



Children's Drink

facts.

Food Advertising to Children and Teens Score

2019



Sales, Nutrition, and Marketing of Children's Drinks



UCONN

RUDD CENTER

FOR FOOD POLICY & OBESITY

Children's Drink FACTS 2019
Sales, Nutrition, and Marketing of Children's Drinks

Authors:

Jennifer L. Harris, PhD, MBA
Maria Romo-Palafox, PhD, RD
Yoon-Young Choi, MS
Ahmad Kibwana

UConn Rudd Center for Food Policy & Obesity
October 2019

ACKNOWLEDGEMENTS

We would like to thank the following researchers for their valuable assistance with data collection, analysis, and report preparation:

Kirsten Carew
Haley Gershman
Maia Hyary
Ryan May
Miryam Wilson

Special thanks to our colleagues at the Rudd Center, especially Sally Mancini, Kristin Messina, and Frances Fleming-Milici. We thank Kay Campbell, Whitney Hubbard, and Burness Communications for their communications support and bernardesign for designing the report. Finally, we thank the leadership and staff at the Robert Wood Johnson Foundation, with special thanks to Tina Kauh and the Healthy Children and Families team.

This work was supported by a grant from the Robert Wood Johnson Foundation, Princeton, NJ. The views expressed here do not necessarily reflect the views of the Foundation.

List of Tables	iv
Appendix Tables	iv
List of Figures	v
Glossary	vi
Executive Summary	7
Introduction	13
Results	16
The children’s drink market	16
Sales of fruit drinks, juice, and water	16
Children’s drink nutrition	19
Sweetened drinks	20
Drinks without added sweeteners	23
On-package marketing	26
Nutrition-related and real claims	26
Other marketing messages	29
Differentiating children’s drinks by category and ingredients	32
Advertising	35
Advertising spending	35
TV advertising exposure	40
TV advertising targeted to Hispanic and Black children	45
Discussion	49
Endnotes	54
Appendices	57
Ranking Tables	57
Methods	73

LIST OF TABLES

Table 1. Children’s drink brands that offered only sweetened drinks	16
Table 2. Children’s drink brands that offered only drinks without added sweeteners	17
Table 3. Children’s drink brands with both sweetened drinks and drinks without added sweeteners	17
Table 4. Summary of ingredient information by category	20
Table 5. Children’s sweetened drinks nutrition by category	20
Table 6. Fruit drink nutrition and ingredient information by sub-brand	21
Table 7. Fruit drink nutrition information changes from 2014 to 2019	21
Table 8. Flavored water nutrition and ingredient information by sub-brand	22
Table 9. Drink mix nutrition and ingredient information by sub-brand.	22
Table 10. Nutrition of children’s drinks without added sweeteners by category	24
Table 11. Nutrition of 100% juices by sub-brand for smallest available packages	24
Table 12. Nutrition information of juice/water blends by sub-brand for smallest available packages	25
Table 13. Nutrition-related and real claims on product packages by category	26
Table 14. Common ingredient claims on product packages by category	27
Table 15. Other marketing messages on product packages by category.	29
Table 16. Ad spending for children’s drinks by category and media type	37
Table 17. Ad spending by children’s sweetened drink brands	37
Table 18. Ad spending by children’s drink sub-brands without added sweeteners	38
Table 19. Changes in ad spending for children’s brands: 2010 to 2018	38
Table 20. Children’s TV ad exposure: all drinks vs children’s drinks.	40
Table 21. Exposure to TV ads for children’s drink brands by preschoolers and children	43
Table 22. Exposure to advertising on children’s TV	44
Table 23. Change in TV advertising exposure for children’s brands: 2010 to 2018	44
Table 24. Children’s drink advertising on Spanish-language TV	46
Table 25. Black children’s exposure to TV ads for sweetened drink brands	47
Table 26. Black children’s exposure to TV ads for drink brands without added sweeteners	48

Ranking Tables

Ranking Table 1: Total sales of fruit drinks, juices and waters by category and sub-category in 2018	57
Ranking Table 2: Nutrition and ingredient information for sweetened children’s drinks	58
Ranking Table 3: Nutrition and ingredient information for children’s drinks without added sweeteners.	61
Ranking Table 4: On-package marketing on children’s sweetened drink sub-brands.	63
Ranking Table 5: On-package marketing on children’s drink sub-brands without added sweeteners	65
Ranking Table 6: Advertising spending by sub-brand* and company** in 2018.	67
Ranking Table 7: Average number of TV ads viewed by children in 2018 by sub-brand and company.	71

LIST OF FIGURES

- Figure 1.** Total sales by drink category in 2018 18
- Figure 2.** Total children’s drink sales by category in 2018 18
- Figure 3.** Children’s drink proportion of total sales by category. 18
- Figure 4.** Sugar and low-calorie sweeteners in children’s fruit drinks and flavored waters. 23
- Figure 5.** Sugar claims by category. 28
- Figure 6.** Common other ingredient claims by category 28
- Figure 7.** Common health-related claims by category. 29
- Figure 8.** Real claims by category 29
- Figure 9.** Common child features on sweetened drinks by category 30
- Figure 10.** Common child features on drinks without added sweeteners by category 31
- Figure 11.** Common promotions by category 31
- Figure 12.** Other marketing messages by category. 32
- Figure 13.** Packages, ingredients, and claims by sub-brand: Apple & Eve. 33
- Figure 14.** Packages, ingredients, and claims by sub-brand: Capri Sun. 34
- Figure 15.** Advertising spending on children’s drinks vs. all other drinks by category 35
- Figure 16.** Changes in total ad spending by category: 2010 to 2018 36
- Figure 17.** Advertising spending for children’s drinks by media type 36
- Figure 18.** Ad spending for children’s drinks by company. 39
- Figure 19.** Comparison of advertising spending by children’s drink brands 39
- Figure 20.** Children’s exposure to TV advertising for children’s drinks vs. other drinks 41
- Figure 21.** Children’s exposure to TV advertising by company 41
- Figure 22.** Change in children’s exposure to TV advertising by category: 2010 to 2018 42
- Figure 23.** Children's exposure to TV advertising for drinkbrands on children's TV and other programming 45
- Figure 24.** TV advertising exposure for Black vs. White preschoolers and children 46

GLOSSARY

Drink categories	Definition
Children's drinks	Drinks that companies promote as products intended for children to consume (may be marketed to parents and/or directly to children).
Sweetened drinks	Drinks that contain added sweeteners, including added sugars and/or low-calorie sweeteners.
Fruit drink	Fruit-flavored drink or juice drink with added sweeteners (may also have some juice).
Flavored water	Flavored water beverages (as indicated on the package) with added sweeteners.
Drink mix	Powder or liquid that is mixed with water, including drinks to which consumers add their own sweeteners.
Drinks without added sweeteners	Drinks that do not contain added sugar or low-calorie sweeteners.
100% juice	Drink that consists of 100% juice (can be from concentrate).
Juice/water blend	Drink that contains a blend of juice or juice concentrates and water only.
Plain water	Plain or flavored still water with no added sweeteners.
Sparkling water	Plain or flavored sparkling water with no added sweeteners.

This report examines children's drinks in the liquid refreshment categories. There were no children's drinks in the soda, diet soda, iced tea, or sports drink categories, so they are not included.

The American Academy of Pediatrics (AAP) and American Heart Association (AHA) warn that policy strategies to reduce children's sugary drink consumption are “urgently needed.”¹ This report identified some positive developments in the nutrition and marketing of children's drinks over the past five years. However, sweetened drinks that contain added sugars and often low-calorie sweeteners continued to dominate sales and advertising of drinks marketed for children's consumption.

Sugary drinks contribute almost one-half of all added sugar consumed by children,² and fruit drinks (fruit-flavored and juice drinks with added sweeteners) are the most common type of sugary drink consumed by young children, including toddlers and preschoolers.^{3,4} Excess juice consumption among toddlers and preschoolers also raises concerns among health and nutrition experts,^{5,6} as it contributes to excess calorie intake, malnutrition, and other negative health consequences.^{7,8} Furthermore, sugary drink consumption is higher among young non-Hispanic Black children,⁹ and juice consumption is higher among Hispanic and non-Hispanic Black children compared to non-Hispanic White children of the same age.^{10,11}

This Children's Drink FACTS report assesses the sales, nutrition, and marketing of children's drinks, defined as drinks that companies market as intended for children to consume (in marketing to parents and/or directly to children). It updates previous Sugary Drink FACTS reports published in 2010¹² and 2014,¹³ with a focus on children's drink products, including both sweetened drinks and drinks without added sweeteners. It also examines changes in children's drink nutrition and marketing from 2014 to 2019.

Methods and scope

In this report, we analyze children's drinks that contained added sugars and/or low-calorie sweeteners (i.e., fruit drink, flavored water, and drink mix categories) and children's drinks without added sweeteners (i.e., 100% juice, juice/water blend, and plain water/seltzer categories).

- Using sales data from IRI (a market research firm), we examined products in its juice, fruit drink, and water categories and selected all brands with at least \$10 million in sales in 2018.
- Researchers then visited brand websites to identify any sub-brands marketed as specifically for children, including through images and/or text depicting parents serving the product to their children.

- We also obtained IRI data for the sports drink and iced tea categories, but no brands marketed children's products in those categories so they were excluded from the analysis.

Utilizing the same methods as previous FACTS reports, we collected data on the nutrition content and marketing of children's drinks by category, company, and brand, and assessed changes in the past five years when possible. Advertising spending in all media (including TV, magazines, and digital) and TV exposure data were licensed from Nielsen.

Analyses include:

- Sales of children's drinks by category and comparisons to sales of all other drinks (i.e., not children's drinks) in the same categories (2018);
- Nutrition content and ingredients in children's drinks (including all package types and sizes listed on brand websites) (May 2019);
- Claims and other marketing messages on children's drink product packages (March 2019);
- Total advertising spending (in all media) for children's drinks and other drinks in the same categories (2018);
- Exposure to TV advertising for children's drinks and other drinks by preschoolers (2-5 years) and children (6-11 years), including advertising directed to children (2018);
- TV advertising targeted to Black and Hispanic consumers, including on Spanish-language TV (2018).

In addition, we identified children's drinks that met expert recommendations for healthier beverages choices for children by age group, including:

- Consensus Statement on Healthy Beverage Consumption in Early Childhood from AAP, AHA, the Academy of Nutrition and Dietetics, and the American Academy of Pediatric Dentistry;¹⁴
- Healthy Eating Research (HER) Recommendations for Healthier Beverages for children up to age 18;¹⁵
- U.S. Department of Agriculture (USDA) Smart Snacks in School nutrition standards for beverages that can be sold to children in elementary schools;¹⁶ and
- AAP recommendations for maximum daily 100% juice intake by children.¹⁷

Results

Our analyses identified 23 children's drink brands and 67 sub-brands (or varieties) as of August 2019. Children's drink sub-brands included sweetened drinks (fruit drinks, flavored waters, and drink mixes) and drinks without added sweeteners (100% juice and juice/water blends). There was one unsweetened sparkling water for children.

Sales of children's drinks

- Sales of all juice, fruit drink, and water products totaled \$22.9 billion in 2018. Children's drinks in these categories totaled \$2.2 billion, representing 10% of all sales.
- Sweetened drinks contributed almost two-thirds (62%) of children's drink sales in 2018, including \$1.2 billion in fruit drink (90% of children's sweetened drink sales) and \$146 million in flavored water sales.
- 100% juice represented 80% of sales (\$669 million) of children's drinks without added sweeteners. Children's juice/water blends, which contained juice and water with no added sugars or low-calorie sweeteners, sold \$169 million in 2018.
- Sales of all unsweetened plain and sparkling waters totaled \$13.8 billion in 2018 (60% of total sales in the categories examined), but children's products in these categories represented just 0.01% of all children's drink sales.

Nutrition of children's sweetened drinks

- Sweetened children's drinks included 32 fruit drink, 6 flavored water, and 6 drink mix products (i.e., unique package types/sizes). Of the fruit drinks analyzed, 34% (11 products) qualified as reduced-calorie (i.e., ≤ 40 kcal/8-oz).
- Overall, 65% of children's sweetened drinks contained added sugars, 74% contained low-calorie sweeteners, and 38% contained both. Just 35% contained any juice.
- Regular children's fruit drinks contained a median of 65 calories per serving (ranging from 30-200 kcal) and 16 grams of total sugar (ranging from 6-52 g); the median juice content was 5% (ranging from 0-42%). One-half of these sub-brands also contained low-calorie sweeteners.
- Reduced-calorie children's fruit drinks contained a median of 15 calories (0-30 kcal), 2 grams of sugar (0-7 g), and 0% juice (0-18%). All contained low-calorie sweeteners, and one-half also contained added sugars.
- Children's flavored waters contained a median of 30 calories (0-40 kcal) and 7 grams of sugar (0-13 g). One product contained 10% juice (Apple & Eve Water Fruits), while the remaining five products contained low-calorie sweeteners and no juice. These products self-identified as a "water beverage" on the product package, but most were similar in nutrition to reduced-calorie children's fruit drinks.
- Due to the added sugars and/or low-calorie sweeteners contained in sweetened children's drink products, none of them met expert recommendations for drinks that should be served to children under 14 years old or that could be sold to children in elementary or middle schools.
- One serving of 11 of the children's fruit drinks analyzed had more than 50% of the recommended amount of daily

added sugar for children (i.e., >12.5 g), including many of the highest-selling brands (Capri Sun Juice Drink, Hawaiian Punch, Sunny D, and Minute Maid Lemonade).

Nutrition of children's drinks without added sweeteners

- Children's drinks without added sweeteners included 29 100% juice and 16 juice/water blend products.
- The nutrition content of 100% juice products did not vary widely (total sugar of 3-4 g/oz) as the only ingredients were fruit juice or fruit juice concentrate and water.
- The majority of children's 100% juice boxes and pouches (9 of 13 products) contained more than 4 ounces of juice (i.e., the maximum daily amount recommended for toddlers 1-3 years old), and four single-serving packages contained more than 6 ounces (i.e., the maximum daily amount of juice recommended for young children 4-6 years old).
- The juice/water blend category had the healthiest children's drink products. These products consisted of juice and water with no added sugars or low-calorie sweeteners. They contained a median of 46 calories, 10 grams of total sugars, and 50% juice per serving.
- Juice/water blend products all came in single-serving packages (4.23- to 6.75-oz boxes and pouches). Only one of the 13 packages contained more than the recommended daily amount of juice for a toddler.

Claims on product packages

Researchers coded nutrition-related and other marketing messages on 101 unique product packages (i.e., packages with different messages) of the 67 sub-brands in our analysis.

- Sweetened children's drink packages averaged 2.1 ingredient claims, 1.3 other health-related messages, and 1.0 "real" claims (i.e., messages that describe the product as real, natural, and/or organic) on the majority of packages.
- Compared to sweetened drink packages, children's drinks without added sweeteners featured similar types of claims, but somewhat more claims per package, averaging 3.8 ingredient claims, 1.1 other health-related messages, and 2.2 real claims on the majority of packages.
- Images of fruit appeared on 85% of children's sweetened drink packages (regardless of whether the product contained any fruit juice). Claims about sugar content appeared on 62%, and Vitamin C claims (i.e., "good source" or "% daily value") appeared on 46% of sweetened drinks.
- Sugar claims on sweetened children's drinks consisted primarily of "no high fructose corn syrup" and "less sugar" or "low-sugar" claims, including comparisons to the sugar in "leading juice drinks" or the "leading regular soda."

- The majority of children's drinks that contained low-calorie sweeteners also featured less or low-sugar claims, but did not indicate any other types of sweeteners on the package front. None of these drinks used the term "diet" on product packaging, and just one (Hawaiian Punch Light) identified itself as a "light" drink.
- Among sweetened drink categories, children's flavored water packages contained more ingredient, health-related, and real claims than fruit drinks or drink mixes. They averaged 2.2 sugar claims per package, including "no high fructose corn syrup" (on all but one package) and "no artificial sweeteners" on products that contained stevia low-calorie sweetener (1/3 of packages).
- Some health-related messages were unique to the flavored water category, including messages about children's hydration (on more than 80% of packages) and exercise promotion.

Other marketing messages on product packages

- Child features (including cartoons, brand characters, fun/cool/extreme references, and wacky names) were common on children's drink packages. Sweetened drinks contained more child features (90% of packages averaged 2.2 each) compared to drinks without added sweeteners (71% averaged 1.0 each).
- Among unsweetened children drinks in our analysis, the one sparkling water (Polar Seltzer Jr) stood out with three child features per package, including cartoon images, fun references, and wacky names (e.g., Unicorn Kisses, Yeti Mischief).
- Only one sweetened children's drink in this analysis featured a licensed character (Good 2 Grow Organic 75% Less Sugar with collectible children's character tops). The only other promotion on sweetened children's drinks was a corporate-level cause marketing program (Let's Play) found on all Dr Pepper Snapple Group products.
- In contrast to other child features, children's drinks without added sweeteners were more likely to use licensed characters. Approximately 20% of 100% juice and juice/water blend packages featured licensed characters (including Disney, Sesame Street, and other popular children's media characters).
- Messages about recycling and/or the environment was another common type of on-package marketing, especially for flavored waters (appearing on 80% of packages).
- Spanish-language text appeared on 40% of drink mix packages and approximately one-quarter of fruit drink and 100% juice packages.
- There were no celebrity or sports promotions on any children's drinks in our analysis.

Cross-branding of children's drinks

- Five of the children's brands that offered 100% juice and juice/water blend products also offered sweetened children's drinks (including fruit drinks and flavored waters): Apple & Eve, Capri Sun, Good 2 Grow, Minute Maid, and Mott's.
- Package sizes and types, flavor names, fruit images on package fronts, and front-of-package claims for products offered by these brands were similar across product categories – including both sweetened drinks and drinks without added sweeteners.
- The only message on the package front to distinguish between products by category was "100% juice," which appeared on all 100% juice products.
- For products in other categories, information about percent juice and types of sweeteners contained in the product was only available on the nutrition facts panel on the back of the package.

Advertising spending

- In 2018 across all types of media, children's 100% juice and juice/water blends had higher advertising expenditures than sweetened children's drinks (fruit drinks and flavored waters): \$34.4 million vs. \$20.7 million.
- In contrast, children's fruit drinks and flavored waters spent more to advertise on TV than children's 100% juices and juice/water blends (\$18.5 vs. \$13.6 million).
- Advertising of children's drinks was highly concentrated among a minority of the large beverage companies and children's brands. Just three companies (Kraft Heinz, Coca-Cola, and Harvest Hill Beverages) and four of 22 children's brands (Kool-Aid, Capri Sun, Minute Maid Lemonade, and Sunny D) advertised their sweetened children's drinks.
- The same three companies plus Dr Pepper Snapple Group were also responsible for 99% of advertising spending on children's drinks without added sweeteners.
- The one brand in our analysis with a children's sparkling water did not advertise its children's drink (Polar Seltzer Jr.) at all.
- Two children's juice/water blends (Capri Sun Refreshers and Mott's Sensibles) and one 100% juice (Juicy Juice) advertised heavily to parents in magazines (\$20.0 million combined), but had no child-directed TV advertising.
- Children's drinks represented 16% of total advertising spending for all drinks in the categories examined, including 31% of spending on fruit drink advertising and 71% of spending on juice/water blends.

- For all brands in this analysis combined (including children's brands and other brands), there was a 57% decline in total advertising spending for sweetened fruit drinks and flavored waters from 2010 to 2018. Advertising spending on sweetened children's drinks declined by 83% during this time.
- At the same time, total advertising spending on drinks without added sweeteners remained unchanged. A 56% decline in advertising spending for 100% juice was offset by a 38% increase in advertising for juice/water blends and a 70% increase in advertising for plain and sparkling waters.

