

# The Current Scope of Health Disparities in the U.S.: A Review of Literature

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## Abstract

This review of literature examines leading contributors and mediators of health disparities in the United States. Specifically, poverty, education, and health are addressed. Special emphasis is placed on implications of health risk behaviors and health education for select populations and settings. Existing and suggested strategies for addressing health disparities are presented in light of health care reform and other current trends.

## Introduction

One of the two main goals outlined in *Healthy People 2010* is to reduce health disparities among Americans. According to *Healthy People 2010* (U.S. Department of Health and Human Services, 2000), health disparities encompass “differences that occur by gender, race or ethnicity, education or income, disability, geographic location, or sexual orientation” (p. 11). A myriad of factors contribute to health disparities in the United States. Perhaps the single most substantial source of health disparities in the U.S. is poverty (U.S. Department of Health and Human Services, 2000).

## Factors That Contribute to Health Disparities

### Poverty

Poverty, a condition involving insufficient resources for meeting basic needs such as food, shelter, and clothing, often is operationalized through the construct of socioeconomic status. According to House and Williams (2000),

Socioeconomic status refers to individuals’ position in a system of social stratification that differentially allocates the major resources enabling people to achieve health or other desired goals. These resources centrally include education, occupation, income, and assets or wealth, which are related to each other and to health in a causal framework. (p. 83)

As stated by Adler and Newman (2002), “socioeconomic status underlies three major determinants of health: health care, environmental exposure, and health behavior” (p. 60). The purpose of this article is to present literature regarding socioeconomic status and related factors associated with contemporary health disparities among select populations in the U.S.

Low socioeconomic status has been linked to risky behaviors such as tobacco use (Fagan, Moolchan, Lawrence, Fernander, & Ponder, 2007), sedentary lifestyles (Estabrooks, Lee, & Gyuresik, 2003), poor dietary habits (McGuire, Ahluwalia, & Strine, 2006), unintentional and intentional injuries (Mock, Quansah, Krishnan, Arreola-Risa, & Rivara, 2004), risky sexual practices resulting in unintended pregnancy (SmithBattle, 2007), alcohol use (Casswell, Pledger, & Hooper, 2003), and drug use (Pearson et al., 2006). Similarly, low socioeconomic status has been associated with a variety of adverse health outcomes namely, low birth weight, childhood asthma, deaths resulting from firearms, cardiovascular disease, breast cancer mortality, and osteoporosis (Kaplan, Everson, & Lynch, 2000).

While socioeconomic disparities in health are less pronounced among foreign-born racial/ethnic groups (Kimbrow, Bzostek, Goldman, & Rodriguez, 2008), such disparities persist within and across the racial/ethnic spectrum (House & Williams, 2000). In many instances, health disparities begin at birth. For example, data from the Early Childhood Longitudinal Survey-Birth Cohort indicated that infants born in the Deep South (i.e., “a cluster of contiguous states in the Southeastern region of the U.S., which relied heavily on plantation agriculture and the slave trade prior to the American Civil War,” [Nepomnyaschy, 2010, p. 685]) are more likely to be characterized by low birth weight as a result of low socioeconomic conditions and racial distribution (i.e., a proportionately higher concentration of Blacks reside in the Deep South than in other regions of the U.S.) (Nepomnyaschy, 2010).

Children who are born into families of low socioeconomic status inherently are disadvantaged. Social Learning Theory (Bandura, 1977) can be applied to explain the impact of family environments on individuals of low socioeconomic status. Parents of low socioeconomic status lack education and resources equated with prosperous employment and quality of life. Children tend to model behaviors of their parents; thus, breaking the cycle of poor health and economic disparity is extraordinarily arduous (Frank, Elon, & Hogue, 2003; House & Williams, 2000). While effects of low socioeconomic status are witnessed among all youth, they especially are evident among White and Black children in comparison to Hispanic and Asian children who reportedly benefit from different cultural environments (e.g., close knit social ties) that foster healthy behavioral outcomes (Chen,

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Martin, & Mathews, 2006).

