The following analysis of the nutrition and marketing of children's drinks examines products and sales by category, nutrition and ingredient information, marketing messages on product packages, and advertising spending and children's exposure to TV advertising. Categories include sweetened drinks (fruit drinks, flavored waters, and drink mixes) and drinks without added sweeteners (100% juices, juice/water blends, and plain/sparkling waters).

THE CHILDREN'S DRINK MARKET

Product terms	Definition							
Company	The company listed on the product package or that owns the official website for the product.							
Brand	The main marketing unit for the drink (e.g., Capri Sun, Minute Maid).							
Sub-brand	A subset of products within a brand, including variations of brand names (e.g., Capri Sun Juice Drink, Capri Sun Roarin' Waters, Capri Sun Organic) and/or products that differ by product category and/or nutrition content (e.g., Apple & Eve On the Go fruit drinks, Apple & Eve On the Go 100% juice).							
Product	Each combination of flavor, package type, and package size for each sub-brand.							
Aseptic juices	Juice and juice drinks that come in single-serving packages (e.g., juice boxes, pouches) and do not require refrigeration (a category in the sales data). Products include both sweetened drinks (primarily fruit drinks) and drinks without added sweeteners (100% juice and juice/water blends).							
Shelf-stable bottled juices	Juice and juice drinks that come in bottles and do not require refrigeration (a category in the sales data). These products include both sweetened drinks (primarily fruit drinks) and drinks without added sweeteners (100% juice and juice/water blends).							

In 2018, 23 drink brands had \$10 million or more in sales and offered children's products. These brands offered 67 children's drink sub-brands. The majority of children's sub-brands were in the fruit drink (22 sub-brands) and 100% juice (18 sub-brands) categories. Juice/water blends represented the second largest category of children's drinks without added sweeteners (14 sub-brands). The sweetened drink categories also included 6 children's flavored water sub-brands and 6 drink mixes. Only one brand offered a children's sparkling water product (Polar Seltzer Jr). There were no plain water, sports drink, or iced tea products marketed for children.

Ten brands in our analysis offered only sweetened children's drinks (see **Table 1**), and eight brands only offered children's drinks without added sweeteners (see **Table 2**).

Five brands offered both sweetened children's drinks and children's drinks without added sweeteners (see **Table 3**). Apple & Eve and Capri Sun offered children's drinks in the most categories, including sweetened fruit drink and flavored water sub-brands, as well as 100% juice and juice/water blend sub-brands.

The 23 children's drink brands in our analysis were offered by 14 companies. Coca-Cola had four children's drink brands

(Hi-C, Minute Maid, Honest Kids, and Tum E Yummies) and Harvest Hill Beverages had three (Little Hug, Juicy Juice, and Sunny D). Dr Pepper Snapple Group (Mott's and Hawaiian Punch) and Kraft Heinz (Capri Sun and Kool-Aid) each offered two children's brands.

Sales of fruit drinks, juice and water

In 2018, the brands included in our analysis sold 678 different children's drink products (i.e., flavor, package, size combinations). Approximately one-half of products sold were fruit drinks (n=343, 51%), followed by 100% juice (n=193, 29%) and juice/water blends (n=98, 14%). Flavored water represented 6% of children's drink products sold (n=41), and just 3 children's sparkling water products were sold in 2018 (<0.01%). **Appendix Table 1** presents total sales and number of brands and products by category and sub-category.

In total, sales of all fruit juice, fruit drink, and water products (including children's drinks and all other products in these categories) reached \$23 billion in 2018. Sweetened fruit drinks and flavored waters contributed 28% of total sales (\$6.5 billion), and juice products without added sweeteners

i. Although Capri Sun Sport includes "Sport" in its name, the product label used the term "flavored water beverage," and it was listed in the "water" category in the Nielsen data, so we categorized it as a flavored water.

Table 1. Children's drink brands that offered only sweetened drinks

Brand (Company)	Fruit drinks	Flavored waters	Drink mixes
Bug Juice (Bug Juice)	Bug Juice (n=12)		
Fruit Rush (Dean Foods)	Fruit Rush (n=4)		
Hawaiian Punch (Dr Pepper Snapple Group)	Hawaiian Punch (n=12), Hawaiian Punch Light (n=1)		Singles to Go (n=3)
Hi-C (Coca-Cola)	Hi-C (n=10)		
Kool-Aid (Kraft Heinz)	Bursts (n=5), Jammers (n=11), Multiserve (n=5), Sour Jammers (n=3), Sparklers (n=4), Zero Sugar Jammers (n=3)		Canisters (n=12), Liquid (n=7), On the Go (n=3), Packets (n=21), Singles (n=4)
Little Hug (Harvest Hill Beverage Company)	Big Hug (n=6), Fruit Barrels (n=16)		
Mondo Squeezers (Jel Sert Company)	Mondo Squeezers (n=8)		
Robinson's Fruit Shoot (Britvic)	Made with Real Sugar (n=4), No Sugar Added (n=3)	Hydro (n=2), Hydro Sparkling (n=2)	
Sunny D (Harvest Hill Beverage Company)	Sunny D (n=11)		
Tum E Yummies (Coca-Cola)		Tum E Yummies (n=5)	

n=# of flavors

Source: Product analysis (August, 2019)

Table 2. Children's drink brands that offered only drinks without added sweeteners

Brand (Company)	100% juices	Juice/water blends	Sparkling waters
Honest Kids (Coca-Cola)		Honest Kids (n=6)	
Juicy Juice (Harvest Hill Beverage Company)	100% Juice (n=15), Organics (n=2)	Fruitifuls Organic (n=4), Splashers Organic (n=3)	
Langers (Langer Juice Company)	Disney (n=4)		
Old Orchard (Lassonde Industries)		Kids (n=3)	
Polar (Polar Corp)			Seltzer Jr. (n=6)
R.W. Knudsen (R.W. Knudsen Family)	Juice Boxes (n=4)	Sensible Sippers (n=3)	
Tree Top (Tree Top)	100% Juice (n=7), Organic (n=1)		
Tropicana (PepsiCo)	Pure Premium Healthy Kids Orange Juice (n=1)	Tropicana Kids (n=4)	

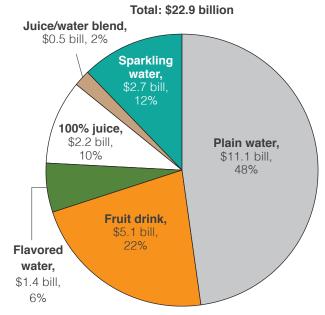
Source: Product analysis (August, 2019)

Table 3. Children's drink brands with both sweetened drinks and drinks without added sweeteners

	Sweetened d	rinks	Drinks without adde	ed sweeteners
Brand (Company)	Fruit drink	Flavored water	100% juice	Juice/water blend
Apple & Eve (Lassonde Industries)	On the Go (n=6)	Water Fruits (n=3)	On the Go (n=4), Sesame Street (n=8), Sesame Street Organics (n=2)	Fruitables (n=7), Organic Quenchers (n=3), Sesame Street Fruitables (n=2)
Capri Sun (Kraft Heinz)	Juice Drink (n=14)	Roarin' Waters (n=6), Sport (n=4)	100% Juice (n=5)	Fruit & Veggie Blends (n=3), Organic (n=5), Refreshers (n=4)
Good 2 Grow (In Zone Brands)	Organic 75% Less Sugar (n=2)		Fruit Juice (n=2)	Fruit & Veggie Blends (n=2)
Minute Maid (Coca-Cola)	Lemonade (n=1)		100% Juice (n=4), Kids+Orange Juice (n=1), Premium Original Orange Juice (n=1)	
Mott's (Dr Pepper Snapple Group)	Juice Drink (n=1)		100% Juice (n=4), Natural 100% Juice (n=1), Sensibles (n=4)	Mott's for Tots (n=1)

Source: Product analysis (August, 2019)

Figure 1. Total sales* by drink category in 2018

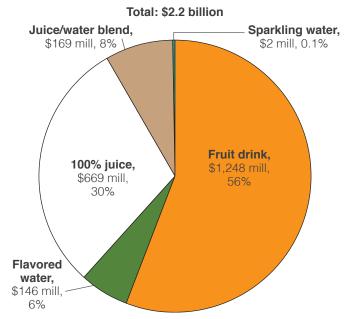


*Includes all products in IRI's aseptic juice, bottled juice, and water categories

Source: Analysis of 2018 IRI sales data

(i.e., 100% juice and juice/water blends) contributed 12% (\$2.7 billion) (see **Figure 1**). However, unsweetened plain and sparkling waters represented the majority of sales, totaling \$13.8 billion in 2018, with plain bottled water representing more than two-thirds of unsweetened water sales (\$9.8 billion).

Figure 2. Total children's drink* sales by category in 2018

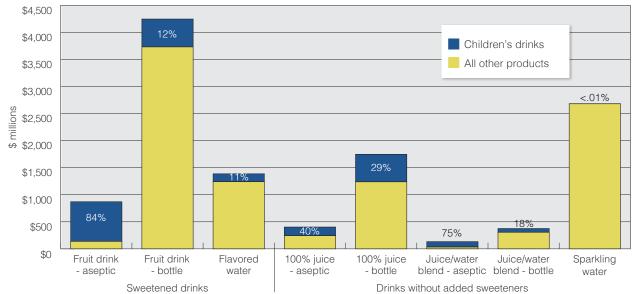


*Includes children's drink products in IRI's aseptic juice, bottled juice, and water categories

Source: Analysis of 2018 IRI sales data

Sales of the children's drink brands in our analysis totaled \$2.2 billion in 2018, approximately 10% of total sales for the same categories (see **Figure 2**). However, the distribution of children's drink sales by product category was significantly different from the distribution of total sales. Fruit drinks was the largest children's drink category, representing more than one-

Figure 3. Children's drink proportion of total sales by category



Source: Analysis of 2018 IRI sales data

half of all children's drink sales (\$1.2 billion), followed by 100% juice (30% of sales, \$0.7 billion). Sales of children's flavored water and juice/water blends each represented less than 10% of children's drinks sales, while sales of the one children's sparkling water brand in our analysis was less than \$2 million. Overall, sweetened drinks represented approximately two-thirds of children's drink sales (\$1.4 billion). Sales of children's drinks without added sweeteners was \$839 million.

Children's drinks as a proportion of total sales varied widely by category, ranging from 34% of total juice/water blend and 30% of 100% juice sales, to 24% of fruit drink and 10% of flavored water sales, in the sweetened drink categories. Children's drinks represented the majority of sales of aseptic packages (i.e., boxes and pouches, including 84% of fruit drink and 75% of juice/water blend sales) (see **Figure 3**). The one unsweetened children's water brand in our analysis represented just 0.1% of all sparkling water sales. As noted earlier, we did not find any plain water brands that marketed products for children on their websites.

CHILDREN'S DRINK NUTRITION

Nutrition terms	Definition
Single-serving package	Bottles, pouches, boxes, and cans up to 16 ounces. Nutrition information for these products is reported for the entire package.
Multi-serving package	Bottles, canisters, and cartons containing 20 ounces or more. Nutrition information for these products is reported per 8 ounces.
Nutrition information	Serving size (oz), calories (kcal), total sugar (g), and sodium (mg) per serving provided on the product nutrition facts panel.
Ingredient information	Types of sweeteners used (added sugars and low-calorie sweeteners) and fruit juice content.
Added sugars	Any type of sugar listed on the nutrition facts panel, including sugar, cane sugar, inverted sugar, and high fructose corn syrup.
Low-calorie sweeteners	Nonnutritive sweeteners (also called zero-calorie or high intensity sweeteners) listed on the nutrition facts panel, including acesulfame potassium, sucralose, neotame, and stevia.
Reduced-calorie	Drinks with 40 or fewer calories per 8-ounce serving. ¹²

In this section, we detail the nutrition information (calories, sodium and sugar) and ingredients in children's drinks by category, brand, and sub-brand. For sweetened drinks, we also compare the results to products in the Rudd Center's 2014 Sugary Drink FACTS analysis.³ We collected information for all package types and sizes listed for each sub-brand provided on brand websites as of March 2019. If the website did not provide the necessary information, we collected the information from product packages found in the supermarket

or ordered online. The one unsweetened children's sparkling water brand was excluded from the nutrition analysis: Polar Seltzer Jr. had six flavors and came in 8-oz cans. It had no calories, carbohydrates, sugar, or sodium.