Children's exposure to TV advertising

- Although companies spent less to advertise sweetened children's drinks than they spent to advertise children's drinks without added sweeteners in 2018, preschoolers (2-5 years) and children (6-11 years) saw more than twice as many TV ads for children's sweetened drinks than for children's drinks without added sweeteners (38.3 vs. 16.7 for preschoolers in 2018 and 45.4 vs. 19.7 children).
- Compared to adults, children were more likely to see ads for children's fruit drinks, flavored waters, and juice/water blends, but less likely to see ads for children's 100% juice (which was advertised primarily to parents).
- From 2010 to 2013, preschoolers' and children's exposure to TV ads for sweetened children's drinks declined by more than 50%. However, from 2013 to 2018 exposure declined by just 2% for preschoolers and 7% for children.
- In 2018, Kraft Heinz was the only company to advertise children's drinks directly to children on children's TV programming. Two of its three advertised children's drink brands were sweetened drinks (Kool-Aid Jammers fruit drink and Capri Sun Roarin' Waters flavored water). Capri Sun Organic was the only children's juice/water blend advertised directly to children.
- Preschoolers and children also saw TV ads for other drinks (i.e., not children's drinks) in the categories examined in this report, with sweetened drink ads outnumbering ads for drinks without added sweeteners in 2018. Preschoolers viewed 55.9 and 52.2 ads in 2018, for sweetened and unsweetened drinks, respectively, while children viewed 62.3 and 52.3 ads
- Kraft Heinz brands represented approximately two-thirds of TV ads for all sweetened drinks seen by preschoolers and children, while Coca-Cola brands represented another approximately 15%.
- Exposure to TV ads for all drinks without added sweeteners was somewhat less concentrated, with Kraft Heinz, Coca-Cola, PepsiCo, Nestle, and Wonderful responsible for more than 90% of TV ads viewed by preschoolers and children.

Targeted marketing

- Only three children's drink sub-brands across all categories advertised on Spanish-language TV in 2018.
- Capri Sun Juice Drink and Sunny D fruit drinks each devoted approximately one-quarter of their TV advertising spending to Spanish-language TV.
- Capri Sun Refreshers juice/water blends also spent a small amount (approximately \$100,000) to advertise on Spanish-language TV.
- No other children's drink brand or any other brand in the juice, fruit drink, or water categories advertised on Spanish-language TV in 2018.
- Black preschoolers and children saw 79% and 77% more TV ads for all drinks in our analysis compared to White preschoolers and children in 2018, but differences varied by category. Black preschoolers and children saw approximately 85% more ads for flavored water and sparkling water products, but just 25% more ads for plain water products (this category did not include any children's drinks).
- Sweetened drink brands with the highest ratios of ads viewed by Black preschoolers and children compared to White preschoolers and children (exceeding 2.0, or twice as many ads viewed) included Minute Maid Lemonade (a children's fruit drink) and Glaceau Vitamin Water (not a children's drink).
- Black preschoolers and children also saw more than twice as many ads for four 100% juice brands and one sparkling water brand, including two children's drinks (Minute Maid Orange Juice and 100% Juice).

Discussion

These findings highlight some positive developments in the nutrition and marketing of healthier children's drinks:

- Juice/water blends can provide a lower-calorie lower-sugar option for young children than 100% juice, and they are more likely to come in single-serving boxes or pouches that would be an appropriate size for toddlers ages 1 to 3 (i.e., ≤ 4 oz of 100% juice or equivalent).
- Several children's drink brands appeared to actively market juice/water blends to parents, and parents are purchasing them.
- The one children's unsweetened water in our analysis appeared to appeal directly to children using common child-directed marketing features on packages, which could help parents' efforts to get their children to drink more plain water.

- With one exception, children's 100% juice and juice/water blends were the only products with licensed characters or other children's media promotions on their packages. In contrast to previous years, only one children's sweetened drink product featured licensed characters in 2019.
- Beverage companies may have reallocated their total advertising expenditures (for non-children's drinks primarily) to focus less on sweetened fruit drinks and flavored waters, and more on healthier drinks, including plain and sparkling waters and juice/water blends.

However, we also identified common practices that may confuse parents about the ingredients and healthfulness of sweetened children's drinks.

- The widespread use of low-calorie sweeteners in children's drinks, including drinks with added sugars, is concerning. Experts do not recommend serving products with low-calorie sweeteners to children under age 14.¹⁸⁻²⁰
- Furthermore, previous research has shown that the majority of parents studied reported believing that nonnutritive (i.e., low-calorie) sweeteners are not safe for children.²¹⁻²³ Therefore, it appears that parents may not be aware that most sweetened children's drinks contained these sweeteners.
- The sugar content and calories in the majority of children's fruit drinks also raise concerns, as many of these drinks contained more than one-half of a child's recommended maximum daily intake of added sugars.
- Children's flavored waters were often positioned as lower-sugar beverages for "hydration" and "exercise," which may lead to misperceptions about product healthfulness.
- Most children's 100% juice products came in single-serving boxes or pouches that contained more than the recommended maximum daily amount of juice for toddlers (1-3 years), and some contained more juice than recommended for preschoolers (4-6 years).
- Cross-branding by major children's drink brands that offer both sweetened and healthier drink products may further confuse parents about the ingredients and healthfulness of the drinks they purchase for their children.

In addition, advertising of sweetened drinks directed to children and targeted advertising to Hispanic and Black children continue to raise concerns.

- Despite a trend to increase advertising for healthier drinks to consumers in general, preschoolers and children continued to see more ads for sweetened children's drinks than for 100% juice and juice/water blends.
- Only one company (Kraft Heinz, a Children's Food and Beverage Advertising Initiative [CFBAI] industry self-regulatory program participant) advertised sweetened

drinks directly to children on children's TV. These low-calorie products were exempt from meeting CFBAI nutrition standards for products that may be advertised in child-directed media, even under revised CFBAI nutrition standards to be implemented in 2020.²⁴ However, these products contain both added sugars and low-calorie sweeteners, so they do not meet expert recommendations for healthier beverages for children under age 14.^{25,26}

- The amount of time preschoolers and children spent watching TV declined by 35% and 42%, respectively, from 2013 to 2018, so children's exposure to TV ads for sweetened children's drinks should have declined by a similar amount. However, children's exposure remained approximately the same, which indicates that companies offset the decline in viewing times by placing more ads in the programming that children viewed.²⁷
- Two of the three children's drink brands that advertised on Spanish-language TV (Capri Sun Juice Drink and Sunny D) did not meet CFBAI nutrition standards and could not advertise on children's TV programming. However, this advertising does not violate CFBAI pledges as Spanish-language TV programming does not meet the CFBAI definition of child-directed TV.
- One brand (Minute Maid) appeared to target Black children directly with advertising for children's drinks, including Minute Maid Lemonade sweetened fruit drink.

Recommendations

This report highlights potential actions by key stakeholders – including industry, policy makers, advocates, and healthcare providers – that would help encourage reduced consumption of sugary drinks by children.

Beverage manufacturers, retailers, and media companies should do more to encourage healthier options over sweetened drinks for children:

- In addition to juice/water blends with lower calories and no added sweeteners, manufacturers should develop and market unsweetened plain waters for children.
- CFBAI nutrition standards for products that can be advertised in child-directed media should conform with expert recommendations for healthier drinks for children. They should not exempt reduced-calorie drinks that contain low-calorie sweeteners and/or added sugars from meeting their standards.
- CFBAI nutrition standards should apply to children's drink advertising on Spanish-language TV.
- Media companies with children's programming (in addition to Disney) should implement nutrition standards that comply with expert recommendations for products that can

be advertised to children in their media and for character licenses.

- The front of children's drink packages should clearly indicate the percent juice and added sweetener content, including low-calorie sweeteners and added sugars.
- Children's drink brands should eliminate cross-branding of products that include both sweetened drinks and healthier options.
- Retailers should clearly label children's drinks that contain added sweeteners (e.g., with shelf tags) and/or place sweetened children's drinks and flavored waters in a separate location from 100% juice and juice/water blends.

Federal regulation and state and local actions could encourage selection of healthier drink options for children:

- Public health campaigns to reduce sugary drink consumption should highlight that children's fruit drinks and flavored waters contain added sugars and help educate consumers on how to differentiate them from 100% juice and juice/water blends that do not contain added sweeteners.
- State and local legislators could require that retailers separate sweetened fruit drinks and flavored waters from 100% juice and juice/water blends on store shelves.
- The U.S. Food and Drug Administration (FDA) could establish regulations to address unclear labeling practices, such as requiring disclosures of sweeteners (added sugars and low-calorie sweeteners) and juice content on the front of packages.
- The FDA could require that products with nutrition-related claims on product packaging meet minimum nutrition standards.

- The FDA could prohibit the use of fruit and vegetable images on packages of drink products that contain little or no juice.
- States should increase the price of sugary drinks, including children's fruit drinks and flavored waters, through an excise tax, with tax revenue allocated to local efforts to reduce health and socioeconomic disparities.

Child health advocates and health practitioners can also play an important role:

- The revised 2020-2025 Dietary Guidelines for Americans should address the full range of children's drink products available on the market, including drinks with low-calorie sweeteners, and USDA should provide clear guidelines and educational materials to help parents identify the healthiest options for their children.
- Healthcare professional organizations and/or public health organizations should develop campaigns to educate parents about how to identify healthier children's drinks.
- Healthcare professionals, including pediatricians, dentists, and nutritionists, should counsel their patients about the sugar content and other ingredients in children's drinks and reinforce the importance of providing unsweetened water and milk to children.

Marketing of children's drinks should not contribute to the public health crisis fueled by excess sugar consumption by children. As detailed in this report, much more is required for beverage manufacturers and other key actors to demonstrate their commitment to reducing children's consumption of sweetened drinks that can harm their health. They should help caregivers identify and encourage children to consume healthier drinks that do not contain added sweeteners.

The American Academy of Pediatrics (AAP) and the American Heart Association (AHA) have determined that sugary drink consumption threatens children's health and policy strategies to reduce sugary drink consumption are "urgently needed."¹ Yet companies continue to market sugary drinks to children and their parents,² and sugary drink marketing is disproportionately targeted to communities of color.³

In their joint policy statement on the urgent need to reduce sugary drink consumption by children and adolescents, AAP and AHA describe the long-term health risks associated with sugary drinks (defined as drinks that contain any added sugars), including cardiovascular disease, type 2 diabetes, hypertension, dental decay, and all-cause mortality.⁴

Sugary drinks contribute almost half of all added sugar consumed by children ages 2 and older.⁵ More than one-half of children (ages 2-11) consume sugary drinks on a given day, including 25% of toddlers (12-24 months)⁷ and 45% of preschoolers (24-48 months).⁸ Among children, fruit drinks (i.e., fruit-flavored or juice drinks that contain added sugars) are the most common type, consumed by 24% of 2- to 5-year-olds and 27% of 6- to 11-year-olds.⁹ One-third of 2- to 4-year-olds consume fruit drinks on a given day, which contribute 116 calories to their diets.¹⁰

Calories consumed from sugary drinks increase with age. On average, preschool-age boys and girls (ages 2-5) consume 65 and 59 calories of sugary drinks daily, respectively.¹¹ These numbers approximately double to 133 and 104 calories daily for 6- to 11-year-old boys and girls. In addition, sugary drink

consumption is highest among young non-Hispanic Black children. More than one-half (55%) of Black 2- to 4-year-olds consume fruit drinks on a given day, averaging 149 calories.¹²

Overconsumption of 100% juice by children also raises concerns, as it contributes to excess calorie intake,¹³ malnutrition, and other negative health consequences.¹⁴ However, more than 50% of toddlers (18-24 months) consume 100% juice on a given day, and approximately one-third consume more than 6 ounces daily.¹⁵ Juice consumption on a given day declines to 45% of 2- to 4-year-olds,¹⁶ coinciding with the rise in fruit drink consumption during this time. Incidence of consuming juice is lower among non-Hispanic White children in this age group (39%), compared to both Hispanic and non-Hispanic Black children.¹⁷ On average, 100% juice contributes 114 calories to the daily diets of 2- to 4-year-olds across racial/ethnic groups.

Expert recommendations on drinks for children

To address the concerns raised by consumption of sugary drinks and excess consumption of 100% juice, nutrition and health experts have established recommendations for healthier drinks for children.

In 2019, Healthy Eating Research (HER), a national program of the Robert Wood Johnson Foundation, convened an expert panel representing four leading health and nutrition organizations—AAP, AHA, the Academy of Nutrition and Dietetics, and the American Academy of Pediatric Dentistry – to develop comprehensive evidence-based recommendations for beverage consumption by children from birth to age 5.²⁴ To establish young children's healthy growth and development, they recommend that children consume plain milk and water, although a small amount of 100% juice is acceptable. They also recommend that all children under

Expert recommendations on drinks for children

Type of drink	Young children (1 to 6 years) ^{18, 19}	Children (7-13 years) ²⁰	Adolescents (14-18 years) ²¹
Sugary drinks: All drinks that contain any type of added sugars (e.g., fruit drinks, soda, sweetened teas, flavored waters, sports drinks, energy drinks, flavored milk, toddler milk) ²²	Do not consume	Do not consume	Do not consume
Drinks with low-calorie sweeteners: All drinks that contain nonnutritive sweeteners (also known zero-calorie, non-caloric, or diet sweeteners) including sucralose, acesulfame potassium, and stevia	Do not consume	Do not consume	Lower-calorie drinks (≤ 40 kcal per container) may be appropriate to help prevent excess weight gain
100% juice, including 100% juice combined with water ²³	12-36 months: No more than 4 oz/day;	No more than 8 oz/day	No more than 8 oz/day
	3-6 years: No more than 6 oz/day		
Plain milk: Recommended types	12-24 months: Unflavored whole milk;	Unflavored low-fat and non-fat milk and soy beverages	Unflavored low-fat and non-fat milk and soy beverages
	2-6 years: Unflavored low-fat and non-fat milk		
Plain water, without sweeteners (including added sugars or low-calorie)	Recommended for thirst	Recommended for thirst	Recommended for thirst

age 5 avoid drinking any beverages with added sugar or low-calorie sweeteners, as they are a large source added sugars and provide no nutritional value.

An earlier national HER panel of experts developed age-specific recommendations for healthy beverage choices for older children up to age 18.²⁵ They also recommended that beverage choices for all children should consist primarily of water with no added sweeteners, unflavored milk, and 100% juice in limited quantities. The panel recognized that other lower-calorie beverages (≤ 40 kcal per container) available in the market could help prevent excess weight gain and support weight reduction for adolescents (ages 14 and above). However, these experts also recommended that children under age 14 should not consume products that contain low-calorie sweeteners (i.e., nonnutritive sweeteners), which are typically contained in low-calorie beverages.

The U.S. Department of Agriculture (USDA) has also established Smart Snacks in School standards for beverages that can be sold to children in schools during the school day.²⁶ These standards allow provision of only plain water, unflavored low-fat milk, flavored or unflavored non-fat milk, 100% fruit or vegetable juice, and 100% fruit or vegetable juice diluted with water (and no added sweeteners) to be served or sold in elementary and middle schools. USDA does allow no-calorie and low-calorie beverages with caloric and low-calorie sweeteners (≤ 40 kcal per 8 oz) to be served or sold in high schools, but not elementary or middle schools.

Expert recommendations designate 100% juice and 100% juice diluted with water as healthier beverages, but they also recommend limiting children's juice consumption. The AAP recommends no more than 4 ounces/day for toddlers (1-3 years), 6 ounces/day for children ages 4 to 6, and 8 ounces for children ages 7 to 18. Expert guidelines also recommend limits on the amount of 100% juice provided to children of different ages that align with AAP recommendations. The HER Consensus Statement recommends no more than 4 ounces for ages 1 to 3 (12-36 months) and 6 ounces for children ages 3 to 5 (37-60 months).²⁷ For older children, the HER Recommendations for Healthier Beverages would limit 100% juice to no more than 6 ounces per day for children ages 5 to 10 and 8 ounces for children ages 11 to 18.²⁸ USDA's Smart Snacks in School standards limit 100% juice and diluted juice (with no added sweeteners) to 8-ounce containers in elementary schools and 12-ounce containers in middle and high schools.²⁹

Marketing of children's drinks

Despite expert recommendations, beverage companies continue to market sugary drinks to children and adolescents, including children's fruit drinks and sweetened flavored waters.³⁰ Furthermore, sugary drink brands disproportionately target their marketing to Black and Hispanic youth.³¹

The Rudd Center's previous Sugary Drink FACTS reports^{32, 33} provided a comprehensive analysis of the nutrition and

marketing of children's drinks in 2011 and 2014. The report documented the poor nutritional quality of sugary drinks marketed for children and prevalence of nutrition-related claims and other messages on product packages. In 2014, there were 162 children's sugary drink products, representing almost 20% of all sugary drinks examined. Fruit drinks made up the majority of children's drinks. Median sugar content for children's fruit-flavored drinks was 16 grams per serving (ranging from 2-33 g), and 41% contained low-calorie sweeteners in addition to added sugars. Although 45% of children's sugary drinks contained some juice, the median juice content was just 5%. Compared to all fruit drinks, children's drinks contained fewer calories and sugar, but they were more likely to contain low-calorie sweeteners and less likely to contain any juice.

Furthermore, children's fruit drink packages in 2014 were more likely to feature nutrition-related messages (averaging 4.5 claims per package). Children's products that contained low-calorie sweeteners featured "less sugar" claims, but none of the packages indicated that the products contained additional sweeteners. From 2011 to 2014, there was no improvement in median sugar or juice content of children's drinks, but there was an increase in the percent of products that contained some juice (from 32% in 2011). In addition, nutrition- and health-related messages on children's drinks increased during this time.

Children's fruit drink brands also advertised extensively. In 2013, they spent more than \$50 million in advertising, compared to \$28 million spent on fruit drinks not aimed at children. Preschoolers (2-5 years) saw on average 36 TV ads for children's drinks in 2013, twice as many ads as adults saw for these brands. The 2014 report also analyzed advertising for plain water and 100% juice brands. Products in these healthier drink categories spent \$53 million and \$140 million, respectively. However, preschoolers saw less than one-half the number of ads for these products compared to adults, averaging 8 ads for water and 51 ads for 100% juice in 2013. Although some 100% juice products were marketed as children's products (e.g., Capri Sun 100% Juice), these products were advertised to parents, not directly to children. Furthermore, despite reductions in TV advertising to older children and teens (6-17 years), advertising to young children 2-5 years old did not decline.³⁴ Disparities in exposure to advertising by Black consumers relative to White consumers have also increased, and companies increasingly targeted advertising for sugary drinks to Hispanic parents.³⁵

Policy recommendations

AAP and AHA recommend a number of public policies to reduce sugary drink consumption by children, including federal and state government support for efforts to decrease sugary drink marketing to children and additional nutrition disclosures, such as front-of-package labels, on product packaging.³⁶

Beverage companies also acknowledge the need to address advertising of sugary drinks to children. Since 2008, companies that belong to the American Beverage Association (ABA),

including Coca-Cola, PepsiCo, and Dr Pepper Snapple Group, have agreed to only market 100% juice, water, and milk-based drinks to children under 12.³⁷ In September 2018, the Children's Food and Beverage Advertising Initiative (CFBAI) industry voluntary self-regulatory program announced revised Category-Specific Uniform Nutrition Criteria to be implemented by January 2020.³⁸

These revised CFBAI nutrition standards allow only the following drink products in child-directed advertising:

- 100% fruit/vegetable juice or juice/water blends or 100% fruit/vegetable juice diluted with water only (with or without carbonation) with a maximum 6-ounce serving size. These products cannot contain added sugars.
- Beverages, including bottled waters, that meet FDA regulations for “low calorie” and “very low sodium,” and contain ≤ 5 grams of added sugars per serving size listed on the package, excluding diet sodas.

