**Introduction**

The connection between the school food environment and children's consumption has been well established in the scientific literature. Past research has demonstrated that children and adolescents consume up to 50 percent of their daily calories at school and that the foods and beverages served have an impact on what students consume both at school and at home. Ensuring that schools offer nutritious foods and beverages that are in alignment with healthy dietary patterns as recommended by the Dietary Guidelines for Americans (DGA) is especially important for the more than 21.8 million school-age children who receive free or reduced-price lunch each day, as well as the 12.6 million children receiving free or reduced-price breakfast through federal school meal programs.

In December 2010, the Healthy, Hunger-Free Kids Act (HHFKA) was signed into law, resulting in the U.S. Department of Agriculture (USDA) updating nutrition standards for school meals for the first time in 15 years and establishing nutrition standards for items sold outside of the school meal programs, including via à la carte lines, vending machines, school stores, and snack bars. Many of these changes went into effect between 2012 and 2014, and required schools to offer more fruit, more servings and varieties of vegetables, more whole grain-rich foods, and less saturated fat and sodium. In addition, schools were required to offer only fat-free or low-fat fluid milk, minimize trans fats, and set calorie limits for meals based on age/grade-groups (K-5, 6-8, 9-12). And, all foods and beverages sold outside of the school meal programs were required to meet individual calorie and nutrient standards, now known as Smart Snacks nutrition standards.

In January 2020, approximately eight years after the updated standards began to be implemented, USDA proposed several reforms to these school nutrition standards. In an effort to inform the USDA as it considers these latest program changes, and to better understand how the proposed reforms may impact the nutritional quality of school meals, school meal participation, student consumption and health, and academic performance, Healthy Eating Research, a national program of the Robert Wood Johnson Foundation based at Duke University, conducted a rapid Health Impact Assessment (HIA) of the nutrition provisions in USDA, FNS Proposed Rule 7 CFR Parts 210, 215, 220, 226, and 235: *Simplifying Meal Service and Monitoring Requirements in the School Lunch and School Breakfast Programs*. The full HIA, which includes more information about the methodology, detailed findings, and a full list of references, can be found at: [https://healthyeatingresearch.org/research/rapid-health-impact-assessment-on-usda-proposed-changes-to-school-nutrition-standards/](https://healthyeatingresearch.org/research/rapid-health-impact-assessment-on-usda-proposed-changes-to-school-nutrition-standards/).
**Health Impact Assessment Background**

An HIA is a prospective research tool that guides decision-makers in considering the possible health impacts, and in some cases financial considerations, of proposals. HIAs are not intended to make definitive or causal predictions about how a policy proposal will affect health and well-being; rather, they are a tool for policymakers to use as they consider the full implications of a particular proposal based on the best available evidence.

This HIA is intended to connect existing research on school nutrition and health with the potential policy changes as proposed by USDA. Specifically, this HIA examines the potential impacts on students’ health and well-being as well as academic performance as a result of changes to the nutritional quality of school meals, school meal participation, and student consumption.

Several changes to existing nutrition standards are proposed, which would allow schools to serve less fruit, fewer whole grains, fewer varieties of vegetables, and more starchy vegetables. In addition, the proposal would allow entrées currently served as part of the weekly reimbursable meal program to be served on their own nearly every day of the week, eliminating the need for these individual items to meet Smart Snack nutrition standards. Combined, these changes are likely to impact the overall dietary quality of school meals as measured by Healthy Eating Index (HEI) scores and result in fewer school meals being aligned with the DGAs.

**Key Questions and Findings**

This HIA considers several key research questions related to diet and nutrition, meal participation and revenue, and academic performance. The health determinant pathway, which can be found in the full report, provides a visual mapping of the research questions and outcomes examined in this HIA.

**Diet and Nutrition.** The healthfulness of the foods and beverages served (via school meals) and sold (via competitive foods or Smart Snacks) in schools are likely to shift as a result of the changes USDA has proposed. There is strong evidence showing that nutrition standards for à la carte foods and beverages do impact the availability of foods and beverages sold in schools, student purchases of these items, and student consumption. Similarly, there is strong evidence showing that nutrition standards for reimbursable meals improve the nutritional quality of school meals, increase student participation in school meal programs, and improve the nutritional quality of student consumption. In both cases, having nutrition standards is associated with increased participation in school meals and therefore increased consumption of nutritious foods.

Based on the available evidence, we conclude that the proposed changes are likely to reduce the total diet quality of students consuming school meals and foods and beverages sold à la carte. This relationship is best documented among low-income school meal participants because nearly half of their daily intake comes from school meals.

**Meal Participation and Revenue.** There is strong evidence showing that nutrition standards increase student’s participation in school meal programs, and that school food service revenue does not decline with the implementation of nutrition standards. The available data support that improving nutrition standards for à la carte items specifically can increase participation in school meals, which brings in additional school food service revenue. There is also strong evidence showing that participation in school meal programs increases food security among children. Evidence reviewed in this HIA suggests that weakened nutrition standards are likely to lead to reduced participation in school meals, which increases the risk of students falling into food insecurity.

**Academic Performance and Health Outcomes.** There is strong evidence supporting that nutrition standards and improved dietary consumption is associated with improved academic performance and cognitive function. A moderate amount of evidence also exists on the importance and positive impacts of consuming breakfast on cognitive functioning. Based on the literature reviewed in this HIA, it’s possible that weakening nutrition standards could impact cognitive functioning, especially among the population more likely to participate in school meal programs such as Hispanic or black children from low-income households.

**Conclusion**

Overall, the available research indicates that implementation of strong nutrition standards in 2012, following the HHFKA, resulted in healthier, well-balanced meals and has had significant short and long-term positive implications for child health and cognitive performance. Specifically, strong nutrition standards improve the healthfulness of meals available and consumed by children—both at school and throughout the day—increasing participation in the school meal programs, increase food security, and improve cognitive functioning while having no negative financial effect on schools. Preventing the further weakening of standards would most positively impact the most vulnerable children in public school settings, most notably children from low-income, low-educated households in predominantly black, rural, and small schools. USDA should consider maintaining strong nutrition standards for all foods served and sold in schools, and supporting school food authorities in meeting those standards via enhanced training, technical assistance, and investments in school kitchen equipment and infrastructure.