Oral Health

Oral Health Promotion Strategy 2023-2028

Durham County Council

Contents

Foreword

Good health is central to people's happiness and wellbeing. It also makes an important contribution to the local economy as healthy people live longer and are more productive. Tooth decay is the most common oral disease affecting children and young people in England, and although largely preventable, a significant proportion of children and adults in the County still have tooth decay.

Oral health is an integral part of overall good health and wellbeing and allows people to eat, speak, smile, and show emotions. It also affects a person's self-esteem, school performance and attendance at work or school.

The County's residents have different experiences of oral health with significant inequalities in oral health across the County.

We outline what oral health is like in the County and have set out plans for how it can be improved by further developing and building on evidence based prevention work which may have been impacted by the Covid-19 pandemic.

It is also important that we work together with our communities and partner organisations and strive to improve oral health for all residents through oral health promotion programmes with a particular focus on our residents who are most vulnerable to poor oral health.

Why do we need an oral health promotion strategy?

Despite many positive changes to the landscape of oral health over the years, there is still more work to be done. Achieving twice-daily brushing, an excess of sugar in our food and drink and smoking remain difficult challenges to oral health.

Many factors affect a person's ability to care for their oral health, for example, poverty, isolation, poor mobility and poor physical or mental health. This strategy looks at ways we can help to overcome some of the barriers to having good oral health and gives everybody the opportunity to access the information and support they need to improve their oral health.

Our Vision for County Durham

This oral health strategy will aim to improve the oral health of everyone living in County Durham. We will reduce oral health inequalities and create supportive environments by working with our communities and partner organisations to promote oral health and contribute towards maintaining good oral health throughout the life course.

We will work collaboratively with partner organisations and across services to integrate oral health considerations into policymaking and focusing on preventive interventions to improve the oral health of all communities.

The Guiding Principles

Throughout the development of this strategy, it was important to ensure key principals were reflected:

- It was developed by working together with a multi-disciplinary steering group with representatives from services and organisations who are interested in improving oral health for all residents of County Durham. It included partners from adults and health commissioning services, children and young people's commissioning, education, local dentists, dental public health consultants and County Durham and Darlington Foundation Trust. This group will also share decision making over the time frame of the strategy.
- It is based on what the data tells us about levels of dental disease within the County.
- It describes what works well to improve oral health. The preventive interventions included are based on evidence from national research.
- It focuses on adding to what is already being done. Oral health links to many existing programmes, for example, to best start in life with breastfeeding and weaning. Also, to healthy eating and to healthy food choices in schools and workplaces, therefore, we aim to link to existing programmes and promote and include oral health as part of these.
- It supports existing national and local strategies where there is a connection with oral health. For example, the Joint Health and Wellbeing strategy for County Durham, ensuring that good oral health is seen as an integral part of good general health. We will ensure that oral health becomes embedded in all relevant strategies and frameworks developed for County Durham.
- It outlines some of the challenges around dental services and the impact of the COVID-19 pandemic.
- It is designed for all residents of County Durham and for health and social care professionals working in the County.

What are we going to do?

To achieve our ambitions, we have developed actions that reflects both local need and national NICE guidance and recommendations. These recommendations formed the basis for developing the local action plan in collaboration with partners in the steering group.

It is also important that we work with our residents, recognising the individual strengths and assets of communities in different parts of the County. We will further develop the action plan and implementation using the County Durham's Approach to Wellbeing principles to:

- Ensure people living in County Durham and staff working here are provided with opportunities to play a role in the development of oral health promotion for themselves and their families.
- Empower communities by listening to and acting on the feedback we gather.
- Reflect data, particularly about high risk groups and develop services targeted towards these groups.
- Use existing information from research on what is good practice, but also look at what works best locally. For example, working with early years settings, schools, residential homes, the homeless, the Gypsy Roma Traveller community to explore how interventions could be implemented.
- Guide service providers in how they can ensure their staff have the skills and knowledge required to improve oral health for service users.
- Build on existing assets within our communities. We will engage and work with community groups to ensure this. For example, linking in with and supporting family hubs and the start for life programme.
- Have a live action plan which can be updated to reflect engagement work and feedback from residents, staff and health and social care providers.

Background

Oral health is multifaceted and includes the ability to speak, smile, smell, taste, touch, chew, swallow, and convey a range of emotions through facial expressions with confidence and without pain, discomfort, and disease of the mouth, face or head[2]. Oral health is a key indicator of overall health, well-being and quality of life. It encompasses a range of diseases and conditions that include dental caries (decay), periodontal (gum) disease, tooth loss, oral cancer, dental trauma, and birth defects such as cleft lip and palate. Most oral diseases and conditions share modifiable risk factors with major long conditions and chronic diseases, including, cardiovascular diseases, cancer and diabetes. These risk factors include tobacco use, alcohol consumption and unhealthy diets high in sugar. There is a proven relationship between oral and general health. For example, diabetes is linked with the development and progression of gum disease[3]. Moreover, there is a causal link between high consumption of sugars and diabetes, obesity and dental decay.

Tooth decay is the most common oral disease affecting children and young people in England, yet it is largely preventable.

The relationship between deprivation and poorer oral health is now well established. There is evidence for social gradients in the prevalence of dental decay, tooth loss, oral cancer, oral health related quality of life and service use[4]. There are marked differences in dental decay experience of 5 year olds related to deprivation; in England in 2019 the prevalence of dental decay was 13.7% in 5-year-olds living in the least deprived areas compared with 34.3% in those living in the most deprived areas[2]. Similarly, **in County Durham in 2019 26.8% of 5 year olds had obvious tooth decay** and the level of tooth decay is more severe in our more deprived communities. Pooled data from 2014 – 2019 highlights the inequalities in oral health which exist across the County; it showed that in our least deprived areas, the proportion of 5 year olds with decayed missing or filled teeth was 21.1%, and those with decay had an average of 1 affected tooth. However, **in our more deprived areas, 39.4% of 5 year olds had tooth decay with an average of 2.73 teeth being affected**, The COVID-19 pandemic is likely to have negatively impacted oral health and widened these oral health inequalities.

We also recognise that vulnerable groups, such as homeless people, rough sleepers, prisoners, children who are looked after and our Gypsy Roma Traveller community, are also more likely to suffer poor oral health and poorer access to dental services than the general population.

Oral health and quality of life

Good oral health contributes to overall health and wellbeing. Oral health is an important public health concern because oral diseases have a significant impact on society and individuals.

Poor oral health can lead to pain and discomfort, sleepless nights, loss of function and self-esteem, and in turn disrupt family life. It can also lead to time off work, either because a person is suffering pain or because they need to attend dental appointments or because their children are experiencing pain and they need to be taken to dental appointments. Consequently children can miss time at school risking impacting on their educational attainment.

Experiencing tooth decay or having missing teeth or ill-fitting dentures can lead to an individual becoming socially isolated. Research has shown that such oral problems can negatively affect a person's confidence and consequently their employment chances, including being promoted at work. The maintenance of oral health is a life skill that will have long term effects, not only on tooth decay but to a life free from disability[5].

