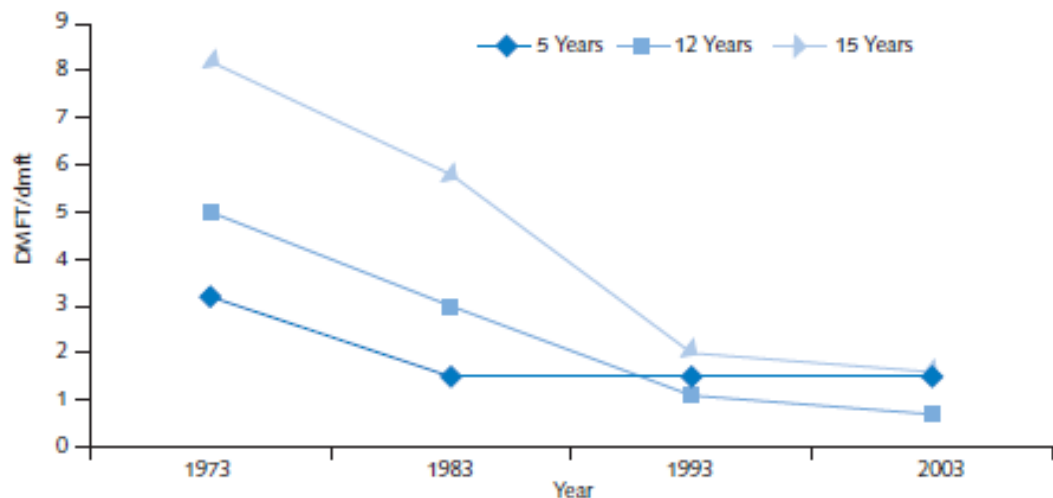


Oral Health of Children and Young People in Oxfordshire

1. Background

UK surveys of Children's Oral Health are undertaken every 10 years with more frequent NHS epidemiological surveys for England being carried out in between. The last UK wide survey was in 2003 and the last England wide survey in 2007/08. These surveys show that the dental health of children (measured by mean number of decayed, missing or filled teeth) has largely improved over the past 40 years and that the greatest improvements have been seen in older children. In younger children the greatest improvement in decay rates was seen between 1973 and 1983, during which time the number of decayed, missing or filled teeth (dmft) per child halved and the percentage of children who were caries free doubled (Figure 1). During this period fluoride toothpaste was widely introduced. Since 1983 the trend in oral health of five year olds seems to be slightly worsening following a long plateau. If the burden of disease in young children is rising this is a cause for concern that requires more action.



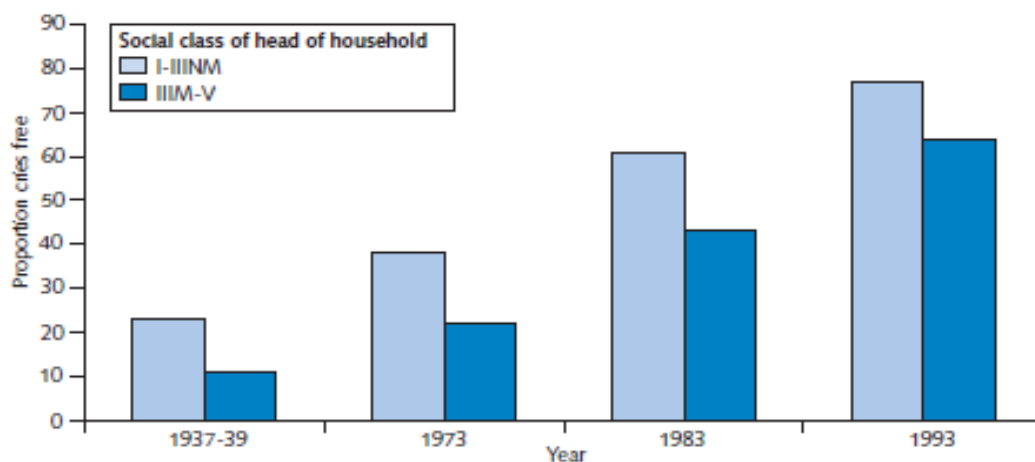
Source: National Children's Dental Health Surveys 1973 to 2003. Harker R and Morris J (2005). Office for National Statistics, London.

