CHILDREN, YOUNG PEOPLE AND FAMILIES

ORAL HEALTH

i. Summary

Oral Health is defined as the 'standard of the oral and related tissues which enables an individual to eat, speak and socialise without active disease, discomfort or embarrassment and which contributes to general well-being' (Department of Health. An Oral Health Strategy for England. London: Department of Health (1994))

Poor oral health resulting in dental decay or gum disease can lead to pain and sepsis, limit food choices, days lost from school and work; and untreated disease can also lead to facial disharmonies and speech difficulties. Oral cancer closely linked with cigarette smoking and excessive alcohol consumption has poor survival outcomes. People are susceptible to oral diseases at all ages and people in Salford have some of the highest levels in the region and in England.

Inequalities in oral health reflect broader health differences across the population, both in terms of pattern and cause. Socio-economic factors are recognised as being key determinants of oral health inequalities. This pattern is particularly strong amongst young children.

Despite general improvements in oral health in recent decades, dental diseases remain common. People most affected are those living in disadvantaged communities, and the high prevalence of decay highlights the need for effective oral health promotion, particularly with families with pre-school children.

The measure that is used to describe oral health, reflecting the extent of dental caries (rotting teeth) in children, is the number of decayed, missing or filled teeth (dmft).

ii. Key issues and gaps

- The most recent dmft data that provides an accurate estimate for Salford is from 2005/06. dmft of five year olds was 2.42; 20% higher than the average for the North West (2.00) and over two thirds higher than the average dmft for England (1.47)
- Lack of more recent data (due to difficulties with delivering the survey)
- Need to re-invigorate oral health promotion across Salford e.g. by conducting a campaign; work towards delivering consistent dental health messages citywide (to include promoting twice daily brushing) and increase uptake of dental (preventive) services
- Promote the link between oral health and diet and nutrition
- Low uptake of fluoride by the target group – i.e. using fluoride toothpaste
- Low uptake by the target group accessing a dentist/low uptake of services provided
- Improved partnership working with Children's Centres and other key stakeholders.

iii. Recommendations for commissioning

- Commission to provide new services linking dentists to Children's Centres
- Work toward specification of defined preventive practice within dental contracts and campaign to enhance service use and promote dental health messages
- Commission new survey of dental health of five-year-olds to provide accurate baseline data
- Develop common core pack of dental messages (prevention), aligned (and integral) with healthy eating and hygiene advice, and commission training for all those working with children in Salford.

1. Who is at risk and why?

1.1. All ages are at risk of poor oral health, with children at higher risk of tooth decay. This is because teeth erupting into the mouth are more susceptible as the outer enamel covering of the tooth continues to acquire mineral, especially fluoride where there is a frequent source, for example through twice-daily toothbrushing.

1.2. The first teeth erupt from six months, with all the primary teeth erupted by around 2.5 years of age. However, by the time they are five years old, more than half of all Salford children have experienced tooth decay. These are some of the worst figures in the North West (Ref: Salford oral health strategy), with no improvement since the early 1990s.

Average dmft	1991/92	1993/94	1995/96	1997/98	1999/2000	2001/02	2003/04	2005/06
Salford	2.99	2.89	2.88	2.32	2.32	2.37	2.45	2.42
North West	2.43	2.59	2.40	2.15	2.16	2.13	2.17	2.00
England	1.67	1.74	1.63	1.47	1.43	1.47	1.49	1.47

These figures show the high priority that needs to be given to effective oral health promotion for families with pre-school children.

1.3. In addition to high decay levels, Salford has lower levels of dental disease treated by fillings, as those most at risk are the least likely to visit the dentist. Children who visit the dentist regularly rather than only when they have symptoms have better oral health.[1]

1.4. The main risk factors for poor oral health are frequent sugary foods and drinks and a lack of twice-daily brushing with a fluoride toothpaste. Fluoride in drinking water, whether naturally occurring or added, is protective against dental decay. Work continues to determine if this

public health intervention is feasible and affordable to provide across Salford. The technical issues are about how water flows into the Salford area and where it comes from. The water supply in Salford is linked to that of neighbouring areas. All the North West PCTs with the Strategic Health Authority (SHA) are examining the feasibility of water fluoridation (Ref: strategy –p19). However, work has halted whilst there is a judicial review in the south of England.

