2022–2023 Basic and Clinical Science Course™

Section 1, *Update on General Medicine*

Chapter 17

Social Determinants of Health

The following chapter has been drafted as part of the minor revision of Section 1 that will be published in June 2022. The minor revision process is normally used to identify and correct errors in the text, as well as to add critical pieces of information that cannot wait for the next major revision. The BCSC® committees recognized the importance of introducing the concepts presented in the following pages without delay and developed material for this new chapter, working within the space constraints imposed by the minor revision process.

The committees also recognize that some of the terms used in the text are quickly changing and will be continually updated accordingly. Thus, this chapter presents an evolving, high-level overview of social determinants of health and serves as a preview of the full-length version of the text that will be included in the 2023–2024 major revision.

Social Determinants of Health

Highlights

- Social determinants of health (SDOH) are major drivers of health disparities.
- Addressing SDOH will "create social, physical, and economic environments that promote attaining the full potential for health and well-being for all" (Healthy People 2030).
- Minority ethnicity, lower educational attainment, lower income, and lack of insurance are all associated with greater visual impairment in the United States.
- Ophthalmologists should assess the impact of SDOH as part of every patient encounter and should address SDOH in their treatment of patients.

Introduction

Health is not the absence of disease but the presence of wellness. As illustrated in Figure 17-1, health is the result of the complex interplay of individual factors (eg, genetics, lifestyle), population factors (eg, ethnicity, gender, sexual orientation), and social determinants. *Social determinants of health (SDOH)* are conditions in the environment in which people grow, live, learn, work, and age that affect health outcomes. Over the past few decades, increasing evidence has suggested that complex social, physical, and economic conditions have a greater impact than medical care on health outcomes and life expectancy. In its 2008 report, the World Health Organization stated that "social justice is a matter of life and death. It affects the way people live, their consequent chance of illness, and their risk of premature death." The report calls for organized global action to address SDOH in order to achieve health equity. *Health inequities* are avoidable, systematic differences in health status between different population groups. SDOH are a major cause of *health disparities.* The pursuit of health equity requires a concerted, societal effort to remove barriers such as discrimination and poverty and their many consequences.

Categories of Social Determinants of Health

Recognizing the social, economic, and physical conditions that different populations experience because of their environments is fundamental to understanding and addressing SDOH, which can be grouped into 5 domains:

- health care access and quality (eg, insurance, physician availability, communication)
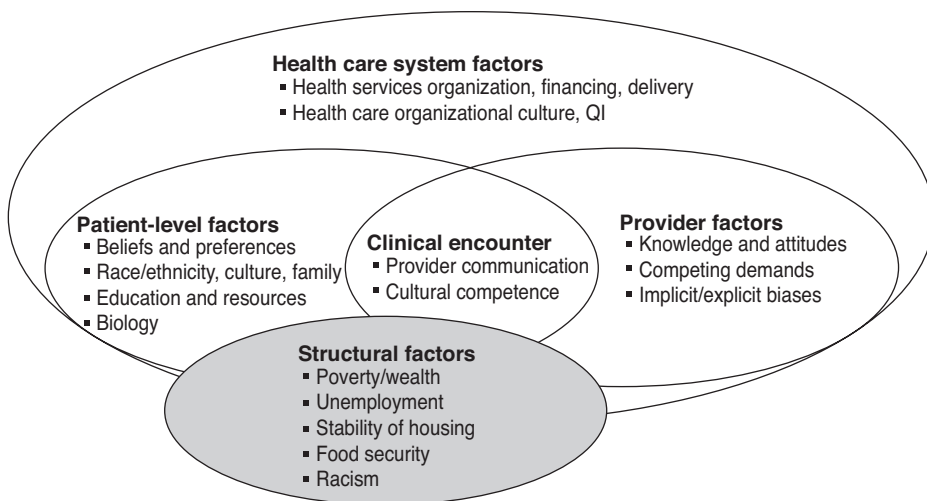- economic stability (eg, employment, income, housing and food security)

Figure 17-1 Key potential determinants of health and health care disparities. QI=quality improvement. *(From Bryant A. Racial and ethnic disparities in obstetric and gynecologic care and role of implicit biases. In: UpToDate. October 29, 2020. Used with permission from Kilbourne AM, Switzer G, Hyman K, Crowley-Matoka M, Fine MJ. Advancing health disparities research within the health care system: a conceptual framework.* AM J Public Health. *2006;96(12):2116. Copyright © 2006 American Public Health Association.)*

- education access and quality (eg, education, literacy, language skills)
- neighborhood and built environment (eg, transportation, safety, geography, parks)
- social and community context (eg, community engagement, social cohesion, incarceration rates)

