Oral Health Needs Assessment of Children and Young People in Bedfordshire

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Executive Summary

Oral health of children

- In Bedford Borough, 12% of three-year-olds had visible dental decay, with an average of 2.5 teeth affected. Almost one in four five-year-olds have dental decay, similar to the national average, with each child with dental decay having, on average, 4.6 affected teeth.
- In Central Bedfordshire 6% of three-year-olds had visible dental decay, with an average of 3 teeth affected. The oral health survey of five-year-olds showed that 14% of children in Central Bedfordshire have dental decay, significantly lower than the national average. Each child with dental decay had, on average, 3 affected teeth.
- For both local authority areas, the rate of hospital tooth extractions is below the English average, though it is not clear what is contributing to this. This is particularly interesting in Bedford Borough, given the higher rates of (mostly untreated) dental decay in the area. NHS England Core20PLUS5 for children and young people identifies addressing the backlog for tooth extractions in hospital for the under 10s as one of its five focus clinical areas.
- Prevalence of dental decay in five-year-olds varies by ethnicity, with highest levels seen in Asian/Asian British children. Of children with decay experience, Asian/Asian British children also have the highest number of decayed, missing, or filled teeth.
- National data show a strong relationship between dental decay and deprivation, illustrating clear inequalities in oral health. Data also show that that tooth extractions for dental decay are nearly three and a half times higher in children living in the most deprived communities, compared to those in the least deprived.
- Among children attending special schools, while overall prevalence of dental decay was lower than in mainstream educated children, those children who have experience of decay tend to have more teeth affected.
- Children with excess weight are more likely to have dental decay than those with a healthy weight, indicating that excess weight in children may be an indicator for dental decay.

Local service provision

- Bedford Borough and Central Bedfordshire commission joint oral health promotion services under the banner of the Bedfordshire Oral Health Improvement Team as part of Cambridgeshire Community Services (CCS) NHS Trust. The service aims to co-ordinate, facilitate, support, and provide a range of evidence-based interventions to improve oral health and reduce oral health inequalities in Bedford Borough and Central Bedfordshire.
- Local services are successful in delivering oral health training to staff of early years settings, 0-19 staff, SEND services, and Community and Specialist Nursing teams, however, their training is only being accessed by small numbers of staff from Adoption and Fostering teams, Early Help teams, and Children Looked After staff.
- Services are targeted to those at risk of poor oral health; implementation of supervised tooth brushing programmes is targeted to Early Years settings in areas of higher relative deprivation, though uptake from those settings is below the key performance indicator target. Toothbrushing kits are distributed by health visitors to children receiving specialist support services as part of the Healthy Child Programme at their 6-

month review point, and to all children at their 9-12 month review, and at their integrated health and education review at 2-2.5 years.

Effective interventions

- Community based oral health promotion campaigns delivered through multiple venues and targeting several aspects of oral health may be associated with a reduced risk of dental decay in children under the age of five living in deprived communities.
- Daily supervised brushing programmes including provision of fluoride toothpaste have been shown to be associated with significant reduction in dental caries in five-year-olds, with larger reductions in the most deprived communities – suggesting that the programme may be effective at reducing inequalities in oral health in this age group.
- The application of fluoride gels (either by professionals, or self-applied) is associated with a 28% reduction in dental decay in permanent teeth in children, compared to controls.
- Water fluoridation is an effective public health intervention for both reducing prevalence of dental decay and reducing oral health inequalities. The power to introduce water fluoridation schemes lies with the Secretary of State for Health and Social Care.
- There is limited evidence available investigating the cost-effectiveness of oral health interventions. Analysis carried out in 2016 concluded that water fluoridation, targeted provision of toothbrushes and toothpaste by post and by health visitors, targeted supervised tooth brushing programmes, and targeted fluoride varnish programmes all showed positive return on investment.

Views of families and stakeholders

- Public and providers highlighted sensory challenges among some children and young people with SEND which can make toothbrushing very challenging. Engagement with families of children and young people with SEND requested inclusive oral health promotion and information tailored to children and young people with special needs. A guide of hints & tips about coping with sensory challenges when toothbrushing has since been collated in collaboration with parent-carer forums, and has been shared to partners and online.
- Parent and carer forums for SEND families highlighted that understanding of some conditions among dentists was thought to be low, and that not all families had been aware of the specialist care available in Bedfordshire provided by Community Dental Services

Access to NHS Dental services

- NHS dental services are available in both Bedford Borough and Central Bedfordshire, though tend to be clustered in more urban areas of both local authorities. For much of rural Bedfordshire, there are no NHS dental services within either a 20-minute walk or 30-minute public transport travel time.
- There are few dentists accepting new NHS patients. Of the 52 NHS dental services in Bedfordshire identified in this needs assessment, only nine (two in Bedford Borough and 7 in Central Bedfordshire) were listed as accepting children aged 17 or under as new NHS patients.
- Among staff working with children and young people, it was felt that it could be frustrating to recommend attending NHS services to families when no appointments or registrations were available.

Recommendations

The recommendations below are based on the findings of this health needs assessment, and focus on oral health improvement priorities within the remit of Local Authority Public Health, as set out in the Health and Social Care Act (2012). Progress against recommendations made in the Oral Health Needs Assessment carried out in 2022 is outlined in **Appendix 4**.

Oral health training and education

1. Continue providing oral health improvement programmes to improve oral health and reduce oral health inequalities in Bedford Borough and Central Bedfordshire, in line with NICE guidelines.
2. Improve uptake of oral health training sessions in staff from the following teams:
    a. Adoption & Fostering teams
    b. Early Help teams
3. Ensure training is made available to, and taken up by:
    a. All social workers who work with children, young people and families
    b. All staff in the emerging Integrated Behaviour Change Service
4. Improve the uptake of 'Let's Brush' and the achievement of 'The My Smile Award' in Early Years settings in the most deprived areas in each Local Authority.

Oral health information for young people and their families

5. Ensure culturally appropriate advice and information on oral health is available for families with children in groups at high risk of poor oral health. This may include, for example, providing oral health information in other languages.

Scoping additional service provision

6. Evaluate the impact of provision of toothbrushing kits by Health Visitors to vulnerable children at the 6-month review, and the universal provision of kits at the 12-month, and 2- to 2.5-year-review.
7. Scope provision of a community-based fluoride varnish programme for nurseries as part of early years services for children aged 3 years and older, in line with NICE guidelines.

Making oral health a strategic priority

8. Use the findings of this OHNA to inform the development of a system-wide alliance to improve the oral health of children and young people in Bedfordshire and Milton Keynes.
9. Include oral health as a component of future joint strategic needs assessments for Bedford Borough and Central Bedfordshire councils.

Aims and objectives of this health needs assessment

The aim of this Oral Health Needs Assessment (OHNA) is to describe the oral health profile of children and young people living in Bedford Borough and Central Bedfordshire, to provide an overview of the currently commissioned oral health improvement services in the area, and to identify any potential gaps in service provision.

This needs assessment, in parallel with an OHNA for Milton Keynes, aims to inform the development of an action plan to improve the oral health of children and young people in Bedfordshire and Milton Keynes.

This needs assessment focuses on oral health improvement priorities within the remit of Local Authority Public Health, as set out in the Health and Social Care Act (2012). While dental health services (commissioned by NHS England), and water fluoridation (decisions about which lie with the Secretary of State for Health and Social Care) are discussed within this OHNA, they are beyond the scope of Local Authority service provision and are therefore not included in recommendations.

This is a refresh of a previous OHNA for Bedfordshire carried out in 2022, and the section on views of stakeholders and families has not been updated for this report.

Objectives:

- To describe the demographic characteristics of the population
- To present prevalence of poor oral health of children and young people in Bedford Borough and Central Bedfordshire, and inequalities in experience of poor oral health
- To provide an overview of the commissioned oral health improvement service provision in the area
- To summarise patient and provider experiences of oral health
- To present evidence of effectiveness, and cost-effectiveness of oral health interventions for children and young people
- To provide recommendations to improve the oral health of children and young people and reduce the inequalities that exist in the local area

Introduction

Background

The World Health Organisation (WHO) defines oral health as "a state of being free from chronic mouth and facial pain, oral and throat cancer, oral infection and sores, periodontal (gum) disease, tooth decay, tooth loss, and other diseases and disorders that limit an individual's capacity in biting, chewing, smiling, speaking, and psychosocial well-being".[1]

Oral health problems encompass many diseases and conditions. The range of oral diseases to which people are susceptible, and their personal risk factors, change across the life course,[2] with children and young people being most likely to be affected by dental caries. Dental caries, also called dental decay, often starts without symptoms in early stages, but advanced stages may lead to pain, infections and abscesses, or even sepsis. Dental decay can be prevented by reducing the consumption of sugary foods and drinks (both the amount and frequency of consumption) and ensuring adequate fluoride exposure.

Poor oral health has a significant impact on quality of life, particularly for children and young people; pain and discomfort can affect children's nutritional intake and consequently their general health and development. It can affect quality of sleep, school performance and attendance, and affects self-esteem.

In England, 1 in 4 children experience dental decay at the age of 5 years, and those children with experience of dental decay have on average between 3 and 4 affected teeth.[3] Between 2007 and 2015, there was a clear trend of decreasing prevalence of dental decay in five-year-olds, but data have shown no further improvements in prevalence of decay from 2017 to 2022.

The distribution of experience of dental decay is inequitable, with children living in the most deprived areas of the country being 2.5 times as likely to experience decay as those living in the least deprived areas. Children in the most deprived areas are also more likely to have more severe levels of decay. Decay occurs more frequently among those with severe disabilities and medical problems, socially excluded and vulnerable groups, including looked after children[4]. As with many other health problems, oral health inequalities are preventable.

Tooth decay is still the most common reason for hospital admission in children aged between 6 and 10 years.[5] In the financial year 2021-22, the estimated costs to the NHS of hospital admissions for tooth extractions in children aged 0 to 19 years was £81.0 million for all tooth extractions and £50.9 million for caries-related tooth extractions. This is a significant increase compared with the costs in the previous financial year, likely due to a combination of recovery of services following the COVID-19 pandemic and increased NHS costs.[6]

In 2019, national data showed that 6% of children aged 0-15 years took time off nursery or school because of problems with their teeth, with 4% and 3% of mothers and fathers, respectively, taking time off work because of problems with their child's teeth.[7]

Causes of dental decay

Everyone is at risk of dental caries, but children and adolescents are most at risk.[8] Dental decay happens when a tooth's surface is broken down (demineralised) by acid, which is produced when bacteria in the mouth break down sugar. This process happens over time and can be reversed in the early stages of the disease. When factors promoting demineralisation exceed those promoting remineralisation, dental caries progresses, and the tooth surface breaks down.

Two major behavioural factors contributing to likelihood of dental decay are therefore exposure to dietary free sugars, and exposure to fluoride (a remineralising agent) during at-home tooth brushing.[2]

A healthy diet is important for oral and general health. Two elements of a healthy diet include eating the right amount of food, and eating a range of different types of foods. Surveys show that in the UK, people eat too many 'free sugars', too much saturated fat and salt, and not enough fruit, vegetables, fibre and oily fish. The term 'free sugars' includes all sugars added to foods and drinks, as well as sugars naturally present in honey, syrups, smoothies, and fruit juices, or any sugars in drinks (except in milk).[9] For children and young people, the main sources of free sugars include soft drinks, cereal products, preserves, and confectionary.

The amount and the frequency of sugar intake is important for dental decay. Each time sugars are eaten, bacteria in the mouth convert the sugar to acid (lowering the pH in the mouth), which causes demineralisation. It takes about 20 to 40 minutes for the pH to return to normal, when remineralisation can happen. When sugar intakes are more frequent, demineralisation occurs more often, and may mean that the pH in the mouth cannot return to normal for long enough for remineralisation to happen, as illustrated in **Figure 1**. Diets that prevent tooth decay minimise the amount and frequency of consumption of sugary foods and drinks, and avoid sugary foods and drinks at bedtime. For infants, breastfeeding in the first six months of life is associated with decreased risk of dental decay.

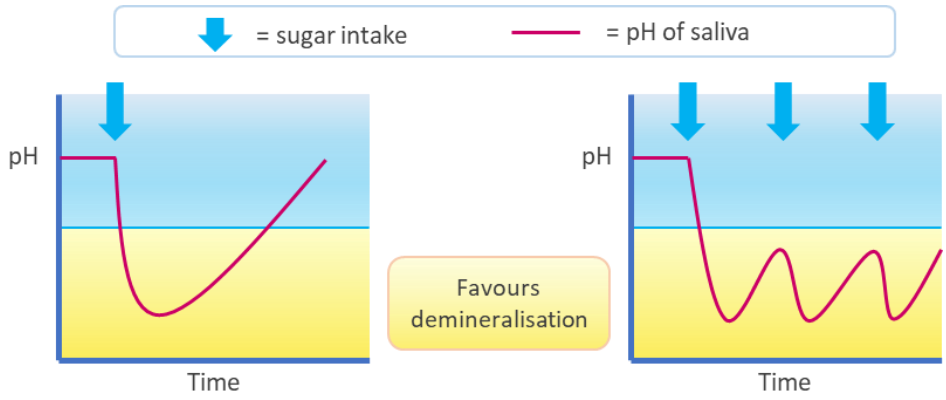


Figure 1: Stephan curve of pH in the oral cavity. The area coloured yellow represents conditions which favour demineralisation of tooth surfaces (low pH).
Reproduced from Office for Health Improvement and Disparities[2]

Effective toothbrushing with a fluoride toothpaste is important to support oral health. The physical action of brushing removes plaque, and the fluoride in toothpaste helps to remineralise teeth and prevent dental decay. Current advice is to brush teeth at least twice every day (at bedtime and on at least one other occasion), with fluoride toothpaste. Expert opinion suggests that children need to be helped with toothbrushing until at least seven years of age, after which many children can brush their own teeth but may require supervision, motivation, and possibly assistance. For infants, brushing should start as soon as they get their first primary tooth.

The 2019 Cochrane Review of fluoride toothpastes of different concentrations for preventing dental caries[10] supports the benefits of using fluoride toothpaste in preventing caries when compared to non-fluoride toothpaste.

While toothpaste is the most common source of fluoride exposure, there are many other ways of increasing exposure to fluoride. Some of these preventive interventions are discussed later in this need assessment under 'effectiveness of interventions for prevention of poor oral health'.

Alcohol and tobacco use both negatively impact oral health, as well as having a significant impact on ill health and health inequalities. The majority of children and young people do not smoke tobacco, with national data from 2021 indicating that 3% of 15-year-old boys and girls in England were regular smokers. A higher proportion of young people drink alcohol, with 20% of 15-year-olds reporting that they had had an alcoholic drink in the last week.[11]

More broadly, the determinants of health that create the social and physical conditions of people's lives also affect risk of poor oral health. These include economic, welfare, employment, and education policies, which influence the resources and opportunities available to people, as well as day-to-day social and living circumstances of people, which affect access to resources, healthcare, and social relationships. Dental decay is associated with socioeconomic status, with high prevalence rates among the poor and disadvantaged population groups.[8]

Many risk factors for oral health are also risk factors for poor general health and therefore promoting oral health can also effectively help people to care for their general health.[12] Improvements in oral health and a reduction in health inequalities requires this common risk factor approach, with a focus on tackling the structural and environmental determinants of chronic diseases.[13]

Statutory duty

Local authorities are statutorily required to provide or commission oral health promotion programmes to improve the health of the local population, as set out in the Health and Social Care Act (2012). They must assess local oral health needs and commission evidence based oral health programmes appropriate to those needs. This includes work in early years settings, schools and training staff who work with children and young people.

They are also required to provide or commission oral health surveys. The oral health surveys are carried out as part of the national dental public health intelligence programme, which is outlined in more detail in the methodology section of this report.

Dentists are commissioned by NHS England to provide treatment.

Government Strategies

Government guidance on child oral health is found in the 'Applying All Our Health' report, published by the Office for Health Improvement and Disparities (OHID)[14]. It summarises evidence-based advice and treatment for health and care professionals; provides actionable strategies for healthcare managers and senior leaders and signposts to other resources, including Change4Life.

Core20PLUS5 is a national NHS England approach to support the reduction of health inequalities for children and young people at both national and system level. The approach defines a target population cohort and identifies five focus clinical areas requiring accelerated improvement, one of which is oral health (address the backlog for tooth extractions in hospital for the under 10s)[15]. The 'Core20' refers to the most deprived 20% of the national population as identified by the Index of Multiple Deprivation (IMD). The 'PLUS' population groups include ethnic minority communities, inclusion health groups, people with a learning disability and autistic people, amongst others. Special consideration should be

taken for inclusion of young carers, children in care and care leavers, and those in contact with the justice system.

The Soft Drinks Industry Levy (SDIL) was introduced in 2016 to contribute to the government's plans to reduce childhood obesity by removing added sugar from soft drinks. The levy encourages producers of soft drinks to reformulate their products to reduce the sugar content, and reduce portion sizes, both to encourage consumers of soft drinks to move to healthier choices[16]. While not directly aimed towards improving oral health, this legislation addresses the levels of consumption of sugar-sweetened beverages – one of the proximal causes of dental decay in children and young people. Recent evidence has shown that there have been reductions in the number of hospital admissions for tooth extraction since the introduction of SDIL, with largest absolute reductions seen in children from areas of higher deprivation[17].

Local context

Bedford Borough

Bedford Borough is an area of around 120,000 acres made up of the county town of Bedford, the urban area of Kempston and 43 rural villages[18]. According to Office for National Statistics 2021 mid-year estimates, there are 185,761 people in Bedford Borough, of whom 43,577 (23.5%) are aged 18 years or younger[19]. The population of children and young people is not evenly distributed across the area; the highest population density of children aged 0-15 in the Borough is seen in Queens Park, Cauldwell, and Kempston Central and East wards[20].

Between one in six, and one in seven (15%) children aged under 16 are living in relative low income[21]. Four of the 103 Lower Super Output Areas (LSOAs) in Bedford Borough are among the 10% most deprived areas nationally based on the Index of Multiple Deprivation (IMD). A further ten LSOAs are among the 10-20% most deprived, and eleven among the 20-30% most deprived[22].

In 2021, 24% of the Bedford Borough population were from Asian, Black, mixed and 'other' ethnic groups, higher than the England and Wales average of 18%. In those aged 19 years or younger, 35% of people in Bedford Borough were from Asian, Black, mixed, or 'other' ethnic groups, higher than the England and Wales average of 26%.[23]

Central Bedfordshire

Central Bedfordshire is a rural Unitary Authority area made up of market towns and villages. Towns in Central Bedfordshire include Leighton Buzzard, Dunstable, Biggleswade, Houghton Regis, and Flitwick. According to Office for National Statistics 2021 mid-year estimates, there were 295,541 people in Central Bedfordshire, of whom 67,188 (22.7%) were aged 18 years or younger[19]. The highest population density of children aged 0-15 in the area is seen in parts of Dunstable, and Parkside ward[24].

It is a relatively affluent area, with people in Central Bedfordshire earning more than the national average, partly influenced by some residents commuting out of the area for work[25,26]. None of the 157 Lower Super Output Areas (LSOAs) in Central Bedfordshire are among the 10% most deprived areas nationally based on the Index of Multiple Deprivation (IMD). Three LSOAs are among the 10-20% most deprived, and ten are among the 20-30% most deprived[22]. Almost one in nine (11%) children aged under 16 are living in relative low income[21].

In 2021, 9% of the Central Bedfordshire population were from Asian, Black, mixed and 'other' ethnic groups, lower than the England and Wales average of 18%. In those aged 19 years or younger, 15% of people in Central Bedfordshire were from Asian, Black, mixed, or 'other' ethnic groups, lower than the England and Wales average of 26%[23].

Dental Services in Bedfordshire

Local dentists

There are different sources of data available to show the number of dental services in an area. Dental services include practices providing NHS treatment, practices that offer both private and NHS dental appointments, providers of private treatment only, as well as those who provide urgent care. This health needs assessment has used a combination of available sources to present an up-to-date picture of the NHS dental services in Bedfordshire, which together are presented below[27,28]. Data collation and analysis were carried out in November 2023. It is recognised that availability of NHS dental services is dynamic and the summary presented below may not represent availability at time of publication.

At the time of writing there were 22 locations of NHS dental services in Bedford Borough, all of which were concentrated towards the urban area of Bedford (**Figure 2**). Mapping of transport times around dental services showed that most of Bedford town was within either a 20-minute walk (approximately 1 mile, an estimate of the extent of 'walking neighbourhood)[29], or 30-minute travel time using public transport of a NHS service. For the majority of rural areas in the Borough, however, there were no dental services within these travel times – presenting a possible barrier to access for some rural communities. Maps of travel time around dental services are illustrated in **Appendix 1.**

There were 30 locations of NHS dental services in Central Bedfordshire (**Figure 2**), which were spread geographically across the locality. Services tended to be clustered in the larger market towns, with higher numbers seen in Leighton Buzzard, Houghton Regis, and Dunstable in the south of the area – where there are also higher levels of relative deprivation. Mapping of transport times around services showed that for communities falling outside of the area's market towns, there were often no services accessible within either a 20-minute walk or 30-minute journey on public transport.

