Oral health of children and young people in Cheshire West and Chester

What is a JSNA?

The Joint Strategic Needs Assessment (JSNA) is the comprehensive assessment of the current and future health and social care needs of children and young people aged 0 to 19 (25 with SEND) and their families, with a focus on improving the health and wellbeing and reducing inequalities. There are nine individual chapters that comprise this JSNA.

A Joint Strategic Needs Assessment (JSNA) looks at all the information available around the current and future health and social care needs of populations in the local area. It will then use the data to inform and guide the planning and commissioning of health, well-being and social care services within a local authority. The implementation of recommendations will be overseen by the Health and Wellbeing Board.

As part of the JSNA's development, we have ensured the following principles and values have been considered:

- Think Family
- Our Way of Working and trauma informed practice.
- Prevention, early intervention and avoiding escalation of need.
- The voice of children, young people and families is central to the design, delivery and evaluation of service provision.
- Strength-based, personalised service provision focussed on relationships.
- Integrated services which mean that families tell their story once and can easily access seamless support.
- Equality.
- Reducing inequality.

Chapters Introduction

Cheshire West and Chester Councils 0-19 (25 with SEND) JSNA aims to bring benefits by identifying key health, wellbeing, and social care needs. Findings will help the Council and its partners to make more informed decisions about how we provide support and services to achieve the best outcomes for our children, young people, and their families/carers.

Each chapter has considered literature relevant to the assigned area of focus, drawing on this information to highlight key points that could contribute to findings and recommendations.

Although each JSNA chapter can be read as an individual report. Throughout every chapter, there were common themes relating to how we collect and analyse data particularly in relation to outcome information for certain groups; how inclusive and consistent messages are communicated and how we would like to do more coproduction and peer mentoring.

Contents

1. Introduction

Oral health is an important aspect of a child's overall health status and their school readiness. Poor oral health impacts on a child's ability to eat, drink, sleep, speak and socialise, and can lead to a child needing time off school and parents having to take time off work to take them for treatment. Good oral health is important, even for children's primary teeth as their baby teeth make space for and help to guide adult teeth. Additionally, children who have high levels of disease in their primary teeth also have an increased risk of disease in their permanent teeth. Ensuring children and young people have good oral health is therefore fundamental to giving children the best start in life.

Whilst anyone can experience poor oral health, poor oral health and its impacts disproportionally affect the most vulnerable and socially disadvantaged individuals and groups in society. The National Healthcare Inequalities Improvement Programme at NHS England have identified oral health as one of the five clinical areas of focus in the CORE20PLUS5 approach to reducing healthcare inequalities for children and young people. Although CORE20PLUS5 for children and young people is aiming to address the backlog for tooth extractions in hospital in children aged ten years and under, there are a wide range of preventative interventions which can prevent tooth decay and by extension hospital admissions for tooth extractions.

The aims of this JSNA chapter were therefore to:

- understand the oral health needs of children and young people (0-19, 25 SEND) in Cheshire West and Chester
- understand inequalities in children and young people's oral health, paying particular attention (where data is available) to:
  - Children living in the most deprived areas of the borough
  - Children with care experience
  - Refugee and asylum-seeking children
  - Gypsy Roma and Traveller children
  - Children with Special Educational Needs and Disabilities (SEND)
  - Children and young people with physical disabilities (not otherwise covered by SEND)
- identify best practice for improving children and young people's oral health and reducing oral health inequalities and compare this to current practice in Cheshire West and Chester

2. Summary

- The oral health of five-year-old children in Cheshire West and Chester is worsening, with a growing proportion of five-year-old children experiencing visually obvious dentinal decay (decay extending into the dentine of the tooth) since 2014/15. In 2021/22 25.4% of five-year-old children in Cheshire West and Chester were found to have visually obvious dentinal decay. For those children with decay experience, they had on average 3.5 teeth affected in 2021/22 compared to 2.6 teeth in 2019.

- There are recognisable socioeconomic inequalities in children and young people's oral health in Cheshire West and Chester, with children living in more deprived areas having higher rates of admission to hospital for tooth extractions due to dental decay than children living in less deprived areas. There is also likely a higher level of oral health need amongst vulnerable groups of children, such as refugees and asylum seekers.

- Although data shows that access to NHS dentistry in Cheshire West and Chester has improved since the onset of the Covid-19 pandemic, as of 30 June 2022 access has not recovered to pre-Covid levels. Feedback from parents also suggests that access to NHS Dentistry is still challenging for some families.

- To reduce health inequalities, action must be taken across the social determinants of health and the environments in which children and young people live need to encourage healthier lifestyles. Therefore, a good practice approach to oral health improvement would be to commission a range of upstream, midstream and downstream interventions. Likewise, to reduce the gradient in oral health, all children should receive some support through universal oral health interventions, but children who are particularly vulnerable should receive additional targeted interventions and support.

- Partnership working is crucial to oral health improvement and there are opportunities to embed oral health improvement across the commissioning landscape for children and young people.

- Although there are already a variety of oral health improvement initiatives for children and young people in Cheshire West and Chester, there are certain evidence-based interventions which are not currently commissioned. Where resources allow, additional oral health improvement provision could be considered.

3. Oral health in Cheshire West and Chester

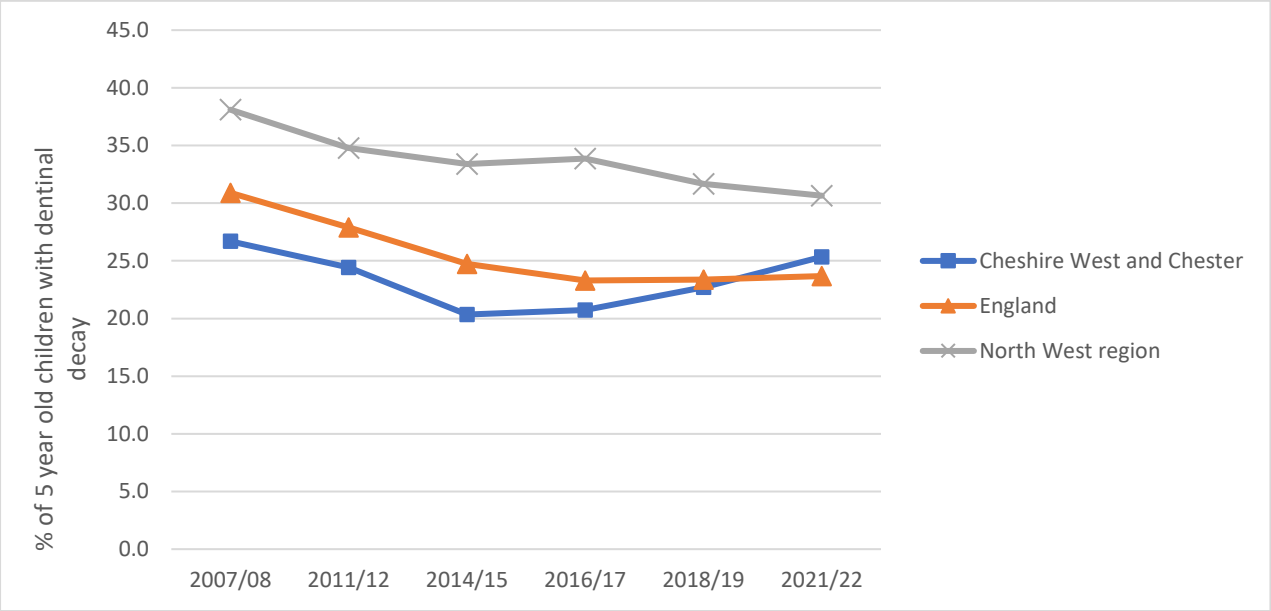
The National Dental Epidemiology Programme (NDEP) is carried out annually and provides information for national statistics. The survey is a clinical inspection of children's teeth to look for the presence of visually obvious dental decay and is conducted by appropriately trained clinicians according to a national protocol. The programme is coordinated by the Office of Health Improvement and Disparities (OHID), with local authorities who wish to take part commissioning the fieldwork for the survey in their area. Every two years the survey is carried out on a sample of five-year-old children, which gives information for the Public Health Outcomes Framework indicator on the proportion of five-year-old children with dental decay. As a result, data is available highlighting the trends in the oral health of five-year-old children in Cheshire West and Chester.

