

# A service evaluation of the 'Open Wide and Step Inside' school oral health programme

Dr Robert Witton is a dentist, researcher at the University of Plymouth and Chief Executive of the Peninsula Dental Social Enterprise CIC. He leads an oral health education programme, "Open Wide and Step Inside," designed to deliver key oral health messages to school children. A recent service evaluation shows the programme has been well received by schools and children alike. Dr Witton also works with vulnerable groups of adults in order to further address oral health inequalities in the community.

In 2017, almost a quarter of five-year olds had suffered some degree of tooth decay. Tooth decay is a serious public health problem in children and is the most common reason for hospital admission for five- to nine-year olds in England. Despite this, tooth decay is largely preventable, suggesting that oral health education in the UK is substandard in many areas.

The consequences of poor oral health in children are more than just tooth pain and infection, as dental decay can lead to difficulties with eating, sleeping and socialising. The wider impact of childhood tooth decay includes children's wellbeing, readiness to start school, and school attendance. Furthermore, parents and carers may need to take time off work to care for ill children or to take them to appointments.

Dr Robert Witton, Peninsula Dental Social Enterprise CIC and University of Plymouth, identified that, alongside other areas of the UK, Plymouth has significant oral health inequalities. This means that there is a marked difference between the oral health of school children living in deprived areas compared to their peers living in more affluent areas. Dr Witton wanted to develop an oral health improvement programme which could be integrated into school curriculums in Plymouth. Given that there is little evidence agreeing on the most effective way to deliver oral health education, Dr Witton and colleagues needed to base their intervention on the needs of the schools and children who would be implementing it.

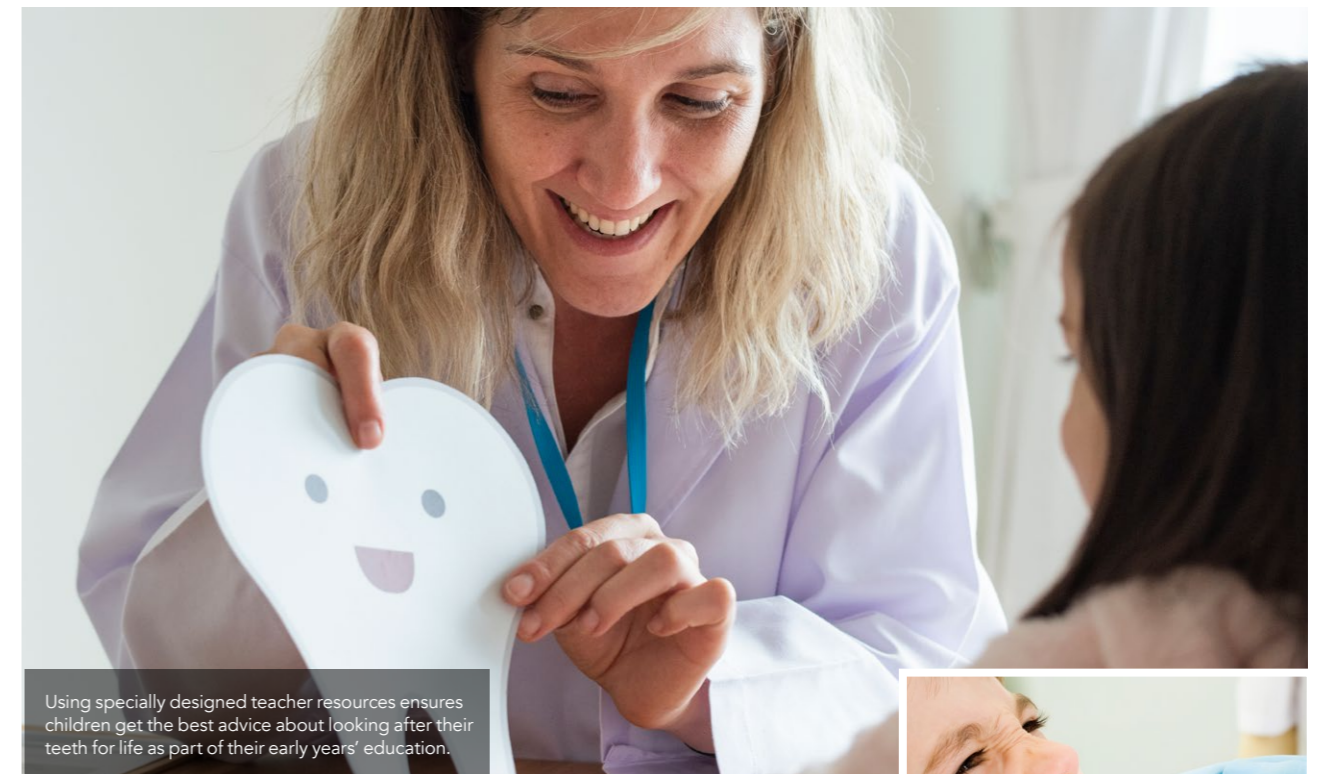
## OPEN WIDE AND STEP INSIDE

Open Wide and Step Inside is a children's oral health education programme. The aim of the initiative is to deliver key oral health messages in schools to children aged four to six years as part of the national curriculum in a fun and creative way, using an interactive cartoon animation.