Figure 1: Improvements in oral health (measured by dmft) in Children & Young People, 1973-2003

2. Inequalities in Dental Caries in Children

Despite improvements in children's oral health, inequalities remain between those children in lower socio-economic groups when compared with those children in the highest socioeconomic groups. Figure 2 shows that a greater proportion of children in the higher socio-economic groups remain free from dental decay. In addition, those children with decay will, on average have between 3 and 4 decayed teeth which is significantly higher

than the overall average of 1-2 decayed teeth. Therefore, the actual burden of disease in children from lower socio-economic groups is greater than may first appear when looking at the data.



Source: National Children's Dental Health Surveys 1973 to 1993

Figure 2: Inequalities in children oral health 1937 - 1993

3. Oral health in Children in Oxfordshire

The dental health of children in Oxfordshire is relatively good, but in areas of Oxford and Cherwell social deprivation is reflected in poor dental health. Local data on the oral health of five-year-olds is regularly collected through the NHS Dental Epidemiology Programme provided by the Dental Observatory.

In the last survey of 5 year olds in 2007/8, a sample of schools was selected throughout Oxfordshire PCT with a total of 1,499 children examined. In this survey the results were broken down at local authority area rather than PCT and some of the methodology around the data collection has changed since the previous survey in 2005/06. Therefore, these latest data are not directly comparable with previous years. The next survey of 5 year olds will be carried out in 2011/2012.

In the most recent, survey children in the Oxford area had the highest dmft in Oxfordshire (1.32) followed by children in Cherwell (1.2). Lower dmft were recorded in West Oxfordshire (0.63), the Vale of White Horse (0.59) and in South Oxfordshire (0.47) shown in Table 1. below. These three districts in Oxfordshire performed better than the England average (1.11). The mean dmft for Oxfordshire was 0.86 which was also lower than the SHA average (1.0) and the England average (1.11). No further breakdown in the number of dmft in children with decay was available for this report. However, it is likely that in those children with decay on average each have around 3.45 decayed, missing or filled teeth compared to the highest local value of 1.32 in Oxford. This is an example of how averages

hide oral health inequalities and the fact that a small proportion of the population experiences a high proportion of dental disease.

Table 1: Results of the child's dental health survey 2007-2008, Oxfordshire

Local Authority	Local value dmft	England average	England worst	England best
Cherwell	1.2	1.11	2.50	0.48
Oxford	1.32	1.11	2.50	0.48
South Oxfordshire	0.47	1.11	2.50	0.48
Vale of White Horse	0.59	1.11	2.50	0.48
West Oxfordshire	0.63	1.11	2.50	0.48
PCT	0.86	1.11	2.50	0.48

In the previous survey in 2005-2006, the mean dmft for Oxfordshire was recorded as 1.07 (SD 2.05). Although there were wide variations in dmft nationally this figure compares favourably with national levels with a mean of 1.47 across England. This cannot be compared with the most recent survey due to the change in methodology.

