

Brush Day & Night Partnership

The impact of school oral health programmes on children's knowledge, behaviour and oral health



The FDI and Unilever Brush Day & Night Partnership

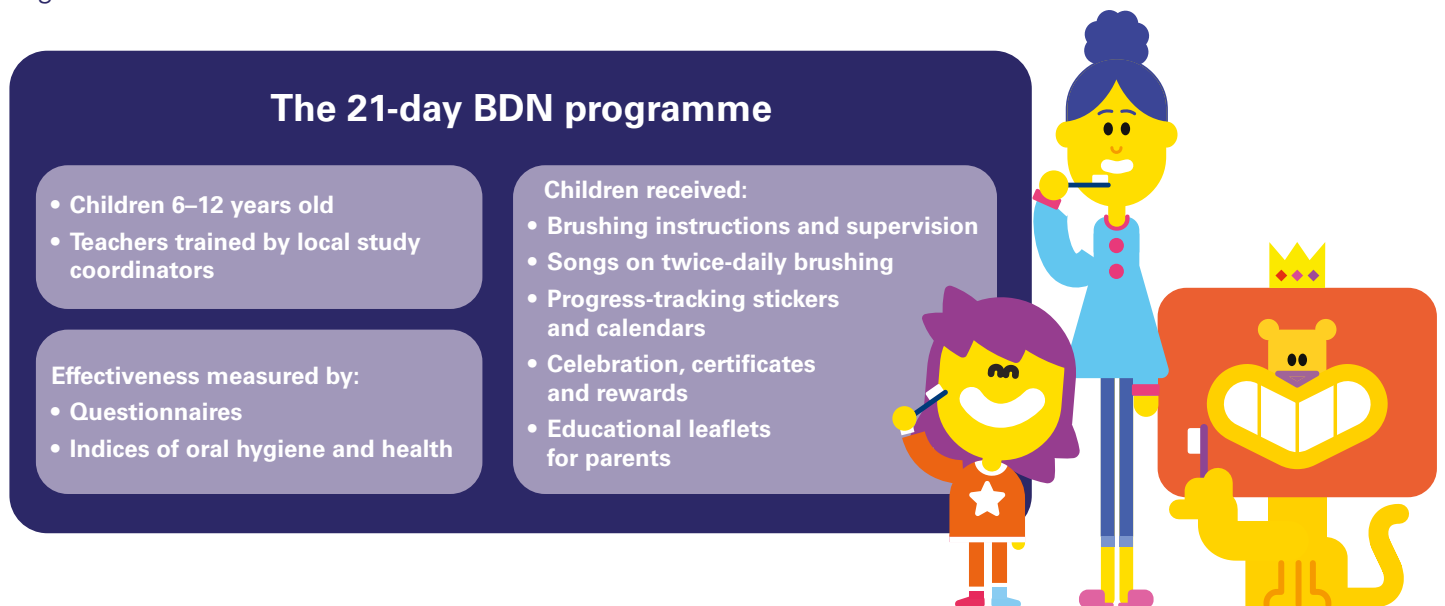
Poor oral health severely compromises children's eating, sleeping, confidence levels and school attendance.^{1,2} Tooth decay is the most prevalent oral disease, affecting up to 90% of schoolchildren.^{3,4} However, by limiting sugar intake and brushing twice daily with fluoride toothpaste it is almost entirely preventable.^{1,4}

In 2005, the **Brush Day & Night** (BDN) Partnership was formed between the FDI World Dental Federation and Unilever, to:⁵

- Advocate twice-daily brushing with fluoride toothpaste as a pillar for good oral health.
- Educate schoolchildren and promote community awareness through innovative schemes such as the 21-day BDN programme.

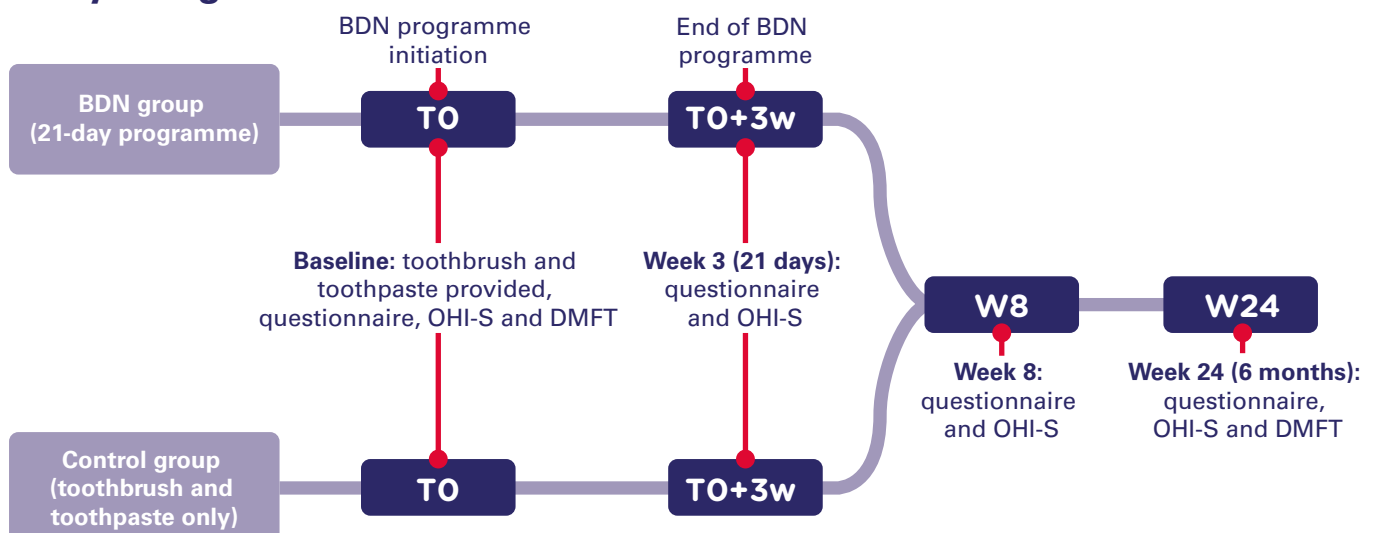
Study to evaluate the 21-day Brush Day & Night Programme^{2,6}

