January 31, 2022

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1320 Braddock Place
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Re: Petition to Establish an Added Sugars Standard for School Meals and Competitive Foods

Executive Summary

The U.S. Department of Agriculture (USDA) is required by law to update nutrition standards for reimbursable school lunches and breakfasts, as well as all food sold in school (competitive foods), in accordance with the most recent Dietary Guidelines for Americans (DGA). The current school nutrition standards do not include a standard for added sugars, which the 2020-2025 DGA recommends limiting to less than 10 percent of total calories. On average, children in the United States consume added sugars in excess of this limit, which poses serious concerns for public health. In the absence of a requirement to limit added sugars, school meals also contain added sugars in excess of the limit recommended by the DGA. To align the school meal programs with the DGA and reduce added sugars consumption among children, the Center for Science in the Public Interest, the American Heart Association, and the American Public Health Association respectfully request that the USDA Food and Nutrition Service (FNS) establish an added sugars standard for school meals and competitive foods to align with the 2020-2025 DGA recommendation limiting added sugars consumption to less than 10 percent of total calories.

I. Introduction

The National School Lunch Program (NSLP) and School Breakfast Program (SBP) are two of the best tools we have to bolster food and nutrition security among children in the United States.

Under the Richard B. Russell National School Lunch Act (NSLA) and Child Nutrition Act (CNA) of 1966, the USDA is required to update nutrition standards for reimbursable school lunches and breakfasts, as well as all food sold in school (competitive foods), in accordance with the most recent DGA.\footnote{42 U.S.C. §§ 1758(f)(1)(A), 1779 (b)(1)(C)(i), (b)(1)(D).} Thanks to the 2012 updated nutrition standards for school breakfast and lunch based on the 2010 DGA, schools are providing children with healthier school meals, snacks, and beverages. For students who reside in households experiencing food insecurity, school breakfast and lunch may be the only nutritious meals they will consume in a day.
These improvements are an amazing success story. As we describe in greater detail below, the standards led to significant improvements in the nutritional quality of meals served and consumed and have been linked to reduced risk of obesity for children in poverty.

However, science-based nutrition guidance and policy have evolved since the standards for school meals and competitive foods were issued in 2012 and 2013, respectively. Those standards were based on the 2010 DGA, which did not include a quantitative limit on added sugars intake. At the time those standards were issued, there was also no requirement for food and beverage manufacturers to disclose added sugars content on the Nutrition Facts label. But since then, the 2015–2020 DGA recommended that individuals aged 2 years and older consume less than 10 percent of total calories from added sugars. This is now reflected in the requirement to disclose added sugars content on the Nutrition Facts label.

School nutrition standards have not been similarly updated.

Access to healthy school meals has never been more critical.

The importance of healthy school meals has taken on new urgency during the COVID-19 pandemic. Given the severe economic impacts of COVID-19, it is likely that children will continue to qualify for free or reduced-priced school meals in greater numbers than before the pandemic. Most children (74 percent in 2019) who participate in the program are from low-income households.

Although overall food insecurity levels stayed roughly the same during the pandemic, food insecurity among children increased, and existing inequities—comparing Black and Hispanic households to white households—widened. As such, school meals have the capacity to mitigate a critical inequity that disproportionately impacts certain student subpopulations.

Given that healthier school meals have been linked to healthier body weight outcomes for children, optimizing their nutritional quality is critical. Currently, one out of three children and adolescents aged 2

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to 19 years has overweight or obesity, putting them at risk for long-term health problems.\textsuperscript{14} According to the Centers for Disease Control and Prevention (CDC), the monthly rate of body mass index (BMI) increase among children and adolescents during the pandemic approximately doubled from a pre-pandemic period.\textsuperscript{15} Children with pre-pandemic overweight or obesity and younger school-aged children experienced the largest increases.

Given the impact of COVID-19 and, as we will describe, the clear benefits of healthy school meals, it is imperative that all children are able to access school meals that meet evidence-based nutrition standards that support their health.

\textit{School nutrition standards must be aligned with the 2020-2025 DGA}

The school nutrition standards are now outdated with respect to added sugars. In the absence of a requirement to limit added sugars, unsurprisingly, school meals contain added sugars in excess of the limit recommended by the DGA.\textsuperscript{16} Nine out of ten schools exceed the 2020 DGA limit for added sugars for breakfast meals, and nearly seven out of ten schools exceed the limit for lunch.\textsuperscript{17}

To align the school meal programs with the DGA as required by law, as described below, and reduce added sugars consumption among children, the petitioners request that FNS establish an added sugars standard for the NSLP, SBP, and competitive foods.

We propose that the standard for breakfast and lunch should limit added sugars to less than 10 percent of calories on average over the week, similar to the current saturated fat standard, which is also that less than 10 percent of total calories can come from saturated fat over the week. The current sodium standards are also stated as weekly averages.

As FNS assists schools in meeting the proposed added sugars standard, the agency should prioritize reducing the leading sources of added sugars in school meals, particularly for breakfast, which tends to be higher in added sugars than lunch: flavored skim milk; sweetened cereals; condiments and toppings; and muffins and sweet/quick breads.\textsuperscript{18}

With respect to competitive foods, to be consistent with the DGA, the petitioners request that FNS replace the existing total sugars limit with an added sugars limit of less than 10 percent of total calories per item.

