Doncaster Oral Health Needs Assessment 2018

Public Health Directorate

1. INTRODUCTION

Since 1st April 2013, when the Health and Social Care Act 2012 came into force, the responsibility for oral health has been split between two organisations:

- NHS England has the statutory duty to commission the totality of NHS dental services
- Local authorities have the statutory duty (SI 3094, 2012) to
  a) secure the provision of oral health improvement programmes to improve the health of the local population and
  b) to secure the provision of oral health surveys

In 2015, Public Health England (PHE) published an oral health needs assessment for South Yorkshire and Bassetlaw which identified the need for a more local approach to develop an oral health improvement strategy to address the specific needs of the people of Doncaster. Therefore, a more focussed oral health needs assessment for was required to inform the local Doncaster oral health improvement strategy and action plan, and feed into the Joint Strategic Needs Assessment and Health and Wellbeing Strategies.

Within Doncaster Council (DC), the funding for oral health improvement is now embedded within the 0-5 health visiting service and 5-19 school nursing service, which will carry out oral health improvement activities as part of the national Healthy Child Programme.

PHE has a purely advisory role, and has local dental public health consultants who provide expert advice to local authorities, NHS England, Healthwatch and other partners. They have co-written this Oral Health Needs Assessment.

1.1 Key local documents

Oral health is a priority in Doncaster and underpins the council's vision to give every child the best start in life in the Doncaster Children and Young People's Plan, 2017-20 (Team Doncaster, 2017) with an awareness that poor oral health affects a child's ability to eat, sleep and socialise (Doncaster Starting Well Strategy 2017 – 2020; DC,2017). However, it isn't specifically mentioned in the Health and Wellbeing Strategy 2016-21 (DC, 2016).

1.2 Scope of this document

This oral health needs assessment will use a combination of epidemiological, corporate and comparative approaches and will concentrate on the following areas:

- A brief overview of the population of Doncaster (section 2)
- Description of the oral health of the population of Doncaster using national and local oral health data (section 3)
- A brief overview of primary and secondary oral healthcare services in Doncaster (section 4). It is beyond the scope of this needs assessment to look in detail at NHS dental services as this is now the remit of NHS England. However this is described in

some detail by the South Yorkshire and Bassetlaw Oral Health Needs Assessment (PHE, 2015). This is a very useful document and should be read in conjunction with this document to obtain a full understanding of NHS dental services in Doncaster.

- Patient and public experiences (section 5)
- An overview of oral health improvement programmes/activities provided by DC (section 6)
- An audit of DC oral health improvement programmes/activities against NICE guidance (section 7)

1.3 The problem

Despite improvements in oral health in England over the last forty years, many people continue to suffer the pain and discomfort associated with oral diseases, which are largely preventable. A healthy mouth and smile means that people can eat, speak and socialise without pain or discomfort and play their parts at home and in society. Oral health is an integral part of health and wellbeing and many of the key risk factors are associated with other diseases.

The distribution and severity of oral diseases varies between wards and within counties and regions. Unacceptable inequalities exist with more vulnerable, disadvantaged and socially excluded groups experiencing more oral health problems. As with health inequalities, oral health inequalities are not inevitable. They stem from inequalities in income, education, employment and neighbourhood circumstances throughout life and can be reduced. Focusing on the wider determinants of health and individual behavioural change approaches to improving oral health are necessary to achieve sustainable improvements in oral health related behaviours. Social, environmental, economic circumstances or lifestyle place vulnerable groups at high risk of poor oral health or make it difficult for them to access dental services.

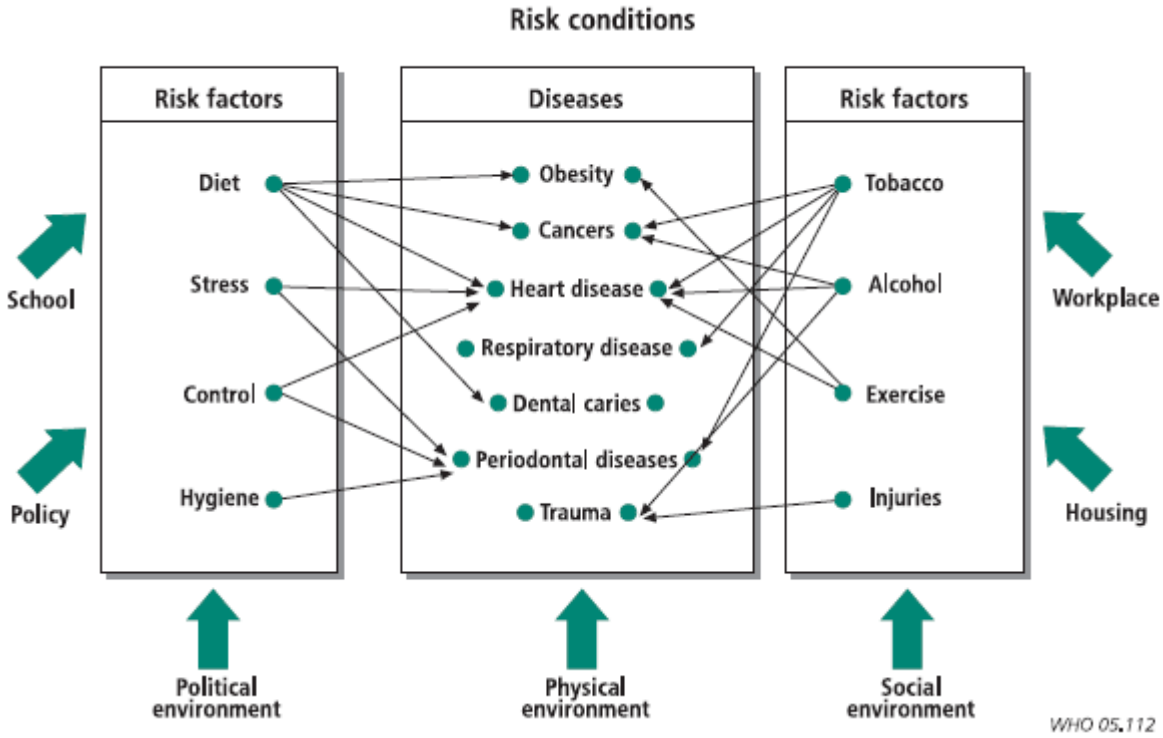
The two main oral diseases are tooth decay (dental caries) and gum (periodontal) disease. Whereas tooth decay tends to be a problem in the general population, gum disease is more prevalent in the older population. Both these diseases can lead to loss of teeth and both conditions are preventable.

There are other oral conditions that are not as widespread but do have an impact, sometimes significantly, on the population. The more serious conditions are mouth cancer and congenital deformities, such as cleft lip and palate. The less serious conditions are orthodontic problems e.g. crowded and misaligned teeth and tooth surface loss e.g. erosion due to dietary acids.

Tooth decay may be prevented by reducing the amount and frequency of consumption of sugary foods and drinks and optimising exposure to fluoride. Gum disease may be prevented by good oral hygiene and stopping smoking; and the risk of oral cancer may be reduced by stopping smoking, drinking alcohol within recommended safe limits, eating a healthy diet, and immunisation with the HPV vaccine, as mouth and oropharyngeal cancers have been linked to the human papilloma virus (HPV) transmitted through oral sex.

Oral diseases and conditions share common risk factors with other diseases such as diabetes, cardiovascular disease, cancer and obesity (figure 1). A common risk factor approach aims to control the shared risk factors thereby impacting on a multitude of conditions and diseases (Sheiham and Watt, 2000).

Figure 1: Common risk factors (Sheiham and Watt, 2000)



1.4 Vulnerable groups for poor oral health

Vulnerable groups are those people whose economic, social, environmental circumstances or lifestyle place them at high risk of poor oral health or make it difficult for them to access dental services. It is not possible to provide a comprehensive list of all these groups but they include those:

- who are older and frail, particularly the housebound
- who have physical or mental disabilities
- who have learning difficulties
- who are homeless or frequently move, such as traveller communities, immigrants, refugees, asylum seekers
- who have mental health problems, dental anxiety or dental phobia
- who are socially isolated or excluded
- from some black, Asian and minority ethnic groups, which may be related to cultural practices
- who have a poor diet
- who are obese

- who are, or who have been, in care (all ages)
- who use tobacco (smoked or smokeless) or misuse substances, including alcohol
- who have a medical problem which affects their oral health
- who live in a disadvantaged area or who are from a lower socioeconomic group

Co-morbidities, progressive medical conditions, dementia and increasing frailty contribute to more complex oral health needs and difficulties in accessing NHS dental services.

1.5 Key national guidance

Key guidance to support local authorities to meet the needs of their local population are listed below:

- Oral health: local authorities and partners (NICE, 2014)
- Oral health promotion in the community (NICE, 2016)
- Oral health for adults in care homes (NICE, 2016)
- Tackling poor oral health in children: local government's public health role (Local Government Association, 2016).
- Local authorities improving oral health: commissioning better oral health for children and young people. An evidence-informed toolkit for local authorities (PHE, 2014).
- Delivering better oral health: an evidence-based toolkit for prevention. PHE (2017).
- Improving oral health: a toolkit to support commissioning of supervised toothbrushing programmes in early years and school settings (PHE, 2016b).

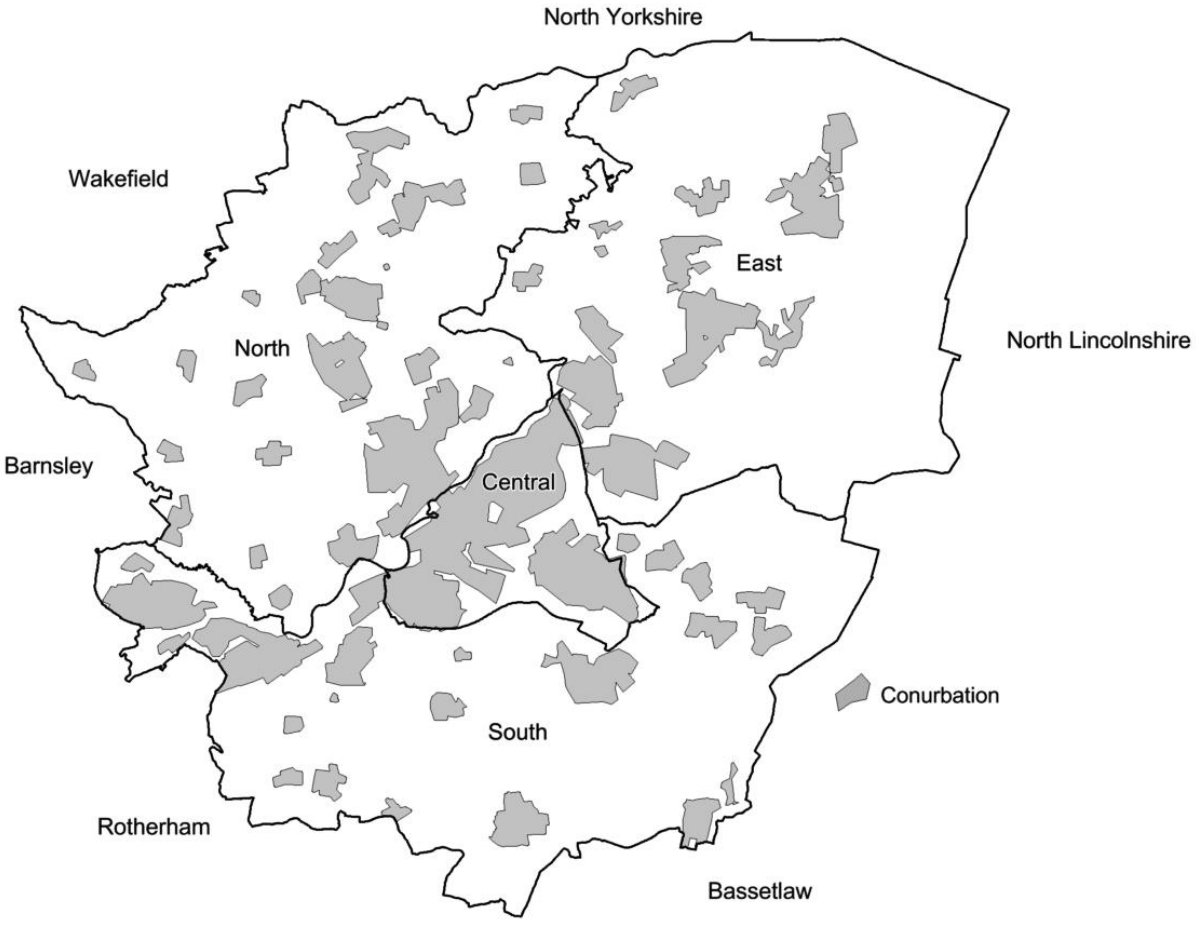
2. THE POPULATION OF DONCASTER

DC covers 219 square miles, featuring a wide range of urban, suburban and rural environments. Doncaster is a diverse and vibrant borough. It is of medium size compared to other boroughs in Yorkshire and Humber, with a mid-2016 population estimate of 306,397 (ONS, 2017).

Some areas within the Borough are relatively affluent compared to the national average, though other areas are amongst the most deprived in the country. No Doncaster communities are free of lifestyle or social problems but some areas have multiple and persistent issues afflicting people across the life course.

There are 4 neighbourhood areas defined by DC and used by the majority of corporate partnerships (Central, North, East and South) (figure 2). These have roughly equal populations, ranging from approximately 70,000 in the North to 83,500 in the South.

Figure2: Doncaster neighbourhood areas



Source: DC, 2015

The health of people in Doncaster is generally worse than the England average. Doncaster is one of the 20% most deprived districts/unitary authorities in England and about 24% live in low income families. Life expectancy for both men and women is lower than the England average, and is 10.7 years lower for men and 7.1 years lower for women in the most deprived areas than the least deprived areas. (PHE, 2016c).

Some of the main health issues in Doncaster are obesity, with 20% of year 6 children classified as obese; alcohol misuse, with adult-related harm hospital stays being above the national average; and smoking, with smoking–related deaths higher than nationally (PHE, 2016c).

3. ORAL HEALTH OF PEOPLE LIVING IN DONCASTER

3.0 Background

DC has a statutory duty to secure provision of oral health surveys: to facilitate the assessment and monitoring of oral health needs; the planning and evaluation of oral health promotion programmes; and the planning and evaluation of the arrangements for provision of dental services as part of the health service; and where there are water fluoridation programmes affecting the authority's area, the monitoring and reporting of the effect of water fluoridation programmes (SI 3094, 2012).

Annual surveys are carried out as part of the Dental Public Health Epidemiology Programme coordinated by Public Health England, with surveys of 5-year-old school children in mainstream schools being carried out every 2 years, and other population groups being surveyed in intervening years. These provide national, regional and local Doncaster data. The 5 year old data is required for the Public Health Outcomes Framework.

The following surveys have been carried out in recent years:

- 3 year olds were surveyed in 2013
- 5 year olds were surveyed in 2007/08, 2011/12 and 2014/15
- 12 year olds were surveyed in 2008/09
- Special support schools were surveyed in 2013/14
- Dependent older people were surveyed in 2015/16

The 2016/17 5-year old survey and 2017/2018 Adults in Practice survey have not been carried out in Doncaster due to issues in arranging a fieldwork team.

Data are submitted by providers and analysed by Public Health England. The data is publically available via this website: http://www.nwph.net/dentalhealth/

Decennial national adult and child dental health surveys commissioned by the Health and Social Care Information Centre are also carried out. The following national surveys have been carried out in recent years, providing data only at national and regional levels:

- Adult dental health survey 2009
- Child dental health survey of 5,8,12 and 15 year olds, 2013

In 2008, a postal survey of adult oral health was carried out across Yorkshire and the Humber, providing information on self-reported oral health.

