

Updating Nutrition Education in the Food Stamp Program: A FARM BILL OPPORTUNITY

*A Policy Paper from
Prevention Institute and
California Association of
Nutrition and Activity
Providers (CAN-Act)*



June 2007

Executive Summary

Many people believe that dealing with overweight and obesity is a personal responsibility. To some degree they are right, but it is also a community responsibility. When there are no safe, accessible places for children to play or adults to walk, jog, or ride a bike, that is a community responsibility. When school lunchrooms or office cafeterias do not provide healthy and appealing food choices, that is a community responsibility. When new or expectant mothers are not educated about the benefits of breast-feeding, that is a community responsibility. When we do not require daily physical education in our schools, that is also a community responsibility. There is much that we can and should do together.

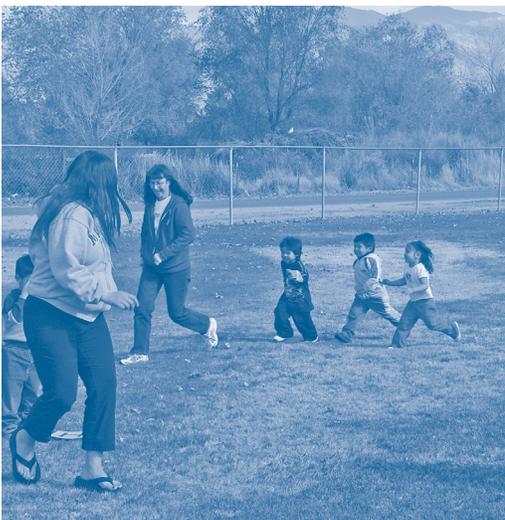
—*Call to Action to Prevent and Decrease Overweight and Obesity*. U.S. Surgeon General, 2001.

The obesity epidemic in the United States is linked to increased risks for many serious diseases, including type 2 diabetes, heart disease, stroke, and some cancers. The costs in health care, disability, workers compensation and economic losses from lower worker productivity are matched by the toll on individuals and their families.

People with low incomes, including those in households eligible for Food Stamps, are at highest risk for chronic disease resulting from poor eating and inactive lifestyles.

Food Stamp recipients live in the most underserved communities, environments where making healthy choices can be challenging, if not impossible, due to a lack of safe, well-equipped and well-maintained places to walk and play, lack of nearby retail stores and other services within walking or biking distance, inadequate access to supermarkets and reliance on local corner stores, and a higher concentration of fast-food outlets.

Education to support the USDA's goal of low-income people making healthier choices around eating and physical activity is at the core of Food Stamp Nutrition Education (FSNE), an administrative option in the Nutrition Title, reauthorized in the upcoming Farm Bill. Administrative guidance for FSNE has been increasingly restricted during the current administration, forcing local program providers away from more effective methods of health and nutrition education.



Given the disproportionate impact of the obesity epidemic on the Food Stamp population, the Farm Bill provides a critical opportunity to carefully examine FSNE objectives and funding and ensure FSNE is as effective as possible in changing food and activity behaviors among the poorest Americans.

The most current thinking in health education and nutrition education cites the importance of addressing the environment in which food and activity choices are made in order to support individual behavior change. As pointed out by the Institute of Medicine's 2005 recommendations for preventing obesity in children and youth, changes in organizational and community environments to offer more healthy food options and opportunities for physical activity need to be interwoven with individually oriented strategies to promote healthy behaviors.

New Approaches Are Needed

The effectiveness of traditional approaches to health education—counseling individuals one at a time or using mass communication to reach large segments of the population—has proved to be limited without concomitant and complementary attention to environmental, policy, and regulatory supports that facilitate the desired changes in behavior.

The Institute of Medicine has noted, "It is unreasonable to expect that people will change their behaviors easily when there are so many forces in the physical, social, and cultural environment that conspire against such change." A report by the United States General Accounting Office on the effectiveness of the USDA's nutrition education programs echoes this conclusion: "Certain factors in the participant's environment, such as the availability of fresh fruits and vegetables or the prevalence of food advertising, can have a significant influence on a program's results. Accordingly, officials should be conscious of what environmental factors are affecting participants and work to address those factors."

Even someone motivated to change through individual counseling or ad campaigns will not be able to do so unless they encounter a simultaneous increase in available or affordable healthy options on a daily basis. Lackluster results in large-scale efforts to change individual behaviors or to utilize low-intensity media to influence wider change have created a new public health movement toward more comprehensive interventions that address environmental changes.

Emerging Consensus on What Works: Changing Community Environments

The Institute of Medicine's Committee on Prevention of Obesity in Children and Youth has concluded that, as with tobacco and traffic safety, a broad-based approach is needed to prevent childhood obesity; they suggested building on the statement in the Surgeon General's report on tobacco use: "A comprehensive approach—one that optimizes synergy from a mix of educational, clinical, regulatory, economic, and social strategies—has emerged as the guiding principle."

There is growing evidence of the types of changes to organizational and community environments that will have the greatest impact on improving eating and physical activity. These include the presence of supermarkets—with their greater choices and more reasonable prices for fresh fruits and vegetables—in low-income neighborhoods and lower prices for healthy foods in school and worksite cafeterias and vending machines. Schools that incorporate healthy eating curriculums and support physical education with facilities and staff training have shown success in slowing weight gain in their students. Finally, when neighborhoods are designed with walking and recreation in mind, physical activity increases.

Beyond Traditional Nutrition Education: Models for Environmental Change

National public health institutions, as well as leading funders and researchers, have already begun to incorporate comprehensive models to changing health behaviors in the design of effective public health education. Two widely used public health frameworks for designing comprehensive initiatives—the Social-Ecological Model and the Spectrum of Prevention—emphasize the interrelationships between individuals and the broader social and physical environment. Both frameworks promote organizational and policy change as important tools for improving this environment.