The final nutrition analysis consisted of 405 children's drink products, including all flavors, package types, and sizes for each sub-brand. **Table 4** summarizes the ingredients contained in these drinks by category.

Table 4. Summary of ingredient information by category

			% of sub-brands with					
Category	# of brands (sub-brands)	Added sugar	Low-calorie sweeteners	Any fruit juice	Reduced- calorie drinks			
Sweetened drinks								
Fruit drinks	17 (22)	73%	73%	50%	45%			
Flavored waters	4 (6)	67%	83%	17%	83%			
Drink mixes	3 (6)	33%	67%	0%	83%			
Drinks without added sweeteners								
100% juices	10 (18)	0%	0%	100%	0%			
Juice/water blends	9 (14)	0%	0%	100%	0%			

Source: Nutrition analysis (August, 2019)

In all sweetened drink categories combined, two-thirds (65%) of children's drink sub-brands contained added sugar and 74% contained low-calorie sweeteners. One-half of fruit drinks and just one of six flavored water sub-brands contained any fruit juice. Less than half (45%) of fruit drinks, but more than 80% of drink mixes and flavored waters, qualified as reduced-calorie drinks (i.e., ≤40 kcal/8-oz). However, the majority of sub-brands in these categories also contained low-calorie sweeteners. By definition, all 100% juice and juice/water blend sub-brands contained fruit juice with no added sugar or low-calorie sweeteners.

Sweetened drinks

We examined nutrition and ingredient information for 32 different children's fruit drink packages (including multiple sizes), 6 flavored water packages, and 6 drink mix packages. **Appendix Table 2** provides detailed nutrition information about these products. We report medians and ranges for serving sizes, calories, total sugar, and percent juice, with regular and reduced-calorie products in each category reported separately in **Table 5**.

Fruit drinks

Regular children's fruit drinks (those that did not qualify as reduced-calorie) ranged from 30 to 200 calories and 6 to 52 grams of sugar per serving, with a median of 65 calories and 16 grams of sugar. The majority of regular fruit drinks (92%) contained added sugar, and 50% contained low-calorie sweeteners; 33% contained both added sugar and low-calorie sweeteners. Although the majority of these fruit drinks contained some juice, the median juice content was only 5%.

Reduced-calorie fruit drinks ranged from 0 to 30 calories and 0 to 7 grams of sugar per serving, but these products

all contained low-calorie sweeteners. The median fruit juice content was 0% for reduced-calorie fruit drinks.

Table 6 provides nutrition and ingredient information for the fruit drink sub-brands in our analysis. This table reports nutrition information for the smallest single-serving package available, or for an 8-ounce serving if the product only came in multiserving packages. Sunny D and Hawaiian Punch were notable for the large number of package sizes available, including four or five different single-serving packages (up to 16 ounces).

Four fruit drink sub-brands contained 80 or more calories and more than 20 grams of sugar per serving (Apple & Eve On the Go, Kool-Aid Multiserve, Bug Juice, and Minute Maid Lemonade). Although Apple & Eve On the Go fruit drink contained 24% juice, it was also sweetened with cane sugar, totaling 52 grams of sugar in a 16-ounce single-serving bottle. Seven additional fruit drink sub-brands contained 10 to 18 grams of sugar per serving, and five of these products also contained low-calorie sweeteners. Mott's Juice Drink had the most fruit juice (42%) with no added sugar, but it also contained a low-calorie sweetener (sucralose).

Reduced-sugar fruit drinks contained smaller amounts of total sugar per serving (0-8 g), but all contained low-calorie sweeteners. Among the reduced-calorie drinks, Good 2 Grow Organic 75% Less Sugar had a significant amount of juice (18%) plus stevia low-calorie sweetener.

Seven fruit drink sub-brands in this analysis were included in the 2014 Sugary Drink FACTS report.⁴ Three of these sub-brands (Hawaiian Punch Light, Minute Maid Lemonade, and Sunny D) did not change their nutrition or ingredient information from 2014 to 2019. **Table 7** lists changes in nutrition and/or ingredients for the remaining four sub-brands also examined in 2014.

From 2014 to 2019, Capri Sun Juice Drink reduced its calories by 17% and sugar by 12%, while increasing its fruit juice from 0% to 10%. Hi-C reduced total sugars and calories by

Table 5. Children's sweetened drinks nutrition by category

		Serving	Serving size (oz)*		es (kcal)	Total s	ugar (g)	Juice (%)	
Category	# of package size/types	Median	Range	Median	Range	Median	Range	Median	Range
Fruit drinks									
Regular	21	8	(6 - 16)	65	(30 - 200)	16	(6 - 52)	5	(0 - 42)
Reduced-calorie	11	8	(6 - 16)	15	(0 - 30)	2	(0 - 7)	0	(0 - 18)
Flavored waters									
Regular	1	6.75		40		10		10	
Reduced-calorie	5	10	(6 - 10)	30	(0 - 50)	7	(0 - 13)	0	
Drink mixes									
Regular	1	8		60		16		0	
Reduced-calorie	5	8	(8 - 8.5)	5	(0 - 30)	0	(0 - 7)	0	

^{*}Serving size is the total package size for single-serving packages and 8 oz for multi-serving packages

Source: Nutrition analysis (August, 2019)

Table 6. Fruit drink nutrition and ingredient information by sub-brand*

				Per ser	ving*	-	Ingredients		
Brand	Sub-brand	Pkg size/type	Reduced- calorie drink	Calories (kcal)	Total sugar (g)	Juice (%)	Added sugar	Low- calorie sweetener	Additional pkg size/ types
Apple & Eve	On the Go	16-oz bottle		200	52	24%	Х		
Kool-Aid	Multiserve	96-oz bottle		150	38	0%	Х		
Bug Juice		10-oz bottle		106	25	0%	Х		
Minute Maid	Lemonade	6-oz box		80	21	11%	Х		
Robinson's Fruit Shoot	Made With Real Sugar	8-oz bottle		70	18	10%	Х		
Hawaiian Punch		6.75-oz box		55	14	5%	Х	X	12-oz can; 10-, 16-, 20-,128-oz bottles
Capri Sun	Juice Drink (Original)	6-oz pouch		50	13	10%	Х		
Mott's	Juice Drink	64-oz bottle		50	12	42%		Х	
Kool-Aid	Sparklers	7.5-oz can		45	11	0%	Х	Х	
Hi-C	· · · · · · · · · · · · · · · · · · ·	6-oz box		40	10	5%	Х	Х	
									6.75-, 10-, 11.3-, 16-, 40-, 56-, 64-, 128-oz
Sunny D		6-oz pouch		40	10	5%	Х	Х	bottles
Kool-Aid	Sour Jammers	6-oz pouch		35	8	0%	X	X	
Kool-Aid	Jammers	6-oz pouch	X	30	8	0%	X	Х	
Fruit Rush	Fruit Rush	128-oz bottle	X	30	7	0%	Х	Х	
Kool-Aid	Bursts	6.75-oz bottle	X	20	5	0%	X	Х	
Good 2 Grow	Organic 75% Less Sugar	6-oz bottle	Х	15	3	18%		Х	
Hawaiian Punch	Light	12-oz can	Х	15	3	5%		Х	
Little Hug	Big Hug	16-oz bottle	X	10	2	0%	Χ	X	
Robinson's Fruit Shoot	No Sugar Added	10-oz bottle	X	15	2	10%		Х	
Little Hug	Fruit Barrels	8-oz bottle	Χ	5	1	0%	Χ	Χ	
Kool-Aid	Zero Sugar Jammers	6-oz pouch	Х	0	0	0%		Х	
Mondo Squeezers		6.75-oz bottle	Х	0	0	0%		Х	

^{*}Data reported for smallest single-serving package available or per 8-ounce serving if product was only available in a multi-serving package Source: Nutrition analysis (August, 2019)

approximately 50% during this time; its fruit juice content also declined from 10% to 5%. Kool-Aid Jammers and Kool-Aid Bursts also reduced total sugars and calories by approximately one-half. In addition, Kool-Aid Jammers reduced its package size from 6.75 to 6.0 ounces.

Ingredients in some products also changed from 2014 to 2019. Capri Sun Juice Drink changed its added sugar from high fructose corn syrup to sugar. The sugar reduction in Kool-Aid Jammers accompanied the addition of a low-calorie sweetener (sucralose).

Table 7. Fruit drink nutrition information changes from 2014 to 2019

		Serving size	Calories (kcal/oz)		Sugar (g/oz)			Sodium (mg/oz)			Juic	e (%)	
Brand	Sub-brand	change (oz)	2014	2019	Change	2014	2019	Change	2014	2019	Change	2014	2019
	Juice Drink												
Capri Sun	(Original)	n/a	10.0	8.3	-17%	2.5	2.2	-12%	2.7	2.5	-7%	0%	10%
Hi-C		n/a	13.3	6.7	-49%	3.7	1.7	-54%	2.5	2.5	n/a	10%	5%
Kool-Aid	Jammers	-0.75	10.4	5.0	-52%	2.8	1.3	-53%	3.7	2.5	-32%	0%	0%
Kool-Aid	Bursts	n/a	5.2	3.0	-42%	1.3	0.7	-46%	3.7	3.7	n/a	0%	0%

Source: Nutrition analysis (August, 2019)

TANGY ORIGINAL

Orange flavored citrus punch with other natural flavors

The Original. Our signature SUNNYD flavor has a one-of-a-kind orange taste for a one-of-a-kind you!





Sunny D comes in 10 single- and multi-serving package sizes

Flavored waters

The flavored water category included only six sub-brands, and all had just one single-serving package size (see **Table 8**). Apple & Eve Water Fruits was the only sub-brand in this category with any juice (10%) and no low-calorie sweeteners. The five remaining sub-brands qualified as reduced-calorie products, with low-calorie sweeteners and no juice, including two Robinson's Fruit Shoot sub-brands with no sugar and zero

calories. Tum E Yummies had the most calories (50 kcal) and total sugar (13 grams) per serving in this category.

Capri Sun Roarin' Waters and Tum E Yummies were the only flavored water sub-brands included in the 2014 Sugary Drinks FACTS report. Calories, sugar, and fruit juice content of these products did not change from 2014 to 2019. However, Capri Sun Roarin' Waters replaced high fructose corn syrup and sucralose (in the 2014 formulation) with sugar and stevia low-calorie sweetener.

Drink mixes

We identified two brands of children's drink mixes. Hawaiian Punch drink mix had one sub-brand, while Kool-Aid had five (see **Table 9**). Kool-Aid Packets was the only unsweetened drink mix, with instructions for the consumer to add their own sweetener (1 cup of sugar or granulated Splenda per packet suggested). Kool-Aid Canisters had the most calories and added sugar (including sugar and fructose) of the pre-sweetened drink mixes, but it was also the only one that did not contain a low-calorie sweetener. Kool-Aid Singles was the only drink mix with both added sugar and a low-calorie sweetener. Three drink mixes (Hawaiian Punch and two Kool-Aid sub-brands) had 0 to 5 calories per serving, but contained low-calorie sweeteners.

Table 8. Flavored water nutrition and ingredient information by sub-brand

				Per package		Sweeteners		
Brand	Sub-brand	Pkg size/type	Calories (kcal)	Total sugar (g)	Juice (%)	Added sugar	Low-calorie sweetener	
Tum E Yummies		10.1-oz bottle	50	13	0%	Χ	Χ	
Apple & Eve	Water Fruits	6.75-oz pouch	40	10	10%	Χ		
Capri Sun	Sport	6-oz pouch	30	7	0%	Χ	X	
Capri Sun	Roarin' Waters	6-oz pouch	30	8	0%	Х	Х	
Robinson's Fruit Shoot	Hydro Sparkling	10.1-oz bottle	0	0	0%		Х	
Robinson's Fruit Shoot	Hydro	10.1-oz bottle	0	0	0%		Х	

Source: Nutrition analysis (August, 2019)

Table 9. Drink mix nutrition and ingredient information by sub-brand

				Per serving			Sweeteners		
Brand	Sub-brand	Container	Serving size (oz)	Calories (kcal)	Total sugar (g)	Juice (%)	Added sugar	Low-calorie sweetener	
Kool-Aid	Packets	Multi-serving packet	8	100*	25*	0%			
Kool-Aid	Canisters	Multi-serving canister	8	60	16	0%	Χ		
Kool-Aid	Singles	Packet	8.5	30	7	0%	Χ	X	
Hawaiian Punch	Singles to Go	Packet	8.45	5	1	0%		Х	
Kool-Aid	On the Go	Packet	8.5	5	0	0%		Х	
Kool-Aid	Liquid	Multi-serving drops	8	0	0	0%		Х	

*Prepared with 1 cup of sugar per packet, as suggested on the instructions.

