

# FDI–Unilever Brush Day & Night partnership: 12 years of improving behaviour for better oral health

Kathryn Kell<sup>1</sup>, Marie-Anne Aymerich<sup>2</sup> and Virginie Horn<sup>1</sup>

<sup>1</sup>FDI World Dental Federation, Geneva, Switzerland; <sup>2</sup>Unilever Oral Care, London, UK.

Twelve years ago, FDI World Dental Federation and Unilever Oral Care began a partnership to raise awareness of oral health globally. This aim reflects FDI's mission to “lead the world to optimal oral health”, and one of the goals set by the Unilever Sustainable Living Plan “to improve health and well-being for more than 1 billion” by 2020. This partnership has developed a series of public health programmes to improve the brushing habits of targeted populations through health promotion and educational campaigns worldwide. Building on the success of the first two phases of the partnership, the third phase (Phase III), named Brush Day & Night, aimed to educate children in brushing twice-daily with fluoride toothpaste via a 21 Day school programme. This article reports the main outcomes of the past 12 years of this partnership, in particular the key outreach and figures of Phase III evaluation. School programmes were implemented in 10 countries, where local teams collected data from children aged between 2 and 12 years to monitor their oral health behaviours using specific indicators. In addition to the school programme, the World Oral Health Day was used as a vehicle to convey oral health awareness to influential governing bodies and the public. As a result, over 4 million people were directly reached by the programme in 2016.

**Key words:** Oral health prevention and education, school programme, World Oral Health Day, toothbrushing, fluoride toothpaste, public–private partnership

## INTRODUCTION

Tooth decay affected almost half of the world population in 2010<sup>1</sup>, and the World Health Organization (WHO) reports that dental cavities affect 60–90% of school children and almost 100% of adults globally<sup>2</sup>. Nevertheless, oral disease and, in particular, dental caries are preventable<sup>3–6</sup>. The FDI World Dental Federation (FDI), representing over 1 million dentists worldwide in more than 130 countries, is at the forefront of meeting this challenge. One of the cornerstone strategies set out in FDI's Vision 2020 is to secure political commitments and policy approaches that integrate oral health and general health into actionable programmes to improve oral health literacy through population-based preventive interventions.

FDI is committed to taking a leadership role in this process, working with its member associations, dental practitioners, fellow international health organizations and industry partners to advocate for the recognition

of good oral health not as a privilege, but as a fundamental human right<sup>3–5,7</sup>.

There is a consensus among the constituent FDI members on the key public health measures required to maintain lifelong oral health and contribute to improved quality of life and well-being<sup>1,8,9</sup>. In particular, FDI encourages governments to develop grass-roots preventive measures in community settings, such as schools<sup>8</sup>, and individuals to prevent dental caries by brushing regularly with fluoride toothpaste to remove the oral biofilm<sup>8</sup>.

A critical element of FDI's mission to “lead the world to optimal oral health” is therefore finding innovative ways to support and collaborate with our member National Dental Associations (NDAs) and industry partners to create impactful public health programmes and public–private partnerships. This aim resonates with one of the ambitious goals set by the Unilever Sustainable Living Plan “to improve health and well-being for more than 1 billion” by 2020<sup>10</sup>.

Driven by their shared aspirations, FDI and Unilever joined forces in 2005 to form the Live.Learn.Laugh. (LLL) partnership, which subsequently became the Brush Day & Night (BDN) partnership when its third phase (Phase III) was launched in 2014<sup>11–18</sup>. The articles included in this supplement present a detailed overview of the oral health activities, in particular the school programmes, conducted during BDN Phase III. Those articles also report the impact of the partnership on the oral health of the target populations after 3 years.

