

# BRUSH

## optimising toothBrushing pROgrammes in nUrseries and ScHOOLS

A quarter of five-year-old children in England have tooth decay. This figure can rise to 50% in deprived areas of the country. The burden of decay is significant. Decay causes pain and suffering, as well as affecting what children eat, their speech, quality of life, self-esteem, and social confidence. In addition, decay has a wider societal impact on school readiness and attendance. In England, treatment of decay is the most common reason why young children (over 33,000 per annum) are admitted to hospital, costing the NHS over £50 million every year.

Tooth decay is preventable. One key behaviour for preventing tooth decay is toothbrushing with a fluoride toothpaste. For many reasons, toothbrushing behaviours at home are variable. To supplement behaviours at home, nursery and school-based (Foundation and Year 1) toothbrushing programmes have been recommended. These supervised toothbrushing programmes are effective in reducing tooth decay, especially in children at greatest risk and are cost effective. However, uptake and maintenance of these programmes is fragmented with funding coming from a variety of sources and there is considerable variation in how they are implemented.

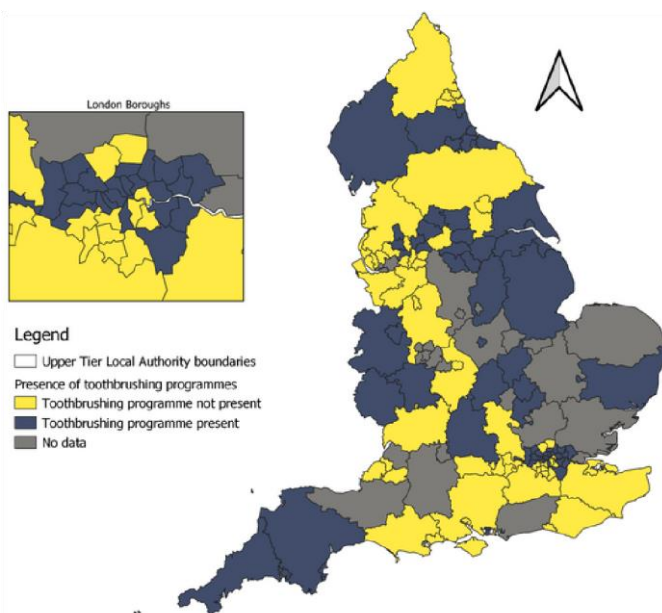
### What we have done

This project is working with a range of stakeholders to learn how best to implement these programmes and how to increase their uptake and success in the longer term. We are using a variety of methods underpinned by implementation and improvement science to undertake this work, including:

- A **national stocktake** survey was undertaken in Spring 2022 of supervised toothbrushing programmes in nurseries and schools and was published in the British Dental Journal (<https://doi.org/10.1038/s41415-023-6182-1>). Information was received from 141 local authorities across England. Further funding has been awarded to undertake two follow-up stocktakes over the next two years. We are currently undertaking the second stocktake (Winter 2024) and will undertake the third stocktake in 2025.
- **Geographical mapping** of toothbrushing programmes across England with variables such as deprivation level, levels of tooth decay in children, number of hospital admissions for tooth extraction under general anaesthetic, dental access, rurality and early-years education data. We will examine the current geographic spread of supervised toothbrushing and how it changes over time using the stocktake survey data.



[ABOUT THE PROJECT | BRUSH Toolkit \(supervisedtoothbrushing.com\)](#)



Results of the stocktake survey - presence of Supervised Toothbrushing Programmes

- **Qualitative interviews** with all the key stakeholders involved in running a toothbrushing programme – Commissioners, Oral Health Trainers/Co-ordinators, Organizations (i.e., nurseries, schools, childminders), Practitioners (i.e., nursery/school staff), parents and children. We have interviewed 153 participants across England to explore in-depth the barriers and facilitators to implementing toothbrushing programmes.
- **Co-design the implementation toolkit** for supervised toothbrushing programmes with stakeholders at all levels of implementation. We are holding sessions with stakeholders to discuss our findings and reflect on what resources are already available, their quality and what the gaps are that need addressing to aid implementation. The outcome of these co-design sessions will be a toolkit that includes resources both to improve implementation and sustain the intervention over time.
- **Pilot testing the toolkit** in a small number of sites who are seeking to develop or expand their toothbrushing programme.

BRUSH is funded by the NIHR ARC South West Peninsula and Yorkshire and Humber through the Children's Health and Maternity National Priority Programme (<https://arc-swp.nihr.ac.uk/research/projects/childrens-health-and-maternity-programme/>)

## Future plans

The toolkit will be freely available. To help local organisations and settings implement toothbrushing programmes, the follow-up stocktake surveys along with case study data will be analysed to monitor implementation and wider scale testing of the implementation toolkit to fully assess its impact.



Hina the Storyteller leading the interactive storytelling session

## Background to the BRUSH project and wider context

We are working with the following local and national bodies to discuss our findings and inform local and national policy.

**National:** Office for Health Improvement and Disparities, NHS England Transformation Programme Team for Oral Health, Department for Education, Designed to Smile (the team behind the national oral health promotion programme in Wales), University of Plymouth, Regional and Beyond PSHE and Healthy Schools network, The Hygiene Bank (a charity) and the University of Trondheim in Norway.

**Local:** The Centre for Applied Educational Research, Department for Education Stronger Practice Early Years Hub – Bradford, Yorkshire and Humber Dental Public Health consultants, Lancashire and Cumbria Oral Health Improvement Group, University of Sheffield, Bradford Improvement Academy, Patient and public involvement and engagement groups (school staff, parents, children).

Poor oral health in childhood has lifelong impacts. CORE20PLUS5 – Children and Young People, is a national NHS England initiative that aims to reduce health inequalities at a national and system level by targeting the most deprived 20% of the population. It identifies oral health as one

## Further information

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Example of a toothbrush rack made by AMS International