Despite being largely preventable, the NDEP shows that in 2021/22 25.4% of five-year-old children in Cheshire West and Chester were found to have visually obvious

dentinal decay (decay extending into the dentine of the tooth). This is an increase compared to previous years and is also higher than the proportion for England during the same period (23.7%). Whilst this difference is not statistically significant, this reverses the pattern seen since 2007/08 when previously Cheshire West and Chester had a lower percentage of five-year-old children with dentinal decay than England. Since 2014/15 the proportion of five-year old children with dentinal decay in Cheshire West and Chester has been increasing.

For those five-year-old children with decay experience, they had on average 3.5 teeth affected in 2021/22 compared to 2.6 teeth in 2019.

Chart 1: Percentage of five-year-old children in Cheshire West and Chester with experience of visually obvious dentinal decay, compared to England and the North West, 2007/08 to 2021/22



Source: Public Health Outcomes Framework

For the first time in the series of five-year-old surveys, in 2021/22 the prevalence of children with enamel decay was also recorded. This highlights the proportion of children who were found to have an early stage of decay who would ordinarily have been counted as being free of obvious decay. In Cheshire West and Chester, 35.4% of children were found to have enamel and/or dentinal decay in 2021/22, compared to 29.3% of children in England. This difference was statistically significant. Monitoring enamel decay is important as it is possible to implement preventive measures to help halt the progression of enamel decay to dentinal decay and thus prevent these children (10.0% of five-year-old children surveyed in Cheshire West and Chester in 2021/22) from needing invasive dentistry in the future to restore loss of tooth structure (OHID, 2023).

5.0%[1] of five-year-old children in Cheshire West and Chester were found to have incisor caries (decay affecting their upper front teeth) in the 2021-22 NDEP survey.

[1] Note that the figure of 5% only captures the percentage of children with dentinal decay of their incisor teeth.

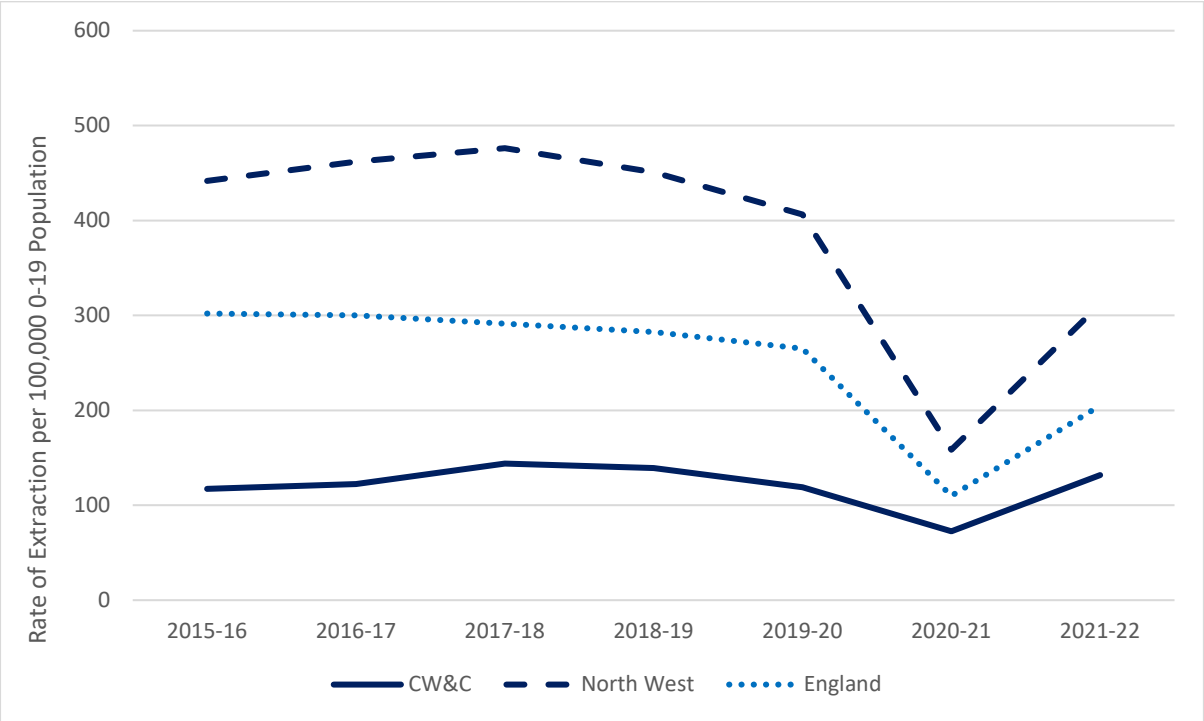
This was lower than the proportion for England of 6.6%, although this difference is not statistically significant. Decay affecting incisor (front) teeth is associated with long term bottle use with sugar-sweetened drinks, especially when these are given overnight or for long periods of the day.

Nationally tooth extractions are the most common reason for hospital admissions in children aged six to ten, with a large proportion of these extractions being due to dental decay. Extraction of teeth with general anaesthetic is often a child's first introduction to dental care and can lead to fear and anxiety with lifetime consequences. Many children attending hospital for a tooth extraction will also be missing at least two days at school whilst attending the hospital and recovering the following day.

To inform the local understanding of children's oral health, data on hospital admissions for tooth extractions due to dental decay was extracted from the Hospital Episode Statistics (HES) dataset. It should be noted that HES data may not capture all dental extractions (for example, extractions carried out by community dental services on a sessional basis). This probably means that HES figures are an underestimation.

Nonetheless, HES data highlights that the rate of hospital admissions for tooth extractions due to dental decay in children aged 0-19 in Cheshire West and Chester has consistently been lower than the rates for England and the North West. This pattern is consistent when looking specifically at children aged nought to five and children aged six to ten.

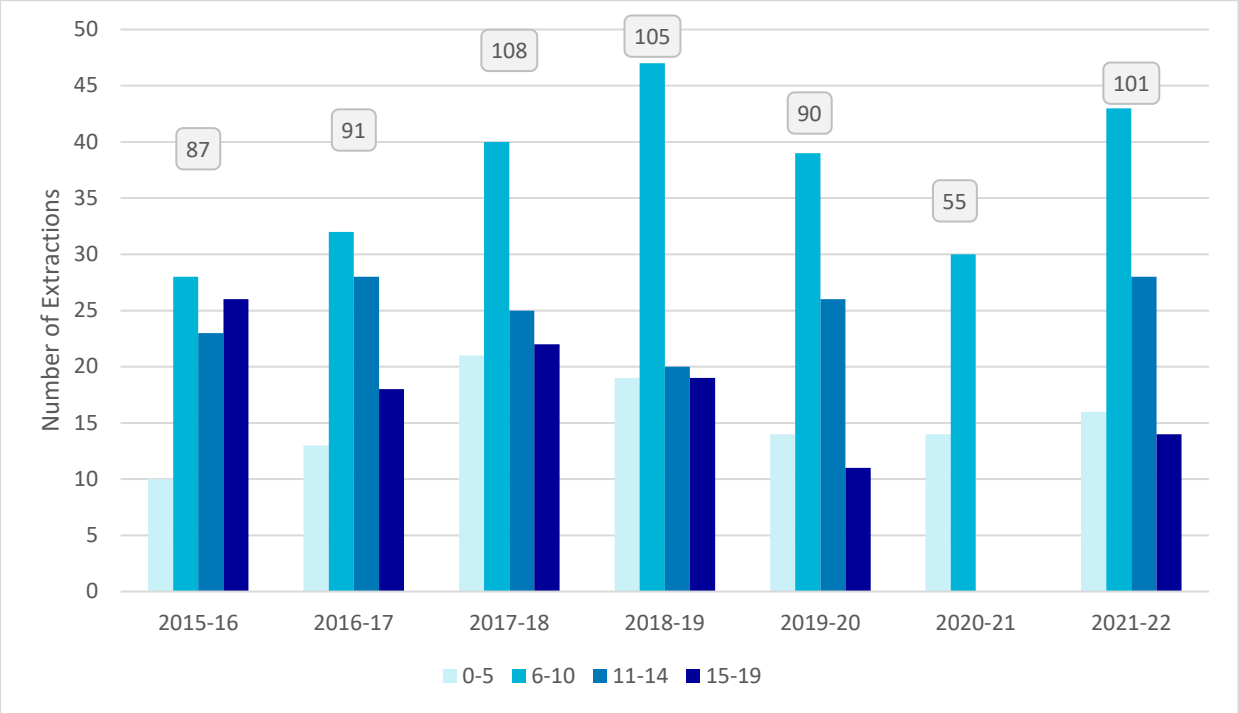
Chart 2: Rate of hospital admissions for tooth extractions due to dental decay in children aged 0-19 in Cheshire West and Chester, England and the North West, 2015/16 to 2021/22



Source: Hospital Episode Statistics

HES data also highlights that the six to ten age group has consistently accounted for the most hospital admissions for tooth extractions due to dental decay amongst children and young people in Cheshire West and Chester. This is consistent with the national picture. Note that data for some age groups in 2020-21 has been suppressed due to low numbers.

