

DEFINING HEALTH AND HEALTH CARE DISPARITIES AND EXAMINING DISPARITIES ACROSS THE LIFE SPAN

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UNDERTAKING THE STUDY OF RACE, ethnicity, and health necessitates an understanding of the major terms used to describe and explain the relationship among these phenomena. In the United States the term most often used is *racial and ethnic health disparities*. Yet there is no clear definition of this term nor is there uniformity on how to measure these *disparities*. Moreover, this term is used almost exclusively in the United States. Globally, the terms *health inequalities* and *health inequities* are more common. The goal of this chapter is to explore the different terms and definitions used to denote the concept of racial and ethnic disparities in health and to provide a brief overview of the health disparities experienced by racial and ethnic minorities in the United States.

History of Health Disparities

The concept that racial and ethnic minorities and the white majority have different health experiences has been well established (McKeown, Record, & Turner, 1975). Disparities experienced by African Americans received significant national attention in 1985 when the U.S. Department of Health and Human Services released the *Report of the Secretary's Task Force on Black and Minority Health*, also known as the Malone-Heckler report, which substantively documented racial and ethnic health disparities (Byrd & Clayton, 2000). The importance of this landmark report was its capacity to marshal substantive data to describe the stark and growing gulf in health status between African Americans and whites. Compiling a similar report for other groups was not possible at the time due to limits in methodology and data collection and the lack of data on other racial and ethnic minorities. Nonetheless, given the historical significance of the African American experience in the United

States, most notably the group's history of systematic exploitation and socioeconomic underdevelopment, exploring the health status of this particular group provides an appropriate lens for examining the concept of racial and ethnic disparities in health.

Even with the evidence of the Malone-Heckler report the popular use of the term *health disparities* did not appear until the 1990s. Although the exact origins of the term are not known, Adler and Rehkopf (2008) have pointed out, in their search of the peer-reviewed literature, that the term *health disparities* appears only once in the 1980s, thirty times in the 1990s, and in four hundred articles from 2000 to 2004. Clearly the importance and use of the term have steadily increased in recent years—even as the meaning of health disparities has remained poorly defined.

Health Disparity Versus Health Inequality Versus Health Inequity

Complicating the meaning of health disparity are the multiple and interchangeable usages of several similar terms. The term *health disparity*, as noted, is used mostly in the United States; the corresponding term *health inequality* is mainly used in Europe. Some scholars argue that neither term is appropriate, and some maintain that *health inequity* or other variations of these terms are preferable. There is no national consensus, and even within the literature there is no clear, standard definition for any of these terms. Table 1.1 summarizes the definitions of *health disparities*, *health inequalities*, and *health equity* used by government entities and agencies and academic researchers. Table 1.2 exhibits definitions of *health care disparities* and *health care equity*.

Health Disparities

Webster's dictionary defines *disparity* as a "difference," without qualifying the nature of the difference or who or what may be affected (www.merriam-webster.com). Since the mid-1990s, when the term first came into popular use, *health disparities* has generally been assumed to refer to health or health care differences between racial or ethnic groups (Braveman, 2006). Health disparities also refer to differences in morbidity, mortality, and access to health care among population groups defined by factors such as socioeconomic status (SES), gender, residence, and especially *race* or *ethnicity* (Dressler, Oths, & Gravlee, 2005). Most government agencies in the United States have adopted a broader view of the term: that is, one without an assumed or exclusive reference to race or ethnicity. The Health Resources and Services Administration (HRSA) defines the term as "population-specific

Table 1.1. Definitions of Health Disparities, Health Inequalities, and Health Equity