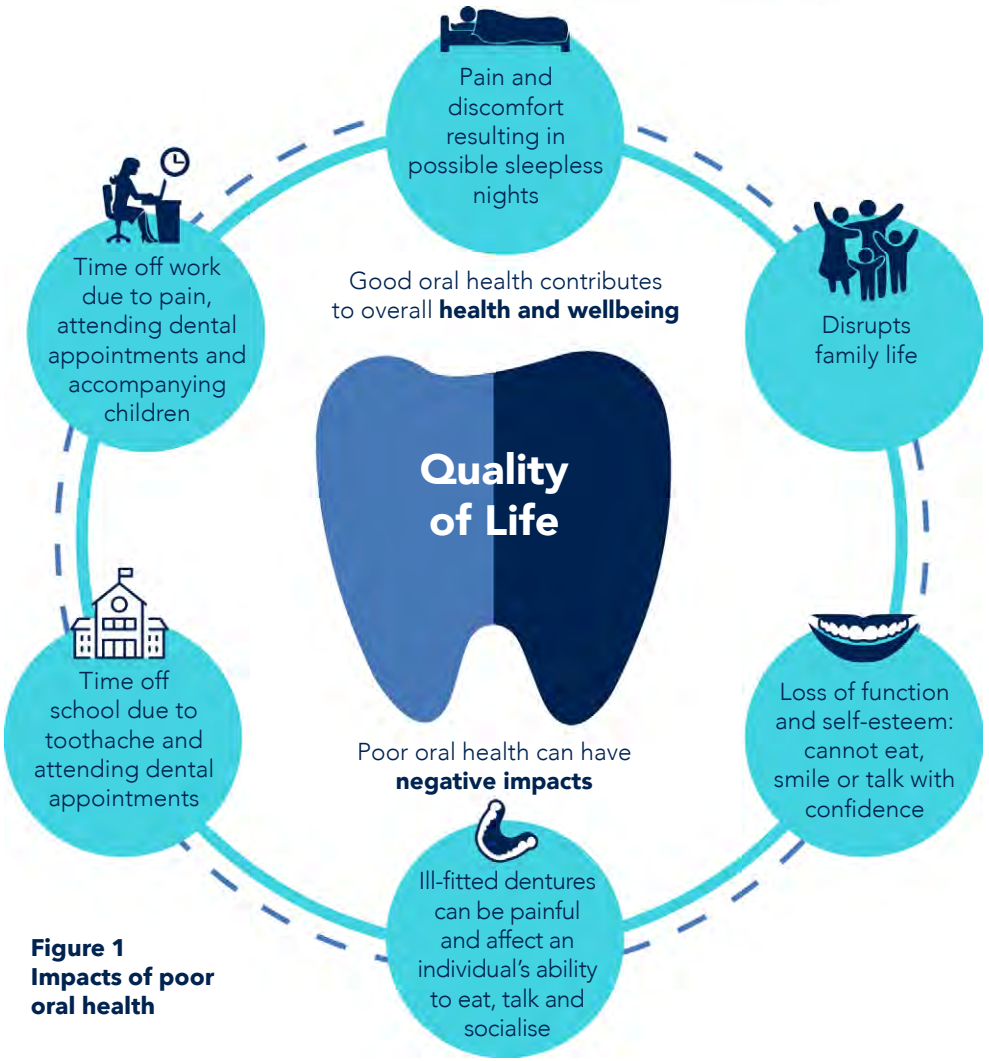


Figure 1
Impacts of poor oral health

Diseases affecting the teeth, mouth and surrounding structures

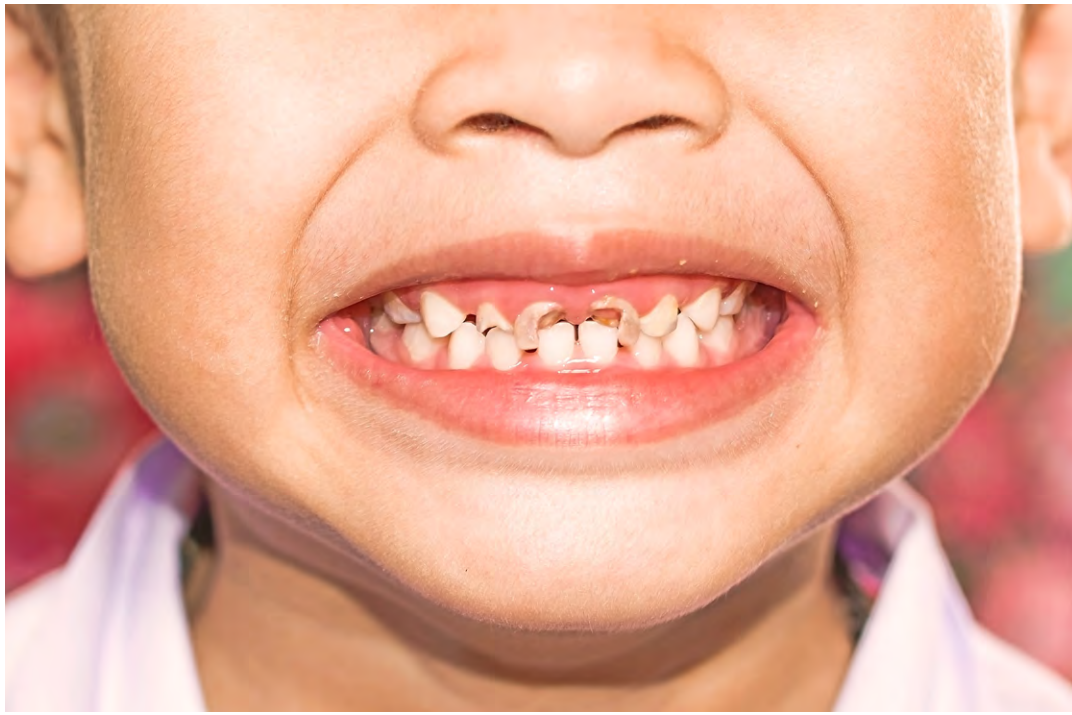
There are a number of modifiable risk factors which can impact on oral health. These risk factors can cause diseases of the mouth, asdescribed in the following sections.

Figure 2
Risks of oral health

Dental caries (tooth decay)

Dental caries is the most common noncommunicable disease worldwide and in the UK[6]. Tooth decay is caused by having too much sugary food and drink and not cleaning teeth and gums properly. The disease is caused when sugars from our diet are broken down by micro-organisms in the plaque on a tooth surface, this produces acids that, over time, demineralise tooth enamel. When factors promoting demineralisation continue tooth decay progresses into dentine, the layer of tooth underneath the enamel, to a point where the tooth surface breaks down and ultimately cavities form.

Tooth decay can result in pain and will require dental treatment, severe tooth decay can require tooth removal. Dentists will always recommend restoring teeth wherever possible, however, once filled teeth will need ongoing maintenance throughout life. Therefore, preventing teeth from becoming decayed through regular toothbrushing with fluoride toothpaste and minimising the amount and frequency of consumption of sugar-containing foods and drinks is key.



Periodontal disease

Periodontal diseases are mainly the result of infections and inflammation of the gums and bone that surround and support the teeth. The mouth is full of bacteria; these bacteria, along with mucus and other particles, constantly form a sticky plaque on teeth. Periodontal disease is typically caused by poor brushing and flossing habits that allow the plaque to build up on the teeth and harden.

The first stage of the disease is called gingivitis; the gums can become swollen and red, and they may bleed. This can progress to a more serious form of the disease, called periodontitis, the supporting bone can be lost, the gums can shrink away from the teeth and as a result be teeth may loosen or even fall out. Periodontal disease is mostly seen in adults[7].

The number and types of treatment will vary, depending on the extent of the gum disease. Physical removal of plaque is the important element of toothbrushing for preventing or controlling periodontal diseases, therefore, self-care is important to maintain healthy gums and managing gingivitis. More advanced periodontal disease may require dental treatment alongside improved self-care.

Trauma

Dental trauma can occur anywhere, any time and when playing sport, cycling to work, or due to accidental trips and falls. Accidental damage to teeth is common among children and young people. Usually it is the incisors (front teeth) which are involved. In 2013 the national Children's Dental Health Survey found that around one in ten children had sustained dental trauma to their incisors[8]. The management of dental trauma can sometimes be challenging and can require on-going dental care.

Oral cancer

Mouth cancer, also known as oral cancer, is where a tumour develops in a part of the mouth. It may be on the surface of the tongue, the inside of the cheeks, the roof of the mouth (palate), the lips or gums. Tumours can also develop in the glands that produce saliva, the tonsils at the back of the mouth, and the part of the throat connecting your mouth to your windpipe (pharynx). However, these are less common.

Factors which increase the risk of developing mouth cancer include: smoking or using tobacco in other ways, such as chewing tobacco; drinking alcohol; and infection with the Human papillomavirus (HPV).

Around
8,300
people are diagnosed with mouth cancer each year in the UK, which is about
1 in every 50
cancers diagnosed.

Organisation of dental services

NHS England (NHSE) and NHS Improvement (NHSI) have direct commissioning responsibilities for primary dental and secondary dental care, for the population of England. Dental practices can offer both NHS and private dental care. NHS dental treatment has associated dental charges which will apply unless people are in an exempt group eg pregnant, in receipt of certain benefits such as Income Support.

The NHS in England spends around £3.4 billion per year on primary and secondary care dental services. In 2018-19 the total funding for Primary care services alone was £292 million, of which £856 million were patient charges[9].

Specialised dental services are commonly provided by community dental services. This service is also directly commissioned by NHSE and NHSI. Community dental services are available in a variety of places to ensure everyone can have access to dental health. People who may need community dental services include: children with physical or learning disabilities or medical conditions, adults with complex needs. In County Durham these services are provided by County Durham and Darlington Foundation Trust, which also includes an oral health promotion team. The service has specific criteria for referral of patients for assessment and treatment and it will be important for services caring for children and adults with specific dental needs that they are aware of the criteria and this referral pathway. This service is also directly commissioned by NHSE and NHSI.

Although not responsible for clinical services, local authorities are statutorily required to provide or commission oral health promotion programmes to improve the health of the local population, to an extent that they consider appropriate in their areas.

The NHS in England spends around

£3.4 billion

per year on primary and secondary care dental services.

The Local Authority Role - Policy Context

The Health and Social Care Act (2012) amended the National Health Service Act (2006) to confer responsibilities on local authorities for health improvement, including oral health improvement, in relation to the people in their areas.

Local authorities are statutorily required to provide or commission oral health promotion programmes to improve the health of the local population, to the extent that they consider appropriate in their areas. They are also required to provide or commission oral health surveys to facilitate assessment and monitoring of oral health needs and the planning and evaluation of oral health promotion programmes and dental services.

There is guidance to help local authorities in providing their oral health function. In 2014 Public Health England published a toolkit to help local authorities fulfil their oral health responsibilities[10]. NICE also have a quality standard relating to oral health promotion in the community and there is NICE guidance[12] which covers improving oral health by developing and implementing a strategy that meets the needs of people in the local community[11]. The NICE guidance[12] makes 22 recommendations and it is the aim of this oral health promotion strategy to to address local need and meet these recommendations.