Chart 3: Number of hospital admissions for tooth extractions due to dental decay in children aged 0-19 in Cheshire West and Chester, by age group (2015-16 to 2021-22)



Source: Hospital Episode Statistics

3.1 Dental access

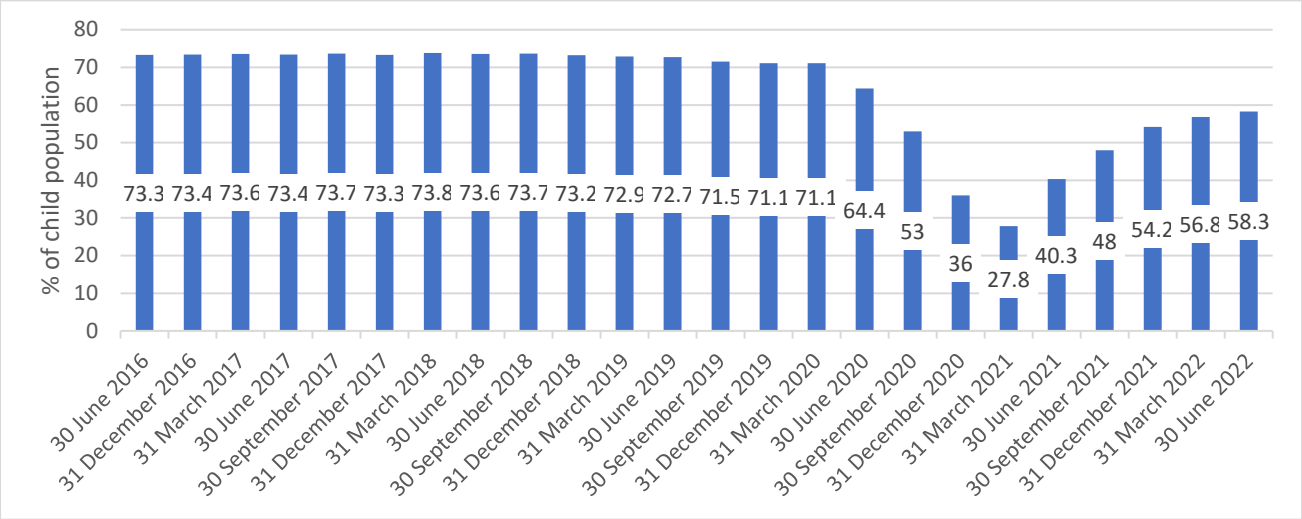
There have been recognised challenges in access to NHS dentistry since the onset of the Covid-19 pandemic. It is also important to note that nationally there are inequalities in the availability and utilisation of dental services across ages, sex, geographies and different social groups.

NHS data highlights that the proportion of children (aged 0-17) in Cheshire West and Chester who had seen an NHS dentist within the longest recommended interval (12 months)[2] fell during the Covid-19 pandemic. The proportion has since increased but has not yet recovered to pre-Covid levels. As of 30 June 2022, 58.3% of the child population (0-17) had seen an NHS dentist in the previous 12 months in Cheshire

[2] NICE recommends that the longest interval between oral health reviews for patients younger than 18 years should be 12 months. Recommended recall periods vary from three to 12 months depending on a child's risk of decay. This is summarised in is summarised in Delivering better oral health: an evidence-based toolkit for prevention (OHID, 2021).

West and Chester compared to 46.9% of children in England in the same time period.

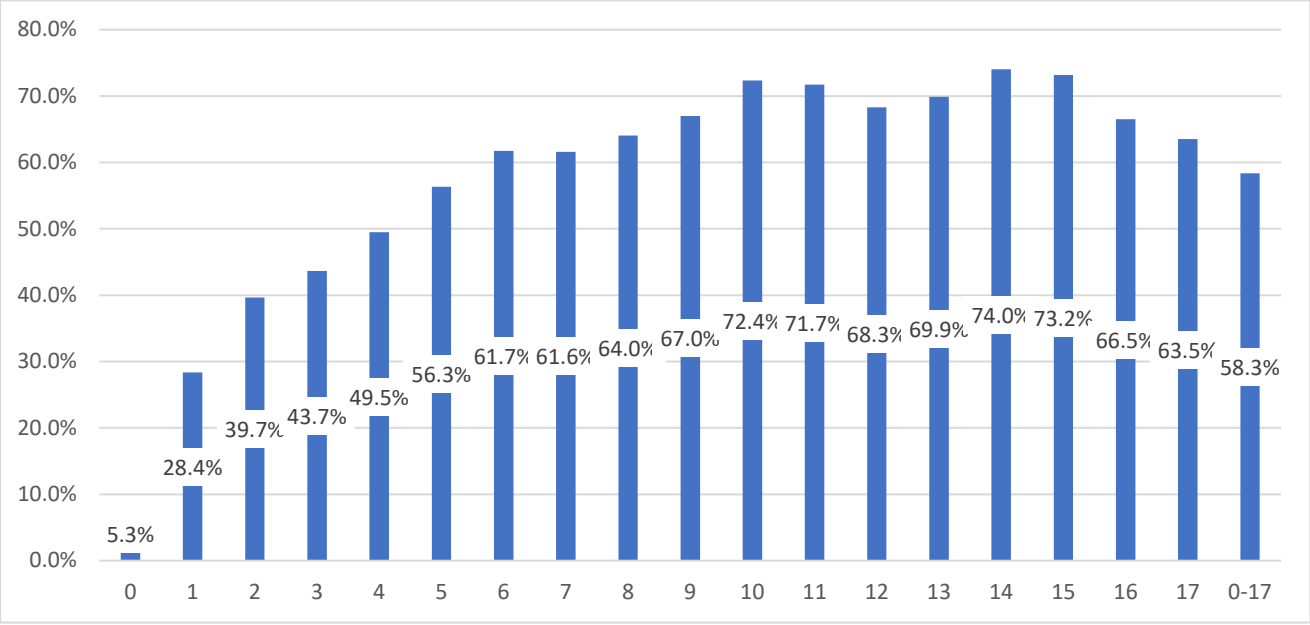
Chart 4: The percentage of the child population in Cheshire West and Chester who had visited an NHS dentist within the previous 12 months at quarter end, June 2016 - June 2022



Source: NHS Digital dashboard

The proportion of the child population in Cheshire West and Chester seen in the previous 12 months by an NHS Dentist (as of 30 June 2022) varies between age groups, although the very low proportion of children aged less than a year who have visited a dentist in the previous 12 months will be influenced by the fact that most children's teeth do not emerge until around six months of age.

