

Changing the Channels:

How Big Media Helps Big Food Target Kids (and What to Do about It)



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CSPI is America's food and health watchdog. We are a rigorous driver of food system change to support healthy eating, safe food, and the public's health. We transform the built food environment through leading-edge policy innovations grounded in meticulous research and powerful advocacy. We galvanize allies and challenge industry, driving system-wide changes and healthier norms for everyone, leveraging the greatest benefits for people facing the greatest risk. CSPI is fiercely independent; we accept no government or corporate grants.

Acknowledgements

Jennifer Emond from the Geisel School of Medicine at Dartmouth College, Sally Mancini from the UConn Rudd Center for Food Policy and Obesity, Peter Lurie, Julia McCarthy, and Colin Schwartz provided valuable suggestions and review of the report.

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Changing the Channel: How Big Media Helps Big Food Target Kids (and What to Do about It) is available online, free of charge at cspinet.org/FoodAdReport

November 2019

Executive Summary

Background: Food and beverage companies spend nearly \$2 billion a year marketing to children.¹ Marketing affects children's food and beverage choices, purchase requests, diets, and health.^{2,3,4,5,6} Previous studies have found that the majority of foods and beverages advertised during children's television programming are of poor nutritional quality—i.e., high in calories, saturated fat, sodium, or added sugars or low in fruits, vegetables, and whole grains.^{7,8,9,10}

Marketing affects children's food and beverage choices, purchase requests, diets, and health.

The Children's Food and Beverage Advertising Initiative (CFBAI), a self-regulatory program administered by the Council of Better Business Bureaus (BBB), was developed in 2006 to improve food and beverage advertising to children younger than 12 years of age.¹¹ The type of advertising addressed by CFBAI includes television, radio, print, third-party and company-owned websites, mobile apps, games, video formats, and certain types of marketing in elementary schools.¹² In 2016, the BBB and the National Confectioners Association established a similar initiative for candy companies, the Children's Confection Advertising Initiative (CCAI).¹³ Eighteen major companies participate in CFBAI, and nine candy companies belong to CCAI.

In 2009, Congress required multiple federal agencies to form the Interagency Working Group (IWG) on Food Marketed to Children to develop model voluntary recommendations for food and beverage marketing to children. Based on nutrition recommendations, including the Dietary Guidelines for Americans, the National Academy of Medicine's Dietary Reference Intakes, and the Food and Drug Administration's food-labeling regulations, the IWG developed nutrition standards for calories, saturated fat, trans fat, added sugars, sodium, and positive nutritional value (e.g., inclusion of fruit, vegetables, whole grains, dairy, lean

meats, beans, nuts, and eggs).¹⁴ However, industry lobbying and Congressional interference prevented the IWG from finalizing the recommendations.¹⁵

In 2009, Congress required multiple federal agencies to form the Interagency Working Group (IWG) on Food Marketed to Children to develop model voluntary recommendations for food and beverage marketing to children. Based on expert nutrition recommendations, the IWG developed nutrition standards, however, industry lobbying and Congressional interference prevented the IWG from finalizing the recommendations.

In December 2013, the CFBAI implemented Uniform Nutrition Criteria, replacing a piecemeal approach with standards established by each participating company.¹⁶ The Uniform Nutrition Criteria specify amounts for “Nutrients to Limit” (calories, saturated fat, trans fat, sodium, and total sugars), as well as “Nutrition Components to Encourage” (fruits, vegetables, dairy, whole grains, vitamins, and minerals). The Uniform Nutrition Criteria are weaker than the proposed IWG recommendations.¹⁷

Methods: This study assesses the nutritional quality of food and beverage advertisements during children’s television and whether they have improved since the CFBAI implemented its 2013 Uniform Nutrition Criteria.



Dairy Queen Blizzards were advertised during children's television programming.

We recorded 6 hours of children's programming each from 15 individual channels in 2012 and 12 channels in 2018 (several of the stations in our original sample no longer aired children's programming), and assessed whether the advertisements for foods and beverages met the industry's own nutrition criteria: the current CFBAI Uniform Nutrition Criteria (see Appendix A).¹⁸ We collected product nutrition information from company websites, LabelInsight.com, MenuStat.org, or, if unavailable online, from product packaging found in a local store in Washington, D.C. We also evaluated whether advertised products met the IWG's proposed nutrition standards (see Appendix B).¹⁹ We graded each channel based on the number of food and beverage advertisements that failed to meet the CFBAI Uniform Nutrition Criteria.

Results: In 2018, 23 percent of all advertisements aired during children's programming were for foods or beverages, up from 14 percent in 2012. Overall, most food and beverage advertisements during children's television programming promoted unhealthy products. The top food and beverage categories advertised during children's programming in 2018 were restaurants (35 percent), candy (22 percent), breakfast cereals (12 percent), beverages (10 percent), and snack foods (6 percent). Despite implementation of the CFBAI Uniform Nutrition Criteria between our 2012 and 2018

analyses, the number of food and beverage advertisements that failed to meet the CFBAI Uniform Nutrition Criteria increased by over 50 percent--from an average of 13 to 20 per six hour sample. The percentage of food and beverage advertisements for unhealthy products was relatively unchanged. Virtually all (99 percent in 2018 and 96 percent in 2012) of food and beverage advertisements during children's programming were for unhealthy foods and beverages, as measured against the expert IWG nutrition standards.

The most common reasons that foods or beverages failed to meet the CFBAI and IWG standards in 2018 were that they did not contain healthful components like fruits, vegetables, or whole

Most food and beverage advertisements during children's television programming promoted unhealthy products.

grains or were too high in sugars. In 2018, fewer food and beverage advertisements failed to meet CFBAI and IGW standards for saturated fat and sodium compared to 2012. However, more advertisements failed to meet the IWG sugar and healthful components standards over that time period.

Despite implementation of the industry self-regulatory nutrition criteria, the number of unhealthy food and beverage advertisements during children's programming increased between 2012 and 2018.

After the completion of the analysis for this report, the CFBAI announced updated Uniform Nutrition Criteria that will take effect in 2020. Future research should assess the impact of the updated Uniform Nutrition Criteria on food and beverage advertisements.

In 2018, two channels, PBS and Univision, received A grades, airing no food and beverage advertisements (Table 1). The Disney channels (Disney, Disney Jr., and Disney XD) and Nick Jr. received Bs. Half the channels earned Ds or Fs. The stations with the highest number of unhealthy advertisements in 2018 were Nicktoons and Nickelodeon, followed by Discovery Family and Cartoon Network.