CFBAI defines the second type of beverages as “exemptions.” These products do not contain “Nutrition Components to Encourage,” which is a requirement for all other food and drinks that can be advertised to children, with the exception of sugar-free mints, gum, and gelatin. It is notable that the CFBAI standards do not address low-calorie sweeteners, which the HER experts do not recommend and Smart Snacks in School nutrition criteria do not allow in drinks for children under age 14.

A 2016 evaluation of the Balance Calories Initiative, a joint program of the ABA and Alliance for a Healthier Generation to reduce beverage calories consumed per person by 20% by 2025, found that beverage companies had reformulated some full-calorie beverages to reduce calories by as much as 36%.³⁹ In addition, from 2014 to 2015 companies introduced 43 new no-, low-, and mid-calorie beverages, which exceeded the number of full-calorie brands and flavors introduced during the same time. A more recent evaluation in 2019 found that total beverage calories consumed declined from 201.9 calories per person per day in 2014 to 199.1 in 2017, a 1% decline.⁴⁰ The report also concluded that reductions “still need to accelerate” to meet the goal of 161.5 beverage calories per person per day in 2025.

While the beverage industry promotes improvements in the caloric content of its products, it is important to update the data from the Rudd Center's 2014 Sugary Drink FACTS report to provide a comprehensive analysis of the nutrition content and marketing of children's drinks in 2019 and to assess changes over the past five years.

Measuring progress

This report focuses on children's drinks, defined as drinks intended for children to consume, as indicated on brand websites. Children's drinks may be marketed directly to children

or to parents as appropriate drinks to serve their children. We focused this report on drinks intended for children (i.e., 2-11 years old) due to increasing public health concerns about the importance of establishing healthier beverage consumption patterns in early childhood.⁴¹ Therefore, the report does not include products that our previous research has shown are primarily marketed to adolescents and adults (such as soda and energy drinks).⁴²

For this report, we identified and analyzed sweetened children's drinks in the fruit drink, flavored water, and drink mix categories examined in previous Sugary Drink FACTS reports. We also examined children's drinks without added sweeteners (added sugars or low-calorie sweeteners) in the 100% juice, juice/water blend, and plain water/seltzer categories to assess marketing of healthier products for children.

Utilizing the same methods as previous FACTS reports, we examine differences in the nutrition content and marketing of children's drinks by category, company, and brand, and assess changes from 2014 to 2019 when possible.

Analyses include:

- Sales of children's drinks by category and comparisons to sales of all other drinks (i.e., not children's drinks) in the same categories (2018);
- Nutrition content and ingredients in children's drinks (including all package types and sizes listed on brand websites) (May 2019);
- Claims and other marketing messages on children's drink product packages (March 2019);
- Advertising spending for children's drinks and other drinks in the same categories (2018);
- Exposure to TV advertising by preschoolers (2-5 years) and children (6-11 years), including advertising targeted directly to children (2018);
- TV advertising targeted to Black and Hispanic consumers, including on Spanish-language TV (2018).

We did not have access to food industry proprietary documents, including privately commissioned market research, media and marketing plans, or other strategic documents. Therefore, we do not attempt to interpret beverage companies' goals or objectives for their marketing practices. Rather, we provide transparent documentation of the range of marketing practices used to promote children's drinks to children and their parents.

The findings in this report serve to evaluate beverage companies' commitment to reducing consumption of sweetened drinks that can harm young children's health and encouraging consumption of healthier drinks for children.

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,ⁱ 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)	Fruitfuls 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)	

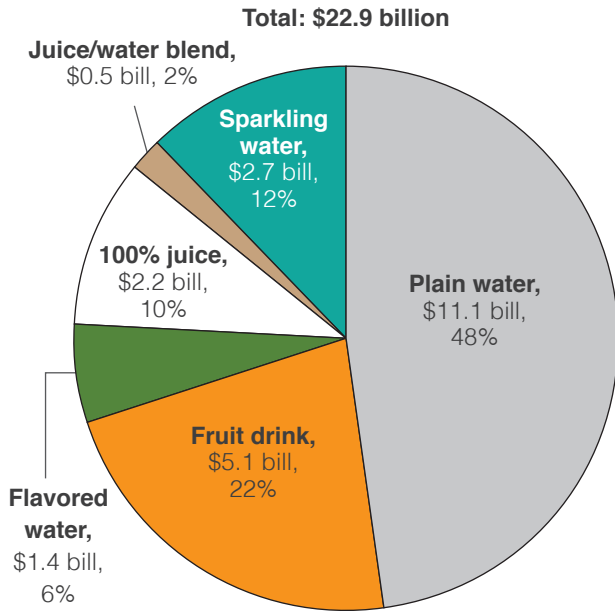
Source: Product analysis (August, 2019)

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

Brand (Company)	Sweetened drinks		Drinks without added sweeteners	
	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)

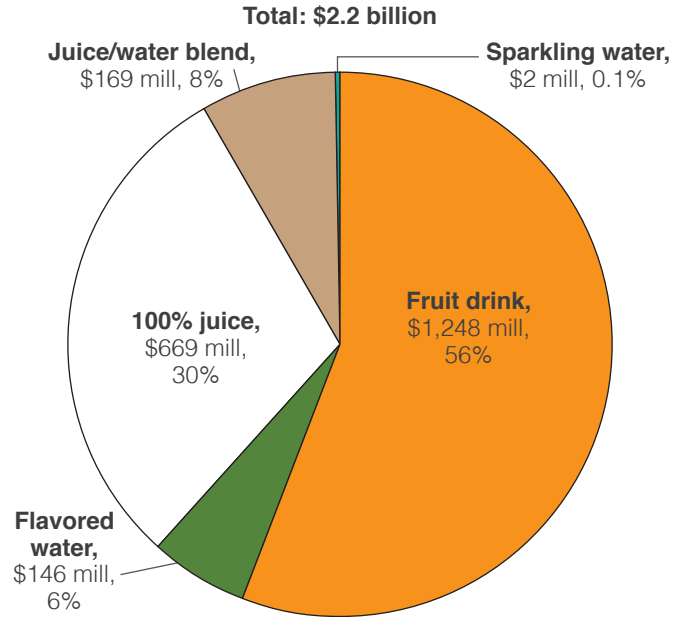
Figure 1. Total sales* by drink category in 2018



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

Source: Analysis of 2018 IRI sales data

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



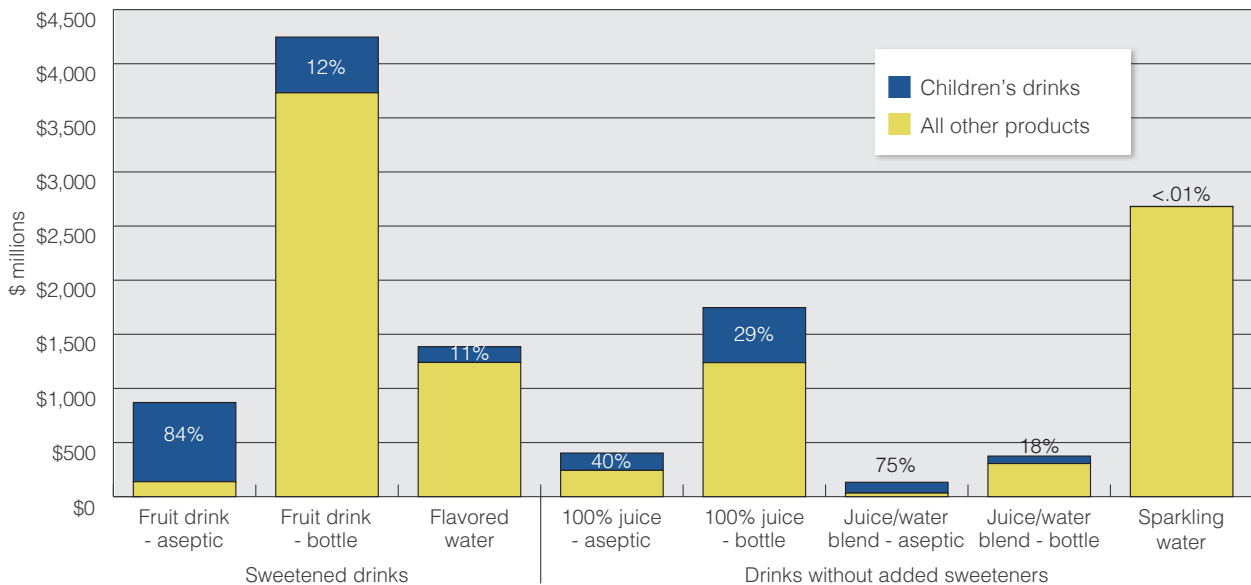
*Includes children's drink products in IRI's aseptic juice, bottled juice, and water categories

Source: Analysis of 2018 IRI sales data

(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).

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

Category	# of brands (sub-brands)	% of sub-brands with			
		Added sugar	Low-calorie sweeteners	Any fruit juice	Reduced-calorie drinks
<i>Sweetened drinks</i>					
Fruit drinks	17 (22)	73%	73%	50%	45%
Flavored waters	4 (6)	67%	83%	17%	83%
Drink mixes	3 (6)	33%	67%	0%	83%
<i>Drinks without added sweeteners</i>					
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 multi-serving 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

Category	# of package size/types	Serving size (oz)*		Calories (kcal)		Total sugar (g)		Juice (%)	
		Median	Range	Median	Range	Median	Range	Median	Range
<i>Fruit drinks</i>									
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)
<i>Flavored waters</i>									
Regular	1	6.75		40		10		10	
Reduced-calorie	5	10	(6 - 10)	30	(0 - 50)	7	(0 - 13)	0	
<i>Drink mixes</i>									
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*

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

*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

Brand	Sub-brand	Serving size change (oz)	Calories (kcal/oz)			Sugar (g/oz)			Sodium (mg/oz)			Juice (%)	
			2014	2019	Change	2014	2019	Change	2014	2019	Change	2014	2019
Capri Sun	Juice Drink (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!

Available Sizes



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

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

Source: Nutrition analysis (August, 2019)

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

Brand	Sub-brand	Container	Serving size (oz)	Per serving			Sweeteners	
				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%	X	
Kool-Aid	Singles	Packet	8.5	30	7	0%	X	X
Hawaiian Punch	Singles to Go	Packet	8.45	5	1	0%		X
Kool-Aid	On the Go	Packet	8.5	5	0	0%		X
Kool-Aid	Liquid	Multi-serving drops	8	0	0	0%		X

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

Source: Nutrition analysis (August, 2019)

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 sub-brands.

The American Heart Association recommends that children under age 2 consume no products with added sugar.⁹ 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

Category	# of packages	Flavors per pkg	Serving size (oz)*		Calories (kcal)		Total sugar (g)		Juice (%)	
		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	(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+	
Tree Top	100% Juice	5.5-oz can	80	17	4+	12-oz can; 6.75-oz box; 10-, 46-, 64-oz 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	Fruitfuls 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 nutrition-related 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

Category	Sub-brands (unique packages)	Ingredient claims		Other health-related messages		Real claims	
		% of pkgs with message	Avg # of messages/pkg	% of pkgs with message	Avg # of messages/pkg	% of pkgs with message	Avg # of messages/pkg
<i>Sweetened drinks</i>							
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
<i>Drinks without added sweeteners</i>							
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

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

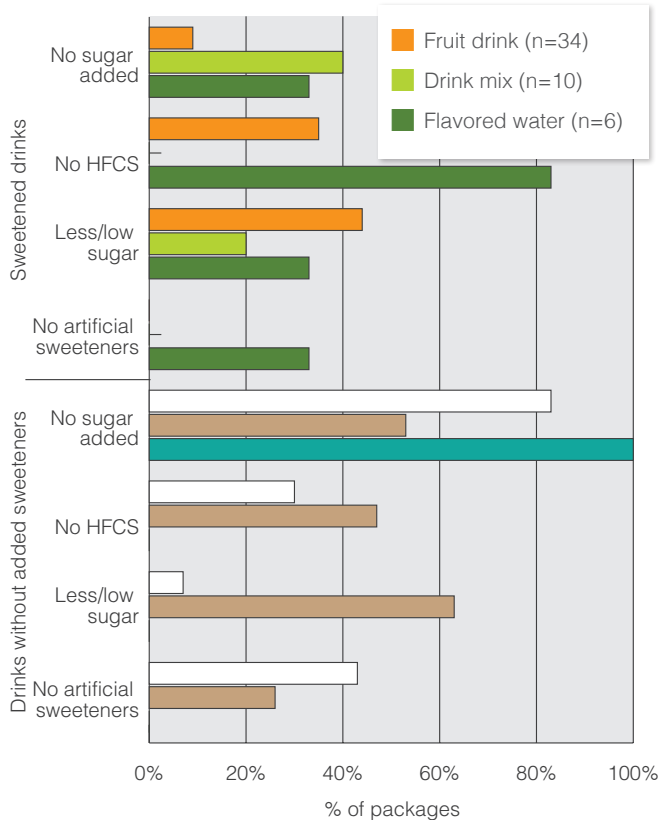
Source: On-package marketing analysis (August, 2019)

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)

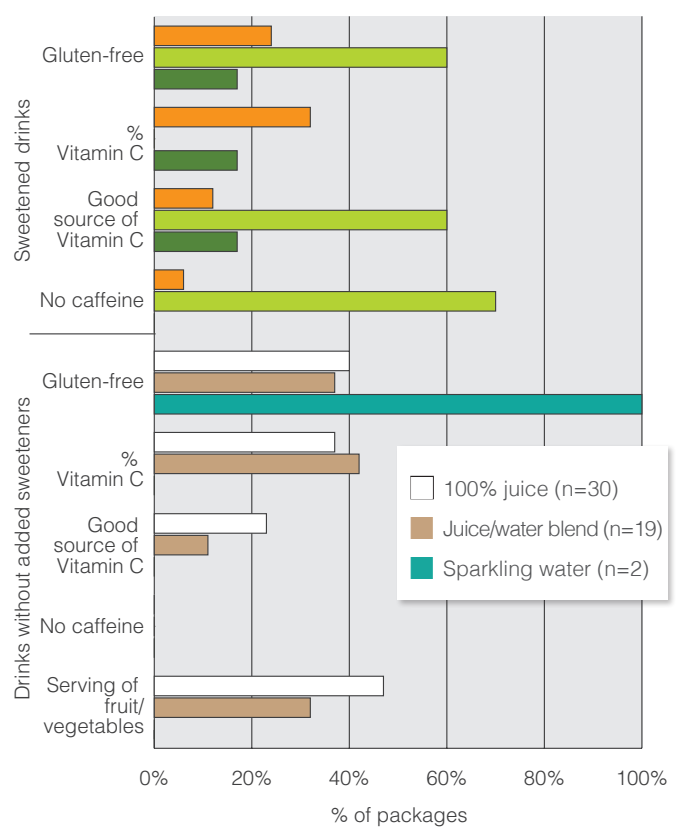
a “good source” of Vitamin C. However, one-third or more of fruit drink, 100% juice, and juice/water blend packages noted the “% daily value of Vitamin C” contained in the product.

“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 Fruitfuls 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



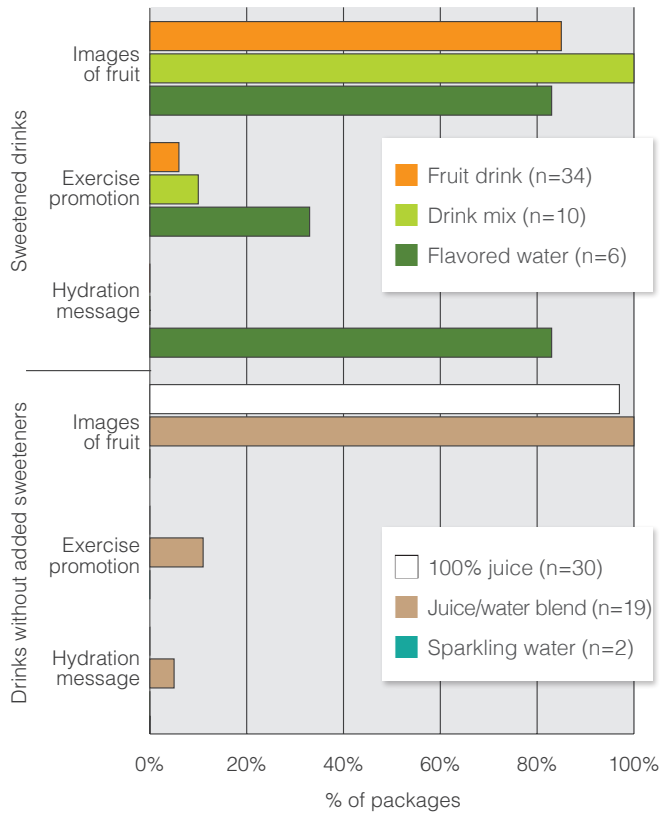
Source: On-package marketing analysis (August, 2019)

& 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

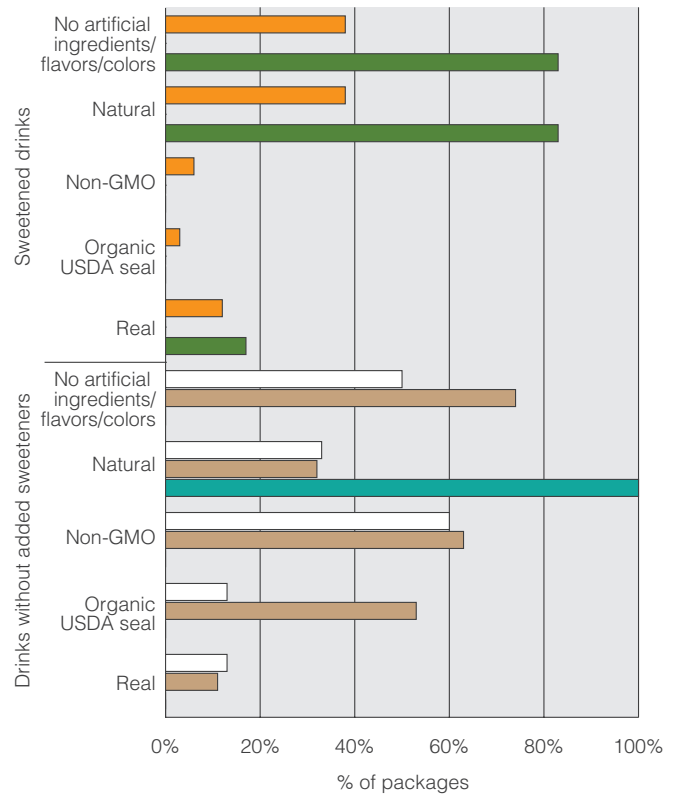


Source: On-package marketing analysis (August, 2019)

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

Figure 8. Real claims by category



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

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

Other marketing messages

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

Category	Sub-brands (unique packages)	Child features		Promotions	
		% of pkgs with message	Avg # of messages/pkg	% of pkgs with message	Avg # of messages/pkg
<i>Sweetened drinks</i>					
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
<i>Drinks without added sweeteners</i>					
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)

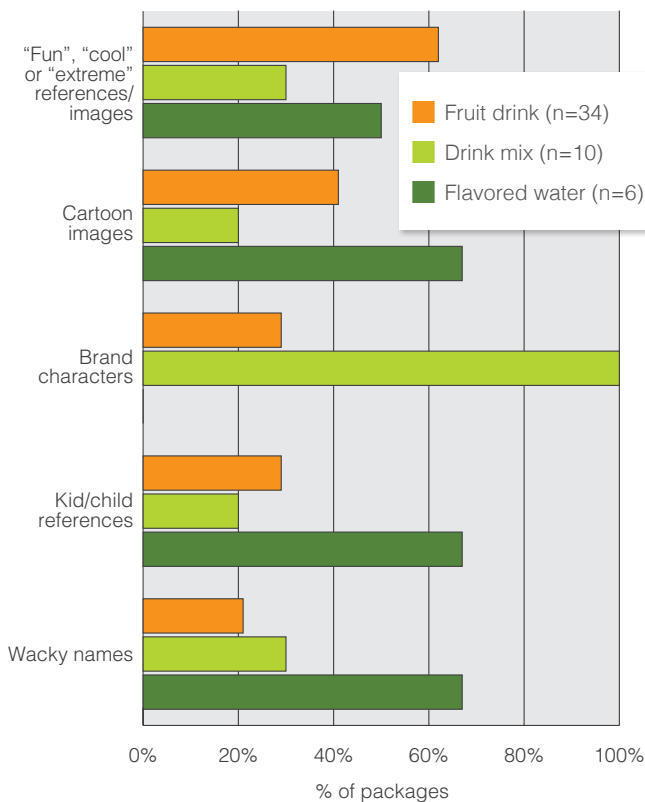
packages included the most child features (3 per package), followed by flavored water (2.5 per package); 100% juice packages had the fewest child features (1.7 per package).

