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Received on: 05-06-02  
Nutrition & the M.D

VOL. 28 NO. 4  
APRIL 2002

# Nutrition

MAY 23 2002

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## The Proliferation of Fast Food And Snack Food in Schools

By **Erika Takada, MPH**, Evaluation Specialist, California Project LEAN, California Department of Health; **Amanda Purcell, MPH**, Manager, Food on the Run Campaign, California Department of Health; and **Peggy Agron, MA, RD**, Program Chief, California Project LEAN, California Department of Health

*Learning Objectives: After reading this article, the participant should be able to:*

1. Discuss the potential role of school meal offerings in the context of the current pediatric obesity epidemic.
2. State the accomplishments of a school-based nutrition education program.
3. Describe the importance of environmental support to foster changes in healthy eating and physical activity behaviors.

Overweight and obesity in children are now considered major public health concerns. Data from the 1999 National Health and Examination Survey (NHANES) show that 13% of children aged six to 11 and 14% of adolescents aged 12 to 19 are overweight. Over the past 20 years the percentage of children who are overweight has almost doubled (from 7% to 13%), and the percentage of adolescents in that category has nearly tripled (from 5% to 14%). Obese youth face an increased risk for serious health problems that have not been common during childhood until recently, including high blood pressure, high blood cholesterol levels, and abnormal glucose tolerance.

Although genetics plays a role in obesity, it appears that nutrition and physical activity factors are responsible for the recent increase in childhood obesity. Teens in the United States follow eating patterns that do not meet national recommendations. According to the Healthy People 2000 nutrition progress review, more than 84% of teens consume more than the recommended 30% of daily calories from fat, and 90% exceed the recommendation that no more than 10% of daily calories be obtained from saturated fat. Fewer than 5% eat the recommended five daily servings of fruits and vegetables. Some experts

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believe poor teen diets have been influenced by the easy availability of high-fat, high-calorie fast food.

Fast food and sweetened beverages have become readily available on school campuses. Fast food offered at schools, unlike meals sold under the National School Lunch Program (NSLP), usually is not subject to nutrient standards. As indicated by the 2000 California High School Fast Food Survey (CHSFFS), fast food accounts for a substantial portion of food sales in California's public high schools. Ninety-five percent of responding districts reported selling fast food. Additionally, school districts may give promotional rights to a fast food or beverage company in return for money or equipment. Seventy-two percent of responding school districts hold contracts and allow food and beverage advertising. Of those, 24% give exclusive promotion rights. This practice has most recently come under attack from advocacy groups, who say that children's health should not be jeopardized for financial needs and gains. In California,

*continued on page 2*

### In This Issue

This month we take a look at a program that was started in California to encourage healthier eating and more physical activity among schoolchildren. The authors of our lead article suggest that health professionals need to work with schools to help bring about positive change in these areas. In our Nutrition News section, we explore nutrition issues in colleges, nursing homes, and prisons. Other articles focus on children's consumption of fruit, juice, and vegetables, and on USDA reports that shed light on the nutritional values of school meals and competitive foods in the nation's schools.

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The continuing education activity in *Nutrition & the M.D.<sup>®</sup>* is intended for physicians and health care professionals with an interest in nutrition-related disorders.

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*Nutrition & the MD*® (ISSN 0732-0167) is published monthly by Lippincott Williams & Wilkins, Inc., 16522 Hunters Green Parkway, Hagerstown, MD 21740-2116. Customer Service Manager, Audrey Dyson: Phone (800) 787-8981 or (410) 528-8572. 24-Hour Fax (410) 528-4105 or Email [adyson@lww.com](mailto:adyson@lww.com). Visit our website at [LWW.com](http://LWW.com). Publisher, Daniel E. Schwartz: Phone (410) 528-4020, Fax (410) 528-4105.

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*Publisher: Daniel E. Schwartz  
Marketing Manager: Michele Swain  
Customer Service Manager: Audrey Dyson*

Subscription rates: *Personal*: \$91 US, \$111 Foreign. *Institutional*: \$142 US, \$162 Foreign. *Resident*: \$52 US and Foreign. GST Registration Number: 1380876246. Send bulk pricing requests to Publisher. *Single copies*: \$14. **COPYING**: Contents of *Nutrition & the MD*® are protected by copyright. Reproduction, photocopying, and storage or transmission by magnetic or electronic means are strictly prohibited. Violation of copyright will result in legal action, including civil and/or criminal penalties. Permission to reproduce in any way must be secured in writing from: Permissions Dept., Lippincott Williams & Wilkins, 530 Walnut St., Philadelphia, PA 19106, Fax (215) 521-8477.

