

# **Evaluation of the School Lunch Initiative:**

## **Changing Students' Knowledge, Attitudes, and Behavior in Relation to Food**

**A report by the Dr. Robert C. and Veronica Atkins Center for Weight and Health,  
University of California at Berkeley**

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### **EXECUTIVE SUMMARY**

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The dramatic rise of childhood obesity and food-related environmental concerns has led to a focus on school food—both in terms of the quality of meals served and the state of teaching and learning about food systems, food choices, and their impact on health, the environment, and other issues.

A growing number of schools around the country have installed school gardens and attempted to change the quality of school lunches, but many of these efforts have been poorly integrated with teaching and learning.

This report examines the results of one of the first comprehensive programs in the nation, located in Berkeley, California. A collaboration among the Chez Panisse Foundation, Center for Ecoliteracy, and Berkeley Unified School District, the School Lunch Initiative was based on the hypothesis that if young people are involved in growing, cooking, and sharing fresh, healthy food while learning about it in the curriculum, they will be more likely to develop lifelong healthy eating habits and values consistent with sustainable living.

The Dr. Robert C. and Veronica Atkins Center for Weight and Health at U.C. Berkeley conducted an evaluation of the School Lunch Initiative, following 238 students as they progressed from fourth and fifth grade into middle school during the years 2006 to 2009. The goal was to determine the effects of the School Lunch Initiative on students' knowledge about nutrition, food, and the environment; attitudes toward healthy eating and environmental responsibility; and eating behaviors.

The evaluation compared students at elementary and middle schools with highly developed School Lunch Initiative components to students at schools with lesser-developed School Lunch Initiative components, over a period of three years.

*Schools with highly developed School Lunch Initiative components* offered cooking and garden classes integrated with selected classroom lessons along with improvements in school food and the dining environment.

*Schools with lesser-developed School Lunch Initiative components* primarily focused on launching the district-wide improvement in school food, but did not offer regular cooking and garden classes integrated with selected classroom lessons.

The report finds that the School Lunch Initiative was effective in increasing student nutrition knowledge as well as preference for and consumption of healthy food, especially among elementary school students. Students' attitudes about the taste and health value of school lunch improved as changes were put in place. It also found that continued School Lunch Initiative exposure into middle school may play an important role in mitigating the negative changes in eating behaviors that typically occur during adolescence.

More specifically, the key findings are:

- ⇒ More than half of the families of students in the study reported eating dinner together every day. However, fewer than 30 percent of households reported involving their child in meal preparation.
- ⇒ Parents with children in schools that coupled improvements in school lunch with classroom learning and cooking and gardening classes were more likely than

students in schools with lesser-developed programs to say that school affected their child's knowledge, attitudes, and behavior in relation to food.

- 60 percent in highly developed programs said school changed their child's knowledge about healthy food choices, compared to 36 percent in lesser-developed programs.
- 42 percent in highly developed programs said school changed their child's attitudes about food, compared to 19 percent in lesser-developed programs.
- 35 percent in highly developed programs said school improved their child's eating habits, compared to 16 percent in lesser-developed programs.

⇒ Students in schools that coupled improvements in school lunch with classroom learning and cooking and gardening classes scored higher on nutrition knowledge than those in schools with lesser-developed programs.

⇒ Preference for fruits and vegetables, especially green leafy vegetables, was clearly greater in schools that coupled improvements in school lunch with classroom learning and cooking and gardening classes. In fact, younger students in these schools increased fruit and vegetable intake by nearly one and a half servings per day.

⇒ Middle school students exposed to highly developed programs were more likely than those in lesser-developed ones to:

- Feel positive about eating food served at school
- Like the cafeteria
- Think produce tastes better in season
- Agree that eating choices can help or hurt the environment

⇒ Continued exposure to healthy school lunches coupled with classroom learning and cooking and gardening classes in middle school may sustain increases in fruit and vegetable intake.

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