



# NutriNet News

## Fruits and Vegetables Fuel Activity

Despite the abundance of fresh, tasty summer fruits and vegetables, low income households tend to spend very few of their food shopping dollars to buy them. Research shows that fruits and vegetables can be helpful in weight management, and that eating a variety of fruits and vegetables can supply compounds that aid in preventing chronic disease. The Network's 2005 campaign, *Stepping Up to a Healthy Lifestyle*, will include lessons on fruits and vegetables to encourage participants to combine healthy eating habits with healthy activity habits. (see page 4)

### Household spending

A recent analysis of consumer expenditures conducted by the US Department of Labor and reported by the Economic Research Service found that low-income households spend significantly less per person for fruits and vegetables than other households. This was true for both fresh and processed fruits and vegetables. Larger households, households headed by a member with a college education, and households with a member over age 75 spent more on fruits and vegetables. Using statistical modeling, the study projected that when an additional dollar of income became available in a low-income household, it was more likely to be used to buy food from other food

groups, or used for other household needs, than to be used to buy additional fruits or vegetables.

This study points out the difficulty of encouraging low income households to spend more on fruits and vegetables and the need for nutrition education targeted to the needs of this audience. If other food groups are perceived as more



“necessary” when additional money is available, nutrition education should focus on both the benefits and “necessity” of fruits and vegetables as well as ways to shop wisely for them. For more information, see the September, 2004 issue of *Nutrition for Family Living*. (USDA Economic Research Service, Report #833, May 2004.)

### Weight management

Rates of obesity continue to rise in the general population and among low income individuals. Researchers at The Pennsylvania State University reviewed the literature related to increasing fruit and vegeta-

ble consumption and weight management. Fruits and vegetables can aid in weight management by helping reduce energy intake and promote satiety (feeling of fullness). These effects may be due to fruits' and vegetables' high water and fiber content and low energy density.

Satiation is assessed by measuring the amount eaten when food is freely available. In reviewing studies of satiation with different amounts of fruits and vegetables, the authors found that when diets included more fruits and vegetables, people ate a consistent amount of food each day but consumed fewer total calories, leading to weight loss. The increased intake of fruits and vegetables may have helped with hunger control because people could feel satisfied with an amount of food similar to what they were used to eating while consuming fewer calories.

In other studies, where participants were given education rather than food, people who increased their fruit and vegetable intake and reduced their fat intake lost more weight and kept it off. The positive message, encouraging people to “eat more” rather than “eat less,” may help avoid feelings of deprivation and hunger. (*Nutrition Reviews*. 2004; 62: 1-17.)

## Wisconsin Nutrition Education Network

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# Reducing Sedentary Behavior

It's easy to assume that if people simply watched less television, they would be more active. Studies have shown that's not the case. The factors that influence sedentary behavior are different from the factors that influence physical activity. Reducing sedentary behavior and promoting physical activity need to be considered separate educational goals.

## Less television, more time

A study of sedentary adolescent girls enrolled in an obesity prevention program found that participants spent almost four times as much time watching television as they spent being physically active. Overweight girls spent more time watching television, but girls who watched the most television were not necessarily the least active. After the intervention, the girls who made the most positive behavior changes were those with fewer time constraints and more support for physical activity from parents, peers and teachers. The authors suggest that one way to address time constraints as a barrier to activity is to recommend reducing time spent watching television. (*Arch Pediatr Adolesc Med.* 2003;157:803-810.)

## Make active choices available

Different factors influence physical activity and television viewing. Reducing time spent watching television does not necessarily lead to more time spent being active. A study of obese 8-12-year-olds and their families compared interventions to reduce sedentary behavior and increase physical activity. Both interventions reduced overweight and improved fitness, and both interventions led to more time spent being active and less time spent on certain sedentary behaviors during the

two years of the study. But some participants simply substituted other sedentary behaviors for the ones they were encouraged to reduce. The authors comment that whether kids will choose to be active or to do something sedentary depends on which choices are available, and how much they enjoy the available choices. Kids who don't have access to enjoyable physical activities may choose sedentary behaviors instead. The authors conclude that both reducing sedentary behavior and increasing physical activity should be encouraged as part of obesity prevention programs. (*Arch Pediatr Adolesc Med.* 2000;154:220-226.)

## Less television, less snacking

Decreasing sedentary behavior can also reduce opportunities for eating between meals. A study of elementary school children in California found that kids ate more often while watching television than during other sedentary activities such as using a computer, doing homework, or riding in a car. More than one-third of children's dinners were eaten in front of the television. On weekends, more than one quarter of their total energy intake was consumed in front of the television. The foods they ate in front of the television were not any higher in fat than foods they ate elsewhere, but they ate fewer vegetables while watching television. (*Am J Clin Nutr.* 2004;79:1088-1094.)

