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Meeting Total Fat Requirements for School Lunches Influence of School Policies and Characteristics

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Concerns about child obesity have raised questions about the quality of meals served in the National School Lunch Program (NSLP). Local, State, and Federal policymakers responded to these concerns beginning in the mid-1990s by instituting a range of policies and standards to improve the quality of USDA-subsidized meals. While most of USDA's nutrition standards have been met by schools, total fat and saturated fat as a percent of calories is an ongoing challenge.

What Is the Issue?

The School Nutrition Dietary Assessment-III, conducted by USDA's Food and Nutrition Service, recently found that while most schools meet requirements for vitamins, protein, calcium, and iron, only one in five schools served lunches that met the standard for total fat, set at 30 percent of calories or less. This report compares the characteristics and food policies of schools serving lunches that met total fat requirements to those serving lunches with fat content that was either 30-35 percent of calories (middle category) or over 35 percent (high). Identifying the food practices and policies of conforming versus nonconforming schools may help to identify effective strategies for improving the nutritional quality of USDA school meals.

What Did the Study Find?

The fat content of school lunches was statistically correlated with many school policies and characteristics in the spring of 2005. Some policies and practices, such as whether french fries are regularly served, can directly affect the nutritional content of USDA lunches. Other policies, such as a school's allowance of "competitive" foods or foods that bypass nutritional standards, can indirectly affect the content of USDA lunches by offering choices that appeal to students' taste preferences. Among the policies or practices that directly affect the fat content of USDA lunches:

- **Promotion of fresh fruits and vegetables/local foods.** Participation in at least one program that promotes the purchase of locally grown food or fresh fruit and vegetables was significantly higher in elementary and middle/high schools that serve lunches in the lowest fat category, below 30 percent of calories.
- **French fries or dessert.** The provision of french fries or dessert as a part of the USDA lunch was significantly higher among middle/high schools in the highest fat category.

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- **Low-fat milk only.** Providing lowfat milk as the only milk choice was significantly higher in the lowest fat category for both elementary and middle/high schools.

- **Meal planning method.** Historically, schools have used a food-based (“traditional”) method for planning menus where each meal must consist of certain food types such as a meat, vegetable, starch, etc. In recent years, some schools have adopted a nutrient-based method where lunches are planned according to the nutrient content of food items. Or they use a mix of methods called the “enhanced traditional” method. The traditional meal planning method was used significantly more by schools in the highest fat category for both elementary and middle/high schools, whereas the enhanced traditional method was used more in the lowest-fat category for middle/high schools.

Other policies may affect lunch quality since they enable students to choose alternative foods. For example, the availability of *a la carte foods* in elementary schools was significantly higher in the middle category of fat content than in the lowest category; no relationship across fat categories was found for middle/high schools. And the presence of *vending machines* was significantly higher among middle/high schools in the highest fat category.

Although school characteristics (rural vs. urban, region, size) are not subject to policy change, they may be useful for targeting lunch improvement efforts. For both elementary and middle/high schools, *urban* schools were more highly represented in the lowest fat category, and *rural* schools were more predominant in the highest fat category. Elementary and middle/high schools in the Southeast were more predominant in the two higher fat categories than in the lowest category, whereas Southwest schools were more predominant in the two lower fat categories. Elementary schools in the West were more predominant in the lowest fat category than in the two higher categories.

How Was the Study Conducted?

We used nationally representative school-level data from the School Nutrition Dietary Assessment-III to calculate the statistical effect of school policies and characteristics on the fat content of NSLP lunches served by 397 schools. Schools were divided into three categories based on the average fat content of reimbursable school lunches served and chosen by students over a week. The fat content categories were (1) no more than 30 percent of calories from fat, (2) 30 to 35 percent of calories from fat, and (3) more than 35 percent of calories from fat. We compared the policies, practices, and characteristics of schools within each fat category to those in the other two fat categories. Using a student’s t-test and school-level sample weights, we indicate mean differences between subgroups that vary with a 90-percent level of significance or above. This threshold was chosen because of small sample size, especially among specific fat content subcategories.