Stress represents a leading effect of low socioeconomic status. Stress that accompanies poverty affects individuals who are born and reared in low socioeconomic environments. Effects of stress are most noticeable in the workplace where lack of control over decision making and increased work demands prevail over individuals at the bottom of the hierarchy. Lower level jobs present workers with a host of health threats including exposure to toxic substances and occupational injuries (Adler & Newman, 2002) as well as heart disease, diabetes, arthritis, and other chronic ailments (Volkers, Westert, & Schellevis, 2007). The combination of workplace stress and other factors (e.g., economic strain, poor living conditions, etc.) has potential to foster depression and poor health among individuals of low socioeconomic status (Mausner-Dorsch & Eaton, 2000; Muhonen & Torkelson, 2003).

While workplace stress afflicts a substantial proportion of U.S. adults, unemployment introduces a plethora of stressors for individuals striving to make ends meet. In addition to financial concerns, unemployed individuals often are confronted with social stigma, boredom, loss of identity, social withdrawal, depression, and related issues as they cope with their stressful situations (Scanlan & Beltran, 2007). Smoking, alcohol consumption, and changes in weight are common responses to the stress of unemployment (Bolton & Rodriguez, 2009).

An exacerbating challenge to work-related stress among individuals of low socioeconomic status is inadequate access to health care. Historically, access to information and cutting edge health care services was limited among individuals of low socioeconomic status. For example, tobacco use, HIV/AIDS, and coronary artery disease initially were associated with individuals from all socioeconomic strata. However, as new research developments and educational campaigns were introduced, these issues surfaced among individuals of low socioeconomic status (Link & Phelan, 1995).

Access to health care is a rising concern, particularly among Latinos and other racial/ethnic groups and is not only compromised by unemployment and income, but also cultural insensitivity, language barriers, and lack of diverse health care providers (Rojas-Guyler, King, & Montieth, 2008). Inadequate access to health care often is accompanied by low health literacy, an increasingly apparent phenomenon among educationally and economically disadvantaged Americans (Sudore et al., 2006). Access to health information channels, especially those that are technology-driven (e.g., the Internet), is limited among individuals of low socioeconomic status. As articulated by Beacom and Newman (2010),

Enthusiasm over the technology-driven growth of online health information seeking is tempered by evidence supporting the knowledge gap hypothesis, which indicates that as potential access to health information increases, systematic gaps in health knowledge also increase as groups with higher socioeconomic status acquire this information at a faster rate than those with lower socioeconomic status. (p. 152)

While well-educated and financially viable individuals are equipped with human capital (i.e., job-related skills; Ng & Feldman, 2010) and resources conducive to preventive behaviors and healthy lifestyles, their less fortunate counterparts struggle to access, understand, and utilize health information and services, thus compromising their willingness and ability to practice healthy behaviors.

## **Education**

Just as poverty is one of the leading contributors to health disparities in the U.S., education is one of the leading mediators of health disparities (U.S. Department of Health and Human Services, 2000). Education is perhaps the most powerful component of socioeconomic status because it influences job placement, income, and access to health-related information and resources (Adler & Newman, 2002). According to Adler and Newman, individuals with minimal education are less likely to be informed about risk and more likely to be exposed to tobacco and alcohol advertisements. Such individuals also are more apt to live in poor neighborhoods with limited access to recreational facilities and markets with fresh produce.

The association between educational attainment and health especially is witnessed among high school dropouts. As documented by Freudenberg and Ruglis (2007), high school dropouts have an increased likelihood of substance abuse, unintended pregnancy, and mental/emotional health issues. They also have limited access to employment opportunities, quality housing, and health care coverage.

Several studies have documented the linkage between educational status and substance use. For example, Gfroerer, Greenblatt, and Wright (1997) analyzed data from the National Household Surveys on Drug Abuse, instruments developed by the Substance Abuse and Mental Health Services Administration, to examine substance use among individuals classified as college-aged (between the ages of 17 and 22). Specifically, the authors studied the prevalence of substance use in addition to the impact of educational attainment and living arrangements as predictors of substance use within the targeted group. Findings from their study revealed that use of cigarettes and illicit substances, including marijuana and cocaine, was most common among high school dropouts. In contrast, alcohol use was significantly higher among college students than high school dropouts and high school graduates not attending college. The latter finding was particularly pertinent to college students living away from home.

