

Improvements in School Lunches Result in Healthier Options for Millions of U.S. Children:

Results from Public Elementary
Schools between 2006–07 and 2013–14

Photo credit: Matt Moyer

Introduction

Most U.S. children's diets exceed recommended levels of sugar, fat, and sodium,¹ and are deficient in fruits, vegetables, and whole grains.^{2, 3} In 2009–10, elementary school lunches exceeded recommendations for calories from solid fats and added sugars, and fell short of recommended daily amounts of vegetables and whole grains.⁴ As directed by the Healthy, Hunger-Free Kids Act of 2010,⁵ the U.S. Department of Agriculture (USDA) updated the national nutrition standards for school meals to align with the 2010 Dietary Guidelines for Americans.⁶ These updated standards⁷ were announced in January 2012, and schools began to implement them at the beginning of the 2012–13 school year.

The updated standards require schools to offer: a fruit or vegetable daily, a variety of vegetables, and only fat-free or low-fat milk. As of the 2014–15 school year, they also require that 100 percent of grain products offered at lunch be whole-grain rich⁸ (up from 50 percent during 2012–13 and 2013–14), although schools may seek exemptions to remain at the 50 percent standard through 2015–16. Some schools had already been meeting these benchmarks prior to 2012–13, but the updated standards led to widespread changes to meals served at most schools.

This brief uses data from surveys of elementary schools to examine: a) how the types of items offered in school lunches have changed over time; and b) whether the variety of healthy options changed from the first to the second year of updated standards.

This brief reports on nationally representative data obtained from administrators and food service personnel at U.S. public elementary schools between the 2006–07 and 2013–14 school years. These data do not allow for evaluation of whether a specific school was in compliance with the new meal standards, but they do provide an indication of trends in the availability of healthier items (i.e., a variety of vegetables, fresh fruits, salad bars, and whole grains) and unhealthier items that tend to be high in fat and sodium (i.e., fried potatoes, regular pizza, and higher-fat milks). In 2013–14, the survey included several items assessing changes in lunch characteristics from 2012–13 to 2013–14. Additional detail on the methods used for this study are available online.⁹

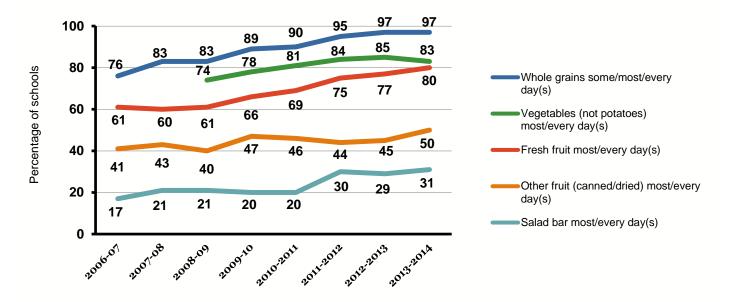
The results show that elementary school lunches have been improving consistently since the 2006–07 school year, with more schools offering healthier items and fewer schools offering unhealthier items. This trend has continued through the implementation of national standards in 2012–13, as the overwhelming majority of schools maintained or improved their offerings in the second year of implementation as compared with the first. Together, these findings suggest that elementary schools are able to successfully offer healthier lunches to students and that the national standards are consistent with those efforts.

This research brief, V2.0, corrects inaccuracies in the legend in the first figure. Version 1.0 showed the labels as "most days" and all have now been corrected to "most/every day(s)." For whole grains the label has been corrected from "most days" to "some/most/every day(s)."

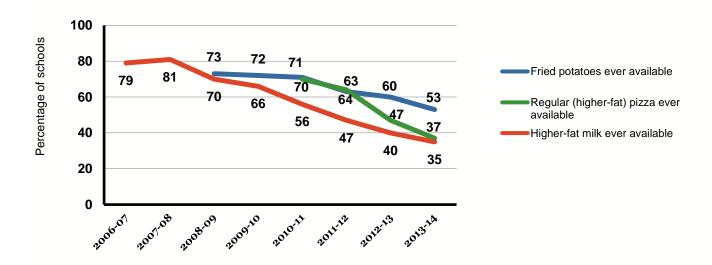
Key Findings

Significantly more elementary schools were regularly offering healthier items in lunches in 2013–14 than in 2006–07. The availability of unhealthier items in school lunches also decreased notably during the same period.