Chart 5: The proportion of children aged 0-17 in Cheshire West and Chester who visited an NHS dentist in the previous 12 months (as of 30 June 2022)



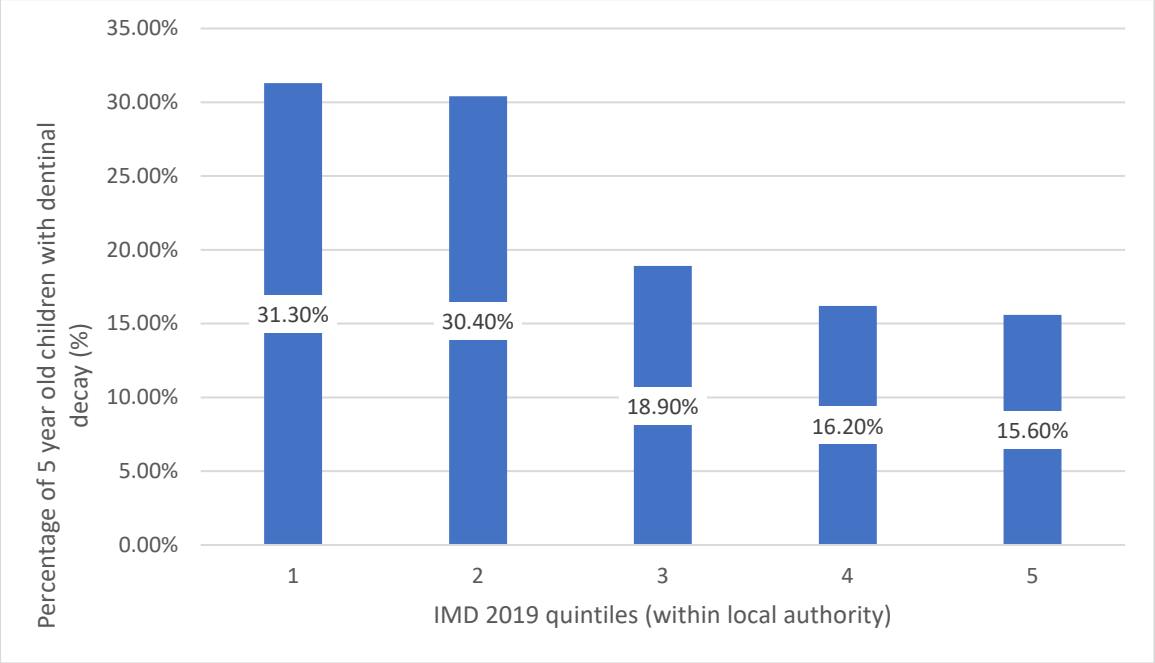
Source: NHS Digital dashboard

Nationally it is felt that young people aged 16 to 24 may need help and encouragement to register with a dentist as there appears to be a decrease in the numbers of young people in this age range who are registered with a dentist (NICE, 2014). NICE therefore recommend that as part of whole-school approaches to oral health, all school leavers should be informed where they can get advice and help about oral health, including dental treatment and help with costs. School leavers should also be provided with details of relevant services, including links to local community networks (NICE, 2014).

3.2 Inequalities in oral health

In Cheshire West and Chester, the percentage of five-year-old children with dental decay is higher in the most deprived areas than the least deprived areas. Although the differences in chart 6 are not statistically significant, this may be due to the sample size in the NDEP. The same socioeconomic inequalities in children and young people's oral health are seen nationally and regionally.

Chart 6: Prevalence of dental decay in five-year-old children in Cheshire West and Chester in 2018/9, by local authority Index of Multiple Deprivation (IMD) 2019 quintiles

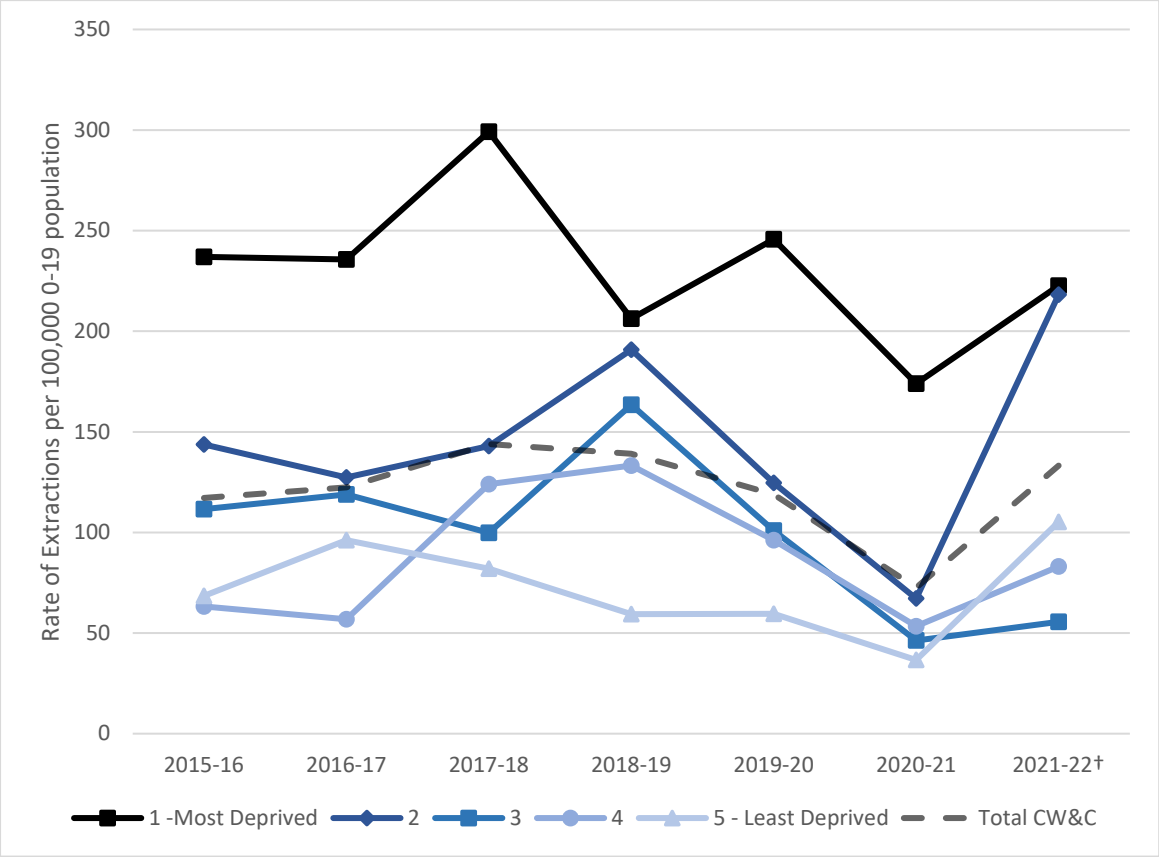


Source: National Dental Epidemiology Programme

Nationally, relative inequalities in the prevalence of dental caries (decay) in five-year-old children have increased from 2008 to 2019 (Public Health England, 2021). In 2008, the proportion of children with dental caries was 2.9 times higher in the most deprived areas of England than the least deprived areas and in 2019 it was 3.8 times higher (Public Health England, 2021).

As is the case nationally, the rate of hospital admissions for tooth extractions due to dental decay in children aged 0-19 in Cheshire West and Chester has consistently been higher in the most deprived areas than the least deprived areas.

Chart 7: Rate of hospital admissions for tooth extractions due to dental decay in children aged 0-19 in Cheshire West and Chester, by IMD 2019 quintile, 2015/16 to 2021/22



Source: Hospital Episode Statistics

In 2021/22, the rate of hospital admissions for tooth extractions due to dental decay increased substantially for the least deprived quintile of children, however, this needs to be interpreted with caution given the impact of the pandemic on hospital activity. Nationally, admissions for tooth extractions due to dental caries (tooth decay) reduced in 2020/21 as a result of the Covid-19 pandemic, which had a large impact on hospital activity. In the North West, there was a 90.9% reduction in hospital admissions for dental caries (0-19 years) between April and June 2020 when compared to the average admissions rate for the same time period in 2018 and 2019. Data since the pandemic therefore needs to be viewed with caution.

3.2.1 Children and young people seeking asylum

In January 2023, all Afghan refugee children between the ages of one and 15 in the bridging hotel[3] in Chester were screened by a team of dentists and dental students. Those not in pain were provided with details of how to access an NHS dentist locally. For those children in pain, arrangement was made for their treatment. Of the 144 children screened, 34.7% were referred to the dental hospital for treatment and 10.4% were referred to Alder Hey Hospital due to ages. This suggests a high level of dental need amongst refugee children in Cheshire West and Chester.

Although no data was available for asylum seeking children, or for other groups of refugee children, Healthwatch Cheshire have previously identified issues for asylum seekers in Cheshire West in terms of registering with and accessing NHS dentists. This has included not being able to register with dentists due to not having a permanent address, lack of funds and not having the necessary public transport to travel to appointments outside of the local area.

3.2.2 Children and young people with care experience

The evidence available nationally suggests that looked after children experience poorer oral health than children who are not looked after, as well as inequalities in service use. Part of every local authority's statutory responsibilities in relation to healthcare and looked after children includes checking that every child who is looked after has seen a dentist in the previous 12 months.

