



# Where the Elite Meet to Eat—a CME Course?

Mike Mitka

PHYSICIANS TIRED OF RECEIVING continuing medical education (CME) at skiing and golfing resorts have a different opportunity in 2001—picking fresh vegetables from a market and cooking in an Italian kitchen.

The Harvard School of Public Health and Oldways Preservation & Exchange Trust will offer a CME course in Milan or Naples next spring to teach physicians about the benefits of the Mediterranean Food Pyramid and how it should be incorporated into their practices.

K. Dun Gifford, president and founder of Oldways, said such a program is needed because while patients believe their physicians are the best source of nutrition information; physicians receive almost no training in nutrition during medical school or while in residency.

## NUTRITION A CHALLENGE

“Physicians tell us that one of their most challenging situations is answering nutrition questions,” said Gifford from the Cambridge, Mass, office of his non-profit food issues think tank.

Generally, physicians view nutrition with a strong bias toward eating specifically to prevent heart disease, said Walter Willett, MD, chair of the Department of Nutrition at the Harvard School of Public Health.

“Nutrition is much more important than we realized in the past,” he said. “For a long time we thought it meant just eating less saturated fat, less cholesterol. But we’ve learned that many other aspects of nutrition are impor-

tant beyond just heart disease. Nutrition can help prevent chronic disease, so it’s timely for physicians to be learning about nutrition and health.”

## VIEWING THE PYRAMIDS

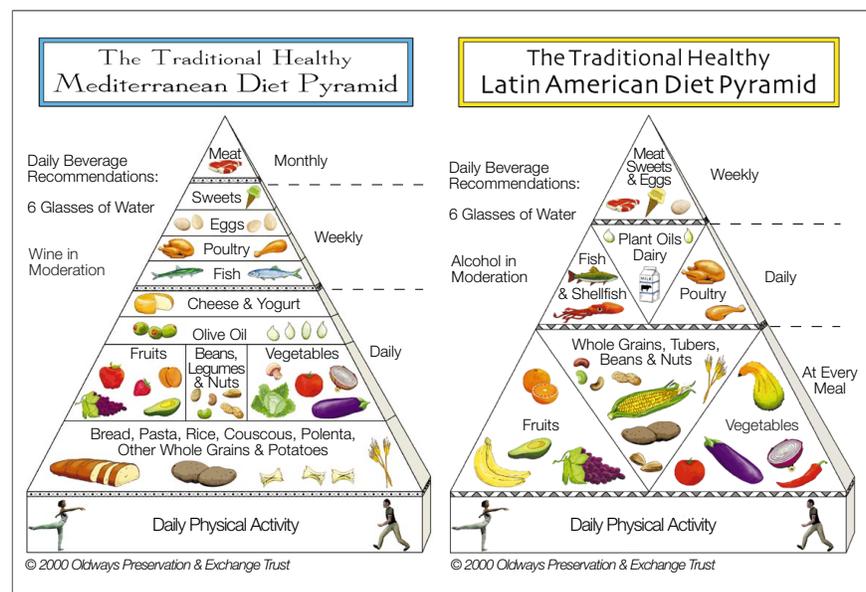
Learning about nutrition doesn’t have to be a dull science-and-statistics endeavor. Gifford and Willett decided to teach the subject using scientifically proven healthy regional cuisines. Initially they will teach the Mediterranean Food Pyramid, then add pyramids based on Latin American, Asian, and vegetarian diets.

