

## FOCUS



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# Growth in Dental problems, Driving Growth in Vietnamese Dental Industry

*"The dramatic growth of ultra-high net worth individuals in Asia is set to be reinforced by stellar growth rates in several countries, including Vietnam, which is expected to see its ultra-wealthy population rise by 170% to 540 over the next decade - the highest rate of growth in the world. Millionaire numbers are expected to jump from 14,300 to 38,600 over the same period." This growth rate exceeds neighboring China and India. (Knight Frank's the Wealth Report)*

source: Infodent International 1 2021

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Vietnam is one of the fastest-growing economies in Asia. Due to rapid socio-economic changes within its society, an increasing awareness among Vietnamese population about dental services, dental hygiene and dental care is underway and is expected to drive total oral health expenditure in the country. The country is seeing the fastest-growing middle and affluent class in the Asia-Pacific region, with young consumers who are among the most optimistic in the world providing the right demographics for growth and receptivity to improving their dental health. As the 15 - 35 years age group will continue to increase their revenue yield, this is also the target group that is most conscious about their looks and smile.

**Oral health data are very scarce in Vietnam however, according to the Teeth-Jaw-Face Hospital, more than 90% of Vietnamese people were suffering from dental problems and 85% of Vietnamese children from tooth decay during the year 2018. In the general population, the prevalence of caries is 67%; periodontal disease is 72%. Approximately one in every 500 babies in Vietnam is born with a cleft lip and/or cleft palate.**

The Government has been taking initiatives by organizing awareness campaigns and, although the number of dentists is still low, with one dentist available in every 25,000 people, the country is starting to train more dentists to cater to a wider population along with the foreign tourists. **According to forecasts in fact, the Asia-Pacific region will account for around 40% of the global dentist tourism market in 2023, with rising destinations in Southeast Asian countries like Thailand, Malaysia, the Philippines, and Vietnam.** According to the Vietnam National Administration of Tourism, approximately 100,000 foreigners visit Vietnam each year for dental procedures, raking in over \$150 million in revenue. Among the countries, Vietnam stands out for its affordability thanks to cheaper labor and facilities. Dental services are around 30% cheaper than other countries in Southeast Asia and even 50-60% cheaper than in New Zealand and Australia. Also, dental care in Vietnam costs about a third of the price compared to Italy. Increasingly, you will find Vietnamese affiliates of the American Dental Association, the International Congress of Oral Implantologists, the International Standards Organization among others and, for hospitals, international accreditation by the Joint Commission International, showing how

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keen are Vietnamese health professionals and institutions to demonstrate they are up-to-date with knowledge, skills and standards. Many dentists are trained in developed countries like the U.S., the UK and France, as well as Australia, South Korea, or Japan. Also, domestically, training and facilities have much improved in the years. Across the country, there are around eight dental schools, which produce 500 dentist graduates each, on an annual basis.

**Demand for better health and oral care in Vietnam over the past years has greatly contributed to the growth of the medical device market. According to Ken Research, the Vietnam dental services industry revenue is expected to reach about USD 435 million by 2023 with a positive CAGR of 5.6% in terms of revenue generated through dental services and a CAGR of 2.0% in terms of total number of dental clinics during the next two years.** Western technology is widely available within most reputable dental clin-

ics (mainly private) with well-trained doctors, modern and high-quality material, and equipment; the savings generally come from lower overheads and cost of living.

