to put a burden of their time so it was suggested as part of the evaluation to identify more than one if possible.

Head teacher support was cited as a facilitating factor and the dental public health team were reported to be pivotal. It was clear however, that the dental public health team had been heavily involved in leading and organising the pilot scheme but both the dental public health team and oral health promoters reported concerns that this level of activity would not be sustainable if the programme was rolled out in more schools. A similar issue was reported by oral health promoters. The oral health promotion team reported spending a large proportion of their working week performing tooth brushing in the pilot schools and this was viewed as unsustainable unless oral health promotion staff capacity was increased.

A number of improvements were suggested including sharing responsibility for the day to day implementation of the scheme to reduce the excessive burden on the dental public health team, and recruiting parent tooth champions to support to the existing tooth champions recruited from school staff. It was reported this might be useful if the parents spoke some of the local community languages.

> ***Summary of findings from all stakeholders*** *Page 78: Identification of tooth champions in each school was essential for delivering the programme.*
> *[...]The extent of involvement and delivery of the programme varied by school. Some of the tooth champions took leadership and initiative in ensuring successful delivery of the programme. Some of the tooth champions delivered oral health messages to individual classes to introduce the programme and spent significant time engaging with the*

children. The tooth champions also followed up parents in order to increase the consent rate and also supported parents to encourage participation.

Page 79: the dental public health [DPH] team was pivotal in delivering the pilot programme. They were responsible for engaging with head teachers from the start of the programme and for introducing the concept and implementation of the programme

[...] The head teachers support was essential in encouraging collaboration between the different stakeholders and supporting dental health and wellbeing of children in a school setting.

[...]Although the extent of their involvement varied by school, their commitment and enthusiasm needs to be sustained, as it has been recognised [Page 80] that the programme posed a burden on their time.

[...] advantageous for each school to identify at least two tooth champions who can act as advocates in raising awareness on oral health.

[...]The Dental Public Health team was heavily involved in this pilot to ensure successful delivery as well as a learning exercise in order to plan future programmes. It has been recognised that this is not sustainable in the long term. In the future, although the Consultant in DPH will assume leadership in delivering future programmes and ensuring quality, the day to day logistic delivery of the programme needs to be shared between dental teams, oral health promotion teams and targeted schools.

Page 82: Some of the reasons cited for successful delivery were the engagement of the DPH team with the head teachers and the identification of tooth champions within schools.

[...]This encouraged schools staff to have ownership of the programme and their efforts and support was visible though out the delivery and evaluation of the programme.

Oral Health Promoters *Page 57: limited oral health promotion capacity*

[...] one of the oral health promoters felt although the intense input from the DPH team was valuable for this pilot, they did not think it was sustainable in the long term if the programme was going to be implemented borough wide.

Page 59: The tooth brushing sessions were intense in terms of workforce and capacity, which may require increased oral health promotion capacity to roll out future programmes across the borough.

Reflections from the Dental Public Team *Page 73: The Dental Public Health Team spent about 80% of their time during February and March on delivering the programme. Although this was essential for the pilot programme, this would not be sustainable for future programmes as the DPH team is responsible for 8 boroughs across NW London. [...]In addition, the Oral Health Promotion (OHP) Team was spending four days a week performing tooth brushing in the White City schools. In order to be able to [Page 74] see all the children in a morning session, in some of the schools between three and four Oral Health Promoters were engaged in tooth brushing at one time, each working in parallel with groups of around 6 children. This is not sustainable for future programmes unless OHP capacity was increased.*

Page 76: Instead of/ as well as using Community Champions to help promote the programme within schools and the local community, it would be useful to train some parent within each school to act as parent tooth champions, complementing the school tooth champions. There could be representatives across different year groups involved in the programme. It would also be useful if some of the parent champions spoke some of the community languages.

Other staff related considerations were identified in the Keep Smiling pilot programme including the need to consider more cost effective administrative support in some areas and the possible utilisation of additional duties dental

nurses. However, it was also reported that there may not be enough capacity in the duties dental nursing workforce to meet this suggested improvement.

> ***Summary of findings from all stakeholders*** *Page 81: [...] Completion of administrative tasks was perceived as time consuming as children's names were individually entered into a database and a record of fv [fluoride varnish] applications were entered for each child, and a summary report of activity was submitted to the DPH team. A number of suggestions were made to improve on this process which included the PCT [primary care trust] employing a project manager who could be responsible for these tasks.*
>
> *[...] In addition, additional duties dental nurses (nurses who have received additional training on fluoride varnish) would be employed to deliver the fluoride varnish applications thereby reducing the cost of the programme.*
>
> *[...]However, it needs to be [Page 82] recognized that currently there is insufficient capacity in the additional duties dental nursing workforce. This is complicated by a number of factors including: the funding and availability of training, commitment from nursing staff and dental teams and the lack of recognised pay scales for duties carried out by these nurses.*
>
> *[...]Some of the reasons cited for successful delivery were the engagement of the DPH team with the head teachers and the identification of tooth champions within schools.*
>
> *[...]This encouraged schools staff to have ownership of the programme and their efforts and support was visible though out the delivery and evaluation of the programme.*

Facilitator: staff specific skills

Diamond et al. 2003 [-] US.

