

## Revised U.S. Dietary Guidelines Set New Lifestyle Paradigm

### New 2005 Dietary Guidelines for Americans Present Opportunities and Challenges

by Eric J. Hentges, Ph.D., Executive Director; Dorothea K. Vafiadis, M.S., Nutritionist; and Colette I. Thibault, M.S., R.D., L.D., Nutritionist, Center for Nutrition Policy and Promotion, U.S. Department of Agriculture, Alexandria, Va.

Obesity has risen at an epidemic rate in the United States during the past 20 years. Its challenge did not appear overnight, and its scourge will not be resolved quickly or by a singular event. Reversing its upward trend requires collaboration among government and private sectors, as well as a commitment to action by communities across the country. It also demands that each of us assume responsibility for promoting the nation's health. One important way to do this is by implementing the new *Dietary Guidelines for Americans 2005*.

#### A Focus on Health

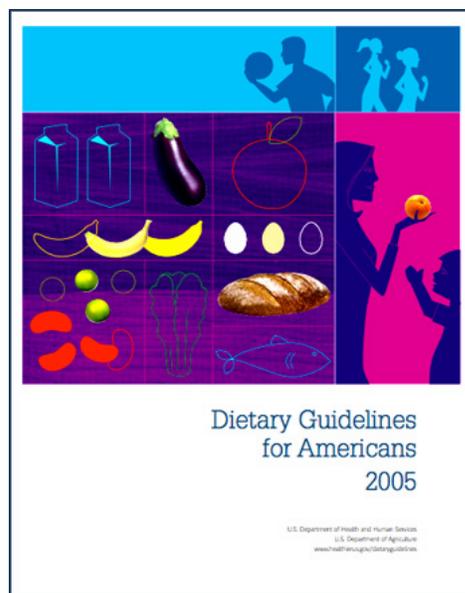
As a commitment to improving the health of Americans and fighting the growing obesity epidemic on a national scale, the president has launched his *HealthierUS* initiative, which consists of four key strategies:

1. Be physically active each day.
2. Eat a nutritious diet.
3. Get preventative screening.
4. Avoid risky behaviors.

The government's *Dietary Guidelines for Americans 2005* directly support two of

these strategies while setting forth specific, science-based recommendations to help the public reach target nutrition levels, promote healthier lifestyles and reduce risk for major chronic diseases such as high blood pressure.

Taken together, the 2005 guidelines encourage most Americans to eat fewer calories, make wiser food choices and be more active. This is especially important because poor diet and a sedentary lifestyle are related to the major causes of morbidity and mortality in the United States, including cardiovascular disease, type 2 diabetes, hypertension, osteoporosis and certain cancers; unhealthy diets and physical inactivity are also the main factors



contributing to the nationwide increase in overweight and obesity.

#### The Recommendations

Jointly published by the U.S. Departments of Agriculture (USDA) and Health and Human Services (HHS) every five years since their debut in 1980, the *Dietary Guidelines for Americans* target healthy people over the age of 2 who are living in the United States. With such focus areas as "Adequate Nutrients Within Calorie Needs," "Food Groups to Encourage," "Carbohydrates" and "Weight Management," the 2005 directives emphasize making choices that promote the increased consumption of vegetables, fruit, low-fat milk products and whole grains, as well as regular physical activity. They also highlight limiting intake of saturated and

*trans* fats, added sugars and salt, and alcohol, and, to a much greater extent than their predecessor document in 2000, underscore balancing caloric intake with energy needs, with reference to recommended eating patterns such as the USDA Food Guide (<http://www.usda.gov/cnpp/pyramid.html>) and the Dietary Approaches to Stop Hypertension (DASH) Eating Plan ([http://www.nhlbi.nih.gov/health/public/heart/hbp/dash/new\\_dash.pdf](http://www.nhlbi.nih.gov/health/public/heart/hbp/dash/new_dash.pdf)). Additionally, they emphasize keeping food safe, with steps to avoid microbial foodborne illness. (See chart.)

The nine inter-related sections of the 2005 dietary guidelines offer 23 mutually dependent key recommendations in place of the 10 more general guidelines presented in the 2000 directives. This year's document also provides additional advice for specific population groups such as pregnant and breastfeeding women, overweight individuals, children and adolescents, and older adults. All recommendations incorporate current scientific knowledge and findings, since an important component of the 2005 guidelines is a comprehensive report on new scientific information developed by the Dietary Guidelines Advisory Committee (<http://www.health.gov/dietaryguidelines/dga2005/report/>).

The *Dietary Guidelines for Americans 2005* also differ from their predecessor in that the official guidelines publication is targeted to policymakers, healthcare providers, nutritionists and nutrition educators rather than to the general public. A separate consumer publication called *Finding Your Way to a Healthier You: Based on the Dietary Guidelines for Americans* provides practical advice in non-technical language ([www.healthier.us.gov/dietaryguidelines](http://www.healthier.us.gov/dietaryguidelines)).

### Implementing Dietary Guidance

Because of their focus on health promotion and risk reduction, the *Dietary Guidelines for Americans* affect government nutrition programs, including those focused on research, education, school lunch, food assistance, labeling and nutrition information. The guidelines also serve as a policy document from which consistent government programs, policies and messages in education related to nutrition and health are developed. An interagency working group reviews all public nutrition education materials developed by federal agencies to ensure that the information is in harmony with the guidelines.

USDA uses the dietary guidelines for policy development in food assistance initiatives such as the Child Nutrition Programs, which include school lunch, and the Elderly Nutrition Program. The agency also uses the guidelines as the basis for the development of its food guidance system and related educational tools such as the new food guide pyramid, [www.MyPyramid.gov](http://www.MyPyramid.gov), a Web site offering individualized advice on the types and amounts of foods that Americans should eat for good health, based on their needs.

As the Food and Drug Administration reviews future regulations to improve the appearance and content of nutrition labels to help consumers make better-informed decisions, it too will consider the information outlined in the *Dietary Guidelines for Americans*.

### Partnerships and Action

As the government develops educational materials and communicates science-based information to Americans, it relies on traditional partnerships with extension nutritionists and public health educators, as well as new partnerships with other health professionals and the private sector. Such cooperation is essential to increase the level of resources devoted to consistent, multichannel strategies to promote the *Dietary Guidelines for Americans* and the Food Guidance System in order to better influence eating and physical activity behaviors.

Meanwhile, as scientific research provides clear evidence of the relationships between dietary components and health benefits, the challenge for the food industry becomes even greater. New product development can address consumer needs for healthier diets and promote behavior change in how and what Americans eat, helping to keep chronic diseases at bay. One such example involves a large Midwest-based company that strategically shifted one of its product categories to incorporate whole grains, a food component that the dietary guidelines encourage Americans to include daily in their diets. This change alone is estimated to increase whole grain servings by 26 million per day. Another example is an East Coast-based convenient-food company that eliminated *trans* fatty acids from its snack product line, prompting the removal of an estimated 55 million pounds of *trans* fatty acids from the food supply. Such changes in the marketplace can provide consumers with more healthful choices and arm them with the tools necessary to implement the guidelines.

Developing actionable and attainable behavior-change messages is another important aspect to impacting the health of Americans. As mentioned above, this year, USDA and HHS published *Finding Your Way to a Healthier You*, a consumer brochure that accompanies the guidelines policy document, with tested messages for consumers to follow the *Dietary Guidelines for Americans 2005*.