Agency or Other Author	Definition
<p>Health disparities</p> <p>The Secretary’s Task Force on Black and Minority Health, 1985 (U.S. Department of Health and Human Services, 1985)</p>	<p>“ . . . the statistical technique of ‘excess deaths’; that is, the difference between the number of deaths observed in minority populations and the number of deaths which would have been expected if the minority population had the same age and sex-specific death rate as the nonminority population.”</p>
<p>Minority Health and Health Disparities Research and Education Act</p> <p>Centers for Disease Control and Prevention (2000)</p>	<p>“A population is a health disparity population if there is a significant disparity in the overall rate of disease incidence, prevalence, morbidity, mortality or survival rates in the population as compared to the health status of the general population.”</p> <p>Health disparities as discussed in <i>Healthy People 2010</i> include “differences . . . by gender, race or ethnicity, education or income, disability, geographic location, or sexual orientation.”</p>
<p>National Institutes of Health, 1999 (2007)</p>	<p>“Health disparities are differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific population groups in the United States.”</p>
<p>National Institutes of Health, 2003 (2007)</p>	<p>“Health Disparities Research (HD) includes basic, clinical and social sciences studies that focus on identifying, understanding, preventing, diagnosing, and treating health conditions such as diseases, disorders, and other conditions that are unique to, more serious, or more prevalent in subpopulations in socioeconomically disadvantaged (i.e., low education level, live in poverty) and medically underserved, rural, and urban communities.”</p>
<p>National Cancer Institute (2008)</p>	<p>Defined “as <i>adverse differences in cancer incidence (new cases), cancer prevalence (all existing cases), cancer death (mortality), cancer survivorship, and burden of cancer or related health conditions that exist among specific population groups in the United States.</i> These population groups may be characterized by age, disability, education, ethnicity, gender, geographic location, income, or race. People who are poor, lack health insurance, and are medically underserved (have limited or no access to effective health care)—regardless of ethnic and racial background—often bear a greater burden of disease than the general population.”</p>

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Table 1.1. (Continued)

Agency or Other Author	Definition
Centers for Disease Control and Prevention (2011)	<p>A “particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion.”</p>
U.S. Department of Health and Human Services, Office of Minority Health, National Partnership for Action (2014)	<p>“A particular type of <i>health difference</i> that is closely linked with social or economic disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater social and/or economic obstacles to health and/or a clean environment based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation; geographic location; or other characteristics historically linked to discrimination or exclusion.”</p>
Flaskerud (2002)	<p>The “gap between the health of socio-economically advantaged and disadvantaged populations.”</p>
Adelson (2005)	<p>The “indicators of a relative disproportionate burden of disease on a particular population.”</p>
Fink (2009)	<p>The “difference in a measurement of a health variable between an individual or a group with specific defining characteristics disproportionate to a defined measure for another individual or group when other variables have been controlled (genetics, sociocultural beliefs and values, personal choice, and other variation from the normative measure).”</p>
Health inequalities Whitehead (1991)	<p>“Health inequalities are differences in health that are ‘avoidable,’ ‘unjust,’ and ‘unfair.’ Equity in health means that all persons have fair opportunities to attain their full health potential, to the extent possible.”</p>
Murray, Gakidou, & Frenk (1999)	<p>These authors regard health inequalities as any avoidable differences in health among any individuals, who should not be grouped a priori according to social characteristics (except possibly geographical location).</p>
Graham (2004)	<p>Health inequalities are “systematic differences in the health of groups and communities occupying unequal positions in society.”</p>

<p>Health equity</p> <p>World Health Organization, 1996 (Braveman, 2006)</p> <p>World Health Organization, 1995 (Braveman & Gruskin, 2003a)</p> <p>Starfield (2001)</p> <p>Braveman & Gruskin (2003a)</p> <p>Asada (2005)</p> <p>U.S. Department of Health and Human Services, Office of Minority Health (2011)</p>	<p>Equity means that people’s needs, rather than their social privileges, guide the distribution of opportunities for well-being. In virtually every society in the world, social privilege is reflected by differences in socioeconomic status, gender, geographical location, racial/ethnic/religious differences and age. Pursuing equity in health means trying to reduce avoidable gaps in health status and health services between groups with different levels of social privilege.</p> <p>Equity in health is operationally defined as “minimizing avoidable disparities in health and its determinants—including but not limited to health care—between groups of people who have different levels of underlying social advantage.”</p> <p>Equity in health is “the absence of systematic and potentially remediable differences in one or more aspects of health across populations or population subgroups defined socially, economically, demographically, or geographically.”</p> <p>For the purposes of measurement and operationalization, equity in health is the absence of systematic disparities in health (or in the major social determinants of health) between groups with different levels of underlying social advantage/disadvantage—that is, wealth, power, or prestige. Inequities in health systematically put groups of people who are already socially disadvantaged (for example, by virtue of being poor, female, and/or members of a disenfranchised racial, ethnic, or religious group) at further disadvantage with respect to their health; health is essential to well-being and to overcoming other effects of social disadvantage. “Assessing health equity requires comparing health and its social determinants between more and less advantaged social groups.”</p> <p>Health inequity exists where health distribution is not “spread equally to every unit of analysis in the population.”</p> <p>“<i>Health equity</i> is attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and health care disparities.”</p>
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SOURCE: Adapted from Braveman, 2006; Carter-Pokras & Baquet, 2002.

