



## Having an Impact in California: Success Stories from SNAP Nutrition Education Programs

Since 1997, the *Network for a Healthy California (Network)* at the California Department of Public Health has created innovative partnerships that empower low-income Californians to increase fruit and vegetable consumption, physical activity, and food security with the goal of preventing obesity and other related chronic diseases. Greater consumption of fruits and vegetables and regular physical activity are associated with a reduced risk of cardiovascular disease, stroke, certain types of cancer and type 2 diabetes, as well as improved weight management.<sup>1-3</sup> These medical conditions and obesity cost the United States economy an estimated \$661 billion a year in direct costs, which largely include lost productivity and health care costs.<sup>4-8</sup>

The *Network* conducts multiple statewide surveys and program evaluations to measure success. Three surveys are available to track population trends of the targeted behaviors, and multiple outcome evaluations are conducted to test the effectiveness of community programs. As the *Network* infrastructure evolved over time, low-income Californians enjoyed positive gains in fruit and vegetable consumption, physical activity, and enrollment in SNAP.

### Fruit and Vegetable Consumption has Increased

California surveys show that the percent of low-income adults who reached the minimum 5-serving goal for fruit and vegetable consumption rose from a baseline of 24 percent in 1997 to 46 percent in 2007. This is a 90 percent increase in 10 years.<sup>9</sup> From 2000 to 2009, California's overall ranking for fruit and vegetable consumption rose from 11<sup>th</sup> to 5<sup>th</sup> among all states.<sup>10</sup>

### Physical Activity has Moved in a Positive Direction

California surveys show that the proportion of low-income adults meeting the recommended level of at least 150 minutes per week of moderate to vigorous physical activity grew from 36 percent in 2001 to 46 percent in 2007. This represents a significant increase of 28 percent.<sup>9</sup>

References: **1)** *Bull World Health Organ*. Epub 2005 Feb 24. 2005;83(2):100-108. **2)** *Nutr Rev*. Jan 2004;62(1):1-17. **3)** *Food, Nutrition, Physical Activity, and the Prevention of Cancer: a Global Perspective*. Washington DC: AICR; 2007. **4)** *Health Aff*. 2009;28(5):w822-w831. **5)** *Cancer Trends Progress Report - 2007 Update*. **6)** *Circulation*. 2009;119:e21-e181. **7)** *Diabetes Care*. 2008;31(3):596-615. **8)** *Obesity: mechanisms and clinical management*: Lippincott, Williams and Wilkins; 2002. **9)** *Nutr Educ Behav*. (In review). **10)** Centers for Disease Control - <http://apps.nccd.cdc.gov/brfss/page.asp?cat=FV&yr=2009&state=UB#FV>

The stories below illustrate the local efforts that have contributed to the success of the statewide *Network for a Healthy California*.

### **Learning and Growing at Charles R Drew**

In collaboration with the non-profit Farms to Grow, Children's Council of San Francisco installed an edible garden at Charles Drew Child Development Center. The garden, while not the focus of the project, provided a springboard for healthy eating training and education to parents, children and families. The garden is in a part of the city that does not have grocery stores, so food access is limited to chain/fast food restaurants and processed foods from small neighborhood stores.

The children at the center actively participated in garden-based nutrition education, Harvest of the Month, cooking classes and taste tests over the course of the school year. During the sessions, children were introduced to a new fruit or vegetable every month. Additionally, seven



parent mentors attended a five series "train the trainer" class. They learned basic nutrition education, prepared and cooked meals, and learned how to read recipes and food labels.

One of the unanticipated successes was the sense of ownership that the parent mentors exuded. There were three parents who took over every detail and aspect of the garden. They took so much pride in their garden that they even created an elaborate webpage depicting a timeline of the evolution of the garden ([www.drcharlesdrewcdcgarden.shutterfly.com](http://www.drcharlesdrewcdcgarden.shutterfly.com)). In turn, they became eager about learning and teaching others about the benefits of eating fruits and vegetables.





The parents also did a food demonstration at the food bank pantry at Charles Drew School. They reached over 200 people that day, providing basic nutrition and health information. Using some of the food from the pantry,

parents demonstrated a mushroom quesadilla recipe.

**Impact:** The parents became self-sufficient gardeners as well as nutrition educators and now are able to go into the community and model their knowledge and skills to others.

### Sprouting Healthy Eating at Urban High Schools

Over the past two years, students in Urban Sprouts programs (also in San Francisco) transformed their eating habits from hot chips and soda to apples and carrots. But getting parents to buy these healthy snacks is not as easy as it sounds. Neighborhood convenience stores carry primarily candy and liquor, and healthy produce stands or even supermarkets are not available in many low income neighborhoods.

In the spring and fall of 2008, parents brainstormed with Urban Sprouts staff to develop a solution. The winning solution: the Farmers-in-Residence peer education program. School parents would serve as peer garden-based nutrition educators, growing their own food in the school gardens for family consumption and teaching other parents about healthy living. During the first year, a group of four parents from the two high schools worked intensively with Urban Sprouts staff to develop and pilot the program.



