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SOCIOECONOMIC STATUS AND ORAL HEALTH

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Abstract. Inequalities in socioeconomic status underlie many health disparities in the world, including oral health. Occupational status, income and education are intrinsically related and often serve as measure for each-other. In general, the population groups that suffer the worst oral health status are also those that have the highest poverty rates and the lowest education. Higher income enable people to afford better housing and permit increased access to medical care. In the same time, a high level of education increase the opportunity to engage in oral health-promoting behaviors. On the other hand, differences in income and employment of parents generate inequalities in oral health status of children. All studies conducted in this field confirm the link between socioeconomic status and oral health, which justifies the struggle to identify the factors involved in generating and maintaining inequalities in both general and oral health.
Key words: socioeconomic status, income, education level, oral health, inequalities

Rezumat. În întreaga lume, inegalităţile de ordin socio-economic stau la baza multor inegalităţi în starea de sănătate a indivizilor. Ocupaţia, venitul şi nivelul de educaţie sunt, în mod intrinsec legate şi servesc adesea ca măsură de evaluare unul faţă de celălalt. În general, grupurile populaţionale care prezintă un status precar de sănătate orală sunt acelea care prezintă cea mai ridicată rată de sărăcie şi cel mai redus nivel de educaţie. Existenţa unor venituri mari permite crearea unor condiţii optime de trai şi creşte accesul individului la serviciile medicale. În acelaşi timp, un nivel de educaţie ridicat creşte oportunitatea angajării în comportamente sanogene. Pe de altă parte, diferenţele de venit şi ocupaţie ale părinţilor generează inegalităţi în starea de sănătate orală a copiilor. Studiile realizate până în prezent confirmă legătura dintre statusul socioeconomic şi sănătatea orală, ceea ce justifică efortul de a identifica factorii implicaţi în generarea şi menţinerea inegalităţilor atât în starea de sănătate generală cât şi orală.
Cuvinte cheie: status socioeconomic, venit, nivel de educaţie, sănătate orală, inegalităţi.

The need and demand for clear scientific evidence to inform and support the oral health policy-making process are grater than ever. The field of the social determinants of health is perhaps the most complex and challenging of all. It is concerned with key aspects of people's living and working circumstances and with their lifestyles (1). It is also concerned with the health implications of economic and social policies, as well as with the benefits that investing in health policies can bring (2).

There is consistent evidence throughout Europe that people at a socioeconomic disadvantage suffer a heavier burden of oral health problems than their better-off counterparts (3). These socioeconomic inequalities in oral

health are a major challenge for health policy, not only because most of the inequalities can be considered unfair but also because reducing the burden of oral health problems in disadvantaged groups offers great potential for improving the average oral health status of the population as a whole (4, 5).

The member States of World Health Organization (WHO) in the European Region have adopted a strategy for health for all that has as its first target: *By the year 2000, the differences in health status between countries and between groups within countries should be reduced by at least 25%, by improving the level of health of disadvantaged nations and groups* (6). This is clearly a very ambitious target that not be realized everywhere. Nevertheless, it gives a clear focus to health policy and promotes the monitoring of quantitative changes over time in socioeconomic inequalities in health, which is essential to assess the effects of health policy interventions (7, 8).

The great differences in the health profiles of different nations and different groups within the same country have already been highlighted (9). These differences or variations can be measured from standard health statistics (9, 10). The term ***inequality*** has a moral and ethical dimension. It refers to **differences which are unnecessary and avoidable but, in addition, are also considered unfair and unjust** (11). So, in order to describe a certain situation as inequitable, the cause has to be examined and judged to be unfair in the context of what is going on in the rest of society (12).

The link between socioeconomic status and health, including oral health, is well established. Numerous studies have demonstrated that the health of individuals from the lower end of the socioeconomic scale is markedly worse than that of individuals from the upper end (13). This relationship exists across a broad range of health indicators, including dental health (14).

Regarding oral health, the reasons of disparities are complex. There are differences caused by biological factors (such as aging), which are normal and inevitable in a balanced society. Physical disabilities and general illnesses can limit the access to oral health services. But there are also inequalities which can be avoided and are unacceptable in the modern society, being caused mainly by the socioeconomic differences (15). The concept of **socioeconomic inequalities in oral health** can be defined as **differences in the prevalence or incidence of oral health problems between individual people of higher and lower socioeconomic status** (16). Studies had shown that over the last decade, the differences in the oral health status between the individuals with a high socioeconomic status and those with a low socioeconomic status had markedly increased (17).

Differences in the accessibility to the oral health services reflect the social and economical status of the individuals. Thus, monitoring of the progress regarding elimination of health inequalities require the improvement of data

collection in terms of quality data and of use of standardized criteria regarding the establishment of socio-economic status of individuals (18).

Recently, studies of health inequalities have been given a new impetus by development and increasing use of measures of socioeconomic status. There are several indicators that can be used in the evaluation of socioeconomic status. The most important indicators are **occupational status, income** and **level of education**. Each indicator covers a different aspect of social stratification and it is therefore preferable to use all three instead of only one (18). Often, information on education, occupation and income may be unavailable and being necessary to use proxy measures of socioeconomic status such as indicators of living standards (car ownership) which reflect the **financial support** of the individual (19).