The below chart highlights that since 2018/19, Cheshire West and Chester have had a higher proportion of looked after children who have had their teeth checked by a dentist in the last 12 months[4] than the regional and national averages and the average of our statistical neighbours.[5] Nevertheless, as with dental access for children in general, the Covid-19 pandemic affected access to dentistry, and there was a large decrease in the percentage of looked after children who had had their teeth checked by a dentist in 2020-21. Local health data (unpublished) also suggests that a slightly higher proportion of children placed out of borough had a dental check outstanding in 2021/22 than children placed in the borough. However, caution needs to be applied in making any conclusions with this local data due to lags in data recording.

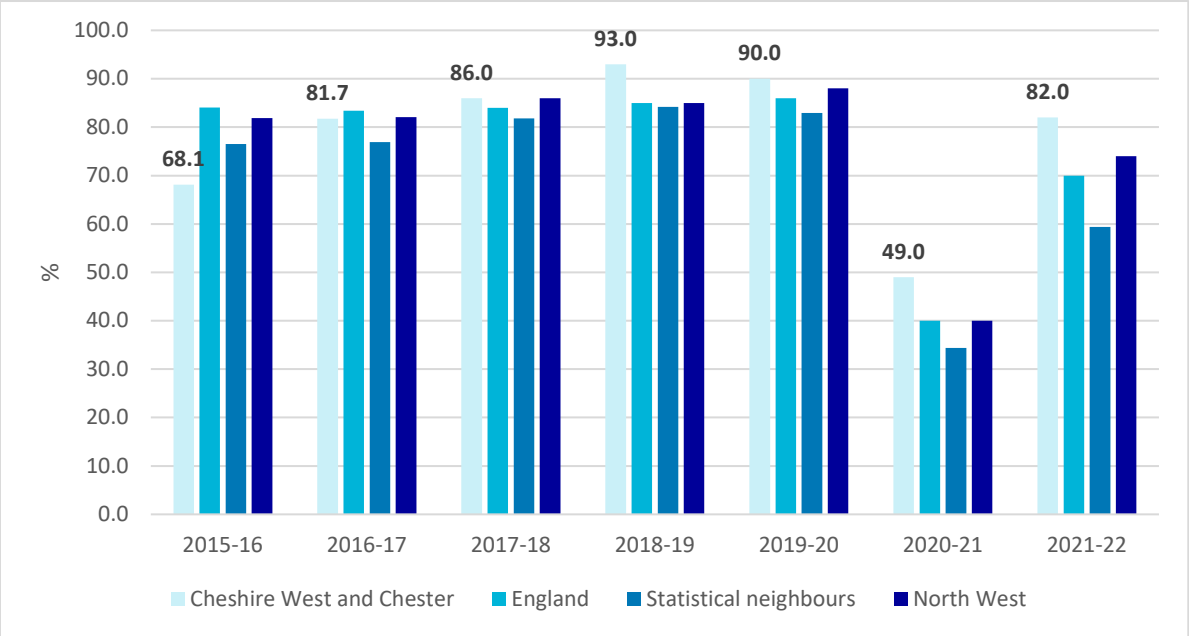
[3] 'Bridging accommodation' refers to all accommodation which was procured by the Home Office for the purpose of providing temporary accommodation for those evacuated to the UK as a result of events in Afghanistan following the fall of Kabul in August 2021.Types of accommodation included hotels and serviced apartments. Bridging accommodation was provided as an interim solution while the UK government supported households into settled accommodation (Home Office, 2023).

[4] This information is recorded for all children who had been looked-after continuously for at least 12 months. It records whether the child had their teeth checked by a dentist in the year ending 31 March. Children who decline to have their teeth checked are regarded as not having received a dental check. Very young children are still expected to have an oral examination even if their teeth have not yet developed. However, the examination of very young children does not have to be undertaken by a dentist and an examination by a paediatrician or other healthcare professional which included an oral examination can be counted.

[5] Statistical neighbour models designate a number of local authorities which are deemed to have similar characteristics as statistical neighbours. Comparing performance against statistical neighbours gives an indication as to whether performance is above or below what might be expected. The nearest neighbour model used for this data was the Children's Services Statistical Neighbour Benchmarking Tool (CSSNBT).

Following on from the pandemic, a referral pathway was designed by local authority safeguarding teams in Cheshire and Merseyside, in partnership with dental commissioners in NHS England and Consultants in Dental Public Health so that looked after children could be offered a routine dental appointment where other attempts at access had been exhausted. Referrals through this pathway are forwarded to the closest practice where the child is currently living. Initial feedback from this scheme has been very positive.

Chart 8: Percentage of looked after children who had their teeth checked by a dentist in Cheshire West and Chester, compared to England, the North West and the statistical neighbour average, 2015/16 to 2021/22



3.2.3 Children and young people with SEND

The oral health of five and 12-year-old children attending special support schools was surveyed in the academic year 2013 to 2014 as part of the National Dental Epidemiology Programme. Although most local authorities took part in this, only 14 examined enough five-year-old children to produce valid estimates at a local authority level, and only 55 examined enough 12-year-old children to enable this. There are therefore no estimates available specifically for Cheshire West and Chester. Likewise, many children with SEND attend mainstream schools, and this survey does not capture these children. However, the survey does give an indication of the specific oral health needs of children with SEND. For five and 12 year old children attending special schools in 2013/14, the overall prevalence and severity of dental decay was slightly lower than for children attending mainstream schools, but those children who had experience of decay tended to have more severe decay with more teeth being affected on average (Public Health England, 2015).

Likewise, whilst the majority of children surveyed in 2013/14 were able to undergo a full examination in school, a significant minority (23% of 5-year-olds and 10% of 12-year-olds) could only co-operate sufficiently to have a partial examination and for 4%

of five year olds and 2% of 12-year-olds no examination was possible (Public Health England, 2015). This gives an indication of the proportion of children attending special support schools who would need specialised clinical services to enable a full examination to be carried out. However, while it can be deduced that more than 27% of five-year-olds and 12% of 12-year-olds attending special support schools may need specialised services for the provision of clinical treatment, these would be minimum figures (Public Health England, 2015). It cannot be known what proportion of those children who complied with full examination for the NDEP would also be sufficiently compliant to safely accept more active treatment.

3.2.4 Gypsy, Roma and Traveller children

No data relating specifically to the oral health needs of Gypsy, Roma and Traveller children in Cheshire West was found whilst undertaking this JSNA. However, research into the needs and preferences of Gypsy/Traveller communities in Cheshire, Halton and Warrington was conducted in 2018/2019. In this research, 125 Gypsy, Roma and Traveller individuals (age range 16 to 83) were interviewed, 48% of whom lived in Cheshire West and Chester. This research found that 80% of respondents were registered with a dentist, an improvement compared to 2006 when only 40% were registered. However, some respondents were having to travel long distances to access dentistry, with 16% travelling over five miles and four individuals having to travel to dentists which were very distant. Some respondents also noted difficulties in accessing NHS dentistry, such as being removed from lists due to infrequent attendance, and waiting lists which were closed to NHS registration.

4. Lived experience

In completing this JSNA chapter, various methods were used to capture feedback from parents and carers about how easy they find it to support their child(ren) to have good oral health. The findings of these engagement activities, as well as existing insight from Healthwatch Cheshire, are captured below.

4.1 HAF survey

A question on oral health was included in a survey distributed to parents whose children had participated in the Holiday Activities and Food Programme (HAF)[6] in Cheshire West and Chester during the Easter holidays in 2023. Parents were asked how easy they find it to ensure their children have good oral health (healthy teeth and gums). A thumbs up rating was used for responses, where one thumb indicated ‘not at all easy’, and five thumbs indicated ‘very easy’. 135 completed responses were received to the HAF survey.

As can be seen in the table below, 45.2% of parents stated that they found it very easy to ensure their children have good oral health. Very few parents (4.4%) stated that it was not at all easy.

[6] The Holiday Activity and Food Programme (HAF) provides holiday club provision over the Easter, Summer and Christmas holidays for children and young people who are entitled to benefits-related free school meals.

Table 1: Responses to the Easter 2023 HAF survey question 'How easy do you find it to ensure your children have good oral health (healthy teeth and gums)?'

Answer	Percentage of respondents
1 - not at all easy	4.4%
2	5.9%
3	22.2%
4	22.2%
5 - very easy	45.2%

Survey respondents were also able to explain their answer if they wished. Of those respondents who left a free text response, many respondents flagged challenges accessing NHS dentistry (including issues registering with a dentist and issues getting appointments). Likewise, many respondents noted that their child does not like brushing their teeth, which makes toothbrushing difficult. A small number of respondents highlighted that their child has additional needs which makes taking care of their oral health (e.g. toothbrushing) harder.

