

11 - 11 Racial and Ethnic Disparities in Health Care

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Lenny López, Joseph R. Betancourt

Racial and Ethnic

Disparities in Health Care Over the course of its history, the United States has experienced dramatic improvements in overall health and life expectancy, largely as a result of initiatives in public health, health promotion, disease prevention, and chronic care management. Our ability to prevent, detect, and treat diseases in their early stages has allowed us to target and reduce rates of morbidity and mortality. Despite interventions that have improved the overall health of the majority of Americans, racial and ethnic minorities (blacks, Hispanics/Latinos, Native Americans/Alaskan Natives, Asian/Pacific Islanders) have benefited less from these advances than whites and have suffered poorer health outcomes from many major diseases, including cardiovascular disease, cancer, and diabetes. In 2018, the estimated economic burden of racial and ethnic health inequities was between \$421 billion and \$451 billion and between \$940 billion and \$978 billion for adults without a 4-year college degree. These disparities highlight the importance of recognizing and addressing the multiple factors that impact health outcomes, including structural racism, social determinants of health (SDOH), access to care, and health care quality. On this last point, research has revealed that minorities may receive less care and lower-quality care than whites, even when confounders such as stage of presentation, comorbidities, and health insurance are controlled. These differences in quality are called racial and ethnic disparities in health care. These health care disparities have taken on greater importance with the significant transformation of the U.S. health care system and value-based purchasing. The shift toward creating financial incentives and disincentives to achieve quality goals makes focusing on those who receive lower-quality care more important than ever before. This chapter will provide an overview of racial and ethnic disparities in health and health care, identify root causes, and provide key recommendations to address these disparities at both the clinical and health system levels. Non-Hispanic Asian female Hispanic female Non-Hispanic Asian male Non-Hispanic White female Non-Hispanic Black female Non-Hispanic White male Hispanic male Non-Hispanic American Indian or Alaska Native female Non-Hispanic Black male Non-Hispanic American Indian or Alaska Native male

Age (years) FIGURE 11-1 Life expectancy at birth, by Hispanic origin and race and sex: United States, 2020. (From E Arias, JQ Xu: United States life tables, 2020. National Vital Statistics Reports; vol 71 no 1. Hyattsville, MD: National Center for Health Statistics. 2022. Retrieved from <https://www.cdc.gov/nchs/data/nvsr/nvsr71/nvsr71-01.pdf>.)

■ ■ NATURE AND EXTENT OF DISPARITIES Life expectancy at birth is an important measure of the health of a nation's population. Although the overall life expectancy in the United States has been increasing since 1900, differences due to race/ethnicity, education, and socioeconomic status have persisted. For example, at every level of education and income, African Americans have lower life expectancy at age 25 than whites and Hispanics/Latinos. Blacks with a college degree or more education have lower life expectancy than whites and Hispanics who graduated from high school. Blacks have had lower life expectancy compared to whites for as long as data have been collected. From 1975 to 2003, the largest difference in life expectancy between blacks and whites was substantial (6.3 years for males and 4.5 years for females). The gap in life expectancy between the black and white populations decreased by 2.3 years between 1999 and 2013 from 5.9 to 3.6 years (4.4 years for males and 3.0 years for women). During 1999–2017, mortality decreases occurred in all racial/ethnic groups except non-Hispanic American Indian and Alaskan Native adults, who experienced steady increases in midlife mortality through 2017. The pattern of high midlife mortality rates among non-Hispanic American Indian and Alaskan Native and non-Hispanic black adults exceeded rates among other racial/ethnic groups. This pattern remained through 2020, with male non-Hispanic American Indian or Alaskan Native and black males having the lowest life expectancies at birth (Fig. 11-1).

CHAPTER 11 Racial and Ethnic Disparities in Health Care The life expectancy gap is augmented by worse health and higher disease burden. Cardiovascular-related diseases remain the leading cause of black-white differences in life expectancy. If all cardiovascular causes and diabetes are considered together, they account for 35% and 52% of the gap for males and females, respectively. During the COVID-19 pandemic, the U.S. population experienced the most significant 2-year decline in life expectancy in roughly a century, disproportionately impacting people of color and exacerbating longstanding racial disparities in life expectancy. While overall U.S. life expectancy declined by 2.7 years between 2019 and 2021, American Indian and Alaskan Native people experienced a decline of 6.6 years and Hispanic people and black people experienced a decline of 4.2 and 4 years, respectively, compared to a decline of 2.4 years for white people and 2.1 years for Asian people. Finally, place matters for health. Analysis of data from 2010 to 2015 demonstrate large geographic life expectancy 85.9 81.3 81.1 80.1 75.4 74.8 74.6 70.7 67.8 63.8

PART 1 The Profession of Medicine Life Expectancy at birth (Quintiles) 56.9–75.1 75.2–77.5 77.6–79.5 79.6–81.6 81.7–97.5 Geographic areas with no data available are filled in gray FIGURE 11-2 Life expectancy at birth for U.S. census tracts, 2010–2015. (From A New View of Life Expectancy, Surveillance and Data - Blogs and Stories, Centers for Disease Control and Prevention. Retrieved from <https://www.cdc.gov/surveillance/blogs-stories/life-expectancy.html>.) gap variation at the census tract level (Fig. 11-2). Socioeconomic and race/ethnicity factors, behavioral and metabolic risk factors (prevalence of obesity, leisure-time physical inactivity, cigarette smoking, hypertension, diabetes), and health care factors (percentage of the population younger than 65 years who are insured, primary care access and quality, number of physicians per capita) explained 60%, 74%, and 27% of county-level variation in life expectancy, respectively. Combined, these

