

Evaluation of Derby Smile 4 Life Oral Health Promotion Pilot

SUMMARY

- 1.1 In response to local oral health needs, Derby City Council Public Health team commissioned 'Smile 4 Life', a targeted 18 month Oral Health Promotion pilot in March 2013. The programme aimed to increase children's exposure to fluoride by regular tooth brushing in school and twice yearly fluoride varnish applications. Smile 4 Life was delivered in 6 schools in areas of disadvantage and cultural diversity.
- 1.2 Evaluation of the Smile 4 Life pilot has demonstrated the below key outcomes:
- All participating schools received training in delivering a tooth brushing programme and were given additional curriculum resources.
 - 98% consent rate was achieved for the programme.
 - 455 children received fluoride varnish, 44% received two applications.
 - A reduction in decay rates was observed.
 - Frequency of tooth brushing improved, with more children brushing at least twice a day.
 - Significant increase in oral cleanliness was measured across all settings.
 - All children taking part were given additional brushes and toothpaste to take home to reinforce skills/learning.
 - Uptake of dental visits increased.
 - No significant change in parental behaviour relating to giving sugary snacks and drinks.
- 1.3 Challenges to the feasibility of delivering this evidence-based programme within these particular schools included language barriers and transience of population.
- 1.4 Access to dental services increased. However, of those requiring treatment just under half of the children did not have their own dentist. Further work is required to engage general dental practices to expand their care for children under five, and to increase fluoride varnish applications.
- 1.5 Learning from the evaluation of Smile 4 Life has been used in the redesign of the Oral Health Promotion service specification, which includes support for supervised brushing programmes, and delivery of fluoride varnish in early years settings where expected impact is significant.

RECOMMENDATION

- 2.1 The Health and Wellbeing Board is asked to note the findings and recommendations of the Smile 4 Life Evaluation. In particular, to support the recommendations to:
- note the issues raised by the pilot, including the potential impact on health inequalities and school readiness, safeguarding, cultural issues, poor knowledge and behaviours around oral health and access to care.
 - support an integrated approach with oral health promotion being a key element in existing and future mainstream service provision, using a multi-agency and an evidence-based approach.
 - work with City dentists to increase attendance for children under 5, and to increase the availability of fluoride varnish within general dental practices.

REASONS FOR RECOMMENDATION

- 3.1 Tooth decay is largely preventable.
- 3.2 Derby performs poorly for children's oral health compared to the national average. 31% of 5 year olds examined in Derby City (2011/12) had experience of dental decay (England average 27.9%), and the average number of decayed missing or filled teeth amongst Derby 3 year olds (2012/13) was 0.73 compared with the England average of 0.36.
- 3.3 Poor oral health may result in pain and infection leading to problems with nutrition, growth, school attendance and speech. Poor oral health is more prevalent in deprived areas and also some ethnic groups. Language and cultural issues present additional barriers to access for both prevention and treatment services. Poor oral health may also be indicative of dental neglect and wider safeguarding issues.

SUPPORTING INFORMATION

4.1 The Smile 4 Life programme comprised the following activities:

- Pre-programme and post-programme dental examination for decayed, missing and filled teeth (dmft) and oral cleanliness, carried out by trained and calibrated dentists.
- Two applications of fluoride varnish to teeth carried out by a member of the dental team within 18 months.
- Support for implementation of tooth-brushing programmes in schools.
- Development of a curriculum pack and educational resources to promote oral health messages.
- Dissemination of take-home tooth brushing kits.
- Pre-programme and post-programme parent questionnaires on children's oral health promoting behaviours such as visiting the dentist, tooth-brushing and diet, and parent's social norms, perceived behavioural control and attitudes towards these behaviours.

4.2 Evaluation consisted of collecting and analysing the following data:

- Consent and participation rates by school.
- Clinical data which measures the dmft (decayed, missing and filled teeth) and cleanliness of teeth.
- Questionnaires to parents/carers in target classes
- Staff questionnaires
- Feedback from the Oral Health Promotion team

OTHER OPTIONS CONSIDERED

5.1 N/A

This report has been approved by the following officers:

Legal officer Financial officer Human Resources officer Estates/Property officer Service Director(s) Other(s)	Olu Idowu Dr Cate Edwynn, Director of Public Health Madeleine Braithwaite, Oral Health Promotion Service
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List of appendices:	Appendix 1 – Implications Appendix 2 – Smile 4 Life Evaluation Report
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IMPLICATIONS

Financial and Value for Money

1.1 None

Legal

2.1 None

Personnel

3.1 None

IT

4.1 None

Equalities Impact

5.1 There are significant inequalities in oral health and the Smile 4 Life programme, in targeting those at greatest risk of poor oral health, addressed local inequalities. However, the questionnaire that went to parents was not provided in a range of formats to make it accessible for disabled parents and parents who have English as a second language.

Health and Safety

6.1 None

Environmental Sustainability

7.1 None

Property and Asset Management

8.1 None

Risk Management

9.1 None

Corporate objectives and priorities for change

10.1 Derby's Oral Health Promotion service and the Smile 4 Life programme, contribute towards achieving the aims of the Joint Health and Wellbeing Strategy.