Between 2012 and 2018, PBS and Univision were the most improved channels, moving from earlier grades of C or D, respectively, to As. While Cartoon Network, Discovery Family (previously Hub), Nick Jr., Nickelodeon, and Universal Kids (previously Sprout) went in the opposite direction, airing more unhealthy food and beverage advertisements in 2018 compared to 2012.

Table 1: Some Companies Advertise More Unhealthy Food to Children than Others

Food Marketing to Children Report Card		
	2012	2018
PBS	C	A
Univision	D	A
Disney	*	B
Disney Jr.	*	B
Disney XD	C	B
Nick Jr.	A	B
Universal Kids (previously Sprout)	A	D
Boomerang	*	D
Cartoon Network	C	F
Discovery Family (previously Hub)	D	F
Nickelodeon	D	F
Nicktoons	F	F
CW	B	—
Qubo	A	*
CBS	C	—
NBC	C	—
Telemundo	C	—
ABC	F	—
Total food & beverage advertising to children	D	F
* Channel not assessed in 2012 (or for Qubo in 2018) study — Channel no longer aired children's programming in 2018		

Overall, two-thirds of food and beverage advertisements during children’s television programming are unhealthy according to the food industry’s own CFBAI standards and virtually all are unhealthy according to the more evidence-based, expert IWG standards. However, children’s exposure to unhealthy food and beverage advertisements varies considerably depending on the channel. Watching Nickelodeon and Nicktoons, children would be exposed to over 10 unhealthy food and beverage advertisements per hour. In contrast children watching PBS, Univision, Disney, Disney Jr., and Disney XD would be exposed to few unhealthy advertisements.

Overall, two-thirds of food and beverage advertisements during children’s television programming are unhealthy according to the food industry’s own CFBAI standards and virtually all are unhealthy according to the more science-based, expert IWG standards.

Recommendations: Feeding children healthfully is a shared responsibility. Parents, food companies, and entertainment companies all have a role to play. Entertainment companies have a responsibility for not only their program content, but also the messages they allow to be communicated through their media via advertising. They should not accept advertisements for products that can harm their young viewers’ health and well-being and should adopt policies to address the healthfulness of food and beverages advertised on their media platforms. Other recommendations include:

- 🍏 The CFBAI should further strengthen its updated Uniform Nutrition Criteria, especially for sugars and Nutrition Components to Encourage (e.g., fruits, vegetables, dairy, and whole grains). Until that happens, companies should update their individual pledges to strengthen those criteria;
- 🍏 The CFBAI should cover more children, expanding the program from covering advertising directed at children 11 and under to children 14 and under;

- 🍌 The CFBAI should cover all forms of marketing aimed at children, including brand advertisements, sponsorships, on-package and in-store marketing, marketing through toys and premiums, and all forms of marketing in elementary and secondary schools; and
- 🍌 Companies that advertise to children and do not currently participate in the CFBAI should join the program or adopt publicly available standards for food marketing to children that meet or exceed the CFBAI recommendations.

Entertainment companies have a responsibility for not only their program content, but also the messages they allow to be communicated through their media via advertising.

Introduction

Food and Beverage Marketing Undermines Children’s Health and Parental Authority

More than one-third of children in the United States are overweight or obese.²⁰ Children’s diets are often too high in calories, saturated fat, sodium, and added sugars and too low in fruits, vegetables, and whole grains.²¹ While a number of factors contribute to poor diets and childhood obesity, food and beverage marketing plays a key role.

In a comprehensive review, the National Academy of Medicine (NAM; previously called the Institute of Medicine) concluded that “food and beverage marketing practices geared to children and youth are out of balance with healthful diets and contribute to an environment that puts their health at risk.”²² That report and additional studies have shown that marketing affects children’s food and beverage choices, purchase requests, diets, and health.^{23,24,25,26} Children are uniquely vulnerable to food and beverage marketing; they are often unable to comprehend advertising’s persuasive intent and the long-term health consequences of their food choices. This is concerning, as the majority of foods and beverages advertised to children are of poor nutritional quality.^{27,28,29,30,31}

While a number of factors contribute to poor diets and childhood obesity, food and beverage marketing plays a key role.

Feeding children healthfully in a food and beverage marketing environment that promotes fast food, sweet and salty snacks, sugary cereals, candy, and sweet drinks is a challenge for parents. The most recent data available from the Federal Trade Commission found that in 2008, food and beverage companies spent \$1.8 billion on marketing to children 2-17 years old.³² A 2017 study found that children and teens view around 4,000 food and beverage advertisements on television alone each year, an average of ten advertisements per day.³³ In addition to television advertisements,

children are exposed to food and beverage marketing in schools, retail stores, restaurants, and movie theaters and through radio, print, websites, mobile devices, contests, events, and sponsorships. The ubiquitous, unavoidable chorus of food messaging shapes social norms, children's food preferences, and, ultimately, their health.³⁴

Children are uniquely vulnerable to food and beverage marketing; they are often unable to comprehend advertising's persuasive intent and the long-term health consequences of their food choices.

Many food and entertainment companies position marketing to children as a matter of parental responsibility, suggesting that parents should "just say no" to their children's requests for unhealthy items.³⁵ Yet, the intent of food and beverage marketing is to persuade. Food and beverage advertisements induce children to pester their parents to purchase marketed products. One food company reported that 75 percent of parents bought a food product for the first time because their child requested it.³⁶

Advertisements can undermine parents' ability to guide their children's food and beverage choices, as parents have to counter the sophisticated psychological research and marketing techniques used by food and beverage companies. Marketing aimed at children can strain parent-child relationships as they repeatedly put parents in a position of negotiating over food (in addition to debates about toys, movies, television shows, clothing, sneakers, electronics, and other marketed items).³⁷

The ubiquitous and unavoidable chorus of food messaging shapes social norms, children's food preferences, and, ultimately, their health.

Measures that Address Food and Beverage Marketing to Children

In 2006, industry formed the Children’s Food and Beverage Advertising Initiative (CFBAI), a self-regulatory program administered by the Council of Better Business Bureaus (BBB).³⁸ Participating food and beverage companies pledge to either forgo advertising to children 11 and younger (for the categories of advertising covered by the program) or to limit advertising to foods and beverages that meet the CFBAI Uniform Nutrition Criteria (see Appendix A).³⁹

In 2016, the BBB and the National Confectioners Association established a similar initiative for candy companies, the Children’s Confection Advertising Initiative (CCAI).⁴⁰ To date, 18 companies have agreed to address food advertising to children through the CFBAI (Figure 1), and 9 candy companies participate in CCAI.ⁱ

Figure 1: Companies Participating in the Children’s Food and Beverage Advertising Initiative



ⁱ CCAI participants include: Brown & Haley, Ferrara Candy Company, Ghiradelli Chocolate Company, Goetze’s Candy Company, Impact Confections, Jelly Belly Candy Company, Just Born Quality Confections, Promotion in Motion Companies, and R.M. Palmer Company.