Food industry and health professionals can also help consumers translate the guidelines into practical, easy-to-understand messages for eating well and staying healthy. To this end, the USDA is supporting HHS efforts to develop educational materials, such as a toolkit for health professionals, and to provide nutritionists and dietitians with resources, including PowerPoint slide presentations that can be used for teaching consumers how to incorporate the dietary guidelines into their everyday lives. Meanwhile, [www.MyPyramid.gov](http://www.MyPyramid.gov) translates science into individualized information that the consumer can use directly and immediately to put the guidelines into action, thus helping to move the guidelines' health-promoting suggestions from the sidelines to the front lines.

Comparison of 2000 Dietary Guidelines with 2005 Dietary Guidelines		
2000	2005	
10 Guidelines	9 Focus Areas*	Key recommendations for the general public**
Aim for a healthy weight	Weight management	<ul style="list-style-type: none"> <li>To maintain healthy body weight, balance calories consumed with calories expended.</li> <li>To prevent gradual weight gain, make small decreases in food and beverage calories, and increase physical activity.</li> </ul>
Be physically active each day	Physical activity	<ul style="list-style-type: none"> <li>Engage in regular physical activity and reduce sedentary activities, while monitoring caloric intake if reducing body weight or preventing weight gain. Participate in at least 30 minutes and as much as 90 minutes, of moderate- to vigorous-intensity physical activity most days of the week depending on health needs and goals.</li> </ul>
Let the Pyramid guide your food choices	Adequate nutrients within calorie needs	<ul style="list-style-type: none"> <li>Consume a variety of nutrient-dense foods and beverages while limiting the intake of saturated and trans fats, cholesterol, added sugars and alcohol.</li> <li>Meet recommended intakes within energy needs by adopting a balanced eating pattern, such as the USDA Food Guide or the DASH eating plan.</li> </ul>
Choose a variety of grains daily, especially whole grains	Food groups to encourage	<ul style="list-style-type: none"> <li>Consume a sufficient amount of fruits and vegetables while staying within energy needs.</li> <li>Choose a variety of fruits and vegetables each day, selecting from all five vegetable subgroups several times a week</li> <li>Consume three or more ounce-equivalents of whole-grain products per day, with the rest of the recommended grains coming from enriched or whole-grain products. In general, at least half the grains should come from whole grains.</li> <li>Consume three cups per day of fat-free or low-fat milk, or equivalent milk products.</li> </ul>
Choose a variety of fruits and vegetables daily		
Keep food safe to eat	Food safety	<ul style="list-style-type: none"> <li>Clean hands, food contact surfaces, and fruits and vegetables. Meat and poultry should not be washed or rinsed.</li> <li>Separate raw, cooked and ready-to-eat foods while shopping, preparing, or storing.</li> <li>Cook foods to a safe temperature to kill microorganisms.</li> <li>Chill (refrigerate) perishable food promptly and defrost foods properly.</li> <li>Avoid raw (unpasteurized) milk or milk products, raw or partially cooked eggs or foods containing raw eggs, raw or undercooked meat and poultry, unpasteurized juices and raw sprouts.</li> </ul>
Choose a diet that is low in saturated fat and cholesterol and moderate in total fat	Fats	<ul style="list-style-type: none"> <li>Consume less than 10 percent of calories from saturated fatty acids and less than 300 mg of cholesterol, and keep trans fatty acid consumption as low as possible.</li> <li>Keep total fat intake between 20 to 35 percent of calories, with most fats coming from sources of polyunsaturated and monounsaturated fatty acids, such as fish, nuts and vegetable oils.</li> <li>Select lean, low-fat or fat-free meat, poultry, dry beans, and milk or milk products.</li> <li>Limit intake of fats and oils high in saturated and/or trans fatty acids.</li> </ul>
Choose beverages and foods to moderate your intake of sugars	Carbohydrates	<ul style="list-style-type: none"> <li>Choose fiber-rich fruits, vegetables and whole grains often.</li> <li>Choose/prepare foods and beverages with little added sugars or caloric sweeteners.</li> <li>Practice good oral hygiene and consume sugar- and starch-containing foods and beverages less frequently to reduce the incidence of dental problems.</li> </ul>
Choose and prepare foods with less salt	Sodium and Potassium	<ul style="list-style-type: none"> <li>Consume less than 2,300 mg (approximately 1 teaspoon of salt) of sodium per day.</li> <li>Choose/prepare foods with little salt, and consume potassium-rich foods, such as fruits and vegetables.</li> </ul>

If you drink alcoholic beverages, do so in moderation	Alcoholic beverages	<ul style="list-style-type: none"> <li>• Those who choose to drink alcoholic beverages should do so sensibly and in moderation - up to one drink per day for women and up to two drinks per day for men.</li> <li>• Individuals who cannot restrict their alcohol intake, women of childbearing age who may become pregnant, pregnant and lactating women, children and adolescents, individuals taking medications that can interact with alcohol, and those with specific medical conditions should not consume alcoholic beverages.</li> <li>• Individuals engaging in activities that require attention, skill or coordination, such as driving or operating machinery, should avoid alcoholic beverages.</li> </ul>
<p>*Focus areas have been reorganized to show their relationship to the 2000 Dietary Guidelines.  **Additional key recommendations for specific population groups are included in the 2005 guidelines, but are not presented here.</p>		

To learn more about the *Dietary Guidelines for Americans*, visit [www.healthierus.gov/dietaryguidelines](http://www.healthierus.gov/dietaryguidelines).

## Is There Any Hope of Preventing Childhood Obesity?

by Kelly D. Brownell, Ph.D., Professor and Chair of Psychology, Professor of Epidemiology and Public Health, and Director of the Rudd Center for Food Policy and Obesity, Yale University, New Haven, Conn..

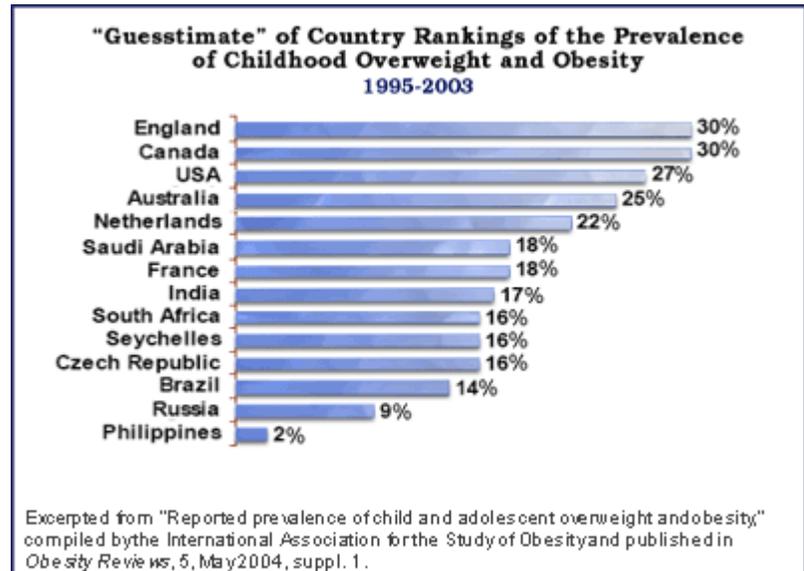
Childhood obesity is on the rise. Currently, some 22 million children under the age of 5 are estimated to be overweight worldwide. Rates of childhood obesity over the past 30 years in the United States alone have doubled in children ages 2 to 5 and have tripled in those ages 6 to 11. In fact, for the first time in America's history, U.S. children are expected to lead shorter lives than their parents.

