Panel Finds Consistency in Evidence of Dietary Patterns to Prevent Diabetes, CVD, and Obesity

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If your mother told you, “Eat your vegetables,” she knew intuitively what science continues to affirm.

The 2015 US Dietary Guidelines Advisory Committee (DGAC), charged with making recommendations to update the nation’s policies for healthy eating, held its fourth meeting on July 16 and 17, 2014, in Bethesda, Maryland. During the meeting, a key subcommittee tasked with reviewing recent evidence on how dietary patterns affect health developed draft language on the relationships between what Americans eat and 4 major cancers—breast, colorectal, prostate, and lung—as well as chronic conditions such as type 2 diabetes mellitus (T2DM) and obesity. This is the first time that the DGAC’s report will include recommendations on the connections between diet and cancer.1-3

Chaired by Barbara Millen, DrPH, RD, of Millennium Prevention in Westwood, Massachusetts, the 2015 DGAC consists of 15 scientists specializing in nutrition, cancer prevention, public health, and other fields who were appointed in spring 2013 to offer recommendations to the US secretaries of Health and Human Services (HHS) and Agriculture (USDA). As outlined by Congress, the process takes place every 5 years, with management rotating between HHS and USDA.2,3

DGAC’s work remains in draft form until the final report goes to the secretaries, who then review it alongside comments from the public—which have in-person and online—as well the many “stakeholders,” which include lobbyists for the food industry, some of whom have already appeared before DGAC during the public comment sessions.3

The final policy is released as Dietary Guidelines for Americans, a document that affects everything from the composition of school lunches, to the makeup of meals fed to the military, to the allotments that go into the Supplemental Nutrition Assistance Program. Fallout from the guidelines sometimes stirs controversy. The work of the 2015 DGAC continues as the National School Boards Association and other groups lobby Congress for relief from the Healthy Hunger-Free Kids Act of 2010, which revamped the rules governing what school districts receiving federal funds can serve in school lunches.3

In prior remarks and in her opening address to the committee on July 16, Millen discussed the committee’s assignment of examining how the improvements to the American diet can reduce chronic disease. The committee, she said, “is charged with providing technical assistance on how food, nutrition, and physical activity can do 2 things: promote the health of the US population and help reduce the burden of chronic disease and other lifestyle-related problems, and also develop recommendations and best methods and practices, at the individual and population level.”1

Millen said the emphasis on “dietary patterns” allows for several things: a review of how Americans eat now, a review of the evidence of what dietary patterns are associated with chronic disease and with cancers, and an analysis of “what works,” which will provide practical recommendations for healthcare and public health officials.

The first day of the July meeting featured presentations from Frank Hu, MD, PhD, MPH, of the Harvard School of Public Health, and Steven Clinton, MD, PhD, of the Ohio State University. Hu presented draft...
language on the relationship between dietary patterns and cardiovascular disease (CVD), body weight/obesity, (T2DM), while Clinton presented language on the relationships between dietary patterns and 4 major cancers that account for half of the cancer incidence in the United States: lung cancer, prostate cancer in men, breast cancer in women, and colorectal cancer.

As Hu and Clinton outlined, and as committee members noted, there was a high degree of consistency across the evidence base when examining what dietary patterns were connected with lower or higher incidence of chronic disease. Among the 4 major cancers, evidence showed the strongest links between dietary patterns and colorectal cancer. More illuminating, however, was the fact that highly similar dietary patterns emerged in the draft recommendations for all 3 chronic diseases (CVD, body weight/obesity, and T2DM) (see Table). In summary, they are:

- A diet high in fruits, vegetables, and whole grains.
- A diet with regular amounts of fish, legumes, and low-fat dairy. Alcohol consumption in moderation was discussed in the draft statements on CVD and body weight only.
- A diet low in sugar-sweetened beverages, red and processed meats, refined grains, and saturated fats. The consensus in the draft statements emerged from a rigorous process for all 3 chronic diseases. Hu said the process for CVD involved the Nutrition Evidence Library (NEL) Dietary Patterns Systematic Review Report, the highly publicized 2013 Guideline of the American Heart Association and the American College of Cardiology (AHA/ACC), and a review of 142 articles published since 2008, including 35 that appeared in 2 or more reviews. Hu noted that the articles reviewed included studies of the Mediterranean diet, the Dietary Approaches to Stop Hypertension (DASH), and vegetarian-style diets.1

The review for the draft recommendations for dietary patterns to combat obesity also involved the NEL review, and a separate guideline published in 2013 for the treatment of obesity from AHA, ACC, and The Obesity Society (TOS). The literature review included 81 studies, including 3 that appeared in 2 or more reviews. Draft language in the body weight/obesity recommendation includes a recommendation that overweight persons consult with a nutritionist or counselor to lose weight.

The draft language for the T2DM dietary pattern recommendation relied upon the NEL review, 1 comprehensive analysis, and 39 articles, including 13 that were in more than 1 review. Of note, Hu said that evidence for dietary patterns and T2DM is lacking in the pediatric population. Hu noted that the 2013 AHA/ACC guidelines that informed both the CVD and body weight/obesity drafts relied largely on randomized clinical trials. To some degree, he said, minor inconsistencies between the draft statements across the different diseases reflect limits on what was included in clinical trials and studies available to the committee.

Definitions of dietary patterns or terms such as “Mediterranean diet” varied from study to study. Of note, evidence ratings for the CVD draft were strong. Evidence ratings were moderate for the dietary pattern portions of the body weight/obesity and T2DM statements, based on criteria Millen outlined, but the committee found strong evidence for its draft statement that weight loss is achieved through a balance of diet and exercise.

An important finding, Hu said, is that while there is consistency in the types of dietary patterns that reduce chronic disease, there is great variety in the individual foods that people can eat to achieve better health.

“People have been looking for the optimal diet,” he said; however, “One size doesn’t fit all.

This has important clinical and public health implications, he said, because it allows healthcare providers and nutritionists to adapt their recommendations to patient preferences, cultural needs, and the availability of local foods. Even within the scientific literature, authors “used different methods to achieve healthy dietary patterns,” Hu said. DASH, the Mediterranean diet, vegetarian patterns, and other methods received attention. Losing weight and reducing cardiovascular risk is possible, Hu said, “as long as the overall diet quality is high.”

References

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