Implementing a comprehensive approach for improving eating and physical activity habits will require the involvement of many sectors and a variety of strategies. The IOM's *Health in the Balance* proposes ten key recommendations that encompass marketplace, media, community, school, and home environments, as well as calling for a strong, coordinated national effort that makes prevention of obesity in children and youth a national public

health priority. Community engagement is basic to the success of a comprehensive approach, ensuring that local residents are involved in identifying key concerns and solutions, and then defining meaningful activities.

Updating FSNE's Approaches

There are a range of strategies that can create community and institutional environments that support healthy eating and physical activity, such as partnering with farmers' markets to allow redemption of Food Stamps, ensuring low-income residents have transportation to supermarkets and other large food outlets, and providing technical assistance to neighborhood markets in low-income neighborhoods on how to stock and promote fruits and vegetables.

Policy Recommendations

Because Food Stamp families are among those most heavily affected by our nation's "obesigenic" environments and policies, improving FSNE by updating its approaches to nutrition education is a critically important piece of the Farm Bill agenda. The following recommendations are essential to making FSNE more effective:

- Nutrition education in the Food Stamp Program needs to address not only individual food choices and eating behaviors but also the institutional, community and policy-level influences that make healthier food choices easier and more affordable in low-income households. **FSNE programs should be specifically allowed and encouraged to use comprehensive approaches in order to have a positive impact on these environmental influences on individual choices and behaviors**
- To ensure that nutrition education reaches the greatest number of people who receive or are eligible to receive Food Stamps, **FSNE rules must provide enough flexibility to allow local providers to target their education services, using meaningful geographic and income indicators.**
- Reaching and maintaining a healthy weight requires equal measures of physical activity and healthy eating practices. **FSNE funds should support a broad range of physical-activity-promotion activities as part of comprehensive nutrition education programs.**
- Media campaigns can be a cost-effective strategy for reaching large numbers of low-income people. **Well-targeted media campaigns that use simple, actionable messages are an appropriate use of FSNE funds.**

Updating Nutrition Education in the Food Stamp Program: A FARM BILL OPPORTUNITY

The obesity epidemic in the United States makes it increasingly urgent to find effective ways to turn the tide of overweight and restore the health and vitality of the American public. This epidemic is linked to a host of health concerns, including type 2 diabetes, heart disease, stroke, and some cancers. These conditions are projected to cost well over \$117 billion annually in direct expenditures for health care, disability, and workers compensation and the economic losses due to lower worker productivity.^{1,2} Above and beyond these financial costs is the immeasurable toll that chronic illness takes on individuals and their families.

This looming public health crisis is linked to poor eating habits and lack of physical activity—the consumption of too much high-calorie, low-nutrient food and increasingly sedentary behavior. People with low incomes, including those in households eligible for Food Stamps, are at highest risk for and have the highest rates of chronic disease associated with poor diets and physical inactivity.

But the outcomes predicted by these dire trends are by no means inevitable. In many cases, health problems can be prevented and health complications reduced if people begin to make healthier food choices and improve their physical activity patterns. Many small changes in

many different aspects of daily life will begin to make a difference.

Federal nutrition assistance programs have been helpful in providing nutrition resources and education to support healthy choices among low-income families. For the more than 26 million low-income Americans who rely on Food Stamps for much of their daily food,³ a little-known administrative option called Food Stamp Nutrition Education (FSNE) has helped many of them make healthier food and activity choices part of their lives. But rules for this option have not kept pace with the challenges facing Food Stamp households in adopting healthy lifestyles.

The upcoming Farm Bill, which reauthorizes Food Stamps and Food Stamp Nutrition Education, affords policymakers an important opportunity to examine the potential of FSNE to provide the most up-to-date and cost-effective nutrition education. Because Food Stamp families are among those most heavily affected by our nation's "obesogenic" environments and policies, improving FSNE by updating its approaches to nutrition education is a critically important piece of the Farm Bill agenda.

FSNE Provides Crucial Funding for Nutrition Education

Food Stamp Nutrition Education (FSNE), authorized as part of Food Stamp state administrative expenses, allows states the option of receiving matching fund reimbursements for providing nutrition education to Food Stamp recipients as part of their Food Stamp program operations. In California, from modest beginnings, FSNE has become the state's largest public source of flexible funding available to low-income communities for educational use in local food, nutrition, and activity interventions. It operates under the name of the Network for a Healthy California (formerly the California Nutrition Network). With annual state plans based on a comprehensive approach to

nutrition education (see the "Social-Ecological Model" on page 9), the Network works through many different channels and hundreds of local programs to improve nutrition and health outcomes among California's nearly two million Food Stamp recipients and an equal number of potential eligibles⁴ as well as an additional six million persons, according to the 2000 U.S. Census, with incomes below 185% of the Federal Poverty Level.

The goal of the U.S. Department of Agriculture (USDA) for FSNE "is to provide educational programs that increase, within a limited budget, the likelihood of Food Stamp recipients making healthy food choices and choosing active lifestyles consistent with the most recent advice reflected in the Dietary Guidelines for Americans and the Food Guide Pyramid."⁵ Beginning around 2003, however, federal FSNE administrators, in a series of increasingly restrictive policy guidance documents (there are no regulations), have insisted that state programs return to more traditional individual nutrition education and have begun to disallow more comprehensive, population-based approaches. "Disparaging" foods such as soda or candy in FSNE-funded materials was also prohibited. (See sidebar, page 5).

Moreover, federal guidance now insists that FSNE services be precisely targeted to Food Stamp recipients or Food Stamp-eligibles, preferably women and young children, forcing FSNE projects serving more diffuse low-income audiences to return to direct consumer-education approaches, such as pamphlets and classes in Food Stamp waiting rooms or food banks, with the paradoxical effect that large numbers of Food Stamp participants are not even being reached by FSNE services. Framed as a "course correction," the new FSNE restrictions reflect the current Administration's overarching policy emphasis on individual responsibility as key to improving health and preventing obesity.

