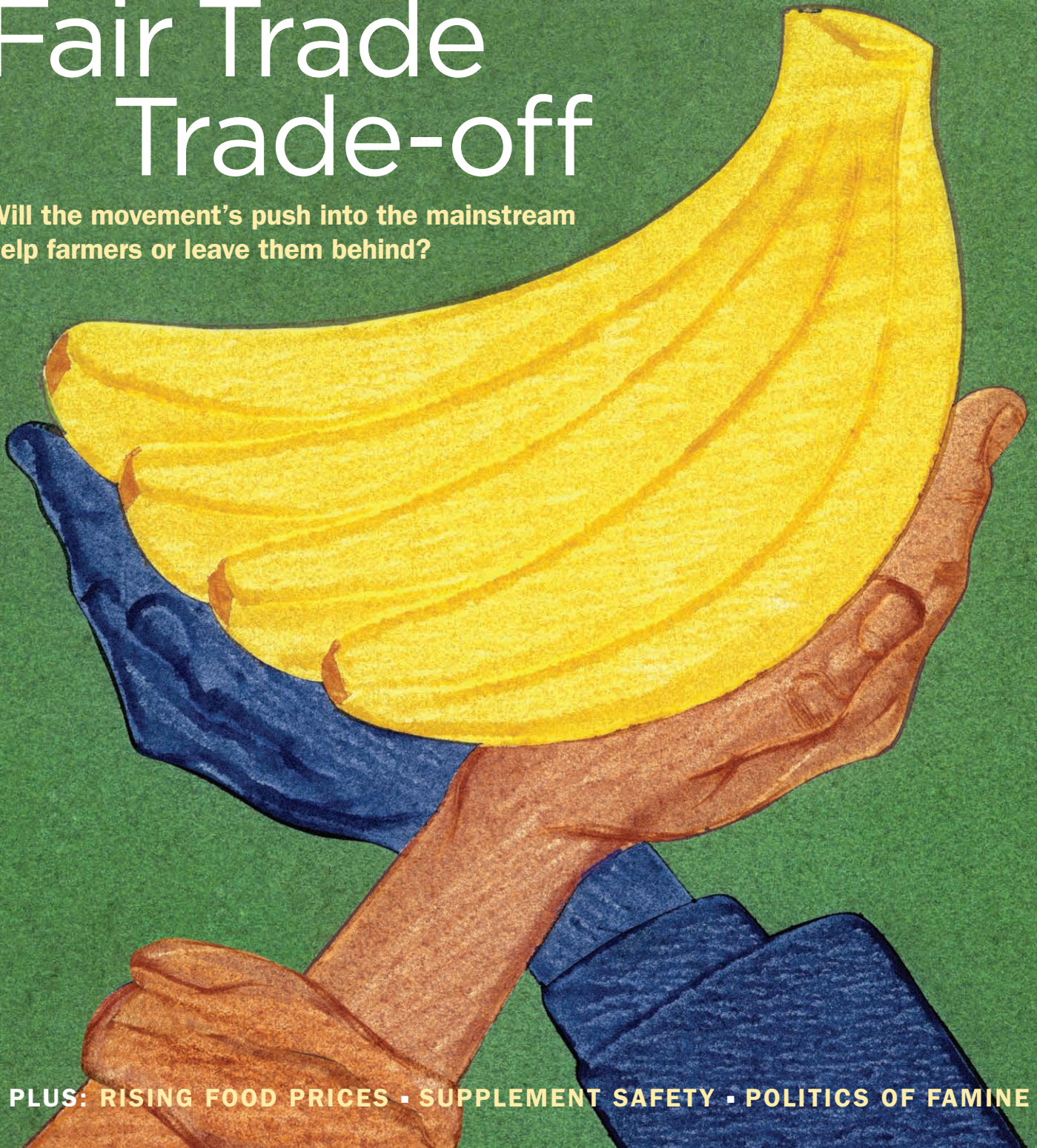


Tufts

NUTRITION

Fair Trade Trade-off

Will the movement's push into the mainstream
help farmers or leave them behind?



PLUS: RISING FOOD PRICES • SUPPLEMENT SAFETY • POLITICS OF FAMINE

Can I Trust the Sniff Test?

For this installment of “Ask Tufts Nutrition,” Jeanne Goldberg, Ph.D., G59, N86, a professor at the Friedman School, serves as our expert.

Q Are the bacteria that make food smell and taste bad the same ones that make you sick? For example, if a package of chicken that is past the “sell-by” date still smells fine, do I need to toss it?

A Taste and smell are not reliable indicators of food safety. Some bacteria that cause food-borne illness do not have off-flavors associated with them. *Clostridium botulinum*, for example, produces a tasteless but deadly toxin. One clue that it may be present is a bulging lid on canned food. Any cans with bulging lids should be discarded without opening, and disposed of beyond the reach of children and pets. However, botulinum poisoning is not limited to canned foods. It can occur in other foods stored improperly. Similarly, the toxin produced by staphylococcus is tasteless and can cause typically short-term—but unpleasant—symptoms. In other cases, spoilage organisms that cause off-flavors would deter you

from eating a food before the microorganisms that cause food-borne illness have had a chance to do their work.

The “sell-by” date on a package provides guidance to the store, not the consumer. It is the date by which the store should remove a food from the shelf, not the date by which the food must be used. For consumers, a “use-by” date is more helpful, but even then it is not an absolute guide. In the case of fresh, raw poultry, beef or fish, it makes sense to use them within a few days to preserve freshness. If that is not possible, freeze them, or cook them thoroughly to kill any harmful bacteria, and use them for a dish that requires cooked meat.

Chicken, in particular, has been identified as a source of salmonella bacteria, which generally does not affect the taste or smell of food. The good news is that salmonella bacteria are destroyed by heat. To prevent salmonella infection, always prepare chicken on a clean surface, cook it thoroughly, and once it is done, put it on a clean serving dish.

The fundamental key to food safety is to keep hot foods hot (that is, more than 140 degrees) and cold foods cold (less than 40 degrees). That will prevent bacteria from thriving and help keep your meal out of the danger zone.

Send your questions for future installments of “Ask Tufts Nutrition” to Julie Flaherty, Tufts University Office of Publications, 80 George Street, Medford, MA 02155. Or send an email to julie.flaherty@tufts.edu.



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Cover illustration by Alex Nabaum

Asta Schuette, N10



Scan this QR code
to see a video

UPDATE: SUSTAINABLE ME

Things have been rolling along for Asta Schuette, N10, and her partners at the Bon Me food truck. Their network of local farm suppliers is growing. In July, they doubled their hours, serving dinner at a prime stop near Boston University. This fall, they have been regulars at the SoWa Open Market on weekends in Boston's South End. A one-truck business? Not for long.

Watch a video about how the Bon Me food truck uses locally sourced food, and what that means for sustainability and the locavore movement, at go.tufts.edu/sustainableme.

TALK TO US

Tufts Nutrition welcomes letters with concerns, suggestions and story ideas from all its readers. Address your correspondence, which may be edited for space, to Julie Flaherty, Editor, Tufts Nutrition, Tufts University Office of Publications, 80 George Street, Medford, MA 02155. You can also fax us at 617.627.3549 or email julie.flaherty@tufts.edu.

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The mission of the school is to provide an opportunity for talented and passionate individuals to lead science, education and public policy to improve nutrition and health.

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The Legacy of Jean Mayer



WHEN I FIRST MET JEAN MAYER, I WAS A NEWLY minted Ph.D., fresh out of Rutgers. Mayer, then a professor of nutrition at Harvard University, granted me an interview for a postdoctoral fellowship. I had to make a presentation about my research, of which I was quite proud, but Dr. Mayer got up and, without a word, walked out about halfway through. I managed to finish the

presentation but was convinced that I had not gotten the position. Later that day, he did interview me over lunch, and then dropped me off at a T stop so I could get back to the airport. As I got out of the car, he said, "I'll see you in September," and drove off. No date set, no contract, no research plan. Needless to say, I did show up in September. And when Mayer accepted the position of 10th president of Tufts University in 1976, one of his conditions was that his lab came with him. It turned out that meant me and my rats.

Becoming the Friedman School's interim dean has given me the opportunity to reflect on changes in both the nature of the university and its approach to nutrition since I arrived at Tufts more than 30 years ago. Many of those changes had their origins in Dr. Mayer.

In his 27 years at Harvard, Mayer translated basic research into practical solutions for human health. Long before words such as cross-disciplinary, interdisciplinary and translational research joined the academic lexicon, he published in such diverse areas as physiology, social psychology, economic policy and international relations. (He himself held degrees in literature, mathematics, biology, physiology and physiological chemistry.) His willingness to include multiple approaches in his research is evidenced in a quick perusal of his 10 books and more than 750 published articles. These articles, on topics ranging from malnutrition to obesity, were coauthored not only by nutritionists, but by psychologists, neuroscientists, sociologists, economists, policymakers and government leaders both in this country and abroad. Many of these papers are classics that have stood the test of time and continue to be often cited to this day.

One technique Mayer used to keep track of his diverse interests was speed reading. The first time I brought him a manuscript to review, he rapidly flipped through the pages. I was a bit disappointed, thinking that he was not taking the time to grasp the elegance of my research. I quickly learned how wrong I was, as he asked detailed questions about the design and results

of the study, as well as my interpretation of the results. He even caught grammatical errors. And even more significantly, he suggested changes that greatly improved the manuscript.

While Mayer contributed his talents to many areas of nutrition, one of his lasting legacies has been in the field of obesity research. He was one of the first to recognize the growing problem of obesity in this country. Based on his studies in 1953 on the regulation of food intake and body weight in experimental animals, Mayer published a landmark paper delineating the multifaceted etiology of obesity. He identified the importance of genetic, traumatic and environment factors and speculated about the ways that those factors might influence weight in human populations. He also was one of the earliest scientists to document the detrimental consequences of inactivity on body weight. Furthermore, Mayer not only reported on the adverse physiological consequences of obesity, he documented the discrimination that obese individuals faced in school, in their jobs and in their personal lives. His insights into the problems of obesity remain important today.

Mayer shaped national and international nutrition policy. In 1969, he was appointed by President Richard Nixon to serve as chair of the first White House Conference on Food, Nutrition and Health, which helped to establish the food stamp program. This made Jean Mayer a national policy leader. In 1971, he chaired the nutrition division of the White House Conference on Aging, and in 1974, he coordinated the U.S. Senate's National Nutrition Policy Study. Internationally, he was a member of a number of relief

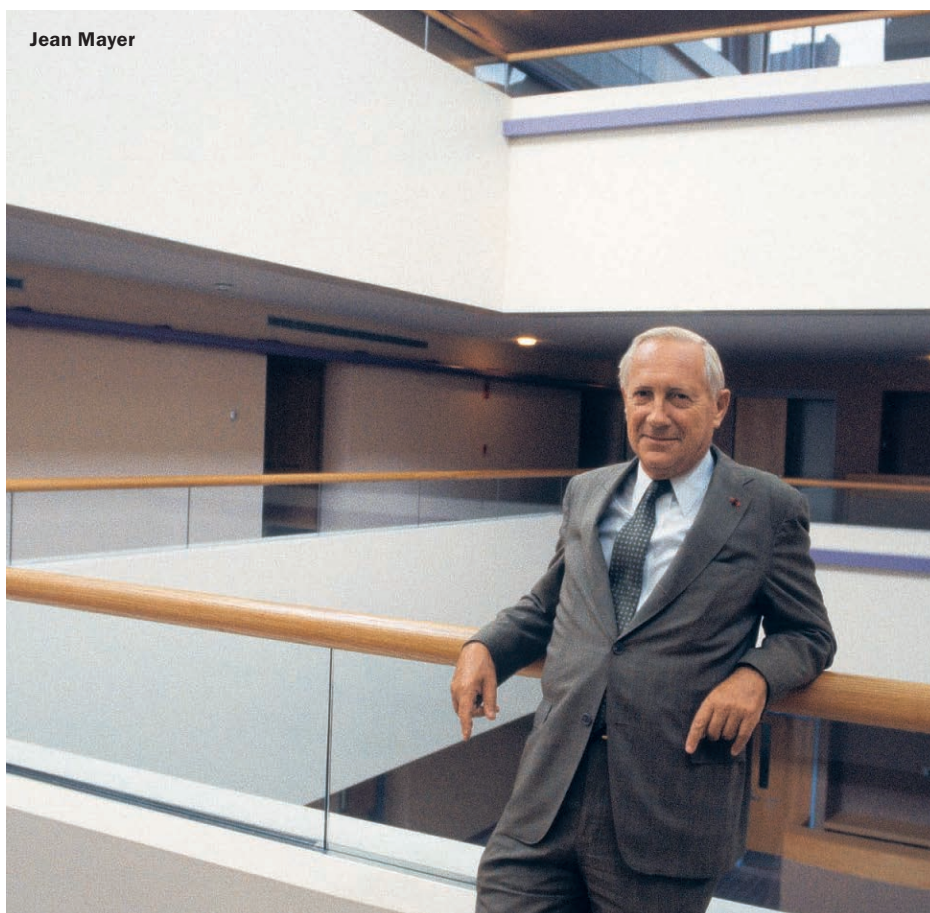
missions to India and Africa, and was an advisor to the United Nations' World Health Organization.

When Mayer was named president of Tufts, he came with great ideas and plans—most of which he completed during his 16-year tenure. But perhaps his most durable legacy is having placed the study and promotion of nutrition—in all its aspects—at the core of Tufts' identity.

The university already had an outstanding dietetic training program—the Frances Stern Center—which continues to be one of the leading dietetics programs in the country. Mayer recognized that with individuals living longer, there was a real need for a better understanding of the importance of nutrition in the aging process. He launched a campaign for federal support for research in this area, and in 1977, Congress voted an appropriation for the U.S. Department of Agriculture to build a nutrition research center at Tufts. The Human Nutrition Research Center on Aging, which was subsequently named in honor of Jean Mayer, opened in 1982 and has produced basic knowledge on the importance of nutrition in aging, as well as initiatives that have contributed to healthy aging.