Occupational status is relevant because it determines people's place in the social hierarchy. The most usual approach consists of classifying people based on their position in the labor market into a number of discrete groups or social classes. In its basic form, this approach distinguishes: higher-level employees, employers and professionals, lower-level employees, skilled laborers, unskilled laborers, unemployed. Children are classified according to the occupation of their parents, either their mother or their father (4).

Income is a frequently used instrument to measure the socio-economic status, being relevant for the realization of health strategies. The current income of the individual offers the possibility of a direct appreciation of life conditions, healthy habits and behavior; in the same time, it reflects the relative position in society. Inequalities generated by income are associated with differences in mortality and morbidity rates, including oral health diseases (15). High incomes permit the access to good oral health services, a good environment for health and offer the opportunity to adopt appropriate oral health behavior (19).

But income can present fluctuations in time, so that the income realized in a time period does not always reflects with accuracy the financial possibilities of the individual on long term (18). Of particularly importance regarding the relationship between income and health status is that the existence of disease can affect in such a way the individual activity that it is directly in relation with obtaining an income and its value (2,14). Another practical problem in the measurement of income is the high non-response rate concerning personal and household income. Moreover, willing respondents may not report a real income (18).

In Europe, the highest level of income *per capita* is found in Norway and Switzerland, followed by Sweden, Denmark, Great Britain, Holland, Austria, Germany and France.

Countries form the Center and the South-Eastern Europe have the lowest income *per capita* from Europe (10).

The latest studies showed that persons with low and very low incomes are 5 times more likely to have a bad oral

health status compared with those with high incomes (17).

Education level is in general better reported in comparison with income (95% of individuals offer data regarding their level of education) (15). All adults can be evaluated according to the level of education, which is significantly different from the occupation. More, the level of education remain fixed for the majority of persons older than 25 years and unlike the income, it is not influenced by the health status (4). Information in education is used to distinguish people with a high position in the social hierarchy from those with a low position.

Characteristically, the level of education is appreciated according to the number of years spent by an individual in an educational institution (primary, school, secondary school, high school, faculty, post-university studies), but it can not be used for establish the socioeconomic status of children apart for knowing parents' level of education (15).

Commonly, there is a relation of direct proportionality between the level of education and oral health related to quality of life (20). A high level of education offers the possibility to obtain and to understand information regarding oral health behavior and oral health promotion (2).

Many studies have explored the relationship between oral health status and conventional measures of socioeconomic status. The latest studies showed that differences in income and employment level of parents generate inequalities in oral health status of children, mainly expressed by the level of dental caries (21, 22).

Today there is a great concern about the poorer dental health of children from deprived backgrounds. The latest data show that children from deprived areas are much more likely to have signs of tooth decay. In the UK, tooth decay is considered as a significant public health problem, particularly in socially deprived areas (24). Dental health inequalities are widening and severe tooth decay is strongly associated with child poverty. Children from less well-off backgrounds may have five time more tooth decay than those in the highest social classes (25).

In the same time, studies had shown that children living in the poorest non-fluoridated communities in the UK suffer much more tooth decay than those living in better-off or fluoridated communities (26). In 1998, the Department of Health in the UK set a target: by 2003, 5-year-old children should have on average no more than one tooth affected by decay (25). The latest surveys show that non-fluoridated urban areas, where large socially deprived communities experience high levels of tooth decay, have little chance of reaching this target. This is why fluoridation should be used as the most powerful mean of tackling dental health inequalities (26).

Thus, measuring inequalities in distribution of dental decay had become a priority in most of the western European countries, (4).

Many studies confirmed the link between inequalities in socioeconomic

status and inequalities in oral health (17). They also provide some evidence of differences in oral health behaviors among the affluent and deprived (13). This is, perhaps, not surprising. A number of investigators have confirmed that the measures of socioeconomic inequalities are sensitive to inequalities in oral health and, because of their spatial component, are likely to prove useful in the planning process (13, 14). It is also the case that these measures provide a convenient way of classifying individuals by socio-economic status in studies where controlling for this factor is important in uncovering the nature and magnitude of other associations (14). However, the role and value of these measures in pursuing explanations of the link between social inequality and oral health has not yet been fully elucidated nor explored. The point is to begin to identify the factors involved in generating and maintaining inequalities and their implications in terms of policy and health services delivery (13).

In conclusion, the link between socio-economic status and health, including oral health, is well established although research in oral health has yet to reach its full potential in terms of enhancing our understanding of the key issue in health services research: **what causes inequalities in oral health?** The literature evidenced that these measures provide a way of controlling for socioeconomic status when it is examined the association between oral health and other variables (4,13,14).

Studies confirmed that socioeconomic indices are sensitive to variations in oral health and oral health behaviors and can be used to identify small areas with high levels of need for dental treatment and oral health promotion services (14, 23). As such, they are likely to provide a useful administrative tool.

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