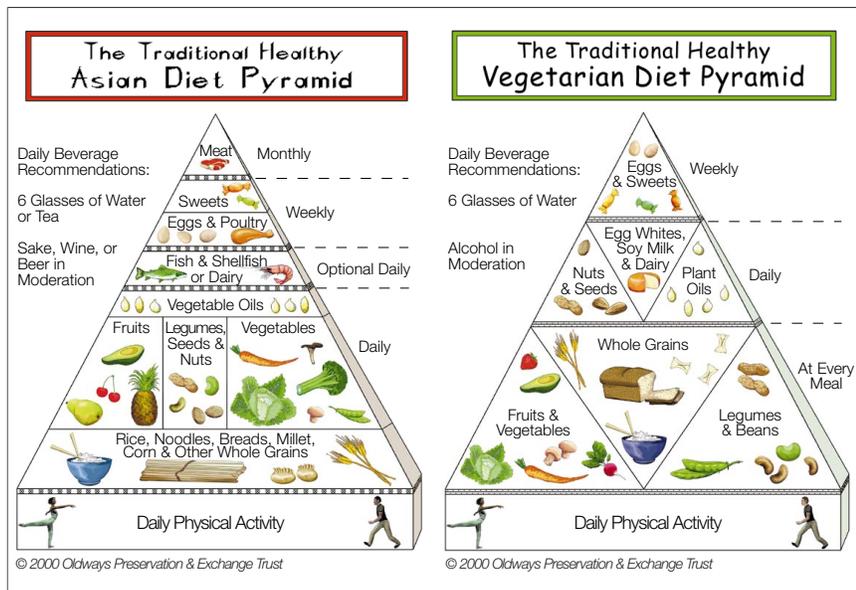
The Mediterranean Diet Pyramid, which was released jointly by the Harvard School of Public Health and Oldways in 1994, was the result of research and cooperation between the two institutions. The pyramid is based on the traditional Mediterranean diet, which is associated with low rates of

diet-linked chronic disease and the high adult life expectancy typical of the region in which tasty food is also healthy. For example, while there are a number of reasons beyond food, male life expectancy in the United States is 72.5 years and in Italy it’s 73.79 years (*U.S. Decennial Life Tables for 1989-91*. CDC Web site. Available at <http://www.cdc.gov>. Accessed July 6, 2000).

Participants in the Harvard-Oldways course will attend sessions on nutrition science and dietary behavior modification. These sessions will be augmented by nonclassroom activities such as visiting food markets, participating in cooking and tasting classes, and visiting cultural sites, all designed to provide experiential information and effective tools to help patients make better food choices.

The first CME course will be held next year in Italy with Athens, Madrid,





ercise, while such advice is not found on the USDA pyramid. The USDA makes its exercise and alcohol consumption recommendations in its publication *Dietary Guidelines for Americans, 2000*.

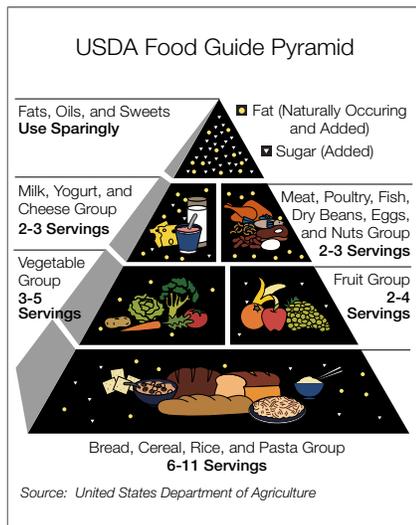
The emphasis on fruits and vegetables and deemphasis on meats is also a central theme of the Latin American, Asian, and, of course, vegetarian pyramids recommended by Oldways and Harvard.

**DECADE OF NEW DATA**

“Unfortunately, the US dietary pyramid is not supported by data and is inconsistent with what we’ve learned is important over the last decade,” Willett said (*Science*. 1994;264:532-537). To be fair, the USDA uses grains, fruits, and vegetables as the base for its pyramid, not unlike the others. And the USDA recommends two to three servings daily from the meat, poultry, fish, dry beans, eggs, and nuts group—meaning someone could eat the same amount of meat as in the other pyramids, although the USDA pyramid doesn’t specifically limit meat consumption.

Willett said he hopes physicians come away from the proposed CME course knowing the current thinking about diet that emphasizes the importance of types of fat, carbohydrates, and micronutrients. He added that, exposed to healthy meals in a different milieu, physicians may learn about disease prevention in a new way.

