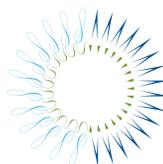


# Health Impact Assessment

## National Nutrition Standards for Snack and a la Carte Foods and Beverages Sold in Schools



Robert Wood Johnson Foundation



**PEW**  
HEALTH GROUP



## Executive Summary

### Introduction

The foods and beverages available in schools have a significant impact on children’s diets and weight, with many students consuming more than half of their daily calories at school.<sup>1</sup> In addition to meals, nearly all students can buy foods and beverages at school, often from multiple locations, including cafeteria a la carte lines, vending machines, and school stores. These snacks and drinks are technically called “competitive foods” because they compete with school meals for students’ spending; however, they are also referred to as “snack and a la carte foods and beverages” throughout this document.

Ensuring that schools sell nutritious foods is critical to improving children’s diets. This is one of the goals of the Healthy, Hunger-Free Kids Act (HHFKA), passed in 2010, which directs the U.S. Department of Agriculture (USDA) to update nutrition standards for all foods and beverages sold in schools during the school day by aligning them with the current dietary guidelines.

In an effort to inform USDA as it updates nutrition standards for foods and beverages that are sold outside of the school meal programs, and to better understand how standards might affect student health and school finances, the Kids’ Safe & Healthful Foods Project and the Health Impact Project, both collaborations of The Pew Charitable Trusts and the Robert Wood Johnson Foundation, worked with Upstream Public Health, a nonprofit research and policy organization, to conduct a health impact assessment (HIA).

## 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 recommend actions to minimize adverse consequences and optimize beneficial effects.

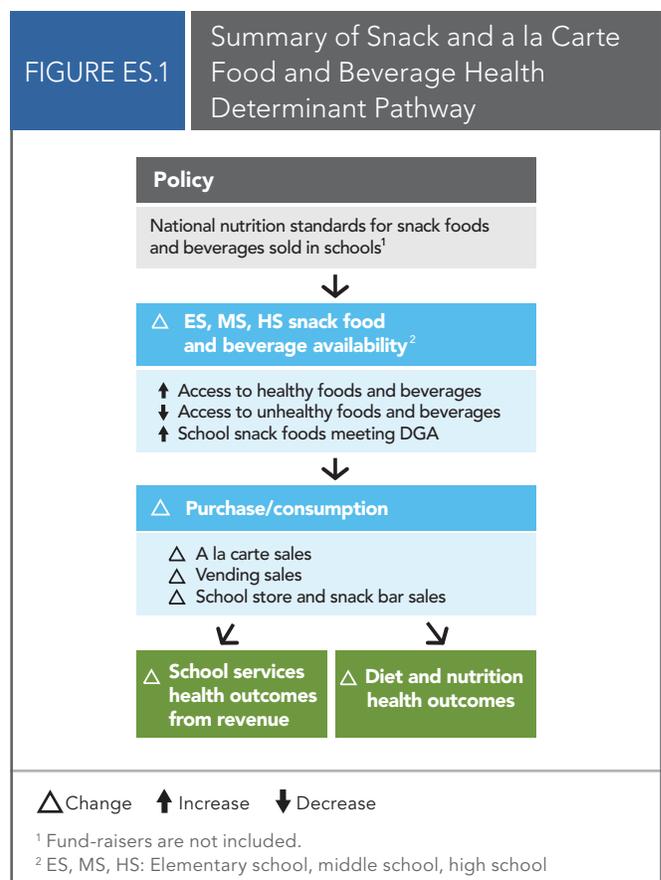
The goals of this HIA are to:

- **Synthesize** relevant data to assess potential health impacts as school districts implement USDA's updated national standards for snack and a la carte foods and beverages sold in schools.
- **Inform national and state deliberation** regarding the potential costs and benefits related to national snack and a la carte food and beverage standards in schools.
- **Identify potential health disparities and inequities** that could result from national snack and a la carte food and beverage standards.
- **Make recommendations** to USDA in order to maximize positive health outcomes and minimize potential health risks.