FSNE at a Glance

The following websites provide more information on the Food Stamp Nutrition Education program:

- FSNE Program home page - http://www.fns.usda.gov/fsp/nutrition_education/
- FSNE Fact Sheet - http://www.fns.usda.gov/fsp/nutrition_education/FSNE-Factsheet-2006.pdf
- Guiding Principles - <http://www.fns.usda.gov/oane/menu/FSNE/GuidingPrinciples.pdf>
- USDA sponsored research on FSNE - http://www.fns.usda.gov/fsp/nutrition_education/research.htm
- USDA-commissioned "Systems Review" - <http://www.fns.usda.gov/oane/MENU/published/NutritionEducation/Files/FSNESystemsReview.pdf>
- GAO Report - <http://www.gao.gov/new.items/d04528.pdf>

No one disputes the importance of reaching maximum numbers of Food Stamp households with FSNE services or the value of one-on-one interactions between nutrition educators and individuals. However, with extremely limited funds and huge numbers of people either on Food Stamps or eligible for them, these currently required approaches may not be using scarce federal Food Stamp dollars in the most cost-effective way.

Reforming FSNE: New Problems Need New Solutions

The imperative to change the food and physical activity habits of Americans has mobilized urgent attention toward designing and testing interventions that can truly achieve this shift and affect obesity. Key objectives from Healthy People 2010 suggest the magnitude of behavioral change needed to improve health and eliminate our nation's glaring health disparities (see box, page 6).

Analyzing the multiplicity of factors contributing to obesity, numerous researchers and expert panels have reached similar conclusions: worsening habits around eating and physical activity over the last few decades are primarily attributed to environmental factors.^{6,7,8,9,10} As noted in the issue of the journal *Future of Children* on childhood obesity, "Broad societal and environmental trends have engineered routine physical activity out of everyday life for most Americans and made low-nutrition, energy-dense foods and beverages more accessible, affordable, and appealing than more healthful foods."¹¹

Although educational programming related to nutrition and physical activity has demonstrated some success in changing the behavior of participants, it is insufficient as a singular strategy to change the pattern of preventable illness across the United States. It is particularly insufficient for changing the health behaviors of low-income families, as their neighborhood environments are more likely to support unhealthy behaviors than healthy ones. To successfully improve eating and activity habits, public health interventions need to go beyond individually oriented educational approaches.

This Policy Paper examines the crucial question, **What is the most effective way to direct FSNE programmatic objectives and funds to change behaviors among the poorest Americans in a way that reduces the obesity epidemic?** The paper outlines the rationale for a more comprehensive approach that is being incorporated into public health efforts around the country in order to change chronic disease rates across the population. It then summarizes an emerging body of research on effective prac-

Promising Strategies No Longer Allowed In FSNE

The FY 2003 annual guidance document from USDA included the following as FSNE objectives or "core elements": dietary quality, food security, food safety, shopping behavior/food resource management, and system and environmental change.

However, in the FY 2008 guidance document, the following are specifically listed as "unallowable":

- Negative written, visual, or written expressions about specific foods, beverages, or commodities (for example, advising FSNE recipients to avoid or limit food categories such as "fast food" or soda)
- Community and school assessments for nutrition and physical activity programs, practices, and policies (for example, USDA's *Changing the Scene* and CDC's *School Health Index*).
- Costs associated with the establishment and maintenance of environmental or policy changes (for example, offering technical assistance to a farmers' market to help establish an EBT-redemption system to accept food stamps)

Also restricted is the ability of FSNE programs to educate and inform decision makers about nutrition and physical activity issues on behalf of Food Stamp participants and their communities.



tices in health education and nutrition education and elucidates new evidence that is just emerging on the effectiveness of changing community environments to support healthy behaviors. Finally, it offers key policy recommendations for reforming FSNE for consideration by federal decisionmakers as the Farm Bill takes shape.

Healthy People 2010 Objectives: What Can FSNE Help Deliver?

Key objectives related to diet and physical activity:

- Increase the proportion of children and adults who consume at least two daily servings of fruit from 28% to 75%
- Increase the proportion of children and adults consuming three daily servings of vegetables from 3% to 50%
- Increase the proportion of adolescents who engage in moderate physical activity for at least 30 minutes per day five or more days per week from 27% to 35%
- Reduce the proportion of adults and children who are overweight or obese to 15% and 5%, respectively.



“The vision of Healthy People in healthy communities **involves broad-based prevention efforts** and moves beyond what happens in physicians’ offices, clinics, and hospitals—beyond the traditional medical care system—to the **neighborhoods, schools, workplaces, and families** in which people live their daily lives.”¹²

—HP 2010 (emphasis added)

- Participants need high levels of motivation to attend multiple sessions over a long period of time, and results seem to be strongest for those who with a diagnosed risk factor or actual chronic disease.¹⁴
- Even with highly motivated participants, documented behavioral changes are fairly small, suggesting that while individual education provides an important base for promoting healthy behavior, there are other forces at work that influence behaviors.
- Nutrition education programs need to be “multifaceted, continually updated, and maintained” in order to counter the continuous and powerful forces encouraging people to eat in less healthful ways.¹⁵

Although individual health education can result in modest behavior change, there is general agreement in the health education field that, ultimately, individually oriented education is not sufficient to change behavior across the population.^{16,17} As observed nearly two decades ago by leading experts in health education and health behavior change, “While nutrition education strategies have grown increasingly sophisticated and behaviorally oriented, they are inefficient and ineffective means of reaching large populations.”¹⁸ One well-respected public health textbook maintains that “advocacy, policy change, and organizational change have been adopted as central activities of public health education and health promotion.”¹⁹

Achieving the level of change outlined in Healthy People 2010 requires expanding beyond individually oriented health education. Food Stamp Nutrition Education seeks to affect all Food Stamp recipients and households potentially or intermittently eligible for Food Stamps—an ambitious goal, but one that is appropriate to the higher health risks related to poor nutrition and physical activity faced by low-income families that USDA’s nutrition assistance programs serve.