Fall 2009 marked the family farmers' first harvest and peer outreach. The parents told Urban Sprouts staff that the social experience of learning with their peers motivated them to learn to grow their own fresh food

and to eat better. The parents re-discovered the fun of cooking and gardening with their children. They continued as peer leaders during the following school year, and helped to train other school parents to do the same. In this way, the impact will multiply as it ripples across the school campuses.

**Impact:** This family program found success because of parent involvement in the program. The program continues to expand as Urban Sprouts fine-tunes the program for replication at two more schools.

### Giving Cupcakes a Makeover in San Diego

It's safe to assume that cupcakes are a symbol of birthdays and celebrations. Particularly at schools, cupcakes and fruit-flavored drinks often make their way onto campus to celebrate a special day. Parents find these pre-baked cupcakes with mounds of frosting to be convenient to provide for a classroom celebration. From a nutritional perspective, however, the high amounts of added sugar, calories and fat make cupcakes a choice that should be an infrequent treat. To bridge the gap between good nutrition for students and treats provided at school, parents, teachers, PTA members, school board members, and staff were invited to attend, "The Cupcake Controversy," an open-panel discussion at San Altos Elementary.

On that particular night, the main topic was about the health of the students. At this "Cupcake Controversy" panel, a concerned dad asked, "Is there really a ban against cupcakes (at school)?" The dad and the other adults knew the benefits of healthful eating, but he and some other parents were troubled about the idea of a ban.

The principal explained there is no policy about banning cupcakes. He reminded the adults why they were there at

the panel. "Childhood obesity is a problem," he said. "The fact is today's generation of children will live shorter lives than their parents." The principal asked the adults to help children learn how to be healthy, but the adults at the panel felt they needed more nutrition knowledge and skills. So, San Diego Nutrition Link hosted five parent nutrition nights with lessons taught in English and Spanish.

**Impact:** At the beginning of one parent nutrition night, the principal walked in holding a small green object with a blue balloon tied to its top. He delightedly shared the events that occurred earlier that day. A father walked onto campus with a large brown box. He walked into his son's classroom to wish him a happy birthday with a "cupcake makeover." Every student received a shiny green apple and a bright blue balloon tied to the stem. Amazingly, the students did not question the fact they received apples instead of cupcakes. They all enjoyed their apple and balloon.





The bigger surprise was finding out whose father it was. The birthday boy's father was indeed the same concerned dad from the "Cupcake Controversy." Less than three

months previously, he was upset with school board invading his rights as a parent. But the discussion motivated him to create a fun and healthy way to celebrate his son's birthday.

**Farmers' Markets for Everyone**

Members of the Nutrition and Fitness Collaborative of the Central Coast (NFCCC – Monterey, San Benito, and Santa Cruz counties) identified Farmers' Markets as a great way to make fresh, local fruits and vegetables more available to the whole community, but in particular, increase access in low-income neighborhoods not served by grocery stores with full produce departments. These farmers' markets also shorten the chain between farmer and consumer, reducing middle-man costs, and positively addressing food safety concerns. And finally, markets were seen as an ideal venue for nutrition education, by both agencies and the farmers through encouraging customers to try new produce, or preparing it in a new way.

The NFCCC committed to helping ensure that farmers' markets take the currency of the neighborhood, be it cash, EBT cards, or WIC and Senior Nutrition vouchers, to increase access to healthy produce by low-income families. One means of promotion as well as tracking success was the distribution of a bilingual (English/Spanish) brochure listing every farmers' market on the Central Coast that accepted

EBT cards, including location and dates and times of operation. When this brochure was first created in 2008, there were eight markets in the three-county region that accepted EBT. Two years later, the NFCCC printed a brochure that lists **seventeen** qualifying farmers' markets, and have agreements from another six to begin the EBT transaction application process.



**Impact:** As a result of the NFCCC's efforts, the Monterey County Board of Supervisors came out publicly in full support of proposed state legislation which would require Farmers' Markets to accept EBT or allow a third party to process EBT transactions if the market is unwilling or unable to do so. Their success as a collaborative hinges in part on the success of the farmers' markets, and they continue to educate their communities regarding the rich resources these markets offer.

**Local Restaurants Get Healthy in Shasta**

Fresh, locally grown ingredients is what's on the menu at two restaurants in Shasta County. It's called a Farmers' Market Menu and the produce used in these dishes is purchased at local farmers' markets. The menu changes weekly, based on what is in season and available at the market that week.



Leatherby's Family Creamery and Angelo's Pizza Parlor are participating, and have added menu items that

include fresh salads, homemade salsa, grilled peaches topped with vanilla ice cream and pizza topped with a variety

of vegetables, including summer squash, red onion, tomatoes, eggplant, fresh basil and garlic.

