

NHS Bradford and Airedale

Oral health needs assessment to inform dental commissioning strategy for a new dental practice in Bradford district.

Background

Within Bradford district the levels of dental disease are especially high among young children and significant inequalities exist. It was identified from a nationwide survey that the five year old children in Bradford district had the highest level of dental disease in the Yorkshire and Humber region with a mean dmft of 2.56 per child which is significantly higher than the national figure of 1.5. The dental disease levels were found to be related to socio economic inequalities with South Asian children having higher levels of disease than their white counterparts.

In 2007 two key strategies were approved by the tPCT .

- The Oral Health Strategy set out specific actions and investments required to improve the oral health of Bradford and Airedale's population.
- The Dental Commissioning Strategy set out through local commissioning of dental services to secure better access to high quality dental services.

As part of this commitment the tPCT in 2007 approved an investment plan to support the oral health and dental commissioning strategies and three new dental surgeries were to be sited according to need within the district.

The location of the practices was decided after performing an 'oral health needs assessment' in September 2007. The oral health of 5 year old children (dmft), the commissioned level of dental activity in each ward, (Units of Dental Activity or UDA's) and number of patients waiting to access a NHS dentist in each ward were taken into consideration during the assessment. Based on the results of the oral health needs assessment, the tPCT proposed three new dental practices, to be located in South East Bradford, Keighley and Ilkley. The rationale for these three locations was based on both need and demand

The tPCT is now due to commission a further practice and in order to inform the dental commissioning strategy we have repeated the oral health needs assessment so that the new dental practice can be sited in the most appropriate location.

The aim of this report is to

- Inform the Dental Commissioning Strategy for future investment in dental service provision.
- To assess the impact of the current dental commissioning strategy

The dmft of 5 year olds, UDA activity per 1000 population in each ward and the waiting list in each ward was considered .This data was mapped and compared with the last assessment to pick up the significant differences. A graph comparing the UDA per 1000 population against the dmft in the various wards was plotted. All wards with a dmft of 2.4 and above were identified. This was to ensure services were provided to those most in need.

Oral health

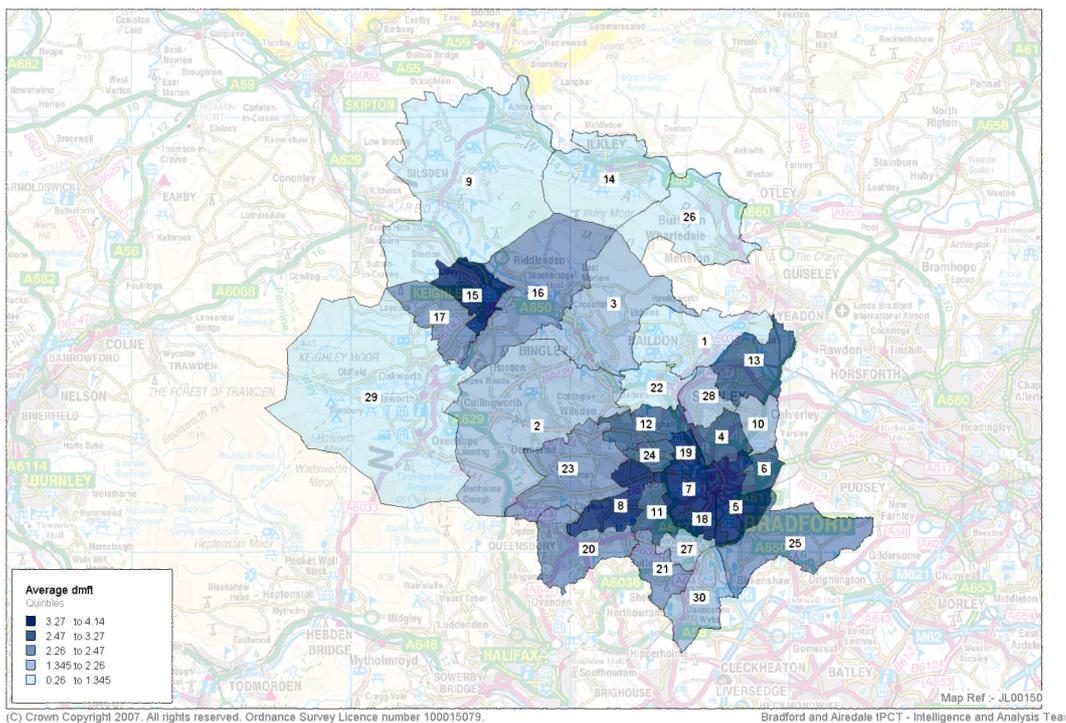
Regular NHS dental epidemiological surveys of children's oral health have been coordinated nationally. These surveys have provided us with detailed local information on the oral health status of 5, 12 and 14 year old children since 1988. This data can be presented at a Regional, Strategic Health Authority and Primary Care Trust level. For the purpose of this assessment we have considered the data available for 5 year olds.

