

New Data on the Nutritional Quality of School Lunches

The *Healthy, Hunger-Free Kids Act of 2010* authorized new child nutrition funding and policies that affect the National School Lunch Program (NSLP) and the School Breakfast Program (SBP). Since the early 1990s, the U.S. Department of Agriculture's (USDA) Food and Nutrition Service (FNS) has sponsored the School Nutrition Dietary Assessment (SNDA) studies to update information on key nutritional characteristics of the meals provided to children through these programs. The SNDA studies also measure the progress schools are making toward meeting national nutrition standards and have long been a reliable source of information for policymakers seeking to improve the two programs. The fourth SNDA study (SNDA-IV), conducted by Mathematica Policy Research, collected data from nationally representative samples of public school districts and schools in school year (SY) 2009–2010. This important study provides the latest information on the nutritional quality of school meals and will serve as a baseline for measuring schools' success in implementing newly authorized requirements for the NSLP and SBP.

Changing Nutrition Standards for School Meals

To be eligible for federal reimbursement in SY 2009–2010, schools were required to serve meals that met nutrition standards defined under the 1995 School Meals Initiative (SMI) for Healthy Children. USDA recently revised these standards to better align school meals with the current *Dietary Guidelines for Americans* (USDA and HHS 2010) and the latest information on nutrients essential to children's health. The final rule, issued in January 2012, required schools to begin implementing the new

requirements in SY 2012–2013 and calls on them to offer more fruits, vegetables, and whole grains; limit milk to fat-free and low-fat varieties; substantially reduce sodium content over time; control saturated fat and calorie levels; and eliminate trans fat.

SNDA-IV assessed the proportion of schools that offered and served meals that met or came close to meeting the SMI standards in SY 2009–2010. In addition, to provide some insight into how school meals compared with the latest nutrition guidance, SNDA-IV also assessed how well school meals were meeting selected recommendations in the 2010 *Dietary Guidelines*.

Key Findings: Meeting SMI Standards for School Lunches

More than three-quarters of schools served lunches in SY 2009–2010 that, on average, met or came within 10 percent of the SMI standards for all target nutrients. Meeting the SMI standard for calories was the greatest challenge. Just under half of elementary schools and less than one-quarter of secondary schools served lunches that met the SMI standard for calories.

The new requirements for NSLP lunches establish both a minimum and maximum level of calories. Under these requirements,

National School Lunch Program



NSLP operates in 94 percent of schools.



On an average day, 31.6 million children are served NSLP lunches.



Over $\frac{2}{3}$ or 68% of lunches are served free or at a reduced price.

the average lunch served by many schools in SY 2009–2010 exceeded the new calorie minimum. However, there was a great deal of variation across schools—to meet the new calorie requirements, some schools will need to increase calories, and some will need to lower calories.

Since SY 2004–2005, schools have made steady progress toward meeting SMI standards for the percentages of calories from total fat and saturated fat at lunch. But in SY 2009–2010, most schools still served lunches that were high in fat and saturated fat, relative to these standards.

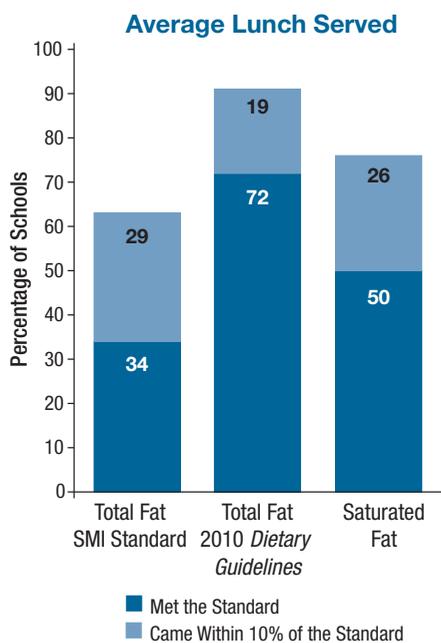
- More than one-third (34 percent) of schools served lunches that were consistent with the SMI standard for total fat. Since SY 2004–2005, the proportion of schools meeting the SMI standard for total fat increased by 50 percent among elementary schools (from 26 to 39 percent) and more than doubled among secondary schools (from 12 to 27 percent).
- Almost three-quarters (72 percent) of schools served lunches that met the 2010 *Dietary Guidelines*' recommendation for total fat. (This recommendation is less restrictive than the SMI standard for total fat—see illustration for standards).