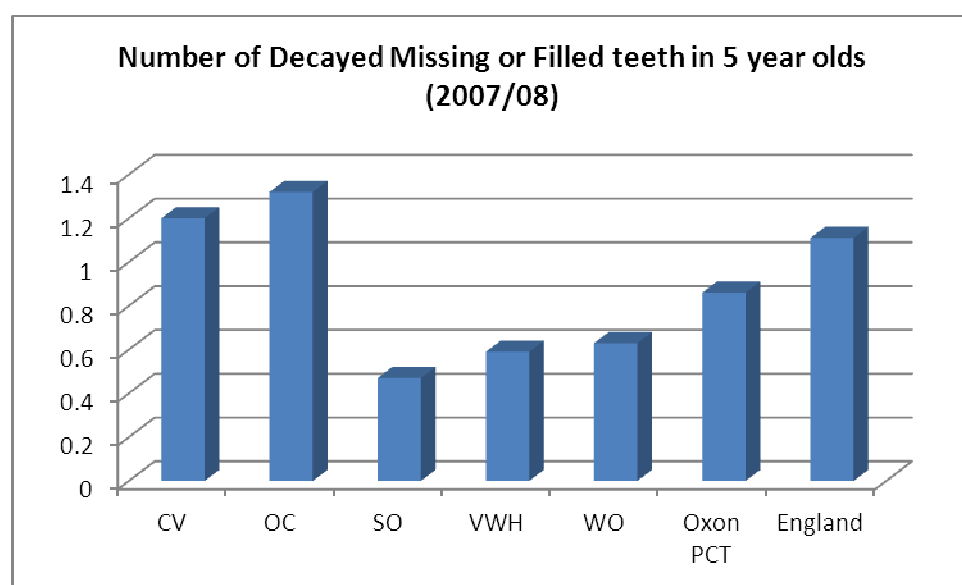
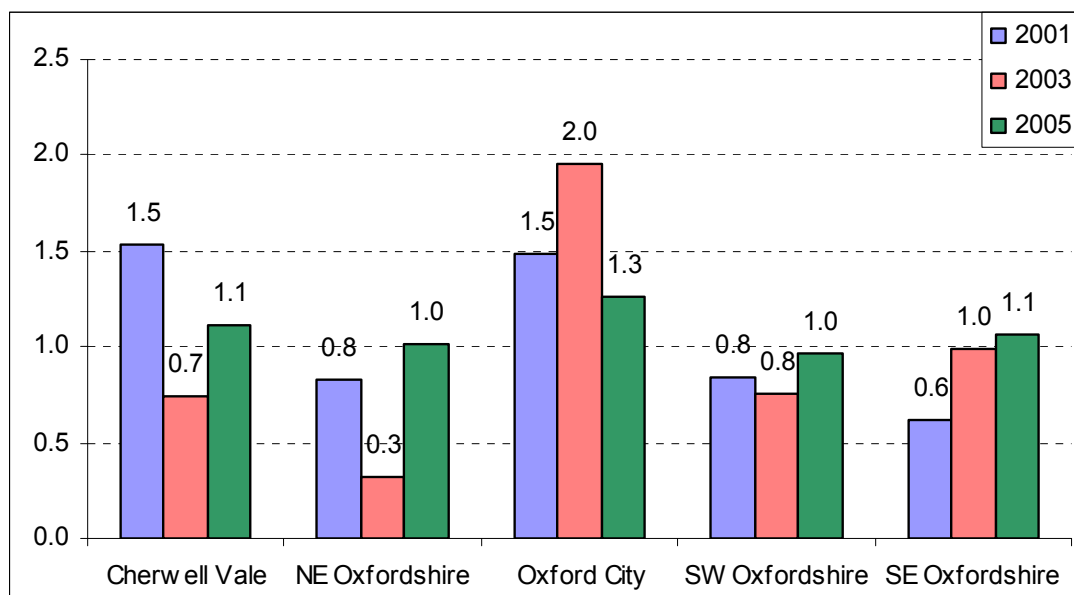