Five year olds

At a regional level the oral health of 5 year olds in Yorkshire and the Humber is much poorer than for England as a whole (dmft Y&H 2.05: Eng 1.49).

The average dental disease experience (dmft = average number of decayed, missing or filled teeth) of five year olds in the district is mapped according to their ward of residence (using their home postcode). (Figure 1) The 5 year old population have been divided into quintiles with those with the poorest oral health being darkest and the best the lightest

Fig 1 Average Decayed Missing or Filled Teeth by Electoral Ward – Bradford's 5 year olds - 2006



The above map shows that within Bradford and Airedale there are significant variations in decay experience with those from Bradford City having significantly higher levels of disease than Bradford as a whole, whilst those residing in North Bradford and Airedale have significantly lower levels of disease.

The table below (Table 1) demonstrates the wards with the poorest oral health.

Table 1 wards with the poorest oral health.

	Ward	Mean dmft
7	City	4.13
19	Manningham	3.75
8	Clayton Fair-weather Green	3.57
15	Keighley Central	3.44
18	Little Horton	3.34
5	Bowling and Barkerend	3.29

Service provision

General Dental Practitioners (GDPs) are the most significant primary providers of dental care for the population of Bradford with 179 dentists working from 71 practices with 50 of them mainly providing NHS care. The concept of patient registration with a dental practitioner has been discontinued in favour of a payment system based on weighted course of treatment (units of dental activity, or UDAs).

Currently the PCT has commissioned NHS services from dental practices using the contract currency of Units of Dental Activity (UDA's). These practice locations were allocated to wards and a UDA rate per 1000 population was calculated for each ward. When considering the data it is important to bear in mind that many people may attend a dentist near their workplace rather than home, or if living in a rural community may travel to access care.

There has been an overall increase in service provision since the previous oral health needs assessment with significant increases in some wards. In the following table the wards with an increase in service provision from 2007 are highlighted in green and those with a decrease in red. (Table 2) Less significant ones with smaller differences have not been mentioned.

The service provision in Tong has increased from 0 to 1160 and a reduction in the Manningham area from 1311 to 889 is noted.