The lessons learned through implementing a community-based oral health care programme in the US reported how staff with a different skill mix were needed during the initial stage of the programme compared to the sustainable phase of the programme.

Page 1: Faculty and staff with different skills were needed during the start-up and the sustained development phases of the programme.
Page 3: During the start-up phase, it was very important to have staff who were predominantly goal oriented. If students were scheduled to come to the clinic and failed to make their appointment, a goal-oriented staff member would go to the classroom and find out why the students did not show up in order to minimize the reoccurrence and, if necessary, find substitutes.
Page 4: public health dentists were primarily responsible for planning and implementation. It was necessary for the dentists to have good communication skills, be culturally sensitive, and have an understanding of public health issues when talking to principals, community leaders, and school boards.

Barrier: administrative support

Yusuf et al. 2012 [++] England.
The views of the dental providers in the Keep Smiling pilot programme reported how the dental public health team's significant involvement facilitated the programme implementation and there was little input needed from the dental teams in organising and planning functions. However, they report barriers relating to time consuming and non-computerised administrative duties. The programme gave remuneration for these duties and reported it was anticipated that dental nurses would carry out the admin tasks. However, this turned out not to be the case. The dentists reported feeling they needed to manage this process to ensure that data was entered correctly in order for them to receive the correct payments from the Primary Care Trust (PCT).The dentists' subsequently reported they needed some support with the administrative tasks associated with the programme. Further suggestions from the dentists centred on diversifying the staff mix and utilising skills more effectively, and cost effectively. Suggestions included employing a programme manager to support the organisation of the programme, and the utilisation of extended dental duty nurses for the application of fluoride varnish to improve cost effectiveness.

Dental Providers *Page 51: There was a general recognition that the dental public health (DPH) team's significant involvement supported its implementation in the pilot stage. Consequently, there was little input required from dental teams in organising and*
Page 52: planning of the fluoride varnish programme as most of the administrative tasks were carried out by the DPH team.
[...]Another key issue was administrative support to ensure adequate implementation. There were a number of barriers cited, time taken to transfer children's names manually from class lists into an excel spread sheet, and data entry and feedback to the DPH team. Although financial reimbursement was given for this function, it was envisaged that dental nurses could carry out this task. However, dentists felt that they needed to manage this process to ensure that data was entered correctly in order for them to receive the correct payments from the PCT.
Page 55: They cited that employing a programme manager to support the organisation of the programme would be beneficial and the utilization of extended dental duty nurses for the application of fluoride varnish may be more cost effective. They also suggested that they needed some support with the administrative tasks associated with the programme.

Barriers around obtaining parental consent

Yusuf et al. 2012 [++] England.
The tooth champions reported that some schools were not as active in their engagement with parents as others due to a lack of identification of clear roles and responsibilities of school staff in processing and obtaining consent from parents - a key component of implementing the school interventions.

Barriers and facilitators related to gaining parental consent for their child to participate in school or nursery based interventions are also discussed in section, 4.4.2, 4.4.3, 4.5.1, 4.5.2. and 4.5.3.

> *Tooth Champions Page 45: Some schools were not as active in their engagement with parents however; they recognised that was due to lack of identification of roles and responsibilities of school staff in processing and obtaining consent.*

They also reported how children exerted some influence over their parents in gaining consent for their involvement in the programme reporting how seeing their peers in the programme made them keen to be included. This form of peer modelling appeared to be facilitating consent, but it was unclear how prevalent or influential this was on overall consent rates.

> *Page 46: The tooth champions also cited that children influenced their parents in gaining positive consent by advocating the Keep Smiling Programme as they saw their [Page 47] peers participating in the programme and were also keen to be included.*

Peer modelling is also mentioned in section 4.5.2.

13.5 Prevention support system

13.5.1 Training

Study by study results

Training as a facilitator

Macpherson et al. 2010 [-] Scotland.
It was reported that staff delivering the Childsmile national child oral health improvement programme in Scotland would require specific training. A training course was developed to train dental nurses in the principles of the Childsmile programme and in the extended duty of applying fluoride varnish.

> *Page 3: Workforce development. It was recognised that staff delivering the Childsmile programme would require specific training.*
> *[...] A similar training course was set up in the East of Scotland to train dental nurses in the principles of Childsmile and in the extended duty application of fluoride varnish.*

Holme et al. 2009 [++] Scotland.

The provision of training sessions for some nursery staff to increase awareness and the importance of oral health was identified as a facilitating factor of the Childsmile Nursery programme. In addition, providing active support for the tooth brushing programmes, and visits by oral health promoters or Childsmile staff to raise the awareness of the children and staff were reported as helpful.

> *Page 48: Regarding tooth brushing, facilitating factors included a strong commitment by staff, organisational support and support in addressing structural issues. Organisational support included providing training sessions for some nursery staff which increased awareness of the salience of oral health. In addition, active support for setting up and running tooth brushing programmes, and visits by oral health promoters or Childsmile staff to raise awareness for the children and staff were helpful.*

Wolfe and Huebner 2004 [-] US.

