Children’s oral health

Introduction

The need to improve children’s oral health is recognised as a major public health issue, both in this country and globally. Child tooth decay has been described as “a highly prevalent worldwide disease that has high costs to society and has a major impact on parents’ and children's quality of life”, while a recent series on oral health in The Lancet said that oral diseases such as tooth decay represent “a global public health challenge”. In the UK there has been rising awareness in recent years of the impact that tooth decay has on children’s wellbeing and the need to address the problem.

As well as being distressing in itself, tooth decay can have wider consequences for children, such as making it difficult for them to sleep, eat, socialise and putting them at risk of developing acute sepsis. Dental pain caused by decay can also be detrimental to performance at school, affecting children’s concentration in lessons and potentially requiring them to take time off for dental appointments. At worst, children with untreated tooth decay may require multiple dental extractions under general anaesthesia.

In January 2015, the Faculty of Dental Surgery (FDS) at the Royal College of Surgeons began campaigning on this issue with the publication of its report into The state of children’s oral health in England. Since its release, there have been several significant policy developments relevant to our efforts to highlight the serious consequences of child tooth decay. These include the implementation of a soft drinks industry levy across the UK to encourage the reformulation of high sugar drinks, and the introduction of a new “Starting Well” scheme by NHS England to improve the oral health of young children in 13 areas with high levels of decay. The recent Prevention Green Paper, published at the end of Theresa May’s tenure as Prime Minister, also included several commitments aimed specifically at improving children’s oral health.

While important progress has been made, it is vital that policy-makers and the oral health profession remain focused because there is undoubtedly more that needs to be done. Analysis by the FDS has found that in the period since the publication of The state of children’s oral health in England, there have been over 100,000 hospital admissions for children aged under 10 due to tooth decay. This is despite the condition being almost entirely preventable through simple steps such as brushing twice a day with appropriate strength fluoride toothpaste, visiting the dentist regularly and reducing sugar consumption.

This statement updates the FDS position on children’s oral health in light of developments since 2015, and sets out a series of recommendations that describe...
how the government can build upon what has already been achieved. It focuses on three key areas central to eliminating child tooth decay: (1) prevention; (2) access; and (3) education.

The state of children’s oral health in England – an update

The latest statistics on children’s oral health reveal a mixed picture of progress in addressing the problem. There have been some encouraging reductions in the prevalence of child tooth decay at a national level, but inequalities remain between children in different parts of the country. They also show that hospital admissions for tooth decay, which often lead to tooth extractions under general anaesthetic, remain stubbornly high for young children, particularly those aged five to nine.

Public Health England’s Oral Health Survey of Five Year Old Children is one of the main sources of data on how standards of children’s oral health are changing. The most recent edition provided figures for 2017, and showed that across England as a whole 23.3% of five year old children had visible decay – a reduction from the previous edition of the survey, which found that 24.7% of five year old children had tooth decay in 2015. While this is unquestionably good news, the data also show that at a local level the proportion of five year olds with tooth decay increased in just over a third of local authorities between 2015 and 2017.

Moreover, the survey revealed some marked inequalities in children’s oral health. Public Health England’s analysis shows that 33.7% of five year old children living in the most deprived areas of England have tooth decay, compared with just 13.6% of those in the least deprived areas.

The FDS has also highlighted that on a regional basis the proportion of five year old children with tooth decay increased between 2015 and 2017 in the North West (from 33.4% to 33.9%), West Midlands (from 23.4% to 25.7%) and Yorkshire and the Humber (from 28.5% to 30.4%), despite the overall fall at a national level. Although the prevalence of child tooth decay in each of these areas is below levels seen when comparable data was first published in 2008, the period between 2015 and 2017 was the first time any of these regions recorded a rise, demonstrating the need to maintain a focus on improving children’s oral health to ensure long-term gains are not lost. Separately, figures from NHS Digital reveal that tooth decay remains a prominent cause of hospital admissions for young children. In particular, amongst five to nine year old children tooth decay has been the leading cause of hospital admission in each of the last three years for which data is available (2015-16 to 2017-18) by a considerable margin. Acute tonsillitis was the second highest reason for hospital admissions amongst five to nine year old children during this period, but caused less than half as many admissions as tooth decay.