Promotions, including licensed characters, charitable causes, and giveaways, 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)



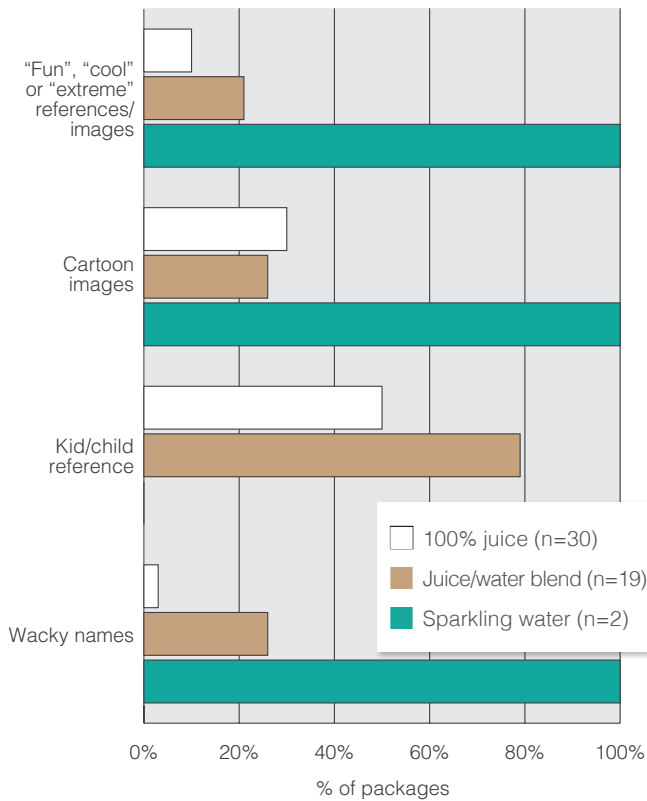
Kool Aid Sour Jammer packages had the most child features of any product in our analysis, plus Spanish-language content

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)

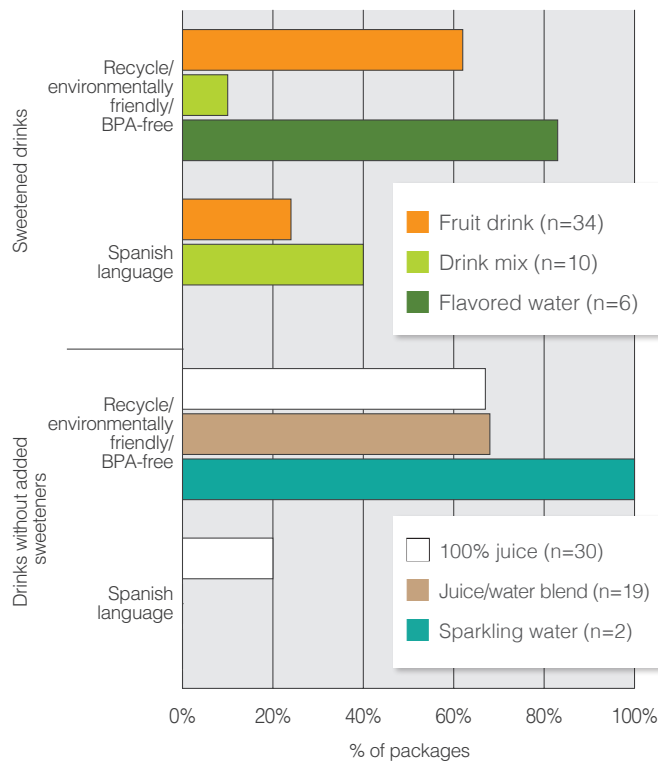
Limited-time promotions incorporating licensed characters included Very Hungry Caterpillar (Knudsen Sensible Sippers juice/water blend), Incredibles movie (Juicy Juice 100% juice), and Paw Patrol (one Capri Sun 100% Juice package). Notably, there were no celebrity or sports promotions on any children’s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

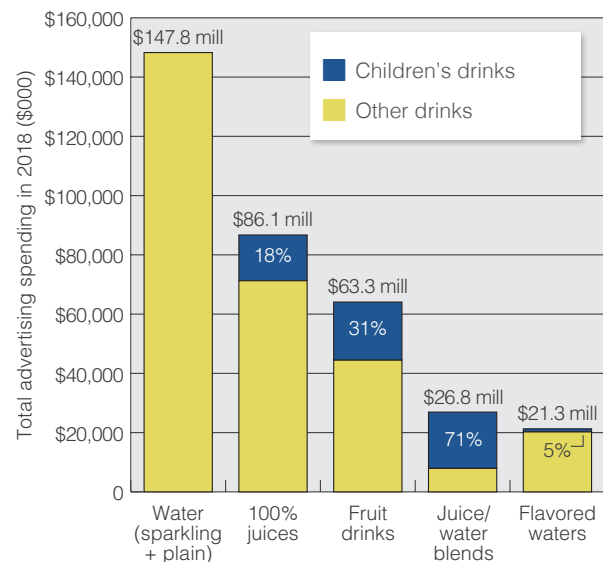
Advertising spending for all drinks in the categories included in this report (including both children's and other drinks) totaled \$350 million in 2018 (see **Appendix Table 6** for detailed information about each drink brand and company). Plain and sparkling water brands spent the most (\$148 million), 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



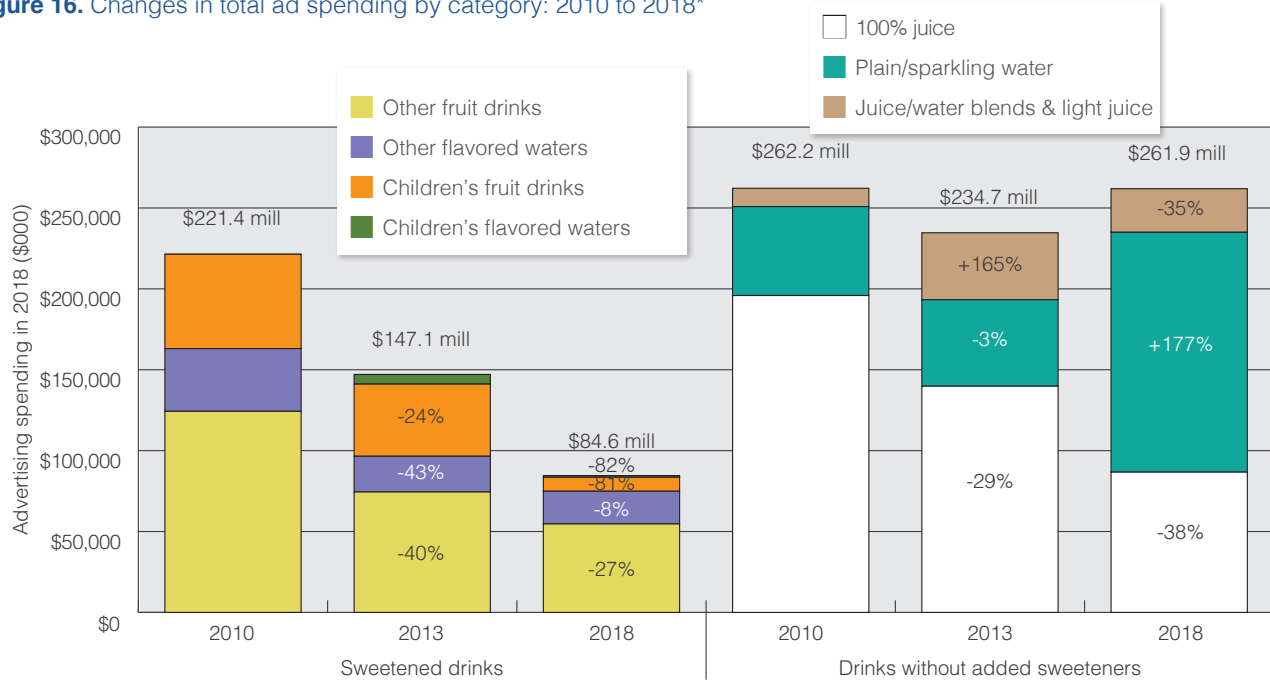
Source: Analysis of 2018 Nielsen data

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*



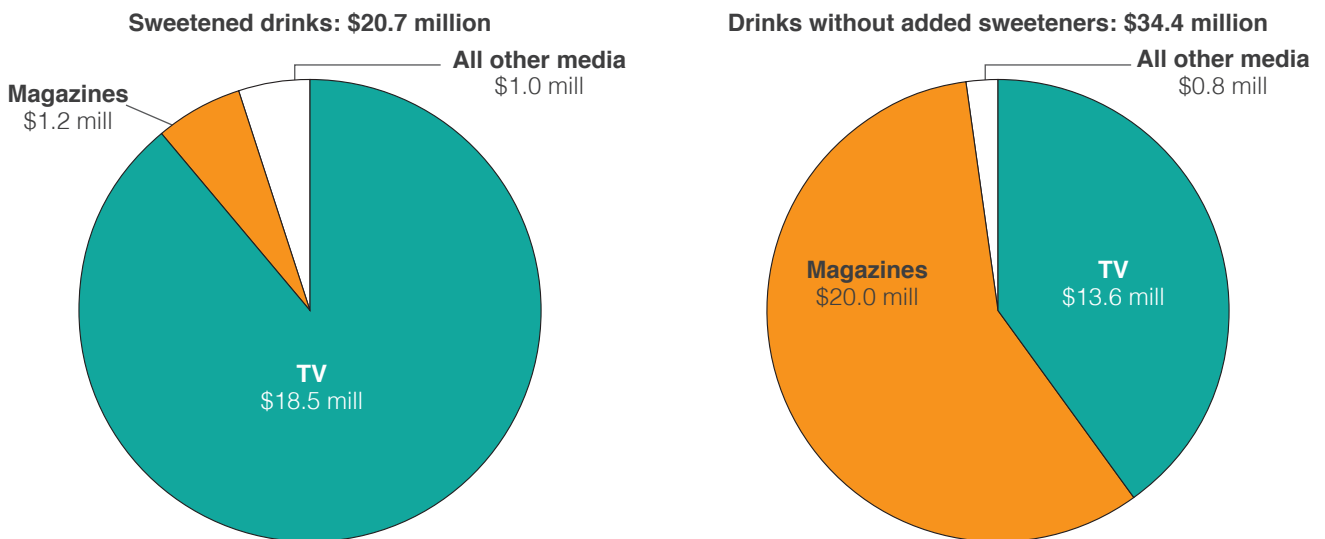
*Indicates % change from previous year. Change in children's fruit drinks includes products categorized as children's drinks in all years examined. Source: Analysis of 2018 Nielsen data; Harris et al. 2014.

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).

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.

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

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

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

Category	Total spending on children's drinks	Advertising spending (\$000)				
		TV	TV % of total	Magazine	Digital	FSI coupon
<i>Sweetened drinks</i>						
Fruit drinks	\$19,605	\$17,459	85%	\$1,224	\$551	\$211
Flavored waters	\$1,050	\$1,050	100%	\$0	\$0	\$0
<i>Drinks without added sweeteners</i>						
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

Source: Analysis of 2018 Nielsen data

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

Brand	Sub-brand	Category	Advertising spending (\$000)				
			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

Brand	Sub-brand	Category	Advertising spending (\$000)				
			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

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

Source: Analysis of 2018 Nielsen data

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

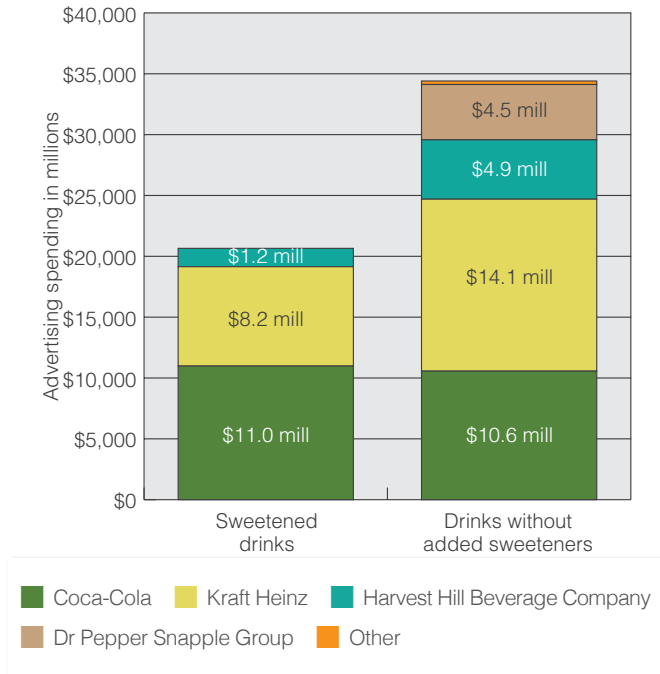
Just four companies (Coca-Cola, Harvest Hill Beverage Company, Kraft Heinz, and Dr. Pepper Snapple) represented more than 98% of advertising for children's drinks, including both sweetened drinks and drinks without added sweeteners (see **Figure 18**). Coca-Cola (Minute Maid brands) was the biggest spender 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
<i>Sweetened drinks</i>						
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%
<i>Brand-level ads</i>						
Capri Sun			\$232	\$640	\$0	-100%

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

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



Source: Analysis of 2018 Nielsen data

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 sub-brands, 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	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 <ul style="list-style-type: none"> • 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.

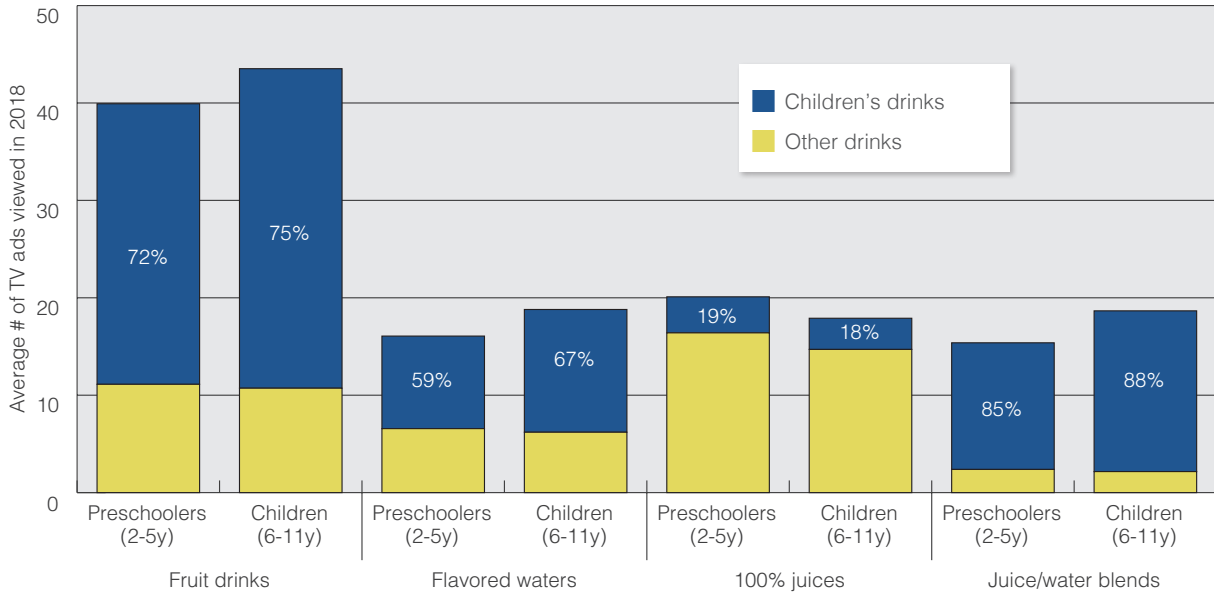
Table 20. Children's TV ad exposure: all drinks vs children's drinks

Category	All drinks				Children's drinks			
	Preschoolers (2-5y)		Children (6-11y)		Preschoolers (2-5y)		Children (6-11y)	
	Avg # of ads viewed	Tgt ratio (vs. adults)	Avg # of ads viewed	Tgt ratio (vs. adults)	Avg # of ads viewed	Tgt ratio (vs. adults)	Avg # of ads viewed	Tgt ratio (vs. adults)
<i>Sweetened drinks</i>								
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
<i>Drinks without added sweeteners</i>								
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

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



Source: Analysis of 2018 Nielsen data

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.

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

Children’s TV advertising exposure by company

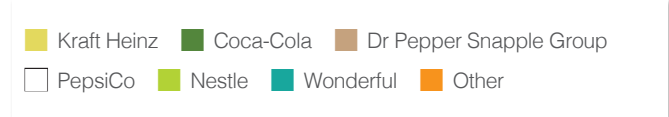
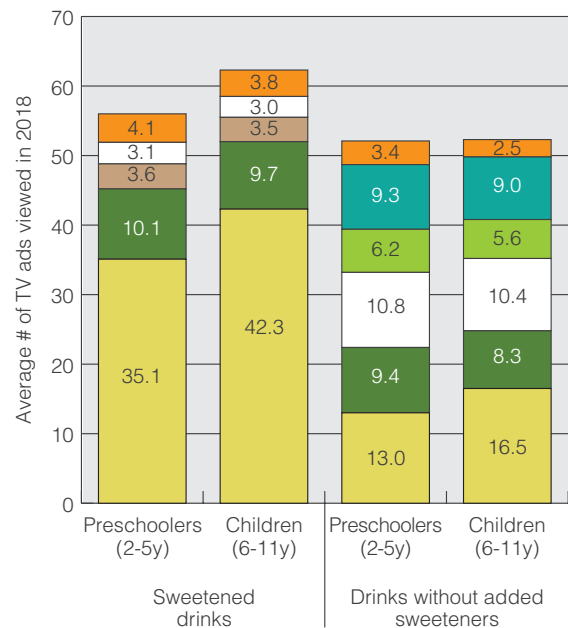
In examining children’s exposure to drink ads by company, more than 45% of all ads viewed by preschoolers and children were for Kraft Heinz products, including about 65% of ads viewed for sweetened drinks and 25% of ads for drinks without added sweeteners (see **Figure 21**). Coca-Cola was responsible 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.