Mass Communication and Public Education

As an alternative to labor-intensive individual education, many public health professionals have turned to mass media (TV, radio, cable, and newsprint) to reach large segments of the population with health messages. As with individual education, relying solely on media to change behavior has limits:

Traditional Approaches Have Limited Reach and Effectiveness

Individual Health Education

Traditionally, the bulk of health education efforts have focused on changing behaviors through individual counseling, support groups, or classes in settings such as health care sites, schools, worksites, faith-based institutions, and organizations serving children and youth.

There are several limits to individual education in trying to influence large segments of the Food Stamp recipient population:

- Limited numbers of people can be reached through intensive one-on-one measures.
- High-quality counseling and group education require substantial investments in personnel, training and infrastructure.

- Even if a person becomes motivated to change they may have difficulty overcoming barriers to engaging in healthy behavior.
- The high costs of well-crafted media are beyond the reach of many public health programs.
- Public health media campaigns face formidable competition from advertisers, who annually spend \$11 billion to advertise primarily low-nutrient, calorie-dense food to children and youth and similarly large sums to promote activities that rely on sedentary behavior (automobiles, TV shows, movies, and video games).²⁰

The 2004 Institute of Medicine (IOM) report, *Preventing Childhood Obesity: Health in the Balance*, which included an extensive review of potential obesity-prevention strategies, emphasized that “media-centered efforts must be closely linked with complementary efforts elsewhere in pursuit of the same objectives.”²¹ For example, a media campaign to encourage children to walk to school would be complemented by actions to establish safe routes to school.

The IOM notes a few documented examples of media messages apparently being successful in raising awareness and changing behavior. These campaigns had fairly simple objectives, such as encouraging parents to put their infants to sleep on their backs, or discouraging the use of aspirin for children’s fevers to avoid Reye’s Syndrome. These campaigns promoted a single, simple behavior, with immediate benefit and could show a clear link between the behavior and the benefit, with relatively few drawbacks for following the behavior. In contrast, eating healthy foods and being physically active require active selection of multiple, complex behaviors on an ongoing basis.²² Two examples demonstrate this conclusion:

- The “1% or Less Campaign” successfully promoted consumption of lower-fat milk (from whole or 2% to 1%) through a six-week wave of paid advertising on television, radio, and in newspapers, along with community public relations activities.²³ Moving the campaign to a

lower-income Latino community required adding outreach to stores to ensure that 1% and nonfat milk would be available, and promoting milk as an ingredient of “liquados”—a culturally familiar drink.²⁴

- The CDC’s \$125 Million VERB campaign targeting tweens combined paid advertisements with school and community promotion and Internet activities to encourage children 9 to 13 to be physically active every day, with positive results.²⁵

Emerging Consensus on What Works: Changing Community Environments

Without including strategies to modify environments, efforts to motivate individuals—whether via personal coaching or mass media campaigns—to adopt healthy habits for eating and physical activity will have limited impact. A recent report by the United States General Accounting Office (GAO) that explored the effectiveness of

the USDA’s nutrition education programs echoed this sentiment: “Certain factors in the participant’s environment, such as the availability of fresh fruits and vegetables or the prevalence of food advertising, can have a significant influence on a program’s results. Accordingly, officials should be conscious of what environmental factors are affecting participants and work to address those factors.”²⁷

Lower-income people and people of color frequently face the greatest environ-

mental challenges. Food Stamp recipients frequently live in the most underserved communities and face community environments where making healthy choices can be challenging, if not impossible. For instance, lower-income neighborhoods tend to have fewer parks, paths and recreation areas; what facilities exist are frequently not well maintained.^{28,29} Lack of nearby retail stores and other services, along with concerns about safety, make people less likely to walk or bike to do errands.^{30,31}

Residents of underserved urban neighborhoods also face well-documented challenges in accessing healthy food, including inadequate access to supermarkets, limited transportation options to reach supermarkets in other

What is Nutrition Education?

Nutrition education is any combination of educational strategies designed to facilitate voluntary adoption of food choices and other food and nutrition related behaviors conducive to health and well-being. Nutrition education is delivered through multiple venues and involves activities at the individual, community, and policy levels.¹³

—I. R. Contento. *Nutrition Education: Linking Research, Theory, and Practice*, 2007.

neighborhoods, poorer-quality items in neighborhood supermarkets, and reliance on local corner stores.^{32–38} In addition to lack of access to healthy foods, low-income residents often live in communities with a concentration of fast-food restaurants.^{39,40,41}

Clearly, even someone motivated to change through individual education or public education campaigns will not be able to do so unless there is a simultaneous change in the options they encounter throughout their day. Researchers have observed that the lackluster results of large population-based efforts utilizing individual behavioral interventions or low-intensity mass media efforts have caused public health initiatives addressing weight, healthy eating, and physical activity to shift toward interventions that address environmental factors.⁴² While noting the limited number of intervention studies in underserved racial/ethnic groups, they also propose that individual-level and community-level approaches are complementary and possibly synergistic.

