

THE DEAN'S LETTER FOR TUFTS NUTRITION



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BALANCING BUDGETS AND TASTES IN SCHOOL MEALS

When life gives you lemons, make lemonade. But if you're truly creative, when the government gives you black beans, you make chocolate cake. That's what lunchroom managers in the Chicopee, Mass., public school system did when they were challenged to create appealing and healthy meals and snacks for students using economical ingredients. They incorporated the commodity program beans in the cake, which the students enjoyed without even noticing the added protein and fiber.

This was just one of the inventive examples Associate Professor **Christina Economos**, Ph.D., and Assistant Professor **Jennifer Sacheck**, Ph.D., came across while putting together "Dishing Out Healthy School Meals," a report that details how three school districts in Massachusetts, New Hampshire and Maine managed to make healthy changes to cafeteria food in spite of tight budgets.

The authors studied Chicopee and two other school lunch all-stars and found that their success stemmed from creativity, innovation and strong leadership, particularly from the school nutrition directors.

In Laconia, N.H., for example, fresh fruit is available every day. In addition, on the day they make lo mein from scratch, the food service staff also offers canned pineapple chunks. Why? Because they frugally use the pineapple juice to prepare their homemade lo mein sauce.

The Maine School Administrative District 3, based in Unity, Maine, works with more than a dozen local farms to purchase fruit, vegetables, bread and meat, and has conducted pilot projects to blanch and freeze local produce for use in fall and winter. This allows this northern rural school district to obtain more than 40 percent of its annual food from local sources.

The report is funded by the Harvard Pilgrim HealthCare Foundation.

VITAMINS C AND E LINKED TO METABOLIC SYNDROME IN OLDER, LOW-INCOME ECUADORIANS

The Poor diets that are low in micronutrients seemed to contribute to the prevalence of metabolic syndrome in a low-income urban community in Ecuador, according to a new study by researchers at the Jean Mayer USDA Human Nutrition Research Center on Aging (HNRCA) at Tufts and the Corporacion Ecuatoriana de Biotecnologia.

Metabolic syndrome is a condition that increases a person's risk of developing cardiovascular disease and Type 2 diabetes. With life expectancy increasing in Latin America, such age-related diseases have become a pressing public health concern.

The study enrolled 225 women and 127 men, ages 65 and older, who live in three low-income neighborhoods on the outskirts of Quito. Forty percent of the population had metabolic syndrome, which is defined as being centrally obese and having at least two of the following metabolic risk factors: raised triglycerides, reduced high-density lipoprotein (HDL) cholesterol, high blood pressure and raised fasting plasma glucose (blood sugar).

"We observed a pattern of high-carbohydrate, high-sodium diets lacking in healthy fats and good sources of protein," says senior author Professor **Simin Nikbin Meydani**, Ph.D., D.V.M., director of the HNRCA and its Nutrition Immunology Laboratory. "Our blood analyses indicate a significant number of participants weren't consuming enough of a range of micronutrients," she adds. "After adjusting for age and sex, we observed significant relationships between the metabolic syndrome and two of the micronutrients, vitamins C and E."

"As a group, the participants did not exhibit low blood levels of vitamin E," Meydani continues. "The association suggests that having higher blood levels of vitamin E may protect against the metabolic syndrome." However, low blood levels of vitamin C were seen in 82 percent of the participants, which the authors suspect was due to a limited intake of fresh fruits and vegetables. The bulk of the participants' calories came from white rice, potatoes, sugar and white bread.

The data suggest that limited consumption of nutrient-dense foods such as chicken, vegetables and legumes makes this small population of Ecuadorian elders even more susceptible to metabolic syndrome, Meydani says.

The results, reported online ahead of publication in the journal *Public Health Nutrition*, are a step toward understanding metabolic disease risk in older adults living in impoverished areas of Latin America, Meydani says. The next step would be interventional studies in larger, more economically diverse populations of older Latin American men and women.

"Presently, there are about 59 million Latin American and Caribbean men and women over the age of 60, and the United Nations predicts the population will reach 101 billion by 2025," Meydani says. "Medical resources are minimal in developing countries, and those that are in place are usually not directed toward older adults. Nutrition interventions, such as

encouraging older adults to consume more nutrient-dense foods [such as] locally grown produce could reduce the strain on the health-care system."

AWARDS & ACCOLADES

The Power of Positive Deviance, by **Richard T. Pascale**, **Jerry Sternin** and **Monique Sternin**, has been named "this year's best business book on management" by *strategy+business* magazine in an article by David K. Hurst titled, "Best Business Books 2010: Management." Hurst provides wonderful overviews of both the positive deviance method and points out that the stories in *The Power of Positive Deviance* "are evocative and compelling."

Professor **Xiang-Dong Wang**, Ph.D., director of the HNRCA's Nutrition and Cancer Biology Laboratory, received an honorary visiting professorship from one of the top universities in China, Zhejiang University. At the ceremony, he gave a presentation titled "Biological Actions of Carotenoids: Implications for Human Health and Diseases." As a representative of the American Society for Nutrition delegation, led by Professor Emeritus **Robert M. Russell**, M.D., president of the ASN, Wang visited the Chinese Society for Nutrition, Beijing, and the Institute for Nutritional Sciences at the Chinese Academy of Sciences in Shanghai. Their goals were to identify mutual research interests, discover where increased understanding would be beneficial to scientists and promote ASN membership.