factors explained 74% of this variation. Most of the association between socioeconomic and race/ethnicity factors and life expectancy was mediated through behavioral and metabolic risk factors. In addition to racial and ethnic disparities in health, there are racial and ethnic disparities in the quality of care for persons with access to the health care system. Seminal studies over several decades have consistently documented disparities in health care. For instance, studies have documented disparities in the treatment of pneumonia and congestive heart failure, with blacks receiving less optimal care than whites when hospitalized for these conditions. Moreover, blacks with endstage renal disease are referred less often to the transplant list than are their white counterparts (Fig. 11-3). Disparities have been found, for example, in the use of cardiac diagnostic and therapeutic procedures (with blacks being referred less often than whites for cardiac catheterization and bypass grafting), prescription of analgesia for pain control (with blacks and Hispanics/Latinos receiving less pain medication than whites for long-bone fractures and cancer), and surgical treatment of lung cancer (with blacks receiving less curative surgery than whites for non-small-cell lung cancer). Again, many of these disparities have occurred even when variations in factors such as insurance status, income, age, comorbid conditions, and symptom expression are taken into account. Finally, disparities in the quality of care provided at the sites where minorities tend to receive care have been shown to be an important additional contributor to overall disparities. The 2022 National Healthcare Quality and Disparities Report, released by the Agency for Healthcare Research and Quality, tracks more than 400 health care process, outcome, and access measures,

across many diseases and settings. This annual report is particularly important because most studies of disparities have not been longitudinally repeated with the same methodology to document trends and changes in disparities over time. This report found that some disparities were getting smaller from 2000 through 2016–2018, but disparities persisted and some even worsened, especially for poor and uninsured populations. For about 45% of quality measures, blacks (85 of 190 measures) and American Indians and Alaska Natives (47 of 110 measures) received worse care than whites. For more than one-third of quality measures, Hispanics (73 of 190 measures), Asians, and Native Hawaiians/

Pacific Islanders received worse care than whites, but Asians also received better care for about 28% of quality measures (Fig. 11-4). Of note, for those quality measures that demonstrated disparities at baseline, >90% of these measures showed no improvement since 2000 (Fig. 11-5). ■

■ **ROOT CAUSES OF DISPARITIES** Race, Racism, and Health Race and racism are core elements of any explanatory model on racial and ethnic disparities in health and health care. Our nation's history of slavery, segregation, separate but "equal" health care, and medical experimentation, among a myriad of other ways in which racism has manifested in the United States, has played a key role in the existence and persistence of these disparities. It is now well accepted that race is a social category without biologic foundation and a product of historical racism. Nevertheless, it is clear that racism has a biologic impact as a form of psychosocial stress. It is now well established that psychosocial stress negatively impacts health through psychophysiologic reactivity causing hyperstimulation of the sympathetic-adrenal-medullary system and the hypothalamic-pituitary-adrenal axis, leading to vascular inflammation, endothelial dysfunction, and neurohormonal dysregulation, causing an acceleration of cardiovascular disease. Behavioral changes occurring as adaptations or coping responses to stressors such as

15,000 12,500 10,000 Number of Patients

Year

White Black Hispanic Asian Native American NH/PI FIGURE 11-3 Number of end-stage renal disease patients added to the waitlist for a kidney transplant, 2010–2020. NH/PI, Native Hawaiian/Pacific Islander. (From US Renal Data System. 2022 USRDS Annual Data Report: Epidemiology of Kidney Disease in the United States. National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, MD, 2022. <https://usrds-adr.niddk.nih.gov/2022/end-stage-renal-disease/7-transplantation>. Accessed October 25, 2023.) increased smoking, decreased exercise and sleep, and poorer adherence to medical regimens provide an additional important pathway through which stressors influence disease risk. This accelerated disease risk, aging, and premature death has been termed the weathering effect. While most empiric research focuses on interpersonal racial/

ethnic discrimination, structural racism (sometimes called institutional racism) provides a more holistic framework. Structural racism refers to the totality of ways that a society fosters, sustains, and reinforces discrimination through sociopolitical, legal, economic, and health structures that determine differential access to risks, opportunities, and resources that drive health and health care disparities. Structural racism explains how racism's structure and ideology can persist in governmental and institutional policies in the absence of individual actors who are explicitly racially prejudiced. For example, the history of residential segregation has had lasting negative effects generationally on equal access for racial/ethnic minorities to employment, banking, earnings, high-quality education, and health care. Policies that do not 100%

80% 60%

40%

20%

0% AI/AN (n=110) Hispanic (n=190) NHPI (n=73) Black (n=190) Asian (n=172) Better Same Worse FIGURE 11-4 Number and percentage of quality measures for which members of selected groups experienced better, same, or worse quality of care compared with white people for the most recent data year, 2017, 2018, 2019, or 2020. AI/AN, American Indian or Alaska Native; NHPI, Native Hawaiian/Pacific Islander (From 2022 National Healthcare Quality and Disparities Report. Rockville, MD: Agency for Healthcare Research and Quality; October 2022. AHRQ Publication No. 22(23)-0030. <https://www.ahrq.gov/sites/default/files/wysiwyg/research/findings/nhqrd/2022qdr-appendix-combined.pdf>. Accessed October 25, 2023.)

Race/Ethnicity (all listings) CHAPTER 11 Racial and Ethnic Disparities in Health Care address root structural causes will not address health and health care inequities. With the promise of individualizing clinical decisions, the use of race in clinical and risk assessment algorithms has long been a part of modern medicine. The evidence is now clear that race is not a reliable proxy for genetic difference and that race adjustment has the potential to create inadvertent disparities in health care. One clinical example is from nephrology. Blacks have higher rates of end-stage kidney disease and death due to kidney failure than the overall population. The most widely used cohort-

derived equation to estimate glomerular filtration rate (GFR), the Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI) equation, has the limitation that it produces 80–90% estimated GFR (eGFR) values that are within $\pm 30\%$ of a patient's measured GFR. In addition, this equation uses a black race-related factor, which increases eGFR for any given serum creatinine by 15.9% compared to a nonblack patient with the same age, sex, and serum creatinine. The increase in eGFR is likely to disadvantage blacks for early referral to a nephrologist, early treatment of advanced chronic kidney disease, and kidney transplantation. It is also not clear how to apply the race factor when the patient's race is unknown and/or ambiguous, as in those who are multiracial. This disparity-inducing scenario could be avoided through the use of cystatin C-based eGFR estimation, which has been demonstrated to be more accurate than the CKD-EPI equation and for which race is not required in estimation.