Finally, we are concerned that if FNS were to establish an added sugars standard, food manufacturers would substitute low-calorie sweeteners (LCS) for added sugars. There is limited evidence on the long-term effects of LCS in children and more research is needed. Based on the available evidence, we believe it is prudent for children to avoid prolonged consumption of foods and beverages sweetened with LCS.

We urge FNS to disallow LCS of concern—including aspartame, saccharin, acesulfame-K, and sucralose—as part of establishing an added sugars standard with a short compliance timeline (\textit{e.g.}, School Year 2024-2025).

\textsuperscript{17} Fox, 2021.
\textsuperscript{18} Fox, 2021.
II. Full Statement of Requested Actions

While the current nutrition standards for the NSLP, SBP, and competitive foods were appropriate at the time they were established, with respect to added sugars they are no longer consistent with the most recent DGA as required by law. Furthermore, school meals contain more added sugars than is recommended by the DGA, with negative implications for children’s health. The Petitioners provide the following full statement of the actions requested to address this problem, as well as the factual and legal basis on which we rely for the action requested.

Pursuant to 42 U.S.C. §§ 1758(a)(1), (f)(1)(A), 42 U.S.C. § 1773(e)(1), and 42 U.S.C. § 1779(b), the Petitioners request that FNS take the following actions:

1) Promulgate a rule (e.g., the forthcoming “Child Nutrition Programs: Revisions to Meal Patterns Consistent With the 2020 Dietary Guidelines for Americans – Proposed Rule – October 2022”) that includes the following provisions and establish a short timeline for compliance (e.g., School Year 2024-2025), which could be phased in:
   a. Establishes an added sugars standard for school meals to align with the 2020-2025 DGA recommendation limiting added sugars consumption to less than 10 percent of total calories; and
   b. Eliminates LCS of concern from school meals, including aspartame, acesulfame-K, saccharin, and sucralose.

2) Prioritize reducing through technical assistance and guidance, particularly for breakfast, the leading sources of added sugars in school meals: flavored skim milk; sweetened cereals; condiments and toppings; and muffins and sweet/quick breads.

3) Promulgate a rule (e.g., incorporate into the forthcoming “Child Nutrition Programs: Revisions to Meal Patterns Consistent With the 2020 Dietary Guidelines for Americans – Proposed Rule – October 2022”) including the following provisions with a compliance date of School Year 2024-2025:
   a. Aligns the current sugars standard for competitive foods (i.e., total sugars ≤ 35 percent by weight) with the 2020-2025 DGA by replacing the total sugars limit with an added sugars limit (i.e., < 10 percent of total calories from added sugars per item).
   b. Eliminates LCS of concern, including aspartame, acesulfame-K, saccharin, and sucralose, in competitive foods by School Year 2024-2025.

III. Legal Basis for Requested Actions

USDA is required to align school meal nutrition standards with the DGA.

Current law requires that nutrition standards for school meals be consistent with the most recent DGA. In 1946, Congress enacted NSLA, which created the NSLP. This was followed by the CNA in 1966,
which first established the SBP. The NSLA and CNA have since been amended repeatedly to expand the number of child nutrition programs and add nutritional requirements to improve children’s diet quality and overall health. The result is a carefully constructed statutory scheme requiring that school meal standards promulgated by USDA be aligned with the evidence-based federal dietary advice contained in the DGA.

To this end, the NSLA and CNA require USDA to set “minimum nutritional requirements” for school meals based on “tested nutritional research” and establish “science-based nutrition standards” for foods sold outside of the meal programs, on the school campus, and at any time during the school day (also known as “competitive foods”). For school meals, such standards are required to be “consistent with the goals of the most recent Dietary Guidelines for Americans.” Similarly, for competitive foods, such standard must be “consistent with the most recent Dietary Guidelines for Americans” and updated “as soon as practicable” after the publication of a new edition of the DGA.

Congress’ intent to align school meals and competitive foods with the DGA is further supported by several amendments to the NSLA and CNA, each of which required USDA to issue regulations for school meals and/or competitive foods consistent with the then most recent DGA and set a specific statutory timetable for finalizing those regulations.

For instance, Congress amended the NSLA in 1994 to require that, within one year, USDA’s school meal nutrition standards be brought, “into conformance with the guidelines contained in the most recent ‘Dietary Guidelines for Americans.’”

In 2004, Congress took additional steps to ensure that school meals aligned with the DGA by amending the NSLA to add a provision requiring the Secretary of Agriculture, within two years, to promulgate rules, “based on the most recent Dietary Guidelines for Americans, that reflect specific recommendations, expressed in serving recommendations, for increased consumption of foods and food ingredients offered in school nutrition programs.”