Nevertheless, some respondents highlighted that their child is cooperative with toothbrushing, and some respondents noted that they help their child to brush their teeth. A small number of respondents noted that they limit how much sugar their child eats, and a small number of respondents noted that their child is accessing regular dental check-ups.

4.2 Feedback from Healthwatch Cheshire about dental access:

Since June 2020, Healthwatch Cheshire has received increasing numbers of enquiries asking for details of local dental practices taking on new NHS patients across Cheshire. Healthwatch Cheshire have published several reports since the onset of the Covid-19 pandemic summarising the main issues raised by people with regards to accessing dentistry, the most recent of which relates to queries received up until October 2022. To inform this JSNA, the themes from these conversations which related to children and young people's dental access were extracted. In summary, families told Healthwatch Cheshire about:

- Dentists who had refused to provide NHS treatment for children who were in pain during the pandemic period, however other adult members of the family at the practice who were private patients were seen and treated.
- Dental Practices who would only agree to take a child as an NHS patient if the parents signed up on a private dental plan.
- Dental Practice treating children who were private patients but, although registered as NHS patients, other children being refused for over three years.
- Orthodontists with poor understanding of children with autism who refused to listen to parents for advice on how best to communicate with the child.
- Long waits for children to see an orthodontist (up to three years).

- Practices being very rigid about the rule of two missed appointments in six months - even when children were part way through treatment.

Some positive feedback was also received about individual dental practices who were very accommodating of children's additional needs. However, in general Healthwatch's research highlights that access to NHS dental treatment remains a challenge for some families in Cheshire West.

4.3 Survey in children's centres

A survey was developed in collaboration with Healthwatch Cheshire, the 0-19 Starting Well Service and NHS England to engage with parents of children aged 0-5. This focused on how easy parents find it to support their child(ren) to have good oral health (healthy teeth and gums). To administer the survey, in June 2023 members of the Public Health Team attended Let's Play sessions and/or Open Advice sessions at the main children's centres with an iPad. This allowed parents to fill in the survey whilst attending a session, and also supported achieving a wide geographical coverage of responses.

85 responses were received to the survey, and responses were relatively evenly distributed between each ward locality (Chester, Ellesmere Port, Northwich and Winsford and Rural localities). Slightly more responses were received from Chester and Northwich and Winsford ward localities than Ellesmere Port and Rural. The majority of respondents had a child aged two and under, with only a small number of respondents having a child aged between three and five.

When asked how confident they were with supporting their child to have healthy teeth and gums, the majority of respondents selected either extremely confident or very confident. Very few respondents stated they were not very confident and no respondents selected that they were not at all confident. Respondents were able to explain their answer if they wished and many respondents noted that they maintain regular toothbrushing with their children and also watch/restrict how much sugar their child consumes. Some respondents stated that their child loves brushing their teeth. However, some respondents stated that toothbrushing can be difficult for their child. Whilst survey responses indicate a high level of confidence amongst parents with supporting children's oral health, it should be noted that all survey respondents were parents who were engaging with the Starting Well Service, and thus will have been receiving advice and support. It is not possible to know from this survey the confidence levels of parents who have engaged less with support. Likewise, although the free text responses suggest parents understand how to support their child(ren)'s oral health, it cannot be assumed that confidence equates to accurate knowledge.

The majority of respondents stated that their child had not visited a dentist in the last 12 months, however, this may be influenced by the age of respondents' children, as some survey respondents will have had children whose first teeth had not yet emerged.

Respondents were asked how satisfied they were with the advice and support they had received from a range of services (dentist, early years provider, Starting Well Service, internet, hospital/other NHS service) to help their child have healthy teeth and gums. It was notable that almost half of the survey respondents selected N/A for dentist, which may reflect that the majority of respondents had not yet taken their child to a dentist. However, when analysing the free text responses to this question, where respondents could explain their answer if they wished, some respondents flagged that they had had challenges in accessing a dentist. A few respondents also noted that they had not received any oral health advice from professionals.
Over half of survey respondents selected 'N/A' for early years provider and for hospital/other NHS service, although this may be because respondents had not yet used these services. The majority of respondents rated the advice and support they had received from the Starting Well Service as either excellent or good, with no respondents rating the advice from Starting Well as very poor. Respondents were also generally favourable about the advice available on the Internet.

Respondents were asked what advice would have been helpful for their family, in order to improve their experience, and were given a pre-specified list of options to choose from. The most popular responses were advice on toothbrushing (for example, what toothpaste to use, how to brush a young child's teeth and tips to encourage toothbrushing), and information about risk factors for tooth decay. However, for all options, the majority of respondents felt that this advice was not needed, suggesting that most respondents had already received or were already aware of this information. Where respondents identified other advice which would have been helpful (not included in the pre-specified list), this included advice on the type of toothpaste to use and how to get access to a dentist on the NHS.

Respondents also had the option of leaving comments on their experience of accessing the dentist. Many respondents had had positive experiences with dentists. However, a notable number of respondents expressed that they had had challenges in accessing NHS dentistry. A small number of respondents noted that their dental practice was not child friendly.

5. Evidence of what works

Tooth decay in children is almost entirely preventable. To prevent tooth decay, the evidence indicates the importance of:

- Regular tooth brushing with a fluoride toothpaste containing the recommended amount of fluoride[7], twice per day.
- Reducing the amount and frequency of sugar consumed.

[7] The minimum amount of fluoride which a child's toothpaste should contain varies depending on the child's age and risk of decay, as is summarised in Delivering better oral health: an evidence-based toolkit for prevention (OHID, 2021).

- Regular visits to the dentist, as often as recommended, and as soon as teeth erupt.

The Scientific Advisory Committee on Nutrition (SACN) recommend that the average intake of free sugars for all age groups from two years upwards should not exceed 5% of total dietary energy intake. However, national evidence suggests that all age groups are exceeding sugar intake recommendations. Although there are not specific guidelines for sugar intake in children aged under two, evidence also suggests that children aged one and a half to three years are exceeding the recommended sugar intake for an adult.

Likewise, it is well-recognised that children's oral health is affected by inequalities in income, education, employment and neighbourhood circumstances. The following section therefore outlines the evidence base in relation to oral health improvement programmes which can be implemented at a population level to improve children's oral health and reduce inequalities.

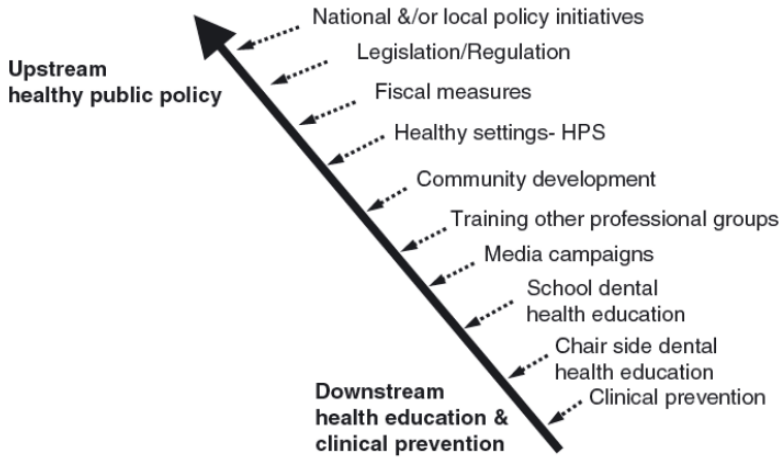
5.1 Local authorities improving oral health: commissioning better oral health for children and young people

Guidance on commissioning better oral health for children and young people (CBOH) was published by Public Health England in 2014 to support local authorities to commission oral health improvement programmes for children and young people (up to 19 years). The review considered interventions which could be implemented within a community-based programme but not individual clinic-based dental interventions.

Four assessment criteria were used to determine whether an intervention should be recommended. These were the strength of the evidence, an intervention's likely impact on reducing inequalities, cost/resource implications and implementation issues (how deliverable the intervention is). CBOH highlights that no single 'magic bullet' for oral health improvement exists, but rather that a good practice approach would be to commission a range of upstream, midstream and downstream interventions, based on the oral health needs of a population (see Figure 9). This may involve some universal, and some targeted provision to address oral health inequalities. CBOH also highlighted the importance of partnership working, and the opportunities which exist across the commissioning landscape to embed oral health improvement in all children's services at strategic and operational levels.

