

# Equity in oral health care



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Health equity is based mainly on logic and moral values. It is defined as differences in health that are unnecessary, avoidable, unfair and unjust

The Baylor Health Care System has highlighted six aims with the acronym STEEEP to increase the quality of health care delivered. These are Safety, Timeliness, Effectiveness, Efficiency, Equity and Patient-centeredness. Of these, equity is one aspect which has received less priority(1).

Health equity should not be mistaken with health inequality though both words have sometimes been used interchangeably. Inequality can be expressed in quantitative terms while equity is explained in terms of moral values and is more of an ethical principle because every individual has the right to health. A more operational definition of health equity is the absence of systematic disparities in health (or its social determinants) between more and less advantaged social groups.

#### Why oral health demands equity

Oral health enables a person to perform some basic functions like eating, speaking and socializing. It is widely known that mouth is regarded as the mirror of the human body because oral health is so closely related to systemic health. Poor oral health and presence of oral diseases indirectly affects quality of life due to the pain experienced and the inability to perform day-to-day activities. It also leads to loss of man hours thereby leading to a decrease in earning and productivity. But it is still unknown to large segments of the population that oral diseases are to a great extent preventable and can be adequately treated if diagnosed early and thus oral health inequity is largely avoidable.

Equity in health care depends mainly on the health care system existing in the country. Before we go into oral health “inequity” in India, let’s first consider oral health care infrastructure in India.

Oral health care in India is delivered by the following methods

- Government organizations
  - Government Dental Colleges
  - Government Medical Colleges and Dental Wing
  - District Hospitals with Dental Unit
  - Community Health Centers
  - Primary Health Centers.
- Non. governmental organizations
  - Private Dental Colleges
  - Private Medical Colleges with Dental Wing
  - Corporate Hospitals with Dental Units.
- Private practitioners
  - Private dental practitioners
  - Private dental hospitals
  - Private medical hospitals with dental units.
- Indigenous systems
  - Ayurveda
  - Siddha
  - Unani
  - Homeopathy(2)

To elaborate, oral health care delivery in India starts at the grass root levels with community health workers and anganwadi workers who are trained in providing basic oral health awareness to the people of rural areas. Then, there is the sub-centres in rural areas which is equipped with a rural health care practitioner, midwives and health workers. Next in line comes the Primary Health Centres (PHC) which has a dentist among other health care professionals. The next referral unit is the Community Health Centers (CHC) which is also equipped with a dentist. The higher center is Sub-district hospitals or taluk hospitals which are supposed to have specialist dentists also. This is followed by oral care given in district hospitals and dental colleges. This is the hierarchy seen in public health sector. In India, oral care is majorly delivered by private sector institutions which include solo/individual clinics, group practice, corporate/chain of dental clinic and private dental colleges. Reports say that more than 90% of oral care is delivered by this sector. Dentistry is also practiced in indigenous systems of medicines like Ayurveda, homeopathy, unani and siddha. To give a full picture of the oral care delivery systems in India, the mention of dental treatments given by unregistered dentists, quacks and street dentists also need to be done. Though no data is available, there is still a large number of people seeking oral care from these setups.

In order to achieve equity in any type of health and health care, researchers have identified three major principles. They are:

- Equal access to health care for those who have equal needs
- Equal utilization of health care for those who have equal needs
- And, equal (or rather equitable) health outcomes (3)

From the oral health point of view, let us examine these principles related to the Indian context.

*Equal access to health care for those who have equal needs*

Dental diseases are a significant burden in India with dental caries affecting 60-65% and periodontal disease affecting around 50-90% of the general population depending on age(4). Due to the high prevalence of these two conditions, the World Health Organization has considered them as global burdens. So the need for dental care is obvious. Access to health care is one of the primary requisites to achieve equity in health. Based on this principle, let's examine the scenario in India. India has about 290 dental colleges with around 24, 000 graduates passing out every year. According to the Dental Council of India, the number of dentists registered with the central/state dental council until the year 2012 stood at 120897. The number of dental surgeons serving in the government health centres in the year 2013 was about 5278 who covered an average population of 231827 persons per dental surgeon(5). Even with so many graduates coming out every year, basic oral care facilities are still not available to a large section of the Indian population especially in the rural areas. This shows the wide disparity in delivery of oral health.

Though India has substantially increased the health care facilities through various five-year plans, it is still inadequate considering the growth of private sector in health care. From a meager 8% in 1949, the private sector now contributes to 93% of hospitals and 85% of doctors in the country(6). Though this data shows an increase in health care availability in India, the question

that remains to be answered is whether this mushrooming of private sectors addressed the health inequity issues. It is obvious that private health care facilities are concentrated mainly in urban areas catering to the needs of people enjoying a high socio-economic status. As a result of this, cost of health care has also gone up making it virtually impossible for people belonging low socio-economic status to afford health care. This is what we call the urban-rural divide. The same scenario exists for dental care which is generally perceived as 'expensive' by the common man. The exponential growth of private dental institutions in the country was seen as a boon which could ensure availability of basic dental care to all sections of the society. But sadly, present statistics don't reflect the same view. It is seen that almost 62% of dental surgeons are registered and serving with dental councils of the high Human Resource for Health (HRH) production states (viz. Karnataka, Maharashtra, Tamil Nadu, Andhra Pradesh, Kerala and Puducherry). Moreover, these states also have shown a profound increase in private dental colleges which are situated in and around urban and semi-urban areas.

