



Sprouting Healthy Kids Promotes Local Produce and Healthy Eating Behavior in Austin, Texas, Middle Schools

Promoting the use of local produce and healthy eating behavior in Austin city schools

SUMMARY

The Sustainable Food Center, which promotes healthy food choices, partnered with six middle schools in Austin, Texas, to implement Sprouting Healthy Kids. The pilot project was designed to increase children's knowledge of the food system, their consumption of fruits and vegetables and their access to local farm produce. Most students at these schools come from economically disadvantaged families, and most are ethnic minorities.

Key Results

- Participating schools devoted between eight and 24 class periods per semester to lessons on nutrition and food systems.
- All participating schools created gardens, and 90 students participated in after-school programs involving the gardens.
- School cafeterias at the six pilot schools incorporated fruits and vegetables from nearby farms into their menus an average of once a week.
- The center sponsored "meet the farmer" days, which coincided with vegetable sampling events at lunchtime.

Key Evaluation Findings

An evaluation funded by the Michael & Susan Dell Foundation found that:

- Students who took part in two or more project components consumed more fruits and vegetables than those with less involvement in the project.
- Students who took part in only one project component demonstrated greater knowledge of nutrition but did not consume more produce than students who did not participate at all.

- Farmers' visits, tasting events and classroom lessons had the greatest effect on fruit and vegetable consumption.

Funding

The Robert Wood Johnson Foundation (RWJF) supported this project with a \$265,938 grant to the Sustainable Food Center from September 1, 2006, through December 31, 2009.

CONTEXT

Childhood obesity is a national problem, but it is particularly severe in Texas, where children are 50 percent more likely to be obese than the national average. Nearly a third of low-income Texan children between ages 2 and 5 are obese, according to the 2004 Governor's Conference on Children's Obesity in Texas. Black and Hispanic children are at the highest risk for overweight and diet-related disease, and that risk is growing faster than for White children.

One key barrier to healthful eating habits in low-income neighborhoods is limited access to healthful foods. A 1995 report on food stores in East Austin by the Sustainable Food Center found an abundance of convenience outlets, but only a few stores that stocked the necessary ingredients for a healthful meal.

Austin's Sustainable Food Center, founded in 1993, promotes healthy food choices through organic gardening, relationships with farmers, cooking classes and nutrition education. It claims the nation's first "grocery bus route," which transports low-income families living in neighborhoods without grocery stores to the stores in other neighborhoods. It also operates a farmer's market and two farm stands at clinics that target underserved populations. "This was our first foray into a comprehensive farm-to-schools project," said Ronda Rutledge, executive director of Sprouting Healthy Kids.

THE PROJECT

The Sustainable Food Center recruited six middle schools in Austin, Texas, to implement Sprouting Healthy Kids, a pilot project to increase children's knowledge of the food system, their consumption of fruits and vegetables and their access to local farm produce. Most students at these schools come from economically disadvantaged families, and most are ethnic minorities.

The project had three primary components:

- To develop and teach classroom lessons about healthy food and the food system
- To offer after-school gardening and cooking activities

- To bring more locally grown fruits and vegetables into school cafeterias

In addition, local farmers visited the schools, school cafeterias offered vegetable tasting events and students made field trips to local farms.

"We wanted to look at different points of access in school settings, and work directly with kids to help them make better choices," said Rutledge. "Research shows that kids are more likely to try a new fruit and vegetable when they grow it themselves or have a better understanding of where their food comes from."

Developing the Project

The center began by researching existing farm-to-school programs and food procurement practices. Center staff interviewed Austin school district and Texas state agency personnel to learn about state and federal policies related to school food and nutrition.

To gauge the interest of local farmers in the project, the center distributed a Web survey to 64 farmers. Some 18 responded, most expressing interest. "It is an amazing way in which to not only teach nutrition, but also to encourage sustainable agriculture and eating local from Austin-area farmers," one farmer wrote. "Students need to know where their food comes from."

Teachers and university interns developed 48 food-related lessons that could be delivered as part of the middle school core curriculum in math, science, language arts and social studies. They aligned the lessons with Texas Essential Knowledge and Skills teaching standards.