Registration for dental services is not bound by catchment areas, allowing patients to choose a surgery that is conveniently located for them (for example choosing a surgery near where they work or study, rather than close to where they live). However, dental surgeries may not always have the capacity to take on new NHS patients, in which case a patient may have to join a waiting list, look for a different dentist who is taking on new NHS patients, or be seen privately[30].

Of the 22 NHS services identified in Bedford Borough, two dental surgeries were accepting children aged 17 or under as new NHS patients. Five practices were taking NHS patients referred by another dentist, and 13 were not accepting new patients. Two services had no recent information on whether they were accepting new NHS patients[31].

Of the 30 services in Central Bedfordshire, seven were accepting children aged under 17 as new NHS patients. Six services were taking new NHS patients referred by another dentist, and nine were not accepting new patients. Eight services had no recent information on whether they were accepting new NHS patients.

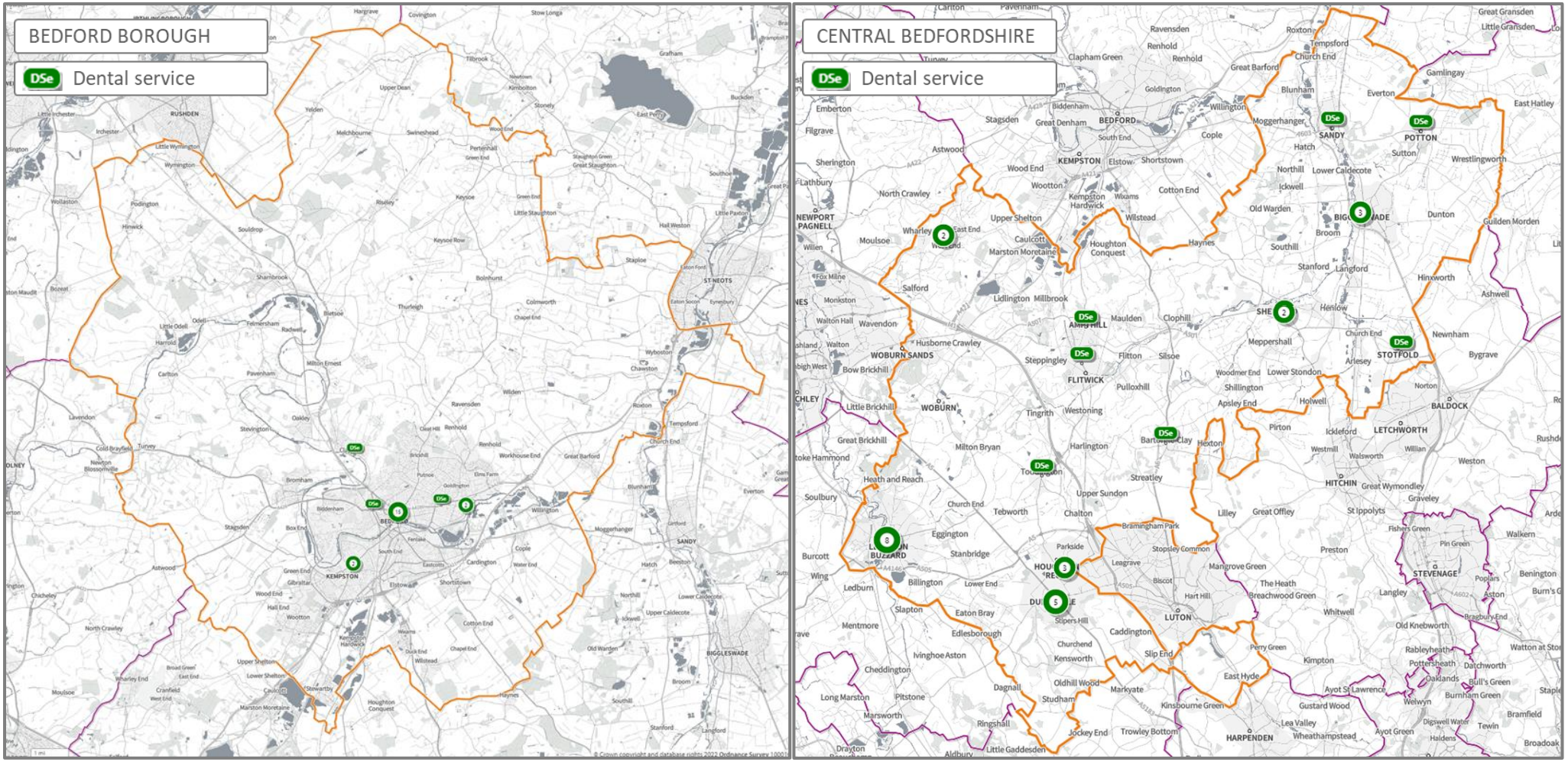


Figure 2: Distribution of NHS dental services in Bedford Borough and Central Bedfordshire
Each dental service is represented by a marker labelled **DSe**. Where there are multiple services in similar locations, a circle is shown, labelled with the corresponding number of services at that location. Orange boundary shows the extent of each Local Authority area.

Local data show that people report difficulty accessing NHS dental care. In the two years to March 2023, only three quarters (74%) of adults in Bedfordshire, Luton and Milton Keynes (BLMK) who tried to get an NHS dental appointment in the last two years were successful[32]. Respondents who had not been to the practice before were much less successful in getting an NHS dental appointment than returning patients. People from minority ethnic groups reported lower success rates (78% in White respondents, and 63% in respondents of all other ethnicities grouped).

It is important to note that not everyone chooses to access NHS dentists. Of adults in BLMK who had not tried to get an NHS dental appointment in the last 2 years, 23% preferred private dentistry, 23% did not identify a need to visit a dentist, 22% didn't think they could get an NHS dentist, 7% found NHS dental care too expensive, 7% didn't like going to the dentist, and 3% were on a waiting list for an NHS dentist.

Community Dental Services

Community Dental Services (CDS) is a community interest company which provides community dental services in Bedfordshire. These services are commissioned by the NHS[33] and provide specialist dental care for people who are unable to receive care from a general dental practitioner (GDP), but do not necessarily need to be seen in a hospital. Among children and young people this includes:

- Children with moderate or severe learning disabilities
- Children with moderate or severe physical or sensory difficulties
- Children with complex medical conditions
- Children with severe behavioural management problems
- Children in care and children looked after

Children and young people can be referred to the Community Dental Service by other dentists, health and social care professionals, educational settings, voluntary organisations or community groups, and through self-referral. The Community Dental Service provides care across the following locations: Dental Care Centre, Bedford; London Rd Dental Clinic, Bedford; Queens Park Dental Clinic, Bedford; Leighton Buzzard Dental Clinic; Houghton Regis Dental Clinic[34,35].

Oral health data

Methodology

Oral health surveys

Oral health in five-year-olds has been measured by the National Dental Epidemiology Programme (NDEP) for England oral health surveys since 2007. Oral health surveys of three-year-old and five-year-old children are coordinated by OHID as part of the NDEP, though responsibility for commissioning the surveys lies with upper-tier local authorities[36].

Survey data for five-year-old children is available at local authority level for the years 2015, 2017, 2019, and 2022, with the next survey due in 2024. Survey data for three-year-olds is available for 2013 and 2020. The NDEP also conducted an oral health survey of children attending special support schools in 2014[37]. Due to small numbers of children participating in this survey, findings are presented below for England overall.

Hospital extractions

OHID publishes annual official statistics on tooth extractions in 0- to 19-year-olds that take place in an NHS hospital setting in England. These data come from the Hospital Episode Statistics dataset held by NHS Digital, and are calculated from the number of finished consultant episodes (FCEs) where a tooth extraction procedure was performed in an acute hospital care setting[38]. These data are published annually and the most recent data available at the time of writing this report was for the financial year 2021-22.

Children in Bedford Borough and Central Bedfordshire may attend Bedford Hospital or Luton and Dunstable University Hospital for extractions due to dental decay under general anaesthetic. These data don't include extractions carried out at NHS dental practices, or at private clinics, therefore the data provided may underestimate the number of extractions for dental decay.

Attendance and treatment at NHS dental practices

Information on the number of children attending NHS dental practices in the local area is available from NHS Dental Statistics for England.[39] These data are available quarterly, with each release summarising the previous 12-month period; the most recent data available at the time of writing this report was for the 12 months to 30th June 2023. These data do not include children who attend private dental practices.

Data are also available describing the type of treatment given to children and young people in NHS dental practices. NHS dental treatment is categorised into bands 1, 2, and 3. This reflects the charges attached to different treatment, although children's NHS dental treatment is free at the point of access. Routine clinical examinations fall within band 1 treatment, as do X-rays, scale and polish treatments, and fluoride polish. Band 2 dental treatment incorporates additional treatment such as fillings, root canal treatment, and extractions. Band 3 treatment incorporates the most complex procedures such as bridges, crowns and orthodontic treatment like braces[40].

Together, these three data sources help to describe the oral health of children and young people in Bedfordshire, though do not explain it fully. Only some of the children and young people experiencing poor oral health or dental decay are aware of it, and a smaller section of that group seek advice and are known to dental services, as demonstrated in the diagram in F**igure 3.**

The data included in this needs assessment help to describe different sections of the triangle. Oral health survey data helps to quantify the proportion of children who are experiencing decay (i.e. in the top three levels combined), though cannot tell us whether the children were aware of their decay experience or had sought treatment or advice.

Hospital extractions data tell us about some of the cases at the top of the triangle, though children who have had hospital extractions represent only a proportion of the children and young people known to dental services. The number of hospital extractions may be influenced by many factors other than the normative need of the population, including capacity of services, waiting lists, availability of extractions in settings other than hospitals.

Dental attendance data help to tell us the coverage of access to services, however, given that all children and young people are recommended to attend regular dental check-ups, it covers children from all levels of the triangle. Treatment band data help to indicate the level of need of attendees, however, because not all children and young people are accessing services, this is unlikely to be representative of need in the population as a whole.

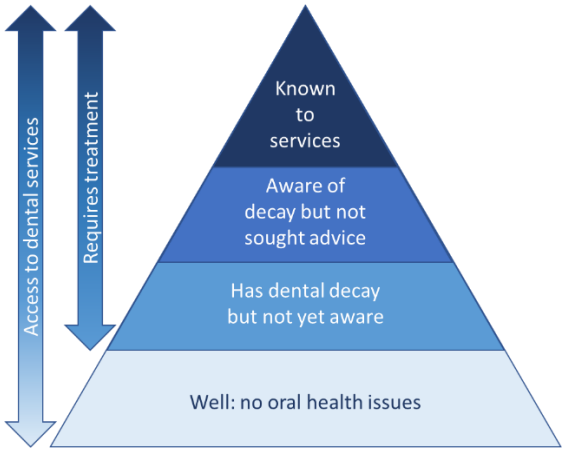


Figure 3: Levels of dental service need and use among a population

Statistical neighbour comparisons

Statistical neighbours have been used to facilitate benchmarking between Bedford Borough, Central Bedfordshire and other similar local authorities. Statistical neighbours are other Local Authorities deemed to have similar characteristics to each Bedford Borough and Central Bedfordshire. The statistical neighbours were originally identified by the National Foundation for Educational Research (NFER), which was commissioned in 2007 by the Department for Education to identify and group similar authorities in terms of the socio-economic characteristics. The model has since been amended and statistical neighbours used in this needs assessment are taken from the 2021 update to the Children's Services Statistical Neighbour Benchmarking Tool (CSSNBT)[41]. Lists of statistical neighbours for both Bedford Borough and Central Bedfordshire are in **Appendix 2**.

Bedford Borough

The following section covers the oral health of three-year-olds and five-year-olds in Bedford Borough, as well as hospital extractions for dental decay and attendance at NHS dental practices for children and young people up to the age of 18.

Dental decay starts early in childhood. The survey of three-year-olds in 2020 found that 12% had visible dental decay, with an average of 2.5 teeth affected. The oral health survey of five-year-olds in 2022 showed that almost one in four children in Bedford Borough have dental decay, similar to the national average. Each child with dental decay had, on average, 4.6 affected teeth.

The rate of hospital tooth extractions is below the English average. The rate of recent dental access is above English average, though varies with age and shows low levels of access in preschool aged children. Of all NHS dental treatment provided to children and young people in Bedford Borough, the majority (75%) falls within Band 1, similar to proportions seen in England overall.

Dental decay

Three-year-olds

In Bedford Borough, the prevalence of dental decay among three-year-olds in 2020 was 12%. This was the second-highest prevalence among the statistical neighbours and was statistically similar to the English average of 11%.

Three-year-olds in Bedford Borough had, on average, 0.3 teeth with dental decay in 2020, which is similar to the English average, but ranked second highest of its statistical neighbours. None of the 122 children examined had missing or filled teeth, which means that all of the experience of dental decay in this age group was obvious, untreated decay.

Among three-year-old children with one or more affected teeth, the average number of teeth affected by dental decay was 2.5 in Bedford Borough. This was below the English average of 2.9 affected teeth, and ranked in the middle of its statistical neighbours.

There is limited data on the change in oral health of three-year-olds over time. Data were available for 2013 and 2020 only, and confidence intervals for these estimates are wide, meaning that trends cannot be identified.

The prevalence of dental decay among three-year-olds decreased in England overall between 2013 and 2020, though showed no statistically significant change in East of England region. In Bedford Borough, prevalence in 2020 (12%) was statistically similar to prevalence in 2013 (11%).

The average number of teeth affected by dental decay among three-year-olds in Bedford Borough was 0.4 in 2013, statistically similar to the value of 0.3 in 2020, and remaining similar to the English average at both time points.

Among three-year-olds in Bedford Borough with at least one tooth affected by dental decay, the average number of affected teeth was 3.4 in 2013 and 2.5 in 2020, though wide confidence intervals mean this reduction is not statistically significant.

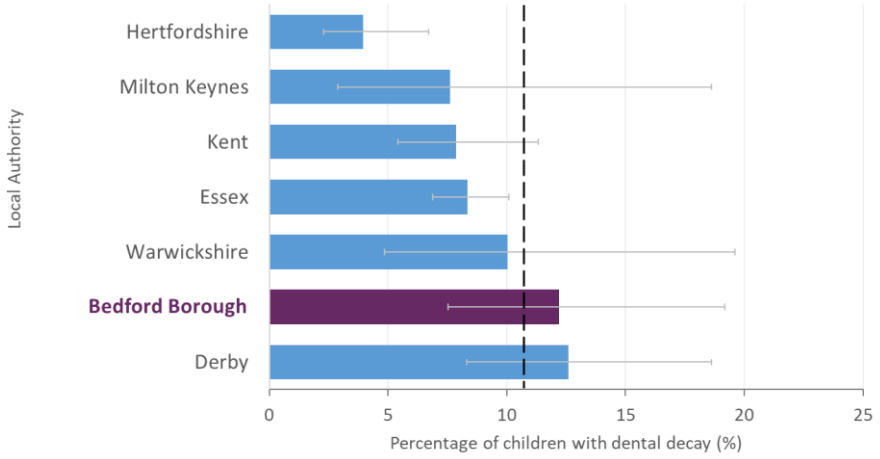


Figure 4: Percentage of three-year-olds with one or more decayed, missing, or filled teeth in Bedford Borough relative to statistical neighbours.
Dashed line represents England value. Grey bars represent 95% confidence intervals.
Source: Office for Health Improvement and Disparities, Oral health survey of three-year-old children 2020.

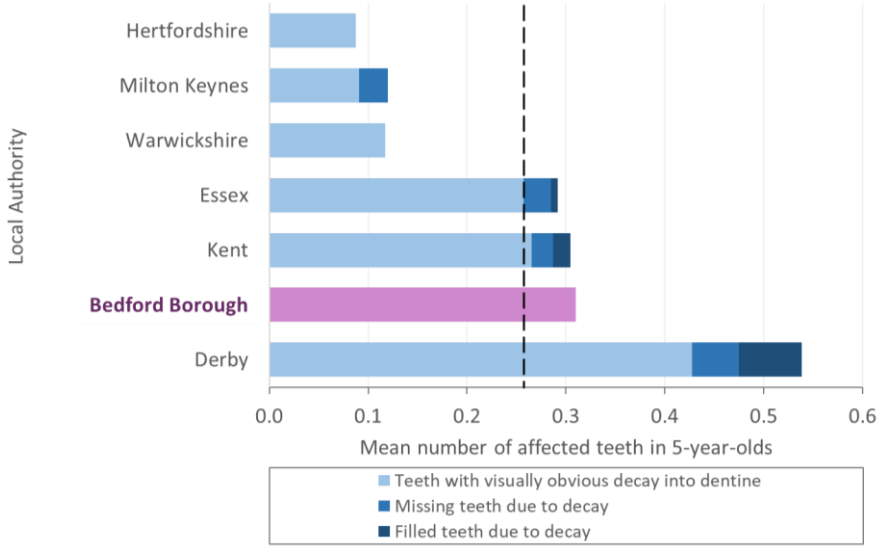


Figure 5: Mean number of decayed, missing, or filled teeth in three-year-olds in Bedford Borough relative to statistical neighbours. Dashed line represents England value.
Source: Office for Health Improvement and Disparities, Oral health survey of 3-year-old children 2020.

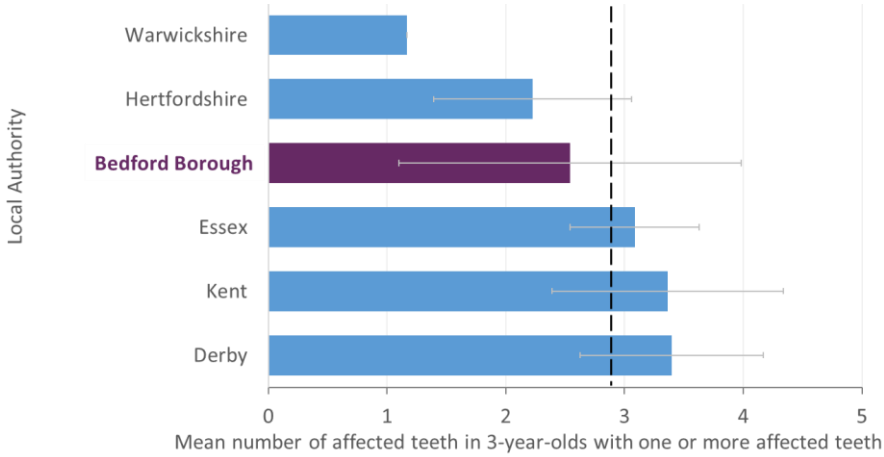


Figure 6: Mean number of decayed, missing, or filled teeth in three-year-olds who have at least one decayed, missing, or filled teeth in Bedford Borough relative to statistical neighbours.
Dashed line represents England value. Grey bars represent 95% confidence intervals.
Source: Office for Health Improvement and Disparities, Oral health survey of 3-year-old children 2020.

Note: No data for Northamptonshire, Swindon, Milton Keynes, or Medway Local Authorities.

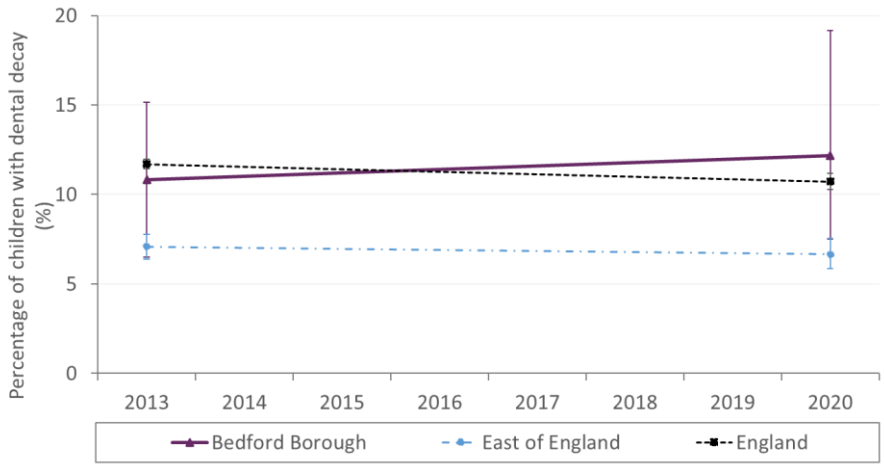


Figure 7: Time trend of the percentage of three-year-olds with one or more decayed, missing, or filled teeth in Bedford Borough, East of England, and England.
Error bars represent 95% confidence intervals.
Source: Office for Health Improvement and Disparities, Oral health survey of 3-year-old children.