As well as NICE guidance, this strategy also draws upon the Joint Strategic Needs Assessment for County Durham and the Oral Health Needs Assessment. Other policies including Commissioning Better Oral Health for Children and Young People, Delivering Better Oral Health and the PHE oral health return on investment have also been used to develop this strategy and action plan.

Links to other National and Local Strategies

Oral diseases share many risk factors with other chronic diseases. For example, excess sugar in the diet is risk factor for tooth decay and in obesity; alcohol is a risk factor in many cancers including oral cancer and smoking is a the main cause of lung disease and periodontal (gum) disease. Therefore, this strategy supports national strategies such as the Government food strategy 2022 and smoke free England ambitions. It also supports and is supported by local strategies.

The County Durham Alcohol and Substance Misuse Strategy

Alcohol is a risk factor in oral cancer as well as other cancers and chronic conditions and people involved in substance misuse usually have high dental needs.

The Tobacco Control Alliance Plan

Smoking is a major risk factor for gum disease and mouth cancer.

The Healthy Weight Programme and Obesity

High sugar diets can lead to tooth decay, sometimes so severe that treatment is tooth removal. Eating too much sugar can also contribute to people having too many calories, which can lead to weight gain. Being overweight increases risks of health problems such as heart disease, some cancers and type 2 diabetes.

Family Hubs and Start for Life Programme

Oral health improvement is an expected expectation of this programme and we aim to support family hubs to meet this and ensure that staff can provide service users with the information and advice they need and to ensure oral health is embedded in support offered to families.

Ageing Well Strategy

Embedding oral health as an integral part of general health and wellbeing to ensure that older people can live happy, healthy, and connected lives for as long as possible

Obesity and Soft Drinks Levy

The Childhood obesity plan and the Soft Drinks levy to tackle childhood obesity – Eating too much sugar can also contribute to people having too many calories, which can lead to weight gain. Being overweight increases risks of health problems such as heart disease, some cancers and type 2 diabetes. Fizzy drinks are a source of sugar in many children's diets, and reducing the sugar content of these drinks will impact on oral health. However, switching to diet or sugar-free fizzy drinks is not the answer, the fizz in sugar-free drinks is still acidic, and can cause tooth erosion, so it's much better to switch to tooth-friendly alternatives like water or milk.

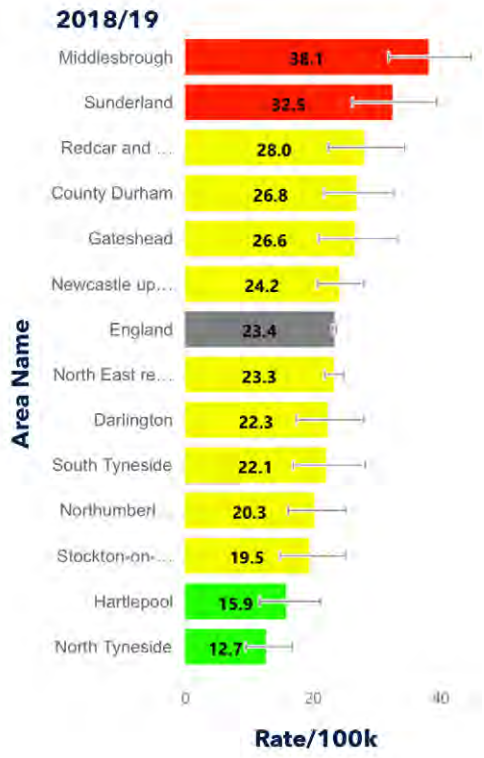
Oral health in County Durham. Where are we now?

Tooth decay in children

Although oral health is improving in England, the oral health survey of 5 year olds in 2019 showed that nationally just under a quarter have tooth decay[2]. Each child with tooth decay will have on average 3 to 4 teeth affected. Tooth decay can start early in life; the oral health survey of 3 year olds in 2020 found that 11% had visible tooth decay, with on average 3 teeth affected[13]. There is regional variation in rates of tooth decay, inequalities and areas with greater need remain.

Several key indicators of oral health are monitored by the Office for Health Improvement and Disparities (OHID) and these provide a picture of oral health in County Durham. Figure 3 shows data from the National Dental Epidemiology Programme for England: oral health survey of five-year-old children when 26.8% of 5 year olds in County Durham had obvious tooth decay[13]. This figure remains slightly higher than both the North East and England averages.

Figure 3. Percentage of 5 year olds with experience of visually obvious dental decay 2018/19



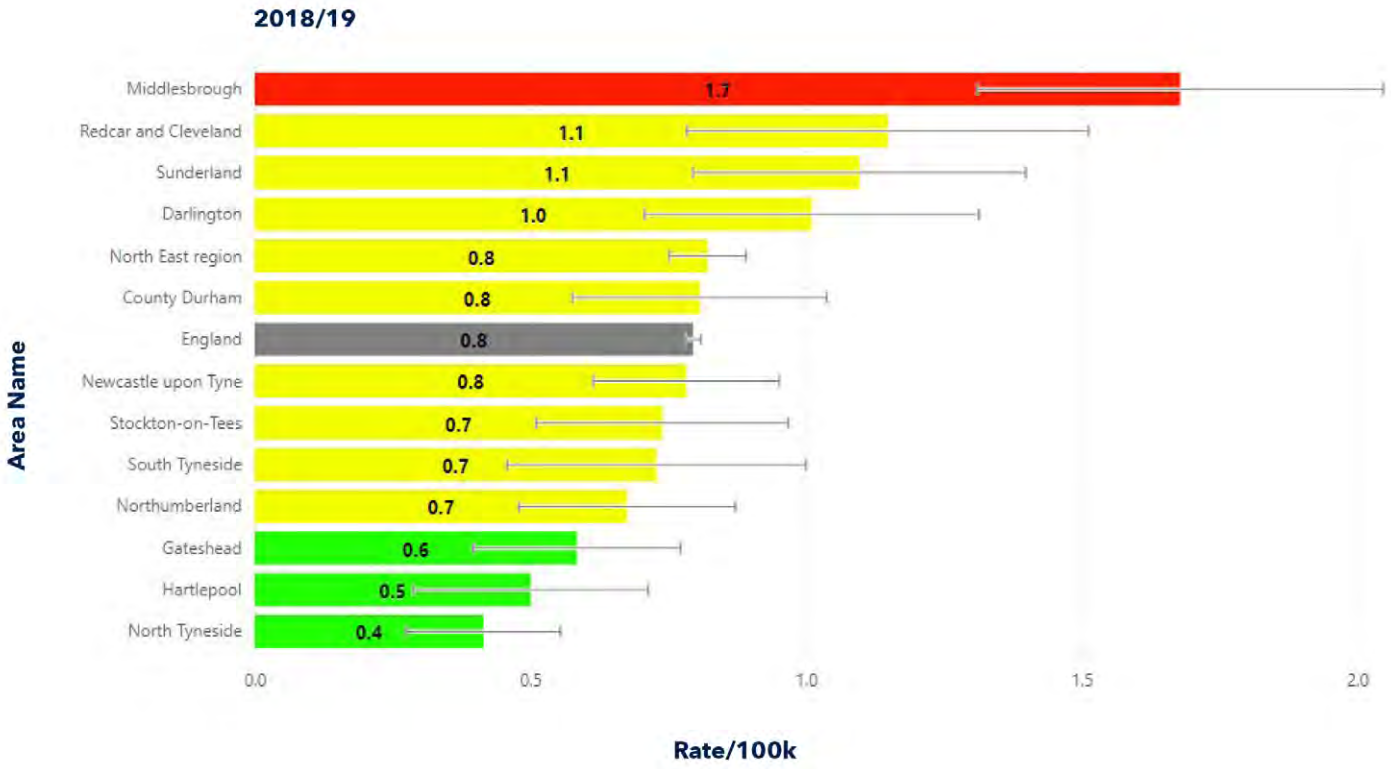
Source: Dental Public Health Epidemiology Programme for England: oral health survey of five-year-old children (Biennial publication - latest report 2019).

However, figure 4 shows that it has decreased over time and we now need to work towards maintaining this downward trend.

Figure 4
Trend over time in the proportion (percentage) of 5 year old children with decayed, missing or filled teeth (County Durham shown in yellow and red). Source: Dental Public Health Epidemiology Programme for England: oral health survey of five-year-old children (Biennial publication).

Time period	County Durham	England	Compared to England
2007/08	37.0	30.9	Worse
2011/12	27.2	27.9	Similar
2014/15	35.1	24.7	Worse
2016/17	25.8	23.3	Worse
2018/19	26.8	23.4	Similar

Figure 5
Decayed, missing or filled teeth in five year olds, 2019.