Health Care Access and Quality

There are several barriers to accessing health care and receiving high-quality care. First, although the rates of uninsured Americans have decreased under the Affordable Care Act, approximately 10% of people in the United States remain uninsured. Vulnerable population groups, such as minority groups, account for over half of the uninsured population. Second, inadequate health insurance coverage resulting in high out-of-pocket costs continues to be one of the largest barriers to health care access. Other barriers include poor access to transportation, limited health care resources and provider availability in underserved areas, and poor provider-patient communication. Poor communication can be due to several factors, including patient fear or lack of trust, lack of time, cultural and language barriers, and lower literacy levels. These social complexity factors have been associated with poorer outcomes with respect to preventive health care and management of chronic disease.

◉ **Ophthalmic considerations**   Compared with White patients, Black and Latino patients and other ethnic minority groups have higher rates of diabetic retinopathy, impaired vision due to cataract, and primary open-angle glaucoma (POAG). But despite being at higher risk for visual impairment and blindness, Black and Latino patients are less likely than White patients to be seen by an ophthalmologist or to receive a dilated examination.

A study by Elam and colleagues found that Medicaid patients with a new diagnosis of POAG receive substantially less glaucoma testing in the 15 months following initial diagnosis compared with patients with commercial health insurance. This disparity is most striking in Black patients with Medicaid insurance, who had 291% increased odds of not undergoing glaucoma testing, compared with Black patients with commercial health insurance. Further, Black patients are more likely than White patients to go blind from POAG, highlighting the importance of efforts to improve the quality of glaucoma care for Medicaid recipients and ethnic minority groups.

> Elam AR, Andrews C, Musch DC, Lee PP, Stein JD. Large disparities in receipt of glaucoma care between enrollees in Medicaid and those with commercial health insurance. *Ophthalmology.* 2017;124(10):1442–1448.

Priorities for addressing this domain should include the following:

- expanding access to appropriate insurance coverage and to primary care and health professionals, both in person and remotely
- focusing on preventive health care
- improving health communication between physicians and patients through cultural competency training and by ensuring availability of patient education material in various languages and at the appropriate education level
- offering telehealth to improve services and expand access
- providing vision services in community health centers and vision outreach in underserved areas
- optimizing the electronic health record for screening and patient communication

Economic Stability

A substantial body of research has demonstrated the detrimental effects of low socioeconomic status and poverty on health outcomes. Economic stability is one of the most important SDOH, as it affects all other domains. Without stable employment, one may not be able to access health insurance and may also experience food insecurity, housing instability, and poor work environments, all of which have complex effects on many aspects of health. One overarching goal of Healthy People 2030, an initiative by the US Department of Health and Human Services, relates specifically to SDOH: "Create social, physical, and economic environments that promote attaining the full potential for health and well-being for all." The program focuses on helping more people achieve economic stability through employment programs, career counseling, and provision of high-quality child care options, as well as through policies to help individuals secure quality food and stable housing and access health care and education.

Education Access and Quality

Higher education is strongly associated with improved health outcomes, positive health behaviors, and increased life expectancy. Early childhood education and primary and

secondary education are key determinants of future health; therefore, addressing disparities in education access and quality as early as possible in life is critical.

Poor health literacy is associated with poor medical adherence, decreased utilization of preventive services, and increased mortality. When educational material is given to patients, it is necessary to understand the health literacy level of the target population and tailor this material accordingly.

Neighborhood and Built Environment

The neighborhood and built environment in which individuals live, learn, work, and play have a direct impact on health and well-being. High rates of crime and violence; unsafe air or water; poor walkability; and limited access to healthful food options, parks, playgrounds, healthy work environments, or transportation are some of the numerous factors that can negatively affect health outcomes. The Area Deprivation Index (ADI) is a metric derived from 17 US census variables—including education, employment, income, household characteristics, and housing—to assess the level of socioeconomic disadvantage by neighborhood.

◉ **Ophthalmic considerations**   In underserved urban communities, patients with a high school education or less are significantly less likely to have had a recent eye examination compared with those with greater than a high school education. They are also more likely to report difficulties with insurance and transportation and lack of knowledge as barriers to eye care.

A recent study by Yusuf and colleagues found that living in more disadvantaged neighborhoods, as measured by the ADI, is associated with nonadherence to first-time ophthalmology referrals for diabetic retinopathy screenings.

Yusuf R, Chen EM, Nwanyanwu K, Richards B. Neighborhood deprivation and adherence to initial diabetic retinopathy screening. *Ophthalmol Retina.* 2020;4(5):550–552.

