The Public Health Approach to Eliminating Disparities in Health

Reducing and eliminating disparities in health is a matter of life and death. Each year in the United States, thousands of individuals die unnecessarily from easily preventable diseases and conditions. It is critical that we approach this problem from a broad public health perspective, attacking all of the determinants of health: access to care, behavior, social and physical environments, and overriding policies of universal access to care, physical education in schools, and restricted exposure to toxic substances. We describe the historical background for recognizing and addressing disparities in health, various factors that contribute to disparities, how the public health approach addresses such challenges, and two successful programs that apply the public health approach to reducing disparities in health. Public health leaders must advocate for public health solutions to eliminate disparities in health. (*Am J Public Health.* 2008;98:400–403. doi:10.2105/AJPH.2007.123919)

Originally published as: David Satcher, MD, PhD, and Eve J. Higginbotham, MD. The Public Health Approach to Eliminating Disparities in Health. *Am J Public Health*. 2008;98:400–403. doi:10.2105/AJPH.2007.123919.

THE ISSUE OF DISPARITIES

in health is serious—it is a matter of life and death. Disparities in health among different racial, ethnic, and socioeconomic groups in the United States are real and represent a serious threat to our future as a nation. It is time for leaders and communities to take a public health approach to eliminating disparities in health.

Much of the national discussion, reporting, and research on disparities in health focus primarily on differences in access to quality health care. Although critical to eliminating disparities, access only accounts for 15% to 20% of the variation in morbidity and mortality that we see in different populations in this country.[1] Other determinants of health are environment, biology and genetics, and human behavior. We must take a public health approach to target all of these determinants. Not only is it the only approach that is comprehensive and science based enough to succeed in reducing and ultimately eliminating disparities, but it focuses on health promotion and disease prevention, which are not only more cost effective but also more humane. Public health leaders must be ethically bound to promote and advocate for this approach. We propose a public health-oriented (preventive) strategy for eliminating disparities in health that is more comprehensive and more likely than a biomedical (curative) approach to be successful in the long term.

THE RESEARCH, THE PROBLEM, AND THE GOAL

Health disparities among minorities have long accounted for higher infant mortality, premature death rates and disease burden, and lower quality of health care when compared with the national average. Today, an African American baby born in the United States is 2.5 times more likely to die before his or her first birthday than his or her White counterparts. In 2000, 83 500 more African Americans died than would have died if we had eliminated disparities in health in the last century.[2] In 1998, the president and surgeon general first announced a national goal of eliminating disparities in health, and that initiative was later incorporated as a goal of *Healthy People 2010*.[3] The goal remained a national concern and the Institute of Medicine report *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care* came to be considered a landmark report on disparities in health by describing the nature and magnitude of disparities in health in the United States.[4] This report informed many different strategies developed to approach the challenge of eliminating disparities in health. More recent reports from the Agency for Healthcare Research and Quality have documented and thoroughly discussed this problem.[5]

A PUBLIC HEALTH FRAMEWORK FOR HEALTH DISPARITIES

Public health is defined as "what we, as a society, do collectively to assure the conditions for people to be healthy."[6(p19)] These "conditions" relate to the determinants of health and play a critical role in disparities: environment, biology and genetics, human behavior, and access to quality health care. We see access disparities evidenced by minorities being most likely to be uninsured, underinsured, underserved, and underrepresented in our national health care system.

Major disparities exist in different physical and social environments in the United States, and these factors account for 20% to 25% of the variations in outcome in morbidity and mortality.[1] For example, African American and Hispanic children are far more likely to grow up in communities near toxic waste sites compared with White children.[7] The impact of some environmental toxins has been well documented, and the general removal of lead from the environment was a great public health achievement of the past century.[8] Asthma, on the other hand, is a rampant epidemic largely environmental in nature that disproportionately affects minority children in emergency department visits, hospitalizations, and deaths, even though there is little difference in prevalence when compared with Whites.[9]

Another recent study showed that urban children exposed to severe violence, including murder, were much more likely than children who had not been exposed to such violence to become victims or perpetrators of the same kind of violence later in life, even when controlling for socioeconomic status.[10] Furthermore, natural and human-made disasters such as Hurricane Katrina[11] or battlefield combat[12] increase the risk for posttraumatic stress disorder in both children and adults. To implement aggressive, targeted interventions, much more rigorous research is needed to fully understand the mechanisms by which environmental disparities influence behavior later in life and the impact that they have upon the brain.