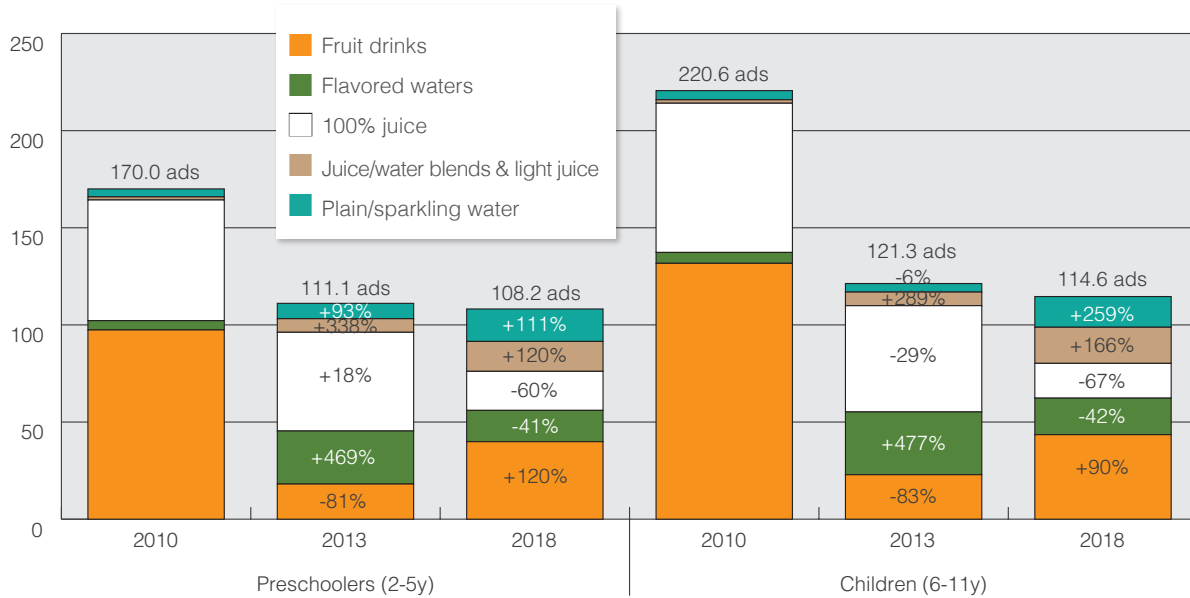
This leveling off of exposure from 2013 to 2018 is notable as the amount of time children spent watching TV declined

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



Source: Analysis of 2018 Nielsen data

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

vs. 3.3 hrs/day).ⁱⁱⁱ 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.

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

Company	Brand	Sub-brand	Category	Preschoolers (2-5y)		Children (6-11y)	
				Avg # of ads viewed	Tgt ratio (vs. adults)	Avg # of ads viewed	Tgt ratio (vs. adults)
<i>Sweetened drinks</i>							
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
<i>Drinks without added sweeteners</i>							
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

Company	Brand	Sub-brand	Category	Preschoolers (2-5y)		Children (6-11y)	
				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%

Source: Analysis of 2018 Nielsen data



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

Brand	Sub-brand	Category	Preschoolers (2-5y)				Children (6-11y)			
			Avg # of ads viewed		% change	Avg # of ads viewed		% change		
			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 sub-brands 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

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

Company	Brand	Sub-brand	Category	Advertising spending		Avg # of ads viewed	
				Spanish-language TV (\$000)	% of total TV ad spending	Preschoolers (2-5y)	Children (6-11y)
<i>Sweetened drinks</i>							
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
<i>Drinks without added sweeteners</i>							
Kraft Heinz	Capri Sun	Refreshers	Juice/water blend	\$117	<1%	0.2	0.1

Source: Analysis of 2018 Nielsen data



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

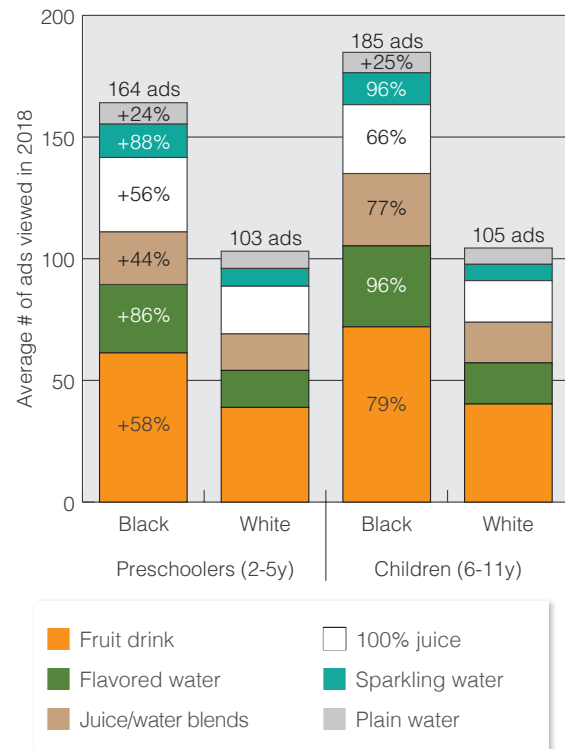
Exposure to TV advertising by Black preschoolers and children

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.^{iv} 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.

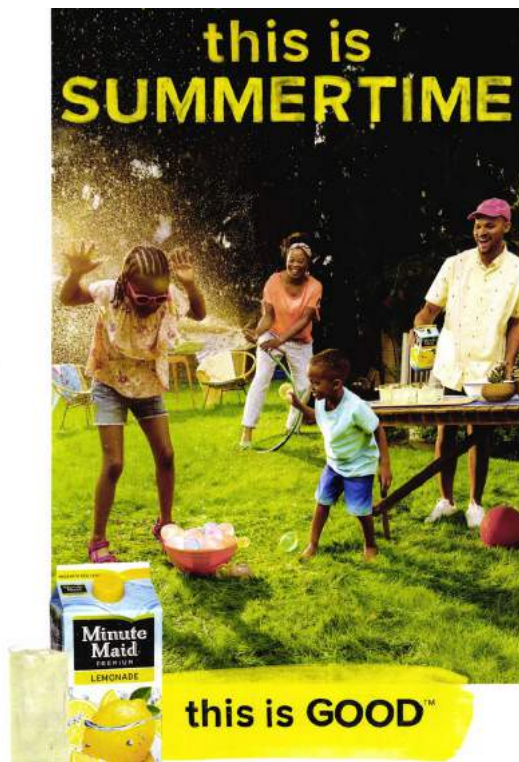
Figure 24. TV advertising exposure for Black vs. White preschoolers and children*



*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*

Company	Brand	Sub-brand	Category	Preschoolers (2-5y)			Children (6-11y)		
				Avg # of ads viewed		Targeted ratio	Avg # of ads viewed		Targeted ratio
				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

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

Source: Analysis of 2018 Nielsen data

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

Company	Brand	Sub-brand	Category	Preschoolers (2-5y)			Children (6-11y)		
				Avg # of ads viewed		Targeted ratio	Avg # of ads viewed		Targeted ratio
				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

Source: Analysis of 2018 Nielsen data

This analysis of sales, nutrition, and marketing of children's drinks (i.e., drinks marketed as intended for children) in 2018/19 identified some positive developments. However, sweetened drinks with added sugars and often low-calorie sweeteners continued to dominate sales and advertising of drinks for children.

This analysis identified 23 children's drink brands in the juice, fruit drink, and water categories with \$10 million of sales or more in 2018. These brands offered 67 different sub-brands (or varieties) of children's products as of August 2019. Sub-brands included sweetened drinks (fruit drinks, flavored waters, and drink mixes) and drinks without added sweeteners (100% juice and juice/water blends). We also identified one unsweetened sparkling water for children. Iced teas and sports drinks were not included as there were no children's products in these categories. Sales of children's drinks totaled \$2.2 billion in 2018, with sweetened drinks contributing almost two-thirds (62%) of these sales.

Positive findings

Despite the predominance of sweetened children's drinks in the market, we did observe some positive trends in nutrition and marketing of drinks without added sweeteners for children, including promotion of lower-sugar juice/water blends and one sparkling water brand. In addition, licensed characters and promotions were rarely found on sweetened children's drinks; they were used primarily to promote 100% juices and juice/water blends. Furthermore, advertising of drinks without added sweeteners relative to sweetened drink categories showed some positive trends.

Healthier children's drinks

Juice/water blends. The development of juice/water blends by some of the biggest-selling children's drink brands (including Capri Sun, Apple & Eve, Minute Maid, and Mott's) was notable. These products contained juice and water and no additional sweeteners, with a median 46 calories, 10 grams of total sugars, and 50% juice per serving. Juice/water blends all came in single-serving packages (4.23- to 6.75-oz boxes and pouches), and all but one of the 13 packages examined contained no more than the recommended amount of juice for a 1- to 3-year-old. Therefore, these products provide a lower-calorie, lower-sugar option for young children than 100% juice.

Companies also appeared to actively market these products to parents, and parents are purchasing them. Children's juice/water blends represented 34% of all juice/water blend product sales in 2018, and approximately one-quarter of sales of all children's drinks without added sweeteners. Their packages

featured similar nutrition- and health-related claims as 100% juice packages, but more messages about less/low sugar content and organic ingredients. Two products – Capri Sun Refreshers and Mott's Sensibles – were heavily advertised in magazines (a medium directed to adults), while Capri Sun Organic was the only juice/water blend that advertised directly to children on children's TV programming.

As juice/water blend products came in boxes and pouches, they can also provide a convenient and lower-calorie alternative to 100% juice to serve children outside the home. However, a less expensive option for parents who choose to serve 100% juice would be to add their own water.¹ Parents also should read the nutrition facts panel when purchasing these products, as the ingredient list is the only way to differentiate juice/water blends from similar products that contain added sugars and/or low-calorie sweeteners.

Children's sparkling water. The one children's unsweetened water identified – Polar Seltzer Jr. – also deserves attention. Although this product was not supported by advertising, the packaging was clearly designed to attract children's attention. It included more child features than any other unsweetened children's drink, including cartoon images, fun references, and wacky names (e.g., Unicorn Kisses, Yeti Mischief). However, one striking finding was that unsweetened plain and sparkling waters represented 60% of sales of all other (not children's) drinks examined (totaling \$13.8 billion in 2018), but just 0.01% of all children's drink sales. Additional child-directed unsweetened plain water products, especially plain still waters, could help parents in their efforts to get their children to drink more water, as recommended by nutrition and health experts.²

Marketing

Licensed characters/promotions. Another notable development was the small number of promotions (of any type) on sweetened children's drink packages. In 2014, 57% of children's fruit drink packages had featured some type of promotion (including licensed characters).³ In contrast, only one children's fruit drink in this analysis featured a licensed character (Good 2 Grow Organic 75% Less Sugar with collectible character tops, such as Thomas the Tank Engine, My Little Pony). The only other promotion on sweetened children's drink packages was a corporate-level cause marketing program (Let's Play) found on all Dr Pepper Snapple Group products.

The remaining promotions identified in this analysis appeared on children's 100% juices and juice/water blends. Approximately 20% of these products had licensed characters (including Disney, Sesame Street, and other popular children's media characters). This finding demonstrates the effectiveness of media company pledges to promote healthier choices to children. Both Disney⁴ and Sesame Street⁵ have policies to

license their children's characters only for use on products that meet nutrition standards that conform with expert recommendations.

Advertising trends. From 2010 to 2018, there was a 57% decline in total advertising spending (in all media, including TV, magazines, and digital) for children's sweetened fruit drinks and flavored waters, as well as other sweetened drink brands. At the same time, total advertising of drinks without added sweeteners (including 100% juice, juice/water blends, and plain/sparkling water) remained relatively flat. A 56% decline in advertising for 100% juice from 2010 to 2018 was offset by a 38% increase in advertising for juice/water blends and a 70% increase for plain and sparkling waters.

Advertising spending on children's drinks also showed improvements from 2010 to 2018. In 2018, companies spent 66% more to advertise children's 100% juice and juice/water blends than they spent to advertise fruit drinks and flavored waters (\$34.4 mill vs. \$20.7 mill). In 2018, only one company – Kraft Heinz – advertised sweetened drinks on children's TV programming. The company also advertised one of its juice/water blends – Capri Sun Organic – directly to children on children's TV.

Opportunities for improvement

The findings in this report also highlight numerous opportunities for improvements in the nutrition and marketing of drinks for children. Common practices may lead to parents' misunderstanding about the ingredients and healthfulness of sweetened children's drinks. In addition, advertising of sweetened drinks directed to children and targeted advertising to Hispanic and Black children continue to raise public health concerns.

Sweetened children's drinks

Low-calorie sweeteners. One concerning finding was the widespread use of low-calorie sweeteners, including sucralose, acesulfame potassium, neotame, and stevia, in children's drinks. Overall, 74% of children's sweetened drinks contained low-calorie sweeteners, including 50% of regular sugar-sweetened fruit drinks (i.e., 6 of 12 drinks with >40 kcal per 8-oz serving), all reduced-calorie fruit drinks (5 of 10 also contained added sugar), and 5 of 6 flavored waters. Furthermore, the majority of children's products with low-calorie sweeteners featured less- or low-sugar claims on product packages, but did not indicate that the products contained other types of sweeteners (except in the ingredients list under the nutrition facts panel). None of these drinks used the term "diet" on product packaging and just one (Hawaiian Punch Light) identified itself as "light." Therefore, consumers may not be aware that most sweetened children's drinks contain low-calorie sweeteners.

Although these drinks with low-calorie sweeteners were marketed for children, experts do not recommend serving low-calorie sweeteners to children under age 14,⁶ and none would meet Smart Snacks in School nutrition standards for sale in elementary or middle schools.⁷ In addition, in previous research studies with parents the majority of participants reported that they believe nonnutritive (i.e., low-calorie) sweeteners are not safe for children and prefer to serve drinks with added sugar.⁸⁻¹⁰ However, consumers would need to read the ingredients on the nutrition facts panels and know the chemical names for low-calorie sweeteners to know that the product they purchase for their children contains these sweeteners. Therefore, it appears that parents may not be aware that children's drinks often contain low-calorie sweeteners.

Fruit drinks. The sugar content in children's fruit drinks raises additional concerns. The American Heart Association (AHA) recommends that children (2-18 years) consume no more than 25 grams of added sugar daily.¹¹ However, the median total sugar content in one serving of a regular children's fruit drink was 16 grams (ranging from 6-52 g), equal to 4 teaspoons of sugar, whereas the median juice content was 5% (ranging from 0-42%). One serving of 11 of the products analyzed had more than 50% of the recommended amount of daily added sugar for children,¹² including many of the highest-selling brands (Capri Sun Juice Drink, Hawaiian Punch, Sunny D, and Minute Maid Lemonade). Reduced-calorie fruit drinks contained fewer calories (median 15 kcal) and less sugar (median 2 g). However, the majority had 0% juice and low-calorie sweeteners.

Children's fruit drink packages also featured numerous claims that could lead parents to believe these products are healthy choices for their children. For example, more than 80% featured images of fruit (regardless of whether the product contained any fruit juice), and 44% contained messages about Vitamin C (i.e., "good source" or "% daily value" claims). In addition, 60% had some type of sugar message, including "no high fructose corn syrup" as well as less/low sugar claims. Some products claimed lower sugar than unspecified "leading juice drinks" or the "leading regular soda." At the same time, 85% of packages contained on average 2.3 child features (including cartoons, brand characters, fun/cool/extreme references, and wacky names) to appeal directly to children.

Flavored waters. Children's products in this category self-identified as a "water beverage" on the product package, but they were similar in nutrition to reduced-calorie children's fruit drinks. Five of the six children's flavored waters qualified as reduced-calorie drinks, with a median of 30 calories and 7 grams of sugar per serving and 0% juice. Apple & Eve Water Fruits was the only product in this category that contained any juice and no low-calorie sweeteners. Marketing messages on product packages were also similar to children's fruit drinks: more than 80% had images of fruit, as well as sugar claims.

They also averaged 2.5 child features on their packages to appeal to children.

However, children's flavored water packages contained more ingredient, health-related, and real claims (e.g., real, natural, organic) than other categories of sweetened children's drinks. They averaged 2.2 sugar claims per package, including "no high fructose corn syrup" (>80%) and "no artificial sweeteners" on products that contained stevia low-calorie sweetener (1/3 of packages). Some health-related messages were also unique to this category, including messages about hydration on more than 80% of packages and exercise promotion messages on one-third. These types of messages may lead parents to believe that these unhealthy products are healthy choices for their children (i.e., health halo effects).¹³ In addition, 80% of product packages contained messages about recycling and/or the environment.

Children's drinks without added sweeteners

Among children's 100% juices and juice/water blends, some common marketing practices could also make it more difficult for parents to identify and select healthier products for their children.

100% juice single-serving packages. The smallest single-serving package of 100% juice was a 4.23-oz box (available for 4 of the 13 children's 100% juice brands in our analysis), which is slightly more than the maximum 4 ounces of 100% juice recommended for children ages 1 to 3 years.¹⁴ The smallest packages available for two children's 100% juices contained 6.75 ounces, which would be recommended only for children age 7 and older. Therefore, the majority of 100% juice boxes and pouches available contained more than the recommended daily maximum amount of juice for a toddler, and some children's juice boxes and pouches contained more juice than recommended for preschool-age children. Furthermore, the smallest single-serving containers for two children's 100% juice brands were 10- and 16-ounce bottles, which is more juice than recommended for an adolescent to consume in a day.

Children's brands with products in multiple categories.

Five of the children's drink brands that offered 100% juice and juice/water blend products also offered sweetened children's drinks: Apple & Eve, Capri Sun, Good 2 Grow, Minute Maid, and Mott's. Package sizes and types, flavor names, fruit images on package fronts, and claims for products offered by these brands were similar across all product categories – including both sweetened drinks and drinks without added sweeteners.

The only message on the package front to distinguish between products by category was "100% juice," which appeared on all 100% juice products. However, for products in other categories, information about percent juice and types of sweeteners contained in the product was only available on the nutrition facts panel on the back of the package. Therefore, cross-branding of products across drink categories may

confuse parents about the ingredients and healthfulness of the products they purchase for their children.

Advertising trends

Despite reductions in advertising spending for sweetened fruit drinks and flavored waters in total, children's drinks in these categories continued to represent a higher proportion of TV advertising than healthier children's drinks. In addition, some children's fruit drinks appeared to target Hispanic and Black children with their advertising.

Children's drink advertising. In 2018, children's sweetened drinks (fruit drinks and flavored waters) spent more to advertise on TV than children's 100% juices and juice/water blends (\$18.5 vs. \$13.6 million). Preschoolers (2-5 years) and children (6-11 years) also saw more than twice as many TV ads for children's sweetened drinks than for drinks without added sweeteners (38.3 vs. 16.7 for preschoolers and 45.4 vs. 19.7 children). Compared to adults, children were more likely to see ads for children's fruit drinks, flavored waters, and juice/water blends, but less likely to see ads for children's 100% juices (which primarily advertised to parents).

From 2010 to 2013, preschoolers' and children's exposure to TV ads for sweetened children's drinks declined by more than 50%, but from 2013 to 2018 exposure declined by just 2% for preschoolers and 7% for children. In contrast, from 2013 to 2018 the amount of time preschoolers and children spent watching TV declined by 35% and 42%, respectively. Therefore, companies appeared to offset the decline in amount of time children spent watching TV by increasing the number of ads that appeared per hour of TV.¹⁵ Of note, only one sweetened children's drink brand (Sunny D) appeared to offset this reduction in TV viewing by allocating a significant amount of its advertising spending to digital media.