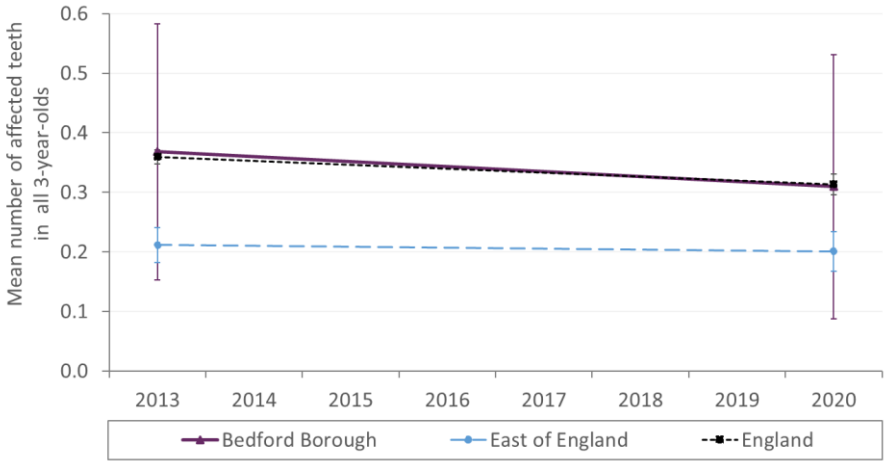


Figure 8: Time trend of the mean number of decayed, missing, or filled teeth in all three-year-old children in Bedford Borough, East of England, and England.
Error bars represent 95% confidence intervals.
Source: Office for Health Improvement and Disparities, Oral health survey of 3-year-old children.

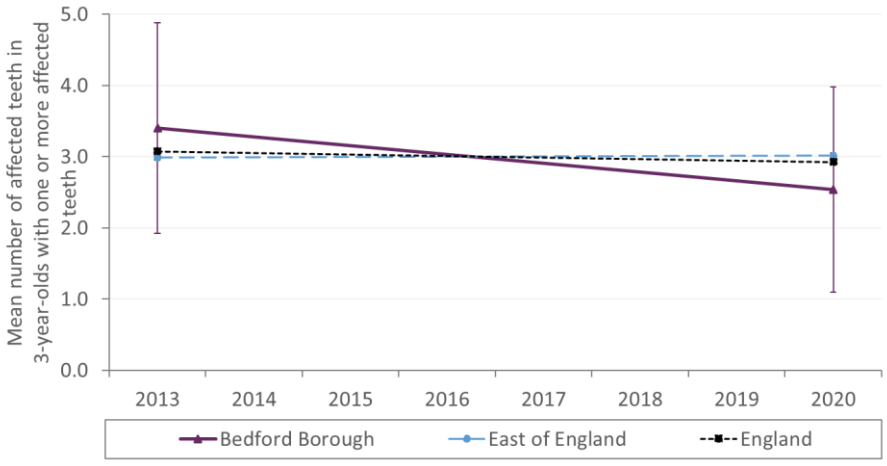


Figure 9: Time trend of the mean number of decayed, missing, or filled teeth in three-year-olds who have at least one decayed, missing, or filled tooth in Bedford Borough, East of England, and England.
Error bars represent 95% confidence intervals.
Source: Office for Health Improvement and Disparities, Oral health survey of 3-year-old children.

Five-year-olds

In 2022, 22.5% of five-year-olds had dental decay, statistically similar to the national average of 23.7%.

While the proportion of 5-year-olds in Bedford with tooth decay is similar to the prevalence in England overall, Bedford's children have a greater average number of affected teeth than the national mean.

On average, five-year-olds in Bedford in 2022 had one tooth with dental decay, above the English average of 0.8. The majority of experience of dental decay in this age group was obvious, untreated decay. As in the 2019 oral health survey, Bedford has the highest value among its statistical neighbours.

Among five-year-old children who have at least one tooth affected by dental decay, the average number of affected teeth was 4.6, statistically significantly higher than the English average of 3.5, and the highest among its statistical neighbours.

The prevalence of dental decay in Bedford has decreased from a peak of 31.3% in 2017 50 22.5% in 2022, though the difference is not statistically significant due to wide confidence intervals around prevalence estimates. Over the same period, prevalence estimates in the East of England region and England overall have remained relatively stable.

In Bedford Borough, the average number of teeth affected by dental decay in all five-year-olds has remained broadly constant between 2015 (mean 0.9 teeth) and 2022 (mean 1.0 teeth). Although there appears to be an increase in 2017, the wide confidence intervals indicate that there is no statistically significant difference between 2017 and values for other years. It is possible that the raised value in 2017 is due to the small sample size surveyed in Bedford (250 children) that year.

The average number of affected teeth in five-year-olds with at least one tooth affected by dental decay in Bedford Borough has increased over time from 3.5 affected teeth in 2015 to 4.6 teeth in 2022. The average has remained stable in the East of England (3.4 affected teeth) and in England overall (3.4 affected teeth).

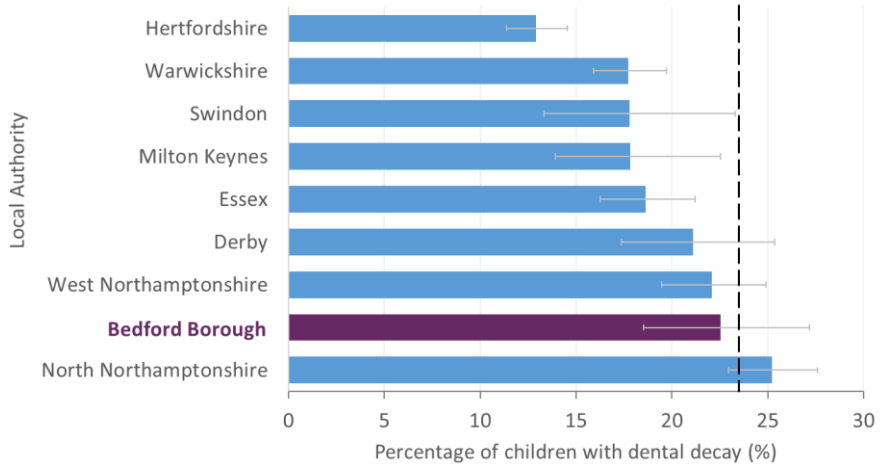


Figure 10: Percentage of five-year-olds with one or more decayed, missing, or filled teeth in Bedford Borough relative to statistical neighbours. Dashed line represents England value. Eror bars represent 95% confidence intervals.
Source: Office for Health Improvement and Disparities, Oral health survey of 5-year-old children 2022.

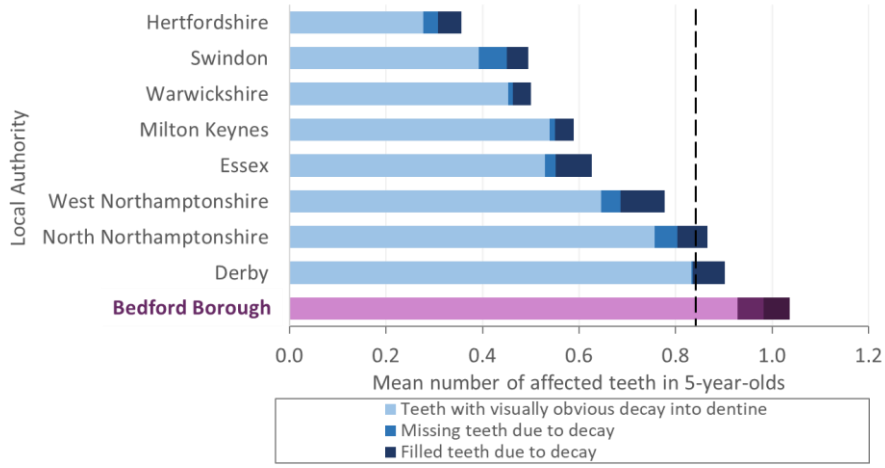


Figure 11: Mean number of decayed, missing, or filled teeth in five-year-olds in Bedford Borough relative to statistical neighbours. Dashed line represents England value. Eror bars represent 95% confidence intervals.
Source: Office for Health Improvement and Disparities, Oral health survey of 5-year-old children 2022.

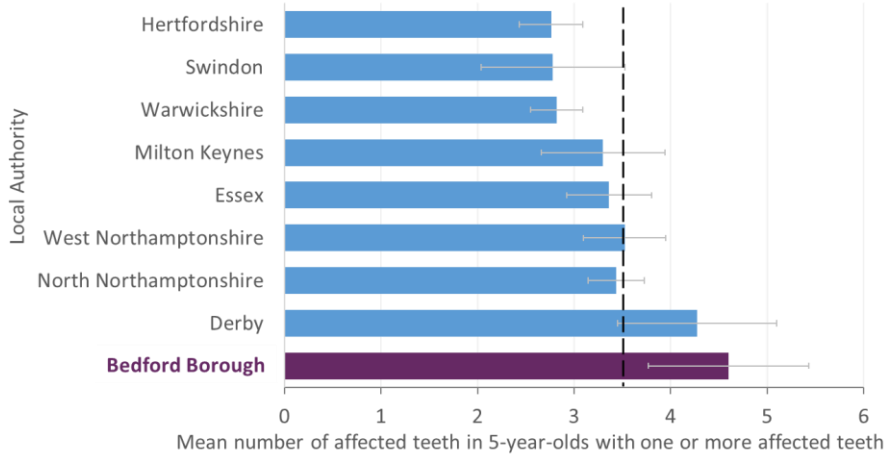


Figure 12: Mean number of decayed, missing, or filled teeth in five-year-olds who have at least one decayed, missing, or filled teeth in Bedford Borough relative to statistical neighbours. Dashed line represents England value. Eror bars represent 95% confidence intervals.
Source: Office for Health Improvement and Disparities, Oral health survey of 5-year-old children 2022.

Note: No data for Kent or Medway Local Authorities.

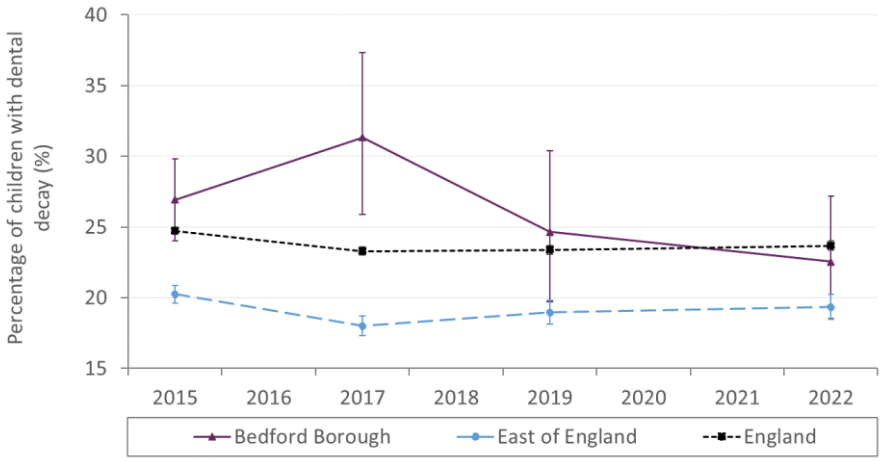


Figure 13: Time trend of the percentage of five-year-olds with one or more decayed, missing, or filled teeth in Bedford Borough, East of England, and England. Error bars represent 95% confidence intervals.
Source: Office for Health Improvement and Disparities, Oral health survey of 5-year-old children.

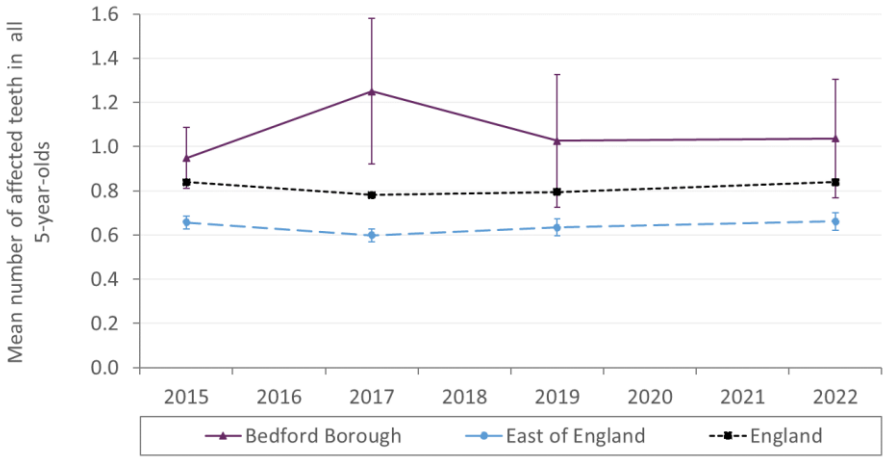


Figure 14: Time trend of the mean number of decayed, missing, or filled teeth in all five-year-old children in Bedford Borough, East of England, and England. Error bars represent 95% confidence intervals.
Source: Office for Health Improvement and Disparities, Oral health survey of 5-year-old children.

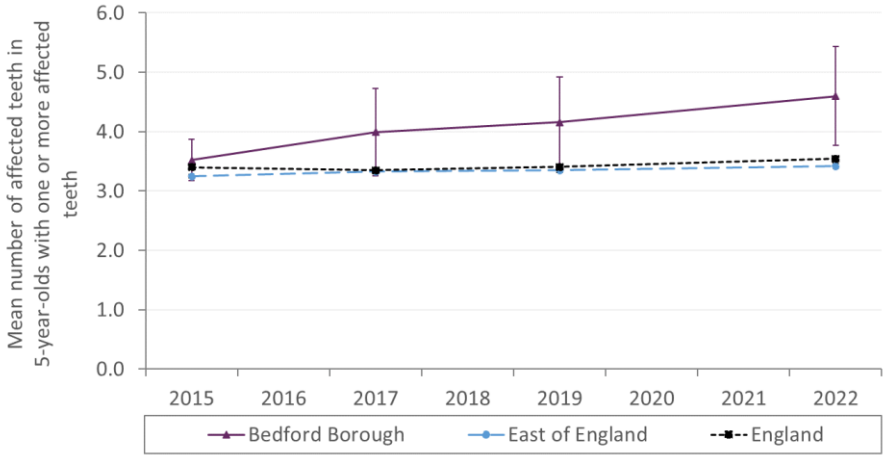


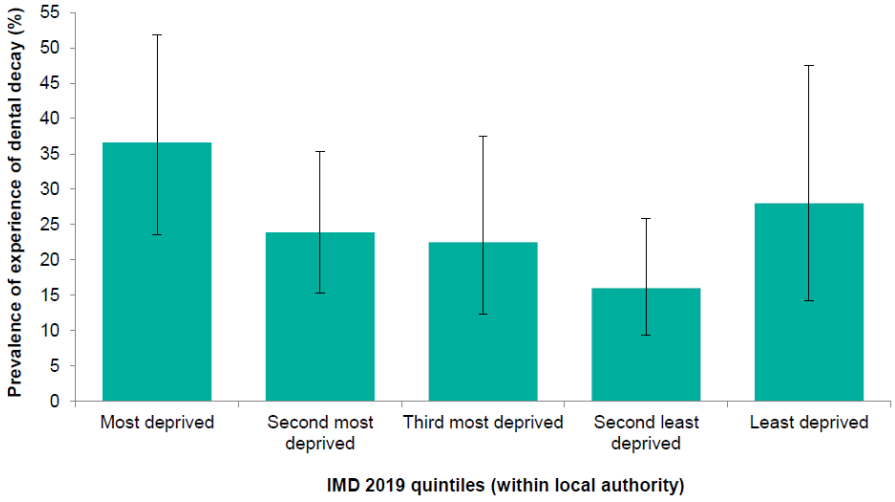
Figure 15: Time trend of the mean number of decayed, missing, or filled teeth in five-year-olds who have at least one decayed, missing, or filled tooth in Bedford Borough, East of England, and England. Error bars represent 95% confidence intervals
Source: Office for Health Improvement and Disparities, Oral health survey of 5-year-old children.

Variation in dental decay by deprivation

Oral health data by deprivation were not available for the 2022 survey at the time of writing this needs assessment.

In the 2019 survey, the prevalence of dental decay in five-year-olds in Bedford Borough varied by deprivation quintile[a] (**Figure 16**). Confidence intervals surrounding prevalence estimates are very broad and overlap across each deprivation quintile, which means that there is no statistically significant difference between the groups in these data. It is possible that the small numbers of children included in this dataset mean there isn't the statistical power to detect a difference, rather than there being no true difference between the groups.

Data for the East of England as a whole show a strong relationship between deprivation and dental decay in five-year-olds (see regional data). It is likely that a similar social gradient exists within Bedford Borough.



Error bars represent 95% confidence limits

Figure 16: Percentage of five-year-olds with one or more decayed, missing, or filled teeth in Bedford Borough by IMD 2019 quintiles (within local authority).
Source: Dental Public Health Epidemiology Programme for England: oral health survey of five-year-old children 2019

Tooth extractions

In the year 2021-22, there were 10[b] finished consultant episodes for children and young people aged 0-19 for hospital tooth extractions in Bedford Borough. This is equivalent to a rate of 66 per 100,000 population, well below the national average of 205 per 100,000 population, and second lowest of its statistical neighbours.

The number of hospital extractions reflects multiple factors, including oral health and dental access. Regular dental access allows for early intervention and decreases the need for hospital extractions. Having no access will also limit referrals for extractions, regardless of a child's oral health. It is unclear what is contributing the low rates of hospital extractions among children and young people in Bedford Borough, given the higher rates of (mostly untreated) dental decay in this area (or similarly, what is contributing to the inverse situation in Swindon). Further work is needed to understand this relationship in greater detail.

[a] Quintile of Index of Multiple Deprivation (IMD)
[b] Rounded to the nearest 5

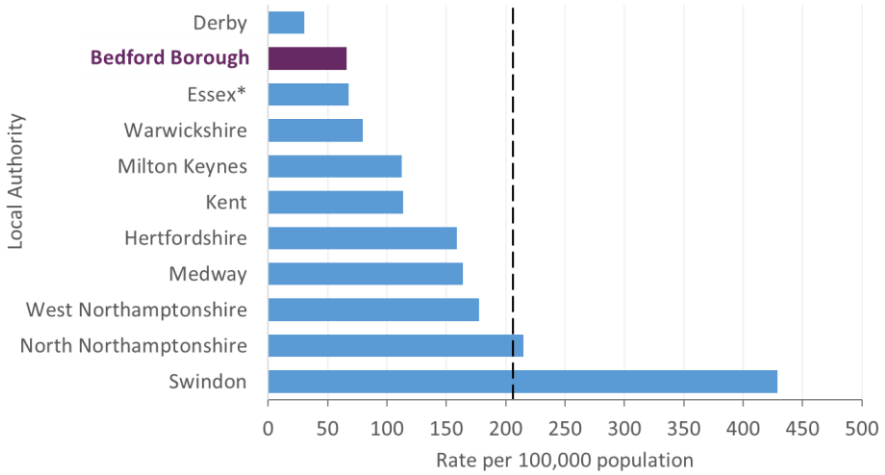


Figure 17: Finished consultant episodes for tooth extraction with caries as primary diagnosis in children and young people aged 0-19 in Bedford Borough and its statistical neighbours, rate per 100,000 population. Error bars represent 95% confidence intervals.
*Value for Essex County does not include data for Rochford District.
Source: Office for Health Improvement and Disparities, Hospital tooth extractions of 0- to 19-year-olds 2021.

Nationally, the trend in rate of extractions in 0-19 year olds appears to be decreasing, with a rate of 205 extractions per 100,000 population in 2021/22, down from 282 extractions per 100,000 in 2018/19.

While there has been some variation year-on-year, the rate of tooth extractions in Bedford Borough is similar in 2021/22 (66 per 100,000 population) as it was in 2018/19 (69 per 100,000 population). The East of England region also has similar rates in 2021/22 and 2018/19 (both 95 per 100,000 population).

The reduced rates seen in 2020/21 are likely due to the impact of the COVID pandemic on non-COVID related hospital episodes, rather than sudden reduction in need or demand.

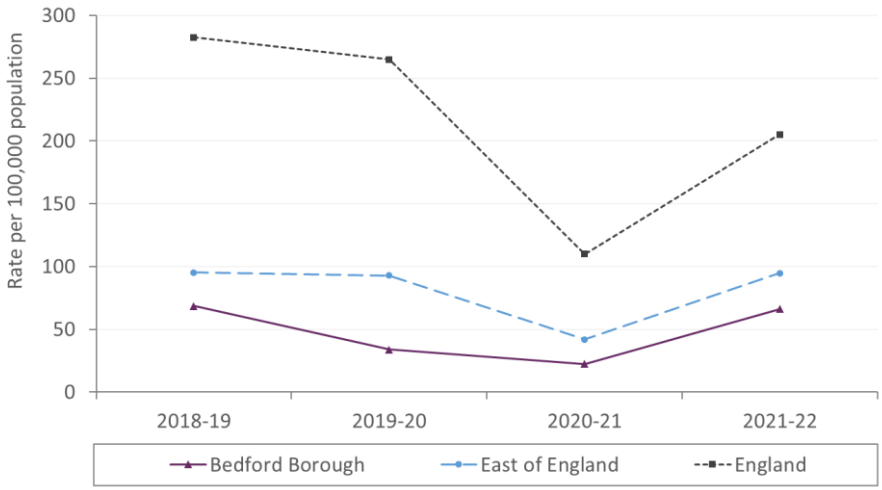


Figure 18: Trends in finished consultant episodes for tooth extraction with caries as primary diagnosis in children and young people aged 0-19 in Bedford Borough, East of England and England, rate per 100,000 population.
Source: Office for Health Improvement and Disparities, Hospital tooth extractions of 0- to 19-year-olds 2021.