In the meantime, fluoridated toothpaste remains the only population method of enhancing fluoride availability.

1.5 Locally, Salford has a Local Performance Indicator: *Prevalence of dental decay in children aged five years*

2. The level of need in the population

2.1. Description of current level of population need

Salford's children have the sixth highest levels of decay experience (2006/07) within the Strategic Health Authority. Poor dental health in children is a primary cause of lost days from school, with toothache leading to a loss of sleep and limiting food choices. Extraction of decayed teeth is the most frequent reason for planned hospital day cases in Salford for children under 11 years.

2.2. Changes in need since the last JSNA

The ward boundaries have changes since the last JSNA.

The survey data for 2007/08 has only just been published but due to the need to obtain positive parental consent for the first time to complete the dental screening, only 50% of children were examined and the data is not a valid estimate. Since then the Community Dental Service (provider arm) has set up a consenting process for dental examinations as part of school registration. Therefore, a new survey should be able to include a representative sample of children.

It is evident from the 2005/06 data, and comparable data across the UK, that children living in the deprived wards have the highest levels of dmft compared to those living in the least deprived wards. Similarly, those people in the least deprived wards are more likely to have visited the dentist in the last two years.

2.3. The gap between Salford and England

Severity of dental decay at age five years (2005/06):
England - 1.47 dmft per child
Salford - 2.42 dmft per child

The geographical data within Salford is due to be updated in April 2010. Previous results (2005/06) at age five show that Broughton has the highest percentage of dental decay, at 70-75%, followed by six wards where the percentage is between 60 and 69%; these are Little Hulton, Walkden North, Barton, Weaste and Seedley and Langworthy and Ordsall.

2.4. Salford versus its statistical neighbours

The table below show how Salford compares to its statistical neighbours in terms of children aged five years with dental caries between 2005/06 in Great Britain.

Region/ PCT	dmft
Salford	2.42
South Tyneside	2.15
Middlesbrough	2.84
Newcastle-Upon-Tyne	2.28
Hartlepool	1.20
Halton	2.09
Knowsley	3.02

Gateshead	1.69
Tameside	2.24
Sunderland	2.39

Two equity audits are underway: one to determine the proportion of children in Salford who have accessed dental services in a recent 12-month period, the other an equity audit on frequency of tooth brushing and sugary drinks in babies in Salford.

3. Data and information

3.1. Data sources

- National surveys of dmft have been undertaken bi-annually since 1986 at local (LA/PCT) level, giving regional data. The North West Observatory is the lead Public Health Observatory for dental data for England
- National surveys of child and adult dental health are undertaken every 10 years; the adult survey is being conducted in 2009[2]
- North West Children and Young People's Health Indicators are a source of all data surrounding health issues to such groups with a rank and comparison against the North West average.[3]

3.2. Data quality

- Dmft data for children aged five is not available below LA level across England but will be available in Salford in 2010. Data for 11-12 year-olds is available every four years. Data for dental health is only assessed at these two age groups. Reporting was previously completed bi-annually but is to be four times a year in the future
- Local surveys to calculate ward-level dmft were undertaken in 2005/06 (aged five only), with an update planned for April 2010
- Data on adult dental health for Salford is limited. Data could be obtained for adults who attend a dentist via the Dental Practice Board or through commissioning specification within contracts.

4. Information on performance from regulators

No information available

5. Current service provision in relation to need

5.1. Places where children access education, health or social care are key target areas for delivering oral health promotion. Key personnel within these settings will be trained and resourced to deliver consistently the key oral health improvement and protection messages. For example, each Children's Centre will have regular visits by an extended duty dental nurse, who will be able to provide more advice to those parents requiring it and also provide preventative treatments, such as the application of fluoride varnishes, to high-risk children. The extended duty nurses will also be able to refer children to see a dentist should it be required.

5.2. In order to facilitate access, each Children's Centre will have a buddy dental practice that will accept such referrals. This programme is an excellent example of using resources to target evidence-based treatments at those individuals who need it most.

