PART

1

HEALTH STATUS ACROSS THE LIFE SPAN

CHAPTER

1

AFRICAN AMERICAN HEALTH: AN OVERVIEW

RONALD L. BRAITHWAITE
SANDRA E. TAYLOR
HENRIE M. TREADWELL

In 1980, in response to arguments that the commonly used Gross Domestic Product, a measure of human progress, failed to adequately measure well-being, Mahbub ul Haq, a Pakistani economist, devised the concept for the human development index (Burd-Sharps, Lewis, & Martins, 2008). With the assistance of Nobel laureate Amartya Sen and other economists from Yale University and the London School of Economics, Dr. Haq developed the Human Development Index (HDI). The HDI's success in expanding both the measure and discussion of well-being beyond the confines of income has made it one of the most widely used indices of both global and national well-being. Since its creation in 1990, the HDI has been used by the United Nations Development Program (UNDP) as a means of determining a country's developmental status—developed, developing, or underdeveloped. A country's HDI score and its corresponding developmental status is assessed and reported annually by the UNDP.

The HDI score is computed using variables considered to be standard measures of "human development." The variables are life expectancy at birth, used as an index of population health and longevity; knowledge and education, measured by adult literacy and primary, secondary, and tertiary school enrollment; and standard of living, measured by the Gross National Product per capita at purchasing power parity in U.S. dollars (Burd-Sharps et al., 2008; Sotelo & Gimeno, 2003). The HDI variables are used to

generate scale scores between zero and one. The resulting HDI scale score range is divided into three categories—high (⩾ 0.80), medium (0.50–0.79), and low (⩽ 0.50)—where zero indicates the lowest level of human development and one (1), the highest level of human development (Burd-Sharps et al., 2008). Countries, such as the United States, that have high HDI scores are considered to be developed, and those with medium or low HDI scores are considered to be developing or underdeveloped (third world), respectively.

The HDI is a means by which the United States and other countries assess their global competitiveness, the well-being of their communities, and societal disadvantages (Burd-Sharps et al., 2008). A recent comparison of federal health data from 2005 with those from 2006, using the HDI, revealed a persistently poor international health status for U.S. black males. Despite living in the richest and most medically advanced country in the world, U.S. blacks have a health status comparable to those residing in "medium human development" countries (Gadson, 2006). In 1990, the *New England Journal of Medicine* estimated the life expectancy of U.S. black males to be sixty-five years. In the sixteen years following the 1990 estimate, black male life expectancy rates showed marginal improvement in 2005–6 (68.8 years). In an international life expectancy comparison, the life expectancy at birth for U.S. black males (68.8 years) was less than it was for males in Iran (69.0 years), Colombia (69.3 years), Occupied Palestinian Territories (70.9 years), Ecuador (71.4 years), and Sri Lanka (71.5 years) (see Table 1.1). With a difference of nearly six years from U.S. white males, the life expectancy of U.S. black males is more comparable to the life expectancies of males in Vietnam (68.6 years), El Salvador (67.8 years), and Iraq (67.5 years) than it is to their U.S. white male counterparts (74.6 years) (Gadson, 2006).

In the United States, Northeastern states—such as Connecticut, Massachusetts, New Jersey, Washington, D.C., and Maryland, which have the highest earning potential, education attainment and enrollment, and the second-highest life expectancy of the four U.S. Census regions—have the highest HDI (Burd-Sharps et al., 2008). States such as Mississippi, West Virginia, Louisiana, Arkansas, and Alabama, which are in the Southern region, have the lowest HDI in that the people in this region have, on average, the shortest life expectancy, lower earning potential, and lower levels of educational attainment and enrollment than do Americans in other parts of the country. In general, women have higher educational attainment and a life expectancy five years greater than men; however, the advantages of education and health are overshadowed by women's lower earnings, thus giving men a slightly higher HDI.

Racially and ethnically, Asians outperform all other racial groups in all three human development dimensions. Of all the racial and ethnic groups, Asians have the highest earnings, which are slightly greater than whites, whose HDI ranking too is second to Asians. Asians also rank first and vastly higher than whites in health and educational advantages. Latinos rank third overall. Despite having the lowest educational and income rankings, the overall good health of Latinos gives them an HDI ranking higher than that of blacks. Even though blacks are third in income and education, their poor health status gives them the bottom ranking. The health ranking of blacks has

TABLE 1.1 Selected Male Life Expectancies at Birth.

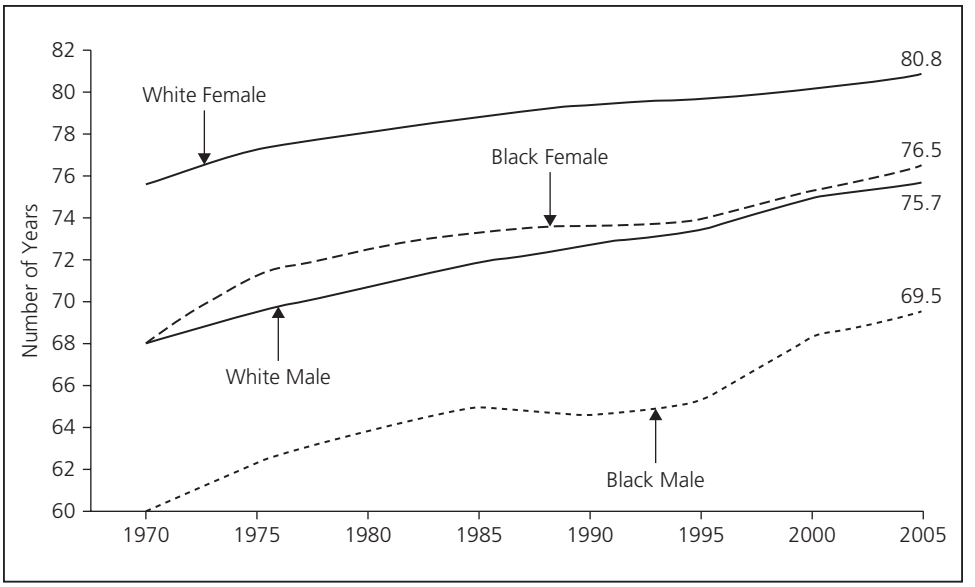
Country	Life Expectancy (yrs)	Country Rank (HDI score)	HDI Category
United States (white)	74.6	12 (0.951)	High
Sri Lanka	71.5	99 (0.743)	Medium
Ecuador	71.4	89 (0.772)	Medium
Malaysia	70.9	63 (0.811)	High
Occupied Palestinian Territories	70.9	106 (0.731)	Medium
Colombia	69.3	75 (0.791)	Medium
Iran	69.0	94 (0.759)	Medium
United States (black)	68.8	12 (0.951)	High
Vietnam	68.6	105 (0.733)	Medium
El Salvador	67.8	103 (0.735)	Medium
Iraq	67.5	N/A	Medium
Nicaragua	67.3	110 (0.710)	Medium

