# STATUS OF ORAL HEALTH CARE IN TANZANIA: WHAT IS THE WAY FORWARD?

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Despite the huge advances made in dentistry over the past few decades dental decay remains a global problem causing untold suffering to hundreds of millions of people (WHO, 2002). Although available literature shows that in Tanzania the most common oral disease is gingivitis affecting 80%-94% of the studied population, one in three to four persons has two dental caries (Lembariti et al., 1988; Axell and Johnson, 1993; Mosha et al., 1994; Mumghamba et al., 1995; Ministry of Health, 2002). Caries also affects one quarter to two thirds of the children aged three to seven years (Mosha and Robinson, 1989; Rugarabamu et al., 1990; Kerosuo and Honkala, 1991; Mosha et al., 1994; Mugonzibwa, 2000). About fifteen years ago, the DMF-T in the permanent dentition was reported to be 0.48-0.67 among 12 –year-olds (Frencken et al., 1986; Frencken et al., 1990). The DMF-T ranged from 0.7 to 1.3 among 18 –year-olds and 1.9 to 2.7 among 35-44 –year-olds (Mosha et al., 1994). Over 90% of tooth decay and loss occur in the molar region (Baelum and Fejerskov, 1986; Manji et al., 1986; Frencken et al., 1986).

While dental trauma was found to occur among Tanzanian children at a rate comparable to that reported in developed countries, Tanzania dental practitioners were found to have inadequate knowledge to treat dental trauma (Kahabuka et al., 2001; Kahabuka et al., 2001).

Some recent epidemiological surveys conducted in Dar es Salaam showed that most of the classic malocclusions occur among Tanzanian children and the an absolute need for orthodontic treatment measured by combining AC and DHC of IOTN grades 8-10 and 4-5 respectively, ranged from 5-12% (Mugonzibwa et al., 2004a). On the other hand, most of the children in Dar es Salaam demanded orthodontic care for crowding (Mugonzibwa et al., 2004b).

Both Mazengo and Kirveskari (1991) and Sarita et al (2003) reports show that the distribution of the signs and symptoms of craniomandibular disorders (CMD) in Tanzanians are not dissimilar to that observed in the developed countries. The prevalence was not high by comparison, but sufficient to lend credence to the general view that CMD is a universal problem.

Regarding to oral tumours in Tanzanian children, malignant tumours were the most frequent (43.0%) followed by benign tumours (30.4%) and tumour-like lesions (26.6%). The six most common oral lesions were Burkitt's lymphoma, fibroma, odontogenic cysts, fibrous dysplasia, papilloma and giant cell granuloma. (Kalyanyama et al., 2002). On the other hand, on average salivary gland tumours occurred at a relatively younger age in Tanzania compared to that reported in Western countries. Contrary to reports from Europe and America, adenoid cystic carcinoma was the most frequently occurring malignant salivary gland tumour. Late presentation was seen as a problem that needs to be addressed in order to maximise the effectiveness of treatment. (Masanja et al., 2003).

The absence of adequate oral ailments treatment possibilities in Tanzania leads to pain, suffering, loss of income and decreased quality of life for hundreds of millions of people. Most dental patients including children report to the oral health facilities for relief of pain often with already formed dental abscesses rather than the comprehensive care or prevention (Mosha and Scheutz, 1993; Ntabaye et al., 1998). The main reason to seek dental care is intolerable pain for 87% of the affected individuals mainly due to dental caries after a long wait and see period (Van Palenstein Helderman and Nathoo, 1990; Mosha and Scheutz, 1993; Christensen et al., 1997; Ntabaye et al., 1998). Inability to pay for oral heath services, travel distance and fear for dental treatment are some of the reported perceived barriers to oral health services utilization among Tanzanians (Ntabaye et al., 1998). As a result, the caries situation in Tanzania like in many other low –income countries remains characterized by a high percentage of untreated dentinal lesions with tooth extraction as the predominant form of oral care (Frencken et al., 1999; WHO, 2000; Matee and Simon, 2000). Restorative and rehabilitative care is limited by finances, shortage of

professionals, deficiencies in and poor maintenance of equipment, as well as restricted supplies of materials.