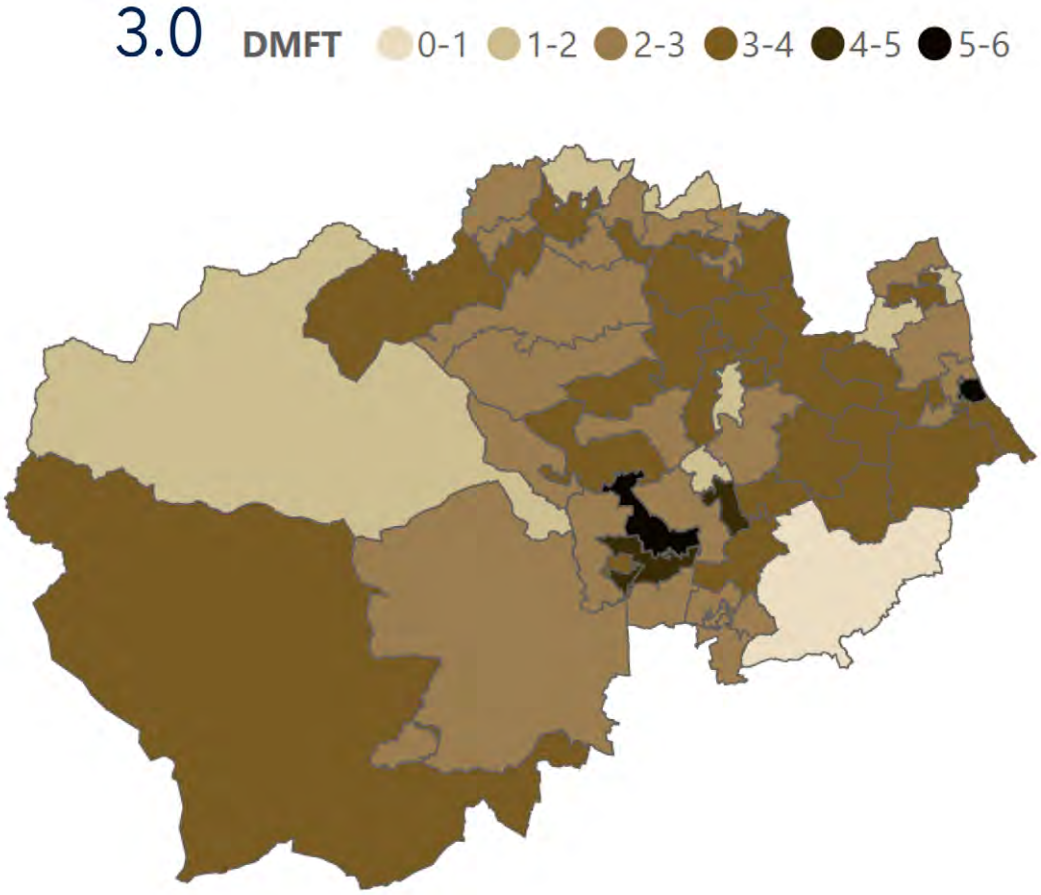
Source: Dental Public Health Epidemiology Programme for England: oral health survey of five-year-old children (Biennial publication - latest report 2019).

The number of teeth affected by decay among 5 year olds is shown in Figure 5. In County Durham children had on average just under one tooth (0.81) with tooth decay or that had been filled or extracted. Further ananlysis of the oral health health surveys for 5 year olds was carried out by the public health data team at Durham County Council. Pooled data for 2014/15, 2016/17 and 2018/19 was taken to investigate the severity of dental decay among 5 year olds. The data show the mean number of teeth affected by decay for all children was 0.79, however, when looking at the number of teeth affected among only those experiencing decay then the mean number of teeth affected was 3.

Figure 6 is a map of severity of decay experience and a map of deprivation for the County, they show that children in the more deprived areas are likely to have more severe decay.

Figure 6
Severity of dental decay in 5 year olds (pooled data) and deprivation.
Source: OHID Dental Public Health/DCC Public Health Intelligence

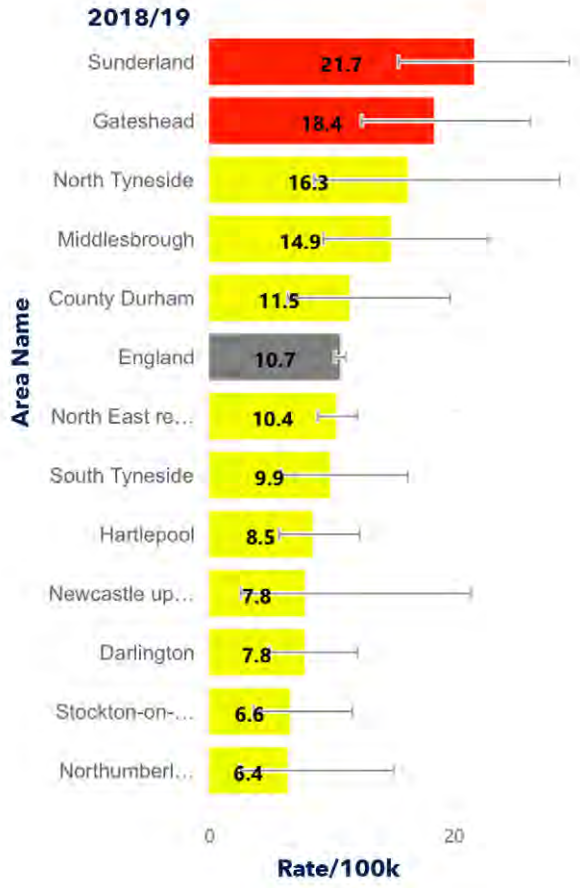
Mean number of teeth with experience of dental decay in only those children experiencing dental decay.



Tooth decay can start earlier than age 5, in fact as soon as first teeth start to appear in the mouth they will be susceptible to decay if the conditions promote decay, for example, high sugar diets. Survey data for 3 year olds show that in 2020 in County Durham 11.5% of 3 year olds had visually obvious tooth decay, see Figure 7. This reinforces the need for early intervention to give children the best start in life.

There is less data available for older children. The National Children's Dental Health Survey has been carried out every 10 years since 1973. It includes data on children aged 5, 8, 12 and 15 years, and reports on a dental examination and questionnaires for parents and 12 and 15 year olds. The last survey took place in 2013. In 2013, nearly a half (46 %) of 15 year olds and a third (34%) of 12 year olds had "obvious decay experience" in their permanent teeth. This was a reduction from 2003, when the comparable figures were 56% and 43% respectively.

Figure 7
Percentage of 3 year olds with visually obvious tooth decay 2019/20



Hospital admissions for tooth removal

The extraction of carious teeth has become the most common reason for hospital admission of under-18-year-olds in England. Tooth removal in hospital is usually provided under general anaesthetic. Despite an overall improvement in recent years, the available evidence indicates that oral health improvement programmes implemented at primary care level have not improved the oral health of children in a number of clearly defined local areas, mostly in northern England. Young children in these areas are now three times more likely than children in other parts of the country to be referred to hospital for tooth removal. Hospitals have faced unprecedented pressure due to the COVID-19 pandemic, increasing the burden on NHS services and resulting in long waiting lists for treatments, including tooth removal.

Figure 8 shows that for the period 2018/19 – 2020/21 County Durham's hospital admissions rate for tooth decay requiring tooth removal for 0-5 year olds was 368 per 100,000. Although this is lower than the average for the North East region, it is still stubbornly high. These children are receiving a general anaesthetic, which has inherent risks, for what is a preventable disease. At the same time, we must ensure that all children requiring this treatment are receiving the dental care they need.

Figure 8.
Hospital admissions for dental caries in children aged 0-5 years, 2018/19 - 2020/21 (Crude rate per 100,000)

Area	Value	Lower CI	Upper CI
England	220.8	218.1	223.5
North East region	403.8	387.0	421.9
Northumberland	736.1	668.8	816.3
Newcastle upon Tyne	719.4	653.0	790.8
North Tyneside	448.8	388.7	520.9
Gateshead	432.1	363.9	497.7
Middlesbrough	404.6	335.0	471.1
Darlington	401.3	329.0	506.6
County Durham	368.2	328.9	406.4
South Tyneside	268.2	209.7	330.0
Redcar and Cleveland	267.0	204.8	333.1
Stockton-on-Tees	216.2	176.0	268.3
Sunderland	131.1	100.5	163.5
Hartlepool	105.3	64.3	162.7

Dental diseases among adults and older people

The National Dental Epidemiology Programme 2017/18 oral health survey of adults attending general dental practices in England found that in County Durham 26.8% of participants had untreated tooth decay with each having on average 1.8 decayed teeth. Most participants (82%) had 'functional dentitions' (comprising 21 or more natural teeth), The large majority of participants (89.1%) had at least one filling and 70.5% had bleeding on probing their gums, a sign of periodontal (gum) disease. Overall, 84.5% of the sample in County Durham had a treatment need. Poorer oral health disproportionately affected those at the older end of the age spectrum and those from more deprived areas. Nationally, 1 in 3 participants living in the more deprived areas of England had untreated tooth decay compared to 1 in 5 in the less deprived areas[14]. However, the sample size for the County was small and contained more older people. It may also not truly represent the picture of oral health across the County as the sample reported being regular dental attendees with the benefit of professional support for maintaining their oral health.

Around 8,300 people are diagnosed with mouth cancer each year in the UK, which is about 1 in every 50 cancers diagnosed.

More than 2 in 3 cases of mouth cancer develop in adults over the age of 55. Cancer registrations for County Durham for the period 2017-19 were 15.4 per 100,000, this is the same as the average for England and is slightly lower than the North East average.