Finally, with the Healthy, Hunger-Free Kids Act (HHFKA) of 2010, in recognition of the increasing evidence connecting poor nutrition with various adverse health outcomes, Congress mandated additional improvements to the nutritional quality of school meals. Among other things, the HHFKA mandated that the Secretary of Agriculture, within three years, “update the meal patterns and nutrition standards for the school lunch program … and the school breakfast program … based on recommendations made by [Institute of Medicine Report School Meals: Building Blocks for Healthy Children].” USDA commissioned the Report, released in 2009, in response to the Congressional mandate to promulgate rules, “based on the most recent Dietary Guidelines.” The HHFKA further required the USDA to, within one year, propose standards for competitive foods “consistent with the most recent Dietary Guidelines for Americans.”

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31 Inst. of Med. of the Nat’l Acads., School Meals: Building Blocks for Healthy Children 19 (Virginia A. Stallings et al. eds., 2010), https://www.nap.edu/read/12751/chapter/1 [hereinafter IOM Report] (“The committee’s overall task was to review and assess the food and nutritional needs of schoolchildren in the United States on the basis of the 2005 Dietary Guidelines for Americans (HHS/USDA, 2005) and the Dietary Reference Intakes (DRIs).”).
USDA has issued numerous nutrition standards in furtherance of requirements to align with the DGA.

In 2012, FNS issued a final rule, Nutrition Standards in the National School Lunch and School Breakfast Programs, to update the standards to align with the DGA.\(^{33}\) Consistent with Congress’s directive that school meal standards be based on the most recent DGA, the proposed rule, which was issued prior to the release of the 2010 DGA, included updates based on the 2005 DGA. The final rule modified the proposed rule to reflect changes in the 2010 DGA.\(^{34}\)

In the case of nutrients for which the DGA makes quantitative recommendations, USDA has previously adopted those quantitative recommendations in the NSLP and SBP. For example, like the current advice on added sugars, the DGA recommends that a healthy diet contains less than 10 percent of calories from saturated fat. USDA translated this into a standard for school meals in a straightforward manner. In 1995, USDA introduced the requirement that school meals contain less than 10 percent of calories from saturated fat to be consistent with the DGA.\(^{35}\) As this recommendation continued in subsequent editions of the DGA, the 2012 School Nutrition Rule reaffirmed the requirement to “offer lunches and breakfasts that supply, on average over the school week, less than 10 percent of total calories from saturated fat.”\(^{36}\) The disclosure of saturated fat content on the Nutrition Facts label made this feasible to implement. The 2012 rule also implemented two new requirements to encourage schools to reduce saturated fat in meals: allowing only fat-free and low-fat milk and establishing maximum calorie limits for meals.\(^{37}\)

Unlike saturated fat, the DGA did not introduce a quantitative recommended limit for added sugars until 2015. Naturally, the 2012 rule updating nutrition standards for NSLP and SBP does not reflect changes to the DGA in 2015. That rule, still in effect, is now outdated by the latest science-based guidance on added sugars. In 2015, it would have been challenging to implement a quantitative limit on added sugars in school meals because it was not yet mandatory for food labels to disclose added sugars content.

Based on updates to the DGA and the Nutrition Facts label, an added sugars standard is now feasible and overdue.

In 2016, the FDA issued a final rule to update the Nutrition Facts label, requiring that labels for foods and beverages with added sugars list the number of grams and the percent Daily Value (%DV) for added sugars per serving of foods and beverages.\(^{38}\) FDA determined that this mandatory declaration was necessary to “assist consumers to maintain healthy dietary practices” including reducing intake of added sugars to less than 10 percent of total calories as recommended in the DGA.\(^{39}\)

Now that, as of January 1, 2021, the Nutrition Facts label must disclose added sugars in grams and %DV, it is possible for schools to measure added sugars in their menus and therefore feasible to reduce it. The new label provides sufficient information for school food service operations to limit added sugars to recommended amounts.\(^{40,41}\)

\(^{34}\) Id. at 4,089.
\(^{36}\) 77 Fed. Reg. at 4,096.
\(^{37}\) Id. at 4,097.
\(^{39}\) Id. at 33,764.
\(^{41}\) 83 Fed. Reg. at 19,624.
In 2013, FNS issued a final rule to implement HHFKA’s competitive foods provisions, National School Lunch Program, and School Breakfast Program: Nutrition Standards for All Foods Sold in School as required by the HHFKA. The HHFKA directed the Secretary of Agriculture to establish nutrition standards for competitive foods in schools that were to be consistent with the DGA and updated “as soon as is practicable” following a new edition of the DGA. The 2013 final rule implementing this directive established a total sugars limit for competitive foods of 35 percent by weight. As noted in Table 1, the 2010 DGA advised limiting added sugars in the diet, though without a quantitative limit. In response to public comments on the proposed rule suggesting the competitive food standard should be based on added sugars, FNS agreed “that a sugar standard based on added sugars is preferable but that it would be very difficult…to implement…since the current Nutrition Facts label does not differentiate between naturally occurring and added sugars. If added sugars information is required on the Nutrition Facts label in the future, USDA would anticipate updating the standards for competitive food to incorporate that standard.”

Since FNS took this position, two editions of the DGA with a quantitative limit on added sugars have been published, and disclosure of added sugars is now required on the Nutrition Facts label. Establishing an added sugars limit of 10 percent of calories for competitive foods is now both practical and overdue. As with reimbursable school meals, an added sugars standard is both a statutory requirement and a regulatory gap with significant implications for students’ health.