The application of artificial intelligence (AI) analytics to large amounts of clinical electronic data—big data—holds the promise to better understand health care costs, utilization, resource allocation, and population health monitoring. Machine learning models can identify the statistical patterns in large amounts of

100%

80% PART 1 The Profession of Medicine 60%

40% 20%

0% AI/AN (n=38) Hispanic (n=58) NHPI (n=18) Black (n=72) Asian (n=43) Improving Not Changing Worsening

FIGURE 11-5 Number and percentage of quality measures with disparity at baseline for which disparities related to race and ethnicity were improving, not changing, or worsening over time, 2000–2020. AI/AN, American Indian or Alaska Native; NHPI, Native Hawaiian/Pacific Islander. (From 2022 National Healthcare Quality and Disparities Report. Rockville, MD: Agency for Healthcare Research and Quality; October 2022. AHRQ Publication No. 22(23)-0030. <https://www.ahrq.gov/sites/default/files/wysiwyg/research/findings/nhqrdr/2022qdr-appendix-combined.pdf>. Accessed October 25, 2023.)

historically collected data. These data naturally contain the patterning of preexisting health care disparities created by socially and historically structured inequities. This biased patterning can lead to incorrect predictions, withholding of resources, and worse outcomes for vulnerable populations. Recently, analysis of a commercial, national, proprietary prediction algorithm, affecting millions of patients, exhibited racial bias. Historical cost data were used to predict clinical risk and allocate additional clinical services for high-cost patients. Algorithmic bias arose because black patients historically have less access to health care and thus less money is spent on their care compared to white patients. Thus, blacks, who tended to be sicker than white patients, received lower clinical risk scores and thus were less likely to receive additional clinical services. The observed allocation bias was remedied using direct measures of illness and illness severity. Thus, machine learning algorithms are not inherently free of bias and should be assessed for accuracy and fairness. In summary, there are many ways in which racism has contributed and does and will continue to contribute to racial and ethnic disparities in health and health care. ■ ■

SOCIAL DETERMINANTS OF HEALTH Minority Americans have poorer health outcomes than whites from preventable and treatable conditions such as cardiovascular disease, diabetes, asthma, cancer, and HIV/AIDS. Multiple factors contribute to these racial and ethnic

disparities in health. The landmark National Academy of Medicine (formerly, the Institute of Medicine [IOM]) report, *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*, published in 2002, summarized the scientific evidence on health disparities and provided an important framework for conceptualizing and defining racial/ethnic disparities. Since the *Unequal Treatment* report, there has been a growing empirical evidence base on how racism and the SDOH, often working in synergy, create and sustain disparities. Mechanistically, the biopsychosocial model brings together the social and physical characteristics of the environment with individual physical and psychological attributes. These environmental and individual characteristics, in turn, influence health behaviors and stress-related physiologic pathways that directly impact health. The National Institute on Minority Health and Health Disparities SDOH model builds on prior models and adds the time element across the life course of the individual in recognition of the long-lasting health effects of socioeconomic exposures (Fig. 11-6). The resulting matrix has the domains of influence of health (biological, behavioral, physical and built environment, sociocultural environment, health care system) along the y-axis and the levels of influence on health (individual, interpersonal, community, societal) along the x-axis. Cells are not mutually

exclusive, and examples of factors within each cell are illustrative and not comprehensive. This framework emphasizes the complex multidomain etiologies of disparities across the factors in the conceptual matrix, thus highlighting the limitation of individual-level focused research and policy. The Centers for Disease Control and Prevention's (CDC) Social Vulnerability Index (SVI) is one of the most comprehensive indicators of SDOH for every U.S. county and census tract (Fig. 11-7). The 15 social factors are grouped into four broad themes: (1) socioeconomic status (below poverty, unemployed, income level, and no high school diploma); (2) household composition and disability (aged 65 years or older, aged 17 years or younger, individuals

“ 5 years with a disability, and

single-parent households); (3) minority status and language (minority and individual speaks English “less than well”); and (4) housing type and transportation (multiunit structure, mobile home, crowding, group quarters, and no vehicle). Recent studies using national databases have demonstrated a strong geographic concentration of negative factors by counties and regions in the United States. States in the highest tertile of social vulnerability had predominantly black and Hispanic adults, lower levels of education, lower income, and higher rates of unemployment and substance use. These individuals also had higher rates of hypertension, diabetes, hyperlipidemia, chronic kidney disease, smoking, and atherosclerotic cardiovascular disease compared with those living in counties in the first tertile of SVI. Importantly, there is a graded increase in mortality related to cancer, cardiovascular disease, and comorbid cancer and cardiovascular disease in U.S. counties with the worst SVI. In addition to race and racism, *Unequal Treatment* identified a set of root causes that included health system, provider-level, and patient-level factors. Health System Factors • HEALTH SYSTEM COMPLEXITY Even among persons who are insured and educated and who have a high degree of health literacy, navigating the U.S. health care system can be complicated and confusing. Some individuals may be at higher risk for receiving substandard care because of their difficulty navigating the system's complexities. These individuals may include those from cultures unfamiliar with the Western model of health care delivery, those with limited