Countries across the globe are reporting alarming increases in childhood obesity (see Figure 1). Today, there are clinics for treating obese children in China, and in many developing countries, obesity will surpass malnutrition as the chief nutrition crisis. Reaching epidemic levels in some parts of the world, the problem is also driving the development of debilitating and life-threatening conditions — notably chronic heart disease, type-2 diabetes, gall-bladder disease and large-bowel cancers.

Boys born in 2000 in the United States, for example, now stand a 30 percent chance of developing diabetes; the equivalent figure for girls is even higher, at 40 percent — and, even then, only if increases in obesity level off.

### Understanding the Problem

Many factors have been implicated as causes of childhood obesity, with genetic susceptibility, the failure of parents, and a “toxic” food and activity environment leading the way. Drawing on both science and common sense, a changing environment is the primary cause. Genetics or mass failures in parenting cannot explain why every country in the world is showing increasing obesity, why people moving from less to more obese countries gain weight, and why laboratory animals that do not overeat healthy foods can become grossly obese when given access to a human “junk food” diet.



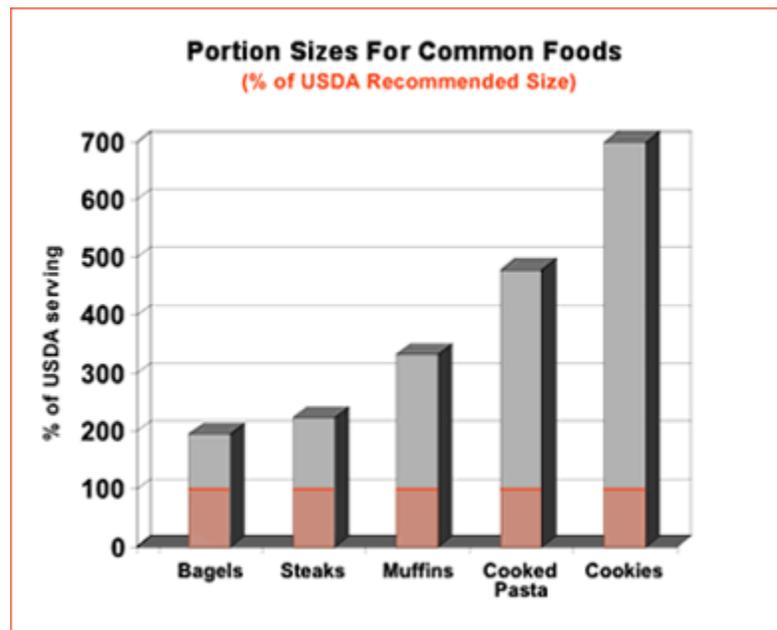
For starters, profound changes have occurred in living conditions. The marketing of food to children has exploded, with the average American child seeing 10,000 food advertisements (95 percent for unhealthy foods) on television alone. And traditional television advertisements only begin to capture the onslaught children experience through other channels, including product placements in television shows, movies and videogames. At the same time, the public sector cannot, and will not, keep up. At its peak, the U.S. government's main nutrition education program, 5 A Day, had a \$3 million promotion budget; Coca Cola and PepsiCo combined spend \$3 billion on advertising. Meanwhile, school budgets depend on the sale of soft drinks, snack foods and calorie-dense foods in the cafeteria. Portion sizes have increased dramatically. Energy-saving devices, reliance on motorized transport and less active play time for children have minimized energy expenditure. If

one were designing societies to maximize obesity, it would be difficult to create more favorable conditions than those seen in countries like the United States.

Changing portion sizes and the time children spend in passive forms of entertainment are prime examples of the toxic environment buffeting today's youth. One need only look to specific foods like soft drinks: What began in 6.5 ounce bottles is now served in 20 ounce and even 24 ounce plastic containers. (Figure 2 shows how typical portions of common foods compare to what the U.S. Department of Agriculture considers one serving.) Meanwhile, children have become increasingly passive. Today's entertainment and play tether children to televisions, computer screens, videogames and headphones. Adding together all forms of media use, the typical American child spends 5.5 hours a day watching, listening and being still.

### Addressing the Situation

There are compelling reasons to address obesity by focusing first on children. Obesity is difficult and expensive to treat, making prevention a priority. Childhood is when food preferences and eating habits are learned and hence offers the greatest opportunity for change — a serious issue when you consider that a quarter of all vegetables eaten in the United States are french fries! Finally, most societies consider it important to protect children and therefore may be willing to take action.



Source: Young & Nestle, 2002, *Am J Public Health*, Vol. 92, 246-249.

To create real change will require real change. Physical activity must be restored as part of everyday childhood, for example, by building and changing communities to promote activity, modifying school curricula to add back physical education, and launching massive campaigns to discourage passive entertainment. Limiting food advertising directed at children, encouraging schools to become healthy nutrition environments, and undertaking major educational and public relations initiatives that

promote healthy foods and discourage consumption of unhealthy ones top the list of food-related changes.

Some headway has been made worldwide in identifying prevention strategies. On May 22, 2004, for example, the World Health Assembly endorsed a World Health Organization (WHO) initiative, "Global Strategy on Diet, Physical Activity, and Health," which contains a blueprint for the promotion of healthier lifestyles to combat the rapid rise in children's weight. The strategy recommends greater public awareness of the risk factors associated with obesity; exclusive breastfeeding for six months; and healthy diet and physical activity at school and at home. It also purports that growth standards for pre-school children should encourage the adoption of healthy behaviors; governments, consumers and the private sector should ensure that food advertisements and marketing do not exploit children's credulity; and food aid should encourage the purchase and distribution of nutritious foods.

On a national level, in 2004 the Food and Nutrition Board of the Institute of Medicine issued a congressionally mandated report with an action plan aimed at curbing the rapid rise of obesity in the United States. The report, *Preventing Childhood Obesity: Health in the Balance*, declared prevention of obesity in children and youth a national priority, and urged the formation of a high-level obesity task force to address this challenge. It suggested a multifactorial approach, with anti-obesity programs aimed at government, schools, industry, the media and parents. The report's other recommendations, some of which mirror the WHO directive, include: regular monitoring and better evaluation of children's body weights, and guidance on preventing overweight; community areas that allow children to play safely; national nutrition standards for foodstuffs sold in public schools; guidelines for the advertising and marketing of foods and drinks to children; products that encourage physical exercise among the leisure, entertainment and recreation industries; parental limiting of children's TV viewing to less than two hours per day; and breastfeeding for the first four to six months of life.

Attempts to curb childhood obesity are also being made on more local fronts. In Berkeley, Calif., famed chef Alice Waters initiated the Edible Schoolyard, a program in which an organic garden on a middle school's grounds has become the site for learning plant biology, reading poems about nature, harvesting food for the cafeteria and conducting after-school programs. While evaluation remains scant, anecdotal reports indicate very positive impacts on the children and their families, and support the belief that healthier diets and increased activity will improve health, well-being and school performance.

But, as children's weights continue to climb, what is most keenly (and still) needed is a clear recognition of the primary cause of childhood obesity, a commitment to protecting children, and, above all, the determination to

avoid a key trap set by the tobacco industry when it stalled aggressive public health actions by framing smoking as a matter of personal choice and individual responsibility. Today's script is eerily the same, substituting food for tobacco in the language. And the world's children cannot afford — and certainly do not deserve — a repeat of the tobacco experience.

