

New School Meal Standards — Digesting the Details

By Linda Antinoro, JD, RD, LDN, CDE

In 1946, Congress tasked the USDA with regulating nutrition standards for school meals, according to the agency's Food and Nutrition Service. As a result, the National School Lunch Program was created. Public and nonprofit private schools and residential child care institutions may participate in the National School Lunch Program. More than 15 years since the last major revision, improved nutrition standards for school meals were unveiled in January 2012.¹

The new standards detailed in "Nutrition Standards in the National School Lunch and School Breakfast Programs" will impact nearly 32 million children whom the USDA says participate in school meal programs daily. The standards will be largely phased in over a three-year period starting July 1, 2012, according to the final rule. The rule includes specific timetables for varying provisions of the meal standards, such as stricter sodium reductions that will take between five and 10 years to implement, while it allows schools to implement certain aspects of the new requirements sooner than mandated.

This continuing education activity will provide a comprehensive review of the 79-page USDA final rule and examine the process that led to its formulation.

Road to a Rule

Federal law requires the USDA to update school meal standards to mesh with the agency's broader Dietary Guidelines for Americans, according to background information in the final rule. It also requires school meals to be based on recommendations from the Institute of Medicine's Nation Research Council of the National Academies of Science.

After seeking feedback from the industry and health advocacy organizations, in January 2011, the USDA issued a notice of proposed rulemaking on school meal guidelines in the **Federal Register**. More than 133,000 public comments from school food authorities and state agencies, nutrition and child advocates, industry groups, parents, and the general public were considered before publishing the final rule in January 2012. The road to the rule was not without controversy and compromise.

As was widely published in the media, Congress prevented the USDA from limiting starchy vegetables, such as potatoes, corn, and peas, to no more than 1 cup per week. The USDA's intent with this proposed restriction was to better ensure that schools offer a wider variety of vegetables. However, the USDA may still succeed because the final rule requires a minimum weekly quantity of all vegetable subgroups.

Lawmakers also allowed an existing rule to remain that treats pizza as a vegetable due to its 2 T of tomato paste, which is given the same nutritional credit as 1/2 cup of vegetables. The

USDA initially wanted 1/2 cup of tomato paste to qualify as a vegetable, but frozen food manufacturers raised concern that this amount of tomato paste on pizza probably would be unacceptable to children's palates. Congress allowed the 1/8 cup of paste to prevail as a vegetable serving. However, since that amount of tomato paste alone is not enough to meet a lunch's vegetable requirement, the new rule requires pizza to be accompanied by an additional side vegetable.

Congress also adjusted the USDA's projected sodium modifications for school meals. Originally, the agency proposed reducing the permissible amount of sodium within a 10-year period, with intermediate reduction targets at two and four years. Congress extended the timetable for the second targeted sodium reduction from four years to five years in the final rule. Also, Congress prevented the USDA from limiting salt beyond the two-year period until the agency evaluates data on sodium intake and human health to ensure the stricter sodium aims are consistent with the current science at that time.

While some elements of the proposed rule fell by the wayside en route to the final incarnation, many provisions dietitians likely would support were not changed. The Highlights of School Meal Changes table below reviews these provisions.

A Focus on Food-Based Menu Planning

Previously, schools could choose to meet USDA nutritional requirements using either a food-based or nutrient standard-based approach for menu planning. The food-based approach focuses on food groups. It is designed to help children easily identify the food groups necessary for a balanced meal and ensure that students nationwide have access to food groups recommended by the Dietary Guidelines. In contrast, the nutrient standard-based approach relies on nutrient analysis software to measure the nutritional content of each meal.

While some commenters advocated that nutrient standard-based menu planning still be permitted as an option, the USDA's final rule establishes food-based menu planning as the only approach allowed. This change will limit the likelihood that schools will offer less healthful foods that have been fortified to meet nutrient requirements. The USDA will give the schools currently not using a food-based menu planning system time to convert to this approach, but food-based menu planning must be in place for the National School Lunch Program by the 2012-2013 school year and by the 2013-2014 school year for the School Breakfast Program.

Calorie Considerations

Under the final rule, school meals will have calorie minimums and maximums based on a child's age/grade. Traditionally, school meals had to meet only calorie minimums. Now, calories will range from 350 to 600 for breakfast meals and 550 to 850 for lunch meals. Setting maximum as well as minimum levels along with providing nutrient-dense meals is designed to help address both obesity and food insecurity concerns, according to the final rule.