Source: U.S. data from National Center for Health Statistics. (2006). *Health, United States, 2006, with Chartbook on Trends in the Health of Americans.* Hyattsville, MD: Author. International data from United Nations Development Program. (2005). *Human development report 2005: International cooperation at a crossroads—Aid, trade and security in an unequal world.* New York: Hoechstetter Printing; United Nations Development Program. (2007). *Human development report 2007/2008: Fighting climate change—Human solidarity in a divided world.* New York: Palgrave Macmillan.

resulted in life expectancies five years less than those of Native Americans, who have the second-lowest health ranking, and thirteen years less than Asians, who have the highest health ranking.

For the past one hundred years, the U.S. black male has had the shortest life expectancy of any other U.S. racial or ethnic group (Gadson, 2006). Although life expectancy has increased steadily since 1970 for whites and blacks, between 1970 and 2005 the increases in life years have been greater for whites than blacks and for women than men (see Figure 1.1) (U.S. Department of Health and Human Services . . . , 2008).

FIGURE 1.1 *Life Expectancy at Birth, by Race and Sex, 1970–2005.*



Note: Both racial categories include Hispanics.
Source: Centers for Disease Control and Prevention; National Center for Health Statistics, as referenced in Gadson, 2006.

Between 1970 and 2005 the life expectancy for white females remained the highest in the nation. As reflected in the figure, a white female born in 2005 could expect to live approximately 80.8 years, whereas a black female born in the same year could expect to live an average of only 76.5 years, a difference of 4.3 years. With a difference of 6.2 years, a white male born in 2005 could expect to live 75.7 years, compared to a black male born in the same year with a life expectancy of 69.5 years. In the United States, the black male, from birth to eighty-four years, has the highest mortality rates across all ages and geographic regions, with the greatest racial differences in mortality rates reported for males twenty-five to fifty-four years of age (Gadson, 2006).

In 2005, blacks, with 1,016.5 deaths per 100,000 persons, had a higher overall age-adjusted mortality rate than whites, at 785.3 deaths per 100,000; Native Americans/Alaska Natives, at 663.4; and Asians/Pacific Islanders, at 440.2 (Kung, Hoyert, Xu, & Murphy, 2008). High rates of U.S. black male mortality are attributed to the racial health disparities that exist for nearly all major chronic diseases. According to the 2000 census, 36.4 million persons, or 12.9 percent of the U.S. population, identified as black or African American (McKinnon, 2001; Centers for Disease Control and Prevention [CDC], 2005). Of those identifying as black or African American, 35.4 million identified as non-Hispanic. This category, non-Hispanic blacks, has a disproportionately greater burden of disease, injury, death, and disability for many health

TABLE 1.2 Ten Leading Causes of Death (Both Sexes, All Ages).

Rank	United States	Whites	Blacks
1	Heart disease	Heart disease	Heart disease
2	Cancer	Cancer	Cancer
3	Stroke	Stroke	Stroke
4	Chronic lower respiratory disease	Chronic lower respiratory disease	Diabetes
5	Unintentional accidents	Unintentional accidents	Unintentional accidents
6	Diabetes	Diabetes	Homicide
7	Influenza/Pneumonia	Influenza/Pneumonia	HIV/AIDS
8	Alzheimer's disease	Alzheimer's disease	Respiratory disease (COPD)
9	Kidney diseases	Kidney diseases	Kidney diseases
10	Septicemia	Suicide	Septicemia

Source: CDC. (2005, March). *National Vital Statistics Report*, *53*(17); National Center for Health Statistics. (2005, March 7). *National Vital Statistics Reports*.

conditions (CDC, 2005). Although blacks and whites share the top three causes of death and, without regard to ranking, seven of the ten leading causes of death (reflected in Table 1.2), the risk, incidence, morbidity, and mortality rates of disease and injury are often greater for blacks than whites.

HEART DISEASE

Excluding the year 1918, heart-disease–related illnesses have been the leading cause of death in the United States since 1900, killing one American every 34 seconds, or more than twenty-five hundred people daily (American Heart Association, 2005). Heart disease, which is defined as any disorder that prevents the heart from functioning properly, is a general term used to denote various diseases that could affect the heart (U.S. Department of Health and Human Services . . . , 2008). The eight types of heart disease are (1) coronary, a blockage of a coronary artery, which can cause chest