Social and Community Context

Social, family, and community networks serve as important support systems for individuals and thus can significantly affect health outcomes. Factors such as civic participation, social cohesion, and community engagement can have positive health effects by reducing stress. Community engagement by health care providers may improve patient-provider relationships and build trust among patients. Research indicates that when patients and physicians are of the same ethnicity, patients report greater satisfaction with their treatment and improved communication. Although recent US census data show that underrepresented minority groups make up 30.7% of the US population, only 6% of practicing ophthalmologists are from these groups. Increasing the diversity of the ophthalmologic workforce may help improve patient outcomes for underserved populations.

Discrimination and Social Determinants of Health

Discrimination is a socially structured action resulting in the unfair treatment of individuals or groups based on their ethnicity, gender, sexual orientation, age, disability, religion,

or other factors. This discrimination can significantly affect the health of different population groups, including ethnic minority groups; women; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) individuals; older adults; and individuals with disabilities.

Ethnicity

Discrimination based on ethnicity, one definition of *racism,* is a major driver of SDOH and results in significant disparities in health outcomes for minority groups. In 2020, the American Medical Association adopted a policy that recognizes racism as a public health threat, and the organization committed to actively working to dismantle racist policies and practices across all of health care. Racism exists in different forms (eg, internalized, interpersonal, systemic), can manifest in various ways (eg, stereotypes, beliefs), and can be intentional or unintentional.

The effects of ethnicity and ethnic discrimination on SDOH are complex, multidimensional, and interrelated. For example, in the United States, ethnic minority groups are disproportionately affected by poverty (SDOH: economic stability). Individuals affected by poverty are more likely to have lower levels of education (SDOH: education). They are also more likely to live in neighborhoods with high rates of crime (SDOH: social and community context) and poor access to resources such as nutritious foods, safe outdoor spaces for exercise, and clean water (SDOH: neighborhood and built environment). All of these factors adversely affect health, quality of life, and health outcomes.

Gender

Gender is a social construct that refers to the roles and expectations attributed to men and women in society and evolves with time. The World Health Organization recognizes that gender is an important factor affecting SDOH, as gender inequality leads to health risks for women globally, and unbalanced power relations between men and women affect health-seeking behavior and health outcomes.

Sexual Orientation and Gender Identity

Research has demonstrated that LGBTQ+ individuals experience worse health outcomes than heterosexual individuals, and they have high rates of mental illness and substance abuse, beginning in adolescence. Factors such as societal stigma and harassment, lack of cultural competency among health care providers, and low rates of insurance coverage together contribute to the overall health burden in this population. LGBTQ+ individuals who are members of ethnic minority groups face even greater health disparities.

Age and Disability

Older adults and individuals with disabilities are particularly vulnerable to discrimination and its consequences. Older adults are more susceptible to illness and chronic disease with aging, but many face considerable barriers such as limited income and physical and cognitive limitations, in addition to discrimination. Adults with disabilities are more likely than those without disabilities to report their health to be fair or poor and to report higher rates of obesity, lack of physical activity, and smoking.

Approaches to Address Social Determinants of Health

Ophthalmologists can play an important role in addressing SDOH in vulnerable patient populations. Various strategies can be used:

- *Assess the impact of SDOH in patients' lives as part of every patient encounter.* Similar to the way that the history of the present illness, medical/ocular history, and other patient information are obtained, ophthalmologists and their health care teams can assess the role of SDOH in the lives of their patients, how SDOH might affect patient health, and how health care can more effectively be provided. A suggested screening tool, provided by the American Academy of Family Physicians, is available at https://www.aafp.org/dam/AAFP/documents/patient_care/everyone_project/hops19-physician-guide-sdoh.pdf.
- *Address biases in your practice.* How are people of a lower socioeconomic status or lower education or literacy level viewed? By acknowledging potential bias, ophthalmologists can work to mitigate the effects it may have on patient care. Consider taking an Implicit Association Test (implicit.harvard.edu) to illuminate your own unconscious bias.
- *Provide patient-centered care based on the principles of empathy, curiosity, and respect.* Consider the patient's culture and the possible roles of communication styles; mistrust and prejudice; family dynamics and decision making; traditions, customs, and spirituality; and sexual orientation and gender issues.
- *Integrate patient social support structures into your practice.* Empower other members of your team to identify and address SDOH. Provide support such as parking or transportation vouchers.
- *Improve access to care and quality of care.* This includes strategies such as improving patient-physician communication and patient health literacy and reducing cultural and linguistic barriers (see the section Health Care Access and Quality). It may be helpful to do a quality assurance assessment of your practice to identify any disparities in the care being provided to patients.

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