Oral Health

Introduction

Adult and child oral health in England has been improving over the past 30 years, this has been evidenced by surveys co-ordinated by the British Association for the Study of Community Dentistry and the national decennial surveys for Child and Adult Dental Health. The main reason for the reduction has been the widespread use of fluoridated toothpaste since the 1970s.

Good oral health is an integral part of overall health. Poor dental health impacts on general health in the following ways:

difficulty with speaking due to loss of teeth,
inability to enjoy foods,
affects the quality of life by causing pain and sensitivity and affects self-esteem.

The Department of Health has included oral health as part of a bigger programme of public health initiatives to ensure healthier lifestyles are more easily adopted. Choosing a Better Diet (DoH, 2005) emphasised the need to reduce sugar consumption to 11%. Choosing Better Oral Health (DoH, 2005) recognised the common risk factor approach (Sheiman, 2000) i.e. that chronic diseases such as obesity, stroke, cancers etc and oral disease have a common risk. A poor diet, combined with smoking and heavy alcohol consumption together contributes to the development of different chronic diseases as already mentioned.

Since April 2013 responsibility for commissioning oral health promotion and dental epidemiology transferred to local councils. Bedford Borough Council has the commissioning responsibility for oral health commissioning and since April has been in liaison with Public Health England (PHE) and the Hertfordshire and South Midlands NHS England Area Team in commissioning evidenced based health. Closer partnership working with PHE will ensure evidenced based fluoride interventions are commissioned by Bedford Borough Council to efficiently and effectively reduce dental decay especially in children.

The dental health of the average child in Bedfordshire is relatively good when compared to the dental health of the average child in England. This has been evidenced in the recent national BASCD survey (British Association for the Study of Community Dentistry) of five- year-olds for 20011/12 and of twelve-year-olds for 2008/2009.

The BASCD survey of 20011/12 shows the percentage of five year old children free of decay experience in Bedford Borough to be 74.8% whilst the average England figure is 72.1.%. Children free of decay experience in Bedford Borough, amongst the 12 year old children, is 69.6% whilst the average England figure is 66.6%. Both results show Bedfordshire children to have slightly better dental health than children living in other areas of England. Evidenced based fluoride interventions have helped contribute to improve oral health in children, these include use of fluoride toothpastes as well as water fluoridation. However, there are still substantial improvements to be made, as these figures mask oral health inequalities. Socially disadvantaged children experience disproportionately high levels of dental disease.

Services commissioned to improve oral health focus on reducing oral health inequalities by reducing the decay experience of 5 year old children, providing better access to dental services for young infants and for looked after children. The Oral Health Education programmes commissioned helps parents and carers with children access knowledge on improving and maintain good oral health. Oral Health Education material has been commissioned for the elderly to help them understand more about self-care as well as enabling carers provide for the elderly in their care good oral hygiene.

Oral health includes maintaining healthy oral tissues. Tobacco smoking is known to cause oral cancer as well as causing gum disease. In addition to focussing on reducing dental decay, it is important to introduce smoking cessation Level 2 services within dental practices so that patients have more opportunities in different primary care settings to give up smoking.

What do we know?

Nationally the prevalence of dental decay in young children has decreased substantially over the past 40 years. The greatest improvement in the decay experience of five-year-olds was seen between 1973 and 1983, during which time the mean number of decayed, missing and filled teeth (dmft) per child halved and the percentage of children without any caries (caries free) doubled. However trend data (data prior to 2006) suggest that caries disease levels are now static.

Locally the results have shown a decline in dental caries as noted by BASCD surveys. The results of the national dental survey of five-year-old children carried out in 2011-2012 is shown in Table 1.

Socially disadvantaged children experience disproportionately high levels of dental disease. This is reflected in the table below (Table 1) comparing Bedford Borough, which has more social deprivation, and Central Bedfordshire. There are still substantial improvements to be made, as these averages mask oral health inequalities.

Table 1 compares the mean dmft for Bedfordshire for all five year olds compared to the dmft in children who have had decay experience. The figures show that there are inequalities as the children who have decay experience have three teeth affected more than the average five year old child.

Table 1: Mean Decayed, Missing and Filled Teeth (dmft) in <u>all</u> Children aged 5 years (low is good)

Year	England	Bedford Borough Council	Mean dmft <u>only</u> in children who have experienced decay within Bedford Borough
2007/08*	1.11	0.94	2.98
2011/12	0.94	0.83	3.38

Source: BASCD data

Public Health England has published a Dental Health Profile for 5 year old children in Bedford Borough (2011/12 data). This links deprivation and dmft scores, showing

there is a higher dmft in areas of greater disadvantage. This can be downloaded here:
http://www.nwph.net/dentalhealth/5yearoldprofiles/East%20of%20England/Bedford%20LA%20Dental%20Profile%205yr%202012.pdf

Table 2 below shows the DMFT scores in 12 year children. Again the figures show that children living in Bedfordshire have better dental health than the average child in England, however inequalities do exist when comparing mean DMFT score for the number of teeth affected by caries with the mean DMFT score in children who have decay experience.

