Assessing the Public Health Impacts of the Children's Food and Beverage Advertising Initiative

Healthy Eating Research

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Introduction

The Children's Food and Beverage Advertising Initiative (CFBAI) is a voluntary industry initiative in which companies commit to feature only foods meeting specific nutrition criteria in advertising directed primarily to children under age 12. CFBAI established uniform criteria across participating companies in 2011, which went into effect in 2013, and set limits for calories, saturated fat, sodium, and total sugars, and minimum levels of nutrition components (e.g., fruits, vegetables, whole grains, vitamin D, and calcium) to encourage per listed serving size. The criteria were established across 10 product categories, such as juices, dairy products, and cereals. Foods and beverages that meet the criteria are included on the list of products that can be advertised to children, although not all products that meet the criteria are listed if manufacturers do not engage in child-directed advertising of those products.

New criteria announced in 2018 that went into effect in 2020 strengthened the nutrition standards and changed the criteria for sugars to be for added sugars instead of total sugars (total sugars includes added and natural sugars) for consistency with the new Nutrition Facts label. As of January 1, 2020, CFBAI defines child-directed advertising as programming with an audience of 30 percent or more children on television, radio, print, internet, influencer communications, and other types of media.

Several studies have assessed whether food and beverage products advertised to children, including products on the CFBAI list, are considered healthy or meet specific nutrition criteria.[1-7] Studies have also compared products on the CFBAI list to other standards such as those of the U.S. Department of Agriculture (USDA) Smart Snacks program, the World Health Organization Regional Office for Europe's nutrient profile model, the Interagency Working Group on Food Marketed to Children,[8] and the Special Supplemental Nutrition Program for Women, Infants, and Children.[2, 9-12] However, prior studies have not estimated the relative importance of CFBAI-listed products in children's diets, which is needed to understand the potential for the criteria to have a public health impact. This brief summarizes the results of an analysis of the effects of the criteria and recent changes; the complete results are described in more detail in Muth, Karns, and Hayes.[13]

History of the CFBAI

The CFBAI was launched in 2006 as an industry self-regulation program by the Council of Better Business Bureaus and 10 leading U.S. food and beverage companies and quick-service restaurants, with the primary focus on limiting advertising of unhealthy foods and beverages directed to children younger than 12 years. Initially, the companies in the CFBAI established company-specific nutrition criteria to identify foods that could be advertised to children. In 2011, the CFBAI established category-specific nutrition criteria that became uniform across the participating companies at the end of 2013. In 2018, the CFBAI criteria were updated to strengthen the healthfulness of the criteria and align them with the nutrition information on the new Nutrition Facts label. The new criteria went into effect January 1, 2020.

Analysis Approach

To conduct the analyses, IRI Consumer Network's household-based scanner data, which represents food purchases from all types of retail stores by a panel of households, were matched with nutrition label data for 2017. Similar to a 2012 Federal Trade Commission (FTC) study,[1] data from 2017 (prior to the announcement of the new standards) were used as a baseline for assessing the potential effects of reformulation to meet the new 2020 criteria. Data were extracted from the household purchases represented in the Consumer Network data on the number of items purchased and total price paid by households with children 0 to 8 years for CFBAI-listed products and similar substitute products. Those products were produced by Campbell Soup Company; Conagra Brands, Inc.; Danone North America, PBC; General Mills Inc.; Kellogg Company; The Kraft Heinz Company; Nestlé USA; PepsiCo, Inc.; Post Food, LLC; and Unilever United States. Other food and beverage manufacturers that are included on the CFBAI list, but do not engage in child-directed advertising, as defined by the CFBAI, were not included in the analysis. These include American Licorice Company; The Coca-Cola Company; Ferrero USA, Inc.; The Hershey Company; Keurig Dr Pepper, Inc.; Mars, Incorporated; and Mondelēz Global, LLC. For the analysis, substitute products were identified as those that households could readily substitute for CFBAI-listed products, that is, products that were the same brand as listed products but were a different type, flavor, or variety. Although the identified substitute products are very similar to CFBAI-listed products, they do not meet the CFBAI criteria because of differences in formulation.