“The messages that physicians [in the United States] get about disease prevention are dominated by drug companies,” Willett said. “Go to any medical meeting and you see scores of booths on new drugs that are uniformly very expensive, and you rarely see any booths on nutrition and diet, which are quantitatively more important.” □



mid, which is a “mix of well-supported findings, educated guesses, and outdated approaches to grouping foods, and political compromises with powerful economic interests such as the dairy and meat industries,” says Oldways on its Web site (Available at <http://www.oldwayspt.org>. Accessed July 6, 2000).

**DIET DIFFERENCES**

One difference between the USDA and Mediterranean pyramids is that the USDA recommends daily consumption of meat, which it groups with beans, poultry, fish, and nuts. The Mediterranean pyramid groups nuts with beans and legumes and recommends daily consumption, while recommending fish and poultry only a few times a week and red meat as part of a meal only once a month. It also recommends greater use of plant and vegetable oils rather than animal fats, while the USDA pyramid groups all oils and fats together.

Another difference is that the Mediterranean pyramid recommends moderate wine consumption and daily ex-

and Israel being considered as potential future sites.

Oldways and Harvard use these regional food pyramids as the basis for nutrition education because they represent traditional diets that are strongly associated with good long-term health (*Circulation*. 1999;99:779-785). These pyramids differ from the US Department of Agriculture (USDA) food pyra-



# Global Network Fights a Rounder Population

Charles Marwick

OLYMPIA, GREECE—With much of the world's population rapidly becoming overweight and potentially subject to debilitating disorders, physicians, public health experts, and nutritionists representing more than a dozen organizations have agreed to establish a worldwide network to attempt to reverse the trend. The goal of the Collaborating Network on Genetics, Nutrition, Exercise, and Health is to precisely define approaches that can be used to prevent and treat disease, particularly chronic disorders such as obesity, hypertension, diabetes, cardiovascular disease, osteoporosis, some forms of cancer, and autoimmune diseases.

Peter Howe, PhD, professor of nutrition at Wollongong University, New South Wales, Australia, described this effort to strengthen research on the effects of nutrition and exercise and develop effective strategies for change at the Fourth International Conference on Nutrition and Fitness. Aptly, across the road from the conference center here are the remains of the site of the ancient Olympic Games, which began in 776 BC.

## STARTING AGREEMENT

Participants in the network from the United States are Purdue University, West Lafayette, Ind, and Howard University and the Center for Genetics, Nutrition, and Health, both in Washington, DC. The Pan American Health Organization is taking part in the effort, as are groups in Australia, China, Israel, Mexico, and South Africa.

Among the steps members agree should be taken are the following:

- Develop sound, broad-based research with a standardized method for collecting data and monitoring programs that study human nutritional status and training in physical activity. "We need to focus on the evidence. The adoption of proposals or recommen-

dations by health professionals is dependent on the evidence available to support them," Howe said.

- Communicate a clear message. Many nutritional messages are contradictory, the group noted. Clear consensus statements are important for influencing policymakers and developing appropriate educational and marketing strategies.

- Establish a dialogue concerning the current information about existing guidelines on nutrition and fitness. "We need to be aware of what guidelines and programs are in place in various countries," said Howe.

- Lay the groundwork early for lifelong healthy habits by developing early childhood and school education programs that emphasize the relationship between physical activity and good health.

Finally, Howe said, "However we go about this, it's essential that we monitor progress."

Furthermore, the group agreed that in developing and implementing these principles, the needs of both developed and developing countries must be taken into account. Economic, cultural, and behavioral barriers to improving peoples' nutrition and exercise status must be overcome, and a mechanism for establishing priorities must be set up because "you can't do everything at once," said Howe.