Figure 3. dmft in 5 year olds

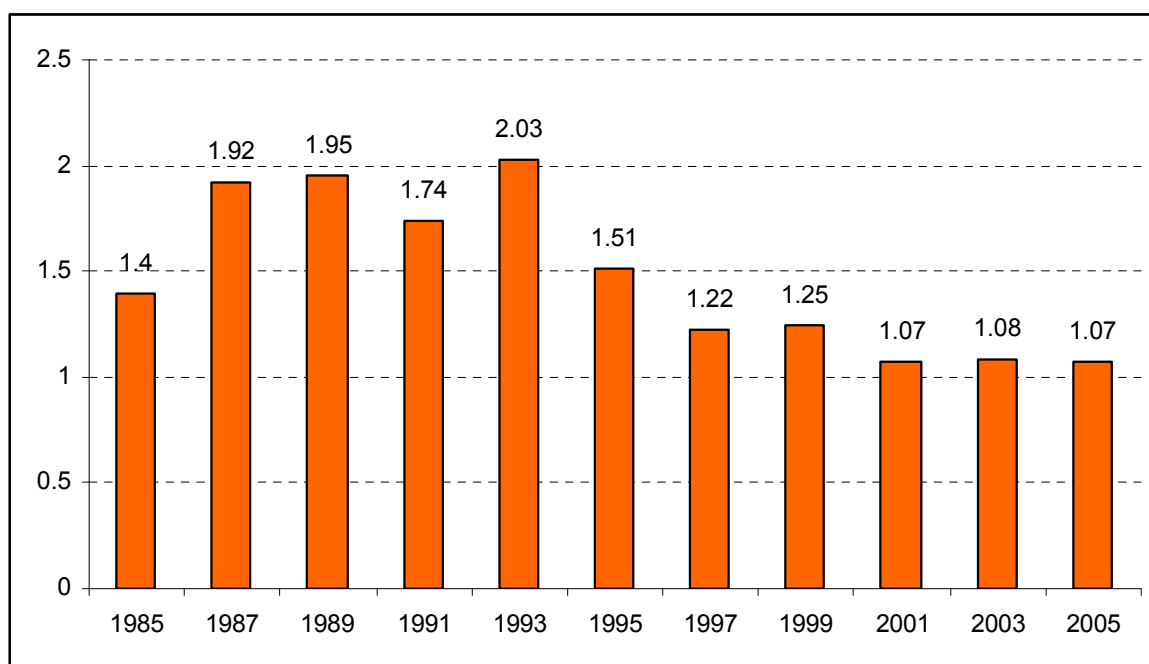
Figure 4 gives the dmft by the five previous PCT areas covering Oxfordshire. The dmft shows variations over the last 4 years across Oxfordshire. There seems to be an indication of rising dmft in South Oxfordshire, but it is not possible to compare this data with the most recent survey due to the change in methodology outlined above. In 2005/06 the Oxford area had the highest dmft in Oxfordshire (1.3) and the lowest proportion of children who were caries free (60%). This figure is poorer than the corresponding figure for England (62%). There were wide variations in dmft nationally with a mean of 1.47 across England.

Figure 4: Mean dmft of Oxfordshire PCTs, 2001-2005



Data from 1985–2005 is shown in Figure 4, and demonstrates the dmft variations in Oxfordshire over 10 years. The dmft in the last few years appears to be more stable across the county. However, there are limitations of pooling the data as it can disguise variations within different areas within the county. Future needs assessments will be able to track any changes at a district level, however there is a risk that pooling will still disguise inequalities within district boundaries.

Figure 5: Mean dmft in Oxfordshire 1985-2005



In November 2010 the North West Public Health Observatory and the Dental Observatory announced the publication of the results of the Oral Health Survey of 12 year old Children 2008 / 2009, as part of the NHS Dental Epidemiology Programme.

In Oxfordshire, on the whole, 12 year old children enjoy good oral health and this compares favourably with the rest of England. 77.6% are caries free compared with 66.4% for England and the mean dmft for Oxfordshire is 0.52 compared with 0.74 for England. They are also more likely to receive care and this is reflected in findings of the care or restorative index which is a useful guide to the patterns of treatment provision. The number of filled teeth is divided by the total number of decayed, missing and filled teeth and multiplied by 100 to give a percentage. If the final percentage is high then most of the decayed teeth have been filled. If it is low then most of the decayed teeth have been left unfilled or extracted. For Oxfordshire this figure is 57% compared with an England average of 47%. However some 12 year old children are still experiencing significant levels of decay. When children who are decay free are excluded the average dmft for children with one or more decayed teeth is 1.89 compared with an England average of 2.21. Poor oral health is linked with socio economic deprivation and it is possible that a polarisation in caries experience is occurring with an increasing number of children remaining caries free and the disease becoming concentrated in a diminishing number of socially deprived children.

4. Access to NHS dental services

Overall access for children remains higher in Oxfordshire (74.8%) than the England average (70.9%) and Oxfordshire PCT ranks 50th out of 152 Primary Care Trusts in terms of access for children. Increases in access to NHS dental services have occurred in most wards when comparing the 24 months figures 2007-2009 with 2009-2011 as seen below in figure 6.