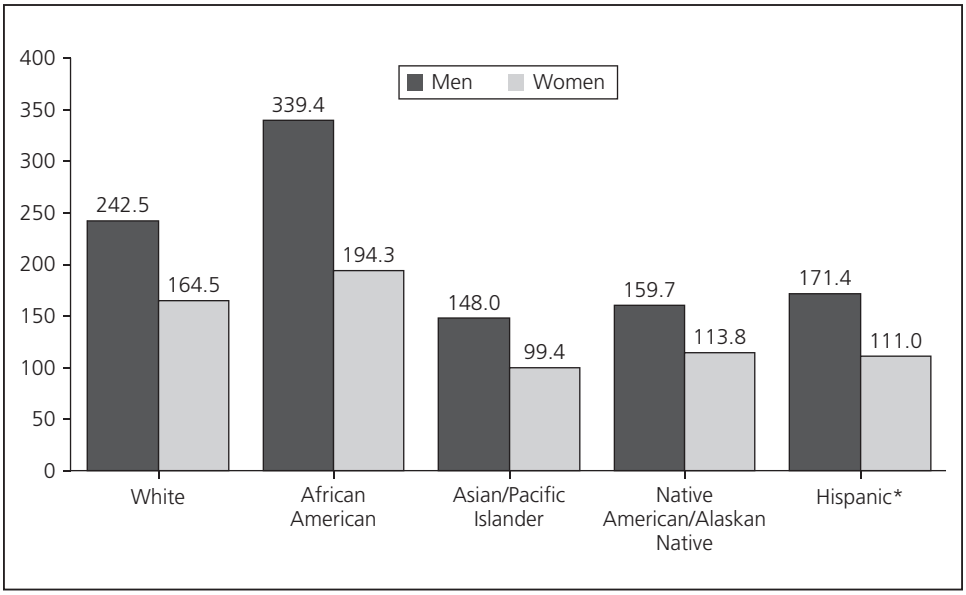
pain and heart attack; (2) cardiomyopathy, a disease of the heart muscle, which can cause arrhythmia and/or sudden cardiac death; (3) cardiovascular, any number of specific diseases that affect the heart and/or the blood vessel system leading to and from the heart; (4) ischemic, a disease of the heart characterized by a reduction in blood to organs; (5) congestive heart failure and congestive cardiac failure, diseases resulting from any structural or functional cardiac disorder that impairs the heart's ability to fill with or pump sufficient amounts of blood throughout the body; (6) hypertensive, a disease caused by high blood pressure; (7) inflammatory, a disease involving the inflammation of the heart muscle and/or the surrounding tissue; and (8) valvular, a disease process involving one or more valves of the heart.

With risk factors including obesity, lack of physical activity, smoking, high cholesterol, hypertension, and old age, coronary heart disease is the most common form of heart disease and is the single leading cause of death in America (U.S. Department of Health and Human Services . . . , 2008; American Heart Association, 2005). Heart disease deaths represent nearly 60 percent of the total mortality rate, claiming nearly as many lives annually as the next five leading causes of death combined: cancer, chronic lower respiratory disease, accidents, diabetes mellitus, and influenza and pneumonia. In 2004, coronary heart disease death rates per 100,000 persons were higher for males than females and higher for blacks than whites. Overall, coronary heart disease mortality rates were higher for black males (223.9 per 100,000) than they were for white males (194.2), black women (148.7), or white women (114.7). In 2007, a total of 16 million persons, 8.7 million males and 7.3 million females, were estimated to have a history of heart attack and/or angina pectoris, which are both caused by coronary heart disease. Despite blacks having higher heart disease mortality rates, the prevalence of heart disease and heart-disease–related conditions is higher among whites than blacks. Affecting 12.2 percent of the white population, heart disease in whites is second in prevalence only to Native Americans/Alaska Natives.

CANCER

Cancer is the second leading cause of death in the United States, where black men have the highest cancer death rate per 100,000 persons (see Figure 1.2). The cancer death rates are substantially greater among blacks than whites and among men than women. Cancer incidence among men is highest among blacks (607.3 per 100,000 persons), followed by whites (527.2), Hispanics (415.5), and Asians/Pacific Islanders (325.8). Among the U.S. male population, lung cancer, representing 70.3 percent of all cancer deaths; prostate cancer, representing 25.4 percent; colorectal cancer, 21.6 percent; and liver cancer, 15.1 percent are the top four leading causes of cancer deaths (CDC, 2007). With the exception of Hispanics, lung cancer is the leading cause of cancer death among all male racial groups; however, black males, with a lung cancer death rate of 101.3 per 100,000 persons, are 1.3 times more likely to die from lung cancer than are their white counterparts, with a death rate of 75.2 (see Table 1.3) (Ries et al., 2005). Although prostate cancer is the second leading cause of cancer death for

FIGURE 1.2 *Cancer Death Rates, by Race and Ethnicity, United States, 1998–2002.*



Note: Death rates per 100,000; age-adjusted to the 2000 U.S. standard population.
* *Hispanic* does not mutually exclude whites, African Americans, Asians/Pacific Islanders, or Native Americans/Alaska Natives.
Source: National Cancer Institute, Division of Cancer Control and Population Sciences. (2005). *Surveillance, Epidemiology, and End Results Program, 1975–2002.*

all U.S. males with the exception of Asians/Pacific Islanders, blacks are disproportionately impacted (CDC, 2007). As shown in Table 1.3, cancer-related mortalities were 1.3 to 2.3 times greater for black males than white males for other cancers, such as of the larynx, stomach, mouth, esophagus, small intestine, and pancreas, and myeloma.

Representing 56.1 percent, the percentage of black male cancer deaths attributed to prostate cancer is 2.4 times that of white males (23.4%), 2.9 times that of Hispanic males (19.3%), and 3.4 times that of Native Americans/Alaska Natives (16.5%). As the third leading cause of cancer death for all male racial groups, colorectal cancer death is 1.4 times greater among black males (9.5 deaths per 100,000) than for white males (6.2) (see Table 1.3) (Ries et al., 2005). Liver cancer, although the second leading cause of cancer death among male Asians/Pacific Islanders, is the fourth leading cause of cancer death among men overall (CDC, 2007). The rate of cancer death among black males (9.5 deaths) is 1.5 times greater than that of white males (6.2).