## EXERCISING MICE

Most of the scientific reports at the meeting were devoted to the roles of nutrition and exercise in promoting health. It is well known that adequate exercise promotes physical well-being, but exercise can also affect gene expression, said Ji Di Chen, MD, director of research at the Institute of Sports Medicine at Beijing Medical University in China. "Up to 40% of the regulation of body fat is under genetic control—but this can be modified by exercise," she said.

Chen reported the effect of exercise on decreasing the size of atheromatous deposits along the aortic arterial wall of mice genetically susceptible to atherosclerosis. In mice subjected to exercise—swimming 1 hour every day for 7 weeks—the average size of the atheromatous lesions was only 2800  $\mu\text{m}^2$  vs 3200  $\mu\text{m}^2$  in the unexercised controls. "At a *P* value of .05, the difference is statistically significant," Chen said.

Exercise also affected lipoprotein receptor activity, she said. In the exercised animals, high-density lipoprotein receptor activity was increased sevenfold over unexercised controls in sites in the adrenal gland, more than fourfold in the liver and ovary, and more than threefold in the testis—the most active sites for synthesis of cholesterol. "Physical activity significantly changes the gene expression of a number of receptors," Chen said (*Am J Physiol.* 1998;274:E304-308). "Even in these genetically defective mice, exercise is beneficial."

## TREATING DEPRESSION

It has recently been reported that many obese people are depressed (*JAMA.* 2000;284:291-293). Supporting that supposition, Andrew Stoll, MD, director of psychopharmacology research at McLean Hospital in Belmont, Mass, summarized a randomized controlled study in which patients with bipolar depression were treated with 9.5 g/d of omega-3 fatty acids. "There was a significant reduction in symptoms and a better outcome compared with a placebo," Stoll said (*Arch Gen Psychiatry.* 1999;56:407-412).

To get definitive proof of the effect of this substance on unipolar depression, he said, a 12-week randomized, double-blind, placebo-controlled trial is about to start in which patients with the disorder are treated with one of two dosing schedules of three different omega-3 fatty acids and a placebo.

Meanwhile, some evidence supports the role of these fish oils in treating such patients. Stoll said there is a high rate of depression in people whose diet is low in omega-3, that the blood



level of these fatty acids is low among patients with depression, and that a preliminary open-label trial of omega-3 fatty acids has shown effectiveness in such patients. Indeed, he said, “the controlled data in bipolar disorders suggests strong antidepressant activity, and virtually all compounds with antidepressant effects in bipolar disorder will show antidepressant effects in unipolar depression.”

#### ATHLETES VS OTHERS

Another presentation involved the effects of exercise on immune function. For many years, athletes have reported that when they exercised normally, they had fewer colds than when they exercised strenuously, said David Nieman, PhD, a professor in the Department of Health and Exercise Science at Appalachian State University, Boone, NC. Only within the last decade has there been an organized investigation of such reports, he said.

A controlled epidemiological study among highly trained athletes confirmed the anecdotal impressions. Of more than 2000 athletes who ran a 26-mile marathon, 13% became ill with common colds or sore throats during the week after the race. Among athletes in the study who did not run that marathon, only about 2% became ill with upper respiratory infections during the same period. “The odds of getting sick after running a marathon were nearly six times normal,” Nieman said (*J Sports Med Phys Fitness*. 1990;30:316-328).

Moderate exercise, however, seems to boost the immune system. Nieman reported a study of 126 sedentary women randomly assigned to one of two groups: those who spent 45 minutes walking briskly 5 days a week for 12 weeks and those who engaged in no special exercise. He found that the sedentary group reported 10 days of upper respiratory infections during the 3 months whereas the walkers reported such infections for only 5.5 days.

Nieman studied the response of elements of the immune system in individuals subjected to 90 minutes of heavy exertion. He found a decrease in nasal

immunoglobulin A concentration, a decline in neutrophil function, and a decreased response to skin test antigens compared with unexercised controls. The immune system is enhanced by moderate activity but, during heavy training, it becomes depressed, posing a potential risk of infection, he concluded (*J Appl Physiol*. 1997;82:1385-1394).

