



Nutrition for Family Living

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April, 2002 Topics

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Food Security Statistics

The most recent household food security survey, conducted by the USDA through the US Census Bureau in September 2000, sheds light on the prevalence of food insecurity, household spending on food, and use of food assistance programs. This survey has been conducted annually as a supplement to the Current Population survey since 1995. Note that this report shares survey data from September 2000, a time when the economy was generally considered to be strong.

PREVALENCE

Nationally, between 1998-2000, the prevalence of food insecurity fell by 11.3% and the prevalence of hunger fell by 15.6%. This number is a general improvement for all areas of the country and all household types.

- 89.5% of all households were food secure throughout the year. This means they had access, at all times, to enough food for an active, healthy life for all household members.
- 10.5% of households (11 million households) were food insecure. At some time, they were uncertain of having, or unable to acquire, enough food for all their members due to insufficient money or other resources.
 - Of those households, about one-third were food insecure to the extent that one or more members was hungry, at some time during the year.
 - The other two-thirds were able to acquire enough food to avoid being hungry by using a variety of coping strategies such as eating less varied diets, participating in Federal food assistance programs, or getting emergency food from community food pantries.

HOUSEHOLD SPENDING ON FOOD

- The typical household spent \$37.50 per person for food each week.
 - The typical food secure household spent 41% more than the cost of USDA's Thrifty Food Plan (a low-cost "market basket" that meets dietary standards. The cost of the Thrifty Food Plan for two adults and two children during the month this survey was conducted was \$87.80 per week).
 - The typical food insecure household spent 4% more than the cost of the Thrifty Food Plan.



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- The typical household considered food insecure with hunger spent 2% less than the Thrifty Food Plan.
 - Households with children generally spent less for food than those without children.
 - Households that received food assistance spent substantially less for food than households that did not receive food assistance.

USE OF FOOD ASSISTANCE PROGRAMS

2.5 million households (2.4% of all US households) obtained food from food pantries one or more times in 2000. Households with children were twice as likely as those without children to use food pantries.

Among food insecure households:

- 50.4% had help from at least one of these Federal programs: food stamps, free or reduced-price school lunch, or WIC.
- 16.7% got emergency food from a food pantry, church, or food bank.
- 2.5% had members who ate at an emergency kitchen.

Comments from Kadi Row, Food Security Specialist, on implications for Extension educators:

This food security survey gives us a picture of the prevalence of food security nationally during a point in time, and combined with earlier years is useful to show trends. The sample size is too small to give specifics for Wisconsin for any given year. You may wish to refer to the Food Research and Action Council's State of the States report for information on Wisconsin rates: <http://www.frac.org/html/publications/stateofstates02.pdf>

It is good news that fewer people throughout the country reported food insecurity or hunger in 2000. We know, however, that low-income families (food stamp program participants) are more likely to be food-insecure than the general population. Refer to Judi Bartfeld's summary of the survey of food pantry clients for research targeted at a needy population: <http://www.uwex.edu/ces/wnep/p7/pdfs/fdpntsvy.pdf> Likewise, the Wisconsin WIC program conducted a food security survey of their clients in January 2002. Results are pending, but a summary of results from their pilot survey in January 2001 is found at: <http://www.uwex.edu/ces/wnep/p4/pdfs/02rssecr.pdf>

We also know that the period for which change is measured in this study (1998-2000) was a period of strong economic growth. See a summary of recent studies showing how more people are seeking help to meet food needs: <http://www.uwex.edu/ces/wnep/p3/pdfs/fsecupdt.pdf>

Now is certainly a time when Extension educators can help low income families, whether food secure or insecure, to shop wisely and use the resources they have to acquire nutritious food. Wisconsin's Money for Food curriculum is available to teach this topic: http://cf.uwex.edu/ces/wnep/tch_res/res_detail.cfm?resource_id=42

Nord, M et al. Household Food Security in the United States, 2000. Food and Rural Economics Division, Economic Research Service, U.S. Department of Agriculture, Food Assistance and Nutrition Research Report No. 21. <http://www.ers.usda.gov/briefing/foodsecurity/>



Research: Physical Activity Makes the Difference in Avoiding Weight Gain

Researchers at the University of Alabama looked at sedentary women's metabolic rates and activity levels to investigate why some women gained weight and some did not. They found that women who maintained their weight during the year of the study were more active in their daily lives and had greater muscle strength.

The study looked at 61 white or black women aged 20-46. Half the women had been recently overweight but at the time of the study, all were normal weight, and all were sedentary, which was defined as exercising less than once/week in the past year. A number of assessments of body composition, metabolic rates, and physical fitness were made at the beginning of the study, and repeated one year later. No intervention was made during the year of the study. At the end of the year, subjects were divided into two groups: gainers, (20 women who gained more than 15 lbs) and maintainers (27 women who gained no more than 5 lbs).

