The National High Blood Pressure Education Program
Thirty Years and Counting

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May is High Blood Pressure Month. This year’s commemoration is special because we note the 30th anniversary of the National High Blood Pressure Education Program (NHBPEP). This National Heart, Lung, and Blood Institute (NHLBI) initiative is one of the most successful public health education programs in the world.

During the 30 years of its existence, awareness of hypertension has dramatically increased to 73% in the latest national survey. Nearly all American adults have had their blood pressure measured, and most do so on a regular basis. When the Program began in 1972, only 16% of hypertensive patients were controlled to the blood pressure goal at that time of <160/95 mm Hg. In the most recent survey, control rates for that old goal had risen to 64% and to 29% for the current goal of <140/90 mm Hg.1 Within the first 2 decades of the NHBPEP, visits to physicians for high blood pressure have increased nearly 60%, whereas visits for all medical causes increased approximately 7%.2 Today, hypertension is a primary reason for adults to visit their doctor.3 During the same 30-year period, mean systolic blood pressure has fallen more than 10 mm Hg. Hypertension prevalence has fallen as well.1 Importantly, age-adjusted mortality rates for stroke and coronary heart disease have fallen dramatically over the last 30 years.4 These declines are real are seen in both genders and in black, as well as white, Americans.

Many Americans have lived longer as a result of this program. This causes one to pause and ask, “How did they do it?” Through partnerships that developed national programs of patient and professional education that were supported by extensive mass media campaigns, the public, patients, and physicians were stimulated to act.5 High blood pressure, or “high bloods,” became a household word. People began to know their number and to recognize this silent killer. Hypertension research increased dramatically, and the number of investigator-initiated grant applications to the National Institutes of Health, the American Heart Association, and other organizations increased dramatically. Concurrently, pharmaceutical companies began developing new drugs, and additional hypertension specialty societies were formed. The number of hypertension clinical trials and the number of citations reporting hypertension studies and journals devoted to hypertension research (such as Hypertension) increased in a remarkable fashion.

The NHBPEP has operated through more than 45 partner organizations, the Coordinating Committee, state and local health departments, and hypertension coalitions. The program focused its efforts and, working with partners, leveraged its resources. For example, the NHBPEP identified the high rate of age-adjusted stroke mortality in the Southeast6 and then proceeded to work with state health departments and other agencies to develop education and screening programs and activities in churches, work settings, sporting events, and civic organizations to address this public health problem. It stimulated and then partnered with a number of other groups interested in hypertension and with state and local medical societies to encourage their constituents to take action. The strategy worked. Stroke mortality in the Southeast decreased.

These activities have been adopted by many other organizations. One of the program’s most notable products is the Joint National Committee (JNC) report. The JNC report was the first clinical guideline for chronic disease management and has been accepted by managed-care groups, the National Committee on Quality Assurance, and regional professional societies as the standard for detecting and managing high blood pressure. Although the guidelines are visible elements of the program, efforts toward implementing them to improve blood pressure prevention and control rates are now the program’s highest priorities.

A major mark of the success of the NHBPEP is its duplication in other countries and the use of this model in other disease states and risk factors. Some examples are the National Asthma Prevention and Education Program, the National Cholesterol Education Program, the National Heart Attack Alert Program, the National Diabetes Education Program, and the National Kidney Diseases Education Program. Further, the World Hypertension League reports that 81 member nations have some sort of program for translating research and stimulating education programs about high blood pressure. Good news has traveled far and wide.

But, despite these successes, the most significant challenges and most important work lies ahead. Some of these challenges are worth noting. Cardiovascular disease remains the leading cause of death in this country, and the epidemic is spreading around the world at an alarming rate.7 Though people are more aware of their hypertension, and control rates have improved over the last 30 years, fewer than 30% of hypertensives are controlled to current goals, despite the availability of better medicines and evidence that they reduce morbidity and mortality risk. Moreover, the current blood pressure goals may not be low enough, especially for a population that is rapidly becoming more obese, with a

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Hypertension is available at http://www.hypertensionaha.org
DOI: 1161/01.HYP.0000018303.61360.28
greater prevalence of risk factors such as diabetes and hyperlipidemia.