In total there were 102,663 hospital admissions due to tooth decay amongst children under the age of 10 between April 2015 and March 2018, highlighting the need for continued action to address the issue.

Progress since 2015

There have undoubtedly been a number of important steps forward since publication of the original FDS report on The state of children’s oral health in England in January 2015. The NHS Long Term Plan, which was published at the start of this year and set the strategic
direction for the NHS for the next decade and beyond, explicitly recognised the importance of improving children’s oral health.\textsuperscript{11} There have also been a several other significant policy developments over the last four years, including:

- **Child Oral Health Improvement Programme Board**: Public Health England launched the Child Oral Health Improvement Programme Board (COHIPB) in September 2016, which brings together organisations from across the health, social care, education and voluntary sectors (including the FDS) with a shared ambition that every child should grow up free from tooth decay as part of getting the best start in life. The COHIPB has played a significant role in galvanising action around children’s oral health and has helped to drive much of the progress that has been made to date. \textit{The FDS believes it is essential that government maintains the COHIPB moving forward as well as Public Health England’s programme of epidemiological research, such as the Oral Health Survey of Five Year Old Children, which provides vital intelligence about the prevalence of child tooth decay at both national and local level.}

- **Starting Well**: NHS England has launched an initiative known as “Starting Well 13”, which works with general dental practices in 13 local authorities in England with particularly poor oral health outcomes (the areas were chosen on the basis of decay experience at a local authority level). The “Starting Well 13” programme focuses on very young children who are not yet visiting a dentist, and delivers interventions and advice for parents aimed at reducing children’s sugar consumption and increasing their exposure to fluoride. Other local authorities are supported by the “Starting Well Core” initiative, through which NHS England has made a commissioning approach available to local dental commissioning teams that aims to improve oral health for 0-2 year old children and reduce inequalities.\textsuperscript{12}

- **Soft drinks industry levy and sugar reformulation programme**: The government legislated to introduce a soft drinks industry levy in April 2018. This aimed to encourage the reformulation of high sugar drinks in order to reduce sugar consumption in children and address known public health problems such as obesity, diabetes and tooth decay. It has also introduced a wider sugar reformulation programme, which has set the objective of reducing the sugar content of products regularly consumed by children by 20\% by 2020, although at present the targets remain voluntary and some concerns have been raised about whether they will be met without further direct action.

- **Personal Child Health Record**: The Personal Child Health Record, sometimes known as the “red book”, is a national standard health and development record, which is given to parents or carers when a child is born. This now includes a specific section on dental health that enables parents to monitor when their child’s teeth start to appear and reminds them about the importance of seeing a dentist.

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An electronic version of the red book is now being developed and the FDS believes it is important that the oral health content is retained within this.

As well as measures which have already been implemented, further important commitments were also made by the government in Chapters 1 and 2 of its Child Obesity Plan. These have recently been the subject of several public consultations, but have yet to be fully introduced. Such measures include:

- **Restricting promotions:** Proposals have been put forward to restrict price and location promotions for products high in fat, sugar and salt (HFSS). These include "multi-buy" promotions such as Buy One Get One Free offers, and promotions which involve the prominent placement of HFSS products at checkouts or the end of shopping aisles.

- **New regulations for junk food advertising:** The government has also consulted on options for tightening regulations around advertising HFSS food and drinks. Its proposals included preventing such adverts been shown on TV or online before the 9pm watershed. Research suggests that these measures enjoy strong public support, with one survey suggesting that 72% of people supported a 9pm watershed on junk food adverts during popular family TV shows, and 70% supported a similar watershed for junk food adverts online.\(^{13}\)

- **Energy drinks:** The Child Obesity Plan also featured a commitment to ban the sale of energy drinks to children. While some supermarkets already do this on a voluntary basis, the government has consulted on making this a national policy. A ban on selling energy drinks to children would be beneficial from an oral health perspective as the high acid content of energy drinks can contribute to problems such as tooth wear.