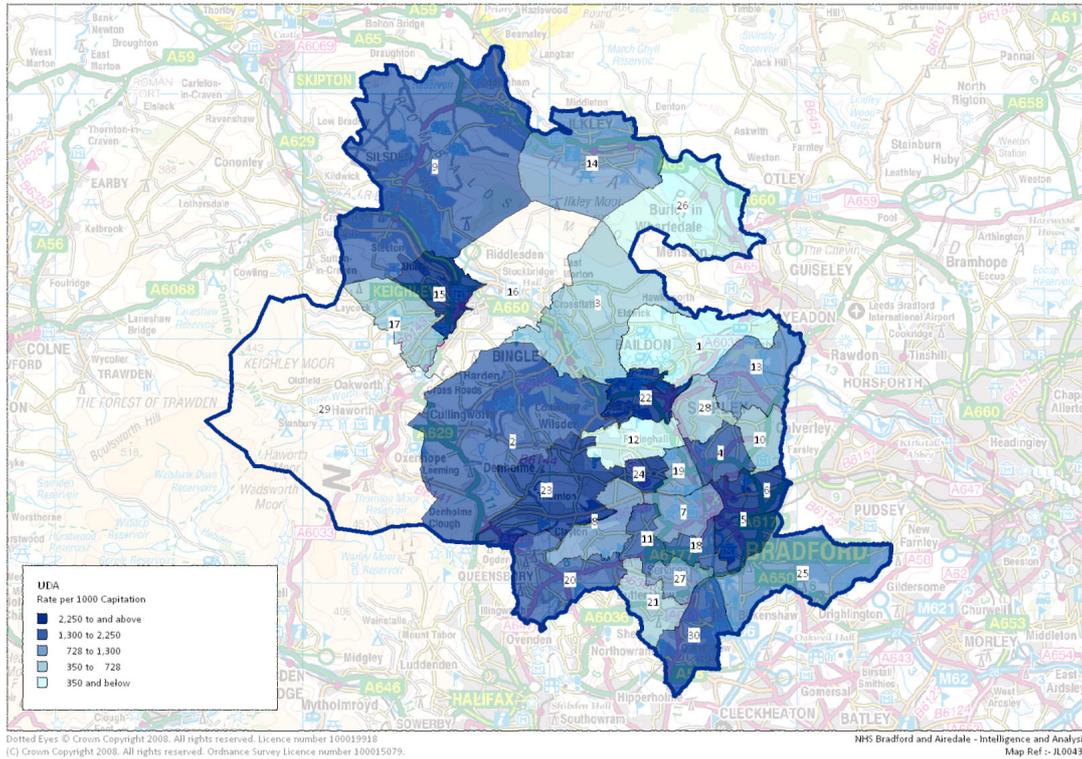
Table 2 Service Provision data comparison between 2007 and 2009

	Ward	UDA's per 1000 population	
		2007	2009
2	Bingley	728	601
8	City	1233	1107
9	Clay & FG	726	906
10	Craven	1226	1504
11	Greater Horton	1832	2081
14	Ilkley	682	1167
15	Keighley central	5791	6475
17	Keighley west	354	445
20	Queensbury	1152	1445
25	Tong	0	1160

29	Worth valley	354	462
18	Little Horton	1674	1553
19	Manningham	1311	889

The map below illustrates the distribution of NHS dental activity expressed as UDAs per 1,000 population at ward level throughout Bradford and Airedale. (Fig 2).

Fig 2 UDA per 1000 population in relation to each ward



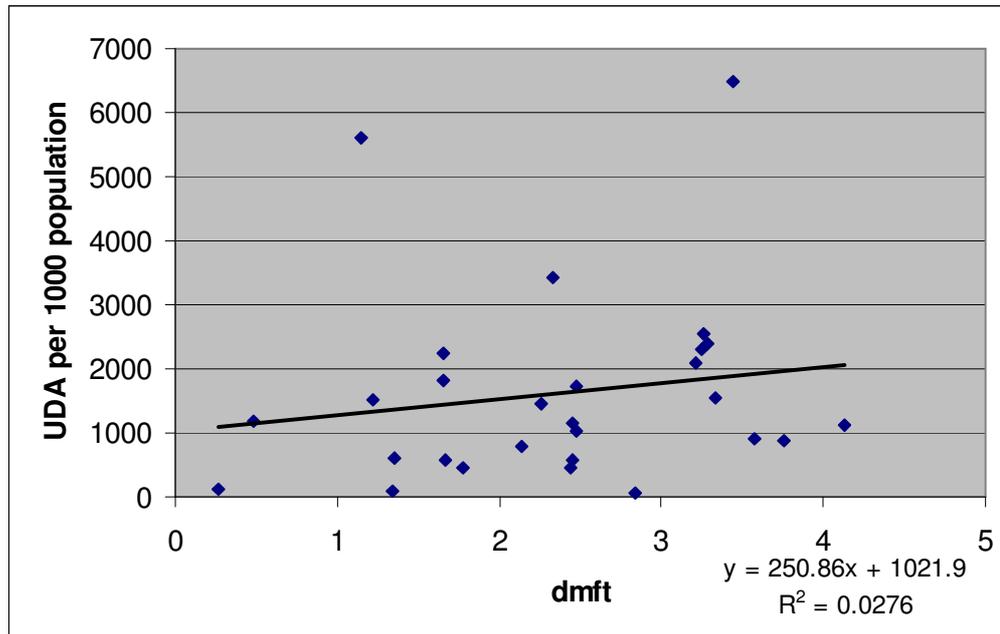
Needs Related to current service provision

In order to inform commissioning the present NHS service provision has been related to the identified oral health needs of 5 year olds by plotting dmft against UDA rate according to ward.