Overall, within the U.S. female population, white women (405.9 per 100,000 persons) have the highest incidence of cancer, followed by black women (379.7), Hispanic

TABLE 1.3 Cancer Sites in Which African American Death Rates Exceed White Death Rates for Men, United States, 1998–2002.

Site	Black Males	White Males	Ratio (Black/White)
All sites	339.4	242.5	1.4
Prostate	68.1	27.7	2.5
Larynx	5.2	2.3	2.3
Stomach	12.8	5.6	2.3
Myeloma	8.8	4.4	2.0
Oral cavity/pharynx	7.1	3.9	1.8
Esophagus	11.2	7.5	1.5
Liver/intrahepatic bile duct	9.5	6.2	1.5
Small intestine	0.7	0.5	1.4
Colon/rectum	34.0	24.3	1.4
Lung/bronchus	101.3	75.2	1.3
Pancreas	15.8	12.0	1.3

Note: Death rates per 100,000; age-adjusted to the 2000 U.S. standard population.
Source: National Cancer Institute, Division of Cancer Control and Population Sciences. (2005). *Surveillance, Epidemiology, and End Results Program, 1975–2002.*

women (318.6), Asian/Pacific Islander women (267.4), and Native American/Alaska Native women (242.2) (CDC, 2008a). However, black women presented higher prevalence than white women for colorectal (54.0 vs. 43.3), pancreatic (13.0 vs. 8.9), and stomach (9.0 vs. 4.5) cancers. Breast, lung, and colorectal cancers are the most common cancers among women as well as the leading causes of cancer-related deaths among women. Although breast cancer is the most common form of cancer among women of all races (117.7 per 100,000 persons), it is the second leading cause of cancer deaths for women (24.4 deaths per 100,000). Breast cancer is the first leading cause of death among Hispanic women (15.7) and the second leading cause of death among blacks (32.3), whites (23.8) and Native Americans/Alaska Natives (15.0).

Despite being the second most common cancer among U.S. women (54.2 per 100,000 persons), lung cancer is the leading cause of female cancer deaths (40.9 deaths) (CDC, 2007). Lung cancer is the primary cause of cancer death among white (41.9), black (40.0), Native American/Alaska Native (30.2), and Asian/Pacific Islander women (18.1) and the second leading cause of death for Hispanic women (14.4). Colorectal cancer is the third most prevalent (42.7) as well as the third leading cause of cancer death (15.2 deaths) among U.S. women. Colorectal cancer is the second most common form of cancer among black (50.6), Hispanic (34.2), and Asian/Pacific Islander (32.1) women and the third most common form of cancer among white (41.6) and Native American/Alaska Native (28.7) women.

STROKE

Claiming over 160,000 lives a year, stroke is the third leading cause of death in the United States and the leading cause of serious long-term disability (American Heart Association, 2005). In 2005, strokes accounted for one out of every seventeen deaths. Of the 700,000 annual U.S. strokes, equating to one stroke every 45 seconds, 500,000 are experienced by those who have never had a stroke and 200,000 occur among those with a prior history of stroke. There are three types of stroke—ischemic, hemorrhagic, and transient ischemic attacks—all of which occur more often among people with conditions such as high blood pressure, heart disease, and diabetes. Ischemic stroke, which occurs when oxygenated blood is blocked from the brain, is the most common type of stroke, accounting for 88 percent of all strokes. There are two kinds of hemorrhagic stroke, intracerebral and subarachnoid. Intracerebral hemorrhage, accounting for 9 percent of all strokes, results when blood vessels in the brain leak into the brain, and subarachnoid hemorrhage, accounting for 3 percent of all strokes, results from bleeding under the outer brain membrane. Transient ischemic attack (TIA), sometimes referred to as a mini-stroke, is the mildest of the three types of stroke. The onset of a TIA has the same etiology as any other stroke; however, the effects of a TIA stroke clear within twenty-four hours of the onset.

Although strokes can and do occur at any age, more than three-quarters of all strokes occur in people under the age of sixty-five (American Heart Association, 2005). A person's risk of stroke doubles each decade after age fifty-five. Blacks are twice as likely as whites to experience a stroke. In age-adjusted, first-ever stroke incidence per 100,000 persons, white males had a stroke prevalence of 167, compared to black males, whose prevalence rate was much higher at 323. The age-adjusted prevalence rate for first stroke was again much higher for black women (260) than it was for white women (138). Claiming a life every three minutes, strokes account for more than one out of every fifteen U.S. deaths. In addition to having higher stroke prevalence, blacks are also more likely to die from stroke than are their white counterparts. The higher stroke mortality and morbidity rates experienced by blacks may be directly related to their higher prevalence for stroke-related risk factors, such as hypertension and diabetes.

As of 2004, seventy-three million persons twenty and older were estimated to have high blood pressure in the United States (American Heart Association, 2005). The prevalence of high blood pressure among blacks is among the highest in the world. About 34 percent of the U.S. black population has high blood pressure, which is greater than that of the Hispanic, white, and Native American populations, whose rates are between 24 and 27 percent. High blood pressure rates among blacks have been noted for causing 40 percent of all deaths related to stroke, heart disease, and kidney disease: blacks are 1.8 times more likely than whites to experience fatal strokes, 1.5 times more likely to have fatal heart disease, and 4.2 times more likely to progress to end-stage kidney disease. High blood pressure rates may also be responsible for up to 75 percent of cardiovascular problems in people with diabetes, which is itself a stroke risk factor and the fourth leading cause of death among blacks.