Dental services are not adequately accessible to the whole general population in Tanzania. Furthermore, in the rural areas there are no university-trained dentists. A good number of university-trained dentists have left the country for greener pastures elsewhere. The few university-trained dentists remaining in the country are confined in towns while most Tanzanians live in rural areas. In 2000 there was one university-trained dentist (Dental Officer, with a 5-year University training) per 343,992 inhabitants (Ministry of Health, 2002). Furthermore, in 2002 there were 28 districts without any kind of trained oral health personnel (Ministry of Health, 2002). Traditional healers (Ngilisho et al. 1994) and private dental practice exist and play some role in the Tanzanian oral health care system but their scope is not well documented. On the other hand, there are no effective functioning public school health services. Meanwhile, to date some towns in Tanzania have no reliable electrical supply which is a life line factor for conventional dentistry. Even in the commercial city of Dar es Salaam, the basic oral health care is inadequate.

The poor economic performance in Tanzania has for decades held back improvements of living standards and provision of basic services leading to tiny fraction of the population being able to obtain modern health care. The dental profession fraternity in Tanzania could probably set up concrete policies based on oral health care promotion taking the advantage of the Tanzanian Government primary health care policy, which an oral health care policy is part of. According to the Tanzania oral health policy, emphasis is put on preventive approach based on community involvement. In situations of limited resources, a high-risk preventive strategy would be more attractive. The overall goal of the Tanzanian oral health policy is to improve the oral health of all Tanzanians with focus on those most at risk and to encourage the systems to be more responsive to the oral health needs of the people. The profession may also advise the Government to consider giving subsidized oral health services to schoolchildren.

The prevalence/proportions of various oral diseases may look small, but when extrapolated to the whole Tanzania population, it imposes a tremendous challenging need for oral health care. It is therefore, time the dental profession in Tanzania to take a fresh look into oral health care challenges and work closely with other health stakeholders including the government, NGOs, researchers, private health service providers and international organizations in devising more effective ways of dealing with the multitude of complex oral health problems the society is facing. Probably the WHO Global strategy for prevention and control of non-communicable diseases and the "common risk factor approach" which offer new ways of managing the prevention and control of oral diseases (Petersen, 2004) may pave the way forward for oral health care system in Tanzania.

**References**


1. Atraumatic restorative treatment (ART) for tooth decay. A global initiative 1998-2000. World Health Organization, 2002
2. Axell T and Johnson K. Oral health in a Tanzanian village. Trop Dent J, 1993; 16:14-20.
3. Baelum V and Fejerskov O. Tooth loss as related to dental caries and periodontal breakdown in adult Tanzanians. Community Dent Oral Epidemiol. 1986 ;14:353-7.
4. Christensen L, Lembariti BS, van Palenstein Helderman WH. Utilization of Dental Services by factory workers in Morogoro. Tanzania Dent J 1997;8:10-12.
5. Frencken JE, Truin GJ, Konig KG, Ruiken RM, Elvers HJ.Prevalence of caries, plaque and gingivitis in an urban and rural Tanzanian child population. Community Dent Oral Epidemiol. 1986;14:161-4.
6. Frencken JE, Truin GJ, van't Hof MA, Konig KG, Mabelya L, Mulder J, Ruiken HM.Prevalence of dental caries in 7-13-yr-old children in Morogoro District, Tanzania, in 1984, 1986, and 1988. Community Dent Oral Epidemiol. 1990;18:2-8
7. Kahabuka FK, Willemsen W, van't Hof M, Ntabaye MK, Burgersdijk R, Frankenmolen F, Plasschaert A. Initial treatment of traumatic dental injuries by dental practitioners. Endod Dent Traumatol. 1998;14:206-9.
8. Kahabuka FK, Plasschaert A, van't Hof M.Prevalence of teeth with untreated dental trauma among nursery and primary school