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**Fast Food** *continued from page 1*

for example, such movements have led to the passage of legislation such as SB19, which establishes nutritional standards that must be met by non-NSLP foods in public schools, and the introduction of SB1520, which proposes a tax on all soft drinks sold in the state.

**Approaches**

The following paragraphs present examples of smaller-scale, but innovative, approaches to combating the problem of fast food in schools and improving the health status of children.

**Media Advocacy**

Results from the CHSFFS were mentioned earlier, but perhaps the most important part of this report was the dissemination of the findings. A media advocacy approach was used to address the problem of fast food sales in public high schools. Media advocacy is defined as the strategic use of mass media to support community organizing to advance a social or public policy initiative. One of the main components of the media advocacy effort was a press event that strategically used the media as a channel to:

1. Bring forth the issue of the prevalence of fast food to policy makers, administrators, and parents;
2. Tell policy makers and parents why they should be concerned; and
3. Create a movement that supports policy and environmental changes that increase access to healthy foods.

Print coverage of this issue reached 26.8 million readers and was accompanied by extensive TV news coverage. Eighty-five percent of the news stories reported on the cause of the problem, and 81% of the news stories reported on one or more solutions for reducing the prevalence of fast food in schools.

The overall success of the media advocacy campaign was not luck or coincidence. Deliberate efforts were made in planning, developing press kits, and executing the press conference and interviews to communicate to the press and others that the high prevalence of fast food in public high schools was largely a population- and environment-based problem as opposed to an individual problem.

**School-Based Advocacy**

Food on the Run (FOR) is a multicomponent high school-based intervention in California that promotes healthy eating and physical activity among adolescents. The goals of FOR are as follows:

- To prompt high school students to advocate for healthy food and physical activity;
- To advance policy and environmental changes that promote healthy eating and physical activity; and

- To motivate students to eat more healthfully and engage in more physical activity.

Food on the Run was implemented in 28 low-resource high schools during the period 1998–2001. The program began by educating students about the basics of nutrition and physical activity as well as the steps necessary to create environmental and policy changes on their school campuses. Following this training, the students conducted five to seven school- or community-based activities designed to create awareness, educate others, and institute environmental and policy changes. Such activities included working with school food service to increase healthful options and replacing unhealthy vending machine items with healthier ones.

Students who participated were surveyed pre- and post-intervention each year, and the nutrition and physical activity environment of the school campuses was evaluated annually as well. Significant changes were detected in nutrition knowledge ( $p < .05$ ), attitudes ( $p < .001$ ), and behavior ( $p < .01$ ). Significant changes in terms of physical activity were detected only in knowledge ( $p < .01$ ) and attitudes ( $p < .01$ ). Disappointingly, there was no significant behavior change in level of physical activity.

What was most interesting was that there appeared to be a correlation between changes in the environment and behavior. Where there were consistent significant changes in the eating environment as measured by the environment evaluation, there also were significant changes in nutrition behavior. The opposite effect occurred in physical activity.

#### School District Policies

The Oakland Unified School District in Oakland, CA, recently took the bold step of implementing a district-wide policy banning the sale of junk foods in schools. This policy prohibits foods such as candy, sodas, sugar-filled drinks, and similar products from being sold in cafeterias, vending machines, at athletic events, or for fund raising on school grounds. This policy is the first of its kind in the state.

In Sacramento, CA, the Sacramento City Unified School District school board—after receiving attention in the media and hearing from parents, students, teachers, and special interest groups—voted against signing an exclusive district-wide soda contract and opted instead to develop a nutrition task force to examine child nutrition in schools.

#### Discussion

Despite these positive examples, schools across the country continue to sell unhealthy fast food and sign contracts that require the advertising and promotion of such items.

Although it is important for students to be educated on nutrition and physical activity, students also need the

opportunity to practice the healthy behaviors they learn in class. Individual attempts to change health behaviors are more successful when the environment supports the behavior. By making positive changes to the school environment, such as increasing healthful food options, support for healthy behavior is strengthened.

School program funding decisions too often are based on fiscal outcomes without adequate and informed consideration of the health impact. Since children spend six or more hours of their waking day at school, school decision-makers have a huge opportunity to model healthy behaviors and create environments that support those behaviors. *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity* outlines recommendations for schools including several that address providing access to healthy food and physical activity. Health professionals need to look beyond their traditional roles and work with community members to influence positive changes in schools to improve the health of children. ○

#### Suggested Readings

- Agron P et al., California Project LEAN's Food on the Run Program: An evaluation of a high school-based student advocacy nutrition and physical activity program. In *Adolescent Nutrition: A Springboard for Health*. *J Am Diet Assoc*, 2002; 102 (Suppl):S103.
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#### About the Authors

Erika Takada, Amanda Purcell, and Peggy Agron are all affiliated with California Project LEAN (Leaders Encouraging Activity and Nutrition). Project LEAN works with state and local physical activity and nutrition leaders to conduct programs that promote healthy eating and physical activity to reduce the prevalence of chronic diseases such as heart disease, cancer, stroke, osteoporosis, and diabetes.