IV. Factual Basis for Requested Actions

In addition to the legal rationale, school nutrition standards being inconsistent with the DGA with respect to added sugars is a matter of immense practical importance. As we will describe further, evidence indicates that school meals and children’s diets contain more added sugars than is recommended for a healthy dietary pattern. This section also reviews the public health benefits produced by previous efforts to align school nutrition standards with the DGA, precautions regarding LCS, and current food industry performance on limiting added sugars and LCS.

Current intakes of added sugars exceed DGA recommendations.

The 2020-2025 DGA contains four overarching Guidelines, with the fourth being to “[l]imit foods and beverages higher in added sugars, saturated fat, and sodium, and limit alcoholic beverages.” The recommended limit for added sugars is “[l]ess than 10 percent of calories per day starting at age 2”(Table 1).

The average intake of added sugars for people aged 1 and older in the United States is 13 percent of total calories, exceeding the recommended limit. School-age children also consume added sugars in amounts greater than recommended by the DGA. Based on data from NHANES 2013-2016, the majority of school-age children (72 to 80 percent, depending on gender and age group) consume more than the limit

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43 42 U.S.C. § 1779(b).
47 Those younger than age 2 are advised to avoid foods and beverages with added sugars.
of 10 percent of total calories from added sugars.\textsuperscript{49} Average intake of added sugars is 11 percent of total calories among young children and peaks at 15 percent during adolescence.\textsuperscript{50}

Table 1. History of added sugars advice in the DGA

<table>
<thead>
<tr>
<th>Edition(s) of the DGA</th>
<th>Recommendations on Sugars or Added Sugars</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980, 1985</td>
<td>“Avoid too much sugar”</td>
</tr>
<tr>
<td>2005</td>
<td>“Choose and prepare foods and beverages with little added sugars or caloric sweeteners”</td>
</tr>
<tr>
<td>2010</td>
<td>“Reduce intake of added sugars”</td>
</tr>
<tr>
<td>2015</td>
<td>“Consume less than 10 percent of calories per day from added sugars”</td>
</tr>
<tr>
<td>2020</td>
<td>“Added sugars—Less than 10 percent of calories per day starting at age 2. Avoid foods and beverages with added sugars for those younger than age 2.”</td>
</tr>
</tbody>
</table>

The DGA has recommended avoiding too much sugar since the first edition in 1980 (Table 1). The 2005 DGA was the first to emphasize the importance of limiting intake of foods and beverages with \textit{added} sugars, distinguished from naturally occurring sugars.\textsuperscript{51} The 2015-2020 DGA introduced the quantitative limit of less than 10 percent of calories per day. The limit is based on the ability to “fit” non-essential calories into a healthy dietary pattern. The 2020-2025 DGA explains: \textsuperscript{52}

Most of the calories a person needs to eat each day—around 85 percent—are needed to meet food group recommendations healthfully, in nutrient-dense forms. The remaining calories—around 15 percent—are calories available for other uses, including for added sugars or saturated fat beyond the small amounts found in nutrient-dense forms of foods and beverages within the pattern, to consume more than the recommended amount of a food group, or for alcoholic beverages.

Therefore, “[F]oods and beverages high in calories from added sugars should be limited to help achieve healthy dietary patterns within calories limits. When added sugars in foods and beverages exceed 10 percent of calories, a healthy dietary pattern within calories limits is very difficult to achieve.”\textsuperscript{53}

\textsuperscript{49} Percentages of children exceeding 10 percent of total calories from added sugars: 80 percent of males and 77 percent of females aged 5 to 8 (page 79); 79 percent of males and 78 percent of females aged 9 to 13 (page 82); 72 percent of males and 76 percent of females aged 14 to 18 (page 85). U.S. Department of Agriculture, U.S. Department of Health and Human Services. \textit{Dietary Guidelines for Americans, 2020-2025}. 9\textsuperscript{th} edition. December 2020.


\textsuperscript{51} Added sugars include sugars that are added during the processing of foods (such as sucrose or dextrose), foods packaged as sweeteners (such as table sugar), sugars from syrups and honey, and sugars from concentrated fruit or vegetable juices. They do not include naturally occurring sugars that are found in milk, fruits, and vegetables. U.S. Food and Drug Administration. Added Sugars on the New Nutrition Facts Label. March 11, 2020. https://www.fda.gov/food/new-nutrition-facts-label/added-sugars-new-nutrition-facts-label.


While the 2020-2025 DGA Executive Summary indicates that “less than 10 percent of calories” from added sugars is broadly applicable advice, subsequent portions of the report indicate that the amount of added sugars that can be accommodated in a healthy dietary pattern depends on an individual’s total calorie needs. Accordingly, most Americans actually “have less than 8 percent of calories available for added sugars, including the added sugars inherent to a healthy dietary pattern [1.5 to 2 percent].”\textsuperscript{54} Furthermore, “an individual who needs 2,000 calories per day (based on age, sex, and physical activity level) has less than 7 percent of calories available for added sugars.” Only those who need “more than 3,000 calories per day may have a total of 9 to 10 percent of calories available for added sugars.”\textsuperscript{55} In other words, while reducing the average intake of added sugars from the current 13 percent of calories to 10 percent of calories would be highly beneficial, the vast majority of people would achieve the greatest health benefit by consuming even less. This underscores the urgency to make progress on reducing added sugars consumption in the United States.