3.1 Children

A commonly used indicator of unhealthy teeth is the dmft index. The average number of decayed (d), missing due to decay (m) and filled due to decay (f) teeth (t) may be calculated for a population. In 3, 5 and 8 year old children, this score will be for the baby or deciduous teeth (denoted dmft) and in 8, 12 and 15 year old children and adults this will be for the adult or permanent teeth (and denoted in uppercase as DMFT). Anyone who has one or more 'actively decayed teeth, teeth missing due to decay or filled teeth due to decay' (dmft >0) is referred to as someone with 'obvious tooth decay experience'. The proportion of the population with decay experience is the proportion with 'unhealthy teeth'.

3.1.1 Children aged 3 (2013 dental survey)

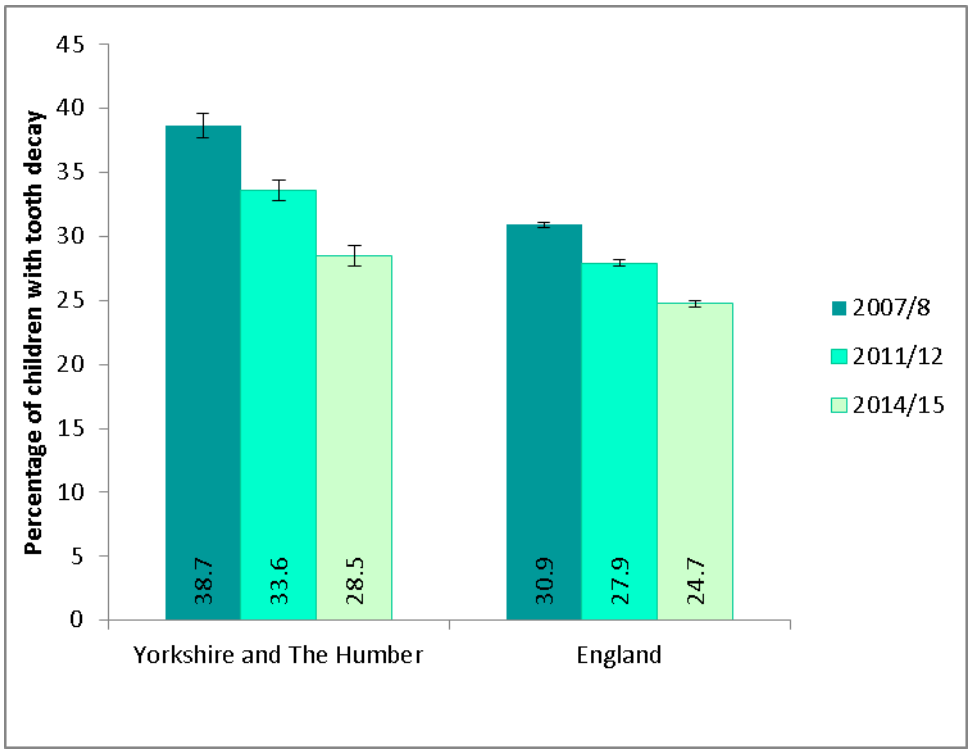
The prevalence of tooth decay experience in Yorkshire and the Humber (12.6%) was higher than the national average (11.7%), although differences across the local authorities could not be determined due to the small numbers of children participating.

3.1.2 Children aged 5 years (2008, 2012 and 2015 dental surveys)

National Dental Epidemiology Programme oral health data for 5-year-old school children living in Doncaster has been limited by the small sample sizes attained. A minimum sample of 250 children from a minimum of 20 schools is required. In 2015, only 227 children were consented and examined. This was less than in 2012 when 285 children were examined and 2008 when 372 were examined. This makes subgroup analysis for example at ward level problematic.

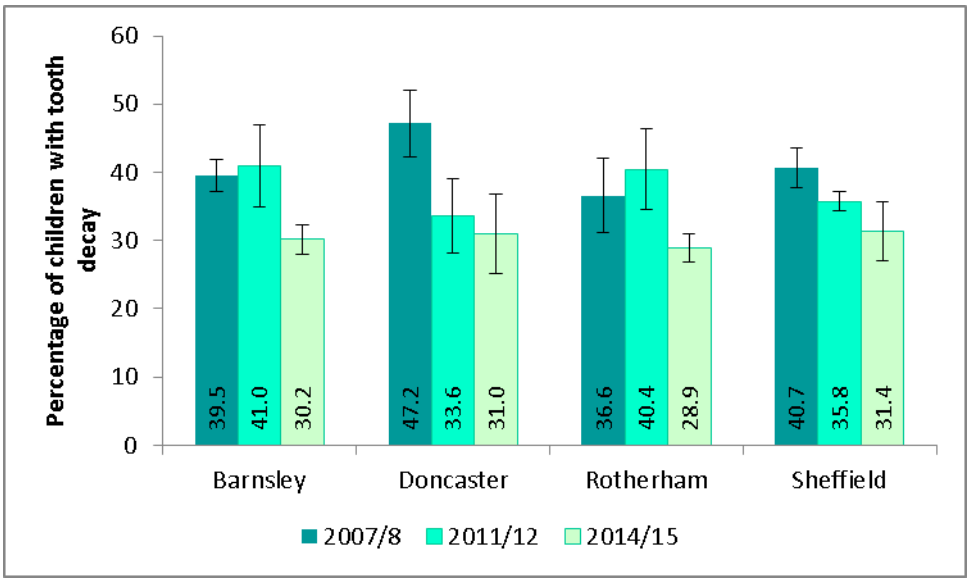
Doncaster and the Yorkshire and the Humber region as a whole has seen a reduction in the proportion of 5-year-old children with tooth decay (figures 3 and 4). However, 31.0% of 5-year-old children in Doncaster experienced tooth decay in 2015, which is higher than the average 5 year-old in England (25%) (PHE, 2017a).

Figure 3: The percentage of children aged 5 years with experience of tooth decay in 2008, 2012 and 2015 in England and Yorkshire and the Humber 2008, 2012 and 2015.



Source, PHE 2017a

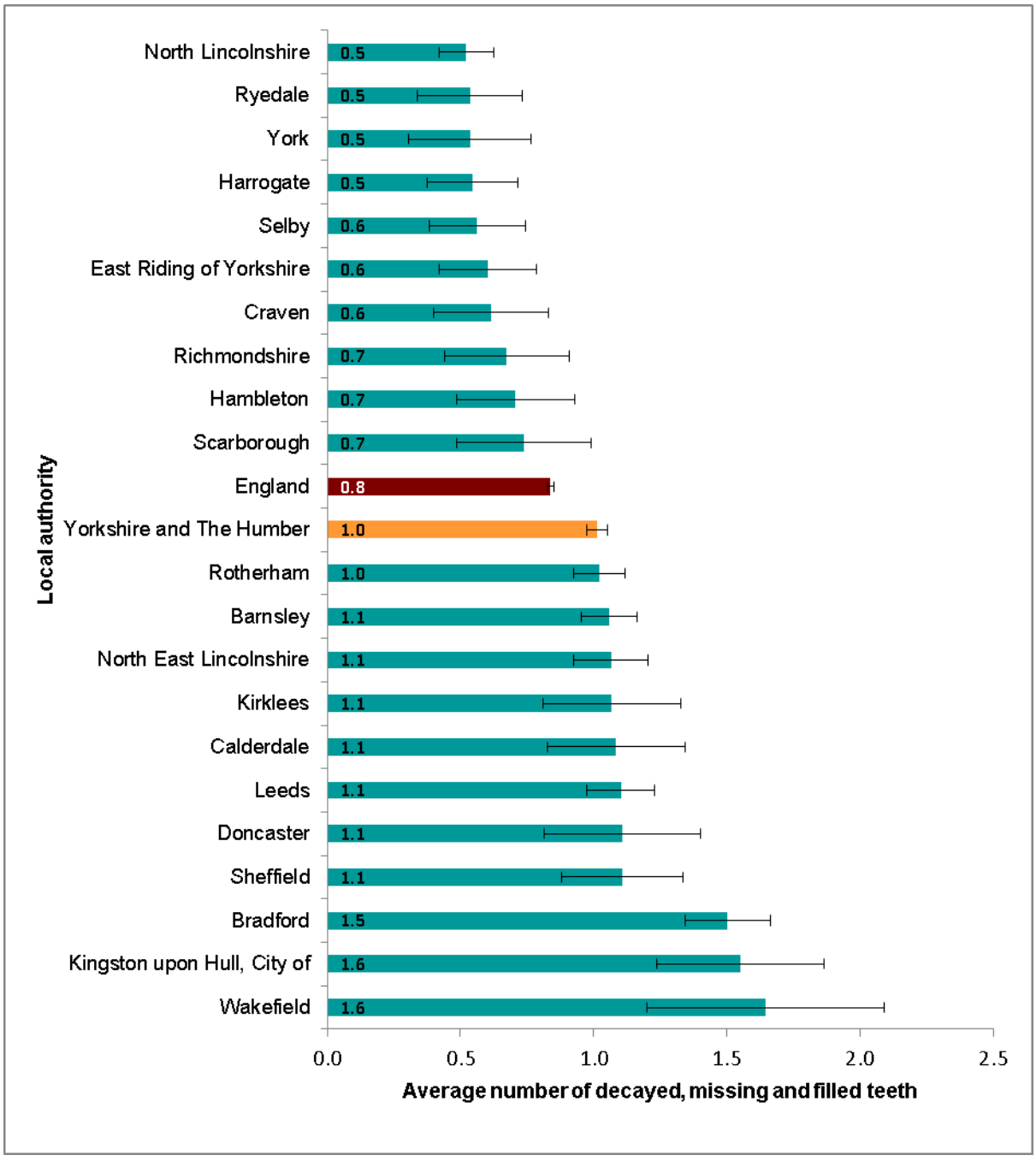
Figure 4: The percentage of children aged 5 years with experience of tooth decay in 2008, 2012 and 2015 in South Yorkshire.



Source: PHE 2017a

The average number of decayed, missing and filled teeth among 5-year-olds in Doncaster (1.1), was also higher than nationally (0.8) (although not statistically due to the low sample size) (figure 5). However this average figure masks the fact that those children who actually experience tooth decay (have one or more decayed, missing or filled teeth) typically have around 4 (3.6) teeth affected. Furthermore, it is not uncommon for a child to need to have every tooth extracted due to tooth decay under general anaesthetic.

Figure 5: Average number of decayed, missing and filled teeth among five-year-old children in Yorkshire and The Humber by local authority, 2015



Source: PHE 2017a

3.1.3 Children aged 5 years (2015) ward level data and deprivation

Due to the low sample size, there are no ward level data. However data have been grouped according to ward cluster (table 1) (PHE, 2017b). Although this table seems to suggest that the East part of the borough experiences better oral health than the rest of the borough, care should be taken because in Hatfield, Spotbrough, Stainforth and Moorends and Thorne the prevalence and average dmft were recorded as zero, but this is unlikely to be representative of the whole ward as less than 10 children were surveyed in each of these wards. In fact, 16 of the 21 wards had less than 15 children examined within them, making local analysis impossible.

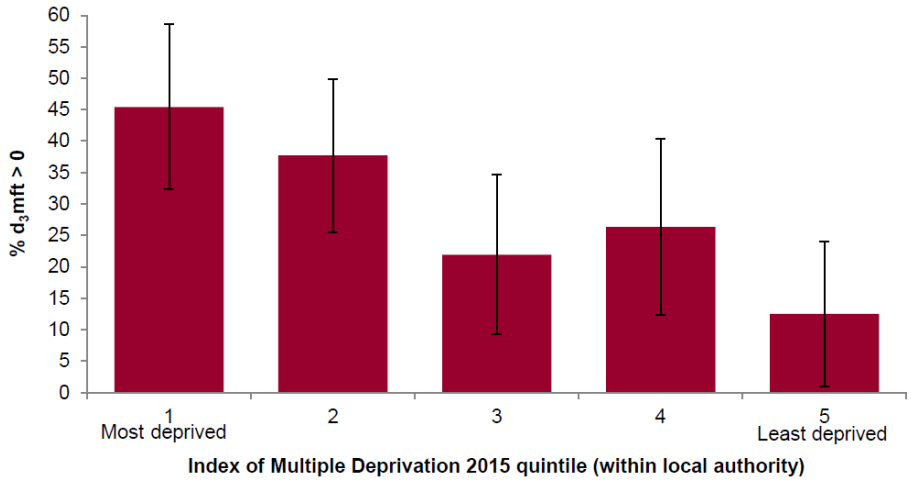
Table 1: Decay and severity by ward clusters in Doncaster local authority (PHE, 2017b)

Ward Cluster	Average d_3mft	% with decay experience	Average d_3mft in those with decay experience
Central	1.5	35.8	4.3
East	0.2	10.5	2.0
North	0.8	28.3	3.0
South	1.1	33.3	3.3

Source: PHE, 2017b

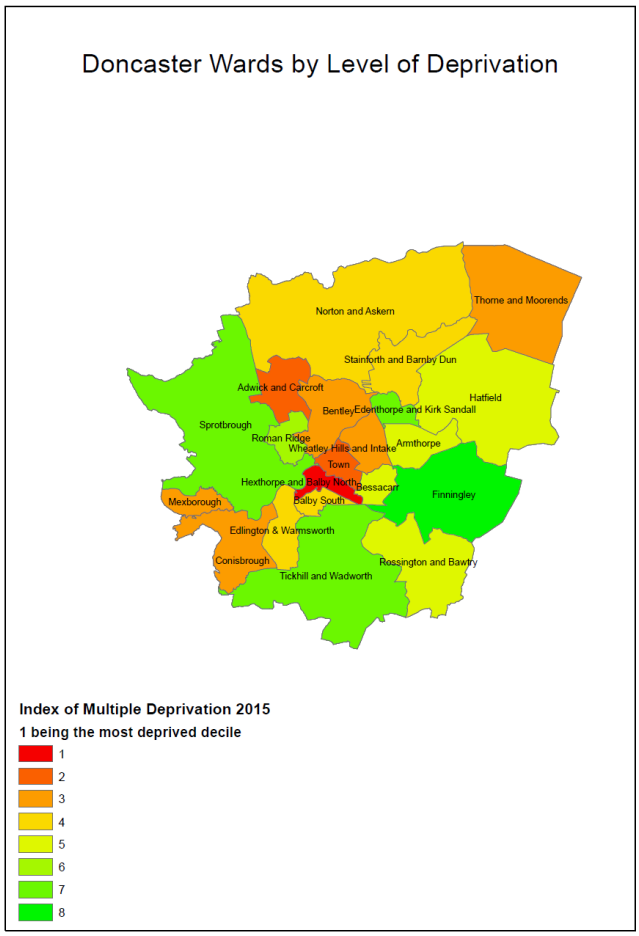
Poor oral health is related to deprivation, with children living in more deprived local authority areas experiencing poorer oral health than those from less deprived areas (PHE, 2016). In Doncaster prevalence of tooth decay was significantly worse for those living in the most deprived quintile than those in the least deprived quintile (figure 6). Figures 7 and 8 show deprivation by ward and lower super output area.

Figure 6: Prevalence of tooth decay by Index of Multiple Deprivation 2015 quintiles for DC.