Mayer also wanted to develop a forum for training the leading nutrition scientists and policymakers of the future. In 1977, he convinced Stanley Gershoff, his former colleague at Harvard, to come to Tufts to develop an Institute of Nutrition within the School of Arts and Sciences. The institute viewed nutrition from a multidisciplinary framework, bringing together researchers from a number of areas, including nutrition, medicine, economics, psychology, political science and anthropology. The success of the institute was quickly recognized, and in 1981, the first and only graduate school of nutrition in the nation was established at Tufts. In 2000, The Gerald and Dorothy Friedman New York Foundation for Medical Research Inc. gave a generous naming gift for the nutrition school.

The breadth and depth of the research being conducted and the excellent students being trained at the Friedman School are outstanding memorials to Jean Mayer,



Jean Mayer

Perhaps Jean Mayer's most durable legacy
is having placed the study and
promotion of nutrition—in all its aspects
—at the core of Tufts' identity.

who died in 1993. He would be extremely pleased with the research and policy efforts aimed at reducing obesity and promoting physical activity that are integral parts of the John Hancock Research Center on Physical Activity, Nutrition, and Obesity Prevention. Moreover, Mayer's concern for finding ways to alleviate hunger and other emergency-related issues are reflected in the multidisciplinary work of the Feinstein International Center, which seeks to influence the making and application of policy in countries affected by crises and in those states in a position to influence such crises.

Nutrition at Tufts stands as a lasting monument to Mayer's vision, energy, drive and commitment to bringing the best minds and the broadest possible approach to this, the most basic of all human needs. Thanks to his efforts, millions of people, few of whom will ever hear his name, will live better, healthier and longer lives.

ROBIN KANAREK, PH.D.



Calories That Lurk

Restaurant diners, beware: You may be eating more than you think

IF AS A KID YOU NOTICED (TO YOUR DELIGHT) THE OCCASIONAL WORKER behind the ice cream counter who would serve up two-scoop cones that were really more like *three* scoops, then this story won't surprise you.

According to a Tufts study published in the *Journal of the American Medical Association*, one in five restaurant foods contains at least 100 more calories than listed.

Researchers, including first author Lorien Urban, Ph.D., N09, N11, collected 269 food items from national fast-food restaurants and sit-down chain restaurants in Boston, Indianapolis and Little Rock. They brought them back to the lab for calorie analysis, and then compared the totals to the calorie listings on the restaurants' menus and websites.

On average, the foods contained roughly the calories stated, which means if you eat a wide variety of foods at an assortment of restaurants, you'll likely get the calories you bargained for. Yet 19 percent of the dishes contained at least 100 more calories than listed. One item, the chips and salsa from On the Border, tipped the scale at 1,000 calories more than the stated number.

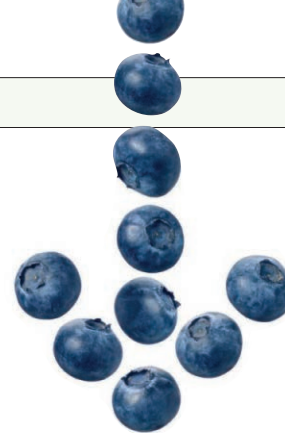
Perhaps more important, the most often under-reported foods were

low-calorie dishes in sit-down restaurants, and the soups and salads that dieters gravitate toward.

"Such foods are purchased by people trying to control their weight," said senior author Susan Roberts, Ph.D., director of the Energy Metabolism Laboratory at the Jean Mayer USDA Human Nutrition Research Center on Aging. "They will find that harder to do if they are eating more than they think."

Calorie contents varied more in sit-down restaurants, where you might get the waiter who has a heavy hand with the salad dressing, than in fast-food restaurants, where caloric consistency is a byproduct of factory portioning.

A new federal law will require large chain restaurants to make calorie listings available to diners in the next year. Roberts notes that those listings—if accurate—could play a powerful role in reducing obesity, because restaurant food accounts for one-third of the average American's daily food intake. Until then, stick to ordering your dressing on the side.



Eat Well, Age Even Better

IF YOU ARE WHAT'S CALLED AN "OLDER adult"—in the neighborhood of 70 and northward—and want to know the best diet for someone your age, nutritionists at Tufts University have your back. They've just released the latest recommendations based on MyPlate, the federal government's new food group symbol, but specifically tailored for older Americans.

MyPlate for Older Adults calls attention to the nutrition and physical activity needs of seniors. "Although calorie requirements decline with age—a result of a slowdown in metabolism and physical activity—nutritional requirements remain the same or in some cases increase," says Alice H. Lichtenstein, D.Sc., a senior scientist at the Jean Mayer USDA Human Nutrition Research Center on Aging (HNRCA).

The new recommendations offer "examples of foods that contain high levels of vitamins and minerals per serving and are consistent with the federal government's 2010 Dietary Guidelines for Americans, which recommend limiting foods high in trans and saturated fats, salt and added sugars, and emphasize whole grains," says Lichtenstein, the Stanley N. Gershoff Professor of Nutrition Science

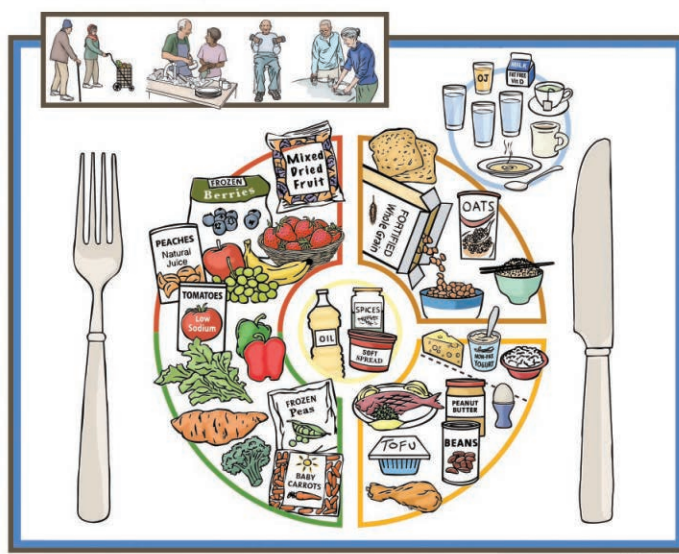
and Policy at the Friedman School.

MyPlate for Older Adults replaces the Modified MyPyramid for Older Adults. It is the third resource based on updated USDA food icons and created specifically for older adults by Lichtenstein and Helen Rasmussen, Ph.D., a senior research dietitian at the HNRCA. The plate features different kinds of vegetables and fruits that are convenient, affordable and readily available. Unique components include icons for regular physical activity and an emphasis on adequate fluid intake, both of particular concern for older adults.

"Half of the MyPlate for Older Adults includes fruit and vegetable icons, which reflects the importance of eating several servings of fruits and vegetables per day in a range of colors," says Rasmussen. "Consuming a variety of produce with deep-colored flesh, such as peaches, berries, tomatoes, kale and sweet potatoes, introduces a larger amount of plant-based chemicals, nutrients and fiber into one's diet."

The fork and knife in the picture also serve a purpose, as reminders to put down remote controls and smartphones and enjoy a sit-down meal.

MyPlate for Older Adults



The icons include several frozen, dried and low-sodium/low-sugar canned fruits and vegetables, because they are easier to prepare, are more affordable and have a longer shelf life than fresh.

BERRIES MAY LOWER PARKINSON'S RISK

People who eat berries and other foods rich in flavonoids may have some protection against Parkinson's disease, a neurodegenerative brain disorder that is most common in people over age 50.

Flavonoids are antioxidants that have been shown to relieve oxidative stress and suppress nerve inflammation in the brain. For the study, Xiang Gao, Ph.D., N05, an assistant professor of medicine at Harvard Medical School and a research scientist at the Harvard School of Public Health, and his colleagues focused on five foods rich in flavonoids: berries, tea, apples, red wine and oranges or orange juice.

The study followed 49,281 men and 80,336 women for 20 to 22 years; during that time, 805 of them developed Parkinson's disease.

The men who consumed the most flavonoids were 40 percent less likely to develop Parkinson's disease than the men who consumed the least. However, no difference in risk was found in the women.

But when the researchers looked specifically at intakes of anthocyanins—a kind of flavonoid that is found mostly in berries—both men and women with the highest intakes were at a 23 percent lower risk of developing Parkinson's than those with the lowest intakes.

The study was presented at the American Academy of Neurology's annual meeting.

OVERHEARD

“It’s simple. It’s interpretive. People don’t need to look at numbers or do any calculations to figure out what they mean. Three stars are better than no stars.”

—PROF. ALICE H. LICHTENSTEIN, D.Sc.,
IN *THE NEW YORK TIMES*, EXPLAINING A SIMPLE FOOD-LABELING SYSTEM, RECOMMENDED
BY HER AND THE REST OF AN INSTITUTE OF MEDICINE COMMITTEE, THAT WOULD USE STARS
OR CHECK MARKS TO INDICATE HOW HEALTHFUL A FOOD IS

More Bang for the Food-aid Buck

When the U.S. Agency for International Development (USAID) asked Friedman School researchers to take a look at the quality of the food the agency sends to malnourished people around the world, it was hoping for recommendations on how to tweak the fortified cereal mixes that are the foundation of its aid program.

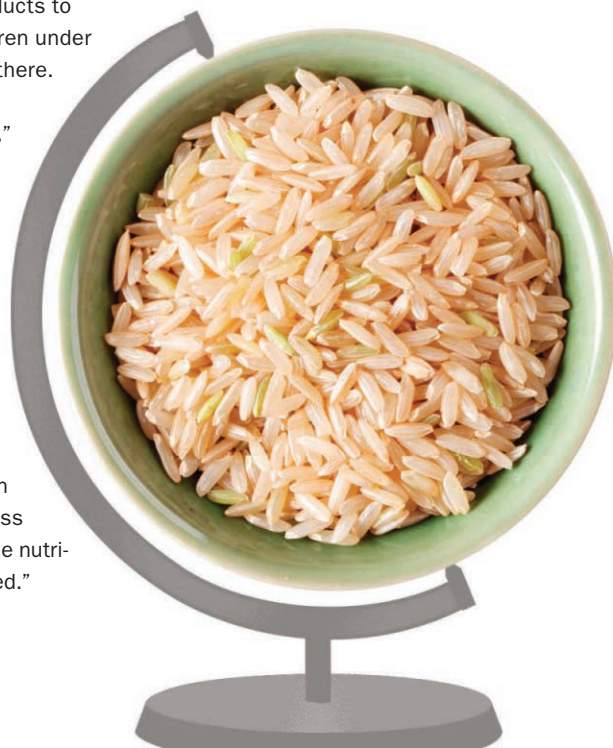
After two years of research, Professor Patrick Webb, Ph.D., and a team of colleagues came back with plenty of suggestions for improving the protein, fat, vitamin and mineral ratios in the existing mixes, and for developing new products to support pregnant women and children under age 2. But their advice didn’t stop there.

Their report, “Improving the Nutritional Quality of U.S. Food Aid,” also pushes for more research on which aid programs produce the best improvements in people’s health for the money invested.

The programming, Webb says, matters just as much as, if not more than, what aid recipients eat. “It’s not just about the food. It’s equally about what you do with that food,” he says. “Who you target—and how—matters. It’s been a hard sell to get that message across to people who just want to look at the nutrient composition of commodities used.”

In the end, USAID formally adopted all the recommendations made in the team’s final report (available on the project’s website: www.foodaidquality.org), including the creation of an interagency committee of technical experts from USAID, the USDA, UNICEF and other groups involved in food-aid decisions.

“Let’s have a one-stop shop, a place where we can discuss and resolve problems in one place,” Webb says.



VITAMIN D AND DIABETES

Here’s some news from the fight to stave off type 2 diabetes: Daily supplements of vitamin D may boost the function of cells in the pancreas that produce insulin, according to a study published in the *American Journal of Clinical Nutrition*.

The study followed 92 overweight adults who were either insulin resistant or pre-diabetic. The participants were randomly assigned to take vitamin D supplements, calcium, a combination of the two or placebos for 16 weeks. The researchers then looked at the function of the participants’ pancreatic beta cells, considered a predictor of diabetes risk. The people who took 2,000 IU of vitamin D daily saw a 26 percent improvement in the functioning of their pancreatic beta cells, compared with a 14 percent worsening in the groups that received no vitamin D. Calcium did not seem to affect the results.

“These results suggested that vitamin D may have a role in delaying the progression to clinical diabetes in adults at high risk,” wrote the authors, who included Anastassios Pittas, M.D., an associate professor at Tufts School of Medicine and an adjunct associate professor at the Friedman School, and Bess Dawson-Hughes, M.D., M75, director of the Bone Metabolism Laboratory at the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts.

REALITY

A food economist explains what's up with the rising cost of groceries



checkout

BY GAIL BAMBRICK PHOTOGRAPH BY EMILY ZILM



dOES IT SEEM LIKE YOU NEED A SECOND mortgage to fill your cart at the grocery store these days? Are these price spikes that hit us at the checkout line for real, or not as bad as they seem?

A lot depends on which prices you consider. Take the old standby of meat and potatoes. According to the federal Bureau of Labor Statistics (BLS), over the past two years, a pound of ground beef went from an average of \$2.23 per pound to \$2.77, an increase of almost 25 percent. By contrast, potato prices rose over the past two years from \$.63 to \$.69 per pound, an increase of 8 percent.

According to Parke Wilde, Ph.D., an associate professor and food economist at the Friedman School, U.S. food prices are more complicated than they appear at first glance.

TN: There is a perception among consumers that U.S. food prices have recently skyrocketed. Is this true?

Parke Wilde: Basically, I tend to think of it as not such a drastic change. U.S. food price inflation for many years was very low, in the neighborhood of 2 to 3 percent per year, and recently a high year's food price inflation might be between 4 and 6 percent. Overall inflation is 2 to 4 percent, so food is not that much higher. Last year, for example, the Consumer Price Index recorded food increases at 3.6 percent.

There are agricultural shortages around the world—to the point that there were food riots in Africa and Asia just a few years ago. How is this global shortage affecting our prices?