Source: Nutrition analysis (August, 2019)

Results

Recommended drinks for children

We evaluated the sweetened children's drinks in our analysis against expert recommendations for healthy drinks for children. All of these products contained added sugar and/or low-calorie sweeteners, so none of them would be recommended for children under age 5, according to Recommendations from Key National Health and Nutrition Organizations.⁶ Furthermore, these products are not recommended for children under age 13, according to the Healthy Eating Research (HER) Recommendations for Healthier Beverages.⁷ Under USDA Smart Snacks in School nutrition standards,⁸ none of these drinks could be sold in elementary or middle schools.

According to HER Recommendations, the reduced-calorie drinks and other drinks in smaller containers (with 40 or fewer calories per container) would be acceptable choices for adolescents ages 14 and older. They also meet the Smart Snacks in School nutrition standards for sale in high schools. Although these products all contained low-calorie sweeteners, the HER panel determined that low-calorie beverages with nonnutritive (i.e., low-calorie) sweeteners would be consistent with obesity prevention goals for adolescents and adults, but not for children under age 14. However, these drinks were all marketed as products for children, not adolescents or adults.

The high sugar content in some children's drinks is also concerning. **Figure 4** summarizes the sugar and low-calorie sweeteners in children's fruit drink and flavored water subbrands.

The American Heart Association recommends that children under age 2 consume no products with added sugar. In addition, children ages 2 to 18 should consume less than 25 grams of added sugar daily. Two children's fruit drinks contained more than 3 grams of sugar per ounce – Apple & Eve On the Go and Minute Maid Lemonade. Three fruit drink products – Apple & Eve On the Go, Hawaiian Punch, and Sunny D – contained more than an entire day's recommended amount of sugar in one 16-ounce bottle, while one 6-ounce box of Minute Maid Lemonade approached the daily limit.

Eight additional single-serving products had more than one-half of the recommended amount of sugar for one day (i.e., >12.5 g): Capri Sun Juice Drink (6-oz pouch), Hawaiian Punch (6.76-oz box, 10-oz bottle and 12-oz can), Sunny D (10-oz and 11.3-oz bottle), Robinson's Fruit Shoot Made with Real Sugar (8-oz bottle), and Bug Juice (8-oz bottle). All products with less than 2 grams of sugar per ounce also contained low-calorie sweeteners.

Despite these expert recommendations, the Children's Food and Beverage Advertising Initiative (CFBAI) food industry self-regulatory nutrition standards permit several of these products to be advertised directly to children under age 12, even under their revised nutrition standards (to be implemented by 2020). CFBAI revised nutrition standards indicate that "low calorie" beverages with 5 grams or less of added sugar per labeled

Figure 4. Sugar and low-calorie sweeteners in children's fruit drinks and flavored waters



Source: Nutrition analysis (August, 2019)

serving size are exempt from meeting its nutrition criteria for beverages that can be included in child-directed advertising. ¹⁰ Eight sweetened products in this analysis would meet these criteria, including the reformulated Kool-Aid Bursts. However, these products all contained low-calorie sweeteners, so they are not recommended for children under age 14 under HER recommendations, ¹¹ and not one could be sold in elementary or middle schools according to Smart Snacks in School nutrition standards. ¹²

Drinks without added sweeteners

We also examined the nutrition and ingredient information for 29 children's 100% juice and 16 juice/water blend packages. **Appendix Table 3** provides detailed information about these products. Medians and ranges for serving sizes, calories, total sugar, and percent juice by category are reported in **Table 10**.

The nutrition content of 100% fruit juice products did not vary widely, as the only ingredients were fruit juice or fruit juice concentrate and water. Total sugar per ounce for these products typically ranged from 3 to 4 grams. One unique product was Mott's Sensibles, which included coconut water and vegetable

Table 10. Nutrition of children's drinks without added sweeteners by category

	# of	Flavors per pkg					Serving size (oz)* Calories (kcal) Total sugar (g) Juice (%)			
Category	packages	Median	Median	Range	Median	Range	Median	Range	Median	Range
100% juice	29	2	7	(4.23 - 10)	105 (60) - 140)	23	(13 - 33)	100	
Juice/water blend	16	3.5	6	(4.23 - 8)	46 (3	30 - 65)	10	(6 - 15)	50	(36 - 72)

^{*}Serving size is the total package size for single-serving packages and 8 oz for multi-serving packages

Source: Nutrition analysis (August, 2019)

juice to reduce the sugar content but still qualify as 100% juice. This product contained 2.25 grams of total sugar per ounce and fewer calories than other 100% juice products.

The juice/water blend category is also worth noting. These products did not contain added sugar or low-calorie sweeteners, but their median juice content was 50% (the only other ingredient was water). Some of these products contained vegetable juice, in addition to fruit juice. Therefore, products in this category provided approximately half the calories and sugar compared to 100% fruit juice.

Most children's 100% juice and juice/water blend products were sold in a variety of package sizes and types. Single-serving packages ranged from 4.23 to 10 ounces and included pouches, boxes, cans, and small resealable bottles (up to 16 oz). Some products were also available in multi-serving bottles of 40 ounces or more.

Recommendations for children

We evaluated the single-serving container 100% juice and juice/water blend products in our analysis against the American Academy of Pediatrics (AAP) recommendations for

fruit juice. The AAP recommends the following limits on 100% fruit juice for children up to 18 years old:¹³

- Under 1 year: no fruit juice
- 1-3 years: No more than 4 ounces per day
- 4-6 years: No more than 6 ounces per day
- 7-18 years: No more than 8 ounces per day

Table 11 lists the children's 100% juice products in our analysis that were available in single-serving containers. No products were offered in 4-ounce containers, but five came in 4.23-ounce boxes, which approximates the recommended limit for children ages 1 to 3. Another five products were available in 5.5- or 6-ounce containers, which would be appropriate for children ages 4 and older.

However, some 100% juice products also came in larger single-serving sizes (including 6.75-oz boxes, 10-oz bottles, and 12-oz cans) that would only be appropriate for older children or adolescents. Four sub-brands were only available in 6.75 ounces or larger containers, and thus only recommended for children ages 7 and older, including Langers Disney. Two products contained 10 or 16 ounces of

Table 11. Nutrition of 100% juices by sub-brand for smallest available packages

Brand	Sub-brand	Pkg size/type	Calories (kcal)	Total sugar (g)	Appropriate ages	Additional pkg sizes
Apple & Eve	Sesame Street	4.23-oz box	60	13	1+	
Apple & Eve	Sesame Street/Organics	4.23-oz box	60	13	1+	
Juicy Juice	100% Juice	4.23-oz box	60	14	1+	6.75-oz box; 10-, 64-oz bottle
Mott's	Juice	4.23-oz box	60	15	1+	6.75-oz pouch; 64- oz bottle
Good 2 Grow	Fruit Juice	6-oz bottle	80	18.5	4+	
						12-oz can; 6.75-oz box; 10-, 46-, 64-oz
Tree Top	100% Juice	5.5-oz can	80	17	4+	bottles
Capri Sun	100% Juice	6-oz pouch	90	20	4+	
Minute Maid	100% Juice	6-oz box	90	19.5	4+	
Minute Maid	Kids+ Orange Juice	6-oz box	90	18	4+	59-oz carton
Langers	Disney	6.75-oz pouch	100	23	7+	64-oz bottle
RW Knudsen Family	Juice Boxes	6.75-oz box	100	20.5	7+	
Minute Maid	Premium Original Orange Juice	10-oz bottle	140	32		
Apple & Eve	On the Go	16-oz bottle	115	24.5		

Source: Nutrition analysis (August, 2019)

juice and thus exceeded the recommended daily maximum amount of juice for all children and adolescents.

The AAP juice recommendations do not specifically reference juice/water blends, so we calculated the equivalent amount of 100% juice in these products by multiplying the serving size (oz) by the percent juice content. **Table 12** lists the children's

juice/water blend products in our analysis that were available in single-serving containers with their equivalent 100% juice content. According to the equivalent 100% juice content, all juice/water blend products except one (Apple & Eve Fruitables) would be an appropriate drink for children ages 1 and older.

Table 12. Nutrition information of juice/water blends by sub-brand for smallest available packages

Brand	Sub-brand	Pkg size/type	Calories (kcal)	Total sugar (g)	Juice (%)	Equivalent serving of 100% juice (oz)	Appropriate ages
R.W. Knudsen Family	Sensible Sippers	4.23-oz box	30	6	50%	2.1	1+
Honest Kids		6-oz box	35	8	38%	2.4	1+
Tropicana	Tropicana Kids	5.5-oz pouch	40	8	45%	2.5	1+
Juicy Juice	Splashers Organic	6-oz pouch	40	9	44%	2.6	1+
Apple & Eve	Organic Quenchers	6.75-oz box	40	9	40%	2.7	1+
Apple & Eve	Sesame Street/Fruitables	4.23-oz box	37.5	8	66%	2.8	1+
Capri Sun	Refreshers	6-oz pouch	47.5	10	50%	3.0	1+
Capri Sun	Organic	6-oz pouch	60	13	56%	3.4	1+
Capri Sun	Fruit & Veggie Blend	6-oz pouch	60	15	66%	4.0	1+
Juicy Juice	Fruitifuls Organic	6.75-oz box	60	14	60%	4.1	1+
Good 2 Grow	Fruit & Veggie Blend	6-oz bottle	60	13	72%	4.3	1+
Apple & Eve	Fruitables	6.75-oz box	60	13	66%	4.5	4+

Source: Nutrition analysis (August, 2019)





Examples of juice/water blends in appropriate sizes for children 1 year and older

ON-PACKAGE MARKETING

Packaging Terms	Definition
Nutrition-related claims	All types of messages on product packages (excluding the nutrition facts panel) that imply the product is nutritious and/or beneficial for children in some way, including ingredient and other health-related claims.
Ingredient claim	Message that refers to ingredients in the product, including claims about sugar and micronutrients.
Health-related claim	Message that implies other health-related benefits from consuming the product, including hydration, exercise performance, and energy. Images of fruit on packages were also coded in this category.
Real claim	Message that describes the product as real, natural, and/or organic, including non-GMO.
Child feature	Message that indicates the product is intended for child consumption, including cartoon brand characters and other cartoon images, references to children or families, wacky flavor names, fun messages, and novelty shapes.
Promotion	Marketing strategy that utilizes a third-party or special offer as an incentive for purchase, such as licensed characters, giveaways, and cause-related marketing.

We analyzed the messages on 221 product packages offered by all 67 brands and sub-brands in our analysis, including 101 unique packages (i.e., packages with different on-package marketing messages). The most common messages included nutrition-related claims, real claims, and child features. A number of packages also featured various types of promotions. **Appendix Table 4** provides detailed information about on-package messages for sub-brands in sweetened drink categories, and **Appendix Table 5** provides this information for sub-brands in categories without added sweeteners.

Nutrition-related and real claims

Nearly all packages in our analysis featured multiple nutritionrelated claims, including claims about product ingredients, and other health-related messages, as well as real claims (see **Table 13**). Ingredient claims appeared on 100% of sweetened drink mix and flavored water packages, as well as all 100% juice, juice/ water blend, and sparkling water packages. Two fruit drink packages (Fruit Rush and Kool-Aid Sour Jammers) were the only products in our analysis that did not have any ingredient claims. The average number of ingredient claims per package ranged from 1.8 for fruit drinks to 4.3 for 100% juice. Children's drinks without added sweeteners featured almost twice as many ingredient messages per package (3.8 on average) compared to children's sweetened drinks (2.1 on average).