- The majority of NHS dental services are provided by general practitioners who now operate under a new contract, known as nGDS. As of June 2007, Salford has 31 practices, staffed by 92 dentists (not whole time equivalent (WTE)) and their teams, which include therapists, hygienists, dental nurses and receptionists. Orthodontics in Salford primary care is offered by five practices, three of which are limited to the provision of orthodontic treatment only.
- Salford introduced the new contractual arrangements with the primary care dentists in 2006. The new contract offers opportunities for innovative practice that were not possible under the old GDS system.
- Formerly known as the Community or Salaried Dental Services, the Salford team comprises nine non-WTE dentists and two non-

WTE therapists who are supported by a dental nurse team. They provide specialist clinical services in paediatric dentistry and sedation as well as offering dental care to those with disability and impairment.

- The PCT-DS provides clinical services at clinics in Lance Burn Health Centre, Ordsall Health Centre, Little Hulton and Swinton Clinic, Lower Broughton and the newly established Mocha Parade. They also deliver a substantial outreach teaching programme to undergraduates from Manchester Dental School and the Greater Manchester School for Professions Complimentary to Dentistry
- Treatment for children using inhalation sedation is offered and on average, 1,000 episodes of care using this service are offered each year. A children's dental extraction list is operated by Salford staff at a local hospital where approximately 1,600 extractions are conducted each year
- Hope Hospital offers consultant-led services in both oral and maxillofacial surgery and Orthodontics. These services receive around 1,700 referrals each year
- The Manchester Dental Hospital provides a limited referral service for restorative dentistry, oral medicine and oral surgery.
- The primary care dental practices and the Manchester Dental Hospital access service provides much of the in-hours unscheduled care. With the introduction of the new GDS contract it was hoped that more practices would see and treat patients in pain who were not previously on their lists. However, such patients are still experiencing difficulties in accessing dental services.

5.3. Salford PCT sees tackling inequalities in health as a major role. In line with best practice and Choosing Better Oral Health, the Oral Health Improvement Team (OHIT) was integrated into the Public Health Team. This decision was designed to ensure that oral health promotion is firmly linked with other health promotion activities to ensure a holistic

approach. The individuals working in the OHIT are key to delivering some of the new targets within this strategy.

Salford PCT is taking an evaluative approach to the establishment of new services and working in partnership with the University of Salford to access additional specialist resource to enhance service provision and health promotion.

6. Programme budgeting and resources

Programme budgeting does not apply to this topic [4]

6.1. Resources

The Oral Health Improvement Team consists of three Oral Health Improvement Officers, two Band 5 and one at Band 4. Two are full time, the other part-time, working 20 hours a week.

7. Relevant research and evidence base

- Delivering Better Oral Health – an evidence based toolkit for prevention (second edition). Department of Health [5]
- Valuing People's Oral Health: A good practice guide for improving the oral health of disabled children and adults (2007) Department of Health[6]
- Choosing Better Oral Health: An oral health plan for England (2005) Department of Health [7]
- Dental screening (Inspection) in schools and consent for undertaking screening and epidemiological surveys (2007) Department of Health.[8]
- Nutrition and Dental Health, Guidelines for professionals (revised 2008) NICE [9]
- Is dental health education effective: a systematic review of current evidence (1997) NICE. [10]
- Cost-effectiveness of a long-term dental health education program for the prevention of early childhood caries (2008) NICE [11]

8. Community engagement

8.1. Community engagement evidence

- The Oral Health Team currently delivers a number of interventions in the school setting, including supporting milk fluoridation schemes and daily toothbrushing with fluoride toothpaste. The milk fluoridation scheme will be phased out to be replaced by school-based fluoride toothbrushing programmes, which is the best evidence-based prevention
- The School Fruit and Vegetable Scheme, School Gardens (Grow Your Own), and Water in Schools schemes promoted by the Healthy Schools programme can support improvements in dental health
- Similarly, in the community, the Community Food Workers support parents of children 11 years and under to be confident about choosing and cooking affordable and healthy food

- Weaning groups are held in Children's Centres to promote a healthy balanced diet in babies from six months and reduce the onset of childhood obesity.

