

Scientific Thought and
Clinical Practice



10 years of BaSS

PUBLIC HEALTH ISSUES CONCERNING ORAL HEALTH CARE IN FORMER SOCIALIST COUNTRIES

Marko Vulović, DDS, MSc, PhD, Professor
Momir Carević, DDS, MSc, PhD, Associate Professor

Clinic for Pediatric and Preventive Dentistry
School of Dentistry, University of Belgrade

Introduction

Reduction of dental caries in developed countries of Northern and Central Europe in the last 20 years has not occurred because of the undoubted advances in the dental treatment but because of the widespread introduction of comprehensive oral diseases preventive programs and promotion of oral health, especially use of fluorides. Oral health in developing countries of Eastern Europe in generally did not follow the pattern of oral health improvement as in developed countries of Northern and Central Europe. Prevalence rate of dental caries remained high in most of Eastern Europe. For example DMFT in twelve years old in this countries is still between DMFT 3-5. The main reason for higher occurrence of oral diseases in this countries are not due to the lower level of dental treatment, but due to the missing or improper implementation of Programs of oral health care. Public Dental Health has to be based and supported by National Programs of Oral Health Care which are existing in most of the Northern European countries, concerning rationale use of scientifically approved most effective and inexpensive measures in prevention of oral diseases, proper education and distribution of manpower employed in Public Dental Health Services.

Key words: caries, prevalence, prevention

Public health is defined as “the science and art of preventing disease, prolonging life and promoting health through the organized society”¹. In other words the aim of public health (PH) is to improve health in population, so dental public health can be defined as “the science and art of preventing oral diseases, promoting oral health and improving the quality of life through the organized efforts of society”⁴.

There have been three phases of activities in PH as organized care since the middle of the 19th century, and we stand now at the fourth phase².

The first phase (1840-1890) was period of rapid urbanization and industrialization with desperate living condition for the poor. Public health was based on sanitary reform. This was a period when medical and epidemiological researches were detecting causal relationships involving malnutrition, unhygienic condition and infectious diseases.

The second phase (1880-1930) was characterized by the advances in bacteriology and immunization bringing personal prevention on a population basis. This was a period of growth in the maternal and child welfare (school meals and milk were introduced to compensate malnutrition among the poor).

The third phase (1930-1975) was therapeutic phase. Medical services were focused to hospitals, increasing complexities of medical treatments and less emphasis on public health in terms of prevention and health promotion.

The fourth phase, so called "the new public health" is characterized by the growing awareness of the limitation of therapy to tackle chronic lifestyle diseases. Over the last 20 years focus of public health has been changing⁵. The 1977 World Health Assembly resolution added impetus with the aim that by the year 2000 all citizens of the world would attain a level of the health permitting them to live socially and economic productive lives. Several health policy documents followed giving specific health goals^{6,13,14}. The next step was the national setting of targets by many governments, for example, within Europe, as "Health for all by the year 2000" policies and strategies¹⁶.

However, one of the notable trends, common across the world, has been increasing difference between the rich and poor in economic and social conditions both within and between countries. Many studies have shown that this phenomenon underlies the growing disparity in health between these group "in society"^{8,10}. This has become accentuated because the occurrence of the most prevalent diseases, cancer, heart disease and dental caries, are determined by our lifestyle.

Concerning oral health, the two principal diseases are dental caries and periodontal disease with common etiologic factors such as sugars in the diet and bacterial dental plaque. Oral cancer afflict a minority, but the prevalence is increasing in some countries. The two major risk factors are smoking and alcohol consumption.

Living standard and lifestyle, which has crucial influence on diet, oral hygiene, smoking and etc., are of great importance for the occurrence of oral diseases. This finding is in common with other chronic condition affecting general health, for example coronary heart disease.

Dental caries is probably the most common of all chronic diseases of modern society. There is now sufficient epidemiological evidence to show that in high developed countries we find either a maintenance of high caries prevalence or a considerable low where water fluoridation and other preventive methods have been widely used¹⁵. Nevertheless, dental caries still accounts as a major cause of tooth loss in age group up to 40 years of age, while periodontal diseases seem to have even greater importance in this respect.