It is difficult to gather information on the oral health of our more vulnerable older adults. The CQC reviewed the state of oral health care in care homes across England in 2019 and found that improvements were needed to maintain good oral health for older people in care homes[15]. The report made several recommendations including the need to implement NICE guidelines, training for staff, assessment and daily mouth care for residents and better documentation and record keeping of oral health care delivered.

Overall

84.5%

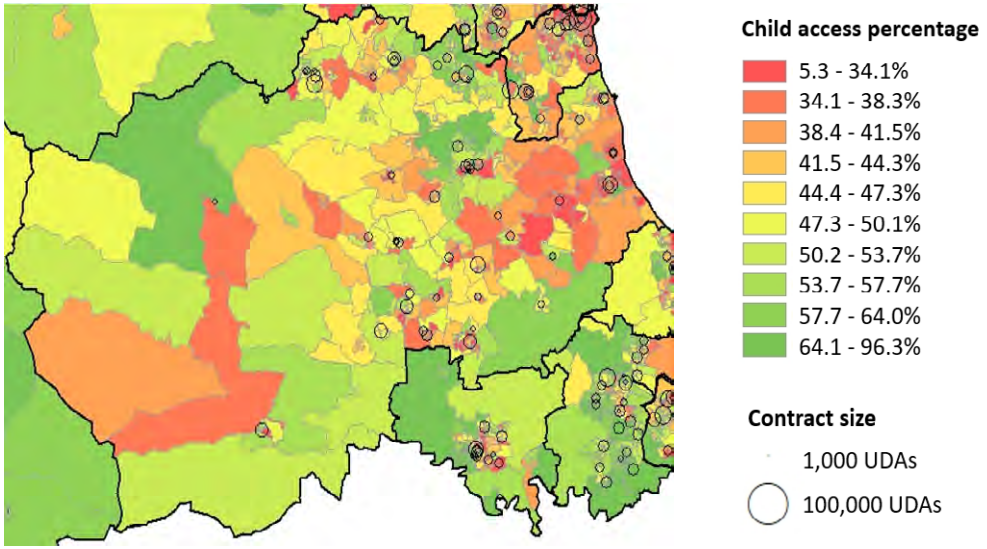
of the sample in County Durham had a treatment need

Access to dental services

OHID data show the percentage of people who successfully obtained an NHS dental appointment in the last two years in County Durham was 79.6%[16]. This is comparable with the average for England at 77%. However, these figures need to be interpreted with some caution. They are taken from the GP survey where approximately 2.5 million surveys are sent out each year and the response rate is typically around 30 - 35 per cent. Also, the COVID-19 pandemic has led to some different patterns being observed in the 2020/21 survey.

Healthwatch Durham recently published a report on access to NHS dentistry in the County. Out of a possible 54 NHS dental practices the researchers spoke to 42, they asked questions based on NHS appointment availability, availability of emergency treatment and accessibility. They found that 35 out of the 42 (83%) practices were not taking on new NHS patients. They found there were long waiting times for new registrations and non-emergency treatments such as routine check-ups and there was no clear timeline for such problems being resolved[17]. Healthwatch will continue to review data trends and information provided by patients and feedback to NHS England.

Figure 9.
Dental access for children in County Durham 2021/22



Source: NHS BSA data 2021/22 provided by NHSE.

A number of dentists left the NHS during the pandemic and the result is that some people may not find it easy to access dental care. In Figure 9, local data has been mapped by NHSE to illustrate the challenges that residents in certain parts of the County may face with accessing primary dental care. Data for children (17 years and under) accessing primary dental care in the financial year of the 1st April 2021 – 31st March 2022 was taken, with the denominator of population estimates at mid 2020. NHS general dental practices (as of March 2022) are labelled on the maps, with circle size corresponding to the NHS contract size. The areas in red are areas where children's access to primary dental care has been low, and there are potential problems with getting NHS dental appointments. We will prioritise children's dental health and target these areas for preventive interventions.

Also, recent BBC report found that the majority of NHS dental practices in County Durham none were accepting new adult NHS patients[18].

Data Summary

Experience of visually obvious dental decay in 5 year olds.

2018/19

Around **1 in 4** five year old children have decay experience.

4.0%
change over the most recent period.

Statistically similar to England and the North East

2018/19-2021

(5 year olds)

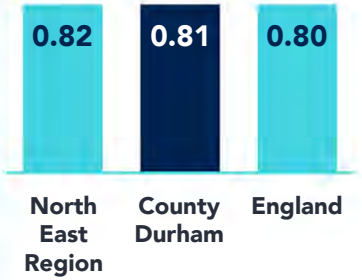
(Rate per 100k)

368.2
Hospital admissions for dental caries. Around **118** per year

Decayed, missing or filled (DMFT) in 5 year olds.

0.8

2018/19



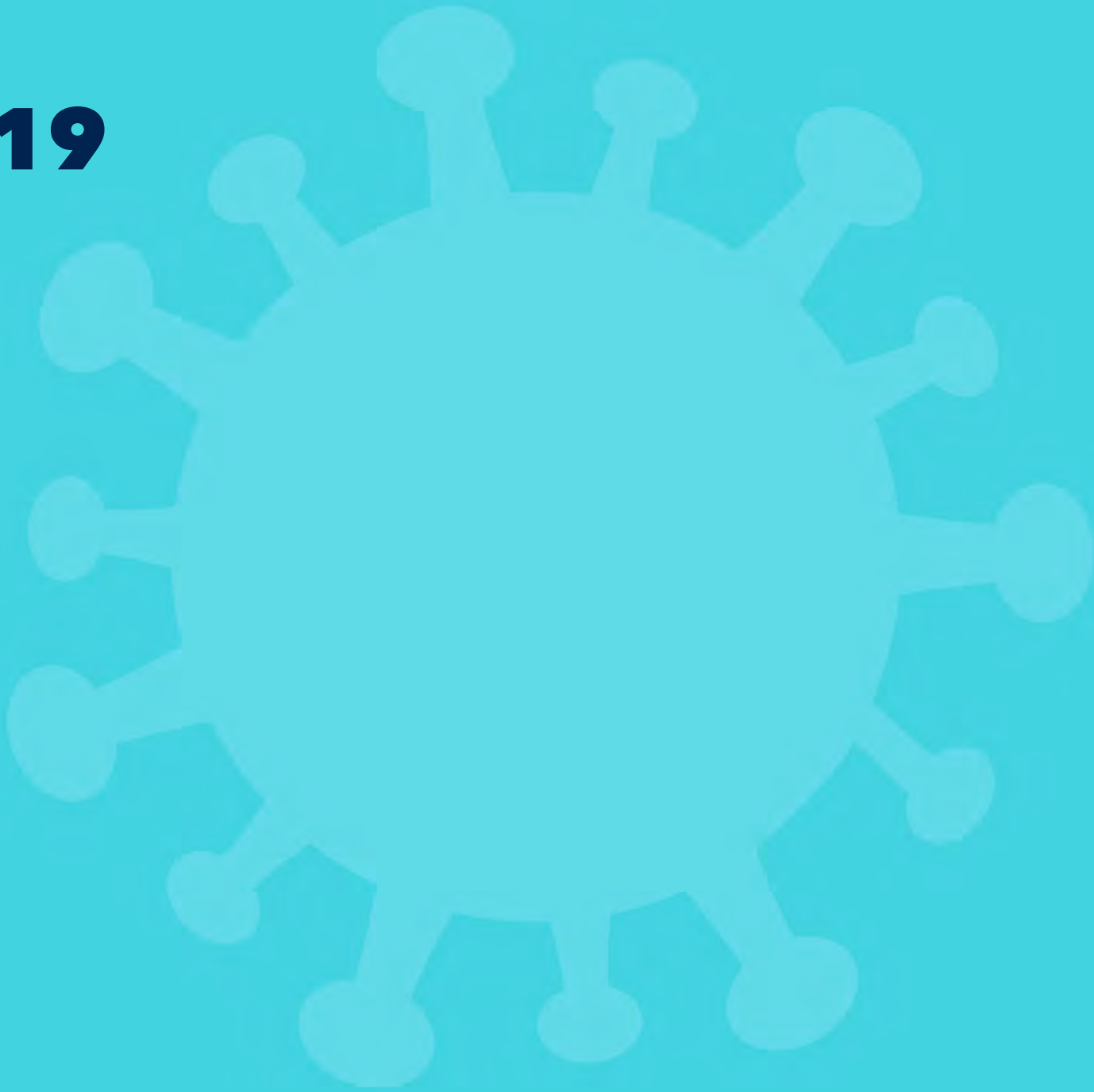
Statistically similar to England and the North East

Mean severity of tooth decay in children aged five years based on the mean number of teeth per child sampled which were either actively decayed or had been filled or extracted (DMFT)

Inequality 2014/15, 2016/17 & 2018/19

When prevelance of dental decay in 5 year olds in County Durham is plotted against deprivation there is a clear social gradient.