In 2018, Kraft Heinz was the only company to advertise children's drinks directly to children on children's TV programming. Two of the three brands it advertised to children were sweetened drinks (Kool-Aid Jammers fruit drink and Capri Sun Roarin' Waters flavored water). Although Kraft Heinz participates in the Children's Food & Beverage Advertising Initiative (CFBAI) industry self-regulatory program, both of these drinks qualified as "exempt" from CFBAI nutrition standards even under the revised nutrition standards to be implemented by 2020, because they were low in calories.¹⁶ However, both contained added sugars plus low-calorie sweeteners. Therefore, neither met HER expert recommendations for healthy beverages for children,¹⁷ and neither could be sold in elementary or middle schools under USDA standards for Smart Snacks in Schools.¹⁸

In examining preschoolers' and children's exposure to TV ads for all sweetened fruit drinks and flavored waters (children's drinks and other drinks combined), Kraft Heinz brands represented approximately two-thirds of TV ads viewed by preschoolers and children, while Coca-Cola brands

represented another approximately 15%. Total exposure to ads for all drinks without added sweeteners was somewhat less concentrated, with Kraft Heinz, Coca-Cola, PepsiCo, Nestle, and Wonderful responsible for more than 90% of TV ads viewed by preschoolers and children. However, despite the substantial increase in advertising for non-children's brands of plain water and sparkling water directed to adults from 2013 to 2018, the one children's sparkling water brand did not advertise at all in 2018.

Targeted advertising. Only three drinks in our analysis advertised on Spanish-language TV in 2018. Two children's fruit drinks (Capri Sun Juice Drink and Sunny D) each devoted approximately one-quarter of their TV advertising spending to Spanish-language TV, and these ads appeared to be directed at children. Notably, under CFBAI nutrition standards (current and revised standards), neither of these products could be advertised in child-directed media. This finding illustrates two limitations of the CFBAI. First, the program is voluntary and Sunny D's parent company (Harvest Hill Beverage Company) does not participate. Second, Spanish-language TV programming does not meet the CFBAI definition of child-directed TV.

Capri Sun Refreshers juice/water blend also spent a small amount (approximately \$100,000) to advertise on Spanish-language TV. However, no other brands in the categories examined in this report (including other, not children's, brands) advertised on Spanish-language TV in 2018.

In comparing TV advertising exposure by race in 2018, Black preschoolers and children saw 79% and 77% more TV ads for all drinks in our analysis compared to White preschoolers and children. The flavored water and sparkling water categories had the biggest differences – Black preschoolers and children viewed approximately 85% more TV ads for these products than their White peers – while plain still water products had the smallest differences (approximately 25%).

A few sweetened drink brands appeared to target Black children directly, as evidenced by exposure to TV ads that was more than twice as high as exposure by White children: Minute Maid Lemonade (a children's fruit drink) and Glaceau Vitamin Water (not a children's drink). Among drinks without added sweeteners, Black preschoolers saw more than twice as many ads for four 100% juice brands, including two children's drinks from Minute Maid (Orange Juice and 100% Juice) and one sparkling water brand.

Recommendations

These findings confirm that major beverage manufacturers have made some progress in developing healthier drinks for children (primarily juice/water blends with no added sweeteners) and that companies have substantially reduced total advertising for sweetened fruit drinks and flavored waters (including children's

drink and other brands). However, sweetened fruit drinks and flavored waters continued to represent more than 60% of children's drink sales. Furthermore, many of the marketing practices detailed in this report likely confuse parents about the healthfulness of sweetened children's drinks and suggest that manufacturers may not share public health goals to reduce excess sugar consumption by children and eliminate sugary drinks from their diets.

This report also highlights potential actions by all key stakeholders – including industry, policy makers, advocates, and healthcare providers – to encourage reduced consumption of sugary drinks by children.

Industry

Beverage manufacturers, retailers, and media companies should do more to ensure that drinks marketed for children are healthy options. Marketing for children's drinks should only encourage children to consume products that meet expert recommendations for healthy children's drinks, and not mislead parents and other caregivers about the healthfulness of products served to children.

- In addition to developing juice/water blends with lower calories and no added sweeteners for children, manufacturers should devote resources to developing and marketing unsweetened plain still waters for children.
- CFBAI nutrition standards for products that cannot be advertised in child-directed media should not exempt low-calorie drinks that contain added sugars and/or low-calorie sweeteners. CFBAI nutrition standards should conform with expert recommendations for healthy products for children. Furthermore, these standards should apply to advertising of children's products on Spanish-language TV, as well as English-language children's television.
- Media companies that accept child-directed advertising should also implement nutrition standards that comply with expert recommendations for products that can be advertised in their media. Disney and Sesame Street have established nutrition standards for products that can license their characters.¹⁹ As a result, this report shows that the use of licensed characters on sugar-sweetened children's drinks has almost been eliminated.
- The front of children's drink packages should clearly indicate the percent juice and sweetener content, including added sugars and low-calorie sweeteners. To fully inform consumers, these disclosures should accompany all sugar claims, including "less/low sugar" and "no high fructose corn syrup."
- Brands should clearly differentiate their products by category and eliminate cross-branding of sweetened drinks and healthier options, including the use of similar packaging

types, fruit-flavor names and images of fruit, and nutrition-related claims.

- Retailers should clearly label children's drinks that contain added sweeteners (e.g., with shelf tags) and/or place sweetened children's fruit drinks and flavored waters in a separate location from 100% juices and juice/water blends to reduce potential consumer confusion.

Policy makers

Federal regulation and state and local actions could also encourage selection of healthier drink options for children.

- Public health campaigns to reduce sugary drink consumption should highlight that children's fruit drinks and flavored waters contain added sugars and often low-calorie sweeteners too, and help educate consumers on how to differentiate them from 100% juice and juice/water blends that do not contain added sweeteners.
- State and local legislators could require retailers to separate children's sweetened fruit drinks and flavored waters from 100% juice and juice/water blends on store shelves.
- The U.S. Food and Drug Administration (FDA) could establish regulations to address unclear labeling practices, such as requiring disclosures of sweeteners (added sugars and low-calorie sweeteners) and juice content on the front of packages. The required disclosure of added sugars on the nutrition facts panel beginning January 2020²⁰ will help address potential confusion about added versus naturally occurring sugars, but front-of-package disclosures would provide further transparency.
- The FDA could require that products with nutrition-related claims on product packaging meet minimum nutrition standards.
- The FDA could prohibit the use of fruit and vegetable images on drink product packages that contain little or no juice.
- States should increase the price of sugary drinks, including children's fruit drinks and flavored waters, through an excise tax, with tax revenue allocated to local efforts to reduce health and socioeconomic disparities.

Advocates and health practitioners

Child health advocates and health practitioners can play an important role in raising awareness of potentially harmful marketing practices, educating parents about the best drinks for their children, and persuading industry and policymakers to enact improvements.

- The revised 2020-2025 Dietary Guidelines for Americans should address the full range of children's drink products available on the market, including drinks with low-calorie sweeteners, and USDA should provide clear guidelines and educational materials to help parents identify the healthiest choices for their children, as well as choices that do not meet expert recommendations.
- Healthcare professional organizations and/or public health organizations should provide recommendations and develop campaigns to educate parents about how to identify children's products that contain low-calorie sweeteners to enable them to make informed decisions about whether these products are appropriate for their children.
- Healthcare professionals, including pediatricians, dentists, and nutritionists, should counsel their patients about the sugar content and other ingredients in children's drinks. They should reinforce the importance of providing unsweetened water and milk to children, and the potential risk of introducing sweetened drinks to young children before they have developed a taste for unsweetened options.

In summary, as noted by the American Academy of Pediatrics (AAP) and the American Heart Association (AHA) in their policy statement regarding children's sugary drink consumption, policy strategies are "urgently needed" to address this public health crisis.²¹ Manufacturers should ensure that the children's drinks they develop and market to children and their parents do not contribute to the crisis. As detailed in this report, much more is required for beverage manufacturers and other key stakeholders to demonstrate their commitment to reducing children's consumption of sweetened drinks that can harm their health and encouraging children to consume drinks that do not contain added sweeteners.

Executive Summary

1. Muth ND, Dietz WH, Magge SN, Johnson RK (2019). American Academy of Pediatrics Policy Statement. Public policies to reduce sugary drink consumption in children and adolescents. *Pediatrics*, 143(4).
2. Powell ES, Smith-Taillie LP, Popkin BM (2016). Added sugars intake across the distribution of US children and adult consumers: 1977-2012. *Journal of the Academy of Nutrition and Dietetics*, 116(10), 1543-1550.
3. Roess AA, Jacquier EF, Catellier DJ, et al. (2018). Food consumption patterns of infants and toddlers: Findings from the feeding infants and toddlers study (FITS) 2016. *Journal of Nutrition*, 148(suppl_3):1525S-1535S.
4. Welker EB, Jacquier EF, Catellier DJ, Anater AS, Story MT (2018). Room for improvement remains in food consumption patterns of young children aged 2-4 years. *Journal of Nutrition*, 148(9S), 1536S-1546S.
5. Heyman MB, Abrams SA, Section on Gastroenterology, Hepatology, and Nutrition, Committee on Nutrition (2017). Fruit juice in infants, children, and adolescents: Current recommendations. *Pediatrics*, 139(6).
6. Lott M, Callahan E, Welker Duffy E, Story M, Daniels S (2019). Consensus Statement. Healthy Beverage Consumption in Early Childhood: Recommendations from Key National Health and Nutrition Organizations. Healthy Eating Research. <https://healthyeatingresearch.org/research/consensus-statement-healthy-beverage-consumption-in-early-childhood-recommendations-from-key-national-health-and-nutrition-organizations/>
7. Roess et al. (2018).
8. Welker et al. (2018).
9. *Ibid.*
10. Roess et al. (2016).
11. Harris JL, Schwartz MB, Brownell KD, et al. (2011). Sugary Drink FACTS. Evaluating sugary drink nutrition and marketing to youth. Rudd Center for Food Policy & Obesity. http://www.sugarydrinkfacts.org/resources/SugaryDrinkFACTS_Report_2011.pdf
12. Harris JL, Schwartz MB, Lodolce M, et al. (2014). Sugary Drink FACTS 2014. Sugary drink marketing to youth: some progress but much room to improve. Rudd Center for Food Policy & Obesity. www.sugarydrinkfacts.org
13. Welker et al. (2018).
14. Lott et al. (2019).
15. Healthy Eating Research (HER) (2013). Recommendations for Healthier Beverages. <https://healthyeatingresearch.org/wp-content/uploads/2013/12/HER-Healthier-Bev-Rec-FINAL-3-25-13.pdf>
16. United States Department of Agriculture (USDA), Food and Nutrition Service (2018). A guide to Smart Snacks in School for School Year 2018/2019. https://fns-prod.azureedge.net/sites/default/files/tn/508_USDASmartSnacks_508_82218.pdf.
17. Heyman et al. (2017).
18. HER (2013).
19. Lott et al. (2019).
20. USDA (2018).
21. Munsell CR, Harris JL, Sarda V, Schwartz MB (2016). Parents' beliefs about the healthfulness of sugary drink options: opportunities to address misperceptions. *Public Health Nutrition*, 19(1), 46-54.
22. Smith MA, Wells MH, Scarbecz M, Vinall CV, Woods MA (2019). Parents' preferences and perceptions of their children's consumption of sugar and non-nutritive sugar substitutes. *Pediatric Dentistry*, 41(2), 119-125.
23. Sylvestry AC, Greenberg M, Zhao X, Rother KI (2014). What parents think about giving nonnutritive sweeteners to their children: A pilot study. *International Journal of Pediatrics*.
24. Council of Better Business Bureaus (2019). CFBAI category-specific uniform nutrition criteria, 2nd ed.* https://bbbnp-bbbp-stf-use1-01.s3.amazonaws.com/docs/default-source/cfbai/cfbai-revised_criteria_chart_1-28-2019.pdf?sfvrsn=c31ce512_2.
25. Lott et al. (2019).
26. HER (2013).
27. Fleming-Milici F, Harris JL (2016). Television food advertising viewed by preschoolers, children and adolescents: contributors to differences in exposure for black and white youth in the United States. *Pediatric Obesity*, 13(2), 103-110.

Introduction

1. Muth ND, Dietz WH, Magge SN, Johnson RK (2019). American Academy of Pediatrics Policy Statement. Public policies to reduce sugary drink consumption in children and adolescents. *Pediatrics*, 143(4).
2. Harris JL, Frazier W, Romo-Palafox M, et al. (2017). FACTS 2017. Food industry self-regulation after 10 years. UConn Rudd Center for Food Policy & Obesity. http://www.uconnruddcenter.org/files/Pdfs/FACTS-2017_Final.pdf
3. Harris JL, Frazier W, Kumanyika S, Ramirez AG (2019). Rudd Report. Increasing disparities in unhealthy food advertising targeted to Hispanic and Black youth. UConn Rudd Center for Food Policy & Obesity. <http://uconnruddcenter.org/files/Pdfs/TargetedMarketingReport2019.pdf>
4. Muth et al. (2019).
5. Powell ES, Smith-Taillie LP, Popkin BM (2016). Added sugars intake across the distribution of US children and adult consumers: 1977-2012. *Journal of the Academy of Nutrition and Dietetics*, 116(10), 1543-1550.
6. Bleich SN, Vercammen KA, Koma JW, Li Z (2014). Trends in beverage consumption among children and adults, 2003-2014. *Obesity*, 26(2), 432-441.
7. Roess AA, Jacquier EF, Catellier DJ, et al. (2018). Food consumption patterns of infants and toddlers: Findings from the feeding infants and toddlers study (FITS) 2016. *Journal of Nutrition*, 148(suppl_3):1525S-1535S.
8. Welker EB, Jacquier EF, Catellier DJ, Anater AS, Story MT (2018). Room for improvement remains in food consumption patterns of young children aged 2-4 years. *Journal of Nutrition*, 148(9S), 1536S-1546S.
9. Bleich et al. (2014).
10. Welker et al. (2018).
11. Rosinger A, Herrick K, Gahche J, Park S (2017). Sugar-sweetened beverage consumption among U.S. youth, 2011-2014. *NCHS Data Brief*, (271), 1-8.
12. Welker et al. (2018).
13. Healthy Eating Research (HER) (2013). Recommendations for Healthier Beverages. <https://healthyeatingresearch.org/wp-content/uploads/2013/12/HER-Healthier-Bev-Rec-FINAL-3-25-13.pdf>

14. Heyman MB, Abrams SA, Section on Gastroenterology, Hepatology, and Nutrition, Committee on Nutrition (2017). Fruit juice in infants, children, and adolescents: Current recommendations. *Pediatrics*, 139(6).
15. Roes et al. (2018).
16. Welker et al. (2018).
17. *Ibid.*
18. HER (2013).
19. Lott M, Callahan E, Welker Duffy E, Story M, Daniels S (2019). Consensus Statement. Healthy Beverage Consumption in Early Childhood: Recommendations from Key National Health and Nutrition Organizations. Healthy Eating Research. [https://healthyeatingresearch.org/research/consensus-statement-healthy-beverage-consumption-in-early-childhood-recommendations-from-key-national-health-and-nutrition-organizations/HER 2019](https://healthyeatingresearch.org/research/consensus-statement-healthy-beverage-consumption-in-early-childhood-recommendations-from-key-national-health-and-nutrition-organizations/HER%2019)
20. HER (2013).
21. *Ibid.*
22. Muth et al. (2019).
23. Heyman et al. (2017).
24. Lott et al. (2019).
25. HER (2013).
26. United States Department of Agriculture (USDA) (2018). Food and Nutrition Service. A Guide to Smart Snacks in School for School Year 2018/2019. https://fns-prod.azureedge.net/sites/default/files/tn/508_USDASmartSnacks_508_82218.pdf.
27. Lott et al. (2019).
28. HER (2013).
29. USDA (2018).
30. Harris et al. (2017).
31. Harris et al. (2019).
32. Harris JL, Schwartz MB, Brownell KD, et al. (2011). Sugary Drink FACTS. Evaluating sugary drink nutrition and marketing to youth. Rudd Center for Food Policy & Obesity. http://www.sugarydrinkfacts.org/resources/SugaryDrinkFACTS_Report_2011.pdf
33. Harris JL, Schwartz MB, LoDolce M, et al. (2014). Sugary Drink FACTS 2014. Sugary drink marketing to youth: some progress but much room to improve. Rudd Center for Food Policy & Obesity. www.sugarydrinkfacts.org
34. Harris et al. (2017).
35. *Ibid.*
36. Muth et al. (2019).
37. International Council of Beverages Associations. Guidelines on marketing to children. <http://www.icba-net.org/files/resources/finalicbaguidelinesmarketingtochildren.pdf>.
38. Council of Better Business Bureaus (2019). CFBAI category-specific uniform nutrition criteria, 2nd ed.* https://bbbnf-bbbp-stf-use1-01.s3.amazonaws.com/docs/default-source/cfbai/cfbai-revised_criteria_chart_1-28-2019.pdf?sfvrsn=c31ce512_2.
39. Alliance for a Healthier Generation, American Beverage Association (2017). Alliance for a Healthier Generation and American Beverage Association issue first progress report on reducing beverage calories. <https://www.ameribev.org/education-resources/blog/post/alliance-for-a-healthier-generation-and-american-beverage-association-issue-first-progress-report-on-reducing-beverage-calories/>.
40. American Beverage Association, Alliance for a Healthier Generation (2019). 2025 Beverage Calories Initiative: Report on 2017 Progress toward the National Calorie Goal. <https://keybridgedc.com/wp-content/uploads/2018/08/BCI-2017-National-Progress-Report.pdf>
41. Lott et al. (2019).
42. Harris et al. (2014).

Results

1. Healthy Eating Research (HER) (2013). Recommendations for Healthier Beverages. <https://healthyeatingresearch.org/wp-content/uploads/2013/12/HER-Healthier-Bev-Rec-FINAL-3-25-13.pdf>
2. United States Department of Agriculture (USDA). Food and Nutrition Service. A guide to Smart Snacks in School for School Year 2018/2019. https://fns-prod.azureedge.net/sites/default/files/tn/508_USDASmartSnacks_508_82218.pdf
3. Harris JL, Schwartz MB, LoDolce M, et al. (2014). Sugary Drink FACTS. Sugary drink marketing to youth: some progress but much room to improve. UConn Rudd Center for Food Policy & Obesity. www.sugarydrinkfacts.org
4. *Ibid.*
5. *Ibid.*
6. Lott M, Callahan E, Welker Duffy E, Story M, Daniels S. (2019). Healthy Beverage Consumption in Early Childhood: Recommendations from Key National Health and Nutrition Organizations. Technical Scientific Report. Durham, NC: Healthy Eating Research. <http://healthyeatingresearch.org>.
7. HER (2013).
8. USDA (2018).
9. Vos MB, Kaar J, Welsh, et al. (2017). Added sugars and cardiovascular disease risk in children: A scientific statement from the American Heart Association. *Circulation*. 135(19):e1017-e1034.
10. Council of Better Business Bureaus (2019). CFBAI category-specific uniform nutrition criteria, 2nd ed. https://bbbnf-bbbp-stf-use1-01.s3.amazonaws.com/docs/default-source/cfbai/cfbai-revised_criteria_chart_1-28-2019.pdf?sfvrsn=c31ce512_2
11. HER (2013).
12. USDA (2018).
13. Heyman MB, Abrams SA, Section on Gastroenterology, Hepatology, and Nutrition, Committee on Nutrition (2017). Fruit juice in infants, children, and adolescents: current recommendations. *Pediatrics*. 139(6).
14. Dr Pepper Snapple Group. Philanthropy. Fit & Active Lifestyles. <https://www.drpeppersnapplegroup.com/company/fit-active-lifestyles>
15. U.S. Food & Drug Administration (FDA) (2014). High-intensity sweeteners. <https://www.fda.gov/food/food-additives-petitions/high-intensity-sweeteners>
16. Harris et al. (2014).
17. CFBAI (2019).