There are great variations in the prevalence of dental caries within the European Region, being at low to very low levels in Northern Europe, and moderate to high levels in Central and Eastern Europe¹¹.

The reduction in dental caries in developed countries of Northern and Central Europe in the last 20 years has not occurred because of the undoubted advances in the dental treatment but because of the widespread introduction of comprehensive oral diseases preventive programs and promotion of oral health, especially use of fluorides^{7,10,15}.

Oral health in developing countries of Eastern Europe in generally did not followed the pattern of oral health improvement in developed countries. Prevalence rate of dental caries remained high in most of Eastern Europe. For example DMFT in twelve year old in this countries is still between DMFT3-5^{9,11} What is the main reason?! Where is the problem?

Former socialist countries of Eastern Europe had very centralized and government controlled health care system, with all expenses covered by government. In other words free of charge. This concept seems to be very promising, especially in reaching oral health and as well general health global goals ("Health for all up to year 2000")⁶. This countries has accepted from the very beginning the concept of Primary Health Care (PHC) proposed by WHO, based on equitable distribution, community involvement, prevention and health promotion, appropriate technology and multisectorial approach (Declaration of Alma Ata - WHO/UNICEF, 1978).

It seems that problem was not in the main concept of organization. The problem seems to be somewhere else;

First: The promising government concept of health care was disturbed by the poor economic ability of the society which could not support financially the given tasks of health care and health promotion.

Second: Rapid increase of living standard and changes of lifestyle caused drastic increase of oral diseases with demand of very expensive curative treatment, which public (government supported) insurance could not support as well.

Third: At the same time insurance users didn't share the responsibility for their own health, because there were no sanction if they faille to follow preventive measures proposed by the health authorities and in same time very expensive treatment was as well free of charge. This was the main reasons of irrational distribution between health and disease. It seems that both, doctors and patients, are more willing to treat disease instead of preventing it.

Fourth: On the other hand, the promoting factor of this irrationality was evaluation and financing of health service. The health service activities were evaluated and paid by the treatment done (for example according to number of filled teeth, extracted teeth, number of crowns, prosthetic appliances etc.) in other words finances were directed for disease treatment rather than prevention. System was cot up in his own trap: PROMOTING PREVENTION - FINANCING DISEASE.

Fifth: Another problem seems to be in distribution of manpower. Distribution of personnel within oral health care system reflects the irrationality of the system as well. For example, a high proportion of dental hygienists or preventive therapists may demonstrate a preventive philosophy or policy at the system level. In contrary to the Western European Countries where exist

specially trained medical staff with different level of education in preventive dentistry (dental hygienists, community dentistry workers, specialist of community dentistry etc.) in Eastern European countries we stand today that high professionally trained dentist with curriculum based on curative dentistry (disease treatment) are employed in preventive dentistry (to prevent oral diseases). They are trained to work in preventive dentistry (during postgraduate studies - specialization) but on the other hand still curative oriented.

Recent social changes in most Eastern European (former socialist) Countries demanded changes of health care systems as well. Open demands were focused on rationalization of health care system (improvement of Public Health Care, Primary Dental Health Care equally distributed on public and private services, etc.), insurance improvement, financing of health care and etc. In other words PDHC is to be responsible for planing and caring out Program of Oral Health by unique policy, to provide treatment of oral diseases in risk groups (pregnant women, children, old people) and basic dental treatment for all (emergency etc). In this terms PDHC is to remain in government control.

Current transformation of health care systems in most Former Socialist Countries (undergoing transition), from very centralized and government controlled dental health services based on very expensive curative care which governments could not support any longer, and common belief that oral diseases are not threatening life, has excluded stomatology completely from primary health care system and left it within very expensive private practice oriented dentistry.

As we have experienced so far in Serbia, dental private practitioners have very little interest in dealing with prevention of oral diseases. Their interest is mainly focused on treatment which is bringing more profit.