In addition, the government also published its Prevention Green Paper shortly before Theresa May left office as Prime Minister. This included a number of proposals aimed specifically at improving children’s oral health, including plans to deliver supervised tooth brushing programmes to more disadvantaged children in England by 2022, and to reduce the financial barriers that local authorities face to fluoridating their water supplies. The Green Paper also indicated that consideration would be given to extending the soft drinks industry levy to include sugary dairy drinks if these fail to meet reformulation targets, and that government planned to work with the baby food industry to reduce the sugar content of such products.

Substantial momentum has therefore built up in recent years around the importance of tackling child tooth decay, and the need for ambitious policy measures to achieve this. However, it is vital that government does not lose focus on this issue, particularly with a new administration having recently taken office. Therefore, in the following sections the FDS sets out a series of recommendations aimed at building on the considerable progress made in recent years in three different areas: prevention, access and education.
Key recommendations

1. Prevention

Tooth decay is almost entirely preventable. This means that preventive initiatives will be a central part of addressing the problem. Two key priorities for preventing child tooth decay, which have been agreed by the FDS and all other members of the COHIPB, are to increase children’s access to fluoride and decrease their exposure to sugar. There are a number of measures that the FDS believes should be taken to achieve this.

Supervised tooth brushing

Supervised tooth brushing schemes have been successfully implemented in Scotland and Wales for a number of years. They form a key component of Childsmile and Designed to Smile, national child oral health improvement programmes that have been introduced in the two nations over the last decade, which have played an important role in reducing levels of tooth decay. Supervised tooth brushing initiatives help to ensure that children develop the habit of brushing regularly with a fluoride toothpaste from an early age, which is an essential part of maintaining good oral health.

In England some local authorities run their own supervised tooth brushing schemes, but unlike Scotland and Wales there is currently no national programme in place. However, as set out in the previous section, the Prevention Green Paper included a commitment to expand the provision of these initiatives in English pre-school settings and primary schools. It indicated that the government planned to consult in 2020 on proposals that would enable it to reach the most deprived 3 to 5 year olds in all parts of the country, with the objective of reaching 30% by 2022.

This is a positive step, as evidence indicates that supervised tooth brushing programmes are cost effective and straightforward to implement. Analysis by Public Health England suggests that every £1 invested in targeted supervised tooth brushing schemes yields a return of more than £3 after five years. Furthermore, a feasibility study has found introducing such initiatives in English early years settings would be “easily manageable” with low cost implications.14

The FDS supports the proposal in the Prevention Green Paper for the expansion of supervised tooth brushing programmes in England, and would like to see this implemented as soon as possible. Ideally we would like these schemes to be in place before 2022 so that more children at risk of tooth decay can benefit.

Promotions and advertising

Excessive sugar consumption is the main cause of tooth decay. Sugar facilitates acid formation by oral bacteria within dental plaque, which can demineralise and cavitate tooth enamel leading to rapid decay. Some estimates suggest that the average five year old consumes their own body weight in sugar each year, posing a significant risk to oral health.15

As mentioned previously, the government promised to introduce a number of significant measures to address high sugar consumption in Chapters 1 and 2 of the Child Obesity Plan. It is vital that the new administration stands by these previous commitments on sugar reduction. In particular, proposals to restrict price and location promotions for HFSS products, and to tighten regulations on TV and online advertising, must be implemented in full as evidence suggests these can be impactful in reducing consumption.16

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Soft drinks industry levy

The FDS welcomed the introduction of the soft drinks industry levy in April 2018. This has been an effective intervention. An evaluation conducted for Public Health England found that there had been a reduction in the sugar content of the drinks covered by the levy as manufacturers have reformulated, and that the levy also helped drive a shift in sales towards products with a lower sugar content. The FDS believes that the health benefits of the soft drinks industry levy are clear and that the new administration must commit to maintaining it.

In addition, we support the extension of the levy to include sugary dairy drinks, and also believe that consideration should be given to further widening its scope to include other products which do not meet voluntary reformulation targets.

Furthermore, the FDS would like to see some of the revenue raised by the levy used to fund oral health improvement programmes, given the key role that excessive sugar consumption plays in causing tooth decay.