Attendees at one OPENWIDE presentation rated the training presentation as excellent overall and over two thirds agreed the training would lead them to increase oral health promotion in their daily routines. Hence, there was a perception amongst attendees that the training equipped them to deliver oral health initiatives. However, the extent to which this occurred in practice was not assessed.

> *Page 5: Responses to Likert-scale questions about satisfaction with the OPENWIDE [...] The overall rating was "excellent"; quality of speakers and materials received the highest ratings. Three-quarters of the participants (76 per- cent) agreed the training provided new useful skills and information, and 69 percent agreed training would lead them to increase oral health promotion in their daily routines.*
> *[...] When asked "how could the training programme be improved?" responses included:*

“include teenagers, soda and rampant decay . . . seemed repetitive a lot . . . us giving you more time for more in-depth topics.”

Although the training presentation was approximately two hours in length, several participants said they would have liked a longer, expanded presentation.

Yusuf et al. 2012 [++] England.

A similar feeling of increased self-efficacy and knowledge was reported by the community champions (CCs) receiving training before the Keep Smiling pilot programme. They also reported feeling supported by the dental public health (DPH) team in implementing the intervention.

Community Champions *Page 61: Both CCs acknowledged that the training not only improved their knowledge but it also increased their confidence in promoting good oral health locally. They also felt very supported by the DPH [dental public health] team in supporting the implementation of the Keep Smiling Programme.*

Kranz et al. 2011 [+] US.

Using Q-sort methodology Kranz et al. 2011 reported that teachers who received dental health training from early head start centres engaged in more oral health education activities with parents compared with teachers who did not receive or recall receiving training. This was the only study identified that attempted to quantify the impact of training on oral health activities.

Page 5: Teachers who received dental health training from EHS had parent activity scores 1.6 points higher than teachers who did not receive or did not recall receiving dental health training
Page 6: training from EHS increased teachers’ child activity scores by 1.2 points (P=0.044).

Maher et al. 2012 [-] Australia.

The training and guidelines document given as part of the Early Childhood Oral Health (ECOH) Programme in New South Wales was reported by nurses

to have helped them in develop oral health anticipatory guidance and screening practice.

> *Page 3: The key achievements for the ECOH Programme*
> *[...] the delivery of training to key child health professionals,*
> *Page 4: The nurses also credited the training they had received, as well as the guidelines document, as important in helping them develop confidence in their oral health anticipatory guidance and screening practice.*

Barrier: lack of training

A lack of training was identified as a key barrier to implementing spit tobacco (ST) prevention and cessation counselling among community educators in the US. Perhaps surprisingly, this included Drug Abuse Resistance Education (DARE) officers who were reported to be specifically trained in the prevention of spit tobacco use. The reason for this counterintuitive view from the DARE officers was not explored further in the study.

Prokhorov et al. 2002 [+] US.

> *Page 2: Lack of training was a major barrier to ST counseling among all educator subgroups*
> *Page 10: Table 4 [not in this document] shows the perceived barriers to ST counseling among educators. Lack of training appeared to be a major barrier among all educator subgroups*
> *[...]Remarkably, this barrier was as common among DARE officers, who are supposed to be trained in the prevention of ST use, as it was among educators who are not directly charged with substance use prevention activities.*

Mixed views on training

Blenkinsopp et al. 2002 [+] England.

The pharmacists in the South Staffordshire scheme participated in six days' training on the transtheoretical model (TTM) of behaviour change and

motivational interviewing and their application to offering advice on different health topics, including one on dental health.

> *Page 7: [...] The training programme for the scheme aimed to provide pharmacists with an understanding of the TTM and resources to operationalize the model in their own pharmacy. Pharmacists' responses to the training varied and as one stakeholder pointed out:*
>
> *"Pharmacists assumed they knew the model already... thought it was just common sense". (s1)*
>
> *As other stakeholders put it:*
>
> *"Pharmacists probably need to understand... to be taken through a change themselves... before the project." (S3)*
>
> *"We need to recognise where people are when they come to the pharmacy". (S6)*
>
> *"Pharmacists felt more comfortable with the 'information' than the 'process' aspects: They preferred the 'topic' days to the 'core' days."(SI)*
>
> *Several of the pharmacists made negative comments to the trainers about the use of role-play in the core training, perceiving it as "patronising", while some clearly found it useful, citing it as the best part of the course.*

The authors themselves noted that without observing the pharmacists' interactions with clients prior to and after the training it was not possible to know the extent to which the participants engaged with TTM or adopted it as their consultation style, or whether a more traditional information giving style may still have predominated.

Potential facilitator: developing supportive organisation factors

Yusuf et al. 2012 [++] England.

The views from stakeholders in the Keep Smiling programme pilot reported that oral health training should be extended from only including the school staff tooth champions to include primary school teachers and classroom assistants in order to distribute the workload among staff. Tooth champions also reported that school staff had a limited knowledge of what to expect from the intervention and thought an information sheet describing the logistics of the programme might be a useful future addition, alongside investing more time in establishing the processes for implementation of the programme. This could be seen as an example of facilitating the implementation by putting supportive organisation factors in place in response to perceived barriers. These were prospective recommendations so it is not known if these proposed measured aided implementation when carried out.

