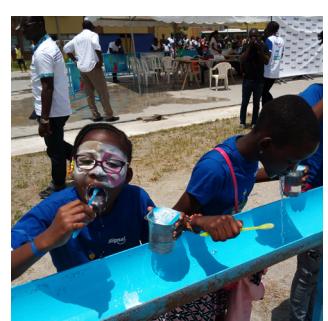


Brush Day & Night

12 Years of Improving Oral Health Worldwide



FDI World Dental Federation and Unilever partnership, Brush Day & Night

Tooth decay is the most prevalent form of oral disease, affecting approximately 2.4 billion people worldwide¹. However, the condition can be prevented with an appropriate diet and by brushing teeth twice daily with fluoride toothpaste^{2,3}. Tooth decay disproportionately affects people of low socioeconomic status, highlighting a pressing need for oral health interventions in communities without adequate access to education or dental care².

In 2005, FDI World Dental Federation, an international organization representing over one million dentists, joined forces with Unilever in a landmark partnership to implement oral health education across the globe⁴. The first two phases of the partnership, known as *Live.Learn.Laugh*, provided oral health education to more than two million people. Phase I involved a range of oral health programmes, including educating parents and daycare providers on infant oral health. Phase II focused on improving the toothbrushing habits of schoolchildren, mothers and infants, patients and communities.

Improving children's oral health knowledge and behaviour: the 21-day Brush Day & Night programme⁵

The 21-day Brush Day & Night programme aimed to improve schoolchildren's oral health through an educational initiative based on oral hygiene and toothbrushing, reinforced over 21 days.

The programme was carefully designed to produce long-term changes in toothbrushing behaviour, based on Unilever's Behaviour Change model.

Evaluating the 21-day Brush Day & Night programme⁵

A study was conducted to evaluate how the Brush Day & Night programme affected oral hygiene knowledge and behaviour in schoolchildren. The programme included a wide range of age groups, targeting children aged 2–12 years to evaluate the age at which children are most able to learn, adopt good oral health behaviours and share what they've learned with their families and friends.

With an increased focus on improving tooth-brushing habits, the *Live.Learn.*

Laugh partnership was renamed *Brush Day & Night (BDN)* in 2014⁴. This third phase of the partnership used FDI World Dental Federation's largest global awareness campaign, World Oral Health Day, to promote oral health to the public and policymakers. It also marked the launch of a 21-day programme to teach schoolchildren to brush twice daily with fluoride toothpaste. Phase III delivered oral health education to more than four million people⁴.

Live • Learn • Laugh	Brush Day & Night
Phase I 2005–2009	Phase II 2010–2013
Oral health education programmes (multiple objectives)	21-day Brush Day & Night school education programme
World Oral Health Day	



The effectiveness of the programme was assessed via a self-reported questionnaire distributed by a team of trained dentists and teachers at the start and end of the 21-day programme. To assess retention of knowledge over time and to capture the effect of reinforcing health messages, the 21-day programme was repeated 6–12 months later, with the same questionnaire distributed at the start and end. To determine which age group was most receptive, children were divided into < 7 years, 7–9 years and ≥ 10 years.

Results⁵

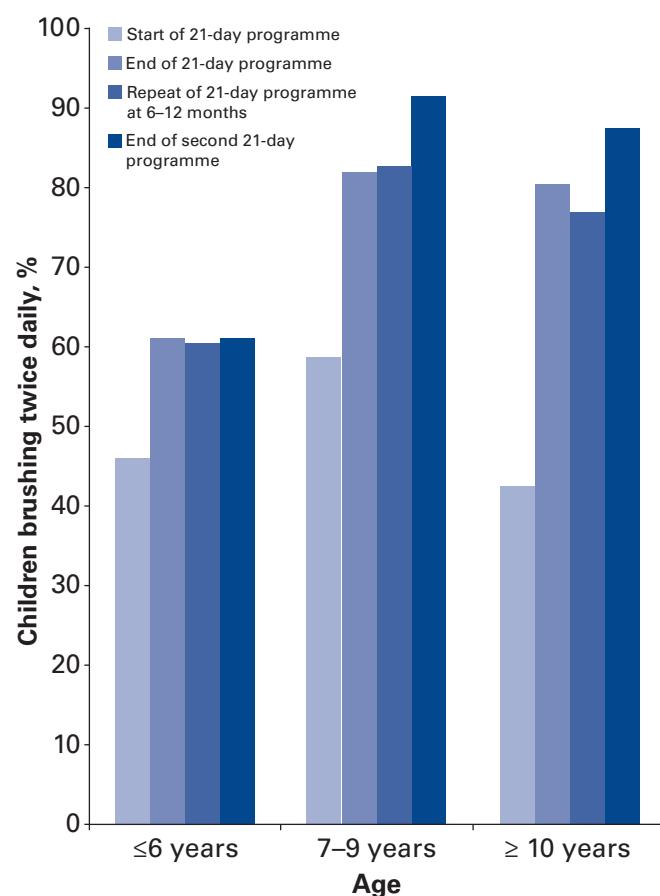
The Brush Day & Night programme was rolled out across 10 countries (Bangladesh, Chile, Greece, Indonesia, Morocco, Myanmar, Nigeria, The Philippines, Turkey and Vietnam) and involved 7,991 children. Results of the evaluation study were available for 5,148 children from nine countries, with Turkey excluded because of missing data.

