

# 'Love Teeth Day' campaign in China and its impact on oral public health – the twentieth anniversary

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## IN BRIEF

- Provides an overview of the massive national LTD campaign over the past 20 years in China.
- Describes the action of Chinese dental professionals and governmental offices in preventive oral public health care and promoting oral health education.
- Discusses the success and future direction of the LTD campaign in China.

The date 20 September has been designated 'Love Teeth Day' (LTD) in China since 1989. The aim of this nationwide campaign is to encourage all Chinese people to conduct preventive oral public health care and promote oral health education; therefore it is beneficial to improve the levels of oral health in the whole Chinese population. Public awareness of oral health in China has substantially improved following 20 years of hard work from dental professionals and relevant departments. The main activities were planned and conducted by the National Committee for Oral Health and local committees at provincial, county and municipal levels to support preventive oral care. The LTD campaign attracts more and more attention from the public on the prevention and control of oral diseases, which is considered to be an extremely pioneering health care programme in the field of Chinese dentistry. This review provides an overview of the huge LTD campaign over the past 20 years, aiming to share our experiences with international dental professionals.

## INTRODUCTION

In many countries oral health is a neglected area of health and is not included in national health surveys.<sup>1</sup> Although poor oral health affects morbidity rather than mortality, oral disease is a challenging global health problem requiring major prevention and treatment, especially in China.<sup>2</sup> In 1983, a national oral health survey for 130,000 schoolchildren (7-17-years-old) in China demonstrated that the prevalence of caries in permanent teeth was 30.43% and in primary teeth was 79.55%. Data from urban areas indicated that the prevalence of gingivitis was 63.93% and in rural areas it was 69.68%. According to previous statistics for adults, the prevalence of caries was about 40% and the prevalence of periodontal

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Fig. 1 Oral health education presentations

diseases was about 70%. As for the whole population, the incidence of various oral diseases was 80%.<sup>3</sup> The published data from the Ministry of Health revealed that there were 61,438 oral hygienists receiving specialist training with 376,860 of middle level and 23,752 of senior level in China. The ratio of dental professionals to the Chinese population was 1 to 50,000.<sup>3</sup> In some developed countries such as Germany and the UK, the ratio is one per 1,000 population, but in other less developed countries such as some sub-Saharan African countries, one dentist faces 900,000 people.<sup>1</sup> Moreover, manpower, material resources and financial support are extremely limited, and the general public have little basic knowledge about oral health.

With an increase in quality of life, oral health care is needed urgently. However, it is impossible to treat all oral diseases

in the whole population. Prevention of oral disease is therefore key, largely possible, and is implemented by educating the public about oral hygiene and influencing their concept of personal care.<sup>2</sup> The establishment of the LTD campaign is an effective measure to strengthen preventive oral health care goals and to realise the primary prevention policy.

## ESTABLISHMENT OF THE LTD CAMPAIGN

On 6 April 1987 the first LTD campaign in China was initiated by the dental clinic of Lanzhou designing institute, Ministry of Railways. The campaign was performed in various forms including a 'chorus' of brushing teeth by thousands of children and an oral health education presentation on how to protect teeth (Fig. 1). The following year, more and more dental professionals

and health workers joined the LTD campaign and promoted oral health education for children and their parents. On 14 July 1989, on the initiative of the Minister of Health, a joint statement was signed and 20 September of each year was designated as the 'Love Teeth Day' (LTD) in China by nine government and non-government organisations (Ministry of Health, Central Patriotic Public Health Campaign Committee, Ministry of Education, Ministry of Culture, Ministry of Radio, Film and Television, All-China Federation of Trade Union, Central Committee of Chinese Communist Youth League, All-China Women's Federation, China National Committee on Ageing).<sup>4</sup> The aim of this nationwide campaign is to motivate people into looking after their own dental health and to promote community involvement in oral health education programmes. The Department of Health has launched a series of promotional activities under the LTD Campaign to heighten public awareness of oral health through various forms of mass media.

**VARIED FORMS OF THE LTD CAMPAIGN**

**Community counselling**

20 September was designated as Love Teeth Day and a series of promotional activities were launched.<sup>4</sup> One of the major activities is community counselling in various forms. Dental professionals take an active part in promoting LTD in different regions by conducting oral health counselling activities through setting up a promotion board, pasting up slogans, flying pennants and distributing oral health pamphlets in the most crowded areas. This activity heightens public awareness of oral health.

**Community oral health service**

The LTD team carry out oral health education and preventative and therapeutic work for oral disease with mobile dental equipment in the community and at schools and kindergartens. Team members pay close attention to the public's oral health education, conduct an oral health survey in the community and promote the application of pit and fissure sealing and fluoride foam in primary schools (Fig. 2).

**Special publications for LTD**

The oral care committees of each province



Fig. 2 Oral health education in the community



produce and distribute information about LTD each year. Publicity material aimed at different age groups is published and disseminated, such as posters, brochures, cartoon strips and slides (Fig. 3). In addition, a special column on LTD is featured in local newspapers.