Table 1.2. Definitions of Health Care Disparities and Health Care Equity

Agency or Other Author	Definition
<p>Health care disparities</p> <p>Institute of Medicine report, <i>Unequal Treatment</i> (Smedley, Stith, & Nelson, 2003)</p> <p><i>National Healthcare Disparities Report, 2003</i>, Agency for Healthcare Research and Quality (2003)</p> <p>Fink (2009)</p>	<p>Defined “as racial or ethnic differences in the quality of healthcare that are not due to access related factors or clinical needs, preferences, and appropriateness of intervention.”</p> <p>Defined “as any differences among populations that are statistically significant and differ from the reference group by at least 10 percent.”</p> <p>Defined as the “difference in a measurement of access to or quality of health care services between an individual or group possessing a defined characteristic when other variables have been controlled, such as individual health choices, disease courses, and other variation from the normative measure.”</p>
<p>Health care equity</p> <p>Mooney (1983)</p> <p>Aday, Fleming, & Anderson (1984)</p> <p>Culyer & Wagstaff (1993)</p>	<p>Horizontal equity requires equal treatment for equal need.</p> <p>Health care is equitable when resource allocation and access are determined by health needs.</p> <p>Equity in health care can mean equal utilization, distribution according to need, equal access, equal health outcomes.</p>

SOURCE: Adapted from Braveman, 2006.

differences in the presence of disease, health outcomes, or access to health care.” The *Healthy People 2010* report defines health disparities as “differences that occur by gender, race or ethnicity, education or income, disability, living in rural localities or sexual orientation” (U.S. Department of Health and Human Services, 2000). In its 2011 report on health disparities the Centers for Disease Control and Prevention (CDC) defines the phenomenon as “differences in health outcomes and their determinants between segments of the population, as defined by social, demographic, environmental, and geographic attributes” (Truman et al., 2011). Notably, in the introduction to that report, the director of the CDC invokes the idea of inequality, defining health disparities as “differences in health outcomes between groups that reflect social inequalities” (Frieden, 2011).

Using concept analysis, Fink (2009) defines health disparities as “differences in a measurement of a health variable comparing more than one individual or group with specific defining characteristics, after controlling for individual health choices, different disease courses, variation from the norm, and genetic factors.” The thread running through all these definitions is that differences in health status and outcomes between groups exist regardless of the mode of comparison (that is, whether that mode is race or ethnicity, SES, or age) and that these differences need to be mitigated (Adler & Stewart, 2010). Thus, in their review of definitions of health disparities, Carter-Pokras and Baquet (2002) noted that irrespective of which definition is used, the phenomenon itself is a “signpost” that something is wrong and action is required, bearing implications for resource allocation.

Health Inequalities

Health inequality is another term used to designate differences, variations, and disparities in the health achievements of individuals and groups (Kawachi, Subramanian, & Almeida-Filho, 2002). Inequality in health is a concept commonly used in some countries to indicate systematic, avoidable, and important differences (Whitehead, 1991). In the United Kingdom and other parts of Europe the term *health inequalities* refers to differences in health among people with different positions in a socioeconomic hierarchy. Health inequalities by gender and, less frequently, by ethnic group or national origin have received some but more limited attention (Braveman, 2006).

The word *inequality* implies a much stronger moral positioning and justice imperative than the term *disparity* used in the United States. The word *inequality* imbues the concept with more value judgment. The idea that equality is something to be sought speaks to the underlying notion that a state of inequality is due to a societal problem or malfeasance. In contrast, the word *disparity* seems to have a more neutralizing effect, inferring that observed differences may or may not be caused by amendable forces.

Nonetheless, a common theme among these terms is the premise that observed differences are not due to genetic or other innate variations between groups, and that the unequal distribution of mortality and disease is amenable to intervention and change. These commonalities speak to the reasons why these terms are often used interchangeably.

