Changing oral health profiles of children in Central and Eastern Europe -

Challenges for the 21st century

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ORAL HEALTH STATUS

Over the past 20 years, a marked decline in the prevalence of oral disease has been observed in several Western industrialised countries. In the adult population, fewer adults are now edentulous and more maintain their functional dentition as measured by having at least 20 natural teeth present. In children, improved oral health is seen in the systematic decline in dental caries and a continually growing number of caries free individuals. This is ascribed particularly to changing life-styles and living conditions, a more sensible approach to sugar consumption, improved oral hygiene practices, use of fluorides in toothpaste, fluoride mouthrinsing or topical application of fluorides, and systematic school-based preventive programmes.

CENTRAL AND EASTERN EUROPE

Such positive trends of lower dental caries experience in children is shown also for certain Eastern European countries where school oral health programmes were established and maintained up to recent time. For example, this is the case for Slovenia and Hungary. However, the general pattern is that the prevalence rate of dental caries in children has remained high in most of Central and Eastern Europe. **Fig. 1-2** outline the current disease level for children aged 12 years. The data are based on oral health surveys carried out in selected countries and supported by the World Health Organization, WHO Collaborating Centres in Oral Health, Ministries of Health or by oral health research communities of the individual countries. It is evident from the figures that the mean dental caries experience (DMFT = the number of Decayed teeth, Missing teeth due to caries and Filled teeth) is relatively higher for Central and Eastern Europe but, equally important, the D-T component of the index is high in children as well. This shows that significant proportions of the children are in need of dental care.

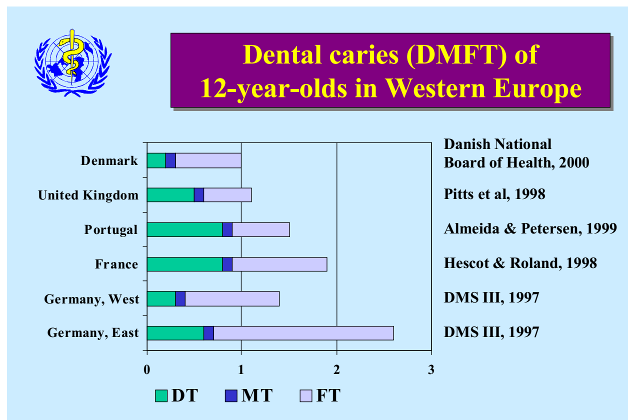

Fig 1 source: WHO European Oral Data Bank

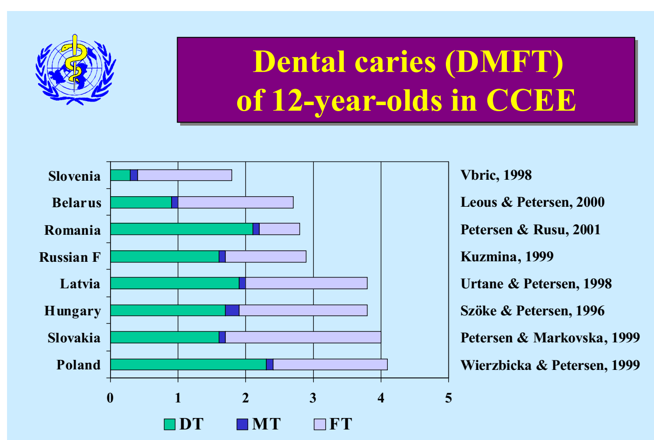

Fig 2 source: Who European Oral Data Bank

CHANGING ORAL HEALTH SYSTEMS AND USE OF SERVICES

Because of the economic and political changes in Eastern Europe, oral health systems are now in transition. Prior to 1989, oral health care for children was provided by public health services and most countries of the region had established school dental services. Since '89, privatization and decentralization of oral health services have taken place and most public health programmes have been brought to a halt. This change in systems has had a negative impact on utilization of oral health services and **Fig. 3** illustrates the difference in dental visit frequency of children across Europe. In Eastern Europe, high numbers of children attend the dentist with dental emergncies (pain/problems) rather than for preventive reasons. By contrast, the example of Slovenia is interesting since the country consolidated preventive oral care programmes for children in kindergartens and schoolchildren throughout the

years of socio-political transition. These experience from Slovenia and other Western European countries clearly indicate that schools provide significant platforms for control of oral disease in children and they are relevant settings for promotion of oral health.