The worst effects of food commodity price spikes are experienced by people in developing countries. The impact on U.S. food prices is not as much as people might think. In a poor country, a staple like rice will be a large portion of a family's food budget and a large percentage of their entire income,

as much as 70 percent. For Americans, food represents only about 10 percent of a family's budget. Most of the costs we face in the grocery store are happening after the food leaves the farm: manufacturing, transportation, food retail and profit. So even if world commodity prices double, they have a much smaller effect on the U.S. consumer.

What about transportation, manufacturing and other costs that rise when energy and fuel prices go up?

Those are key drivers, more than the commodity price of food in the United States. The connection between fuel costs and food costs in the United States has gotten more interesting and complex. The traditional connection was that when fuel costs went up, agricultural production costs went up—in other words, when the cost of fertilizer, which is heavily fuel intensive, goes up and transportation costs go up, the grocery bill goes up. What has happened in recent years is that the food market has become connected to the fuel market in a second way, because of corn-based ethanol. As fuel prices rise, more farmers put their crop into ethanol production instead of food production to reap better profits. The result is that food prices go up as well.

Is there any one crop that most influences both commodity prices and food prices in general?

By far, the one crop in the United States would be corn. It is in all manufactured food products in the form of fructose or other ingredients, and it is also the principal ingredient needed for animal food production as feed. And again there are the ethanol issues. This gives corn three reasons to be scarce and to increase in price. I do worry that we are allocating too many food resources to ethanol production.

Should we expect continued increases, or might prices level out or even drop?

Currently and in recent decades, food prices have been low in the United States, relative both to our past history and to most other countries around the world. It goes with being a prosperous country that we spend less of our income on food than almost anybody else in the world. So I don't think food

prices will drop further in the United States. In fact, I am braced for moderate increases over the next few years.

Will these increases harm the economy?

This is the hardest thing for economists to express to people, because it sounds on the face of it totally loony: Not all food price increases are bad. You have to ask yourself, is the food price increase a mistake, or does it reflect a genuine scarcity? If things are really scarce, economists think prices ought to be high, because that sends the right message to everybody. It indicates to consumers that they should moderate their consumption, and it indicates to producers to innovate and produce more efficiently. These are all good things that can happen. Moderating consumption should not mean people going hungry, but perhaps going a little easier on the meat consumption, because that uses more resources than raising fruits and vegetables and grains.

How much of people's reactions to increasing food prices has to do with the recession, when more people are out of work and depending on federal and state assistance, and those who are working may be earning lower wages?

When people are really frustrated by prices in the grocery store, it is partly because their

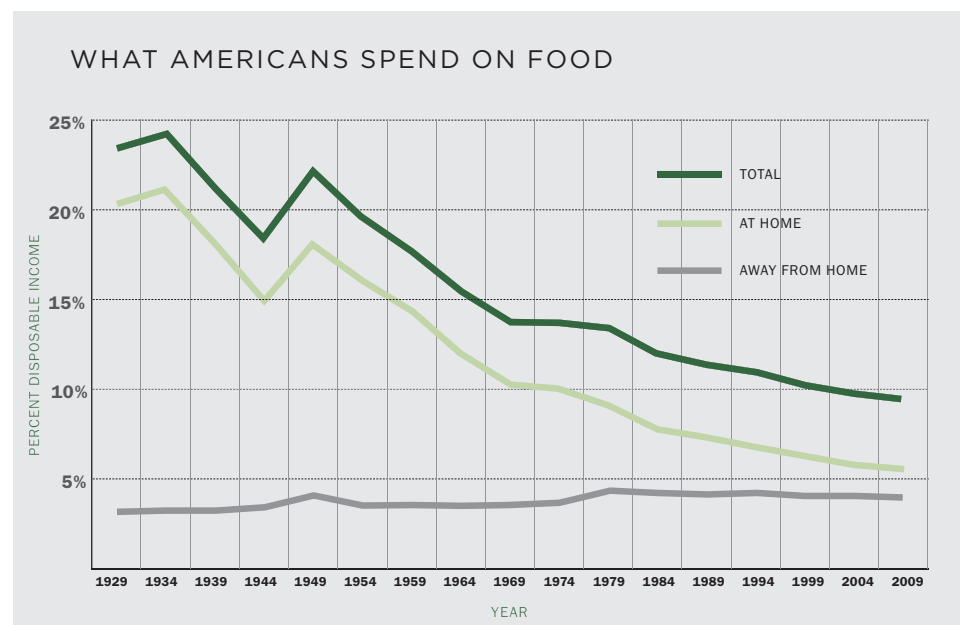
incomes are not what they wish they were relative to their expenses. According to the national average wage index, wages and salaries have been increasing slowly in recent years, whereas they had previously been rising more quickly. So people are feeling the disparity between food cost increases and stagnant wages and salaries.


One good thing is that food stamps—from the Supplemental Nutrition Assistance Program, or SNAP—are indexed automatically for inflation, so when food prices go up, those budgets go up automatically. And as more people are unemployed, the federal government has made a commitment that the SNAP budget will serve all who are eligible.

What is the best way for us to use our food dollars?

Moving beyond our frustrations with food prices, we can listen to what prices are telling us. What we consume sends a message to food producers and manufacturers. If prices encourage us to use fewer resource-intensive foods like meat and buy food with no packaging, these changes will alert the food industry that they must become more efficient or risk losing profits. **TN**

Gail Bambrick, a senior writer in Tufts' Office of Publications, can be reached at gail.bambrick@tufts.edu.





They started off by lifting weights.
Now they aim to pump up the
health of their communities

BY JULIE FLAHERTY

Accidental Activists

a

T 8:30 ON A BRISK NOVEMBER MORNING in Pennsylvania's Pocono Mountains, 20 determined women march into the Kinsley's ShopRite grocery store in Brodheadsville. Soon the women, most in their 50s and 60s, are pulling jars of peanut butter off the shelves and narrowing their eyes at the ingredients labels.

"Organic palm oil," says Peggy Pugh, 63, pointing to the jar in her hand. She knows the only ingredient in peanut butter should be peanuts. Organic or not, added fat doesn't need to be there.

The women try their best not to block the aisles, but they are hard to ignore as they move as a group around the store, scrutinizing the sugar content of energy bars, salad dressings and cereals. Other early morning shoppers cast curious looks their way.

"You look down every aisle, and it's the same:

sugar and refined grains," says Friedman School Associate Professor Miriam Nelson, Ph.D., N85, N87, the woman leading this grocery audit.

She finds a bit of solace in the bread aisle, where she cradles two 100 percent whole-wheat loaves lovingly in her arms. "These are my babies," she says, as a man, with a wary glance at the group, reaches past her to grab two packages of white bread.

Nelson, the director of the John Hancock Research Center on Physical Activity, Nutrition, and Obesity Prevention at Tufts, has been on the road for two months, driving across the United States to meet with groups of women just like this one. In addition to inspecting grocery store shelves and walking through neighborhoods to get a feel for what might keep people from getting regular exercise, these Change Clubs, as Nelson has dubbed them, have been writing up detailed action plans for how to get their communities

to be healthier. In Kenai, Alaska, they talked about measures to make biking and walking through town safer and more appealing. They brainstormed about how to get the Pop-Tarts and other sugary snacks out of the after-school program in Pratt, Kan. The women in Clinton, Wis., want to give teachers an alternative to handing out candy as rewards.

Back at the Western Pocono Community Library, home base for Nelson's three-day visit, the Pennsylvania women talk about organizing school fundraisers that don't involve chocolate and getting local family restaurants to tweak their menus in favor of whole grains and fresh fruit. Watching them debate, one quickly gets the feeling they are a force to be reckoned with. A friendly and polite force, but a force nonetheless.

Nelson asks the women what other changes they think would make it easier

for people in the community to eat right and be more active.

"Turning lanes on 209," says Gale Kresge, 60, referring to the route that runs through the center of Brodheadsville, cutting the high school and middle school off from the library and one of the housing developments. "And sidewalks," she adds. The fast-moving traffic and the lack of sidewalks make walking to school difficult.

Someone suggests helping parents figure out what foods count as healthy snacks for their kids. Perhaps putting stickers next to items on grocery store shelves?

"Give me a list, and I'll go do it," says a resolute Laura Kresge, 49, Gale's sister-in-law.

Nelson, who admits to being impatient with the notion that change takes time, tells Kresge these things don't always happen quickly. She hopes all the club members

are in it for the long haul, even those who have never considered themselves change agents. After all, the thing that brought these women together in the first place wasn't protesting in the streets, but lifting dumbbells in the gym.

WOMAN POWER

It all began with a study Nelson completed in the early 1990s that found that women over age 50 can make great improvements to their health through strength training. It became the basis of Nelson's best-selling book, *Strong Women Stay Young*. Women across the country started following her exercises. Two Cooperative Extension agents asked Nelson to develop a strength-training regimen they could teach in their communities. Today more than 2,500 instructors around the country have been trained in the community-based StrongWomen program, and tens of thousands of women have participated in classes.

Over the years, countless women have written and called Nelson to describe the transformations they've made in their health and their attitudes. They've bonded with their classmates. They've started traveling together. They've gotten more involved in their children's schools. They've run for political office.

During that time, Nelson saw that while individual women were making great personal gains, the nation's health was going downhill. The food landscape was getting progressively more treacherous, with refined grains and added sugars becoming the norm. Obesity rates were climbing, especially among children.

Something new needed to be done. So Nelson turned to her biggest resource: her StrongWomen army.

"The thought was that we could take them and harness this energy to create change," Nelson says. She believes these groups of women, with a nudge in the right direction, can "really influence in a positive way the food and physical activity environment."

In Pennsylvania, that led her to Carmela Heard, 59, a retired high school principal who teaches two StrongWomen classes, one of them in the basement of the library. Heard is incredibly proud of her students,

FIT OR FAT? IT'S ALL ABOUT WHO YOU KNOW

Did you know there is a growing body of evidence that being fat is contagious?

In 2007, researchers at Harvard Medical School released a study that found a person's chance of becoming obese appeared to climb by 57 percent if a friend of the same sex was obese. Among close friends, obesity risk climbed by 171 percent.

A 2008 study found similar results among adolescents, with a teen's body weight tending to be similar to that of his or her closest friends. This was especially true among girls. A more recent study out of Brown University found that overweight and obese men and women, ages 18 to 25, were more likely to have romantic partners, best friends and casual friends who were also overweight.

Why would this be? One theory is that as the size of our friends creeps up, we change our idea of what's socially acceptable.

"I believe that these changing norms have had a profound influence on the rapid spread of obesity," Miriam Nelson writes in her new book, *The Social Network Diet: Change Yourself, Change the World* (FastPencil Premiere, 2011).

But if being fat is contagious, so might being healthy. That is the premise of Nelson's book, which, despite its high-tech name, has little to do with the Internet and more to do with the network of friends, family, neighbors and colleagues who get us through our daily lives. If the people around us are eating right and exercising, we're likely to do the same.

Nelson had that idea in mind when she started the Change Clubs, which use the power of women working together to make their communities healthier. While she's starting with just eight Change Club sites across the nation, she's hopeful the idea will spread to become a vast network of women supporting each other and their towns.



Miriam Nelson (in green) and Rebecca Seguin (in red) lead Change Club members on a walk around Brodheadsville, where they take note of where sidewalks, crosswalks and bike lanes might make walking and biking more appealing.

some of whom came in using canes and are now walking easily. “My strongest is 83,” she says, pointing out tall, lean, white-haired Timmie Boroad.

Heard knew her students, who have become something of a family, would make a great Change Club. Some of the women had already gently pressured their favorite restaurant into serving them sides of salad instead of home fries, and fresh blueberries instead of syrup for their waffles. “We’re working on strawberries,” Heard says.

Most of the women say they joined the Change Club because they care about the next generation. “Actually, I’m a little worried,” says Bette Stout, 56.

At one point, Nelson and her colleagues, Rebecca Seguin, Ph.D., N04, N08, and Eleanor Heidkamp-Young, A08, lead the women on a walk near the library. As they stroll, the women say their community’s challenges are similar to those in many other American towns.

“This was all farmland,” says Judith Nansteel, 60, a retired elementary school teacher, as she looks at the cars zipping down 209. “And when it started building

up, all they put in were strip malls. And then the strip malls had the pizza joints, and then the fast food came.”

The local population has grown steadily as families from New Jersey and New York, seeking lower taxes, have relocated to this corner of Pennsylvania. Many parents still work out of state. After the long commute home, “it’s a quick stop someplace and not thinking about the best things to eat,” Nansteel says. From where she is standing, McDonald’s, Burger King and KFC are the most obvious choices.

Back in the library, someone suggests selling healthy grab-and-go meals near the commuter bus stop. Several people embrace the idea of building a walkway bridge over treacherous 209, so kids can walk to school.

Chuck Gould, chairman of the board of Chestnuthill Township and one of the “stakeholders” invited to sit in on the meeting, says that others in the community will inevitably complain that one walkway won’t make a difference, so why bother? But, he says, you have to start somewhere. “Give us one spot and let us know what you want to see.”

He warns them that they will have to fight for the changes they want, show up

at community meetings and be willing to stick with it.

“It won’t be an overnight change,” he says. “It got this way over 100 years. You won’t change that in two.”

The women are enthusiastic, but making a plan for action is hard work. It has been two days of brainstorming. Carmela Heard jumps in with a hearty, “Come on you guys!”—much as she would if she were encouraging just one more leg lift out of her class.

“The success of this group will be because of Carmela,” Nelson says later. “They really respect her. She is a force in her own right.” Having a strong leader is crucial to a project like the Change Clubs, she says.

Nelson asks what they thought of their tour of the grocery store.

“I’m sad about the peanut butter,” says Gale Kresge, disillusioned that the reduced-fat Jif she likes isn’t really the healthiest option. After a moment of catharsis, the women move on to the next task on the agenda. **TN**

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Will the movement's push into the mainstream help more farmers in developing countries, or leave them behind? BY JULIE FLAHERTY

Fair Trade TRADE-OFF

ILLUSTRATION BY ALEX NABAUM

IN SEPTEMBER, VIRGINIA BERMAN, 69, WENT TO Honduras to visit a group of coffee farmers she had worked with 20 years ago, when she was a Peace Corps volunteer. She was stunned by what the farmers had accomplished by collaborating and sharing farming expertise. Tall, beautiful citrus, banana and hardwood shade trees now grow among the coffee crops, along with beans that provide nitrogen to the soil. Honey water, a byproduct of coffee milling that used to contaminate the drinking water supply, now runs along a ditch into an area where compost is made. The farmers collect blue, orange and white rocks from a nearby river and strategically place them in the soil; each color of stone feeds the crops a different mineral.