The research team followed the North American HIA Practice Standards Version 2<sup>2</sup> and the National Research Council Guidelines<sup>3</sup> to develop each stage of this HIA. The most comprehensive literature review to date on competitive foods in schools, as well as original empirical analysis of school financial data was conducted for this HIA. The process also required extensive interviews and involvement of a wide array of experts and stakeholders from academia, industry, the public health community, and those individuals most affected at the ground level, such as teachers, students, and parents, in planning, researching, and peer reviewing the study.

Because USDA had not yet proposed updated standards at the time of this study, the HIA examines a scenario in which items would be required to meet the 2010 Dietary Guidelines for Americans (DGA).

See Figure ES.1 for a visual mapping that summarizes the research questions and outcomes examined in this HIA.



## Key Questions and Findings

This HIA considers several key research questions related to school food services, diet and nutrition, and vulnerable populations (including low income and ethnic minority students).

**Diet and Nutrition:** The impact of updated nutrition standards for snack foods and beverages sold in schools on children’s school-based diets was the main issue considered in this study. The analysis considered two primary nutritional concerns: (1) the total intake of calories from items sold in schools and (2) the consumption of high-calorie, low-nutrient snack foods and beverages versus healthier options. Specific questions included:

- Will the updated standards affect the availability of snacks and drinks sold in schools, student purchases of these items, and student consumption?
- Will changes in student consumption of snacks sold in schools affect different chronic disease health outcomes?

**Finding: Student access to, purchase of, and consumption of unhealthy foods and beverages, and subsequently their risk for disease, decreases.**

Research indicates that many schools currently sell high-calorie, low-nutrient snack foods and beverages to students of all ages, who consume them instead of healthier options. The HIA found that the implementation of strong snack and a la carte food and beverage policies that meet the 2010 DGA will decrease students’ access to, purchase of, and

consumption of unhealthy foods and beverages while also likely increasing their access to, purchase of, and consumption of healthier items at school. Even small changes to students’ school-based diets—like replacing a candy bar with an apple—may reduce their risk of tooth decay, obesity, and chronic illness through decreased calorie, fat, and sugar intake at school. Additionally, the data suggests that strong snack and a la carte food and beverage policies tend to increase participation in the school meal programs, thus the risk of not having enough to eat also may decrease as children purchase school meals in place of less filling snacks.

The increase in child weight observed between 1988 and 2002 may have been prevented by an average reduction of 110–165 calories per day. This is the difference between providing an elementary school student a 150-calorie snack rather than a 250-calorie snack, as indicated by the child’s daily energy needs.

—“Estimating the energy gap among US children: a counterfactual approach” by Y.C. Wang, et al (Pediatrics, Dec 2006)

**School Services and Impact on Revenue:** The impact of updated nutrition standards for snack and a la carte foods and beverages on student health and school district revenue were of primary concern as food sales are an important component of school budgets. Specific questions included:

- Will updated nutrition standards affect students’ participation in the school meals program and school food service revenue?

- Will updated standards affect school-district or other types of revenue that pay for school services?
- If revenue changes occur, will they affect student health via changes to enrichment learning opportunities and school-supported physical activity?

**Finding: Districts would likely not see a decline in revenue.**

The HIA analysis found that, when schools and districts adopted strong nutrition standards for snack and a la carte foods and beverages, they generally did not experience a decrease in revenue overall. In most instances, school food service revenues increased due to higher participation in school meal programs. However, in some cases, school districts experienced initial declines in revenue when strengthening nutrition standards. The HIA concluded that, over time, the negative impact on revenue could be minimized—and in some cases reversed—by implementing a range of strategies.<sup>i</sup> Limited data exists on the impact of snack food and beverage policies on fund-raising revenue for school groups, such as athletic teams and student government. More research is needed in this area in order to determine how such revenue changes might influence the provision of school services, such as physical activity and enrichment programming, and thus the related effect on students' health.