To ensure services to those most in need the following method was used to identify potential locations. All wards with a dmft of 2.4 and above were identified.

The most recent Fig 3 has been included in this report and the differences between both assessments are highlighted below.

Fig 3



The table below demonstrates the changes in service provision between 2007 and 2009 in the wards with a dmft higher than 2.4.

Table 3 comparison between dmft rates and changes in service provision

	Mean dmft	UDA rate per 1000	
		2007	2009
7 City	4.13	1233	1107
8 Clay & FG	3.57	726	906
12 Heaton	2.84	54	50.79
13 Idle & Thackley	2.47	1151	1039
16 Keighley East	2.45	0	0
17 Keighley West	2.44	354	445
19 Manningham	3.75	1312	889
21 Royds	2.45	534	583
26 Tong	2.46	0	1160

Within Keighley current service provision continues to be concentrated in Keighley Central where disease levels are highest (dmft 3.44, UDA rate 6450). Patients tend to travel from the east and west into central Keighley for their dental needs. An increase in service provision is noted in this area.

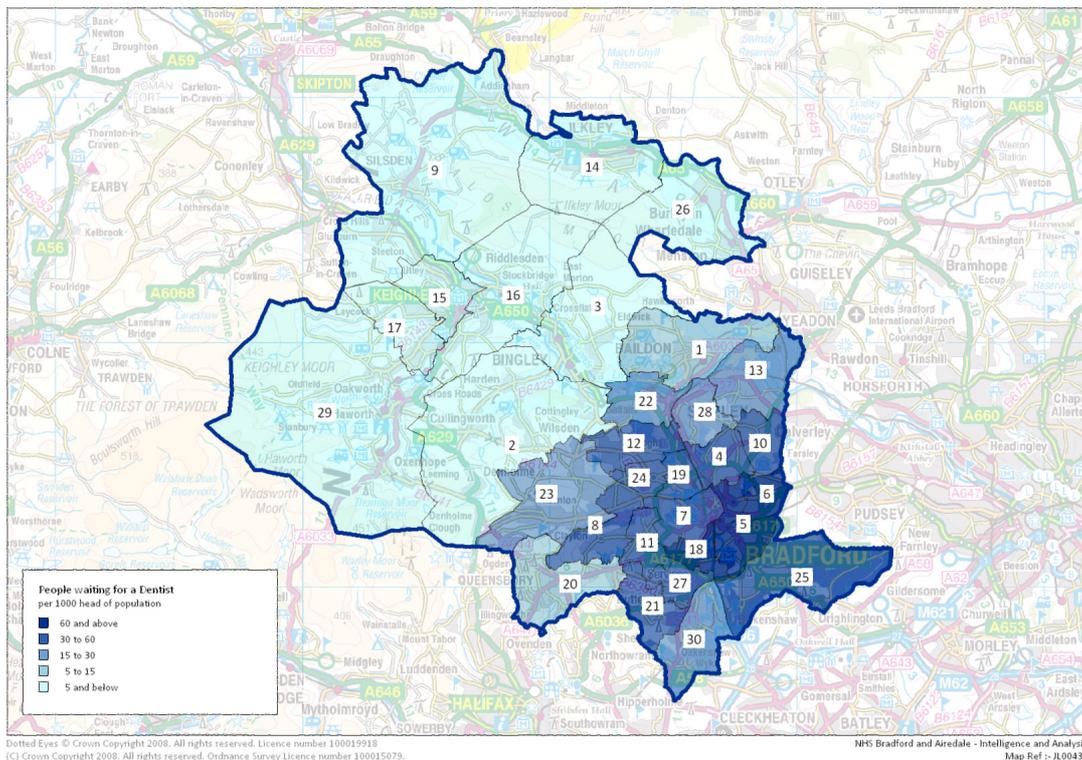
With regards to the South East of the district Heaton has high levels of disease and low service provision. There has been a slight fall in service provision in the Heaton area since 2007. The service provision in Manningham has fallen from 1312 to 889.

The City has the highest levels of dental disease (dmft 4.13) in the district and service provision has fallen from 1233 to 1107 as seen in the table above.