The IOM conducted an expansive review of the evidence base that could inform a national childhood obesity prevention strategy. Their final report noted lessons learned from tobacco and traffic safety and concluded that a broad-based approach is needed in preventing childhood obesity; they cited the declaration from the Surgeon General’s report on tobacco use that “a comprehensive approach—one that optimizes synergy from a mix of educational, clinical, regulatory, economic, and social strategies—has emerged as the guiding principle for effective efforts to reduce tobacco use.”⁴³

Emerging and late-breaking research has begun to identify the specific changes to organizational and community environments that will have the greatest impact on improving physical activity and eating patterns. There is growing evidence for a strong association between environmental factors and behavioral choice around food and physical activity. For example, residents are consistently more likely to walk and cycle when their neighborhoods have higher residential density, shops are within walking distance of homes, and streets are connected in a grid-like pattern rather than ending in cul-de-sacs.⁴⁴ Several studies have found that people get more physical activity if they have good access to specific places to exercise, such as parks, basketball courts, and gyms, and if their neighborhoods provide a high-quality environment for outdoor activity.^{45,46}

Regarding the impact of neighborhood food environ-

ments on eating behavior, a landmark study found that being closer to supermarkets translated into healthier eating: for each additional supermarket in their census tract, African-Americans reported eating 32% more fruits and vegetables, and White Americans increased fruits and vegetables by 11%.⁴⁷ A study in the United Kingdom found that 75 percent of people with the poorest diets doubled their mean weekly fruit and vegetable portions after a large chain supermarket opened in their community.⁴⁸ Other research found that higher prices for healthier food discourages their purchase: for example, one study found

that higher fruit and vegetable prices were associated with higher weights in elementary school children.⁴⁹ Another series of studies found that increasing variety and lowering the price of healthy foods in school and worksite cafeterias and vending machines led to increased purchase of these items.^{50,51,52}

CATCH (Child and Adolescent Trial for Cardiovascular Health) is perhaps the most widely implemented and evaluated demonstra-

tion of a comprehensive approach toward improving eating and physical activity that includes both education and changes to the school environment (nutrition education in the classroom, improvements in cafeteria menus, and equipment for physical education). CATCH began as national clinical research trial that targeted 96 elementary schools throughout the country. Early results showed that children reduced their daily energy intake from fat and participated in more daily vigorous activity. El Paso translated the national program’s comprehensive model into low-income elementary schools with predominantly Latino populations; their evaluation showed that children enrolled in the program had better weight outcomes compared to a control group of school children.⁵³

“Shape Up Somerville, Eat Smart, Play Hard” is a comprehensive community-based initiative focused on elementary school children in grades one through three. The effort includes but expands beyond CATCH-like school-based strategies to after-school programs, healthier restaurant options, and walkability through broad community engagement. Preliminary results found that the rate of weight gain slowed among the children.⁵⁴ According to principal investigator Christine Economos of Tufts University, “These results are remarkable given the obesigenic environmental backdrop against which the intervention occurred.”⁵⁵ Even greater results might occur with more fundamental changes to the community environment.

It is unreasonable to expect that people will change their behaviors easily when there are so many forces in the physical, social, and cultural environment that conspire against such change.²⁶

— Institute of Medicine

Beyond Traditional Nutrition Education: Models for Environmental Change

Two widely used public health frameworks for designing comprehensive initiatives—the Social-Ecological Model⁵⁶ and the Spectrum of Prevention⁵⁷ (see page 10)—emphasize the interrelationships between individuals and the broader social and physical environment and promote organizational and policy change as important tools for improving this environment.

Several government guidance documents and research professionals emphasize the importance of using such models. The U.S. Department of Health and Human Services’s guide, *Promoting Physical Activity*, emphasizes an ecological approach and includes establishing and maintaining a supportive physical environment and establishing and enforcing supportive policies as part of a comprehensive initiative to increase physical activity.⁵⁸ Researchers at the California Department of Health Services emphasize that efforts to prevent chronic disease need to incorporate an ecological approach: “System, environmental, and policy changes at local, state, and national levels may occur slowly, but research from tobacco control suggests that attention to these levels of influence is necessary when individual and interpersonal behaviors are not enough to overcome negative environmental influences.”⁵⁹

In considering how to achieve maximum impact in chronic disease prevention, a review from the St. Louis University Prevention Research Center proposes that environmental and policy approaches be the earliest focus of change, as they benefit all people exposed to the environment and are often more permanent than public health programs focusing on changing the behavior of one person at a time. They note that environmental and policy approaches are designed to provide “opportunities, support, and cues to help people develop healthier behaviors...

Alterations in the physical or policy environment may directly affect behaviors (e.g. the influence of the price of tobacco on consumption) or they may alter social norms (e.g. restrictions on smoking in public places).⁶⁰

Implementing a comprehensive approach for improving eating and physical activity habits will require the involvement of many sectors and a variety of strategies. IOM’s *Health in the Balance* proposes ten key recommendations that encompass marketplace, media, community, school, and home environments, as well as calling for a strong, coordinated national effort that makes prevention of obesity in children and youth a national public health priority. Rooted in an ecological perspective, the recommendations interweave individually oriented strategies to promote

healthy behaviors (educational programs and public education campaigns) with efforts to change organizational and community environments to offer more healthy food options and opportunities for physical activity. Community engagement is a fundamental base to the success of a comprehensive approach, ensuring that local residents are involved in identifying key concerns and solutions and defining key activities.

Their ten recommendations include a specific focus on local

communities. Critical elements of this approach include the following:⁶¹

- Working with community child- and youth-centered organizations to promote healthful eating and regular physical activity
- Building community coalitions to mobilize the community to work for change
- Improving access to healthful food options, particularly in low-income and underserved areas
- Designing communities and neighborhoods to encourage physical activity

California’s Social Ecological Model for Nutrition, Physical Activity and Obesity Prevention Program Design and Evaluation



California Nutrition Network, 2006

SPECTRUM OF PREVENTION

<i>Level of Spectrum</i>	<i>Definition of Level</i>
6. Influencing Policy and Legislation	Developing strategies to change laws and policies to influence outcomes.
5. Changing Organizational Practices	Adopting regulations and shaping norms to improve health and safety
4. Fostering Coalitions and Networks	Bringing together groups and individuals for broader goals and greater impact
3. Educating Providers	Informing providers who will transmit skills and knowledge to others
2. Promoting Community Education	Reaching groups of people with information and resources to promote health and safety
1. Strengthening Individual Knowledge and Skills	Enhancing an individual's capability of preventing injury or illness and promoting safety