Discussion

1. Lott M, Callahan E, Welker Duffy E, Story M, Daniels S (2019). Consensus Statement. Healthy Beverage Consumption in Early Childhood: Recommendations from Key National Health and Nutrition Organizations. Healthy Eating Research (HER). <https://healthyeatingresearch.org/research/consensus-statement-healthy-beverage-consumption-in-early-childhood-recommendations-from-key-national-health-and-nutrition-organizations/>
2. *Ibid.*
3. Harris JL, Schwartz MB, LoDolce M, et al. (2014). Sugary Drink FACTS 2014. Sugary drink marketing to youth: some progress but much room to improve. Rudd Center for Food Policy & Obesity. www.sugarydrinkfacts.org.
4. Disney Nutrition Guideline Criteria. <https://citizenship.disney.com/disney-check/?cds>
5. Center for Science in the Public Interest (CSPI) (2010). Report Card on Food Marketing Policies. <https://cspinet.org/resource/report-card-food-marketing-policies>
6. Healthy Eating Research (HER) (2013). Recommendations for Healthier Beverages. <https://healthyeatingresearch.org/wp-content/uploads/2013/12/HER-Healthier-Bev-Rec-FINAL-3-25-13.pdf>
7. United States Department of Agriculture (USDA) (2018). Food and Nutrition Service. A Guide to Smart Snacks in School for School Year 2018/2019. https://fns-prod.azureedge.net/sites/default/files/tn/508_USDASmartSnacks_508_82218.pdf.
8. Munsell CR, Harris JL, Sarda V, Schwartz MB (2016). Parents' beliefs about the healthfulness of sugary drink options: opportunities to address misperceptions. *Public Health Nutrition*, 19(1), 46-54.
9. Smith MA, Wells MH, Scarbecz M, Vinall CV, Woods MA (2019). Parents' preferences and perceptions of their children's consumption of sugar and non-nutritive sugar substitutes. *Pediatric Dentistry*, 41(2), 119-125.
10. Sylvestsky AC, Greenberg M, Zhao X, Rother KI (2014). What parents think about giving nonnutritive sweeteners to their children: A pilot study. *International Journal of Pediatrics*. 2014.
11. Vos MB, Kaar J, Welsh, et al. (2017). Added sugars and cardiovascular disease risk in children: A scientific statement from the American Heart Association. *Circulation*, 135(19), e1017-e1034.
12. *Ibid.*
13. Harris JL, Haraghey KS, LoDolce M, Semenza NL (2017). Teaching children about good health? Halo effects in child-directed advertisements for unhealthy food. *Pediatric Obesity*, 13, 256-264.
14. Heyman MB, Abrams SA, Section on Gastroenterology, Hepatology, and Nutrition, Committee on Nutrition (2017). Fruit juice in infants, children, and adolescents: Current recommendations. *Pediatrics*, 139(6).
15. Fleming-Milici F, Harris JL (2016). Television food advertising viewed by preschoolers, children and adolescents: contributors to differences in exposure for black and white youth in the United States. *Pediatric Obesity*, 13(2), 103-110.
16. Council of Better Business Bureaus (2019). Children's Food and Beverage Advertising Initiative (CFBAI). Category-specific uniform nutrition criteria, 2nd ed.* https://bbbnp-bbbp-stf-use1-01.s3.amazonaws.com/docs/default-source/cfbai/cfbai-revised_criteria_chart_1-28-2019.pdf?sfvrsn=c31ce512_2
17. HER (2013).
18. USDA (2018).
19. CSPI (2010).
20. U.S. Food & Drug Administration (FDA) (2019). Changes to the nutrition facts label. <https://www.fda.gov/food/food-labeling-nutrition/changes-nutrition-facts-label>
21. Muth ND, Dietz WH, Magge SN, et al. (2019). American Academy of Pediatrics Policy Statement Public policies to reduce sugary drink consumption in children and adolescents. *Pediatrics*. 143(4).

Total sales of fruit drinks, juices, and waters by category and sub-category in 2018

Ranked by sales (\$ million) of children's drink products, then all products

Most

Least

Rank	IRI category/ sub-category	Drink category	Sales (\$ million)			Number of brands			Number of products		
			All products	Children's drinks	Children's drinks % of total	All products	Children's drinks	Children's drinks % of total	All products	Children's drinks	Children's drinks % of total
1	Aseptic juices/juice drinks	Fruit drink	\$815	\$732	90%	120	8	7%	699	101	14%
2	Bottled juices/fruit drinks	Fruit drink	\$3,978	\$590	15%	575	11	2%	3,709	215	6%
3	Bottled juices/juices	100% juice	\$1,612	\$451	28%	267	4	1%	1,069	45	4%
4	Aseptic juices/juices	100% juice	\$393	\$148	38%	62	7	11%	240	87	36%
5	Aseptic juices/juice drinks	Juice/water blend	\$106	\$105	99%	15	7	47%	79	61	77%
6	Bottled water/convenience/ pet still water	Flavored water	\$1,337	\$101	8%	13	3	23%	234	21	9%
7	Bottled juices/juice blends	100% juice	\$131	\$82	62%	7	5	71%	46	34	74%
8	Bottled juices/fruit drinks	Flavored water	\$43	\$43	100%	3	2	67%	17	16	94%
9	Bottled juices/fruit drinks	Juice/water blend	\$64	\$31	48%	5	4	80%	23	18	78%
10	Bottled juices/juice blends	Fruit drink	\$266	\$22	8%	17	2	12%	121	5	4%
11	Bottled juices/juices	Juice/water blend	\$154	\$6	4%	65	2	3%	328	4	1%
12	Bottled juices/fruit drinks	100% juice	\$4	\$4	100%	3	2	67%	9	8	89%
13	Bottled water/convenience/ pet still water	Fruit drink	\$3	\$3	100%	1	1	100%	2	2	100%
14	Aseptic juices/juices	Juice/water blend	\$35	\$2	6%	40	2	5%	109	4	4%
15	Bottled water/seltzer/ sparkling/mineral	Sparkling water	\$2,682	\$2	<0.1%	210	1	<0.1%	2,846	3	<0.1%
16	Bottled water/seltzer/ sparkling/mineral	Flavored water	\$2	\$1	95%	5	1	20%	26	3	12%
17	Bottled water/convenience/ pet still water	Plain water	\$9,803	\$0	-	444	0	-	2,299	0	-
18	Bottled water/jug/ bulk still water	Plain water	\$1,286	\$0	-	200	0	-	659	0	-
19	Bottled juices/juice blends	Juice/water blend	\$157	\$0	-	54	2	4%	234	3	1%
20	Aseptic juices/juices	Fruit drink	\$56	\$0	-	15	1	7%	55	1	2%
21	Bottled water/jug/ bulk still water	Flavored water	\$5	\$0	-	2	0	-	6	0	-
22	Aseptic juices/juice drinks	100% juice	\$2	\$0	-	13	1	8%	18	1	6%
23	Bottled juices/juices	Fruit drink	\$0	\$0	97%	2	1	50%	2	1	50%

Note: Lemon/lime juices, smoothies, mojitos, vinegar, clam juices, and health supplements were excluded from the analysis

Source: Analysis of 2018 IRI sales data

Nutrition and ingredient information for sweetened children's drinks

Ranked by sugar (g) per serving

Most

Rank	Brand	Sub-brand	Package type*	Category	Reduced-calorie drink	# of products	Serving size (oz)	Calories (kcal)		Sugar (g)		Sodium (mg)		Juice (%)	Added sugars	Low-calorie sweeteners**
								Median	Range	Median	Range	Median	Range			
1	Apple & Eve	On the Go/ fruit drinks	SS bottle	Fruit drink		6	16	200	(200 220)	52	(52 56)	30	(20 70)	24%	Cane sugar	-
2	Kool-Aid	Multiserve	MS bottle	Fruit drink		5	12	150	- -	38	- -	30	(25 35)	0%	High fructose corn syrup	-
3	Hawaiian Punch		SS bottle	Fruit drink		2	16	120	- -	30	- -	200	- -	5%	High fructose corn syrup	Sucralose, acesulfame potassium
4	Sunny D		SS bottle	Fruit drink		6	16	120	(100 120)	27.5	(23 28)	325	(320 370)	5%	High fructose corn syrup	Sucralose, acesulfame potassium**, neotame**
5	Bug Juice		SS bottle	Fruit drink		12	10	106	- -	25	- -	25	- -	0%	High fructose corn syrup	-
6	Hawaiian Punch		Can	Fruit drink		1	12	90	- -	22.5	- -	150	- -	5%	High fructose corn syrup	Sucralose, acesulfame potassium
7	Minute Maid	Lemonade	Box	Fruit drink		1	6	80	- -	21	- -	15	- -	11%	High fructose corn syrup, sugar	-
8	Sunny D		SS bottle	Fruit drink		3	11.3	80	(70 80)	19	- -	260	(190 260)	5%	High fructose corn syrup	Sucralose, acesulfame potassium**, neotame**
9	Hawaiian Punch		SS bottle	Fruit drink		5	10	70	(70 80)	18	- -	130	(125 130)	5%	High fructose corn syrup	Sucralose, acesulfame potassium
10	Robinson's Made With Fruit Shoot	Real Sugar	SS bottle	Fruit drink		4	8	70	(70 90)	18	(17 21)	27.5	(10 55)	10%	Sugar	-
11	Sunny D		SS bottle	Fruit drink		2	10	65	(60 70)	16	(15 17)	230	- -	5%	High fructose corn syrup	Sucralose, acesulfame potassium, neotame
12	Kool-Aid	Canisters	MS canister	Drink mix	X	12	8	60	(60 70)	16	(16 17)	3	(0 25)	0%	Sugar, fructose	-
13	Hawaiian Punch		MS bottle	Fruit drink		12	8	60	- -	15	(14 15)	105	(105 115)	5%	High fructose corn syrup	Sucralose, acesulfame potassium
14	Sunny D		MS bottle	Fruit drink		11	8	60	(50 60)	14	(12 15)	135	(130 190)	5%	High fructose corn syrup	Sucralose, acesulfame potassium**, neotame**
15	Tum E Yummies		SS bottle	Flavored water	X	5	10.1	50	- -	13	- -	0	- -	0%	High fructose corn syrup	Sucralose
15 (tie)	Capri Sun	Juice Drink (Original)	Pouch	Fruit drink		14	6	50	- -	13	- -	15	(15 25)	10%	Sugar	-
15 (tie)	Hawaiian Punch		Box	Fruit drink		3	6.75	50	- -	13	- -	30	- -	5%	High fructose corn syrup	Sucralose
18	Mott's	Juice Drink	MS bottle	Fruit drink		1	8	50	- -	12	- -	30	- -	42%	-	Sucralose

continued

Nutrition and ingredient information for sweetened children's drinks (continued)

Rank	Brand	Sub-brand	Package type*	Category	Reduced-calorie drink	# of products	Serving size (oz)	Calories (kcal)		Sugar (g)			Sodium (mg)		Juice (%)	Added sugars	Low-calorie sweeteners**
								Median	Range	Median	Range	Median	Range				
19	Sunny D		SS bottle	Fruit drink		3	6.75	50	(45 50)	11	(10 12)	150	(110 160)	5%	High fructose corn syrup	Sucralose, acesulfame potassium**, neotame**	
20	Kool-Aid	Sparklers	Can	Fruit drink		4	7.5	45	(45 50)	11	- -	20	- -	0%	Invert sugar	Sucralose	
21	Apple & Eve	Water Fruits	Box	Flavored water		3	6.75	40	- -	10	- -	15	- -	10%	Cane sugar	-	
22	Hi-C		Box	Fruit drink		10	6	40	- -	10	(10 11)	15	- -	5%	High fructose corn syrup, sugar	Sucralose, acesulfame potassium	
23	Sunny D		Box	Fruit drink		3	6	40	(35 40)	10	(9 10)	90	(70 90)	5%	High fructose corn syrup	Sucralose, acesulfame potassium**, neotame**	
24	Kool-Aid	Sour Jammers	Pouch	Fruit drink		3	6	35	(30 35)	8	(6 8)	90	- -	0%	High fructose corn syrup	Sucralose	
25	Capri Sun	Roarin' Waters	Pouch	Flavored water	X	6	6	30	- -	8	- -	15	- -	0%	Sugar	Stevia leaf extract	
25 (tie)	Kool-Aid	Jammers	Pouch	Fruit drink	X	11	6	30	- -	8	- -	15	(15 20)	0%	High fructose corn syrup	Sucralose	
27	Kool-Aid	Singles	SS packet	Drink mix	X	4	8.5	30	- -	7	- -	0	- -	0%	Sugar, fructose	Sucralose, acesulfame potassium	
27 (tie)	Capri Sun	Sport	Pouch	Flavored water	X	4	6	30	- -	7	- -	85	- -	0%	Sugar	Stevia leaf extract	
27 (tie)	Fruit Rush	Fruit Rush	MS bottle	Fruit drink	X	4	8	30	- -	7	- -	12.5	(10 15)	0%	High fructose corn syrup	Sucralose, acesulfame potassium	
30	Kool-Aid	Bursts	SS bottle	Fruit drink	X	5	6.75	20	- -	5	- -	25	- -	0%	High fructose corn syrup	Sucralose	
31	Good 2 Grow	Organic 75% Less Sugar	SS bottle	Fruit drink	X	2	6	15	- -	3	- -	5	- -	18%	-	Stevia leaf extract	
31 (tie)	Hawaiian Punch	Light	Can	Fruit drink	X	1	12	15	- -	3	- -	160	- -	5%	-	Sucralose, acesulfame potassium	
33	Robinson's Fruit Shoot	No Sugar Added	SS bottle	Fruit drink	X	3	8	15	(15 20)	2	(2 3)	50	(35 55)	10%	-	Sucralose, acesulfame potassium,	
34	Hawaiian Punch	Light	MS bottle	Fruit drink	X	1	8	10	- -	2	- -	105	- -	5%	-	Sucralose, acesulfame potassium	
34 (tie)	Little Hug	Big Hug	SS bottle	Fruit drink	X	6	16	10	- -	2	- -	190	- -	0%	High fructose corn syrup	Sucralose, acesulfame potassium,	
36	Hawaiian Punch	Singles to Go	SS packet	Drink mix	X	3	8.45	5	- -	1	- -	15	(5 15)	0%	-	Aspartame, acesulfame potassium	
36 (tie)	Little Hug	Fruit Barrels	SS bottle	Fruit drink	X	16	8	5	- -	1	- -	95	- -	0%	High fructose corn syrup	Sucralose, acesulfame potassium,	

continued

Nutrition and ingredient information for sweetened children's drinks (continued)

Rank	Brand	Sub-brand	Package type*	Category	Reduced-calorie drink	# of products	Serving size (oz)	Calories (kcal)		Sugar (g)		Sodium (mg)		Juice (%)	Added sugars	Low-calorie sweeteners**
								Median	Range	Median	Range	Median	Range			
38	Kool-Aid	On the Go	SS packet	Drink mix	X	3	8.5	5	- -	0	- -	20	(20 25)	0%	-	Sucralose, acesulfame potassium
38 (tie)	Kool-Aid	Liquid	MS drop	Drink mix	X	7	8	0	- -	0	- -	0	(0 10)	0%	-	Sucralose, acesulfame potassium
38 (tie)	Robinson's Fruit Shoot	Hydro	SS bottle	Flavored water	X	2	10.1	0	- -	0	- -	40	- -	0%	-	Sucralose, acesulfame potassium
38 (tie)	Robinson's Fruit Shoot	Hydro Sparkling	SS bottle	Flavored water	X	2	10.1	0	- -	0	- -	20	- -	0%	-	Sucralose, acesulfame potassium
38 (tie)	Mondo Squeezers		SS bottle	Fruit drink	X	8	6.75	0	- -	0	- -	15	- -	0%	-	Sucralose, acesulfame potassium
43	Kool-Aid	Packets	MS packet	Drink mix	X	21	8	0	- -	0	- -	10	(0 30)	0%	Consumer adds own sweetener	-



*MS = multi-serving, SS = single-serving

**This ingredient was not included in every product from this sub-brand

Source: Nutrition analysis (August 2019)

Nutrition and ingredient information for children's drinks without added sweeteners

Ranked by median calories (kcal), then median sugar (g) per serving

Rank	Brand	Sub-brand	Package type*	Category	# of products	Serving size (oz)	Calories (kcal)		Sugar (g)		Sodium (mg)		Juice (%)
							Median	Range	Median	Range	Median	Range	
1	Juicy Juice	100% Juice	SS bottle	100% juice	2	10	140	-	33	20	100%		
2	Minute Maid	Orange Juice	Premium Original SS bottle	100% juice	1	10	140	-	32	25	100%		
3	Tree Top	100% Juice	SS bottle	100% juice	1	10	140	-	31	10	100%		
4	Mott's	Juice	MS bottle	100% juice	4	8	120	(120 130)	28	30	100%		
5	Juicy Juice	100% Juice	MS bottle	100% juice	15	8	120	(110 150)	27	20	100%		
6	Langers	Disney	MS bottle	100% juice	4	8.1	120	-	27	15	100%		
7	Apple & Eve	Sesame Street	MS bottle	100% juice	3	8	120	(110 130)	25	15	100%		
8	Mott's	Juice/Natural	MS bottle	100% juice	1	8	120	-	25	15	100%		
9	Tree Top	100% Juice	MS bottle	100% juice	7	8	120	(110 130)	25	15	100%		
10	Juicy Juice	Organics 100% Juice	MS bottle	100% juice	2	8	115	(110 120)	27	17.5	100%		
11	Tree Top	100% Juice, Organic	SS box	100% juice	1	6.75	110	-	27	10	100%		
12	Apple & Eve	On the Go/Juice	SS bottle	100% juice	4	8	115	(110 120)	24.5	10	100%		
13	Minute Maid	Kids+ Orange Juice	MS carton	100% juice	1	8	110	-	24	15	100%		
14	Tropicana	Pure Premium Healthy Kids Orange Juice	MS bottle	100% juice	1	8	110	-	22	0	100%		
15	Juicy Juice	100% Juice	SS box	100% juice	8	6.75	100	(100 110)	23	15	100%		
16	Langers	Disney	SS pouch	100% juice	4	6.75	100	-	23	15	100%		
17	Tree Top	100% Juice	SS box	100% juice	2	6.75	100	-	22	7.5	100%		
18	R.W. Knudsen Family	Juice Boxes	SS box	100% juice	4	6.75	100	(100 110)	20.5	15	100%		
19	Capri Sun	100% Juice	Pouch	100% juice	5	6	90	(80 90)	20	25	100%		
20	Minute Maid	100% juice	SS box	100% juice	4	6	90	(80 90)	19.5	15	100%		
21	Minute Maid	Kids+ Orange Juice	SS box	100% juice	1	6	90	-	18	15	100%		
21 (tie)	Mott's	Sensibles	MS bottle	100% juice	4	8	90	-	18	75	100%		
23	Good 2 Grow	Fruit Juice	SS bottle	100% juice	2	6	80	-	18.5	8	100%		
24	Tree Top	100% Juice	SS can	100% juice	1	5.5	80	-	17	10	100%		
25	Mott's	Mott's for Tots	MS bottle	Juice/water blend	4	8	65	(60 70)	15	5	53%		
25 (tie)	Mott's	Juice	SS box	100% juice	1	4.23	60	-	15	15	100%		
25 (tie)	Capri Sun	Fruit & Veggie Blend	SS pouch	Juice/water blend	3	6	60	-	15	30	66%		
28	Juicy Juice	100% Juice	SS box	100% juice	5	4.23	60	(60 70)	14	10	100%		

continued

Nutrition and ingredient information for children's drinks without added sweeteners (continued)