SMI Standards for Lunches

- Calories and target nutrients (protein, vitamins A and C, calcium, iron): $\geq 1/3$ of daily needs
- Total fat: $\leq 30\%$ of total calories
- Saturated fat: $< 10\%$ of total calories

2010 Dietary Guidelines' Recommendations

- Total fat: 25–35% of total calories
- Sodium and cholesterol: $< 1/3$ of daily limits
- Dietary fiber: 14 g/1,000 calories



Source: SNDA-IV Menu Survey, SY 2009–2010.

- Half of all schools served lunches that met the SMI standard for saturated fat. This marks an increase of about 20 percentage points since SY 2004–2005 in the proportions of elementary and secondary schools that met the standard for saturated fat. (The standard for saturated fat is the same under the SMI and the 2010 *Dietary Guidelines*.)

Other Key Findings: Trends for Sodium, Cholesterol, and Dietary Fiber

SNDA-IV also identified key findings for the sodium, cholesterol, and dietary fiber content of school lunches.

- Very few schools served lunches that met the 2010 *Dietary Guidelines*' recommended maximum for sodium. In most schools, the average sodium content of lunches served exceeded the recommendation by more than 50 percent.
- Almost all schools served lunches that met the 2010 *Dietary Guidelines*' recommendation for cholesterol.
- In most schools, the average dietary fiber content of lunches served was more than 25 percent below the recommended level in the 2010 *Dietary Guidelines*.

New Data on the Food Groups Contributed by School Lunches

USDA has translated the 2010 *Dietary Guidelines* into recommended “food patterns,” which are daily amounts of nutrient-dense foods that should be eaten from five food groups and their subgroups as well as healthy amounts of oils and limits on calories from solid fats and added sugars (SoFAS). One objective of SNDA-IV was to assess, for the first time, the potential contribution of school meals to the USDA Food Patterns for school-age children. Key findings include the following:

- On average, lunches served in schools provided one-third or more of the daily amount of grains, dairy foods, and oils and about one-quarter of the amount of vegetables recommended in the USDA Food Patterns.
- The average lunch served was low in whole grains, providing 6 to 8 percent of the recommended daily amount.
- Lunches were high in SoFAS calories. The number of SoFAS calories in the average lunch served in elementary schools was equivalent to 115 percent of the recommended daily maximum. The average lunch served in secondary

schools provided 60 to 75 percent of the recommended maximum.

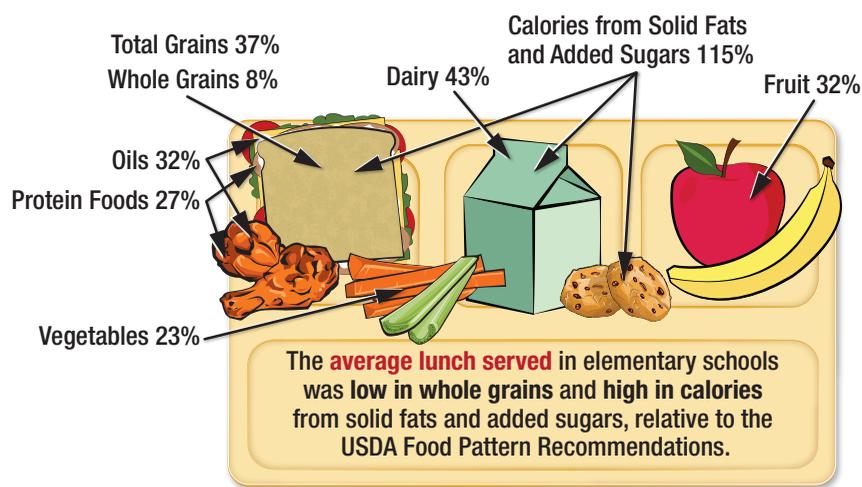
- The top five contributors to SoFAS calories in the average lunch were flavored 1% milk, cookies, cakes and brownies, pizza and pizza products, condiments and toppings, and flavored skim milk.

The Fourth School Nutrition Dietary Assessment (SNDA-IV) Study was funded by the U.S. Department of Agriculture’s Food and Nutrition Service. In addition to examining the food and nutrient content of school lunches in school year 2009–2010, SNDA-IV collected and analyzed information about school breakfasts; afterschool snacks; competitive foods; and NSLP and SBP operations, meal prices, and student participation. A comprehensive report summarizing all SNDA-IV findings is available at: http://mathematica-mpr.com/publications/PDFs/nutrition/snda-iv_findings.pdf

To Find out More

For more information on SNDA-IV or any of Mathematica’s research related to food and nutrition issues, contact Mary Kay Fox at mfox@mathematica-mpr.com or (617) 301-8993.

Contribution of Average Elementary School Lunch to USDA Food Pattern Recommendations



Recommendation for elementary schools based on 1,800 calories

Source: SNDA-IV Menu Survey, SY 2009–2010.