**Excessive consumption of added sugars poses health risks.**

The limit on added sugars recommended by the 2020-2025 DGA is based on enabling people to consume a healthy dietary pattern. That dietary pattern does not only provide recommended levels of foods and nutrients. In adults, that dietary pattern is linked to beneficial outcomes for all-cause mortality, cardiovascular disease, overweight and obesity, type 2 diabetes, bone health, and breast and colorectal cancer, according to the DGA.\textsuperscript{56}

Health authorities such as the CDC, American Heart Association, and World Health Organization have advised the public to limit added sugars to reduce the risk of weight gain, type 2 diabetes, cardiovascular disease, or dental decay (Table 2). The 2020 Dietary Guidelines for Americans Committee (DGAC) did not examine the evidence on added sugars and health outcomes. However, the DGAC did conclude that “moderate evidence suggests that higher sugar-sweetened beverage intake is associated with greater adiposity in children.”\textsuperscript{57}

In the most recent data from the National Center for Health Statistics, 35.4 percent of U.S. children now have overweight or obesity.\textsuperscript{58} This is a serious public health concern because excess weight contributes to the risk of type 2 diabetes, cardiovascular disease, many types of cancer, and other harmful health outcomes.\textsuperscript{59}

Children with excess weight are more likely to have excess weight in adulthood, increasing their risk of cardiovascular disease (CVD), type 2 diabetes, and other chronic diseases.\textsuperscript{60} Excess weight is a strong,  


\textsuperscript{60} Kelsey MM et al. Age-Related Consequences of Childhood Obesity. *Gerontology*. 2014;60(3):222-228.
indisputable risk factor for type 2 diabetes. Compared to adults in the lower half of the “healthy weight” range (BMI 18.5 to 21.9), even those in the upper half of the healthy weight range have roughly twice the risk of diabetes, and adults with obesity have roughly 18 times the risk of diabetes.\textsuperscript{61} Furthermore, it is well-established that excess weight increases the risk of hypertension and other conditions that raise the risk of CVD.\textsuperscript{62} The National Heart, Lung, and Blood Institute issued its first guidelines on overweight and obesity in 1998.\textsuperscript{63} According to NHBLI’s website, “eating foods high in added sugars” is among the “unhealthy eating behaviors [that] can increase your risk for overweight and obesity.”\textsuperscript{64}

Table 2. Select authoritative statements on the health effects of added sugars

<table>
<thead>
<tr>
<th>Organization</th>
<th>Year</th>
<th>Statement Excerpt</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Academy of Pediatric Dentistry</td>
<td>2017\textsuperscript{65}</td>
<td>“The AAPD supports: The recommendation of national and international organizations to reduce the consumption of sugar to less than 10 percent of total energy intake and, to reduce children’s risk of weight gain and dental caries, sugar intake should be less than five percent of total energy intake (less than 16 grams of sugar for children aged 4–8).”</td>
</tr>
<tr>
<td>American Heart Association</td>
<td>2017\textsuperscript{66}</td>
<td>“On the basis of the studies showing an association between decreased CVD risk factors and a low consumption of added sugars and the high potential benefit-to-risk ratio, it is reasonable to recommend that children and adolescents consume ≤25 g (100 cal or ≈6 teaspoons) of added sugars per day.”</td>
</tr>
<tr>
<td>Centers for Disease Control and Prevention</td>
<td>2021\textsuperscript{67}</td>
<td>“Americans are eating and drinking too many added sugars, which can contribute to health problems such as weight gain and obesity, type 2 diabetes, and heart disease. To live healthier, longer lives, most Americans need to move more and eat better, including consuming fewer added sugars.”</td>
</tr>
<tr>
<td>Dietary Guidelines Advisory Committee</td>
<td>2020\textsuperscript{68}</td>
<td>“The addition of sugars to foods and beverages provides energy, generally without contributing additional nutrient content. Taking into account both the 2015 and 2020”</td>
</tr>
</tbody>
</table>


\textsuperscript{64} National Heart, Lung, and Blood Institute. Overweight and Obesity. \url{https://www.nhlbi.nih.gov/health-topics/overweight-and-obesity}.


Committee evidence reviews, relative to the goal of improving the health of a population in which the prevalence of overweight and obesity is high, the addition of sugar to the diet raises concerns about the potential risk of increasing unhealthy weight gain and, in turn, increasing risk of obesity-related health outcomes.

…the Committee suggests that for adults and children age 2 years and older, a recommendation of less than 6 percent of energy from added sugars is more consistent with a dietary pattern that is nutritionally adequate while avoiding excess energy intake than is a pattern with less than 10 percent of energy from added sugars.