Updating FSNE's Approaches

Policy and practice in Food Stamp Nutrition Education should heed the Surgeon General's 2001 call to action, which underscores the importance of going beyond an individual approach to address overweight and obesity:

Many people believe that dealing with overweight and obesity is a personal responsibility. To some degree they are right, but it is also a community responsibility. When there are no safe, accessible places for children to play or adults to walk, jog, or ride a bike, that is a community responsibility. When school lunchrooms or office cafeterias do not provide healthy and appealing food choices, that is a community responsibility. When new or expectant mothers are not educated about the benefits of breast-feeding, that is a community responsibility. When we do not require daily physical education in our schools, that is also a community responsibility. There is much that we can and should do together.⁶²

There are a range of strategies that can create community and institutional environments that support healthy eating and physical activity among those eligible for or receiving Food Stamps. For instance, to improve Food Stamp

recipients' access to fresh fruits and vegetables the Maine Nutrition Network partnered with local farmers' markets to allow redemption of Food Stamps—resulting in a “15% increase in the dollar value of Food Stamps redeemed at farmers' markets and roadside stands.”⁶³ Another potential environmental intervention, demonstrated in Wisconsin, is ensuring low-income residents have transportation to supermarkets and other large food outlets.⁶⁴

Other community and institutional food strategies can include the following:

- Technical assistance around stocking and promoting fruits and vegetables to neighborhood markets in low-income neighborhoods with little access to larger stores
- Leadership to community and/or youth groups in conducting neighborhood assessments and crafting recommendations and solutions for surmounting barriers to accessing healthy food
- Technical assistance to community institutions in adopting and implementing healthy food-gathering and food-distribution policies

Policy Recommendations for Reforming FSNE

Maximizing the effectiveness of Food Stamp Nutrition Education is critical to improving health outcomes among the nation's most vulnerable populations.

Current FSNE Guidance, which has been significantly changed in recent years to restrict and limit nutrition education strategies, has reduced the ability of state and local FSNE to effectively reach the populations that need the education and to facilitate and empower behavior changes consistent with the Dietary Guidelines and Healthy People 2010 goals.

In the 2007 Farm Bill, Congress has an opportunity to ensure that USDA makes significant changes to FSNE via statutory changes that will update nutrition education approaches based on current science and to allow more cost-effective targeting of FSNE interventions in low-income communities. Because it will result in significant reforms that will permanently benefit low-income communities, this opportunity should not be missed.

- To be effective, nutrition education in the Food Stamp Program needs to address not only individual food choices and eating behaviors but also the institutional, community and policy-level influences that make healthier food choices easier and more affordable in

low-income households. **FSNE-funded programs should be specifically allowed and encouraged to use comprehensive approaches in order to have a positive impact on these environmental influences on individual choices and behaviors.**

- To ensure that nutrition education reaches the greatest number of people who receive or are eligible to receive Food Stamps, **FSNE rules must provide enough flexibility to allow local providers to target their education services, using meaningful geographic and income indicators.**

- Reaching and maintaining a healthy weight requires equal measures of physical activity and healthy eating practices. **FSNE funds should support a broad range of physical-activity-promotion activities as part of comprehensive nutrition education programs.**
- Media campaigns can be a cost-effective strategy for reaching large numbers of low-income people. **Well-targeted media campaigns that use simple, actionable messages are an appropriate use of FSNE funds.**

Endnotes

¹ Institute of Medicine. (2005). *Preventing childhood obesity: Health in the balance*. Washington, DC: The National Academies Press.

² California Department of Health Services. (April 2005). *Topline report: The economic costs of physical inactivity, obesity, and overweight in California adults: Health care, workers' compensation, and lost productivity*. Sacramento, CA.

³ United States Department of Agriculture. *Food Stamp program annual summary*. Retrieved May 15, 2007 from <http://www.fns.usda.gov/pd/fssummar.htm>.

⁴ Cunyngnam, K.E., Castner, L.A., and Schirm, A.L. (Oct. 2006). *Reaching those in need: State Food Stamp participation rates in 2004*. U.S. Department of Agriculture, Food and Nutrition Service. Retrieved May 30, 2007 from <http://www.fns.usda.gov/oane/menu/Published/FSP/FILES/Participation/reaching2004.pdf>.

⁵ United States Department of Agriculture. (October 16, 2006). *Nutrition program facts: Food stamps nutrition education*. Retrieved February 23, 2007 from www.fns.usda.gov/fsp/nutrition_education/FSNE-Factsheet-2006.pdf.

⁶ Institute of Medicine. (2005) *Preventing childhood obesity: Health in the balance*. Washington, DC: The National Academies Press.

⁷ Nestle, M. (Sept 2005). Editorial. *American Journal of Public Health*, 95 (9), 1497-1499.

⁸ Ebbeling, C.B., Pawlak, D.B., & Ludwig, D.S. (2002). Childhood obesity: public-health crisis, common sense cure. *The Lancet*, 360, 473-482.

⁹ Brownell, K.D., & Horgen, K.H. (2004). *Food fight: The inside story of the food industry, America's obesity crisis & what we can do about it*. New York: McGraw Hill.

¹⁰ Council on Sports Medicine and Fitness and Council on School Health. (2006). Active Healthy Living: Prevention of childhood obesity through increased physical activity. *Pediatrics*, 117, 1834-1842.

¹¹ Paxson, C., Donahue, E., Orleans, C.T., & Grisso, J.A. (Spring 2006). Introducing the issue. *The Future of Children*, 16 (1), 3-17.

¹² Healthy People 2010. (n.d.). *Healthy People 2010: Midcourse Review*. Retrieved March 4, 2007 from <http://www.healthypeople.gov/data/midcourse/default.htm>.

