

What Works?

Strategies Used by Food Service Directors to Implement the Revised School Meal Standards

Background

School meals offer strong potential for widespread impact on students' health at a population level. In 2012, the United States Department of Agriculture (USDA) issued a final rule updating meal patterns and nutrition standards for the National School Lunch and School Breakfast Programs for the first time in 15 years: *Nutrition Standards in the National School Lunch and Breakfast Programs*.¹

What Is This Brief About?

Food Service Directors (FSDs) play a critical role in the implementation of the revised school meal standards. This brief shares the strategies of FSDs to implement the fruit and vegetable (F&V), whole grain-rich, and sodium requirements, as a way to offer 'lessons learned' and ideas for other FSDs who may still be working to increase student acceptance to changes in the school meal program. Further information about FSDs' perceived outcomes and impacts of school meal reform, as well as how these were communicated to the school community, can be found in the companion brief, [*"Speaking from Experience: Food Service Directors' Perspectives and Lessons From Implementing the Revised School Meal Standards."*](#)

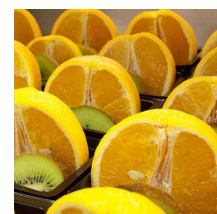
Strategies for Implementing the Revised Meal Standards: What Did Food Service Directors Say?

FRUIT AND VEGETABLE REQUIREMENT

The revised standards required that students select F&Vs as part of their reimbursable meal. FSDs reported that initially, this led to an increase in plate waste, as students threw away unwanted items. However, they also noted that plate waste has decreased over time, as students' acceptance of school meal reform has grown. In addition, FSDs reported that despite the initial increase in plate waste, overall students were consuming more F&Vs. This section presents strategies that were employed by FSDs to promote F&V consumption, as well as decrease plate waste associated with the F&V requirement.

- **Showcase F&Vs in an appealing, easy-to-consume manner.** FSDs reported that F&Vs can be made more appealing, for example, by slicing them and serving them in individual bowls so they are easier to consume. In addition, FSDs note that offering a variety of F&Vs provides students

REVISED NUTRITION STANDARDS FOR SCHOOL MEALS



The revised nutrition standards required schools to increase healthy food offerings, including fruits and vegetables and whole grain-rich products, as well as reduce levels of sodium, saturated fat, and trans fat in school meals and set grade level-specific calorie requirements. School districts were required to comply with the revised federal meal standards beginning July 1, 2012, with provisions phased in through school year 2022–2023.

We have 3 fruits and 3 vegetables that are offered each day at lunch. So just having a variety on the menu that children can select from, I think they're more likely to select something that they will actually eat. – MS FSD

with choices, which increases their chances of consumption. This strategy is consistently supported in literature examining the school food environment.^{2,3,4}

■ **Implement complementary programs** to promote F&V taste testing and education,^a school gardens, and field trips to local farms. FSDs reported that taste testing allows students to try F&Vs in a ‘safe’ environment and increases their likelihood of trying it when it appears again on the tray.

■ **Promote F&V consumption through the use of salad bars.** Several FSDs reported strategies that enhanced the success of salad bars:

- Ensure salad bars are easily accessible and visible to all students.
- Offer pre-dressed salads (tossing greens with dressing prior to serving them) as an option.
- Employ “Salad Bar Ambassadors,” employees who are in the cafeteria to encourage F&V consumption.

Accessibility to salad bars was also associated with higher green vegetable consumption in related studies.^{5,6}

■ **Use vegetables creatively.** FSDs employed innovative ways to incorporate vegetables into the meal, rather than as standalone side dishes. For example, vegetables are used to complement an entrée by adding spinach to a meatball sub. Another example is to offer hummus/chickpea dips with salads.