The center trained a range of participants to implement various components of the project:

- Volunteers from local gardening organizations served as "food garden mentors" who helped maintain school gardens.
- Middle school teachers at partner schools were trained to use school gardens and other components of the food system as teaching tools.
- University students in public health, nutrition and environmental education programs learned to help develop and deliver in-classroom lessons and after-school activities.
- Participants in the after-school program who seemed to have leadership potential became peer educators, delivering nutritional lessons to other students.

In cooperation with the University of Texas School of Nutrition, the center developed resources for use by the project, including:

- *Sprouting Healthy Kids Activity Guide* for the after-school program

- *Healthy Snacks for Kids Cookbook*

Challenges

When the project began, U.S. Department of Agriculture guidelines did not permit schools to use geographic preference in their food-purchasing decisions. The Austin Independent School District allocated funds to purchase foods from local farmers, who were not subject to these guidelines, but the limit was \$1,000 annually at each school.

The Sustainable Food Center worked with the Community Food Security Coalition, based in Portland, Ore., to advocate for a change in federal policy. Congress removed the prohibition in 2008. The school district then awarded a contract to Farm to Table, a small Austin-based distribution company that works with local farmers, to provide schools with locally grown produce.

Most students at these schools were obligated to participate in after-school tutoring programs, which limited the number of students available for other extracurricular activities. Center staff worked with faculty and community partners already engaged in the schools, such as the Boys and Girls Club, to build enrollment.

Teachers in traditionally underserved schools face many demands and getting them to devote adequate attention to a new project was difficult. The center tried to overcome this barrier by continually engaging teachers, encouraging them to identify appropriate time slots for food-related lessons, such as just before holidays or after a test, and using university interns to develop and deliver classroom lessons.

"Communicating with teachers was very difficult," said Rutledge. "We literally went into the school to catch teachers between classes. We talked to the principals trying to reach them. Their job is incredibly challenging; they were doing the best they could."

Other Funding

The Michael & Susan Dell Foundation provided \$189,609 for an evaluation of Sprouting Healthy Kids. (See [Evaluation](#) below.) Additional funding for the initiative came from:

- Educational Foundation of America, \$80,000
- RGK Foundation, \$36,000
- Burdine Johnson Foundation, \$20,000
- Alice Kleberg Reynolds Foundation, \$17,500

RESULTS

The Sustainable Food Center reported the following results from the Sprouting Healthy Kids pilot project:

- **Participating schools devoted between eight and 24 class periods per semester to food-related lessons.** Lessons on the food system were incorporated into core classes. For example:
 - In a math class, the garden was used to teach about square footage.
 - In a science class, students learned about the life cycle of plants.
 - In social studies, a ball of yarn illustrated the tangled system that moves food from farm to truck to warehouse to grocery store to home.

Because teachers in these academically challenged schools spent much of their time preparing students for standardized tests, 16 university interns served as "teachers for the day" to deliver lessons during the final project year.

- **All participating schools created gardens, and 90 students participated in after-school programs involving the gardens.** These programs included hands-on gardening and cooking projects, interactive games and one field trip each semester to local farms, farmers markets and community gardens.
- **School cafeterias at the six pilot schools incorporated local fruits and vegetables into their menus an average of once a week.** The center recommended menu changes to cafeteria staff, such as substituting fresh vegetables for frozen ones and using in-season produce, so that local vegetables could be readily used. "The idea was to mirror what the kids were growing in their own school gardens, give them a better concept of what a growing season looks like and show them what healthy local food looks like," said Rutledge, the project director.
- **The center sponsored "meet the farmer" days, which coincided with vegetable sampling events at lunchtime.** Farmers visited the schools and interacted with students. The center delivered fresh produce that cafeteria staff then prepared.
- **Peer educators delivered health lessons at fairs and other venues, guided by a Sustainable Food Center toolkit.** For example, they conducted a milk taste test, blindfolding students so that they could consider the difference between non-fat, low-fat and whole milk. They also challenged students to guess how much sugar was in a can of soda.
- **The center published a policy paper in November 2008 aimed at building support for local farm-to-school efforts in Texas.** The paper, "Farm to School in Texas: Recommendations for Addressing Childhood Nutrition and New Markets for Farmers," helped to spur the creation of the Texas Farm-to-School Task Force,

according to project director Rutledge. The task force is developing a plan for a state-supported program.

EVALUATION

Using a grant from the Michael & Susan Dell Foundation, the center subcontracted with the University of Texas School of Public Health in Austin to evaluate Sprouting Healthy Kids. The one-year evaluation began in November 2008.