¹³ Contento, I.R. (2007). *Nutrition education: Linking research, theory, and practice*. Sudbury, MA: Jones and Bartlett.

¹⁴ Ammerman, A.S., Lindquist, C.H., Lohr, K.N. & Hersey, J. (2002). The efficacy of behavioral interventions to modify dietary fat and fruit and vegetable intake: A review of the evidence. *Preventive Medicine*, 35, 25-41.

¹⁵ Contento I., Balch, G.I., Bronner, Y.L., Lytle, L.A., Maloney, S.K., Olson, C.M., & Swadener, S.S. (1995). The effectiveness of nutrition education and implications for nutrition education policy, programs, and research: A review of research. *Journal of Nutrition Education: Special Edition*, 27(6), 277-422.

¹⁶ Glanz, K., Lewis, F.M., & Rimer, B.K. (Eds.). (1997). *Health education and behavior change: Theory, research, and Practice* (Second Edition). San Francisco: Jossey-Bass.

¹⁷ Green, L.W., & Kreuter, M.W. (1999). *Health promotion planning: An educational and ecological approach* (Third Edition). Mountain View, CA: Mayfield.

¹⁸ Glanz, K., & Mulis, R.M. (1988). Environmental interventions to promote healthy eating: A review of models, programs, and evidence. *Health Education Quarterly*, 15(4), 395-415.

¹⁹ Glanz, K., Lewis, F.M., & Rimer, B.K. (Eds.). (1997). *Health education and behavior change: Theory, research, and practice* (Second Edition). San Francisco: Jossey-Bass. p. 7

²⁰ Institute of Medicine. (2006). *Food marketing to children and youth: Threat or opportunity?* Washington, DC: The National Academies Press.

²¹ Institute of Medicine. (2004). *Preventing childhood obesity: Health in the balance*. Washington, DC: The National Academies Press.

²² Alcalay, R., & Bell, R.A. (2000). *Promoting nutrition and physical activity through social marketing: Current practices and recommendations*. Sacramento, CA.: Department of Advanced Studies in Nutrition and Social Marketing at the University of California, Davis.

²³ Reger, B., Wootan, M.B., & Booth-Butterfield, S. (1999). Using mass media to promote healthy eating: A community-based demonstration project. *Preventive Medicine*, 29(5), 414-21.

²⁴ Arnell Hinkle, California Adolescent Nutrition and Fitness Program, personal communication, March 1, 2005.

²⁵ Huhman, M., Potter, L.D., Wong, F.L, Banspach, S.W., Duke, J.C., & Heitzler, C.D. (2005). Effects of a mass media campaign to increase physical activity among children: Year-1 results of the VERB campaign. *Pediatrics*, 116 (2), 277-284.

²⁶ Institute of Medicine. (2000). *Promoting health: Intervention strategies from social and behavioral research*. Washington, DC: The National Academies Press.

²⁷ United States General Accounting Office. (April 2004). *Nutrition education: USDA provides services through multiple programs, but stronger linkages among efforts are needed*. (GAO Publication No, 04-528). Retrieved April 1, 2007 from <http://www.gao.gov/new.items/d04528.pdf>.

²⁸ Sallis, J.F., & Glanz, K. (Spring 2006). The role of built environments in physical activity, eating, and obesity in childhood. *The Future of Children*, 16(1), 89-108.

²⁹ Powell, L.M., Slater, S., & Chaloupka, F.J. (2006). Availability of physical activity-related facilities and neighborhood demographic and socioeconomic characteristics: a national study. *American Journal of Public Health*, 96(9), 1676-80.

³⁰ The Robert Wood Johnson Foundation. (2007). *The built environment and physical activity: What is the relationship?* Research Synthesis Report No. 11.

³¹ Centers for Disease Control and Prevention. (2000). *Active community environments*.

³² Chung C., & Myers S.L. (1999). Do the poor pay more for food? An analysis of grocery store availability and food price disparities. *Journal of Consumer Affairs*, 33, 276-296.

³³ Morland K., Wing S., Diez R.A., & Poole C. (2001). Neighborhood characteristics associated with the location of food stores and food service places. *American Journal of Preventive Health*, 22(1),23-9.