Table 2: Mean Decayed, Missing and Filled Teeth (DMFT) in children aged 12 years (low is good)

Year	Mean Decayed, Filled Teeth In England	Mean Decayed, Filled Teeth in Bedford Borough	Percentage of children with experience of decay in Bedford Borough	Mean DMFT of children who have had decay experience	Mean number of decayed teeth
2008/09	0.74	0.63	69.6	1.61	0.25

Source: BASCD 2008/09 data

As well as disadvantaged groups experiencing more dental decay, there is evidence[i] that cigarette smoking is responsible for the gap in life expectancy between socially advantaged and disadvantaged groups. So as well as other primary care health professionals being involved in smoking cessation dentists could help to reduce the life expectancy gap.

Table 2 below shows the dmft scores in 3 year old children. The national dental survey on 3 year child was the first time this age group has been selected. The results below show that inequalities exist from a very young age. This age have been the first to have been born at a time without water fluoridation and have continued to live without water fluoridation.

Table 3: Mean Decayed, Missing and Filled Teeth (DMFT) in children aged 12 years (low is good)

Year	Mean Decayed, Filled Teeth In England	Mean Decayed, Filled Teeth in Bedford Borough	Percentage of children with experience of decay in Bedford Borough	Mean dmft of children who have had decay experience	Mean number of decayed teeth
2012/13	0.36	0.37	10.8	3.40	0.33

Source: BASCD 2012/13 data

Public Health England national dental epidemiology survey of oral health in five-year-old and twelve-year-old children attending special support settings was conducted in 2014. There were not enough children who had consented to take part in examinations locally in Bedford Borough, however, nationally 22% of five year old of children attending special support settings had dental caries experience. Amongst twelve-year-old children, 29% of children attending special support settings had dental caries experience.

National & Local Strategies (Current best practices)

The Cochrane systematic review (Iheozor-Ejiofor, 2015) noted that fluoridation would increase children with deciduous teeth free from decay by 15% and 14% of children with adult teeth free from decay. The findings as based on classical studies undertaken some time ago.

To reduce inequalities in oral health water fluoridation is being reviewed locally.

In keeping with guidance from Delivering Better Oral Health, local dental practices are encouraged to provide preventive treatment to patients. The use of fluoride varnish is also being promoted through the Community Dental Service community Interest Company.

What is this telling us?

The clinical unmet need has been identified from the BASCD surveys. The Community Dental Service Community Interest Company has been commissioned to provide Oral Health Education and preventive fluoride intervention. The service will also be evaluating the Oral Health education programme to ensure materials are continuously improved.

What are the key inequalities?

Evidence through epidemiology surveys have confirmed that poor dental health goes hand in hand with social deprivation. People living in these areas are more likely to have diets high in sugars and with less frequent use of fluoridated toothpaste at the correct concentration. Socially disadvantaged children experience disproportionately high levels of dental disease. Children and adults with special care requirements are more likely to have teeth affected by dental decay.

What are the unmet needs/ service gaps?

The clinical unmet need has been identified from the BASCD surveys. The Community Dental Service Community Interest Company has been commissioned to provide Oral Health Education and preventive fluoride intervention. The service will also be evaluating the Oral Health education programme to ensure materials are continuously improved.

The results of the above will help to update the oral health needs assessment to ensure services are commissioned to improve dental services to meet the needs of the population.

Recommendations for consideration:-

Improvements in oral health should continue to focus on reducing oral health inequalities by reducing the decay experience of 5 year old children by providing Oral Health Education and encouraging the use of fluoride intervention, providing better access to dental services for young infants and for looked after children.

Improve oral health of Looked After Children

Implement Smoking Cessation Level 2 service within dental practices

Bedford Borough Council to ensure all commissioned oral health promotion programmes are evidence based

References:

Choosing Health: Making Healthier Choices Easier, DoH 2004

Delivering Choosing Health: Making Healthier Choices Easier, DoH 2005

Choosing a Better Diet: a Food and Health Action Plan, DoH 2005

Choosing Better Oral Health :An oral health plan for England DoH 2005

Sheiman A Watt R (2000)

Delivering better oral health- an evidenced based tool kit' DoH and BASCD 2009 2nd edition gateway 12231

Dental Public Health Oral health survey of five-year-old and 12-year-old children attending special support schools 2014, Public Health England September 2015, gateway 2015218

Zipporah Iheozor-Ejiofor et al , Cochrane library: Water Fluoridation for the prevention of dental caries, June 2015