Children and Young People Committee
CYP(4)-03-11 Paper 4

22 September 2011

NHS Dental Surveys in Wales co-ordinated by The British Association for the Study of Community Dentistry

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Date: 15 September 2011	**Version:** 1

Publication/ Distribution:

- National Assembly for Wales Children and Young People Committee Inquiry into Children's Oral Health

Review Date: Not applicable

Purpose and Summary of Document:

This is a briefing paper for the National Assembly for Wales Children and Young People Committee Inquiry into Children's Oral Health on the BACSD surveys in Wales. It describes the context, processes and challenges associated with these surveys of relevance to the Designed to Smile programme and outlines current thoughts on future surveys.

Work Plan reference: Insert reference from relevant national or local work plan

1 The need for dental survey data

Unlike medicine, there is no data on the health of the population generated from the interactions between patient and general dental practitioner. Thus for monitoring of dental health and planning of dental services we are dependent upon specially conducted surveys. These surveys include the decennial Adult and Child Dental Health Surveys, funded by the UK Governments and undertaken by the ONS in conjunction with a number of Universities using local NHS community dental staff to undertake some of the field data collection and the BASCD surveys. Child Dental Health Surveys have been undertaken in 1973, 1983, 1993 and 2003. The position for 2013 is unclear. Adult Dental Health Surveys were undertaken in 1968, 1978, 1988, 1998 and 2009. In addition as a one-off the ONS undertook a National Diet and Nutrition Survey of a range of age groups in the 1990's which included collection of some dental health data.

The BASCD surveys are undertaken for the UK governments by local NHS staff in a programme co-ordinated across the UK by the British Association for the Study of Community Dentistry. They commenced in 1985/6 across Wales and England (Dowell 1988). The use of BASCD standards and co-ordination is intended to provide consistency and quality assurance to ensure data is comparable from year to year and across locations. While the ONS surveys examine a relatively small number of individuals, once a decade and go into detail on oral health, factors which influence dental health and use of dental services (e.g. reporting at all-Wales level), the BASCD surveys generally examine larger numbers of children, more frequently for a narrow range of oral health indicators. Thus the BASCD surveys provide more local detail at Unitary Authority level for key information such as reported decay levels.

2 The survey programme

Until 2006 the BASCD survey programme consisted of a 4 year cycle in which children aged 5, 12, 5 and 14 years of age were examined (technically in Wales we have examined a school year, e.g. school year 1 for 5 year old data so some children will be age 6 by the date of examination, but the mean age of children examined is about 5 ½ years). Problems with access to 14 year olds in many

parts of the UK led to decisions to change the programme from 2006. In Scotland the cycle is now 5, 12, 5, 12 year olds examined. In Wales we seek to examine 5 and 12 year olds at least once in each 4 year cycle with 2 flexible years in the programme. This would allow us to either see 5, or 12 year olds again, examine other child age groups or to examine the oral health of adults.

In 2006/7 with the support of the Office of the Chief Dental Officer we undertook a survey of oral health policy and access to dentistry for registered care homes in Wales which highlighted a number of issues. This was followed up with a survey of the oral health of care home residents from 2009/2010 which is intended to complement the recent Adult Dental Health Survey. This care home data is about to be cleaned and analysed and will be reported on in 2012.

3 Changes to consent arrangements

In 2006, shortly after the decision to undertake a more flexible survey programme was made, the traditional "opt-out" approach to consent for these surveys (which relied upon the wording of the 1944 Education Act and then the 1996 Education Reform Act in relation to a "dental inspection" in a school setting) was reviewed by Department of Health lawyers in England and then Assembly legal advisors in Wales. Guidance was issued to NHS Wales that in future such examinations of teeth required either "Gillick competent" consent of the 12 year old child or positive consent of the parent for 5 year olds.

As it happened the Education Act legislation and consent law for children generally had been reviewed in the mid to late 1990's and this possible interpretation of the Education Acts had been forseen. As a result in Wales the approach of using "Gillick competent" consent for 14 year olds and then for 12 year olds had been piloted in 2002/3 and 2004/5 respectively. Analysis of the findings in Wales suggested that introduction of "Gillick competent" consent would have negligible impact on the reported caries indices (Morgan and Monaghan 2010).