Among sweetened drinks, Capri Sun Sport and Apple & Eve Water Fruits (both flavored waters) each featured four ingredient claims per package. Among drinks without added sweeteners, Langers Disney 100% Juice packages featured seven ingredient claims, while four additional 100% juices (Juicy Juice 100% Juice, Minute Maid Kids+ Orange Juice,

Table 13. Nutrition-related and real claims on product packages by category

		Ingredie	ent claims	Other health-related messages		Real	claims
Category	Sub-brands (unique packages)	% of pkgs with message	Avg # of messages/ pkg	% of pkgs with message	Avg # of messages/ pkg	% of pkgs with message	Avg # of messages/ pkg
Sweetened drinks							
Fruit drink	22 (34)	94%	1.8	85%	1.1	59%	1.7
Drink mix	6 (10)	100%	2.5	100%	1.1	0%	
Flavored water	6 (6)	100%	2.8	83%	2.6	100%	1.8
Total	34 (50)	96%	2.1	88%	1.3	52%	1.7
Drinks without added	d sweeteners						
100% juice	17 (30)	100%	4.3	100%	1.0	80%	2.1
Juice/water blend	14 (19)	100%	3.3	100%	1.2	100%	2.3
Sparkling water	1 (2)	100%	2.0	0%		100%	1.0
Total	32 (51)	100%	3.8	96%	1.1	88%	2.2

Source: On-package marketing analysis (August, 2019)



Example of a juice/water blend with 5 ingredient claims, 3 other health messages, and 2 real claims on the package; but no child features

Mott's Juice, and Mott's Juice/Natural) and one juice/water blend (Juicy Juice Fruitifuls Organic) featured five or more ingredient claims per package.

Other health-related messages were less prevalent on product packages, averaging approximately one per package on both sweetened and unsweetened children's drinks. However, just three brands did not have any of these messages: Bug Juice (fruit drink), Tum E Yummies (flavored water), and Polar Seltzer Jr (sparkling water).

Flavored water packages featured the most other health-related messages, averaging 2.6 per package. Capri Sun Sport (flavored water) had four health-related messages on its package, more than any other product in our analysis. Juicy Juice Fruitifuls Organic (juice/water blend) and Capri Sun Roarin' Waters (flavored water) each had three such messages.

In addition to ingredient and health-related claims, real claims also appeared on the majority of packages in all children's drink categories except drink mixes. Approximately two real claims appeared on all flavored water and juice/water blend packages and on 8 of 10 100% juice packages. Approximately 60% of fruit drink packages also averaged 1.7 real claims each.

Two juice/water blends (Tropicana Kids and Juicy Juice Splashers Organic) had four real claims, the most of any products in our analysis. Among sweetened drinks, one flavored water (Apple & Eve Water Fruits) and two fruit drinks (Good 2 Grow Organic 75% Less Sugar and Robinson's Fruit Shoot Made With Real Sugar) each had three real claims on their packages.

Ingredient claims

The two most common types of ingredient claims on children's drink packages were sugar and Vitamin C claims (see **Table 14**). Not surprisingly, 90% of drinks without added sweeteners made claims about their sugar content. However, 62% of sweetened children's drinks also made these claims. Approximately one-half of both sweetened and unsweetened children's drinks featured Vitamin C claims.

Table 14. Common ingredient claims on product packages by category

	s	Vitamin C	
Category	% of pkgs with message	Avg # of messages/ pkg	% of pkgs with message
Sweetened drinks			
Fruit drink	59%	1.5	44%
Drink mix	60%	1.0	60%
Flavored water	83%	2.2	34%
Total	62%	1.5	46%
Drinks without added sw	veeteners		
100% juice	90%	1.8	60%
Juice/water blend	95%	2.0	53%
Sparkling water	50%	1.0	0%
Total	90%	1.9	55%

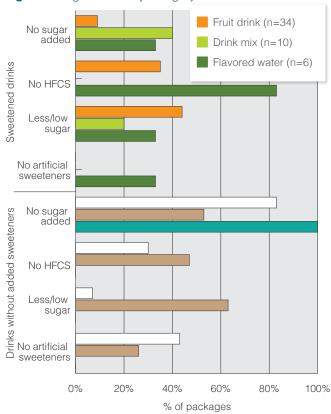
Source: On-package marketing analysis (August, 2019)

Although the majority of children's drinks featured sugar claims on their packages, the type of sugar claim varied by category (see **Figure 5**). "No sugar added" appeared on the majority of 100% juice and sparkling water packages, while 43% of 100% juice packages also featured "no artificial sweeteners," and 30% claimed "no high fructose corn syrup." For juice/water blends, 63% claimed "less" or "low sugar," and approximately one-half featured "no sugar added" and/or "no high fructose corn syrup."

Among sweetened drink categories, 83% of flavored water packages claimed "no high fructose corn syrup." For fruit drinks, "less/low sugar" claims appeared on 44% of packages, followed by "no high fructose corn syrup" on 35%. In contrast, 40% of drink mix packages claimed "no sugar added," and 20% featured "less/low sugar" messages. Less sugar claims included comparisons to "leading juice drinks" (Capri Sun Juice Drink, Honest Kids), "the average leading juice" or "100% juice" (juice/water blends, including Capri Sun Refreshers, Honest Kids, Juicy Juice Fruitifuls Organic, Mott's for Tots, and Mott's Sensibles), and the "leading regular soda" (most Kool-Aid products)

Claims about Vitamin C were also common on packages of sweetened and unsweetened children's drinks (excluding sparkling water) (see **Figure 6**). They appeared on 6 out of 10 drink mix packages and more than one-half of juice/water blends. Most of these claims promoted the product as

Figure 5. Sugar claims by category



Source: On-package marketing analysis (August, 2019)

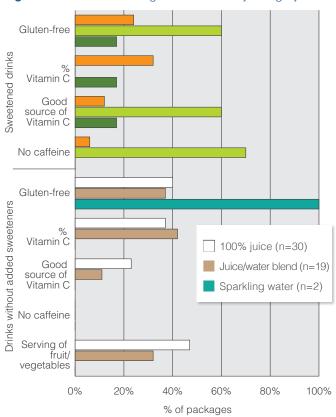
a "good source" of Vitamin C. However, one-third or more of fruit drink, 100% juice, and juice/water blend packages noted the "% daily value of Vitamin C" contained in the product.

"Gluten-free" was another common ingredient claim on children's drink packages. These claims appeared on packages in all categories, including more than one-half of drink mix and sparkling water packages. Seventy percent of drink mix packages also claimed "no caffeine." Claims about servings of fruits and/or vegetables were also common on 100% juice (47%) and juice/water blend (32%) products. Examples include, "1 combined serving of fruits and vegetables" on Good 2 Grow Fruit & Veggie Blend and Apple & Eve Fruitables, "1/2 cup of fruit" on Juicy Juice Fruitifuls Organic, and "1-1/2 servings of fruit per pouch" on Mott's 100% Juice.

Health-related claims

Images of fruit was the most common type of health-related claim on children's drink packages, appearing on 80% or more of packages in all categories except sparkling water (see **Figure 7**). In addition, more than 80% of flavored water packages promoted a "hydration" message, such as "Healthy Hydration. A delicious way to drink MORE WATER!" on Apple

Figure 6. Common other ingredient claims by category



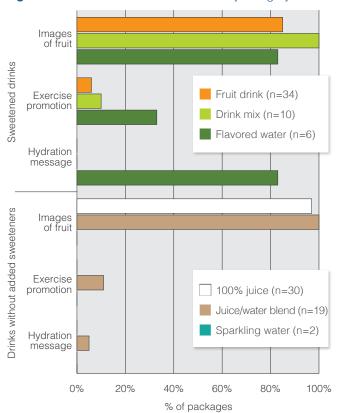
Source: On-package marketing analysis (August, 2019)

& Eve Water Fruits. One-third of flavored water packages also promoted exercise. Notably, all Capri Sun products (in all product categories) depicted children engaging in sports, while Hawaiian Punch drink mix packages suggested "enjoy at the gym."



Example of a flavored water package with multiple hydration messages

Figure 7. Common health-related claims by category



Source: On-package marketing analysis (August, 2019)

No artificial ingredients/ flavors/colors Natural Sweetened drinks Non-GMO Organic USDA seal Real No artificial ingredients/ Drinks without added sweeteners flavors/colors Natural Non-GMO Organic USDA seal

Figure 8. Real claims by category

Source: On-package marketing analysis (August, 2019)

20%

Real claims

Among sweetened drinks, more than 80% of flavored water packages and almost 40% of fruit drink packages claimed "no artificial" ingredients, flavors, and/or colors, as well as messages about "natural" ingredients (see Figure 8). "No artificial" and "non-GMO" claims appeared on the majority of 100% juice and juice/water blend products. In addition, more

than 50% of juice/water blends featured the USDA Organic seal. All sparkling water packages featured a "natural" claim.

40%

60%

% of packages

80%

100%

Other marketing messages

Real

0%

As expected, child features appeared on nearly all sweetened children's drinks and the majority of drinks without added sweeteners (see Table 15). On average, sparkling water

Table 15. Other marketing messages on product packages by category

		Child features		Promotions		
Category	Sub-brands (unique packages)	% of pkgs with message	Avg # of messages/pkg	% of pkgs with message	Avg # of messages/pkg	
Sweetened drinks						
Fruit drink	22 (34)	85%	2.3	11%	1.0	
Drink mix	6 (10)	100%	2.0	0%		
Flavored water	6 (6)	100%	2.5	0%		
Total	34 (50)	90%	2.2	8%	1.0	
Drinks without added sweeteners						
100% juice	17 (30)	60%	1.7	40%	1.3	
Juice/water blend	14 (19)	84%	1.9	42%	1.5	
Sparkling water	1 (2)	100%	3.0	0%		
Total	32 (51)	71%	1.9	39%	2.8	

Source: On-package marketing analysis (August, 2019)

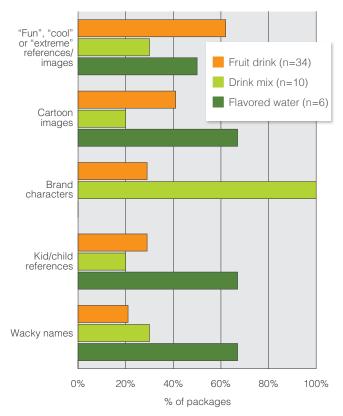
packages included the most child features (3 per package), followed by flavored water (2.5 per package); 100% juice packages had the fewest child features (1.7 per package).

Promotions, including licensed characters, charitable causes, and giveways, were less common. These types of marketing appeared on 40% of 100% juice packages, 42% of juice/water blend packages, and 11% of fruit drink packages. There were no promotions on the drink mix, flavored water, or sparkling water packages in our analysis.

Child features

Although nearly all children's drink packages had multiple features to indicate that the product was intended for children, specific features varied by product category. See **Figure 9** for child features on sweetened children's drinks. In the fruit drink category, "fun," "cool," and "extreme" references and images were most common (appearing on 62% of packages), followed by cartoon images (on 41%). All drink mix packages had a brand character (i.e., Kool-Aid Man, Hawaiian Punch surfer), but other types of child features appeared on less than 30% of these packages. In contrast, one-half or more of flavored water packages referenced kids and had fun/cool/extreme references or images, cartoon images, and wacky names.

Figure 9. Common child features on sweetened drinks by category



Source: On-package marketing analysis (August, 2019)





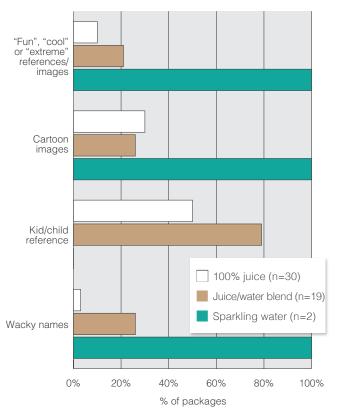
Kool Aid Sour Jammer packages had the most child features of any product in our analysis, plus Spanish-language content

Kool-Aid Sour Jammers packages had the most child features of any product in our analysis, including a brand character (Kool-Aid Man), cartoon images, cool references, wacky names (e.g., Shockin' Blue Raspberry, Electric Lemon Lime), a novelty shape, and a word search game. The only child feature not included was a direct reference to children or kids. Six additional sub-brands averaged four child features per package: Capri Sun Juice Drink, Kool-Aid Bursts, and Hi-C (fruit drinks), Capri Sun Sport (flavored water), and Kool-Aid Canisters and Hawaiian Punch (drink mixes).