> ***Summary of findings from all stakeholders*** *Page 80: training should be provided on oral health to tooth champions, primary school teachers and classroom assistants in order to distribute the workload among staff as well as school staff championing oral health.*
>
> ***Tooth Champions*** *Page 42: Although the school staff were informed about the programme, they had limited knowledge of what to expect. They thought that an information sheet describing the logistics of the programme would have been useful as well as investing some time in establishing the processes required for implementation of the programme.*
> *Page 48: Initial meetings with the dental public health and dental teams, correspondence and collaboration, engagement with parents prior to the programme, internal communication with school teachers, all required time and [Page 49] dedication not only from tooth champions but also from class teachers and teaching assistants.*

13.5.2 Technical assistance

Study by study results

Barriers

Holme et al. 2009 [++] Scotland.

Professionals in the Childsmile programme identified barriers related to the resources offered once implementation of the programme began, which included changing paper work, not being kept up to date about changes to advice and resources, and not being able to maintain professional competence. This was reported by the authors of the reports as identifying a need to address a lack of on-going professional development and a need for on-going briefing.

> *Page 7: There is much confusion among key frontline professionals about existing Childsmile services and planned developments, and consequently a need for on-going briefing*
>
> *Page 38: Professionals also faced a number of organisational and structural barriers including; changing paper work, half completed referral forms, lack of staff, lack of clear professional roles and lack of awareness of Childsmile roles, lack of communication between different professionals, and not being kept up-to-date about changes to advice or resources:*
>
> *Page 40: Finally, Childsmile staff reported difficulties in keeping up-to-date and maintaining professional competence, identifying a need for on-going professional development*

A lack of structured training both at the start of implementation and on an on-going basis was reported to exacerbate existing barriers relating such as lack of time and staff numbers. There appeared to be no on-going training and some staff reported feeling it was up to them to develop a training programme independently.

> *Page 51: Regarding tooth brushing programmes, in addition to parental consent issues, barriers were related to the practicalities of the requirements such as time, staff numbers, and suitable space, ideally with a sink. These difficulties were exacerbated by a lack of structured training, both initially and as staff changed and moved on. Some*

nurseries appeared to feel they had developed their programme independently.

When input from oral health teams was given, it was not always perceived as supportive.

Page 51: However, input from oral health teams was not always seen as supportive in the context of lack of training.

"then the ladies that come and give you new toothbrushes, they'll have a look at them and say, 'oh, that should have been replaced a long time ago, look at the state of that and there's still toothpaste on that one', and they give you a grilling for it but we don't know when a toothbrush, well maybe we should, I mean that's maybe all in that book [Health Scotland 2009] but I haven't had time to read it" (Pre-school/Nursery, Fife)

Potential facilitator: local problem solving efforts

Macpherson et al. 2010 [-] Scotland.
Modifications to the training course provided to the dental nurses was reported to occur in the Childsmile programme after feedback from an initial training round had identified specific areas for improvement. This appeared to be addressing limitations in the initial training scheme but it wasn't explicitly stated if this training facilitated subsequent programme implementation.

Page 3: In January 2006 five courses were set up across the West of Scotland to deliver oral health promotion training to dental nurses nominated by their dental practice. Evaluation of this training indicated that a good understanding of oral health promotion was achieved. However, participants requested more focus on tailoring of key messages to the specific age at visit outlined in the care pathway and on practical preparation for delivering Childsmile in their clinics. This feedback resulted in further development of the training courses, combined with the production of a bespoke Childsmile care manual

providing age-specific guidance to support health professionals to deliver Childsmile oral health sessions.

Yusuf et al. 2012 [++] England.
The oral health promoters in the Keep Smiling pilot programme gave suggestions for future improvements to the programme that included extending oral health training to teachers and introducing a protocol for delivering the Keep Smiling programme.

> ***Oral Health Promoters*** *Page 58: suggestions for ensuring the successful delivery of future programmes including [...] training of teaching staff on oral health, a protocol for delivering the tooth brushing programme*

Views from the dental public team involved in the same intervention also included practical pointers that seemed to have been the result of local problem solving efforts once the programme was underway.

> **Dental Public Team** *Page 75: It was useful to photocopy the class lists (with consents marked) for each tooth brushing team to have on the day and have a spare list to give to the class teacher so that everyone was working from the same list.*

In line with Macpherson, these changes appeared to be in response to specific barriers encountered but were not explicitly stated as facilitating implementation.

13.6 User views

13.6.1 Acceptability

Study by study results

Despite elements of acceptability being reported in 6 studies, only 3 made the link between increased acceptability to the service user and implementation facilitation explicit. The explicit links are described in section 4.7.1 under the heading “facilitators”. The remaining studies reported acceptability had increased the success of the intervention, but did not explicitly link this to

implementation of the intervention. Hence, they were not explicit enough to provide firm evidence. However, they do provide some insight into potential facilitatory factors that intervention or programme implementers may find of relevance, so are included under the heading “potential facilitators” below for background information.