Impact of the COVID-19 pandemic



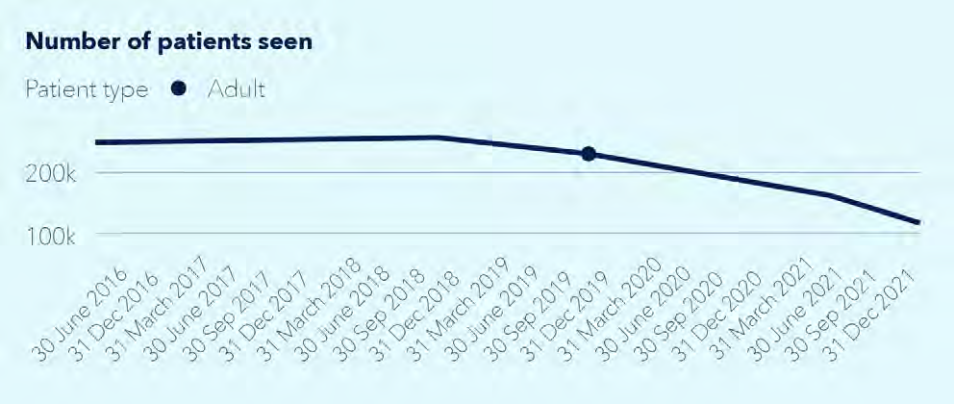
Inequalities in oral health are evident in the UK across the social spectrum and across the life course largely reflecting the socio-economic inequalities that impact on general health. The COVID-19 pandemic is likely to have widened these inequalities as well as having a direct impact on dental care provision. Health behaviours, which also impact on oral health, such as smoking and alcohol consumption have increased during the lockdown periods associated with the pandemic[18].

During the first lockdown period in England all routine and non-urgent dental care stopped as practices were unable to operate safely. Figure 10 shows how the number of adult patients being seen by a dentist in County Durham[19]. Resumption of services was gradual and slow as dental practices had to adapt to a new way of working with increased PPE and cross infection control procedures. Once NHS dental services were restored, uptake of care happened more quickly for adults than children. Secondary dental care was also affected as general anaesthetic tooth extraction lists in hospitals were cancelled and postponed.

There may also be an impact on oral cancer rates. Routine dental examinations allow for screening of the mouth for early signs of oral cancer, however, during the pandemic there has been a decrease in routine examinations and a decrease in urgent referrals for suspected oral cancer[20].

Many prevention schemes e.g. supervised toothbrushing were also halted during the lockdowns when schools and early years settings were closed. The suspension of these programmes and their slow re-establishment is likely to have negatively impacted the oral health of children[14]. By working with our Early Years settings we aim to re-establish these schemes in our most deprived areas as soon as possible.

Figure 10: Adult patients seen by an NHS dentist in County Durham pandemic



The British Dental Association reported in December 2021 that nearly 1000 dentists left the NHS in the previous year and that over half of dentists they surveyed stated they are likely to reduce their NHS commitment, putting further pressure on the NHS dental system and making it more difficult for patients to get an appointment[21].

What works well for improving oral health – the evidence base

A number of community based interventions are available to consider, however, we must ensure that any interventions put in place have robust evidence to support their efficacy.

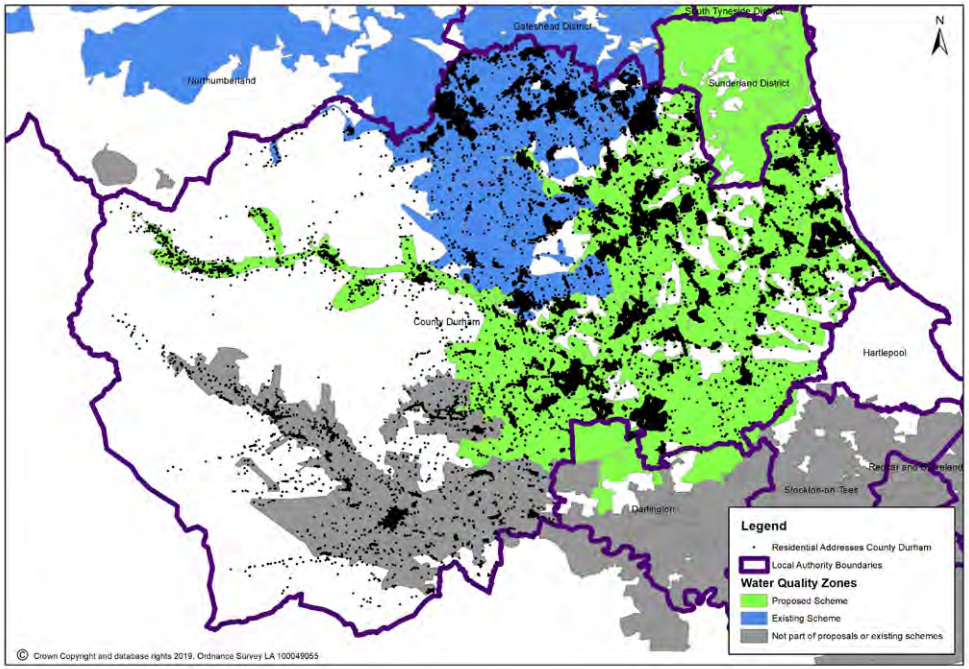
Water fluoridation

At a population level, water fluoridation is the most effective way of reducing inequalities, as it ensures that people in the most deprived areas receive fluoridated water and it does not require any behaviour change among the population. Public Health England, and now OHID, monitor the effects of water fluoridation schemes on the health of people living in the areas covered by these arrangements and reports its findings every four years. The findings of the 2022 health monitoring report are consistent with the view that water fluoridation at levels within the UK regulatory limit (<1.5mg/l) is an effective, safe, and equitable public health intervention to reduce the prevalence, severity, and consequences of dental decay. It reported strong statistical evidence for a clinically significant reduction in dental caries, indicated by prevalence, severity, and hospital admissions for extraction, with increasing fluoride concentration. The greatest benefit was seen in the most deprived areas, supporting previous conclusions that drinking water fluoridation is an effective public health intervention for tackling dental health inequalities[22].

Water fluoridation should be part of an overall oral health strategy, it is one intervention which should run alongside others, for example, fluoride varnish application. Delivering Better Oral Health is an evidence-based toolkit which provides interventions and advice on how dental health professionals can improve and maintain the oral and general health of their patients. It recommends that children from the age of 3 attending NHS dental services should be offered fluoride varnish treatment at least twice a year[23]. Other interventions would include supervised toothbrushing schemes and oral health checks for care home residents. A number of initiatives are already underway in County Durham to improve the oral health of our population, current work and future work is described in the action plan.

Figure 11 shows the parts of the County that are already benefitting from fluoridated water and the parts of the County that are not yet receiving fluoridated water. Communities receiving fluoridated water include Consett, Crook, Tow Law, and parts of Chester-le-Street.

Figure 11: Water fluoridation in County Durham



In 2022 the Health and Care Act introduced new legislative measures that aim to make it easier for health and care organisations to deliver joined-up care for people who rely on multiple different services, building on earlier recommendations by NHS England and NHS Improvement. The Health and Care Act 2022 amended the Water Industry Act and moved responsibility for water fluoridation from local authorities to central government. We are awaiting the details of the new process.

Supervised tooth brushing schemes

We know that good oral hygiene, including toothbrushing with a fluoride toothpaste is the main way people can improve and maintain good oral health. Reviews of multiple research studies, show that the daily application of fluoride toothpaste to teeth reduces the incidence and severity of tooth decay in children[23]. However, children in more deprived areas are less likely to brush their teeth at least twice daily[8].

Targeted childhood settings such as nursery and school settings can provide a suitable supportive environment for children to take part in a supervised toothbrushing programme, teaching them to brush their teeth from a young age and encourage support for home brushing[9]. The evidence tells us that to maximise caries prevention children aged 3 to 6 years should brush their teeth at least twice, supervised by a parent or carer. This should be last thing at night (or before bedtime) and on at least one other occasion. The toothpaste should contain at least 1,000 ppm fluoride, only using a pea-sized amount and spitting out after brushing rather than rinsing, to avoid diluting the fluoride concentration. With children under 3, the evidence for toothpaste 500 to 1,000 ppm F is inconclusive, therefore a toothpaste containing at least 1,000 ppm fluoride should also be used but only a smear[23].

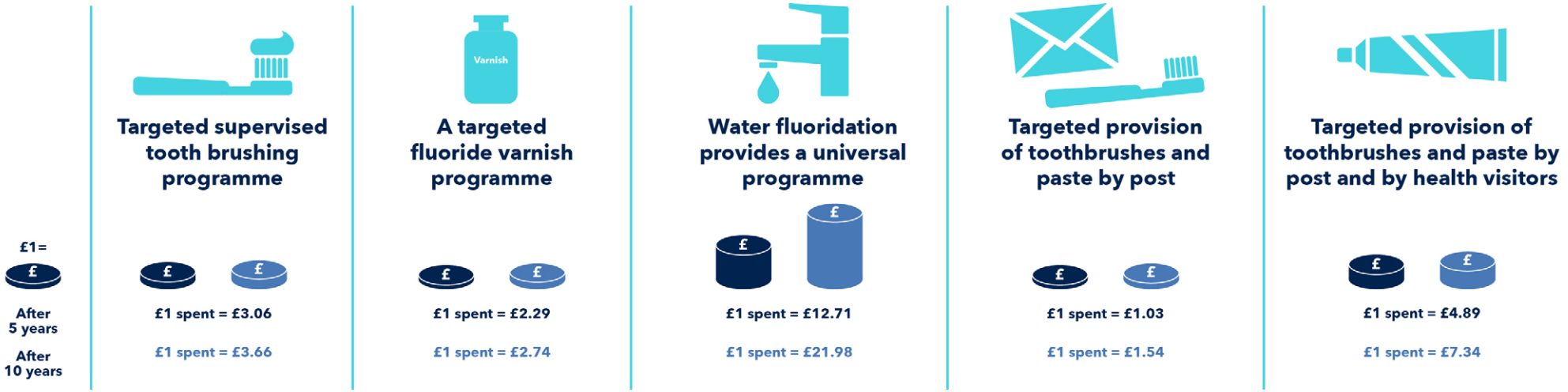
At a population, school or early years' level, the evidence tells us that brushing each day at school over a two year period is effective for preventing tooth decay and can establish life-long behaviour to promote oral health[8]. It is also important that school based toothbrushing activity should promote and support toothbrushing in the home as well as the school or early years setting[11].