The most important finding of this study is that the women who maintained their weight during the year had more active daily lives and greater muscle strength than the women who gained weight, both at the beginning and the end of the year-long study. Statistical analysis revealed that the maintainers spent an average of about 215 more calories in physical activity each day than the gainers did. Researchers concluded that, of the many factors that could contribute to weight gain, inactivity accounted for over 75% of the weight gain among gainers, even more than calorie intake. The difference in calorie intake between the gainers and the maintainers wasn't great enough to account for the difference in their weight gain during the study, and there were no significant differences in metabolic rates between the groups.

Further analysis of the data proposes that the women who gained weight would have had to spend approximately 80 minutes per day in moderate physical activity to avoid gaining weight without reducing their calorie intake. If they exercised more vigorously, they would have needed to add only 45 minutes of physical activity per day, and it follows that if their activity were low-intensity, they would need to be active for an even greater amount of time.

Bottom line: Since neither group of women reported regular exercise, what made the difference? The women who maintained their weight got more physical activity, mainly as low-intensity physical activity that was part of their daily living habits, such as walking, taking the stairs or gardening. This study confirms that a lifestyle that includes regular activity as part of daily living can be an important factor in preventing weight gain, regardless of a person's weight history.

Watch for information about the WI Nutrition Education Network's 2002-2003 *Walk, Dance, Play...Be Active Every Day* campaign to encourage good nutrition and physical activity among low-income caregivers of children. The Network's website can be found at <http://www.nutrisci.wisc.edu/nutrinet/>. Check out the April issue of NutriNet News on their website.

Weinsier RL et al. Free-living activity energy expenditure in women successful and unsuccessful at maintaining normal body weight. *Am J Clin Nutr* 2002;75:499-504.

Wyatt HL, Hill JO. Let's get serious about promoting physical activity. *Am J Clin Nutr* 2002;75:449-50.



For Your Use: Physical Activity Makes the Difference in Avoiding Weight Gain

A study from the University of Alabama confirms that all the physical activity people get – even simple things like climbing stairs – adds up when it comes to avoiding weight gain.

Researchers compared sedentary women who gained weight with sedentary women who maintained their weight and found that the main difference between the groups was the amount of physical activity they got in their daily activities. The authors suggest that spending more time in low-intensity physical activity can make a big difference for middle-aged, sedentary women who want to maintain their weight.

Half the women in the study had been overweight in the past, but at the time of the study all were normal weight and reported exercising less than once/week during the past year. A number of assessments of body composition, metabolic rates, and physical fitness were made at the beginning of the study, and repeated one year later. At the end of the year, the 61 subjects were divided into two groups: gainers, (20 women who gained more than 15 lbs) and maintainers (27 women who gained no more than 5 lbs).

Since neither group of women reported regular exercise, what made the difference? Of the many factors that could contribute, inactivity had the greatest influence on whether the “gainers” gained weight. The women who maintained their weight got mainly low-intensity physical activity as part of their daily living habits, such as walking, taking the stairs or gardening. People can choose to add more minutes of low or moderate activity, or fewer minutes of more vigorous activity, with the goal of being moderately active for at least 30 minutes each day to help prevent weight gain. This study suggests that some people may need more than 30 minutes each day if their activity is low-intensity or if they are consuming more calories than necessary.

Some suggestions for ways to be more active to help maintain your weight:

- Park at the back of the parking lot. Push your own shopping cart and unload your own groceries.
- If you let your dog out into a fenced yard, take a moment to go outside with him. Pull a few weeds, sweep the sidewalk, or just walk around. Better yet, take him for a walk around the neighborhood instead of letting him out to exercise himself.
- Wash your car yourself, rather than letting a machine do the work at a drive-through car wash.
- Looking for something new to do with your children or grandchildren? Check out a new playground in another part of town. While you’re there, push them on the swings or play along with them instead of watching.
- Don’t like walking by yourself? Borrow a dog! Or, invite the dog and its owner to join you for a walk.
- Hang your wash on the clothesline. Saves on your electric bill and lets you bend and stretch – and your clothes smell great!



Sherry's Holiday Functional Food: Eggs

Eggs are an important source of many nutrients. For a mere 80 calories per large egg, one egg provides 6 g of protein and 5 g of fat. That is the same amount of protein as 5 teaspoons of peanut butter and as much fat as a pat of butter. A single hard cooked egg also supplies the following minerals: calcium (25 mg), magnesium (5 mg), phosphorus (86 mg), potassium (63 mg) and sodium (62 mg). They are also a good source of many vitamins. In particular, a cross-sectional study of dietary intake from the National Health and Nutritional Examination Survey (NHANES III) revealed that although eggs only contributed <10% of the daily intake of energy (calories) for people who consumed them, eggs provided 10-20% of folate intake, and 20-30% of vitamins A, E and B12.

What has Sherry's research shown? In a survey study of children in Indonesia, a highly significant difference was observed in two groups of children using the modified relative dose response test for determination of vitamin A status. Through an informal dietary survey, we discovered that the children who had the better vitamin A status were actually receiving free eggs through a food supplementation program. Thus, a single source of highly available vitamin A can make a difference in the nutrient status of a child.

Eggs are also an important source of highly absorbable carotenoids, specifically lutein and zeaxanthin. Lutein and zeaxanthin have been implicated in the prevention of an age-related eye disease, macular degeneration. This is currently a very aggressive area of research at both the laboratory and epidemiological levels.