Potential facilitators

The views of older migrant adults using an ethnic social club based oral health promotion intervention based in Australia described how elements of tailoring materials to their culture and language, as well as using the familiar environment of a social club setting were viewed as key to the success of the intervention (Mariño et al. 2005 [+] Australia). This wasn’t explicitly linked to the implementation of the intervention but seemed relevant. Focus groups indicated the importance of communicating dental information through a culturally relevant approach using non- technical terms and the participants’ first language.

Aspects of acceptability reported as facilitating factors to intervention success in more than one study included: using culturally tailored intervention materials, including those translated into native languages for those whose first language isn’t English (Mariño et al. 2005 [+] Australia and Yusuf et al. 2012 [++] England); using a comfortable and acceptable intervention setting (Mariño et al. 2005 [+] Australia and Rajabiun et al. 2012 [+] US) and involving supportive and friendly staff (Blenkinsopp et al. 2002 [+] England, Holme et al. 2009 [++] Scotland, Lemay et al. 2012 [+] US and Rajabiun et al. 2012 [+] US). However, these were not explicitly linked to facilitating the implementation of the intervention so must be interpreted with caution.

Explicit barrier: stigma of home visits

Holme et al. 2009 [++] Scotland.
Both parents and professionals reported it was important that the dental health support worker home visits were seen as advice rather than monitoring as there was the potential for stigma to be attached to letting professionals into one’s home which could potentially be seen as monitoring parental

behaviour. This was anticipated to be a strong barrier amongst a minority of respondents described as being from a heavily deprived area. It was an anticipated barrier rather than one experienced because interviewees were those eligible to participate in the intervention and not all had. The negative view of receiving support was reported to be a result of linking “support” to social worker support which was perceived to mean they were doing something wrong or not coping. The authors suggested sensitivity in the language used in describing this “support” might be needed.

> *Page 31: Among those who were not aware of the DHSW [dental health support worker] role, the moderator introduced it in terms of someone coming to the house to discuss oral care, including dietary influences and to encourage registration with a Childsmile practice. Seeing the visit as getting ‘advice’ rather than monitoring was an important aspect for a number of respondents, and echoed by professionals.*
> *Page 32: Main barriers to home visits were the pressure of an external professional coming into the house (potentially perceived as monitoring parenting behaviours), and the potential for stigma.*
> *Page 33: The potential stigma from getting support was anticipated as a strong barrier by a minority within a heavily deprived area: This negative view seemed to relate to connecting the concept of support and ‘support workers’ with social work input and indicating that the parent/carer was doing something wrong or not coping.*
>
> *“support means help, you’re doing something wrong, a leg supports the table, it helps the table [...] if you’ve got somebody that’s even got maybe postnatal depression or something like that and they think, ‘oh my God, here’s somebody else with support’, you’d say, ‘am I getting worse?’, I just think that’s a scary word to use” (Parent, North (Grampian), Children 0-3 & 4-8 years)"*
>
> *A minority in a small, highly deprived community held strong views against home visits being targeted to specific families/homes, in part because of the stigma of being involved in a ‘support worker’ service*

potentially seen as connected to social work, suggesting a need for sensitivity to type of language in communications.

Explicit facilitator: making participation simple and home visits

Holme et al. 2009 [++] Scotland.
Home visits were singled out as being an important facilitator in the Childsmile programme in overcoming potential barriers of dental fears and difficulty getting to a dental practice at a specific time. Similarly, participation in Childsmile was also not viewed as demanding, which was also flagged as a key facilitator. The main parental input was returning consent forms which although was reported as a key barrier to participation from a staff perspective the Childsmile staff reportedly made this as trouble free as they could for parents.

Page 3: Childsmile Practice was positively viewed by parent/carer respondents who had experienced it. Home visits in particular, were seen by all as overcoming parental barriers of dental fears and difficulty in getting to a practice at a specific time.

Page 43: Importantly also, participation was not seen to be demanding for parent or child as sessions were undertaken in normal attendance times and locations – a major facilitator. The main input from parents was returning the consent forms and medical updates prior to treatment, and nursery and Childsmile staff made this as easy as possible. Consent for tooth brushing and fluoride varnishing might be obtained on the first day at the nursery, enrolment or during an introductory home visit by nursery [Page 44] staff. The follow up consent/update of medical information form seemed to work best if signed in the nursery as it easily becomes lost.

Explicit facilitator: positive approach by staff increased acceptability of intervention

Staff appeared to endeavour to make the intervention as acceptable and easy as possible for children and parents. Reported examples of this included staff

helping nervous children take part by allowing flexibility in allowing parents to accompany the children if need be. This also has relevance across other themes including flexibility, adaptability and compatibility. This was reported to reassure the children who were reported to want to be involved in everything the other children were doing.