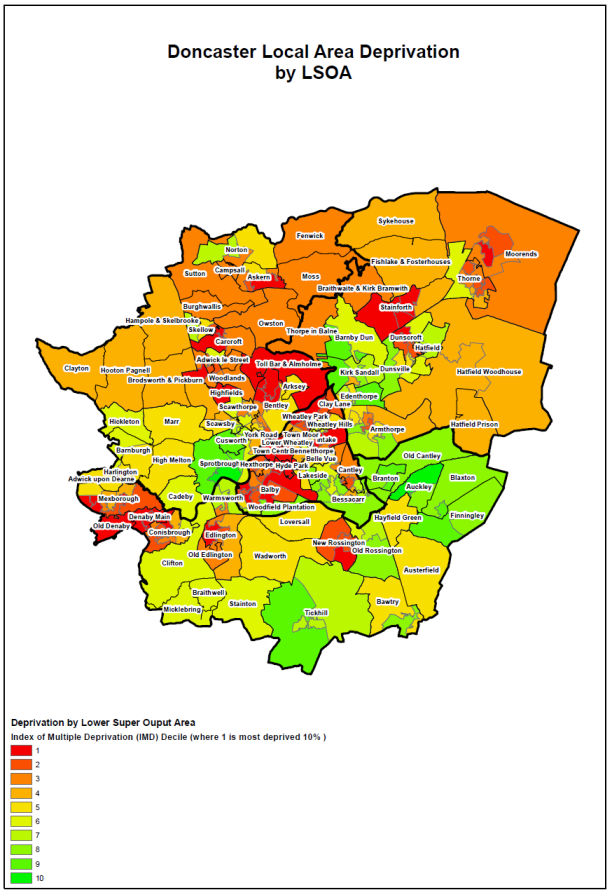
Source: PHE, 2017b

Figure 7: Doncaster wards by level of deprivation (IMD 2015)



Source: DC, 2017

Figure 8: Deprivation by lower super output area (IMD 2015)



Source: DC, 2017

3.1.4 Children aged 12 years (2008/09 dental survey)

A representative sample of 337 12-year old Doncaster children were surveyed in the 2008/09 survey**. T**he percentage of children aged 12 years with experience of tooth decay in Doncaster in 2008/09 was 53.5% which was higher than both for Yorkshire and Humber (44.7%) and England as a whole (33.4%). The mean D_3MFT was 1.24, which again was higher than Yorkshire and Humber (1.07) and England (0.74). For those with experience of tooth decay, each child had on average 2-3 teeth affected (2.32).

3.1.5 Hospital admissions for tooth extractions in children

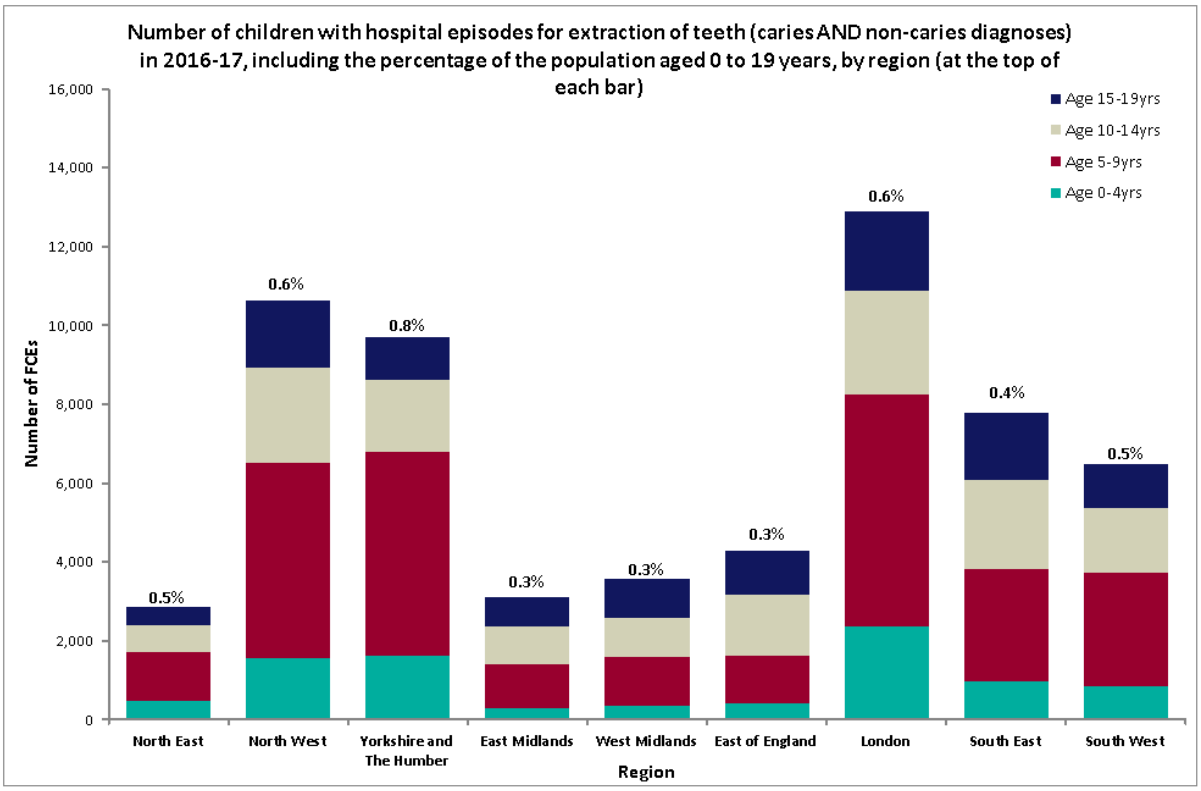
Children in Doncaster may attend hospitals in Rotherham, Barnsley, Sheffield or Bassetlaw for extractions due to tooth decay.

The extraction of teeth under general anaesthetic due to tooth decay is the most frequent reason for hospital admission in children aged between 5 to 9 years in England. A child in England has a tooth removed in hospital every 10 minutes due to tooth decay. As well as causing problems with eating, sleeping and smiling, around 60,000 days are missed from

school during the year (PHE, 2018). The cost of admissions for extractions to the NHS is around £35 million (Royal College of Surgeons, 2015).

In England overall, extractions for 0-19 year olds represent 7% of all hospital based procedures for that age band (2016/17). 0.8% of 0-19 year olds in Yorkshire and Humber underwent dental extractions (for tooth decay and other reasons) in 2016/17. The majority were in the 5-9 year age bracket. Yorkshire and Humber was the third highest region for numbers of children (0-19 years) having tooth extractions (figure 9) (PHE, 2018).

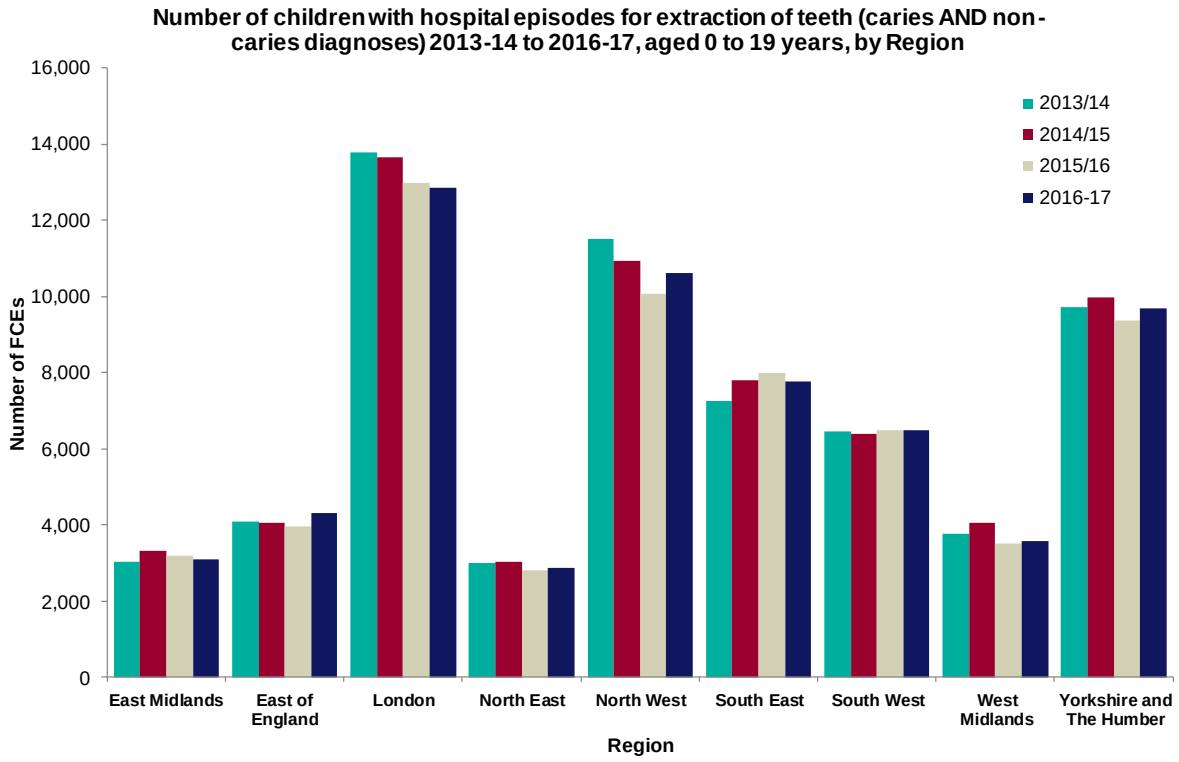
Figure 9: The number of children with hospital episodes for extraction of teeth (2016/17), including the percentage of the population aged 0-19 years by region.



Source: PHE, 2018

In Yorkshire and Humber there has been a recent increase in extractions (figure 10)

Figure 10: The number of children, by region, with hospital episodes for extraction of teeth (for tooth decay and other reasons) over the past four years.



Source: PHE, 2018

Overall in 2016/17 there were 1,135 finished consultant (hospital) episodes (FCEs) for extractions (all diagnoses) for 0-19 year olds in Doncaster. This equates to 1.6% of the 0-19 population, and was higher than the mean for England (0.5%) and Yorkshire and the Humber (0.8%). This was the highest level in the country along with Rotherham. The percentage of 0-19 year olds having FCE's for extractions (all diagnoses) has remained relatively constant for Doncaster since 2011 (PHE, 2018).

In 2016/17 the majority of extractions occurred in the 5-9 year olds age group. In 2016/17, 97.1% of FCE's for extractions in Doncaster had caries as the primary diagnosis for 5-9 year olds (i.e. the extractions were needed due to tooth decay). In 2016/17, 679 (3.5%) of 5-9 year olds in Doncaster had extractions for tooth decay This was the highest level in the country, much higher than the mean for England (0.7%) and Yorkshire and Humber (1.4%) (table 2) (PHE, 2018).

In some instances the data are an underestimate of the number of FCEs, as the Community Dental Service or General Dental Practitioners may provide the extraction service in hospital premises but the episodes may not be included in hospital data recording.

It is of concern that such high numbers of children are having teeth extracted due to tooth decay, given that it is entirely preventable. It is costly not only for the NHS, but it also has a high impact on families. Treatment under general anaesthesia can be a traumatic

experience for the child and their carers, carries a risk of life threatening complications, and is disruptive in terms of time taken off school and work.

Table 2: Percentage of South Yorkshire local authority 5-9 year olds who had an extraction due to tooth decay (2015/16 and 2016/17) (PHE, 2018).

Local authority	% of population aged 5-9 who had an extraction due to tooth decay (2015/16)	% of population aged 5-9 who had an extraction due to tooth decay (2016/17)
Rotherham	**3.2**	**3.3**
Doncaster	**3.3**	**3.5**
Barnsley	**2.2**	**2.6**
Sheffield	**1.6**	**1.8**
Yorkshire and Humber	**1.3**	**1.4**
England	**0.7**	**0.7**

Source: PHE, 2018

3.1.6 Vulnerable children

3.1.6.1 Minority ethnic groups

Among Yorkshire and Humber's 5 years olds in 2015 the proportion of children with tooth decay and the average number of decayed, missing and filled teeth was significantly higher in the 'Other ethnic group category (which included Chinese)' and 'Eastern European' and 'Asian/Asian British group' and Black/Black British ethnic groups than among other groups PHE, 2017a). This reflects the inequalities in oral health seen in different communities, which may be related to certain cultural practices.

3.1.6.2 Looked after children

There are approximately 485 looked after children in Doncaster (Department for Education 2015/16). Although looked after children experience similar health problems as children living in other family environments, they often enter the care system in a poorer state of health than other children because of poverty, abuse and parental neglect. Reports suggest they may experience poorer oral health. Frequent relocation within the foster care system could also make it more difficult for the children to complete their dental treatment, participate in school-based dental health programmes or obtain on-going preventive care. The NICE Public Health Guideline on Looked –after children and young people (NICE, 2015) raises concerns about:

- Access to dental care. Sometimes children need to travel considerable distances to access a dentist that has the capacity to take them. A looked-after child or young person may not attend a planned dental check for reasons relating to unplanned placement moves, fear, phobias or confidence issues. Missed appointments result in some dental practices 'de-registering' them (there is no longer 'registration' per se,

but practices usually maintain a voluntary list of regular patients which they would routinely see).
- Some dentists are reluctant to embark on a treatment programme if a child is in a short-term placement.
- There are particular needs around meeting the specialist dental needs of disabled children and young people.

Local authorities are responsible for making sure a health assessment of physical, emotional and mental health needs is carried out for every child they look after, regardless of where that child lives (Department of Health and Department of Education, 2015). The statutory health assessment should address: existing arrangements for the child's dental care appropriate to their needs, which must include routine checks of the child's dental health, and treatment and monitoring for identified dental care needs. To ensure the child's health plan is of high quality, the health assessment should include information held by community dental services and family dentists. The local authority that looks after a child must take all reasonable steps to ensure that the child receives the health care services he or she requires as set out in their health plan. Those services include dental care as well as advice and guidance on personal health care and health promotion issues. Foster carers and residential care staff should know it is their responsibility to make sure a child attends their health assessment and all dental appointments.

There are no local dental data for looked after children in Doncaster. The community dental services have traditionally provided dental services for those not already accessing dental care within the general dental services. However, now carers are advised to take children to their own dentist, or if the carer has no dentist, they can be referred into the community dental services

3.1.6.3 Special support schools

There are 5 local authority maintained special schools in Doncaster: Coppice School, Heatherwood School, North Ridge School, Pennine View School and Stone Hill School. The Community Dental Service has good links with these schools as well as with two independent residential special schools - Fullerton and Wilsic Special Schools.

In 2013/14 there was a national survey of special support schools, which examined 5 and 12 years olds There were no Doncaster level data for 5 or 12 years olds, but across Yorkshire and the Humber, 27.9% of 5-year-olds had tooth decay experience with each having a mean of 4.25 teeth affected (compared with 22.5%, 3.90 teeth for England) . Among 12-year-olds in Yorkshire and the Humber, 31.2% had tooth decay with a mean of 2.28 teeth affected (compared with 29.2%, 2.37 for England) .

Evidence suggests that children with additional needs, such as learning disabilities have similar tooth decay experience and are more likely to have their teeth extracted than their healthy peers (Nunn and Murray, 1987; Evans, Greening and French, 1991).

Although dental screening has been carried out in the past by the Community Dental Services, the effectiveness of dental screening has been questioned as many carers did not provide the positive consent required for an assessment to be carried out, and where tooth decay was discovered many children were not subsequently being taken to a dental practice for the treatment they required (Milsom *et al.*, 2006). Therefore, it was felt that there were better ways of working for this group of children, including encouraging paediatricians and school nurses involved with special schools to make a referral to the Community Dental Service for any children who have no dentist for an assessment and treatment.

3.2 Adults

3.2.1 Adult dental health survey (2009) – tooth decay, edentulousness and gum disease

The oral health of adults has improved significantly over the past 40 years as reported in the decennial national UK adult oral health surveys. No local clinical dental surveys have been undertaken of adults so the most recent data on adult oral health is drawn from the 2009 national adult dental health survey, which is reported at Yorkshire and the Humber level (NHS Digital, 2011).