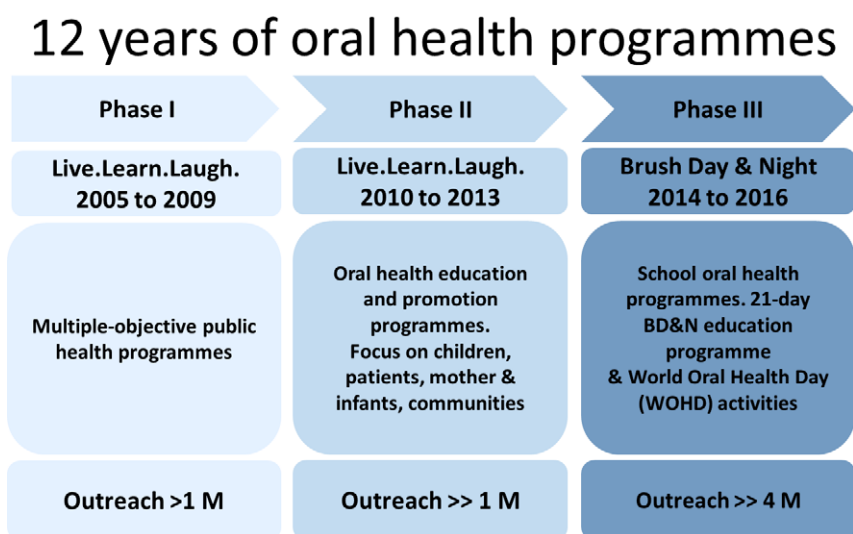
## 12 YEARS OF ORAL HEALTH PROGRAMMES TO IMPROVE GLOBAL ORAL HEALTH

For the past 12 years, the FDI–Unilever partnership has been governed at the global and local levels as a functional organizational structure, with the FDI and Unilever leaderships forming a decision-making body, and defining the aim, objectives and strategy of the partnership<sup>13,15</sup>. This governing body selects a core team to implement the partnership activities and to ensure back and forth communication between all stakeholders. The core team collaborates with experts from the FDI Public Health Committee, who develop a standard methodology of intervention and collection of data, and provide expert coaching to the local teams of dentists and volunteers conducting these interventions<sup>15</sup>.

The FDI–Unilever partnership was first established in 2004, and publicly launched in 2005 as ‘Live.-Learn.Laugh.’ (LLL), during the FDI Annual World Dental Congress in Montreal. The first phase ran until 2009 with an overall outreach estimated to be over 1 million people worldwide<sup>12,13</sup> (Figure 1). This

pioneering phase aimed to enable NDAs to raise awareness of oral health globally through programmes with different project designs, consisting for example of educating day care workers and parents to improve oral health of infants, training dental health educators to supervise tooth brushing in schools, or organizing tooth brushing for disadvantaged children in various settings<sup>12</sup>. LLL Phase I piloted the potential of such a unique public–private partnership to improve the oral health of the target populations. The independent evaluation of this first phase reported and emphasized the importance of using common indicators in a limited number of project designs, not only to measure the intervention outcomes, but also to allow cross-country comparison. Additional recommendations were made, in particular to harmonize the projects by producing common oral health promotion and education materials, and by organizing training workshops for the implementation teams<sup>12</sup>.

Based on these recommendations, the second phase of the partnership was implemented from 2010 to 2013, and was restricted to four types of project, respectively, focusing on school children, mothers and infants, patients and communities<sup>14–16</sup>. The implementation and evaluation of the projects was reinforced by providing the NDAs and dental teams with standardized protocols and templates using a common core of standardized indicators, and harmonized oral health education and promotion materials for the target populations. In addition, the project leaders from all participating countries were invited to meet the partnership experts during annual global workshops, in order to review the details of their projects, plan the activities and



**Figure 1.** Description of the different phases of the partnership between FDI World Dental Federation and Unilever from 2005 to 2016. The outreach of the different phases was estimated using figures reported by the National Dental Associations (NDAs) involved in the partnership.

examine the collected datasets<sup>15</sup>. This revised strategy allowed LLL to measurably improve the brushing habits of the more than 1 million people reached by the programme, in terms of frequency, timing of brushing and usage of fluoride toothpaste. Moreover, the school programme strategy was evaluated as one of the most efficient project designs to achieve such an improvement, in particular as it offers a reliable educational setting<sup>16</sup>.

Building on the success and knowledge gained from Phase I and II, the third phase (Phase III) of the partnership ran from 2014 to 2016, with two main changes: the partnership was renamed Brush Day & Night (BDN) to better reflect its objectives; and activities conducted on World Oral Health Day (WOHD) were included to educate and engage not only in schools, but also in larger communities (*Table 1*).

