

Global Chronic Disease

The Role of the American College of Cardiology

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“Knowing is not enough; we must apply. Willing is not enough; we must do.”

—Johann Wolfgang von Goethe [1]

As a global advocate of cardiovascular health, the American College of Cardiology (ACC) seeks to transform cardiovascular care and improve heart health worldwide [2]. The ACC strives to achieve its enduring purpose through education, research, advocacy, and health policy. The ACC has advised the United Nations (UN) on its efforts to combat the noncommunicable disease (NCD) epidemic since the 2011 Political Declaration of the UN High-Level Meeting on NCD [3]. The ACC supports the World Health Organization’s (WHO’s) “25 × 25” goal to achieve a 25% relative reduction in premature mortality from cardiovascular disease (CVD), cancer, diabetes, and chronic respiratory diseases by 2025. The ACC also supports the corresponding NCD targets that affect global chronic disease management, such as high blood pressure, smoking cessation, diabetes, obesity, and reliable access to medicines. These goals are embedded in the WHO’s global action plan for NCD [4].

Despite this progress, the global epidemic of chronic disease has been widely ignored in contrast to other health issues and requires targeted advocacy efforts here in the United States and abroad. Long-held misunderstandings about the global health and economic burden of heart disease, diabetes, stroke, cancer, and other chronic diseases have contributed to this neglect. The fact is that nearly 90% of premature deaths from NCD occur in low- and middle-income countries. Although CVD was previously considered a burden of the developed world, the paradigm has truly shifted over the last decades, and when considering the demographics of the emerging world, the current course of the epidemic will get much worse before it gets better. This year alone there will be an estimated 42 million deaths from NCD, with 21 million of these deaths from CVD. By 2030, the total global cost of CVD is set to rise from approximately \$863 billion in 2010 to a staggering \$1 trillion. Furthermore, individuals in low- and middle-income countries die at a younger age than in high-income countries. Chronic disease causes individuals to fall into poverty and undermines economic development in many countries. Targeting this global epidemic will require the implementation of comprehensive integrated programs that encompass prevention and disease management [5].

CVDs, including hypertension, heart disease, and stroke, remain the leading causes of death in the United States. The ACC’s strategic plan highlights population health as 1 of its 4 key components and calls for the ACC to be a leader in efforts to reduce the burden of CVD in the United States and in the world [6]. Participation in global health advocacy efforts has been a strategic direction of the College. The ACC views the widespread effect of CVD as a prime example of a global epidemic that should not and cannot be tackled by an individual health care provider, hospital, health system, country, or region in isolation. As Dr. Margaret Chan (WHO Director General) has observed, “A world that is greatly out of balance in matters of health is neither stable nor secure” [7].

The management and prevention of chronic diseases is a global challenge that presents opportunities for an international, interdisciplinary, and multisectoral approach. Of 56 million global deaths in 2012, 68% were due to NCD, with CVD making up the highest proportion. Yet, systems’ approaches to prevention, recognition, and treatment of CVD receive disproportionately little funding from global aid networks. The ACC supports the UN’s Sustainable Development Goal (SDG) of “Good Health and Well-being” to ensure healthy lives and promote well-being at all ages [8]. Despite the perceived momentum from the SDG process and incorporation of NCD into this SDG health goal, donor assistance for NCD actually fell 3.4% in 2015 to \$475 million out of a Development Assistance for Health total of \$36.4 billion, which adds up to only 1.3% of the total Development Assistance for Health—supported efforts to fight NCD in 2015 [9]. A vast gulf remains between the burden of NCD, projections of the NCD burden, and appropriate resourcing.

Even with the recognition of this funding shortfall, addressing the epidemic of NCD at home and abroad will require more than resources. The United States spends nearly \$3.0 trillion/year on health care and ranks 27th in the world in life expectancy. Disparities in health care delivery persist despite this massive outlay, and the majority of health care spending in the United States supports chronic disease management. The U.S. population, and increasingly more and more of the world, makes diet and life-style choices that lead to CVD and diabetes. Heart disease is largely a preventable chronic disease, yet the number of cases is predicted to grow over the next 20 years. Costs associated with heart disease in the United

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States are projected to exceed \$800 billion/year by 2030. Despite years of efforts to reduce obesity in the United States, the prevalence of obese Americans has continued to rise. Approximately 38% of American adults were defined as obese in 2014, up from 35% in 2012. Data from the Centers for Disease Control and Prevention show that diabetes has reached epidemic proportions and affects more than 25 million people in the United States [10]. Death and illness from chronic diseases are attributable to behaviors such as smoking, sedentary lifestyle, and dietary intake that are driven by the social, economic, and physical environments in which people live. Furthermore, disparities in the delivery of health care further widen this gap and illustrate the need to promote healthy, affordable life choices, and access to care in areas of need. Unfortunately, risk factors of NCD and adoption of unhealthy lifestyles are on the rise in the rest of the world. One recent example is a study showing an increase in childhood obesity in rural China from <1% to over 15% in the last 30 years [11].

Health care disparities have a significant effect on morbidity, mortality, and the economics of society. Efforts are underway to address the challenge of NCD in the United States as heart disease and stroke are the first and fifth leading causes of death. Successful partnerships aimed at reducing disparities include the ACC's partnership with the Association of Black Cardiologists on community events such as "Spirit of the Heart," as well as the ongoing development of the Coalition to Reduce Disparities in Cardiovascular Outcomes [12]. The ACC is committed to reducing health disparities through the implementation of tools such as the ACC's NCDR (National Cardiovascular Data Registry), the nation's premiere recognized source for measuring and quantifying outcomes and identifying gaps in the delivery of quality care; programs such as cultural competency training for health care providers; and the development and dissemination of provider and patient education materials through the CardioSmart initiative and health portal.

The WHO estimates a current global shortage of over 7.2 million health care workers [13]. The United States is facing caregiver shortages, which have further contributed to suboptimal health care delivery and chronic disease management. The anticipated increase in the global burden of CVD will likely contribute to a greater shortfall than is currently predicted, which could negatively affect cardiovascular health. Complex changes, such as improving efficiency, reconfiguring the way cardiovascular services are delivered, and making better use of health care professionals, will be needed to address the growing challenge of chronic disease management. The ACC has been a leader in team-based cardiovascular care since creating a cardiac care associate membership category for cardiovascular registered nurses, clinical nurse specialists, nurse practitioners, and physician assistants [14]. Patients often present with multiple chronic diseases, and cardiovascular

team-based care models can provide efficiencies and other enhancements that will help physicians who are dealing with the increased challenge of chronic disease management.

The ACC is actively working with the U.S. Congress, State Governments, medical professional organizations, and other key stakeholders to develop a health care system that puts patients first and rewards cardiovascular professionals for their commitment to quality and evidence-based care. The ACC can assist with global advocacy efforts in reducing the burden of chronic diseases through our U.S. Board of Governors, through our 38 international chapters, and through outreach to the U.S. government on global policy priorities [15]. The ACC plans continued consultation with the WHO, the UN, and our global partners to encourage heart healthy choices; promote affordable, quality care; and advocate for cardiovascular health in the United States and across the world. In an increasingly connected world, interorganizational collaboration is vital to solve global problems and to successfully address the challenge of promoting global cardiovascular health in the 21st century. With 52,000 global members who counsel and treat patients every day, the ACC remains steadfastly committed to achieving this goal in collaboration with likeminded partners worldwide [16].

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