<table>
<thead>
<tr>
<th>Source</th>
<th>Year</th>
<th>Summary</th>
</tr>
</thead>
</table>
| World Health Organization | 2015 | “WHO recommends a reduced intake of free sugars throughout the lifecourse (strong recommendation).”
| | | “In both adults and children, WHO recommends reducing the intake of free sugars to less than 10% of total energy intake (strong recommendation).”
| | | “WHO suggests a further reduction of the intake of free sugars to below 5% of total energy intake (conditional recommendation).”
| | | These recommendations were based on the totality of evidence reviewed regarding the relationship between free sugars intake and body weight (low and moderate quality evidence) and dental caries (very low and moderate quality evidence). |

School meals contain more added sugars than the DGA recommends.

Since there is no national requirement to limit added sugars in the NSLP and SBP, it is unsurprising that the average amounts of added sugars in school meals served exceed 10 percent of total calories.

In a secondary analysis of School Nutrition and Meal Cost Study (SNMCS) data, Fox, Gearan, and Schwartz found that the average reimbursable school breakfast served contained 17 percent of calories from added sugars. The average reimbursable school lunch served contained 11 percent of calories from added sugars. The proportion of schools in the study’s nationally representative sample exceeding 10 percent of calories from added sugars was 92 percent for breakfast and 69 percent for lunch. Top sources of added sugars included flavored milks, sweetened cold cereals, condiments and toppings, and particularly for breakfast, sweet bakery products (Table 3).

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Table 3. Sources of added sugars in school breakfasts and lunches\textsuperscript{71}

<table>
<thead>
<tr>
<th>School Breakfasts (n=1,111)</th>
<th>% of Added Sugars</th>
<th>School Lunches (n=1,207)</th>
<th>% of Added Sugars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flavored skim milk</td>
<td>29.0</td>
<td>Flavored skim milk</td>
<td>46.9</td>
</tr>
<tr>
<td>Sweetened cold cereal</td>
<td>13.0</td>
<td>Condiments and toppings</td>
<td>9.0</td>
</tr>
<tr>
<td>Condiments and toppings</td>
<td>11.8</td>
<td>Flavored 1% milk</td>
<td>3.2</td>
</tr>
<tr>
<td>Muffins and sweet/quick breads</td>
<td>7.3</td>
<td>Breads, rolls, bagels, and other plain breads</td>
<td>2.7</td>
</tr>
<tr>
<td>Toaster pastries</td>
<td>4.3</td>
<td>Cookies, cakes, brownies</td>
<td>2.3</td>
</tr>
<tr>
<td>Pancakes, waffles, and French toast</td>
<td>3.8</td>
<td>Sandwich with breaded meat, poultry, or fish</td>
<td>2.1</td>
</tr>
<tr>
<td>Crackers, croutons, and pretzels</td>
<td>3.6</td>
<td>Juice</td>
<td>1.8</td>
</tr>
<tr>
<td>Cinnamon buns</td>
<td>2.8</td>
<td>Black, baked, and other beans</td>
<td>1.8</td>
</tr>
<tr>
<td>Yogurt, low-fat/fat-free</td>
<td>2.8</td>
<td>Hamburgers and similar beef/pork sandwiches</td>
<td>1.8</td>
</tr>
<tr>
<td>Other</td>
<td>21.6</td>
<td>Other</td>
<td>28.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
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The study’s authors discussed potential strategies to address these concerning levels of added sugars, including USDA establishing a quantitative standard for added sugars in schools meals; USDA establishing limits on sugar content of ready-to-eat cereals, bakery products, and foods offered with sweetened toppings or limiting the frequency of offering these foods in planned menus; USDA limiting how often flavored milk is offered; promoting water consumption as a substitute for sweetened beverages; and encouraging food manufacturers to decrease added sugars in prepared foods and flavored milks developed for school meals.\textsuperscript{72} USDA could also set a limit on how much sugar can be added to flavored milks.

The authors of an accompanying editorial took a stronger stance:\textsuperscript{73}

Evidence on added sugars and flavored milk expose a significant gap in the current nutrition standards and given the high added sugar consumption documented by school-age children, demonstrate the urgency for establishing an added sugar maximum limit for school meals. Further, given the large contribution of flavored milk to added sugar intakes in school meals, USDA should restrict or limit flavored milk at school.

Previous efforts to align school nutrition standards with the DGA have been successful and beneficial.

Thanks to the 2012 updated school nutrition standards under the HHFKA, schools are now providing children with healthier school meals, snacks, and beverages. As Congress was preparing to reauthorize child nutrition programs in 2015 and as claims that schools were unable to meet the updated nutrition standards abounded in public discourse, USDA (then, as now, led by Agriculture Secretary Tom Vilsack)

\textsuperscript{71} Adapted from Fox MK, Gearan EC, Schwartz C. Added Sugars in School Meals and the Diets of School-Age Children. Nutrients. 2021;13:471.

\textsuperscript{72} Fox, 2021.

issued a press release emphasizing the benefits of the HHFKA. The release stated that the 2010 law made the “first meaningful improvements to the nutrition of foods and beverages served in cafeterias and sold in vending machines in 30 years” and urged Congress not to “backpedal on a healthier future for our kids.” According to the release, 95 percent of schools reported they were successfully meeting the nutrition standards.