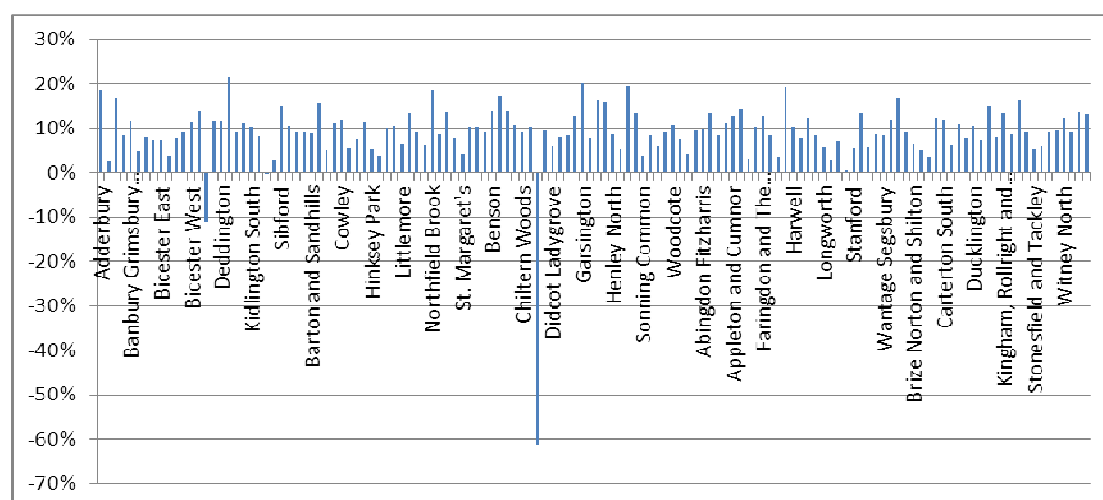


Figure 6: % change in number of children accessing NHS dentistry 2009 compared with 2011

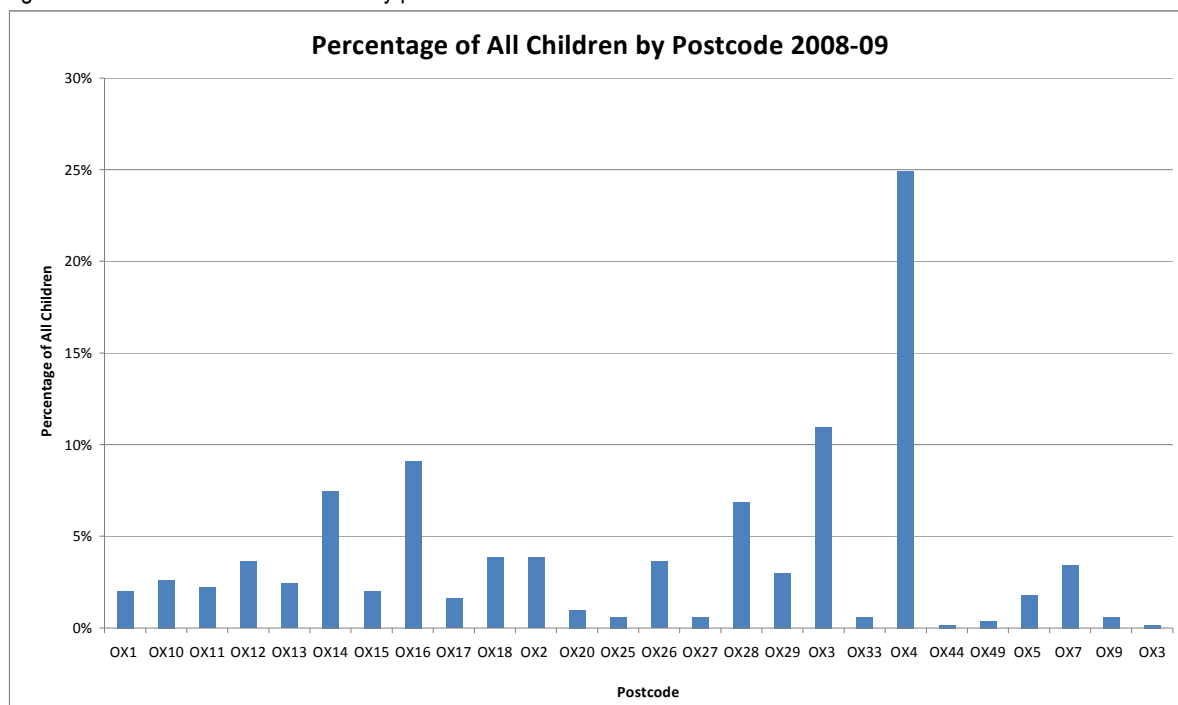
One ward has fallen significantly, this is the ward where Huntercombe YOI was located, which closed in June 2010. The only other area to show a significant reduction is Caversfield and the reason for this is being investigated.