We’re doing a lot of “harvest of the month”, and what we’re trying to do is showcase on the garden bar the items that the students — that are being tested that month. That does two things: one, obviously the produce that’s being tested for the month is what’s most readily available and what’s most economical — that’s one piece of it. But the other part is that the two things are supporting each other in that the students are familiar with the product, they remember tasting it, and now they’re getting to try it again, which reinforces their selection. – CA FSD

Ok, so the one thing you have to do is put it at eye level. You have to make the healthy choice the easy choice...Let’s give them the healthy choices up front, so you have to position the products so that the students have access to the product. – TX FSD

“SHARE TABLES” OR “COMMUNITY TABLES”



FSDs reported creating Share Tables that were used to offset plate waste. Unwanted, unopened F&Vs can be placed on the table or in boxes and other students can help themselves to them, or if food-safe, they are served the next day (e.g., whole bananas or apples) or, in the case of one school district, donated to local shelters.

Once you’ve bought it, it’s yours.

We don’t bring it back into the kitchen, so now it’s yours to manage. We make sure that there’s always ice in the cooler, so for that whole lunch period, the kids are able to go up and share. – TX FSD

WHOLE GRAIN-RICH REQUIREMENT

FSDs had mixed experiences with implementation of the whole grain-rich requirement; some faced no challenges, while others found it difficult to find products that students accepted. Even amidst some challenges, FSDs reported several strategies for successfully incorporating (and gaining buy-in for) whole grain-rich products into the meal service:

- **Taste test** whole grain-rich products (both by students and staff) to increase acceptance and assist with determining which products to procure.
- **Phase in** whole grain-rich products incrementally to allow students to adjust to the products over time.
- **Train kitchen staff** with new cooking techniques to make whole grain-rich items palatable.



How many meals do I cook a day? Zero. How many meals does my staff cook? 15,000. The emphasis needs to be on them. I can have a phenomenal idea, but if we don’t reach out to them, then it’s not going to work. – CA FSD

- **Scratch cook bread products** to increase acceptance.
- **Add color to the plate** (e.g., chopped parsley or mixed vegetables) to make the appearance of whole grain-rich products appealing to students.

SODIUM LIMITS

The revised standards required a gradual sodium decrease over 10 years.^b Overall, FSDs supported sodium limits but felt that implementation of the targets was required too quickly for students' palates to adjust. To facilitate implementation, they reported employing a wide range of strategies:

- **Use herbs, spices, and seasonings** instead of salt in cooking and baking.
- **Install "Flavor Stations"** so that students can add additional seasoning to their food (e.g., pepper flakes, salt-free seasonings).
- **Implement scratch cooking recipes** and techniques to have more control over the amount of sodium.
- **Switch to rice instead of breads**, which are typically higher in sodium.
- **Swap processed foods** for more whole foods.
- **Taste test** a variety of low sodium products (by students and staff).

DISCUSSION

Although the revised nutrition standards posed implementation challenges, FSDs included in this report have employed a variety of creative and practical strategies to increase student acceptance of the standards. Overall, as FSDs transitioned to the new standards, they noted that implementation required a lot of trial and error, along with a high sensitivity for student preferences and trends. One FSD stressed that to be successful, he is always planning ahead and making adjustments to the meal plan.

^a For example, Harvest of the Month, Farm to School, Fresh Fruit and Vegetable programs [United States Department of Agriculture and Department of Defense]

^b It is important to note that as of FY2015, schools are no longer required to meet sodium targets below Target 1 until the latest scientific research establishes that the reductions are beneficial for children. (Consolidated and Further Continuing Appropriations Act, 2015. Public Law 113-235. Available at: <http://www.gpo.gov/fdsys/pkg/CPRT-113HPRT91668/pdf/CPRT-113HPRT91668.pdf> Last accessed August 19, 2015).

Methods Summary

This policy brief summarizes findings from a qualitative study of nine FSDs from districts with at least one exemplary HealthierUS Schools Challenge: Smarter Lunchrooms (HUSSC: SL)-certified high school. Detailed information about study methodology can be found [here](#). HUSSC provides awards for schools that have met specific criteria for school meal and other wellness categories. More information about HUSSC can be found [here](#).



They enjoy that (the spice bar). It gives them freedom of choice.

It makes them feel as though they are the customers and it makes an individual attempt for them to make their food taste the way they want it to taste. I think anything you can do to individualize their meal makes them feel as though you are doing something special for them. – NY FSD

We have the same clientele for 177 days.