> *Page 44: [...] a positive approach on the part of staff regarding the few children who were nervous was much appreciated and encouraged parental agreement. This included gradual introduction to the experience and flexibility in allowing parents to accompany nervous children if need be. The group experience also seemed to encourage and reassure children as they tended to want to be involved with everything the other children were doing. Similarly, parents tended to support participation in the tooth brushing programme.*

Explicit facilitator

Rajabiun et al. 2012 [+] US

Facilitators for returning to mainstream dental care were identified from the perspectives of people living with HIV/AIDS taking part in an intervention to improve access to mainstream services – referred to as the Oral Health Initiative. These included free or limited cost of dental services, friendly staff and setting, finding an HIV knowledgeable dentist, having a care coordinator for support and being motivated to maintain oral and general health.

> *Page 5: When asked about the desire to return to care at the Oral Health Initiative site compared with other dental settings, participants cited the free or limited cost of the dental services.*
> *[...] Other cited reasons for returning to dental care included the friendly staff and the dental setting, finding an HIV- knowledgeable dentist, having a care coordinator for support, and being motivated to maintain their oral and general health.*
> *Page 6: Others discussed how seeing a care coordinator helped reduce their fears and anxiety about the dentist and made them feel more comfortable returning for care.*

Explicit facilitator

Lemay et al. 2012 [+] US

The views of 25 people living with HIV/AIDS who were assigned dental case managers (DCMs) as a way of accessing and coordinating dental health revealed they valued the dental case manager and that the dental case manager had helped them overcome some barriers in gaining access to mainstream dental care. They also described key characteristics about the role of the dental case manager they felt were vital to the success of the intervention. These were grouped into 6 themes by the study authors. As the community based intervention in this instance was the introduction of the dental case manager, these could be viewed as making the intervention more acceptable to the users of the service so may have acted as facilitators to implementation. This link was not made explicit in the study publication.

> *Page 4: All participants mentioned the value of the DCM; one stated,*
>
> *"I can't see how a dental practice right now could function without a [dental] case manager" (Participant F, Group 1).*
>
> *Page 3: Participant descriptions of the DCM role sorted into 6 categories: 1) being accessible and available; 2) being knowledgeable about clients; 3) being knowledgeable about insurance; 4) being empathetic; 5) increasing access to care (i.e., scheduling appointments, making appointment reminders, and assuring continuity of care); and 6) providing comfort. Participants believed these qualities were not only important to the DCM position but vital to assisting people in obtaining care.*

Explicit potential barriers

Yusuf et al. 2012 [++] England

Feedback from parents and carers of children taking part in the Keep Smiling programme for 3-7 year olds in White City, Hammersmith & Fulham highlighted potential barriers to implementing the programme.

Potential barriers were identified when parents were asked to provide information on what could be improved in the programme. While generally very satisfied with the programme and information provided, they reported a desire for translation of consent forms into local languages, and more information about the fluoride varnish (FV) application process, which may have been unfamiliar to many parents. Some parents also specified they had not allowed their child to take part because of fear of an allergic reaction to the FV or because they were absent from school. Identification of these issues may be an indicator that these issues were perceived as barriers for some.

> *Page 62: more preparatory work could have been done with the children, including colouring sheets and what would have been expected from the FV applications and tooth brushing programmes.*
> *Page 63: there was a general consensus that this [information sheet and consent forms] was clear, adequate and relatively easy to understand. However, it was recognised that some parents whose first language was not English may benefit from translation of the information. Some parents suggested that translations into Somali, Arabic and Urdu may be helpful. In both focus groups, it was suggested that the information sheet could include photographs of different stages of the fluoride varnish application which would also aid in understanding about FV.*
> *Page 65: Overall, parents were delighted to be part of the Keep Smiling Programme and were keen for the programme to continue and to be a rolling programme so that it is embedded as part of a healthy school programme.*
> *Page 67: Parents whose children did not have fluoride varnish (19% of respondents) were invited to comment on the reasons. Some of the reasons included that children with severe allergies did not have fluoride varnish application due to the potential risk of an adverse reaction in an outreach setting Other parents cited absence from school.*
> *[...]The majority of parents (96%) felt there was adequate information given about the fluoride varnish programme; only 4% of parents felt*

information was inadequate.

Page 70: The majority of parents/carers (93%) felt their children were happy with the fluoride varnish application. Of the remaining 7%, only 2% felt their child was not happy with the application and 5% responded 'don't know' to the question

[...]Parents were asked to provide any further comments about how their children responded to the fluoride varnish application; only a few comments were received, mostly in relation to the taste and feel of the fluoride varnish.

Page 71: These included offering the programme to more schools years (not just children aged 3-7 years); that the programme is run on a more regular basis; that the taste of the varnish is more palatable for children and more information is given about fluoride varnish.

Not explicit

Mariño et al. 2005 [+] Australia

The views of older migrant adults using an ethnic social club based oral health promotion intervention based in Australia described how elements of tailoring materials to their culture and language, as well as using the familiar environment of the social club setting were viewed as key to the success of the intervention.

Page 2: Participants mentioned five specific features of the intervention that they believed led to success of the program: 1. The preparation of easily understandable printed material. 2. The use of their native languages. 3. Using the venue of the clubs for the seminars. 4. Involvement in interactive weekly discussions within small groups. 5. Distribution of oral care products relevant to each individual seminar to each participant.