There are over 1,790 public dental clinics (or health facilities offering dental care. Data from 2012) in Vietnam, at least five in each district, while the number rises to over 100 in main cities. The number of private dental clinics is increasing rapidly (there were 70 in 2008, latest data available from Ministry of Health), mainly concentrated in urban areas of Hanoi, Ho Chi Minh City and Da Nang, with only few rural residents having access to any dental health services. Dental equipment is quite entirely supplied by imports as dental equipment manufactured domestically is still limited to furniture and simple equipment. Hanoi and Ho Chi Minh City represent 80% of the entire dental market and demand for emerging dental clinics and replacement of old equipment foresees good market potential for dental devices and supplies. Ho Chi Minh City has a larger population and more dental

	Oral and Lip Cancer per 100,000 pop. among 15 years or older, 2012 est.	DALYS lost due to tooth decay and periodontal disease, 2010	% of population with access to appropriate adjusted or natural levels of fluoride in water, 2012
Vietnam	Less than 2.5	100,000-462,000	6%-25%
Laos	2.5-4.9	Less than 10,000	-
Cambodia	5.0-6.9	10,000-99,999	-
Philippines	2.5-4.9	100,000-462,000	6%-25%
Japan	2.5-4.9	100,000-462,000	6%-25%
Australia	2.5-4.9	10,000-99,999	76%-100%
China	Less than 2.5	1.9m-2.3m	26%-50%

DALYS = Disability adjusted life years  
Source: The Oral Health Atlas, FDI 2015

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facilities, but Hanoi registers the highest number of purchasing contracts being the Ministry of Health (MoH) located here. US market share is about 35%, followed by Japan and Germany accounting together for 50-60% of the market. Mid-end products are mostly from South Korea and European countries including France, Italy, and Switzerland, while China and other Asian suppliers provide low-end products.

Often oral health status of populations in developing countries is less studied and oral health services less organized so, little published information is available on Vietnam. However, according to the latest available National Oral Health Survey, dating back to 1999, the oral health status of the Vietnamese adult population was characterized by moderate level of caries and low level of oral hygiene. According to the survey, the numbers of decayed/missing/filled teeth (DMFT) in subjects aged 45 years and over ranged from 6.09 to 11.66 in different regions of Vietnam. The high numbers of missing teeth (4.45 to 8.59 for those aged 45 years and over) combined with the low numbers of filled teeth (0.02 to 0.36) indicated that extraction was the most common treatment for caries and that restorative treatment was low. As a result, large parts of the population of Vietnam had incomplete natural dentitions. One third of adults had periodontal pockets. Calculus was highly prevalent. **Over 70% of total adult population had never visited for dental care in their life and over 80% of subjects had visited for care more than 2 years before. The DMFT score observed in the Vietnamese population (18+) was lower than that reported in adult population of Western countries and similar to that of other developing countries.** However, when the components of DMFT score were considered, there were much higher proportions of untreated decay and missing teeth among this sample as compared with other populations from developed countries. The Vietnamese adult population used dental care mostly when serious dental problems occurred and consequently extraction was often the treatment of choice. People who visited dentists even had higher mean DMFT; this may mean that only those people with extensive disease made a dental visit. **Only a few subjects received fillings and cleaning/scaling. The fact that the urban population had a higher prevalence and severity of car-**

### Dentition Status of Adult Population (+ 18)

	DMFT Average	Prevalence (%)
<b>TOTAL</b>	<b>4.98</b>	<b>81.3</b>
Residential Status:		
Urban	6.14	84.7
Rural	4.87	80.3
Age group:		
18-34	3.29	76.2
35-44	4.69	82.3
45+	8.39	89.6
Last Dental visit:		
Never	4.00	74.5
2+ years ago	6.64	84.4
Past 2 years	5.72	91.4

DMFT=decayed, missing and filled teeth - Source: National Oral Health Survey 1999

### Permanent Dentition Status of Vietnamese Children

	Mean DMFS	Prevalence (%)
<b>TOTAL</b>	<b>2.47</b>	<b>53.1</b>
Residential Status:		
Urban	2.70	55.1
Rural	2.40	52.6
Brushing Frequency (times/day):		
at least once a day	2.43	50.0
Two or more times a day	2.63	56.6
Age group (years):		
6-7	0.42	19.7
8-9	1.10	40.7
10-11	1.92	59.1
12-13	3.02	59.1
14-15	4.03	71.8
16-17	4.20	69.0
Last Dental Visit:		
Never	1.84	48.4
2+ years ago	2.14	52.0
Past 2 years	3.86	60.7

