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REPRESENTATIVE PEGGY WILSON
HOUSE DISTRICT 2

SPONSOR STATEMENT
House Concurrent Resolution 20
"A Resolution designating February 2012 as American Heart Month."

HCR 20 raises awareness of the nation's leading cause of death: cardiovascular disease.

This unfortunate disease causes an average of one American death every 39 seconds or nearly 2,200 deaths each **day**. It is the costliest disease in the nation, with direct and indirect costs estimated to be $297,700,000 a year.

The American Heart Association's 2020 impact goal seeks to improve cardiovascular health of all Americans by 20 percent while reducing deaths from cardiovascular disease and stroke by 20 percent through research, population-level and community-level interventions, and public health and policy measures

The passage of this resolution would join Alaska and the American Heart Association in raising awareness of this disease by celebrating February 2012 as "American Heart Month" and promoting education and awareness by encouraging citizens to learn the warning signs of heart attack and stroke.

Circulation

JOURNAL OF THE AMERICAN HEART ASSOCIATION

American Heart Association.
Learn and Live.

Defining and Setting National Goals for Cardiovascular Health Promotion and Disease Reduction. The American Heart Association's Strategic Impact Goal Through 2020 and Beyond

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AHA Special Report

Defining and Setting National Goals for Cardiovascular Health Promotion and Disease Reduction

The American Heart Association's Strategic Impact Goal Through 2020 and Beyond

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Wayne D. Rosamond, PhD, FAHA; on behalf of the American Heart Association Strategic Planning Task Force and Statistics Committee

Abstract—This document details the procedures and recommendations of the Goals and Metrics Committee of the Strategic Planning Task Force of the American Heart Association, which developed the 2020 Impact Goals for the organization. The committee was charged with defining a new concept, *cardiovascular health*, and determining the metrics needed to monitor it over time. Ideal cardiovascular health, a concept well supported in the literature, is defined by the presence of both ideal health behaviors (nonsmoking, body mass index <25 kg/m^2, physical activity at goal levels, and pursuit of a diet consistent with current guideline recommendations) and ideal health factors (untreated total cholesterol <200 mg/dL, untreated blood pressure $<120/<80$ mm Hg, and fasting blood glucose <100 mg/dL). Appropriate levels for children are also provided. With the use of levels that span the entire range of the same metrics, cardiovascular health status for the whole population is defined as poor, intermediate, or ideal. These metrics will be monitored to determine the changing prevalence of cardiovascular health status and define achievement of the Impact Goal. In addition, the committee recommends goals for further reductions in cardiovascular disease and stroke mortality. Thus, the committee recommends the following Impact Goals: "By 2020, to improve the cardiovascular health of all Americans by 20% while reducing deaths from cardiovascular diseases and stroke by 20%." These goals will require new strategic directions for the American Heart Association in its research, clinical, public health, and advocacy programs for cardiovascular health promotion and disease prevention in the next decade and beyond. (***Circulation.*** **2010;121:586-613.)**

Key Words: AHA Special Reports ■ obesity ■ quality of life ■ epidemiology ■ risk factors ■ quality of care

When introducing broad new concepts and objectives that will drive the agenda for the American Heart Association (AHA) for the next decade, it is necessary to provide a detailed accounting of the processes that resulted in the consensus recommendations of the Goals and Metrics Committee of the Strategic Planning Task Force of the AHA.

*The findings and conclusions in this report are those of the authors and do not necessarily reflect the official position of the Centers for Disease Control and Prevention.

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This committee, which was composed of members of the Statistics Committee, the Strategic Planning Task Force, and other ad hoc members, was formed in February 2008 and met regularly through June 2009. Its recommendations were formally approved by the AHA National Board of Directors in February 2009. The final recommendation of the committee, as approved by the Board of Directors, was that the AHA 2020 Impact Goals should be as follows:

"By 2020, to improve the cardiovascular health of all Americans by 20% while reducing deaths from cardiovascular diseases and stroke by 20%."

Although important refinements in monitoring and improving rates of cardiovascular diseases (CVDs) and stroke were also to be considered and are reviewed here, the major challenge confronted by the committee was to address cardiovascular health as an Impact Goal: How to define it and how to measure it. This document details the commission, underlying rationale, processes, and recommendations of the committee, which outline bold new strategic directions for the AHA in cardiovascular health promotion and disease prevention for the next decade and beyond.