- ³⁴ Kantor L.S. (2001). Community food security programs improve food access. *Food Review*, 24(1), 20-26.
- ³⁵ Morland K, Wing S., & Diez R.A. (2002). The contextual effect of the local food environment on residents' diets: The atherosclerosis risk in communities study. *American Journal of Public Health*, 92(11), 1761-7.
- ³⁶ Powell, L.M., Slater, S. Mirtcheva, D., Bao, Y., & Chaloupka, F.J. (2007). Food store availability and neighborhood characteristics in the United States. *Preventive Medicine*, 44(3), 189-195.
- ³⁷ Wilde, P.E., & Ranney, C.K. (2000). The monthly food stamp cycle: Shopping frequency and food intake decisions in an endogenous switching regression framework. *American Journal of Agricultural Economics*, 82, 200-13.
- ³⁸ Powell, L.M., Slater, S. Mirtcheva, D., Bao, Y., & Chaloupka, F.J. (2007). Food store availability and neighborhood characteristics in the United States. *Preventive Medicine*, 44(3), 189-195.
- ³⁹ Lewis, L.B., Sloane, D.C., Nascimento, L.M., Diamant, A., Guinyard J.J., Yancy, A.K. & Flynn, G. (2005). African Americans' access to healthy food options in South Los Angeles restaurants. *American Journal of Public Health*, 95(4), 668-673.
- ⁴⁰ Adler D., & Eny K. (2005). The relationship between the supply of fast-food chains and cardiovascular outcomes. *Canadian Journal of Public Health*, 96(3), 173-7.
- ⁴¹ Block, J.P., Scribner, R.A., & DeSalvo, K.B. (2004). Fast food, race/ethnicity, and income: a geographic analysis. *American Journal of Preventive Medicine*, 23(3), 211-17.
- ⁴² Yancey, A.K., Kumanyika, S.K., Ponce, N.A., McCarthy, W.J., Fielding, J.E., Leslie, J.P., & Akbar, J. (January 2004). Population-based interventions engaging communities of color in healthy eating and active living: A review. *Preventing Chronic Disease, Public Health Research, Practice, and Policy*, Vol 1: No 1.
- ⁴³ Institute of Medicine. (2005). *Preventing childhood obesity: Health in the balance*. Washington, DC: The National Academies Press.
- ⁴⁴ Saelens B, Sallis J., & Frank L. (2003). Environmental correlates of walking and cycling: Findings from the transportation, urban design, and planning literatures. *Annals of Behavioral Medicine*, 25(2), 80-91.
- ⁴⁵ Active Living Research (February 2005). *Designing for active recreation*. Retrieved March 11, 2007 from <http://www.activelivingresearch.org/downloads/recreationrevised021105.pdf>.
- ⁴⁶ Brownson, R.C., Haire-Joshu, D., & Luke, D.A. (2006). Shaping the context of health: A review of environmental and policy approaches in the prevention of chronic diseases. *Annu. Rev. Public Health*, 27, 341-370.
- ⁴⁷ Morland K, Wing S., & Diez, R.A. (2002). The contextual effect of the local food environment on residents' diets: The atherosclerosis risk in communities study. *American Journal of Public Health*, 92(11), 1761-7.
- ⁴⁸ Wrigley, N., Warm, D., Margetts, B., & Whelan, A. (2002). Assessing the impact of improved retail access on diet in a 'food desert': A preliminary report. *Urban Studies*, 39, 2061-82.
- ⁴⁹ Sturm R., and Datar A. (2005). *Body mass index in elementary school children, metropolitan area food prices and food outlet density*. Santa Monica, CA: RAND.
- ⁵⁰ French, S., Jeffery, R.W., Story, M., Hannan, P., & Snyder, M.P., (1997). A pricing strategy to promote low-fat snack choices through vending machines. *American Journal of Public Health*, 87(5), 849-851.
- ⁵¹ French, S., Story, M., Jeffery, R., Snyder, M.P., Eisenberg, M., Sidebottom, A., & Murray, D. (1997). Pricing strategy to promote fruit and vegetable purchase in high school cafeterias. *Journal of the American Dietary Association*, 97(9), 1008-1010.
- ⁵² Jeffery, R., French, S., Raether, C., & Baxter, J.E. (1994). An environmental intervention to increase fruit and salad purchase in a cafeteria. *Preventive Medicine*, 23(6), 788-792.
- ⁵³ Coleman, K.J., Tiller, C.L, Sanchez, J., Heath, E.M, Sy, O., Milliken, G., & Dziewaltowski, D.A. (2005). Prevention of the epidemic increase in child risk of overweight in low-income schools: The EL Paso Coordinated Approach to Child Health. *Archives of Pediatric & Adolescent Medicine*, 159(3), 217-224.
- ⁵⁴ Economos, C.D., Hyatt, R.R., Goldberg, J.P., Must, A., Naumova, E.N., Collins, J.J., & Nelson, M.E. (2007). A community intervention reduces BMI z-scores in children: Shape Up Somerville first year results. *Obesity*, 5(5), 1325-36.
- ⁵⁵ Kittredge, C. (October 25, 2006). Community intervention lowers children's BMI z-scores. *Medscape Medical News*. Retrieved May 11, 2007 from <http://www.medscape.com/viewarticle/546596>.
- ⁵⁶ McLeroy, K.R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An ecological perspective on health promotion programs. *Health Education Quarterly*, 15, 351-77.
- ⁵⁷ Cohen, L., Chavez, V., & Chehimi, S. (Eds.) (2007). *Prevention is primary: Strategies for community well-being*. San Francisco: Jossey-Bass.
- ⁵⁸ U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Nutrition and Physical Activity. (1999). *Promoting physical activity: A guide for community action*. Champaign, IL: Human Kinetics.
- ⁵⁹ Gregson, J., Foerster, S.B., Orr, R., Jones, L., Benedict, J., Clarke, B., et al. (2001). System, environmental, and policy changes: Using the social-ecological model as a framework for evaluating nutrition education and social marketing programs with low-income audiences. *Journal of Nutrition Education*, 25(Supp 1), S4-S15.
- ⁶⁰ Brownson, R.C., Haire-Joshu, D., & Luke, D.A. (2006). Shaping the context of health: A review of environmental and policy approaches in the prevention of chronic diseases. *Annu. Rev. Public Health*, 27, 341-370.
- ⁶¹ Institute of Medicine. (2004). *Preventing childhood obesity: Health in the balance*. Washington, DC: The National Academies Press.
- ⁶² U.S. Department of Health and Human Services. (2001). *The Surgeon General's call to action to prevent and decrease overweight and obesity*. Washington D.C.: U.S. Government Printing Office.
- ⁶³ Gregson, J., Foerster, S.B., Orr, R., Jones, L., Benedict, J., Clarke, B., et al. (2001). System, environmental, and policy changes: Using the social-ecological model as a framework for evaluating nutrition education and social marketing programs with low-income audiences. *Journal of Nutrition Education*, 25(Supp 1), S4-S15.
- ⁶⁴ Ibid.



CAN-Act

The California Association of Activity and Nutrition Programs

An Affiliate of the California WIC Association
1107 Ninth Street, #625, Sacramento, CA 95814
916 448-2280 www.can-act.net

Prevention
Institute
Putting prevention at the center of community well-being

265 29th Street, Oakland, Ca 94611
510 444-7738 www.preventioninstitute.org

Supported by a grant from The California Endowment.

Editing: Nancy Adess

Design: Bonnie Fisk-Hayden