The advertising approaches that companies participating in the CFBAI have agreed to address include television, radio, print, third-party and company-owned websites, mobile apps, games, video formats, and certain types of marketing in elementary schools.⁴¹ However, the CFBAI does not cover the full range of marketing approaches companies use to promote foods and beverages to children or that public health experts recommend be covered, such as on-package and in-store marketing, toys and other premiums, sponsorships, merchandising, and marketing in middle and high schools.⁴²

Since the CFBAI formed, companies have reformulated some foods and beverages to align with the CFBAI Uniform Nutrition Criteria. For example, while many child-targeted breakfast cereals used to contain upwards of 15 grams of sugars per serving, they now generally contain 10 grams or less.⁴³ Several studies, however, show that the vast majority of food and beverages advertised to children remain of poor nutritional quality—high in calories, saturated fat, sodium, or added sugars or low in fruits, vegetables, and whole grains.^{44,45,46,47}

Certain food and beverages that are generally recognized as unhealthy, such as sugary cereals and fruit-flavored snacks are considered healthy enough to advertise to children under current CFBAI Uniform Nutrition Criteria.⁴⁸ The CFBAI recently announced the implementation of updated Uniform Nutrition Criteria starting January 2020.⁴⁹

In addition to weaknesses in the type of media covered and the CFBAI Uniform Nutrition Criteria, some food, beverage, restaurant, and entertainment companies have failed to adopt comprehensive pledges to improve their marketing to children. Importantly, Nickelodeon, the Cartoon Network, and many other entertainment companies do not have comprehensive policies for which foods they advertise to children.⁵⁰ Cartoon Network has agreed to follow the CFBAI nutrition criteria for licensing of its characters, but not for its television advertising, websites, or other marketing.⁵¹

In contrast, the Walt Disney Company announced nutrition standards for the licensing of its characters in 2006.⁵² In 2015, Disney implemented stronger nutrition standards and expanded its policy to also apply to its child-directed television, radio, and website advertising.⁵³ PBS has agreed to only adopt sponsorship spots for products it considers to make a “meaningful contribution to a healthy diet.”⁵⁴

Nickelodeon, the Cartoon Network, and many other entertainment companies do not have comprehensive food and beverage advertisement policies. In contrast, the Walt Disney Company has a comprehensive policy and PBS has agreed to only adopt sponsorship spots for products it considers to make a “meaningful contribution to a healthy diet.”

The Center for Science in the Public Interest (CSPI) worked with Congress to include a provision in the Fiscal Year 2009 Omnibus Appropriations Act (H.R. 1105) to direct the Federal Trade Commission, Centers for Disease Control and Prevention, Food and Drug Administration (FDA), and the United States Department of Agriculture to form the Interagency Working Group (IWG) on Food Marketed to Children. Congress tasked the IWG with developing model, voluntary recommendations for food marketing to children.

The IWG proposed nutrition guidelines based on consensus nutrition recommendations including the Dietary Guidelines for Americans, the National Academy of Medicine’s Dietary Reference Intakes, and the FDA’s food labeling regulations.⁵⁵ Implementation of those guidelines would have significantly improved the nutritional quality of the foods marketed to children.⁵⁶ Industry lobbying and Congressional interference blocked the IWG from finalizing the model marketing-to-children guidelines.^{57,58}

Given the influence of food and beverage marketing on children's food preferences, diets, and health, as well as concerns about the adequacy of current self-regulatory approaches, we assessed whether television media companies are responsibly advertising foods and beverages to children. We evaluated food and beverage advertising during children's programming to provide a snapshot of the nutritional quality of advertised products across top channels and gauged how it has changed from 2012 to 2018.

Methods

Channel Selection

We evaluated food and beverage advertisements aired during broadcast and cable television programming for children 11 years and younger as identified by the channel and/or TV Guide. We assessed advertisements in 2012, one year before the CFBAI Uniform Nutrition Criteria went into effect, and again in 2018, five years after the nutrition criteria were implemented.

In 2012, we had access to 15 channels that aired children's programming: ABC, CBS, Cartoon Network, CW, Disney XD, Hub, NBC, Nickelodeon, Nick Jr, Nicktoons, PBS, Qubo, Sprout, Telemundo, and Univision. (Table 2). By 2018, several of those channels, including ABC, CBS, CW, NBC, and Telemundo, no longer aired children's programming. In 2018, we had access to 12 channels with children's programming aired on: Boomerang, Cartoon Network, Discovery Family (previously Hub), Disney, Disney Jr, Disney XD, Nickelodeon, Nick Jr, Nicktoons, PBS, Universal Kids (previously Sprout), and Univision.

Programming Selection

In October and November of 2012, we recorded six hours of children's programming in the Washington, D.C. metropolitan area on each channel listed above. We recorded three hours of programming after school, between the hours of 3:00 pm and 7:00 pm on a weekday, and three hours on a weekend morning, between the hours of 6:00 am and 12:00 pm. Because PBS and Sprout programming targeted preschool-aged children, for those channels, we recorded three hours of programming on a weekday morning, between 6:00 am and 11:00 am, instead of a weekday afternoon.

Table 2: Channels Assessed

2012	2018
ABC	Boomerang
CBS	Disney
CW	Disney Jr.
NBC	
Qubo	
Telemundo	
2012 and 2018	
Cartoon Network	
Disney XD	
Nickelodeon	
Nick Jr	
Nicktoons	
Discovery Family (previously Hub) ^a	
PBS	
Universal Kids (previously Sprout) ^b	
Univision	
^a In 2012, the Discovery Channel was named Hub	
^b In 2012, Universal Kids was named Sprout	

Similarly, during May and June of 2018, we recorded six hours of programming per channel in the Washington, D.C. metro region; three hours of weekday morning programming and three hours of weekend morning programming. We adjusted the time of day and/or day of the week of data collection for several channels due to schedule shifts in children’s programming since 2012. We recorded weekend morning hours for all channels except for PBS, because its children’s programming only aired on weekday mornings on our local PBS station in 2018. The 2018 sample included three hours of PBS programming on two weekday mornings. Univision only showed children’s programming for two hours on each weekend day; thus, we recorded two hours of programming on three weekend mornings to secure a six-hour sample. Although Qubo has adopted a policy not to air advertisements for unhealthy foods and beverages, we were unable to assess their advertising in 2018 as their channel was no longer carried on the cable service available in the D.C. metro area.