During Phase III, WOHD was used as a vehicle to convey the educational messages of the partnership to a broader audience, including policy-makers, ministries of health and education, and the general public. School programmes were implemented in 10 countries to teach children to brush twice-daily

with a fluoride toothpaste and a toothbrush, and to educate them about the benefits of having good oral hygiene (*Table 1*). The local teams collected data, anonymously and at different time points, from children between 2 and 13 years old to monitor oral health behaviour and status using specific indicators.

All partnership stakeholders have been engaged over the past 12 years in continuously evaluating and revising the strategy of the programme, in order to keep improving the outreach, impact and outcomes<sup>12,15,16</sup>. In particular, the Phase III experts, Prof. Frencken and Prof. Melo from the FDI Public Health Committee, conducted an in-depth analysis of the data collected by the different local teams to evaluate the impact of the partnership on the oral health knowledge and behaviour of participating school children. The partnership is proud to report in the supplement an overall outreach of 4 million in the countries where school programmes and WOHD activities were implemented (*Figure 1*; *Table 1*), and a 25% increase of school children brushing twice a day following the first intervention of the programme.

**Table 1** List of NDAs involved in the third phase of the partnership and type of activities implemented in the respective countries

NDA name	Country	School programme	WOHD	NDA president*	Project leader(s)
Bangladesh Dental Society	Bangladesh	✓	✓	Prof. Dr Kasem	Dr MD. Kabir
Colegio de Cirujano Dentistas de Chile	Chile	✓	✓	Dr Acuña	Dr Valle Ponce and Dr Cortes
Croatian Dental Chamber and Croatian Dental Society	Croatia	–	✓	Prof. Jerolimov	Dr Furtinger
Hellenic Dental Association	Greece†	✓	✓	Dr Katsikis	Dr Agouropoulos
The Stomatological Society of Greece				Dr Melakopoulos	Dr Dimitriadis
Hungarian Dental Association	Hungary		✓	Dr Gera	Dr Szoke
Indonesian Dental Association	Indonesia	✓	✓	Dr Hanum	Dr Astoeti
Association Marocaine de Prévention Bucco-dentaire	Morocco	✓	✓	Dr Lfarakh	Dr Alami
Myanmar Dental Association	Myanmar	✓	✓	Prof. Hpoo	Prof. Hpoo
Nigerian Dental Association	Nigeria	✓	✓	Dr Ijarogbe	Dr Ijarogbe
Philippines Dental Association with Philippines Pediatric Dental Society	Philippines	✓	✓	Dr Vallesteros	Dr Vallesteros
Turkish Dental Association	Turkey	✓	✓	Prof. Dr Yücel	Dr Ilhan and Dr Oktay
Vietnam Odonto-Stomatology Association	Vietnam	✓	✓	Prof. Trinh	Dr Le Hong
Association des Odonto-Stomatologistes de Côte d'Ivoire	Cote d'Ivoire	–	✓	Dr Diaha	Dr Diaha
Cambodian Dental Association	Cambodia	–	✓	Dr Yam	Dr Yam
Egyptian Dental Association with Egyptian Society of Pediatric Dentistry & Children with Special Needs	Egypt	–	✓	Dr El Shahawy	Dr Gawad and Dr Rashed
Ethiopian Dental Professionals' Association	Ethiopia	–	✓	Dr Yimenu	Dr Yimenu
Ghana Dental Association	Ghana	–	✓	Dr Asante-Appiah	Dr Ankrah and Dr Puplampu
Associazione Nazionale Dentisti Italiani	Italy	–	✓	Dr Prada	Dr Cipriani
Jordan Dental Association	Jordan	–	✓	Dr Al-Tarawneh	Dr Al-Tarawneh
South African Dental Association	South Africa	–	✓	Dr Solomons	Dr Solomons
Sri Lanka Dental Association	Sri Lanka	–	✓	Dr Senaratne	Dr Sundar
Sudanese Dental Union	Sudan	–	✓	Dr Rizig	Dr Rizig

\*Name of the President of the NDA during Phase III.

†Activities in Greece were implemented jointly by both NDAs. NDA, National Dental Association; WOHD, World Oral Health Day.