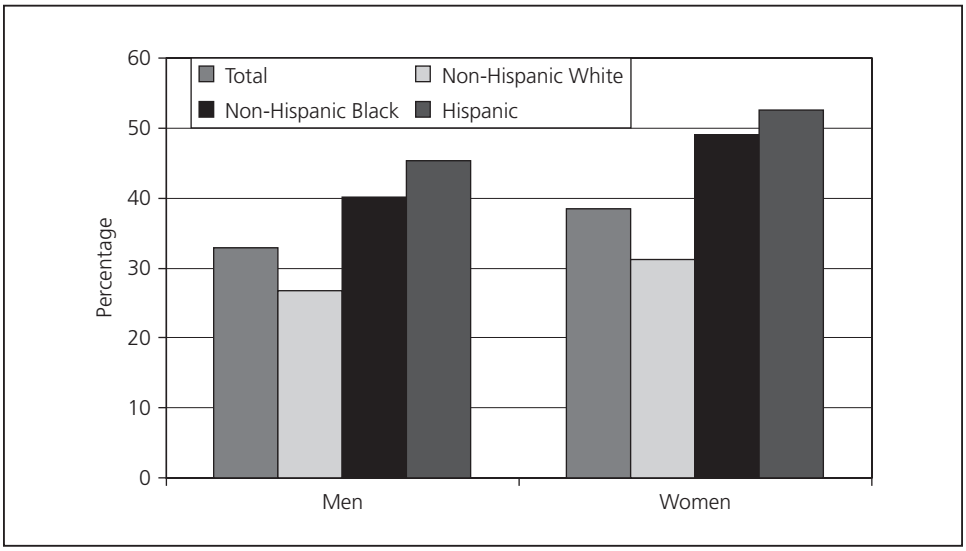
DIABETES

Nationally and among whites, diabetes is the sixth leading cause of death; it is the fourth leading cause of death among blacks (Table 1.2). There are three types of diabetes: type-1, type-2, and gestational diabetes (CDC, 2008b). Type-1 diabetes results when the body's immune system destroys pancreatic beta cells responsible for producing the insulin that regulates blood glucose. Type-1 diabetes usually occurs among children and young adults but can occur at any age. Type-1 accounts for 5–10 percent of all diagnosed diabetes cases among adults. Type-2, also known as adult onset diabetes or non-insulin dependent diabetes mellitus, results when the body gradually loses its ability to meet its demand for insulin. This form of diabetes accounts for 90–95 percent of all diagnosed diabetes cases in adults. Gestational diabetes is a form of glucose intolerance that can be diagnosed during pregnancy. This form of diabetes occurs more often among black, Hispanic, and Native American women. It is also more common among obese women as well as those with a family history of diabetes.

In 2007, the CDC estimated 23.6 million people (7.8% of the U.S. population) to be diabetic, an estimate which includes 17.9 million diagnosed and 5.7 million undiagnosed cases of diabetes (CDC, 2008b). Among those twenty or older, the prevalence of diabetes among blacks was 1.5 times that of whites. Although whites contributed 11.2 million more cases than blacks (14.9 million versus 3.7 million, respectively), the population percentage of blacks aged 20 or older with diabetes was greater than the population percentage of whites in the same age group, 14.7 percent versus 9.8 percent, respectively.

The lifetime risk of developing diabetes for persons born in 2000 was higher for blacks than whites and for women than men (see Figure 1.3). As shown in the figure, the lifetime risk of diabetes for whites was lower than the overall population ("Total") risk, regardless of gender; in contrast, the risk for blacks was higher than the overall population risk for both males and females. The lifetime risk for diabetes among black males exceeded that of white males born in 2000 by more than 10 percent; and the lifetime risk among black women exceeded that of white women by nearly 20 percent.

FIGURE 1.3 *Estimated Lifetime Risk of Developing Diabetes for Individuals Born in the United States in 2000.*



Source: Venkat Narayan, K., Boyle, J., Thompson, T., Sorensen, S., & Williamson, D. (2003). Lifetime risks for diabetes mellitus in the U.S. *JAMA, 290* (2003): 1884–1890.

With the exception of Hispanics, whose risk exceeded blacks' by ⩽5 percent, blacks have the highest lifetime diabetes risk.

In addition to being more likely than whites to develop diabetes, blacks are more likely to experience greater diabetes-related disabilities. Diabetes is a leading cause of adult blindness, lower-limb amputation, kidney disease, and nerve damage. Responsible for twelve to twenty-four thousand new blindness cases per year, diabetic retinopathy is the leading cause of new cases of blindness among adults from twenty to seventy-four years (CDC, 2008b). By 2050, it is estimated that diabetic retinopathy will increase from its current prevalence of 5.5 million to between 16 and 18 million (National Center for Chronic Disease Prevention and Health Promotion . . . , 2007). Twenty-three percent of diabetics experience foot problems, including numbness, accounting for more than 60 percent of all nontraumatic lower-limb amputations (CDC, 2008b). Nervous system damage is the major contributing cause of lower-extremity amputation. Approximately 60 to 70 percent of diabetics have mild to severe forms of nervous system damage, which impair such things as sensation in the feet or hands and slow stomach digestion of food. Diabetes is the leading cause of kidney failure, accounting for 44 percent of new cases in 2005 (CDC, 2008b).

Diabetes-related mortality rates are 27 percent greater among blacks than whites (National Center for Chronic Disease Prevention and Health Promotion . . . , 2007).

