Editorials

The Real Enemies: Obesity, Inactivity, And Tobacco Consumption

The nation seems obsessed with serum cholesterol levels and dietary manipulations to lower them. Patients increasingly request serum cholesterol measurements, and cholesterol-measuring services are even available in supermarkets. Food manufacturers inundate the media with advertisements of products reputed to have a beneficial effect on blood lipids. Currently, use of water-soluble dietary fiber, in particular oat bran and oatmeal, is a major focus of media advertising.

The article by Nuovo[1] in this issue of the JABFP is, therefore, welcome. Nuovo carefully analyzed available studies of the effect of oat products on serum cholesterol reduction. He used 10 criteria to evaluate the quality of 11 studies. Although his method is sound, weighting the criteria, rather than assigning them equal value, could improve its accuracy. For example, "lack of description of the randomization process" is given equal weight to "using inappropriate statistical method." He concludes that data from the several studies are insufficient to determine whether oat bran has "an inherent cholesterol-lowering effect." Lack of these data, however, will not affect oat bran manufacturers' claims of benefit; similarly, insufficient data have not deterred the introduction of national cardiovascular disease prevention programs.

Almost 30 years ago the American Heart Association (AHA) published the "prudent diet" for obese persons and for men with elevated blood pressure, elevated cholesterol levels, or a personal or family history of cardiovascular disease. The 1965 version was recommended for the entire population.[2] This diet encouraged avoidance of simple sugars, increased consumption of complex carbohydrates, substitution of polyunsaturated fats for saturated fats and cholesterol, and achievement of desirable body weight. Although there was no evidence from clinical trials to indicate that asymptomatic persons would benefit from this diet, the AHA believed that its dietary modifications were not harmful. Evidence of adverse consequences came later with reports that polyunsaturated fats were associated with increased incidence of gall stones[3] and had cocarcinogenic effects in animals.[4,5] Additional concerns were voiced by the committee on nutrition of the American Academy of Pediatrics,[6] who stated that "the safety of diets designed to decrease caloric intake, increase consumption of complex carbohydrates, decrease intake of refined sugars, decrease consumption of fat and cholesterol, and limit sodium intake has not been established in growing children and pregnant women."

Lack of adequate data from clinical trials, too, did not impede an expert panel's formulation of the National Cholesterol Education Program (NCEP).[7] Published only 2 years ago, the program has received widespread endorsement from medical organizations, has gained comprehensive media coverage, and has stimulated aggressive detailing from drug manufacturers. Its remarkable success may be the most important contributor to the current iatrogenic epidemic of cholesterolophobia. Yet the national program for detection, evaluation, and treatment of high serum cholesterol in adults has serious flaws.

The NCEP recommends that all adults 19 years old and older have their serum cholesterol measured and be given diet counseling and, if necessary, drug treatment if their low-density lipoprotein levels are 4.1 mmol/L (160 mg/dL) or greater; low-density lipoprotein levels for persons with coronary heart disease or with two risk factors for cardiac disease are set at 3.4 mmol/L (130 mg/dL). The cost of testing and classifying the lipid status of all US adults will approach $13 billion; costs of treating and moni-

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toring persons with elevated serum cholesterol will be considerably greater. Application of the NCEP guidelines will require more than 15 additional daily office visits per 1000 adult patients[8]; one-half of the adult population will be told that they are at increased risk for cardiovascular disease, and 25 percent will be labeled hyperlipidemic.[9] Physicians who fail to follow the NCEP guidelines may be at risk for malpractice action from patients who perceive that they have been harmed by lack of testing or treatment. Measuring serum cholesterol within 5 percent of the true value is currently achieved by only about one-half of clinical laboratories.[10]

Problems with the NCEP are largely the result of insufficient clinical trials and of egregious extrapolation of data from available studies. The Helsinki Heart Study reported that during a 5-year period 40-to-55-year-old men treated with gemfibrozil had 1.31 percent fewer nonfatal myocardial infarcts than subjects given a placebo; the benefit was offset by a statistically significant increase in gastrointestinal operations among the drug-treated group.[11] The Lipid Research Clinics Coronary Primary Prevention Trial (LRC) compared cholestyramine with a placebo in men aged 35 to 59 years and found 1.5 percent fewer nonfatal myocardial infarctions over a 7-year period in the cholestyramine-treated group.[12] Neither study found significant differences in either cardiovascular or overall mortality between treated and placebo groups. The authors of the LRC study nevertheless concluded:

> These results could be narrowly interpreted to apply only to the use of bile acid sequestrants in middle-aged men with cholesterol levels above 265 mg/dL (perhaps 1–2 million Americans). The trial's implications, however, could and should be extended to other age groups and women and since cholesterol levels and CHD risk are continuous variables to others with more modest elevations of cholesterol levels.[12]

Whereas most responsible investigators caution against extrapolation of their findings to populations with different characteristics, the LRC recommendations are indeed surprising, especially so because the relation between cardiovascular disease and serum cholesterol levels in the elderly is uncertain,[13,14] and women may respond differently from men. For example, the high-density lipoprotein serum level response to diet in women is different from that in men.[15] No large clinical trials have reported that asymptomatic women or the elderly benefit from either cholesterol-lowering diets or drug therapy. Finally, it is naive to expect asymptomatic persons to derive benefits from intensive cholesterol-lowering therapy that match those of patients with severe coronary artery narrowing.[16,17]

Given these caveats about the NCEP, why have physicians and their patients embraced cholesterol-lowering therapy with such enthusiasm? Willet and Sacks[18] note that "In the absence of fully satisfactory data directly relating dietary factors to the risk of coronary heart disease in humans, a surrogate end point, the serum cholesterol level, has been used to predict the effects of diet." Focus on this surrogate end point permits a redirection of therapy from total calories to the source of those calories and from body weight to a laboratory value. Failure to achieve ideal serum cholesterol levels by dietary manipulation is followed by the addition of cholesterol-lowering drugs and subsequent serum levels that satisfy both patients and their physicians. Resources and attention are diverted from the truly difficult tasks of losing excess weight, initiating an exercise program, and discontinuing tobacco use. A similar displacement of intention occurs with patients who are asymptomatic, obese, and have noninsulin-dependent diabetes, who with their physicians focus on blood glucose levels and use hypoglycemic agents rather then diet to control those levels. Yet there is no evidence that achieving normoglycemia in these patients prevents complications.[19]

It is time to change direction, stop wasting resources, and face the real enemies: obesity, inactivity, and tobacco consumption. There is ample evidence that a normal body weight, regular exercise, and discontinuance of tobacco smoking are potent preventers of cardiovascular disease and other diseases as well. With limited resources, rather than focus on cholesterol monitoring and soluble fiber substitutions, we need to develop new and effective strategies to help change the behaviors of the 30 million obese adults,[20] the one-third who smoke,[21] and the 40 percent who fail to exercise regularly.[20] Above all, we need more critical analyses of the

type provided by Nuovo before we embark on costly national programs that provide uncertain benefit.

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Depression: Are We Too Busy To Listen?

If congestive heart failure symptoms and signs were as frequently and poorly recognized as depression, the multiple peer-review processes and reviewers would be in a dither. Depression is a very common problem[1]; it ranks in the top 10 diagnoses in primary care,[2,3] and the criteria needed to diagnose a mood disorder are well established.[4] The central issue posed by the study of Coyne, et al.[5] in this issue of the *Journal*, however, is that family physicians still have problems recognizing depression. What, then, needs to occur in the patient-physician encounter to allow good diagnostic sensitivity and specificity so an appropriate diagnosis can be made and an efficacious treatment can then be

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