Public Health Burden of CVD and Stroke

Despite 4 decades of declines in age-standardized CVD and stroke death rates, the numbers of heart disease, stroke, and related vascular deaths continue to make these by far the leading causes of morbidity and mortality in the United States.[1,2] The burden of CVD and stroke in terms of life-years lost, diminished quality of life, and direct and indirect medical costs also remains enormous.[2] Downward shifts in population levels of cholesterol, blood pressure, and smoking account for nearly half (after adjustment for the impact of increasing prevalence of obesity and diabetes) of the decline in coronary heart disease (CHD) deaths that would have been expected in 2000 on the basis of rates in 1980; wider use of effective treatments among persons with existing CVD accounts for an equal share in this decline. Offsetting trends in prevalence of obesity and diabetes, as well as growth in the older population at highest risk for CVDs, have contributed to the persistent national CVD and stroke burden.[3] Very recent data also suggest a slowing of reductions in coronary death rates[4] and growing numbers of hospitalizations for acute and chronic manifestations of CVD, such as heart failure and atrial fibrillation.[1,2] It has also become clear that many CVDs with ultimate outcomes in adulthood actually have their origins during childhood. Unfortunately, there are disturbing trends of increasing obesity, increasing severe obesity, and increasing prevalence of hypertension and type 2 diabetes mellitus in the pediatric population.[2] These trends will very likely result in future increases in the burden of CVD and stroke among adults, including a trend for events to occur at younger ages.

As the leading voluntary health organization in the field of heart diseases and stroke, the AHA has taken a major leadership role in promoting the implementation of interventions that have contributed to the improvements in CVD and stroke morbidity and mortality rates seen to date. The AHA policies and programs designed to achieve the AHA 2010 Impact Goal appear to have contributed substantially to improvements in morbidity and mortality, as reviewed below.

However, it appears clear that the AHA and the nation must add a substantial new effort in the coming decade, building on the gains to date, if we are to arrest or reverse a rising tide of CVD events due to aging of the population and ongoing adverse levels of unhealthy behaviors (dietary imbalance, physical inactivity, smoking) and unhealthy risk factors (adverse blood lipids, high blood pressure, diabetes, obesity). To design and implement this next phase of CVD and stroke prevention, the AHA has decided not only to continue efforts at reducing CVD but also to adopt a major new focus: To improve cardiovascular health in the population as a whole. This fundamental expansion of prevention efforts will require an array of new tools and competencies for implementing public health policy and population- and community-level interventions to complement the traditional, predominantly medically oriented interventions that the AHA has promoted successfully in the past. To understand the new role being charted for the AHA, a review of past and current AHA efforts is warranted, because they laid the foundation for the new 2020 Impact Goals.

Development of the AHA 2010 Impact Goal

Process

The AHA 2010 Impact Goal was developed by a task force appointed by the Board of Directors in 1999. The task force began with a process to rank order risk factors, risk behaviors, and disease states in the order that they should be addressed to have a significant effect on CVD and stroke. Approximately 170 scientists were selected from the various executive committees of scientific councils within the AHA and were surveyed for their responses. The rank-ordering results showed CHD and stroke in the positions of highest importance. Risk factors followed in order of importance, with smoking, high blood pressure, high cholesterol, and physical inactivity deemed the most important, in that order. Obesity and diabetes were later added to the list as major risk factor metrics; nutrition ultimately was not included because of challenges present at that time for measurement of population nutritional habits in the United States.

Groups of scientists within the 2010 Task Force were assigned to each of the priority disease states and risk factors to estimate potential reductions for each by 2010. The group referenced trends for the previous decades and projected forward to 2010, considering various scenarios for treatment and control of risk factors and implementation of acute and chronic therapies. One portion of this group recommended that the 2010 Impact Goal aim for 30% relative reductions in CHD and stroke mortality, as well as in the prevalence of each of the risk factors. Another portion of this group recommended 20% reductions be targeted. Consensus was reached around a compromise goal of 25% reductions as the target for the 2010 Impact Goal.

Product

The final version of the goal approved in February 2004 by the AHA Board of Directors was, "By 2010, to reduce coronary

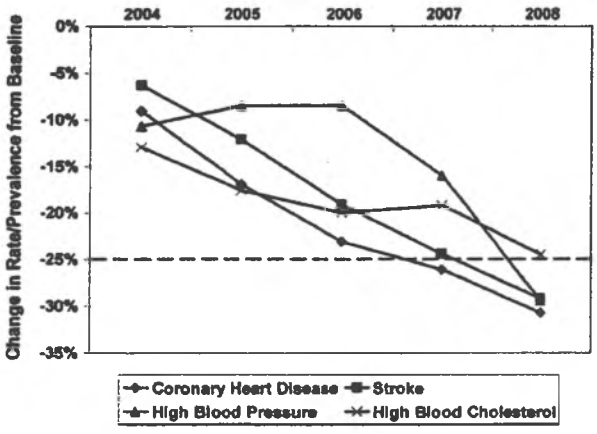

Figure 1. Trajectory of mortality rates from CHD and stroke, rate of uncontrolled high blood pressure, and prevalence of high blood cholesterol from 2004 to 2008.

heart disease, stroke, and risk by 25%," with the following indicators:

- Reduce death rate due to CHD and stroke by 25%;
- Reduce prevalence of smoking, high blood cholesterol, uncontrolled high blood pressure, and physical inactivity by 25%; and
- Eliminate the growth of obesity and diabetes (0% increase).