Attendance at NHS dental practices

In Bedford Borough, the percentage of children and young people (0-18) seen by NHS dentists in the 12 months to June 2023 was 66%. This was above the English average of 56% and ranked third highest of its statistical neighbours.

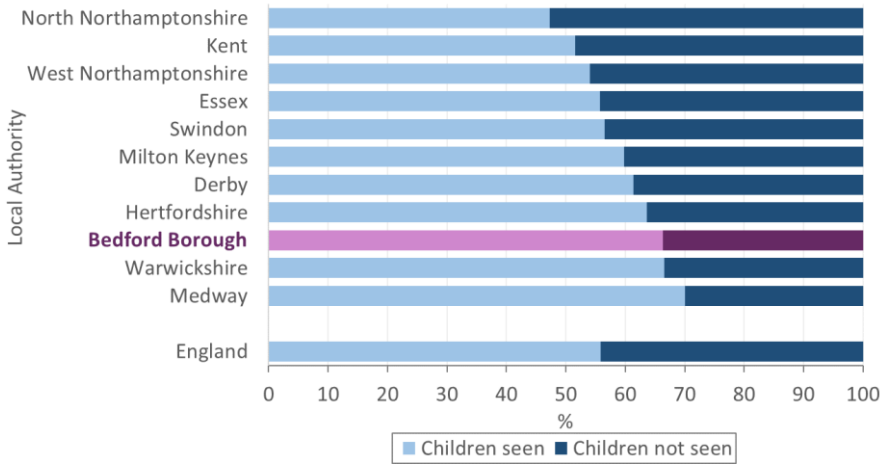


Figure 19: Percentage of children and young people aged 0-17 seen by NHS dentists in the 12 months to June 2023 in Bedford Borough and its statistical neighbours, and England.
Source: NHS Digital, NHS Dental Statistics for England, 2022-23, Annual Report

The proportion of children and young people seen by an NHS dentist in Bedford Borough in the previous 12 months has varied greatly over the past 5 years, though has remained above the England average. Attendance fell sharply during the covid-19 pandemic reaching its lowest point in the 12 months up to 31st March 2021. Levels of access have recovered slowly, and only in the most recent data points returning to levels similar to those seen before the pandemic.

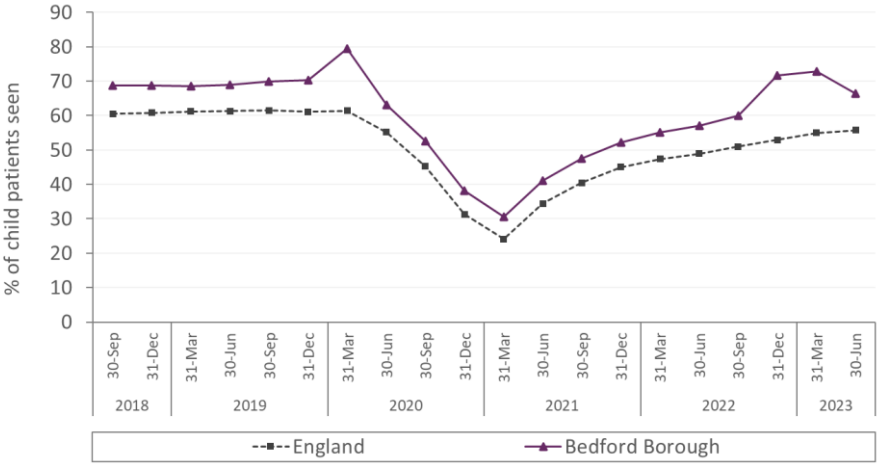


Figure 20: Percentage of children and young people aged 0-17 seen by NHS dentists in the previous 12 months (12-month rolling average) in Bedford Borough and England.
Source: NHS Digital, NHS Dental Statistics for England, 2022-23, Annual Report

The percentage of children and young people seen by NHS dentists in the 12 months to June 2023 varied by age. The lowest proportion was for children under 1, of whom 2% were seen; the proportion increased with age from early years up to those aged 13-15, of whom between 84% and 86% were seen. This trend did not continue into 16- and 17-year-olds, with proportions decreasing to 72% and 75%, respectively.

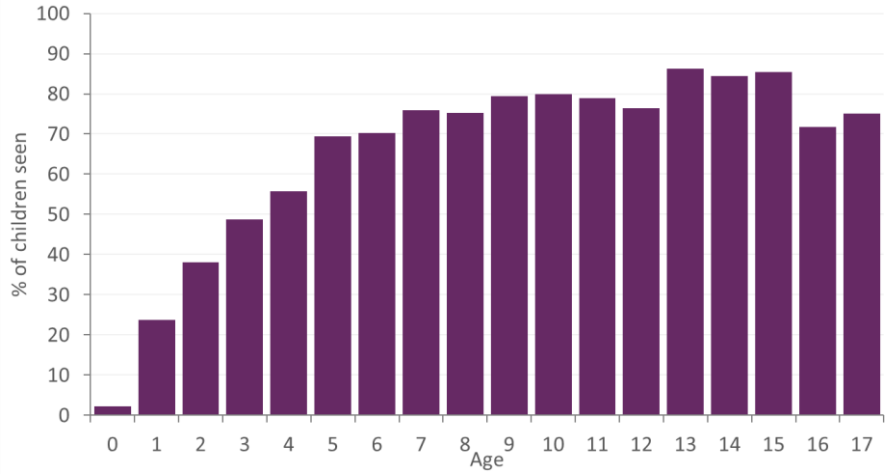


Figure 21: Percentage of children and young people aged 0-17 seen by NHS dentists in the 12 months to June 2023 in Bedford Borough by age.
Source: NHS Digital, NHS Dental Statistics for England, 2022-23, Annual Report

The majority of NHS treatment for children and young people (aged 0-18 years) in Bedford Borough was within Band 1 (75%), with 25% falling within band 2, and less than 1% in band 3. This is similar to proportions seen in England (73% band 1; 26% band 2; 1% band 3). See methodology for more information about the types of treatment included in each band.

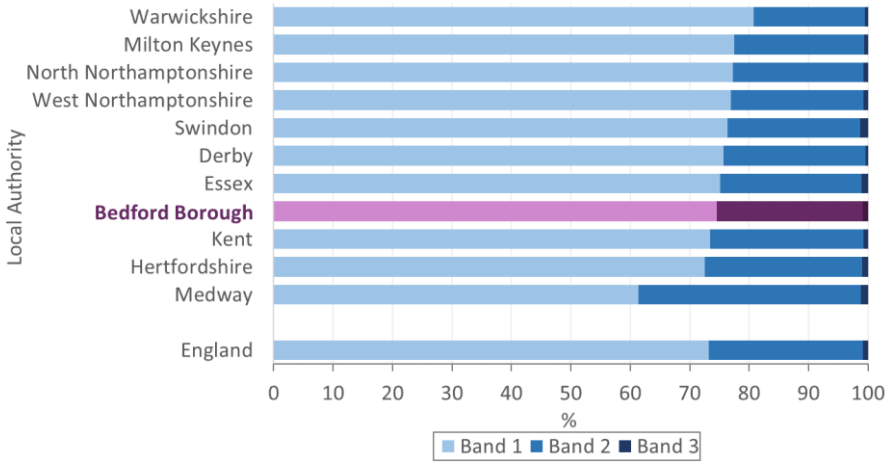


Figure 22: Proportion of NHS treatment for under 18-year-olds in treatment bands 1, 2, and 3 in the 12 months to June 2023 in Bedford Borough, its statistical neighbours, and England.
Source: NHS Digital, NHS Dental Statistics for England, 2022-23, Annual Report

Central Bedfordshire

The following section covers the oral health of three-year-olds and five-year-olds in Central Bedfordshire, as well as hospital extractions for dental decay and attendance at NHS dental practices for children and young people up to the age of 18.

Dental decay starts early in childhood. The survey of three-year-olds in 2020 found that 6% had visible dental decay, with an average of 3 teeth affected. The oral health survey of five-year-olds in 2022 showed that 14% of children in Central Bedfordshire have dental decay, significantly lower than the national average. Each child with dental decay had, on average, 3 affected teeth.

The rate of hospital tooth extractions is below the English average. The rate of recent dental access is above the English average, though varies with age and shows low levels of access in preschool-aged children. Of all NHS dental treatment provided to children and young people in Central Bedfordshire, the majority (78%) falls within Band 1, similar to proportions seen in England overall.

Dental decay

Three-year-olds

In Central Bedfordshire, the prevalence of dental decay among three-year-olds in 2020 was 6%. This was ranked among the middle of its statistical neighbours and was lower than (though not statistically significantly different to) the English average of 11%.

Three-year-olds in Central Bedfordshire had, on average, 0.2 teeth with dental decay in 2020, which is similar to the English average (0.3 teeth) and ranked among the middle of its statistical neighbours. The majority of experience of dental decay in this age group was obvious, untreated decay; none of the 120 children examined had missing teeth.

Among three-year-old children in Central Bedfordshire who have at least one tooth affected by dental decay, the average number of affected teeth was 3.0. This is statistically similar to the national average of 2.9 affected teeth and ranks Central Bedfordshire second highest of its group of statistical neighbours.

There is limited data on the change in oral health of three-year-olds over time. Data were available for 2013 and 2020 only, and confidence intervals for these estimates are wide, restricting the identification of trends.

The prevalence of dental decay among three-year-olds decreased in East of England and England overall decreased between 2013 and 2020. In Central Bedfordshire, prevalence in 2020 (6.4%) was statistically similar to prevalence in 2013 (6.2%).

The average number of teeth affected by dental decay among three-year-olds in Central Bedfordshire was 0.1 in 2013 and 0.2 in 2020, which was similar to the English average.

Among three-year-olds in Central Bedfordshire with at least one tooth affected by dental decay, the average number of affected teeth was 2.1 in 2013 and 3.0 in 2020.

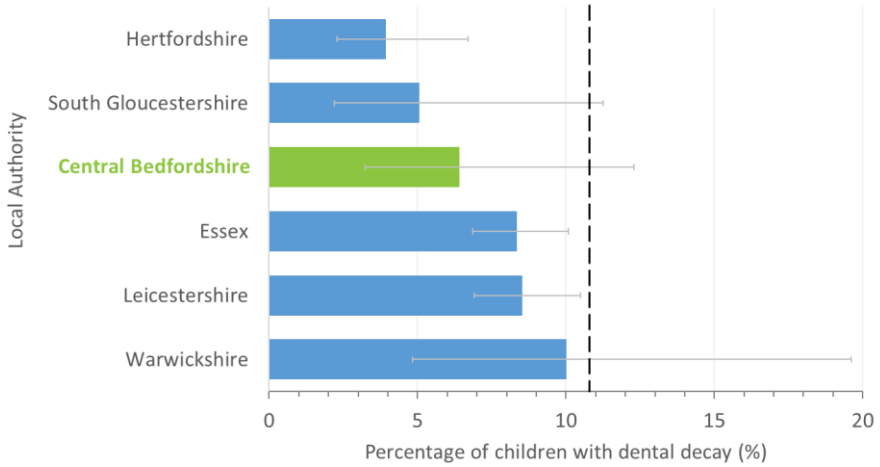


Figure 23: Percentage of three-year-olds with one or more decayed, missing, or filled teeth in Central Bedfordshire relative to statistical neighbours. Dashed line represents England value. Error bars represent 95% confidence intervals.
Source: Office for Health Improvement and Disparities, Oral health survey of three-year-old children 2020.

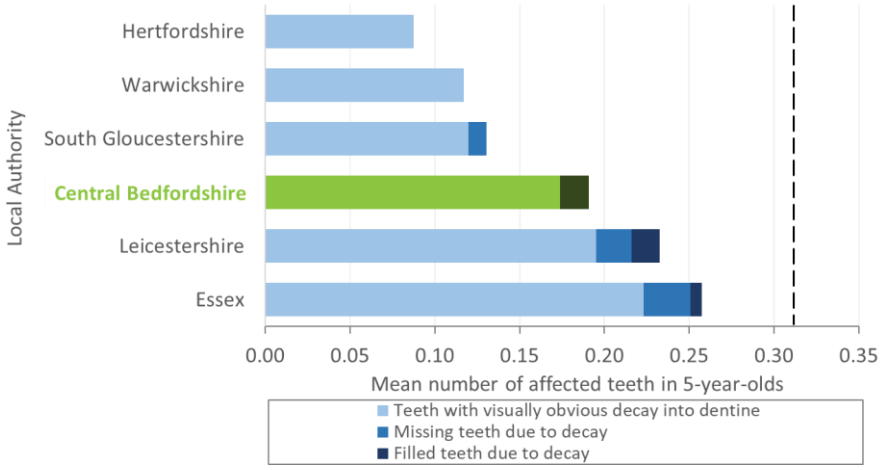


Figure 24: Mean number of decayed, missing, or filled teeth in three-year-olds in Central Bedfordshire relative to statistical neighbours. Dashed line represents England value.
Source: Office for Health Improvement and Disparities, Oral health survey of 3-year-old children 2020.

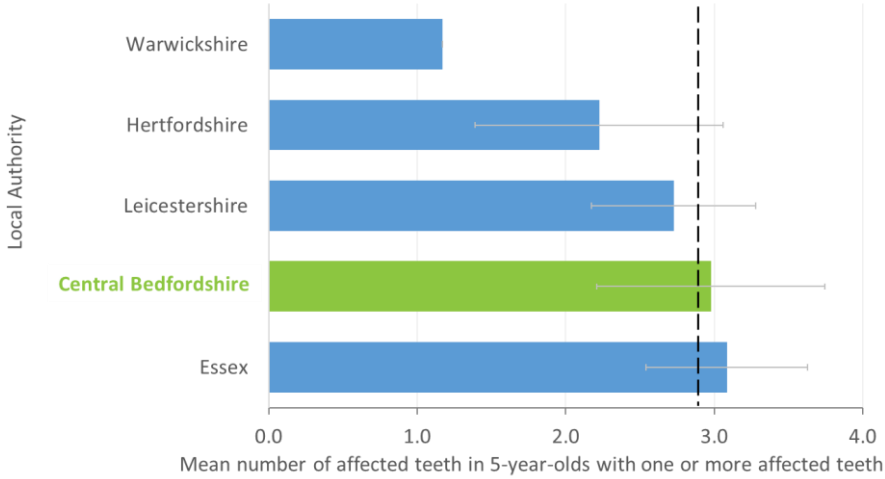


Figure 25: Mean number of decayed, missing, or filled teeth in three-year-olds who have at least one decayed, missing, or filled teeth in Central Bedfordshire relative to statistical neighbours. Dashed line represents England value. Error bars represent 95% confidence intervals.
Source: Office for Health Improvement and Disparities, Oral health survey of 3-year-old children 2020.

Note: No data for Bracknell Forest, Cheshire East, Hampshire, South Gloucestershire, West Berkshire, or West Sussex Local Authorities.

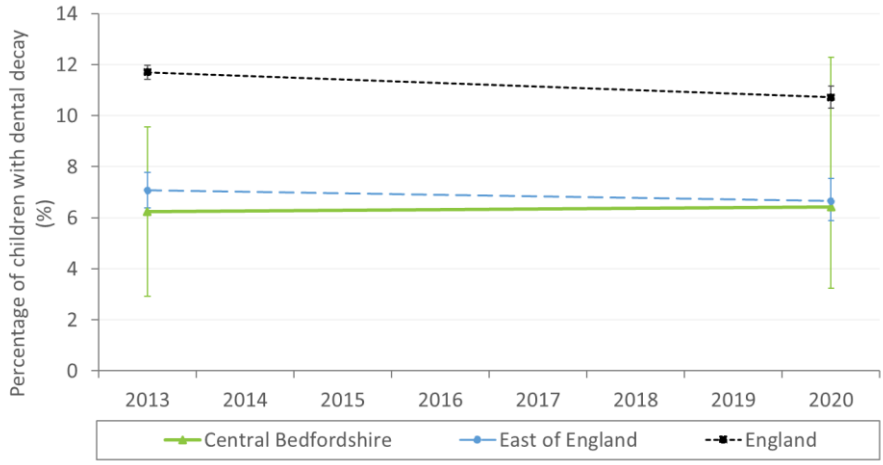


Figure 26: Time trend of the percentage of three-year-olds with one or more decayed, missing, or filled teeth in Central Bedfordshire, East of England, and England.
Error bars represent 95% confidence intervals.
Source: Office for Health Improvement and Disparities, Oral health survey of 3-year-old children.

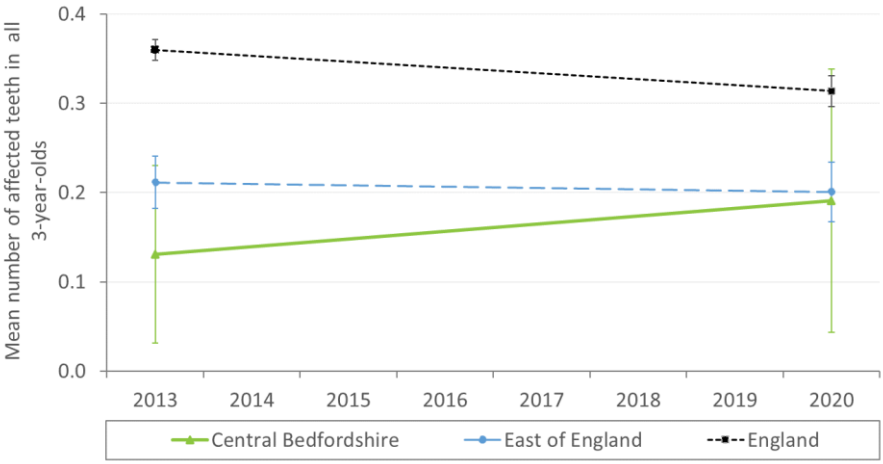


Figure 27: Time trend of the mean number of decayed, missing, or filled teeth in all three-year-old children in Central Bedfordshire, East of England, and England.
Error bars represent 95% confidence intervals.
Source: Office for Health Improvement and Disparities, Oral health survey of 3-year-old children.

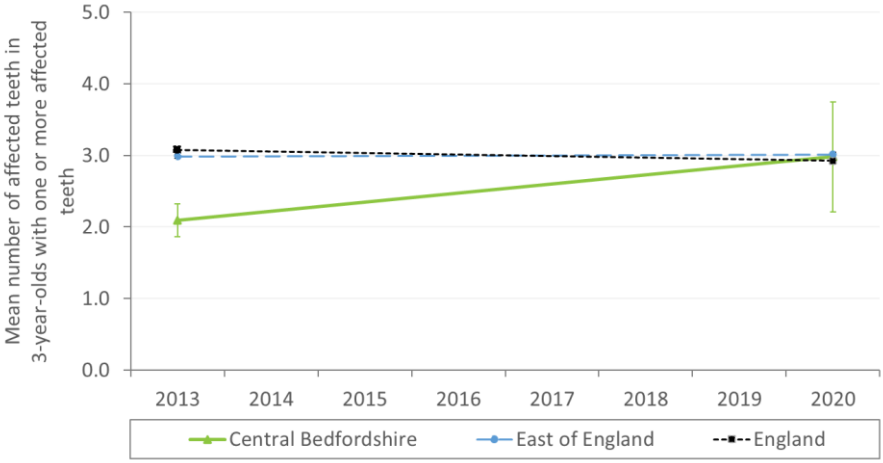


Figure 28: Time trend of the mean number of decayed, missing, or filled teeth in three-year-olds who have at least one decayed, missing, or filled tooth in Central Bedfordshire, East of England, and England.
Error bars represent 95% confidence intervals Source: Office for Health Improvement and Disparities, Oral health survey of 3-year-old children.

Five-year-olds

In 2022, the percentage of five-year-olds with dental decay in Central Bedfordshire was 14.0%, statistically significantly lower than the English average of 23.7%.

On average, five-year-olds in Central Bedfordshire in 2022 had 0.4 teeth with dental decay, which is the second-lowest value of its statistical neighbours, and below the England average of 0.8. The majority of experience of dental decay in this age group was obvious, untreated decay.

Among five-year-old children in Central Bedfordshire who have at least one tooth affected by dental decay, the average number of affected teeth was 3.0. This is statistically similar to the national average of 3.5 affected teeth and ranks Central Bedfordshire near the middle of its group of statistical neighbours.