Source: National Oral Health Survey 1999

**ies despite having better education and living conditions suggested a possible future increase in dental caries in the Vietnamese adult population.** This speculation was based on several factors. First, the urban population in Vietnam was expanding rapidly, particularly among younger adults. Second, this population has seen a global nutrition transition over recent decades, from tra-

ditional breastfeeding to bottle feeding, from agriculture-based-foods to processed foods, and from family meals to snacking, due to the country's rapid economic growth and westernization. Changes in Vietnamese children's lifestyles have been observed in parallel with refined sugar being more readily available. All this is necessary associated with increased rates of childhood obesity, type 2 diabetes, and

## Changes in Vietnamese children's lifestyles have been observed in parallel with refined sugar being more readily available.

All this is necessary associated with increased rates of childhood obesity, type 2 diabetes, and tooth decay or caries.

tooth decay or caries. The adverse effects of the nutrition transition have been particularly dramatic in developing regions, where increasing obesity co-exists with malnutrition, leading to a "double burden" of malnutrition. Vietnam continues to be ranked among Asian countries as having one of the highest child malnutrition rates. Among children 5 years and younger in Vietnam, iron deficiency anemia and vitamin A deficiency have been observed in 29% and 14% respectively in the mountainous, underserved regions of Vietnam. A 2015 study from urban Da Nang found that 70–80% of preschool-age children consumed sweets between meals daily; and 71% of 3-year-olds and 91% of 5-years-old drank milk with sugar daily. A 2007 study of preschool children in Ho Chi Minh City found that 20.5% were overweight and 16.3% were obese. **The 2009 publication of the 1999 Vietnam's National Oral Health Survey found that 85% of children aged 6–17 had tooth decay, a significantly higher prevalence and severity than that observed 10 years earlier; and studies from 2015–2018 of children aged 2 to 6 in Vietnam found a prevalence of dental caries of around 90%, with Vietnamese children aged 6 years having four times the DMFT primary teeth score as compared with the United Kingdom or Australia.**

On top of what mentioned, another study conducted from 2011 to 2013, on a three-year oral health and nutrition intervention in urban and sub-urban preschools/kindergartens children in Central Vietnam (Da Nang) and South Vietnam (Ho Chi Minh City) showed that the population (sample of 571 children aged 2–5 years and their mothers/caregivers) had a high prevalence of child obesity and widespread untreated maternal and child dental disease. **Although nearly all mothers (98.0%)**

**reported having had at least one dental visit, nearly all mothers (91.1%) reported that they currently suffered from oral health problems, including decayed teeth, inflammation, dental pain, and bleeding gums. Overall, child dental exams indicated that 3 out of 4 children (74.6%) had tooth decay. Nearly all (96.4%) of the decay was untreated.**

The prevalence of child tooth decay increased steadily with age from 56.9% at 2 years to 86.7% at 5 years. Likewise, the mean number of decayed, missing, and filled teeth increased steadily with age from 2.7 at 2 years to 8.5 at 5 years. The prevalence of deep decay increased steadily with age to affect half of the children (50.9%) at 5 years of age. Overall, more than half of children (56.3%) complained of mouth pain, 4 in 10 children (40.7%) had problems eating due to mouth pain, and nearly 1 in 4 children (21.9%) had problems sleeping due to mouth pain. The prevalence of mouth pain increased with age, corresponding to the increase in the prevalence and severity of dental caries, and 7 out of 10 children in the study had mouth pain at age 5. Mothers' assessment of their children's oral health was worse than their general health.

As clearly stated, Vietnam's dental care is mainly cure-oriented, less effort is made towards preventative or restorative dental services due to lack of dental professionals and resources. Unless the government organizes public health programs to implement prevention, oral health education and treatment strategies to improve oral health and overall wellbeing, the high prevalence of dental caries affecting younger generations will further strain the country's limited dental resources, with a general growth of dental problems following into adulthood, inevitably increasing demand for dental services.

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