Calorie standards for each age or grade group are to be met on average over the course of the week. On any given day, the calorie level for the meal may fall outside the minimum and maximum ranges as long as the average number of calories for the week is within the required range, providing flexibility to the menu planning. In the lunch program, the calorie limits take effect immediately upon implementation in July 2012. In the breakfast program, calorie limits go into effect for the 2013-2014 school year.

Plenty of Produce

School meals will have to offer double the current amount of fruits and vegetables offered. No more than one-half of the fruit and vegetable offerings may be in the form of juice, all of which must be 100% juice.

Under the previous regulations, the school lunch meal did not require a fruit to be offered. Beginning in the 2012-2013 school year, a serving of fruit must be available for the daily lunch meal. In the past, 1/2 to 3/4 cup of daily fruits and vegetables combined was enough to meet guidelines. The final rule establishes fruits and vegetables as separate components in the lunch program and increases their quantities. The new standards require 3/4 to 1 cup of vegetables plus 1/2 to 1 cup of fruit per day dependent on age or grade level bracket.

In addition, a variety of vegetables must be offered during the course of the week. There must be one weekly serving of each of the following types: dark green, red/orange, beans/peas (legumes), starchy, and other (such as asparagus, green beans, and cucumbers). This requirement seeks to better ensure that children are exposed to various vegetables, a goal consistent with the 2010 Dietary Guidelines.

As for the breakfast meal, the fruit requirements increased from 1/2 cup to 1 cup per day. Vegetable substitutions are allowed, but the first 2 cups per week of any substitution must be from the dark green, orange/red, beans/peas, or other category. Starchy vegetables are not considered "other" and cannot be offered until the first 2 cups of nonstarchy vegetable have been met. The USDA received numerous concerns during the comment period regarding the increase in fruit requirements at breakfast, namely fears of plate waste and higher food costs. As a result, the final rule extends the timetable for implementation of the fruit at breakfast rule to the 2014-2015 school year.

The push in produce offered with the new meal standards does not mean students must take all that is provided. However, the hope is that exposing children to plentiful and varied fruits and vegetables will ultimately increase their consumption of these items. Students must select a minimum amount of fruits and vegetables for the meal to be considered reimbursable, allowing the school to be eligible to receive funds. Referred to as Offer vs. Serve in the rule, a student must select at least 1/2 cup of the fruit or vegetable component of each breakfast or lunch meal. This requirement goes into effect July 1, 2012, for lunch and July 1, 2014, for breakfast.

Welcoming Whole Grains

The new school food standards include a requirement for whole grain rich items. There was no such requirement in the past, though it was encouraged. Beginning July 1, 2012, at least one-half of the grains offered in the lunch program must be whole grain rich. The same standard for the breakfast program must happen by July 1, 2013. All grains must be whole grain rich for both meal programs beginning July 1, 2014.

Until the whole grain content of products is required on a label by the FDA, for an item to be considered "whole grain rich" for school meals, it must satisfy two requirements. First, it must meet portion size requirements, which are currently being updated to make them consistent with the USDA MyPlate food guidance system. Second, it must meet one of the three following

criteria: The whole grains per serving must be greater than or equal to 8 g; the product includes the FDA's whole grain health claim on its packaging; or the product ingredient listing states whole grain first.

The final rule also alters an earlier provision in the proposed rule related to meeting the weekly grain requirement with grain-based desserts. The USDA initially considered permitting up to one serving of grain-based dessert per day as a means to incorporate whole grains into the menu. After examining the 2010 Dietary Guidelines and receiving opinions during the comment period, this was changed; the final rule reduces the number of allowable grain-based desserts that can count toward the requirement from five to two per school week.

Fine-Tuning Fats

The saturated fat allowance of less than 10% of total calories offered for breakfasts and lunches over the course of the school week remains intact. Some commenters suggested a stricter standard of less than 7% be implemented; however, the final rule noted that many schools still appear to struggle with meeting the 10% limit at lunch meals.

To help meet saturated fat goals, starting July 1, 2012, all milk offered at both breakfast and lunch must be low fat (1% fat or less) and unflavored or fat free and unflavored or flavored. However, the maximum calorie levels for meals may prohibit the inclusion of fat-free chocolate or strawberry milk due to their calorie content from added sugar.

Though schools must offer at least two milk choices at meals, students can always decline the options. Plus, the new rule requirement regarding milk does not affect the nutrition standards for optional nondairy drinks, such as soy, rice, or almond milk, provided to children with special dietary needs.

Stricter trans fat restrictions will be put in place with the new USDA meal standards. As of July 1, 2012, all food products and ingredients used to prepare school lunch meals—and one year later in July 2013 for breakfast meals—must contain 0 g of added trans fats per serving (technically less than 0.5 g per serving as permitted by the FDA for such labeling). The trans fat limit applies only to synthetic trans fatty acid sources and not to naturally occurring sources found in meat and dairy products.