#### WALKING IN GREECE

Adding a local word on the worth of exercise, George Rontoyannis, MD, a professor in the Department of Physical Education and Sports Science at the University of Thessaly in Greece, said, “There is growing evidence of the value of physical activity in the prevention of coronary heart disease.” Noting that “one of the major [hurdles to overcome] in getting widespread adoption of lifestyle changes, such as exercise, to reduce or limit risk factors for coronary heart disease is lack of patient adherence,” he said one answer is “walking, which is the most natural aerobic activity.”

Rontoyannis described a patient, now 63 years old, who has followed a walking regimen since he had a myocardial infarction in 1987. To facilitate his recovery, the man initially walked about 3.5 km per day at an easy pace. In 1993, he doubled it to 7 km per day, occasionally walking at a brisk pace. In 1997, he again doubled the length of his daily walk, to 14 km, always at a brisk pace. No adverse effects have been seen, Rontoyannis said.

Showing angiograms of this patient’s coronary arteries made in 1987 and 7 years later, the physician contrasted the almost complete obstruction of the anterior descending artery in the earlier image with a 30% decrease in obstruction in the later one. “Most impressive is the overall improvement in the myocardial arterial tree and the collateral vessels,” he noted.

“Physical activity, coupled with a prudent diet and stopping smoking, are very effective in the primary and secondary prevention of cardiovascular disease,” said Rontoyannis. “Maybe as much as 90% of coronary heart disease can be prevented in this way.”

#### FRIGHTENING FAT

A major concern of the conferees was the global increase in obesity during the past 15 years. One speaker called it “terrifying.” The situation in the United States was recently explored in some depth (*JAMA*. 1999;282:1519-1582), but what worried many speakers was surplus poundage around the world.

“The development of obesity is due largely to the adoption of a Western lifestyle, with risk factors that include high-fat diets and lack of exercise. It will become an enormous burden, especially for developing countries and also in our part of the world,” said Jaap C. Seidell, MD, director of the Department of Chronic Disease Epidemiology of the National Institute for Public Health and the Environment in Bilthoven, the Netherlands.

Noting the link between obesity and type 2 diabetes, Seidell painted a grim picture of the coming impact on the population. “The current prevalence of about 130 million people with diabetes in the world will increase to 350 million by 2030, most of it in China, India, Australasia, and Japan,” he said.

He noted that diabetes in these countries occurs in people who would not be considered obese in Europe and North America, where obesity is classified as a body mass index (BMI) of 30 kg/m<sup>2</sup> or more (25 kg/m<sup>2</sup> is the threshold for overweight). Because Asians seem particularly vulnerable to the health effects of obesity, Seidell said, researchers are considering adopting a lower BMI classification for them. The current working suggestion for thresholds is for a BMI of 24 kg/m<sup>2</sup> for overweight and 26 kg/m<sup>2</sup> for obesity. This definition will mean that another 250 million people in the world will be considered obese.

Seidell attributes the recent increase in obesity to environmental factors. “It’s our sedentary lifestyle and high-energy foods,” he said. “It’s the computer chips and potato chips, and it is one of the major public health challenges of the coming century. If we really want to do something about it we have to have a public health approach—and the need is urgent.” □



# Learning Surgery Online in Ireland

Michael Fitzpatrick

DUBLIN—Ireland's leading school for surgery has joined with an electronic-learning specialist to provide what they claim is the world's first online surgical training program.

Trainee surgeons may now access BeST (electronic Basic Surgical Training), an interactive virtual university created by the Royal College of Surgeons in Ireland (RCSI) and the Web technology company Intuition.

BeST offers easily accessible visual and interactive learning, tutorials, and tests, according to the RCSI. Lessons learned over the Internet can then be applied to lifelike scenarios, using simulations and realistic case studies.