In contrast, references to children or kids (primarily images of children) were the most common type of child feature on 100% juice and juice/water blend packages (see **Figure 10**). More than one-quarter of these products also featured cartoon images, and one-quarter of juice/water blends had wacky flavor names (e.g., Honest Kids Twisted Tropical Tango, Apple & Eve Organic Quenchers Razzberry Apple Splash).

Four juice/water blends averaged three child features on their packages, including Capri Sun Refreshers, Capri Sun Fruit & Veggie Blends, Apple & Eve Sesame Street/Fruitables, and Tropicana Kids; as well as one 100% juice (Apple & Eve Sesame Street). The one sparkling water children's drink (Polar Seltzer Jr.) also had three child features per package.

Figure 10. Common child features on drinks without added sweeteners by category



Source: On-package marketing analysis (August, 2019)



Polar Seltzer Jr. appeals to children with cartoon images, fun references, and wacky names.

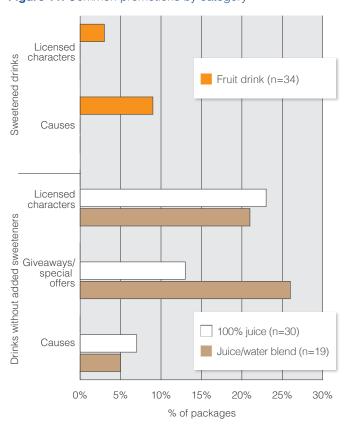
Promotions

Although licensed characters was the most common type of promotion on children's drinks, they were found on just one-quarter of 100% juice and juice/water blend packages, including Sesame Street branded Apple & Eve 100% juice and juice/water blends and Good 2 Grow 100% juice with children's character-shaped bottle tops (see **Figure 11**). Langers 100% Juice also had a Disney brand with various Disney characters (including Mickey Mouse and Donald Duck) on the package. Good 2 Grow 75% Less Sugar fruit drink was the only children's product with added sweeteners that featured licensed characters.



Good 2 Grow 100% juices and fruit drinks feature collectible licensed character bottle tops

Figure 11. Common promotions by category



Source: On-package marketing analysis (August, 2019)

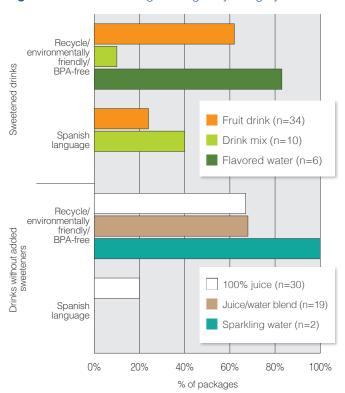
Limited-time promotions incorporating licensed characters included Very Hungry Caterpillar (Knudsen Sensible Sippers juice/water blend), Incredibles movie (Juicy Juice 100% juice), and Paw Patrol (one Capri Sun 100% Juice package). Notably, there were no celebrity or sports promotions on any children's drinks in our analysis.

A few children's drinks featured giveaways or special offers, including a Legoland ticket offer (Honest Kids juice/water blend), an offer to play a game with prizes (Good 2 Grow 100% juice, juice/water blend, and fruit drink), and a free coloring book (Old Orchard for Kids juice/water blend). The only cause-related promotion found in our analysis was Dr. Pepper Snapple Group's Lets Play, which was featured on all its children's drink products (including Motts 100% juice and juice/water blends, and Hawaiian Punch fruit drinks). This program provides funds to low-income communities for playgrounds.¹⁴

Other marketing messages

Environmental messages, such as "please recycle," the recycle symbol, and "BPA-free," was another common type of marketing message, found on two-thirds or more of children's drinks in all categories except drink mixes (see **Figure 12**).

Figure 12. Other marketing messages by category



Source: On-package marketing analysis (August, 2019)

Spanish-language information was found most often on drink mix and fruit drink products, including Kool-Aid, Hi-C, Little Hugs, Hawaiian Punch, and Minute Maid Lemonade. A few 100% juice products also featured Spanish-language on their packaging, including Minute Maid 100% Juice and Kids+Orange Juice, and Tropicana Pure Premium Healthy Kids Orange Juice.

Differentiating children's drinks by category and ingredients

In summary, the large number of claims about sugar, Vitamin C, and real ingredients found on children's drink packages, together with images of fruit and messages that these products are for children, may lead parents to infer that the majority of children's drinks are healthy options for children. Furthermore, similar claims appeared on drinks with added sugar and low-calorie sweeteners (fruit drinks, flavored waters, and drink mixes) as well as on healthier options for children (100% juice, juice/water blends, and sparkling waters).

In addition, products in all categories are typically placed together in one "children's drink" aisle at the supermarket, and some children's drink brands offer sub-brands in sweetened drink categories, as well as 100% juice and/or juice/water blends. As a result, without careful attention to the nutrients and ingredient information listed on products' nutrition facts panels, it would be difficult for parents to know whether the products they choose for their children contain added sugar, low-calorie sweeteners, or other ingredients they do not want their children to have.

To illustrate the potential confusion created by children's drink labelling practices, we compared the ingredients and front-of-package claims on products from two children's drink brands: Apple & Eve and Capri Sun. These two brands offered more



Children's drink aisle in the supermarket, including 100% juice, juice/water blends, fruit drinks, and flavored waters together on the shelves

sub-brands of children's drinks than any other brands in our analysis, including sweetened fruit drinks and flavored waters, as well as 100% juice and juice/water blends.

Figure 13 depicts five different Apple & Eve sub-brands of children's drinks. Each package displayed similar images of fruit regardless of the amount of fruit juice in the product (ranging from 10% to 100%). Sugar claims appeared on all drinks without added sweeteners ("1/3 less sugar" and "no sugar added"), as well as one of the drinks that contained cane sugar ("no high fructose corn syrup"). Two 100% juice and one fruit drink package promoted "100% Vitamin C," while the juice/water blend claimed to be "A good source of antioxidants Vitamins A, C, & E." In addition, Apple & Eve On The Go offered both 100% juice and fruit drink products. These products came in 16-ounce single-serving bottles, although the nutrition facts panel provided information for one 8-ounce serving (i.e., one-half of the bottle).

Figure 14 depicts five different Capri Sun sub-brands of children's drinks. As with Apple & Eve, all packages featured

similar images of fruit, despite varying amounts of fruit juice content (0-100%). Two of these sub-brands did not have added sweeteners, while three did. However, all packages featured multiple sugar claims, including "No high fructose corn syrup," and a "No added sugar," "less sugar," or "less calories" claim.

Furthermore, Capri Sun Sport contained sugar and stevia, but stated "no artificial sweeteners" on the front of the package. Stevia is a low-calorie sweetener that manufacturers have determined to be "natural" (i.e., not artificial) because it is extracted from the stevia plant. However, it is a high-intensity sweetener; 200 to 400 times sweeter than sugar. 15 Similarly, packages of Capri Sun Roarin' Waters (also sweetened with sugar and stevia) read "50% less sugar than the average leading fruit juices," but did not state that it contained stevia. As with all the children's products in our analysis that contained low-calorie sweeteners, consumers would have to read the ingredients on the nutrition facts panel and recognize the sweetener name to know that the product had these sweeteners.

Figure 13. Packages, ingredients, and claims by sub-brand: Apple & Eve

Sub-brand (Category)	Apple & Eve Fruitables (Juice/water blend)	Apple & Eve 100% Juice	Apple & Eve Water Fruits (Flavored water)	Apple & Eve On The Go (100% juice)	Apple & Eve On the Go (Fruit drink)
	Tropical Congress	1000 mic.	WAJER		
Juice content	66% juice	100% juice	10% juice	100% juice	20% juice
Nutrition facts (per serving)	Serving size: 6.75 fl. oz Servings per container: 1 Calories: 50 Total sugar: 13g	Serving size: 6.75 fl. oz Servings per container: 1 Calories: 80 Total sugar: 19g	Serving size: 6.75 fl. oz Servings per container: 1 Calories: 40 Sugar: 10g	Serving size: 8 fl. oz Servings per container: 2 Calories: 110 Sugar: 23g	Serving size: 8 fl. oz Servings per container: 2 Calories: 110 Sugar: 26g
Ingredients:					
Water and/or juice	Filtered water Juice concentrates (apple, sweet potato, orange, carrot, pear, pineapple, passionfruit, butternut	Water Juice concentrates	Filtered water Juice concentrates (apple, coconut water, pineapple, orange)	Filtered water Orange juice concentrate	Filtered water Juice concentrates (orange, carrot)
Sugars and/or low-calorie sweeteners	squash, tomato)		Cane sugar		Cane sugar
Front-of-package claims:					
Sugar claims	1/3 less sugar	No sugar added		No sugar added	No high fructose corn syrup
Other claims	A good source of Antioxidants, Vitamins A, C, and E	100% Vitamin C daily value per serving	Naturally flavored water beverage	100% Vitamin C	100% Vitamin C

Sources: Nutrition analysis and On-package marketing analysis (August, 2019)

Figure 14. Packages, ingredients, and claims by sub-brand: Capri Sun

Sub-brand (Category)	Capri Sun Organic (Juice/water blend)	Capri Sun (100% juice)	Capri Sun Juice Drink (Fruit drink)	Capri Sun Roarin' Waters (Flavored water)	Capri Sun Sport (Flavored water)
	CAPRESUN ORGANIC EBBR 10 NO	CUPRISUN 100% JUICE MODE	CAPRISUN 39%-103, min	CAPRISON ROARIN' WATERS	CAPRISUN SPORT
Juice content	56% juice	100% juice	10% juice	0% juice	0% juice
Nutrition facts (per serving)	Serving size: 1 pouch (6 oz) Calories: 60 Total sugar: 15g	Serving size: 1 pouch (6 oz) Calories: 90 Total sugar: 21g	Serving size: 1 pouch (6 oz) Calories: 50 Total sugar: 13g	Serving size: 1 pouch (6 oz) Calories: 30 Total sugar: 8g	Serving size: 1 pouch (6 oz) Calories: 30 Total sugar: 8g
Ingredients:					
Water and/or juice	Filtered water Organic juice concentrates (white grape, red grape, apple)	Water Juice concentrates (apple, grape)	Filtered water Juice concentrates (grape, pear)	Filtered water	Filtered water
Sugars and/or low-calorie sweeteners	арріе)		Sugar	Sugar Stevia leaf extract	Sugar Stevia leaf extract
Front-of-package claims:					
Sugar claims	No added sugar; No high fructose corn syrup	No added sugar; No high fructose corn syrup	35% less sugar than regular juice drinks; No high fructose corn syrup	50% less sugar than the average leading fruit juices; No high fructose corn syrup	25% fewer calories than leading regular sports drinks; No high fructose corr syrup; No artificial sweeteners
Other claims	No artificial flavors or colors; Organic; All natural ingredients	No artificial flavors or colors; Each pouch provides ¾ cup fruit juice; All natural ingredients	No artificial flavors or colors; All natural ingredients	No artificial flavors or colors; All natural ingredients	No artificial flavors or colors; Electrolytes and water; Intended for moderate or recreational exercise

Sources: Nutrition analysis and On-package marketing analysis (August, 2019)

All Capri Sun products also included multiple real claims, including "no artificial flavors or colors" and "all natural ingredients." In addition, Capri Sun Sport appeared to position itself as an alternative to sports drinks, with claims such as "Electrolytes and water," "Intended for moderate or recreational exercise," and "25% fewer calories than leading regular sports drinks."

In summary, children's drink brands often offered products in packages that looked similar, with similar names and claims,

but that were not the same in terms of ingredients (including juice, water, sugar, and low-calorie sweetener content). Therefore, it would be very difficult for parents to know what type of product they are buying if they only look at the front of the package. They also need to read the nutrition facts panel, understand the nutrient information and package/serving size, and recognize the names of the ingredients (including chemical names of low-calorie sweeteners) to understand what they are buying for their child.

ADVERTISING

In this section, we report 2018 advertising data by sub-brand, company, and category for all products in the drink categories included in this report: sweetened drinks (fruit drinks and flavored waters)ⁱⁱ and drinks without added sweeteners (100% juices, juice/water blends, and sparkling/plain waters). We compare advertising for children's drinks to other drinks (i.e., those not specifically marketed as products for children) in the same categories, and assess changes from 2010 and 2013 (reported in the 2014 Sugary Drink FACTS report¹⁶) when data are available. We first report advertising spending results and then exposure to TV advertising by children. In addition, we examine targeted advertising to Hispanic and Black children.