In Central Bedfordshire, the prevalence of dental decay in five-year-olds has decreased over time from 18.2% in 2015 to 14.0% in 2022, though the difference is not statistically significant due to wide confidence intervals around prevalence estimates. Over the same period, prevalence estimates in the East of England region and England overall have remained relatively stable.

In Central Bedfordshire, the average number of teeth affected by dental decay in all five-year-olds has remained broadly constant between 2015 (mean 0.5 teeth) and 2022 (mean 0.4 teeth). Prevalence has consistently remained lower than the England average, and in 2022 is below the regional average.

The average number of affected teeth in five-year-olds with at least one tooth affected by dental decay in Central Bedfordshire has not changed significantly between 2015 and 2022. The average has also remained stable in the East of England (3.4 affected teeth) and in England overall (3.4 affected teeth).

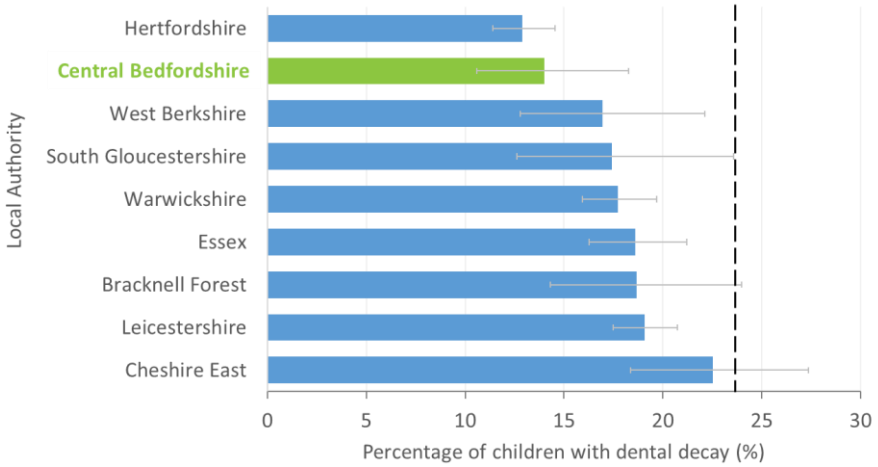


Figure 29: Percentage of five-year-olds with one or more decayed, missing, or filled teeth in Central Bedfordshire relative to statistical neighbours.
Dashed line represents England value. Error bars represent 95% confidence intervals.
Source: Office for Health Improvement and Disparities, Oral health survey of 5-year-old children 2022.

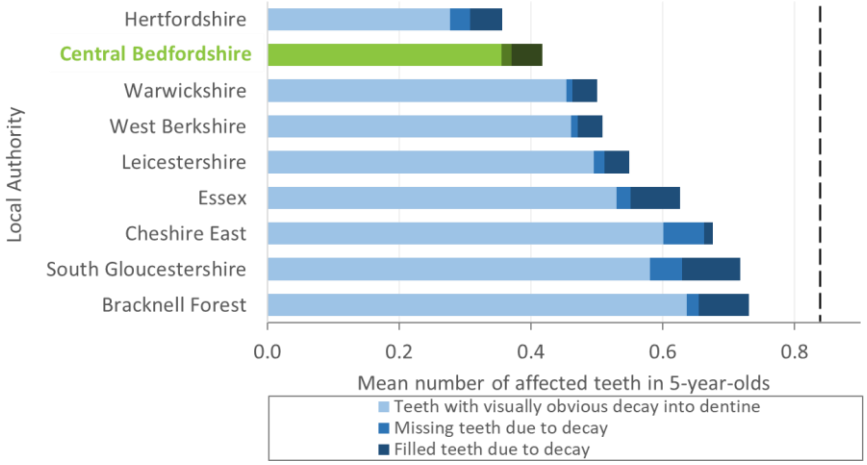


Figure 30: Mean number of decayed, missing, or filled teeth in five-year-olds in Central Bedfordshire relative to statistical neighbours. Grey line represents England value.
Source: Office for Health Improvement and Disparities, Oral health survey of 5-year-old children 2022.

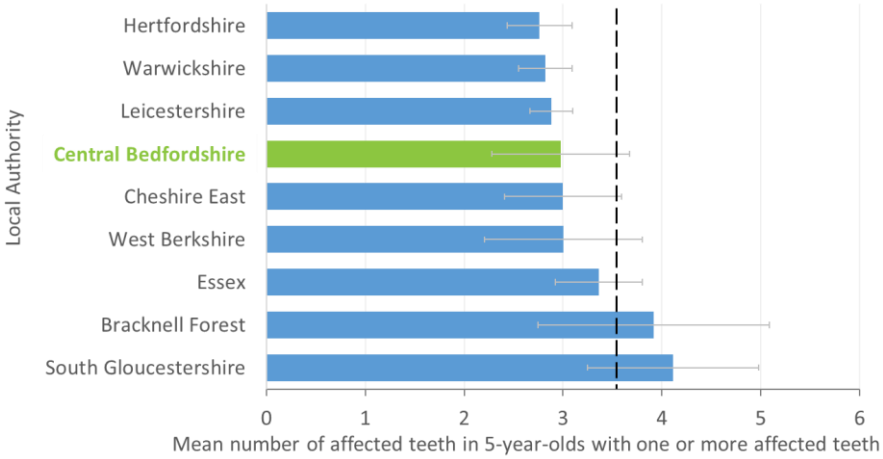


Figure 31: Mean number of decayed, missing, or filled teeth in five-year-olds who have at least one decayed, missing, or filled teeth in Central Bedfordshire relative to statistical neighbours.
Source: Office for Health Improvement and Disparities, Oral health survey of 5-year-old children 2022.

Note: No data for Hampshire or West Sussex Local Authorities. Grey line represents England value. Grey bars represent 95% confidence intervals.

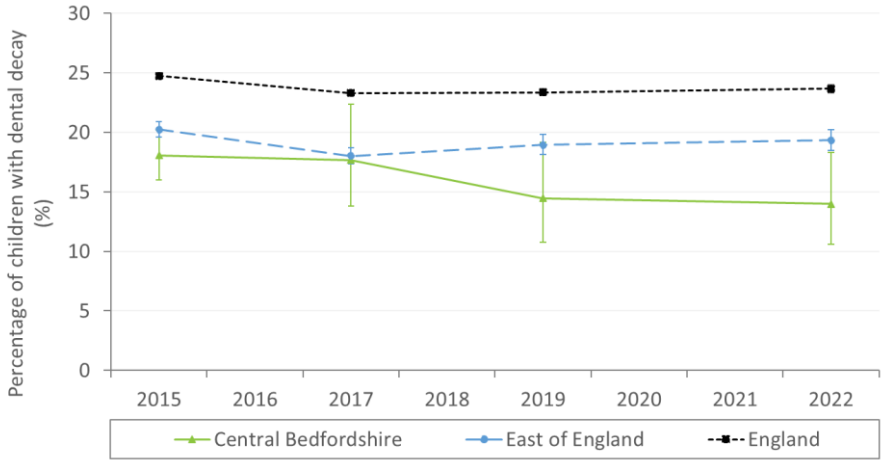


Figure 32: Time trend of the percentage of five-year-olds with one or more decayed, missing, or filled teeth in Central Bedfordshire, East of England, and England.
Error bars represent 95% confidence intervals.
Source: Office for Health Improvement and Disparities, Oral health survey of 5-year-old children.

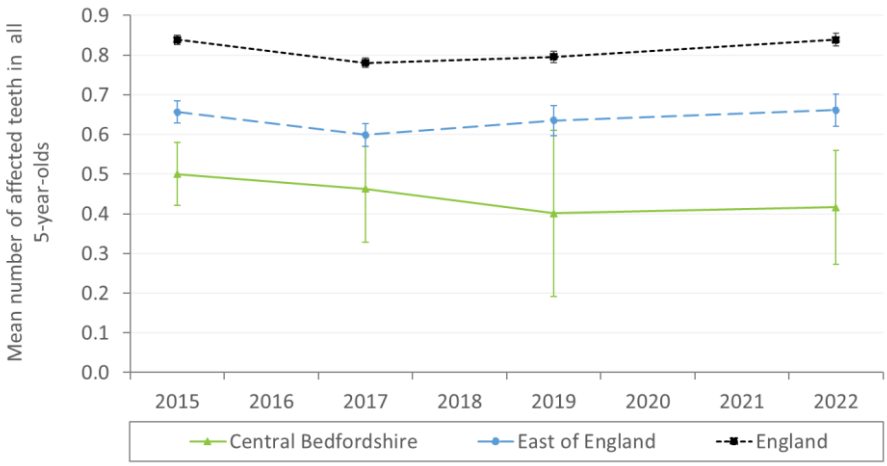


Figure 33: Time trend of the mean number of decayed, missing, or filled teeth in all five-year-old children in Central Bedfordshire, East of England, and England.
Error bars represent 95% confidence intervals.
Source: Office for Health Improvement and Disparities, Oral health survey of 5-year-old children.

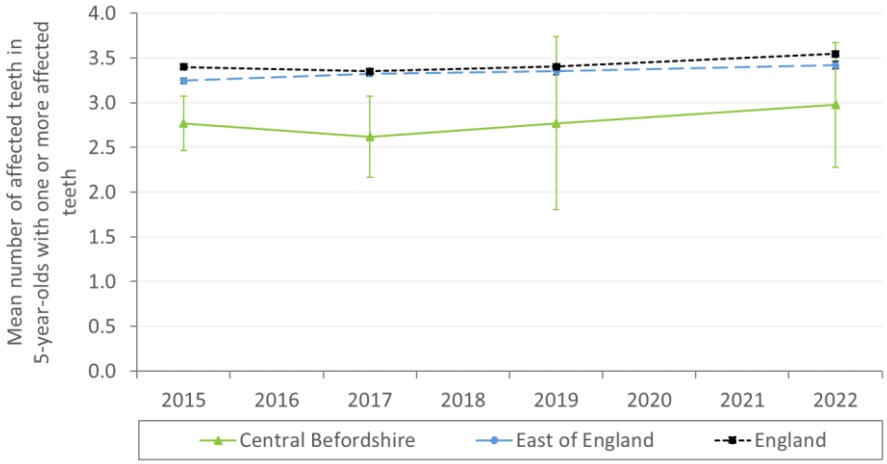


Figure 34: Time trend of the mean number of decayed, missing, or filled teeth in five-year-olds who have at least one decayed, missing, or filled tooth in Central Bedfordshire, East of England, and England.
Error bars represent 95% confidence intervals
Source: Office for Health Improvement and Disparities, Oral health survey of 5-year-old children.

Variation in dental decay by deprivation

Oral health data by deprivation were not available for the 2022 survey at the time of writing this needs assessment.

In the 2019 survey, the prevalence of dental decay in five-year-olds in Central Bedfordshire varied by deprivation quintile[c] (**Figure 35**). Confidence intervals surrounding prevalence estimates are very broad and overlap across each deprivation quintile, which means that there is no statistically significant difference between the groups in these data. It is possible that the small numbers of children included in this dataset mean there isn't the statistical power to detect a difference, rather than there being no true difference between the groups.

Data for the East of England as a whole show a strong relationship between deprivation and dental decay in five-year-olds (see regional data). It is likely that a similar social gradient exists within Central Bedfordshire.

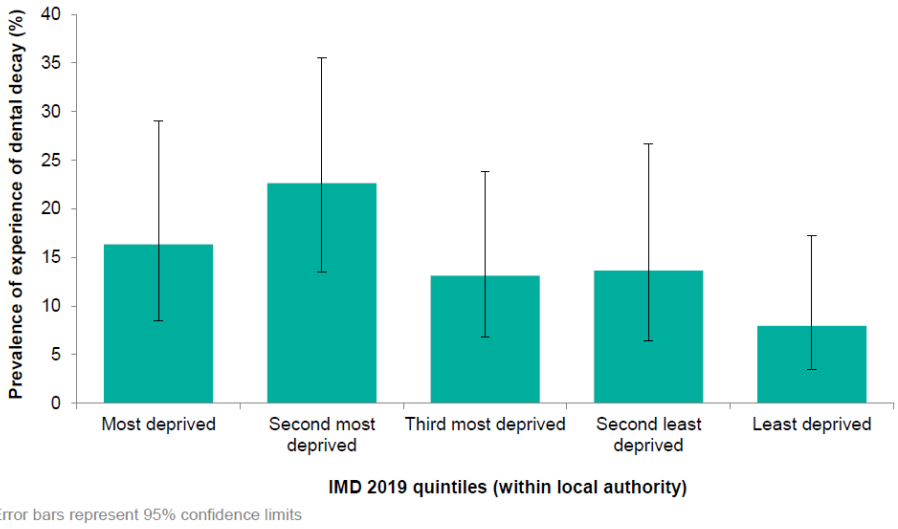


Figure 35: Percentage of five-year-olds with one or more decayed, missing, or filled teeth in Central Bedfordshire by IMD 2019 quintiles (within local authority).
Source: Dental Public Health Epidemiology Programme for England: oral health survey of five-year-old children 2019

Tooth extractions

In the year 2021-22, there were 15[d] finished consultant episodes for children and young people aged 0-19 for hospital tooth extractions in Central Bedfordshire. This is equivalent to a rate of 72 per 100,000 population, well below the national average of 205 per 100,000 population and ranks Central Bedfordshire towards the middle of its statistical neighbours.

The number of hospital extractions reflects multiple factors, including oral health and dental access. Regular dental access allows for early intervention and decreases the need for hospital extractions. Having no access will also limit referrals for extractions, regardless of a child's oral health. It is not clear from these data what is contributing the relatively low rates of hospital extractions among children and young people in Central Bedfordshire; further work is needed to understand the relationship between decay experience and extractions in greater detail.

[c] Quintile of Index of Multiple Deprivation (IMD)
[d] Rounded to the nearest 5

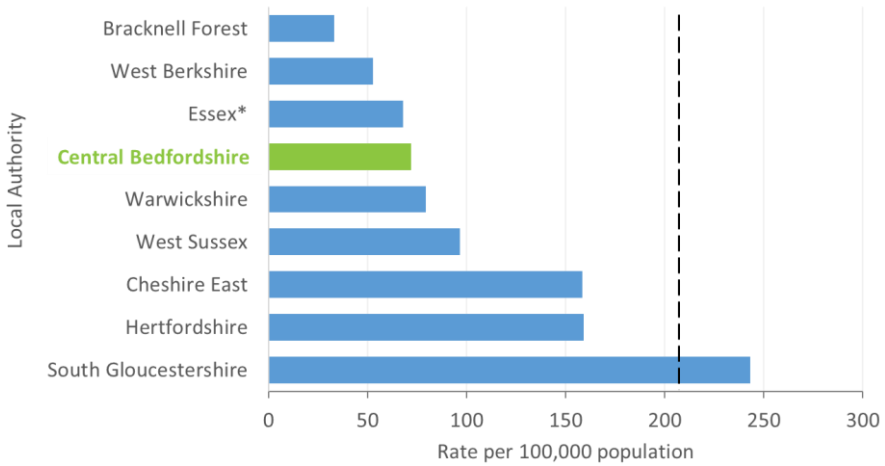


Figure 36: Finished consultant episodes for tooth extraction with caries as primary diagnosis in children and young people aged 0-19 in Central Bedfordshire and its statistical neighbours, rate per 100,000 population. Error bars represent 95% confidence intervals. Note: Data not included for Leicestershire or Hampshire Local Authorities. *Value for Essex County does not include data for Rochford District.
Source: Office for Health Improvement and Disparities, Hospital tooth extractions of 0- to 19-year-olds 2021.

Nationally, the trend in rate of extractions in 0–19-year-olds appears to be decreasing, with a rate of 205 extractions per 100,000 population in 2021/22, down from 282 extractions per 100,000 in 2018/19. In the East of England region, rates in 2021/22 remain similar to 2018/19 (both 95 per 100,000 population).

In contrast, the rate of tooth extractions in Central Bedfordshire is appears to have increased over time, from 44 extractions per 100,000 population in 2018/19 to 72 extractions per 100,000 in 2021/22.

The reduced rates seen in 2020/21 are likely due to the impact of the COVID pandemic on non-COVID related hospital episodes, rather than sudden reduction in need or demand.

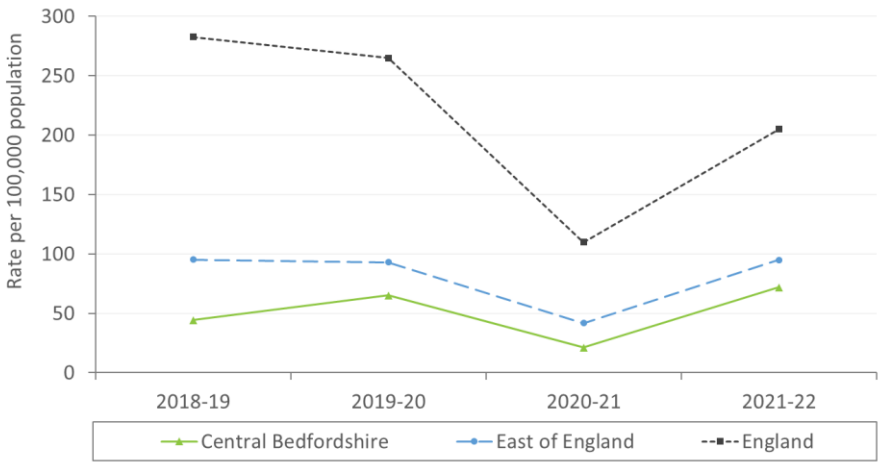


Figure 37: Trends in finished consultant episodes for tooth extraction with caries as primary diagnosis in children and young people aged 0-19 in Central Bedfordshire, East of England and England, rate per 100,000 population.
Source: Office for Health Improvement and Disparities, Hospital tooth extractions of 0 to 19 year olds 2021.

Attendance at NHS dental practices

In Central Bedfordshire, the percentage of children and young people (0-18) seen by NHS dentists in the 12 months of 2019 was 69%. This was above the English average of 56% and ranked second highest of its statistical neighbours.

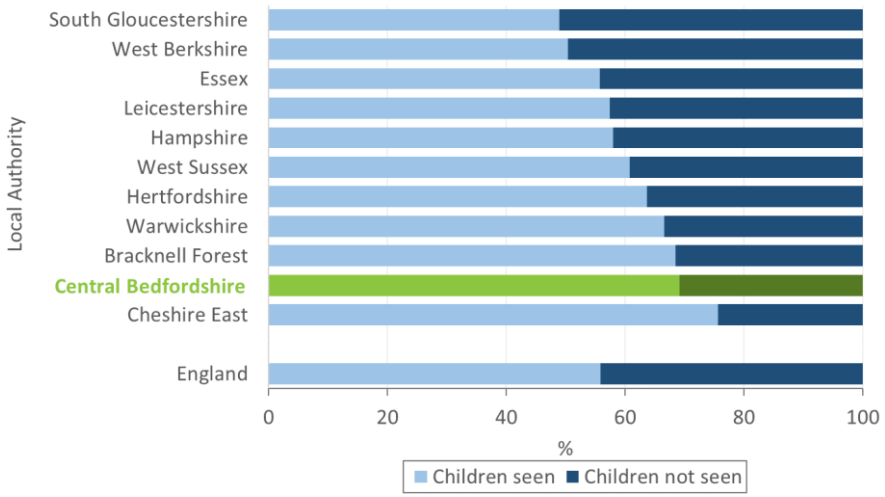


Figure 38: Percentage of children and young people aged 0-17 seen by NHS dentists in the 12 months to June 2023 in Central Bedfordshire and its statistical neighbours, and England. Source: NHS Digital, NHS Dental Statistics for England, 2022-23, Annual Report

The proportion of children and young people seen by an NHS dentist in Central Bedfordshire in the previous 12 months has varied greatly over the past 5 years, though has remained above the England average. Attendance fell sharply during the covid-19 pandemic, reaching its lowest point in the 12 months up to 31st March 2021. Levels of access have recovered slowly since, and only in the most recent data point returning to levels similar to those seen before the pandemic.

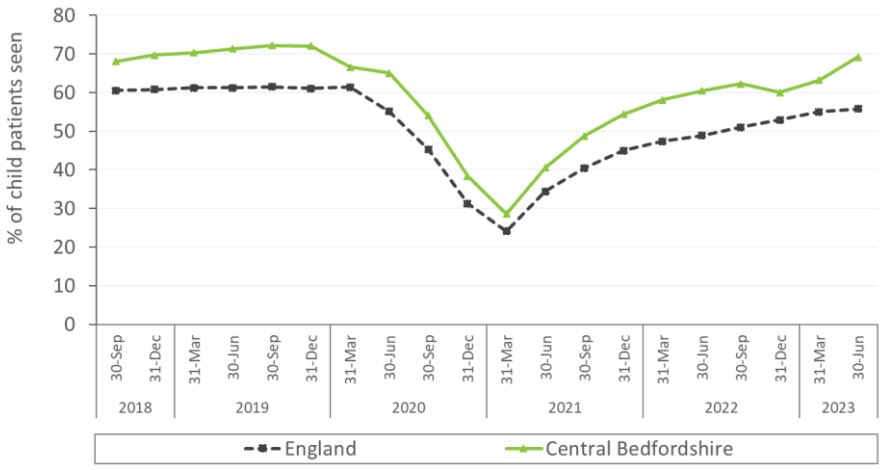


Figure 39: Percentage of children and young people aged 0-17 seen by NHS dentists in the previous 12 months (12-month rolling average) in Central Bedfordshire and England.
Source: NHS Digital, NHS Dental Statistics for England, 2022-23, Annual Report

The percentage of children and young people seen by NHS dentists in the 12 months to June 2023 varied by age. The lowest proportion was for children under 1, of whom 3% were seen; the proportion increased with age from early years up to a peak in those aged 12 years, of whom 87% were seen. The proportion of children and young people then decreased with age, with 66% of 17-year-olds being seen in the last year.