Well Connected and the Peninsula Dental Social Enterprise CIC (PDSE) originally launched the programme in 2013 with funding from The Wrigley Company Foundation. The programme was initially designed in partnership with stakeholders using a community engagement approach to tailor the programme in the most effective way, and to engage with parties who would be involved in the implementation and support of the programme.

Dr Witton worked closely with a community engagement charity, Well Connected, who work to improve health in the South West of the UK. There are multiple stages at which other community partners have been involved, in addition to the children who will benefit from the programme. For example, the brushing song was created with help from a local music charity, Plymouth Music Zone, with school children also playing a part in its conception.

"Open Wide and Step Inside," is designed to deliver key oral health messages to school children.



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## In 2017, almost a quarter of five-year olds had suffered some degree of tooth decay.

An important part of the programme is to support teachers to deliver key oral health messages throughout the year as part of the key stage one national curriculum. The programme uses specially designed teacher resources drawn from the animation to ensure children get the best advice about looking after their teeth for life as part of their early years' education.

### GEOFFREY THE GIANT

As well as the brushing song, the programme includes a quiz, resource packs for teachers, classroom workbooks, an "Open Wide and Step Inside" story book, and a goody bag containing a free toothbrush, toothpaste and timer, in addition to resources to decorate classrooms.

The "Open Wide and Step Inside" animation tells the story of Geoffrey

the Giant and his reluctance to visit Daisy the Dentist. With the support and encouragement of his friends on his journey to visit Daisy, Geoffrey learns the importance of looking after his teeth. A quiz closes the animation to test what the children have learnt. A two-minute brushing song encourages children to sing-along and learn the main 'take-home' messages of the importance of good oral health.

Since Open Wide and Step Inside began in 2014/15, feedback has been collected through a range of methods to gauge the success of the programme and over 4,000 children have participated in the programme. Through this feedback process, schools have reported the positive impact the programme has had on school culture and curriculum. For many it has resulted in wider benefits

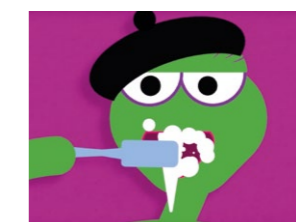
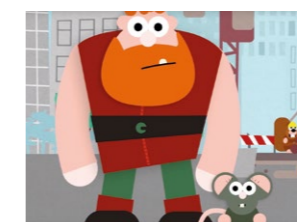


A serious public health problem, tooth decay is the most common reason for hospital admission for five- to nine-year olds in England.

such as providing additional evidence for Healthy School status, informing Ofsted reports and involving families that are sometimes hard to engage with. As the initial driver to create the Open Wide and Step Inside programme was a request from teachers for more support in delivering key oral health prevention messages as part of the curriculum, it is an encouraging sign that schools are satisfied with the resulting products.

### A CHILD NEVER FORGETS

Collecting baseline data and revisiting the same questions three months later



Using an interactive cartoon animation, children aged four to six years learn about oral health in a fun and creative way.



allowed the programme to be evaluated and findings were recently published in the *British Dental Journal Open*. Notably, findings show that the programme has been successful in its aim - children remember the five key 'take home' messages of the programme:

1. Always brush twice a day for two minutes
2. Always brush before bedtime and at one other time
3. Fluoride is the 'superhero' ingredient in toothpaste
4. Only consume sugary foods and drinks at mealtimes
5. Visit a dentist regularly

Since its conception in 2013, Open Wide and Step Inside has continued to grow from a one-site delivery programme, to an in-school deliverable. It is now available as a purchasable toolkit for any educator or professional to deliver within their own setting across the country. Open Wide and Step Inside ensures that the message of good oral health amongst infant school children is delivered in a fun and engaging way.