Using the Consumer Network data, nutrition label data, and average consumption amounts by gender and age from "What We Eat in America,"[14] analyses were conducted to (1) measure the total contribution of packaged food and beverage products on the baseline 2017 CFBAI list to calories, saturated fat, sugar, fiber, and sodium in foods purchased from retail stores; (2) calculate the change in the contributions of those products to calories and other nutrients in household food purchases if manufacturers reformulated them to meet the 2020 criteria and purchasing patterns remain unchanged; and (3) determine the relative importance of similar substitutes not included on the CFBAI list. The Consumer Network data include all purchases made for the household; therefore, consumption estimates were calculated for all members of the household and converted to a per-person basis.

The Evidence

The changes in the CFBAI criteria in 2020 were primarily for reductions in sodium and added sugars, although reductions in added sugars could also translate into reductions in calories depending on the formulation. The change in the criteria did not directly affect dietary fiber, but the requirements for whole grains could have had an indirect effect. Key results of the analyses are as follows:

- The number of products on the CFBAI list included an estimated 696 unique products in 2017. These products accounted for about 1% of calories, 0.5% of saturated fat, 1.3% of added sugars, 1.0% of sodium, and 1.6% of dietary fiber in purchases by households with children 0 to 8 years of age, based on average consumption amounts from "What We Eat in America."[14] Differences across income groups and race and ethnicity were relatively minor.

- About 21% of products on the list as of 2017 would have needed to be reformulated to meet the 2020 criteria for calories, saturated fat, added sugars, or sodium. If companies had been using the 2020 criteria in 2017, reformulation of these products would have resulted in reductions of 2.4% for added sugars, 0.8% for calories, and 1.2% for sodium in purchases of foods by households with young children (see **Table 1**).

- A total of 818 substitute products produced by the same manufacturers—but comprising different types, flavors, or varieties than CFBAI-listed products—were identified in the analysis. Overall, substitute products represent a larger percentage of unique products (54%), number of items purchased (57%), and cost of purchases (52%) than CFBAI-listed products, thus indicating their somewhat greater importance in manufacturer product portfolios. However, we detected no substantial differences in product pricing between CFBAI-listed and substitute products.

- A loophole that allows companies to advertise some products but not others within a brand family is a real concern, because it is difficult to discern which specific products among similar products produced by each manufacturer are on the CFBAI list (see examples in **Table 2**), particularly because there is no indication of listed products on product labels or shelf tags.

Table 1.

Per-Person Nutrients in Purchased CFBAI-Listed Products: Baseline Values Versus Potential Improvements from Reformulation

	Average for Households with Children 0 to 8 Years
Calories (number per person per day)	
2017 baseline	22.016
Reformulated to meet new criteria	21.836
Absolute change	–0.180
% change	–0.82%
Saturated fat (grams per person per day)	
2017 baseline	0.1364
Reformulated to meet new criteria	0.1361
Absolute change	0.0003
% change	–0.22%
Added sugars (grams per person per day)	
2017 baseline	1.410
Reformulated to meet new criteria	1.377
Absolute change	–0.033
% change	–2.34%
Sodium (milligrams per person per day)	
2017 baseline	32.597
Reformulated to meet new criteria	32.204
Absolute change	–0.393
% change	–1.21%

Note: Per-person values were calculated as adult equivalents, assuming 2,000 calories per person per day.
Source: Authors' calculations using IRI Consumer Network household scanner data for households with children 0 to 8 years old, IRI nutrition data, and nutrition data provided by the Rudd Center.

Table 2.

Examples of CFBAI-Listed and Similar Substitute Products

CFBAI Listed (2017)	Similar Substitutes
■ Kraft Original Flavor Macaroni & Cheese Dinner	■ Kraft Deluxe Original Cheddar Macaroni & Cheese Dinner
■ Kellogg's Eggo Frozen Homestyle Waffles	■ Kellogg's Eggo Blueberry Waffles
■ Pepperidge Farm Goldfish, Cheddar	■ Pepperidge Farm Goldfish, Parmesan
■ Dannon Creamy Lowfat Yogurt, Strawberry	■ Dannon Lowfat Yogurt, Fruit on the Bottom, Strawberry
■ General Mills Original Lucky Charms Cereal	■ General Mills Lucky Charms Honey Clovers Cereal

Source: Derived from the 2017 CFBAI product list and company websites.