**Expanding the promotion using mass media**

With the aid of television, radio and newspaper publicity, a range of promotional activities on the LTD campaign, including large-scale public events and school projects, were launched. Lectures and knowledge contests on LTD were held in different regions, which meant that thousands of people actively received oral health information. During the past 20 years, promotional materials related to the theme of the LTD campaign were published in several key newspapers in succession such as *Healthy China*, *Chinese Health Information Newspaper*, a local evening newspaper and a hygiene newspaper. The estimated circulation reached 100 million each year, which effectively expanded coverage of the LTD campaign in China.

**Annual special activities**

In 1995, a one-week campaign of 'The big world of oral health' was carried out in Beijing. By means of an exhibition of pictures, dental specialists counselling, displays of oral health products and oral care fun activities, the public was led into a marvellous world of oral health.

In 1996, the one-month campaign of 'The action for oral health' was promoted in 11 provinces. Various oral health promotion activities were launched, which expanded the coverage of oral health education, summarised the experience of oral care, supervised the public's level of knowledge on oral health, studied the strategy on the development of oral care



Fig. 3 LTD publicity material



Fig. 4 Oral health talk in 2004



Fig. 5 The launch of an oral health promotion programme in 2007

and realised the detailed preventative and therapeutic measures on oral diseases.

In 1997-1998, the national activity of the 'Long march of preventive oral public health' was set up. During the year-long activity, the emphasis was on strengthening oral care for people living in rural areas. The primary mission included: an investigation on oral health status, local personnel training, oral health education and promotion of the oral care service on atraumatic restorative treatment.

Moreover, the public were mobilised to participate and support this campaign and all kinds of publicity materials, oral health care products and simple dental equipment were provided for 40 counties in the target areas.

In 2001, a promotional exhibition tour on loving teeth every day was developed. Through the exhibition, counselling, lectures, an entertainment programme and the mass media, the importance and pressure of oral health care and the oral health message was disseminated to the public. This campaign effectively promoted the development of oral health care in eight target areas including Beijing, Shanghai, Tianjin, Guangzhou, Chongqing, Henan, Guangxi and Ningxia.

In 2003-2004, an extensive oral health education programme on improving periodontal health was organised. This campaign further promoted and spread the knowledge on 'preventing periodontal disease by cleaning the teeth effectively'.

In 2003, the first LTD campaign was initiated in Hong Kong and Macao, which marks another milestone in China's efforts to promote oral health.

In 2004, oral health talks were launched. The first oral health talk, entitled 'Promote oral health and improve life quality', was started in the Beijing theatre of Haidian district on 19 September 2004. The public learned valuable ideas from the experts and had the opportunity to communicate with them directly. These activities were beneficial for the dissemination, popularisation and transformation of the oral health messages. These messages should influence the public's future behaviour (Fig. 4).

In 2007-2008, the 'Oral health promotion and oral science development - Western trip' was carried out. The four-year programme is being conducted in two to three provinces each year. In 2007, the western trip was initiated in Hohhot. On behalf of the hospitals in Beijing, Professor Sun, Vice Chairman of the Chinese Stomatological Society donated 34 dental units and one mobile dental vehicle to nine local hospitals. In 2008, this activity was launched simultaneously in Guangxi and Shaanxi province (Fig. 5). The mission was to bring oral care and health education to the developing western regions. The western trip is a big event to promote nationwide

oral hygiene and improve the oral health level of the whole Chinese population.

### SUCCESS OF THE LTD CAMPAIGN

The government paid much attention to the LTD campaign. The main activities were planned and conducted by the National Committee for Oral Health, which was formed in 1988. The LTD campaign proposal was drafted in the annual conference of national preventive oral care committee and was then handed down to the committees at province, county and municipal levels. In the Chinese rural infrastructure, the health care delivery system of a county consists of three levels: village, township and county. The government of different levels actively participated in the

LTD campaign by working out the practical scheme and earmarking the funds to support the campaign. Moreover, the LTD campaign was supervised by specialists in oral public health. The national preventive oral care committee took on the planning, organisation, monitoring and evaluation of the LTD campaign. The committee designed the theme and slogan with a special picture aimed at helping participants grasp the concept and take more effective measures to carry out the LTD campaign in different areas. The theme and slogan of the LTD campaign was different each year so as to provide information in a fresh and interesting way<sup>4</sup> (Table 1).