## How parents can help

Parents can help children achieve a healthy weight by encouraging physical activity, limiting sedentary behavior choices, and making healthy snacks available.

- For preschoolers, reallocating television time to outdoor play time may not only protect against obesity but can have other positive effects, such as social interaction and cognitive stimulation through imaginative play. (*Arch Pediatr Adolesc Med.* 2004;158:353-357.)

Turning off the television is not enough if the only available alternatives are other sedentary activities.

- The American Academy of Pediatrics recommends limiting children's total media time (television, computers, etc.) to no more than 1-2 hours of quality programming per day, removing television sets from children's bedrooms, and encouraging alternative activities such as reading, athletics, hobbies, or creative play. (*Pediatrics.* 2001;107(2):423-426.)
- Turning off the television is not enough if the only available alternatives are other sedentary activities. Parents who transported their child to activities, stayed to observe activities, participated with their child, and encouraged the child had children who were more active and more confident in their ability. (*Am J Prev Med.* 2003;25(4):277-282.)

## Obesity: A Global Epidemic

*Family Mealtime: Inviting Everyone to the Table* was the subject of the Society for Nutrition Education's annual meeting in July. Three very informative presentations on public policy related to obesity have been posted to their website (<http://www.sne.org/conference/index.html>): Dr. Susan Finn, Chair of the American Council for Fitness and Nutrition, on "Committed to Building a Healthy America," Dr. Philip James, London School of Hygiene and Tropical Medicine, on "Policy Options for Addressing the Global Obesity Epidemic," and Dr. Susan Roberts, Drake University Agricultural Law Center, on "America's Obesity Crisis." Each of these Powerpoint presentations provides many statistics and slides of the current issues surrounding the worldwide obesity problem.



## Words from the Wise: Planning a Campaign

We asked three coordinators to tell us how they planned their 2004 *Walk, Dance, Play* campaign with their team. Their comments can be summarized into three pieces of advice:

### Get your partners early.

*Diane Dankert, Milwaukee WIC:* We met face-to-face at the teleconference and brainstormed together, then met again to share materials after people had time to work things out. Staff turnover was a challenge for us but following up really helped.

*Darlene Kramer, WNEP Coordinator, Outagamie & Winnebago Counties:* I contacted the program directors and did inservices for their staff to sell the campaign. It was an easy sell because the materials were attractive and WNEP staff was willing to come in and do the teaching.

*Jennifer Sprengelmeyer, Vernon County WIC:* Our group was formed from our area's Nutrition Coalition, so some of us

had worked together already. The campaign was a great networking opportunity – it helps with referrals to know what others in the community are doing.

### Plan with your partners and coordinate your activities.

*DK:* Sharing ideas and developing how the program was going to be conducted was a joint effort with WNEP and the partners involved.

*DD:* In our case, each partner did their own thing, but we made modifications to some of the materials for our audience and shared them among ourselves.

*JS:* We had lots of activities that included several partners, and were able to use some resources from the Nutrition Coalition, like a community resource guide that included information about places to be active and contact information for local agencies, in our WDP activities.

### Be creative... Make it a campaign!

*JS:* We had a display at the farmers mar-

ket that was staffed by different agencies, a program for families in Viroqua schools with different activities presented by different partners, and a monthly Family Fun Night at WIC.

*DK:* We held the events during check pickup days at WIC and parent education meetings for Head Start. The response from the program participants was fantastic!



This article is the second in a series that will look at topics related to conducting a Network campaign. If you have suggestions for future topics, email Betsy Kelley, [kelly@nutrisci.wisc.edu](mailto:kelly@nutrisci.wisc.edu).

## Fruits and Vegetables (continued from page 1)

### Reducing disease risk

In addition to weight management, fruits and vegetables can help reduce the risk of chronic disease. Phytochemicals are compounds in plants that give them their color and also protect them against diseases. Researchers are finding that these same compounds also protect humans against diseases. Because there are hundreds of different phytochemicals, the best approach is to eat lots of different colors of fruits and vegetables to get the benefit of lots of different compounds.

For example, carrots, orange squash, sweet potatoes, broccoli and spinach contain phytochemicals called carotenoids. The Nurses' Health Study showed that women who eat the most carotenoid-rich vegetables have the lowest risk of breast cancer.