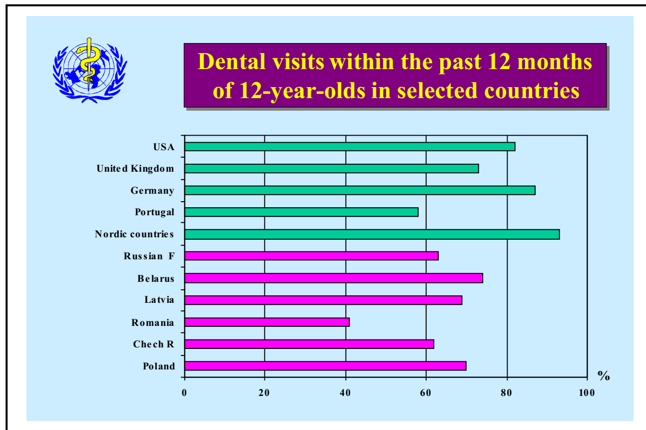

Fig 3 source: Who European Oral Data Bank

SELF-CARE IN ORAL HEALTH

Recent surveys carried out in Eastern Europe revealed that the dental self-care capacity of schoolchildren needs to be improved. For example, studies in Poland showed that only 64% of schoolchildren brushed their teeth at least twice a day. In addition, 70% of children had sweets every day or several times a week. School health education programmes may be instrumental in development of healthy lifestyles in oral health as well as general health. Several studies conducted in Eastern Europe have shown that in addition to involvement of parents, schoolteachers may assist in this process of oral health promotion.

CHALLENGES FOR THE FUTURE: 2000 – 2020

The WHO Global Goals for Oral Health to be achieved by the Year 2000 indicated that on average no more than 3 DMF-T should be observed in children at the age of 12 years and at least 50% of 6-year-olds should be caries free. The WHO European Goal for Oral Health in 12-year old children reads that on average no more than 2 Decayed, Missing and Filled Teeth should be found at the age of 12 years. New oral health goals have been formulated for the Year 2020 as part of the so-called WHO Health21 policy for Europe. By this year, at least 80% of 6-year-olds should be caries free and on average no more than 1.5 DMFT should be observed for children of age 12 years. In Eastern Europe, such goals can only be achieved if oral health promotion and oral disease prevention programmes are implemented at community level. Important demonstration programmes are now established in several countries with the technical support of the World Health Organization. The school oral health

programmes are organized according to the concepts of the WHO Health Promoting Schools Project. The evaluation of demonstration programmes may thereby be most instrumental to the development of national oral health programmes and the experiences may also be shared by health professionals and health care planners across countries.

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REFERENCES

1. Petersen PE, Christensen LB, Möller IJ, Staehr-Johansen K. Continuous improvement of oral health in Europe. The approach of the World Health Organization Regional Office for Europe. *European Dent* 1994; 4: 21-23.

2. Dragheim E, Petersen PE, Kalo I, Saag M. Dental caries in schoolchildren of an Estonian and a Danish municipality. *Int J Pediatr Dent* 2000; 10: 271-277.

3. Petersen PE, Rusu M. Oral health status of Romanian schoolchildren - national survey 2000. Copenhagen: World Health Organization Regional Office for Europe, 2002.

4. Szöke J, Petersen PE. Evidence for dental caries decline among children in an East European country (Hungary). *Community Dent Oral Epidemiol* 2000; 28: 155.160.

5. Petersen PE, Danila I, Samoila A. Oral health behavior, knowledge and attitudes of children, mothers and schoolteachers in Romania in 1993. *Acta Odontol Scand* 1995; 53: 363-368.

6. Wierzbicka M, Petersen PE, Szatko F, Dybizbanska E, Kalo I. Changing oral health status and oral health behaviour profile of schoolchildren in Poland. *Community Dent Health* 2002; 19: 243-250.