The dentist population ratio is the yard stick used to measure the availability of dental care to the people. The World Health Organization recommends a dentist population ratio of about 1: 7500. In the present scenario in India, this ratio stands at 1: 12, 500(7). Though this information points towards a need for increase in dentist, a closer look at the reality brings out a different story. This is because, as mentioned earlier, the distribution of dentists is typically skewed which in effect brings this ratio to 1: 9000 in urban areas and an alarming 1: 2, 00, 000 in rural areas(8). This roughly states that

around 80% of the dentists work in urban areas while 70% of India's population live in rural areas(9). Reading further into these statistics we can make out that this ratio also doesn't provide the actual picture. This ratio is calculated based on the number of dentists registered in the respective state councils which is actually a cumulative data. There could be several retired or expired dentists and non-practicing dentists, if excluded, could still worsen the situation. This by far, is the most important aspect of the inequity in oral health care the country faces.

### *Equal utilization of health care for those who have equal needs*

Utilization of health care is a complex phenomenon and multifaceted human behavior. The determinants of oral health care can be classified as predisposing (socio-demographic factors like age, sex, occupation, and social network), enabling (transportation, income, and information), and need (perceived health or professionally assessed illness) factors(10). Though by service approach (camps and outreach programs), oral health care is provided to the people, the effective utilization of the same remains a question. The social component of oral diseases has been a major factor in this regard. If we have a comprehensive look at the admission rates at various levels of oral health care establishments, the above said factors like socio-demographic variables, access and most importantly the perceived need for oral care play a pivotal role.

Let's begin by looking at the various types of treatments provided by the oral health care establishments in the country. The posting of a dentist only begins from the level of Community Health Center. The sub-centers and

Primary Health Centers who cater to about 3000 - 5000 and 20,000 - 50,000 of the population do not have a government appointed dentist in their ranks. Though some private educational institutions have adopted some PHC's as a part of their community outreach programs, the coverage is still very deficient. A study conducted in Mangalore, Karnataka supports this fact where only 4 out of 21 PHC's (19%) offered dental services and were managed by private dentists from nearby dental colleges(11). In a developing country like India where dental diseases are more prevalent in rural areas than the urban setting, the unavailability of dental care in sub-centers and PHC's is in itself the biggest drawback in health care system of India. Without availability, the question of utilization does not arise or is insignificant.

The 2012 Guidelines for Community Health Centers provided by the Government of India necessitates that each CHC be equipped with one dentist and a dental auxiliary(12). Sadly, even this basic requirement remains unfulfilled in most states across India. Thus, a population of 80,000 to 1,20,000 which a CHC is supposed to cover lack in oral care. Moreover, the sanctioned dentist in a CHC is with a qualification of a bachelor's degree (BDS) thereby also causing a deficiency in specialist care. Though it is mentioned in the guidelines that treatments offered in CHC's range from normal fillings, extractions, emergency care and root canal treatments; the absence of dental chair making it impossible to do treatments other than extractions and simple fillings. It can thus be deduced that very minimal treatment if at all; or only primary level of oral care can be provided by these centers.



The situation looks slightly better in the secondary referral center which is the taluk and district hospitals. The Government of India prescribed guidelines state that dental services that can be availed from a district hospital include fillings, extractions, scaling and periodontal therapy, minor surgeries like impaction, orthodontic treatment, prosthetic rehabilitations and treatment of neoplasm(13). But the availability of these services only from the level of district hospital and above brings to the forefront one of the most important barrier in the utilization of health care; access. A study conducted in Virajpet, concluded that transport to the dentist was difficult which was regarded as a major barrier in the utilization of dental care.

Secondary and tertiary level dental care available in the government set up is from dental colleges established by the Government. These colleges are markedly low in number (two colleges on an average in per state) compared to private institutions which makes it very difficult for people of low socio-economic class to avail specialist care. This makes people approach private dental care establishments like clinics, corporate/chain of clinics and private dental colleges for treatment. The fact that needs to be emphasized here that though all levels of dental care is available in these institutions, the affordability of this care stands a barrier for utilization of these services since they depend on out-of-pocket payment. The class of people utilizing this facility to get dental treatment thus gets restricted to people living with a high socio-economic status.

Utilization of dental care does not end with the presence/absence of dental care facilities alone. As mentioned earlier, dental diseases have a social angle to it. One of the reasons for not utilizing dental care is the priority oral

care has in people's lives. Several studies have reported that people considered dental care was not important (2)(14). Parental ignorance about the importance of oral health leads to the presence of oral diseases like dental caries in a vast majority of children. Other studies have revealed that level of education and financial status also affect utilization of dental services. Lack of time, unpleasant experiences with the dentist, fear/anxiety of dental procedures are some of the other reasons behind people not utilizing dental care (*virajpet reference*).

Equal/equitable health outcomes