Analysis of Food and Beverage Advertisements

Food and beverage advertisements were viewed to note their duration, as well as the product advertised and its manufacturer. We also evaluated whether the advertisement promoted (1) a specific product or group of products or (2) a brand. Some advertisements promote a specific product, while others promote the whole company, a whole product line, or a brand within a company.⁵⁹ We categorized an advertisement as a “brand advertisement” if no specific products were shown in the advertisement or if the specific product was shown for less than 10 seconds in a 30-second advertisement and less than 5 seconds in a 15-second advertisement.



Advertisements for Kraft Heinz Lunchables, which failed to meet nutrition standards, aired frequently across several television channels.

We assessed whether all advertised foods and beverages met the industry’s own nutrition criteria: the current CFBAI Uniform Nutrition Criteria (see Appendix A).⁶⁰ If the food or beverage product exceeded any of the “Nutrients to Limit” (e.g., calories, saturated fat, sodium, or total sugars) or failed to meet the “Nutrition Components to Encourage” (e.g., fruits, vegetables, dairy, whole grains, or nutrient minimums), we categorized the product as not meeting the CFBAI standards and considered it an advertisement for an unhealthy food.

We also evaluated whether advertised products met the IWG's proposed nutrition standards (see Appendix B).⁶¹ For the positive nutritional quality of food and beverage products, we used IWG Option B, except in the case of whole grains. For whole grains, we used Option A, a more common approach, which required grain products to contain at least 50 percent whole grain or list whole grain as the first ingredient on food labels. Because the IWG guidelines did not include a calorie limit, we used the Food Marketing Workgroup (FMW) recommended calorie limits for children 2-11 years (≤ 150 calories for individual food or beverage items, ≤ 350 calories for main dishes, ≤ 500 calories per meal).⁶² If the food or beverage product exceeded saturated fat, added sugars, or sodium limits, exceeded the FMW calorie limits, or failed to meet the positive nutritional value requirements, we categorized it as an advertisement for an unhealthy food.

We collected nutrition information from company websites, LabelInsight.com, MenuStat.org, or, if unavailable online, from product packaging found in a local store in Washington, D.C. Some advertised foods and beverages already had updated Nutrition Facts labels that listed added sugars. However, others did not, as updated labels are not required for large manufacturers until January 2020.⁶³ For products that did not contain sources of naturally occurring sugars in the ingredient list, such as for many cereals and cookies, we used total sugars as a measure for added sugars. For products containing naturally occurring sugars, such as flavored yogurts and chocolate milk (that were not yet using the updated Nutrition Facts label), we estimated the amount of added sugars in products by subtracting the amount of naturally occurring sugars found in equivalently-sized plain yogurt or milk from the amount of total sugars. We used ingredient lists and product images to estimate per-serving amounts of fruits, vegetables, dairy, fish, meat, poultry, eggs, cooked dry beans, nuts, and seeds.

We determined if a brand advertisement failed the CFBAI or IWG standards by assessing all the products within the advertised brand. For example, for a Goldfish advertisement that showed animated characters but no specific Goldfish product, we assessed the nutritional quality of all Goldfish cracker varieties. For restaurant brand advertisements, we analyzed all products on

the restaurant's children's menu. A brand advertisement failed to meet the CFBAI (or IWG) standards if 50 percent or more of the products within the brand did not meet the standards. For Edible Arrangements, Megamart, and Hello Fresh, we were unable to assess the nutritional quality given the large variety of products. We did not include advertisements for those brands in the nutritional analyses.

If an advertisement featured more than one product or featured a single product in multiple flavors, such as an advertisement for multiple flavors of Fruit Roll-Ups, we assessed each product's nutrition information individually. If any of the featured products did not meet the CFBAI or IWG standards, then the advertisement was considered as advertising an unhealthy product. We did not include brand or multi-product advertisements when analyzing individual nutrients to avoid, which would have over-represented the advertised products in our results. For example, we did not count multi-product or brand advertisements when analyzing how many advertisements promoted foods high in saturated fat.

Grading System: For both 2012 and 2018, we graded each television channel based on the number of food and beverage advertisements that failed to meet the CFBAI Uniform Nutrition Criteria during the 6-hour window analyzed on each network, on the ground that this best reflected the viewer experience. Channels that had no advertisements that failed to meet the CFBAI Uniform Nutrition Criteria over the six-hour sample received an A. Channels with one to four failed advertisements received a B; five to nine a C; 10 to 19 a D; and 20 or more an F.

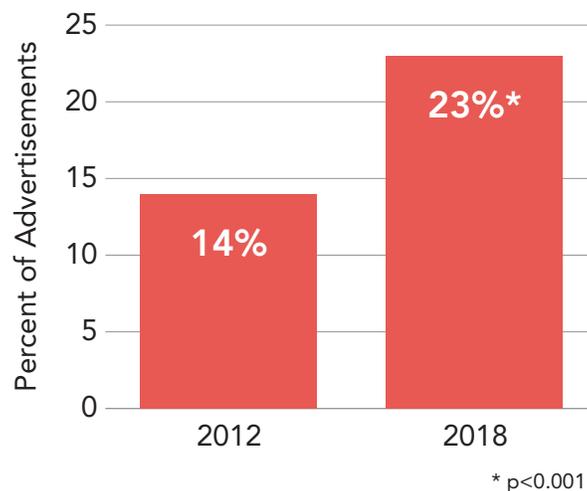
Statistical Analysis: We used Chi-squared tests to determine differences in the total percent of food and beverage advertisements between 2012 and 2018, as well as the percent of unhealthy food and beverage advertisements that failed to meet the CFBAI and IWG standards. The p-value for the statistical tests was set at 0.05.

Results

Food and Beverage Advertising During Children’s Programming Increased since 2012

During the 72 hours of programming surveyed across 12 channels in 2018, 23 percent (364 of the 1,561) of total advertisements were for foods and beverages (Figure 2). In 2012, during the 90 hours we surveyed across 15 channels, 14 percent (277 out of 1,906) of total advertisements were for foods and beverages. The increase in food and beverage advertisements between 2012 and 2018 was statistically significant ($p < 0.001$).