Despite their educational status, college students are not immune to health disparities. For example, Buhi, Marhefka, and Hoban (2010) examined sexual health disparities among a sample of Black and White undergraduates. While White students were less apt to use condoms for selected sexual behaviors and less inclined to undergo HIV testing, they had fewer sex partners and lower rates of sexually transmitted infections and unintended pregnancy than their Black counterparts.

Not only is educational attainment associated with initiating health risk behaviors, but it also is associated with eliminating health risk behaviors. Wetter et al. (2005) conducted a longitudinal study to determine the influence of educational attainment on smoking cessation. Baseline and follow-up data from participants in a worksite cancer risk reduction program were analyzed. Participants with less than a high school diploma were less inclined to cease their smoking habits than individuals with a high school diploma or equivalency and individuals with at least a college degree.

Obesity represents a growing health condition that largely is attributable to health risk behaviors including poor dietary practices and low physical activity. Adams et al. (2008) longitudinally examined obesity-related trends among rural adolescents. Results from their study indicated “Nearly 47% of students in families whose head of household did not graduate high school were overweight, compared with 37.5% of those whose level of education went beyond high school. Among students identified as obese, students in families with less than a high school education have increased odds of 1.65 times being obese over those families with an education beyond high school” (p. 385).

Family income and parental education not only are significantly related to obesity (as determined by Body Mass Index) (Adams et al., 2008), but also physical activity (Yarbrough & Sherman, 2000). According to the U.S. Department of Health and Human Services (1996), “Inactivity increases with age and is more common among women than men and among those with lower income and less education than among those with higher income or education” (p. 3). This statement was supported through recent findings from the *Physical Activity Guidelines Committee Report, 2008* which revealed that men and women who did not graduate from high school reported less involvement in physical activity than men and women who graduated from college (Physical Activity Guidelines Advisory Committee, 2008).

While physical activity is fostered through high school physical education courses (Centers for Disease Control and Prevention [CDC], 2004) and post-secondary schooling (Dowda, Ainsworth, Addy, Saunders, & Riner, 2003), individuals who drop out of high school relinquish opportunities for participation in physical activity courses, athletics, activities offered through student recreation facilities, and other activities promoted on high school and college campuses. While these opportunities have limitations (e.g., physical activity courses do not always provide students with sufficient knowledge and skills for reducing obesity), they also have potential for promoting lifelong fitness.

Disparities in physical activity also are witnessed at the college level, particularly among students historically susceptible to social disadvantage. Kemper and Welsh (2010) tracked physical activity of undergraduates attending a historically Black college through surveys and pedometers. According to their results, only 29.2% and 42.5% of students fulfilled suggested levels of moderate and vigorous physical activity, respectively. Their results were consistent with data from the 2007 Behavioral Risk Factor Survey (BRFS) which

reported less physical activity among Blacks than the overall sample. While participants harbored favorable outcome expectancies, self-efficacy, and readiness for physical activity as measured by the Transtheoretical Model (Prochaska & DiClemente, 1983), they were in need of intervention.

Just as educational attainment is related to physical activity, it also is related to dietary practices. Tamers, Agurs-Collins, Dodd, and Nebeling (2009) compared dietary behaviors of French and U.S. adults using the French Nutrition Barometer Survey and U.S. National Health and Nutrition Examination Survey, respectively. Educational attainment represented a significant determinant of fruit and vegetable consumption, particularly among U.S. adults.

In a similar analysis of data from the BRFS, researchers found a strong linkage between educational attainment and fruit and vegetable consumption among adult women. Specifically, women with higher levels of education were more apt to consume recommended amounts of fruits and vegetables regularly than their less educated peers (McGuire, Ahluwalia, & Strine, 2006).