In 2017–2019, a new, more detailed evaluation of the BDN programme was conducted in schools in Nigeria and Indonesia.



The aim was to build on the earlier positive results using a strengthened methodology: a two-arm, superiority cluster randomised trial of matched pairs of schools.

Study design^{2,6}



DMFT, Decayed Missing and Filled Teeth.

OHI-S, Oral Hygiene Index-Simplified. A measure of plaque on teeth and therefore brushing effectiveness.

Study results: the Brush Day & Night Programme is proven to establish a twice-daily brushing habit⁶

Data were collected from 2,021 children in Indonesia and 750 in Nigeria.

Oral health knowledge improved in children following the programme

After 6 months, children's **awareness** of the importance of adequate toothbrushing frequency **improved** by **60%** in Indonesia.



After 21 days, children in Nigeria were **over 6 times** more likely to report **fluoride toothpaste use**.



After 6 months, use of fluoride toothpaste was sustained, with a **73% improvement** in Nigeria.



Brushing behaviour improved in children following the programme

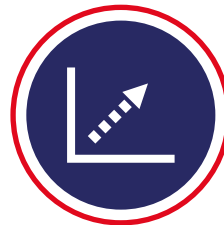
After 21 days, children in Nigeria were **over 16 times** more likely to **improve** their **twice-daily brushing behaviour**, e.g. brush in the morning and in the evening with no eating or drinking afterwards.



After 21 days, children in Nigeria were **over 5 times** more likely to **improve** their **brushing frequency**, e.g. brush at least twice a day.



After 6 months, children in Indonesia showed a **30% improvement** in **twice-daily brushing behaviour**.



The Brush Day & Night Programme is proven to improve children's oral hygiene and well-being²

Oral hygiene improved in children following the programme, according to a measure of plaque levels

After 21 days, children in Nigeria were **11 times** more likely to have 'good' oral hygiene.



6 months later, children in Nigeria were almost **4 times** more likely to have 'good' oral hygiene.



Well-being improved in children following the programme

After 8 weeks, significantly **fewer** children following the programme in Nigeria reported **bullying** due to their teeth.



After 6 months, children following the programme in Nigeria were **71% more likely** to have **improved smile confidence**.



Conclusions^{2,6}

The most recent study has reinforced the effectiveness of the 21-day BDN programme in improving oral health behaviour by establishing a twice-daily brushing habit. The BDN programme delivers a **30% improvement** in children's **twice-daily brushing behaviour**.

Immediately after programme completion, we observed:

- Improved twice-daily brushing behaviour
- Improved brushing frequency
- Children were more likely to have 'good' oral hygiene

6 months after programme completion, we recorded:

- Sustained twice-daily brushing behaviour
- Improved oral hygiene
- Improved well-being

The positive results to date show great promise for continued engagement of children and their communities in twice-daily brushing, which will lead to sustained improvements in oral health and quality of life.

References

1. World Health Organization, Sugars and dental caries fact sheet; 2017. Available from: <https://www.who.int/news-room/fact-sheets/detail/sugars-and-dental-caries>. Accessed March 2021;
2. Melo P, Fine C, Malone S, Taylor S. Impact of the Brush Day & Night Programme on Well-Being, Plaque, and Dental Caries in Children, Int Dent J, 2021, doi: 10.1016/j.identj.2021.01.018;
3. World Health Organization, Oral health: What is the burden of oral disease. Available from: https://www.who.int/oral_health/disease_burden/global/en/. Accessed March 2021;
4. FDI World Dental Federation, Brush Day & Night. Available from: <https://www.fdiworlddental.org/brush-day-night>. Accessed March 2021; 5. FDI World Dental Federation, Brush Day & Night: A review of a landmark partnership for children's oral health. Int Dent J (In Press); 6. Melo P, Fine C, Malone S, Taylor S. Impact of the Brush Day & Night Programme on Oral Health Knowledge and Behaviour in Children, Int Dent J, 2021, doi: 10.1016/j.identj.2021.01.014.