#### ORAL HEALTH FOR ADULTS

Dr Witton also works in local communities in Plymouth, focusing on oral health for adults with learning disabilities, as well as oral care for homeless individuals and those with disabilities. Part of this work involves determining whether peer education could be used to improve plaque management in people who experience homelessness through



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### **"Open Wide and Step Inside" ensures that the message of good oral health amongst school children is delivered in a fun and engaging way.**

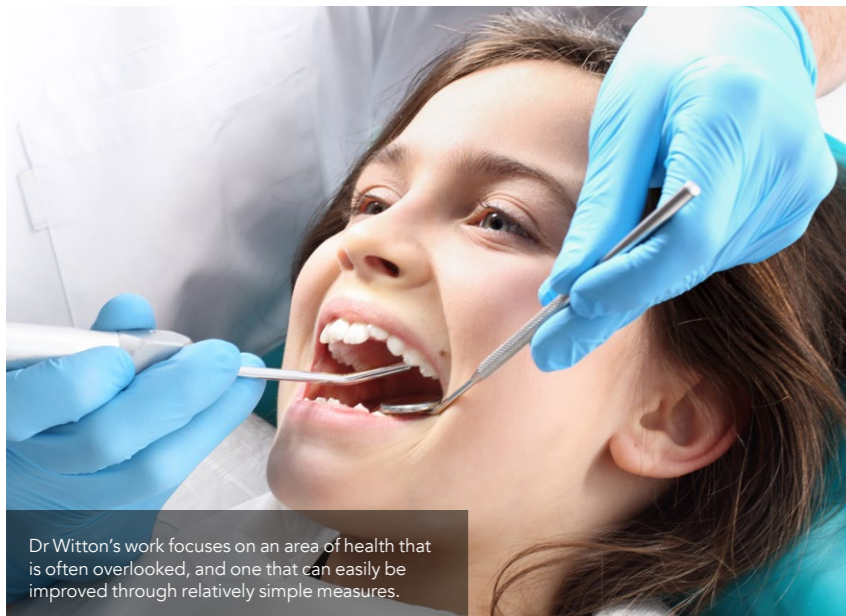
a project called "Teeth Matter". The team concluded that the need to manage pain and access to dental care were often drivers for people participating in projects, providing evidence that more effective interventions are still required for this target group.

One such example of a specially tailored approach is the use of communication aids for stroke survivors with speech difficulties. In doing this, student dentists were able to overcome communication barriers

with the patients, whilst gaining valuable experience in working in a practical setting outside the university environment.

Another recent report from Dr Witton and colleagues highlighted how vulnerable groups of adults are more likely to have poor oral health, alongside general ill health, deprivation and social exclusion. This report, along with the "Teeth Matter" project, emphasises the need to consider complex psychosocial factors when designing oral health programmes for vulnerable adults across Plymouth. This finding is likely applicable to many other areas of the UK too.

The work of Dr Witton and colleagues focuses on an area of health that is often overlooked, and one that can easily be improved through relatively simple measures. The importance of oral health not only considers the wellbeing of individuals, but the overall cost to the wider economy, with reports that in 2017, £600,000 was spent by Plymouth alone on tooth extractions for children. The ultimate aim of this work carried out by dental specialists in Plymouth is to integrate oral health practices into school curriculums in an engaging way and to expand this to vulnerable community groups in order to further address oral health inequalities.



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# Behind the Research

## Dr Robert Witton

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### Research Objectives

Open Wide and Step Inside is a children's oral health education programme. It aims to deliver key oral health messages in schools to children aged 4-6 years as part of the national curriculum in a fun and creative way, using an interactive cartoon animation.

### Detail

Dr Robert Witton  
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#### Bio

Robert Witton is a GDC registered specialist and Consultant in Dental Public Health. He is the Director of Community Dentistry at the University of Plymouth Peninsula Dental School and Chief Executive of the Peninsula Dental Social Enterprise CIC. Robert leads an award-winning social enterprise with particular expertise in working with vulnerable community groups to address oral health inequalities.

#### Funding

- Wrigley Global Oral Health Fund

#### Collaborators

- The Moment



### References

Witton, R. & Smith, W. (2019). A service evaluation of the "Open Wide and Step Inside" school oral health programme. *BDJ Open*, 5(3), <https://doi.org/10.1038/s41405-019-0013-0>

### Personal Response

**If you could change only one thing in order to improve oral health in children, what would it be?**

It would have to be embedding oral health awareness, and the ability of other key health professionals to have regular conversations with parents and families about the importance of oral health and to provide the support needed to ensure children get the best start in life. Midwives, health visitors, GPs, school nurses and early years workers can play a pivotal role in promoting positive oral health habits and the importance of regular dental check-ups as soon as the first teeth begin to erupt. It's only by all health professionals working together will the problem of tooth decay in children be reduced.

