

About “Lifestyle Diseases” and “Social Determinants of Health”

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Commentary

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In contemporary society the main reasons for mortality have been dramatically changed as compared with previous civilizations. Nowadays diseases which are not driven by infections and viruses account for the majority of deaths. There's a widespread opinion that most threats to human health result of changed lifestyle and behavior. As pointed by Betlejewski [1] “Lifestyle diseases are different from other diseases because they are potentially preventable and can be lowered with changes in diet, lifestyle and environment”. So, it is presumed that people are responsible for their own health. But this point of view has been revised recently by numerous studies.

The World Health Organization definition of health is ‘not merely the absence of disease or infirmity but a state of complete physical, mental and social well-being’ [2]. A growing interest to non-medical and non-behavioral precursors of health (“social determinants of health”) has been observed lately [3,4]. There is no doubt than in addition of genetic factors, environment exerts a great impact on human health. Especially, social and economic factors have a great impact on human health. Social determinants of health include two different types of mechanisms-direct and indirect [5].

Direct mechanisms include stress hormone level and epigenetic mechanisms. Chronic elevation of stress hormones (adrenaline and cortisol) leads to numerous health risks - increased blood pressure, obesity, diabetes and also impairs the immune system [6]. Epigenetic modifications alter gene expression without altering the DNA sequence. They could be responsible for disturbances in normal cell function. Epigenetic modifications are consequence of different stimuli. Recent

data revealed that variation in socioeconomic status has been linked to variation in patterns of DNA methylation [7].

Indirect mechanisms are more complicated. They are of importance for three health factors: health behaviors, access to appropriate clinical care and healthy physical environment. Health behaviors (daily habits) include diet, physical activity and disturbed biological clock [8]. The link between cancer, a major public health concern worldwide, and nutritional factors has been deeply studied [9]. On the other hand, the “diet” is not appropriate for treating obesity with underlying inflammatory processes [10]. Moderate physical activity is the best prescription for health. Biological clock plays a leading role in normal human physiology and a disturbance significantly increases the risk of developing various diseases [11].

Clinical Care (Access and Quality of Care Received)

According to Vallgarda [12] the modern concept “lifestyle disease” doesn't represent the whole true. Mortality due to chronic diseases has increased recently but this is partly a consequence of the decrease in the mortality among younger people. This statement once again supports the importance of socio-economic advantages leading to appropriate healthcare worldwide.

Physical Environment

Numerous studies have established that environment can support or disturb the physical and mental well-being

of the residents, but there is no commonly accepted definition of 'healthy housing'. Bonnefoy [13] listed a lot of factors - indoor air quality, temperature, home safety, noise, humidity and mould growth, lack of hygiene chemicals (asbestos, lead, radon, volatile organic compounds) etc.

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