Sugar free schools

The FDS also believes that limiting the availability of sugary food and drinks in schools is an essential part of improving children’s oral health. Chapters 1 and 2 of the Child Obesity Plan included several relevant commitments about schools. They suggested that the government would review the School Food Standards with a particular emphasis on sugar reduction, and provide guidance for caterers to support them in making the required changes. The government also said that it would encourage all academies and free schools, some of which are exempt from the Standards, to comply.

The FDS views these measures as a crucial first step in reducing sugar consumption in schools, and any commitments which are still outstanding should therefore be implemented as a matter of urgency.

However, we would also like to see the government go beyond this, and believe that all schools should be encouraged to become sugar free. A recent report by the London Assembly Health Committee, which received evidence from a wide range of dental stakeholders, highlighted that this approach has already been successfully adopted by some schools in London and the FDS would like to see it implemented across the country.

As part of this initiative, we would also support the publication of nutritional guidelines for packed lunches, something that has previously been proposed by the Commons Health Committee and the APPG on School Food as a way of reducing the amount of sugary food and drinks that children take to school from home.

Other preventive actions

There are several other preventive measures that the FDS believes would make an important contribution to tackling child tooth decay.

We support the introduction of water fluoridation in areas where oral health is particularly poor. This has been described by Public Health England as “an effective and safe public health measure to reduce the frequency and severity of dental decay, and narrow differences in dental health between more and less deprived children and young people”. The FDS therefore welcomes proposals set out in the Prevention Green Paper to explore ways of removing the funding barriers that local authorities face to fluoridating their water supplies, and
enabling them to keep more of the savings that result from improved oral health. We hope that the new administration will take these forward.

The Prevention Green Paper also included commitments around improving the nutritional content of commercial baby foods. This is important as research by Public Health England has highlighted that such products can contain added sugar, or ingredients with a high sugar content, despite feeding advice for infants making clear that sugar should not be added to infants’ food and that their sugar consumption should be reduced. The early years are a critical time for establishing good nutrition throughout life, and the FDS agrees that action must be taken to reduce the sugar content of commercial baby foods.

Lastly, the FDS is also aware that local authority public health budgets have been under intense pressure for a number of years. This impacts on a wide range of work undertaken at a local level, which can affect oral health as well as local authorities’ capacity to tackle other long-term health challenges such as obesity and diabetes. We believe that the government should work towards delivering sustainable funding for public health, and that at the very least there should be no further cuts to local authority public health budgets.

2. Access

Children’s ability to access preventive dental services is essential to ensuring they maintain good oral health. Regular visits to the dental team ensure that a child’s oral health can be closely monitored as they grow up, and that any problems can be identified and addressed at an early stage. However, data from the NHS Dental Statistics for England show that 41.4% of under-18s did not visit an NHS dentist during 2018, rising to 77.0% of young children aged between one and two. This is despite the fact that NHS dental treatment for under-18s is free, and that guidance from the National Institute for Health and Care Excellence recommends that all children should see a dentist at least once every 12 months.

Dental contract reform

One key development that would help to improve access to primary care dental services is reform of the existing NHS dental contract. The government is currently piloting new contract models in over 70 dental practices – these aim to provide better incentives for the oral healthcare team to undertake preventive work, and address some of the issues with the existing activity-based contract that was introduced in 2006. The FDS supports these efforts to reform the NHS dental contract, and believes that the a new contract focused on prevention should be introduced at the earliest possible opportunity.

Tackling inequalities in access

We are also aware that concerns have been raised that certain parts of the country are facing particularly acute challenges around dental access. For example, it was reported in June 2019 that the closure of three dental surgeries in Portsmouth would mean that the city would be left without any practices accepting new NHS patients, and while efforts have been made to arrange replacement care the situation was deemed so serious it was debated by Peers in the House of Lords the following month. The FDS believes that all patients should be able to access dental services when they need them, regardless of where they live. Therefore, we would like to see the government commission an urgent
review into the factors affecting access to primary, secondary and emergency dental care, with a view to addressing inequalities in different parts of the country.

3. Education

The third key aspect of ensuring that children are supported to maintain good oral health is education, not only for children and parents themselves but also for the wider health workforce.