Moreover, in 1998 the National Academy of Sciences issued a report identifying choline as a required nutrient for humans and recommended daily intake amounts. Eggs are an excellent source of choline. Choline is essential for normal function of all cells. Specifically, it has been implicated in being needed during pregnancy and lactation for normal development of memory of the fetus and infant. Thus, choline is a critical nutrient that must be present at a specific time in brain development. Maternal reserves of choline become depleted during pregnancy and lactation.

Of course, not all things are perfect. The major drawback to eating lots of eggs is that they are high in cholesterol (~210 mg/egg). The good news is that in the general public, based on the NHANES III study, which included 27,378 people, more frequent egg consumption was **negatively** associated with serum cholesterol concentration. However, when fed at the rate of 1.3 egg yolks per day to eleven moderately hypercholesterolemic men and women, their LDL (bad) cholesterol did increase. Thus, as with most foods, moderate amounts are good but too much may be harmful. The American Heart Association recommends that healthy adults limit their cholesterol intake to less than 300 mg per day and the Dietary Guidelines for Americans recommend using egg yolks and whole eggs in moderation. If you are hypercholesterolemic or in a high-risk category for heart disease your doctor or dietitian will have specific dietary advice for you.



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If you would like further information the following resources were used for this article:

Handelman G.J., Nightingale, Z.D., Lichtenstein, A.H., Schaefer, E.J. and Blumberg, J.B. Lutein and zeaxanthin concentrations in plasma after dietary supplementation with egg yolk. *Am J Clin Nutr* 1999; 70: 247-251.

Song, W.O. and Kerver, J.M. Nutritional contribution of eggs to American diets. *J Am Coll Nutr*. 2000; 19: 556S-562S.

Tanumihardjo, S.A., Permaesih, D., Dahro, A.M., Rustan, E., Muhilal, Karyadi, D. and Olson, J.A. Comparison of vitamin A assessment techniques in children from two Indonesian villages. *Am J Clin Nutr* 1994; 60: 136-141.

Zeisel, S.H. Choline: needed for normal development of memory. *J Am Coll Nutr* 2000; 19: 528S-531S.



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Resources: American Cancer Society Guidelines on Nutrition and Physical Activity for Cancer Prevention

Every five years the American Cancer Society (ACS) releases updated guidelines for nutrition and cancer prevention. The 2002 guidelines include recommendations for physical activity. New to this edition are recommendations for changes in communities, workplaces and schools to ensure that Americans have opportunities to be physically active and eat healthfully.

Nearly one-third of the more than 500,000 annual US cancer deaths can be attributed to diet and physical activity habits. The ACS guidelines stress eating a variety of healthy foods, including whole grains and five or more servings of vegetables and fruits each day, and limiting foods high in saturated fat. The recommendations are consistent with the American Heart Association guidelines for the prevention of heart disease, and with the Dietary Guidelines for Americans.

Physical activity affects cancer risk indirectly, through its role in preventing overweight and obesity. Other mechanisms for its role in preventing different types of cancer are being investigated.

BK's comment: This document includes a comprehensive summary of diet and lifestyle factors that affect risks for the most common cancers, listed by type of cancer and also by dietary factor. If you want to keep one document in your "diet and cancer" file, this is the one. The Dietary Guidelines for Americans should still be the basis for Extension's general nutrition teaching, because they focus on good health and general disease prevention, rather than prevention of a single type of disease.

If you're looking for something to distribute to consumers about diet and cancer, Extension's bulletin "Eating for Your Health: Preventing Cancer" (B3712-4) is available from Extension Publications, and can be previewed on the web at http://www1.uwex.edu/ces/pubs/pdf/B3712_4.PDF.

The ACS guidelines are published in the March/April issue of the journal *CA: A Cancer Journal for Clinicians*. This journal allows full-text downloading of articles through the website www.freemedicaljournals.com. Search for the journal by title using the lefthand menu and follow the prompts to the March/April issue.

Byers T, Nestle M, McTiernan A, et al. American Cancer Society Guidelines on Nutrition and Physical Activity for Cancer Prevention: Reducing the Risk of Cancer with Healthy Food Choices and Physical Activity. *CA Cancer J Clin* 2002;52:92-119.



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Farmers Market Nutrition Program Update

Judy Allen of DHFS reports that the federal WIC Farmers Market Nutrition Program (FMNP) grant has been reduced by 49%. There is hope that the funds will be restored, but a plan to reduce the food package to \$12 and possibly shorten the issuance period is being established. Service areas will stay intact. Judy mentioned that the last word she has received reported no FMNP funding in the president's 2003 budget.

Kathy Schmitt of the Dept. of Agriculture, Trade & Consumer Protection (DATCP) is very disappointed to report that Wisconsin did not receive a Senior Farmers' Market Nutrition Program grant this year. The state submitted a request of \$612,500 for the program. However, the courier service failed to deliver the application until February 21- without DATCP's or USDA's knowledge - some 22 days late. Distribution of funds by USDA from available monies has already been determined and they have no recourse. They are still working with the Congressional delegation to try to get some funding.