From Socioeconomic Status to Cardiovascular Risk

Del nivel socioeconómico al riesgo cardiovascular

Throughout time, numerous studies have reported that cardiovascular disease (CVD) in general and coronary artery disease in particular, are associated with genetic, dietary and behavioral factors.

Socioeconomic status (SES), a measure of an individual's economic and social position, evaluated through the combination of different achievements (education, income, occupation and general wealth), has long been acknowledged as a cardiovascular risk factor. (1)

Cardiovascular diseases are the main cause of death worldwide. It is estimated that 17.9 million people died from this cause in 2019, representing 32% of overall deaths, more than three-quarters in low- and mid-income countries. (2)

Global inequities are evident: according to the World Health Organization (WHO), the lowest life-expectancy at birth is 50 years in Lesotho, whereas the highest is 84 years in Japan.

According to the Economic Commission for Latin America and the Caribbean (CEPAL) the Latin American and Caribbean region has the greatest inequity in the world, and the pandemic erupted into a complex economic, social and political scenario, with low growth and high level of informal labor. Due to the effects of the pandemic, CEPAL projects a fall of 9.1% in the gross domestic product (GDP). (4)

The economic situation of each country, the healthcare expenditure per capita, the information and prevention policies and the access to modern diagnostic and therapeutic modalities, are some of the main factors that determine the prevalence of CVD as well as its morbidity and mortality. (5)

At the same time, the public systematic information campaign developed in the last years in Europe, with the purpose of improving health, dietary habits and smoking abandonment, is clearly paying off, as coronary heart disease is evidently decreasing in a significant number of countries. (6)

Citizens belonging to the lowest social strata in high-income countries are affected by a combination of factors that include their financial situation, education, professional occupation and any other inherent working problem, as well as a series of environmental issues. (7)

It is precisely this part of the population the one that experiences the highest labor stress and is more prone and vulnerable to unhealthy dietary and behavioral (e.g. smoking) habits, often associated with an unfavorable daily routine. It is evident that in such cases, health literacy programs will contribute to limit potential risks. (8)

When analyzing SES importance for citizens of low- or mid-income GDP countries or societies, it should be pointed out that CVD risk factors in these populations are often lower than in high-income ones; however, several studies have highlighted educational improvement as the most relevant socioeconomic factor to reduce CVD and choose, in the face of daily difficulties, the behaviors that help to avoid them. (5, 9) Persons with less access to education in these countries have greater incidence of CVD and mortality, together with notably worse health care. Policies to reduce health inequities worldwide should include strategies to overcome health care barriers, especially in this population group. Of course, no socioeconomic factor alone is enough to modify the results since, generally, several of these factors interact with each other.

The association of education with mortality is greater than that observed with wealth or income, as it influences multiple conditions since childhood, such as living or working in healthier environments and having a better access to health care services and social resources.

Poor food quality was the main behavioral CVD risk factor in low-income countries, indicating that educational investment can have large health benefits, even leading to reductions in CVD and non-CVD mortality.

Educational deficit was the fourth cause of death in high-income countries and the third individual risk of death, after hypertension and smoking, in mid-income countries, while in low-income countries, approximately 80% of deaths were explained by modifiable risk factors. In the latter countries, in addition to tobacco smoking and lower access to education, poor diet and air contamination have a much greater impact on mortality compared with mid and high-income countries. (10, 11)

The economic and pandemic context increased health inequities and enlarged the vulnerable population. Without health, economy will not improve. Vulnerability, informality, poverty, and inequities require public policies avoiding waste and readdressing resources towards better social expenditure. Health is a human right and we must ensure it.

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