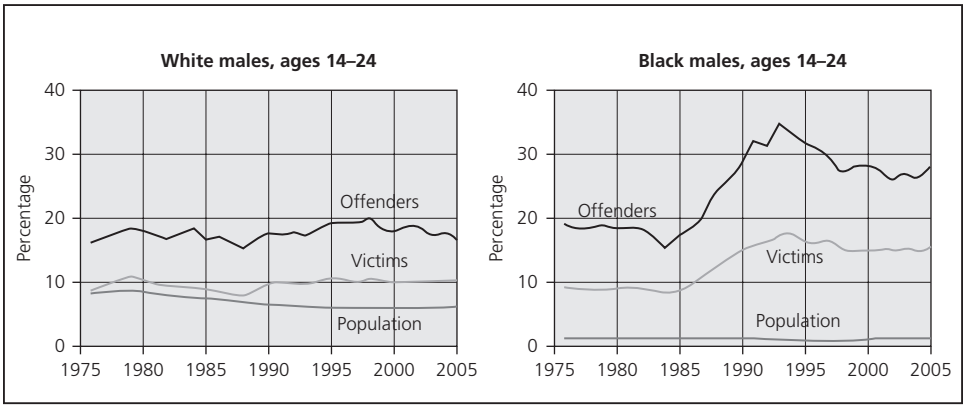
Two-thirds of those with diabetes die from heart attack or stroke, whereas 65 percent die from cardiovascular disease. Adult diabetics are two to four times more likely than nondiabetic adults to die of heart disease and/or have a stroke. In 2004, heart disease was noted for 68 percent and stroke was noted for 16 percent of diabetes-related deaths among persons sixty-five years or older (CDC, 2008b). Eight percent of diabetics experience congestive heart failure and 9 percent suffer from coronary artery disease.

HOMICIDE

In the United States, homicide is the fifteenth leading cause of death; however, it is among the top five causes of death for ages 1–34 (Kung et al., 2008; Karch, Lubell, Friday, Patel, & Williams, 2008). Homicide is the second leading cause of death for ages 15–24, third for ages 25–34, and fourth for ages 1–14 (Karch et al., 2008). Homicide ranks sixth among the top ten leading causes of death among blacks; for whites, homicide was not among the top ten causes of death. In 2005, blacks accounted for about half of the homicide deaths, and males accounted for 3.5 times more homicide deaths than did females. The trend data reflected in Figure 1.4 depict the population percentage for American males age 14–24, the percentage of male homicide victims by race, and the percentage of male homicide offenders by race from 1976 to 2005.

The graphs in the figure show the 14–24-year-old white male population, as a percentage of total population, to be consistently greater than the black male population within the same age group. Despite having declined from its 1976 high of 8.9 percent of the population to 6.3 percent in 2005, the percentage of white males age 14–24 has always exceeded its black male counterpart, whose percentage has declined from 1976 (1.3%) to 2005 (1.2%). In the twenty-nine years reflected in the figure, both races

FIGURE 1.4 *Young Males as a Percentage of the Population, of Homicide Victims, and of Homicide Offenders, 1976–2005.*

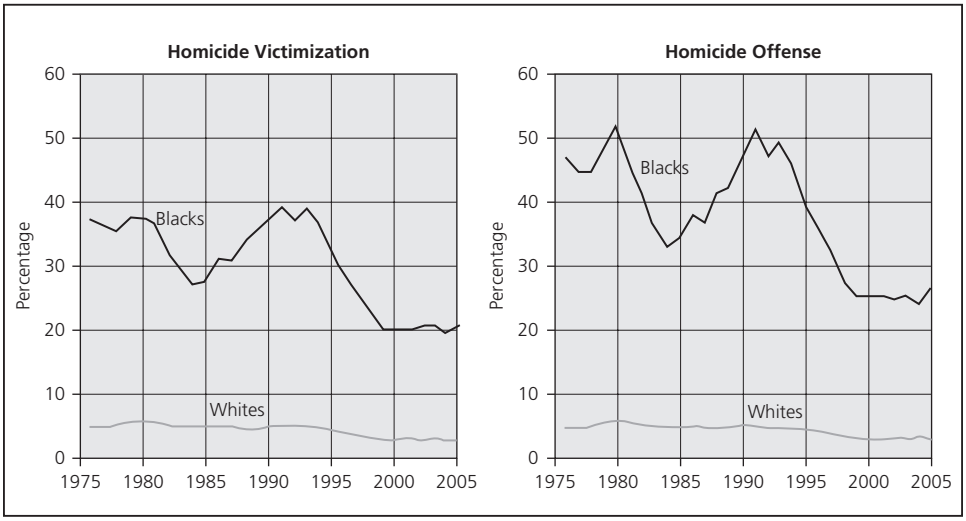


Source: Bureau of Justice Statistics; homicide trends in the United States, by race, July 2007.

experienced population trends as follows: from 1976 to 2005, white males age 14–24 represented population percentages between 6.1 and 8.9 percent. The lowest population percentage for white males (6.1%) began in 1996 and continued through 2001 before increasing to 6.2 percent in 2002, and 6.3 percent in 2005. For black males in the age group, population percentages ranged between 1.1 and 1.4 percent. The lowest population percentage for black males (1.1%) began in 1992 and continued through 2000 before increasing to 1.2 percent in 2001.

Although the white male population was 5.5–6.4 times greater than that of the black male population within the same age group, the percentages of homicide victims and offenders were greater among black males than white males. As shown in Figure 1.5, white males age 14–24 years represented 7.9–10.8 percent of homicide victims and 15.3–20.1 percent of homicide offenders, compared to black males in the same age group, representing 8.2–17.5 percent of homicide victims and 72.3–82.8 percent of homicide offenders. In 2005, blacks age 14–24 years were six times more likely to be the victim of homicide and seven times more likely to have perpetrated a homicide than their white counterparts. Although blacks were less likely than whites to be the victim of sex-related homicides (30.5% black vs. 66.9% white), workplace killings (12.2% black vs. 84.6% white), or homicides by poisoning (16.9% black vs. 80.6% white), they were overrepresented in homicides involving drugs (61.6% black vs. 37.4% white) (U.S. Department of Justice, 2007).

FIGURE 1.5 *Homicide Victimization and Offense, by Race, 1976–2005.*



Note: Rates per 100,000 persons.
Source: Bureau of Justice Statistics; homicide trends in the United States, by race, July 2007.