The confluence of educational attainment and poverty influences dietary practices. Simply stated, “level of education affects knowledge of dietary recommendations and which foods are healthful vs. less healthful, whereas income affects whether a person can afford to purchase healthful foods” (Satia, 2009, p. 612). The easy access and low cost of “energy-dense” (i.e., foods high in fat and sugar) foods make purchasing healthy foods a moot point for many low-income Americans (Drewnowski, 2009). To further illustrate this point, Kupillas and Nies (2007) revealed that while individuals who qualify for the Food Stamp Program are able to stave off hunger, they often sacrifice diets that meet the USDA dietary recommendations because of limited budgets.

### Select Populations

While poverty and education are leading determinants of health disparities among all Americans, select segments of the U.S. population exhibit increased risks for health inequities. According to the literature, males (Aud et al., 2010; Salzman & Wender, 2006), individuals affiliated with certain racial/ethnic groups (Kimbrow, Bzostek, Goldman, & Rodriguez, 2008), individuals residing in rural areas (Hartley, 2004), individuals with disabilities (Havercamp, Scandlin, & Roth, 2004), immigrants (Carter-Pokras, Zambrana, Yankelovich, Estrada, Castillo-Salgado, & Ortega, 2008), and LGBT (lesbian, gay, bisexual, and transgendered) individuals (Dilley, Simmons, Boysun, Pizacani, & Stark, 2010) especially are susceptible to health disparities.

Health disparities resulting from sex consistently have emerged throughout history. First and foremost, males are less likely than females to graduate from high school and college (Aud et al., 2010). Furthermore, males have a shorter life expectancy than females and have heightened risks for suicide, homicide, liver disease, kidney disease, HIV, certain types of cancer, and cardiovascular disease. These disparities

have continued despite changing gender roles and partially are attributable to differences in health behaviors and beliefs between the sexes (Salzman & Wender, 2006).

Health disparities resulting from affiliation with various racial/ethnic groups are well-documented in the literature. It is important to note that while some racial/ethnic groups exhibit characteristics that contribute to health disparities, others exhibit characteristics that protect against health disparities. The complex interplay of socioeconomic factors with racial/ethnic and cultural variations in the U.S. population warrants special attention beyond the scope of this article. Kimbro et al. (2008) provide a thorough analysis of health disparities involving race/ethnicity and education.

Select racial/ethnic groups especially are vulnerable to health disparities. For example, both American Indians (Holm, Vogeltanz-Holm, Poltavski, & McDonald, 2010) and Pacific Islanders (Moy, Sallis, & David, 2010) report higher prevalence rates for chronic conditions including coronary heart disease, diabetes, and obesity, and lower participation in physical activity and cancer screenings than the general U.S. population. Precise reasons for racial/ethnic disparities are uncertain. Consequently, researchers recently have explored the influence of factors such as racism and the built environment on health disparities involving select racial/ethnic groups. For example, Do et al. (2008) investigated the role of neighborhood context on health disparities between Blacks and Whites using data from the U.S. National Health Interview Survey. Results from their analysis indicated that neighborhood context represented a significant contributor to health disparities between Blacks and Whites, particularly among young individuals and females.

Not only do health disparities emanate from residential contexts, but they also emerge from geographic locales. Rural environments especially are fraught with health disparities. Hartley (2004) commented on data from *Health United States, 2001, Urban and Rural Health Chartbook*. Specifically, he used the term, “rural culture” to describe variations in the prevalence of health risk behaviors (e.g., smoking, diet, physical activity, etc.) between suburban and rural populations in the U.S. It is well-documented that rural areas are characterized by poorer health behaviors and access to fewer health care resources than their urban/suburban counterparts. Hartley noted that while access to health care is important in eliminating health disparities, it pales in comparison to socioeconomic, occupational, and environmental factors—key components of population health.

Like individuals living in rural areas, individuals with disabilities represent a unique population that is affected by health disparities. Using data from the North Carolina National Core Indicators Project and the BRFSS, Havercamp, Scandlin, and Roth (2004) analyzed health disparities among adults with developmental disabilities, adults with other disabilities, and adults without disabilities. According to their study, adults with developmental and other disabilities were more apt to report poor or fair health and less inclined to be physically active than their non-disabled counterparts.