Figure 2: Percent of All Advertisements during Children’s Programming that Were for Food and Beverages



Across channels, the percent of food and beverage advertisements varied widely in both study periods, ranging from 0 percent on some channels to nearly 60 percent of all advertisements being for foods or beverages on other channels (Table 3). Sixty percent of all food and beverage advertisements were considered product advertisements in 2018 (61 percent) and 2012 (60 percent). The remaining advertisements were brand advertisements.

Table 3: Food and Beverage Advertisements During Children’s Programming

	Total Number of Advertisements	Food and Beverage Advertisements Analyzed n (%)	Food and Beverage Advertisements that Failed IWG Standards n (%)	Food and Beverage Advertisements that Failed CFBAI Standards n (%)	Report Card Grade
2012					
Nick Jr.	28	0 (0%)	0 (0%)	0 (0%)	A
Qubo	48	0 (0%)	0 (0%)	0 (0%)	A
Universal Kids (previously Sprout)	95	0 (0%)	0 (0%)	0 (0%)	A
CW	157	11 (7%)	11 (100%)	3 (27%)	B
PBS	33	6 (18%)	6 (100%)	6 (100%)	C
Telemundo	126	6 (5%)	6 (100%)	6 (100%)	C
Cartoon Network	183	17 (9%)	15 (88%)	7 (41%)	C
Disney XD	176	16 (9%)	14 (88%)	7 (44%)	C
NBC	134	7 (5%)	7 (100%)	7 (100%)	C
CBS	151	8 (5%)	8 (100%)	8 (100%)	C
Nickelodeon	181	17 (9%)	17 (100%)	12 (71%)	D
Discovery Family (previously Hub)	169	32 (19%)	32 (100%)	14 (44%)	D
Univision	67	19 (28%)	19 (100%)	18 (95%)	D
Nicktoons	166	30 (18%)	30 (100%)	20 (67%)	F
ABC	192	108 (56%)	100 (93%)	80 (74%)	F
Total	1906	277 (14%)	265 (96%)	188 (68%); Ave=13	D
2018					
PBS	61	0 (0%)	0 (0%)	0 (0%)	A
Univision	23	0 (0%)	0 (0%)	0 (0%)	A
Disney	63	1 (1.5%)	1 (100%)	1 (100%)	B
Disney Jr.	16	1 (6%)	1 (100%)	1 (100%)	B
Disney XD	156	27 (17%)	27 (100%)	4 (15%)	B
Nick Jr.	98	4 (4%)	4 (100%)	4 (100%)	B
Universal Kids (previously Sprout)	122	10 (8%)	10 (100%)	10 (100%)	D
Boomerang	150	17 (11%)	16 (94%)	12 (71%)	D
Cartoon Network	188	46 (24%)	46 (100%)	26 (57%)	F
Discovery Family (previously Hub)	169	49 (29%)	49 (100%)	36 (73%)	F
Nickelodeon	281	95 (33%)	94 (99%)	69 (73%)	F
Nicktoons	234	114 (49%)	114 (100%)	73 (64%)	F
Total	1561	364 (23%)	362 (99%)^a	236 (65%)^b; Ave=20	F
^a Compared to 2012; p=0.95					
^b Compared to 2012; p=0.50					

In 2018, 23 percent of all advertisements aired during children’s programming were for foods or beverages, up from 14 percent in 2012.

The Top Food and Beverage Categories Advertised to Children Shifted from 2012 to 2018

In 2018, 35 percent of all food advertisements during children’s programming were for restaurants, such as Chuck E. Cheese’s, Olive Garden, and Chili’s, and another 22 percent were for candy, such as Baby Bottle Pops, Juicy Drop Gummies, Jumbo Push Pops, and AirHeads (Table 4). Compared to 2012, there were significantly more candy and restaurant commercials in 2018. Twelve percent of food and beverage advertisements in 2018 were for sugary cereals, such as Chocolate Frosted Flakes, Froot Loops, and Pebbles Cereals; 10 percent were for beverages such as Capri Sun and Kool-Aid Jammers, and 6 percent were for snack foods. Compared to 2012, advertisements for snack foods decreased by about half in 2018 ($p=0.009$). In 2012, the top food and beverage categories marketed were restaurant foods (24 percent), followed by breakfast cereal (13 percent), snack foods (12 percent), and candy (10 percent). No beverage advertisements were observed in 2012. There are additional smaller categories not listed.

Table 4: Comparison of Top Food Categories Advertised to Children

2012 (n=277)		2018 (n=364)		p-value
Restaurants	24%	Restaurants	35%	0.003
Candy	10%	Candy	22%	0.0001
Breakfast Cereal	13%	Breakfast Cereal	12%	0.752
Beverages	0	Beverages	10%	--
Snack Foods	12%	Snack Foods	6%	0.009

The top food and beverage categories advertised during children’s programming in 2018 were candy, restaurants, beverages, breakfast cereals, and snack foods.

Unhealthy Food and Beverage Advertising to Children Has Increased

Unhealthy food and beverage advertising during children’s programming increased between 2012 and 2018. In 2018, the average number of advertisements that failed to meet the CFBAI Uniform Nutrition Criteria per channel was 20 during our six-hour sample, compared to 13 in 2012 (Table 3).

In 2018, 65 percent of food and beverage advertisements during children’s television programming failed to meet the CFBAI Uniform Nutrition Criteria (Table 3) and nearly all (99 percent) failed the IWG standards. That was not significantly different than 2012, when 68 percent of food and beverage advertisements failed to meet the CFBAI standards ($P = 0.5$) and 96 percent did not meet the IWG standards ($P = 0.95$).

Of the food and beverage advertisements that failed to meet the IWG standards in 2018, 52 percent were from CFBAI-participating companies. The remaining failing advertisements were from non-CFBAI companies, such as Chuck E. Cheese’s, Dairy Queen, Chili’s Grill & Bar, Olive Garden, and Topps Candy.

Of the food and beverage advertisements that failed to meet the IWG standards in 2018, 52 percent were from CFBAI-participating

companies. The remaining failing advertisements were from non-CFBAI companies, such as Chuck E. Cheese’s, Dairy Queen, Chili’s Grill & Bar, Olive Garden, and Topps Candy. In 2012, 82 percent of the advertisements that failed to meet the IWG standards were placed by CFBAI-participating companies.