8.2. Planned community engagement:

- Audit existing brushing programmes in schools
- Develop and implement a Salford-wide social marketing campaign to encourage dental attendance and the health message of twice-daily brushing
- Develop a "professional hub" in an identified locality where the general medical practice, general dental practice, pharmacy, school nurses, midwives and health visitors would build in cross-referral to the dental practice for all children in the community
- A dental health clinical trial is to be carried out in conjunction with Salford City Council, the University of Salford and other academic partners to carry out a randomised controlled trial embedded in the community via Sure Start Children's Centres.

  Families with a child approaching their first birthday will be asked to participate in this two-year study to determine the outcome of a new dental service linking dental practices to a local Children's Centre designed to promote attendance for routine care and reduce barriers to access. A further group of families will be assigned to a group receiving training in increasing the frequency of toothbrushing and establishing a healthy, sugar-free bedtime routine. A third group will be offered six-monthly applications of a fluoride varnish delivered by a dental care professional (DCP) in the Children's Centre setting.

  Each of the participating children will have a dental examination at age three to collect dmft data, and the relative costs and benefits of the three preventative services will be evaluated.

9. Unmet needs and service gaps

9.1. There is a need to improve access and reduce the inequalities in uptake of care across all age groups. Existing services need to be re-orientated

from repair to prevention, and specialist services need to be closer to home.

9.2. It is known that dental care within Salford is being provided for people who are known to be resident outside of the city and some Salford residents visit a dental practice nearer their place of work, which may not necessarily be within the Salford boundary.

9.3. There is no indication that the quality of dental services is below average. Therefore, untreated tooth decay in children may indicate a block to access, either from families not seeking regular dental care, or providers not offering sufficient services convenient to patients in locations that are accessible or at suitable opening times. However, not filling young children's teeth is common in many countries and it is better to focus resource on primary prevention rather than reparative services.

9.4. There is strong evidence for the benefits of water fluoridation in improving oral health and reducing health inequalities; however, water fluoridation is a controversial issue. The level of fluoride in the water in the whole of Greater Manchester is at less than 0.49mg/l (the current standard being 1.5mg/l) and there is no Health Authority fluoridation scheme in place. In other deprived areas where poor oral health may be expected but fluoride is either naturally high or is added to drinking water, the dmft survey results are much better. However, there have been public concerns over any possible health risks of water fluoridation.[12] There is a new legislative framework governing the consultations and assessment of public opinion that strategic health authorities need to undertake where they propose to make arrangements with a water company to increase the fluoride content of a water supply [13].

9.5. At the last national survey of children's oral health and service usage in 2003, only 1-2% of children used non-NHS dental services, and at five

years old, only 6% of children had not visited the dentist [14]. Within Salford, it is likely that the use of non-NHS dental services is low for children, considering that Salford is the fifteenth most deprived local authority. There is no comparable data with the national survey available but given the amount of deprivation in the city and dental caries/disorders of teeth being the top reason for general anaesthesia in children aged 5-14 (2007/08), this suggests that locally, far fewer children visit the dentist compared with the rest of England.

10. Recommendations for commissioning

- Commission services based on preventative care in line with 'Delivering Better Oral Health'
- Strengthen links with nutrition services and Healthy Schools programmes
- Undertake a social marketing exercise to encourage regular visits to the dentist
- Improve provision and access to specialist services
- Undertake an audit of dental capacity, locations of patients who attend each dentist
- Work to ensure the specification of oral health promotion within provider services and all those in Salford who work with children.

11. Recommendations for further needs assessment

- School-based dmft survey for ages five and 11. (Age five to begin April 2010)
- Survey attitudes to accessing services to identify barriers
- Complete an equity audit of access to dental services and prevalence of oral health-related behaviours
- Explore dental attitudes in future lifestyle survey
- Undertake analysis of primary children who have had more than four dental extractions under general anaesthetic
- Introduce a city-wide toothbrushing programme starting in all Children's Centres and progressing to at least aged seven in primary schools.

References

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2. Results of five year old children's survey, 2007/08. http://www.nwph.net/dentalhealth/survey-results.aspx

3. North West Children and Young People's Health. http://www.nwph.net/cayphi/profile.aspx

4. Programme budgeting: the DH Programme Budgeting project provides a retrospective appraisal of NHS resources broken down into programmes, with a view to influencing and tracking future expenditure in those same programmes to achieve the greatest health improvement per pound spent in the NHS.

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