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Global oral public health – the current situation and recent developments

In many countries, oral health has a relatively low priority. This is perhaps unsurprising because, with the exception of oro-pharyngeal cancer, very few people die as a direct result of oral diseases. Painful or unsightly teeth and periodontal tissues (gums) and oral infection can, however, have a variety of consequences leading to a reduced quality of life and considerable expense. In 2000, some 50 billion Euros was spent directly on oral health in the then 15 Member States of the European Union.¹ Indirect costs, because of such factors as time off work and poor performance at school, add substantially to this cost. In addition, isolation of dentists from the mainstream of health care has led to relatively little interest in oral health by health planners. Why? One reason is that in North America and North West Europe, for over a century, dentists have been educated separately from medical doctors and undergo an *Odontological* education, which, although it includes perhaps 50 per cent of a medical course, has historically put an emphasis on the treatment of teeth and more recently the prevention of oral diseases. In Southern and Eastern Europe, until relatively recently, dentists underwent a *Stomatological* education in which they were trained as medical doctors before further education in dental procedures. A second reason is that dentists generally practice in isolation from other health care workers, in what are effectively small

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businesses. From a public health point of view, dental public health is under-developed, and in Europe is recognised as a specialty in only three countries (Bulgaria, Finland, and the United Kingdom).²

This article explains why oral health should be fully integrated into health planning and public health, considering, in particular, the increasing emphasis placed on non-communicable diseases (NCDs) and oral manifestations of infectious disease. It discusses current trends in oral diseases, and developments to raise the profile of oral health and integrate it into the mainstream of health planning and public health.

NCDs

The World Health Organisation's Action Plan for the Global Strategy for the Prevention and Control of Non-communicable Diseases³ highlighted that they were a growing problem. Most oral diseases are NCDs and have common risk factors with cardiovascular diseases, respiratory diseases, diabetes, and cancers.⁴ Examples include: the risk of developing oro-pharyngeal cancer, which may be increased many times among heavy smokers and alcohol drinkers,⁵ and the detrimental effects of untreated periodontitis (gum disease) on glycemic control in diabetics.⁶ Apart from the four shared behavioural risk factors of tobacco use, unhealthy diet, harmful use of alcohol, and physical inactivity, it is necessary to address problems that arise from health inequalities relating to socio-economic factors. Oral health planners may have neglected this aspect;⁷ closer integration with mainstream public health should help.

Oral manifestations of infectious disease

A very wide range of viral and bacterial diseases have frequent oral manifestations, usually in the form of ulcers. Although some such as Herpes Simplex appear less prevalent in developed countries, in cities the prevalence of 'old' diseases such as tuberculosis appears to be rising,⁸ and there has been a recent increase in the prevalence of oro-pharyngeal cancers in general and those because of the Human Papillomavirus, in particular.⁹ The prevention and treatment of these diseases requires close collaboration between medical and dental clinicians.

Current trends in oral diseases

Three main groups of disease affect the mouth. All are preventable, and unless patients make specific complaints are frequently ignored by health care

workers, other than dentists and other dental workers. The most serious and life-threatening are the oral cancers, which because of the very well-developed vasculature of the oral mucosa can metastasise early. More people die annually from oro-pharyngeal cancer than from cervical cancer. Even so, among the public and the health care professions, other than dentists, awareness of cervical cancer is generally greater. If oro-pharyngeal cancers are diagnosed early (Stage 1), the 5-year survival rate has recently been reported as 86 per cent, but only 16–18 per cent, if diagnosed late (Stage 4).¹⁰ In both developed and developing countries, the prevalence of oro-pharyngeal cancers is rising.

Is the prevalence of the second group of oral diseases – periodontal (gum) diseases also rising or is it stable? Uncertainty comes from use of poor epidemiological methods to assess this group of diseases.¹¹ For 85–90 per cent of the population, good oral hygiene is sufficient to prevent these diseases and, in the other, 10–15 per cent to minimise them. In the last 20 years, they have been shown to be associated with a number of NCDs, including diabetes, cardiovascular, and respiratory diseases.¹²

The third main group of oral diseases is dental caries. Over the last 30 years, in developed countries, the use of fluoride toothpaste has led to marked improvement in caries prevalence in children and young adults.¹³ Such improvement has been less or non-existent in children from socially deprived backgrounds and has not been seen in developing countries, where, due to changing diet, it has deteriorated.¹⁴ The elderly are now more likely to retain their teeth.¹⁴ Yet, for them, there has been a significant increase in root caries. As with periodontal diseases, dental caries is largely preventable.

There is great need to educate the population and all health care workers in how to prevent oral disease and, in common with prevention of other NCDs, to eat a healthy diet, quit smoking, consume either no or limited quantities of alcohol, and practice good personal and oral hygiene.

Recent Developments

In a 2007 resolution, WHO urged member states to ‘adopt measures to ensure that oral health is incorporated into policies for the integrated prevention of chronic non-communicable diseases’.¹⁵ In response, came a number of initiatives. The International Association for Dental Research has given a priority to investigating how to decrease inequalities in oral health and has formed a working group to take this forward at a global level. Within Europe, the Platform for Better Oral Health in Europe (PBOHE) was launched in 2011, following a call for action to Health Commissioner John Dalli by several Members of the European Parliament.

To try to improve the current situation, the most recent initiative comes from a decision of the World Federation of Public Health Associations (WFPHA) to form an Oral Health Group to collaborate with the recently formed Alliance For a Cavity-Free Future.

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