In 2018, the most common reasons that food and beverage advertisements failed to meet the CFBAI Uniform Nutrition Criteria were that the products were too high in total sugars (33 percent) or did not contain Nutrition Components to Encourage (52 percent) (Table 5). In comparison, in 2012, foods and beverages were typically too high in sugars (33 percent) and saturated fat (33 percent) or did not meet Nutrition Components to Encourage (54 percent). The percent of advertisements that failed to meet either the CFBAI or IWG sodium and saturated fat standards decreased in 2018 (Table 5). However, a greater percentage of advertisements failed to meet the IWG sugars standards in 2018 than in 2012. In 2018, 97 percent of food and beverage advertisements failed to meet the IWG positive nutritional value criteria compared to 76 percent in 2012.

Table 5: Food and Beverage Product Advertisements^a Failing to Meet Nutrition Standards

	IWG		CFBAI	
	2012	2018	2012	2018
Calories	22%	9%	11%	9%
Saturated Fat	63%	21%	33%	15%
Sodium	24%	16%	16%	2%
Sugars	50%	73%	33%	33%
NCTE ^b /PNV ^c	76%	97%	54%	52%

^a For 2012, the denominator was 172 product advertisements and in 2018, the denominator was 224 (this analysis does not include brand advertisements)

^b Nutrition Components to Encourage

^c Positive Nutritional Value

Some Channels Advertise More Unhealthy Food and Beverages to Children than Others

In 2018, two channels, PBS and Univision, received A grades, airing no food and beverage advertisements (Table 3). The Disney channels (Disney, Disney Jr., and Disney XD) and Nick Jr. received



Candies, such as Ring-Pops, Baby Bottle Pops, and Jumbo Push Pops made up 22 percent of food and beverage advertisements in 2018.

Bs. Half the channels earned Ds or Fs. The stations with the highest number of unhealthy advertisements in 2018 were Nicktoons and Nickelodeon, followed by Discovery Family and Cartoon Network.

Between 2012 and 2018, PBS and Univision were the most improved channels, moving from earlier grades of C or D, respectively, to As. While Cartoon Network, Discovery Family (previously Hub), Nick Jr., Nickelodeon, and Universal Kids (previously Sprout) went in the opposite direction, airing more unhealthy food and beverage advertisements in 2018 compared to 2012.

Public Service Advertising

Across all assessed children's programming, nutrition and physical activity public service announcements (PSAs) represented only 1 percent of food and beverage advertisements in 2018, compared to 26 percent in 2012. In 2018, a total of 4 nutrition or physical activity PSAs were aired; 0.2 percent of all advertisements on the Discovery Channel, 2 percent of total advertisements on Cartoon Network, and 1.8 percent on Nicktoons were nutrition or physical activity PSAs. In 2012, a total of 76 PSAs were aired over all channels: 28 percent of Telemundo's, 15 percent of NBC's, 9 percent of PBS's, 8 percent of Sprout's (now Universal Kids), and 7 percent of Nick Jr.'s total advertisements were nutrition or physical activity PSAs.

Conclusions

Overall, food and beverage advertisements during children’s television programming get an F in 2018; two-thirds are unhealthy according to the food industry’s own CFBAI standards. Virtually all are unhealthy according to the more science-based, expert IWG standards. However, children’s exposure to unhealthy food and beverage advertisements varies considerably depending on the channel. We observed few to no advertisements for unhealthy food and beverages during children’s programming on PBS, Univision, Disney, Disney Jr., and Disney XD. In contrast, children were exposed to over 10 unhealthy advertisements an hour on Nickelodeon and Nicktoons.

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Despite implementation of the CFBAI Uniform Nutrition Criteria between our 2012 and 2018 analyses, the number of food and beverage advertisements that failed to meet the CFBAI Uniform Nutrition Criteria increased by over 50 percent—from an average of 13 to 20 per six hour sample. The percentage of food and beverage advertisements for unhealthy products was relatively unchanged. Using the stronger IWG standards reveals that foods and beverages advertised to children improved for calories, saturated fat, and sodium over the last six years. However, over the same time period, more sugary foods and beverages were advertised to children, and a higher percentage of advertised products failed to provide a positive nutritional benefit, such as containing a meaningful amount of fruits, vegetables, or whole grains.

The CFBAI Uniform Nutrition Criteria are weak for both sugars and Nutrition Components to Encourage. A majority of the cereals advertised contained 9 or 10 grams of sugars per labeled serving. Ten

grams of sugar is nearly half of the American Heart Association's recommended daily maximum for children 2-18 years.⁶⁴

Additionally, products can meet CFBAI's Nutrition Components to Encourage standards by adding 10 percent of the Daily Value of a range of nutrients to a product. These nutrients can include a nutrient of public health concern, such as calcium, fiber, potassium, or vitamin D, or a nutrient required on the current Nutrition Facts panel, such as iron and vitamins A and C. For example, to qualify as "nutritious," companies could fortify refined flour crackers by

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adding vitamin D, rather than making the crackers whole grain. The IWG standards, in contrast, specify that marketed products contain actual fruits, vegetables, whole grains, or other key food groups.

The CFBAI announced updated Uniform Nutrition Criteria in September of 2018, after the present study data analysis was complete.⁶⁵ The updated criteria include modest reductions to the criteria for sodium and added sugars. The CFBAI failed to heed experts' advice to strengthen its Nutrition Components to Encourage; experts encouraged the CFBAI to ensure that all foods marketed to children provide meaningful positive nutrition value through food-based criteria (for example, provide fruits, vegetables, or whole grains), and not through fortification.

We conducted some additional analyses to determine whether 2018 product advertisements that met the current CFBAI nutrition criteria would also meet the updated criteria. There were eight food and beverage products advertised in 2018 that met the current CFBAI criteria: six were for children's cereal, one was for yogurt, and one for a flavored beverage (i.e., Kool-Aid Jammers). Cereals

that met the current CFBAI criteria, such as Cinnamon Toast Crunch, Lucky Charms, Froot Loops, Honeycombs, Frosted Flakes, and Pebbles, also meet CFBAI's updated criteria. However, the yogurt and flavored beverage items would not meet the updated criteria for added sugars and Nutrition Components to Encourage, respectively. Future research is needed to determine the full impact of the updated CFBAI Uniform Nutrition Criteria on food and beverage advertisements to children.

Finally, the CFBAI standards do not adequately address brand advertisements that promote the company overall or product lines. For example, a 2018 Lunchables advertisement was aired frequently across several television channels. When we assessed the nutritional quality of the entire line of Lunchables, we found that more than 50 percent of the products exceeded the CFBAI and IWG sodium standards. Additionally, Chuck E. Cheese's brand advertisements aired more than 60 times across six channels in our 2018 sample. The advertisements showed children enjoying a birthday party, playing games, and winning game tickets. More than half of the items on the Chuck E. Cheese's menu exceeded the calorie, saturated fat, or sodium criteria for both the CFBAI and IWG standards.