Levels of mortality rates and risk factor prevalences in 1999 were used as the baseline. The goal also aligned well with the objective and goals of the US Healthy People 2010 focus area 12 on heart disease and stroke, although indicators and target goals were not identical.

From 2000 on, AHA staff and volunteers worked from this Impact Goal to develop multiple supporting goals in the areas of prevention, treatment, acute care, and resources. At the time, the 2010 Impact Goal and its supporting strategic programs represented a bold step for a voluntary health organization in the arena of national and public health policy focused on treatment and acute care. The concept of quantifying the impact on death rates and risk factors was a critical step in the evolution of the AHA's prevention strategies. The 2010 goal focused the AHA's agenda, efforts, and resources on a national scale and in a concerted way that had not been present previously.

Progress

Despite the ambitious nature of the 2010 Impact Goal, the targets for most components of the first 3 indicators were achieved well in advance of 2010 (Figure 1). The goals for indicators of smoking, physical inactivity, obesity, and diabetes have proven to be more difficult to achieve and will represent major challenges to the even more ambitious 2020 Impact Goal. The achievement of lower mortality goals was accomplished in part as the result of the work of practitioners and scientists engaged in the medical prevention and treatment of acute and chronic atherosclerotic CVD by accelerating existing trends toward lower heart disease and stroke death rates. Similarly, public health and policy measures instituted before the development of the 2010 goals had emphasized the importance of elimination of smoking, the importance of physical activity, and the control of risk factors for CHD and stroke such as high blood pressure and dyslipidemia. The work of the AHA also contributed to these declines through the development of guidelines and their implementation in the "Get With the Guidelines" programs and numerous other initiatives.

Monitoring of the 2010 Impact Goal revealed by 2008 a 30.7% reduction in the death rate due to CHD, a 29.2% reduction in the death rate due to stroke (data from the National Vital Statistics Sample), a 29.4% reduction in uncontrolled high blood pressure (data from the National Health and Nutrition Examination Survey [NHANES] 2005–2006), a 24.5% reduction in prevalence of high cholesterol (NHANES 2005–2006), and a 15.8% reduction in prevalence of smoking (data from the National Health Interview Survey 2006) compared with baseline levels (http://www.cdc.gov/nchs/deaths.htm, http://www.cdc.gov/nchs/nhanes.htm, http://www.cdc.gov/nchs/nhis.htm, and the AHA Heart Disease and Stroke Statistics—2009 Update[2]). There was only limited impact on other risk factors, including increases in prevalence of obesity and diabetes, and a small 2.5% reduction in those not engaged in moderate or vigorous physical activity (National Health Interview Survey 2006).

Proposal for 2020

The strategic approach and progress toward the 2010 Impact Goal pointed to innovations that are required to define and implement new strategies for improving cardiovascular health and preventing disease events and deaths. Accordingly, in June 2007, the AHA Board of Directors commissioned a Strategic Planning Task Force of the AHA to oversee drafting and implementation of the 2020 Impact Goal, with a directive to incorporate the novel aim of improving the cardiovascular health of all Americans while reducing death due to CVD and stroke.

In addition to refining the longstanding focus on reducing the burden of CHD and stroke mortality, the charge for the Goals and Metrics Committee suggested that the design of the new metric for cardiovascular health would require that attention be paid to a number of critical issues. Success in this task would enable the AHA to undertake a new and more proactive organizational mission, not only continuing the tremendous success in improved treatment but also addressing the need for a new and expanded emphasis on prevention, control of risk, improving quality of life, and promoting health rather than solely treating disease. It was acknowledged that at that time, no comprehensive metric for cardiovascular health existed, and the committee was charged with developing such a metric.

