A new challenge for America: The National Cholesterol Education Program

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OVER 12 years ago, the National Heart, Lung, and Blood Institute (NHLBI) initiated its highly regarded and extremely successful National High Blood Pressure Education Program (NHBPEP). The NHLBI is mandated by statute to ensure that research advances are rapidly disseminated into practice. The NHBPEP was, therefore, a logical Institute response to the wealth of scientific evidence that clearly demonstrated the serious adverse health consequences associated with elevated blood pressure and the effectiveness of specific therapies in mitigating those consequences. The NHLBI is once again faced with a similar wealth of scientific evidence, this time relating to elevated blood cholesterol, and once again its response will include a national education program. On November 15, 1985, the NHLBI initiated a National Cholesterol Education Program (NCEP).

Epidemiologic evidence implicating elevated blood cholesterol levels as an important risk factor for coronary heart disease has been accumulating for years. However, until last year there was no strong clinical evidence that cardiovascular risk could be lowered by interventions that lower blood cholesterol levels. Without the missing clinical evidence, the NHLBI believed that there was insufficient scientific justification for a concerted national cholesterol education effort. Then, in January 1984, the results of the NHLBI-sponsored Coronary Primary Prevention Trial (CPPT) were announced. The trial results demonstrated that the risk of initial episodes of coronary heart disease could be substantially reduced in hypercholesterolemic middle-aged men through the use of currently available cholesterol-lowering agents and dietary modifications.

Immediately after the announcement, the NHLBI began to develop plans to ensure the widest possible dissemination of the CPPT results. Included in the Institute plans was a national education program modeled on the NHBPEP. Institute planning received an added impetus in December 1985 from the NIH-sponsored Consensus Development Conference entitled "Lowering Blood Cholesterol to Prevent Heart Disease."

In its consensus statement, the panel adopted a broad interpretation of the CPPT and other related studies. They found "... beyond a reasonable doubt that lowering definitely elevated blood cholesterol levels will reduce the risk of heart disease" and noted that while this has been established most convincingly for men with elevated blood cholesterol levels, "... much evidence justifies the conclusion that similar protection will be afforded in women with elevated levels." In addition, the panel concluded from the available evidence that "... the blood cholesterol level of most Americans is undesirably high."

Based on these findings, the consensus panel made a number of specific recommendations for further actions by the public, the health professional community, and government health agencies. In particular, the panel recommended that

... new and expanded programs be planned and initiated soon to educate physicians, other health professionals, and the public to the significance of elevated blood cholesterol and the importance of treating it. We recommend that the National Heart, Lung, and Blood Institute provide the focus for development of plans for a National Cholesterol Education Program that would enlist participation by and contributions from all interested organizations at national, state, and local levels.

And that is exactly what we are doing. The overall objective of the new NCEP will be to reduce coronary heart disease morbidity and mortality related to elevated blood cholesterol by developing a national education effort and by stimulating extensive cooperation and coordination among responsible government agencies and interested public organizations. As in the case of the NHBPEP, the NCEP will operate as a partnership. A coordinating committee has been established for the NCEP to ensure effective mobilization of the

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resources and energies of all interested organizations. The committee membership comprises representatives from over 20 participating organizations. Among the organizations joining in the concerted national effort are health professional societies, such as the American Medical Association, the National Medical Association, the American Nurses Association, the National Black Nurses Association, and the American Dietetic Association, and public interest groups such as the American Heart Association and the American Red Cross.

Development of the NCEP proceeded in a careful, organized manner. First the need for a national program to educate the public and the health professional community was verified. Two surveys conducted before release of the CPPT results, one of the public and the other of practicing physicians, provided important evidence of the need for an NCEP. Then, following upon the NHBPEP model, efforts were begun to clarify and consolidate the scientific evidence to support the program. A workshop on the CPPT results, organized under NHLBI auspices, was held in June 1984. The conclusions of the workshop were reinforced by the statement of the December 1984 Consensus Development Conference. Continued monitoring of the program to ensure its sound scientific basis has been and will continue to be the responsibility of an internal NHLBI Science Advisory Group.

Expressions of interest in participation and suggestions for elements to be included in the program were initially solicited by preliminary contacts with relevant governmental and nongovernmental organizations. Formalized planning then followed, taking the form of a series of four workshops, each of which addressed a fundamental aspect of the overall NCEP. Workshops were conducted on (1) professional and patient education, (2) public education, (3) worksite programs, and (4) school-based and youth-related activities. Representatives of an NHLBI ad hoc committee on cardiovascular and pulmonary risk factors in minority populations attended each of the working groups to ensure that issues of particular concern to minority groups were adequately addressed. Input from relevant industrial interests was obtained through discussions with representatives of food producers (e.g., the National Dairy Council, the National Cattlemen’s Association, the United Egg Board), manufacturers (e.g., General Foods, Campbell Soup Company, Armor-Dial, Inc.), and marketers (e.g., Safeway Stores, Giant Foods, the Food Marketing Institute), and manufacturers of pharmaceuticals (e.g., Upjohn, Pfizer, Hoffman-LaRoche).

The formal launch of the NCEP occurred with the inaugural meeting of the NCEP Coordinating Committee. It is doubtful that any of the committee members needed to be reminded of the relationship between blood cholesterol and heart disease, but reminders were very much in evidence when the coordinating committee met in the Washington, D.C., metropolitan area in November 1985. Immediately preceding the NCEP meeting, the American Heart Association was in Washington for its annual meeting and while the AHA was meeting, the Senate Committee on Labor and Human Resources was conducting hearings on fitness and nutrition in public health. It is not surprising then that the coordinating committee was well prepared to be confronted immediately with several issues critical to the successful development of the NCEP. Included among them were laboratory standardization, screening approaches, and treatment guidelines. While committee deliberations proceed on such critical issues, the NCEP will also be involved in a wide range of development activities. All of the development activities will be directed toward the dissemination and public acceptance of four basic tenets about cholesterol, namely (1) there is a clear association between cholesterol and coronary heart disease, (2) cholesterol is easy to measure, (3) everyone should know his or her cholesterol level, and (4) individuals with elevated blood cholesterol levels should do something about it.

The NCEP will design programs for health professionals, their patients, and the public that will not only increase their awareness of the importance of lowering elevated blood cholesterol levels but also provide them with the information and skills necessary to effect the lowering through dietary modifications and appropriate medications. Cholesterol-lowering research programs will be developed for implementation in the workplace and for incorporation in existing workplace wellness and disease prevention programs. Efforts will be made to encourage curriculum changes in primary and secondary schools that will alert students to the role of blood cholesterol as a risk factor for heart disease and the benefits of lowering elevated levels by diet and other means. A special emphasis will be placed on reaching minority groups and other special audiences by developing materials and programs that are responsive to their particular needs.

A substantial amount of effort has been concentrated on developing the NCEP. We believe that the resulting program offers great promise for furthering the decline in cardiovascular mortality. The promise will surely be realized if we can make the NCEP more effective than the program that was its predecessor and model.
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