In one particularly welcome development, the Department for Education published new statutory guidance on health education in June 2019, which sets out that children should learn about dental health and the benefits of maintaining good oral hygiene in both primary and secondary school.27

Public health campaigns

In addition, there are currently a number of public health campaigns targeted at parents and families which promote important messages relevant to oral health. These include the government’s successful Change4Life and Sugar Smart initiatives which highlight the importance of eating healthily and reducing sugar consumption. Moreover, the FDS – along with a range of other organisations across the dental sector – has endorsed the Dental Check by One campaign, which is co-ordinated by the British Society of Paediatric Dentistry and encourages parents to take their children for their first dental check-up before they turn one.

Raising public awareness of how to maintain good oral health is an essential part of tackling problems such as child tooth decay, so the FDS is highly supportive of all of these initiatives. Furthermore, in order to help address low levels of child dental attendance noted in the previous section, we believe that there is scope for the government to co-ordinate a specific public health campaign highlighting that NHS dental care is free for all under-18s, and that children should visit a dentist at least once a year in line with NICE guidance.

As part of this, consideration should be given to how parents can be reached at moments when they may be particularly receptive to positive messages around oral health, such as in the period after birth.

Training

In addition, it is essential to ensure that public health professionals including health visitors, midwives, community nurses, early years’ workers and pharmacists have a good understanding of oral health so that the messages they deliver to children and parents are consistent. Feeding practises are one example of where this can be important. Public Health England advise that sugar should not be added to weaning foods and drinks for young children,28 and bottle feeding babies with drinks containing natural or added sugars – particularly at bedtime or during the night – has also been recognised as a risk factor for tooth decay.29 It is important that parents are aware of this and public health professionals have a key role to play in disseminating these messages.

In July the Department for Education updated its Early Years Practitioner Level 2 Qualifications Criteria. As part of this, Level 2 practitioners will now be required to demonstrate that they can encourage children to develop good oral hygiene habits, which is an important step forward in embedding an understanding of oral health within the early years workforce.30 Separately, the FDS has developed an e-learning module for parents and health professionals in partnership with University College London and Health
Education England to help improve awareness of how to support children in maintaining good oral health. We have also previously worked with the Centre for Pharmacy Postgraduate Education at the University of Manchester to support the development of learning resources on oral health aimed specifically at pharmacists. These were included in the community pharmacy quality payments scheme for 2018-19, and pharmacy professionals were also signposted towards them as part of a national community pharmacy oral health campaign which took place between May and June 2019.

The FDS is keen to build on these and similar initiatives, and we would ultimately like to see oral health included in pre-registration training for all public health professionals. In addition, the FDS also believes that initiatives such as Mini Mouth Care Matters, which aims to improve oral care delivered to children in hospital for an overnight stay by providing training to medics and allied health professionals, can make an important contribution to children’s oral health.

It is also crucial that the oral health profession itself plays a full role in supporting consistency of messaging to parents. In particular, it is vital that oral health professionals ensure that dental practices are child friendly and that parents with young children are not turned away if they seek an appointment.

**Summary**

Important progress has been made in reducing child tooth decay since the publication of our report on *The state of children’s oral health in England* in 2015. This is now widely recognised as a significant public health issue, and the government has either introduced or proposed a number of policies which would make a genuine difference to addressing the problem. However, with a new Prime Minister having recently taken office, it is crucial that the new administration continues to focus on this issue and that the momentum that has built up in recent years is sustained.

Child tooth decay is largely preventable, and the interventions necessary to do so are very simple: encouraging brushing with an appropriate strength fluoride tooth paste twice a day, ensuring children visit a dentist regularly and reducing the consumption of sugar. If all key stakeholders – including central and local government, the oral health profession and the wider public health community – work together then eliminating child tooth decay is an ambition that is well within reach. In order to achieve this, the FDS has made the following recommendations:

- The Child Oral Health Improvement Programme Board should continue to co-ordinate action to improve children’s oral health, and relevant epidemiological research programmes must be maintained.
- The provision of supervised tooth brushing programmes should be extended in England, as proposed in the Prevention Green Paper. Ideally we would like to see new schemes in place before the current target date of 2022.
- Commitments made in Chapter 2 of the Child Obesity Plan to limit promotions and advertising for high sugar products must be delivered in full.
- The new administration should maintain the soft drinks industry levy and extend this to include sugary dairy drinks. Consideration should also be given to including...
other products that do not meet government reformulation targets. Some of the revenue raised from the levy should be used to fund oral health improvement programmes.