The evaluators completed two rounds of surveys of 246 sixth- and seventh-grade students in four project schools and one comparison school. They also surveyed parents, although that survey was not used in the outcomes analysis. The evaluation sought to measure the impact of six project components:

- Classroom lessons about healthy food and the food system
- After-school gardening program
- Increased access to local fruits and vegetables in school cafeterias
- Farmers' visits to the schools
- Vegetable tasting events
- Field trips to local farms

Evaluation Findings

The evaluators reported the following findings in a report, *Evaluation of Sprouting Healthy Kids*:

- **Students who took part in two or more project components consumed more fruits and vegetables than those with less involvement in the project.** The more involved students also:
 - Demonstrated greater knowledge of nutrition
 - Scored higher on self-efficacy, suggesting that they felt more capable of choosing to eat more fruits and vegetables
 - Expressed less of a preference for unhealthy foods
- **Students who took part in only one project component demonstrated greater knowledge of nutrition but did not consume more produce than students who did not participate at all.** Participation in only one component did not have any other significant effect on behavior or attitudes.

- **Farmers' visits, tasting events and classroom lessons had the greatest effect on fruit and vegetable consumption.** Farmers' visits and tastings seemed to have produced the most changes in all of the measured outcomes.

Limitations

The evaluators noted the following limitations:

- The data were self-reported.
- Recruitment was challenging because evaluators could not reach parents directly, and some selection bias may have resulted.
- The sample is representative of an ethnically diverse low-income community. The results may not be applicable to other demographic groups.

LESSONS LEARNED

1. **Seek out champions who understand and support the project goals.** The enthusiasm of staff responsible for health and food services at the Austin Independent School District and the interest of several teachers were key. At the district level, "we have forward thinking, supportive folks who want to see more of this happening," said project director Rutledge. Schools with teachers who championed Sprouting Healthy Kids became more involved in the project.
2. **The schools themselves must drive this kind of initiative.** Ultimately, any nutrition program like Sprouting Healthy Kids has to be a project that the schools decide they want. "We are saying, 'this really needs to be your project, we can help make it a reality but we don't want to force it on you. If this is something you want for your community, we are there for you as a resource as much as we can be,'" says Rutledge.

AFTERWARD

Of the six pilot schools, four remain actively interested in continuing Sprouting Healthy Kids. A third school has closed, and the others, facing a variety of challenges, have basically told the Sustainable Food Center, "If you can't come in and do it for us, we can't do it," according to Rutledge.

Continuing its focus on schools, the center is partnering with Marathon Kids, which runs fitness programs in nine cities, to integrate running and walking activities with nutrition programs in local elementary schools. "The goal is to surround children with healthy food and fitness options," says Rutledge. The Michael & Susan Dell Foundation and the Texas Department of State Health Services are funding the partnership.

The center has also embarked on a broader initiative, Sprouting Healthy Communities, by focusing its ongoing projects—including community gardens, farm stands and cooking

classes—on the four zip codes in which the six schools are located. "Halfway through the pilot, we realized it would not be enough to do this just in the schools. Some parents don't know how to cook fresh produce. These kids have taken food home from the garden and it has been thrown in the trash," says Rutledge. "We want to reinforce the lessons being taught in schools so that everywhere the families turn around, we are there."

With funding from the Texas Department of State Health Services, the center is also creating video training modules to describe what Sprouting Healthy Kids and Sprouting Healthy Communities can look like in other communities. "They are helping us take our intellectual capital and our resources and push this out to other communities," says Rutledge.

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BIBLIOGRAPHY

(Current as of date of the report; as provided by the grantee organization; not verified by RWJF; items not available from RWJF.)

Articles

"Sustainable Food Center Helps Bring Local Fare to Austin Schools." *Kids@Heart*, March 2008.

Leibrock S. "Sustainable Food Center Sprouting Healthy Kids." *Edible Austin*, Winter: 2008.

Reports

Smiley AW and Sohail A. *Farm to School in Texas: Recommendations for Addressing Childhood Nutrition and New Markets for Farmers*. Austin, Texas Sustainable Food Center, November 2008.

Evans A, Ranjit N, Hoelscher D, Stigler M, Medina J and Jennings R. *Evaluation of Sprouting Healthy Kids*. Austin, Texas: University of Texas School of Public Health, October 2009.