For more information, contact:  
Kelly D. Brownell, Ph.D.  
Department of Psychology, Yale University  
2 Hillhouse Avenue, Box 208205  
New Haven, CT 06520-8205  
[kelly.brownell@yale.edu](mailto:kelly.brownell@yale.edu)

## CECheck-Up

On January 12, 2005, the U.S. Departments of Health and Human Services (HHS) and Agriculture (USDA) jointly issued the *Dietary Guidelines for Americans 2005*. Updated every five years, the U.S. guidelines provide up-to-date science-based recommendations designed to promote health and reduce the risk for major chronic diseases related to poor diet and a sedentary lifestyle. The summer 2005 issue of the *MONITOR* is devoted to these guidelines.



In the lead article, Eric J. Hentges and his colleagues from USDA discuss the new guidelines and their implications for the American public. The authors also compare the 2005 directives with their 2000 predecessor. In a companion article, anti-obesity guru Kelly Brownell from Yale University examines the epidemic of childhood obesity around the globe, probing its causes and consequences, while proposing viable strategies for preventing this scourge on humanity.

In the *Insider's View*, Center for Science in the Public Interest's Michael F. Jacobson tackles the challenge of implementing the new guidelines. Jacobson emphasizes the need for bold government actions, especially to control trans fat intake. He also underlines the need for major education campaigns to translate policy into action.

Two *Features* address the efficacy of strategies for translating the new guidelines. In the first, Meir Stampfer of the Harvard School of Public Health critiques USDA's "My

Pyramid," the primary instrument for the American public to put the guidelines into practice, and proposes an alternate system to better accomplish the goals of risk reduction. The second feature, by Elizabeth Pivonka, is an update on the Produce for Better Health Foundation's "5 A Day" national, and international, campaign to promote the consumption of vegetables and fruit, a key recommendation of the 2005 guidelines.

In *Policy Beat*, Derek Yach of the Yale School of Public Health provides insight into the similarities and differences between the *Dietary Guidelines for Americans 2005* and the recommendations for diet and physical activity, aimed at reducing the risk of diet-related noncommunicable diseases, set forth in the World Health Organization/Food and Agriculture Organization report of March 2003.

Finally, *CECHE News* reports on the progress of two of *CECHE's* programs, both of which pertain to reducing the risk of lifestyle-related chronic diseases: a new tobacco-control communications initiative in a South Indian village, and a diet and nutrition scholarship program in Washington D.C.

The *Dietary Guidelines for Americans 2005* are a major step forward in U.S. nutrition policy. The challenge, as noted by our authors and many other experts, lies in persuading the multiple sectors of American society to use them!

Sushma Palmer, D.Sc.  
Chairman, *CECHE*

## Insider's View

### Mission Not Accomplished: Sound Dietary Guidelines Lack National Support

The new "Dietary Guidelines for Americans" provides perfectly sensible advice about eating healthfully. What really matters, though, is what the government does with these directives.*by*

Michael F. Jacobson, Ph.D., Executive Director and Co-Founder, Center for Science in the Public Interest (CSPI), Washington, D.C.

There's no question that the recently unveiled "Dietary Guidelines for Americans" provides sensible advice about eating healthfully. The guidelines emphasize consuming more fruits and vegetables; choosing whole grains such as whole-wheat bread and brown rice over refined grains like white bread and

white rice; and selecting leaner meats and dairy products as opposed to fattier ones.

The guidelines also make an important new recommendation about trans fat — namely, that people should consume as little of it as possible. Unfortunately, this advice does not include the "less than 1 percent of

calories” limit on trans fat recommended by the government’s advisory committee. To put that into perspective, a person would exceed this limit by eating a small bag of McDonald’s french fries. (Put another way, less than 1 percent of calories is about as much as one would expect to get in the small amounts of trans fats that occur naturally, leaving little room for trans fat from partially hydrogenated oil, which is where McDonald’s fries get theirs.)

In addition, the guidelines recommend that middle-aged and older people, individuals with hypertension and African-Americans consume no more than 1,500 mg of sodium per day, while younger, healthy people and those from lower-risk ethnic groups consume a daily maximum of 2,300 mg. Considering that the average American now ingests 4,000 mg of sodium per day, we’ve got a long way to go before our diets are consistent with the recommendation. The guidelines also offer further good advice on limiting alcohol and getting enough physical activity to balance energy out with energy in.

### Administration’s Implementation Efforts Meager...Conflicted

In the words of former Health and Human Services (HHS) Secretary Tommy Thompson, “If you want to look better, if you want to feel better, you lower your calorie intake, you lower your fat, your carbs, you eat more fruits and vegetables and more whole grains, and you exercise — and that’s as simple as it can be.”

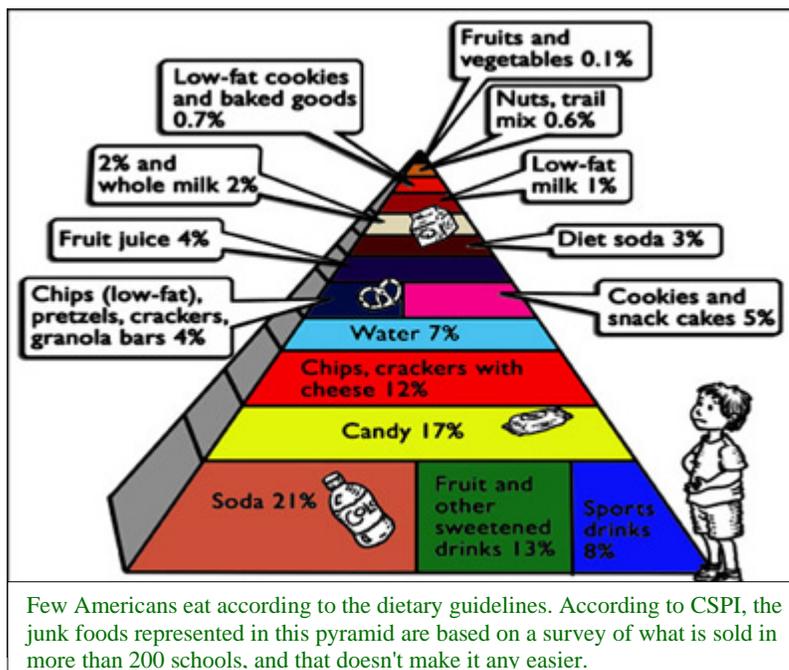
That’s all good, but not a whole lot different from the advice that preceded it. Which begs the question: If the government’s dietary advice is so sound and so simple, why have American diets improved so modestly in recent years, and why are Americans getting fatter and fatter? The answer is that the government does very little to educate Americans about the dietary guidelines and how to adhere to them, and almost nothing to adopt national policies that would bring the average diet more in line with the recommendations. What the government should be doing is using the dietary guidelines as a blueprint for action — the scientific bedrock for a host of nutrition policies.

CSPI recently gained interesting insight into the administration’s intentions in this regard when we asked officials at HHS and the U.S. Department of Agriculture (backed up by a request made under the Freedom of Information Act) how many brochures related to the new guidelines the government had printed. The answer? Only 5,800 copies. Enough to get them through the press conference. A thousand here, a thousand there. But certainly not enough to distribute to all of America’s dietitians, doctors, food manufacturers and chefs, let alone citizens.

Thompson was a great champion of personal weight loss, particularly on the exercise part of the equation. So is President Bush. Yet in the president’s most recent budget request to Congress, the administration basically zeroed out the only government media campaign designed to encourage young people to pursue physical activity. (That the chairman of the President’s Council on Physical Fitness, former football star Lynn Swann, was paid by the vending machine industry to

appear at a press conference for a national program promoting healthy eating doesn’t inspire much confidence either.)