## Attention Continuing Education Participants:

As the 2001–2002 continuing education program closes, we'd like to remind all participants of the upcoming deadline for returning tests for scoring. **Please return all completed tests to Lippincott Williams & Wilkins for scoring by June 30, 2002 in order to receive credit for the program year from June 1, 2001 through May 31, 2002.**

We are also accepting renewals for the next CE program, which will run from June 1, 2002, through May 31, 2003. To renew, please call our customer service department at (800) 787-8981.

Thank you for your participation in the CE program this year, and best wishes for your continued success!

## Nutrition News

Items selected and reviewed by the Nutrition & the M.D.<sup>®</sup> Editorial Board.

### Point-of-Purchase Messages Help College Students Select Healthier Snacks

*Learning Objective:* After reading this article, the participant should be able to recall how providing point-of-purchase nutrition information changed the buying habits of college students on a university meal plan.

How can you get college students on a university meal plan to select healthier foods as they move through the dining hall? Recent studies that sought to answer that question found that point-of-purchase (POP) messages—especially when the targeted healthy snacks are priced similarly to less healthy snacks—may prompt college students to select the healthier snacks. (See Buscher LA et al., *J Am Diet Assoc*, 2001; 101:909.)

The studies included 2280 undergraduate students on full meal plans at a Canadian university. Point-of-purchase messages were put on a poster at the cafeteria entrance and also on signs next to each targeted snack item. The messages focused on four properties of the item: Budget-friendly, Energizing, Sensory/taste, Time efficient/convenient (BEST).

The studies targeted four foods: fruits; vegetables; pretzels (considered a lower-fat alternative to potato chips); and yogurt (promoted as a sweet snack to be chosen over chocolate or candy). The study covered a 13-day baseline period, a 28-day intervention period, and a 13-day follow-

up period. One targeted snack item was promoted each week: vegetable baskets, including about two servings of cut carrots, cucumbers, broccoli, cherry tomatoes, and sweet peppers; pretzels in two sizes; yogurt; and fruit baskets, including about two servings of strawberries, pineapple, melons, oranges, and grapefruit. Sales were monitored for these items as well as for whole fruits, packaged salads, chocolate, candy, and potato chips.

Sales of both yogurt and pretzels rose during the study, staying higher during both their own intervention weeks and the fruit basket intervention week and follow-up periods. However, sales did not change for either the fruit baskets or vegetable baskets during the study. Interestingly, whole-fruit sales did increase during the fruit basket intervention week and during follow-up. Packaged salad sales rose during the yogurt-promotion week only. Pretzels took a bigger bite of total chip and pretzel sales during the pretzel intervention week. But contrary to the researchers' hypothesis, chocolate and candy sales increased and exceeded baseline levels during the follow-up period. The researchers point out that the follow-up period ended only a few days before exams were to start.

Price may have had something to do with the results. Pretzels and yogurt were close in price (79 cents and \$1.19, respectively) to chips and candy (each less than \$1), but fruit and vegetable baskets cost more (\$2.25 and \$1.99, respectively). Whole fruits, which experienced an upsurge in sales, were priced at just 69 cents. Had a less-expensive vegetable option been available—such as carrot or celery stick packages—their sales might have risen as well, the researchers theorize.

"The goal of a college foodservice POP intervention should not be to simply increase consumption of a particular food for a week or even a few weeks, but to help young people establish healthful eating habits that will last a lifetime. If a particular behavior (eg, consuming more fruits and vegetables) is to become a health habit, one must have repeated, continuous experiences with that behavior. Instead of promoting a different food each week, it may be best to promote 1 type of food for several weeks, to provide adequate time to develop a habit of incorporating that food into one's diet," write Buscher et al.

#### Focus on One Item

In a second study, the same researchers targeted a two-week POP intervention focused solely on yogurt. In this study, the baseline and follow-up lasted 14 days each, and the intervention period lasted 15 days. The researchers conducted an intercept study, with 72 students, during the follow-up period.

Yogurt sales rose during both intervention and follow-up. Of those surveyed, few recalled any of the POP