Since then, the benefits of updating nutrition standards through the HHFKA have been thoroughly documented. FNS’s School Nutrition and Meal Cost Study (SNMCS), the only nationally representative study that assessed the nutritional quality and costs of producing school meals before and after implementation of the HHFKA, found significant improvements. The SNMCS demonstrated that nutritional quality of reimbursable school breakfasts and lunches had improved between school year (SY) 2009-2010 and SY 2014-2015 based on mean total scores on the Healthy Eating Index (HEI)-2010. The HEI-2010 total and component scores for food groups measure how well dietary patterns conform to the recommendations made in the 2010 DGA overall and for each individual food group, where higher scores indicate greater compliance. The mean total HEI-2010 score for lunches increased 41 percent—from 57.9 to 81.5 out of a possible 100. The mean total HEI-2010 score for breakfasts increased 44 percent—from 49.6 to 71.3. According to the authors, these findings suggest that “updated nutrition standards for school meals have had a positive and significant influence on nutritional quality.”

The SNMCS also found that schools made significant progress increasing whole grains and reducing sodium, and a majority of schools met daily meal components, especially for fruits and vegetables.

The SNMCS findings serve to counter some common misconceptions about evidence-based nutrition standards for school meals, one being that healthier meals are less palatable to students, leading to decreased participation or increased food waste. In fact, the higher the nutritional quality of the school lunch, the higher the rate of participation in the NSLP. Specifically, the average NSLP participation rate was 61 percent for schools in the highest quartile of the HEI-2010 distribution, compared to 50 percent

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76 The HEI-2010 is a measure of nutritional quality based on the 2010 Dietary Guidelines for Americans.
78 Fox, 2019.
79 Fox, 2019.
80 Fox, 2019.
81The HEI-2010 score for refined grains more than doubled from 46 to 96 percent of the maximum score, indicating a dramatic decrease in the concentration of refined grains in lunches over time. The score for refined grains for breakfasts also more than doubled from 45 to 95 percent of the maximum score. The HEI-2010 score for whole grains in school lunches increased from 25 to 95 percent of the maximum score, indicating an increase in the whole grains served in lunch meals. The HEI-2010 score for whole grains in school breakfasts increased from 38 to 96 percent of the maximum score.
82 The vast majority of schools (85 percent) met or were close to meeting the first sodium-reduction target (Target 1) in the first year that the target was required (SY2014-2015).
83 At least 79 percent of daily breakfast and lunch menus met the meal pattern quantity requirements.
for schools in the lowest quartile. Furthermore, the study found that the amount of plate waste after the updated nutrition standards was comparable to that found in studies prior to the HHFKA.

Another common assumption is that serving healthier food costs more. On the contrary, lunch and breakfasts costs were not related to nutritional quality. The mean reported costs per meal were not significantly higher in schools that had higher scores on the HEI-2010 than in schools that scored lowest on the HEI-2010.

Prior to HHFKA, students in large schools and predominantly white schools were more likely to have access to healthier foods. The SNMCS data indicate reduced disparities in the nutritional quality of school meals under HHFKA across socioeconomic status and race and ethnicity.

Clearly, aligning nutrition standards with the DGA had a positive impact on the nutritional quality of meals served. There is also evidence that participation in the school meals programs since HHFKA is positively related to the healthfulness of meals consumed. The SNMCS found that lunches consumed by NSLP participants achieved a higher mean HEI-2010 score than those of matched non-participants (80.1 versus 65.1). The significant difference persisted over 24-hours (i.e., including program and non-program meals), though the magnitude of the difference was smaller (65.2 versus 60.6). In a serial cross-sectional analysis of pre-policy (2007-2010) and post-policy (2013-2016) data from the National Health and Nutrition Examination Survey (NHANES), Kindernecht and colleagues found that diet quality during lunch (measured by HEI-2010 score) improved more for NSLP participants than nonparticipants from pre-policy to post-policy, a finding that held true across income levels. Additional studies have documented the efficacy of the updated nutrition standards with respect to meals served and consumed. Notably, a 2021 study found that the foods children consumed from school meals provided the highest mean diet quality of all major US food sources—better than grocery stores, restaurants, worksites, and others.

The impact of school nutrition on children’s weight status is also of interest. A nationally representative study found that for children in poverty, the risk of obesity declined substantially each year after the implementation of the HHFKA such that obesity prevalence would have been 47 percent higher in 2018 without the updated nutrition standards. Although the study reported no significant association between the legislation and childhood obesity trends overall (including children in and not in poverty), children in poverty participate at higher levels in school meals and would be expected to benefit most from stronger

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84 Fox, 2019.
85 Fox, 2019.
88 Fox, 2019.

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nutrition standards. Following a cost-effectiveness analysis of several policies that could reduce childhood obesity, the investigators concluded that the HHFKA, including the updated standards for meals and competitive foods, is “one of the most important national obesity prevention policy achievements in recent decades.” The researchers estimated that these improvements could prevent more than two million cases of childhood obesity over ten years.