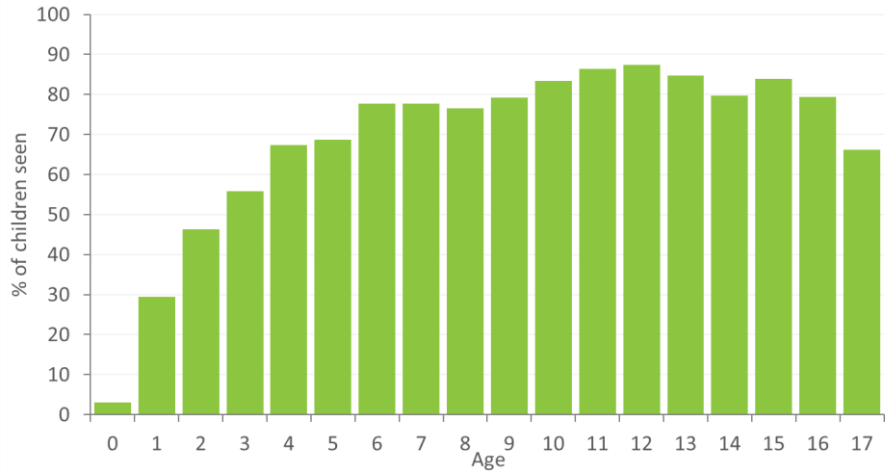


Figure 40: Percentage of children and young people aged 0-17 seen by NHS dentists in the 12 months to June 2023 in Central Bedfordshire by age.
Source: NHS Digital, NHS Dental Statistics for England, 2022-23, Annual Report

The majority of NHS treatment for children and young people (aged 0-18 years) in Central Bedfordshire was within Band 1 (78%), above the England average of 73%. In Central Bedfordshire, 21% of treatments were within band 2, and less than 1% were in band 3. See methodology for more information about the types of treatment included in each band.

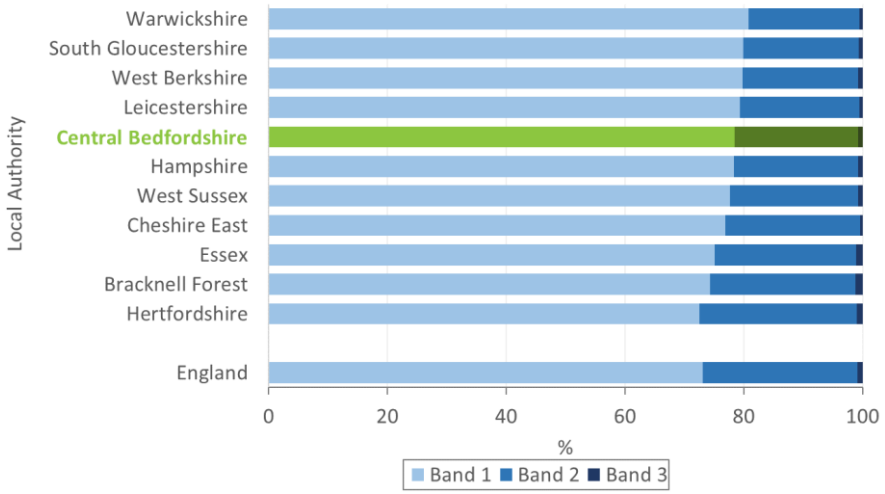


Figure 41: Proportion of NHS treatment for under 18-year-olds in treatment bands 1, 2, and 3 in the 12 months to June 2023 in Central Bedfordshire, its statistical neighbours, and England. Source: NHS Digital, NHS Dental Statistics for England, 2022-23, Annual Report

Regional and national data

The following section discusses variation in oral health by ethnicity, and the impact of poor oral health on daily living in the East of England or England in its entirety. These data were used where no local data were available.

Oral health and excess weight

National data from the National Dental Epidemiology Programme 2016/17, linked to individual height and weight data from the National Child Measurement Programme for the same year showed that children who are above a healthy weight were more likely to have dental caries, in all deprivation categories (Figure 42). Excess weight in children may therefore be an indicator of dental caries.

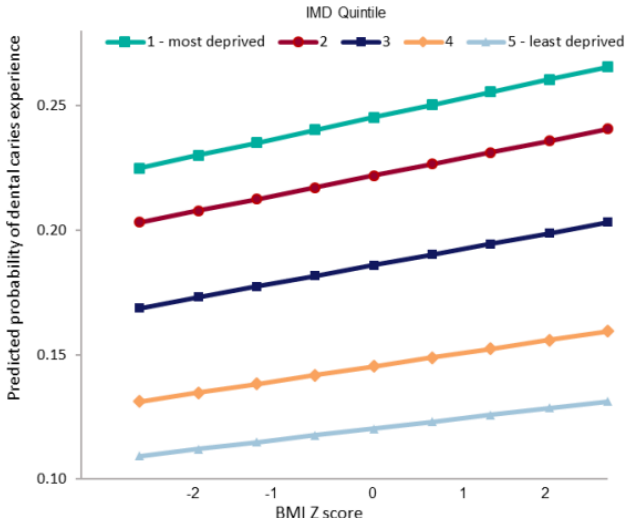


Figure 42: Caries prevalence by body mass index Z score and deprivation quintile, England, 2016/17
Source: Public Health England. Dental caries and obesity: their relationship in children

Variation in oral health by deprivation

Data from the 2019 oral health survey for the East of England demonstrate a strong relationship between dental decay in five-year-olds and relative deprivation, with a slope index of inequality (SII) of 21.6% (Figure 43). The SII is a measure of the social gradient in an indicator, and represents the range in values across the social gradient from most to least deprived.

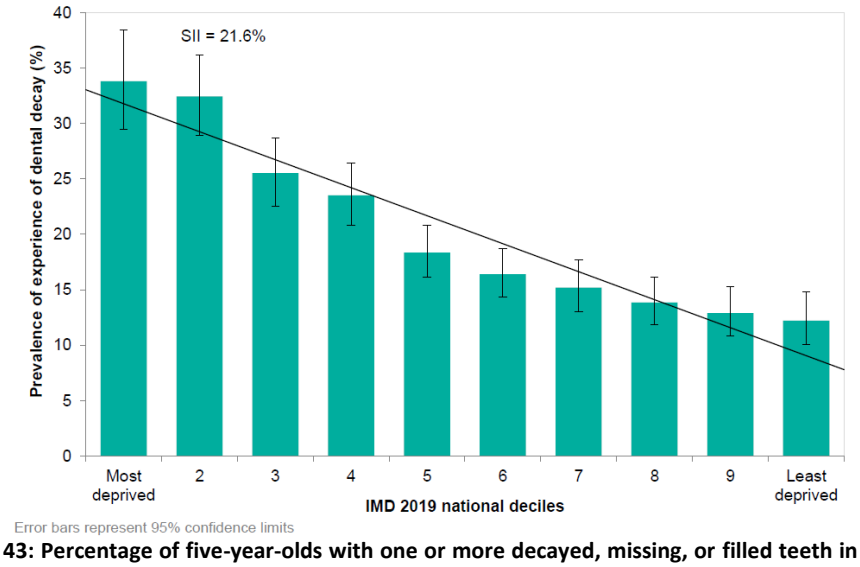


Figure 43: Percentage of five-year-olds with one or more decayed, missing, or filled teeth in East of England by IMD 2019 national deciles. SII = Slope index of inequality
Source: Dental Public Health Epidemiology Programme for England: oral health survey of five-year-old children 2019

National data show that the caries-related tooth extraction episode rate for children and young people living in the most deprived communities was nearly 3 and a half times that of those living in the most affluent communities (Figure 44).

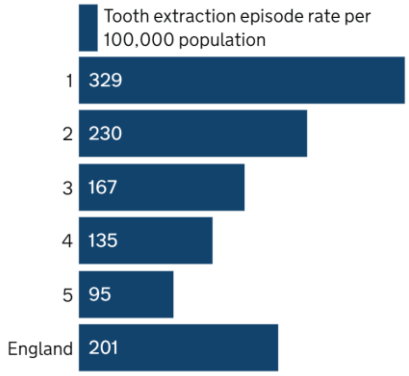


Figure 44: Caries-related tooth extraction episode rates per 100,000 population of 0- to 19-year-olds by IMD 2019 deprivation quintile population (1 is the most deprived quintile, 5 is the least deprived)
Source: Office for Health Improvement and Disparities. Hospital tooth extractions in 0- to 19-year-olds 2022.

Variation in oral health by ethnicity

The proportion of five-year-olds in the East of England with one or more teeth with dental decay varied by ethnicity. Prevalence was highest in Asian/Asian British children, with approximately 37% of five-year-olds in this group experiencing dental decay. The lowest proportions were found in Black/Black British children, White children and children for whom ethnicity data were not provided, with between 17% and 19% of five-year-olds affected by dental decay in these groups.

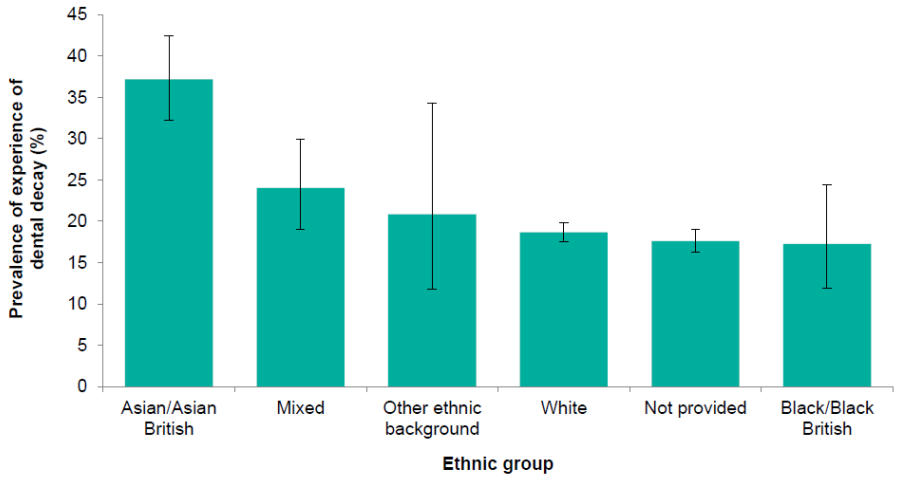


Figure 45: The percentage of five-year-olds with one or more decayed, missing, or filled teeth in East of England by ethnic group.
Source: Dental Public Health Epidemiology Programme for England: oral health survey of five-year-old children 2019

In the East of England, the mean number of teeth affected by dental decay in five-year-olds with one or more affected teeth was highest in children of mixed ethnicity or 'other ethnic background', in whom there was an average of 4.4 affected teeth. Asian/Asian British children had and average of 4.2 affected teeth. White and

Black/Black British five-year-olds were close to the East of England mean of 3.3 affected teeth. The lowest averages were found for children who did not have ethnicity recorded, where an average of 3.1 teeth were affected. It should be noted that confidence intervals of many of these values are wide and therefore differences from other ethnic groups may not be statistically significant.

Children with Special Educational Needs and/or Disabilities (SEND)

The most recent data available about the oral health of children with special educational needs and/or disabilities is from a survey of children attending special schools, which was conducted in 2014. It is acknowledged that the majority of children with special educational needs and disabilities are educated in mainstream schools and may therefore be included in surveys of those schools, as presented earlier in this report. It is therefore not known exactly how disease levels among all children with special needs compare with children who have no disabilities. The levels of dental decay reported here are also likely to be an underestimate of the true picture, partly due to the requirement for positive parental consent for participation in the survey. Due to small numbers of children participating in this survey, findings are presented for England overall.

In England, 22% of 5-year-olds attending special schools had experienced dental decay. On average, these children had 3.9 teeth that were decayed, missing or filled. The average number of decayed, missing or filled teeth in the whole sample (including the 78% who were free of obvious decay) was 0.88.

Comparison with those attending mainstream schools showed that there was greater polarisation of decay among children attending special schools. This means that while overall prevalence of decay was lower, those children who have experience of decay tend to have more teeth affected than mainstream educated children (Table 1).

Survey group	Number examined	Prevalence of dental decay, %	Mean number of teeth affected by dental decay	Mean number of teeth affected by dental decay in those with one or more affected teeth
Special school	1,415	22.5 (20.3, 24.6)	0.88 (0.76, 0.99)	3.90 (3.58, 4.22)
Mainstream school	133,516	27.9 (27.7, 28.1)	0.94 (0.93, 0.96)	3.38 (3.36, 3.41)

Table 1: Prevalence and severity of dental decay among five-year-old children attending special support schools compared with five-year-olds attending mainstream schools (DPHEP 2012). Numbers in brackets are 95% confidence intervals.
Reproduced from: Dental public health epidemiology Programme. Oral health survey of five-year-old and 12-year-old children attending special support schools 2014[37]

Children attending special schools were also twice as likely to have had one or more teeth extracted than their mainstream-educated peers; the proportion of five-year-olds who have had one or more teeth extracted on one or more occasions was 6% (95% CI 4.9–7.4%), significantly higher than among mainstream educated children where the proportion with extraction experience was 3% (95% CI 3.0–3.2%). Association between decay experience and deprivation appears to be weaker among five-year-old children in special schools than those attending mainstream schools.

Current Services

Bedford Borough and Central Bedfordshire commission joint oral health improvement services from Cambridgeshire Community Services (CCS) NHS Trust. The Bedfordshire Oral Health Improvement Team aims to co-ordinate, facilitate, support and provide a range of evidence-based interventions to improve oral health and reduce oral health inequalities in Bedford Borough and Central Bedfordshire.

The service has seven aims related to oral health promotion interventions aimed at children and young people:

1) Accredit Early Years, Special Schools, and Primary Schools settings – targeting those areas in greatest need[e] - as oral health promoting settings for early years, through the 'My Smile Award' and implementation of Supervised Tooth-Brushing Programme 'Let's Brush,' as recommended by PHE's Oral Health Improvement Board.

   'My Smile' is a local accreditation awarded to a setting that implements four steps: supervised tooth brushing, reinforcing tooth friendly diets, dissemination of oral health information, and encouraging families to have regular dental visits. 'Let's Brush' supports targeted early years settings with daily toothbrushing on site, with training and equipment, and ongoing support provided to invited settings[42].

2) Train health and non-health professionals who work with children about the importance and promotion of oral health. This is delivered as a rolling programme of training of 1.5-hour long sessions available to new staff and subsequently once every three years.

3) Train foster carers and Fostering teams around the importance and promotion of oral health. This is delivered as a rolling programme of training of 1-hour long sessions for foster carers and staff of fostering teams.

4) Advocate integration of oral health into targeted home visits by health/social care workers. Health Visitors receive oral health training every three years to support this. Tooth brushing packs are provided via Health Visitors to children receiving specialist support as part of the 0-19 Healthy Child Programme at their 6-month review point; Children in Care also receive these packs twice per year at their Initial Health Assessment. All children receive tooth brushing packs at their 12-month, and 2-2.5-year reviews.

5) Provide oral health information and advice through early years (children aged 0-5 years) services, whilst providing tailored information and advice in areas where there is a higher risk of poor oral health. Services in areas of higher deprivation are invited for 'My Smile' accreditation and 'Let's Brush' Schemes, with additional 'My Smile' Children's Centres accreditation awarded to Children's Centres and Family Centres in Bedfordshire which support the promotion of oral health through sharing information to families around toothbrushing, tooth friendly diets and dentist visits. Staff of early years settings are offered oral health training sessions.

6) Promote oral health in primary and secondary schools through training for the 0-19 Teams and Special School Nurse Teams. This is delivered as a rolling programme of training of 1.5-hour long sessions for 0-19 teams, and as a programme of half-hour sessions offered to school staff (special schools and mainstream primary schools) working with children with SEND.

7) Promote a 'whole-school' approach to oral health in schools, such as through making plain drinking water freely available, providing a choice of food, drinks and snacks that are tooth-friendly and form part of a healthier diet (including those offered in vending machines), and displaying and promoting evidence-based, age-appropriate, oral health information for parents, carers, and children, including details on how to access local dental services.

[e] Defined as the 40% most deprived LSOAs in Bedford Borough and the 40% most deprived LSOAs in Central Bedfordshire, according to the Index of Multiple Deprivation

Key performance indicators

Key performance indicators (KPIs) and annual targets are set each year for the Bedfordshire Oral Health Improvement Team. At the time of writing, the most recent full year of performance data is for the financial year 2022-23, for which there are six KPIs and associated targets. These are shown, along with performance for Bedford Borough and Central Bedfordshire, in **Table 2**.

In 2022-23, the targets for offering basic oral health training to all 0-19 staff (KPI 3), staff of early year's settings (KPI 4), SEND services and Community and Specialist Nursing teams (KPI 6) were met. The target for half of Early Years settings to implement 'Let's Brush' or achieve 'My Smile' in the most deprived areas was not met in either Bedford Borough or Central Bedfordshire (KPI 1). Most Children's Centres achieved the 'My Smile' Children's Centres award - which lasts for two years - in 2021-22, so only two Centres were targeted (both in Central Bedfordshire) for achievement in 2022-23 (KPI 2). No targets were set for the percentage of staff in Adoption and Fostering teams or Early Help teams receiving oral health training, and uptake in these groups was low.

Key Performance Indicator		Target	Performance 2022-23	
			Bedford Borough	Central Bedfordshire
1	Percentage of Early Years settings in the 40% most deprived LSOAs in each local authority who implement 'Let's Brush' or achieve 'The My Smile Award'	>50%	11% achieved (26% registered)	12% achieved (35% registered)
2	Percentage of Children's Centres who achieve My Smile Children's Centres award	100%	N/A	50% achieved (100% registered)
3	Percentage of 0-19 staff (new employees and those who haven't received an update in three years) who receive basic oral health training	>90%	100%	
4	Percentage of Early Years settings and childminders who are offered basic oral health training, including brushing skills	>90%	100%	100%
5	Percentage of staff from Adoption and Fostering teams who receive basic oral health training	No target	<5 members of staff trained*	<5 members of staff trained*
	Percentage of staff Early Help teams who receive basic oral health training	No target	12%	35%
	Percentage of Children Looked After staff who receive basic oral health training	100%	100%	
6	Percentage of SEND services (including Special Schools, parents/carers and other groups/forums) who are offered basic oral health training	100% of identified services	100%	100%
	Percentage of Children's Community and Specialist Nursing (CCSN) team who receive basic oral health training	>90%	100%	

Table 2: Key performance indicators, targets and performance of the Bedfordshire Oral Health Improvement Team, 2022-23

*Denominators not available to calculate percentages

While data for the full year 2023-24 are not yet available, performance against KPIs for the first quarters of the year indicate that uptake and implementation of 'Let's Brush' and The 'My Smile' Award in Early Years settings remains a challenge in both local authorities. Similarly, uptake of oral health training in staff from Adoption and Fostering teams and Early Help teams remains low.

NICE recommendations for oral health

NICE public health guideline for local authorities on oral health[43] makes recommendations on undertaking oral health needs assessments, developing a local strategy on oral health, and delivering community-based interventions and activities. It aims to promote and protect people's oral health by improving their diet and oral hygiene, and by encouraging them to visit the dentist regularly.

The guideline has 21 recommendations, most of which are relevant to children and young people. These are set out, along with how current service provision in Bedfordshire aligns with them, in **Appendix 3**.