The reduction in cardiovascular disease is seen in all populations; however, the racial, ethnic, and geographic disparity in cardiovascular health outcomes is widening, rather than narrowing. And there is reason to believe that the reductions in mean blood pressure and hypertension prevalence may be reversing. Dramatic increases in the prevalence of overweight and obesity will likely contribute to more hypertension. The aging of our population will also be a factor in causing a greater prevalence of hypertension. A recent analysis predicts that current middle-aged Americans face a 90% chance of developing high blood pressure at some time during their lives. The American diet and sedentary lifestyle are anathema to hypertension prevention. Sodium intakes are rising. Most of our daily intake of sodium is already in our food when we purchase it at the grocery store or restaurant. Leisure activity levels are low and getting worse.

What will the next 30 years of the National High Blood Pressure Education Program bring? Should the Program applaud itself on its successes and continue business as usual? It will not. Already, plans are underway for repositioning the Program, to make it more vital and active to meet these challenges. This is not because it has failed, but because society is changing and programs must change with these times.

As the repositioning takes shape, here are some priorities to be considered in the years ahead. Prevention is the best strategy for dealing with any epidemic. For prevention to be successful, significant societal changes will be needed. It is very difficult for individuals who are not ill to make wise health choices given the foods that are available. Cooperation among national, state, and local government agencies, professional medical societies, the food industry, and those who prepare foods for restaurants will be necessary for significant changes to occur. The task may seem formidable, but, 30 years ago, who would have imagined that the NHBPEP could accomplish what it has?

We also need to make better use of what we have. Proven lifestyle therapies can, in the short term, lower blood pressure in a remarkable fashion. A variety of wonderful medicines are highly effective at lowering blood pressure and reducing the risk of cardiovascular disease. The benefits of therapy are supported by strong and consistent evidence. We must make more effective use of this information to achieve better control in hypertension.

There is accumulating evidence that we should pay more attention to systolic blood pressure. Control rates for diastolic blood pressure are considerably better than for systolic blood pressure. Despite strong evidence that treatment of systolic blood pressure dramatically reduces cardiovascular morbidity and mortality, physicians still seem reluctant to persist in achieving adequate control of systolic blood pressure.

We need to acknowledge that combination therapy is necessary for effective control of blood pressure in most hypertensive patients. Evidence is abundant that patients usually cannot be controlled on monotherapy. We should continue to promote and support basic research in hypertension and related areas. Despite good medications and strong evidence for their benefit, in the 30th year of the NHBPEP, the treatment of hypertension is still inadequate and empiric and fails to reverse all of the risk for cardiovascular disease. Hypertension is an important public health problem that needs a better solution. The history of medical science is full of stories about surprising findings in disease causation that led to dramatic changes in the approach to therapy. Remember how peptic ulcer disease was managed 30 years ago? Therapy was empiric, with low control rates of symptoms. Operations for bleeding or persistence of symptoms were common. Because of a better understanding of the physiology and pathophysiology of this disease, more specific therapy now cures many patients and controls the symptoms of almost all affected patients. We can do the same with hypertension.

On its 30th anniversary, we salute the National High Blood Pressure Education Program. Dr Claude Lenfant, NHLBI director, and Dr Edward Roccella, NHBPEP coordinator, have provided effective leadership for this highly successful program for most of its existence. We congratulate them on their success and their endurance. Now let us begin the work for the next 30 years of success.

References
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_Hypertension._ 2002;39:941-942
doi: 10.1161/01.HYP.000018303.61360.28

_Hypertension_ is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
Copyright © 2002 American Heart Association, Inc. All rights reserved.
Print ISSN: 0194-911X. Online ISSN: 1524-4563

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World Wide Web at:
http://hyper.ahajournals.org/content/39/5/941

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