The most sensitive of the determinants of health are biology and genetics, and because of histories of eugenics and other approaches that label and blame individuals, many stay away from this area. Genetics is responsible for 20% to 25% of variations in morbidity and mortality.[1] With increasing understanding of the human genome and the relationship between genetics and health outcomes, we see greater opportunities to intervene. As we move toward personalized health care, this area will increase in importance on the basis of knowledge of genetics and the ability to target interventions.

Human behavior is the most important determinant of variations in health outcomes. Lifestyle practices such as tobacco use, level of physical activity, nutritional habits, sexual behavior, and stress-coping mechanisms are key factors affecting health and account for more than 40% of variations in health outcomes.[1]

Smoking is still the leading cause of preventable death in the United States, accounting for more than 430 000 deaths annually. *The Surgeon General's Report on Tobacco Use Among U.S. Racial/Ethnic Minority Groups* highlighted variations in smoking behavior and its impact on minority groups.[13] African American men have the greatest rate of lung cancer from smoking, and both African American men and African American women suffer disproportionately from cardiovascular disease. American Indian women have the highest rate of smoking during pregnancy, a major contributing factor in the high rate of infant mortality in that population. American Indian infants are twice as likely to die in their first year of life compared with their majority counterparts.[2] The impact of physical activity was highlighted in the *Surgeon General's Report on Physical Activity and Health.*[14] Another comprehensive study examined the impact of programs of physical activity and nutrition on the onset of diabetes among high-risk populations and demonstrated that they could significantly reduce the onset of diabetes, even in high-risk populations.[15]

Today, the obesity epidemic in the United States disproportionately affects American Indians, African Americans, and Hispanics. For African Americans and American Indians, these effects are major concern, given the disparities that already exist for overweight and obesity: diabetes, cardiovascular disease, and cancer. Access to nutritious food and safe places to be physically active are critical for these groups.

DEPLOYING THE PUBLIC HEALTH APPROACH TO ELIMINATING DISPARITIES

Given these determinants of health and their varying impacts on different groups in the United States, what is the public health approach to the elimination of disparities in health? The public health approach involves defining and measuring the problem, determining the cause or risk factors for the problem, determining how to prevent or ameliorate the problem, and implementing effective strategies on a larger scale and evaluating the impact.[16] In order to eliminate disparities in health, the public health approach must take place in the context of a balanced community health system, which includes health promotion, disease prevention, and early detection, moving towards universal access to health care.

Measuring the magnitude and distribution of a problem in different populations, generally through surveillance or screening, not only defines the problem but also helps to define the success or failure of the intervention. Analyzing surveillance data and distributions determine associations or risk factors for the identified problem. Surveillance may include laboratory research to identify a virus or bacteria causing a problem or community-based research to evaluate the role of environment or behavior.

We must next determine what works to prevent or ameliorate the problem. If dealing with an infectious disease, the search for a vaccine may be critical. Many examples of success exist—one of the most dramatic was the development of the polio vaccine in the early 1950s. However, other problems such as obesity, hypertension, and diabetes require more complex solutions based on behavioral and environmental interventions. Once we have determined what works to prevent or ameliorate a problem, we then have the burden of implementing solutions on a larger scale and evaluating and replicating their impacts.

How then would we apply a balanced community health system to disparities in health? First, we must more aggressively target programs to groups suffering disproportionately from chronic diseases and their risk factors. Two key examples are the Action for Healthy Kids program and the 100 Black Men Health Challenge.

Former Surgeon General David Satcher and First Lady Laura Bush started the Action for Healthy Kids program in 2002. The goal of the initial conference was to follow through on *The Surgeon General's Call to Action to Prevent and Reduce Overweight and Obesity*, released in 2001.[17] More than 250 community leaders, legislators, and school system representatives attended a 2-day conference on the potential role of schools in combating obesity by helping children develop healthy lifestyles. The conference ended with a commitment to develop a nationwide program to fight obesity.

Volunteers worked with schools and school boards to implement programs of support for physical education in grades K–12 in an environment that modeled good nutrition. Within 1 year, all 50 states and the District of Columbia had Action for Healthy Kids programs. Schools were appropriate settings for such an effort because 53 million children attend school each day,

schools provide opportunities for children to improve their lives and futures regardless of socioeconomic background or ethnicity, and schools may provide the opportunity for children to adopt healthy lifestyles of nutrition and fitness even when family and community cannot.