"The yields are better," and, by extension, so is the farmers' quality of life, Berman says. "They have roofs that don't leak. They have more latrines. A few more have trucks. They

are sending their children to high school. They've become more active in local politics. It's a passion for improving farming that you see coming out in the green, lush places that are their homes."

Working together and learning from each others' mistakes have been a boon for their families and their communities. To Berman, that has been the promise of fair trade, and the reason she has spent the last 15 years working at Massachusetts-based Equal Exchange, a fair-trade food company that buys directly from small farming cooperatives.

A lot has changed in 15 years. Many more Americans have heard the term "fair trade," especially when it comes to coffee, by far the largest fair-trade industry. When you go to a specialty java shop, chances are you'll hear someone asking whether this brand or that is fair trade certified. The understanding is that buying directly from the small cooperatives means more profits for the farmers,

better working conditions and economic stimulus for their communities.

“That’s the good news—there’s more awareness,” says Berman, who is Equal Exchange’s fundraising program director. “The downside is that [fair trade] has become more watered down in how the companies are using the term.”

THE PRICE OF EXPANSION

The industry is at a crossroads as fair-trade foods such as coffee, cocoa, bananas, sugar, tea, spices and even ice cream and baking mixes are gaining more of a foothold at the grocery store. In September, Fair Trade USA, a California-based nonprofit that certifies products as fair trade and helps American companies find fair-trade ingredients, pledged that it would double the sales of fair-trade goods in the United States by 2015. Part of its strategy is to allow more large farms to certify their products as fair trade, even though they use hired laborers and farmers who are not in co-ops. Some see this as a way to bring fair trade into the mainstream and reap more benefits for farmers in developing areas.

“We make fair-trade certification available to anyone who wants to participate,” says Stacy Wagner, the communications director for Fair Trade USA. “Everyone is held to the same fair-trade standard.”

Others, including Virginia Berman, see it as leaving small-scale farmers in the dust.

“The real power of fair trade is in the farmers getting to build the relationship with the U.S. buyer and changing the uneven terms of trade,” she says. “And yet more and more fair trade is being boiled down to simply a price.”

She fears that fair trade, in trying to broaden its impact, is straying from its original goals and ideals. The fair-trade movement began after World War II as a way to give people in developing countries access to world markets. Church organizations spearheaded the effort, purchasing baskets, jewelry, pottery and other handicrafts made in South America, Asia and Africa and providing needed income for the artisans. In the 1960s, Alternative Trade Organizations (ATOs) formed to sell the goods through

specialty stores and catalogs in Europe.

In the 1980s, the emphasis turned to agriculture. Falling commodity prices worldwide were taking a toll on small-scale farmers who grow crops such as coffee and tea, and the fair-trade movement stepped in, assuring some stability in prices. Commodities such as dried fruits, cocoa, sugar, rice, spices and nuts quickly followed. Soon, third-party, fair trade—certification organizations, including Fair Trade USA, were set up to help standardize labeling efforts. (Unlike organic food, the U.S. Department of Agriculture does not regulate what can wear a fair-trade label.)

Equal Exchange, itself a worker-owned cooperative, was established in 1986 and

CRITICS CLAIM THAT THE FAIR-TRADE LABEL IS GIVING TOO MUCH OF AN IMAGE BOOST TO COMPANIES THAT ONLY DABBLE IN THE MOVEMENT.

became the first U.S. coffee roaster to buy coffee directly from small-scale farmers. Like other ATOs, it guarantees a price per pound, which is always above the world market price. It also pays a portion of the price in advance, so that farmers have capital to buy equipment and raw materials. But beyond the price premium, Equal Exchange works exclusively with democratic farmer cooperatives, where each farmer has a vote in how the profits are spent. Often, the proceeds go toward basic needs that governments are not providing: constructing better roads so that they can bring their coffee to market, building schools so children don’t have travel for hours to attend middle or high school in a city and developing water purification systems.

“When farmer groups get money, they invest in their land,” Berman says. “They

understand that the money is only good as long as they have healthy children without parasites who can attend school beyond the seventh grade. They are then able to think beyond survival and on a community-wide level.”

But as more food companies enter the fair-trade market, Berman says, too many are paying an above-market price for crops without connecting with democratically run co-ops. Several farmer groups in Latin America, in particular, have complained about fair-trade organizations certifying foods grown not on small farms, but on plantations.

History has given them a reason to be concerned, says Jessica Jones-Hughes, N09, vice president of Equal Exchange’s banana-importing sister enterprise, Oké USA Fair Trade Fruit Co. In the case of bananas, a few huge multinational companies owned much of the land in the “banana republics” for many decades. Workers on banana farms spent their whole lives living in shacks alongside the plantations and using their meager wages to pay for overpriced staples at the plantation stores. The companies owned the entire supply chain, from the land to the trucks to the boats that brought the bananas to the U.S. or Europe. Their influence on governments—including the organization of coups d’état—was notorious.

Things have improved as governments have re-parceled the land as part of agrarian reform and banana cooperatives have been organized. Jones-Hughes has seen fair trade bring significant change to Peru, where Oké gets some of its bananas. Not long ago, 90 percent of the fruit in one area of northern Peru was purchased by Dole. “In the last three years, these growers have banded together in cooperatives, gone out on their own, established markets and hired people to do their own exporting,” Jones-Hughes says. “Many no longer depend on Dole to sell their product, and those who still work with Dole have significantly increased their control of the supply chain.”

With ATOs putting so much effort into finding alternatives to the multinational companies, they see little reason to let those same companies into the fair-trade game. Many complained when Fair Trade USA

certified some bananas sold by Dole that were obtained from unionized plantations.

"It goes with the demand increasing," Berman says. "Their appetite to increase volume and profits from fair trade is growing faster than the pace the small farmers—those who really need to benefit—move."

Shauna Sadowski, N05, a sustainable sourcing expert who has worked with food companies large and small, agrees that volume is an issue: The limited supply of ingredients has kept many food manufacturers away from fair trade.

"It's one thing if you have a single crop or ingredient, such as a banana, but it is more difficult when you are sourcing for products that have many ingredients," she says.

For example, a cookie manufacturer may advertise that it is using fairly traded cacao, which it buys from a grower in Ecuador. Sales are great. But if the demand suddenly goes up and the grower can't meet the need, the manufacturer may have to scramble to find another fair-trade producer. There may be more cacao from another co-op in Peru, but will it be the same quality, flavor and texture the cookie buyers have come to expect?

"If you have a product with 10 different ingredients and half of those are fair trade, you need to ensure those fair-trade suppliers can consistently provide the quantity and quality needed to produce the best product," Sadowski says.

Fair Trade USA's Wagner says allowing large estate farms, which employ large numbers of workers, access to fair-trade certification not only increases the flow of fair-trade ingredients, it helps ensure fair wages and safe working conditions for those workers, as well as provides development funds for their communities. "You have to support different scenarios," she says, describing a farmer who may belong to a co-op, but who does not have enough land to pass onto his sons, who then find work at the nearest plantation.

"If you are in need of the benefits of fair trade, that would be regardless of your farming situation," she says.

Critics also claim that the fair-trade label is giving too much of an image boost to companies that only dabble in the movement. Starbucks and Walmart carry the fair-trade label on some, but not all, of their products. The Honest Tea brand of ready-to-drink

beverages, which uses fair-trade ingredients, was recently acquired by the Coca-Cola Co.

Wagner points out that Fair Trade USA certifies products, not companies, echoing the organization's policy that "the fair trade certification model cannot and does not attempt to monitor a company's broader business practices or motives for involvement in fair trade."

CONSUMER CONFUSION

Fair trade is certainly growing. Fair-trade-certified sales at mainstream grocery stores climbed 87 percent in the second quarter over the previous quarter in 2011. Overall, fair-trade food accounts for an estimated \$4.7 billion in global sales. Yet fair trade is still a tiny, tiny fraction of the food market—less than one-tenth of 1 percent of global food and beverage sales. Fair trade coffee, the biggest part of the business, accounted for only about 4 percent of coffee purchased in the United States in 2009. Fair trade bananas account for less than 0.01 percent of those purchased in America.

Fair trade is still much better known in Europe, which has closer connections with developing nations from its colonial days, and where food in general gets closer scrutiny. Fair Trade USA reports that 80 percent of European consumers are aware of fair trade, but only 34 percent of Americans are.

Sadowski says there are indeed Americans who know about fair trade, care passionately about it and actively look for the label. But they are in the minority.

"What we know from consumer research, as well as from watching the market trends overall, is that consumers are motivated by that which affects their health—their personal health and their children's personal health," Sadowski says. Although fair trade ultimately could improve the health of communities worldwide, its connection to wellness is not as apparent as "high fiber" or "contains antioxidants." It becomes one more label competing for a consumer's attention.

"If you have someone going into a grocery store who has 30 minutes to get all his groceries for the week, fair trade is not necessarily going to be top of mind," Sadowski says.

Plus, she says, there is still a lot of consumer confusion about what exactly fair trade is. It may take years for the public to

fully absorb its meaning, she says.

Ironically, Sadowski says, consumers may demand more fair-trade products if food manufacturers start offering them first. Once consumers see the fair-trade labels on foods they enjoy, they may say, "Hey, why don't you offer this more?"

And once they do, consumers will have to sort out which fair-trade products deserve their dollars, and which aren't worth paying a premium. In September, Fair Trade USA introduced a new policy on ingredients, which it says will make it easier for consumers to know how much of a product is fairly sourced. Products that are at least 25 percent fair trade-sourced (by weight) can carry a "Fair Trade Certified" label on the front of their packages; between 10 and 24 percent gets you a "Fair Trade Certified Ingredients" label. Less than that, and you can still put a note in the ingredients list, such as "Fair Trade Certified Sugar." Jones-Hughes argues that the new rules give no encouragement for companies to include fair-trade ingredients beyond that 25 percent mark.

On its website, Fair Trade USA writes that it strongly supports "conscious consumerism" and encourages people to "educate themselves about the companies from which they buy, the origins of the products they consume and the business practices of the stores where they shop."

Berman gives similar advice. While it sounds complicated, it is not that different from what consumers already have to do when sorting out the legitimacy of organic foods or "green" products, she says.

"A lot has to do with the principals of the company, namely the importers and the exporters," she says. For people with a critical eye, websites and packaging can provide some transparency.

And, as we are talking about pleasures like coffee and chocolate here, it's OK to consider the quality of the product. Berman notes that fair-trade coffees routinely win awards in cupping competitions. When a farm is tended with care, she says, it improves the soil and the flavor of crops.

"For many people, it is about the taste," she says. **TN**

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Supplement SAFET

Some may help, while others can harm. An expert offers some guidance before you shop **BY DIANE McKAY, Ph.D., G89, N97, N00**

If you're prone to kidney stones, be careful with calcium.

Ask your doctor before taking calcium and vitamin D supplements. Most kidney stones are a mix of calcium and oxalates, compounds found in a variety of plants, such as tea and whole grains. For people prone to kidney stones, taking in too much calcium can trigger stone formation. Yet even if you have a tendency to develop kidney stones, you still need to get adequate calcium. Some studies show that supplementing with calcium may actually protect against forming stones, but only when the supplements are taken *with* a meal. This strategy reduces the likelihood of kidney stone formation because you absorb more calcium when you consume it with food. Taken outside of a meal, more calcium winds up in the kidneys, where there's a greater likelihood of it binding with oxalates and forming stones.

In addition to taking calcium supplements with a meal, spread out your dose through the day, taking no more than 500 mg at a time. That should prevent any problems. We

also know that consuming plenty of fluids is one of the best ways to reduce your risk of kidney stones. Reducing your sodium intake might also be helpful because sodium in high amounts—the amount typically consumed by most Americans—can leech calcium out of your bones, and the calcium eventually ends up in your kidneys.

