

## Oral Health: Quantification of Quality Measures



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You don't have to be a mathematician to have a feel for numbers! John Forbes Nash, Jr. being an astute geometrician himself, couldn't have said more. This *feel for numbers* has witnessed an interest in 'Big Data' grown exponentially in modern times. Research calls, commercial insights, and government ascendancies, all seem to be directed on exploiting the potential of technology to seize and analyze massive amounts of data in tangibly creative demeanors. Speaking of which, the data in dental health domain is as rich since it is gathered from various sources like public health surveys, census inferences, national health registries, electronic health records, genomic data etc.

The Global Burden of Disease (GBD) study is an ongoing global epidemiologic study, begun in 1990, based on big data science to provide timely information on changes in disease distribution and adverse health impacts on universal population.<sup>(1)</sup> The global burden of oral disease has revealed a whopping number of 3.6 billion people worldwide to be affected by ravages of dental caries thereby affecting oral health from an economic standpoint also. For example, yearly direct and indirect treatment costs due to dental diseases on a overall scale were estimated at US\$298 billion and US\$144 billion respectively, equivalent to an average of 4.6% of global health expenditure for the former. The findings underline the challenge in responding to the diversity of urgent oral health needs internationally, predominantly in developing communities.

But that is just one part of the story. Numbers are just numbers if not manipulated well. Reflecting back on the quantification of an enormous pool of data in dental health, technology has played an evolutionary

role in rendering the populations better informed regarding their oral health. In this regard, the bio-psycho-social aspect of oral health has been stressed upon, with the Fédération dentaire internationale (FDI) very recently having proposed a contemporary definition of Oral Health.<sup>(2)</sup>

The FDI now defines Oral Health as:

Oral health is multi-faceted and includes the ability to speak, smile, smell, taste, touch, chew, swallow and convey a range of emotions through facial expressions with confidence and without pain, discomfort and disease of the craniofacial complex.

Further attributes related to the definition state that oral health:<sup>(3)</sup>

- Is a fundamental component of health and physical and mental well-being. It exists along a continuum influenced by the values and attitudes of individuals and communities;
- Reflects the physiological, social and psychological attributes that are essential to the quality of life;
- Is influenced by the individual's changing experiences, perceptions, expectations and ability to adapt to circumstances.

The magnificently articulated definition by its sole virtue encompasses nearly all the realms of philosophies idealized worldwide by different set of populations, oral health importantly, a prudent effort to occlude potential gaps and at the same time being adopted by 200 dental associations across the globe, already translated into six United Nations (UN) languages. A hallmark step indeed.

Owing to a significant impact of oral health on

quality of life, and a gradual awareness regarding the same, collective efforts need to be exercised, to ultimately attain a healthier future. Our institute, the I.T.S-CDSR, focuses on this aspect carefully with meticulously organized community participation programs as well as grooming healthy practices in tiny-tots presenting to our clinics. A visionary insight is the need of the hour to realize our dream of ‘growing up cavity free’!

I wish you readers a happy experience while turning around the pages of this wonderful manuscript. Should there be further comments or questions, please feel free to ping an e-mail or contact the editorial board of the journal.

### References

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