English proficiency, those with low health literacy, and those who are mistrustful of the health care system. These individuals may have difficulty knowing how and where to go for a referral to a specialist; how to prepare for a procedure such as a colonoscopy; or how to follow up on an abnormal test result such as a mammogram. Since people of color in the United States tend to be overrepresented among the groups listed above, the inherent complexity of navigating the health care system has been seen as a root cause for racial/ethnic disparities in health care. OTHER HEALTH SYSTEM FACTORS Racial/ethnic disparities are due not only to differences in care provided within hospitals but also to where and from whom minorities receive their care; i.e., certain specific providers, geographic regions, or hospitals are lower-performing on certain aspects of quality. For example, one study showed that 25% of hospitals cared for 90% of black Medicare patients in the United States and that these hospitals tended to have lower performance scores on certain quality measures than other hospitals. That said, health systems generally are not well prepared to measure, report, and intervene to reduce disparities in care. Few hospitals or health plans stratify their quality data by race/ethnicity or language to measure disparities, and even fewer use data of this type to develop disparity-targeted

Individual Interpersonal Biological Vulnerability and Mechanisms Caregiver-Child Interaction Family Microbiome Biological Health Behaviors Coping Strategies Behavioral Domains of Influence (Over the Lifecourse) Household Environment School/Work Environment Physical/Built Environment Personal Environment Sociodemographics Limited English Cultural Identity Response to Discrimination Social Networks Family/Peer Norms Interpersonal Discrimination Sociocultural Environment Insurance Coverage Health Literacy Treatment Preferences Patient-Clinician Relationship Medical Decision-Making Health Care System Health Outcomes Individual Health

FIGURE 11-6 National Institute on Minority Health and Health Disparities social determinants research framework. *Health disparity populations: race/ethnicity, low socioeconomic status, rural, sexual and gender minority. Other fundamental characteristics: sex and gender, disability, geographic region. (From National Institute on Minority Health and Health Disparities. NIMHD Research Framework. 2017. Retrieved from <https://www.nimhd.nih.gov/about/overview/research-framework.html>.)

16.0 8.0

HR (95% CI) Cumulative mortality (%) 4.0

2.0

1.0

Log-rank $p < 0.0001$

Number at risk No unfavorable SDoH One unfavorable SDoH Two unfavorable SDoH Three unfavorable SDoH Four unfavorable SDoH Five unfavorable SDoH Six or more unfavorable SDoH

FIGURE 11-7 Premature all-cause mortality and hazard ratios (HRs) in U.S. adults aged 20–74 years according to the number of unfavorable social determinants of health (SDoHs). Kaplan-Meier curves show cumulative mortality by age and number of unfavorable SDoHs. Bar chart shows HRs of premature all-cause mortality associated with number of unfavorable SDoHs, adjusted for age,

gender, and race and ethnicity; error bars are 95% confidence intervals. (Reproduced with permission from JD Bundy et al: Social determinants of health and premature death among adults in the USA from 1999 to 2018: A national cohort study. *Lancet Public Health* 8:e422, 2023.)

Levels of Influence* Community Societal CHAPTER 11 Sanitation Immunization Pathogen Exposure Community Illness Exposure Herd Immunity Family Functioning School/Work Functioning Policies and Laws Community Functioning Racial and Ethnic Disparities in Health Care Community Environment Community Resources Societal Structure Social Norms Societal Structural Discrimination Community Norms Local Structural Discrimination Quality of Care Health Care Policies Availability of Services Safety Net Services Family/ Organizational Health Community Health Population Health

≥6

Number of unfavorable SDoH

Age (years)

How do we link communication to outcomes? Communication Patient satisfaction PART 1 The Profession of Medicine Adherence Health outcomes FIGURE 11-8 The link between effective communication and patient satisfaction, adherence, and health outcomes. (From the Institute of Medicine. 2003. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*. <https://doi.org/10.17226/12875>. Adapted and reproduced with permission from the National Academy of Sciences, Courtesy of the National Academies Press, Washington, D.C.) interventions. Similarly, despite regulations concerning the need for professional interpreters, research demonstrates that many health care organizations and providers fail to routinely provide this service for patients with limited English proficiency. Despite the link between limited English proficiency and health care quality and safety, few providers or institutions monitor performance for patients in these areas. Provider-Level Factors • PROVIDER-PATIENT COMMUNICATION

Significant evidence highlights the impact of sociocultural factors, race, ethnicity, and limited English proficiency on health and clinical care. Health care professionals frequently care for diverse populations with varied perspectives, values, beliefs, and behaviors regarding health and well-being. The differences include variations in the recognition of symptoms, thresholds for seeking care, comprehension of management strategies, expectations of care (including preferences for or against diagnostic and therapeutic procedures), and adherence to preventive measures and medications. In addition, sociocultural differences between patient and provider influence communication and clinical decision-making and are especially pertinent: evidence clearly links provider-patient communication to improved patient satisfaction, regimen adherence, and better health outcomes (Fig. 11-8). Thus, when sociocultural differences between patient and provider are not appreciated, explored, understood, or communicated effectively during the medical encounter, patient dissatisfaction, poor adherence, poorer health outcomes, and racial/ethnic disparities in care may result. A survey of 6722 Americans ≥18 years of age is particularly relevant to this important link between provider-patient communication and health outcomes. Whites, African Americans, Hispanics/Latinos, and Asian Americans who had made a medical visit in the past 2 years were asked whether they had trouble understanding their doctors; whether they felt the

doctors did not listen; and whether they had medical questions they were afraid to ask. The survey found that 19% of all patients experienced one or more of these problems, yet whites experienced them 16% of the time as opposed to 23% of the time for African Americans, 33% for Hispanics/Latinos, and 27% for Asian Americans (Fig. 11-9). In addition, in the setting of even a minimal language barrier, provider–patient communication without an interpreter is recognized as a major challenge to effective health care delivery. These communication barriers for patients with limited English proficiency lead to frequent misunderstanding of diagnosis, treatment, and follow-up plans; inappropriate use of medications; lack of informed consent for surgical procedures; high rates of adverse events with more serious clinical consequences; and a lower-quality health care experience than is provided to patients who speak fluent English. Physicians who have access to trained interpreters report a significantly higher quality of patient–physician communication than physicians who use other methods. Communication issues related to discordant language disproportionately affect minorities and likely contribute to racial/ethnic disparities in health care. CLINICAL DECISION-MAKING Theory and research suggest that variations in clinical decision-making may contribute to racial and ethnic