## CRITICAL TEAM WORK

FDI and Unilever would like to acknowledge and congratulate all the partnership stakeholders, in particular the experts from the FDI Public Health Committee, Prof. Frencken and Prof. Melo, who provided expertise and guidance to the projects. We would also like to acknowledge all NDAs and project leaders (Table 1) for their dedication and enthusiasm in improving oral health within their communities, not only in collaboration with the local Unilever teams, but also with the school administrations, volunteers, parents and, of course, school children.

## Acknowledgements

The work presented in this article was made possible through an unrestricted grant from Unilever Oral Care. All authors are grateful to Mr Sean Taylor for his editorial review of this article.

## Conflict of interest

Marie-Anne Aymerich is employed by Unilever Oral Care.

## REFERENCES

1. FDI World Dental Federation. FDI Policy Statement on Lifelong Oral Health; 2017. Available from: <http://www.fdiworldddental.org/resources/policy-statements-and-resolutions/lifelong-oral-health>. Accessed 27 October 2017.
2. World Health Organization (WHO). Oral Health Fact Sheet N°318; 2012. Available from: <http://www.who.int/mediacentre/factsheets/fs318/en>. Accessed 27 October 2017.
3. da Silva OM, Glick M. FDI Vision 2020: a blueprint for the profession. *Int Dent J* 2012 62: 277.
4. Glick M, Monteiro da Silva O, Seeberger GK *et al.* FDI Vision 2020: shaping the future of oral health. *Int Dent J* 2012 62: 278–291.
5. Glick M, Williams DM, Kleinman DV *et al.* A new definition for oral health developed by the FDI World Dental Federation opens the door to a universal definition of oral health. *Int Dent J* 2016 66: 322–324.
6. Lamster IB. Defining oral health: a new comprehensive definition. *Int Dent J* 2016 66: 321.
7. World Health Organization. The Liverpool Declaration: Promoting Oral Health in the 21st Century – A Call for Action; 2005. Available from: [http://www.who.int/oral\\_health/events/orh\\_liverpool\\_declaration\\_05.pdf?ua=1](http://www.who.int/oral_health/events/orh_liverpool_declaration_05.pdf?ua=1). Accessed 20 November 2017.
8. FDI World Dental Federation. FDI Policy Statement on Promoting Oral Health Through Fluoride; 2017. Available from: <http://www.fdiworldddental.org/resources/policy-statements-and-resolutions/promoting-oral-health-through-fluoride>. Accessed 27 October 2017.
9. FDI World Dental Federation. FDI policy statement on preventing oral diseases. *Int Dent J* 2017 67: 10–11.
10. Sustainable Living. *Unilever Global Company Website*. Available from: <https://www.unilever.com/sustainable-living>. Accessed 27 October 2017.
11. Cohen LK. Live. Learn. Laugh.: a unique global public-private partnership to improve oral health. *Int Dent J* 2011 61: 1.
12. Dugdill L, Pine CM. Evaluation of international case studies within 'Live.Learn.Laugh': a unique global public-private partnership to promote oral health. *Int Dent J* 2011 61: 22–29.
13. Pine CM, Dugdill L. Analysis of a unique global public-private partnership to promote oral health. *Int Dent J* 2011 61: 11–21.
14. Bourgeois DM, Phantumvanit P, Llodra JC *et al.* Rationale for the prevention of oral diseases in primary health care: an international collaborative study in oral health education. *Int Dent J* 2014 64(Suppl 2): 1–11.
15. Horn V, Phantumvanit P. Oral health promotion and education messages in Live.Learn.Laugh. projects. *Int Dent J* 2014 64(Suppl 2): 12–19.
16. Llodra JC, Phantumvanit P, Bourgeois DM *et al.* LLL2: an international global level questionnaire on toothbrushing and use of fluoride toothpaste. *Int Dent J* 2014 64(Suppl 2): 20–26.
17. Bourgeois DM, Llodra JC. Global burden of dental condition among children in nine countries participating in an international oral health promotion programme, 2012–2013. *Int Dent J* 2014 64: 27–34.
18. Eiselé J-L, Wong TC, Carlile M. Celebrating 10 years of partnership between FDI and Unilever. *Int Dent J* 2014 64: 35–37.

Correspondence to:

Virginie Horn,  
FDI World Dental Federation,  
Avenue Louis Casai, 51,  
1216 Geneva, Switzerland.  
Email: [vhornborter@fdiworldddental.org](mailto:vhornborter@fdiworldddental.org)