

## Background

Since the early 1990s, USDA has sponsored studies of key characteristics of the school meal programs, the school environments in which the programs operate, the food and nutrient content of school meals and, in some studies, the contributions of school meals to students' diets. This report summarizes findings from the fourth School Nutrition Dietary Assessment Study (SNDA-IV), which collected data from nationally representative samples of school districts and schools in school year (SY) 2009-10.

As in prior studies, the nutrient content of the average meals *offered* and *served* in the Nation's schools was compared with regulatory standards in effect at the time—the School Meal Initiative (SMI) nutrition standards—as well as selected recommendations included in the *Dietary Guidelines for Americans*. In January 2012, USDA issued new standards for school meals to be phased in over 3 years beginning in SY 2012-13. The data reported here thus serve as a marker of progress in achieving the SMI standards, and a baseline for measuring future improvements under the new standards.

The study also collected information about the availability of competitive foods—foods sold in competition to USDA school meals through a la carte sales in cafeterias, vending machines, school stores, and other venues. Finally, the study collected data from a sample of elementary schools participating in the HealthierUS School Challenge (HUSSC) and compared them to elementary schools nationwide.

## Findings

**Most schools *offered* and *served* National School Lunch Program (NSLP) lunches that, on average over a typical school week, met SMI standards for minimum levels of target nutrients.**

- Eighty-five percent or more of all schools *offered* NSLP lunches that on average met or

exceeded SMI standards for protein, vitamin A, vitamin C, calcium, and iron.

- The average NSLP lunch *served* in more than three-quarters of all schools met or came within 10 percent of the SMI standards for all target nutrients.

**Schools were less likely to *offer* and *serve* average NSLP lunches that met the SMI standard for minimum calories.**

- Sixty-five percent of all schools *offered* average NSLP lunches that met the minimum calorie level defined in the SMI standards, and another 20 percent came within 10 percent of the minimum standard.
- In contrast, 39 percent of all schools *served* average NSLP lunches that met the SMI minimum for calories and another 26 percent came within 10 percent of this standard.

**A majority of schools *offered* and *served* average NSLP lunches that were consistent with the SMI standard for total fat (no more than 30 percent of total calories from fat) or came within 10 percent of this standard.**

- On average, 35 percent of all schools *offered* NSLP lunches that were consistent with the SMI standard for total fat and an additional 25 percent of schools *offered* lunches that came within 10 percent of this standard.
- More than one-third (34 percent) of schools *served* NSLP lunches that were consistent with the SMI standard for total fat, and an additional 29 percent of schools *served* lunches that came within 10 percent of this standard.

**More than half of all schools *offered* and *served* NSLP lunches that on average met SMI's standard for saturated fat. Another 26 to 28 percent of schools *offered* and *served* lunches that came within 10 percent of the standard (equivalent to 10 to 10.9 percent of total calories from saturated fat).**

- Among elementary schools, the percentage of schools that *served* average NSLP lunches that

met the SMI standard for saturated fat increased from 34 percent in SY 2004–2005 to 53 percent in SY 2009–2010. Among secondary schools, the percentage of schools meeting the standard almost doubled—from 24 percent in SY 2004–2005 to 46 percent in SY 2009–2010.

**Overall, 14 percent of schools offered NSLP lunches that met all of the SMI standards, while 7 percent of schools served NSLP lunches that met all of the SMI standards.**

**Most schools offered and served School Breakfast Program (SBP) breakfasts that, on average over a typical school week, were consistent with the SMI standards.**

- For each of the SMI target nutrients, 92 percent or more of all schools offered and more than 80 percent of all schools served average SBP breakfasts that met the SMI standards for target nutrients.
- Substantially fewer schools met the SMI standard for minimum calories than the SMI standards for minimum levels of target nutrients with relatively little difference in the findings for breakfasts offered and breakfasts served. In both cases, only about 20 percent of schools met the standard for calories and about 20 percent more came within 10 percent of this standard.
- Almost all schools offered (93 percent) and served (85 percent) SBP breakfasts that, on average, met the SMI standard for total fat.
- More than three-quarters of all schools offered and served average breakfasts that met the SMI standard for saturated fat. An additional 11 to 13 percent of schools offered and served breakfasts that came within 10 percent of this standard (equivalent to 10 to 10.9 percent of total calories from saturated fat).

**Competitive foods were widely available in schools, particularly in secondary schools.**

- Eighty-two percent of elementary schools, 95 percent of middle schools, and 90 percent of high schools had a la carte offerings available at lunch.

Smaller percentages of schools (58, 74 and 70 percent, respectively) had a la carte offerings available at breakfast.

- Vending machines were widely available in high schools (85 percent), somewhat less common in middle schools (67 percent), and rare in elementary schools (13 percent).
- More than 80 percent of school districts had a ban or restriction related to sweetened beverages and more than 75 percent had a ban or restriction related to snack foods.

**Compared with elementary schools nationwide, larger proportions of HUSSC elementary schools met most SMI standards for both lunches offered and served.**

- For both lunches offered and served, a larger share of HUSSC elementary schools met the SMI standards for calories, vitamin C, and iron, on average, than elementary schools nationwide. This was also true for vitamin A in lunches served.
- For both lunches offered and served, a larger share of HUSSC elementary schools met SMI standards for total fat and saturated fat, on average, than elementary schools nationwide.

**Compared with elementary schools nationwide, HUSSC elementary schools offered raw vegetables and fresh fruit more frequently.**

- Raw vegetables were offered in 63 percent of daily lunch menus in HUSSC elementary schools, compared with 57 percent of daily lunch menus in elementary schools nationwide.
- More than 8 out of 10 lunch menus in HUSSC elementary schools (82 percent) included fresh fruit, compared with just over half (56 percent) of lunch menus in elementary schools nationwide.

## Reference

U.S. Department of Agriculture, Food and Nutrition Service, Office of Research and Analysis, *School and Nutrition Dietary Assessment Study IV*, Vols. I and II, by Mary Kay Fox and John Hall, et al. Project Officer, Fred Lesnett. Alexandria, VA: November 2012. Download report at: [www.fns.usda.gov/ora/](http://www.fns.usda.gov/ora/).

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