Health Equity and Inequities

Many have credited Margaret Whitehead with enunciating the first concrete definition of the term *health equity* (Braveman, 2006). Whitehead's definition holds that the term *inequity* has a moral and ethical dimension. It refers to differences that "are not only unnecessary and avoidable but, in addition, are considered unfair and unjust" (Whitehead, 1991). In Whitehead's opinion, before we can categorize a given situation as inequitable, the cause must first be examined and judged unfair in the situational context of the larger society. In the context of health care, Aday opines, equity requires that resource allocation and access be determined by health needs (Aday, Fleming, & Anderson, 1984; Braveman, 2006).

The 1995 to 1998 World Health Organization (WHO) initiative Equity in Health and Health Care operationally defined equity in health as "minimizing avoidable disparities in health and its determinants—including but not limited to health care—between groups of people who have different levels of underlying social advantage or privilege, i.e., different levels of power, wealth, or prestige due to their positions in society relative to other groups," noting also that in "virtually every society in the world, differences in social advantage are reflected by socioeconomic, gender, ethnic . . . age . . . and other differences" (Braveman & Gruskin, 2003b). The Commission on Social Determinants of Health defines inequity as an "unequal distribution of power, income, goods, and services, globally and nationally, the consequent unfairness in the immediate, visible circumstances of people's lives—their access to health care and education, their conditions of work and leisure, their homes, communities, towns, or cities—and their chances of leading a flourishing life" (Marmot, Friel, Bell, Houweling, Taylor, & Commission on Social Determinants of Health, 2008). The commission's report states unequivocally that "where systematic differences in health are judged to be avoidable by reasonable action they are, quite simply, unfair. It is this that we label health inequity" (Marmot et al., 2008). These equity-oriented definitions represent the perspectives of European and international agencies. In the United States the CDC only recently defined health inequities as a subset of health inequalities that are modifiable, associated with social disadvantage, and considered ethically unfair (Truman et al., 2011).

Kawachi and colleagues (2002) argue that the crux of the distinctions among disparities, inequalities, and inequities is that the identification of health inequities "entails normative judgment premised upon (a) one's theories of justice; (b) one's theories of society; and (c) one's reasoning underlying the genesis of health

inequalities.” Braveman (2006) used this premise in her paper reviewing definitions and health disparity measurement, and suggested a new definition to guide measurement. Braveman defines a “health disparity/inequality as a particular type of difference in health or in the most important influences on health that could potentially be shaped by policies; it is a difference in which disadvantaged social groups (such as the poor, racial/ethnic minorities, women, or other groups that have persistently experienced social disadvantage or discrimination) systematically experience worse health or greater health risks than more advantaged groups.” This definition incorporates aspects of the moral judgment that helps to define inequities into the definition of health disparities. The move toward the increased use of the word *inequities* stems from the need to distinguish between imputable differences and differences that are caused by political, economic, and societal factors. These latter factors are seen as inherently biased or unfair and are viewed as fundamental causes of these inequities. In addition, these factors are not static and can be altered with effective policy and program changes that are within the control of governments, private industries, and economic institutions.

For the remainder of this chapter, the term *health disparities* will be employed, due to its common usage in the United States; however, readers are asked to bear in mind that the more comprehensive definition, encompassing issues of equity, is implied.

Health Status Disparities and Health Care Disparities

In studying health disparities it is important to distinguish between health status and health care disparities. *Health status disparities* are “those indicators of a relative disproportionate burden of disease on a particular population” (Adelson, 2005). The National Institutes of Health defines health status disparities as “differences in the incidence, prevalence, mortality and burden of diseases and other adverse health conditions that exist among specific population groups in the United States” (National Cancer Institute, 2008). Health status disparities refer more to disease states, outcomes, and behavioral actions such as risk-taking behaviors and health promotion behaviors.

