

## Improving School Foods Through the Team Nutrition Program

### *New Findings from U.S. Elementary Schools*

*Team Nutrition is an initiative of the U.S. Department of Agriculture (USDA) Food and Nutrition Service. Schools that enroll in Team Nutrition commit to make nutrition changes throughout the school and conduct nutrition education. Team Nutrition offers a variety of resources, including fact sheets and nutrition education materials for students and their caregivers and provides consistent messages about healthy eating and physical activity through classroom activities, schoolwide events, families, local programs and the media. Additionally, Team Nutrition has a competitive grant initiative which provides funding to states for training and technical assistance for school food service workers to conduct nutrition education and promotion initiatives in schools. Participation in Team Nutrition can mean different things for different schools—some schools make more extensive use of the program resources than others.*

*This brief examines participation in the Team Nutrition program among U.S. elementary schools for four school years, from 2006–07 to 2009–10. It also describes the types of foods and beverages available as part of lunch meals served by schools that did and did not have access to Team Nutrition resources during that period.*

### Background

Improving nutritional practices in schools is an important strategy for addressing the childhood obesity epidemic and improving children's health. National research confirms that most school meals are high in fat and sodium and that starchy vegetables, including fried potatoes, are the most commonly consumed vegetables.<sup>1,2</sup> School lunches also fall short on whole grain products and often include high-calorie, low-nutrient desserts, such as cookies, cakes and brownies.

Serving more nutritious meals through federal child nutrition programs, including the National School Lunch Program and School Breakfast Program, would help support the health of tens of millions of children each school day.<sup>3–5</sup> Many children, especially those from lower-income families who are at highest risk for obesity, depend on these programs for up to half of their daily calories.<sup>6</sup>

Policy makers and advocates for children's health recognize the need to develop policies and practices that help schools provide more nutritious foods and beverages and promote healthy eating among students. Evaluating the impact of such initiatives is critical for identifying the most promising approaches for preventing obesity, as well as improving children's diets and overall health.

## Key Findings

Participation in Team Nutrition did not change significantly over the four-year period, with 39.2 percent, 42.8 percent, 37.6 percent, and 35.9 percent of schools participating in the program, respectively, during each year.

As shown in Table 1, the availability of whole grains and the percentage of schools that offered only low-fat milks in school lunches increased significantly over the four years, regardless of participation in Team Nutrition. The availability of some less-healthy items—such as salty snacks, ice cream and baked goods—declined over the four years.

Participation in Team Nutrition was associated with healthier lunch meal practices. Because lunch meal practices changed over time, Table 2 shows school lunch meal offerings for 2009-10 only, by Team Nutrition participation status. Overall, schools that had Team Nutrition resources available were more likely to offer fresh fruit (Odds Ratio = 1.40), whole grains (Odds Ratio = 1.85) or salads (Odds Ratio = 1.33). Participating schools also were less likely to offer salty snacks (Odds Ratio = 0.80) or baked goods (Odds Ratio = 0.74).

TABLE 1 Foods and beverages available in school lunch meals

	2006–07	2007–08	2008–09	2009–10
<b>Healthier items (offered most/every day)</b>				
Fresh fruit	60.9%	61.3%	61.6%	66.2%
Whole grains	14.6%	20.4%**	21.4%**	22.9%**
Salads	36.6%	38.7%	38.6%	36.8%
Only low-fat milks	21.9%	20.0%	30.0%**	35.5%***
<b>Less-healthy items (offered some/most/every day)</b>				
Salty snacks	34.1%	28.4%*	22.1%***	22.4%***
Baked goods	59.1%	55.0%	47.5%***	49.5%**
Ice cream	37.9%	35.7%	32.3%	30.5%*
Number of schools surveyed	578	748	641	680

Significance of change compared with 2006–07 school year indicated with \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$  in multivariate models controlling for school size, race and ethnicity, percentage of free/reduced-price lunch eligibility, locale, and U.S. census region.

Low-fat milks included white or flavored nonfat or 1% milks.

Salty snacks included potato chips, pretzels and other chips.