While the “Dietary Guidelines for Americans” urges individuals to limit trans fats, the U.S. Food and Drug Administration (FDA) still approves the use of the discredited and dangerous partially hydrogenated oils from which trans fat comes — something the agency could virtually halt with the stroke of a pen. While the



guidelines advise people to slash salt intake, the FDA does nothing to encourage Americans to cut back, nor does it pressure food manufacturers to reduce sodium levels in processed foods — a strategy that is being used effectively in the United Kingdom. In fact, while experts (including some in government) estimate that reducing sodium consumption could prevent tens of thousands of premature deaths annually, the FDA does not have a single person working on regulations to lower sodium in the food supply.

In another area, the federal government sponsors a decent school breakfast and school lunch program based on the dietary guidelines. But the U.S. Department of Agriculture and Congress undermine that program by doing nothing about the junk food sold in school vending machines, sometimes right alongside the official school lunch. The guidelines emphasize limiting excessive calories, yet the administration hasn’t supported legislation that would put calorie counts on menu boards for all to see.

### The Government Should...

We at CSPI are relieved — pleased, even — that the “Dietary Guidelines for Americans” came out so well, and we encourage individuals to eat with the guidelines in mind. But until the government starts acting on the recommendations, the mission of getting Americans to

eat more healthfully will remain decidedly unaccomplished. Specifically, government actions could, and should, include:

- banning the use of partially hydrogenated vegetable oils
- reducing the legal limits on the fat content of hot dogs and other sausage products
- rewarding farmers for providing milk that is lower in saturated fat
- limiting sodium levels in foods that contribute the most sodium to the diet
- disallowing food stamps to be used to purchase soft drinks, the single largest source of calories in the American diet

- mounting major public education campaigns to increase the consumption of fruits, vegetables and whole grains, and decrease the consumption of fatty meats and dairy products, as well as cookies, cakes and other fatty, sugary baked goods.

Needless to say, change doesn't come easily on measures that either cost money or step on industry toes. Health, medical and consumer groups will need to continue to persevere, encouraging leaders in Congress and federal departments to begin implementing the kinds of changes that will bring better health to all Americans.

## Features

### Problems Plague New Food Guide Pyramid

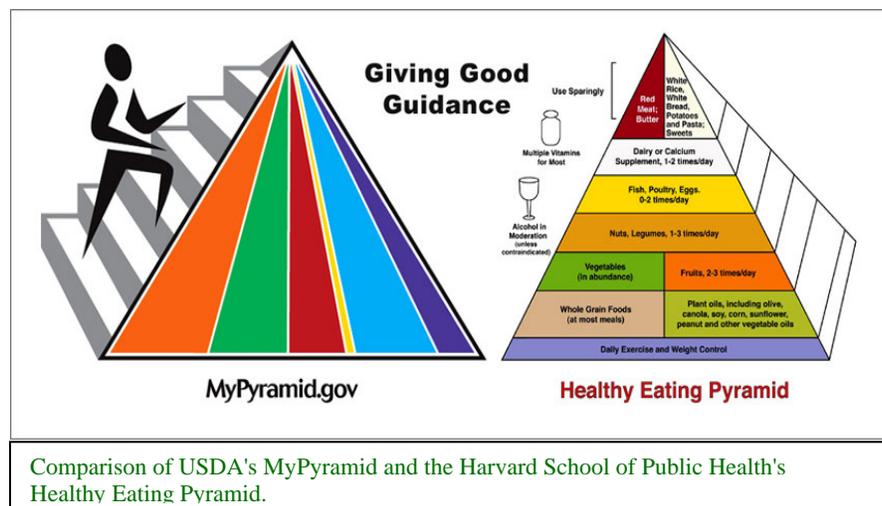
by Meir Stampfer, M.D., Dr.P.H., Professor of Epidemiology and Nutrition Chair, Department of Epidemiology, Harvard School of Public Health, Cambridge, Mass.

The Food Guide Pyramid was introduced by the U.S. Department of Agriculture in 1992 to help guide consumers in choosing a healthy diet. It was meant to be a practical tool based on the U.S. dietary guidelines. Deep flaws were recognized even when it was created however, and with current advances in our understanding of diet and health, a new pyramid was clearly needed.

#### Assessing the Original

The basic premise underlying the original pyramid was to limit intake of cholesterol and to reduce consumption of saturated fat. While differences in the health effects of diverse forms of dietary fat were well understood, it was thought that the nuances of type of fat would be too complex for Americans, hence the simple message, "Fat is bad." Because protein does not normally vary a lot in the diet, and is often associated with fat, the directive was to replace calories from fat with carbohydrates, which resided at the base of the pyramid. Americans were told to eat six to 11 servings per day of carbohydrates in the form of grain products.

Although millions of dollars were spent to develop and promote the original pyramid, virtually no studies assessed whether adherence to that dietary pattern actually improved health. In one such study published in the November 2000 issue of the *American Journal of Clinical Nutrition*, only a small benefit was observed when compared with a typical American diet. In contrast, adherence to an alternative set of guidelines (see figure) was associated with substantial benefit, as reported in the *American Journal of Clinical Nutrition* in December 2002.



#### A Series of Shortcomings

The main problems with the original pyramid were a failure to adequately distinguish types of fat and an overemphasis on carbohydrates with inadequate distinction of the desired types, such as whole grains and sources of dietary fiber. In addition, the pyramid did not distinguish well between healthy and less healthy sources of protein, and it overemphasized milk and red meat.

The *Dietary Guidelines for Americans 2005* are a step forward, and the new pyramid does represent an excellent opportunity to right former dietary wrongs. Unfortunately, the new pyramid, or MyPyramid as it is now called, leaves much to be desired.

Based on a customized, Web-based design, the new symbol's best feature is the addition of a stair-climbing figure representing the need for increased physical activity. But it's downhill from there. The actual dietary advice is unintelligible from the abstract icon, which is essentially the old pyramid turned on its side with six swaths of color and

no clarifying text. Although whole grains now get more attention, carbohydrates remain overemphasized, with little concern shown for the empty calories of added sugar. Because the members of the dietary guidelines panel were required to propose directives, that would meet the recommended daily intakes of nutrients from food sources only, including inflated calcium recommendations, dairy products are promoted to an extent unsupportable by contemporary evidence. Meat is also unduly promoted, and differences in the health effects of protein sources are obscured.

### Shrouded in Symbol

The 2005 guidelines make genuine progress in distinguishing types of fat — from dreaded trans fat to less-than-desirable saturated fat to consumable unsaturated fats — but the new pyramid tends to conceal this sound advice. In fact, unless people take the time to become familiar with the new icon, they will have no idea what the differently sized color swaths mean (orange for grains, green for vegetables, red for fruits, a teeny band of yellow for oils, blue for milk, and purple for meat and beans); how many daily servings of each food group are recommended (none;

it's all customized via MyPyramid.gov); or any other key nutrition advice the new pyramid proposes to communicate.

Meanwhile, the customized advice for eating from MyPyramid is undercut by a dramatic omission. Individuals with Internet access can obtain tailored advice based on age, gender and physical activity; however, there is no consideration of body size (or of the millions of individuals with no computer access or experience with the World Wide Web).

Although everyone knows that big people eat (and need) more food than small people, the present scheme ignores that. Moreover, no distinction is made between those who need to lose weight and those who do not. The advice is based on calories, but only a compulsive few can track calories with any accuracy. Almost everyone, even those gaining weight, are within a few percentage points of caloric balance; therefore, diet composition, coupled with choosing healthy foods and minimizing unhealthy ones, has the greatest impact on nutrition and health.

Sadly, the new pyramid is a lost opportunity to promote health. But the real losers are the hundreds of millions of Americans who look to it for guidance and advice, and get...a graphic.