Percent of adults with one or more communication problems*

33% 27% 23% 19% 16%

Total White African American Hispanic Asian American Base: Adults with health care visit in past two years *Problems include understanding doctor, feeling doctor listened, had questions but did not ask. FIGURE 11-9 Communication difficulties with physicians, by race/ethnicity. The reference population consisted of 6722 Americans ≥ 18 years of age who had made a medical visit in the previous 2 years and were asked whether they had had trouble understanding their doctors, whether they felt that the doctors had not listened, and whether they had had medical questions they were afraid to ask. (Reproduced with permission from the Commonwealth Fund Health Care Quality Survey, 2001.) disparities in health care. Two factors are central to this process: clinical uncertainty and stereotyping. First, a doctor’s decision-making process is nested in clinical uncertainty. Doctors depend on inferences about severity based on what they understand about illness and the information obtained from the patient. A doctor caring for a patient whose symptoms he or she has difficulty understanding and whose “signals”—the set of clues and indications that physicians rely on to make clinical decisions—are hard to read may make a decision different from the one that would be made for another patient who presents with exactly the same clinical condition. Given that the expression of symptoms may differ among cultural and racial groups, doctors—the overwhelming majority of whom are white—may understand symptoms best when expressed by patients of their own racial/ethnic groups. The consequence is that white patients may be treated differently from minority patients. Differences in clinical decisions can arise from this mechanism even when the doctor has the same regard for each patient (i.e., is not prejudiced). Second, the literature on social cognitive theory highlights how natural tendencies to stereotype may influence clinical decision-making. Stereotyping can be defined as the way in which people use social categories (e.g., race, gender, age) in acquiring, processing, and recalling information about others. Faced with enormous information loads and the need to make many decisions, people often subconsciously simplify the decision-making process and lessen cognitive effort by using “categories” or “stereotypes” that bundle information into groups or types that can be processed more quickly. Although functional, stereotyping can be systematically biased, as people

are automatically classified into social categories based on dimensions such as race, gender, and age. Many people may not be aware of their attitudes, may not consciously endorse specific stereotypes, and paradoxically may consider themselves egalitarian and not prejudiced. Stereotypes may be strongly influenced by the messages presented consciously and unconsciously in society. For instance, if the media and our social/professional contacts tend to present images of minorities as being less educated, more violent, and nonadherent to health care recommendations, these impressions may generate stereotypes that unnaturally and unjustly impact clinical decision-making. As signs of racism, classism, gender bias, and ageism are experienced (consciously or unconsciously) in our society, stereotypes may be created that impact the way doctors manage patients from these groups. On

the basis of training or practice location, doctors may develop certain perceptions about race/ethnicity, culture, and class that may evolve into stereotypes. For example, many medical students and residents are trained—and minorities cared for—in academic health centers or public hospitals located in socioeconomically disadvantaged areas. As a result, doctors may begin to equate certain races and ethnicities with specific health beliefs and behaviors (e.g., “these patients” engage in risky behaviors, “those patients” tend to be noncompliant) that are more associated with the social environment (e.g., poverty) than with a patient’s racial/ethnic background or cultural traditions. This “conditioning” phenomenon may also be operative if doctors are faced with certain racial/ethnic patient groups who frequently do not choose aggressive forms of diagnostic or therapeutic intervention. The result over time may be that doctors begin to believe that “these patients” do not like invasive procedures; thus, they may not offer these procedures as options. A wide range of studies have documented the potential for provider biases to contribute to racial/ethnic disparities in health care. For example, one study measured physicians’ unconscious (or implicit) biases and showed that these were related to differences in decisions to provide thrombolysis for a hypothetical black or white patient with a myocardial infarction. It is important to differentiate stereotyping from prejudice and discrimination. Prejudice is a conscious prejudgment of individuals that may lead to disparate treatment, and discrimination is conscious and intentional disparate treatment. All individuals stereotype subconsciously, yet, if left unquestioned, these subconscious assumptions may lead to lower-quality care for certain groups because of differences in clinical decision-making or differences in communication and patient-centeredness. For example, one study tested physicians’ unconscious racial/ethnic biases and showed that patients perceived more biased physicians as being less patient-centered in their communication. What is particularly salient is that stereotypes tend to be activated most in environments where the individual is stressed, multitasking, and under time pressure—the hallmarks of the clinical encounter. In fact, in a survey of close to 16,000 physicians, 42% admitted that bias—including by race and ethnicity—impacted their clinical decision-making. Interestingly, emergency medicine physicians, who work in environments of stress, time pressure, risk, and where they are multitasking, topped the list by discipline at 62%. Patient-Level Factors Lack of trust has become a major concern for many health care institutions today. For example, an IOM report, *To Err Is Human: Building a Safer Health System*, documented alarming rates of medical errors that made patients feel vulnerable and less trustful of the U.S. health care system. The increased media and academic attention to problems related to quality of care (and of disparities themselves) has clearly diminished trust in doctors and nurses. Trust is a crucial element in the therapeutic alliance between patient and health care provider. It facilitates open communication and is directly correlated with adherence to the physician’s recommendations and the patient’s satisfaction. In other words, patients who

mistrust their health care providers are less satisfied with the care they receive, and mistrust of the health care system greatly affects patients' use of services. Mistrust can also result in inconsistent care, "doctor-shopping," self-medication, and an increased demand by patients for referrals and diagnostic tests. On the basis of historic factors such as discrimination, segregation, and medical experimentation, blacks may be especially mistrustful of providers. The exploitation of blacks by the U.S. Public Health Service during the Tuskegee syphilis study from 1932 to 1972 left a legacy of mistrust that persists even today among this population. Other populations, including Native Americans/Alaskan Natives, Hispanics/ Latinos, and Asian Americans, also harbor significant mistrust of the health care system. A national survey conducted by the Kaiser Family Foundation found that there is significant mistrust for the health care system among minority populations. Of the 3884 individuals surveyed, 36% of Hispanics and 35% of blacks (compared to 15% of whites) felt they were treated unfairly in the health care system in the past based on their race and ethnicity. Perhaps even more alarming—65% of blacks