I mean, honestly, that's the difficulty. So, if you had to go to the same restaurant for 177 days, at some point in time, you'd look around and say, "OK, I'm tired of this." So that's when you have to change your menu cycles, you have to change the products you offer...You have to constantly be rotating products...Every fall we have a menu meeting; every spring, we have a menu meeting. So we're planning ahead. – TX FSD



Resources

- Professional Standards for School Nutrition Professionals (Nutrition: Menu Planning/Nutrition Education/General Nutrition) (<http://www.fns.usda.gov/school-meals/professional-standards>)
- USDA Team Nutrition (<http://www.fns.usda.gov/tn/team-nutrition>)
- USDA Healthy Meals Resource System (<https://healthymeals.nal.usda.gov/>)
- CDC Healthy Schools Tools and Resources (<http://www.cdc.gov/healthyschools/npao/resources.htm>)
- What's Cooking? USDA Mixing Bowl (<http://www.whatscooking.fns.usda.gov/>)
- What's Shaking? Creative Ways to Boost Flavor with Less Sodium (<http://healthymeals.nal.usda.gov/whatsshaking>)
- Institute of Child Nutrition (<http://www.nfsmi.org>)
- Chefs Move to Schools (<http://www.chefsmovetoschools.org>)
- Cornell Center for Behavioral Economics in Child Nutrition Programs (<http://ben.cornell.edu>)

FUNDING ACKNOWLEDGEMENT

This brief, prepared from food service director key informant interviews, was developed with support from the U.S. Department of Agriculture School Wellness Policy Cooperative Agreement (USDA-FNS-OPS-SWP-15-IL-01) and the Robert Wood Johnson Foundation-supported National School Wellness Policy Study. The contents of this publication do not necessarily reflect the view or policies of the U.S. Department of Agriculture or the Robert Wood Johnson Foundation, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government or the Robert Wood Johnson Foundation. The Principal Investigator for both studies is Dr. Jamie Chiqui, Professor of Health Policy and Administration and Fellow, Institute for Health Research and Policy, School of Public Health, University of Illinois at Chicago. The USDA Program Officer for this cooperative agreement is Alice Ann Gola, PhD. Research support was provided by Genesis Rosales. Graphic design by Claudia M. Grosz. Photos by [USDAgov via Flickr](#).

SUGGESTED CITATION

Asada, Y., Chiqui, J.F. & Ziemann, M. *What Works? Strategies Used by Food Service Directors to Implement the Revised School Meal Standards*. Research Brief. Chicago, IL: USDA/UIC National School Wellness Policy Cooperative Agreement, Institute for Health Research & Policy, University of Illinois at Chicago; 2015.

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REFERENCES

- ¹ U.S. Department of Agriculture. (2012). Nutrition Standards in the National School Lunch and School Breakfast Programs; Final Rule. Fed. Regist., 77(17), 4088-4167. Retrieved from <http://www.gpo.gov/fdsys/pkg/FR-2012-01-26/pdf/2012-1010.pdf>
- ² Schwartz, M. B., Henderson, K. E., Read, M., Danna, N., & Ickovics, J. R. (2015). New school meal regulations increase fruit consumption and do not increase total plate waste. *Child Obes.*, 11(3), 242-247.
- ³ Bassler, E. J., Chiqui, J. F., Stagg, K., Schneider, L. M., Infusino, K., & Asada, Y. (2013). Controlling junk foods and the bottom line: Case studies of schools successfully implementing strong nutrition standards for competitive foods and beverages. Illinois Public Health Institute. Retrieved from http://iphonline.org/pdf/IPHI-Controlling_Junk_Food_Report_32113.pdf
- ⁴ Gosliner, W. (2014). School-level factors associated with increased fruit and vegetable consumption among students in California middle and high schools. *J Sch Health*, 84(9), 559-568.
- ⁵ Terry-McElrath, Y. M., O'Malley, P. M., & Johnston, L. D. (2014). Accessibility over availability: associations between the school food environment and student fruit and green vegetable consumption. *Child Obes.*, 10(3), 241-250.
- ⁶ Gosliner, W. (2014). School-level factors associated with increased fruit and vegetable consumption among students in California middle and high schools. *J Sch Health*, 84(9), 559-568.