## Chronic Disease and Obesity Prevention Step Up Worldwide Interest in Fruit and Vegetable Promotion

by Elizabeth Pivonka, Ph.D., R.D., President and CEO, Produce for Better Health Foundation, Wilmington, Del.

Despite more than a decade of initiatives and efforts by countless government, nongovernmental and commercial organizations worldwide, individuals still aren't consuming enough fruits and vegetables. For example, more than half of all Americans know they need to eat at least five daily servings of these healthy consumables, but only 20 percent actually achieve that minimum. This is lamentable, expensive and potentially fatal, since diets low in fruits and vegetables not only increase the risk of chronic disease and obesity, they also increase health care costs, lower the quality of life and heighten mortality rates for billions across the globe.

After a decade of disappointing trends for fruit and vegetable intake, a 2004 study by NPD Foodworld for Produce for Better Health Foundation (PBH) showed a 1 percent increase in per capita consumption in the United States. This rate suggests a slow march to close the consumption gap and, coupled with the recently increased federal fruit and vegetable recommendations, is decidedly unacceptable. This situation, along with growing global awareness that the economic burden associated with poor health is daunting for developed nations and potentially disastrous for developing ones, may explain why efforts to increase fruit and vegetable consumption are beginning to take hold around the world. In an important step toward a coordinated global effort for better health, planning is already underway for an international federation, an alliance of national fruit and vegetable program leaders aimed at increasing the intake of fruits and vegetables.



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### Consumption Gap Necessitates U.S. Action

The average American eats only 3.6 daily servings of fruits and vegetables (2.2 servings of vegetables and 1.4 servings of fruits), according to a 2005 NPD Foodworld report, and on any given day, the National Center for Health Statistics

has found that 45 percent of children eat no fruit, and 20 percent eat less than one serving of vegetables. Meanwhile, 25 percent of all heart attacks, strokes, cancers and diabetes cases are attributed to diet.

Changing eating habits are at least partly to blame, with the routine omission of the side dish at dinner and the fact that more meals are eaten outside the home limiting opportunities for fruit and vegetable consumption. Federal food and nutrition assistance programs reach millions of vulnerable adults and children with healthy foods and eating messages, yet, the first significant changes to the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) food package in almost 30 years have only recently been recommended. Consistent with federal dietary guidelines, the inclusion of a broad variety of fruits and vegetables is proposed.

If consumers are to increase their intake, they need knowledge; they also require motivation, opportunity and ability, according to a 1999 *Journal of Marketing* article by M.L. Rothschild. Communication efforts can help motivate people, but marketing and policy are necessary to create an environment where the healthy choice is the easy choice.

To this end, PBH unveiled a *National Action Plan to Promote Health Through Increased Consumption of Fruits and Vegetables* earlier this year. Developed with input from food, nutrition, marketing, communications and policy leaders as well as a thorough assessment of scientific literature, the plan identifies more than 75 short- and long-term strategies in nine different settings, including supermarkets, restaurants, schools, worksites and communities, to help Americans of all ages boost their fruit and vegetable consumption. Overall plan objectives include:

- Increasing the accessibility and desirability of fruits and vegetables, by making them tasty, attractive, convenient, affordable, plentiful and easily available
- Offering practical strategies to help increase individuals' ability to obtain and prepare meals and snacks rich in fruits and vegetables.
- Changing Americans' attitudes and habits so that they include fruits and vegetables at every eating occasion.

Alongside the national plan (which is already supported by dozens of national health, nutrition and policy experts and organizations), PBH recently launched several innovative consumer programs under the umbrella of its 5 A Day The Color Way campaign, which teaches consumers to eat a colorful variety of fruits and vegetables every day. The foundation is also partnering with retail giant Wal-Mart to conduct family-oriented educational events in the chain's 1,700 U.S. stores and with the world-renowned Sesame Street Workshop to reach toddlers and their families. ACNielsen research has shown that awareness of the foundation's Color Way campaign leads to increased fruit and vegetable purchases and reported consumption.

PBH has also stepped up efforts to help prioritize fruits and vegetables in federal policies and programs. Most notably, with PBH input, the new *Dietary Guidelines for*

*Americans 2005* recommend consumers eat more fruits and vegetables than any other food group. Since the guidelines form the basis of U.S., and sometimes other nations', food and nutrition policy, at a minimum, the new recommendations of five to 13 (as opposed to nine) daily servings of fruits and vegetables should mean more of these healthy consumables in federal nutrition programs, such as WIC and the national school lunch and breakfast programs.

In the year ahead, PBH will build support for its national action plan. It will also encourage school districts to put fruits and vegetables first in their wellness policies and will work with national and local partners to expand a new school fruit and vegetable snack giveaway program, which is currently limited to eight of the 50 states.

### Worldwide Attention Also Grows

As U.S. efforts to promote fruit and vegetable consumption multiply, so do international initiatives. Recognizing that overweight, obesity and related diseases account for some 60 percent of deaths and 47 percent of disease globally, last May, the World Health Organization (WHO) and the Food and Agriculture Organization endorsed WHO's *Global Strategy for Diet, Physical Activity and Health*. This global roadmap to public health highlights increased fruit and vegetable consumption, noting the proven effectiveness of 5 A Day-type programs and encouraging U.N. member nations to adapt similar programs in their countries.

In August 2004, representatives of 31 countries took part in the 4th International 5 A Day Symposium presented by PBH and WHO. Out of this conference came the call for an international federation of fruit and vegetable promotion programs. As the pioneer of 5 A Day-type programs, PBH is now helping to create this international federation to provide networking, educational forums, and model materials and techniques.

PBH is also supporting WHO's regional program launch efforts. In April 2005, the foundation shared its expertise with other 5 A Day-type program leaders of The Americas at a first-ever Pan-American Congress on Promotion of the Consumption of Vegetables and Fruits in Guadalajara, Mexico. It will participate in a similar gathering in South Africa in September.

The goal is to make healthy living easy, in America and abroad. To do so requires resolve and cooperation. Now that the ball is rolling, maybe we can finally expect results.

#### For more information on:

--International Federation...

Ron Lemaire, [rlemaire@cpma.ca](mailto:rlemaire@cpma.ca)

--PBH's *National Action Plan*...

[www.pbhfoundation.org/actionplan](http://www.pbhfoundation.org/actionplan)

--U.S School Wellness Policies...

[www.schoolwellnesspolicies.org](http://www.schoolwellnesspolicies.org)

--WHO-related programs and initiatives...

<http://www.who.int/dietphysicalactivity/en>,

[http://www.who.int/dietphysicalactivity/publications/en/fruit](http://www.who.int/dietphysicalactivity/publications/en/fruit_vegetables_report.pdf)

[\\_vegetables\\_report.pdf](http://www.who.int/dietphysicalactivity/publications/en/fruit_vegetables_report.pdf),

<http://www.congresoverdurasfrutas.org/>

## CECHE's Tobacco-Control Program in South India Lights Up

A joint project with the Chennai-based NGO Roshni, CECHE's *Tobacco Control Communications Program in S. India* is breathing new life into Pattur, a small village that has been dependant on the production of beedis (small unfiltered cigarettes) for income and has a high prevalence of smoking, even among children.

Launched in September 2004, the two-year effort aims to raise awareness of the health hazards of smoking in this village of 2,000 near Chennai and to train selected members of the population, especially women, in skills suitable for non-tobacco trades.