Whites Blacks Latinos Tx based on race/ethnicity

Past unfair

CHAPTER 11

Future unfair Tx based on race/ethnicity

Racial and Ethnic Disparities in Health Care

Percent FIGURE 11-10 Patient perspectives regarding unfair treatment (Tx) based on race/ethnicity. The reference population consisted of 3884 individuals surveyed about how fairly they had been treated in the health care system in the past and how fairly they felt they would be treated in the future on the basis of their race/ethnicity. (From Race, Ethnicity & Medical Care: A Survey of Public Perceptions and Experiences. Kaiser Family Foundation, 2005.) and 58% of Hispanics (compared to 22% of whites) were afraid of being treated unfairly in the future based on their race/ethnicity (Fig. 11-10). This mistrust may contribute to wariness in accepting or following recommendations, undergoing invasive procedures, or participating in clinical research, and these choices, in turn, may lead to misunderstanding and the perpetuation of stereotypes among health professionals. ■ ■ KEY RECOMMENDATIONS TO ADDRESS RACIAL/ ETHNIC DISPARITIES IN HEALTH CARE Unequal Treatment provides recommendations to address the root causes of racial/ethnic disparities organized as health system interventions, provider interventions, patient interventions, and general recommendations. Health System Interventions • COLLECTING, REPORTING, AND TRACKING OF DATA ON HEALTH CARE ACCESS AND USE, BY PATIENTS' RACE/ETHNICITY Unequal Treatment found that the appropriate systems to track and monitor racial and ethnic disparities in health care are lacking and that less is known about the disparities affecting minority groups other than African Americans (Hispanics, Asian Americans, Pacific Islanders, Native Americans, and Alaskan Natives). For instance, only in the mid-1980s did the Medicare database begin to collect data on patient groups outside the standard categories of "white," "black," and "other." Federal, private, and state-supported data collection efforts are scattered and unsystematic, and many health care systems and hospitals still do not collect data on the race, ethnicity, or primary language of enrollees or patients. A survey by the Institute for Diversity in Health Management and

the Health Research and Educational Trust in 2015 found that 98% of 1083 U.S. hospitals collected information on race, 95% collected data on ethnicity, and 94% collected data on primary language. However, only 45% collected data on race, 40% collected data on ethnicity, and 38% collected data on primary language to benchmark gaps in care. A survey by America's Health Insurance Plans Foundation in 2008 and 2010 showed that the proportion of enrollees in plans that collected race/ethnicity data of some type increased from 75 to 79%; however, the total percentage of plan enrollees whose race/ethnicity and language are recorded is still much lower than these figures.

COLLECTING, REPORTING, AND TRACKING OF SDOH DATA In 2014, the IOM Committee on Recommended Social and Behavioral Domains and Measures for Electronic Health Records recommended the routine collection, in the electronic health record, of a parsimonious panel of clinically significant SDOH measures that may be obtained by self-

report in advance of or during the health care encounter and, when used together, provide a psychosocial vital sign. The IOM-recommended questionnaire includes 25 items addressing the following domains: race

and ethnicity, education, financial resource strain, stress, depression, physical activity, tobacco use, alcohol use, social connection or isolation, intimate partner violence, residential address, and geocoded census tract median income. Implementation studies have demonstrated that collection of these data takes about 5 minutes, and both patients and providers saw this data collection as appropriate and important. Given that data access and monitoring is an essential component to disparities elimination, we highlight several important sources of up-to-date racial/ethnic disparities monitoring initiatives that are available to the general public and are updated regularly. We highlight only three examples of national data sources.

PART 1 The Profession of Medicine • Since 2003, the Agency for Healthcare Research and Quality has led the yearly compilation of The National Healthcare Quality and Disparities Report, which reports trends for measures related to access to health care, affordable care, care coordination, healthy living, patient safety, and the quality of care across acute and chronic disease management by race/ethnicity, income, and other SDOH (<https://www.ahrq.gov/research/findings/nhqrd/index.html>). • Since 2011, the Geospatial Research, Analysis, and Services Program (GRASP) created and maintains the CDC SVI. This database maps, for all U.S. Census tracts, 15 social factors (grouped in four SDOH categories: socioeconomic status, housing composition and disability, minority status and language, and housing and transportation) and is updated every 2 years (<https://www.atsdr.cdc.gov/placeandhealth/svi/index.html>). • Launched in 2018, the Health Opportunity and Equity (HOPE) Initiative benchmarks and tracks 27 indicators by race, ethnicity, and socioeconomic status. The indicators measure social and economic factors, community and safety, physical environment, access to health care, and health outcomes for the United States (<https://www.nationalcollaborative.org/our-programs/hope-initiative-project/>).