In 2009 6% of adults in England were found to have no natural teeth (edentulous) with this figure rising to 7% in Yorkshire and the Humber. The proportion of adults with no natural teeth fell from 37% in 1968 to 6% in 2009. The fact that at least half of people aged 85 and over have retained some natural teeth has implications as many older people will have heavily restored (filled, crowned) teeth requiring future maintenance alongside continued preventative care. This may be difficult as patients become frailer, with increasingly complex medical histories; and mobility issues can affect access to dental services requiring domiciliary care.

Between 1998 and 2009 the prevalence of active tooth decay in adults in England fell from 46% to 28%. There were reductions across all age groups but the largest reduction was within the 25-34 year age band. The proportion with active tooth decay varied by age with the 25 to 34 years group having the highest prevalence, 36%, and those aged 65-74 years the lowest, 22%.

In 2009, 45% of adults with some natural teeth in England had mild gum disease, 9% had moderate disease and 1% had severe disease. Between 1998 and 2009 there was an overall reduction in the prevalence of moderate disease from 55% to 45%. However for more severe forms of disease an overall increase from 6% to 9% was observed. In Yorkshire and the Humber there was a greater proportion of adults with moderate and severe forms of gum diseases relative to the national average: 42% of adults had mild disease, 10% had moderate and 2% had severe disease.

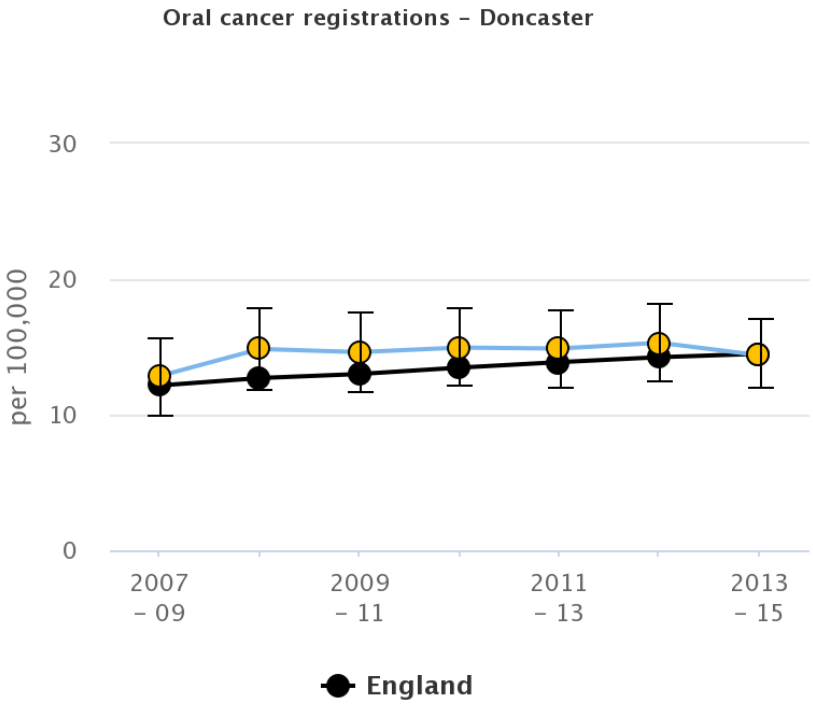
3.2.2 Mouth cancer

The main risk factors for mouth cancer are use of tobacco and excessive alcohol consumption. When used in combination, these act together to substantially increase the risk of mouth cancer by up to 40% (Blot, 1992). Smokers are 7-10 times more likely to develop mouth cancer when compared to people who have never smoked, and people who regularly use smokeless tobacco have 11 times the risk of a non-user (Johnson and Bain, 2000). Smokers are also at higher risk of developing gum disease. Mouth cancer is also linked with poor diet, infection with the Human Papilloma Virus (HPV) and excessive sun exposure (for cancer of the lip).

Mouth cancers make up 1 to 2% of all new cancers in the UK. Historically, mouth cancer has been twice as common in men as in women, with cancer incidence increasing with age. In the UK the majority of mouth cancers (87%) occur in people aged 50 or over, however mouth cancer is increasingly being seen in younger age groups and recently rates have increased from approximately 5,000 cases per year in the UK to more than 7,000. This has been attributed to HPV transmissions and increased excessive alcohol consumption and smoking amongst women. The risk of developing mouth cancer is greater in people living in areas of deprivation. This may be because people living in more deprived areas are more likely to smoke and have higher levels of alcohol consumption (Cancer Research UK, 2014).

Mouth cancer incidence rates in Doncaster have increased over the last 10 years. Between 2013 and 2015, there were 14.4 new cases per 100,000 population (figure 11). This was similar to the national levels (14.5) and equated to 124 new cases diagnosed in Doncaster. Between 2013 and 2015, there were 4.0 deaths per 100,000 population which again, was similar to England (4.4), and equated to 35 deaths (PHE, 2017c).

Figure 11: Trend in mouth cancer incidence rates in Doncaster and England (Doncaster is the coloured spots).



Source: PHE, 2017c

Doncaster has a higher level of adult smokers than nationally, 19.8% compared with 15.5% (Annual Population Survey, 2016). Doncaster is currently in the process of updating its Tobacco Control Plan, in light of the new National Plan for England (July, 2017). Doncaster has an effective Stop Smoking Service, and in addition commissions Officers from Trading Standards within the Council who focus on enforcement and education around illicit tobacco. The Doncaster Tobacco Control Alliance will be focussing on implementing guidance from the new National Plan.

Doncaster also experiences high levels of alcohol misuse. Doncaster has a significantly higher level of admission episodes for alcohol-related conditions than nationally (803 compared with 647) (PHE 2015/16). The Doncaster Substance Misuse Strategy 2014-17 (DC, 2014) aims to take action where immediate and universal change is needed to ensure that local areas are able to tackle local problems, reduce alcohol-fuelled violent crime on the streets, and tackle health inequalities. It hopes to secure industry's support in changing individual drinking behaviour and support individuals to make informed choices about healthier and responsible drinking, so it is no longer considered acceptable to drink excessively.

Given that HPV is associated with many oropharyngeal cancers and some mouth cancers, it is hoped that the HPV vaccination programme delivered to girls in Year 8 and primarily aimed at cervical cancer will also protect against these. Table 3 shows that the levels of immunisations in Doncaster exceed the public health outcomes framework target, and almost reach the WHO target.

Table 3: Percentage of target population having HPV vaccination 2015/16 (cohort 13, dose 1).

Local Authority	Percentage of target population having HPV vaccination (%)
Barnsley	87.40
Doncaster	89.50
Rotherham	89.40
Sheffield	90.10
WHO target	90.00
PHOF target	86.80

Source: PHE, 2017

3.2.3 Vulnerable adults

No local dental data is available for vulnerable adults. It is expected they will experience poorer oral health and access dental services less regularly.

3.2.3.1 Special needs

The community dental service has strong links and accepts referrals from the Hesley Villiage, a purpose built supported-living service for younger adults with a learning disability, often with autism and complex communication issues and other needs including behaviour that may challenge.

The Doncaster Community Dental Service has an oral health educator who works with residential homes for adults with additional needs to train carers in oral health and support in devising individual care plans for patients seen within the Community Dental Service.

3.2.3.2 Vulnerable Older people

Many older people live at home and rely on support from carers for their meals and daily care. Often oral health becomes neglected and dental care can prove challenging as those who are housebound are reliant on domiciliary dental care.

Older people may become more vulnerable if they move into a care home or have a period of time in hospital, as again they will be reliant on staff to help them maintain their oral health. More than half of older adults who live in care homes have tooth decay compared with 40% of over seventy-fives who do not live in care homes. People living in care homes or in hospital are at greater risk of oral health problems for several reasons:

- Long-term conditions (including arthritis, Parkinson's disease and dementia) can make it harder to hold and use a toothbrush, and to go for dental treatment.
- People now keep their natural teeth for longer, but this can mean they need more complex dental care than people who have dentures.
- Many medicines reduce the amount of saliva produced and leave people with a dry mouth.

All residents should have an oral health assessment when they move into a care home or hospital (NICE and Social Care Institute for Excellence (2016) . Data are not currently available to determine if oral health assessments are being undertaken in Doncaster, and whether residents are accessing regular dental care. Currently only 1 NHS dental practice in Doncaster and the Community Dental Services provide domiciliary care for those who are unable to visit a dental practices for regular care.

The 2015/16 oral health survey of older people collected oral health information about older people (aged 65+) who live in their own homes in the community but who have a mild level of dependency on external services to allow them to do this. 691 people took part in Yorkshire and the Humber, of which 32.4% had no natural teeth in either jaw (compared with 27% for England). 1.5% had no natural teeth or replacements which was again higher than nationally (1.2%). Nationally, 16% of 65-74 year olds, 13% of 75-84 year olds and 11% of 85+ year olds said they occasionally or more often avoided meals or had interrupted meals due to their teeth. 9.1% of people said they had current pain, and 7.4% had evidence of the presence of either a visible pulp, ulceration of the oral mucosa due to root fragments, a fistula or an abscess. 68% of 65-74 year olds, 67% of 75-84 year olds and 60% of 85+ year olds said they had seen a dentist in the previous 24 months.

3.2.3.3 Dementia

Maintaining oral health for people with dementia can be challenging. As dementia progresses, the person may lose the ability to clean their teeth, stop understanding that their teeth need to be kept clean, or lose interest in doing so. Carers may need to take over this task. There may come a time when the person with dementia is unable to say that they are experiencing pain or discomfort in their mouth or teeth. They will need to rely on other people to notice and interpret their behaviour and to arrange a visit to the dentist if necessary. There are several behavioural changes that may indicate that someone with dementia is experiencing dental problems. These may include: refusal to eat (particularly hard or cold foods); frequent pulling at the face or mouth; leaving previously worn dentures out of their mouth; increased restlessness, moaning or shouting ; disturbed sleep; refusal to take part in daily activities; aggressive behaviour. People with dementia are also likely to have increased problems with bruxism (grinding teeth), chewing and swallowing and denture wearing (FGDP, 2017).

In the early stages of dementia, most types of dental care are possible. However in the middle stages the focus of treatment is likely to be on prevention of further dental disease. Some people may require sedation or general anaesthesia for their dental treatment. The decision will be based on the individual's ability to co-operate, dental treatment needs, general health and social support. It is during the middle stages that issues around consent to treatment may also start to arise. Treatment at later stages focuses on prevention of dental disease, maintaining oral comfort, and provision of emergency treatment. Some dentists will see people at home. This can be less stressful and confusing for the person, and may increase co-operation. Care homes have a duty to ensure that their residents' healthcare needs are met (Alzheimers Society, 2015). Dementia friendly dentistry :good practice guidelines have been recently published by FGDP (2018).

3.2.3.4 Drug and alcohol dependency

Those suffering from drug or alcohol dependency often experience poor oral health, due to neglect of their general and oral health. They are more likely to seek treatment only when in pain, and often have high treatment needs. Furthermore, alcohol is a major risk factor for mouth and oropharyngeal cancer. Doncaster has a higher level of admission episodes for alcohol-related conditions than nationally (PHE, 2015/16)

3.2.3.5 Gypsy and traveller community

There is a gypsy traveller population in Doncaster who are likely to have high dental needs and are more likely to seek emergency dental care than regular dental care. There are sites at:

- Lands End, Thorne
- Little Lane Road, Clay Lane
- Nursery Lane (New Traveller), Sprotbrough
- White Towers, Armthorpe

There are also three residential sites these are:

- Mount Pleasant, Moorends
- Cow House Lane, Armthorpe
- Orange Croft, Tickhill

3.2.3.6 Roma Community

Roma communities have been settling in Doncaster since at least 2008. There are no estimates of the Roma population resident in Doncaster. However, it is likely to be in the hundreds, with almost 200 (mainly Slovak) Roma pupils attending Doncaster schools. Between 2015 and 2016, there were 360 arrivals from Romania. Doncaster's Roma community have migrated from Slovakia, the Czech Republic and latterly Romania.

Between 2015 and 2016, there were 360 arrivals from Romania. There are sizeable populations particularly in Hexthorpe and Hyde Park (South Yorkshire Roma Project, 2017).

Most parts of the country have very few Roma residents whilst Doncaster has one of the highest proportions of its population from Czech Roma communities. Sheffield and Rotherham also have large Roma communities.

Roma populations suffer significant direct and indirect discrimination and prejudice and experience higher levels of poverty than the general population, making them vulnerable to exploitation**.** Uptake of preventative services such as immunisation and screening is low, and levels of tobacco and drug use are high. Hepatitis B levels are higher than the general community.

Focus groups carried out a few years ago suggest that health problems experienced are similar to the general population except that certain conditions and behaviours are more prevalent, including poor dental health (Fundacion Secretariado Gitano, 2009). Health services report a tendency in the Roma population not to prioritise their own health and many are not registered with GPs. Anecdotally a high number of children undergo dental general anaesthetics for multiple tooth extractions. This may be related to poor diet, and irregular attendance at dental practices. There are also certain cultural practices such as placing sugar strips to rot down deciduous (baby) teeth. Regular dental care is necessary to promote preventive measures and to identify tooth decay early so that teeth can be restored rather than extracted.

A significant proportion of Roma adults have no English language skills and those who can speak English are often not fluent although language skills have tended to improve over time. Educational attainment of Roma pupils is also below average.

There is currently no specific work around oral health targeting the Roma community. However, in Sheffield resource leaflets in Roma Slovak have been developed with basic oral health messages and information on how to access an NHS dentist.

3.2.3.7 Mental health problems

There are no local data on the oral health needs of people with mental health problems. However, there are a number of people who suffer from dental anxiety or phobia. The terms dental anxiety, dental fear and dental phobia are often used interchangeably. Anxiety is a reaction to unknown danger, fear is a reaction to a known danger, and phobia is an extreme reaction resulting in avoidance or endurance of dental care with significant discomfort (Klinberg, 2008). The 2009 dental health survey of adults in England, Wales and Northern Ireland found that 12% of adults had a score of 19 or above on the modified dental anxiety scale (MDAS) indicating extreme anxiety or phobia (Humphris *et al.*, 1995; Nuttall *et al.*, 2011). Accessing dental care for these patients can be challenging, and they are often managed by the Community Dental Service and they may require intravenous sedation to enable treatment to be completed. In Sheffield there is a bespoke service for

anxious or phobic adult patients incorporating dental nurse-led CBT. In Doncaster, many of these patients are managed by treating under intravenous sedation.

3.2.3.8 Homeless

The number of statutory homeless households in Doncaster 2015/16 was 139 (Department for communities and local government, 2015/16). Homelessness has a significant negative impact on an individual's oral health, and creates barriers to accessing dental care. It has a considerable adverse effect on quality of life and the ability to move on from homelessness. The Healthy Mouths research study into the oral health of 262 people experiencing homelessness in London (Groundswell, 2017) found that 90% had issues with their mouth since becoming homeless and 70 % had lost teeth since becoming homeless (15% pulled their own teeth out). High rates of drug and alcohol use compounded the issues. Only 35% were able to clean their teeth twice a day, and a quarter had not been to the dentist for over 5 years. 58% were unclear what they were entitled to with NHS dentists, 21% had been completely unable to function in the last year due to oral health issues, and alcohol and drugs were often being used to manage dental pain.

3.2.3.9 Asylum seekers

Some asylum seekers are housed and supported in Doncaster through the Home Office dispersal system. Published Home Office figures show that at the start of October 2017, 309 people were being supported in Doncaster while awaiting a decision on their claim [known as Section 95 support]: 300 people were being accommodated, and there were nine people receiving subsistence-only support i.e. no accommodation. There were fewer than five unaccompanied asylum seeking children [UASC] being looked after by the local authority at the end of March 2017. These are children who are in the UK without family and have claimed asylum in their own right. They are separate to the dispersal system for asylum seekers described above. Those granted protection by the Home Office may stay in the area as refugees. Other groups of refugees are resettled directly from another country. For example, through the Syrian Resettlement Programme 19 resettled Syrians arrived in Doncaster during the past year [October 2016 - September 2017] (Migration Yorkshire, 2017).

