The Social Determinants of Health

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The five main areas of social determinants of health (SDOH) are economic stability, healthcare access and quality, education access and quality, social and community context, and the neighborhood and built environment. Each of these domains can be further detailed by specific factors that may go on to affect a patient's quality of life and health.

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1. Economic Stability

Economic stability includes key considerations such as poverty, employment, housing stability, and food security $^{[\underline{1}]}$. Especially in developing countries, economic stability plays a crucial role in influencing health, and both developing and developed countries experience a positive correlation between health and income $^{[\underline{2}]}$. Economic factors may constrain healthy behaviors, such as eating whole foods or attending annual doctors' visits, and may promote exposure to unhealthy environments such as high-risk working conditions $^{[\underline{3}]}$.

2. Healthcare Access and Quality

The domain of healthcare access and quality includes access to regular services such as preventative visits and cancer screenings. It also covers treatment for drug and alcohol use, health literacy and communication, health technology access, access to health and dental insurance, screening for sensory or communication disorders, and rehabilitation after disability. Literature shows that access to healthcare is a strong predictor of positive health outcomes. A survey of 11 countries found that adults in the United States were more likely than any of the other 10 countries to go without needed health care due to higher costs [4]. Though 91.4% of people had health insurance coverage for all or part of 2020 [5], access issues persist for adults who are adequately insured, with 23% reporting at least one cost-related problem getting health care [6]. Cost is not the only issue though, as many patients lack physical access to their doctor, whether that be due to a shortage of local physicians, the inability to travel for a check-up, or the inability to access technology that may facilitate better health, such as online access to medical records or appointment scheduling [1].

3. Education Access and Quality

The Healthy People 2030 domain of education access and quality addresses issues such as readiness for school and graduation, increasing the proportion of students with disabilities in regular education programs, and the promotion of basic reading and math skills [1]. Extensive research has been conducted to delineate the relationship that exists between health and education, particularly because education is so interwoven with other social and economic factors such as job stability, health literacy and historically contextual social classes. One landmark study by Kitagawa and Hauser described differences in mortality by education level in the US $^{[Z]}$, and other research has found that adults who are less educated have higher rates of chronic conditions, poorer health, and disability $^{[\underline{S}]}$. The impact of educational disparities compounds over the years, as children who come from low-income families or who are disabled may not receive adequate educational support, which puts them at a disadvantage throughout the rest of their educational path and may perpetuate the cycle of poverty.

4. Social and Community Context

This domain focuses on the importance of relationships and interactions with family, friends, co-workers, and community members as promoters of health and well-being. It includes topics such as the mental health of caregivers of people with disabilities, communication between adolescents or children with their families or a loved one, health communication and health literacy, bullying of transgender students, and the proportion of patients with intellectual and developmental

disabilities who live in institutional settings ^[1]. Social support contributes greatly to how people respond to other negative factors in their lives. In the medical and behavioral sciences, this is recognized by the idea of attachment theory and how forming certain emotional and social bonds during critical timepoints in life is necessary for normal development ^[9]. When thinking about social determinants of health (SDOH) and their impact on health, social networks and social support are considered. Social networks are defined as the "web of person-centered social ties" ^[10], while social support refers to "the various types of assistance people receive from their social networks [...] differentiated into three types: instrumental, emotional, and informational support" ^[11]. Social support and the social context have been shown to promote positive physical and mental health outcomes ^[12] as well as improved resistance against the development of infections ^[13], prognoses and chances for survival after a serious illness ^[14], and health outcomes such as morbidity and mortality ^{[11][14]}.

5. Neighborhood and the Built Environment

This domain covers objectives such as increasing access to the internet, decreasing rates of youth violence, decreasing the amount of pollution released into the environment or water, decreasing lead levels in housing, reducing motor vehicle accident rates, increasing the proportion of adults walking or biking places, reducing tobacco use, and promoting public transportation [1]. The built environment is defined by the CDC as "all of the physical parts of where we live and work (e.g., homes, buildings, streets, open spaces, and infrastructure)" [15]. These built environments and the neighborhoods in which people live can influence their health through direct impacts, such as unsafe drinking water, high rates of violence in the area, or pollution, the latter of which has been linked to increased deaths from respiratory and cardiopulmonary diseases [16][17]. Built environments can also have indirect influences on health by influencing a person's health behaviors. For example, in a neighborhood that has fewer sidewalks and trees, people may be less likely to exercise outside or choose to take public transportation. Environments that impede an active lifestyle may contribute to higher rates of obesity and poor nutrition [17][18][19].

Why has there suddenly become such an emphasis by the wider medical community on these social determinants of health? Prior focus was on "risk factors" as a means to prevent disease, which heavily emphasizes a patient's personal choices as the root of unhealthy behaviors. This, however, has proven to be ineffective as many factors lie out of a patient's hands, such as those listed in the five domains of the social determinants of health [20][21]. With this understanding, and as the US healthcare system has shifted to a more value-based model that rewards outcomes over treatments [22], it has caused physicians and healthcare providers to think more critically about the networks and causes outside of the patient alone that may cause poorer health outcomes.

Additionally, there is increasing emphasis on the promotion of health equity. Defined by Healthy People 2030 as "the attainment of the highest level of health for all people" [23], it stresses that all people should have the opportunity to lead healthy lives. Health equity is deeply intertwined with other ideas such as health disparities, health care disparities, and health inequalities, as neatly delineated by Gomez et al. [24]; however, one of the main concepts to keep in mind with the terms "health equity" or "health inequities" is that health inequities are avoidable, and active work is required to prevent and dismantle health inequities in our communities [25]. To address these health inequities and disparities with the overarching purpose of improving the health of all people, the SDOH must be at the forefront of clinical decision making.

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