The final USDA school rule does not impose a total fat limit. The limit is designed to encourage offering foods with healthful fats, such as avocados, various vegetable oils, and nuts or nut butters, while still curbing saturated and trans fats.

Slashing Sodium

Currently, some school meals contain nearly 1,600 mg of sodium. To reduce sodium, the final rule permits schools to make gradual and sequential reductions in sodium over 10 years. The ultimate goals will be to lower sodium levels to 430 to 500 mg for breakfasts per age/grade and 640 to 740 mg for lunches per age/grade over the course of the week. Schools will essentially be reducing the sodium content of meals by approximately 25% to 50% from existing baseline levels.

The first sodium reduction target for breakfast and lunch meals will not go into effect until July 1, 2014; the second sodium target goes into effect July 1, 2017; and the final target occurs July

1, 2022. The reason for these extended timelines is to give food manufacturers more time to reformulate products and to give school children more time to become accustomed to lower-sodium meals, according to the rule. The USDA plans to help by offering various lower-sodium foods.

Monitoring Meals

Compliance with the new meal requirements will be evaluated through administrative reviews every three years, beginning in the 2013-2014 school year. State agencies will monitor saturated fat, sodium, and calorie content in the meals offered (not served) using USDA-approved nutrient analysis software. Schools are not required to conduct their own nutrient analyses, but they need to make a week's worth of menus available for analysis. The USDA's Food and Nutrition Service plans to provide training and technical support to schools that need assistance in implementing the new standards.

Funding for Food Standards

The new school meal standards are expected to cost \$3.2 billion over the next five years—less than one-half of the estimated cost of the proposed rule. The USDA suggests this will be offset by the timely implementation of three provisions in the Healthy Hunger-Free Kids Act that are aimed at increasing revenue to school food authorities.

For example, schools that successfully implement the final rule meal standards will receive an additional \$0.06 reimbursement for each lunch served. Also, school food authorities will be required to gradually raise the price of paid lunch meals if the price charged to students does not meet or exceed the federal reimbursement for free lunches. Lastly, prices charged for competitive school foods, such as vending machines, a la carte lines, and school stores, must cover their costs so schools don't use federal meal subsidies to cover the expenses of competitive foods.

These revenue-generating provisions will not be as beneficial to schools with relatively few students who pay full price for program meals or sell a small quantity of competitive foods. For these schools and those that are financially challenged, the Academy of Nutrition and Dietetics verbally committed to leading creative collaborations to help school systems meet new meal standards, as detailed in a press release from the organization.

The Meal Makeovers chart below illustrates how school meals may look under the new guidelines.

The Bottom Line

Numerous nutrition professionals are already working tirelessly to provide healthful meals at schools. These new school meal standards are designed to help ensure more uniformity among schools. They may prove a harbinger of more changes to come, as new guidelines for competitive food sold in schools are on the horizon. According to the USDA, guidelines for competitive food sold in schools are currently being drafted and should be published for public comment in 2012. Dietitians can hope they will mirror some of the same healthful improvements that the "Nutrition Standards in the National School Lunch and School Breakfast Programs" promises.

For more details regarding the final rule, visit <http://www.fns.usda.gov/cnd/Governance/Legislation/nutritionstandards.htm>.

—Linda Antinoro, JD, RD, LDN, CDE works for the Nutrition Consultation Service at Brigham and Women’s Hospital in Boston.

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Reference

1. Food and Nutrition Service (FNS), USDA. Nutrition standards in the National School Lunch and School Breakfast Programs. Final rule. *Fed Regist.* 2012;77(17):4088-4167.

Highlights of School Meal Changes

Breakfast = B
Lunch = L

Food or Nutrient	Previous Requirement	New Requirement
Fruits and vegetables	<p>B: 1/2 cup per day of fruit; vegetable substitution allowed</p> <p>L: 1/2 to 3/4 cup of fruits and vegetables combined per day; no specificity as to type of vegetables offered</p>	<p>B: 1 cup per day of fruit; vegetable substitution allowed</p> <p>L: 3/4 to 1 cup of vegetables plus 1/2 to 1 cup of fruit per day; weekly requirement for each type of vegetable (dark green, red/orange, beans, peas and legumes, and “other”)</p>
Grains	Whole grains encouraged but optional.	Initially, 50% of grains must be whole grain rich. Subsequently, all grains offered must be whole grain rich.
Milk	All fat contents allowed. Flavor types not restricted.	Unflavored milk can be low fat or fat free. Only fat-free milk can be flavored.
Calories	Minimums only	<p>Ranges:</p> <p>B: Grades K-5: 350-500 Grades 6-8: 400-550 Grades 9-12: 450-600</p>