### Training and Communications

The program employs print and electronic media to reach its audience and promote its goals. These include the formation of self-help groups and the introduction of microcredit programs, non-formal education, vocational training, income-generating skills, and health and hygiene classes and camps.

Progress over the past eight months has been encouraging. In October 2004, for example, three self-help groups (SHGs) were formed with 20 women each from families involved in beedi rolling, and members were trained to conduct weekly group meetings on smoking and tobacco use cessation. By December, these 60 women had begun to enroll local girls and women in a six-month tailoring and embroidery program organized by the Roshni Tailoring Centre, an established school helping independent women transition from beedi rolling to a more healthy, profitable profession. Roshni also conducts tailoring classes at Pattur and enables women to get diplomas in this discipline and jobs in the garment industry. In addition, the NGO has helped the SHGs activate and use bank accounts, enabling them to save money using the microcredit system, which extends small loans to poor people for self-employment projects that generate income and help support themselves and their families. Today, all three SHGs have significant savings accounts and are able to offer internal loans.

In the first two months of 2005, following the devastating tsunami in Asia, the Pattur SHGs embroidered clothes and made pickles, pappads (Indian lentil snacks) and incense sticks for sale at the Roshni Centre. The proceeds of Rs.20,000 (\$500) were used to purchase and distribute basic necessities such as rice, water pots, floor mats and bed linens to the tsunami victims at Kalpakkam.

In March of this year, Dr. C. Kolappan, deputy director of the Tuberculosis Research Centre in Chennai, delivered a mesmerizing speech in Pattur about the harmful effects of tobacco on the human body using visual aids that had a profound impact on the 250 attendees.

In April, preparations began for a periodic health screening and treatment program for Pattur's beedi laborers,



Roshni's self-help group meets on smoking and tobacco use cessation.

with the hiring of medical staff and the printing of health cards for families involved in beedi rolling. To help raise awareness among the younger members of the community, oratorical contests, as well as poster and skit competitions on the hazards of tobacco, have been held for middle- and high-school children.

On May 31, in observation of World No-Tobacco Day, Roshni screened two short films starring top Tamil actors conveying the message of "no-tobacco" in Pattur. The NGO also held street fairs to mark the occasion, and in collaboration with REACH international, an organization for tuberculosis control, distributed pamphlets on smoking as a risk factor for tuberculosis.

Going forward, CECHE and Roshni plan to:

- Set up a clinic and hygiene center, and conduct medical and health camps that perform periodic follow-up
- Set up a facility in the health center for counseling sessions to discourage beedi making and smoking
- Engage more groups in the community in tobacco-control campaigns
- Enhance vocational training, job searches and placements, and wean people from tobacco rolling
- Arrange nutrition and hygiene sessions with demonstrations on cooking healthy food
- Participate in the World Health Organization's biannual QUIT and WIN campaign
- Adopt science-based methods for treating tobacco dependence.

### Evaluation of Impact and Anticipated Results

The *Tobacco Control Communications Program in S. India* will assess the impact of its educational and training activities on both use cessation among beedi smokers and

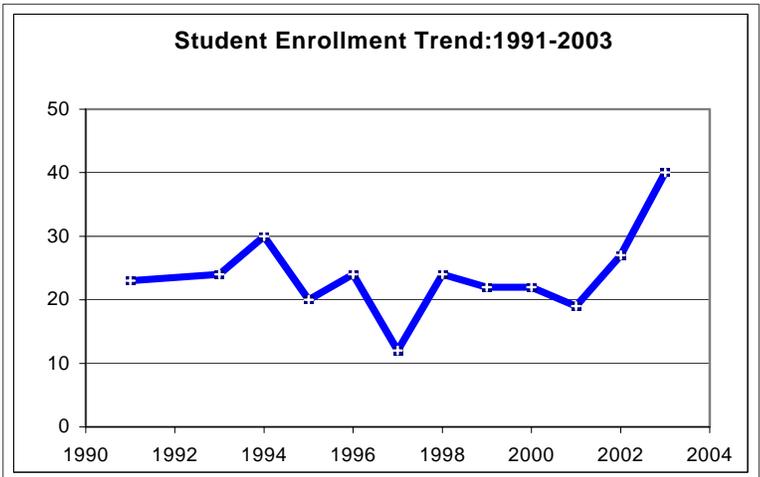
the increase in non-tobacco trades among beedi rollers. The effect of pamphlets and other educational materials on recognition of the hazards of smoking will also be assessed through random interviews and discussions with residents. Periodic check-ups at the health center, as well as regular follow-ups, will help to determine the degree of awareness created among the beedi smokers.

The number of people who receive anti-smoking counseling and who quit smoking are anticipated to increase, and the program is expected to lead to substantial health and economic benefits among Pattur's population as it promotes the reduction of beedi-smoking-related morbidity and mortality in South India.

## CECHE's Scholarship Program at UDC Delivers Desired Results

Aimed at stimulating student enrollment and retention, CECHE's Nutrition Scholarship Program at the University of the District of Columbia has done both over the past four years. The university's Nutrition and Food Science Program has seen a 62 percent increase in enrollment since the scholarships were introduced in 2001, from 19 to 49 students (see table), and an equally impressive increase in retention. To date, 22 UDC nutrition and dietetics majors have received scholarships as part of the CECHE initiative.

In addition, in 2004, the scholarship program facilitated the awarding of a 10-year accreditation to the Nutrition and Food Science Program by the American Dietetic Association's Commission on Accreditation for Dietetic Education. In response, UDC's Department of Biological and Environmental Sciences anticipates starting an internship cum master's program in nutrition and dietetics (with emphasis on public policy, communication and clinical experience) to comply with the recommendations of the Commission on Dietetic Registration's task force, which requires a graduate degree to become a registered dietitian. Meanwhile, UDC looks forward to maintaining the momentum generated by the scholarship program and its promise of professional challenge and financial assistance.



### 2004-2005 Scholarship Recipients



**Beth C. Burchard:** Recruited to UDC's Nutrition and Food Science baccalaureate program in 2003, Ms. Burchard's long-term goal is to work as a registered dietitian in the Washington, D.C. area.

In view of the nationwide epidemic of overweight, she hopes to focus her practice on weight management, physical fitness and diet- and lifestyle-related illnesses.

**Mercedes M. Laudano:** A part-time student with the Nutrition and Food Science Program since 2003, Ms. Laudano aims to work as a dietitian, conducting research as well as servicing clients in the field of developmental disabilities.



**Christine A. Hanson:** Ms. Hanson joined the Nutrition and Food Science Program in 2005 with a bachelor's degree in English and a master's in health and fitness management. She is a certified nutrition specialist and a personal trainer. Her desire to pursue a second bachelor's degree is driven by her dream of starting a private practice in personal training and weight loss management.

**Denise Lyn Tyree:** Ms. Tyree joined the Nutrition and Food Science Program in 2003. She intends to pursue a dietetic internship and a graduate degree in public health after her graduation in 2006. Her long-term goal is to work as a health inspector to set occupational standards for food safety and to educate the public about proper food handling and food safety.

**Shanette D. Jenkins:** A part-time student in the Nutrition and Food Science Program since 1999, Ms. Jenkins expects to graduate in 2007 to pursue a career as a nutritionist with the United States Department of Agriculture (USDA) or the Food and Drug Administration.



**Constance Addai-poku:** Ms. Addai-poku has been with the Nutrition and Food Science Program since 1999 and plans to graduate in spring 2006. Her goal is to work as a food inspector at USDA or the District of Columbia Consumer and Regulatory Affairs.