As part of the PCT dental commissioning strategy (2008) areas of low access for children were identified as OX4, where only 40%, and OX16 where 48% of children were seen by an NHS dentist in 2006/07. As part of the strategy new dental practices were commissioned in Blackbird Leys at Dunnock Way and Banbury at Bridge St, both co-located with GP practices. Since then the PCT has monitored these areas by ward (annex 1) and significant improvements have been seen. Overall access to NHS dentistry in Oxfordshire has improved with over 53% of the population now accessing an NHS dentist, this is an increase of 48,505 since December 2007.

5. Extraction of Childrens teeth under general anaesthetic

An additional marker of children’s oral health is the number of children who have their teeth extracted under general anaesthetic by the specialist primary care dental services in hospital. In 2008-2009, 493 children had teeth extracted under general anaesthetic. Blackbird Leys and surrounding areas (OX4) had the highest number of children (123) and greatest proportion of children from an area requiring dental extractions (25%) (Figure 7)

Figure 7: Childrens dental extractions by postcode 2008-2009

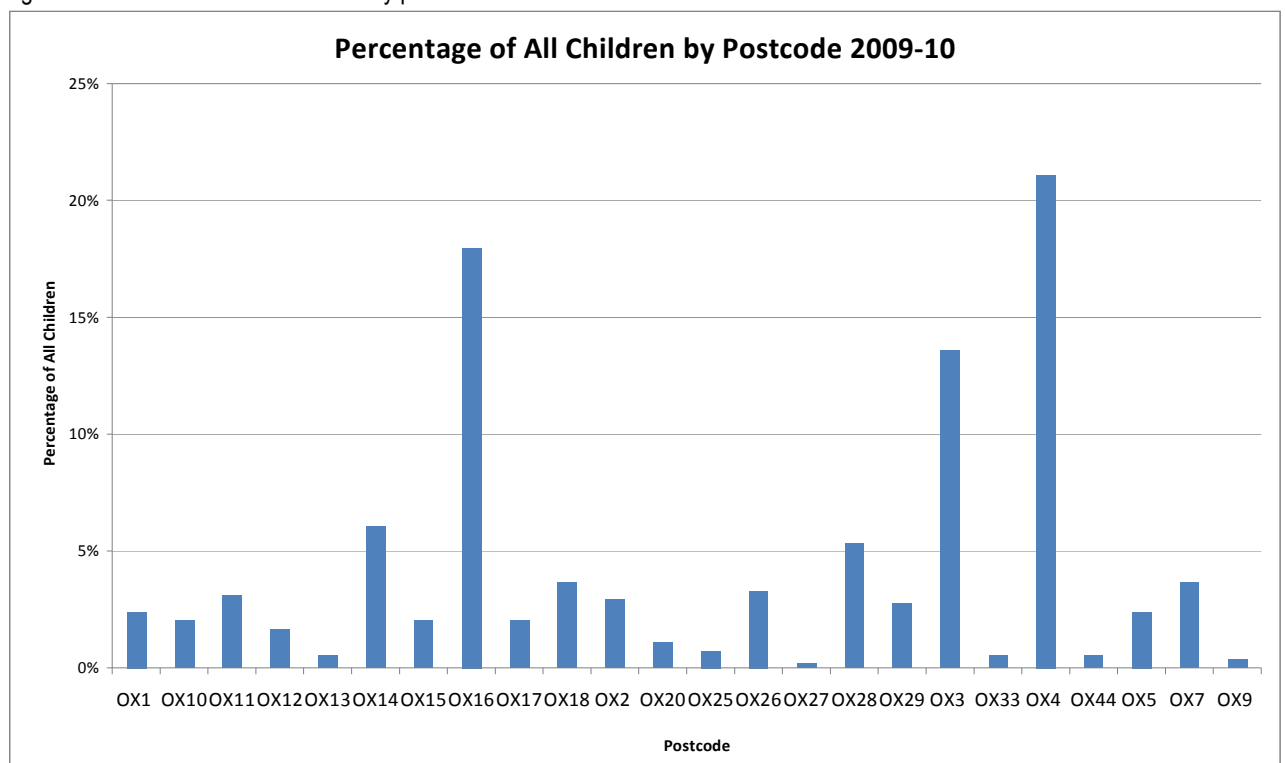


In 2009-2010, 545 children had teeth extracted under general anaesthetic. (Figure 8) Blackbird Leys and surrounding areas (OX3 & OX4) still had the highest number of children and greatest proportion of children (120) from an area requiring dental extractions (22%). However, there was a marked increase in the number (98) and proportion of children from Banbury and the surrounding areas (OX16), numbers almost doubled from the previous year.

Care needs to be taken in interpreting this increase, as new dental services have recently been commissioned in the area which may have identified more children earlier, but not yet prevented disease.

Looking back over previous years OX4, OX16 and OX3 (North East Oxford) are consistently areas where the proportion of children requiring dental extractions are higher. This is expected and supports the fact that children living in areas of deprivation have poorer oral health outcomes than those who don't.