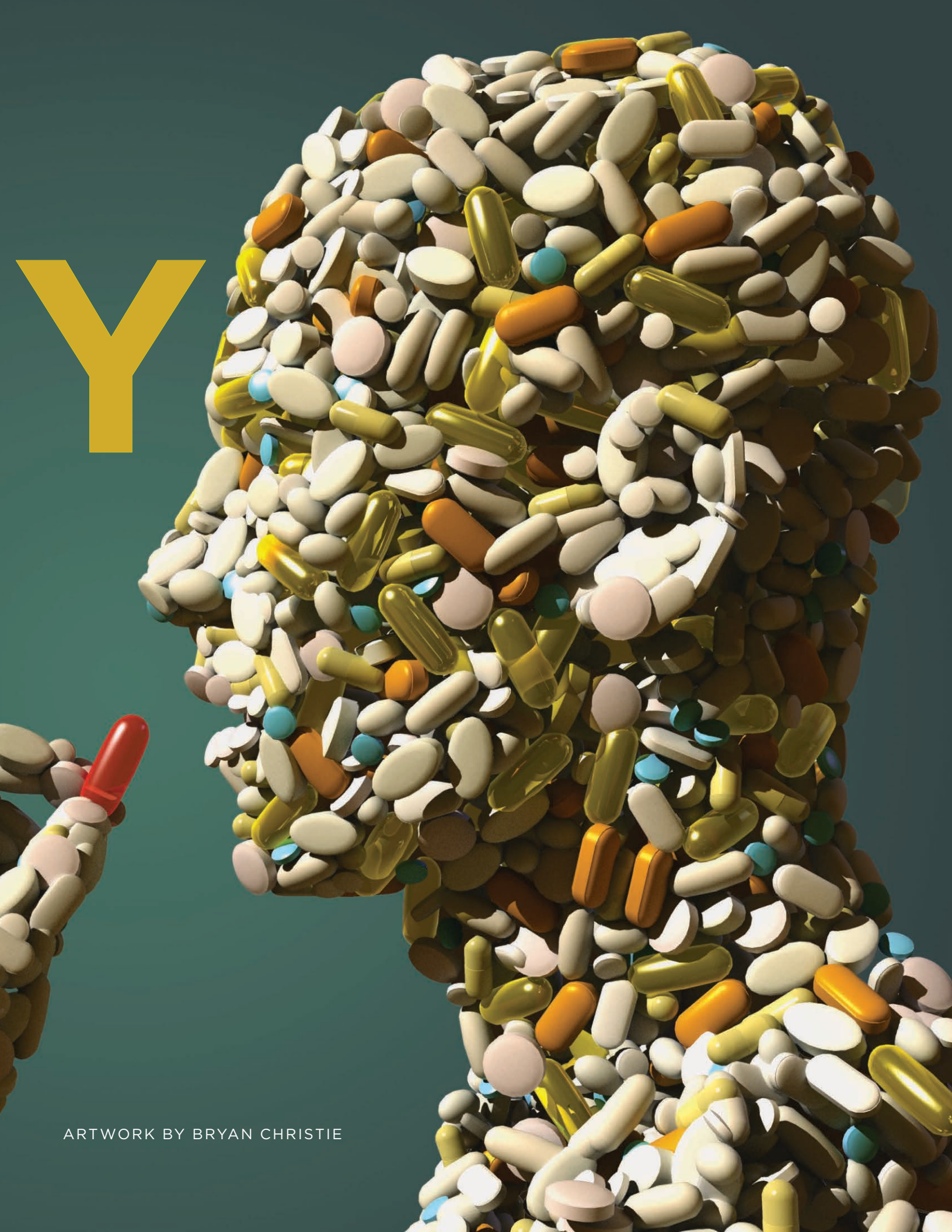
Since vitamin D helps your body absorb calcium, high doses may impair kidney function by causing too much calcium to be absorbed. But it takes a lot of vitamin D—50,000 IU daily—to cause this problem.

If you've been diagnosed with precancerous colon polyps, cap folic acid at 400 mcg per day, or less.

Some research indicates that supplementation may actually spur polyps to become cancerous. Though folic acid is generally protective against cancer because it helps repair DNA and promotes the growth of healthy cells, in excess, that same mechanism might trigger the growth of any lurking cancer cells. The research is still



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ARTWORK BY BRYAN CHRISTIE

very preliminary, so it's unclear at what point in your life you should avoid excess folic acid, and how much is too much if you have polyps. What we *do* know is that the upper limit for everybody is 1,000 mcg per day.

Because most multivitamins offer 100 percent of the daily value for folic acid, consider taking a multi every other day if you are also consuming a lot of fortified foods. Missing out on all the other vitamins and minerals a multi provides every other day shouldn't pose a problem if you're eating a healthy diet. The only exception is vitamin D, and for that I recommend taking a separate supplement. Before you decide to switch to taking a multi every other day, check labels to find out which foods in your diet are fortified with folic acid, particularly cereals, breads and energy bars. Even if you haven't any reason to think you've got precancerous polyps in the colon, sticking to no more than 400 mcg of folic acid daily is probably wise, especially if you are over age 50. [See related story, page 21.]

Meanwhile, continue to eat foods *naturally* high in folate, such as oranges and spinach. All the evidence points to naturally occurring folate as being protective. If you are under age 50 and plan to become pregnant, or if you are currently pregnant, you need to supplement with at least 400 mcg of folic acid daily. This is essential for helping to prevent a neural tube defect in your child and trumps concerns about colon cancer.

Avoid supplementing with beta-carotene beyond levels in a standard multivitamin.

Beta-carotene is an antioxidant plant pigment that gives plant foods such as carrots and cantaloupe their orange color; it is also found in dark green vegetables. Your body converts beta-carotene, alpha-carotene and a few other carotenoids to vitamin A as needed. Numerous studies show that people with high levels of beta-carotene in their diet and in their blood have a lower risk of cancer, so researchers figured that supplementing with it might help ward off the disease.

That's when they got a big surprise. In two large studies, beta-carotene supplements were given to smokers and asbestos workers, the people most prone to lung cancer. Instead of offering protection as

hoped, the beta-carotene supplementation increased the incidence of lung cancer and death. As for other cancers—such as pancreatic, breast and prostate—the beta-carotene had no effect.

Fruits and vegetables that contain beta-carotene are also infused with other carotenoids and nutrients that work synergistically with one another to promote health. Removing beta-carotene from food and delivering it alone in pill form does not have the same effect as consuming it in foods.

The take-home: Getting beta-carotene through food is important. However, while moderate levels of beta-carotene in your multi are safe (3 to 6 mg daily; the equivalent of 833 IU to 1,667 IU of vitamin A is fine) and probably helpful, don't take separate beta-carotene supplements. A typical multi splits up vitamin A between beta-carotene and straight-out vitamin A (retinol). Check the back of the bottle. Ideally, the multi should contain no more than 4,000 IU of vitamin A, with no more than 50 percent beta-carotene.

Avoid supplementing with vitamin E in amounts greater than 200 IU daily.

Vitamin E, like beta-carotene, looked so promising as a safeguard against cancer and heart disease. It's also a powerful antioxidant. Some studies have shown that E from food and supplement sources may improve your chances of staving off heart disease. But in 2005, a review of the research found that in nine out of 11 major studies in which people took 400 IU or more of vitamin E from supplements alone, not only was it *not* protective, but it seemed to actually *increase* the risk of heart failure, gastrointestinal cancer and dying from any cause. The more vitamin E, the higher the risk. Other research has confirmed the results and even shown that E supplements may slightly increase the risk of stroke. How to make sense of it all? It may be that the study subjects were taking too much vitamin E—or too little. In one study, most of the deaths occurred in “non-compliant” people who didn't take their vitamin E tablet as they were supposed to.

And there are still studies showing that vitamin E may improve your chances of staving off heart disease. For instance, in

the Harvard Women's Health Trial, which had 20,000 women taking 600 IU of vitamin E or a placebo every other day for 10 years, there was a 24 percent drop in deaths from heart disease in women over age 65 who took vitamin E compared to those who took the placebo. For younger women, there was no effect.

While it's safe to take as much as 400 IU of vitamin E daily, the evidence suggests that a lower amount, about 200 IU, may be more beneficial. Most multis have only about 30 IU, so a separate supplement might be appropriate, especially if your diet is lacking. Buy the natural form (d-alpha-tocopherol) and take it with a meal; otherwise it may not get absorbed into your system.

If you find that it's nearly as expensive to buy 200 IU tablets as 400 IU, then buy the latter and take a pill every other day.

Because supplements are sold over the counter, it's easy to assume that they are all safe and beneficial. Not necessarily so. To sum up, here is what you should keep in mind when you shop.

- Multivitamin and mineral supplements can be helpful, but make sure you purchase one that is well balanced.
- Never megadose—that is, take double or triple (or more) of the levels recommended by the Institute of Medicine—even if you've read that a vitamin or mineral has no known toxicity.
- If you have any health condition, always discuss supplementation with your doctor before stocking up.
- When you see your doctor, bring a list of supplements you are taking with you. Some supplements can interfere with certain drugs, and your doctor needs to know what you're taking when prescribing medications—or even when diagnosing your condition. **TN**

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WHEN FOLIC ACID CAN BE TOO MUCH OF A GOOD THING

By Amy Scheuerman, N10

When the FDA mandated the fortification of grain products with folic acid in 1996, it resulted in a dramatic 40 to 50 percent decrease in the number of babies born with neural tube defects, one of the most common birth defects. But the protection of our children may have come at the expense of our elderly. High folic acid intake may be harming older adults in ways that the FDA didn't predict.

Twenty-five percent of people over age 65 don't get enough vitamin B12, which is critical for brain and neurological system function as well as the production of red blood cells. The folic acid in their daily bread and dietary supplements may exacerbate some of the symptoms of B12 deficiency, including dementia and anemia.

Our bodies don't produce B12, and so we have to get it from what we eat, including meat, eggs and milk. Older adults have more difficulty metabolizing the vitamin because they produce less stomach acid, which separates B12 from the proteins in food to make it available to the body.

"Although causation cannot be shown, there is a high correlation between [vitamin B12] deficiency and cognitive decline," says Jacob Selhub, Ph.D., director of the Vitamin Metabolism Laboratory at the Jean Mayer USDA Human Nutrition Research Center on Aging (HNRCA) at Tufts and a professor at the Friedman School.

So why don't health care professionals routinely screen for B12 deficiency in older adults? "Physicians mainly are looking for the symptoms of severe deficiency," says Martha Morris, Ph.D., a nutritional epidemiologist at the HNRCA. These include a decrease in the number of red blood cells and an increase in their size (a condition known as macrocytic anemia) as well as spinal cord degeneration.

But Morris says there is a good chance that even patients with mild B12 deficiency experience some cognitive problems, which health-care providers may have difficulty distinguishing from the memory loss that sometimes occurs with age.

"The elderly take a lot of supplements, and they consume a lot of ready-to-eat breakfast cereals, which are fortified

with folic acid," Morris says. "The interaction between high folate status and low vitamin B12 status may have negative consequences."

Morris points to experiments done in the 1940s and 1950s in which B12-deficient patients with anemia were treated with folic acid. While their anemia reportedly improved, their neurological problems got worse, leading the medical profession to recommend against prescribing folic acid to anyone who is B12

deficient. Some scientists now believe that folic acid also makes the anemia worse.

To clarify the relationship between B12 deficiency and folic acid status, Selhub and Morris are conducting epidemiological studies. They have been analyzing data from the National Health and Nutrition Examination Survey (NHANES), an ongoing study of more than 10,000 Americans, to identify the more subtle effects of age-related vitamin B12 deficiency. They found that while only about 4 percent of seniors get more folic acid than the FDA recommends (400 micrograms daily), one-quarter of seniors with high folic acid status also have low levels of vitamin B12—that potentially dangerous combination.

Next, they plan to examine the same folic acid/B12 interaction using data from the Framingham Heart Study to determine whether high folic acid status precedes cognitive decline—and therefore is a cause

of the problem, not a symptom.

"One recommendation that I would make would be that supplements and fortified breakfast cereals marketed to the elderly have a lower amount of folic acid, if any at all, in them," Morris says. With some breakfast cereals containing an entire day's worth of folic acid in a single serving, taking a full dose of folic acid in a multivitamin can easily push a person over the daily limit, she notes.

Morris also encourages people over age 65 to ask their primary-care physicians to test for low B12 or high folic acid levels.

Keep in mind that there is yet no evidence that increasing B12 supplementation improves cognition or prevents mental decline in people who do not have low levels of the vitamin.



With war blocking food aid for drought-stricken Somalia, cash and innovation may be the only lifelines

the Politics *of* Famine

BY TAYLOR McNEIL

THE NEWS MADE HEADLINES IN JULY: The United Nations declared famine in drought-stricken Somalia, warning that up to 750,000 people, most of them young children, could perish. It brought memories of Ethiopia in the mid-1980s, with pictures of starving children and massive shipments of food aid.

Drought brought on the crisis, but Somalia's famine, like so many others, is the result of a wider confluence of events, most tied to politics. "Drought is more the trigger than the cause," says Daniel Maxwell, a research director at Tufts' Feinstein International Center and an expert on food security and humanitarian crises. He has been assisting UNICEF and U.N. agencies dealing with the situation in Somalia.

ILLUSTRATION BY BRAD YEO



Somalia lacks a functioning central government and is rife with armed conflict. The areas bearing the brunt of the famine are controlled by al-Shabab, an Islamist militant group proscribed by the U.S. government. The World Food Program, the U.N. agency that distributes food during famines, pulled out of Somalia in January 2010, partly because of U.S. policy that made it illegal to benefit al-Shabab in any way. Not that al-Shabab would welcome the help: It considers food aid an insidious plot to undermine Somali farmers.

Despite the tragedy of the situation, humanitarian experts are responding to the crisis in innovative ways. They have developed new methods for feeding malnourished youngsters, who are always the most vulnerable in a famine. And in areas that can't be reached by food aid, they're using cash to help those most in need.

There's a reason to try new approaches: The old ones haven't always worked. Some critics of famine response in the past point to inherent problems with bulk food aid: It's often inappropriate for small children; it is easily stolen; and it can depress prices for locally grown grains, exacerbating food production problems rather than solving them. Aid has also been used by repressive governments to bolster their political power, the critics add, reinforcing conditions that contribute significantly to famines in the first place.

The surprise is that any humanitarian response could work in such a chaotic country. But in Somalia, some things do indeed work—and the agencies are taking advantage of them. Cell phone service is widespread and inexpensive, some of the best in Africa, Maxwell says. And the banking system, called *hawala*, is based on trust and works remarkably well. "You can send money from a bank account in Dubai and be pretty sure that your cousin in some really rural place in Somalia will get the money," he notes. "There's a fee for it—it's a commercial business operation—but it works."

THE MIRACLE OF THERAPEUTIC FOOD

In 2010, the rains in Somalia were actually good. It was the year of the El Niño-Southern Oscillation, in which the normally dry region received higher-than-average rainfall in both rainy seasons—especially during the long rains in late March to May.

But experts knew what was very likely to follow in 2011: La Niña, which meant not much rain. Like clockwork, the long rains barely came this year—it was the lowest rainfall recorded since the 1940s—and drought soon overtook many parts of the country, pushing the tottering economy over the edge. Livestock—the backbone of the export economy—were hard hit. The sorghum crop, the mainstay for poor Somalis, largely failed. By mid-summer, it was becoming clear that the drought was pushing the normally precarious situation into famine. In some places, 50 to 60 percent of children under age

"You can send money from a bank account in Dubai and be pretty sure that your cousin in some really rural place in Somalia will get the money."

—DANIEL MAXWELL

5 were suffering from acute malnutrition and at serious risk of dying. "It's really through the roof," Maxwell says.

On July 20, when the U.N. officially declared famine in Somalia, the question became, how do aid agencies respond? "The frontline thing that you do is try to protect the lives of severely malnourished kids—they are the ones most at risk of dying," Maxwell says. Working with Somali partners, humanitarian agencies could provide what Maxwell calls "one of the big revolutions in emergency nutrition"—something called ready-to-use therapeutic foods.