HERE & THERE

The USDA's Agriculture Research Service exhibition booth at the American Dietetic Association annual conference in Boston went both interactive and collaborative this year. Spearheaded by Assistant Professor **Elizabeth Johnson**, Ph.D., of the HNRCA's Carotenoid Lab; **Dustin Burnett**, N08, a graduate of the Frances Stern Nutrition Program and a research dietitian at the HNRC at University of California, Davis; and Instructor **Helen Rasmussen**, Ph.D., senior research dietitian in the HNRCA's Metabolic Research Unit, the HNRCA-Tufts portion of this national exhibit included educational efforts focused on nutrition and eye health. Johnson's research has focused on the relationship between carotenoids (pigments found in fruits and vegetables) and the prevention of major age-related diseases, including age-related macular degeneration (AMD). Lutein and zeaxanthin are the only carotenoids found in the macula of the eye, where they are thought to function as antioxidants and blue light filters. Conference participants were able to experience how macula pigment is measured, and got to assess their dietary lutein and zeaxanthin intake using the LZQ, an interactive food frequency questionnaire developed by Burnett, Johnson and Rasmussen that quantifies the amount of these important eye-health nutrients. More than 300 conference participants spoke with the exhibit staff who included **Rohini Vishwanathan**, Ph.D., a postdoctoral scientist in the Carotenoid Lab; **Lauren Schindler**, N10, a master's degree student in the Frances Stern Nutrition Program; and **Adriene Worthington**, a former HNRCA research dietitian and current director of programs at the Greater Boston Food Bank.

Adjunct Professor **Michael McBurney**, Ph.D., has been invited to become the new at-large

industry member of the Food, Nutrition and Safety Program Leadership team for the International Life Sciences Institute, North America. He has also been asked to chair the Senior Scientific Advisory Committee (SSAC) for the Council for Responsible Nutrition for the next two years. The SSAC assists with the development and implementation of CRN's scientific strategy and advises the CRN staff and board of directors on major scientific issues.

Cindy Briggs Tobin has been promoted to senior director of development and alumni relations for the Friedman School.

FRIEDMAN FACULTY IN THE NEWS

In a letter to the *New York Times*, Professor **Alice Lichtenstein**, D.Sc., pointed out that the challenge for improving eating habits is that what is good for the body is often difficult in practice and bad for the pocketbook. "Lower-calorie options (vegetables and fruits) are less convenient to buy and cost more than higher-calorie options (cookies, soda, chips)," she wrote. "Finding ways to subsidize the prices of lower-calorie foods and eliminate urban food deserts will not solve the obesity epidemic, but it will shift the problem in the right direction."

Professor **Susan Roberts**, Ph.D., spoke with the *Boston Globe* about the challenges of following diets with specific menus. "If someone else is telling you what to eat, you have to find different stuff in the supermarket and cook different things. A lot of practical stuff gets in the way of changing what you eat."

Associate Professor **Edward Saltzman**, M.D., was quoted in a *Los Angeles Times* article about the evidence that low quality carbohydrates are the unhealthiest aspect of the American diet. "Dietary fat used to be public enemy No. 1," Saltzman said. "Now a growing and convincing body of science is pointing the finger at carbs, especially those containing refined flour and sugar."

Building on a panel discussion he had on Minnesota Public Radio, Professor **James Tillotson** was quoted in a *Star Tribune* article looking at the banning of treats in St. Paul schools. "Nobody has the money or the will to do the real work it's going to take to get American kids to lose weight," he said. While students won't be able to eat sweets at school, they'll go home to fast-food-infested neighborhoods, he said. "I want our government to think broader."

In a *Chronicle of Philanthropy* article updating the flow of aid to Haiti, a year after the earthquake, Rosenberg Professor **Peter Walker**, Ph.D., explained why the administration of funds must be controlled. "There are some environments in which you just can't spend a lot of money quickly. And Haiti is one of them," he said. "If you want to fuel corruption, then sure, go ahead and pump a huge amount of money in."

ALUMNI UPDATE

Reunion 2011, Scientifically Perfect

The Friedman School All-Alumni Reunion will be held April 2–4. The school will honor all graduates of the science programs, in addition to the first five classes and the class of 2006. Renowned vitamin D expert Michael F. Holick, M.D., Ph.D., will give the keynote address at the Sunday afternoon brunch. He is a professor of medicine, physiology and biophysics and director of the General Clinical Research Center at Boston University School of Medicine. Events also include a reception at the Petit Robert Bistro.

Please email sean.devendorf@tufts.edu to join the reunion planning committee and help recruit your classmates back to campus.

Annual Gershoff Symposium

The 13th annual Gershoff Symposium, held in honor of Dean Emeritus **Stanley Gershoff**, Ph.D., will take place on Monday, April 4, from 1:30 to 5 p.m. in the Behrakis Auditorium on Tufts University's Boston campus. The theme is "Optimizing Health: Does Nutrition Have the Right Tools?"

This year's speakers will be Paul M. Coates, Ph.D., director of the Office of Dietary Supplements at the National Institutes of Health; **Ann Yelmokas McDermott**, Ph.D., N02, associate professor and director of the Science through Translational Research in Diet and Exercise (STRIDE) project at California Polytechnic State University; Howard D. Sesso, D.Sc., an associate epidemiologist at Brigham and Women's Hospital and assistant professor of medicine at Harvard Medical School; and Brian Wansink, Ph.D., professor and director of the Food and Brand Lab at Cornell University. A cocktail reception will follow the symposium at the Jaharis Center café from 5 to 6:30 p.m.

The deadline for the next issue of the *Dean's Letter for Tufts Nutrition* is Wednesday, February 16, 2011. Please send your submissions