Health care disparities refer to disparities in health care access, quality, and outcomes. *Unequal Treatment*, the Institute of Medicine’s seminal report on health disparities, focused almost exclusively on health care disparities and defined them as “racial or ethnic differences in the quality of healthcare that are not due to access-related factors or clinical needs, preferences and appropriateness of

interventions.” McGuire, Alegria, Cook, Wells, and Zaslavsky (2006) define health care disparities as the “unequal treatment of patients on the basis of race or ethnicity, and sometimes on the basis of gender or other patient characteristics.” Franks and Fiscella (2008) define health care disparities as the mismatch between need and care associated with membership in one socially identifiable and disadvantaged group as compared with its nondisadvantaged counterpart. Rathore and Krumholz (2004) propose a framework in which racial health variations are categorized based on three factors (difference, disparity, and bias). A *difference* is a finding of a variation in health care use; a *disparity* is a difference that is not attributable to appropriateness of care; and *bias* refers to the differential provision of appropriate care to patients principally because of race.

Implicit in all these interpretations of health care disparities is the notion of *equity*. All of these authors invoke sentiments of equity in further explaining health care disparities. Both Franks and Fiscella (2008) and Rathore and Krumholz (2004) explicitly state that equity is the goal to be achieved when providing health care to racial and ethnic minorities, due to the fact that these groups may be more disadvantaged and may have worse health outcomes.

Disparities Across the Life Span

Disparities in health outcomes and in the psychosocial factors contributing to them are present early in life and are expressed and compounded during a person's lifetime (Keating & Hertzman, 1999; Wadsworth, 1999). Research on health disparities has demonstrated the effect of many determinants interacting in various contexts at developmentally sensitive points during the life span (Halfon & Hochstein, 2002). A life-span perspective on social status and health is that social status can affect health at any point from birth (or even before) until death (Settersten, 2003; Alwin & Wray, 2005). African Americans and other racial and ethnic groups experience dramatically worse health across the age spectrum, including higher adult and infant mortality. They have significantly higher mortality rates from cardiovascular and cerebrovascular disease, most cancers, diabetes, HIV, unintentional injuries, pregnancy, sudden infant death syndrome, and homicide than whites do (Fiscella & Williams, 2004). The following sections provide a brief review of health disparities among racial and ethnic populations over the life span. The majority of the data are from the CDC's report *Health Disparities and Health Inequalities in the United States*, which provides the latest national data available on selected health disparities (Centers for Disease Control and Prevention, 2011).

Mortality Substantial disparities in mortality exist between ethnic and racial groups. Black Americans in particular have exhibited a large excess mortality (number of deaths that exceed the predicted number) compared with white Americans on virtually every cause of death (Nickens, 1986a). Other ethnic groups (for example, Asian and Pacific Islanders) have exhibited fewer than predicted deaths in some categories compared with white Americans, which indicates that health disparities can be observed in lower-than-expected rates for some minority groups as well (Dressler et al., 2005). With respect to racial and ethnic disparities, black Americans' rates for six measures (total mortality, heart disease, lung cancer, breast cancer, stroke, and homicide) exceeded other groups' rates by a factor ranging from 2.5 to almost 10 during the time period from 1990 to 1998 (Keppel, Pearcy, & Wagener, 2002). Overall mortality was 28 percent higher for black Americans than for white Americans in 2006, compared with 37 percent higher in 1990. In 2005, age-adjusted death rates for the black population exceeded those for the white population by 46 percent for stroke (cerebrovascular disease), 31 percent for heart disease, 22 percent for cancer (malignant neoplasms), 108 percent for diabetes, and 782 percent for HIV disease (National Center for Health Statistics, 2009). Life expectancy at birth for the white population in 2000 was 5.5 years longer than for the black population. By 2007, the difference in life expectancy was 4.8 years (National Center for Health Statistics, 2011).

Infant Mortality Large disparities in infant mortality rates persist. Infants born to black women are 1.5 to 3 times more likely to die than infants born to women of other races or ethnicities are (Frieden, 2011). Compared to a white infant, an African American infant born today is still more than twice as likely to die within the first year of life. A significant portion of this black-white gap in infant mortality is attributable to the nearly twofold increase in low birth weight (LBW) and preterm births and the nearly threefold increase in very low birth weight (VLBW) and very preterm births among black infants (Lu & Halfon, 2003). During 2006, the latest year for which reliable race and ethnicity data are available, the overall U.S. infant mortality rate was 6.68 infant deaths per 1,000 live births, with considerable disparities by race and Hispanic origin (Centers for Disease Control and Prevention, 2011). The highest infant mortality rate was for non-Hispanic black women (13.4), with a rate 2.4 times that for non-Hispanic white women (5.58). Compared with non-Hispanic white women (5.58), infant mortality rates were 48 percent higher for American Indian and Alaska Native (AIAN) women (8.28) and 44 percent higher for Puerto Rican women (8.01) (MacDorman & Mathews, 2011).