Brand advertisements promote an overall company or product line, such as this brand ad from Chuck E. Cheese's. More than half of the items on the Chuck E. Cheese's menu exceeded calorie, saturated fat, or sodium standards.

The Future of Food and Beverage Advertising to Children

Television viewership has steadily declined over the last decade as adults and children have shifted more of their viewing from traditional television to streaming platforms such as Netflix, Hulu, and YouTube.⁶⁶ Assessing advertising on streaming platforms is challenging given the microtargeting of advertisements based on viewers' personal data and streaming history, therefore, we did not assess streaming networks. Some streaming platforms such as Netflix do not have advertisements and, in the present study, would receive an A grade. Others like YouTube Kids and Hulu include advertisements. One study found that nearly 40 percent of advertisements on YouTube are for food and beverages, 56 percent of which are for unhealthy items.⁶⁷ More studies are needed to assess the nutritional quality of food and beverage advertisements on streaming media platforms.

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Recommendations

Feeding children healthfully is a shared responsibility. Parents, food companies, and entertainment companies all have a role to play. Disney has taken welcome steps in adopting comprehensive policies for marketing foods and beverages to children. These steps not only impact the nutritional quality of foods and beverages advertised on their channels, but also affect the nutritional quality of products offered by restaurants and manufacturers. For example, it appears that McDonald's may have strengthened its nutrition commitment for Happy Meals in order to be able to use Disney characters in its marketing.⁶⁸

Disney has taken welcome steps in adopting comprehensive policies for marketing foods and beverages to children. These steps not only impact the nutritional quality of foods and beverages advertised on their channels, but also affect the nutritional quality of products offered by restaurants and manufacturers.

Entertainment companies have a responsibility for not only their program content, but also the messages they allow to be communicated through their media via advertising. They should not accept advertisements for products that can harm their young viewers' health and well-being and should adopt policies to address the healthfulness of food and beverages advertised on their media platforms. Other recommendations include:

- ✔ The CFBAI should further strengthen its updated Uniform Nutrition Criteria, especially for sugars and Nutrition Components to Encourage. Until that happens, companies should update their individual pledges to strengthen those criteria;
- ✔ The CFBAI should cover more children, expanding the program from covering children 11 and under to those 14 and under;

- 🍏 The CFBAI should cover all forms of marketing aimed at children, including brand advertisements, sponsorships, on-package and in-store marketing, marketing through toys and premiums, and all forms of marketing in elementary and secondary schools; and
- 🍏 Companies that advertise to children and do not currently participate in the CFBAI should join the program or adopt publicly available standards for food marketing to children that meet or exceed the CFBAI recommendations.

Appendix A

July 2011



Children's Food and Beverage Advertising Initiative
Council of Better Business Bureaus, Inc.
Category-Specific Uniform Nutrition Criteria

Product Category	Unit	Nutrients to Limit (NTL)				Nutrition Components to Encourage (NCTE)	Notes
		Calories	Sat Fat	Sodium	Total Sugars		
1. Juices	LSS	≤ 160	0 g	≤ 140 mg	No added sugars	≥ ½ c F/V juices	<ul style="list-style-type: none"> A serving must contain ≥ 4 fl oz of 100% F/V juice Sugars limited to those naturally occurring in F/V
2. Dairy products							
– Milks and milk substitutes	8 fl oz	≤ 150	≤ 2 g	≤ 200 mg	≤ 24 g	1 c dairy	<ul style="list-style-type: none"> For LSS < 8 fl oz, NTL & NCTE to be scaled proportionately Powder/syrup flavorings mixed with 8 fl oz non-fat milk are allowed ≤ 25 g total sugars as prepared
– Yogurts and yogurt-type products	6 oz	≤ 170	≤ 2 g	≤ 140 mg	≤ 23 g	≥ ½ c dairy and ≥ 10% DV calcium	<ul style="list-style-type: none"> 6 oz (170 g) is most common single serving size For LSS < 6 oz, NTL & NCTE to be proportionately lower
– Dairy-based desserts	½ c	≤ 120	≤ 2 g	≤ 110 mg	≤ 20 g	≥ ¼ c dairy and ≥ 10% DV calcium	<ul style="list-style-type: none"> Serving sizes limited to ½ c For LSS < ½ c, NTL & NCTE to be scaled proportionately
– Cheese and cheese products	LSS	≤ 80	≤ 3 g	≤ 290 mg	≤ 2 g	≥ ½ c dairy equivalent (provides ≥ 10% DV calcium)	<ul style="list-style-type: none"> For LSS < 1 oz, NCTE to be scaled to ≥ ⅓ c dairy equivalent and ≥ 10% DV calcium
3. Grain, fruit and vegetable products, and items not in other categories	LSS	≤ 150	≤ 1.5 g	≤ 290 mg	≤ 10 g	≥ ½ serving of F/V/D/WG or ≥ 10% DV of any essential nutrient	<ul style="list-style-type: none"> Subcategories differentiate, on a calorie basis, among products that have a small RACC (i.e., ≤ 30 g or ≤ 2 tbsp) and/or are lighter in density (e.g., g/cup) from those with a larger RACC and/or higher density Examples of ≤ 150 calorie products: most children's breakfast cereals, crackers, & pretzels Examples of > 150-200 calorie products: denser breakfast cereals (e.g., shredded wheat), waffles, & vegetable products with sauces
	LSS	> 150-200	≤ 2 g	≤ 360 mg	≤ 12 g		
4. Soups and meal sauces	LSS	≤ 200	≤ 2 g	≤ 480 mg	≤ 6 g	≥ ½ serving of F/V/D/WG or ≥ 10% DV of any essential nutrient	<ul style="list-style-type: none"> Tomato-based products allowed ≤ 12 g of total sugars/LSS to include sugars naturally occurring in tomatoes & those added to balance product pH
5. Seeds, nuts, and nut butters and spreads	1 oz or 2 tbsp	≤ 220	≤ 3.5 g	≤ 240 mg	≤ 4 g	≥ 1 oz protein equivalent	<ul style="list-style-type: none"> For LSS < 1 oz or 2 tbsp, NTL & NCTE to be scaled proportionately
6. Meat, fish, and poultry products	LSS	≤ 120	≤ 2 g	≤ 480 mg	≤ 2 g	≥ 1 oz equivalent of meat, fish, or poultry, and ≥ 10% DV of any essential nutrient	<ul style="list-style-type: none"> For LSS ≤ 1 oz, NTL reduced to ≤ 60 kcal, ≤ 1 g sat fat, ≤ 240 mg sodium and ≤ 1 g total sugars
7. Mixed dishes	LSS	≤ 280	≤ 2.5 g	≤ 540 mg	≤ 10 g	≥ ½ serving of F/V/D/WG or ≥ 10% DV of <i>two</i> essential nutrients	<ul style="list-style-type: none"> Products include casseroles, burritos, pizzas, & sandwiches that do not meet FDA/USDA definition for <i>main dishes</i> Items that contain ≤ 200 kcal and meet NTL criteria may qualify if they contain ≥ ½ serving of F/V/D/WG or ≥ 10% DV of any essential nutrient