[...]Focus groups indicated the importance of communicating dental information through a culturally relevant approach using non- technical terms and the participants' first language.

[...] language was not the only valued feature of our approach. One participant commented that the programme style was "alla paesana",

> *like among people of the same village. Participants seemed to feel comfortable learning within the informal, friendly and culturally supportive environment of their social clubs and while sitting down sharing their world, time, information and food.*
> *[...]Participants also liked the fact that the oral health promotion programme was at the club venues. They indicated that, although the programme activities did disrupt their normal club routines [Page 3:] they saw the value of integrating health promotion more formally, and on a larger scale, into the club activities.*
> *[...]Participants were enthusiastic about the distribution of oral care products relevant to the topics in the education sessions. By attending the programme, they felt that they could now understand and use a greater variety of oral care products than they could previously. It helped them avoid buying products that they could not use or were less effective.*

The views expressed clustered around the acceptability and appropriateness of the materials; message; delivery and venue to those taking part. These elements relate to the implementation of the programme in regards to the choice of culturally appropriate setting, materials and format. The easy integration of the intervention into the routines of the target group was identified as a facilitator to success of the intervention; any may also be relevant to the implementation.

Not explicit

Yuen and Pope 2009 [-] US

Yuen and Pope 2009 specifically noted that the users' lack of familiarity with the videoconferencing technology did not act as a barrier to their utilisation of the oral home telecare intervention, or to the implementation of the intervention as a whole.

> *Page 3: Results indicated that both subjects were satisfied with the oral home telecare service and were enthusiastic about having the opportunity to use it without major difficulty.*

[...]Both subjects marvelled that they had never used anything like videoconferencing previously, but adapted to it quickly and easily after minor adjustments.

Not explicit

Blenkinsopp et al. 2002 [+] England

Blenkinsopp et al. 2002 presented client views (service users) that related to a pharmacist led public health advice intervention that covered 4 major health topics, 1 of which was oral health. The views were expressed generally and did not specifically relate to the dental intervention. The study authors reported briefly how the intervention appeared to be acceptable to the users of the service, but did not report any discussion about how this might have impacted the implementation of the intervention.

Page 9: Overall clients were very satisfied with the level of advice, 'friendliness' and customer service provided by the pharmacists.
Page 10: most clients (64 per cent) found one Level 2 session was sufficient and 32 per cent said they would have found a further appointment helpful.

Not explicit

Dental Health Foundation 2007 [+] Republic of Ireland and Northern Ireland

The 7 to 8-year-olds taking part in Winning Smiles schools oral health promotion programme were perceived to have a preference for a more in grown up style of toothbrush. The authors interpreted this as the children expressing the desire to be grown up and be like adults, and not like younger children. The authors did not explicitly state whether a particular style or colour of toothbrush was a barrier or facilitator in the implementation of the Winning Smiles intervention, which did not contain supervised tooth brushing or provision of toothbrushes. However, this observation may be of relevance to those looking to implement supervised tooth brushing or provide age appropriate toothbrushes to children of this age.

Page 26: The type and colour of toothbrush was important to the children. They felt that "Bob the Builder" brushes were for babies whereas electric toothbrushes were of some value [Dublin primary school 2].The children were intrigued with the colour of toothbrushes and how children's brushes differed in colour from those of their parents. Jill [Dublin primary school 2: 18/11/03] in particular noted, with pride, that her toothbrush was the same colour as Mary's mother's brush whereas Edward's brush was green and white. This discussion about type and colour of toothbrush seemed to illustrate the children's wish to be grown-up.

14 Appendix G: Evidence table

See separate evidence table appendix document.

15 Appendix H: Models considered for framework synthesis

1. Colagiuri S, Vita P, Cardona-Morrell M et al. The Sydney Diabetes Prevention Program: a community-based translational study. BMC public health. 2010;10:328.

2. Johnson M, Jackson R, Guillaume L et al. Barriers and facilitators to implementing screening and brief intervention for alcohol misuse: a systematic review of qualitative evidence. J Public Health (Oxf.). 2011;33(3):412-21.

3. Norton WE, Mittman BS. Scaling-up health promotion/disease prevention programs in community settings: barriers, facilitators, and initial recommendations. Patrick and Catherine Weldon Donaghue Medical Research Foundation; 2010. Available from: http://donaghue.org/wp-content/uploads/Final-Scaling-Up-Report.pdf.

4. Popay J, Attree P, Hornby D et al. Community engagement in initiatives addressing the wider social determinants of health: A rapid review of evidence on impact, experience and process. London, UK: National

Institute for Health and Care Excellence; 2007. Available from: http://www.nice.org.uk/nicemedia/pdf/SocialDeterminantsEvidenceReview.pdf.

5. Simpson DD. A framework for implementing sustainable oral health promotion interventions. Journal of Public Health Dentistry. 2011;71:Suppl-94.