**Vulnerable Populations:** A primary consideration of this analysis was how vulnerable populations—including students from lower-income families as well as those who are black or Hispanic<sup>ii</sup>—might be affected by USDA's snack and a la carte food and beverage policy. These vulnerable populations are more likely to have limited or uncertain access to adequate food;<sup>iii</sup> to be overweight or obese; to suffer from type 2 diabetes, hypertension, and other chronic diseases; and to have untreated dental caries, all of which are associated with reduced quality of life, more frequent school absences, and longer-term health problem.<sup>4-10</sup>

**Finding: Vulnerable populations would benefit from stronger nutrition standards for snack foods and beverages sold in schools.**

Updated nutrition standards that make healthier foods more available may have a particularly beneficial effect among vulnerable populations, who are at greater risk for nutrition-related health problems. Vulnerable populations also have higher risk of poor academic outcomes, such as lower test scores and higher dropout rates.<sup>11,12</sup> Because a healthy diet is linked with improved school performance, stronger nutrition standards also may have a positive impact on academic indicators, especially among vulnerable populations. The HIA explored other vulnerable populations, such as children of Asian, Pacific Island, and American Indian descent, but data was too limited to draw conclusions.

<sup>i</sup>Effective strategies for reversing potential declines in revenue are discussed in Section 7.3 of the full report.

<sup>ii</sup>Hispanic is the term used throughout this HIA to refer to "a person of Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin, regardless of race," as defined by the U.S. Office of Management and Budget. Other terms, such as Latino, may be used when citing specific literature findings.

<sup>iii</sup>About 15 percent of U.S. households are food insecure, defined by USDA as a household-level economic and social condition of limited or uncertain access to adequate food.

## Policy Recommendations

The following policy recommendations are meant to inform USDA's efforts to update nutrition standards for snack and a la carte foods and beverages sold in schools. The recommendations reflect the outcomes and the conclusions described above, are based upon the evidence summarized in this document, and are intended to maximize health benefits while minimizing risks. Although not the primary question considered in his HIA, the research reviewed indicates that the way schools implement improved nutrition standards through marketing, engaging students, and promoting school meals can play a significant role in how both students and the schools are impacted. Thus, in addition to the following policy recommendations to USDA, the full report highlights a range of promising practices for implementation.

**Recommendation 1:** USDA should establish nutrition standards for all foods sold regularly on school grounds outside of the school meal programs. These standards should include:

- a requirement that schools sell items from the Dietary Guidelines for Americans list of “foods to encourage;”
- age-appropriate calorie limits for items sold individually (snacks: 100 calories for elementary, 140 calories for middle, and 180 calories for high school students; entrée items: 300 calories for elementary and middle and 400 calories for high school students);
- a maximum of 35 percent of total calories from sugar;
- maximum limits for fats (no more than 35 percent of calories from total fat, 10 percent of calories from saturated fat, and less than or equal to 0.5 g of trans fat per serving); and
- incremental reductions in sodium, with a target time frame of 10 years, to achieve full alignment with the Dietary Guidelines for Americans.

**Recommendation 2:** USDA should establish nutrition standards for all beverages sold on school grounds. At a minimum, these standards should:

- limit beverages sold in elementary and middle schools to only water, low-fat and fat-free milk, and 100 percent fruit juice in appropriate portions, and
- establish calorie and serving size restrictions for all beverages sold in high schools so as to ensure calories obtained from sugar-sweetened beverages during the school day are minimal.

**Recommendation 3:** USDA should adopt policies and practices that ensure effective implementation of the standards. At a minimum, USDA should:

- provide technical assistance and training to schools and districts;
- provide clear guidance on how the terms *infrequent*, *school day*, and *school campus* as included in the Healthy, Hunger-Free Kids Act are to be addressed;
- ensure that nutrition standards are kept up to date with future iterations of the Dietary Guidelines for Americans; and
- collaborate with states and nongovernmental organizations to monitor the implementation of the standards.

## Concluding Statement

This HIA explores the potential impacts of national nutrition standards for competitive foods or foods sold in schools individually as snacks, a la carte items, and beverages. Research included an extensive literature review, interviews, stakeholder discussions, and financial analysis. Overall, the results indicate that strong nutrition standards could have a significant positive impact on the health of students with potentially increased benefits to those populations that are most vulnerable. In addition, if implemented effectively at the district and school levels, the changes can be made with little to no negative financial impact and in fact may even result in improved financial outcomes for schools and districts. Thus, USDA should establish updated standards and adopt practices—as recommended by this report—that are most likely to maximize positive health impacts while assisting schools in effectively implementing the changes.