In addition, it was recommended that the committee broaden its scope to encompass all of CVD and stroke mortality, not just CHD and stroke, in support of existing and future programs and initiatives of the AHA in all areas of CVD. This is important because it recognizes areas such as congenital heart disease, which is the leading cause of mortality of any congenital defect and is an area in which progress is being made in prevention and treatment. As with the 2010 goal, an implicit aspect of the 2020 Impact Goal is

the ability to measure the current status and progress of each component with nationally representative samples. Thus, although further focus on reducing the incidence of nonfatal CVD events was also suggested, it was acknowledged that this would entail establishing means for national surveillance of nonfatal events. Other areas for consideration were to include quality of life, quality of care, and health disparities, although each of these areas also presents significant challenges with regard to measurement over time in nationally representative samples. With this charge, the committee began its work to develop recommendations to complete the following draft 2020 Impact Goals statement: **"By 2020, to improve the cardiovascular health of all Americans by __% while reducing deaths from cardiovascular diseases and stroke by __%."**

Defining and Measuring Cardiovascular Health

Concepts of Prevention

In considering the concept of cardiovascular health, the committee took into account 3 key concepts in health promotion and disease prevention: (1) The power of primordial prevention; (2) the evidence that CVD and risk factors for it often develop early in life; and (3) the appropriate balance between population-level approaches for health promotion and disease prevention and individualized high-risk approaches. These concepts informed the definition of cardiovascular health, as well as the metrics that would be needed to monitor it and the strategies that would be needed to improve it across the lifespan.

Primordial Prevention

Most clinicians are familiar with the concepts of secondary and primary prevention. In secondary prevention, efforts are aimed at preventing the recurrence of clinical events in patients who have manifest clinical disease. For example, therapeutic lifestyle change and aspirin and statin medications are used to prevent recurrent myocardial infarction (MI) in patients who have already experienced an MI. In primary prevention, efforts focus on preventing the first occurrence of a clinical event among individuals who are at risk. Examples are the use of blood pressure–lowering medications and dietary intervention in patients with hypertension to prevent the first occurrence of stroke. As such, primary prevention efforts are aimed at individuals who already have adverse levels of known risk factors. However, as reviewed below, once adverse levels of risk factors are present, even in young adulthood and middle age, substantial elevations in long-term and lifetime risks for CVD and stroke are largely unavoidable. Furthermore, whereas clinical guidelines impose thresholds on risk factor levels to guide decision making, the association of risk factor levels with CVD risk is continuous and graded across all levels. Therefore, it is of paramount importance to focus on prevention at all levels of risk. Risk factors may result in the development of subclinical atherosclerosis and other myocardial and vascular changes over the course of years to decades. In turn, subclinical CVD typically precedes the occurrence of clinical events by years to decades. Thus, it makes sense that avoidance of adverse levels of risk factors in the first place may be the most effective means for avoiding clinical events during the remaining lifespan.

This is the meaning of *primordial prevention*, a concept introduced by Strasser in 1978.[5] On a population-wide basis, primordial prevention was conceived as a strategy to prevent whole societies from experiencing epidemics of the risk factors. The corresponding strategy at the individual level is to prevent the development of risk factors in the first place. Although this terminology may be unfamiliar to some, the strategy of promoting healthy behaviors for this purpose is well recognized and common to many guidelines and recommendations in CVD prevention, especially those that focus on childhood and adolescence.[6] Thus, primordial prevention has relevance and urgency in the high-income nations of today, given the substantial burden of obesity and the adverse health behaviors and environment that often begin in childhood and are present in most high-income nations, especially the United States. Primordial prevention was also a guiding feature of the Healthy People 2010 goals for heart disease and stroke prevention, which include prevention of risk factors.[7] The concept of primordial prevention therefore formed a cornerstone for the committee's deliberations in defining ideal cardiovascular health.

High-Risk and Population-Wide Approaches to Prevention

Rose[8,9] articulated the important complementary relation between interventions that focus on individuals at highest risk (the high-risk strategy) and those that address the risk distribution in the entire population (the population-wide strategy). Primary prevention requires a focus on individuals known to be at risk for disease. Hence, screenings for elevated cholesterol or blood pressure in at-risk groups are key facets of CVD prevention guidelines, even in children and adolescents.[6] By identifying and treating those at the highest risk for events because of markedly elevated risk factor levels, a number of clinical events may be avoided. Indeed, a large proportion of the reductions in CHD mortality experienced in the United States and other high-income nations since the 1960s has been ascribed to the development and institution of efficacious primary and secondary prevention interventions in people at elevated risk[3]; however, individuals with markedly elevated levels of risk factors are relatively uncommon in the population.[2,10] It is widely recognized that the majority of CVD and stroke events occur in individuals with average or only mildly adverse levels of risk factors, simply because this is where the majority of the population lies.[9,10] Therefore, for effective disease prevention, population-level strategies are essential to shift the entire distribution of risk. As explained by Rose, health thus becomes an issue for populations and not just for individuals, and health promotion and disease prevention strategies must embrace both high-risk and population strategies. Of the 2, however, greater power resides with the population strategy when risk is widely diffused throughout the whole population, as is the case for CVD.[9]

For example, Stamler[11] has demonstrated that modest and achievable reductions in salt intake in populations can likely