16 **Appendix I: *A priori* and final framework**

A priori framework	**Definition and examples/influencing factors**	**Final framework**
1. Community level		
1.1 Prevention theory and research system	Effective methods for the dissemination of evidence/research to community/general public	Removed, not applicable.
1.2 Politics	Pressure from political bodies in the absence of provider buy-in/commitment undermines implementation efforts Perception that politically mandated policies regarding adoption/implementation of new programmes alter important outcomes	Removed, not applicable.
1.3 Funding	Necessary but insufficient factor; needs to be sufficient both in terms of money and time E.g. Block funding for project stability, diversifying funding as project develops, maintenance funding	**1.1 Funding**
1.4 Policies	Institutionalisation of new procedures and practices E.g. whole school oral health programs Supportive administrative and financial infrastructure	**1.2 Policies**
2. **Provider characteristics**		

2.1 Perceived need for innovation/new programme or intervention	Extent to which new programme is relevant to local needs E.g. Oral health programme to the homeless might not be a priority over shelter and food	**2.1 Perceived need for innovation/new programme or intervention**
2.2 Perceived benefits of new programme or intervention	Extent to which the new programme will achieve benefits desired at the local level E.g. school knows they have high levels of childhood caries, wants to improve situation, believes intervention may help	**2.2 Perceived benefits of new programme or intervention**
2.3 Self-efficacy	Extent to which providers feel that they will be able to do what is expected E.g. teachers feeling able to give oral health advice/tooth brushing demonstrations.	**2.3 Self-efficacy**
2.4 Self-proficiency	Possession of the skills necessary for implementation E.g. school nurses feel they have the skills to implement a supervised tooth brushing in their school	**2.4 Self-proficiency**
3. Programme/Intervention characteristics		
3.1 Compatibility	Contextual appropriateness, fit, congruence, match	**3.1 Compatibility**
3.2 Adaptability/flexibility	Programme modification, reinvention. Extent to which the proposed programme can be modified to fit provider needs and preferences, organisational practices, and community needs, values, norms E.g. was the intervention adapted from one deprived neighbourhood to the next as the program expanded geographically over time Programmes that must be implemented 'as is' possible in	**3.2 Adaptability/flexibility**

	the context of programmes that fit the organisations current mission, values etc.	
NA (not in *a priori* framework)	Were key intervention resources such as resource manuals, oral health leaflets etc. barriers or facilitators Was there excessive or inappropriate administration e.g. feedback, monitoring and evaluation forms.	**3.3 Intervention resources**
NA (not in *a priori* framework)	Contact time between provider and service user	**3.4 Contact time**
4. Organisational capacity		
4.1 General organisational factors	Positive work environment (sample employees views on morale, trust, collegiality, dispute resolution methods) Organisational norms regarding change - collective reputation/norms in regards to willingness to try new approaches vs. maintaining status quo (openness to change, innovativeness, risk-taking) Integration of new programme - can the new programme be incorporated into existing practices/routines E.g. Disruptiveness to regular school activities Shared vision (mission, consensus, commitment, staff buy-in regarding the value and purpose of the new programme/intervention) E.g. Different views on value/purpose of intervention across different intervention staff (frontline, managers, directors)	**4.1 General organisational factors**
4.2 Specific practices and processes	Shared decision making (local input, community participations or involvement, local ownership, collaboration) on what will be implemented and how	**4.2 Specific practices and processes**

	E.g. Community participation in designing intervention or piloting Local community input encouraged. Coordination with other agencies (partnerships, networking, inter-sector alliances, multidisciplinary linkages) bringing together different perspectives, skills and resources to bear on programme implementation E.g. Establishing links between homeless centre and local dental practices that accept homeless people (referral pathway) Communication - effective mechanisms for frequent and open communication E.g. Input/advice from dentists in school oral health programs	
4.3 Specific staffing considerations	Formulation of tasks (includes HR management, workgroups/teams, internal functioning) enhances strategic planning and delineates clear roles and responsibilities for each task Leadership (setting priorities, establishing consensus, offering incentives and managing overall implementation) Programme champion (trusted and respected individual able to rally and maintain support for the new programme, and negotiate solutions to emerging problems) Managerial/supervisory/admin support (extent to which top management and supervisors support and encourage	**4.3 Specific staffing considerations**

	providers during implementation)	
5. Prevention support system		
5.1 Training	Approaches to insure provider proficiencies in the skills needed to conduct the programme and enhance providers sense of self-efficiency E.g. training day pre-intervention implementation Adequate resources (financial, time, staff) Supportive organisation factors in place (leadership, shared vision etc.) Addresses providers skills and expectations E.g. level of training and detail of intervention appropriate for provider staff Active learning or modelling	**5.1 Training**
5.2 Technical assistance	Combination of resources offered to providers once implementation begins, including: retraining skills, training new staff, providing emotional support and promoting local problem solving efforts Early M&E prompting retraining as needed Staff turnover and appropriate contingencies E.g. different roles for volunteers (high turnover) vs. salaried staff	**5.2 Technical assistance**
6. User views		

NA (not in *a priori* framework)	Service user acceptance of the programme or intervention content, format or location E.g. whether the intervention was implemented in an appropriate language and venue	**6.1 Acceptability**