Moreover, adults with developmental disabilities were more susceptible to diabetes, while adults with other disabilities were more prone to diabetes, high blood pressure, cardiovascular disease, arthritis, and chronic pain than non-disabled adults. In relation to social health, adults with developmental disabilities were less likely than non-disabled adults to possess adequate emotional support.

Like individuals with disabilities, immigrants are vulnerable to the effects of health disparities, particularly after living in the U.S. for prolonged periods of time and thereby, becoming assimilated to the dominant culture. Carter-Pokras et al. (2008) analyzed themes from the literature to determine health disparities between Mexican-born immigrants to the U.S. and U.S.-born Mexicans. They found that U.S.-born Mexicans experience higher morbidity and mortality rates relative to Mexican-born immigrants to the U.S. Carter-Pokras et al. also found that as Mexican-born immigrants become acculturated to customs in the U.S., they are more prone to health compromising behaviors such as alcohol consumption, tobacco use, and illicit drug use.

The LGBT community represents another at-risk group for health disparities. Dilley et al. (2010) reported that gay and bisexual men had lower physical and mental health indicators than heterosexual men. While gay men were less apt to be overweight, they were more inclined to smoke. Similarly, bisexual men were more likely to smoke, drink heavily, and lead sedentary lifestyles than their heterosexual peers. Lesbian and bisexual women possessed similar health risks to bisexual men. Specifically, they exhibited a greater likelihood of having asthma, drinking heavily, smoking, and being overweight than heterosexual women. Lesbian and bisexual women also revealed a lower likelihood of having health insurance and using preventive care (e.g., mammograms) than heterosexual women.

### **Existing Strategies to Address Health Disparities**

In light of the aforementioned literature regarding poverty, education, health, and select populations, it should be noted that many attempts to address health disparities have been inadequate. For example, Sudano and Baker (2006) purported that public health strategies that focus on changing individual behaviors and providing access to health care among Blacks and Hispanics are insufficient because underlying health disparities for these racial/ethnic groups largely are attributable to education and income.

While some strategies for addressing health disparities fail to consider underlying determinants of inequities, other strategies fail to focus on high risk populations. For example, as indicated by Adler and Newman (2002), “Health promotion efforts that are not targeted at the poor are likely to increase SES disparities, because they are used more readily by those with more resources to act on the information” (p. 69). That said, individuals within low socioeconomic brackets should be targeted for health education and promotion activities because of the increased health risks they possess.

Sir Michael Marmot, British epidemiologist and leading

expert in health disparities, contends that effective policy must address social and economic determinants of health. In the U.S., few, if any, national policies have focused on social and economic factors that result in just distribution of resources (e.g., income) (Low, Low, Baumler, & Huynh, 2005). According to Low et al., “less attention has focused on social factors than on those diseases and conditions that are disproportionately prevalent among minorities and the economically disadvantaged and on ways to improve access to health care services for those individuals” (p. 1132). These trends highlight a need for health promotion activities that emphasize humanistic and altruistic ideologies.

The U.S. political system has faced many challenges that have inhibited attempts to address health disparities. In 2005, Low, Low, Baumler, and Huynh noted that the political system was “more favorable to tax cuts and less government spending on domestic programs than to more equitable distribution of incomes and living conditions” (p. 1133). Most Congressional members grew up in privilege and are somewhat distanced from a lower class constituency that is devoid of the influence that money and lobbying affords. U.S. legislators also face regular referendums on their continued employment, so a personal motive for appeasing middle class and wealthier constituents exists to assure their re-election (Lindblom & Woodhouse, 1993). These and other challenges (e.g., the influence of big businesses) threaten progress toward social and economic policies and ultimately, the health of the nation.

The economy has been in a tailspin since 2009 and many have indicated that it is in the worst state since the Great Depression. According to Sherman and Stone (2010), “The income gaps between (the) very rich and everyone else more than tripled in (the) last three decades” (p. 1). Moreover, during the first part of the 21st century, “the debt-to-income ratio (among the middle class) reached its highest level in 20 years” (Wolff, 2007, p. 1). As of July 2010, the unemployment rate in the U.S. stands at 9.5% (U.S. Bureau of Labor Statistics, 2010).