Packaged in individual sachets, the food looks and tastes like peanut butter, with milk powder and micronutrient supplements mixed in. "It's practically a balanced diet, and it tastes good," Maxwell says. To make sure the malnourished children get the food intended for them, families usually get an extra food ration in addition to the child's supplement.

Another of the lessons learned from previous famines is that treating malnourished kids in a clinic or hospital was often counterproductive. When that happened, mothers would

have to stay with their children but often weren't fed themselves and couldn't take care of their other children.

Now families of severely malnourished children are given the food sachets and taught how to use them—and then they return home. "That has really revolutionized treating severely malnourished kids who don't have other [health] complications," Maxwell says.

A number of Somali nongovernmental organizations have set up systems to deliver the food packets to malnourished children, despite harsh political conditions. "[The NGOs] have made their own peace, somehow or other, with the ruling authorities, to do what they do," Maxwell says. "That's often come at the expense of not being able to speak out about anything. They are in a tenuous situation. But that infrastructure—the bare bones of it—is in place."

BANKING ON CASH

While severely malnourished children face improved odds of survival with the specialized feeding programs, there is simply not enough food for most of the 3.2 million people in the famine-stricken regions of Somalia. The only organization with the technical and logistical ability to deal with it is the U.N. World Food Program, but it is out of the picture because of al-Shabab. Some smaller organizations are doing what they can with their Somali partners, but it's not enough.

The answer, some experts say, is to send cash. Somalia traditionally imports more than half its food, and those food traders have been active through all the civil strife. In other words, the markets still work.

Cash transfers are successful in Somalia because the *hawala*

banking system can reach even the most isolated villages. There is another advantage: Unlike food aid shipments, cash transfers are not visible, and thus, more difficult to intercept and steal. The idea is that with additional demand for food, traders will import more food to meet the increased demand.

There are clearly pros and cons. “If food stocks don’t increase in response to what’s effectively an increase in demand through cash transfers, then all you do is ramp up the cost of existing stocks of food and actually make everyone worse off,” Maxwell warns. But on the other hand, he notes that “whatever else doesn’t work in Somalia, trade works, the banking system works and telecommunications work. And some people say that should be enough to make sure there is a robust market response.”

The other thing cash does is keep markets functioning, he says. If the famine response were the standard one, to provide food aid, that would mean local markets wouldn’t function as they usually would. “The whole idea of injecting cash is that you try to keep the market situation as normal as possible,” Maxwell says.

The problem is that up until now, Somali traders have been importing higher-end staples such as white rice, wheat flour and pasta. “That’s not what most people eat, and not what’s needed to address a famine,” Maxwell says. Instead, humanitarian agencies are trying to reorient the traders to bring in sorghum, livestock products and beans or other protein-rich crops.

Learning whether the cash transfers work is part of the Feinstein International Center’s research program to improve humanitarian

responses during crises, Maxwell says. Aid agencies have done pilot cash-transfer programs in the past, which served upwards of 2,000 households at a time. But the scale has changed dramatically: now they need to reach at least 150,000 households—some 1 million people—at a minimum.

“That’s orders of magnitude more, compared with what’s been done in the past,” he notes. “On the one hand, it’s innovative, but there are a lot of unanswered questions. So people will be paying very close attention to what happens in the next few months.”

The worst for Somalia was predicted to come with the rains of October and November. That had a plus side—it offered a chance for a modest agricultural recovery, and there was a big effort to get seeds and tools to the farmers. But given the very weakened human populations, the rains can quickly lead to the spread of devastating water-borne diseases, Maxwell says.

That makes the humanitarian response, specifically the cash transfers, all the more important.

Maxwell was in Kenya during the late summer and fall, working for international NGOs that still have ties to Somalia. He provided the humanitarian agencies with technical assistance, but also monitored which responses were working the best. “One of the reasons why we’re engaged in Somalia,” Maxwell says, “is to study these things for research and lessons learned.” **TN**

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FROM CONFLICT TO FOOD CRISIS

Famines, as the Nobel Prize-winning economist Amartya Sen famously said, don’t happen in countries with active democracies. By that he meant countries not just where there are elections, but where “there are institutions of accountability between the rulers and the ruled,” such as a free press, says Daniel Maxwell.

That’s certainly not the case in Somalia. The underlying conditions that led to famine had been building for years, mainly due to protracted conflict. The areas of the country now suffering most went through another famine in the early 1990s. That led to the notorious Black Hawk Down incident in 1993—when humanitarian relief organizations sought U.S. and European military protection from Somali warlords for their food aid. But soon the Western military was fighting the warlords, with disastrous results.

“In Somalia there has always been a struggle over local resources in boundary areas between different clans,” says Maxwell, a research director of the Feinstein International Center at Tufts who spent much of his career working in East and Central Africa. But by the mid-1990s, “if you were in the middle of a clan area, life was surprisingly peaceful,” he adds. “There might have been no central authority in the country, but markets worked, and people got on with their lives.”

That changed when the conflicts became entwined in international politics, as Islamic groups became more active in Somalia. The U.S. feared that al Qaeda would try to establish a beachhead in Somalia, and in 2006, Ethiopia invaded with Western backing, pushing back an Islamic government that had strong support and popular acceptance. The result was that the more extreme elements, such as al-Shabab, ultimately drove the Ethiopians out, establishing their own strongholds while continuing to fight the other militia groups.

The continuing conflict meant that the always-fragile economy, mostly based on livestock exports, became even more unstable when the drought began. — T.M.



Anthony P. Monaco

Tufts Inaugurates a New President

Anthony Monaco pledges to summon the best of the university for the greater good by **Taylor McNeil**

A

COLLEGE EDUCATION DOESN'T SIMPLY BENEFIT INDIVIDUALS; it generates knowledge and discovery that serve all of society, said Anthony P. Monaco at his inauguration as Tufts University's 13th president on October 21.

"At its best, higher education offers a chance of freedom to any deserving young person, the freedom to escape the limitations of one's knowledge or experience or social class—and to live up to one's abilities," he said.

Universities and the students they educate have a vital role in solving the complex problems the world faces, he said. To tackle those issues, universities need to foster robust and far-reaching collaborations across academic disciplines, a course that Tufts is already pursuing.

Consider the fact that almost a billion people around the world don't have access to clean water every day, Monaco said. It is a problem that Tufts is addressing by marshaling resources in six schools under a single program, Water:

Systems, Science and Society. "This is a complex issue that encompasses politics, climate, engineering, medicine and agriculture," he said.

Students in that program recently were involved in an agreement to foster collaboration in the Middle East on the management of water resources. "This is the first step in a plan to bring together other countries in the Middle East, where conflicts over water are common—and clean water is often scarcer than oil," he said.

Monaco said that Professor Richard Vogel, the faculty chair of the water program,

told him that “it takes a university” to solve such daunting challenges. “I couldn’t agree more,” the president said, noting that his administration will emphasize these kinds of interdisciplinary programs—ones that “address multiculturalism and globalization as well as issues in environmental, life and health sciences. If we focus on shared goals and integrate our activities across our schools, we can greatly amplify Tufts’ impact on society,” he said.

Such active citizenship, Monaco said, “is part of our Jumbo DNA. It is passed from one generation to the next.”

He pointed to the pivotal roles played by alumni such as the late Daniel Patrick Moynihan, A48, F49, F61, H68, who served presidents of both parties “with his insights on poverty in America”; Pierre Omidyar, A88, and his wife, Pamela Omidyar, J89, whose Omidyar Network is sparking global economic, social and political change; and Gloria White-Hammond, M76, who founded My Sister’s Keeper, a humanitarian organization helping women in Sudan and around the world.

But Tufts isn’t just about education, Monaco noted in his inaugural address. It is “a place to be oneself,” he said. “We value people regardless of their beliefs, cultural background, ethnicity, gender or sexual identity. Those who are oppressed and stigmatized within the broader society are welcomed at our doorstep. We feel passionately that they should be able to study in an environment free of discrimination.”

Ensuring access to a Tufts education will be another priority of his tenure, Monaco said. He cited his own experience as the first in his family to graduate from a private university, thanks to generous financial aid.

“Without that help, I probably would have never become a scientist, would not have had the opportunity to explore the origins of disease, and I certainly would not be standing before you today,” he said.

He noted that universities like Tufts “are one of our society’s wisest investments. They develop civic-minded people. And they generate the knowledge that allows those people to lead us into the future.”

A NATURAL LEADER

James A. Stern, E72, A07P, chair of the Board of Trustees, welcomed the crowd of more than 1,300 assembled on the residential quad on Tufts’ Medford/Somerville campus. Representatives from more than 100 universities and colleges joined faculty, students, staff, alumni and guests at the ceremony. Garbed in full academic regalia, the delegates from higher education institutions and learned societies were led by Andrew Hamilton, vice chancellor of the University of Oxford, and the university’s registrar, Ewan McKendrick.

Monaco’s “scholarly accomplishments make him a natural leader for our faculty,” said Stern. “His warmth and compassion

education to change lives,” Tilghman said, “and in changing lives to ensure that our nation takes full advantage of all its people, regardless of race, creed or material circumstances.”

Sally Shuttleworth, who headed Oxford’s Humanities Division when Monaco was pro-vice-chancellor, said she served with him on an array of committees as the university faced financial cutbacks. She praised his willingness to devote resources to the humanities, once transferring monies from the medical division.

“As pro-vice-chancellor for planning and resources, he fulfilled with extraordinary grace and good humor the most difficult role in the university—the role to coor-

Universities like Tufts “are one of our society’s wisest investments. They develop civic-minded people. And they generate the knowledge that allows those people to lead us into the future.” —ANTHONY P. MONACO

make him a natural leader for our students. His demonstrated administrative skill makes him a natural leader for our staff. And his commitment to Tufts and its core values makes him a natural leader for our community around the world.”

The new president, who has a Ph.D. from Harvard and an M.D. from Harvard Medical School, was pro-vice-chancellor for planning and resources at the University of Oxford before assuming the Tufts presidency in August. A distinguished neuroscientist, he identified the first gene specifically involved in human speech and language.

Shirley Tilghman, president of Princeton University, Monaco’s undergraduate alma mater, said that Monaco’s career to date “reflects his deep commitment to science in the service of human health and welfare, and that on a larger scale is what universities must be about: the pursuit of knowledge in all its dizzying variety, not for personal fulfillment but in the service of society broadly writ.”

“Tony exemplifies the power of higher

dinate decisions as to who got what,” said Shuttleworth. “As you might imagine, this was no simple task,” she added, but he always rose to the occasion.

“In Tony Monaco, you have a warm, generous, principled and deeply humane president who will be a worthy successor to his forebears,” said Shuttleworth.

Stern invested Monaco as president, presenting him with the charter of Tufts College, granted by the Great and General Court of the Commonwealth of Massachusetts in 1852. Stern also presented Monaco with the keys to Ballou Hall, the oldest building on campus, which was named for Tufts’ first president, Hosea Ballou II, and is home to the president’s office. Monaco received a medallion inscribed with the names and terms of service of each of Tufts’ past presidents on the links of a chain.

The inauguration culminated a week of events in Monaco’s honor. To see more photos, read the full text of Monaco’s address and watch a video of the ceremony, visit go.tufts.edu/monacoinaugural.

Confession Is Good for the Waistline

***Biggest Loser* doctor finds that accountability is key to weight control, not just for reality TV stars but for all of us** by Julie Flaherty

THE *BIGGEST LOSER*, THE REALITY television show that pits obese people against each other in a weight-loss competition, has had its share of critics. Contestants are urged to exercise up to six hours a day and cut their calorie intake in half, potentially losing 20 pounds in one week, far more than the one to two pounds experts typically recommend.

It's pure Hollywood, admits Michael Dansinger, M.D., an assistant professor at Tufts School of Medicine who has been the behind-the-scenes nutrition doctor for the show the last five years. "The top priority of a television show is to entertain," he says, "and two to three pounds a week weight loss does not a show make."

But the show has a lesson for all of us, he says. In his experience, having someone to answer to is key to losing weight. While weekly weigh-ins before millions of viewers are not for everyone, Dansinger says overweight Americans desperately need more of the coaching, accountability and structure found on *The Biggest Loser*.

He has incorporated that idea into his Diabetes Reversal Program at Tufts Medical Center, where he helps some 40 patients keep their blood sugar in check through the grueling process of losing weight. The results are promising.

He may not challenge his patients to dive off a cliff, pull a car along a racetrack or tempt themselves with a plate of their mother's pepper steak, but he does give them what all reality TV stars crave and more dieters need: lots of attention.

For the first few months with a new patient, he holds weekly, individual counseling sessions. "The level of accountability is so much higher in one-on-one," he says.

The human brain is wired such that the desire for short-term pleasures will almost always overrule the fear of long-term consequences. "The default condition is to eat food that is delicious and avoid excess exercise," Dansinger says. "Prevention of chronic disease turns out to be a very poor incentive for patients."

The Biggest Loser has plenty of short-term consequences: a trainer in your face who might stop yelling if you run another lap, a



Michael Dansinger

In a comparison study, "the adherence level of the participant was 10 times more potent a predictor of weight loss than the type of diet," Dansinger says.

teammate you are fearful of disappointing, the promise of a spa weekend for winning that week's challenge. Too often, dieting at home is a go-it-alone struggle with few short-term rewards. But there are ways to succeed.

THE PERFECT DIET

Dansinger is all about engagement. He made headlines in 2005, when he and his colleagues at the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts released a study comparing four of the most popular diet plans out there: the Atkins, Ornish, Weight Watchers and Zone diets. The results showed people lost similar amounts of weight regardless of the regimen they followed, and the more weight they lost, the lower

their risk for heart disease. It didn't matter which diet, as long as they stuck with it.

"The adherence level of the participant was 10 times more potent a predictor of weight loss than the type of diet," Dansinger says. "The nutrition community from that point on really embraced the concept that there is no one best diet for everyone and that many different eating strategies can work well."

Since then, Dansinger has become less interested in finding the perfect diet and more determined to find ways to keep people on track. He swears by food journals, where dieters write down everything they eat every day.