Figure 8: Childrens dental extractions by postcode 2009-2010



6. Work to improve Oral Health of Children in Oxfordshire

In addition to increasing access to NHS dentistry by opening new practices and expanding surgery capacity the PCT has commissioned a number of projects to improve oral health, particularly for children in deprived areas of the county.

These include:

- 232 children given an application of Fluoride Varnish in schools (Oxford and Banbury schools with the highest dmft)
- 700 Children visited by the Lucky the Lion Oral Health project in partnership with the Mid counties Cooperative
- 2000 Brushing for Life packs distributed at first development check by Health visitors
- Oral Health promotion messages included when providing breast feeding advice to mothers
- Children centre staff trained to provide oral Health promotion and healthy eating advice

The PCT will continue to develop oral health initiatives for children as part of the Dental Commissioning Strategy and monitoring the number of children accessing NHS dental services in Oxfordshire with the aim of improving the oral health of children and young people in Oxfordshire.

Nicky Wadely

Deputy Head of Primary Care Contracted Services

June 2011

Children Accessing NHS Dentistry

Annex 1

2007-2009			2008-2010			2009-10				
Population	Patients	Access rate	Population	Patients	Access rate	Population	Patients	Access rate (%)	number of additional patients	% change
1230	794	65%	1230	926	75.3%	1,202	978	81.4	184	17%
1744	1160	67%	1744	1283	73.6%	1,737	1,300	74.8	140	8%
2289	1424	62%	2289	1544	67.5%	2,408	1,781	74.0	357	12%
2170	1509	70%	2170	1624	74.8%	2,307	1,715	74.3	206	5%
1504	852	57%	1504	899	59.8%	1,502	969	64.5	117	8%
2586	1652	64%	2586	1702	65.8%	2,525	1,793	71.0	141	7%
1719	1007	59%	1719	1331	77.4%	1,748	1,299	74.3	292	16%
1522	993	65%	1522	1182	77.7%	1,647	1,297	78.7	304	14%
2316	1467	63%	2316	1922	83.0%	2,284	1,867	81.7	400	18%
1819	1222	67%	1819	1418	78.0%	1,944	1,477	76.0	255	9%
1372	812	59%	1372	919	67.0%	1,439	977	67.9	165	9%
1400	925	66%	1400	1062	75.9%	1,495	1,086	72.6	161	7%
1467	819	56%	1467	999	68.1%	1,561	1,057	67.7	238	12%
1205	716	59%	1205	852	70.7%	1,328	862	64.9	146	5%
1460	654	45%	1460	870	59.6%	1,639	918	56.0	264	11%