Societal upheaval sometimes is necessary to drive moments of punctuated equilibrium, whereby major policy shifts occur. A historical example of this phenomenon was the enactment of Medicare and Medicaid in the 1960s. The most recent example of comparable magnitude was the Patient Protection and Affordable Care Act signed into law by President Obama in 2010 (Office of the Legislative Counsel, 2010). Prior to this legislation, the U.S. represented the only industrialized nation that failed to provide some form of universal health insurance (Vladek, 2003). The Commonwealth of Massachusetts (2010) represented an exception with its early commitment to universal health care.

Health care has been an enormous drain on the economy for many years. According to *Health, United States, 2009*, \$1.9 trillion, or 16% of the U.S. gross domestic product, was spent for personal health care in 2007, and at that time, approximately 43 million people were uninsured (National Center for Health Statistics, 2010). The fraud and abuse of

the system along with the inattention to selected groups (e.g., lack of parity for individuals afflicted with mental illness) represented two of the many impetuses for reform.

In response to limited policies to address health disparities at the national level, selected states have taken matters into their own hands by introducing legislative initiatives. For example, Minnesota passed legislation in 2001 to distribute funding for priority areas among selected racial/ethnic groups, particularly American Indians. The Minnesota Department of Health’s Office of Minority and Multicultural Health (2008) implemented this legislation through the Eliminating Health Disparities Initiative. Similarly, New Jersey enacted legislation to launch the Eliminating Health Disparities Initiative in 2004 through the Office on Minority and Multicultural Health. The purpose of the initiative is to examine and target health-related programs for specific ethnic and racial groups (New Jersey Department of Health and Senior Services, 2007). Maryland’s Senate Bill 451 was introduced in 2002 to provide funding through the state’s Health Care Foundation for programs that seek to address health disparities resulting from poverty (Maryland General Assembly, 2002).

Georgia has taken the lead regarding educational initiatives to address health disparities. Georgia’s Bright from the Start program, an initiative launched in 1992 under leadership of former Governor Zell Miller, provides early education and child care for infants and children prior to school age as well as support for their families in an attempt to promote school readiness (Georgia Department of Early Care and Learning, 2009).

There are lessons to be learned from initiatives like Georgia’s Bright from the Start program. Experiences during preschool years increasingly are becoming recognized for their importance in reducing health disparities. That said, schools represent powerful vehicles for addressing health disparities insofar as introducing health education and promotion activities and supporting behaviors like healthy eating and physical activity among at-risk youth. As purported by the CDC (2005), “Each school day is an opportunity to teach behaviors to America’s 54 million students.” Behaviors can be taught through one of the key components of a coordinated school health program—comprehensive health instruction (Allensworth & Kolbe, 1987). According to the literature, early behavioral intervention is effective and prudent. Youth who practice health-promoting behaviors are more likely to earn good grades, graduate from high school, and pursue educational attainment opportunities after high school. Moreover, healthy youth are less apt to withdraw from school (American Cancer Society, n.d.).

Comprehensive school health education is designed to provide students with knowledge (cognitive domain) and skills (psychomotor domain) supportive of healthy behavior change. According to Butler (2001), “Knowledge is necessary to guide behavior choices, but knowledge is not enough. Knowledge coupled with affective associations can be highly effective in shaping health-related behavior” (p. 232).

At the core of comprehensive school health education

are objectives conducive to the affective domain, a category of learning encompassing attitudes, beliefs, perceptions, and values (Butler, 2001; Meeks, Heit, & Page, 1996). The latter components, in particular, are shaped by culture and other key factors relevant to delivery of health education (Greenberg, 2004).

Despite the importance of comprehensive school health education, it is not a standard graduation requirement and often is a matter of local jurisdiction in many states (National Association of State Boards of Education, n.d.). Exacerbating challenges to variations in state and local policies governing health course requirements involve inconsistencies in school environments (i.e., some schools create cultures of wellness that promote faculty/staff programs, healthy vending machine choices, and other environmental supports conducive to healthy behaviors) and health teacher credentialing/preparation. Moreover, individuals arguably most in need of comprehensive school health education (e.g., high school dropouts) may not undergo formal instruction depending on when they withdraw from school.