Dental problems are commonly reported amongst refugees and asylum seekers. Oral health is often neglected as a result of the challenging circumstances people have experienced. Health services have a duty to serve the needs of the local population, including asylum seekers (Faculty of Public Health, 2008). However, accessing dental care can be a challenge due to language barriers and a lack of understanding over entitlements and charges for NHS dental care.

3.2.3.10 Overweight and obese

People who are overweight or obese, are in a high risk category for tooth decay as they may be consuming higher amounts of sugary foods and drinks, and more frequently. Furthermore, they often have co-morbid problems which may affect their oral health, for example diabetes which is associated with a greater risk of periodontal disease.

22.9% of reception children and 35.9% of year 6 children were overweight or obese compared with 22.6% and 34.2% nationally (National Child Measurement programme 2016/17). Figures for adults over 18 from the Active Lives Survey (Sport England, 2016) suggest that 73.4 % of Doncaster's adults are overweight or obese compared with 61.3% nationally.

A bariatric patient can be defined as someone who has limitations in health and social care due to physical size, health, mobility and environmental access, and will have needs that are in excess of the safe working load and dimensions of any supporting surface e.g. mattress, toilet frame or commode. Those with a BMI of 50 may be housebound and require specialist care and support. The Yorkshire ambulance service has vehicles available for transporting bariatric patients.

Bariatric patients may currently have difficulties accessing routine dental care as:

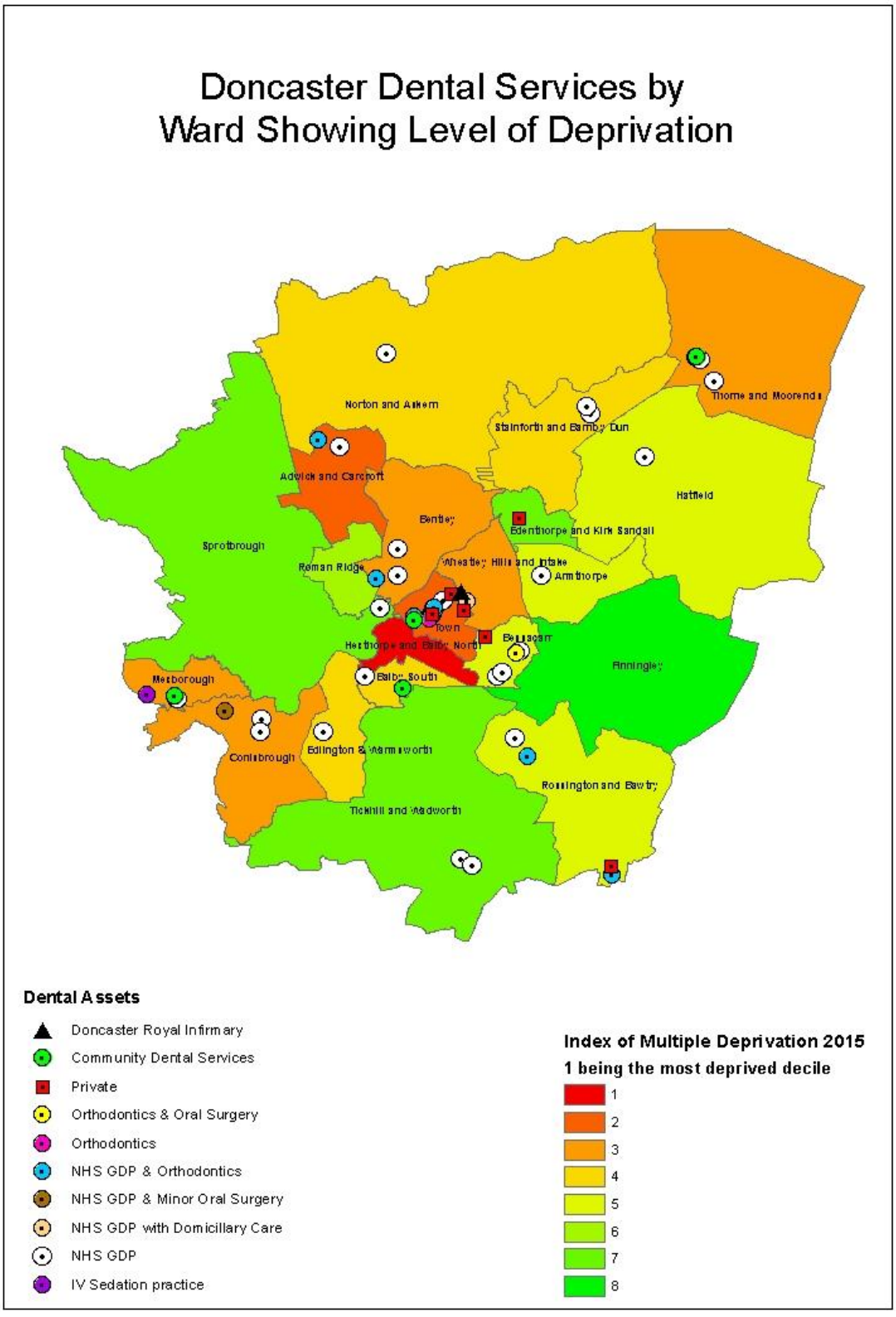
- Normal dental chairs will not support their weight or facilitate their size.
- Many dental practices are based in converted houses which do not have disabled access or adequately wide doors for patients.
- Dental practices do not have links with the bariatric ambulance service for transporting patients.

Currently some bariatric patients may receive domiciliary visits by local dentists, however only assessments and basic care is possible as there are often bed-bound. Patients requiring restorations (fillings) or extractions would usually need to be treated within a dental clinic. However the nearest service with a bariatric dental chair is provided by Leeds Salaried Dental Service. This may be provided by more local community dental services in the future.

4. DENTAL SERVICES

All NHS dental services are commissioned by NHS England and Figure 12 shows the locations of services (both NHS and private) superimposed onto maps showing deprivation (IMD, 2015) by ward (2015). There are 38 NHS general dental practices distributed across the borough, of which: 1 also provides domiciliary care for the whole of the borough; 1 also provides minor oral surgery; and 7 of which also provide some orthodontic care. 1 practice provides purely NHS orthodontic care and 1 provides both NHS orthodontic care and oral surgery. There is no database of practices offering private dental care, however many NHS dental practices also offer an element of private care. In addition there are also around 6 fully private general dental practices. The community dental service runs from a base and 3 satellite clinics at Mexborough, Thorne and Balby; and secondary care dentistry is provided at Doncaster Royal Infirmary.

Figure 12: Location of dental services (both NHS and private) by ward by deprivation (IMD, 2015)



Source: DC and NHSE, 2017

4.1 Primary care

4.1.1 General dental services

NHS general dentist practitioners work under general dental service or personal dental service contracts and are contracted to provide an agreed annual number of Units of Dental Activity. They receive one UDA for every band 1 course of treatment, 1.2 UDAs for every band 1 urgent course of treatment, three UDAs for band 2 treatments and 12 UDAs for band 3 treatments. Patient's pay a band charge depending on the extent of their treatment requirements. These reflect the time and material costs for the different complexities of treatment.

Band 1: £21.60. Includes an examination, diagnosis and advice. If necessary, it also includes x-rays, scale and polish, application of fluoride varnish or fissure sealants and preventive advice and planning for future treatment.

Band 1 urgent: £21.60. Most urgent treatments can be done in one appointment. However, if more than one visit is required and the patient returns to the same dentist to complete their urgent treatment, the Band 1 urgent charge is all that they should pay.

Band 2: £59.10 covers all treatment covered by Band 1, plus additional treatment, such as fillings, root canal treatment, gum treatment and removing teeth (extractions).

Band 3: £256.50 covers all treatment covered by Bands 1 and 2, plus more complex procedures, such as crowns, dentures and bridges.

If, within two months of completing a course of treatment, the patient needs more treatment from the same charge band or a lower one such as another filling, they do not have to pay anything extra. However, after two months of completing a course of treatment, they will have to pay the NHS charge band for any dental treatment received.

Although cost may be perceived as a barrier to dental care, NHS dental care is free for people: aged under 18, or under 19 and in qualifying full-time education; pregnant or who have had a baby in the previous 12 months; staying in an NHS hospital with treatment carried out by a hospital dentist; attending an NHS hospital dental service outpatient department (however, people may have to pay for dentures or bridges). It is also free if the person or their partner (including civil partner) receive, or the person is under the age of 20 and the dependent of someone receiving: income support; income-related employment and support allowance; income-based jobseeker's allowance; pension credit guarantee credit; or universal credit and meet the criteria. It is also free for those with a valid NHS tax credit exemption or HC2 certificate and some costs may be met for those with an HC3 certificate.

4.1.2 Community Dental Services

The Community Dental Services which operate from the Flying Scotsman, and clinics at Thorne, Mexborough and the Opal Centre (Tick Hill Rad, Balby) provide special care dentistry and primary care for groups of people who cannot be treated in the general dental services due to complex needs. They include:

- children with physical or learning disabilities or medical conditions,
- children who are looked after or on the at risk register,
- children with extensive untreated tooth decay who are particularly anxious or uncooperative,
- adults with complex needs who have a proven difficulty in accessing or accepting care in the general dental services, including adults with moderate and severe learning and physical difficulties or mental health problems and severe dental anxiety,
- adults with medical conditions who need additional dental care and housebound people.

Comprehensive dental treatment (extractions and restorative treatment) and exodontia (extractions only) under general anaesthetic for special care adults and children from Doncaster is provided at Doncaster Royal Infirmary, following a dental pre-assessment within CDS. The comprehensive dental treatment list for children is Consultant-led.

There has been a recent service review by NHSE and a new CDS specification is to be issued for all CDS's across Yorkshire and the Humber. It is planned that the CDS will carry out all dental assessments for dental GAs in the future.

4.1.3 Prison dental services

There are 4 prisons in and around Doncaster: HMP Doncaster; HMP Lindholme; HMP Moorland and HMP Hatfield, which has two sites, Hatfield and the Lakes.

HMP Doncaster

HMP Doncaster is a category B local prison for adult males with a capacity with an operational capacity of 1,145. The prison is managed by Serco and the primary healthcare provider is Nottingham Healthcare NHS Foundation Trust. Approximately 28% of prisoners are on remand, therefore, have short-term care needs. *Time for teeth* are subcontracted to provide dental care and currently provide eight sessions of dental care every week. Oral health promotion, including written material is provided.

It is a needs-led service and appointments are allocated by a Nurse-led triage system organising routine and emergency appointments. A barrier to effective service delivery is that staff servicing the dental provision are not always consistent which can result in a lack of integration with the rest of healthcare.

HMP Lindholm

HMP Lindholme is an adult male category C prison with an operational capacity of 997. Notable demographics are that 30% of the population is black minority ethnic (BME) higher than the national average of 11% in the prison population. Primary medical care is provided by Nottinghamshire Healthcare NHS Foundation Trust. *Time for teeth* are subcontracted to provide dental care. The dental team deliver six sessions a week over three days from an on-site clinic.

HMP/YOI Moorland

HMP/YOI Moorland is a category C prison with an operational capacity of 1006. Notable demographics are that 25% of the population is black minority ethnic (BME) higher than the national average of 11% in the prison population.

The primary healthcare provider is Nottinghamshire Healthcare NHS Foundation Trust. *Time for teeth* are subcontracted to provide dental care. Dental sessions are delivered by a dentist and dental nurse on Tuesdays (all day), Wednesdays, Thursdays and Fridays (am only) from an on-site clinic.

HMP/YOI Hatfield

HMP/YOI Hatfield is a category D open resettlement prison for men, located near Doncaster. The prison is split over two sites. The Lakes site is a reception/induction facility where prisoners typically reside for three months before transferring to the Hatfield main site. The facility has an operational capacity of 310. The primary healthcare provider is Nottinghamshire Healthcare NHS Foundation Trust. The healthcare model states that any healthcare service should be equitable across both sites. *Time for teeth* are subcontracted to provide dental care. There are currently no dental facilities at HMP/YOI Hatfield, so prisoners are escorted on a bus to attend the dental clinic at HMP/YOI Moorland. Prisoners need to be provided with a license to attend dental appointments. There have been concerns about the compromised dignity of prisoners with this arrangement and the prison Governor has reported a desire for alternative service delivery pathways to be explored.

The prison population includes a large number of people from more deprived communities. Poor oral health is associated with deprivation, and more vulnerable groups experience poorer oral health and access dental services less. Furthermore many people within the prison population have lifestyles which are not conducive to maintaining good oral health, including risk factors such as increased smoking prevalence, increased substance use and frequent and high consumption of sugar poor tooth brushing habits which make them more susceptible to oral diseases including tooth decay, gum disease and mouth cancer. Although prisons promote healthy food options at mealtimes, most prisoners report high sugar intake between meals. Evidence supports the view that high levels of oral disease impacts on a prisoner's quality of life. Prisoners have, on average, 4.2 decayed or unsound teeth and approximately 60% of prisoners have at least one such tooth. This compares to a national average of 1.5 decayed or unsound tooth per adult and 55% of the population having one such tooth (Walker and Cooper, 2000). Findings from recent surveys and needs assessments from Wales (Wilson, 2014) and Scotland would echo the findings in the

literature concerning increased oral health needs of the prison population. Only about a quarter (26%) of respondents participating in Welsh oral health surveys felt their dental health was very good/ quite good (compared to 73% of Welsh respondents in the Adult Dental Health survey). Oral health has been shown to improve the longer a prisoner is in prison with convicted prisoners having better oral health than short stay remand prisoners. Prisoners who are incarcerated for longer may have on-going assessment and treatment they would not access outside the prison environment. A survey of remand prisoners showed that they use services more in prison than they do outside and over half (54%) reported that their last dental treatment was during a previous conviction (PHE, 2014).

4.1.4 Urgent dental care

The urgent care dental service in South Yorkshire and Bassetlaw consists of three elements: a call answering service, an appointment booking service and a clinical service. Calls are triaged through NHS 111 provided by Yorkshire Ambulance Service using national protocols. The personal details of people needing an urgent dental appointment are then emailed to the Doncaster Dental Access Centre, which is provided by The Rotherham NHS Foundation Trust. A dental care professional from the dental access centre then telephones the patient to offer an appointment at their nearest provider. The clinical service is provided in hours and out of hours by the Doncaster Dental Access Centre, Taptonville House Dental Practice in Sheffield and Wright Dental Care in Worksop on occasional weekends. There are also in-hours access appointments commissioned from dental practices in Barnsley, Rotherham, Doncaster and Bassetlaw. Patients pay for treatment in the same way as for general dental services.

The urgent dental care service for Yorkshire and Humber is currently under review and redesign by NHS England and a new service is planned from April 2019.

4.1.5 Availability and Access to general, urgent and community dental services

Availability and access to NHS dental services is essential for patients to receive preventative advice and interventions such as fluoride varnish, and ensures early identification and treatment of oral health problems. Equitable access to dental services is an important factor in reducing oral health inequalities.

Figure 11 shows that there is an NHS dental practice sited in every ward except Finningley, Roman Ridge, Edenthorpe and Kirk Sandall, Wheatley Hills and Intake and Hexthorpe and Balby North. The latter two wards have high levels of deprivation and consequently experience poorer oral health. The majority of Sprotbrough is also poorly served with dental care, and the northern part of this ward experiences higher levels of deprivation and oral health.