Patients waiting to access a dentist

Those patients registered as waiting to access a NHS dentist on the tPCT's dental patients' database have been mapped according to their postcode. The areas with the highest number of patients waiting (60 and above) per 1000 population to access a dentist are darkest and those wards with lowest number of patients on the waiting list being lightest. (5-15 or below) per 1000 population.

Fig 4 Patients waiting to access an NHS dentist in each Ward



The areas where the waiting lists are highest are Bradford moor, Bowling and Barkerend and Little Horton which are the South Eastern parts of the district.60 or more patients per 1000 population are waiting in these areas.

There is also a reasonably large waiting list in Clayton and Fair-weather Green, Toller, Heaton, Windhill and Wrose, Idle and Thackley, Eccleshill, City, Wibsey, Royds (15-30 patients per 1000 population waiting per ward)

In the assessment performed in 2007 the demand in the Keighley area was identified to be the highest and the commissioning strategy decided to locate a dental practice in central Keighley in 2008. In the above map it is evident that this high demand has been addressed by the current service provision and the areas where patients are waiting for an NHS dentist is now mainly in the South East of the district.

Summary of oral health needs, service provision and demands by ward.

We have compared the waiting list with the dmft and UDA's per 1000 population in each ward in the Table below. (Table 4)

Table 4 Comparison between dmft, UDA's per 1000 and waiting list in each Ward

Ward	dmft	UDA's per 1000	waiting list
City	4.13	1107	High
Manningham	3.75	889	High
Clayton & FG	3.5	906	High
Little Horton	3.3	1553	Highest
Bradford Moor	3.2	2303	Highest
Bowling& Barkerend	3.2	2384	Highest
Toller	3.2	2533	High
Great Horton	3.2	2081	High
Heaton	2.8	50.79	High
Bolton and Undercliff	2.4	1729	High
Royds	2.4	583	High
Idle&Thackley	2.4	1039	High
Wibsey	2.13	783	High
Windhill & Wrose	1.77	462	High
Eccleshill	1.66	576	High

Conclusions

1. dmft index which measured the oral health status of 5 year olds performed in 2006 was used to understand the oral health status of 5 year olds locally .The oral health was found to be poorest in City ward with a dmft of 4.13.
2. Service provision overall has gone up in most wards although as seen in Table 2. Bingley, Manningham and City wards have demonstrated a reduction in UDA's per 1000 population between 2007 and 2009. A significant increase in service provision is noted in Tong ward from 0 to 1160
3. City ward would benefit from increased provision as it has the poorest oral health in the district, high demand and only a moderate service provision at present. It is important to note that there has been a reduction in service provision in the last 2 years.
4. Manningham has a high disease level of 3.75. There has been a reduction in service provision since 2007 and the waiting list of patients is also high. There are 30-60 patients' per1000 population waiting in this area to access a dentist. Some added investment in the existing provision or an additional service provision in this area would be beneficial.
5. Heaton has the lowest service provision in the district with a high disease level of (dmft of 2.8) and a high waiting list and would benefit from increased service provision or increased investment into the existing provision.

6. In the 2007 oral health needs assessment significant access issues were identified in the Keighley area. This has been addressed effectively in the last two years and the waiting lists of patients waiting to access a NHS dentist in these areas have now reduced considerably.
7. The assessment performed in 2009 has identified that Bradford moor, Bowling & Barkerend and Little Horton have the highest number of patients waiting to access a dentist. It is also observed that these wards have a high service provision at present as evidenced in the above Table 4. This should mean that the existing practices in those areas are not accepting new patients and these areas would benefit with some investment in the virtual access centre.
8. The areas, which have high demand, poor oral health and low service provision, as identified from Table 4 are the City, Manningham, Clayton & Fair-weather Green and Heaton wards.

Recommendations

1. The dental practice due to be commissioned would be best located in City or Manningham areas.
2. The areas that would benefit from an increase in investment in the existing service provision are Bradford Moor, Bowling & Barkened, Clayton & Fairweather Green and Heaton.

Vidya Venkatesh
SPR Dental Public health

Jenny Godson
Consultant Dental Public health

Appendix 1 - Wards in Bradford and Airedale