### **Suggested Strategies to Address Health Disparities**

Despite ensuing challenges and limitations of comprehensive school health education, it remains a critical component of the health and development of youth. That said, health educators should advocate for early exposure to quality comprehensive school health education among at-risk youth first and foremost. Examples of advocacy endeavors include educating and encouraging parents, teachers, and school board members to support early exposure to quality comprehensive health education, examining and communicating results from success stories (i.e., individual students and/or educational programs), and interacting with policymakers involved in health and education committees/initiatives. In the absence of quality comprehensive school health education, health educators should advocate for formal health instruction within worksites and general education development (GED) programs to meet needs of at-risk adolescents and adults. Research has shown that individuals who attain a GED credential acquire a greater appreciation for education and are more likely to communicate the value of education to their children (American Council on Education, 2003; Thompson & Jimmerson, 1986). Perhaps one of the most important goals of health education is to teach individuals to develop an appreciation for their health. The potential exists for GED recipients to communicate the value of health to their children.

Schools and worksites are communities within communities; thus, they represent two venues through which communities can address health disparities. Communities also can address health disparities through religious institutions, cultural institutions, recreational facilities, senior centers, child care centers, shelters, and a host of other venues. The *Community Guide*, an initiative launched by the Task Force on Community Preventive Services, includes a web-based compilation of evidence-based community-

based interventions designed to address social determinants of health (Anderson, Scrimshaw, Fullilove, Fielding, & the Task Force on Community Preventive Services, 2003). Community-based participatory research, a process that bridges the gap between public health research and practice by encouraging partnerships between communities and colleges/universities to achieve positive health outcomes, is another promising strategy for addressing health disparities (Viswanathan et al., 2004).

In accordance with the ecological model (McLeroy, Bibeau, Steckler, & Glanz, 1988), approaches to health disparities not only should address institutional factors (e.g., health education in schools, adult education centers, worksites, etc.), but also intrapersonal (e.g., individual behaviors, health literacy, etc.), interpersonal (e.g., familial influences on behavior), community, and public policy factors. The latter two categories have potential to yield the greatest impact on health disparities. In relation to community factors, the degree to which a community provides environmental supports (e.g., greater access to safe neighborhoods and walking trails, community gardens, and markets with fresh produce; restricted access to fast food restaurants; etc.) for initiating and maintaining healthy behaviors among residents is vital to the health of the community. Moreover, the level of investment and priority afforded to local school districts is instrumental to the overall health of a given community. A recent thrust in education has involved examination of community factors that influence school readiness among low socioeconomic children. Factors such as neighborhood relocation, neighborhood isolation, economic insecurity, inadequate transportation, and quality of child care influence children's cognitive, emotional, and social readiness for school (McAllister, Thomas, Wilson, & Green, 2009). In reference to public policy factors, local, state, and national policies to reduce poverty and increase access to quality education, including health education, are needed. More specifically, policies that eliminate discriminatory practices (i.e., for housing, employment, and health care) and support school readiness, high school completion, continuing education, employment opportunities, income redistribution, access to technology, and early health education for at-risk individuals have potential to offset the burden of health disparities. With the current economic, employment, and health care climates, the need for policies to address health disparities in the U.S. has never been greater.

### **Conclusion**

A plethora of research has documented the connection between socioeconomic status and health. Moreover, a decade has passed since the inception of *Healthy People 2010* and yet, health disparities continue to pervade the U.S. as the gap between the affluent and indigent widens and new public health challenges emerge. As long as disparities in income, education, and other socioeconomic variables persist, adverse consequences including disease, hardship, and ultimately death, will continue to surface.

The manner in which health disparities are addressed has profound implications for the health of the population. The current economic climate poses challenges for legislators and the public health workforce alike as they strive to address health disparities with limited resources. The recent health care reform legislation represents a landmark step toward alleviating health disparities in the U.S. However, the need exists for policymakers and public health professionals to embrace an ecological approach to health disparities. Though progress has been made in recognizing and addressing health disparities, much progress is needed to enhance the health of the population and lessen the burden on future generations.

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