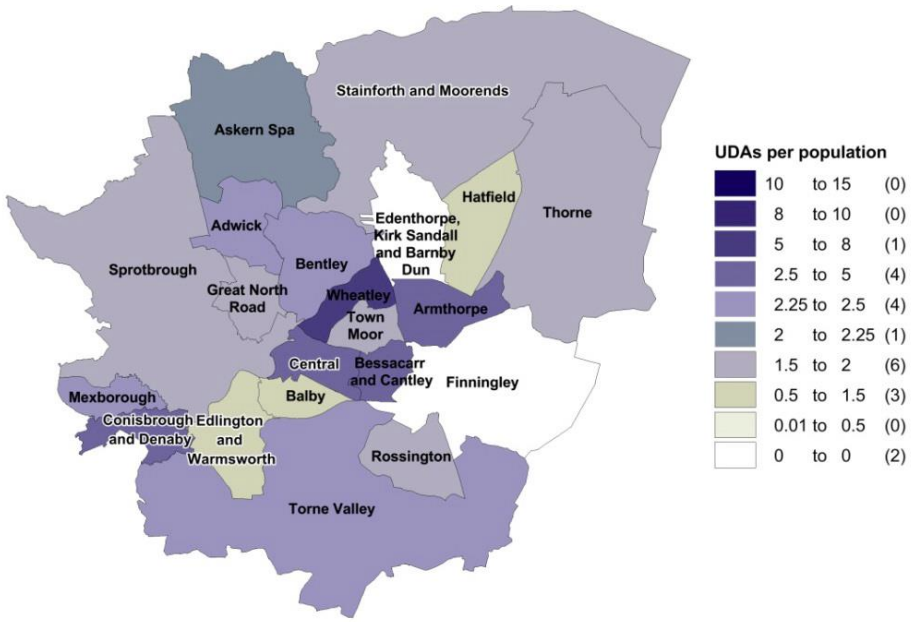
The average number of Units of Dental Activity (UDAs) commissioned per person in Doncaster is similar to neighbouring local authorities (table 4), however, the levels of UDAs commissioned by ward do not equate to the relative need (figure 13). For example, the most southern part of Doncaster is relatively less deprived and consequently would be expected to have better oral health, yet it has a relatively high level of UDAs commissioned. There appear to be no UDAs commissioned in Finningley or Edenthorpe, however these are also less deprived areas which may have lower dental need.

Table 4: Average number of UDAs commissioned per person 2015/16

Area	Average no. of UDAs commissioned per person
Bassetlaw	1.5
Barnsley	2.2
Doncaster	2.1
Rotherham	1.7
Sheffield	1.9

Source: NHS England, 2016

Figure 13: UDAs commissioned per population in Doncaster by ward, 2012/13



Source: PHE, 2014

Also despite the relatively high numbers of UDAs commissioned overall, the proportion of decayed teeth that were filled in 5 year olds in Doncaster (2015) was only 13.1%, although this was higher than England (12.0%) and Yorkshire and Humber as a whole (10.4%). This needs further investigation. Furthermore, fee paying adults were more likely to have a band 1 course of treatment, that is, not need any dental treatment after examination, than fee paying adults. Proportionately more fee exempt adults had band 3 courses of treatment, reflecting the fact that people from more deprived backgrounds are more likely to have greater oral health needs. Fee exempt adults are also more likely to have urgent dental care, indicating they are more likely to attend a dentist with a problem rather than attending regularly for routine dental check-ups. This may also reflect the accessibility of the urgent care service provided at the Flying Scotsman. (SYB OHNA, 2015).

Access to primary care dental services has been a key issue both nationally and locally. Substantial investment has been made since March 2006 to increase access to dental care. The indicator used to assess dental access in terms of utilisation of general and community dental services is the number of unique people accessing (using) dental services over the previous 24 months for adults and over the last 12 months for children. This metric is based upon NICE recall guidance, which recommends the longest interval between dental examinations for adults should be 24 months and 12 months for children.

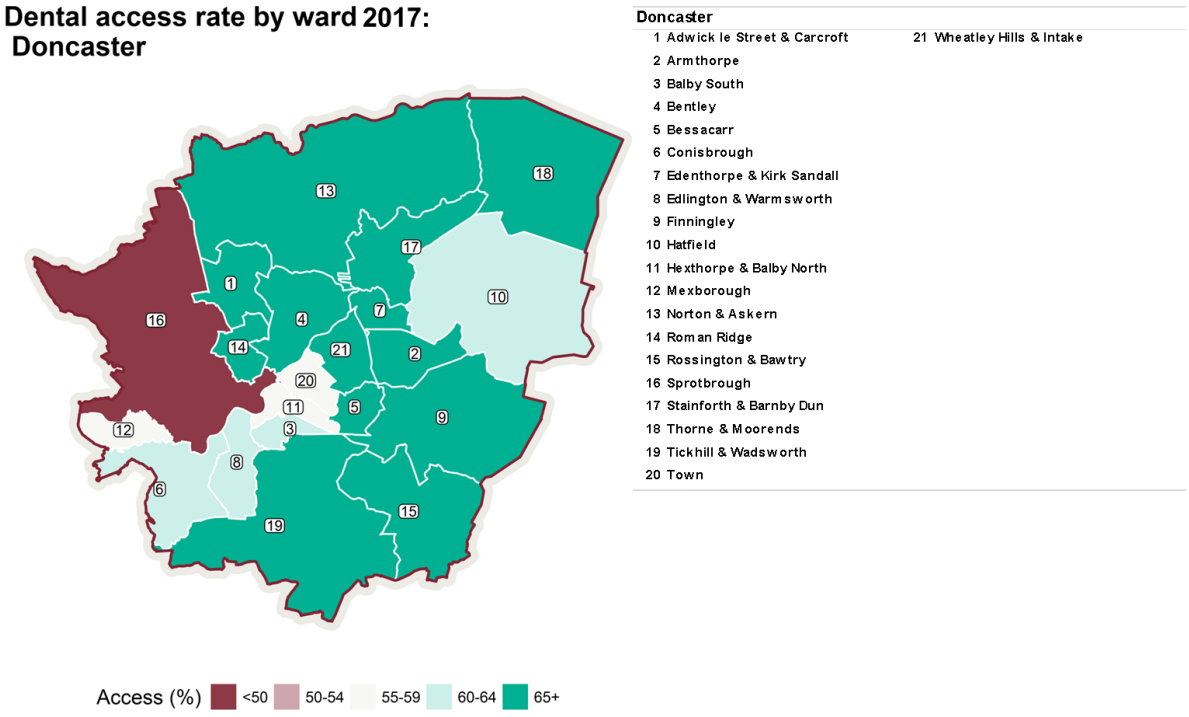
Access to NHS dental care in Doncaster has remained relatively constant, with around 65% of children having accessed dental care over a 12 month period and 69% of adults accessing care over a two-year period (Table 5). The access rates are similar to neighbouring local authorities. However, the access rates for children and adults in Doncaster have been consistently higher than the averages for England. The access rates reflect the widespread availability of NHS dental care in Doncaster. This data does not include figures for patients attending the 6 private dental practices (as this data is not available), therefore, the true percentage of Doncaster's child and adult population accessing dental care (both NHS and private) will be higher than those figures in table 5. Figure 14 shows that people from Spotbrough in particular are struggling to access to access NHS dental services, which may be linked with the limited availability of NHS dental practices in the area.

Table 5: Percentage of children and adults accessing NHS dental care

Area	Children seen in the previous 12 months as a percentage of the population				Adults seen in the last 24 months as a percentage of the population			
	30 Jun 2016	30 Sep 2016	31 Dec 2016	31 Mar 2017	30 Jun 2016	30 Sep 2016	31 Dec 2016	31 Mar 2017
Barnsley	65.8	65.6	65.4	65.2	63.6	63.3	63.4	63.4
Doncaster	65.7	66.0	64.9	64.3	69.4	69.4	69.3	69.0
Rotherham	61.2	61.6	61.5	61.2	60.5	60.4	60.3	60.2
Sheffield	64.9	64.9	64.7	65.7	58.7	58.7	58.8	59.3
NHS England North (Yorkshire and Humber)	62.7	62.8	62.7	63.2	56.9	56.9	56.8	56.9
England	**57.6**	**57.6**	**57.8**	**58.2**	**51.4**	**51.3**	**51.4**	**51.5**

Source: NHS Digital, 2017

Figure 14



Source: PHE, 2017

Patients are no longer officially 'registered' with a dental practice, but patients tend to be associated with particular dental practices for their routine dental care.

General dental practices provide information to the NHS Choices website regarding whether they are able to take on new patients and the facilities they offer including access for disabled patients. It is the responsibility of the practice to keep this information up to date, but many practices have not done this recently. Following a recent request from NHS England to update NHS Choices, information was acquired concerning which practices are taking on new patients in Doncaster (Table 6). There were 3 practices taking on adults and 4 taking on children. However, 9 practices had not recently updated their status on NHS Choices, so it was impossible to say whether or not they are taking on patients.

Table 6: Number of general dental practices taking on new patients

Is the practice taking on new patients?	Number of practices
Yes taking on new patients - adults	3
Yes taking on new patients – children	4
Not taking on any patients	26
No data	9

Source: NHS Choices, 2017 (16.10.17)

It is important to note that there will never be 100% of the population accessing NHS dental care due to:

- Some people preferring to opt for private dental care, especially for cosmetic procedures.
- Some people do not wish to access regular routine dental care, opting to attend urgent dental care services only when in pain. This may be due to anxiety, phobia, lifestyle and cultural issues, and cost. However, many people in Doncaster qualify for free NHS dental treatment as described earlier.

NHS England is currently looking at access to NHS dental care and urgent dental care across Yorkshire and Humber. More detailed ward level access data will be obtained and used to inform future primary care dental service provision. Dental access remains a problem for many people, especially those in the more vulnerable groups. It is recognised that dental

services are demand led, but that they should be increasingly targeted towards those whose oral health is poor or who are at higher risk of developing disease.

However, improving access to dental care does not necessarily equate with improvements in oral health as dental services tend to be more treatment -focussed. Improving oral health and reducing oral health inequalities requires a more prevention-focused primary dental care service working in line with *Delivering Better Oral Health* (PHE, 2017), and local authority-led oral health improvement programmes within the community. However, the local authority focus at present is focussed on improving the oral health of children and young people rather than a whole life-course approach.

4.1.6 National Contract Reform

New NHS dental contract prototypes for general dental services are being tested which aim to change the focus of dental service provision from the delivery of treatment to a more preventive approach. The idea is to promote a shared responsibility to improve and maintain patients' oral health. Although initially planned to be introduced in 2018, the new contract is now likely to be delayed. There are currently 3 dental practices testing the prototype dental contract in South Yorkshire.

4.2 Secondary care

Secondary care dental services such as oral and maxillofacial surgery and specialist orthodontic services are provided at Doncaster NHS Foundation Trust Hospital. Consultant/Specialist Paediatric dentistry and treatment by specialists in special care dentistry is provided by the Community Dental Services. However for other specialist services such as restorative treatment (covering crowns, bridges, dentures, root canal treatment, treatment of gum conditions), paediatric dentistry (secondary/tertiary care), oral medicine, oral pathology, oral microbiology, and oral radiology, patients are referred to the Charles Clifford Dental Hospital in Sheffield. The vast majority of care is undertaken on an outpatient basis. The most frequent oral surgery procedures are dental extractions, the majority of which are carried out in 5 to 9 year olds (see section 3).

5. PATIENT AND PUBLIC INVOLVEMENT

5.1 Postal survey 2008

A postal survey of adult oral health was conducted across the region in 2008 (YHPHO, 2008).

Overall 25.8% of participants in Doncaster rated their oral health as fair, poor or very poor compared with the Yorkshire and the Humber average of 25.3%. Doncaster residents were more likely to report poorer oral health than those living in other areas of South Yorkshire.

Doncaster data from the Yorkshire and Humber Adult Oral Health Survey 2008 when compared with Yorkshire and the Humber as a whole (in brackets):

- 70.9% reported they had visited a dentist in the last year (73.4%)

- Of those with no natural teeth 45.5% reported their last visit was at least 5 years ago (46.2%), despite the need for a mouth check (e.g. to detect signs of early cancer) even if no teeth are present.
- 68.2% reported visiting the dentist for regular check-ups (68.9%).
- 22.7 % visited the dentist only when they had problems (19.6%).
- 70% had not experienced difficulties accessing routine care or 62.4% had no difficulties finding care when they were having problems, which was similar to Yorkshire and Humber
- 75.4% did not have problems accessing NHS dental care (excluding orthodontic treatment) for their children under 18 years (71.4%).
- Barriers to accessing dental care included: no dentists taking on patients (56.7%), cost (30.6%), lack of time or inconvenient surgery opening hours (17.2%), dentists only treating privately (30.0%).

5.2 Healthwatch

Healthwatch Sheffield has reported on disabled access to dental services in South Yorkshire and Bassetlaw (2016) which involved a small number of service users in Doncaster. It highlighted the need for dental practices to ensure they made necessary adjustments at their practices to improve accessibility and highlighted a training need among dental professionals to ensure patients received better care.

5.3 Pupil Lifestyle Survey

A health-related behaviour survey of young people of primary and secondary school age was carried out by the Schools Health Education Unit (SHEU) in 2015 and 2017. 3628 children took part in the 2017 survey, however not all the schools took part in both surveys. The results below show the 2017 data with the 2015 data in brackets.

Primary schools

- 4% (3%) of pupils responded that they usually clean their teeth ‘less than once a day’.
- 78% (79%) of pupils responded that they usually clean their teeth at least twice a day.
- 75% (78%) of pupils responded that they visited the dentist in the last 6 months.
- 8% (9%) of pupils responded that they last visited the dentist more than a year ago a
- 4% (3%) said they have never been to the dentist
- 71% (72%) of pupils responded that they last went to the dentist for a check-up.

Secondary schools

- 2% (2%) of pupils responded that they usually clean their teeth 'less than once a day’.
- 82% (81%) of pupils responded that they usually clean their teeth at least 'twice a day’.

- 90% (87%) of pupils responded that they last visited the dentist in the 6 months before the survey.
- 3% (5%) of pupils responded that they last visited the dentist more than a year ago
- 1% (1%) said they have never been to the dentist.
- 77% (79%) of pupils responded that they last went to the dentist for a check-up.

6. ORAL HEALTH IMPROVEMENT

6.1. Oral health promotion in primary care

Frequent exposure to fluoride, regular brushing with a fluoride toothpaste, a healthy diet and routine dental care contribute to improved oral health outcomes and a reduction in oral health inequalities. The importance of appropriate preventive programmes and high quality dental services is reflected in the government's current reform plans.

Historically, primary care general dental services have been treatment focused. The current dental contract was designed to encourage primary care dentists to focus on prevention and health promotion and carrying out fewer interventions. However, while the contract has removed incentives for over-treatment, there is still limited incentive for the general dentist to take a more preventative approach. Preventive activity undertaken within general dental services tends to be largely undocumented and has traditionally been based on oral health education. However, publication of the Delivering Better Oral Health toolkit (PHE, 2017) for the dental team has encouraged practices to practise evidence-based prevention, involving tailored oral health advice including discussing dietary choices, tobacco and alcohol use and signposting to services e.g. stop smoking services as appropriate; as well as preventive interventions such as fluoride varnish application.

Evidence from systematic reviews shows that application of fluoride varnish between two and three times a year can reduce tooth decay by 37% in baby teeth and 43% in adult teeth. Therefore evidence based guidance for dental professionals recommends application of fluoride varnish twice a year for all children between 3 and 16 years and two or more times for all children (0 to 16 years) at higher risk of tooth decay. For adults with a higher risk of tooth decay, it is recommended that fluoride varnish is applied twice a year. Fluoride varnish applications are available as part of NHS dental treatment and are free for children and any adults who are exempt from payment charges.