Regular Availability of Healthier Items in Lunches, US Public Elementary Schools



Availability of Unhealthier Items in Lunches, US Public Elementary Schools

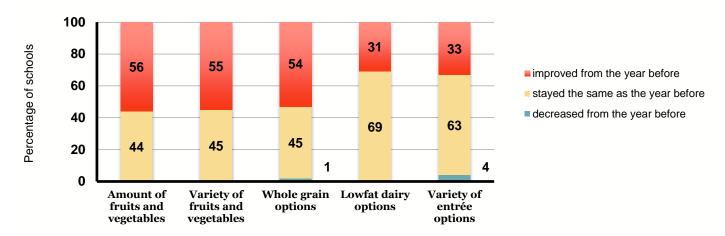


Key Findings

All schools either increased or maintained the amount and variety of fruits and vegetables offered since the standards went into effect in 2012-13.

- At more than half of elementary schools, lunches in 2013-14 included more fruits and vegetables and whole grains, as well as a greater variety of fruits and vegetables, than in 2012-13.
- The majority of schools maintained the same variety of entrée options as in 2012-13, although 33 percent of schools actually increased entrée variety.

Changes in Lunches at US Public Elementary Schools, Reported in 2013–14 School Year



Conclusions and Policy Implications

School lunches have changed considerably over time, with significant improvements documented particularly in recent years. The recent updates to the national nutrition standards are consistent with these improvements. A March 2015 study shows that since the implementation of the new lunch standards—which require students to take either a fruit or vegetable at each meal—students are selecting and eating more fruit, and throwing away less food than they did before the changes were implemented. 10 Recent surveys also show that many students have adapted well to the revised meals, with few complaints. 11 It is essential for policymakers to continue to support implementation of the healthier standards for school meals to support optimal nutrition and health for millions of U.S. children and adolescents.

Endnotes

- Clark MA, Fox MK. Nutritional quality of the diets of US public school children and the role of the school meal programs. Journal of the American Dietetic Association. 2009;109:S44I-S56.
- Guenther PM, Dodd K, Reedy J, Krebs-Smith S. Most Americans eat much less than recommended amounts of fruits and vegetables. Journal of the American Dietetic Association. 2006;106:1371-1379.
- 3. Krebs-Smith SM, Guenther PM, Subar AF, Kirkpatrick SI, Dodd KW. Americans do not meet federal dietary recommendations. Journal of Nutrition. 2010;140(10):1832-1838.
- Fox MK, Condon E. School Nutrition Dietary Assessment IV: Summary of Findings. 2012. www.mathematicampr.com/publications/PDFs/nutrition/sndaiv findings.pdf
- United States Department of Agriculture. The Healthy, Hunger-Free Kids Act of 2010. www.fns.usda.gov/cnd/Governance/ Legislation/CNR_2010.htm
- United States Department of Agriculture and United States Department of Health and Human Services. Dietary Guidelines for Americans 2010. Washington, DC: U.S. Government Printing Office. 2010.
- 7. United States Department of Agriculture. Final Rule: Nutrition Standards in the National School Lunch and School Breakfast Programs. 2012. www.apo.aov/fdsvs/pka/FR-2012-01-26/pdf/2012-1010.pdf
- Kline Ä. Requests for exemption from the school meals' whole grain-rich requirement for school years 2014-15 and 2015-16. U.S. Department of Agriculture. http://origin.drupal.fns.usda.gov/sites/default/files/cnd/SP20-2015os.pdf
- Turner L, Chaloupka FJ. Bridging the Gap's Food and Fitness elementary school survey: technical report on survey development, sampling, and
- methodology. http://bridgingthegapresearch.org/_asset/34zbxw/BTG_Food_Fitness_ES_survey_methodology_Apr_2015.pdf
 Schwartz MB, Henderson KE, Read M, Danna N, Ickovics JR. New school meal regulations increase fruit consumption and do not increase total plate waste. Childhood Obesity. 2015. Online first: http://online.liebertpub.com/doi/pdfplus/10.1089/chi.2015.0019
- 11. Turner L, Chaloupka FJ. Perceived reactions of elementary school students to changes in school lunches after implementation of the United States Department of Agriculture's new meals standards: minimal backlash, but rural and socioeconomic disparities exist. Childhood Obesity. 2014;10(4);1-8.

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