Conclusion

This study used purchase and consumption data to calculate the baseline contribution of foods and beverages, targeted in a voluntary industry initiative, to calories and specific nutrients. It also assessed whether proposed changes could have a meaningful effect on dietary quality and thus public health. The results show that the number of products on the CFBAI list is not substantial and accounts for about 1% of calories purchased by households with children 0 to 8 years of age. Thus, most foods purchased by households with young children are not covered by the CFBAI. Differences in purchases across income groups and race and ethnicity are relatively minor. Reformulation of products on the list as of 2017 to meet the 2020 criteria would have resulted in discernible changes in calories, added sugars, and sodium in each product. However, because these products comprise a relatively small portion of purchases, the public health significance is limited. Expanding the list of products, particularly to include more products within brand families included on the list, could increase the potential health benefits of the criteria.

The analysis also found that the loophole that allows companies to advertise some products but not others within a brand family is a real concern. Advertising and promotion of products within a brand family that meet the criteria could spill over and affect purchase decisions for other products that do not meet the criteria. Furthermore, the CFBAI is designed to guide company, rather than consumer, behavior; therefore, there is no indication to consumers about whether individual products are listed products. Products that are on the CFBAI list are not noted as such on product labels or shelf tags. Prior research has shown that creating clear signal for consumers indicating a nutritionally improved product can be effective.[15]

Policy Implications

The CFBAI provides a useful case study for assessing whether a voluntary industry initiative can be assumed to have a true public health impact or rather act to generate a healthfulness halo effect (i.e., creating the perception of healthfulness) on a participating manufacturer's products, encouraging consumption of both products included in the agreement and similar products that could substitute for those products. The results of the analysis are relevant to ongoing work by public health organizations to help facilitate and evaluate voluntary industry initiatives to improve the healthfulness of foods and beverages.[16] Despite the popularity of food from full- and quick-service restaurants, food purchased at grocery and other stores for home preparation still makes up the major share of calories in the American diet;[17] this is particularly true for lower-income households. With the stay-at-home orders and closures of schools, offices, and restaurants due to the COVID-19 pandemic, consumption of foods purchased from stores increased substantially, thus further increasing its importance.

The results of this study also indicate the need for organizations that broker voluntary industry agreements, such as Partnership for a Healthier America and Alliance for a Healthier Generation, to ensure that the design of new agreements results in a positive public health impact. For example, future agreements could use purchase, sales, or consumption data to calculate the baseline contribution of foods and beverages included in the agreement to calories or specific nutrients and to assess impact of potential changes. The results of this type of analysis could be used to guide the choice of specific targets to ensure that the changes would have a meaningful effect on dietary quality and thus public health. The food and beverage industry has indicated it wants to be part of the solution in addressing obesity and nutrition-related disease,[18] but meaningful targets must be established for this to occur.

The results could also be of interest to CFBAI and the participating companies as they consider future updates in the criteria, including whether all products in a brand family are required to meet the criteria. Finally, the results may be of interest to the FTC because it previously analyzed the impacts of the CFBAI, before the CFBAI established uniform criteria in 2011, as part of its efforts to examine changes in food marketing to children.[1] The FTC can encourage companies to strengthen their policies to ensure that the products they advertise to children promote a healthy diet and increase consumer awareness regarding practices used to market food to children.

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About Healthy Eating Research

Healthy Eating Research (HER) is a national program of the Robert Wood Johnson Foundation. Technical assistance and direction are provided by Duke University under the direction of Mary Story PhD, RD, program director, and Megan Lott, MPH, RDN, deputy director. HER supports research to identify, analyze, and evaluate environmental and policy strategies that can promote healthy eating among children and prevent childhood obesity. Special emphasis is given to research projects that benefit children and adolescents and their families, especially among lower-income and racial and ethnic minority population groups that are at highest risk for poor health and well-being and nutrition related health disparities. For more information, visit ***www.healthyeatingresearch.org*** or follow HER on Twitter at ***@HEResearch***.

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