"Incorporating fresh, local produce not only tastes great, but supports a healthy lifestyle, local farmers and the local economy," said Karrie Isaacson, Shasta County Public Health Nutritionist.

**Impact:** These two restaurants have also joined the Healthy Kids Choice program. Healthy Kids Choice is a partnership with local restaurants and *Healthy Shasta* to increase and promote healthy menu options for kids. The participation requirements of the program are to offer at least one meal on the kids menu that includes a lean entrée, fruit or vegetable side dish and a no sugar added beverage. There are now 10 restaurants participating in Healthy Kids Choice in Shasta County!

**Mendocino Schools – Not Afraid to Get Their Hands Dirty**

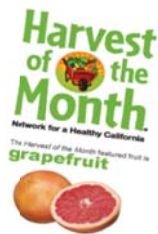
Teachers participating in Network-affiliated garden enhanced nutrition education were asked to relay how the program has

made a difference in their classrooms over the years. The following are a few of their stories.





"The science curriculum with the Harvest of the Month is great! With the grapefruit we did taste experiments following the scientific method. The kids still talk about taste testing the grapefruit with salt! Several had never tried grapefruit before and were surprised that they liked it. Some students said that their parents are now buying grapefruit to eat at home. Of course, some did not like it but tried it and learned about the scientific method. It was a great project!"



"Over the years my students and parents have proven time and time again how excited they are about incorporating nutrition education in their own homes and lives. Each year I've had happy parents come in to talk with me about their children coming home and teaching them about sugar content in juices and sodas or sugar in various [breakfast] cereals. Some parents have even been introduced by their children to the benefits of

reading nutrition labels on packaged foods. On many occasions I've had parents tell me how thrilled they are that their children are choosing to eat more vegetables and healthier snacks at home because of the education they've received in our school. Additionally, I have many students who are starting to garden in their own yards because of the enthusiasm and success they've felt in our school garden. Due to the growing health issues of Americans today, I have found this nutrition education program to be invaluable in our school system."

"My students often tell me that they ask their parents to buy them healthier foods. When they taste a fruit or vegetable at school that is new to them they feel really excited to share this at home. Many students like to grow what they have tasted in the garden so they can eat it as often as possible. I see many students eating more salad from the salad bar and telling me all about it. They are happy to connect health with food and they feel proud when they recognize they are doing it on their own or by their own choice. I love this program!"

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### Impact Evaluation Results from California's Local Network Contractors\*\*

#### Measures of Adult Fruit and Vegetable Consumption

Approximately 40% of CA contractors showed a statistically significant improvement in total Fruit/Vegetable/Juice consumption among adults (n=1029). Broken down into change in individual components, 37% showed a statistically significant change for fruit, 27% for vegetables, and 11% for 100% juice. The *Food Behavior Checklist (FBC)* and *Fruit and Vegetable Checklist (FVC)* were used to measure adult consumption of fruit and vegetables. These surveys were validated in English and Spanish with low-literacy, low-income populations in California, thereby making them a strong measure of consumption for this evaluation.

#### Soda Consumption in Adults

Respondents (n=595) participating in various interventions included on the *FBC* and *FVC* reported a small decrease in soda consumption. Response categories, coded 1 - 4, ranged from "no" [do not drink regular soda] to "yes, [drink regular soda] everyday". A pre-test mean of 2.31 and post-test mean of 2.21 indicate soda consumption slightly shifted from "often" consuming soda toward "sometimes" consuming soda. The results were statistically significant.

#### Measures of FV Consumption in Children

Contractors used one of three surveys to measure children's consumption of fruits and vegetables, including *Day in the Life Questionnaire (DILQ)*. The *Day in the Life Questionnaire* is the measure of choice for use with younger students. Eleven contractors delivering distinct interventions collected data from 1,201 primarily 4th and 5th grade students with the *DILQ*. This tool measures the number of times they ate fruit, vegetables or juice "yesterday" on an open-ended scale. The aggregated results of the 11 contractors indicate there was a statistically significant increase in consumption, with more change in fruit than in vegetable consumption among 1,121 children (p < 0.001). A group of 80 students in a control group showed no statistically significant differences between pre and post.

#### Physical Activity in Children

Six contractors measured physical activity among children with two questions from the *Nutrition Education Survey (NES)*: "Over the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day?" and "Over a typical or usual week, on how many days are you physically active for a total of at least 60 minutes per day?" Response categories ranged from 0 to 7 days and the summary score ranged from 0 to 14. There was a significant change in pretest to posttest scores.

\*\*This section was extracted from "Final Report of the FFY 2009 Impact Evaluation," Network for a Healthy California website - [http://www.cdph.ca.gov/programs/cpns/Documents/Network\\_LIA\\_RA\\_FFY09.pdf](http://www.cdph.ca.gov/programs/cpns/Documents/Network_LIA_RA_FFY09.pdf)