Figure 9: Upstream/downstream options for preventing oral disease

Figure 2.4. Upstream/downstream: options for oral disease prevention



Source: Watt RG. From victim blaming to upstream action: tackling the social determinants of oral health inequalities. Community Dent Oral Epidemiol 2007; 35: 1–11

The oral health interventions recommended by CBOH are outlined below:

- Oral health training for the wider health, social care and education workforce, to support oral health improvement in their daily role and ensure the oral health messages being delivered to children and families are appropriate and consistent. CBOH determined that sustaining and developing the children and young people's workforce is key.
- Integration of oral health into targeted home visits by health/social care workers, so that oral health support is provided during their visits. For example, integrating key oral health messages into the Family Nurse Partnership programme, and the Troubled Families programme (now named Supporting Families Programme). However, regular update training is required for health workers carrying out home visits.
- Targeted community-based fluoride varnish programmes (where fluoride varnish is applied to children's teeth outside of dental practices). Whilst there is strong evidence of effectiveness of fluoride varnish in preventing tooth decay, to have a positive impact on inequalities, there must be appropriate targeting of high-risk populations, as well as high rates of consent, compliance and retention.
- Targeted provision of toothbrushes and toothpaste (by post or through health visitors). Sustainability is important with toothbrush and toothpaste provision as there is limited benefit of one-off provision. Engaging with health visitors is also important to ensure support for the programme and the consistency of messaging.
- Supervised tooth brushing in targeted childhood settings. Supervised toothbrushing has the most benefit for those with the worst oral health but its positive impact on inequalities depends on appropriate targeting of high-risk populations, as well as high consent rates, compliance and retention. Successful implementation also depends on engaging with parents, schools

and early years' settings, and staff require ongoing training and support. The evidence for supervised toothbrushing is based on two-year programmes.

- Healthy food and drink policies in childhood settings. These policies have the potential for wider public health benefits in addition to oral health and can have a positive impact on inequalities by creating a more health promoting environment. However, multi-component, whole school approaches are more likely to be successful than single interventions, and active involvement of parents and links with the home environment are also important.
- Targeted peer (lay) support groups/peer oral health workers. There is extensive evidence supporting peer support in wider public health programmes (for example breastfeeding), although there is more limited evidence for using peer support for oral health programmes. However, interventions which improve social support may be of greater benefit to more disadvantaged groups.
- Influencing local and national government policies, for example inputting into planning decisions.
- Fluoridation of public water supplies

In considering the above interventions, opportunities for co-creation should be considered. CBOH highlighted that services which are co-created with professionals, children, young people, families and wider communities are deemed more likely to produce sustainable improvements in health outcomes.

CBOH also classified some interventions as emerging. These interventions were often interventions that had inconclusive or little evidence to support their effectiveness, however the intervention looked promising in terms of its impacts on inequalities, its deliverability and its cost. CBOH noted that local authorities may want to commission emerging oral health improvement interventions, particularly where these interventions are strategically aligned with wider public health and wellbeing strategies (such as infant feeding policies).

Emerging interventions were:

- School or community food co-operatives,
- Fiscal policies to promote oral health,
- Infant feeding policies to promote breastfeeding and appropriate complementary feeding practices.

While ensuring good access to dental services is important, CBOH noted that interventions to facilitate access to dental services are not enough on their own to improve oral health. These approaches were deemed to have limited value without the reorientation of healthcare services towards a more preventive approach. Likewise, services must be appropriate for targeted population groups and able to meet demand. Schemes to facilitate access to dentists can also increase inequalities unless appropriately targeted because uptake may not increase for people who are most in need of care.

5.2 Inequalities in oral health in England

It is well-recognised that, to reduce the gradient in health, action should not focus solely on the most disadvantaged. Instead, all children should receive some support through universal oral health interventions, while children that are particularly vulnerable should receive additional targeted interventions and support. The benefits of such an approach can be seen through the Scottish national oral health improvement programme, Childsmile[8]. The Childsmile programme includes universal daily supervised toothbrushing in nurseries, and also more targeted interventions, such as a targeted nursery and school fluoride varnish programme and targeted supervised toothbrushing in primary schools. Early evaluation of the national nursery toothbrushing initiative demonstrated that the most deprived children showed a greater decrease in mean d3mft (decay into the dentine, missing or filled teeth) in the post-intervention periods compared with the least deprived children.

Strategies to reduce health inequalities also require action across all the social determinants of health. The environments in which children and young people live need to encourage healthier lifestyles. Taking action to address the underlying causes of health inequalities (upstream actions), for example creating healthy policies, should therefore be combined with downstream interventions. To achieve a measurable impact on inequalities, a joined-up approach is also needed, with attention paid to system, scale and sustainability.

Whole population interventions are deemed more likely to reduce inequalities in children's oral health. By contrast, evidence indicates that educational information-based interventions may widen inequalities (Public Health England, 2021).

5.3 NICE guidance

NICE Public Health Guideline 55 (PH55), 'Oral health: local authorities and partners' highlights that to achieve good oral health for the population, the support and commitment of a wide range of partners is needed.

NICE recommend that oral health should be a key health and wellbeing priority, incorporated within joint strategic needs assessments and the local health and wellbeing strategy. It is also recommended that an oral health needs assessment is carried out, using a range of data sources, as part of a cyclical planning process (and not as a one-off exercise). This needs assessment should then be used to produce an oral health strategy.

Other recommendations from NICE with particular relevance to children and young people include:

Healthy environments

[8] https://www.childsmile.nhs.scot/

- Local authorities and other commissioners and providers of public health services should ensure that public service environments promote oral health through:
  - Making plain drinking water available for free.
  - Providing a choice of sugar-free food and drinks (water or milk)
  - Encouraging and supporting breastfeeding
- Local authorities, school governors and head teachers should raise awareness of the importance of oral health, as part of a 'whole-school' approach in all primary schools and secondary schools.

Integration of oral health into existing programmes for children and young people

- Advice and information on oral health should be included in health and wellbeing and disease prevention policies for children and young people and adults, e.g. alongside information about the common risk factors for ill health.
- Oral health promotion should be incorporated into existing services for all children, young people and adults at high risk of poor oral health (e.g. through service specifications).
- Local authorities should ensure that all early years services include advice about oral health in the information they provide on health, wellbeing, diet, nutrition and parenting. Tailored information and advice should also be provided for groups at high risk of poor oral health.

Training

- Local authorities and other commissioners should ensure that service specifications include the requirement for frontline health and social care staff to receive training in promoting oral health so that they are able to give advice on the importance of oral health.
- Regular training should be commissioned for frontline health and social care staff working with groups at high risk of poor oral health.
- A requirement to promote oral health and train staff in oral health promotion should be included in specifications for all early years services, including services delivered by midwives and health visiting teams, early years services, children's centres and nurseries, and child care services. Staff in these services should receive training at their induction and at regular intervals.

Service provision

- The local authority should consider commissioning supervised toothbrushing schemes for early years settings in areas where children are at high risk of poor oral health. Where supervised toothbrushing is not feasible (or in addition to supervised toothbrushing where resources allow), a community-based fluoride varnish programme should be considered for nurseries in areas where children are at high risk of poor oral health (for children aged 3 years and older).
- Local authorities should consider giving midwives and health visitors free toothbrushing packs to offer to families at high risk of poor oral health. These packs should be distributed alongside information on when and how to brush teeth, a practical demonstration and information about local dental services.
- Local authorities should consider commissioning supervised toothbrushing schemes for primary schools in areas where children are at high risk of poor oral health.
- Where supervised toothbrushing is not feasible (or in addition to supervised toothbrushing where resources allow), local authorities should consider

commissioning a community-based fluoride varnish programme for primary schools in areas where children are at high risk of poor oral health.

- Local authorities, school governors and head teachers should introduce specific schemes to improve and protect oral health in primary schools in areas where children are at high risk of poor oral health. This can include ensuring trained staff set up and run toothbrushing schemes, supporting fluoride varnish programmes commissioned by local authorities, and providing opportunities for staff to talk with parents or carers about improving their children's oral health.

5.4 Water fluoridation

There is no single fluoride delivery system that is wholly effective by itself, therefore a range of interventions should be considered to increase exposure to fluoride based on local need.