pupils in Dar es Salaam, Tanzania. Dent Traumatol. 2001;17:109-13.
9. Kalyanyama BM, Matee MI, Vuhahula E. Oral tumours in Tanzanian children based on biopsy materials examined over a 15-year period from 1982 to 1997. Int Dent J. 2002; 52:10-4.
10. Kerosuo H, Honkala E.Caries experience in the primary dentition of Tanzanian and Finnish 3-7-year-old children.Community Dent Oral Epidemiol. 1991; 19:272-6.
11. Lembariti BS, Frencken JE, Pilot T.Prevalence and severity of periodontal conditions among adults in urban and rural Morogoro, Tanzania. Community Dent Oral Epidemiol. 1988; 16:240-3
12. Manji F, Mosha H, Frencken J. Tooth and surface patterns of dental caries in 12-year old urban children in East Africa. Community Dent Oral Epidemiol. 1986 14:99-103.
13. Masanja MI, Kalyanyama BM, Simon EN. Salivary gland tumours in Tanzania. East Afr Med J. 2003;80:429-34
14. Matee M, Simon E.Utilisation of dental services in Tanzania before and after the introduction of cost-sharing. Int Dent J. 2000;50:69-72.
15. Mazengo MC, Kirveskari P Prevalence of craniomandibular disorders in adults of Ilala District, Dar-es-Salaam, Tanzania. J Oral Rehabil. 1991 18:569-74
16. Mosha HJ, Ngilisho LA, Nkwera H, Schuutz F, Poulsen S, Oral health status and treatment needs in different age groups in two regions of Tanzania. Community Dent Oral Epidemiol 1994;22:307-10.
17. Ministry of Health, The United Republic of Tanzania. National Oral Health Plan 2002.
18. Mosha HJ and Robison VA. Caries experience of the primary dentition among groups of Tanzanian urban preschool children. Community Dent Oral Epidemiol. 1989;17:34-7
19. Mosha HJ, Scheutz F.Perceived need and use of oral health services among adolescents and adults in Tanzania. Community Dent Oral Epidemiol. 1993; 21:129-32.
20. Mugonzibwa EA. Dental caries status among pre-school children in urban Dar es Salaam. Proc 19th Annual Scientific Conference of Tanzania Public Health Association, 2000; pg. 181-5.
21. Mugonzibwa EA, Kuijpers-Jagtman AM, van 't Hof MA, Kikwilu EN.Need for orthodontic treatment among Tanzanian children. East Afr Med J. 2004a;81:10-5.
22. Mugonzibwa EA, Kuijpers-Jagtman AM, van 't Hof MA, Kikwilu EN.Demand for orthodontic treatment among 9-18 year-olds seeking dental care in Dar-es-Salaam, Tanzania. East Afr Med J. 2004b;81:3-9.
23. Mumghamba EG, Markkanen HA, Honkala E.Risk factors for periodontal diseases in Ilala, Tanzania. J Clin Periodontol. 1995 ;22:347-54
24. Ntabaye MK, Scheutz F, Poulsen S.Patient satisfaction with emergency oral health care in rural Tanzania. Community Dent Oral Epidemiol. 1998;26:289-95.
25. Petersen PE. Challenges to improvement of oral health in the 21st century--the approach of the WHO Global Oral Health Programme. Int Dent J. 2004 ;54 (6 Suppl 1):329-43.
26. Rugarabamu P, Frencken JE, Amuli JA Lihepa A. Caries experience amongt 12- and 15- year old Tanzanian children residing on a sugar estate. Community Det Health 1990;7:53-8.
27. Sarita PT, Kreulen CM, Witter D, Creugers NH.Signs and symptoms associated with TMD in adults with shortened dental arches. Int J Prosthodont. 2003;16:265-70.
28. Van Palenstein Helderman WH, Nathoo ZAW. Dental Treatment Demands among patients in Tanzania. Community Dent Oral Epidemiol. 1990; 18:85-7