In 2004 black males were more likely than Hispanics or whites to be sentenced for drug-related offenses (23%, 21%, and 15%, respectively) (Sabol, Couture, & Harrison, 2007). By the end of 2005, blacks represented 44.8 percent, Hispanics 20.2 percent, and whites 28.5 percent of the 253,300 state inmates serving time for drug offenses (Sabol & West, 2008). Again, in 2007, blacks had a greater incarceration rate than whites. Black men were incarcerated at a rate of 4,618 per 100,000 compared to white males, with a rate of 773, and black women were incarnated at a rate of 348 compared to white women, at a rate of 95 (Sabol & Couture, 2008). The higher prevalence of incarceration among blacks has contributed to other health disparities, such as HIV/AIDS, which does not rank among the top ten leading causes of death for the nation or among whites but is the seventh leading cause of death for blacks.

CONCLUSION

A review of the nation's top ten leading causes of death revealed periodically higher morbidity and consistently higher mortality rates for blacks. Unlike their white counterparts, blacks were less likely to share in the nation's leading causes of death or to rank those causes in the same order (Table 1.2). When compared to the rankings of the nation's top ten leading causes of death, the rankings for whites deviated from the nation's by one, whereas blacks deviated by four. Three of the leading causes of deaths for blacks—homicide, HIV/AIDS, and respiratory disease (COPD)—did not make the top ten rankings for the nation or for whites. The differences reflected in these rankings may be symptomatic of the health disparities that continue to impact persons of color and those of lower economic status.

After evaluating current peer-reviewed research, the Institute of Medicine found evidence of consistent disparities in health care across a range of illness and health care services among racial and ethnic groups (Smedley, Stith, & Nelson, 2003). The Institute of Medicine's review of the literature found that though some studies argued that observed health disparities tended to diminish for most diseases and even disappear for a few when socioeconomic factors were controlled for, the majority of the studies did not. Despite agreeing that disparities are associated with socioeconomic differences, most studies found that racial and ethnic disparities remained after controlling for socioeconomic differences and other health care access–related factors.

Citing highly rigorous studies which examined racial and ethnic health disparities in cardiovascular care among studies with findings most convincing of persistent health care disparities not diminished by controlled socioeconomic factors, the Institute of Medicine also agrees with popular opinion—disparities exist beyond socioeconomic status (Smedley et al., 2003). Race and ethnicity, rather than disease stage, income, and insurance, dictated heart disease treatment regimens as well as the receipt of appropriate cancer diagnostic tests. With HIV, blacks are less likely than nonminorities, even after controlling for age, gender, education, CD4 cell count, and insurance, to receive antiretroviral therapy, prophylaxis for pneumocystic pneumonia, and protease inhibitors. Racial and ethnic disparities were also observed for a range of other dis-

eases and health service categories, including diabetes care, end-stage renal disease, kidney transplants, pediatric care, maternal and child care, mental health, and many surgical procedures.

The 2007 National Healthcare Disparities Report, which is generated by the Agency for Healthcare Research and Quality on behalf of the U.S. Department of Health and Human Services, noted three major health disparity themes that may help to explain the racial health differences presented in this chapter: (1) overall disparities in heath care quality and access are not declining; (2) despite some progress, many of the larger gaps in quality and access have not been reduced; and (3) being uninsured continues to be a major barrier to disparity reduction (Agency for Healthcare Research and Quality, 2008).

The first conclusion stated in the disparities report was derived from the analysis of sixteen of the forty-two core measures of quality of care, which facilitated cross-racial and -ethnic comparison, where whites were used as the comparison reference group (Agency for Healthcare Research and Quality, 2008). The quality-of-care comparison showed improvements for nearly half of the quality-of-care disparities for Hispanics and a lack of improvement for over 60 percent of quality-of-care disparities among blacks, Asians, and Native Americans/Alaska Natives. The socioeconomic comparison, which focused on the sixteen core measures of quality and six core measures of access supported by reliable estimates of income, found that quality and access to care for the poor had declined by more than 40 percent. As the gap between the "haves" and the "have nots" continues to increase in the United States, the number of persons with limited or no access to quality health care also increases. According to the Gini index, the gap in U.S. incomes increased considerably between 1967 and 2005 (U.S. Census Bureau, 2006).

To date, the Gini index or coefficient is one of the most commonly used measures of income inequality. The Gini coefficient measures income inequality on a scale from zero to one, in which zero represents perfect equality (everyone having the same income) and one (1) represents perfect inequality (one person having all the income). The scale score is then commonly multiplied by 100 to make score interpretation easier (Schiller, 2003). The Gini index is used by the United Nations to rank countries on their income disparities, which range from the lowest level of income disparity, 24.7 in Denmark, to the highest level of disparity, 74.3 in Namibia (United Nations Development Program, 2006). Although most postindustrial nations have a Gini coefficient ranging in the high twenties to the mid thirties, the United States has a Gini rating of 40. From 1967, when the U.S. Census Bureau started measuring the Gini coefficient, to 2005, the Gini coefficient has risen 20 percent for full-time workers and 18 percent for households. Among households, income disparities have risen from 39.7 to 46.9 (U.S. Census Bureau, 2006).

The second conclusion stated in the disparities report is based on the ability to gain access to the health care system and receive care within a timely fashion (Agency for Healthcare Research and Quality, 2008). The conclusion's assessments revealed a 60 percent increase in the core measures used to determine effective access to needed

health care for Native Americans/Alaska Natives. For blacks, Asians, Hispanics, and poor populations, there was no improvement in at least half of the core measures used to determine access to needed services. Core measures remained the same or declined 60 percent among blacks and 80 percent among Hispanics. The third conclusion is based on the racially inequitable growth rate of uninsured Americans; being uninsured can lead to a lack of a steady health care provider and delayed care for necessary services. In this assessment both blacks and Hispanics were less likely to have a usual source of care and more likely to delay necessary care than were whites.