Doncaster has seen an increasing trend in fluoride varnish application, but there is still room for further improvement (Table 7). Other local authorities have increased the uptake of fluoride varnish through dental practice audits to increase awareness among dental practitioners and social marketing campaigns to raise awareness' among children and carers.

Table 7: The trend in percentage of child courses of treatment that contain fluoride varnish (NHS Digital, 2017)

Year	2012/13	2013/14	2014/15	2015/16
% of child courses of treatment that contained fluoride varnish application	58.3%	unavailable	55.9%	57.90%

6.2 DC Oral health improvement services

DC is responsible for securing the provision of oral health improvement programmes to improve the health of the local population in Doncaster. It previously had a dedicated oral health promotion team, however re-structuring has led to oral health improvement now being embedded into the Healthy Child Programme which the Council has commissioned Rotherham Doncaster and South Humber NHS Foundation Trust to provide. This comprises the 0-5 health visiting service and the 5-19 school nursing service. There is also an oral health lead and public health improvement coordinator with a focus on oral health within the Children Young People and Families team in Public Health.

Commissioning Better Oral Health for Children and Young People (CBOH) (PHE, 2014) and Oral Health: Local Authorities and partners (NICE, 2014) provide guidance for local authorities on commissioning evidence-based oral health improvement programmes. The guidance advocates a population approach with advice and actions for all, with additional interventions aimed at those at higher risk of developing oral disease, which is referred to as proportionate universalism (Marmot, 2010). The evidence-based oral-health improvement interventions are summarised in table 8, together with their overall level of evidence-based recommendation and details of any of these programmes taking place in Doncaster.

Table 8: Evidence-based oral health improvement interventions (CBOH, 2014)

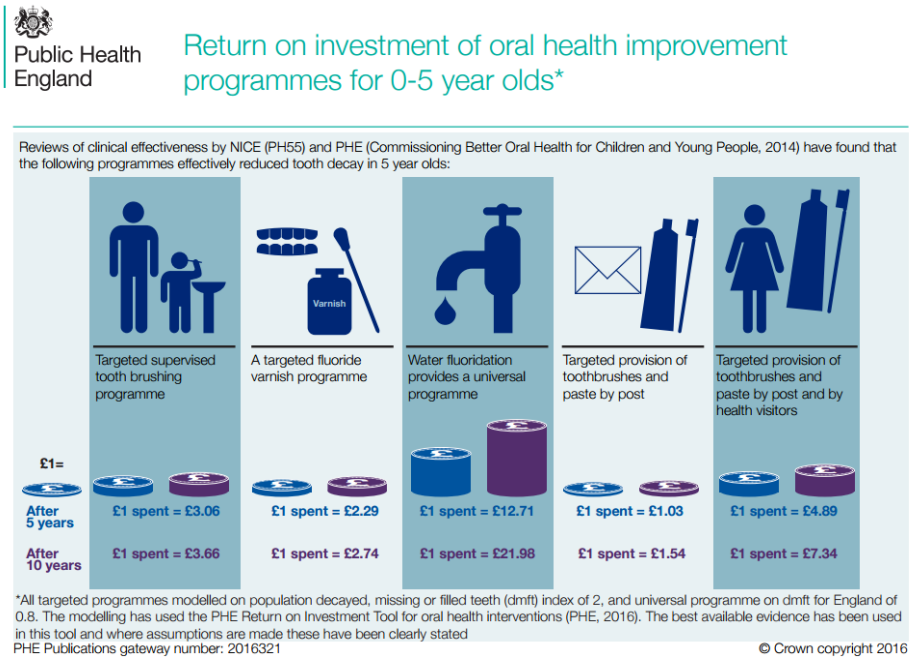
Ottawa Charter Principle	Oral health improvement intervention	Overall level evidence-based recommendation in CBOH	Details of any interventions taking place in Doncaster
Reorienting health services	Targeted community-based fluoride varnish programmes	Recommended	No activity. Encouraging uptake of fluoride varnish at local dental practices through outreach work at Edlington Hilltop.
	Targeted provision of toothbrushes and toothpaste (through postal schemes or through health visitors)	Recommended	Health visitor packs: Universal provision through distribution at First Friends groups at family hubs or 12 month review.
	Targeted community-based fissure sealant programmes	Limited value	No activity
	Targeted community-based fluoride rinse programmes	Limited value	No activity
	Facilitating access to dental services	Limited value	Promotion of NHS Choices to find a dentist through training and signposting through toothbrushing clubs and community work
	Using mouth guards in contact sports	Limited value	No activity
Developing personal skills	Oral health training for the wider professional workforce (e.g. health education)	Recommended	Oral health and nutrition training from Pubic Health's Children, Young People and Families Team available to anyone who has a role in supporting or caring for a young person.
	Integration of oral health into targeted home visits by health/social care workers	Recommended	Distribution of oral health packs by health visitors at 12 month checks and though First Friends groups at family hubs.
	Social marketing programmes to promote oral health and uptake of dental services by children	Limited value	No activity
	Person-centred (one-to-one) counselling based on	Limited value	No activity

	motivational interviewing outside of dental practice settings		
	One off dental health education by dental workforce targeting the general population	Discouraged	No activity
Creating supportive environments	Supervised tooth brushing in targeted childhood settings	Recommended	Toothbrushing clubs set up in nurseries and schools
	Healthy food and drink policies in childhood settings	Recommended	Opportunities through the Healthy Living, Healthy Lives accreditation scheme for schools, colleges and early years providers
	Fluoridation of public water supplies	Recommended	No activity
	Provision of fluoridated milk in schools	Limited value	No activity
	Fluoride toothpaste and toothbrushes provided in food banks		No activity
Build healthy public policy	Influencing local and national government policies	Recommended	The South Yorkshire Healthy Workplace Award PHE led sugar reduction programme
	Fiscal policies to promote oral health	Emerging	Soft drinks sugar levy introduced nationally in April 2018
	Infant feeding policies to promote breast feeding and appropriate complementary feeding practices	Emerging	Health visiting service and maternity service both have The Baby Friendly Initiative accreditation at level 3. Family hubs have recently been awarded the level 1 award, and are currently working towards level 2. Breastfeeding welcome scheme being relaunched.
Strengthening community actions	Targeted peer (lay) support group/peer oral health workers	Recommended	No activity
	School or community food cooperatives	Emerging	No activity

6.2.1 Interventions with a proven return on investment

The interventions which PHE has shown to be most cost-effective are illustrated in figure 15. Of these, Doncaster currently only has provision of toothpaste and toothbrush packs by health visitors and targeted supervised toothbrushing clubs. In addition, they are also providing oral health and nutrition training, and are involved in community outreach work and provide a health and wellbeing accreditation scheme for schools, colleges and early years, and a healthy workplace award.

Figure 15: Return on investment of oral health improvement programmes infographic



Source: PHE, 2016

6.2.2 Targeted supervised toothbrushing programme

Tooth brushing clubs were set up in 25 nurseries across the borough in 2017 by the Children and Young People's Public Health Team. Following new guidance from PHE on best practice (PHE, 2016), a new local Doncaster Toothbrushing Club Toolkit (including a settings agreement with DC, model information and consent form and quality assurance checklist) was developed and distributed to current clubs from December 2017 along with refresher training. New nurseries and schools are also now being invited to set up clubs. 12 new schools were recruited in March 2018, with over 1,300 children taking part.

6.2.3 Brush Book and Bedtime packs.

In Doncaster, a scheme called Brush Book and Bedtime packs historically involved the distribution of free fluoride toothpaste, toothbrushes and a bedtime book (toothbrushing related) to children via health visitors.

The brush book and bedtimes packed commenced in 2015. Currently Public Health funds the items required for the packs which include 'Dinosaur Douglas and the beastly bugs' book, the 'Tell me about Children's teeth' leaflet, a toothbrush and toothpaste. The health visiting team ensure every child receives a pack at either a First friends group at their local family hub, or at their 1 year review visit if they haven't received them through First Friends.

The content of the pack has recently been reviewed to ensure the appropriateness of the leaflet and strength of fluoride toothpaste included. The aim of this programme is to reduce tooth decay in early years. Research suggests that having tooth decay at an early age is a strong predictor of tooth decay in adulthood. The effectiveness of the distribution of free fluoride toothpaste and toothbrushes to children in reducing decay experience has been confirmed (Ellwood *et al*. 2004).

6.2.4 Oral health and nutrition training

The Children Young People and Families team within Public Health are currently running an on-going training programme to raise awareness of current health issues surrounding children's oral health and nutrition. The aim of the training is to ensure the Doncaster children's workforce is delivering the most up to date key messages based on government recommendations and advice. The training is available to anyone who has a role in supporting or caring for a young person. The training is available for free, and currently 4 training packages are on offer, Early Years, Parents and Carers 0-19, Professionals 0-19, Professionals 5-19.

6.2.5 Community Outreach Project at Edlington Hilltop

Oral health is being addressed through a community project at Edlington Hilltop. An oral health passport containing a comic strip story about going to the dentist for the first time has been developed in collaboration with a local artist, which will be given to children along with oral health packs. There are also classroom activities planned with local schools. The aim of the project is to raise awareness of oral health, promote prevention and encourage families to attend the dentist regularly.

6.2.6 Healthy Learning, Healthy Lives (HLHL)

HLHL is Doncaster's health and wellbeing accreditation scheme designed for schools, colleges and early years providers. It has replaced Doncaster's Healthy Schools Programme.

It aims to improve the health of local children by providing free support and guidance to education settings, including a comprehensive website.

Every local education setting will be encouraged to gain a HLHL accreditation that demonstrates their commitment to promoting the health of the children and families they work with. HLHL will help schools and early years settings improve the oral health and nutrition of children by providing the right information, guidance and resources to do so and by providing clear standards for practice within the accreditation scheme.

As part of the programme, local organisations will have FREE access to:

- A new website with resources, evidence and contacts designed specifically for your setting.
- An accreditation scheme that ensures providers can meet national and local standards and priorities.
- Online support to identify strengths and areas for improvement, with help to achieve this.

6.2.7 The South Yorkshire Healthy Workplace Award

The South Yorkshire Health Workplace Award gives a framework for businesses to work towards in order to build good practice in workplace health and wellbeing.

This award supports all types of employers, whether public, private sector or voluntary sector, small, medium or large organisation. It recognises the efforts made and provides three levels of certification of achievement: bronze, silver or gold.

This award is designed around 5 core principles. It will:-

- Make workplace wellbeing a mutual commitment between employer and employee
- Reward improvement as much as achievement
- Be based on a personalised improvement plan, based on the workplace health and wellbeing priorities and intentions of the business and its workforce
- Be evidence based
- Look to the future health of the workforce

It is achieved by:

- Using existing organisational and health data to develop health and wellbeing priorities for its workforce

- Production of an action plan to inform priorities/options which will recognise effort and commitment on the part of the workforce and the business.
- Rewarding progress and achievement over an agreed time period

In exchange for an organisation's commitment the workplace health offer is as follows:-

- Free workplace visit – a short meeting involving initial discussions around workplace health and how changes can be tailored to fit each business
- Share workplace health information – provide access to a suite of information and resources which can help organisations to develop health and wellbeing programmes and help to address business priorities as determined by the action plan.
- Accredit businesses with a good practice award and award with a certificate of achievement

6.2.8 Water fluoridation

It is clear from the figure 15 that the biggest return on investment would be water fluoridation. Water fluoridation differs from the other modes of increasing fluoride exposure in that it is a universal approach which doesn't require any behavioural change but simply requires the use of tap water in food/drink as part of normal daily life. The 2015 Cochrane review (Iheozor-Ejiofor Z et al., 2015) concluded that the introduction of water fluoridation resulted in children having 35% fewer decayed, missing and filled baby teeth and 26% fewer decayed, missing and filled permanent teeth. They also found that fluoridation led to a 15% increase in children with no decay in their baby teeth and a 14% increase in children with no decay in their permanent teeth. Other systematic reviews and reports (Rugg Gunn and Do, 2012; Griffen et al., 2007; PHE, 2014) also support the findings that levels of tooth decay are lower in fluoridated areas. There also appears to be some evidence that water fluoridation reduces the inequalities in dental health across social classes (McDonagh et al. , 2000; Hausen, 2003; Riley et al., 1999; Jones and Worthington, 1999; McGrady et al, 2012; PHE, 2018).

Doncaster has very low levels of the natural mineral fluoride in its water supplies, however this is too low to be of any benefit to dental health. Therefore, it would be necessary to artificially top up the fluoride levels in the water to 1mg/L to have the optimal effect of preventing tooth decay. Local authorities are responsible for conducting public consultation on water fluoridation schemes and for ongoing chemical costs. PHE pays the capital costs for setting up the fluoride dosing plants. The feasibility of water fluoridation is dependent on the logistics of sites of water treatment works, pumping stations and water flows, and this would need to be explored before further discussions around water fluoridation.

7. AUDIT AGAINST NICE GUIDANCE

Table 9 is a rapid audit of oral health improvement activities in Doncaster against the NICE guidance on oral health: local authorities and partners (NICE, 2014). Each NICE recommendation has been described in terms of what is happening in Doncaster, where there are gaps in provision, and opportunities to address these gaps.

Table 9: An audit of oral health improvement in Doncaster against NICE guidance (2014)

Recommendation	Sub-recommendation	Doncaster activities	Gaps in provision and opportunities to address them
1. Ensure oral health is a key health and wellbeing priority	Oral health a core component of Joint Strategic Needs Assessment (JSNA) and Health and Wellbeing Strategy (HWS)	Oral health is a priority in Doncaster and underpins the council's vision to give every child the best start in life (Doncaster Children and Young People's Plan, 2017-20) with an awareness that poor oral health affects a child's ability to eat, sleep and socialise (Doncaster Starting Well Strategy 2017 - 2020, DMBC,2017).	Oral health isn't specifically mentioned in the Health and Wellbeing Strategy 2016-21 (DMBC, 2016). Ensure oral health included in future Joint Strategic Needs Assessments and Health and Wellbeing Strategies.
	Set up a stakeholder group that has responsibility for an oral health needs assessment and strategy		Consider setting up an Oral Health Improvement Group (OHIG).
2. Carry out an oral health needs assessment	Define scope	South Yorkshire and Bassetlaw OHNA (2015) available.	Consider setting up an oral health improvement group to consult with.
	Integrate into JSNA and HWS		This Doncaster OHNA will need to inform JSNA and HWS
	Practise cyclical planning		This Doncaster OHNA will inform the oral health strategy and action plan.
3. Use a range of data sources to inform the OHNA	Use of demographic and deprivation profiles	Current data in this OHNA	
	Use national oral health surveys	Current data in this OHNA	The 2016/17 5-year-old survey and 2017/18 survey of adults in practice have not been commissioned, so Doncaster data will be unavailable. It will be important to ensure the 2018/19 5-year old survey takes place (with a large enough sample)

			as it is a requirement for the Public Health Outcomes Framework.
	Use of demographic and socioeconomic data to determine need	Data used in this OHNA	
	Use local expertise and lifestyle surveys	Health watch survey (2016), 2008 postal survey of adult oral health and pupil lifestyle survey (SHEU 2015,2017)	
	Seek advice on survey design and collection, analysis and interpretation	PHE Consultant in dental public health and national PHE dental epidemiology team advised.	
4. Develop and oral health strategy	Strategy based on OHNA		Oral health action plan to be developed in response to the OHNA
5. Ensure public service environments promote oral health	Free drinking water; providing sugar-free food, drinks and snacks, including from vending machines; encouraging breastfeeding.	Health visiting service and Maternity service both have The Baby Friendly Initiative accreditation at level 3. Family hubs have recently been awarded the level 1 award, and are currently working towards level 2. Breastfeeding welcome scheme due to be relaunched this year. NHSE bans on sale of sugary drinks in NHS hospitals from July 2018.	More progress possible. Provide free drinking water in all family venues. Discussions to be held around the National Drinking Water Scheme. Consider reduction of sales of high sugar food/drinks in council premises. Endorsement of healthy food policies in council and other establishments, including gyms and care homes. Encourage dental practices to become part of the breastfeeding friendly initiative. Use national campaigns such as national smile month, mouth cancer action month, Stoptober and Change4Life to promote oral health in public places.
	Use levers to address oral health and wider determinants of health e.g. local planning decisions for fast food outlets	Policy has been written in the draft Local Plan to address the proliferation of Hot Food Takeaways and the refusal of applications within 400m of a Secondary School. Public Health currently	No current activity - seek opportunities