Product Category	Unit	Nutrients to Limit (NTL)				Nutrition Components to Encourage (NCTE)	Notes
		Calories	Sat Fat	Sodium	Total Sugars		
8. Main dishes and entrées	LSS	≤ 350	≤ 10% kcal	≤ 600 mg	≤ 15 g	≥ 1 serving of F/V/D/WG or ≥ ½ serving of F/V/D/WG and ≥ 10% DV of two essential nutrients	– Items must meet FDA/USDA definition for <i>main dishes</i>
9. Small meals	LSS	≤ 450	≤ 10% kcal	≤ 600 mg	≤ 17/12 g (See notes)	≥ 1½ servings of F/V/D/WG or ≥ 1 serving of F/V/D/WG and ≥ 10% DV of three essential nutrients	– Small meals contain multiple items but do not meet FDA/USDA definition for <i>meals</i> – Meals must meet FDA/USDA definition for <i>meals</i> – Sugars from <u>one</u> qualifying milk/milk substitute, <u>or</u> qualifying yogurt/yogurt-type product, <u>or</u> qualifying fruit (i.e., without added sugars) <u>or</u> qualifying F/V juice are not counted in the 17 g or 20 g total sugars limits
10. Meals (entrée and other items including a beverage)	Meal	≤ 600	≤ 10% kcal	≤ 740 mg	≤ 20/15 g (See notes)	≥ 2 servings of F/V/D/WG or ≥ 1½ servings of F/V/D/WG and ≥ 10% DV of three essential nutrients	– When <u>two</u> qualifying items are present, the sugars from both items are not counted in the total sugars limit, but the limits (to account for all other items) are reduced to 12 g (small meals) and 15 g (meals) – All other NTL criteria for small meals and meals (calorie, sat fat, and sodium limits) must be met

Trans fat. The criteria for *trans* fat is 0 g labeled for all categories. For foods in the meat and dairy categories served as individual foods or as part of composite dishes or meals (e.g., soups, mixed dishes, entrees, meal-type products), naturally occurring *trans* fats are excluded.

Exemptions

- Sugar-free mints and gum.
- The following products also are exempt from the nutrient criteria specified above, except as indicated in notes to Categories 9 & 10:
 - Fruit products without added sugars;
 - Vegetable products without added fats and which meet FDA regulations for “very low sodium;”
 - Beverages, including bottled waters, that meet FDA regulations for “low calorie” and “very low sodium” (diet sodas are excluded from this exemption).

Abbreviations and Glossary

DV: Daily Value.

Essential Nutrients: Those occurring naturally in foods (or that are added to foods to meet standards of identity or to restore nutrients lost in processing), and for which a DV has been established. If fortification is used to meet the criteria, the nutrient must be a DGA 2010 nutrient of concern (calcium, fiber, potassium, vitamin D) or a nutrient that is required to be listed on the Nutrition Facts Panel (iron, vitamins A & C).

F/V/D/WG: Any combination of fruits, vegetables, non/low-fat dairy, and/or whole grains.

LSS: Labeled serving size.

NA: Not applicable.

NCTE: Nutrient components to encourage are F/V/D/WG or Essential Nutrients.

NTL: Nutrients to limit are calories, saturated (sat) fat, *trans* fat, sodium and total sugars.

Qualifying F/V Juice: Any fruit or vegetable juice or blend that contains no added sugars and meets the requirements of Category 1.

Qualifying Flavored Milk/Milk Substitute/Yogurt/Yogurt-type Product: These are products that meet the Category 2 criteria for milk/milk substitutes, or yogurt/yogurt-type products.

RACC: Reference amount customarily consumed.

Serving(s): See USDA Food Group Serving Equivalents.

Total Sugars: Include naturally occurring and added sugars.

Appendix B

Interagency Working Group on Food Marketed to Children Nutrition Standards ⁷⁰	
Calories*	<ul style="list-style-type: none"> • ≤ 150 calories per serving for individual food and beverage items • ≤ 350 calories per serving for main dishes • ≤ 500 calories per meal
Saturated Fat	• ≤ 1 g per RACC [#] and 15% or less of calories for individual foods (per 100 g and less than 10% of calories for main dishes and meals)
Trans Fat	• 0 g per RACC [#] for individual foods (per labeled serving for main dishes and meals)
Added Sugars	• ≤ 13 g of added sugars per RACC [#] for individual foods (per serving for main dishes and meals)
Sodium	<ul style="list-style-type: none"> • ≤ 210 mg per serving for individual foods • ≤ 450 mg per serving for main dishes and meals
Positive Nutrition**	<p>• Individual foods should contain one of the following, or a proportionate combination of more than one of the following per RACC;## main dishes and meals should contain one or more of the following, or proportionate combination, per 100 g, with main dishes fulfilling at least two of the following and meals fulfilling at least three of the following:</p> <ul style="list-style-type: none"> o 0.5 cups fruit or fruit juice o 0.6 cups vegetables or vegetable juice o 50% by weight of whole grains or whole grain as the first ingredient o 0.75 cups fat-free or low-fat (1%) milk or yogurt; 1 oz fat-free or low-fat (1%) natural cheese; 1.5 oz fat-free or low-fat (1%) processed cheese o 1.4 oz fish, extra lean meat, or poultry o 0.3 cups of cooked dry beans o 0.7 oz nuts or seeds o 1 egg or egg equivalent
<p>* Calorie limits from the Food Marketing Workgroup⁷¹</p> <p>** Option B, except for whole grains which is Option A</p> <p># RACC is the Reference Amount Customarily Consumed, the basis for serving sizes for Nutrition Facts labels. For individual foods, if the amount of the specific food group exceeds the RACC, the RACC can be substituted as the amount necessary to make a meaningful contribution to a healthful diet.</p> <p>## For foods with a small RACC (30 grams or less), the recommendations refer to the amount per 50 grams of food.</p>	

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