**Rebecca J. Salus:** A 2003 scholar, Ms. Salus was also awarded a 2004-05 scholarship to enable her to participate in the American Dietetic Association's 2<sup>nd</sup> Annual Leadership Institute in St. Petersburg, Fla. One of 400 member leaders selected out of 70,000 for this integrated, intensive, multi-format certificate-training program, she expects to strengthen



her leadership skills, especially as a member of UDC's Nutrition Club, which she hopes to help transform into a "Student Dietetic Association."

*Prema Ganganna, Ph.D., Director, DPD Program  
Department of Biological and Environmental Sciences  
University of the District of Columbia*

## Policy Beat

# WHO's Global Strategy on Diet, Physical Activity and Health, and America's New Dietary Guidelines Require Multisectoral Commitment to Promote Public Health

*by Derek Yach, MBChB, M.P.H., Professor and Head, Division of Global Health, Yale School of Public Health, New Haven, Connecticut*

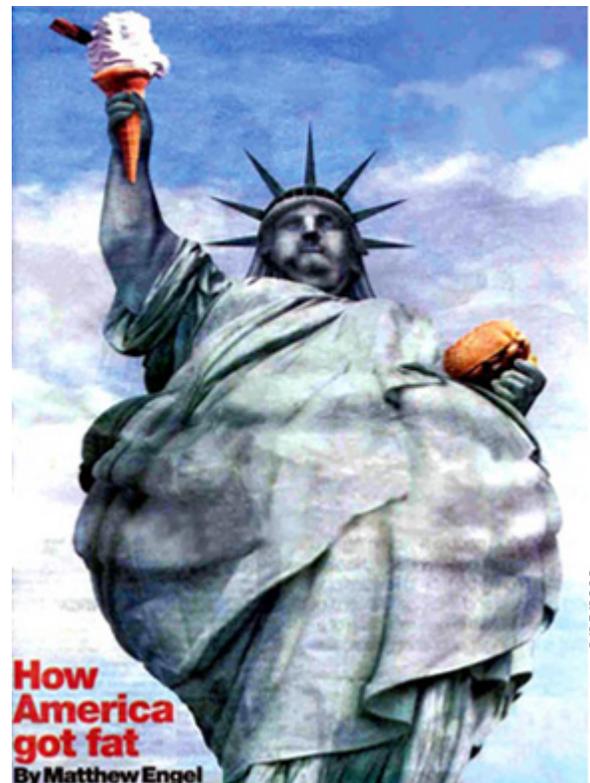
Chronic disease risks, especially tobacco, unhealthy diets and a lack of physical activity, threaten the health of people in all but the very poorest countries in the world. Globally, 1.3 billion individuals smoke, and 1 billion people are overweight or obese compared to the 800 million who are underweight. China alone is home to 360 million smokers, 200 million overweight adults and 60 million obese adults. Not surprisingly, this Asian nation annually records 1 million deaths from tobacco use and almost 3 million deaths from cardiovascular disease.

Today, obesity prevalence is increasing in most countries across the globe, with no national examples of a sustained decline outside of wars and famines. Meanwhile, the investment in public health and related research, interventions and policies to control these risks remains paltry compared to the burden of disease and economic hardship they cause.

In recent years, with the World Health Organization's Framework Convention for Tobacco Control, the international community stepped up its determination to control tobacco dissemination and use. In parallel, the development of science-based guidelines for action and a global strategy for diet, physical activity and health (GSDPA) have now been completed (see *Monitor*, Vol. 11, Issue 1, 2003 at <http://ceche.org/mol/Spring-03/index.html>). How does this global strategy, endorsed by a World Health Organization (WHO) resolution in May 2004, differ from the "Dietary Guidelines for Americans" released earlier this year?

### Comparing the Recommendations

Both the WHO and U.S. reports draw on the same scientific pool of knowledge. Both were subject to intense lobbying by groups representing products or commodities that science suggests should be consumed less, and together they heard little from the fruit, vegetable and grain sectors, which, sadly, are not well-organized to push for increased



consumption as a public health goal. Both reports also came to the same major conclusions and issued the same messages for individuals:

- Achieve energy balance and a healthy weight.
- Limit energy intake from total fats and reduce intake of certain types of fats.

- Increase consumption of fruits, vegetables, whole grains and nuts.
- Limit intake of free sugars and salt.
- Increase levels of physical activity.

There are a few differences, however. The U.S. guidelines encourage increased consumption of dairy products — a response, according to some, to strong industry influence. The U.S. guidelines also provide separate, and helpful, advice about the levels of exercise required to stay fit and to reduce body fat. In addition, the language in the new American directives is less ambiguous on recommendations related to sugar than before. The fact that the WHO strategy preceded the completion of the U.S. guidelines may have helped ensure this, especially because, during drafting of the GSDPA, intense lobbying by the sugar industry, first through U.S. corporations and trade associations, and later through developing-country sugar associations, was exposed by many governments and international media as being purely self-serving and not a real effort to support health. By the time the United States was completing its new guidelines, many potential lobbyists, at the urging of leading food companies, backed away from past practices and initiated a debate about how they could, and should, be part of the solution.

Overall, the differences between the U.S. and WHO reports are minor, and both have made important progress in reducing the use of vague and confusing words such as “moderation” and “balance,” although the U.S. guidelines still state, “Use alcohol sensibly and in moderation.”

### Going Beyond Diet

The WHO strategy had a remit to go further than merely listing optimal diets for individuals. It highlights, and encourages implementation of, sector-specific strategies to make adherence to the guidelines easier. These include:

- developing a cross-sectoral national plan of action that integrates diet and physical activity
- strengthening surveillance, monitoring and research
- addressing marketing within the context of a broad-based approach to promoting better health literacy at school, in the workplace and within the community at large

- introducing labeling that is understood and effective in influencing healthy food choices
- developing supportive agricultural, fiscal and urban design policies.

Many elements of implementation require strong, new partnerships among multiple sectors, including industry, academia and nongovernmental organizations. The WHO strategy specifies how best to optimize interaction among these groups to achieve the most desirable impact on health. Meanwhile, there is a compelling need to forge serious partnerships between the soft-spoken fruit, vegetable and grain groups and the public health community. At an international level, in 2004, the Food and Agriculture Organization (FAO) and WHO convened groups representing these sectors in Kobe, Japan to stimulate more public action. (To view the meeting report, visit [http://www.who.int/dietphysicalactivity/publications/en/fruit\\_vegetables\\_report.pdf](http://www.who.int/dietphysicalactivity/publications/en/fruit_vegetables_report.pdf).)

WHO’s global strategy recognizes that many aspects of food and nutrition policy are influenced for good or bad by transnational forces. For that reason, the role of a strengthened Codex Alimentarius Commission, an FAO/WHO committee that develops food standards and guidelines to protect consumer health and ensure fair food trade practices, is highlighted in labeling and marketing, as is the importance of enhanced cooperation between WHO, FAO, the World Trade Organization, the World Food Programme and UNICEF to foster development of a more integrated approach to promoting optimal diets worldwide.

### Ensuring Implementation

Importantly, the WHO and U.S. recommendations apply to under and over nutrition, and should be promoted as supporting the optimal diet for all. But, what will ensure execution of the guidelines? The same forces that call for clear guidelines will be advocates for their implementation! In addition, in such countries as the United States, failure to address the rising obesity epidemic and its associated economic and human costs may, over time, become an election issue that will expedite implementation.

The real test of the WHO and U.S. strategies and guidelines will be whether they have a measurable impact on obesity and the growing list of diseases it causes. For that to happen, both the public and the private sectors will need to make substantially greater investments in health promotion and disease prevention.