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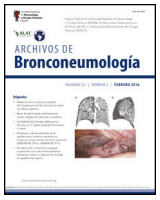

Editorial

Social Determinants of Respiratory Health: Opening the Door

A physician is obligated to consider more than a diseased organ, more than even the whole man – he must view the man in his world.
Harvey Cushing (1869–1939).

Even in affluent countries, the life expectancy of the less well-off is generally lower than that of the better-off, and they are more prone to illness.[1] This statement is supported by a substantial body of empirical evidence that began to be assembled in the mid-19th century.[2,3] Furthermore, it is well established that while the quality and universality of health services are crucial for addressing individual and collective health concerns, the health system is not the only determinant of health outcomes.[3] The conditions in which individuals are born, grow up, live, work, age and the wider set of forces shaping the conditions of daily life have also a significant impact on their health.[3] The World Health Organization has identified a set of factors, collectively known as Social Determinants of Health (SDH), that can positively or negatively influence people's health. These include income, social protection, education, job conditions, food security, housing, basic services, environment, and others.[3] They all result from the distribution of money, power, and resources at global, national, and local levels, which are influenced by political processes and adopted policies.[4] SDH largely explain the observed health inequities within and between countries. It is important to note that an inequity represents a specific type of inequality indicating unjust disparities that are unnecessary and preventable with reasonable means.[4,5]

Health inequities are gradual (increasing with each subsequent step on the social ladder), tend to grow over time and change as society changes.[2] Historically, poverty and poor health have been closely linked and exhibit a bidirectional causal relationship. For decades, having a stable job was a key factor of social integration and economic stability, so traditional poverty profiles had always been associated with old age, work inactivity, or social exclusion. However, the present landscape is somewhat different. Today, the risk of poverty is increasingly affecting groups who remain in the labor market and who, given the precariousness of their socioeconomic conditions and family burdens, become *de facto* "new poor". Being poor and belonging to the middle class (young people, university graduates, etc.) are no longer exclusive categories.[6]

Other relevant causes of health inequalities are immigration and ethnicity. Both conditions are not solely dependent on socioeconomic variables; rather, they are also influenced by barriers to access and the ineffective use of health services due to adaptation difficulties and even discrimination.[7] Similarly, specific vulnerabilities of women have been identified. These include the precariousness of more feminized employment and the inequalities in domestic work resulting from the persistence of traditional social roles with a marked sexual division of labor.[6] Moreover, the current crisis of the Earth systems, including climate change and biodiversity loss,[8] the low digital literacy (the digital divide has a more profound impact on disadvantaged populations)[9] and the growing importance of the commercial determinants of health,[10] are creating new pathways that perpetuate and increase health inequities.

The SDH are not merely a backdrop to medical processes, nor are they an epi-phenomenon or a disparate and heterogeneous set of confounding variables. They are now considered as "the causes of causes".[3] If not invariably the primary causes, they at least have the capability to modulate ultimate causes. A recent paper by Deguen et al., which extensively reviewed literature from PubMed (January 2010–August 2021) correlating socioeconomic indicators (education level, residence location, income level) with air pollution and health status, supports this assertion. The study concluded that environmental pollution adversely affects individual health (a well-known fact) and that this association significantly intensifies with poorer socioeconomic conditions, regardless of age or individual pollutants.[11]

The lack of equity in health is particularly evident in respiratory diseases, which appear more inextricably linked to poverty than diseases of other body systems.[12] Low socioeconomic status is associated with smoking or high exposure to secondhand smoke, poor housing quality, increased exposure to air pollution, increased exposure to violence, obesity, and lower adherence to treatment, each of which is an important predictor of poor respiratory health in children and adults.[2,4] Notable examples include lung function (life-course socioeconomic disadvantage is associated with lower lung function and predicts a significant number of years of lung function loss in adulthood and at older ages), tuberculosis, asthma in impoverished urban areas (inner city asthma), chronic obstructive pulmonary disease (COPD) or the more recent experience with the SARS-CoV-2 pandemic.[13] COPD is paradigmatic, since SDH definitely influences all the disease domains (increased risk, diagnostic delays, inadequate control and support, and lack of prioritization).[14] That said, compared with the highest socioeconomic status groups, individuals in the lowest groups are 14 times more likely to have respiratory diseases.[15] Furthermore, it is important not to forget that the same factors driving respiratory health inequities lead to inequities for other illnesses, such as hypertension, cardiovascular disease, or diabetes.[15]

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The precise mechanisms by which the SDH affect the lung remain a matter of debate, partly due to the fact that some of them frequently occur together and are interrelated (*vgr.*, economic situation, occupational class, and level of education), which makes it challenging to isolate the specific effects of each individual factor.[3,13] One of the topics that has focused the interest of researchers is the role of chronic stress. It is well known that many of the SDH cause high rates of anxiety, depression, and stress among disadvantaged groups.[16] In asthma, chronic stress has been demonstrated to result in a number of biological changes, including downregulation of the β_2-adrenergic and glucocorticoid receptors, overexpression of genes regulating inflammation, including chemokine activity and cytokine production, and modifications to the hypothalamic-pituitary axis and cortisol levels.[16] These changes may potentially influence the pathophysiology of asthma and the therapeutic response.[16] Chronic stress may thus enhance airway inflammation in response to environmental and infectious exposures, leading to asthma exacerbations.[16]

In light of the global framework and its implications, the Spanish Society of Pneumology and Thoracic Surgery (SEPAR) recently approved the creation of the Social Determinants of Respiratory Health Working Group. The aim of this Working Group is to provide its members, the broader scientific community, and health policymakers with evidence-based conceptual insights that emphasize the significance of social determinants in respiratory health and disease states. In accordance with the objectives set out by SEPAR, the Working Group will: (a) promote training and skills acquisition in this area; (b) strengthen SEPAR's connections with public health professionals and family and community medicine societies; (c) stimulate the creation of outreach and dissemination documents; (d) develop positions on various aspects of respiratory health social determinants; and (e) advise the SEPAR Board of Directors on these issues in order to facilitate dialog with sanitary authorities when implementing specific programs aimed at eliminating health inequities. The proposals put forth by SEPAR are in alignment with the initiatives previously launched by the American Thoracic Society and the European Respiratory Society[15] and, more recently, by the International Respiratory Coaliation.[17]

The SDH is a tangible reality that can be measured and should be addressed.[2,4] It is therefore unacceptable to continue ignoring Michael Marmot's question: "Why treat people only to return them to the conditions that made them sick in the first place?".[18] Since the main SDHs are social, the solutions must also be social and require the implementation of specific and cross-sectoral public policies, supported by viable programs that promote close collaboration between different levels of care.[4] Respiratory physicians, nurses, and allied health professionals are, of course, a part of the solution. All of us know patients whose socioeconomic and/or adverse community backgrounds have been barriers to achieving optimal lung health and well-being. If this is indeed the case, it is clear that we have a significant responsibility to comprehend, endorse, and facilitate interventions that respond to the social requirements of our patients.

In the era of precision medicine and exposome research, the major challenge is to keep in mind the ever-present influence of SDH. The doors to this area of knowledge have already been opened, but let's not stop there. Let us go much further. This is what our patients expect. Sometimes things change.

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Conflicts of Interest

The authors declare not to have any conflicts of interest that may be considered to influence directly or indirectly the content of the manuscript.

Appendix 1. Social Determinants of Respiratory Health Working Group. SEPAR

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