NICE guidance for oral health in local authorities (LAs) recommends that LAs consider supervised tooth brushing schemes for nurseries in areas where children are at high risk of poor oral health, this is based on its evidence review[11].

In 2016 Public Health England (PHE) commissioned a review of effectiveness and economic evidence for oral health interventions for 0-5 year olds. A modelling tool was also developed which can be used by commissioners of oral health improvement programmes to determine the cost effectiveness and return on investment (ROI) of oral health initiatives. Figure 12 shows the modelling tool and the return on investment for 5 interventions which are considered to be clinically effective. It can seen that water fluoridation offers the best return on investment followed by targeted provision of tooth packs, especially via health visitors and then supervised brushing schemes. Therefore, these approaches will continue to be included in this strategy.

Figure 12: Return on investment of oral health improvement

Reviews of clinical effectiveness by NICE (PH55) and PHE (comissioning Better Oral Health for Children and Young People, 2014) have found that the following programmes effectively reduced tooth decay in 5 year olds:



* All targeted programmes modelled on population dacyed, missing or filled teeth (dmft) index of 2, and universal programme on dmft for england of 0.8. The modelling has used the PHE Return on Investment Tool for oral health interventions (PHER, 2016). The best available evidence has been used in this tool and where assumptions are made these have been clearly stated.

Targeted provision of toothbrushes and toothpaste

Toothbrushes and toothpaste can be handed out by health visitors at regular child development checks as part of their usual programme of care. They can also be provided by post to children in targeted areas. Timely provision of oral health resources encourages parents to adopt good oral health practices and start tooth brushing as soon as the first teeth erupt. It is important to consider sustainability important, as there may be limited benefit of one off provision. Where Health Visitors are delivering oral heal messages and distributing oral health packs it is important to ensure adequate training and consistency of messages. This method has been used in parts of the UK, as part of a wider approach, and was found to decrease decay prevalence in 3 and 5 year olds[24] .

We will gather information from our families and our health visitors to explore how this type of scheme could work in our communities.

Regular dental attendance

It is recommended that children start to see a dentist as soon as their first tooth appears. NHS dental treatment for children is free, however, not all dentists will take on new NHS patients. There is essential oral hygiene and dietary advice that should be followed from an early age and this is important to instil good habits early, therefore, it is essential that there are opportunities for families to access this advice and guidance. There are some interventions which can only be provided by a dental professional for those at higher risk of dental decay eg fluoride varnish applications, fissure sealants[26].

There is also evidence for adults to have their mouths checked at regular intervals, not only to assess dental decay, but also to review any existing fillings or crowns and to screen the soft tissues of the mouth for early signs of oral cancer. The interval between check-ups can vary depending on the health of the mouth[25]. We acknowledge that in promoting good oral health, with early identification of dental diseases we could potentially drive up demand for NHS dental services. This could be difficult for some residents where access is limited, however, we will continue to monitor the situation and will raise any concerns with NHS England and Healthwatch.

Development of the workforce

Implementing a Making Every Contact Count (MECC) approach can give professionals an opportunity to provide brief advice to improve overall health and wellbeing. This can be supported through training and development to deliver appropriate evidence informed brief advice across the life course. Oral health messages can be integrated into currently commissioned programmes. For example, into the Healthy Child Programme whereby health visitors can deliver advice on breastfeeding being beneficial to oral health along with general healthy eating messages and advice on oral hygiene. Current evidence suggests that breastfeeding up to 12 months of age is associated with a decreased risk of tooth decay[23].

Other examples would include in schools, where teachers or school nurses could be supported to provide oral health session as part of the Personal, Social, Health and Economic (PSHE) curriculum.

Working together to safeguard children is everyone's responsibility. Dental neglect is an important child protection issue. Signs include visible tooth decay, untreated trauma and multiple hospital admissions for dental care. All staff across healthcare, social care and education should have sufficient knowledge and understanding to recognise signs of poor oral health and neglect and take appropriate action.

We will work with partners to develop and offer a range of training packages to tackle these issues and enable staff to deliver oral health advice to residents of all ages across County Durham.

Implementing our Plan for County Durham

Oral Health Strategy Key Priorities

Priority 1

To ensure we are guided by the approach to wellbeing.

High Priority

Example

To engage and work with local communities to further understand their oral health needs and what would work well for them. Also, to provide information for all that is age appropriate and in easy to understand formats.

Priority 2

To adopt an oral health in all policies approach.

To work with partners to ensure oral health is seen as an integral part of overall health and wellbeing and therefore to incorporate oral health into relevant policies.

Long Term Priority

Example

We aim to work with care home commissioners to integrate a set of oral health standards into care home contracts.

Priority 3

Prevention for Children and Young People.

To explore and use all available opportunities to deliver preventive messages and evidence based interventions.

High Priority

Example

To use a MECC approach for delivering oral health messages and insert these into existing programmes eg. engaging and working with breastfeeding groups, schools and foster carers.

Priority 4

Effective support for vulnerable groups.

To ensure we consider vulnerable and hard to reach groups within our communities and provide tailored and targeted support.

High Priority

Example

To develop an oral health component for Drug and Alcohol services we will talk to service users, peer mentors and service providers to fully understand their needs.

Priority 5

To increase knowledge and skills among the workforce across services and sectors to enable them to support residents across the County to improve their oral health.

Medium Term Priority

Example

We aim to provide oral health training for frontline staff eg. health visitors and care home staff.

Priority 6

To ensure we make good use of available data to understand challenges faced by communities when accessing primary dental care and ensure we are providing sufficient levels of preventive programmes in these areas.

Long Term Priority

Example

We will work with OHID to understand dental access data to highlight areas with access difficulties and target these areas with our evidence based preventive interventions eg. supervised tooth brushing schemes.

This strategy sets out recommendations to improve oral health and reduce inequalities in County Durham by following the strategic areas set out in the Joint Strategic Needs Assessment: In order to improve oral health a whole systems approach is needed, partnership working with local services is vital to be able to support residents with their oral health through all stages of life. Working with partner organisations is also key to improving and maintaining oral health for our more vulnerable groups. A multidisciplinary Oral Health Steering Group was established to develop the Action Plan which sits alongside this strategy.

County Durham's Approach to Wellbeing has been designed to promote whole system change and includes considering the views of the County's residents is considered in every decision that is made whether this be regarding decisions about people or places or the systems designed to support them. This approach helps explore with communities how we can work together to better understand their needs and design systems that work best for them.

This strategy and associated actions are based on existing data for oral health, therefore we have been able to identify some key priorities. However, the points in the action plan will be developed over the timeframe of the strategy using the Approach to Wellbeing to ensure we deliver services and systems which meet the needs of our residents.

We will engage with residents and staff across the County and consider how we can engage with our vulnerable groups to ensure everyone can feedback.

Children and Young People - Starting well

Getting a good start in life and throughout childhood, building resilience and getting maximum benefit from education are important markers for good health and wellbeing throughout life. The objective of giving children the best start in life as highlighted by Marmot[26] remains key. Data for County Durham has shown that in some areas children as young as 3 years old have already developed tooth decay and just over a quarter of 5 year olds had tooth decay.

Marmot also described proportionate universalism, which is the resourcing and delivering of universal services at a scale and intensity proportionate to the degree of need. Services are therefore universally available, not only for the most disadvantaged, and are able to respond to the level of presenting need. This is particularly relevant when considering community water fluoridation, which would benefit all children, and it therefore remains a priority. However, other targeted interventions will also continue to be part of this strategy, for example, supervised tooth brushing schemes in early years settings and year 1 primary classes in our 30% most deprived areas. Tackling this level of tooth decay remains a priority to improve wellbeing among children and to reduce the number of children requiring clinical treatments and tooth removal under general anaesthetic.

The HEAT (Home Environment Assessment Tool) tool is designed to help practitioners identify families where there may be early signs of neglect so that swift action can be taken to address and support families to improve home conditions for their children. The current HEAT used across the County asks about toothbrushing for children, however, the tool is being reviewed and the aim is to expand the oral health section and emphasis the links to general health and wellbeing. Dental neglect is defined as 'the persistent failure to meet a child's basic oral health needs, likely to result in the serious impairment of a child's oral health or development'[27]. This definition emphasises persistence and the likelihood of serious impairment of the child's health or development, but whether dental neglect is intentional or entirely unintentional (such as when due to lack of education or resources), is not included, however, dental neglect is a safeguarding concern and the need for action to protect the child is the same.