Motor Vehicles AIANs consistently had the highest motor vehicle–related death rates among both males and females. Among males, AIANs had rates that were two to four times higher than the rates for other races or ethnicities, with annual rates of approximately 43 deaths per 100,000 population per year (Centers for Disease Control and Prevention, 2011). Black males had the second-highest death rates (approximately 23 deaths per 100,000 population per year), followed by whites and Hispanics, who had similar rates (both approximately 21 deaths per 100,000 population per year). Asian and Pacific Islander (API) males consistently had the lowest death rates, with rates that were half those of whites and Hispanics (approximately 9 to 10 deaths per 100,000 population per year) (West & Naumann, 2011).

Suicide In 2007, a total of 34,598 suicides occurred in the United States; 83.5 percent of suicides were among whites, 7.1 percent among Hispanics, 5.5 percent among blacks, 2.5 percent among APIs, and 1.1 percent among AIANs (Crosby, Ortega, & Stevens, 2011). Whites and AIAN had the highest rates of suicide at 14.4 and 14.6 per 100,000 people; African Americans and Hispanics had the lowest rates (5.1 and 5.4 per 100,000) (Crosby et al., 2011).

Coronary Heart Disease and Stroke In 2006, coronary heart disease (CHD) was the underlying cause of death for 425,425 persons (all ages) in the United States; the age-adjusted mortality rate was 135 deaths per 100,000 population. The rate for males was 41.6 percent higher than for females (176.5 versus 103.1 per 100,000 population, respectively). Blacks had higher age-adjusted rates than the other three racial and ethnic groups, and whites had higher rates than AIANs and APIs. In 2006, stroke was the underlying cause of death for 137,119 persons; the age-adjusted mortality rate was 43.6 per 100,000 population. Rates for blacks were 32.3 percent higher than rates for whites (61.6 versus 41.7 per 100,000 population, respectively). Hispanics had lower death rates for both CHD and stroke than non-Hispanics (Keenan & Shaw, 2011).

Homicide During 1999 to 2002, among persons aged ten to nineteen years, the homicide rate for blacks was estimated to be 17.8 per 100,000 population, a rate ten times that of whites (1.8 per 100,000) and higher than the rates reported for ANANs (6.0 per 100,000), APIs (2.9 per 100,000), and Hispanics (8.0 per 100,000) (Logan, Smith, & Stevens, 2011).

Cancer A disproportionate number of cancer deaths occur among minorities, particularly African Americans, who have a one-third greater risk of dying of cancer than their white counterparts (Guidry, Torrence, & Herbelin, 2005). Compared with whites, African American men and women have poorer survival rates once cancer is diagnosed (Jemal et al., 2008). Although the overall racial disparity in cancer death rates is decreasing, in 2007 the death rate for all cancers combined continued to be 32 percent higher for African American men and 16 percent higher for African American women than the rates for white men and women, respectively (American Cancer Society, 2011). Death rates for all cancers combined during 2002 to 2006 were highest for black men and women and lowest for API men and women (Edwards et al., 2010). Among most women the leading causes of cancer death were lung and breast cancer, colon and rectal cancer (CRC), and pancreatic cancer. However, among Hispanic women, breast cancer was the leading cause of cancer death (Edwards et al., 2010). In 1975, black women experienced 39.2 more deaths per 100,000 population from breast cancer than white women. By 2004, that gap had increased to 44.1 excess deaths per 100,000. During the same time period, breast cancer mortality rates among white women decreased from 31.8 to 23.8 per 100,000 (Gehlert et al., 2008). Lung and prostate cancers and CRC were among the three leading causes of cancer death for men in each major racial or ethnic group, except for API men, for whom liver cancer ranked second (American Cancer Society, 2011). Whereas mortality rates for prostate cancer in white men decreased between 1975 and 2004 (from 29.1 to 23.4 per 100,000), mortality rates for black men increased (from 55.5 to 56.1 per 100,000) (Gehlert et al., 2008).