Cruciferous vegetables include broccoli, Brussels sprouts, cabbage, cauliflower, collard greens, rutabaga and turnips. Researchers at the Fred Hutchinson Cancer Research Center in Seattle reported that men who eat at least 1.5 cups of cruciferous vegetables a week can reduce their prostate cancer risk by more than 40%. ([www.5aday.com](http://www.5aday.com), [www.cdc.gov/nccdphp/dnpa/5ADay/index.htm](http://www.cdc.gov/nccdphp/dnpa/5ADay/index.htm))

### Eating More

Educators know it's not enough to tell people why fruits and vegetables are good for them – specific suggestions for including more fruits and vegetables in the diet will be more helpful in making behavior changes. University of Minnesota researchers looked at 4<sup>th</sup>-6<sup>th</sup> graders' fruit and vegetable consumption patterns in order to come up with recommendations for encouraging kids to eat more fruits

and vegetables.

The most common behaviors were starting the day with juice or fruit; eating fruit offered with school lunch; eating a vegetable at the evening meal; and asking parents to buy fruit for snacks. Other research has suggested that children often have control over their breakfast and snacks. Nutrition education should encourage kids to adopt easy behaviors, and target preferred fruits and vegetables, that fit into their current routines and eating habits. For example, kids can be encouraged to drink a glass of juice in the morning or eat a vegetable with dinner. This study showed that these behaviors are already fairly routine for many, but could be practiced more often. (*J Am Diet Assoc.* 2000; 100(7); 828-830.)

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### Our Mission

The Wisconsin Nutrition Education Network facilitates collaborative planning of nutrition education programs at the state and local levels. We promote healthful and enjoyable eating so that Wisconsin's low income individuals and families receive consistent, positive, relevant, accurate, and effective nutrition messages.

Nutri-Net News is published quarterly. It is available on the web or by mail.

## Sign up for *Stepping Up to a Healthy Lifestyle*

Wisconsin Nutrition Education Network staff has been very busy this summer planning and adapting educational materials for the March through August 2005 Campaign to encourage food stamp families and individuals to be more active and eat healthier. The planning committee (listed in our Spring NutriNet News) has been essential to making decisions for 2005.

Katie Williams, doctoral graduate student in Biochemistry, has been working with us to adapt and format teaching materials for the campaign. Unfortunately for us (but fortunately for Katie), she has received a fellowship to expand her biochemistry research. Many thanks to Katie for her fine work.

Betsy Kelley has been performing the "techie" tasks to make the 2005 campaign happen. She has redesigned the website and is helping the Network move into the electronic age. No more time consuming tracking data by snail mail, fax and reentry.

Reporting for *Walk, Dance, Play* will be done through the web. WNEP staff will report directly to the WNEP reporting system under Dietary Quality topic Walk, Dance, Play. All other team members should provide 2004 summary results directly to our website (go to Walk, Dance, Play → Report Your Results). Campaign

results should be reported as soon as Walk, Dance, Play 2004 activities are completed and **not later than September 15**.

The 2005 recruitment letter and application form is in the mail and on the website (go to Campaign 2005 → How to Participate). Groups of 3 or more agencies serving Wisconsin Food Stamp recipients and applicants should decide on a team leader and submit the application form. A team is to be made up of at least 3 different partner agencies that serve Food Stamp recipients and applicants, in at least 3 different educational settings. No financial agreement is required between the agencies. Forms must be complete with e-mail addresses and phone numbers. **Applications must be received by Friday, September 17, 2004.**

2005 campaign materials will be password protected. A sample lesson and outline of what will be provided is on the website (go to Campaign 2005 → Materials). Past campaign materials will be available for anyone to use.

Another new feature this year is the use of WislineWEB for training the 2005 teams. On Wednesday, October 27, 2004, from 10-11:30am the WislineWEB discussion and presentation will guide you on how to conduct campaign activities during the

months of March - August, 2005, how to use our lesson plans and how conduct the evaluation of the campaign.

The Nutrition Education Network staff is looking forward to working with you to make this a great campaign.

### National 5-A-Day Month: Lead the Way to Better Health

September is 5-A-Day month and this year's theme is "**Lead the Way: Choose Fruits, Vegetables, and Physical Activity.**" Key messages for this year's campaign include:

- Lead the Way! Add zest and flavor to your meals by eating 5 to 9 servings of colorful fruits and vegetables every day!
- Lead the Way! Take action against America's health crisis and eat more colorful fruits and vegetables every day as the smart and easy way to get healthy!
- A daily diet rich in colorful fruits and vegetable and low in saturated fat and cholesterol, in combination with daily physical activity, can help fight overweight, obesity, and other chronic public health issues.

For more information on National 5-A-Day Month, visit [www.5aday.org](http://www.5aday.org) or call Amy Meinen, Wisconsin 5-A-Day Coordinator, at (608) 267-9194.



### Network Update