Baked goods included cookies, cakes, pastries and other baked items.

TABLE 2 School lunch meal offerings during the 2009-10 school year by Team Nutrition status

	School did not participate in Team Nutrition	School participated in Team Nutrition
<b>Healthier items (offered most/every day)</b>		
Fresh fruit	63.8%	70.4%*
Whole grains	18.5%	30.6%*
Salads	35.3%	39.3%*
Only low-fat milks	34.9%	36.4%
<b>Less-healthy items (offered some/most/every day)</b>		
Salty snacks	23.9%	19.8%*
Baked goods	50.3%	48.2%*
Ice cream	30.5%	30.5%

\* Significant difference at  $p < .05$ , for Team Nutrition status, tested in multivariate models controlling for school size, race and ethnicity, percentage of free/reduced-price lunch eligibility, locale, and U.S. census region.

## Conclusions and Implications

Given the important role schools have in addressing the childhood obesity epidemic and supporting children’s health, it is critical to evaluate the impact of initiatives, such as Team Nutrition, that aim to promote healthy eating through child nutrition programs. Our findings show schools that participated in Team Nutrition were more likely to offer healthier foods—and less likely to offer unhealthy foods—at lunch.

Because the data are cross-sectional each year, we cannot conclude that participation in the program causes better outcomes. Since the level of involvement in Team Nutrition, and utilization of Team Nutrition resources were not assessed, we cannot determine whether certain components of the Team Nutrition initiative are more impactful than others. It is possible that schools or districts with personnel who have a strong interest in promoting healthy eating are

more likely to participate in Team Nutrition and offer more nutritious lunches. As efforts to improve the nutritional practices in schools continue to increase, more school personnel will need training and technical assistance to meet updated nutrition standards and serve healthy, appealing meals. Our findings suggest that Team Nutrition has strong potential to help schools improve children’s eating habits.

We also found significant increases in the availability of healthier items—and decreases in the availability of less-healthy items—in school lunch meals from 2006–07 to 2009–10 regardless of participation in Team Nutrition. These changes are noteworthy. Yet during the 2009–10 school year, still fewer than one-quarter of public elementary schools offered whole grain products regularly, two of three elementary schools offered higher-fat milks, and unhealthy snacks were widely available during lunch.

There is still much room for improving the nutritional quality of school lunches by offering healthier products more often and high-sugar, high-fat and high-sodium products less often. To meet updated nutritional standards for school meals, including those called for by the Healthy, Hunger-Free Kids Act of 2010, it will be important to accelerate the trajectory of these changes.

## Study Overview

These analyses are based on annual data collected by the Bridging the Gap research program at the University of Illinois at Chicago. We used nationally representative data from surveys of U.S. public elementary schools collected from 2006–07 to 2009–10 to examine school participation in Team Nutrition, as well as the association between program participation and school lunch meal offerings.\* We requested that the school food service manager complete the survey module from which these items were drawn.

Survey participants indicated whether their school participated in the Team Nutrition program by selecting one of the following responses: yes, no or don't know. Respondents also indicated how frequently a variety of foods and beverages were available in the school lunch meal.

For this survey, schools were asked only whether they participated in Team Nutrition, but not whether their state received any grant funds through the program, nor to describe their level of participation in the program. More information about this study is available at [www.bridgingthegapresearch.org/research/elementary\\_school\\_survey](http://www.bridgingthegapresearch.org/research/elementary_school_survey).

\* Nearly all (95.2%) of schools in our sample participated in the National School Lunch Program; removing schools that did not participate reduced our sample size to 2,489 schools across the four years. All characterizations from these data pertain to public elementary schools offering the National School Lunch Program meal.

## Suggested Citation

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## About Bridging the Gap

*Bridging the Gap* is a nationally recognized research program of the Robert Wood Johnson Foundation dedicated to improving the understanding of how policies and environmental factors influence diet, physical activity and obesity among youth, as well as youth tobacco use. For more information, visit [www.bridgingthegapresearch.org](http://www.bridgingthegapresearch.org).

## Reference List

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