**FNS should take a precautionary approach regarding LCS.**

FNS must ensure that adopting an added sugars standard for the NSLP and SBP reimbursable meals and competitive foods does not have unintended public health consequences, particularly with regards to the use of other sweeteners whose safety as a tool to help maintain energy balance, control cardiometabolic risk factors, and reduce risk of cardiovascular events for children is not well established. LCS of concern that should be eliminated from NSLP, SBP, and competitive foods include aspartame, acesulfame-K, saccharin, and sucralose.

The safety of LCS—sometimes called non-nutritive sweeteners (NNS) or high-intensity sweeteners—has been the subject of significant debate. The American Academy of Pediatrics (AAP) concludes that, “the long-term safety of NNS in childhood has not been assessed in humans.” In 2018, the American Heart Association (AHA) Scientific Advisory concluded, “it is prudent to advise against prolonged consumption of LCS beverages by children.” Based on the available evidence, which is relatively limited, CSPI advises that children avoid no/low calorie sweeteners. CSPI is especially concerned about Aspartame (NutraSweet® and Equal®), Acesulfame-K (Sweet One®), Saccharin (Sweet’N Low®), and Sucralose (Splenda®). CSPI’s website Chemical Cuisine, which ranks the safety of food additives as “safe,” “caution,” “cut back,” “certain people should avoid,” or “avoid,” rates these four as, “avoid, primarily due to cancer concerns.” In particular, there is compelling evidence that aspartame is a carcinogen.

**Food industry compliance with a limit on added sugars is feasible in the short term.**

CSPI recently published its first ever School Meals Corporate Report Card, which is included as an Appendix to this petition. The report provides a detailed picture of (among other things) the extent to which the products sold by major school food service companies for the K-12 age group would (1) meet an added sugars standard consistent with the 2020-2025 DGA (that less than 10 percent of calories come from added sugars) and (2) use no LCS of concern. Products were classified into major and minor food groups based on USDA’s Food Grouping System for school meals. CSPI found that compliance ranges for added sugars were high (all companies were ≥ 75 percent) for more than three-fourths (14 of the 18) of applicable minor food groups for grades K-5 through 9-12 breakfast. This is particularly important given that the top sources of added sugars are from foods served at breakfast. For lunch, CSPI found that compliance ranges were high (all companies were ≥ 75 percent) for virtually all (18 of the 20) applicable

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94 Gortmaker, 2015.
minor food groups. Compliance ranges indicate for each company the percentage of products in a given minor food group that meet the proposed standard.

Although there is no required standard for LCS in the DGA, most products do not contain LCS of concern. Only 5 of 36 applicable minor food groups included any products with LCS (e.g., yogurt or condiments and toppings products) and within each of these minor food groups there was at least one company with no products containing LCS of concern to CSPI.

The report indicates that there is no shortage of products from major suppliers that could comply with the added sugars and LCS standards sought here.

*Schools need dedicated assistance to reduce the leading sources of added sugars in school meals.*

Flavored skim milk is the top source of added sugars in breakfast and lunch (see Table 3), and currently schools are able to serve low-fat flavored milk through the meal pattern waivers authorized under the Families First Coronavirus Response Act.¹⁰⁰ In 2010, the Institute of Medicine (IOM, now the National Academy of Medicine) advised USDA to allow only plain and flavored fat-free and plain low-fat milk—but not flavored low-fat milk—to help ensure that school meals fall within age-appropriate calorie ranges and that those ranges would help limit added sugars.¹⁰¹ It is clear that the age-appropriate calorie ranges for meals do not sufficiently limit added sugars in school foods for flavored skim milk—let alone low-fat flavored milk—consistent with the 2015 and 2020 DGA.

To ensure schools have the support they need to comply with science-based standards for added sugars and other food components, the petitioners request that FNS:

- Provide more robust technical assistance trainings and peer-to-peer convenings such as *Team Up for School Nutrition Success* (currently inactive) on added sugars;
- Establish initiatives focused on certain standards such as *What’s Shaking in School Meals?* (currently inactive) for sodium and create a similar initiative for whole grains and added sugars;
- Reinstitute recognition programs such as the *HealthierUS School Challenge* to share best practices and uplift school success stories on added sugars;
- Include in these efforts the elimination of LCS of concern;
- Make transparent overall technical assistance efforts on sodium, whole grain-rich, and added sugars, which includes progress by schools to meet the standards and efforts by USDA to work with industry to provide products that meet the standards through annual reporting; and
- Annually post the increased performance-based reimbursement under the HHFKA that schools receive for meeting the updated standards (also known as the seven-cent certification data) for schools, which USDA last publicly posted in 2016, after years of updating these figures quarterly.

**V. Conclusion**

For the foregoing reasons, the petitioners urge FNS to incorporate the requested actions into its planned rulemaking to align child nutrition programs with the 2020-2025 DGA in October 2022 or sooner.

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We look forward to your timely response. Questions related to this petition may be directed to Colin Schwartz, cschwartz@cspinet.org, Susan Bishop, susan.k.bishop@heart.org, and Jordan Wolfe, Jordan.wolfe@apha.org.