Morbidity

Obesity Among females aged more than five years, blacks had the highest prevalence of obesity, followed by Mexican Americans and whites (who had the lowest prevalence). With the exception of men aged twenty or more years, whites had a lower prevalence of obesity than did blacks and Mexican Americans. Among females aged two to nineteen years, obesity prevalence was 24 percent among blacks, followed by 19 percent among Mexican Americans and 14 percent among whites. Among males aged two to nineteen years, Mexican Americans had the highest prevalence of obesity (25 percent), with a similar prevalence observed among whites (15 percent) and blacks (18 percent). The higher prevalence of obesity among black men aged twenty or more years (37 percent) than among whites (32 percent) and

Mexican Americans (31 percent) is largely attributable to differences among the younger men in that group (aged twenty to thirty-nine years). Differences in obesity prevalence persisted across various categories of family income. Black females had a higher prevalence of obesity in most income categories than did white or Mexican American females. Furthermore, Mexican American males aged two to nineteen years had a higher prevalence of obesity than whites or blacks in each category of family income (Freedman, 2011).

Preterm birth In 2007, approximately one of every five infants born to non-Hispanic black mothers was born preterm, compared with one of every eight to nine births to non-Hispanic white and Hispanic women. The 2007 preterm birth rate for non-Hispanic black infants (18.3 percent) was 59 percent higher than the rate for non-Hispanic white infants (11.5 percent) and 49 percent higher than the rate for Hispanic infants (12.3 percent). Rates were higher for infants born to non-Hispanic black mothers at each preterm group: late preterm (thirty-four to thirty-six weeks), early preterm (less than 34 weeks), and extremely preterm (less than twenty-eight weeks). Non-Hispanic black infants are approximately three times as likely to be delivered extremely preterm as are non-Hispanic white and Hispanic infants (1.9 percent compared with 0.6 percent). Among the Hispanic groups, extremely preterm birth was most common among births to Puerto Rican mothers (1.0 percent compared with 0.6 percent for all other Hispanic groups) (Martin, 2011).

Access to Care and Hospitalizations Racial and ethnic minorities receive lower quality health care and intensity of care compared with whites across a wide range of preventive, diagnostic, and therapeutic services and disease states (Washington et al., 2008). Both Hispanics and African Americans had significantly higher ($p < 0.001$) uninsured rates (with average rates of 42.7 percent and 22.6 percent, respectively) for 2004 and 2008 compared with Asians and Pacific Islanders and non-Hispanic whites (with average rates of 16 percent and 14.1 percent, respectively) (Centers for Disease Control and Prevention, 2011). Approximately half of the uninsured adults during 2008 were non-Hispanic whites (Moonesinghe, Zhu, & Truman, 2011). During all years the adjusted rate of preventable hospitalizations was higher among non-Hispanic blacks and Hispanics compared with the rate for non-Hispanic whites. In addition, the adjusted rate was lower among APIs, compared with non-Hispanic whites (Moy, Barrett, & Ho, 2011).

Vaccination Among adults aged sixty-five years or more, racial and ethnic differences in influenza vaccination coverage persisted from 2000 through 2010, with non-Hispanic blacks consistently having the lowest coverage each year (Setse et al., 2011).

Asthma During 2006 to 2008, an estimated 7.8 percent of the U.S. population had current asthma. Current asthma prevalence was higher among the multiracial (14.8 percent), Puerto Rican Hispanics (14.2 percent), and non-Hispanic blacks (9.5 percent) than among non-Hispanic whites (7.8 percent) (Centers for Disease Control and Prevention, 2011). For children (9.3 percent), current asthma prevalence was higher among Puerto Rican Hispanics (18.4 percent), non-Hispanic blacks (14.6 percent), and the multiracial (13.6 percent) than among non-Hispanic whites (8.2 percent) (Moorman, Zahran, Truman, & Molla, 2011).

HIV During 2008, the relative percentage difference in the HIV diagnosis rate among blacks/African Americans compared with whites was 799 percent; the next highest differences were in comparison to Hispanics/Latinos (205 percent), Native Hawaiians and Other Pacific Islanders (NHOPI) (178 percent), persons reporting multiple races (72 percent), and American Indians and Alaska Natives (45 percent). Asians had a lower HIV diagnosis rate than whites (a relative percentage difference of -12 percent) (Hall, Hughes, Dean, Mermin, & Fenton, 2011). Racial and ethnic minorities, with the exception of Asians and Pacific Islanders, experience disproportionately higher rates of new human immunodeficiency virus diagnoses than whites, as do men who have sex with men (MSM). Disparities continue to widen as rates increase among black and AIAN males, as well as MSM, even as rates hold steady or are decreasing in other groups (Centers for Disease Control and Prevention, 2011).