INCREASE INSURANCE COVERAGE AND ACCESS Lack of access to high-quality health care is an important driver of racial/ethnic disparities. Signed into law in 2010, the Affordable Care Act (ACA) fundamentally transformed health insurance by decreasing the uninsured population from 16.3% in 2010 (~49.9 million) to 8.8% in 2016 (~28.1 million) to 7.7% in early 2023. This represents the largest expansion of health insurance since the creation of Medicare and Medicaid in 1965. Prior to the ACA, non-Hispanic blacks were 70% and Hispanics nearly three times more likely to be uninsured than non-Hispanic whites. Of note, Medicaid

expansion accounted for an estimated 60% of the ACA's effect through a combination of expanded eligibility and increased enrollment of previously eligible but unenrolled people. This is important given the higher number of racial/ethnic minorities who obtain insurance through Medicaid. Many studies have demonstrated that increased insurance coverage has also translated to greater improvement for blacks and Hispanics in access to care, more access to a usual source of care, and improved health outcomes. In 2023, as Medicaid returns to normal eligibility rules following the end of the COVID-19 public health emergency, many Americans are likely to transition out of Medicaid coverage with the concomitant risk of returning to high uninsurance rates in the United States among poor people and racial/ethnic minorities.

ENCOURAGEMENT OF THE USE OF EVIDENCE-BASED GUIDELINES AND QUALITY IMPROVEMENT Unequal Treatment highlights the subjectivity of clinical decision-making as a potential cause of racial and ethnic disparities in health care by describing how clinicians—despite the existence of well-delineated practice guidelines—may offer (consciously or unconsciously) different diagnostic and therapeutic options to different patients on the basis of their race or ethnicity. Therefore, the widespread adoption and implementation of evidence-based guidelines is a key recommendation in eliminating disparities. For instance, evidence-based guidelines are now available for the management of diabetes, HIV/AIDS, cardiovascular diseases, cancer screening and management, and asthma—all areas where significant disparities exist. As part of ongoing quality-improvement efforts, particular attention should be paid to the implementation of evidence-based guidelines for all patients, regardless of their race and ethnicity.

SUPPORT FOR THE USE OF LANGUAGE INTERPRETATION SERVICES IN THE CLINICAL SETTING As described previously, a lack of efficient and effective interpreter services in a health care system can lead to patient dissatisfaction, to poor comprehension and adherence, and thus to ineffective/lower-quality care for patients with limited English proficiency. Unequal Treatment's recommendation to support the use of interpretation services has clear implications for delivery of quality health care by improving doctors' ability to communicate effectively with these patients.

INCREASES IN THE PROPORTION OF UNDERREPRESENTED MINORITIES IN THE HEALTH CARE WORKFORCE Data for 2021 from the Association of American Medical Colleges indicate that of active physicians, 63.9% identified as white, 6.9% identified as Hispanic, 5.7% identified as black or African American, and 0.3% identified as Native American or Alaskan Natives. Furthermore, U.S. national data show that only 3.6% of full-time faculty are black or African American, and 5.5% are Hispanic, Latino, or of Spanish origin (alone or in combination with another race/ethnicity), compared to 63.9% who identified as white. Longitudinal data demonstrate that minority faculty are more likely to be at or below the rank of assistant professor, whereas whites composed the highest proportion of full professors. Similarly, several studies have found that both Hispanic and black faculty were promoted at lower rates than their white counterparts. Despite representing ~30% of the U.S. population (a number projected to almost double by 2050), minority students are still underrepresented in medical schools. In 2018, matriculates to U.S. medical schools were 6.2% Latino, 7.1% African American, 0.1% Native Hawaiian or Other Pacific Islander, and 0.2% Native American or Alaskan Native. These percentages have decreased or remained nearly the same since 2007. It will be difficult to develop a diverse physician workforce that can meet the needs of an increasingly diverse population without dramatic changes in the racial and ethnic composition of medical student bodies. Long-term investment in pathway programs and the nearly universal adoption of holistic admissions (a process by which schools consider each applicant individually to determine how they might contribute to the learning environment and the workforce instead of

relying just on test scores and grades) have produced modest results. Institutional change in medical schools, focused on creating nurturing, inclusive, and equity-focused environments that dismantle the structural racism that has created the opportunity gap faced by many minority students, is needed to address this important workforce challenge. Provider Interventions • INTEGRATION OF CROSS-CULTURAL EDUCATION INTO THE TRAINING OF ALL HEALTH CARE PROFESSIONALS

The goal of cross-cultural education is to improve providers' ability to understand, communicate with, and care for patients from diverse backgrounds. Such education focuses on enhancing awareness of sociocultural influences on health beliefs and behaviors and on building skills to facilitate understanding and management of these factors in the medical encounter. Cross-cultural education includes curricula on health care disparities, use of interpreters, and effective communication and negotiation across cultures. These curricula can be incorporated into health professions training in medical schools, residency programs, nursing schools, and other health professions programs, and can be offered as a component of continuing education. Despite the importance of this area of education and the attention it has attracted from medical education accreditation bodies, a national survey of senior resident physicians by Weissman and colleagues found that up to 28% felt unprepared to deal with cross-cultural issues, including caring for patients who have religious beliefs that may affect treatment, patients who use complementary medicine, patients who have health beliefs at odds with Western medicine, patients who mistrust the health care system, and new immigrants. In a study at one medical school, 70% of fourth-year students felt inadequately prepared to care for patients with limited English proficiency. Efforts to incorporate crosscultural education into medical education will contribute to improving communication and to providing a better quality of care for all patients.

INCORPORATION OF TEACHING ON THE IMPACT OF RACE, ETHNICITY, AND CULTURE ON CLINICAL DECISION-MAKING Unequal Treatment and more recent studies found that stereotyping by health care providers can lead to disparate treatment based on a patient's race or ethnicity. The Liaison Committee on Medical Education, which accredits medical schools, issued a directive that medical education should include instruction on how a patient's race, ethnicity, and culture might unconsciously impact communication and clinical decision-making. Patient Interventions Difficulty navigating the health care system and obtaining access to care can be a hindrance to all populations, particularly to minorities. Similarly, lack of empowerment or involvement in the medical encounter by minorities can be a barrier to care. Patients need to be educated on how to navigate the health care system and how best to access care. Interventions should be used to increase patients' participation in treatment decisions. General Recommendations • INCREASE AWARENESS OF RACIAL/ ETHNIC DISPARITIES IN HEALTH CARE Efforts to raise awareness of racial/ethnic health care disparities have done little for the general public but have been fairly successful among physicians, according to a Kaiser Family Foundation report. In 2006, nearly 6 in 10 people surveyed believed that blacks received the same quality of care as whites, and 5 in 10 believed that Latinos received the same quality of care as whites. These estimates are similar to findings in a 1999 survey. Despite this lack of awareness, most people believed that all Americans deserve quality care, regardless of their background. In contrast, the level of awareness among physicians has risen sharply. In 2002, the majority (69%) of physicians said that the health care system "rarely or never" treated people unfairly on the basis of their racial/ethnic background. In 2005, less than one-quarter (24%) of physicians disagreed with the statement that "minority