Advertising spending

Advertising spending

Definition

Advertising spending

Amount spent on all advertising in measured media, including TV, magazines, internet (i.e., digital), radio, newspapers, free standing insert (FSI) coupons, and outdoor advertising.

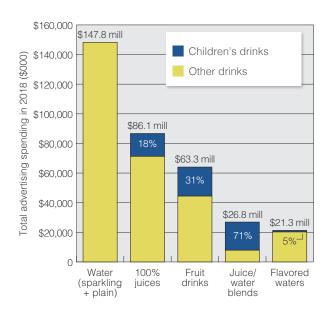
Advertising spending for all drinks in the categories included in this report (including both children's and other drinks) totaled \$350 million in 2018 (see **Appendix Table 6** for detailed information about each drink brand and company). Plain and sparkling water brands spent the most (\$148 million), followed by 100% juice brands (\$86 million), and fruit drinks (\$63 million). Flavored waters and juice/water blends each spent over \$20 million.

Total spending on children's drink advertising in 2018 was about \$55 million, or 16% of all advertising spending for drinks in the categories examined. Children's fruit drinks spent the most (\$20 million), representing 31% of all fruit drink spending (see **Figure 15**). Children's juice/water blends spent somewhat less (\$19 million), but they were responsible for 71% of all advertising in the juice/water blend category. Less than 20% of advertising in the 100% juice category was for children's products with approximately \$15 million in 2018. Children's flavored water brands spent approximately \$1 million and contributed just 5% of all flavored water advertising. The one sparkling water brand with a children's drink did not advertise in 2018.

In comparing advertising spending in 2018 to previous years, total expenditures for all sweetened drinks declined by 62% from 2010 to 2018 (see **Figure 16**). Notably, spending on children's fruit drinks decreased by 85% from 2010 to 2018.

In contrast, total advertising spending for drinks without added sweeteners showed almost no change from 2010 to 2018. However, spending by brands in some individual categories changed considerably during this time. Ad spending for 100% juice decreased by 56%, whereas spending increased by 170% for plain/sparkling water and 138% for juice/water blends.

Figure 15. Advertising spending on children's drinks vs. all other drinks by category



Source: Analysis of 2018 Nielsen data

Advertising spending on children's drinks by media type

In total, children's drink brands spent \$32 million to advertise on TV in 2018, followed by \$21 million in magazine ads. Spending on all other types of media (including outdoor advertising, digital, and coupons) totaled approximately \$2 million. Children's drinks without added sweeteners outspent sweetened children's drinks overall (see **Figure 17**). However, sweetened drinks allocated a higher proportion of spending

ii. Companies spent just \$15,000 to advertise one children's drink mix in 2018, so advertising data for drink mixes are not included in this section of the report.

Figure 16. Changes in total ad spending by category: 2010 to 2018* 100% juice Plain/sparkling water Other fruit drinks Juice/water blends & light juice \$300,000 Other flavored waters \$262.2 mill \$261.9 mill Children's fruit drinks \$234.7 mill -35% Advertising spending in 2018 (\$000) \$250,000 \$221.4 mill Children's flavored waters +165% \$200,000 \$147.1 mill \$150,000 \$84.6 mill \$100,000 -82% -29% -38% \$50,000 -40% -27% \$0 2010 2013 2010 2013 2018 2018

to TV advertising (89% vs. 40%). In contrast, children's drinks without added sweeteners spent approximately 55% of their advertising budgets on magazines (a medium aimed at adults/parents).

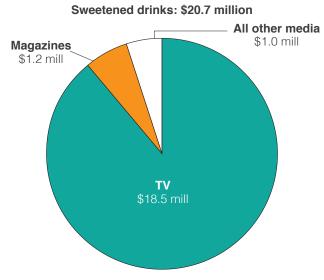
Sweetened drinks

In examining the allocation of advertising spending by category and media type, the juice/water blend category was unique (see **Table 16**). These brands allocated 88% of ad

spending to magazine advertising and less than 10% to TV advertising. The only categories with significant spending on digital media advertising were fruit drinks and juice/water blends. Some children's drink brands also advertised their brand overall, including products in more than one category. This brand-level advertising totaled \$1.4 million and was allocated primarily to TV advertising.

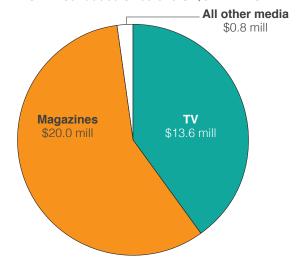
Drinks without added sweeteners

Figure 17. Advertising spending for children's drinks by media type



Includes children's fruit drinks and flavored waters Source: Analysis of 2018 Nielsen data

Drinks without added sweeteners: \$34.4 million



Includes children's 100% juices and juice/water blends

^{*}Indicates % change from previous year. Change in children's fruit drinks includes products categorized as children's drinks in all years examined. Source: Analysis of 2018 Nielsen data; Harris et al. 2014.

Table 16. Ad spending for children's drinks by category and media type

			Advertising spending (\$000)						
Category	Total spending on children's drinks	TV	TV % of total	Magazine	Digital	FSI coupon			
Sweetened drinks									
Fruit drinks	\$19,605	\$17,459	85%	\$1,224	\$551	\$211			
Flavored waters	\$1,050	\$1,050	100%	\$0	\$0	\$0			
Drinks without added sweet	eners								
Juice/water blends	\$18,966	\$1,502	8%	\$16,823	\$474	\$153			
100% juices	\$15,441	\$12,096	78%	\$3,132	\$4	\$208			
Brand-level ads	\$1,397	\$1,379	99%	\$0	\$18	\$0			

Advertising spending by children's drink brands

Among children's sweetened drinks, only four fruit drinks and one flavored water spent more than \$100,000 in total advertising in 2018 (see **Table 17**). Minute Maid Lemonade had the highest ad spending in total (almost \$11 million) and on TV, and it was the only children's sweetened drink to advertise in magazines. Capri Sun Juice Drink had the second highest ad expenditures (almost \$5 million). Capri Sun Juice Drink, Kool-Aid Jammers, and Capri Sun Roarin' Waters allocated their entire budgets to TV. Sunny D spent about \$1.5 million, with approximately one-third devoted to digital advertising. Sunny D was also the only children's sweetened drink brand to advertise through FSI coupons.

Among children's drinks without added sweeteners, nine sub-brands spent more than \$100,000 on advertising in 2018 (see **Table 18**). The highest total ad spending was on Capri Sun Refreshers (close to \$13 million), with more than 90% allocated to magazines. Mott's Sensibles and Juicy Juice also devoted the majority of their advertising to magazines. Minute Maid 100% Juice had the highest TV ad spending (\$6.5 million), followed by Minute Maid Premium Orange Juice (over \$4 million), Juicy Juice (\$1.5 million), and Capri Sun Organics (\$1.2 million). A few children's 100% juice and juice/water blend brands also advertised in digital media, including Tropicana Kids, Mott's Sensibles, and Good 2 Grow.



Magazine ad for Capri Sun Refreshers aimed at parents

Table 17. Ad spending by children's sweetened drink brands

			Advertising spending (\$000)				
Brand	Sub-brand	Category	Total*	TV	Magazine	Digital	FSI coupon
Minute Maid	Lemonade	Fruit drink	\$10,983	\$9,759	\$1,224	\$0	\$0
Capri Sun	Juice Drink	Fruit drink	\$4,911	\$4,911	\$0	\$0	\$0
Kool-Aid	Jammers	Fruit drink	\$2,203	\$2,200	\$0	\$3	\$0
Sunny D		Fruit drink	\$1,508	\$589	\$0	\$548	\$211
Capri Sun	Roarin' Waters	Flavored water	\$1,050	\$1,050	\$0	\$0	\$0

*Includes all types of media, so media numbers do not add up to the total

Source: Analysis of 2018 Nielsen data

Table 18. Ad spending by children's drink sub-brands without added sweeteners

			Advertising spending (\$000)				
Brand	Sub-brand	Category	Total*	TV	Magazine	Digital	FSI coupon
Capri Sun	Refreshers	Juice/water blend	\$12,795	\$242	\$12,553	\$0	\$0
Minute Maid	100% Juice**	100% juice	\$6,509	\$6,505	\$0	\$4	\$0
Juicy Juice		100% juice	\$4,875	\$1,534	\$3,132	\$0	\$207
Mott's	Sensibles	Juice/water blend	\$4,424	\$0	\$4,266	\$108	\$50
Minute Maid	Premium Orange Juice**	100% juice	\$4,057	\$4,057	\$0	\$0	\$0
Capri Sun	Organic	Juice/water blend	\$1,335	\$1,260	\$0	\$75	\$0
Tropicana	Tropicana Kids	Juice/water blend	\$188	\$0	\$0	\$188	\$0
Mott's	Mott's for Tots	Juice/water blend	\$124	\$0	\$0	\$11	\$103
Good 2 Grow		Juice/water blend	\$100	\$0	\$4	\$93	\$0

^{*}Includes other types of media, so media numbers do not add up to the total

We also examined changes in advertising spending for products included in previous Sugary Drink FACTS reports (see **Table 19**). From 2013 to 2018, advertising for Capri Sun Juice Drink increased by over \$4 million, while spending on Capri Sun Roarin' Waters declined by nearly \$5 million. Between 2013 and 2018, Kraft Heinz introduced two new juice/water blends, Capri Sun Refreshers and Capri Sun Organic,

on which they spent more than \$13 million to advertise in 2018. In total, Capri Sun brand spending (across all sub-brands) did not change from 2013 to 2018 (\$19.8 million vs. \$20.1 million). However, the proportion of Capri Sun ad spending devoted to sweetened drinks declined slightly (38% to 30%). All other children's drink brands, including Kool-Aid, Sunny D, and Little Hug, reduced ad spending by approximately 90% or more from 2013 to 2018.



Tropicana Kids digital ad appeared on Amazon.com

Ad spending on children's drinks by company

Just four companies (Coca-Cola, Harvest Hill Beverage Company, Kraft Heinz, and Dr. Pepper Snapple) represented more than 98% of advertising for children's drinks, including both sweetened drinks and drinks without added sweeteners (see **Figure 18**). Coca-Cola (Minute Maid brands) was the biggest spender on children's sweetened drink advertising (\$11 million). The company also spent a similar amount on Minute Maid children's 100% juice sub-brands. Kraft Heinz spent the most to advertise its children's drinks without added sweeteners (Capri Sun sub-brands, \$14.1 million), and another \$8 million on Capri Sun and Kool-Aid sweetened drinks.

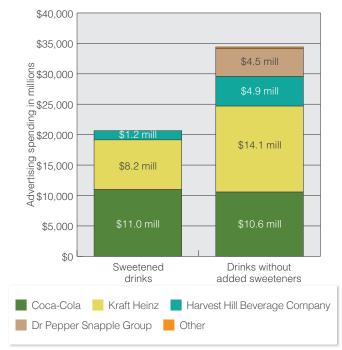
Table 19. Changes in ad spending for children's brands: 2010 to 2018

Brand	Sub-brand	Category	2010	2013	2018	% change: 2013-2018
Sweetened drinks						
Capri Sun	Juice Drink	Fruit drink	\$9,875	\$692	\$4,911	610%
Kool-Aid	Various	Fruit drink	\$24,251	\$28,755	\$2,202	-92%
Sunny D		Fruit drink	\$22,906	\$13,844	\$1,507	-89%
Capri Sun	Roarin' Waters	Flavored water	\$0	\$5,982	\$1,049	-82%
Little Hug		Fruit drink	\$1,077	\$451	\$0	-100%
Brand-level ads						
Capri Sun			\$232	\$640	\$0	-100%

Source: Analysis of 2018 Nielsen data, and Harris et al. 2014

^{**}Sub-brand includes both children's and other drinks

Figure 18. Ad spending for children's drinks by company



Advertising spending summary

The concentration of advertising spending among a small number of children's drink brands and companies is notable. Of the 67 children's drinks offered by brands with \$10 million or more in sales in 2018, just 14 advertised in any type of media in 2018, and only 11 spent \$1 million or more in advertising (see **Figure 19**).