Diabetes Substantial racial and ethnic disparities were identified in the 2008 age-standardized prevalence of medically diagnosed diabetes for each nonwhite group and for whites. Black adults are twice as likely as white adults to be diagnosed with diabetes, whereas Hispanic and American Indian and Alaska Native adults are 1.9 and 2.6 times more likely than whites to be diagnosed with the disease (Beckles, Zhu, & Moonesinghe, 2011). Additionally, black adults are 2.2 times more likely than white adults to die from complications of diabetes (Gehlert et al., 2008).

Hypertension Racial and ethnic and also socioeconomic disparities in hypertension prevalence in the United States have been documented for decades. Non-Hispanic

blacks have a higher risk for hypertension and hypertension-related complications (such as stroke, diabetes, and chronic kidney disease) than non-Hispanic whites and Mexican Americans do. Non-Hispanic blacks have higher levels of hypertension (42.0 percent) than non-Hispanic whites (28.8 percent) and Mexican Americans (25.5 percent) do (Keenan & Rosendorf, 2011). U.S.-born adults have higher levels of hypertension (30.8 percent) than foreign-born adults (24.9 percent) do (Keenan & Rosendorf, 2011). Uncontrolled hypertension contributes to premature death (death before the age of seventy-five) from heart disease and stroke (Centers for Disease Control and Prevention, 2011).

Smoking Despite overall declines in cigarette smoking, disparities in smoking rates persist among certain racial and ethnic minority groups and particularly among American Indians and Alaska Natives (Centers for Disease Control and Prevention, 2011). Data from the 2006 to 2008 National Survey on Drug Use and Health (NSDUH) indicate that among youths aged twelve to seventeen years, smoking was highest for AIAN females (17.8 percent), AIAN males (16.7 percent), non-Hispanic white females (12.4 percent), and non-Hispanic white males (11.3 percent). Smoking was lowest for Asian females (2.9 percent), Asian males (5.2 percent), non-Hispanic black females (5.6 percent), and non-Hispanic black males (6.1 percent) (Centers for Disease Control and Prevention, 2011). Among adults aged eighteen years or more, AIAN men (42.4 percent) and AIAN women (42.0 percent) had the highest smoking prevalence, followed by non-Hispanic black men (33.7 percent) and non-Hispanic white men (28.8 percent) (Garrett, Dubé, Trosclair, Caraballo, & Pechacek, 2011).

Cancer African American smoking prevalence rates are comparable to rates among whites, yet African Americans have higher lung cancer rates (Moolchan et al., 2007). Overall cancer incidence rates for all racial and ethnic groups combined decreased by 0.7 percent per year during the period from 1999 to 2006 for both sexes combined, by 1.3 percent per year during the period 2000 to 2006 for men, and by 0.5 percent per year during the period 1998 to 2006 for women (Edwards et al., 2010). For all cancer sites combined, African American men have a 19 percent higher incidence rate and a 37 percent higher death rate than white men have, whereas African American women have a 6 percent lower incidence rate but a 17 percent higher death rate than white women have (Jemal et al., 2008). Incidence rates for colorectal cancer have remained nearly 20 percent higher and death rates have remained nearly 50 percent higher for black Americans than for white

Americans (Ayanian, 2010). Between 2000 and 2003, the average annual prostate cancer rate was 60 percent higher in African American men compared to the rate for white men (Jemal et al., 2008).

Summary

In summary, this chapter explored the definitions and interpretations of the term *health disparities* and provided a brief overview of disparities present across the life span. The first half of the chapter compared and contrasted different terms and definitions used in the study of racial and ethnic health disparities and provided an understanding of the different concepts surrounding health disparities that will be examined throughout this volume. The second half of the chapter provided evidence of the existence of various racial and ethnic disparities across a broad range of mortality and morbidity indicators. The goal of this chapter has been to provide basic knowledge of health disparities in order to set the foundation needed to explore the concepts discussed in the ensuing chapters.

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