Bedford Borough and Central Bedfordshire are meeting the following recommendations (in relation to children and young people):

- **Carry out an oral health needs assessment, using a range of data sources to inform it.** This has previously been met with work towards the *Oral Health Needs Assessment of Children and Young People in Bedford Borough and Central Bedfordshire 2022* and is ongoing with the development of this needs assessment.
- **Ensure frontline health and social care staff receive training in promoting oral health, and can give advice on the importance of oral health. For children and young people this includes staff of health visiting teams, early years settings and childcare services.** Training is offered to health and care staff by the Oral Health Improvement team; it is offered to new employees and to those for whom it has been more than three years since their last training update.
- **Incorporate oral health promotion in existing services for children and young people at risk of poor oral health. '**My Smile' and 'Let's Brush' oral health programmes are targeted to settings in areas of higher relative deprivation (though uptake is below the KPI target); information sharing at Children's Centre sessions are run for families of children with SEND; Children looked after have scheduled oral health check-ups in care plans.
- **Consider supervised tooth brushing schemes for primary schools in areas where children are at high risk of poor oral health.** In place via The Oral Health Improvement Team's 'Let's Brush' programme, targeted in settings in areas of higher relative deprivation (though uptake is below the KPI target).
- **Ensure early years services include advice about oral health in information provided on health, wellbeing diet, nutrition, and parenting.** The Oral Health Improvement Team is supporting the 0-19 team to source a toothbrush, toothpaste and information leaflet to be given to vulnerable families at 6 months, and to all families at the 9-12 month, and the 2- or 3-year-old reviews.
- **Ensure early years services provide additional tailored information and advice for groups at high risk of poor oral health**
  This is contributed to by the 'My Smile' and' Let's Brush' oral health programmes targeted to settings in areas of higher relative deprivation, and information sharing at Children's Centre sessions for families of children with SEND. A guide of hints & tips about coping with sensory challenges when toothbrushing has been collated in collaboration with parent-carer forums and has been shared online[44]. This assessment did not identify whether practitioners can provide culturally appropriate advice and information on oral health.

- **Consider supervised tooth brushing schemes and provision of tooth brushing packs to offer to families in groups at high risk of poor oral health.** This is met in settings participating in the 'Let's Brush' programme for early years settings, targeted to areas of highest relative deprivation, though not in other groups at risk of poor oral health. Tooth brushing packs are also provided via Health Visitors to children receiving specialist support at their 6-month review point; Children in Care also receive these packs twice per year at their Initial Health Assessment.

However, there are several recommendations which are not fully met. Recommendations (and sub-points of recommendations) that this needs assessment did not identify as being met in Bedfordshire include:

- **Develop an oral health strategy based on the oral health needs assessment, and set up a group that has responsibility for the oral health strategy**

  This needs assessment, in parallel with an OHNA for Milton Keynes, will be used to inform the development of an oral health alliance to improve the oral health of children and young people across Bedfordshire and Milton Keynes.

- **Consider fluoride varnish programmes for nurseries and primary schools in areas where children are at high risk of poor oral health.**

  This is currently not offered in Bedfordshire.

- **Raise awareness of the importance of oral health as part of a 'whole school' approach in all schools.**

  Schools across both Primary and Secondary settings are expected to provide advice and information regarding good oral health as part of the curriculums for PSHE, Health Education, and Science, however, data on and quality of this provision was not available for this OHNA. The coverage of 'whole school' policies to promote oral health is not clear. It was not known whether school staff have opportunities to talk with parents or carers about oral health, such as at parent-teacher evenings and open days.

- **Explore the possibility of working with local organisations in other sectors to promote oral health (e.g. local shops and supermarkets)**

  This needs assessment did not identify any specific actions to meet this recommendation.

- **Review levers that local authorities can use to address oral health and the wider social determinants of health, such as local planning for fast food outlets (including near schools)**

  This needs assessment did not identify any specific actions to meet this recommendation.

Effectiveness of interventions for prevention of poor oral health

Implementation of effective interventions is needed to maintain and improve children's and young people's oral health. Interventions should focus on children and young people and their families at highest risk of poor oral health, in order to reduce the gradient of health inequalities.[45] As previously discussed, improvements in oral health and a reduction in health inequalities requires a common risk factor approach, with a focus on tackling the structural and environmental determinants of chronic diseases[13].

School dental screening programmes:

In school screening, a dental health professional carries out a dental examination in a school setting and provides information for parents on their child's current oral health status and treatment needs. Screening at school aims to identify potential problems before symptoms normally present, and make children and their parents aware of the condition and any appropriate treatment or management to prevent advanced disease.

A 2022 Cochrane review of school dental screening programmes for oral health[46] found that, from the included randomised controlled trials (n=8), there is insufficient evidence to show whether school screening improves dental attendance. There is some low-certainty evidence which shows that criteria-based screening may improve dental attendance when compared to no screening, though does not show a difference when compared to traditional screening. For children identified during screening as needing treatment, personalised or specific referral letters may improve dental attendance when compared to non-specific referral letters.

Community-based oral health improvement programmes and interventions

School-based supervised brushing and mouthwash

A NICE systematic review of the effectiveness of community-based oral health improvement programmes and interventions[47] found evidence from one study suggesting that daily supervised tooth brushing programmes including provision of fluoride toothpaste for home use are associated with significant improvements in oral health of five-year-old children at a population level. Greater reductions in dental caries were seen amongst the most deprived communities, suggesting that the programme may be effective at reducing inequalities in oral health in this age group.

A subsequent systematic review[48] found that supervised regular (daily and weekly/fortnightly) use of fluoride mouthwash by children and adolescents was associated with a large reduction (27%, 95% CI 23 % to 30%) in decayed, missing or filled permanent tooth surfaces. Most of the evidence is from studies that evaluated use of mouthwash in a school setting, but the findings may be applicable to children in other settings, though the size of the preventive effect is less clear.

Oral health education and promotion

Weak evidence suggests that nursery-based oral health education and promotion programmes are not associated with improvements in oral hygiene, oral health knowledge or dental decay status, but may prevent the worsening of caries amongst young children in deprived communities.

Community based oral health promotion campaigns delivered through multiple venues and targeting several aspects of oral health may be associated with a reduced risk of dental decay in children under the age of five living in deprived communities. One UK-based study showed that this type of intervention was associated with significantly lower odds of experiencing tooth decay at age in the most deprived areas (OR 0.35, 95% CI 0.26 to 0.47) and among the wider population (OR 0.66, 95% CI 0.57 to 0.77).

There is moderate-certainty evidence that providing pregnant women, new mothers or other caregivers with diet and feeding practice advice for infants and young children (including breastfeeding promotion, ensuring introduction of healthy first foods/solids when weaning, and advice about healthy feeding practices, e.g. not allowing children to drink sugary drinks in bottles, not allowing children to sleep with bottles) may lead to a slightly reduced risk of caries. However, the available evidence was insufficient to evaluate which intervention features were effective, or most effective, for preventing early childhood caries.[49]

Fluoride gels and varnish

Systematic review evidence[50] shows that the application of fluoride gels, either by professionals or self-applied, is associated with a large reduction in dental decay of permanent teeth in children. Meta-analysis of the results of 25 trials found that there was a 28% (95% CI 19% to 36%) reduction in decayed, missing and filled tooth surfaces in permanent teeth compared to controls. There appears to be a similar preventive effect against decay in primary teeth, though this is based on low quality evidence. Nursery based daily provision of fluoridated milk may be also effective at preventing tooth decay in teeth of younger nursery school children.

Case studies from other Local Authority areas

While this needs assessment has identified evidence of effectiveness for some types of community-based intervention, case studies from other Local Authority areas[51] show that there are further options for possible interventions. These may include:

- Toothbrush exchange (residents can swap old toothbrushes for new ones)
- Provision of baby cups at parent and baby groups (to reduce prolonged use of bottles and sippy cups)
- Provision of story books for parents to read to children, which include key oral health messages
- Working with midwives to ensure all pregnant women see a dentist while pregnant
- Incentives or accreditation for dental practices which reach targets for registering new patients aged under 5 years, and prevention and promotion activities

Interventions for people with Special Educational Needs and Disabilities (SEND)

A 2019 Cochrane Review of oral hygiene interventions for people with SEND[52] found that although some oral hygiene interventions for people with SEND show evidence of benefits, the clinical importance of these benefits is unclear. The evidence is mostly low to very low certainty, so any changes to current practice based on this review should be made cautiously.

The review found that use of a special manual toothbrush (such as the Superbrush) by carers may be better at reducing levels of gum disease in people with intellectual disabilities than using an ordinary manual toothbrush – though some studies found that some people had difficulties using special manual toothbrushes. Training carers to brush the teeth of people with SEND may improve carers' oral hygiene knowledge (though may not improve their efficacy in providing oral hygiene care or reduce gum disease or plaque in the people they care for), and training people with SEND to brush their own teeth may reduce their levels of dental plaque in the short term.

Regular dental check-ups, combined with daily supervised toothbrushing, may help reduce gum disease and plaque in people with SEND in the long term. Use of toothpaste with a plaque-disclosing agent and having individualised oral care plans were each evaluated in one nonrandomised study that suggested they may be beneficial.

Water fluoridation:

Water fluoridation is an effective intervention for reducing dental decay in both deciduous and permanent teeth in children[53].

Analysis published by Public Health England in 2018[54] demonstrates strong statistical evidence that the odds of having decay experience in five-year-olds are significantly lower in children living in areas with higher water fluoridation concentrations (compared to lowest concentration). This was evident across all levels of deprivation, though larger protective effects were seen in areas of higher deprivation – i.e. at the highest compared to the lowest fluoride concentration, the odds of decay experience were reduced most for children living in the most deprived areas (by 52%, 95% CI 47% to 56%), and the least for children in the least deprived areas (23%, 05% CI 9% to 39%). Similar patterns by fluoridation concentration were seen in odds of severe decay in five-year-olds, and tooth extractions in 0- to 19-year-olds. These analyses indicate that water fluoridation is an effective public health intervention to both reduce prevalence of dental decay and reduce oral health inequalities.

Since the Health and Care Act 2022, the power to introduce, vary or terminate water fluoridation schemes sits with the Secretary of State for Health and Social Care[55].

Cost-effectiveness of interventions

There are few published studies which investigate cost-effectiveness of interventions to improve the oral health of children that are robust and generalisable.[56] The scarcity of cost-effectiveness evidence, however, should not be interpreted as evidence that these interventions are not effective or cost-effective. A return-on-investment calculator produced by York Health Economics Consortium in 2014[57] showed that cheaper, or more effective interventions appear to be more cost effective. The modelling also showed that interventions are likely to be most cost effective among children from deprived groups who have a higher risk of caries.

Cost-benefit analysis has been conducted for a selection of interventions by Public Health England; Figure 46 illustrates savings accrued after 5- and 10-year intervals for four oral health programmes. The most cost-effective intervention for reducing dental decay in 0 to 5-year-olds was water fluoridation. For every £1 spent, the return on investment was £12.71 over 5 years, and £21.98 over a 10-year period. This included savings to the local authority and NHS from a reduction in fillings and dental extractions, as well as a reduction in days missed at work for parents/carers.

Targeted provision of toothbrushes and paste by post and by health visitors, targeted supervised tooth brushing programmes and targeted fluoride varnish programmes also led to savings over 5 and 10 years. There was also a small return on investment for targeted provision of toothbrushes and paste by post alone. It is recognised that this analysis was carried out in 2016 and values of returns on investment may have since changed.

Figure 46: Return on investment of oral health improvement programmes of 0-5 year olds (2016). Reproduced from Public Health England[58]

Views of families and stakeholders

Views of young people, their parents and carers, and stakeholders were sought and analysed as part of the Oral Health Needs Assessment for Children and Young People 2022 by another registrar.

This section has not been updated for this needs assessment and is presented as it was in the 2022 OHNA.

The views of young people and their carers

To capture the views of children, young people, and carers on oral health the following groups of people were approached:

- SNAP Parent-Carer forum in Central Bedfordshire for families of children with special education needs and disabilities (SEND)
- Bedford Borough Parent-Carer forum for families of children with SEND
- Central Bedfordshire Youth Parliament [representatives for young people in the area]
- Bedford Borough Youth Cabinet [representatives for young people in the area]
- A secondary school in Central Bedfordshire
- Foster carers

As no direct contact with children and young people was possible, questionnaires were sent out to the Youth Cabinet, Youth Parliament and a Healthwatch representative conducted a survey in a secondary school in Central Bedfordshire. A questionnaire was also sent to foster carers.

Both parent-carer forums were interviewed remotely. Additionally, questions were posted to the SNAP Facebook page to gain additional insights in the oral health experience of SEND families.

Broadly, topics covered included risk factors, self-care and education on oral health, and dental access. To gain further understanding from these questionnaire and interviews, a thematic content analysis was conducted from these interviews. The notes and questionnaire feedback were analysed for emerging themes. Anonymised quotes were captured and are included to illustrate the themes.

Diet

Diet was understood to be a major risk factor for oral health. Children and young people themselves reported sugary food, fizzy drinks and junk food as being bad for their oral health (but they still consumed them). SEND families had additional challenges as they reported that some children with SEND had poorer eating habits than their peers.

> *"Some of our families through no choice of their own, but their children do have poorer eating habits. So, if they are autistic and they're all beige eaters you know all that stuff. We've got ADHD'ers who use sugar to self-medicate you know."*

Education

Most children and young people who completed the questionnaire recalled being taught about how to look after their oral health. All of whom reported parent/carers as educators and some also included dentists. Similarly, foster carers who responded to the questionnaire reported dentists as their main source of information on oral health. The internet was also mentioned as a source of information on oral health by one young person. It was suggested that SEND families could benefit from inclusive oral health promotion, as there was little education that is tailored to children and young people with special needs.

> *"A good friendly poster about why it's important, you know someone with epilepsy goes into a dentist… And make it trendy…. Or, you know, when you've got [someone] in a wheelchair?"*

Parent of 15-year-old girl recently diagnosed with autism spectrum disorder awaiting a hospital extraction:
"We have been offered no support at the current time. The sedation clinic has mentioned giving oral health advice. But I'm not sure this will take into account her special needs or when this will take place. Anything we try in the meantime will be from doing our own research."

Self-care

All foster carers who responded had positive perception of their knowledge and their foster child's dental health. All children and young people who completed questionnaire knew the basics for looking after their oral health, although more than half had oral health problems, which will include orthodontics. In addition, a third of them were worried about their appearance due to their mouth, gums, and teeth.

Ways to ensure children and young people to brush their teeth were highlighted, such awards or freebies, including dental related ones (free toothbrushes/toothpaste; free Invisalign), getting into good habits and using apps.

"You can get a little app where you can kind of like time, the length of time you [brush teeth] for or one of the things that we do so rather than using something like that, what we do is my son counts how many times he brushes each section of his mouth."

Dental practices

Parent and carer forums for SEND families highlight many issues relating to attending dental appointments. Training for dentists and dental staff about neurodiversity was thought to be necessary, as understanding about some conditions was thought to be low, and therefore a positive environment was often felt to be lacking. A simplified route to disclosing neurodiversity was advocated.

Greater promotion of specialist dental services among SEND families was also requested.

"Neither of mine have been to the dentist for a couple of years since the dentist they saw last insisted on trying to take my eldest's baby tooth out because it was taking time to fall out and the adult tooth was almost fully emerged, and it "may" have caused the adult tooth to move. Now they are both petrified that the dentist can just take their teeth out without warning."

"I found out there are specialist dentists for children who have autism and special additional needs... Basically it was not something that's kind of like public knowledge."

Sensory challenges among children with SEND

Sensory challenges were a recurring theme among SEND families. Toothbrushes and toothpastes and effective approaches that were the least aggravating to the child or young person were often identified through extensive trial and error.

"I watered [toothpaste] down just to try and make the minty-ness less. And then we froze it… but we tried anything."

How to prioritise oral health

Striking the correct balance about oral health promotion was discussed. Helping teenagers understand that they only have one set of teeth for life, and that good hygiene now will last them a lifetime, without also making families who struggle feel guilty.

"How do we still put it so it's important for people to have healthy, good mouth hygiene as you know, we all know that. But how can we make sure families are aware that this is not just another fight"

Views of stakeholders

As part of the HNA, stakeholders were consulted about their experience working within children and young people's oral health. Interviews were held with the following stakeholders:

- Ravi Goel: dentist in Bedford Borough and Secretary of the Bedfordshire Local Dental Committee
- Barbara Rooney: Public Health Principal - Children & Young People, 0-19 Healthy Child Programme Service Commissioning Lead (Central Bedfordshire & Bedford Borough)
- Katie Bannister and Rachael Keith: Bedfordshire oral health service providers
- Jennifer Foley: Healthwatch Bedford Borough
- Eleanor Ryles: Healthwatch Central Bedfordshire
- Jo Drew: Designated Clinical Officer for Children and Young People with Special Educational Needs and/or Disability (SEND), BLMK Clinical Commissioning Group
- Nicola Bescoby and Deborah Spencer: Looked after Children Team, BLMK Clinical Commissioning Group

Four themes emerged from the interviews with stakeholders. They were:

- The challenges of oral health education for children, young people, and their carers
- Oral health care at home
- Lack of access to dental practices, and lack of communication between dentists and children
- The perception of oral health in society

These themes are discussed in more detail below:

Education for children, young people, and their carers

Although all agreed it was important, actioning education was found to be challenging. Education targeted at children was often thought to go over their heads. Targeting staff and families was believed to be more effective, however engaging different settings, especially those in deprived areas could be very tricky.

Although dentists have extensive knowledge and can be excellent educators, they are expensive. Therefore, the average dental appointment doesn't focus heavily on education. Education is, instead, seen as the priority for dental care professionals, nurses or hygienists who may not encounter children, young people, and their carers as frequently. Finally, it was noted that education had its limits, as you can provide the information, but you can't force anyone into action.

Oral health care at home

There were difficulties around self-care among vulnerable populations. Engaging looked after children in dental health can be very hard as some children have been through extremely traumatic circumstances, which may take temporary priority over their oral health. Sensory challenges among some children and young people with SEND also make toothbrushing very challenging.

However, there were some positive comments. As COVID forced a switch away from face-to-face interventions, toothbrushes and toothpaste were given to children to take home, and were well received. This approach, however, did not always engage early years and primary school settings to take part in the 'Mysmile' award.

Dental practices

A repeated discussion surrounded the lack of access to dentists. This has led to much frustration among people working within children's oral health, as recommendations to regularly attend a dentist are thwarted. Healthwatch has received many complaints around the difficulty in accessing NHS dentists.

Within dental practices, communication between dentists and children, and an understanding of the children in the dentists' care was thought to be lacking. Knowledge about whether a child was looked after or had SEND was rarely enquired about, leaving the onus on the carers to initiate the discussion.

The perception of oral health

In general, oral health was often seen as a poor relation to physical health. It frequently falls within anti-obesity drives, as it promotes low-sugar foods, and wasn't recognised as distinct, and therefore as having high importance in its own right.

Conclusions

Oral health is an essential part of health and wellbeing for children and young people and has significant impact on quality of life.

Oral health problems continue to have a significant impact on the health and wellbeing of children in Bedfordshire. Almost one in eight children in Bedford Borough, and one in 16 children in Central Bedfordshire have visible decay at the age of three years; this rises to one in four children in Bedford and one in seven children in Central Bedfordshire with visible decay at the age of five years.

Given the challenges with access to NHS dental services, it is particularly pertinent that children and young people are able to look after their oral health at home as well as they can, to prevent dental decay.

Inequalities in oral health are considerable and entrenched. Children and young people in the most deprived areas experience significantly higher levels and severity of dental decay, as well as higher rates of hospital tooth extractions. Children with special educational needs and disabilities who have experience of decay tend to have more severe decay and have reported issues accessing appropriate care. There are also inequalities in oral health by ethnicity, with highest decay prevalence and severity seen in children from Asian/Asian British ethnic groups. Health inequalities are systematic, unfair, and avoidable, and reduction of oral health inequalities is likely to require addressing the wider, social determinants of health.

Evidence shows that there are interventions effective in preventing poor oral health in children and young people, and these should be provided in areas where children are at high risk of poor oral health. Interventions that can be provided locally include daily supervised tooth brushing programmes, provision of tooth brushing kits, application of fluoride gels to teeth, and community based oral health promotion activities. While water fluoridation is effective for both reducing prevalence of dental decay, and reducing oral health inequalities, the power to introduce water fluoridation schemes lies with the Secretary of State for Health and Social Care

Local oral health improvement service provision is aligned with NICE recommendations for targeting to at-risk groups and provides evidence-based interventions, though performance targets are not met for all indicators. Improving uptake of effective oral health improvement programmes in the most deprived areas could help to reduce inequalities locally.

Recommendations

The recommendations below are based on the findings of this health needs assessment, and focus on oral health improvement priorities within the remit of Local Authority Public Health, as set out in the Health and Social Care Act (2012). Progress against recommendations made in the Oral Health Needs Assessment carried out in 2022 is outlined in **Appendix 4**.

Oral health training and education

10. Continue providing oral health improvement programmes to improve oral health and reduce oral health inequalities in Bedford Borough and Central Bedfordshire, in line with NICE guidelines.
11. Improve uptake of oral health training sessions in staff from the following teams:
    a. Adoption & Fostering teams
    b. Early Help teams
12. Ensure training is made available to, and taken up by:
    a. All social workers who work with children, young people and families
    b. All staff in the emerging Integrated Behaviour Change Service
13. Improve the uptake of 'Let's Brush' and the achievement of 'The My Smile Award' in Early Years settings in the most deprived areas in each Local Authority.