Two sub-brands dominated children's drink advertising spending in 2018: Capri Sun Refreshers (juice/water blend) and Minute Maid Lemonade (fruit drink). Of the remaining sweetened drinks, Capri Sun Juice Drink spent more than twice as much as the other advertised brands. Among drinks

Figure 19. Comparison of advertising spending by children's drink brands*



*Includes children's drinks with \$1 million or more of advertising in 2018

Source: Analysis of 2018 Nielsen data

without added sweeteners, two Minute Maid 100% juice subbrands, Mott's Sensibles, and Juicy Juice 100% juice had comparable moderate levels of advertising spending, while Capri Sun Organic (juice/water blend) spent approximately \$2 million.

TV advertising exposure

TV advertising exposure	Definition
Gross rating points (GRPs)	Measure of the number of TV advertisements viewed by a specific demographic group per capita over a period of time across all types of programming. GRPs for specific demographic groups are also known as targeted rating points (TRPs).
Average number of TV ads viewed	GRPs divided by 100. Provides a measure of the number of ads viewed by individuals in a specific demographic group, on average, during the time period measured.
Targeted ratios Preschooler to adult Child to adult	A measure of relative exposure by children versus adults, calculated by dividing GRPs for preschoolers (2-5 years) or children (6-11 years) by GRPs for adults (18-49 years).
Children's TV	As defined by Nielsen, includes the following program types: child day animation, child day live, child evening, child multi-weekly, and child news (e.g., programming on Nickelodeon, Cartoon Network, Nicktoons, and Disney XD).
TV viewing times	Average amount of time spent watching TV by individuals in a specific group, including TV programming on broadcast, cable, syndicated, and spot networks. Does not include time spent watching streaming services (e.g., Netflix, Hulu).

In 2018, on average preschoolers (2-5 years) viewed 108 TV ads for drinks in the categories examined in this report (including children's drinks and other drinks), while children (6-11 years) viewed approximately 115 ads (see **Appendix Table 7** for detailed information about each drink brand and company). In total, sweetened drinks represented slightly more than one-half of drink ads viewed by preschoolers and children.

Across all brands (including children's and other drinks), preschoolers and children saw more TV ads for fruit drinks than any other drink category (see **Table 20**). Children saw comparable numbers of ads for 100% juice, juice/water blends, and flavored waters, whereas preschoolers saw more ads for

100% juice than for flavored waters or juice/water blends.

Children's drinks represented 51% of TV ads for all drinks viewed by preschoolers and 57% of ads viewed by children (on average 55 and 65 ads, respectively). Approximately two-thirds of these ads were for sweetened fruit drinks and flavored waters. Targeted ratios of 1.5 or higher for children's fruit drink, flavored water, and juice/water blend ads indicate that ads for these products were targeted to children, as children saw more ads than adults saw. In contrast, adults saw more ads for children's 100% juices, indicating that these ads were targeted to adults (i.e., parents). As noted in the previous section, the one children's sparkling water brand did not advertise in 2018.

Table 20. Children's TV ad exposure: all drinks vs children's drinks

		All	drinks			Children's drinks				
	Prescho	olers (2-5y)	(2-5y) Children (6-11y)			oolers (2-5y)	Children (6-11y)			
Category	Avg # of ads viewed	Tgt ratio (vs. adults)								
Sweetened drinks										
Fruit drinks	39.9	0.87	43.5	0.95	28.8	1.59	32.8	1.81		
Flavored waters	16.0	0.85	18.8	1.00	9.5	3.94	12.6	5.22		
Total	55.9	0.86	62.3	0.96	38.3	1.87	45.4	2.21		
Drinks without added s	sweeteners									
100% juices	20.1	0.41	17.9	0.37	3.7	0.42	3.2	0.35		
Juice/water blends	15.4	1.59	18.6	1.93	13.0	3.61	16.5	4.56		
Sparkling waters	9.0	0.39	8.5	0.37	0.0	n/a	0.0	n/a		
Plain waters	7.7	0.40	7.3	0.38	0.0	n/a	0.0	n/a		
Total	52.2	0.51	52.3	0.52	16.7	1.32	19.7	1.56		

Bold indicates ads targeted to children

Source: Analysis of 2018 Nielsen data

50 Average # of TV ads viewed in 2018 Children's drinks 40 Other drinks 30 20 19% 18% 67% 88% 10 85% 0 Preschoolers Children Preschoolers Children Preschoolers Children Preschoolers Children (2-5y)(6-11y)(2-5y)(6-11y)(2-5y)(6-11y)(2-5y)(6-11y)Fruit drinks Flavored waters 100% juices Juice/water blends

Figure 20. Children's exposure to TV advertising for children's drinks vs. other drinks

In comparing children's exposure to TV ads for children's versus other drinks in the same categories (see **Figure 20**), children's drinks represented the majority of ads viewed in nearly all categories, including 85% or more of ads for juice/water blends. There was one exception: children's drinks represented less than 20% of ads viewed for drinks in the 100% juice category.

Children's TV advertising exposure by company

In examining children's exposure to drink ads by company, more than 45% of all ads viewed by preschoolers and children were for Kraft Heinz products, including about 65% of ads viewed for sweetened drinks and 25% of ads for drinks without added sweeteners (see **Figure 21**). Coca-Cola was responsible for another 15% to 20% of ads viewed for both sweetened drinks and drinks without added sweeteners. Among drinks without added sweeteners, three additional companies represented almost one-half of TV ads viewed by preschoolers and children (PepsiCo, Wonderful, and Nestle). However, none of their products were children's drinks.

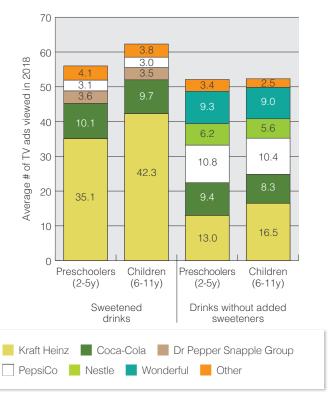
Changes in children's exposure to TV advertising

Compared to 2010, the total number of ads viewed by preschoolers and children in 2018 for drinks in all categories examined decreased by 36% and 48%, respectively (see **Figure 22**). These declines occurred primarily during the 2010-2013 time period, with total reductions of just 3% to 6% between 2013 and 2018.

This leveling off of exposure from 2013 to 2018 is notable as the amount of time children spent watching TV declined

considerably during this time. Preschoolers (2-5 years) watched 35% less TV in 2018 than in 2013 (2.6 vs. 4.0 hrs/day), while children (6-11 years) watched 42% less TV (2.0

Figure 21. Children's exposure to TV advertising by company



Source: Analysis of 2018 Nielsen data

250 Fruit drinks 220.6 ads Flavored waters 100% juice 200 170.0 ads Juice/water blends & light juice Plain/sparkling water 150 121.3 ads 114.6 ads 111 1 ads 108.2 ads 100 +166% -29% +18% -67% -60% -42% 50 +477% +469% +90% +120% -81% 0 2010 2013 2018 2010 2013 2018

Figure 22. Change in children's exposure to TV advertising by category: 2010 to 2018*

*Shows % changes versus previous year

Source: Analysis of 2018 Nielsen data and Harris et al. 2014

Preschoolers (2-5y)

vs. 3.3 hrs/day). Therefore, it appears that drink brands increased their advertising to children to offset declines in TV viewing times. In contrast, from 2010 to 2013 advertising exposure decreased substantially even though children's TV viewing times did not decline during this time.

Changes in ads viewed by preschoolers and children varied widely by category. Compared to 2010, sweetened drinks comprised a lower proportion of drink ads viewed in 2013. In contrast, from 2013 to 2018, exposure to ads for sweetened drinks increased by about 17%, compared to a decrease of about 20% for drinks without added sweeteners. The variety of drink categories advertised to children also changed substantially over this time. In 2010, fruit drinks and 100% juices represented 94% of drink ads viewed by children, compared to just over 50% in 2018.

Changes in ads viewed for individual categories of drinks were also notable. Exposure to TV ads for fruit drinks decreased by more than 80% from 2010 to 2013 for both preschoolers and children, but then approximately doubled from 2013 to 2018. Similarly, ads viewed for plain/sparkling waters more than doubled from 2013 to 2018. However, in the same period, ads viewed for flavored waters and 100% juices decreased by about 40% and 60% respectively.

Exposure to TV advertising for children's drink brands

In this section we discuss exposure to TV advertising for the children's drink brands in our analysis. Of the 14 children's drinks that advertised in some form of media in 2018, seven advertised on TV (see **Table 21**). These included one Kool-Aid and three Capri Sun sub-brands, all from Kraft Heinz. Kool-Aid Jammers (fruit drink), Capri Sun Organic (juice/water blend), and Capri Sun Roarin' Waters (all Kraft Heinz brands) represented more than 85% of TV ads for children's drinks viewed by preschoolers and children.

Children (6-11y)

Preschoolers and children viewed approximately four to five times more ads than adults viewed for some, but not all, children's drink brands. Children saw approximately one-



Minute Maid TV ad targeted to parents depicts a young child drinking Minute Maid Lemonade during a tee ball game

iii. Analysis of Nielsen data for average hours of TV viewed by preschoolers (2-5 years) and children (6-11 years).

Table 21. Exposure to TV ads for children's drink brands by preschoolers and children

				Preschoo	olers (2-5y)	Childre	n (6-11y)
Company	Brand	Sub-brand	Category	Avg # of ads viewed	Tgt ratio (vs. adults)	Avg # of ads viewed	Tgt ratio (vs. adults)
Sweetened drinks							
Kraft Heinz	Kool-Aid	Jammers	Fruit drink	23.2	3.86	27.4	4.16
Kraft Heinz	Capri Sun	Roarin' Waters	Flavored water	9.5	3.94	12.6	5.22
Coca-Cola	Minute Maid	Lemonade	Fruit drink	3.2	0.41	3.0	0.38
Kraft Heinz	Capri Sun	Juice Drink	Fruit drink	2.4	0.58	2.3	0.56
Drinks without added sw	reeteners						
Kraft Heinz	Capri Sun	Organic	Juice/water blend	13.0	3.61	16.5	4.56
Coca-Cola	Minute Maid	100% Juice	100% juice	1.6	0.42	1.4	0.37
Coca-Cola	Minute Maid	Premium Orange Juice		1.5	0.40	1.3	0.35
Harvest Hill Beverage Company	Juicy Juice	100% Juice	100% juice	0.7	0.47	0.5	0.33

Bold indicates ads targeted to children

Source: Analysis of 2018 Nielsen data







Child-directed TV ad depicts kids taking a sip of Capri Sun Roarin' Waters and magically floating into space

half the number of ads for Capri Sun Juice Drink compared to adults. Capri Sun Juice Drink did not meet the nutrition criteria for drinks that can be advertised in child-directed TV according to the Children's Food and Beverage Advertising Initiative (CFBAI),¹⁷ but it appeared to advertise primarily to parents, not to children on TV. Adults were also more likely than children to see TV ads for three Minute Maid sub-brands (Lemonade, 100% Juice, and Orange Juice) and Juicy Juice 100% Juice.

Advertising on children's TV programming provides another indicator that a brand targeted its advertising to children. Of the seven children's drinks advertised on TV, just four advertised on children's TV programming (see **Table 22**). The majority of ads for Kool-Aid Jammers, Capri Sun Organic, and Capri Sun Roarin' Waters appeared on children's TV. In contrast, more than 50% of ads that children viewed for Capri Sun Juice Drink and Florida's Natural 100% juice (the only non-children's brand that was advertised on children's TV), appeared on other types of TV programming (not children's TV).

The children's drink sub-brands that advertised on TV changed substantially from 2010 to 2018 (see **Table 23**). In 2010, Kool-Aid, Capri Sun Juice Drink, and Sunny D fruit drinks were the only children's drinks in our analysis to advertise on TV. In 2013, Capri Sun primarily advertised its Roarin' Waters flavored water. However, in 2018 Capri Sun advertised its Organic juice/water blend most to children. Ads for Kool-Aid fluctuated widely, with large reductions from 2010 to 2013 and then large increases from 2013 to 2018. Sunny D, one of the largest children's drink advertisers in 2010 and 2013, did not advertise to children on TV at all in 2018.