"For years I tried to get by without requiring food records, because almost all patients find them to be a nuisance, and for some patients it's a deal breaker," Dansinger says. "But I've found that every patient who has achieved dramatic results has kept a food record and that when patients discontinue the food record, that is often the beginning of a major weight regain or failure to continue losing."

DIABETES DRAMA

Dansinger began focusing on diabetes four years ago, in part because it is an illness that hinges on lifestyle. Unlike statins for heart disease and antihypertensive drugs for blood pressure, "the medications of diabetes do such an incomplete job at reversing the complications," Dansinger says. "Of all the weight-related diseases, diabetes responds the most dramatically to lifestyle change."

In that regard, his patients, who represent a range of ages and backgrounds, are no different from the many diabetic contestants on *The Biggest Loser*, all of whom put the disease into remission through their weight loss on the show. Most patients don't realize that with weight loss they have enough pancreatic function left to achieve a normal blood sugar reading. "Most patients with Type 2 diabetes are 35 to 40 pounds above their diabetes remission weight, and all it takes is a 20 percent reduction in calories to get there," he says.

He seems to be on to something. While only about 5 percent of Type 2 diabetes patients in the United States are able to return their blood sugar to a normal level that can be sustained without medication, Dansinger has had about a 30 percent success rate. "If it's going to happen, it usually happens in three to six months," he says.

For most people who need to lose weight, weekly visits with dietitians aren't covered by insurance, and physicians are too backed up to do regular lifestyle coaching. "I'll see you back in three months"—that's no way to provide accountability," Dansinger says.

Insurance companies could take a first step, he says, by excusing co-payments for lifestyle coaching visits. Cash rewards and free spa weekends for losing weight? That would be nice, he says, but for now that exists only in the magical realm of television.

The Biggest Loser may not reflect the real world, Dansinger says, but "it gives us hope that we can make our lives better. Many people actually eat better and exercise more because they are reminded on a weekly basis that lifestyle change is potent medicine."

Julie Flaherty, editor of this magazine, can be reached at jflaherty@tufts.edu.

UNITY OF PURPOSE CAN CHANGE THE WORLD, BILL CLINTON SAYS

Government is not the villain, and America would best be served if political leaders would work together to solve problems instead of leaning on ideology, former President Bill Clinton told an audience of nearly 6,000 gathered at Tufts for the 2011 Issam M. Fares Lecture.

"What's wrong is not the debate between Republicans and Democrats," Clinton said. "It's the antigovernment ideology that has driven the right wing of our country for 30 years," he said.

The answers to many problems, Clinton said, "are not self-evident." He cited debates about how best to deal with the nation's long-term debt, how much capital banks should be required to maintain to prevent another economic meltdown and how to work with the European Union to avoid more financial calamity. "But we cannot do it if we go by ideology and not evidence, if we continue to think we have nothing to learn from our own past, nothing to learn from people who disagree with us," Clinton said at the November 6 lecture.

By concentrating on what he called the "how question," anyone can create positive change, Clinton said. He noted the work of his William J. Clinton Foundation as an example. To provide more drugs to combat HIV/AIDS, Clinton urged pharmaceutical companies to lower the per-unit cost of producing and selling antiretroviral drugs, which were prohibitively expensive for most people in poor countries. Now, instead of producing drugs for 100,000 people and charging \$600 per year per person, more than 8 million are receiving the medications for just \$60 per year. "And the manufacturers are making more money than ever," Clinton said.

Another foundation effort convinced soft drink companies to help fight childhood obesity and rising rates of diabetes by marketing and selling more low-sugar alternatives to school-age children.

"I thought to myself, these people running these companies are smart, and they want these children to be their customers right through middle age," Clinton said. "They don't want to kill them" by giving them diabetes, he added. The agreement among soda companies has resulted in an 88 percent reduction in the caloric content of sodas at participating schools, he said.

Models like these, which engage businesses to improve the world, while also ensuring profit, are key to global economic development, Clinton said.

— GAIL BAMBRICK



Anthony P. Monaco

A Presidential Welcome

ANTHONY P. MONACO, TUFTS' NEW PRESIDENT, WELCOMED THE 94 members of the Friedman School's 2011–12 incoming class to the university during the Medford/Somerville campus orientation in August. Nutrition, he said, has long been one of Tufts' greatest strengths and a discipline that exemplifies the university's commitment to addressing some of our most pressing challenges.

"Our world needs you, whether you are advancing knowledge through your doctoral research or preparing for a position in agricultural policy, whether you are working in humanitarian assistance or on clinical nutrition," he told the 80 master's degree and 14 doctoral students.

This year's class is made up of 77 women and 17 men. The majority hail from the United States, but 19 call Canada, the Czech Republic, China, France, Ghana, Honduras, India, Indonesia, Ivory Coast, Mexico, Mongolia or the United Kingdom home.

STUDENTS BY ACADEMIC PROGRAM

Food Policy and Applied Nutrition	34
Agriculture, Food and Environment	22
Biochemical and Molecular Nutrition	13
Nutrition Communication	9
Combined Master's/ Dietetic Internship	7
Nutritional Epidemiology	4
Humanitarian Assistance	4

COMMENCEMENT 2011

A career in nutrition has its thrills, graduates are told

THE FRIEDMAN SCHOOL GAVE OUT 98 degrees, including six doctorates, at its 30th commencement ceremony, held in May on Tufts' Medford/Somerville campus.

Eileen Kennedy, who stepped down as dean this summer after leading the school for seven years, praised the "breadth and depth" of nutrition knowledge that characterize a Friedman School graduate, from scientists who are well versed in policy to policy students who are grounded in nutrition science.

Friedman School students will never have to defend the relevance of nutrition, she said. "It is more and more related to almost every aspect of our life globally," said Kennedy, who is spending a year on sabbatical in Geneva working with the United Nations and other organizations involved in the Scaling Up Nutrition effort in countries where people are undernourished.

Nutrition is not without its thrills, said Edward Cooney, executive director of the Congressional Hunger Center, who gave the commencement address. Not long ago, he said, he and a Friedman School graduate were visiting food programs in Africa and found themselves racing across the savannahs of Senegal in SUVs going 100 kilometers an hour and "dodging potholes that were obviously made by giant dinosaurs."

"This story highlights just one of the exciting opportunities and challenges that await you as new leaders," said Cooney, a Friedman School overseer, who has held two senior positions in the USDA and has

worked on every major child nutrition and food stamp bill since 1977.

Being a true leader, he said, means always doing your research and saying and doing what you think is right, no matter the cost.

"The word 'no' you should treat as advisory only," he said. In Washington, D.C., in particular, he said, the word no

others between nutrition and health, food and the environment and production and consumption, among other things.

Ridberg, who hopes to work in support of farmers, encouraged her classmates to hold onto their passion, which for her is the wonder that food comes out of the ground. "Ever pulled a giant head of garlic up by its stalk, or dug for potatoes? Yeah, it's *that* awesome," she said.

She told her classmates that they would be hearing from her. "You are gracious and brilliant and creative. You also understand heteroskedasticity in a way that I never quite could," she said, with a nod to statistics class, "and I will definitely be asking for your help in the future."

At the all-university ceremony earlier in the day, which marked the final commencement for outgoing president Lawrence S. Bacow, honorary degrees were bestowed on seven distinguished individuals.

In addition to Massachusetts Institute of Technology president emeritus Charles M. Vest, who gave the commencement address, the recipients were

Geoffrey Canada, president and CEO of the Harlem Children's Zone; Thomas Frieden, director of the U.S. Centers for Disease Control and Prevention; writer Jamaica Kincaid; Pamela Omidyar, J89, a social justice advocate and founder of the organizations Humanity United and HopeLab; Pierre Omidyar, A88, a Tufts trustee emeritus, philanthropist, and founder and chairman of eBay; and Robert Solow, winner of the 1987 Nobel Prize in economics.



Clockwise from top left: Andrea Guillot, Laura Gerarty, Nicole Lennart, Nathalia Trees, Jonathan Mein, Ph.D., and Alanna Eisenberg

"means you haven't reached the person with the amount of power necessary to assist you in achieving your stated goal."

With appropriate apologies to her professors, Agriculture, Food and Environment Program graduate Ronit Ridberg, in the class address, compared her education to manure: "It doesn't do anyone any good unless you spread it around," she said. In the case of nutrition, she said that means making links for

Students, Consider Yourself Warned

Décor good for a double take—and a laugh

BACK WHEN PROFESSOR BEA ROGERS WAS TEACHING ECONOMICS AND food policy on the Medford/Somerville campus in the late 1980s, there would be days when her daughter, Leah, didn't have school. So she'd bring the 6-year-old to class, where the child would dutifully sit in the back of the room. Sometimes Leah, now 28, would stay in her mother's office, coloring with markers.

On one such occasion, Leah drew a sign, complete with skull and crossbones. It read: "Bow Down to Me... I am the teacher, and you are nothing but sea scum. Bow down to me. I can FLUNK you!" Along the bottom was a large X, with her mother's "signature." Rogers was amused, recognizing in the "sea scum" a family expression for something worthless. She enjoyed the drawing, but eventually stuck it in a drawer and forgot about it.

Twenty years later, Rogers was clearing out her office to get ready to move to the Friedman School's new digs on the Boston campus when she came across Leah's sign.



Bea Rogers tries to look intimidating.

"I'm cleaning out my desk drawers, and out pops this picture," she says. "I couldn't resist putting it up in my new office. I wasn't going to throw it away." Now it's ensconced on a shelf that visitors can see as they enter. "Every once in a while somebody notices it," Rogers says. When students come in and do a double take, Rogers tells them it represents her educational philosophy. "I hope they know I'm joking," she says with a smile.

—MARJORIE HOWARD



FAMILIAR FACE Stanley Gershoff smiles as he uncovers a formal portrait of the first dean of Tufts' nutrition school—who happens to be Stanley Gershoff. He and the school's subsequent deans, Irwin Rosenberg and Eileen Kennedy, were honored during a portrait installation ceremony in the Jaharis Center on June 30.



HEALTHY CITY Boston Mayor Thomas M. Menino celebrated national Food Day on Oct. 24 by speaking at Tufts, where he discussed the city's efforts to make healthy, affordable food available to all through farmers markets, community gardens, food trucks and supermarkets in low-income neighborhoods.

G69 Friedman Alumni Association members **Carole Palmer** and **Caitlin Westfall, N10, MPH10**, organized a panel discussion on nutrition careers in the private sector on October 26, 2011, at the Friedman School. Panelists included **Raina Gay Leahy, N99, N05**, senior scientist at Paratek Pharmaceuticals; **Brierley Wright Horton, N08**, nutrition editor for EatingWell Media Group; and **Britt Lundgren, N06**, director of organic and sustainable agriculture at Stonyfield Farm.

N82 **Liz Cochary Gross, N88**, along with Interim Dean Robin Kanarek, board members and other friends of the Friedman School, shared great food and conversation at a dinner at Blue Hill, a New York City restaurant run by Dan Barber, A92.

N90 In October, **Bill Reid** left Microsoft after almost 11 years to join Numera (numerahealth.com) as vice president of product management. The Seattle-based company provides health care companies and consumers with affordable telehealth solutions for care management and general wellness programs. He writes: "I am looking forward to returning to smaller company life and continuing to work with health and wellness technologies."

N97 **Amy Myrdal Miller** was promoted to director of programs and culinary nutrition for the Culinary Institute of America. She is now responsible for culinary nutrition programming and research for the entire college, including at the new campus in Singapore.

N98 **Esther Kim**, see N06.

N99 **Stephanie Karpinske** published two books in 2011. The first, *Read Before Dieting: Your 4-Step Plan for Diet Success* (www.readbeforedieting.com), is available in paperback at Amazon.com and other online retailers. The other book, the *28-Day Soup Diet* (www.28daysoupdiet.com), is an e-book available at the Amazon Kindle store and Karpinske's blog, www.foodnutri.com.

Raina Gay Leahy, see G69.

N00 **Suzanne Dorfman, J98, N05**, and her husband, Marc, welcomed their first son, Maximilian, in November 2010.

N01 Previously director of culinary operations in Boston and executive chef for Todd English Enterprises and Kingfish Hall, **Katherine See** has been named executive chef at Slade Gorton & Co., one of the nation's largest and oldest seafood companies. She is responsible for product development and innovation.

N02 **Dara Borto**, see N03.

N03 **Charlotte Hanson Cabili** and her husband, Mel, recently welcomed a daughter, Ivy, to their family.

Abigail Usen married Clifton Berner on September 24, 2011. Friedman School alumni in attendance included **Carole Palmer, G69; Dara Borto, N02; Grace Phelan, N05**, and Frances

Stern Nutrition Center clinical instructor Marcia Doyle.

Mara Sansevero is the senior nutritionist at Brigham and Women's Advanced Primary Care Associates.

Ellen Gray Wasson, J98, and Brad Wasson welcomed their second son, Jonathan Gray Wasson, on February 3, 2011.

N04 **Katie Cavuto Boyle** and her husband, Andy, are the proud parents of Hudson Gregory Boyle, born May 21, 2011.

Tricia Curtin Carey is a district manager for Abbott Nutrition, covering Georgia and Alabama.

Karen Willis is now a clinical dietitian at New England Life Care.

N05 **Erin Boyd Kappelhof, MPH05**, is one of four graduates of the College of the Holy Cross to receive a Sanctae Crucis Award, the highest nondegree recognition bestowed by the college on alumni. Formerly with the U.S. Agency for International Development and now with UNICEF, Kappelhof has coordinated emergency response and developed policy during humanitarian crises in Darfur, Ethiopia, Kosovo and Haiti, among other regions. She served in Nepal with the Peace Corps for two years.

Tufts Alumni

Together, we begin...



In a time of transition and expanding horizons for the university, Tufts Alumni is pleased to invite you to meet Tufts' 13th president, Anthony P. Monaco.

All members of the Tufts community are invited to attend any of these special events to welcome President Monaco and hear his thoughts on Tufts today and his vision for the future.