Oral health information for young people and their families

14. Ensure culturally appropriate advice and information on oral health is available for families with babies and young children in groups at high risk of poor oral health. This may include, for example, providing oral health information in other languages.

Scoping additional service provision

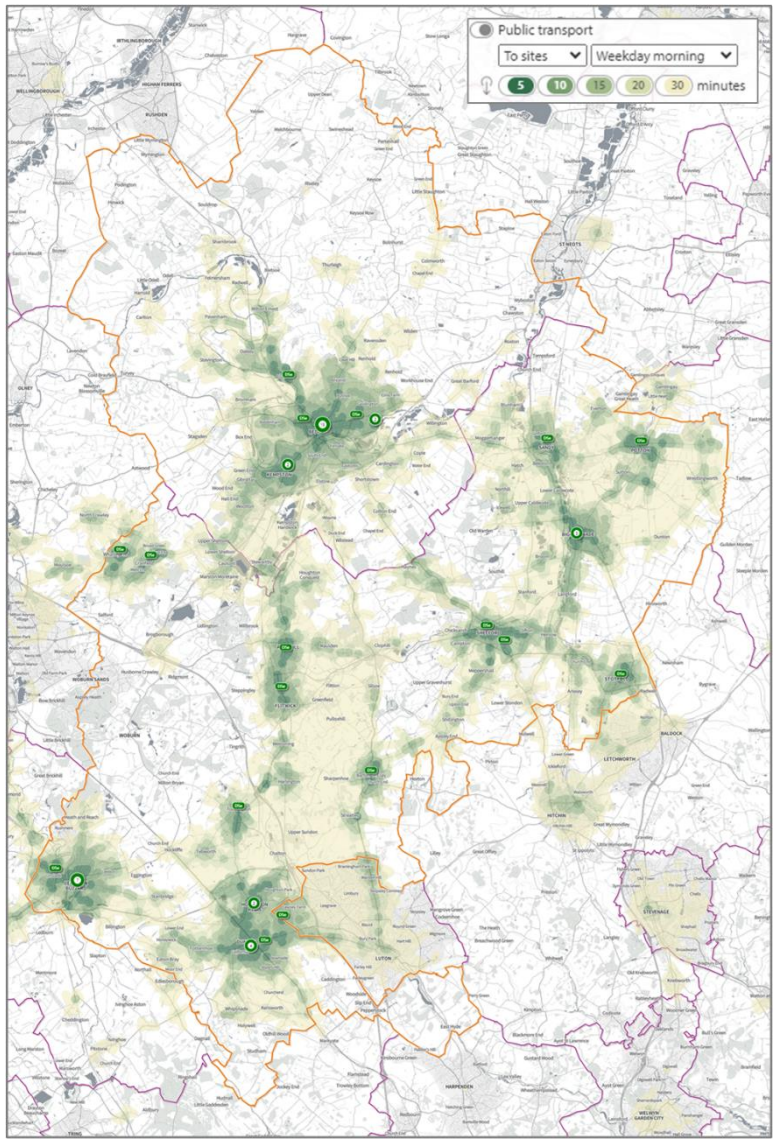
15. Evaluate the impact of provision of toothbrushing kits by Health Visitors to vulnerable children at the 6-month review, and the universal provision of kits at the 12-month, and 2- to 2.5-year-review.
16. Scope provision of a community-based fluoride varnish programme for nurseries as part of early years services for children aged 3 years and older, in line with NICE guidelines.

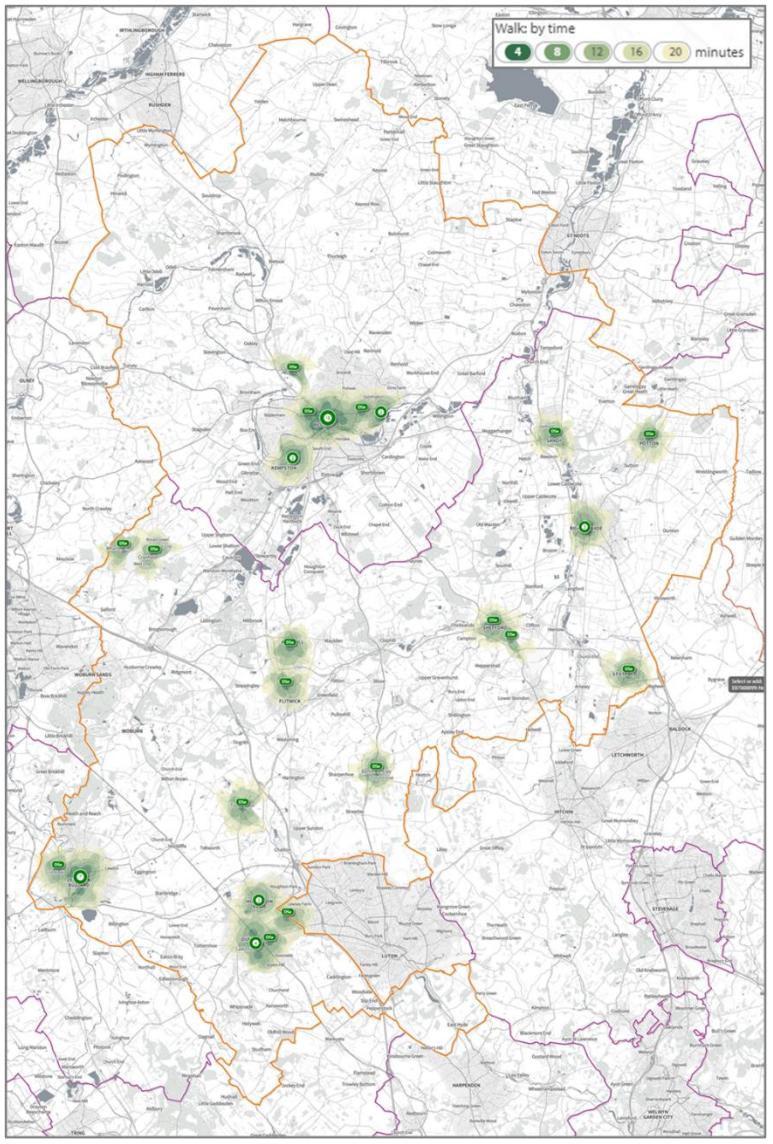
Making oral health a strategic priority

17. Use the findings of this OHNA to inform the development of a system-wide alliance to improve the oral health of children and young people in Bedfordshire and Milton Keynes.
18. Include oral health as a component of future joint strategic needs assessments for Bedford Borough and Central Bedfordshire councils.

Appendices

Appendix 1: walking and public transport travel times to NHS dental services





NHS dental services in Bedford Borough and Central Bedfordshire, with travel time radii added for up to 30 minutes public transport (left), and up to 20 minutes walking (right) around each location.

Each dental service is represented by a marker labelled **DSe**. Where there are multiple services in similar locations, a circle is shown, labelled with the corresponding number of services at that location. Orange boundary shows the extent of each Local Authority area.

Appendix 2: Statistical neighbours of Bedford Borough and Central Bedfordshire

Department for Education, Local authority interactive tool (LAIT) – an interactive spreadsheet for comparing data about children and young people across all local authorities in England.[44]

Statistical neighbours listed in order of 'closeness'.

Comparator areas: Bedford Borough

Statistical neighbours	West Northamptonshire
	Kent
	Swindon
	Milton Keynes
	Warwickshire
	North Northamptonshire
	Medway
	Hertfordshire
	Essex
	Derby

Comparator areas: Central Bedfordshire

Statistical neighbours	Hampshire
	Leicestershire
	Warwickshire
	South Gloucestershire
	Essex
	Cheshire East
	West Sussex
	Bracknell Forest
	West Berkshire
	Hertfordshire

Appendix 3: NICE Public Health Guideline PH55 and local progress against recommendations

Oral health: local authorities and partners

Recommendation		Sub-recommendation	Local provision
1	**Ensure oral health is a key health and wellbeing priority**	Make oral health a core component of the joint strategic needs assessment (JSNA) and the health and wellbeing strategy (HWS).	In JSNAs for both LAs, though not included in current HWS for Bedford Borough or Central Bedfordshire.
		Set up a group that has responsibility for an oral health needs assessment and strategy.	Not done
2	**Carry out an oral health needs assessment**	Define the scope of an oral health needs assessment for the local population.	Included in this Oral Health Needs Assessment
		Ensure the oral health needs assessment is an integral part of the joint strategic needs assessment and clearly linked to strategies on general health and wellbeing	In progress
		Conduct the oral health needs assessment as part of a cyclical planning process geared towards improving oral health and reducing health inequalities.	In progress
3	**Use a range of data sources to inform the oral health needs assessment**	Use local demographic and deprivation profiles to identify groups that may be at high risk of poor oral health.	Included in this Oral Health Needs Assessment
		Use national surveys of oral health and NHS dental epidemiological programme data to gain an idea of local oral health needs relative to the national picture and comparator areas.	
		Use national demographic and socioeconomic data and the established link between these factors and oral disease to determine likely local needs.	
		Use local expertise and local health and lifestyle surveys and consultations to understand local oral health needs in the context of general health.	
		Consider seeking advice on survey design and the collection, analysis and interpretation of epidemiological data relevant to oral health.	Not done
4	**Develop an oral health strategy**	Develop an oral health strategy based on an oral health needs assessment	Not done
5	**Ensure public service environments promote oral health**	Ensure all public services promote oral health by: making plain drinking water available for free; providing a choice of sugar-free food, drinks (water or milk) and snacks (including fresh fruit), including from any vending machines on site; encouraging and supporting breastfeeding.	Drinking water available; breastfeeding support available through Baby Brasseries and breastfeeding cafes
		Review other 'levers' that local authorities can use to address oral health and the wider social determinants of health, for example, local planning decisions for fast food outlets.	Work ongoing to consider opportunities within the planning system to address wider determinants
		Explore the possibility of linking with local organisations in other sectors (for example, local shops and supermarkets) to promote oral health.	Not done

6	**Include information and advice on oral health in all local health and wellbeing policies**	Ensure all health and wellbeing and disease prevention policies for adults, children and young people include advice and information about oral health. It should be included with information about the common risk factors for ill health.	Oral health is incorporated within 0-19 service, Children's Centres, Schools and Foster Family support
7	**Ensure frontline health and social care staff can give advice on the importance of oral health**	Ensure frontline health and social care staff: receive training in promoting oral health; understand the links between health inequalities and oral health and the needs of groups at high risk of poor oral health; can advise carers on how to protect and improve the oral health and hygiene of those they care for.	Training offered via Oral Health Improvement Team
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 is included in care plans and is in line with safeguarding policies.	My Smile Award and Let's Brush oral health programmes targeted to settings in areas of higher relative deprivation; information sharing at children's centre sessions for families of children with SEND; Children looked after have scheduled oral health check-ups in care plans
		Ensure service specifications promote oral health in the context of overall health and wellbeing. Relevant services include substance misuse services and those supporting people living independently in the community.	Not relevant to the scope of this oral health needs assessment
9	**Commission training for health and social care staff working with children, young people and adults at high risk of poor oral health**	Commission regular training for frontline health and social care staff working with groups at high risk of poor oral health. This should be based on 'advice for patients' in the Office for Health Improvement and Disparities' toolkit for Delivering Better Oral Health.	Training offered via Oral Health Improvement Team
10	**Promote oral health in the workplace**		Not relevant to the scope of this oral health needs assessment
11	**Commission tailored oral health promotion services for adults at high risk of poor oral health**		Not relevant to the scope of this oral health needs assessment
12	**Include oral health promotion in specifications for all early years services**	Ensure training in oral health promotion for staff of early years services (including midwives and health visiting teams; Early years services, children's centres and nurseries; child care services (including childminding services))	Training offered via Oral Health Improvement Team to staff in the 0-19 service, staff working with children looked after, early years settings, and childminders

		Ensure all frontline staff in early years services, including education and health, receive training at their induction and at regular intervals, so they can understand and apply the principles and practices that promote oral health.	Training offered to new employees and those for whom it has been three years since their last training update
13	**Ensure all early years services provide oral health information and advice**	Ensure all early years services include advice about oral health in information provided on health, wellbeing, diet, nutrition and parenting.	Oral health improvement team supportd 0-19 team to source a toothbrush, toothpaste and information leaflet to be given to families at 6 month, 9-12 month and 2 or 3 year old checks.
		Ensure all frontline staff can help parents, carers and other family members understand how good oral health contributes to children's overall health, wellbeing and development.	
14	**Ensure early years services provide additional tailored information and advice for groups at high risk of poor oral health**	Use information from the oral health needs assessment to identify areas and groups where children are at high risk of poor oral health	Included in this Oral Health Needs Assessment
		Provide tailored services to meet the oral health needs of these groups	My Smile Award and Let's Brush oral health programmes targeted to settings in areas of higher relative deprivation; information sharing at children's centre sessions for families of children with SEND. Bedford Borough also has developed a guide of ways to cope with challenges that children and young people have around toothbrushing.
		Ensure early years services identify and work in partnership with relevant local community organisations to develop and deliver tailored oral health advice and information for families	Not known
		Ensure health and social care practitioners can provide culturally appropriate advice and information on oral health for families with babies and young children.	Not known
		Consider provision of tooth brushing packs to offer to families in groups at high risk of poor oral health. Distribution of packs should be combined with information on when and how to brush teeth, a practical demonstration and information about local dental services.	Let’s Brush oral health programme for early years settings, targeted to settings in areas of highest relative deprivation. Tooth brushing packs are also provided to children receiving specialist support at their 6-month review point; Children in Care also receive these packs twice per year at their Initial Health Assessment.
15	**Consider supervised tooth**	Use information from the oral health needs assessment to identify areas where children are at high risk of poor oral health	Included in this Oral Health Needs Assessment

	brushing schemes for nurseries in areas where children are at high risk of poor oral health	Consider commissioning a supervised tooth brushing scheme for early years settings (including children's centres) in these areas.	Let's Brush oral health programme for early years settings, targeted to settings in areas of highest relative deprivation
16	**Consider fluoride varnish programmes for nurseries in areas where children are at high risk of poor oral health**	Use information from the oral health needs assessment to identify areas where children are at high risk of poor oral health	Included in this Oral Health Needs Assessment
		If a supervised tooth brushing scheme is not feasible, consider commissioning a community-based fluoride varnish programme for nurseries as part of early years services for children aged 3 years and older. **Note:** more detail about fluoride varnish programmes in full NICE recommendations, including uptake, monitoring, evaluation.	Not done
		If resources are available, consider commissioning both a supervised tooth brushing scheme and a fluoride varnish programme.	Not done
17	**Raise awareness of the importance of oral health, as part of a 'whole school' approach in all primary schools**	Ensure that school policies and procedures promote and protect oral health.	My Smile award work with primary school settings.
		Making plain drinking water available for free and encouraging children to bring refillable water bottles to school. Providing a choice of sugar-free food, drinks (water and milk) and snacks (for example, fresh fruit). These should also be provided in any vending machines.	In place and accredited for some schools via My Smile award work with primary school settings.
		Displaying and promoting evidence-based, age-appropriate oral health information for parents, carers and children (this should be relevant to local needs and include details of how to access local dental services).	My Smile award work with some primary school settings
		Ensuring opportunities are found in the curriculum to teach the importance of maintaining good oral health and highlighting how it links with appearance and self-esteem.	In place via Statutory guidance on health education
		Identifying and linking with relevant local partners to promote oral health. This could include oral health promotion schemes commissioned by the local authority and local community networks.	My Smile aware work with primary school settings
18	**Introduce specific schemes to improve and protect oral health in**	Use information from the oral health needs assessment to identify areas where children are at high risk of poor oral health	Included in this Oral Health Needs Assessment

	primary schools in areas where children are at high risk of poor oral health	Ensure primary schools in these areas, identify school staff who could be trained to provide advice and support to promote and protect pupils' oral health	In place via Oral Health Improvement team
		Ensure trained staff set up and run tooth brushing schemes and support fluoride varnish programmes commissioned by local authorities	Let's Brush oral health programme targeted to settings in areas of highest relative deprivation. Fluoride varnish programmes not in place.
		Provide opportunities for staff to talk with parents or carers about, and involve them in, improving their children's oral health. For example, opportunities might arise at parent-teacher evenings, open days or by encouraging parents and carers to get involved in developing the school food and drinks policy.	Not known
19	**Consider supervised tooth brushing schemes for primary schools in areas where children are at high risk of poor oral health**	Use information from the oral health needs assessment to identify local areas where children are at high risk of poor oral health	Included in this Oral Health Needs Assessment
		Consider commissioning a supervised tooth brushing scheme for primary schools in these areas. If resources are limited, prioritise reception and year 1 (up to age 7).	In place via Oral Health Improvement team Let's Brush programme
20	**Consider fluoride varnish programmes for primary schools in areas where children are at high risk of poor oral health**	Use information from the oral health needs assessment to identify areas where children are at high risk of poor oral health	Included in this Oral Health Needs Assessment
		If a supervised tooth brushing scheme is not feasible, consider commissioning a community-based fluoride varnish programme for primary schools. This should provide at least 2 applications of fluoride varnish a year.	Not done
		Consider commissioning both a supervised tooth brushing scheme and a fluoride varnish programme, if resources are available.	Not done
21		Ensure that school policies and procedures promote and protect oral health, e.g. providing plain drinking water, choice of sugar-free food, drinks, and snacks	In place, though extent not known

Promote a 'whole school' approach to oral health in all secondary schools	Ensuring opportunities are found in the curriculum to teach the importance of maintaining good oral health and highlighting how it links with appearance and self-esteem.	In place via Statutory guidance on health education
	Ensure school nursing services encourage good oral health, including effective tooth brushing, use of fluoride toothpaste and regular dental check-ups.	In place via school nursing service
	Ensure all school leavers know where to get advice and help about oral health, including dental treatment and help with costs.	In place via school nursing service
	In areas where children and young people are at high risk of poor oral health consider identifying and training secondary school staff to advise on dental issues.	Partially met via oral health training for staff of special schools
	Work with local authorities to influence planning decisions on new buildings and fast food outlets.	In place

Appendix 4: Recommendations from 2022 Oral Health Needs Assessment of Children and Young People in Bedford Borough and Central Bedfordshire

And known progress against them

Recommendation 2022	Progress
Awareness raising and education	
The following key groups should be provided with training sessions, information bulletins with on-going communication to give updates regarding oral health promotion - Adoption & fostering team - Early Help Teams - The designated lead health visitor to Traveller, Gypsy and Roma Communities	Oral health training is offered and provided to staff of Adoption & fostering teams, early help teams, though uptake of training in these groups has been low. Health visitors are also offered training, though training status of lead health visitor to GRT communities unknown.
Provision of additional information to education settings	
An exemplar food policy should be provided to all primary & secondary schools. The rationale for this is to emphasise how to align schools' oral health policies with the food environment.	Standards for school food are set out by the Department for Eduction, and states that "High sugar intake provides unnecessary calories and can lead to weight gain and tooth decay". Standards available at: https://www.gov.uk/government/publications/school-food-standards-resources-for-schools#full-publication-update-history
Oral health promotion material should be distributed via secondary schools and 6th form colleges, for example during national smile month. The rationale for this is that no information is currently provided to education settings after primary school, which implies that knowledge is fully acquired or that habits are fixed and unchangeable. Provision of oral health material beyond primary school aims to continue supporting oral health skills into adulthood.	Progress unknown. Recommendation not carried forward due to lack of supporting evidence or recommendation in NICE guideline.
Add oral health material to Children & young people's health page on BLMK ICS website	
The rationale for this is that currently information is not provided on the ICS webpages, but the material is readily available. This will provide another avenue for people looking for information and support to turn to.	Oral health information available on the BLMK Healthier Together site at the link below: https://www.blmkhealthiertogether.nhs.uk/parentscarers/oral-health
Co-creation of a bank of hints & tips about coping with sensory challenges when toothbrushing	

Hints & tips about coping with sensory challenges when toothbrushing should be collated in collaboration with parent-carer forums. This information can then be provided to parents via local offer webpages, special schools, and SEND children's centre groups, as well as re-distribution through parent-carer forums.	A *Tips for toothrushing challenges* document has been created and is available on the Bedford Borough Council website at the link below: https://localoffer.bedford.gov.uk/kb5/bedford/directory/service.page?id=S4kh1laSyvc&localofferchannel=3-8
Scoping further options	
The potential to provide free toothbrushing kits to all children within the Universal Partnership Plus offer will be assessed for affordability and feasibility. The rationale for this is that looked after children often have poor oral health at the time they enter foster care, suggesting that families in need of additional support may benefit from free toothbrushing kits.	Toothbrushing kits are distributed by health visitors to children receiving specialist support services as part of the Healthy Child Programme at their 6-month review point, and to all children at their 9-12 month review, and at their integrated health and education review at 2-2.5 years.
The feasibility of translating oral health material into commonly requested languages will be assessed. The rationale for this is that there are clear health inequalities between ethnic groups, which may be compounded by a lack of accessible oral health information.	Progress unknown.

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