Key Actions

- Continue to support breastfeeding – breastfed babies up to the age of one are less likely to have tooth decay. Whilst we advocate breastfeeding, we will also actively support all families who choose to formula feed their children and ensure they are provided with the best oral health advise to ensure good oral health for their babies.
- Support our health visitors in delivering key oral health messages to families. We will ensure all information is delivered in easy to understand formats.
- Support family hubs in embedding oral health in the services they provide
- Set up Supervised Toothbrushing Schemes in early years settings in our most deprived areas
- Engage with schools, particularly SEN schools, to explore how we can better support them to improve the oral health of our children
- We will engage with groups who support children with learning disabilities to ensure they receive specialised oral health advice

Adults - Living Well

Routine dental check-ups for adults include a clinical examination, monitoring of oral health, and advice. Regular check-ups aim to detect the early signs of dental disease, including tooth decay and gum disease, and they also including screening of the mouth for early signs of oral cancer. NICE recommends the interval between oral health reviews should be determined specifically for each patient and tailored to meet individual needs, on the basis of an assessment of disease levels and risk of or from dental disease. It recommends that the shortest interval between check-ups should be 3 months and the longest is 2 years; based on individual risk assessment[28]. Dental access as discussed earlier can be an issue and has been impacted by the COVID-19 pandemic.

There are a number of risk factors, including diet, oral hygiene, smoking, alcohol, stress and trauma, which are the same as for many chronic conditions, such as cancer, diabetes and heart disease. As a result, interventions that aim to tackle these risk factors, taking a 'common risk factor approach', will improve general health as well as oral health.

Key Actions

- We will work with partners eg OHID to fully understand data on access, which will allow interventions to be targeted to areas with little primary dental care availability.
- Aim to provide a choice of sugar free food, drinks and snacks, including from vending machines in public sector venues.
- Develop an oral health Making Every Contact Count (MECC) approach for use not only by frontline health care professionals, but also for wider use with carers. This could inlude, for example, carers of people with: learning disabilities, complex medical histories.

Ageing well

Along with dental caries, there are several other oral diseases and functional problems that are more common in older adults: periodontal disease, oral cancer, and tooth loss. Long term conditions such as arthritis and dementia can impact on a person's ability to maintain their oral health. This can be compounded by medications, which often cause dry mouth and the lack of saliva promotes conditions for tooth decay to occur.

Older people in care homes are particularly at risk of poor oral health, therefore we will focus on people in residential homes.

Key Actions

- We will work with residential homes to ensure staff have the knowledge and skills they need to support residents with their oral health
- Promote denture labelling in residential homes
- Promotion of having oral health care plans with documented daily mouth care routines
- Consider specialist training for staff caring for people with dementia
- Although clinical domicialry dental care is commissioned by NHS England, we will work with carers providing care for older people living more independently, to ensure they have the knowledge and skills to support older people with their oral health

Vulnerable and high risk groups

Gypsy Roma and Traveller Community

County Durham has six permanent Gypsy Roma and Traveller (GRT) sites. These communities often experience barriers to accessing healthcare and their health outcomes are poorer compared to the general population[29].

Actions:

- We will work with the GRT community and the GRT specialist nurse to promote good oral health to our GRT communities across the County.

Prisons and Secure Units

County Durham has 4 prisons, an Immigration Removal Centre (IRC) and a secure children's home. Primary dental care for these settings are commissioned directly by NHS Health and Justice. The majority of these settings have an onsite dental surgery for provision of care, or arrangements are made for travel to an outside dental practice where this is deemed appropriate.

Actions:

- We will engage with the health and justice team to explore oral health promotion in prison settings
- We will work with DCC and CDDFT to ensure oral health promotion programmes are embedded into the secure children's home.

People using Drug and Alcohol services

People who have a history of substance use problems are more likely to have poorer oral and dental health generally. This has been linked to a variety of potential contributory factors: smoking and tobacco use, dry mouth due to drug use and lifestyle factors e.g. poor diet often high in sugar, poor personal hygiene, less likely to attend dental appointments. The use of tobacco and alcohol is associated with increased risk of oral cancers.

Actions:

- Opportunities to engage with this group will be explored to ensure any interventions are acceptable to both service users and service providers.

Children who are Looked After

This particularly vulnerable group of children may have high dental needs. Oral health questions are included in the initial and review assessments for this group and they usually attend primary care dental practices to receive treatment. Children may live with foster carers or sometimes in a residential home. It is important that we ensure staff and foster carers are able to promote oral health, support children with their daily mouth care and recognise signs of neglect. Equipping children and young people with oral health knowledge and embedding good oral hygiene practices and habits will benefit them throughout life.

Actions:

- We will aim to review the training provided for these staff and carers to enable them to support children and young people with their oral health.

Children with Special Educational Needs and Disabilities

Across the County there are 10 special schools which provide education for 1500-1600 pupils. In addition to this there are approximately 10,743 children with special needs attending state schools in the County[31]. The needs of this group can vary, some may have social, emotional and mental health needs, whilst others may have more sensory needs. These sensory issues may prevent children and young people from accessing mainstream dental services and impacting on oral hygiene. Provision of specialist dental health support that encourages dentistry attendance in educational settings is seen as a high priority. Evidence from a national oral health survey of five-year-old and 12-year-old children attending special support schools found that there was greater polarisation of dental decay among children attending special support schools than is typically seen among mainstream educated children. Put simply, fewer children have experience of decay, but those who have tend to have decay more severely, with more teeth affected than mainstream educated children[32].

Actions:

- We will work with partners to provide tailored oral health improvement programmes for this group, taking into account the range of needs. This is likely to require specific training and for staff involved.
- We recognise the needs of parents and carers and we aim to support them through providing the correct information and guidance to ensure they can support and improve their children's oral health.
- Ensure supervised tooth brushing schemes also reflect and consider the needs of children with special educational needs and disabilities.
- We aim to support SEN schools in providing oral health information, guidance and support, however, we recognise that there are many SEN children in mainstream schools and other educational settings who may require additional support.

Learning Disabilities

The evidence shows that people with learning disabilities have poorer oral health and more problems in accessing dental services than people in the general population[33]. People with learning disabilities may need additional help with their oral care and support to get good dental treatment because of cognitive, physical and behavioural factors. Families, carers and staff who provide support to people with learning disabilities may require oral health training and information[34].

Actions:

- We will work with Adult and Health commissioners and care homes for older people and for those with learning disabilities to develop tailored oral health guidance to meet their needs.

University Student Population

Durham has a large population of students who attend university in the region. Although this is not necessarily a vulnerable group, they are a group of, albeit temporary, residents who are unlikely to have a regular local dentist. Overseas students, in particular, are likely to see their own dentist infrequently. It is important that all students have advice on maintaining their oral health whilst at university and information on how to access urgent dental care should they ever need it.

Actions:

- The public health team will work with the university and their students to ensure all students are provided with appropriate information and guidance on how to access oral health care while at university.

Food Banks

The Trussell Trust's reported that nationally between 1 April 2021 and 31 March 2022, food banks in UK wide network distributed over 2.1 million emergency food parcels to people in crisis. This is an increase of 14% compared to the same period in 2019/20. 832,000 of these parcels went to children.

Actions:

- We aim to understand how family resilience has been affected by the pandemic and cost of living rises. During the current cost of living crisis we will work with communities to explore how to support people accessing foodbanks with their oral health, including providing oral health packs (toothbrushes and toothpaste).

Homelessness and rough sleepers

People with experience of homelessness commonly suffer from poor oral health and are likely to have low-level engagement with dental services. They may not have access to toothbrushes or toothpaste or facilities where they can clean their teeth[35]. Prioritising shelter, food, financial, health and social issues are likely to be above oral health, however, we recognise that this group may have specific oral health care needs.

Actions:

- We will work with key partners to identify a pathway of oral health promotion and support for people who are homeless or rough sleeping.

Challenges going forward

The impact of COVID-19 has been felt more severely by those who were already more likely to have poorer health outcomes, including people from ethnic minority backgrounds, people with disabilities and those living in more deprived areas.

Many community based interventions were suspended during lockdown and it is taking time to re-establish these, particularly as there are so many competing priorities whilst recovering from the impact of the pandemic.

Access to dental services has been severely impacted by COVID-19 and the first national lockdown in the UK. It is likely to take some time to deal with the backlog of patients in need of oral treatment and care due to reduced capacity in the system.

The COVID-19 pandemic is causing a range of issues that are leading to greater uncertainty among dental professionals.

This uncertainty is leading to greater anxiety and stress amongst dental professionals, which could lead to more people leaving the profession and further strains on the system[35].

The Health and Care Act (2022) has seen the formation of Integrated Care Systems (ICS) across England on a statutory basis from 1 July 2022. The aims of this new way of more integrated working and operating will be to improve outcomes in population health and healthcare, tackle inequalities in outcomes, experience and access, enhance productivity and value for money and help the NHS support broader social and economic development. How this will affect NHS dental practice remains unclear at this stage, however, the vital role dentists play in preventive health and wellbeing should be highlighted.

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