San Francisco
Monday, January 9

Los Angeles
Tuesday, January 10

Honolulu
Friday, January 13

Atlanta
Thursday, February 23

Miami
Friday, February 24

Palm Beach
Saturday, February 25

Sarasota
Sunday, February 26

Chicago
Tuesday, March 20

Cape Cod
Friday, June 15

As the president's itinerary is developed, event times and locations will be listed at tuftsalumni.org/president.

Grace Phelan, see N03.

Marla Scanzello is working as director of dietary services for the Eating Recovery Center in Denver, Colo.

Gabrielle Serra moved from a U.S. Congress staff job to the Meridian Institute, where she works on an agricultural policy reform effort called Agree, which engages the diversity of stakeholders across the food and agriculture system to advance transformative change in U.S. food and agricultural policy that better meets current and future needs, both domestically and abroad.

Jennifer Weston is working as a nutrition research analyst with Griffin Hospital and NuVal LLC.

N06 Sally Abbott, see N07.

Emily Dionne is a registered dietitian in the Wellness/Disease Management Department at the South Shore Medical Center, where she works with fellow alumna **Esther Kim**, N98.

Kerri Hawkins has begun working full time as a dietitian at the Family Practice Group in Arlington, Mass.

Britt Lundgren recently left the Environmental Defense Fund in Washington, D.C., to join Stonyfield Farms as director of organic and sustainable agriculture.

Monique Mikhail, see N07.

Aimee Witteman, see N07.

N07 Sarah Borron recently welcomed a son, Tristan, to her family.

Lisa Faucon is the West Coast sales director at Common CENTS Solutions.

Janel Ovrut married Aaron Funk on June 12, 2011. Janel works as a dietitian and nutrition consultant at the Boston Conservatory. They reside in Brookline, Mass.

In September 2010, **Elanor Starmer, F07**, married **Kumar Chandran, MPH07**, in Bucks County, Pa. There were a number of Friedman folks in attendance, including **Julie Thayer; Aimee Witteman, N06; Monique Mikhail, N06; Britt Lundgren, N06; Christine Lee; Sally Abbott, J01, N06, N10; and Julia McDonald, MPH07**. Starmer was appointed special assistant to the undersecretary for marketing and regulatory programs at the U.S. Department of Agriculture, where she coordinates the Know Your Farmer, Know Your

Food program (www.usda.gov/knowyourfarmer).

N08 Celia Curran is providing nutrition support at Emory Healthcare in Atlanta.

Brierley Wright Horton, see G69.

N09 Emily Evans is a clinical dietitian at Holy Cross Hospital in Silver Spring, Md.

Laura Ficker Gearman married Kyle Gearman on June 25, 2011. She is a clinical dietitian at the University of Minnesota Amplatz Children's Hospital.

Lara Ulfers is a healthy-eating specialist at Whole Foods in Colorado.

Caitlin Usselman Benda is a registered dietitian at Carolinas Medical Center in Charlotte, N.C.

N10 Stephanie Bostic has published a cookbook for solo cooks, *One Bowl: Simple Healthy Recipes for One*. She was delighted to work with doctoral candidate **Emily (Kuross) Vikre, N08**, on the photography.

Jennie Galpern is a research dietitian at the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts.

N11 Alanna Eisenberg is a dietitian at Tufts Medical Center's Weight and Wellness Center.

Renee Reynolds is a clinical dietitian at Massachusetts General Hospital.

Nathalia Tress is a registered dietitian for Walden Behavioral Health and works with patients who have eating disorders.

Keep in Touch with the Friedman School

VISIT US ON THE WEB Stop by our web pages for information on upcoming events, ways to get involved, profiles of Friedman School alumni and an update on the Beyond Boundaries capital campaign.

Alumni

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Friends

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Are you on Facebook or LinkedIn?

If you are an alum, faculty member or student, join the Friedman School Alumni Association group pages on www.facebook.com and www.linkedin.com. And be sure to "like" the Friedman School page on Facebook.

We want to hear from you!

Have a new job? Is your family growing? Are you getting together with classmates? Keep fellow graduates up to date by sharing your news at alumni.nutrition.tufts.edu.

The story:
giving.tufts.edu/youare/jennifer



For the hundreds of
farmers on **Jennifer
Hashley's** watch,
putting down new roots
takes far more than
seeds and soil...

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nutrition.tufts.edu/givenow2

\$1.2 Billion Achievement

Beyond Boundaries campaign ends triumphantly by Mark Sullivan

THE COUNTRY MAY HAVE SUFFERED THE WORST ECONOMIC DOWNTURN since the Great Depression, but that didn't stop Tufts University from hitting its record-breaking campaign target of \$1.2 billion. Success came on the eve of Lawrence S. Bacow's departure from Tufts in July, after serving as president for a decade.

The campaign known as Beyond Boundaries mobilized nearly 140,000 donors, including half of Tufts' alumni. Together they contributed \$434 million for scholarships—among them 630 new endowed and term scholarships—and other enhancements to the student experience. Another \$386 million is earmarked for faculty recruitment and research and \$137 million for new facilities. The balance will fund new academic and research programs. Among the donations were the six largest gifts in Tufts' history, two of them exceeding \$100 million. The campaign added \$609 million to the university's endowment.

Jonathan Tisch, A76, a university trustee and cochair of the campaign, was jubilant about the outcome. "The goals of Beyond Boundaries were thoughtfully developed with Tufts' academic leadership to support our core priorities as a top teaching and research university," he said. "To be able to garner this kind of support, particularly in this economy, is not only a good story for Tufts, it's a *great* story."

Supporting student access and affordability was a campaign priority, and some innovative financial aid programs have arisen as a result. Tufts can now provide



Leah Horowitz, N06, is best remembered for her formidable intelligence, infectious sense of fun and commitment to empowering individuals and communities. To honor her memory, classmates worked with the Friedman School to create the Leah Horowitz Humanitarian Award.

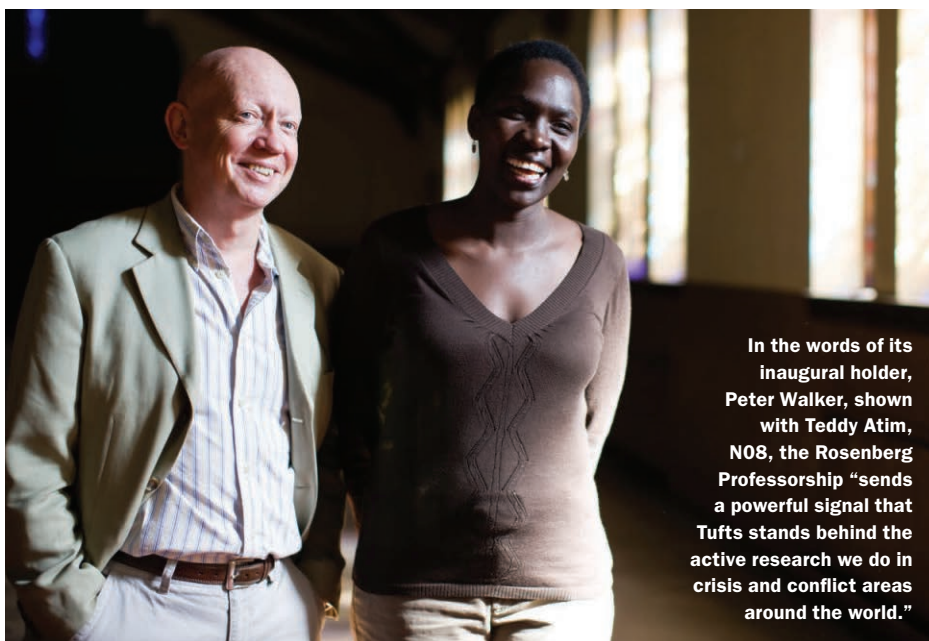
scholarships for needy undergraduates to attend summer school, eliminate loans for students from families with modest incomes and offer paid summer internships at nonprofits. On top of that, a first-of-its-kind, university-wide loan repayment assistance program helps alumni working in public service or nonprofit jobs repay a portion of their education loans.

Thanks to Beyond Boundaries, Tufts has 23 new named professorships. These coveted posts have helped the university attract and retain world-class researchers. And new construction and renovations have benefited students, faculty and staff on all three of Tufts' Massachusetts campuses.

THE FRIEDMAN SCHOOL STORY

At the Gerald J. and Dorothy R. Friedman School of Nutrition Science and Policy, the Bacow Scholarship, established through gifts from members of the Friedman School's Board of Overseers in honor of the outgoing university president, will support doctoral students at the school's John Hancock Research Center on Physical Activity, Nutrition, and Obesity Prevention.

The Joan M. Bergstrom Student Award for Excellence in Global Nutrition hon-



In the words of its inaugural holder, Peter Walker, shown with Teddy Atim, N08, the Rosenberg Professorship "sends a powerful signal that Tufts stands behind the active research we do in crisis and conflict areas around the world."

a master's degree in nutrition via distance learning as part of a growing collaboration between the Friedman School and RAK.

The Leah Horowitz, N06, Humanitarian Award honors the legacy of a beloved Friedman alumna by recognizing others who share her commitment to enriching the world. Support for international internships has come from the Robert and Margaret Patricelli Family Foundation, and two term

Overseer and Trustee Emeritus Edward Budd, A55, J80P, J86P, resulted in \$11.5 million raised for the school's endowment.

Shape Up Somerville, an obesity-prevention program launched by Tufts researchers, promoted a citywide campaign to keep schoolchildren fit. Lauded by First Lady Michelle Obama and her Let's Move campaign as a national model, it was the first study of its kind to prevent unhealthy weight gain in children. A \$2.2 million grant from the PepsiCo Foundation enabled the groundbreaking experiment to be replicated in other communities around the United States. Christina Economos, Ph.D., N96, one of the innovators of Shape Up Somerville, was named the first holder of the New Balance Chair in Childhood Nutrition.

A \$6 million gift from the Leir Foundation supported multidisciplinary research and teaching in human security at the Friedman and Fletcher schools.

The Andrew W. Mellon Foundation pledged \$1 million, half the total raised, to help establish the Irwin H. Rosenberg Professorship in Nutrition and Human Security, named for the former Friedman School dean. Professor Peter Walker, Ph.D., director of the Feinstein International Center, was named to the endowed chair.

Tufts has 23 new named professorships, which have helped attract and retain world-class researchers.

ors the legacy of the late Joan Bergstrom, J62, the noted educator and author whose contributions to Tufts included chairing the Friedman overseers and serving on the university's Board of Trustees. The Bergstrom Foundation Professorship in Global Nutrition addresses such vital issues as malnutrition, hunger, food insecurity and famine.

The Saqr bin Mohammed Al Qasimi Professorship in International Nutrition was endowed by the government of Ras Al Khaimah (RAK) in the United Arab Emirates. The professorship is held by Lynne Ausman, D.Sc., who helped develop

scholarships were created through a gift from Ellen Block, J66, chair of the Friedman School overseers.

A gift from Overseer Elizabeth Cochary Gross, Ph.D., N82, N88, and her husband, Phill, established the Friedman School Deferral Recovery Fund, which assisted admitted students who needed extra financial help during the economic downturn. Another gift from Elizabeth Cochary Gross and Phill Gross provides stipend and tuition support for Gershoff Scholars in the Biochemical and Molecular Nutrition Program.

A fundraising challenge issued by



Oni Tongo, N12

Corner Store Makeovers

Walk into most any convenience store and you'll face a colorful array of chips, candy and other calorie-laden snacks. Now imagine, instead, baskets of bananas and oranges and in place of a cooler stocked with soda, a refrigerator packed with green peppers, apples and lettuce.

That's the notion behind Healthy on the Block, a project of the Mattapan Food and Fitness Coalition, whose aim is to transform the local corner store into a healthier grocery destination. The program's outreach coordinator, Oni Tongo, a second-year Friedman School student studying food policy and applied nutrition, is working to sign up stores in Boston's Mattapan neighborhood, which has the highest obesity rate in the city. So far, two stores are selling and promoting more healthy foods, and two others have agreed to join in.

Mattapan has plenty of convenience stores but only one large supermarket. The project could have tried to bring in another grocery chain store, Tongo says, but instead chose to encourage existing convenience stores to sell fresh fruit and vegetables. "That way," she says, "people can get food in a location they are familiar with."

There are challenges. Tongo has learned that food manufacturers

give stores an incentive to put their products front and center, so there is little motivation to elevate the visibility of fruits and vegetables. And the cost of produce can be high, so Healthy on the Block is trying to find ways to mitigate that for local shoppers. One idea is to have stores band together to purchase produce in bulk and pass the savings on to customers.

Meanwhile, shoppers have to be enticed into buying the healthy food. One store has offered customers a free healthy item after they purchase 10 healthy items. At a recent community event, the program served healthy foods made with ingredients that can be purchased locally. The favorites? Mango salsa and bruschetta. Attendees got recipes for the dishes.

Tongo, the recipient of an Albert Schweitzer Fellowship that encourages graduate students to develop programs that have a lasting impact on the health of a community, says Healthy on the Block has given her a sense of why people have a difficult time eating well. "We have a lot of work to do before we even get to teach people about what choices to make," she says.

—MARJORIE HOWARD



Look Ahead **& GIVE BACK**

“Everyone can plan now to provide for the Friedman School’s future.”

DR. JAMES M. RABB has been a part of the Friedman School since former Dean and University Professor Irwin H. Rosenberg, M.D. asked him to serve on the first Board of Overseers. The two doctors had worked closely together at the University of Chicago and shared the then progressive view that nutrition is crucial to health and wellness.

More than 15 years later, Dr. Rabb is still an active Board member. He’s passionate about the school’s role in global nutrition and has chosen to support the types of students, faculty, and programs he has seen thrive there by including the Friedman School in his estate plans. “Everyone has philanthropic decisions to make. I wanted to plan a gift now that carries my interests and priorities into the future. I feel sure others will do the same,” he says. “Charitable giving is a tradition in my family and it’s important to me to maximize my support for the Friedman School.”


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THE MUSCLE BEHIND A MISSION

They began as workout buddies. Now the StrongWomen of Brodheadsville, Pa., who make up one of eight Change Clubs across the country, are striving to make healthy reforms in their community. See page 11.