Although according to the 2006 U.S. Census data the number of people with health insurance increased from 249.0 million in 2005 to 249.8 million in 2006, there were several decreases in coverage (DeNavas-Walt, Proctor, & Smith, 2007). From 2005 to 2006, the percentage of uninsured people increased from 15.3 percent (44.8 million) to 15.8 percent (47 million), the percentage of those covered by employment-based health insurance decreased from 60.2 to 59.7 percent, and the number of those covered by governmental health programs decreased from 27.3 to 27 percent (DeNavas-Walt et al., 2007). Racially, the percentage of uninsured whites remained constant from 2005 to 2006 at 10.8 percent, whereas the percentage of uninsured blacks increased from 19.0 to 20.5 percent. Economically, the likelihood of having health insurance was directly related to income. Households with annual incomes of less than $25,000 had a health insurance coverage percentage of 75.1, whereas those with annual incomes of $75,000 or more had a coverage percentage of 91.5. Regionally, the uninsured rates are highest in the South (19.0%), followed by the West (17.9%), Northwest (12.3%), and Midwest (11.4%).

In closing, the overall health of black Americans is substantially less than that of white Americans. American blacks have a life expectancy that is unreflective of the developed nation in which they live and more reflective of a developing nation. Their health mortalities and morbidities are also much greater due to continually increasing disparities in poverty, medical coverage, and access to care, which also makes them more susceptible to health conditions (homicide, HIV/AIDS, and respiratory disease) not suffered in the same magnitude by their white counterparts.

REFERENCES

Agency for Healthcare Research and Quality. (2008). *National healthcare disparities report 2007*. U.S. Department of Health and Human Services, AHRQ Pub. No. 08–0041.

American Heart Association. (2005). *Heart disease and stroke statistics—2005 update*. Dallas: American Heart Association.

Burd-Sharps, S., Lewis, K., & Martins, E. (2008). *The measures of America: American human development report 2008–2009*. New York: Columbia University Press.

Centers for Disease Control and Prevention (CDC). (2005). Health disparities experienced by black or African Americans—United States. *MMWR Morbidity Mortality Weekly Report*, *54*(1), 1–3.

Centers for Disease Control and Prevention (CDC). (2007). *U.S. Cancer Statistics Working Group. United States cancer statistics: 2004 incidence and mortality*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, and National Cancer Institute.

Centers for Disease Control and Prevention (CDC). (2008a). *Statistics about racial or ethnic variations*. Atlanta: Division of Cancer Prevention and Control, National Center for Chronic Disease Prevention and Health Promotion.

Centers for Disease Control and Prevention (CDC). (2008b). *National diabetes fact sheet: General information and national estimates on diabetes in the United States, 2007.* Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.

DeNavas-Walt, C., Proctor, B., & Smith, J. (2007). Income, poverty, and health insurance coverage in the United States: 2006. In *Current population reports* (pp. 60–233). Washington, DC: U.S. Census Bureau, U.S. Government Printing Office.

Gadson, S. (2006). The third world health status of black American males. *Journal of the National Medical Association 98*(4), 488–491.

Karch, D., Lubell, K., Friday, J., Patel, N., & Williams, D. (2008). Surveillance for violent death—National violent death reporting system, 16 states, 2005. *MMWR Surveillance Summary, 2008*, 57 (SS-3), pp. 1–43, 45.

Kung, H., Hoyert, D., Xu, J., & Murphy, B. (2008). Deaths: Final data for 2005. *National Vital Statistics Report 56*(10), 1–121.

McKinnon, J. (2001). *The black population 2000* (Census 2000 brief). Washington, DC: U.S. Department of Commerce, U.S. Census Bureau. Available at http://www.census.gov/prod/2001pubs/c2kbr01-5.pdf

National Center for Chronic Disease Prevention and Health Promotion: NCHS; CDC; ADA; AACE. (2007). *National diabetes fact sheet.* Retrieved January 2009 from http://www.dagc.org/diastatsUS.asp.

Ries, L., Eisner, M., Kosary, C., Hankey, B., Miller, B., Clegg, L., et al. (Eds.). (2005). *SEER cancer statistics review, 1975–2002*. Bethesda, MD: National Cancer Institute. Retrieved January 2009 from http://seer.cancer.gov/csr/1975_2002/ (Based on November 2004 SEER data submission, posted 2005).

Sabol, W., & Couture, H. (2008, June). *Prison inmates at midyear 2007*. Bureau of Justice Statistics Bulletin (NCJ221944). Washington, DC: Bureau of Justice Statistics, U.S. Department of Justice.

Sabol, W., Couture, H., & Harrison, P. (2007, December). *Prisoners in 2006.* Bureau of Justice Statistics Bulletin (NCJ219416). Washington, DC: Office of Justice Programs, U.S. Department of Justice.

Sabol, W., & West, H. (2008, December). *Prison in 2007.* Bureau of Justice Statistics Bulletin (NCJ224280). Washington, DC: Bureau of Justice Statistics, U.S. Department of Justice.

Schiller, B. (2003). *The economy today* (9th ed.). New York: McGraw-Hill.

Smedley, B., Stith, A., & Nelson, A. (Eds.). (2003). *Unequal treatment: Confronting racial and ethnic disparities in healthcare.* Washington, DC: National Academies Press.

Sotelo, M., & Gimeno, L. (2003). What does human development index rating mean in terms of individualism/collectivism? *European Psychologist, 8*(2), 97–100.

United Nations Development Program. (2006). *Human development report 2006: Beyond scarcity: Power, poverty and the global water crisis.* New York: Palgrave Macmillan.

U.S. Census Bureau. (2006). *Historical income tables—Income equality*. Available at http://www.census.gov/hhes/www/income/histinc/p60no231_tablea3.pdf

U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau. (2008). *Women's health USA 2008.* Rockville, MD: U.S. Department of Health and Human Services.

U.S. Department of Justice. (2007). *Homicide trends in the United States.* Washington, DC: Office of Justice Programs, Bureau of Justice Statistics.