Regardless of age, the programme revealed:

- after the first 21 days, 77% of children were brushing twice daily, up from 51% at the start of the study
- after the second 21-day programme, 82% of children were brushing twice daily, up from 74% at the start of the second 21-day programme
- after the second 21-day programme, 75% of children were using fluoride toothpaste, up from 46% at the start of the study

Looking more closely at the improvement in knowledge and behaviour, all countries and age groups showed a significant improvement both at the 21-day mark and 6–12 months after the first intervention ($P < 0.001$).

The programme was most effective for children in the 7–9-year age group, with 91.3% brushing their teeth twice daily after 21 days.



Conclusion⁵

The 21-day programme improves schoolchildren's oral health knowledge and successfully increases the number of children brushing twice daily with fluoride toothpaste. Outcomes were sustained for 6–12 months and a second intervention led to further improvements, maximizing long-term behaviour change. The programme offers a sustainable solution to improving oral health and toothbrushing habits in children, especially those aged 7–9 years⁵.

Looking to the future

Building on this success, Phase IV of the

partnership will continue to educate children on twice-daily brushing with a fluoride toothpaste and will also engage with dentists, the public and policymakers to improve oral health⁶.

Running from 2017–2019, Phase IV will use a strengthened methodology, including a set of control schools that will only receive toothbrushes and fluoride toothpaste, rather than the full 21-day intervention. This study will focus on children from the ages of 7–9 years, and the programme will also determine whether the 21-day intervention translates into improvements in children's oral health (measured by plaque levels), quality of life and the oral health knowledge of parents or carers⁶.

Brush Day & Night

12 Years of Improving Oral Health Worldwide



Tooth decay affects around **2.4 billion people** worldwide, disproportionately affecting those of low socioeconomic status

It can be prevented by brushing teeth twice daily with fluoride toothpaste



The Brush Day & Night (BDN) partnership has been delivering oral health education globally since 2005

The 21-day programme educates schoolchildren about good oral health and the correct toothbrushing technique



- ✓ Toothbrushes and fluoride toothpaste are provided
- ✓ Messages are repeated in a fun and engaging way over 21 days
- ✓ The programme is repeated after 6–12 months
- ✓ Impact on oral hygiene knowledge and behaviour is measured

What did the 21-day programme achieve?

7,991 children in 10 countries

25% improvement
in twice-daily brushing after 21 days

Nearly 8% further improvement
after 6–12 months

- Results were sustained for **6–12 months**
- Most influential in children aged **7–9 years**

By the end of the programme:

3 in 4 children
brushed with
fluoride
toothpaste



82% of
children
brushed
twice daily

The 21-day programme leads to:

- ✓ improved oral health knowledge and behaviour
- ✓ more children brushing twice daily with fluoride toothpaste



Building on our success, Phase IV (2017–2019) will:

- use a strengthened methodology with a control group
- focus on children aged 7–9 years



- discover if the 21-day programme can:
 - ✓ improve oral health (reduce plaque)
 - ✓ impact children's quality of life
 - ✓ increase oral health knowledge in parents and carers

References

Quickly access the *Brush Day & Night* project page and references for this document by scanning the following QR code using your mobile phone • www.fdiworlddental.org/bdn