For 5 year olds the changed approach to inclusion of children has had an impact upon the reported caries indices. Until 2005/6 we had data collected every 2 years with data collected to a consistent approach showing a trend in Wales which suggested mean caries in Welsh 5 year olds was flat lining after a previous period of

reductions. In 2007/8 the introduction of changed consent method appears to have resulted in a small drop in participation in the surveys for children without caries, but with a huge drop in participation in the surveys for children with caries (Monaghan, Jones, Morgan 2011). These changes are present across the quintiles of deprivation. These changes were also seen in England where changed consent arrangements were also required (). Taken on face value the reported "improvement" in decay levels in England and Wales from 2005/6 to 2007/8 exceeded anything which could be expected from a large scale decay prevention programme and no such programmes were in place. Scotland did show smaller improvement in decay levels in those years and they had already implemented for a few years pilot child toothbrushing schemes in the East of Scotland.

4 Caries trends in Wales

Data on trends in caries data for 5, 12 and 14 year old BASCD co-ordinated surveys are presented in Tables 1 to 3. There has been a steady trend of reduced prevalence of decay in the permanent teeth (noted by dentists as Decayed, Missing or Filled Teeth – DMFT) among 14- and 12-year-olds and a steady reduction of the average number of teeth affected by decay (see tables 1 and 2) in these age groups.

Table 1 Trends in 14 year old caries in Wales 1986 Until 2003

	Mean Decayed Missing Filled Teeth	Caries free
1986/7	4.03	16%
1990/1	2.77	28%
1994/5	2.27	36%
1998/9	2.25	37%
2002/3	2.10	40%

[Sources: BASCD and Welsh Oral Health Information Unit]

Table 2 Trends in 12 year old caries in Wales 1988 Until 2009

	Mean Decayed Missing Filled Teeth	Caries free
1988/9	1.90	37%
1992/3	1.51	45%
1996/7	1.49	45%
2000/1	1.31	49%
2004/5	1.09	55%
2008/9	0.98	58%

[Sources: BASCD and Welsh Oral Health Information Unit]

The steady improvement of decay in teeth of older children contrasts with the relatively steady state of the proportion of 5-year-old children affected by decay of deciduous teeth (decayed, missing and filled teeth – dmft) and of the mean number of teeth so affected per child as shown in Table 3.

Table 3 Trends in 5 year old caries in Wales 1985 until 2008

	Mean decayed missing filled teeth	Caries free
1985/6	2.52	43%
1987/8	2.27	46%
1989/90	2.65	43%
1991/2	2.74	41%
1993/4	2.52	46%
1995/6	2.36	47%
1997/8	2.50	43%
1999/2000	2.18	48%
2001/2	2.26	47%
2003/4	2.42	46%
2005/6	2.38	47%
2007/8	1.98*	52%*

*(*New consent arrangements in 2007/8 – data not comparable)*

[Sources: BASCD and Welsh Oral Health Information Unit]

The sudden reported change in the prevalence and severity of decay in table 3 is related to changes in the consent arrangements and is in excess of anything expected over a 2 year time scale which could be expected from any new preventive programme. It also predates the main roll-out of the Designed to Smile programme. The change was seen across all quintiles of deprivation which would not be expected if it was due to Designed to Smile which is targeted to deprived communities.

The changed consent arrangements represent a loss of trend data for Designed to Smile and complicate target setting and evaluation. It is thought to be unlikely that the consent changes will be reversed. Thus to complement the 2007/8 data we are collecting data of 5 year olds again in 2011/2012. This will give us a second data point and therefore a feel as to the direction of travel.

5 Data collection and future surveys

Data is collected by community dental staff during the school year. At any one time there are three surveys creating work including planning for next year's survey, collection of data for this year's survey and data cleaning, analysis and reporting of last year's survey. Thus the 2011/2012 survey will be reported upon in the first half of 2013. The forward programme for the BASCD survey programme is co-ordinated across the UK such that training and calibration can support the survey needs in each UK country and generate data contemporaneously.

Table 4 Draft survey programme as of September 2011

Year	Group	Possible surveys
2011/2012	5 year olds	
2012/2013	12 year olds	
2013/2014	Flexible	5-yr-olds for 3rd +ve consent survey?
2014/2015	Flexible	Older people survey? or prison survey?
2015/2016	5 Year olds	
2016/2017	12 year olds	
2017/2018	Flexible	
2018/2019	Flexible	
2019/2020	5 year olds	
2020/2021	12 year olds	

Within Wales, alongside providing routine data to support planning and evaluation of dental health and care we seek to take advantage of opportunities presented by ONS led surveys to explore areas of need yet unexplored and to provide the data which Designed to Smile is intended to impact upon. Looking forward the draft programme for data collection is outlined in Table 4. Current plans are to use a flexible survey year to collect 5-year-old data to assist in evaluating Designed to Smile. This will limit the ability to use these years to examine other areas of dental need in Wales.

6 References

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