The LTD campaign started in three municipalities, 26 capitals of provinces and

**Table 1** Themes and central slogans for each campaign<sup>4</sup>

Year	Theme	Central Slogan
1989	Tooth brushing and oral health	Everybody brush her/his teeth twice a day (morning, night) with correct methods, qualified toothbrushes and fluoridated toothpaste
1990	Health through oral health	Love teeth, care for teeth and be healthy and strong
1991	Children and oral health	Taking good care of children's teeth, starting from the earliest stages of life
1992	Love teeth, care for teeth and be healthy and strong	Taking good care of your teeth, starting from very early in your life and practising
1993	Love teeth, strengthen teeth and improve health	Brush teeth every day, go for a check up regularly
1994	Oral health	Oral health for a healthy life
1995	Fluorides and oral health	Appropriate use of fluorides, prevent caries effectively
1996	Diet habits and oral health	Less sugar and better oral health
1997	Oral health and prevention of caries and periodontal diseases	Healthy teeth for your lifetime
1998	Oral health and social civilisation	Healthy teeth, bright smile
1999	Oral health for the elderly	Oral health for all
2000	Avoid dental injuries	Oral health is care
2001	Smoking and oral diseases	Smoking harms oral health
2002	Pay attention to periodontal diseases	Prevent periodontal diseases and maintain oral health
2003	Pay attention to periodontal diseases	Effective tooth brushing and prevention of periodontal diseases
2004	Oral health and life quality	Maintain oral health and improve quality of life
2005	Oral health of pregnant women	Pay attention to the oral health of pregnant women
2006	Oral health of children	Pay attention to the oral health of children
2007	Promotion of oral health - for the west and children	Healthy teeth can be maintained throughout your life
2008	Pay attention to the oral health of the middle-aged and the elderly	Healthy teeth guarantee happiness in old age
2009	Keep oral health, improve quality of life	Oral health makes smiles beautiful

some large cities and spread to most cities in the urban and remote rural regions. The duration of the campaign was extended from one day to one week, one month, even to one year. Activities varied from simple counselling to oral health talks, contests, exhibitions and free dental treatment, especially in making full use of mass media such as TV, radio and newspaper. Each year, the national oral care committee organises a questionnaire investigation on the effect of the LTD campaign. Between 1986 and 1996, the data demonstrated a remarkable improvement in the level of public knowledge of oral hygiene with the number of people answering questions correctly increasing from 38.7% to 70%. Oral health habits also changed greatly: the rate of cleaning the teeth twice a day increased from 50% to 70.53%; toothbrush use increased from 49.10% to 73.42%; use of fluoride toothpaste increased from 13.76% to 58.19%; and attending regular oral health examinations increased from 22.45% to 37.07%. Furthermore, the number of the population who actively asked for preventive oral health care rose significantly, from 45.68% in 1991 to 58.30% in 1996.<sup>5,7-8</sup> In 1994, only 34.61% of the population knew the exact date of LTD and in 2004 this percentage increased to 41.17%. According to the national oral health survey, after 20 years of promotional activities through the LTD campaign, the prevalence of caries in preschool children and primary school students presented a downtrend. In 1983, the first survey for 12-year-old children demonstrated that caries incidence was 32.11% and average caries was 0.66. In 1995, the second survey for 12-year-old children showed the caries incidence was 45.81% and average caries was 0.88. In 2005, the third survey for 12-year-old children indicated that the caries incidence was 28.92% and average caries was 0.54.<sup>7-8</sup> The data also showed that the proportion of the Chinese population covered by oral health care services reached 60%. Obviously, the LTD campaign is a successful public health programme with a positive public response. Oral health care is becoming an essential part of everyday life.

## THE FUTURE

Oral disease is one of the most prevalent and one of the most preventable health problems today. Being informed of the cause of dental disease, practising proper methods of oral hygiene and awareness of the need for regular dental care are key to the prevention of oral disease. Since the first LTD campaign, various forms of promotional activities were conducted to motivate people's awareness of their own dental health and to promote community involvement in oral health education programmes. The results of the LTD campaign show a remarkable improvement in the oral health status of the Chinese population. However, we should note that the incidence of caries and periodontal disease in China is still higher than in developed countries. Access to prompt and effective dental treatment in remote rural areas is extremely low. Moreover, on a national scale, the development of the prevention and control of oral diseases in different areas is imbalanced. Community models are still being developed and hopefully in the future a greater proportion of the population will be covered by oral health care services.

The most urgent problems need to be solved as follows:

- Effective measures should be taken to promote prevention and control of oral diseases through the LTD campaign. Local government and oral health societies should set up an organising committee to ensure local oral hygiene targets are met and integrate oral disease prevention into public health programmes to prevent chronic diseases
- Standards of oral health education and promotion should be established. Oral health education should be integrated with the health promotion system of schools and the community
- Effective and proper preventive techniques for oral diseases should be promoted. Fluoride foam and fissure sealing are internationally recognised as the effective prevention methods for smooth surface caries and occlusal caries respectively. However, the application of fluoride in China should

be controlled<sup>6</sup> and the fissure sealing technique qualified

- All dental professionals and health workers should improve their knowledge of oral health care. Every single person should consider the LTD campaign as the required assignment and actively participate in the promotional activities in different regions
- The communication of the LTD campaign should be enhanced. Communication is critical for a modern society. Therefore, it is of great importance to set up an information network that extends to remote rural areas, and a smooth channel of communication to further promote the LTD campaign and oral health care nationwide.

## CONCLUSIONS

Optimal oral health is an integral part of total health. Oral health care in China is a grand task to perform and has a long way to go. During the past 20 years, the primary mission of the LTD campaign has been to carry out oral health education, promote oral health products and increase people's awareness of their own dental health. Over the next 20 years, we suggest the primary mission is to promote proper techniques for oral health care and improve the oral health level of the whole Chinese population.

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