Simulated examinations are also offered online in preparation for the real examinations for membership or associate fellowship in the Royal College of Surgeons in Ireland or the United Kingdom. Feedback from tutors via e-mail is available, as is the RCSI's electronic library, to all subscribers to the course. Online discussions through an RCSI-moderated bulletin board with other physicians worldwide is another feature of the program.

"BeST complements the educational options open to our doctors who have chosen surgery as their specialty," said Oscar Traynor, MD, dean of postgraduate surgical studies at the

RCSI. "BeST breaks the physical boundaries of education. In addition to in-hospital training and practical surgical skill courses at the college, doctors can now gain access to a structured and tutored training program without leaving the hospital to which they are posted."

Currently, trainees undertake a 2-year basic surgical training program while located in hospitals throughout Ireland before undertaking Higher Surgical Training for a further 6 years at one of the major centers such as Dublin, Cork, Limerick, Galway, or Waterford.

Over 5000 Web pages of information, training, tutorials, and interaction have been developed by more than 100 surgical and medical contributors, each a leader in his or her own field of medicine. As well as deciding on the syllabus to provide a complete and balanced educational course, the BeST editorial board of the college reviewed and validated all content to ensure its accuracy and relevance so that it reflects current best practice, said an RCSI spokesperson.

"The development of BeST uses the latest in Web technology in its multimedia presentation of content, but is simple to access and use," said Michael Horgan, MD, deputy chief executive at RCSI. "It requires a standard PC and works with the standard Web

browsers. It also uses the most popular animation software. This ensures that there are no technical barriers to getting online, getting active, and getting focused on learning."

Initially, BeST is being aimed at surgical trainees within the RCSI's basic surgical training program, but the college hopes the program will also find appeal in the United Kingdom and other countries in Europe, the Middle East, and the Far East. Using the latest Web-based technology, the multimillion-dollar startup is also enabled to accept credit card payments in different currencies. The online university is also completely secure, being accessible only to trainees and their tutors.

"Although we like to think of ourselves as progressive and innovative, it is fair to say that the college took a very brave decision in deciding to go ahead with this project," said Horgan. "We met [officials of] Intuition, our partners in this venture, and saw the potential application of their financial model to the medical/surgical area. This is a very exciting initiative, which breaks the physical boundaries of education and makes learning easily available to trainees wherever they are."

The cost of the 24-month course is IRL £1500 (about US \$1760). A demonstration is available at [http://www.intuitionmedical.com/best\\_website/best/demoreg.html](http://www.intuitionmedical.com/best_website/best/demoreg.html). □

## MISCELLANEA MEDICA

- **Douglas S. Harrington**, MD, has been elected chairman of the board of ChromaVision Medical Systems Inc, a cellular imaging systems company in San Juan Capistrano, Calif.
- **James C. Leonard**, MD, a family physician in Mahomet, Ill, has been named president and CEO of the Carle Foundation, a not-for-profit health care system based in Urbana, Ill.
- **Ruth G. Ramsey**, MD, former professor of radiology and head of neuroradiology at the University of Chicago

hospitals, has become medical director of three Premier Health Services centers of diagnostic radiology in the Chicago, Ill, area.

- **Margaret R. Spitz**, MD, chair of the Department of Epidemiology at University of Texas M. D. Anderson Cancer Center, Houston, has received the Distinguished Achievement Award from the American Society of Preventive Oncology.
- **George C. Barrett**, MD, a radiologist at Bowman Gray School of Medicine of

Wake Forest University, Charlotte, NC, is the new president of the Federation of State Medical Boards of the United States. **Ronald C. Agresta**, MD, a Steubenville, Ohio, ophthalmologist, is vice president, and **George J. Van Komen**, MD, an internist in Salt Lake City, Utah, is president-elect.

**Editor's Note:** Miscellanea Medica appears in the Medical News & Perspectives section occasionally. Items submitted for consideration should be directed to the attention of Marsha F. Goldsmith, Editor, Medical News & Perspectives.