- All schools across the country should be encouraged to become sugar free.
- Government should remove funding barriers that local authorities face to fluoridating their water supplies, as proposed in the Prevention Green Paper.
- Action should be taken to reduce the sugar content of commercial baby foods.
- There should be no further cuts to local authority public health budgets.
- A new NHS dental contract focused on prevention should be introduced at the earliest possible opportunity.
- The government should commission an urgent review into the factors affecting access to primary, secondary and emergency dental care.
- A national public health campaign should be introduced highlighting that all children should see a dentist at least once a year, and that NHS dental care is free for under-18s.
- Oral health should be included in pre-registration training for all public health professionals.

References


6 Comparison of results from the 2015 and 2017 editions of Public Health England’s Oral Health Survey of Five Year Old Children show that the proportion of five year olds with tooth decay increased in 50 of the 133 upper tier local authorities that provided data to both surveys

7 Public Health England (2018) National Dental Epidemiology Programme for England: oral health survey of five year old children in 2017, p. 29 (Figure 25)

8 Royal College of Surgeons, Press Release: Tooth decay in 5 year old children now increasing in some parts of England (15 May 2018)

9 According to NHS Digital’s Hospital Admitted Patient Care Activity Diagnosis datasets, the number of five to nine year old children admitted to hospital due to tooth decay over the last three years were 25,875 (2015-16); 25,923 (2016-17); and 26,111 (2017-18). By comparison, the number of admissions amongst this age
group for acute tonsillitis in the last three years were 11,922 (2015-16); 11,570 (2016-17); and 12,143 (2017-18)

10 Figures taken from NHS Digital Hospital Admitted Patient Care Activity Diagnosis datasets for 2015-16, 2016-17 and 2017-18


12 Further information on Starting Well 13 and Starting Well Core is available at: https://www.england.nhs.uk/primary-care/dentistry/smile4life/

13 Obesity Health Alliance, Press Release: Protect children from all junk food advertising, say health experts – and parents agree (28 February 2019)


18 London Assembly Health Committee (2019) Keeping the Tooth Fairy Away: Child Dental Health Inequalities, p. 4


21 Public Health England (2019) Food and drinks aimed at infants and young children: evidence and opportunities for action, p. 4-7


24 Further information on dental contract reform available at: https://www.nhsbsa.nhs.uk/dental-contract-reform

25 BBC News, MP calls NHS summit on Portsmouth dentist closures (17 June 2019); Portsmouth Times, NHS to rap firm for “breaching contract” and causing Portsmouth dental crisis (1 August 2019)

Department for Education (2019) *Relationships Education, Relationships and Sex Education (RSE) and Health Education: Statutory guidance for governing bodies, proprietors, head teachers, principals, senior leadership teams, teachers*, p. 34, 37


Norman Tinanoff et al, “Early childhood caries epidemiology, aetiology, risk assessment, societal burden, management, education, and policy: Global perspective", *International Journal of Paediatric Dentistry*, Vol 29 (3) Table 1: Examples of risk and protective factors associated with ECC that can be considered for pre-school children

Department for Education (2018) *Early Years Practitioner (Level 2) Qualifications Criteria*, p. 8

Children’s Oral Health Advice e-learning module is available at: [https://www.e-lfh.org.uk/programmes/childrens-oral-health/](https://www.e-lfh.org.uk/programmes/childrens-oral-health/); Centre for Pharmacy Postgraduate Education e-learning resources for pharmacists are available at: [https://www.cppe.ac.uk/gateway/oralhealth](https://www.cppe.ac.uk/gateway/oralhealth)


Further information on the Mini Mouth Care Matters programme available at: [https://mouthcarematters.hee.nhs.uk/about-the-programme/children/](https://mouthcarematters.hee.nhs.uk/about-the-programme/children/)

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