		L: Grades K-5: 550-650 Grades 6-8: 600-700 Grades 9-12: 750-850
Saturated fat	Less than 10% of total calories	Unchanged
Trans fat	Discouraged but no limits	Zero grams (technically less than 0.5 g per serving)
Sodium	Reductions are attempted but no set targets.	Sequential lowering via three targets: B: Target 1: Grades K-5: ≤ 540 mg Grades 6-8: ≤ 600 mg Grades 9-12: ≤ 640 mg Target 2: Grades K-5: ≤ 485 mg Grades 6-8: ≤ 535 mg Grades 9-12: ≤ 570 mg Target 3: Grades K-5: ≤ 430 mg Grades 6-8: ≤ 470 mg Grades 7-12: ≤ 500 mg L: Target 1: Grades K-5: ≤ 1,230 mg Grades 6-8: ≤ 1,360 mg Grades 7-12: ≤ 1,420 mg Target 2: Grades K-5: ≤ 935 mg Grades 6-8: ≤ 1,035 mg Grades 7-12: ≤ 1,080 mg Target 3: Grades K-5: ≤ 640 mg Grades 6-8: ≤ 710 mg Grades 7-12: ≤ 740 mg

Source: USDA Food and Nutrition Service, "Comparison of Current and New Regulatory Requirements Under Final Rule 'Nutrition Standards in the National School Lunch and School Breakfast Program'" (www.fns.usda.gov/cnd/Governance/Legislation/comparison.pdf)

Meal Makeovers

Here is an example of the USDA's vision of what could comprise some school meals when the new meal standards are in place.

Original Meal	New Meal
3-oz hot dog on bun with 4 T of ketchup 1/4 cup canned pears 1/8 cup each of raw celery and carrots with ranch dressing 8-oz 1% chocolate milk	Whole wheat spaghetti with meat sauce (1/2 cup) Whole wheat roll 1/2 cup cooked green beans 1/2 cup broccoli 1/2 cup cauliflower 1 oz of low-fat ranch dip 1/2 cup kiwi halves 8-oz 1% milk
Cheese pizza 1/4 cup canned pineapple 1/2 cup tater tots with ketchup 8-oz 1% chocolate milk	Whole wheat cheese pizza 1/2 cup baked sweet potato fries 1/4 cup raw tomatoes 1 oz of low-fat ranch dip 1/2 cup applesauce 8-oz 1% milk

Source: Healthy, Hunger-Free Kids Act of 2010, Before/After Elementary School Lunch Menu (www.fns.usda.gov/cnd/Governance/Legislation/cnr_chart.pdf)

Examination

1. The new regulatory requirements under “Nutrition Standards in the National School Lunch and School Breakfast Programs” will be largely phased in over what time period?

- A. Two years
- B. Five years
- C. Seven years
- D. Three years

2. The USDA’s final rule will allow for menu planning using the following:

- A. food-based menu planning only.
- B. nutrient standard-based menu planning only.
- C. neither food-based nor nutrient standard menu planning.
- D. both food-based and nutrient standard menu planning.

3. Under the new school meal standards, pizza is no longer counted as a vegetable serving.

- A. True
- B. False

4. The final rule will require all grains served to be whole grain rich by what date?

- A. July 1, 2012
- B. July 1, 2013
- C. July 1, 2014
- D. July 1, 2022

5. What number of students currently participates in school meal programs daily?

- A. 10 million
- B. 32 million
- C. 50 million
- D. 1 million

ANSWER: B

6. Concerns regarding the increase in fruit offering requirements at breakfast include the following:

- A. the potential for plate waste.
- B. the potential for higher food costs.
- C. Both a and b
- D. None of the above

7. Under the new meal standards, which of the following milk types may be offered?

- A. Whole milk
- B. Low-fat chocolate milk
- C. Fat-free chocolate milk
- D. 2% unflavored milk

8. When will the first sodium reduction target for school meals go into effect?

- A. July 1, 2014
- B. July 1, 2012
- C. July 1, 2017
- D. July 1, 2016

9. The USDA's final rule will decrease the saturated fat allowance over the course of the school week to less than 7%.

- A. True
- B. False

10. Under the final rule, which of the following applies to calories?

- A. School meals will have calorie minimums and maximums.
- B. School meals will have calorie minimums only.
- C. School meals will have calorie maximums only.
- D. None of the above