Having all this in mind, and to avoid total absence of primary dental health care from the National health care system, dental profession in Serbia has recommended to the Ministry of Health - that it is of great importance that dentistry become a part of the unique primary health care system based on:

1. National Program for Prevention of Oral Diseases in Population of Serbia

- oral health promotion
- preventive dental health care of whole population
- early diagnosing and treatment of oral diseases of preschool and school children
- orthodontic treatment of children up to 18 years old with participation
- prosthetic treatment of children up to 18 years old with participation

2. Urgent dental treatment for whole population

- first aid
- acute oral diseases
- oral trauma and etc.

3. Basic dental health care

- fillings
- tooth extraction
- conservative treatment of prior. diseases
- prosthetics with participation

Population groups:

1. with special needs (handicaps)
2. at high medical risk
 - hemophilia
 - cardiovascular diseases
 - diabetes
 - cancer and etc.
3. older than 65 years
4. social aid beneficiaries

4. Surgical treatment of neoplasm (benign and malign) in oro-facial region

Finances for proposed dental care (PDHC) should be provided by government through the National Health Insurance as a part of finances directed for primary health care (PHC), which will be available under same conditions for both, government and private dental services.

Conclusion

The main reason for higher occurrence of oral diseases in Eastern European countries is not due to the lower level of dental treatment, but due to the missing or improper implementation of Programs of oral health care. Public Dental Health has to be based and supported by National Programs of Oral Health Care which are existing in most of the Northern European countries concerning rationale use of scientifically approved most effective and inexpensive measures in prevention of oral diseases, proper education and distribution of manpower employed in Public Dental Health Services. With such recommended approach lower socio-economic groups who are dominant in former socialist countries undergoing transitions, which suffer the worst health problems, and with most difficulty in accessing health care, will get opportunity to fulfill their demands for oral health improvement.

This paper was presented at the IV Congress of BaSS – Istanbul, Turkey

References

1. Acheson D.: Public Health in England: Report of the Committee of Inquiry in the Future Development of the Public Health Function. HMSO, London, 1988
2. Ashton J.: Institutes of public health and medical schools: grasping defeat from the jaws of victory? *Journal of Epidemiology and Community Health*, 1993, 47:165-168.
3. Carevic M., Vulovic M.: Effect of National Program for Prevention of Oral Diseases in Serbia (1996-2000). Kusedassi, Turkey, Abstracts Book 7th Congress of Balkan Stomatological Society, 2002.
4. Downer M.C., Gelbier S. and Gibbons D.E.: Introduction to Dental Public Health. London, FDI World Press, 1994.
5. Dean K.: Editorial: Creating a new knowledge base for the new public health. *Journal of Epidemiology and Community Health* 48, 1994, 217-219
6. FDI: Goals for Oral Health in the Year 2000. FDI Newsletter, March 1982.
7. Murray J.J.: Prevention of Oral Disease. Oxford, New York, Tokyo, Oxford University Press. 1996.
8. Petersen P.E.: Social Inequalities in Dental Health-Towards a Theoretical Explanation. *Community Dental and Oral Epidemiology*, 1990, 18: 153-158
9. Petersen P.E.: Changing Oral Health Profiles of Children in Central and Eastern Europe - Challenges for the 21st Century. *IC Digest*, 2003, 2: 12-13
10. Pine C.M.: Community Oral Health. Wright. Oxford, Boston, Johannesburg, Melbourne, New Delhi, Singapore, 1997.
11. Reich E.: Trends in Caries and Periodontal Health Epidemiology in Europe. *International Dental Journal*, 2001, 51: 392-398
12. Vulović M. i sar.: Program preventivne stomatološke zdravstvene zaštite stanovnika Republike Srbije. Beograd, Zavod za udžbenike i nastavna sredstva, 1996.
13. WHO: Global Strategy for Health for All by the Year 2000. World Health Organization. Global, 1981.
14. WHO: Targets for Health for All: Targets in Support of the European Regional Strategy for Health for All. World Health Organization, Copenhagen, 1985
15. WHO Regional Office for Europe. Experience on Water Fluoridation in Europe. Copenhagen, 1987.
16. WHO: Public Health in European Community. Health Promotion Program 1996-2000. European Commission, 1997.