How could schools struggling with the No Child Left Behind Act and other efforts be expected to take on the added challenge of helping children develop healthy lifestyles? Many schools throughout the country raised this question, and a 2004 publication, *The Learning Connection*, answered that question.[18] Several studies showed that children who ate breakfast and were physically fit generally performed better on standardized exams, attended school more regularly, and concentrated on their work better, whereas children who were overweight and obese had a higher prevalence of depression and school absenteeism.

Many schools and districts throughout the nation are enhancing the content, frequency, and quality of their physical education programs and are developing model nutrition programs, including changing the content of vending machines and altering school meals. This effort received a major boost when Congress passed the Wellness Act of 2004, mandating that all schools or districts receiving federal funds for school meals implement wellness policies within 1 year.[19]

Schools have begun to reach out to parents and communities with targeted programs supporting healthy lifestyles. According to Action for Healthy Kids reports, more than 70% of school districts have developed adequate policies to comply with the Wellness Act, and most other schools are working diligently to develop such policies.[20] Not only are minority and lower-socioeconomic-status children overly represented in public schools, especially those receiving federal support for meals, they also benefit disproportionately through school programs because they may not have adequate family and community support or resources for healthy lifestyles.

In a separate focus on adults, the 100 Black Men Health Challenge program started in 2002 with the Atlanta chapter of 100 Black Men out of concern that many African American men were becoming ill and dying well before the age of 70 (given that the national average life expectancy was over age 77 years), even in higher socioeconomic groups.[21] The 100 Black Men of America Inc is an organization of professional men who are of higher socioeconomic status and are committed to mentoring, tutoring, and supporting children and their families in lower socioeconomic communities; encouraging children to succeed academically; and guaranteeing scholarships for college. The success of this program is well documented in *Project Success: Doing the Right Thing for the Right Reason* and has been widely touted in the media.[22]

In the pilot center for the study, our concern was first with the members of 100 Black Men themselves. Despite their career success, they suffered highly from health disparities, especially in cardiovascular disease, diabetes, and cancer. The 100 Black Men Health Challenge targeted these men with 3 major personal health goals. First, we wanted each man to get regular physical activity and good nutrition—especially increasing fruit and vegetable intake and reducing unhealthy calories. Second, we offered a smoking cessation program, and third, we wanted each man to regularly visit a primary care provider. We screened the men quarterly for weight, nutrition, physical activity, and prostate health when indicated. This program has been praised as one of the most successful interventions targeting African American men.[23] These men are now incorporating healthy lifestyle modeling and education for their mentees and increasingly are able to improve their community environments and support opportunities for healthy lifestyles.

Action for Healthy Kids and the 100 Black Men Health Challenge are quite different in location, style, target, and approach, yet each has the potential to reduce disparities and risk factors while also improving learning among children. The public health approach to eliminating disparities in health is being well modeled in these two programs and in others beginning to take place throughout the country. Given overwhelming evidence for the problems in disparities and the major risk factors involved, we develop programs to prevent or ameliorate the risks. Although Action for Healthy Kids is already being implemented nationally, the 100 Black Men Health Challenge has primarily been modeled and evaluated in Atlanta. We will soon move our monitoring to other cities with chapters of 100 Black Men, and ultimately, to the more than 100 chapters nationwide. Strong support and funding for the national leadership of 100 Black Men has helped us to plan for the broad implementation of this program.

CONCLUSIONS

Given the public health approach to the elimination of disparities in health and the evidence of successful programs that have implemented this approach, clearly this model can be effective in reducing disparities. However, applying this approach on a nationwide scale will require robust support for public health and prevention. Less than 3% of our country's massive health budget goes toward population-based prevention, and more than 90% is spent on treating diseases and their complications—many of which are easily preventable. It is now critical that more of these programs be made available to all populations affected by disparities in health. We urge our colleagues in public health to advocate for this approach with public officials, policymakers, grant-making organizations, and their constituent communities. To eliminate disparities in health, we need leaders who care enough, know enough, will do enough, and are persistent enough. ■

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This article was accepted October 31, 2007.

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Acknowledgments

D. Satcher's contribution to authorship and his work on health disparities was made possible in part by the Center of Excellence on Health Disparities at the Morehouse School of Medicine (grant 5P20MD00272).

Jeannette Duerr, APR, of Duerr Communications, and Sharon Rachel, MA, MPH, of the Satcher Health Leadership Institute at Morehouse School of Medicine contributed to article and submission preparation.

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