patients generally receive lower-quality care than white patients.” More recently, a survey by WebMD showed that 42% of 16,000 physicians admitted that their own personal biases impact their clinical decision-making, including on characteristics such as race and ethnicity. Increasing awareness of racial and ethnic health disparities, and their root causes, among health care professionals and the public is an important first step in addressing these disparities. The ultimate goals are to generate discourse and to mobilize action to address disparities at multiple levels, including health policymakers, health systems, and the community.

CONDUCT FURTHER RESEARCH TO IDENTIFY SOURCES OF DISPARITIES AND PROMISING INTERVENTIONS

While the literature that formed the basis for the findings reported and recommendations made in *Unequal Treatment* provided significant evidence for racial and ethnic disparities, additional research is needed in several areas. First, most of the literature on disparities focuses on black-versus-white differences; much less is known about the experiences of other minority groups. Improving the ability to collect racial and ethnic patient data should facilitate this process. However, in instances where the necessary systems are not yet in place, racial and ethnic patient data may be collected prospectively in the setting of clinical or health services research to more fully elucidate disparities for other populations. Second, much of the literature on disparities to date has focused on defining areas in which these disparities exist, but less has been done to identify the multiple factors that contribute to the disparities or to test interventions to address these factors. There is clearly a need for research that identifies promising practices and solutions to disparities.

IMPLICATIONS FOR CLINICAL PRACTICE

Individual health care providers can do several things in the clinical encounter to address racial and ethnic disparities in health care.

Be Aware That Disparities Exist

Increasing awareness of racial and ethnic disparities among health care professionals is an important first step in addressing disparities in health care. Only with greater awareness can care providers be attuned to their behavior in clinical practice and thus monitor that behavior and ensure that all patients receive the highest quality of care, regardless of race, ethnicity, or culture.

Practice Culturally Competent Care

Previous efforts have been made to teach clinicians about the attitudes, values, beliefs, and behaviors of certain cultural groups—the key practice “dos and don’ts” in caring for “the Hispanic patient” or the “Asian patient,” for example. In certain situations, learning about a particular local community or cultural group, with a goal of following the principles of community-oriented primary care, can be helpful; when broadly and uncritically applied, however, this approach can actually lead to stereotyping and oversimplification of culture, without respect for its complexity.

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Cultural competence has thus evolved from merely learning information and making assumptions about patients on the basis of their backgrounds to focusing on the development of skills that follow the principles of patient-centered care. Patient-centeredness encompasses the qualities of compassion, empathy, and responsiveness to the needs, values, and expressed preferences of the individual patient. Cultural competence aims to take things a step further by expanding the repertoire of knowledge and skills classically defined as “patient-centered” to include those that are especially useful in cross-cultural interactions (and that, in fact, are vital in all clinical encounters). This repertoire includes effectively using interpreter services, eliciting the patient’s understanding of their condition, assessing decision-making preferences and the role of family, determining the patient’s views about biomedicine versus complementary and alternative medicine, recognizing sexual and gender issues, and building trust. For example, while it is important to understand all patients’ beliefs about health, it may be particularly crucial to understand the health beliefs of patients who come from a different culture or have a different

health care experience. With the individual patient as teacher, the physician can adjust their practice style to meet the patient's specific needs. Racial and Ethnic Disparities in Health Care Avoid Stereotyping Several strategies can allow health care providers to counteract, both systemically and individually, the normal tendency to stereotype. For example, when racially/ethnically/culturally/socially diverse teams in which each member is given equal power are assembled and are tasked to achieve a common goal, a sense of camaraderie develops and prevents the development of stereotypes based on race/ethnicity, gender, culture, or class. Thus, health care providers should aim to gain experiences working with and learning from a diverse set of colleagues. In addition, simply being aware of the operation of social cognitive factors allows providers to actively check up on or monitor their behavior. Physicians can constantly reevaluate to ensure that they are offering the same things, in the same ways, to all patients. Understanding one's own susceptibility to stereotyping—and how disparities may result—is essential in providing equitable, high-quality care to all patients. Work to Build Trust Patients' mistrust of the health care system and of health care providers impacts multiple facets of the medical encounter, with effects ranging from decreased patient satisfaction to delayed care. Although the historic legacy of discrimination can never be erased, several steps can be taken to build trust with patients and to address disparities. First, providers must be aware that mistrust exists and is more prevalent among minority populations, given the history of discrimination in the United States and other countries. Second, providers must reassure patients that they come first, that everything possible will be done to ensure that they always get the best care available, and that their caregivers will serve as their advocates. Third, interpersonal skills and communication techniques that demonstrate honesty, openness, compassion, and respect on the part of the health care provider are essential tools in dismantling mistrust. Finally, patients indicate that trust is built when there is shared, participatory decision-making and the provider makes a concerted effort to understand the patient's background. When the doctor-patient relationship is reframed as one of solidarity, the patient's sense of vulnerability can be transformed into one of trust. The successful elimination of disparities requires trust-building interventions and strengthening of this relationship. ■

■ **CONCLUSION** The issue of racial and ethnic disparities in health care has gained national prominence, both with the release of the IOM report *Unequal*

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