5.5 Breastfeeding and oral health

Exclusive breastfeeding is recommended for the first six months of life with continued breastfeeding alongside solid foods for two years and beyond (PHE, 2019). Breastfeeding up to 12 months of age is associated with a decreased risk of tooth decay (PHE, 2019).[9] However, the prevalence of breastfeeding in the UK remains low.

Delivering Better Oral Health[10] (OHID, 2021) and Health Matters: Child Dental Health (PHE, 2017) are clear that health professionals such as midwives and health visitors should support and encourage women to breastfeed. Creating the right environments to support breastfeeding is also crucial.

More information on breastfeeding, including local data and a summary of the evidence base for supporting breastfeeding, is available in the Breastfeeding Chapter of the 0-19 JSNA.

6. Identifying needs and gaps

As can be seen in Appendix A, there are a variety of oral health improvement initiatives for children and young people in Cheshire West and Chester, some of which are targeted at the children most vulnerable to dental decay, and some of which are universal. However, there are certain evidence-based interventions which are not in place in Cheshire West but are being trialled and/or used effectively

[9] Studies investigating oral health and breastfeeding where children were breastfed beyond 12 months are of low quality due to not accounting for the food and drinks being consumed once children were no longer exclusively breast or formula fed (PHE, 2019).

[10] Delivering Better Oral Health (PHE, 2017) recommends that:

•breast milk is the only food or drink babies need for around the first 6 months of their life, and first formula milk is the only suitable alternative to breast milk.

•bottle-fed babies should be introduced to drinking from a free-flow cup from the age of 6 months and bottle feeding should be discouraged from 12 months old.

•only breast or formula milk or cooled, boiled water should be given in bottles.

•only milk or water should be drunk between meals and adding sugar to foods or drinks should be avoided.

elsewhere in England. For example, peer support for oral health is currently being trialled in Liverpool, where a two-year parent champions programme[11] is being developed to provide peer support to families with children and young people who have or are at risk of poor oral health outcomes. A Kind to Teeth Parent Champions project was also piloted successfully in Blackburn with Darwen in 2021/22. Volunteer parents were trained to share key messages with other parents around healthy drink options for positive oral health outcomes in the early years.

Reflecting the importance of having a children's workforce who are appropriately trained in oral health promotion, Hull City Council made oral health part of mandatory training requirements for health visitors during the recommissioning of the 0-19 public health nursing services in Hull in 2015/16. Although staff in the Starting Well Service, who deliver the bulk of oral health promotion activity in Cheshire West and Chester, are provided with oral health training, sourcing training (previously provided by dental health services) has been challenging in recent years. Further consideration may therefore be needed to ensure that staff working with children and young people in Cheshire West and Chester are able to easily access oral health training.

It is clear that there are opportunities to add value to existing programmes for children and young people by integrating oral health improvement, for example, including oral health advice in the Personal Child Health record (Red book), ensuring Infant Feeding Strategies are consistent with oral health information, and including educational oral health programmes in parenting classes. Opportunities to integrate oral health into existing peer support programmes may also be beneficial, given that interventions which improve social support may be of greater benefit to more disadvantaged groups. However, given the growing proportion of five-year-old children with dentinal decay in Cheshire West, commissioning additional services (where resources allow) may be an area for consideration.

Likewise, although NHS data shows that access to NHS dentistry for children in Cheshire West and Chester has improved since the onset of the Covid-19 pandemic, feedback from parents suggests that access to NHS Dentistry is still challenging for some families. This adds further impetus for enhancing the oral health promotion offer for children and young people in Cheshire West and Chester.

7. Conclusions

Despite being largely preventable, in 2021/22 25.4% of five-year-old children in Cheshire West and Chester were found to have visually obvious dentinal decay. It is also apparent that there are recognisable inequalities in children and young people's oral health in Cheshire West, with children living in more deprived areas having higher rates of admission to hospital for tooth extractions due to dental decay than

[11] Parent champions provide encouragement and support to parents and families, including providing advice on how to prevent poor oral health, supporting parents to access primary dental care, promoting supervised toothbrushing and distributing toothbrushes and fluoride toothpaste.

children living in less deprived areas. There is also likely a higher level of oral health need amongst vulnerable groups of children, such as refugees and asylum seekers.

Access to NHS dentistry remains an issue for some families in Cheshire West. Whilst it is important to ensure that dental services are accessible for all children, so that children are able to access high quality treatment and preventative care, dental access alone is not enough to improve oral health and reduce inequalities. This JSNA therefore makes a series of recommendations for improving the approach to oral health improvement for children and young people in Cheshire West and Chester.

8. Recommendations for the 0-19 Partnership

- Consider a peer support service for oral health or expanding an existing peer support service to include a specific focus on oral health improvement.
- Explore opportunities to further integrate oral health improvement into core services working with children, young people and families. This should include consideration about how to best upskill and train staff (where funding allows).

9. Recommendations for the wider system

- Consider convening an oral health improvement strategic group with the initial task of using the JSNA findings to produce an oral health improvement strategy for children and young people in Cheshire West and Chester.
- In order to ensure children get the best possible start in life, it is important to focus oral health improvement activities on the early years. The Public Health Team should ensure that key messages from Food Active's Kind to Teeth campaign are cascaded to the early years' workforce, including early years practitioners and the 0-19 Service.
- Engage with primary and secondary schools in Cheshire West and Chester to understand how they are incorporating oral health into whole school approaches to health and wellbeing.
- Ensure that oral health data from the 0-19 JSNA feeds into the ongoing mapping work being conducted by the NHS to inform the CORE20PLUS5 approach for children and young people.
- Ensure that findings from this JSNA in relation to dental access are shared with dental commissioners.
- Explore opportunities to further integrate oral health improvement into core services working with children, young people and families. This should include consideration about how to best upskill and train staff (where funding allows).
- Explore opportunities for enhanced oral health surveys in Cheshire West and Chester as part of the National Dental Epidemiology Programme (where funding allows). This will help to develop our understanding of inequalities in oral health, as some of the data used in this JSNA (for example data relating to children in special schools) is almost ten years old.

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11. Appendix A: Oral health service provision in Cheshire West and Chester

11.1 Starting Well Service

In Cheshire West and Chester, the Starting Well 0-19 Service encompasses health visiting, school nursing, Family Nurse Partnership, and the Children's Centre core offer. The Starting Well Service deliver oral health promotion to all children and families by sharing key oral health messages through their regular service delivery

and by supporting oral health campaigns (for example, World Oral Health Day). This includes integrating oral health advice into the Healthy Child Programme mandated contacts, integrating oral health advice into home visits with families, and integrating oral health information into educational activities with children and young people. Children in Care also receive targeted oral health promotion as part of Review Health Assessment completion.

Oral health packs (containing a toothbrush, toothpaste and an oral health promotion leaflet) are distributed by the service to a targeted cohort of 0-2s who have been identified as more likely to develop dental decay. These priority families are given additional support and receive an oral health pack at five key contacts from birth to two years (new birth visit, 6-8 week review, one year developmental review, two year developmental review and two year funding appointment).

The children eligible for oral health packs are those children who are living in one of the 30% most deprived Super Output Areas, children who are eligible for 2 year funding, children who have a special educational need and/or a disability, children who have been discussed at a Multi-Agency Risk Assessment Conference (MARAC), children who are currently being supported on a Universal Plus/ Universal Partnership Plus care pathway and children whose family is receiving foodbank vouchers.

11.2 Koala North West

Koala North West provide a range of early years services in Chester and Ellesmere Port. Although these services are not specific to oral health, they promote public health messages, including the importance of good oral health.

Koala's Starting Young Service, for families with a child aged 0-5 who are living in Ellesmere Port, is a peer support service focused on healthy lifestyles, including reducing sugar intake. The Starting Young Service is due to end in September 2023.

11.3 Work with schools

Cheshire West and Chester Council commission Food Active, a healthy weight programme. Through Food Active, the local authority has access to a variety of materials which can be used by schools and early years settings to promote healthy eating and good oral health. Cheshire West's Eat Well Be Active Reference Group have promoted some of these resources to schools, including the Give Up Loving Pop (GULP) fizzy drinks campaign targeted at Key Stages 2 and 3, and the Kind to Teeth campaign, which aims to raise awareness of the health risks of consuming too many sugar sweetened drinks, with a focus on the early years.

As part of Eat Well Be Active's work around healthy eating, Edsential, the school food provider, have also reviewed their menu in order to reduce the sugar content, and from September 2022 are only offering chilled water rather than juice.