TV advertising exposure summary

Table 22. Exposure to advertising on children's TV

				Preschoolers (2-5y)		Children (6-11y)		
Company	Brand	Sub-brand	Category	Avg # of ads viewed	% of total ads viewed	Avg # of ads viewed	% of total ads viewed	
Kraft Heinz	Kool-Aid	Jammers	Fruit drink	20.6	89%	25.0	91%	
Kraft Heinz	Capri Sun	Organic	Juice/water blend	12.0	92%	15.4	93%	
Kraft Heinz	Capri Sun	Roarin' Waters	Flavored water	8.5	90%	11.4	91%	
Kraft Heinz	Capri Sun	Juice Drink	Fruit drink	0.9	36%	0.9	38%	
Citrus World	Florida's Natural		100% juice	1.0	48%	0.6	45%	



Child-directed TV ad depicting the Kool-Aid man playing sports with kids...



And playing music with the kids in music class

Table 23. Change in TV advertising exposure for children's brands: 2010 to 2018

			Preschoolers (2-5y) Chil					Child	ildren (6-11y)		
						%				%	
			Avg	Avg # of ads viewed change			Avg :	# of ads v	iewed	change	
Brand	Sub-brand	Category	2010	2013	2018	2013- 2018	2010	2013	2018	2013- 2018	
Kool-Aid	Various	Fruit drink	30.2	1.9	23.2	1121%	41.8	1.4	27.4	1857%	
Capri Sun	Organic	Juice/water blend	0.0	0.0	13.0	new	0.0	0.0	16.4	new	
Capri Sun	Roarin' Waters	Flavored water	0.0	24.0	9.5	-60%	0.0	28.8	12.6	-56%	
Capri Sun	Juice Drink	Fruit drink	40.3	0.5	2.4	380%	52.2	0.7	2.3	229%	
Sunny D		Fruit drink	15.8	9.3	0	-100%	24.8	14.7	0.0	-100%	

Source: Analysis of 2018 Nielsen data

Children's exposure to TV advertising for children's and other drinks in the categories included in our analysis was limited to a small number of products. Of the 67 children's drink subbrands analyzed, just seven advertised on TV in 2018, and just four advertised on children's TV (see **Figure 23**). Kraft Heinz was the only company to advertise children's drinks on children's TV, with Kool-Aid Jammers (fruit drink) contributing almost one-half of all sweetened drink ads viewed by children on all TV programming. Together with Capri Sun Organics

(juice/water blend) and Capri Sun Roarin' Waters (flavored water), Kraft Heinz was responsible for 95% of drink ads viewed on children's TV programming, with sweetened drink ads outnumbering ads for drinks without added sweeteners. Children's drink brands (including Kool-Aid, Capri Sun, and Minute Maid fruit drinks) also advertised on other types of TV programming, but children's exposure to these ads was low.

In addition to children's drinks, preschoolers and children also

Results

saw ads for other drink brands in these categories, primarily on other types of TV programming (i.e., not children's TV). These brands included plain and sparkling waters (Nestle, Bubly) and 100% juices (Pom Wonderful, Tropicana Essentials), as well as sweetened fruit drinks (Minute Maid, Ocean Spray, and Simply Light), and one flavored water (Glaceau Vitamin Water).

Figure 23. Children's exposure to TV advertising for drink brands on children's TV and other programming*



^{*}Includes children's drinks and other drinks for which preschoolers (2-5y) viewed 2 or more TV ads in 2018

Source: Analysis of 2018 Nielsen data

TV advertising targeted to Hispanic and Black children

In this section we present TV advertising targeted to Hispanic children on Spanish-language TV. We also compare exposure to TV advertising for Black versus White children.

Targeted advertising	Definitions
Spanish-language TV	TV programming presented on Spanish cable and broadcast networks (e.g., Univision, Telemundo).
Targeted ratios: Black to White	A measure of relative exposure by Black versus White children and preschoolers, calculated by dividing GRPs for Black preschoolers or children by GRPs for White preschoolers or children.

Spanish-language advertising

Only three children's drinks advertised on Spanish-language TV in 2018 (see **Table 24**). Two fruit drinks (Capri Sun and Sunny D) spent \$1.6 million in total, and each directed one-quarter of their TV advertising to Spanish-language TV. Just

one drink without added sweeteners advertised on Spanish-language TV (Capri Sun Refreshers juice/water blend), and it devoted less than 1% of its total advertising spending to the medium. Of note, no other drink brand in any of the categories examined (including non-children's products) advertised on Spanish-language TV in 2018.

Table 24. Children's drink advertising on Spanish-language TV

				Advertisin	g spending	Avg # of ads viewed	
Company	Brand	Sub-brand	Category	Spanish- language TV (\$000)	% of total TV ad spending	Preschoolers (2-5y)	Children (6-11y)
Sweetened drinks							
Kraft Heinz	Capri Sun	Juice Drink	Fruit drink	\$1,287	26%	1.4	1.1
Harvest Hill Beverage Company	Sunny D		Fruit drink	\$354	23%	0.4	0.4
Drinks without added sweeteners							
Kraft Heinz	Capri Sun	Refreshers	Juice/water blend	\$117	<1%	0.2	0.1



Spanish-language TV ad for several Capri Sun sub-brands appeared to target parents and children.



Spanish-language TV ad showing a teenager performing stunts on her bicycle as she drinks Sunny D

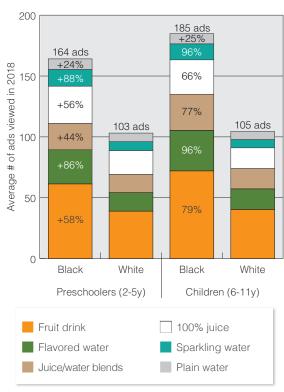
Exposure to TV advertising by Black preschoolers and children

In total, Black preschoolers (2-5 years) and children (6-11 years) viewed 164 and 185 TV ads, respectively, for drinks in all categories examined in this report. They saw 59% and 77% more TV ads than White preschoolers and children saw (see **Figure 24**). The biggest differences in ads viewed were for the flavored water and sparkling water categories

(85%), while ads for plain water had the smallest differences (approximately 25%).

On average, Black preschoolers spent 39% more time watching TV in 2018 compared to White preschoolers, while Black children spent 69% more time watching TV than did White children. Taking into account differences in TV viewing times, Black children would be expected to see more TV ads for all products compared to White children.

Figure 24. TV advertising exposure for Black vs. White preschoolers and children*



^{*}Shows % difference in ads viewed by Black vs. White preschoolers and children

Source: Analysis of 2018 Nielsen data

iv. In 2018, Black preschoolers viewed 3.5 hrs of TV per day on average, Black children viewed 3.1 hrs/day, White preschoolers viewed 2.5 hrs/day, and White children viewed 1.8 hrs/day.



Magazine ad for Minute Maid Lemonade aimed at Black families

However, some brands stood out for disproportionately high advertising exposure by Black children compared to White children (see **Table 25**). For example, among sweetened drink brands, Black preschoolers and children saw more than twice as many ads for Minute Maid Lemonade and Glaceau Vitamin Water than their White counterparts. Black preschoolers and children also viewed 59% to 84% more TV ads for Capri Sun Roarin' Waters and Kool-Aid Jammers children's drinks, compared to White preschoolers and children.

In examining TV ads for drinks without added sweeteners, Black preschoolers and children saw more than twice as many ads for four 100% juice brands and one sparkling water brand than their White counterparts saw, including two children's drinks (Minute Maid Orange Juice and 100% Juice) (see **Table 26**). Black children saw almost twice as many TV ads for the other two children's drinks on this list (Juicy Juice and Capri Sun Organic) compared to White children, while Black preschoolers saw approximately 50% more ads compared to White preschoolers.

Black preschoolers (2-5 years) viewed on average 62 TV ads for the sweetened children's drinks in our analysis and 26 ads for the children's drinks without added sweeteners. Black children viewed on average 77 TV ads for sweetened children's drinks and 34 ads for children's drinks without added sweeteners. For both children's sweetened drinks and drinks without added sweeteners, Black preschoolers viewed approximately 65% more ads than White preschoolers viewed, while Black children viewed approximately 90% more ads compared to White children. However, Minute Maid was the only children's drink brand that appeared to directly target Black children with their advertising, as evidenced by disproportionately high targeted ratios.

Table 25. Black children's exposure to TV ads for sweetened drink brands*

			Preschoolers (2-5y) Chi			Preschoolers (2-5y)			Preschoolers (2-5y) Children (6-11y)			en (6-11y)
					j # of riewed	Targeted ratio		g # of viewed	Targeted ratio			
Company	Brand	Sub-brand	Category	Black	White	Black: White	Black	White	Black: White			
Coca-Cola	Minute Maid	Lemonade	Fruit drink	6.7	2.8	2.42	6.9	2.4	2.82			
Coca-Cola	Glaceau	Vitamin Water	Flavored water	7.4	3.2	2.31	7.3	3.1	2.34			
PepsiCo	Propel		Flavored water	4.9	2.7	1.79	4.9	2.4	2.05			
Kraft Heinz	Capri Sun	Roarin' Waters	Flavored water	15.8	9.2	1.72	21.0	11.4	1.84			
Kraft Heinz	Kool-Aid	Jammers	Fruit drink	35.8	22.6	1.59	45.7	25.1	1.82			
Kraft Heinz	Capri Sun	Juice Drink	Fruit drink	3.4	2.5	1.36	3.8	2.3	1.61			
Dr Pepper Snapple	Bai	Antioxidant Infusion	Fruit drink	5.1	3.6	1.43	5.4	3.4	1.58			
Ocean Spray	Ocean Spray		Fruit drink	5.9	4.1	1.45	5.7	3.6	1.57			
Coca-Cola	Simply		Fruit drink	1.9	1.7	1.10	2.1	1.8	1.21			
Coca-Cola	Simply	Light	Fruit drink	1.6	1.6	0.98	1.3	1.2	1.05			

^{*} Includes sub-brands where Black preschoolers or children saw 1.0 or more TV ads in 2018 Shading indicates a children's drink brand

Source: Analysis of 2018 Nielsen data

Bold indicates disproportionately higher exposure for Black versus White children or preschoolers

Table 26. Black children's exposure to TV ads for drink brands without added sweeteners*

					Preschoo	olers (2-5y)	Children (6-11y)			
					# of riewed	Targeted ratio		y# of Targeted viewed ratio		
Company	Brand	Sub-brand	Category	Black	White	Black: White	Black	White	Black: White	
Citrus World	Florida's Natural		100% juice	3.6	1.7	2.10	2.9	1.1	2.56	
Coca-Cola	Minute Maid	Premium Orange Juice	100% juice	3.4	1.3	2.53	2.9	1.1	2.52	
Coca-Cola	Minute Maid	100% Juice	100% juice	3.1	1.4	2.20	2.9	1.2	2.42	
PepsiCo	Bubly		Sparkling water	10.5	4.9	2.16	10.1	4.5	2.22	
PepsiCo	Tropicana		100% juice	1.8	0.9	2.10	1.7	0.9	2.15	
Harvest Hill Beverage Company	Juicy Juice	100% Juice	100% juice	1.0	0.6	1.55	0.9	0.5	1.99	
Kraft Heinz	Capri Sun	Organic	Juice/water blend	18.8	12.5	1.50	27.1	14.5	1.87	
PepsiCo	Tropicana	Essentials	100% juice	7.2	4.7	1.52	1.7	0.8	1.71	
Nestle	San Pellegrino		Sparkling water	3.2	2.4	1.33	3.0	2.2	1.37	
Wonderful	Fiji		Plain water	5.8	4.7	1.23	6.0	4.6	1.31	
Coca-Cola	Simply		100% juice	4.8	4.0	1.20	4.5	3.5	1.27	
Coca-Cola	Simply	Light	Juice/water blend	2.7	2.4	1.14	2.5	2.2	1.14	
Wonderful	Pom Wonderful		100% juice	4.9	4.4	1.13	4.5	3.9	1.14	
Nestle	Nestle Waters	Pure Life	Plain water	3.0	2.4	1.24	2.4	2.1	1.13	

^{*}Includes sub-brands where Black preschoolers or children saw 1.0 or more TV ads in 2018 Shading indicates a children's drink

Bold indicates disproportionately higher exposure for Black versus White children or preschoolers