

The burden of oral disease: challenges to improving oral health in the 21st century

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Dental caries and periodontal diseases have historically been considered the most important part of the global burden of oral diseases. At present, the distribution and severity of oral diseases vary in different parts of the world and within the same country or region. Dental caries is still a major public health problem in most industrialized countries, affecting 60–90% of schoolchildren and the vast majority of adults. It is also a prevalent oral disease in several Asian and Latin American countries, while it appears to be less common and less severe in most African countries. It is expected, however, that the incidence of dental caries will increase in the near future in many developing countries of Africa, as a result of growing consumption of sugars and inadequate exposure to fluorides.

The significant role of socio-behavioural and environmental factors in oral disease and health is demonstrated in a large number of epidemiological surveys. The current pattern of dental caries reflects primarily distinct risk profiles across countries (related to living conditions, lifestyles and environmental factors) and the implementation of preventive oral health systems.

In some industrialized countries there has been a positive trend in the reduction of tooth loss among adults in recent years, though the proportion of edentulous persons in the elderly population is still high in some countries. In most developing countries, access to oral health services is limited and teeth are often left untreated or are extracted because of pain or discomfort. Tooth loss and impaired oral function are therefore expected to increase as a public health problem in many developing countries.

Tooth loss in adult life may also be attributable to poor periodontal health. Severe periodontitis, which may result in tooth loss, is found in 5–15% of most populations. In industrialized countries,

studies show that tobacco use is a major risk factor for adult periodontal disease. With the growing consumption of tobacco in many developing countries, the risk of periodontal disease and tooth loss may therefore increase. Oral cancer is closely related to the use of tobacco and excessive consumption of alcohol. The prevalence of oral cancer is particularly high among men, and is the eighth most common cancer worldwide. In south and central Asia, consumption of tobacco in various forms is particularly high, and cancer of the oral cavity ranks among the three most common types of cancer. Periodontal disease and tooth loss are also related to chronic diseases such as diabetes mellitus: the growing incidence of diabetes may further impact negatively on oral health of people in several developing countries.

WHO recently published a global overview of oral health, describing its approach to promotion of further improvement in oral health during the 21st century (1). The report emphasizes that, despite great improvements in the oral health status of populations across the world, problems still persist. This is particularly so among underprivileged groups in both developed and developing communities. Oral diseases and conditions including oral cancer, oral manifestations of HIV/AIDS, dental trauma, craniofacial anomalies and noma (cancrum oris) all have broad impacts on health and well-being. In several industrialized Western countries, oral health care is made available to the population, comprising preventive and curative services that are based on either private or public systems. Meanwhile, people in deprived communities, certain ethnic minorities, homebound or disabled individuals and older people are not sufficiently covered by oral health care. Many developing countries have shortages of oral health personnel, services are mostly offered from regional

or central hospitals situated in urban centres, and little importance is given to preventive or restorative dental care.

The *Bulletin of the World Health Organization* is preparing to devote a theme section to oral health in order to highlight the challenges for oral health improvement in the future. The issue will focus on different aspects of oral health, such as the links between oral health, general health and quality of life; diet and nutrition; fluorides; school oral health and oral health of the elderly population; HIV/AIDS; approaches to oral health promotion and disease prevention; and oral health surveillance. The *Bulletin* is seeking papers dealing with oral health, especially research papers and particularly from developing countries.^a ■

1. Petersen PE. The world oral health report 2003: continuous improvement of oral health in the 21st century — the approach of the WHO Global Oral Health Programme. *Community Dentistry Oral Epidemiology* 2003;31 Suppl 1:3-24.

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^a Manuscripts should be submitted to <http://submit.bwho.org> by 1 April 2005, respecting the guidelines for contributors and accompanied by a covering letter referring to this call for papers.