		comment on all Hot Food Takeaway applications recommending refusal.	
	Linking in with other sectors e.g. supermarkets to promote oral health		No current activity – seek opportunities.
6. Include information and advice on oral health in all local health and wellbeing policies	Advice for children and adults based on Delivering Better Oral Health (DBOH) and common risk factors	Healthy Learning , Healthy Lives accreditation for schools, colleges and early years includes food, drink and snack policies Toothbrushing club policies based on DBOH (PHE, 2017) and PHE guidance on supervised toothbrushing schemes (PHE, 2016).	More progress possible e.g. policies on infant feeding; looked after children; obesity; childcare services; primary and secondary education; safeguarding; care at home; health and social care assessments; food policies at drop in centres, lunch clubs, leisure centres, and food banks; carer centres.
7. Ensure frontline health and social care staff can give advice on the importance of oral health	Training for frontline staff, including understanding link between health inequalities and oral health and high risk groups; and being able to advise carers on oral care	Nutrition and oral health training for Early Years, Parents and Carers 0-19, Professionals 0-19, Professionals 5-19.	More progress possible e.g. training for health visitors, school nurses, care home staff. Include Making Each Contact Count and use of Change4life food scanner. Development of conversation guides for health visitors to use at mandated health assessments. Work with Local Dental Committee and Local Dental Network to: promote Delivering Better Oral Health in dental practices; increase uptake of fluoride varnish, and promote dental attendance before age one as part of NHSE's Starting Well Core programme. Training for care home staff for older people and children. Develop links with CCG

			to promote oral health through GPs and other services. Work with local pharmacies to promote oral health and signposting to dental care as part of the Healthy Living pharmacy campaign.
8. Incorporate oral health promotion in existing services for all children, young people and adults at high risk of poor oral health	Ensure oral health in care plans and in line with safeguarding policies		More progress possible e.g. building oral health into all care plans for those in residential care and hospitals. Promotion of oral health using Mouth Matters and Caring for Smiles. Encourage NHSE to develop a Residential Oral Care Scheme (ROCS). More work is required to understand the needs of vulnerable adults. Work with paediatric GA providers to provide oral health promotion for families of children attending for extractions under general anaesthetic. Raise awareness of dental neglect being a sign of wider neglect. Distribution of oral health packs via foodbanks. Oral health training for foster carers, encouraging them to take children to own general dentist or access the community dental services.
	Ensure service specifications promote oral health	Oral health improvement embedded into Healthy Child Programme	Ensure specific reference in service specifications for oral health improvement

			programmes, monitoring and quality assurance.
9. Commission training for health and social care staff working with children, young people and adults at high risk of poor oral health	Based on Delivering Better Oral Health	Nutrition and oral health training for Early Years, Parents and Carers 0-19, Professionals 0-19, Professionals 5-19. Training for setting up toothbrushing clubs Encourage use of e-learning for health oral health resource for early years	Develop conversation guides on oral health for health visitors to use at mandated health assessments Seek opportunities for training those working with adults.
10. Promote oral health in the workplace	Work with occupational health services to promote and protect oral health		No current activity – seek opportunities
	Provide information and advice on oral health and accessing dental care	Nutrition and oral health training for Early Years, Parents and Carers 0-19, Professionals 0-19, Professionals 5-19.	Cascade information to people and workpaces through a range of media on oral health and how to access dental care
	Allow employing paid time off work for dental appointments		Investigate opportunities
	Ensure the workplace environment promotes oral health	South Yorkshire healthy workplace award. Sugary drinks will not be sold in NHS hospitals from July 2018.	
11. Commission tailored oral health promotion services for adults at high risk of poor oral health	Use OHNA to identify areas and groups		Limited by lack of Doncaster level oral health survey data on adults
	Tailored interventions		Need to plan targeted interventions for vulnerable groups. Develop oral health resources for Roma Slovak community.
	Ensure services promote and protect oral health	Practical skills training for parents/carers on cooking healthy meals, budgeting and shopping smart. Information for women to maintain a healthy diet/weight	Need to link in e.g. with drug and alcohol services

		preconception and during pregnancy	
	Ensure local care pathways encourage people to use dental services		Partnership working with NHS England through the local dental network and NHSE's oral health improvement group to ensure appropriate services. Develop an Oral Health Improvement Group to facilitate partnership working. Build links with the CCG.
12. Include oral health promotion in specifications for all early years services	Promotion of oral health and training of staff	Nutrition and oral health training available for Early Years, Parents and Carers 0-19, Professionals 0-19, Professionals 5-19.	Ensure oral health in specifications for health visitors and school nurses, early years services, children's centres and nurseries
13. Ensure all early years services provide oral health information and advice	Based on Delivering Better Oral Health; understanding that good oral health contributes to better overall health	Nutrition and oral health training advice for early years has been updated in line with Delivering Better Oral Health: promotion of breastfeeding; moving on to solids; moving from bottle to cup; healthy food; role of fluoride in preventing decay; sugar free medicines, accessing dental care.	Ensure providers are disseminating current advice appropriately, and evaluate progress
14. Ensure early years services provide additional tailored information and advice for groups at high risk of poor health	Identify high risk areas and groups in OHNA		It is essential that in future the 5-year-old survey is routinely commissioned, as no survey was commissioned in 2017/18
	Tailored and culturally appropriate advice for families		Develop Roma Slovak oral health resources.
	Provide toothbrushing packs e.g. through midwives and health visitors	Oral health packs distributed to all children through First friends groups at family hubs or at 12 month review.	Consider providing targeted take home oral health packs for children attending toothbrushing clubs and family hubs . Consider distributing oral health packs through food banks.
15. Consider supervised	Use OHNA to identify areas where children at		It is essential that in future the 5-year-old

toothbrushing schemes for nurseries in areas where children are at high risk of poor oral health	highest risk of poor oral health		survey is routinely commissioned, as no survey was commissioned in 2017/18
	Commission scheme in early years settings in high risk areas	Toothbrushing clubs set up in nurseries and schools. Developed Doncaster Toothbrushing club toolkit to reflect new PHE guidance, and local training provided.	Further clubs to be set up in nurseries and schools. Quality assurance assessments of toothbrushing clubs to be carried out termly by settings and once a year by DC.
16. Consider fluoride varnish programmes for nurseries in areas where children are at high risk of poor oral health	Target to areas of high risk of poor oral health, monitor and evaluate		Consider setting up a scheme once PHE Community fluoride varnish toolkit is published (in press).
17. Raise awareness of the importance of oral health as part of a 'whole school approach' in primary schools	Policies and procedures promote oral health e.g. food and drink	The health learning, healthy lives accreditation aims to improve the oral health of local children by information, guidance, support and standards for education settings.	Seek opportunities to set up toothbrushing clubs, promote classroom activities and whole school food policies. Engage schools with national campaigns such as National Smile Month and Change4Life.
	Displaying oral health information for children and carers including how to access dental care		No current activity – seek opportunities
	Teaching oral health in the curriculum based on Delivering Better Oral Health	Oral health resources for KS1 and KS2 developed and piloted	Complete development of oral health resources and roll out to schools. Link local dental practices with schools to provide classroom sessions.
18. Introduce specific schemes to improve and protect oral health in primary schools in areas where children are at high risk of poor oral health	Train staff in oral health	Oral health resources for KS1 and KS2 developed and piloted	Complete development of oral health resources and roll out to schools.
	Set up toothbrushing schemes or fluoride varnish programmes	Toothbrushing scheme currently being expanded to involve schools	Ongoing plan for future training and quality assurance needed.
	Opportunities for parents to learn about oral health		Engage parents as part of a 'whole school approach'. Incorporate oral health into new starter events, possibly provide oral health packs for

			children to take home, involve parents/carers in developing school food policies
19. Consider supervised toothbrushing schemes in schools where children are at high risk of poor oral health	OHNA to identify areas	Toothbrushing scheme currently being expanded to involve schools	Ongoing plan for future training and quality assurance needed.
20. Consider fluoride varnish schemes for primary schools in areas where children are at high risk of poor oral health	Target to areas of high risk of poor oral health		Consider setting up a scheme once PHE Community fluoride varnish toolkit is published (in press).
21. Promote a 'whole school' approach to oral health in all secondary schools	Policies and procedures promote oral health e.g. food and drink		No current activity – seek opportunities.
	Incorporate oral health into curriculum		There are no specific oral health topics, however there are opportunities to link in with e.g. biology, health and social care and child care subjects. Possible involvement in secondary school oral health promotion project with University of Sheffield (BRIGHT). Engage schools in national campaigns e.g. National Smile Month and Change and Give up Loving Pop
	School nurses to encourage good oral health	Nutrition and oral health training available for Professionals 0-19, Professionals 5-19.	
	School leavers informed about accessing dental services		Action required - seek opportunities
	Oral health training for school staff		Action required. Link in with diet, alcohol, sexual health.
	Influence planning decisions e.g. location of fast food outlets near to schools		Action required – seek opportunities

8. CONCLUSIONS

- DC recognises the importance of good oral health to ensure every child has the best start in life.
- There is currently no oral health improvement group (OHIG) in Doncaster to facilitate partnership working.
- Children and adults in DC experience some of the poorest oral health in the country. Children in the most deprived areas of the city had average tooth decay levels around 3 times higher than those living in the least deprived areas.
- Doncaster has the highest level of extractions under general anaesthetic due to tooth decay amongst 5-9 year olds in the country.
- Doncaster has seen an increasing trend in mouth cancer among men and women and sees high levels of tobacco and alcohol use which are the main risk factors.
- Local Doncaster data on nationally recognised groups within the community at even higher risk of poor oral health is lacking. These include: looked after children; children and adults with special needs, travellers, those suffering from drug and alcohol abuse, and older people in care homes and hospitals.
- Doncaster is well serviced by NHS dental care, with many practices able to take on new patients. However, the levels of Units of Dental Activity commissioned by NHSE by ward do not equate to the relative need. There is also limited domiciliary provision.
- Access to NHS primary care dental services are higher than nationally and has remained relatively constant around 65% for children (previous 12 months) and 69% for adults (previous 24 months).
- Healthwatch Sheffield's South Yorkshire Survey (2016) has highlighted the need for practices to improve accessibility for disabled patients and training amongst dental professionals to ensure patients receive better care.
- DC is already involved in the following evidence-based oral health improvement interventions: provision of toothbrushes and toothpaste through health visitors, oral health training for the wider professional workforce; supervised toothbrushing scheme; and food and drink policies in childhood settings as part of the Healthy Living Healthy Lives Accreditation. However, the following are not currently undertaken in Doncaster: targeted community fluoride varnish programme; water fluoridation; targeted provision of toothbrushes and toothpaste by post; breast feeding peer support and health trainers supporting to access dental services.
- There are opportunities for DC to lead the way in encouraging healthy eating, and there may be opportunities to promote this in other public settings e.g. leisure centres.

9. RECOMMENDATIONS

- Develop an Oral Health Improvement Group (OHIG) to facilitate partnership working with stakeholders in Doncaster, NHSE's oral health improvement group and the local dental network.
- Ensure oral health continues to be included in future Joint Strategic Needs Assessments and Health and Wellbeing Strategies.
- Use this OHNA to develop a Doncaster Oral Health Improvement Strategy and Action Plan.
- Ensure all oral health improvement programmes and activities are evidence-based, quality assured and evaluated.
- Ensure participation in the PHE Dental Public Health Epidemiology Programme, to support the public health outcomes framework and to enable evaluation of programmes.
- Consider evidence-based oral health programmes which have an identified return on investment not currently undertaken in Doncaster:
    a. Targeted community fluoride varnish programme
    b. Investigate the feasibility of water fluoridation
    c. Targeted provision of toothbrushes and toothpaste by post.

- Bridge the gaps in provision of oral health improvement identified through the audit against the NICE guidance on oral health: local authorities and partners:

    - Encourage more public service environments to promote oral health through provision of free drinking water, providing sugar-free snacks, including from vending machines and encourage breastfeeding.
    - Seek opportunities to influence the wider determinants of poor oral health e.g. though local planning decisions for food outlets near schools.
    - Work with other sectors e.g. local supermarkets to promote oral health.
    - Ensure oral health is mentioned in DC policies on: infant feeding; looked after children; obesity; childcare services; education; safeguarding; care at home; health and social care assessments; food policies at drop in centres, lunch clubs, leisure centres and food banks, and carer centres, and adult care services.
    - Encourage healthcare providers to have discussions around oral health where appropriate and ensure frontline workers are trained in oral health, alcohol and tobacco awareness as part of Making Each Contact Count. Improve signposting to stop smoking and alcohol services.
    - Develop conversation guides for health visitors to use at mandated health assessments.
    - Work with the local dental committee and local dental network to promote delivery of oral health improvement in line with Delivering Better Oral Health, around promotion of fluoride varnish application, and encouraging parents/carer

to bring children to the dentist before their first birthday as part of NHSE's Starting Well Core Programme.

- Develop links with local pharmacies and the CCG to facilitate oral health improvement through GPs, pharmacies and other services.
- Consider extending/ additional ways of distribution of toothbrush and toothpaste packs e.g. through school toothbrushing clubs, food banks
- Improve oral health for those in residential care and hospitals though training to build oral health into all care plans for those in residential care and hospitals, promotion of Caring for Smiles and Mouth Care Matters and encouraging NHSE to consider development of a Residential Oral Care Scheme.
- Continue to work with paediatric GA providers to provide oral health promotion for families of children attending for extractions under general anaesthetic. Raise awareness of dental neglect being a sign of wider neglect.
- Provide oral health training for foster carers.
- Cascade information to people and workplaces through a range of media on oral health and how to access dental care. Investigate opportunities for more flexible working arrangements to allow people to attend dental appointments.
- Investigation of the local oral health needs for vulnerable children and adults, (including looked after children, asylum seekers, travellers). Plan targeted oral health interventions for groups at high risk of poor oral health e.g. Roma Slovak community, and those suffering from drug and alcohol, through partnership working with existing programmes.
- Work in partnership with the local dental network (NHSE) and NHSE's oral health improvement group to develop care pathways for vulnerable groups to access dental services. Improve access to domiciliary care, care for those with disabilities and bariatric dental care. Improve signposting to NHS care through NHS Choices and other social media.
- Continue to support the Healthy Learning, Healthy lives accreditation
- Further develop the supervised toothbrushing scheme in nurseries and primary schools, and encourage schools to sign up to a whole school approach where oral health is also embedded in whole school food policies and classroom teaching. Ensure training for staff in settings and quality assurance is maintained. Link local dental practices with schools to provide classroom input. Incorporate oral health into new starter events and provide oral health packs to take home, and involve parents/carers in developing school food policies.
- Encourage oral health promotion in secondary schools through involvement with University of Sheffield's oral health promotion research project (BRIGHT), and seek other opportunities to raise awareness of oral health through biology, health and social care and child care lessons.
- Encourage more patient and public involvement through partnerships e.g. working with Healthwatch.
- Raise the profile of oral health through national campaigns e.g. National Smile Month, Mouth Cancer Action Month and Change4Life.

- Repeat this oral health needs assessment in 2021.

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