

COVID-19 and the impact on child dental services in the UK

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The SARS-CoV-2 (COVID-19) pandemic has posed significant challenges to the health, social, financial and educational systems globally. While COVID-19 produces very severe illness, and in some cases death, mainly in the elderly, children and young people have been somewhat protected. One per cent to three per cent of COVID-19 cases have been reported in children,^{1,2} with very few experiencing severe symptoms, and up to 15 June 2020 there have only been five known deaths in people aged <16 years in England and Wales. The predicted mortality risk for children is 1 in 5.3 million.³

The UK, like other countries, instituted a lockdown in response. Much has been written about the consequence of lockdown on children's services, such as declining emergency attendances,⁴ delayed presentation and missed childhood immunisation.^{5,6} There are insidious consequences, such as disruption to schooling, especially within disadvantaged families, and the long-term impact will have individual and societal changes, as discussed in a recent BMJ opinion piece.⁶

However, little consideration has been given to oral health, an aspect of child health which is commonly overlooked but deserves to be prioritised due to its impact on general health. As a result of the national lockdown and scaling back on services in England, the Chief Dental Officer (CDO) advised on 25 March that all routine, non-urgent dental care should be stopped and deferred.⁷ Practices were advised to provide a virtual emergency assessment service, mainly using a telephone triage system, and only refer to urgent care hubs for essential clinical treatment.

As a result, children and young people in the UK, including a group of infants who would have been eligible for their first dental visit (365 000, i.e., half of the birth cohort in the previous year),⁸ have been denied access to routine dental care. Even when services resumed in June, the capacity to see patients in National Health Service general dental

practice was restricted. This is in part due to additional personal protective equipment and fallow time requirements, particularly for all aerosol-generating procedures. Many families remain understandably anxious about returning to perceived 'high-risk' environments for non-urgent assessments and treatment.

The interruption of routine care included the cancellation of elective tooth extraction for dental caries under general anaesthetic (GA). While caries is a largely preventable disease, it affects 23% of children aged 5 years in England and is a notable measure of health inequality.⁹ In a recent publication highlighting the indirect consequences of COVID-19, child oral health was conspicuously missing.⁵ This is despite oral health being highlighted in the Royal College of Paediatrics and Child Health's 2020 Child Health Report.

There is still no confirmed timeline for the full resumption of routine GA services for paediatric dentistry and only small numbers of children with the most severe symptoms are being prioritised. In England, over 43 000 children are usually admitted to hospital due to dental caries each year¹⁰; denial of this treatment means the additional potential for these children to suffer with pain and infection. Some children will face being admitted through emergency departments for avoidable surgery as a result. The impact of dental caries on all aspects of life cannot be overemphasised.

Also in response to COVID-19, many health visitor and school nursing duties have been suspended, and in many parts of the UK these workers play a key role in providing oral health advice to vulnerable and high-risk families. The CDO also recommended that all community outreach activities such as oral health improvement programmes and dental surveys should be suspended.⁷

Through these community services and public health initiatives, including the Dental



Check By One campaign,¹¹ momentum was being gained in the fight against dental caries. The impact of COVID-19 on these services jeopardises progress. As healthcare providers, we must find alternative ways of reaching families and champion the needs of this vulnerable group of young people.

First, we should all be promoting and integrating child oral health in our professional practice by making every contact count,¹² using the Mini Mouth Care Matters resources (<https://mouthcarematters.hee.nhs.uk/links-resources/mini-mcm-resources-2/>) particularly for high-risk patients. This can be achieved by providing effective mouth care advice for inpatients, appropriate signposting to local dental services and using oral health resources.^{11 13} Local initiatives like websites summarising key oral health messages and practice (www.derbysmiles.info) could be helpful. We should also advocate for the inclusion of oral health within public health policy. The government has recently launched a national obesity strategy.¹⁴ Obesity and tooth decay are inextricably linked to excess sugar consumption⁹ and require a joined up management strategy. Recent Public Health England publication reported an association between children's weight and dental caries prevalence and severity, even when other potential influences such as deprivation were considered. Children who are underweight or overweight and very overweight were more likely to have experienced dental caries than those of a healthy weight. However, when adjusted for deprivation, ethnicity and water fluoridation status, the likelihood of having dental caries was significantly higher only for those children who are overweight and very overweight (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/844121/BMI_dental_caries.pdf).

The above findings emphasise the importance of addressing the social determinants of health to reduce oral health inequities while also tackling specific factors such as unhealthy diets through a proportionate universalism approach. COVID-19 has exposed societal inequality, which will continue to impact without immediate action. The incidence of tooth decay is doubled in deprived communities⁹ and is impossible to address without tackling social inequality.

Continuous support for water fluoridation is essential. It is a safe, cost effective, public health intervention with proven reduction in the incidence of caries,¹² as well as specifically reducing socioeconomic status inequalities in dental health.^{15 16} Unfortunately, only 14% of the UK water supply is fluoridated.¹⁷

In a recent systematic review, Firmino *et al* concluded that low parental oral health literacy was associated with dental caries among their children.¹⁸ There is therefore a great need for a national initiative to drive oral health literacy with parents and carers as the causes of caries are multifactorial. University College London Institute of Health Equity published a document on local action for improving health literacy to reduce health inequalities in 2015 (<http://www.instituteofhealthequity.org/resources-reports/local-action-on-health-inequalities-health-literacy-to-reduce-health-inequalities-health-literacy-improving-health-literacy-to-reduce-health-inequalities-briefing.pdf>). This approach, when complemented with the work previously done at schools and nurseries, could be effective. We recommend the resurrection of the school-supervised toothbrushing now that children are going back to school. This will help establish and consolidate mouthcare regimes.

As we prepare for an anticipated further COVID-19 waves, these are issues that must be discussed openly. Otherwise, we will come out of the other side of COVID-19 and find out that immunisation, education, cancer and diabetes are addressed but children will have experienced disruption to their schooling, diet and sleep purely because we refused to consider the prevention and management of their neglected dental health.

In conclusion, we recommend that rather than the current default position of delegating the responsibility to dental professionals alone, that all healthcare workers (paediatricians and general practitioners, nurses, midwives and health visitors), parents, schools and other institutions should work collaboratively to tackle child oral health. The cost to the NHS for preventing tooth decay is minimal compared with the cost of extractions under GA (£36 million per year).¹⁹ Tackling child oral health nationally and indeed globally needs a very simple health message, willingness to act and not simply implied actions.

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