Rank	Brand	Sub-brand	Package type*	Category	# of products	Serving size (oz)	Calories (kcal)		Sugar (g)		Sodium (mg)		Juice (%)			
							Median	Range	Median	Range	Median	Range				
29	Juicy Juice	Organics 100% Juice	SS box	100% juice	2	4.23	60	-	-	14	-	-	10	-	-	100%
30	Juicy Juice	Fruitfuls Organic	SS box	Juice/water blend	4	6.75	60	-	-	14	(13	14)	10	-	-	60%
31	Old Orchard	For Kids	MS bottle	Juice/water blend	3	8	60	(60	70)	14	(14	16)	14	(10	15)	50%
32	Apple & Eve	Sesame Street	SS box	100% juice	5	4.23	60	(50	70)	13	(12	15)	5	(5	25)	100%
33	Apple & Eve	Sesame Street/Organics	SS box	100% juice	2	4.23	60	-	-	13	-	-	5	-	-	100%
34	Apple & Eve	Fruitables	SS box	Juice/water blend	7	6.75	60	(50	60)	13	(12	14)	10	(2	20)	66%
35	Capri Sun	Organic	SS pouch	Juice/water blend	5	6	60	(50	60)	13	(12	15)	20	(20	35)	56%
36	Good 2 Grow	Fruit & Veggies Blend	SS bottle	Juice/water blend	2	6	60	-	-	13	-	-	15	-	-	72%
37	Capri Sun	Refreshers	SS pouch	Juice/water blend	4	6	47.5	(45	50)	10	-	-	20	-	-	50%
38	Honest Kids		MS bottle	Juice/water blend	3	8	45	-	-	10	(10	11)	20	(10	20)	37%
39	Apple & Eve	Organic Quenchers	SS box	Juice/water blend	3	6.75	40	-	-	9	(8	9)	5	(0	5)	40%
40	Honest Kids		SS pouch	Juice/water blend	6	6.75	40	-	-	9	-	-	15	(5	15)	36%
40 (tie)	Juicy Juice	Splashers Organic	SS pouch	Juice/water blend	3	6	40	-	-	9	-	-	10	-	-	44%
42	Tropicana	Tropicana Kids	SS pouch	Juice/water blend	4	5.5	40	-	-	8	(7	8)	5	-	-	45%
43	Apple & Eve	Sesame Street/Fruitables	SS box	Juice/water blend	2	4.23	37.5	(35	40)	8	-	-	10	-	-	66%
43 (tie)	Honest Kids		SS box	Juice/water blend	4	6	35	-	-	8	-	-	12.5	(10	15)	38%
45	R.W. Knudsen Family	Sensible Sippers	SS box	Juice/water blend	3	4.23	30	(30	35)	6	(6	7)	5	-	-	50%
46	Polar	Seltzer Jr.	SS can	Sparkling water	6	8	0	-	-	0	-	-	0	-	-	0%



Least

*MS = multi-serving, SS = single-serving
Source: Nutrition analysis (August 2019)

On-package marketing on children's sweetened drink sub-brands

Ranked by average # of child features per package

Rank	Brand	Sub-brand	Category	# of unique packages	Nutrition-related claims						Other marketing messages					
					Sugar claims*		Ingredient claims		Other health-related messages		Real claims		Child features		Promotions	
					% of packages with claim	Avg # per package	% of packages with claim	Avg # per package	% of packages with claim	Avg # per package	% of packages with claim	Avg # per package	% of packages with message	Avg # per package	% of packages with message	Avg # per package
1	Kool-Aid	Sour Jammers	Fruit drink	3	0%	0.0	0%	0.0	100%	1.0	0%	0.0	100%	5.0	0%	0.0
2	Capri Sun	Sport	Flavored water	3	100%	3.0	100%	4.0	100%	4.0	100%	1.0	100%	4.0	100%	1.0
3	Kool-Aid	Bursts	Fruit drink	2	100%	1.0	100%	1.0	100%	2.0	0%	0.0	100%	4.0	100%	1.0
4	Hi-C	Hi-C	Fruit drink	10	90%	1.0	100%	1.9	100%	1.0	100%	1.0	100%	3.7	0%	0.0
5	Hawaiian Punch		Fruit drink	10	30%	1.0	100%	2.7	100%	1.3	70%	1.0	100%	3.3	70%	4.0
6	Kool-Aid	Singles	Drink mix	1	100%	1.0	100%	3.0	100%	1.0	0%	0.0	100%	3.0	0%	0.0
7	Capri Sun	Roarin' Waters	Flavored water	6	100%	2.0	100%	2.0	100%	3.0	100%	2.0	100%	3.0	100%	2.0
8	Tum E Yummies	Tum E Yummies	Flavored water	2	0%	0.0	100%	3.0	0%	0.0	100%	1.0	100%	3.0	0%	0.0
9	Bug Juice	Bug Juice	Fruit drink	1	0%	0.0	100%	1.0	0%	0.0	0%	0.0	100%	3.0	0%	0.0
10	Hawaiian Punch	Light	Fruit drink	1	0%	0.0	100%	3.0	100%	1.0	100%	1.0	100%	3.0	100%	4.0
11	Capri Sun	(Original)	Juice Drink Fruit drink	13	100%	2.0	100%	2.0	46%	1.3	100%	2.0	100%	2.4	62%	2.0
12	Kool-Aid	Canisters	Drink mix	6	50%	1.0	100%	3.0	100%	1.0	0%	0.0	100%	2.0	0%	0.0
13	Kool-Aid	Liquid	Drink mix	6	100%	1.0	100%	2.0	100%	1.0	0%	0.0	100%	2.0	0%	0.0
14	Apple & Eve	Water Fruits	Flavored water	3	100%	2.0	100%	4.0	100%	2.0	100%	3.0	100%	2.0	0%	0.0
15	Robinson's Fruit Shoot	Hydro Sparkling	Flavored water	1	100%	2.0	100%	2.0	100%	2.0	100%	2.0	100%	2.0	0%	0.0
16	Good 2 Grow	Organic 75% Less Sugar	Fruit drink	2	100%	2.0	100%	2.0	100%	1.0	100%	3.0	100%	2.0	100%	1.0
17	Kool-Aid	Jammers	Fruit drink	7	100%	1.0	100%	1.9	100%	1.0	0%	0.0	100%	2.0	43%	1.0
18	Kool-Aid	Zero Sugar Jammers	Fruit drink	1	100%	1.0	100%	2.0	100%	1.0	0%	0.0	100%	2.0	0%	0.0
19	Minute Maid	Lemonade	Fruit drink	1	0%	0.0	100%	2.0	100%	1.0	100%	1.0	100%	2.0	0%	0.0
20	Mondo Squeezers	Mondo Squeezers	Fruit drink	2	100%	1.0	100%	2.0	100%	1.0	0%	0.0	100%	2.0	0%	0.0
21	Kool-Aid	On the Go	Drink mix	3	100%	1.0	100%	2.0	100%	1.0	0%	0.0	100%	1.7	0%	0.0
22	Little Hug	Fruit Barrels	Fruit drink	2	0%	0.0	100%	1.5	100%	1.0	50%	1.0	100%	1.5	0%	0.0

Most



continued

On-package marketing on children's sweetened drink sub-brands (continued)

Rank	Brand	Sub-brand	Category	# of unique packages	Nutrition-related claims						Other marketing messages					
					Sugar claims*		Ingredient claims		Other health-related messages		Real claims		Child features		Promotions	
					% of packages with claim	Avg # per package	% of packages with claim	Avg # per package	% of packages with claim	Avg # per package	% of packages with claim	Avg # per package	% of packages with message	Avg # per package	% of packages with message	Avg # per package
23	Kool-Aid	Packets	Drink mix	10	0%	0.0	100%	3.0	100%	1.0	0%	0.0	100%	1.0	0%	0.0
24	Robinson's Fruit Shoot	Hydro	Flavored water	2	100%	2.0	100%	2.0	100%	2.0	100%	2.0	100%	1.0	0%	0.0
25	Fruit Rush	Fruit Rush	Fruit drink	1	0%	0.0	0%	0.0	100%	1.0	0%	0.0	100%	1.0	0%	0.0
26	Kool-Aid	Multiserve	Fruit drink	1	0%	0.0	100%	1.0	100%	1.0	0%	0.0	100%	1.0	0%	0.0
27	Kool-Aid	Sparklers	Fruit drink	2	100%	2.0	100%	2.0	100%	1.0	100%	1.0	100%	1.0	100%	1.0
28	Mott's	Juice Drink	Fruit drink	1	0%	0.0	100%	2.0	100%	1.0	100%	1.0	100%	1.0	100%	4.0
29	Robinson's Fruit Shoot	No Sugar Added	Fruit drink	1	100%	2.0	100%	2.0	100%	1.0	100%	2.0	100%	1.0	0%	0.0
30	Apple & Eve	On the Go/fruit drinks	Fruit drink	2	50%	1.0	100%	2.5	100%	1.0	50%	2.0	0%	0.0	0%	0.0
31	Little Hug	Big Hug	Fruit drink	1	0%	0.0	100%	2.0	100%	1.0	0%	0.0	0%	0.0	0%	0.0
32	Robinson's Fruit Shoot	Made With Real Sugar	Fruit drink	1	100%	1.0	100%	1.0	100%	1.0	100%	3.0	0%	0.0	0%	0.0
33	Sunny D	Sunny D	Fruit drink	3	0%	0.0	100%	1.0	100%	1.0	0%	0.0	0%	0.0	0%	0.0



*Subset of ingredient claims

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

On-package marketing on children's drink sub-brands without added sweeteners

Ranked by average # of child features per package

Rank	Brand	Sub-brand	Category	Count of unique packages	Nutrition-related claims						Other marketing messages			
					Ingredient claims		Other health-related messages		Real claims		Child features		Promotions	
					% of packages with claim	Avg # per package	% of packages with claim	Avg # per package	% of packages with claim	Avg # per package	% of packages with claim	Avg # per package	% of packages with message	Avg # per package
1	Apple & Eve	Sesame Street	100% juice	6	100%	4.3	100%	1.0	100%	2.0	67%	3.0	100%	2.0
2	Apple & Eve	Sesame Street/Fruitables	Juice/water blend	2	100%	2.0	100%	1.0	100%	2.0	100%	3.0	100%	2.0
3	Capri Sun	Fruit & Veggie Blends	Juice/water blend	2	100%	3.0	100%	2.0	100%	2.0	100%	3.0	0%	0.0
4	Capri Sun	Refreshers	Juice/water blend	2	100%	3.0	100%	2.0	100%	2.0	100%	3.0	0%	0.0
5	Tropicana	Tropicana Kids	Juice/water blend	3	100%	1.0	100%	1.0	100%	4.0	100%	3.0	0%	0.0
6	Polar	Seltzer Jr.	Sparkling water	6	100%	2.0	0%	0.0	100%	1.0	100%	3.0	0%	0.0
7	Juicy Juice	100% Juice	100% juice	21	100%	5.1	100%	1.0	48%	1.0	95%	2.4	5%	4.0
8	Capri Sun	100% Juice	100% juice	2	100%	4.0	100%	1.0	100%	2.0	100%	2.0	100%	1.5
9	Juicy Juice	Organics 100% Juice	100% juice	3	100%	4.7	100%	1.0	100%	2.7	33%	2.0	0%	0.0
10	Minute Maid	Kids + Orange Juice	100% juice	1	100%	5.0	100%	1.0	100%	1.0	100%	2.0	0%	0.0
11	Apple & Eve	Organic Quenchers	Juice/water blend	2	100%	3.0	100%	1.0	100%	3.0	100%	2.0	0%	0.0
12	Juicy Juice	Fruitfuls Organic	Juice/water blend	4	100%	5.0	100%	3.0	100%	2.0	100%	2.0	0%	0.0
13	Juicy Juice	Splashers Organic	Juice/water blend	3	100%	4.0	100%	1.0	100%	4.0	100%	2.0	0%	0.0
14	Old Orchard	for Kids	Juice/water blend	1	100%	2.0	100%	1.0	100%	1.0	100%	2.0	100%	2.0
15	Honest Kids	Honest Kids	Juice/water blend	8	100%	4.0	100%	1.0	100%	2.0	100%	1.9	75%	3.0
16	Minute Maid	100% Juice	100% juice	4	100%	3.8	100%	1.0	100%	2.5	100%	1.8	0%	0.0
17	Mott's	Juice	100% juice	7	100%	5.9	100%	1.0	100%	2.9	86%	1.0	86%	3.0
18	Mott's	Juice/Natural	100% juice	1	100%	5.0	100%	1.0	100%	3.0	100%	1.0	100%	4.0
19	Mott's	Sensibles	100% juice	5	100%	4.6	100%	1.0	100%	3.0	40%	1.0	100%	2.2
20	Tropicana	Pure Premium Healthy Kids Orange Juice	100% juice	1	100%	3.0	100%	1.0	0%	0.0	100%	1.0	0%	0.0
21	Capri Sun	Organic	Juice/water blend	3	100%	2.0	100%	1.0	100%	3.0	100%	1.0	0%	0.0
22	Mott's	Mott's for Tots	Juice/water blend	5	100%	4.4	100%	1.0	100%	1.4	100%	1.0	60%	4.0
23	R.W. Knudsen	Sensible Sippers	Juice/water blend	3	100%	1.0	100%	1.0	100%	2.0	100%	1.0	100%	2.0
24	Apple & Eve	On the Go/Juice	100% juice	1	100%	4.0	100%	1.0	100%	1.0	0%	0.0	0%	0.0
25	Apple & Eve	Sesame Street/Organics	100% juice	1	100%	3.0	100%	1.0	100%	2.0	0%	0.0	100%	2.0
26	Good 2 Grow	Fruit Juice	100% juice	2	100%	3.0	100%	1.0	100%	2.0	0%	0.0	100%	4.0

continued

Most



On-package marketing on children's drink sub-brands without added sweeteners (continued)

Rank	Brand	Sub-brand	Category	Count of unique packages	Nutrition-related claims						Other marketing messages			
					Ingredient claims		Other health-related messages		Real claims		Child features		Promotions	
					% of packages with claim	Avg # per package	% of packages with claim	Avg # per package	% of packages with claim	Avg # per package	% of packages with claim	Avg # per package	% of packages with message	Avg # per package
27	Langers	Disney	100% juice	1	100%	7.0	100%	1.0	100%	2.0	0%	0.0	100%	3.0
28	Minute Maid	Premium Original Orange Juice	100% juice	1	100%	1.0	100%	1.0	0%	0.0	0%	0.0	0%	0.0
29	R.W. Knudsen	Juice Boxes	100% juice	3	100%	4.0	100%	1.0	100%	3.0	0%	0.0	0%	0.0
30	Tree Top	100% Juice	100% juice	1	100%	2.0	100%	1.0	0%	0.0	0%	0.0	0%	0.0
31	Apple & Eve	Fruitables	Juice/water blend	4	100%	4.3	100%	1.0	100%	2.3	0%	0.0	0%	0.0
32	Good 2 Grow	Fruit & Veggie Blends	Juice/water blend	1	100%	2.0	100%	1.0	100%	2.0	0%	0.0	100%	4.0



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

Advertising spending by sub-brand* and company** in 2018

Ranked by total advertising spending (\$'000) (in all media)

Rank	Company	Brand	Sub-brand	Category	Total advertising spending (\$'000)	Advertising spending by medium (\$'000)			
						TV	TV % of total	Magazine	Digital
1	Wonderful	Pom Wonderful		100% juice	\$27,739	\$17,262	62%	\$7,726	\$145
2	PepsiCo	Bubly		Sparkling water	\$20,644	\$19,711	95%	\$0	\$907
3	Wonderful	Fiji		Plain water	\$20,225	\$16,141	80%	\$3,681	\$56
4	Coca-Cola	Simply		100% juice	\$17,201	\$16,803	98%	\$0	\$398
5	Nestle	San Pellegrino		Sparkling water	\$16,062	\$14,603	91%	\$1,096	\$315
6	Ocean Spray	Ocean Spray		Fruit drink	\$15,734	\$15,445	98%	\$0	\$284
7	Dr Pepper Snapple Group	Bai	Antioxidant Infusion	Fruit drink	\$15,151	\$13,553	89%	\$0	\$1,598
8	Coca-Cola	Glaceau	Smartwater	Plain water	\$14,866	\$0	-	\$13,274	\$1,175
9	Coca-Cola	Glaceau	Vitaminwater	Flavored water	\$13,820	\$8,690	63%	\$4,756	\$126
10	Kraft Heinz	Capri Sun	Refreshers	Juice/water blend	\$12,795	\$242	2%	\$12,553	\$0
11	PepsiCo	Tropicana	Essentials	100% juice	\$11,578	\$11,534	100%	\$0	\$5
12	Coca-Cola	Minute Maid	Lemonade	Fruit drink	\$10,983	\$9,759	89%	\$1,224	\$0
13	Nestle	Nestle Waters	Pure Life	Plain water	\$8,605	\$7,488	87%	\$0	\$1,012
14	Nestle	Deer Park	Sparkling Water	Sparkling water	\$7,812	\$7,481	96%	\$0	\$303
15	Coca-Cola	Simply	Light	Juice/water blend	\$7,626	\$7,600	100%	\$0	\$26
16	Coca-Cola	Glaceau	Smartwater Sparkling	Sparkling water	\$7,115	\$0	-	\$7,115	\$0
17	Coca-Cola	Coca-Cola	Bottled Water	Plain water	\$7,089	\$0	-	\$0	\$310
18	Nestle	Arrowhead	Sparkling Water	Sparkling water	\$7,066	\$6,590	93%	\$0	\$462
19	Nestle	Poland Spring	Sparkling Water	Sparkling water	\$6,884	\$6,853	100%	\$0	\$2
20	Coca-Cola	Minute Maid	100% Juice	100% juice	\$6,509	\$6,505	100%	\$0	\$4
21	PepsiCo	Propel		Flavored water	\$6,412	\$6,014	94%	\$0	\$398
22	Kraft Heinz	Capri Sun	Juice Drink	Fruit drink	\$4,911	\$4,911	100%	\$0	\$0
23	Harvest Hill Beverage Company	Juicy Juice	100% Juice	100% juice	\$4,875	\$1,534	31%	\$3,132	\$0
24	Coca-Cola	Simply		Fruit drink	\$4,772	\$4,769	100%	\$0	\$3
25	Dr Pepper Snapple Group	Mott's	Sensibles	100% juice	\$4,424	\$0	-	\$4,266	\$108
26	Coca-Cola	Minute Maid	Premium Orange Juice	100% juice	\$4,057	\$4,057	100%	\$0	\$0
27	Spindrift Beverage	Spindrift		Sparkling water	\$4,052	\$0	-	\$3,042	\$103
28	Crystal Geyser Water	Crystal Geyser		Plain water	\$3,967	\$3,949	100%	\$0	\$18
29	Coca-Cola	Simply	Light	Fruit drink	\$3,910	\$3,744	96%	\$0	\$166
30	Nestle	Ice Mountain	Sparkling Water	Sparkling water	\$3,533	\$2,682	76%	\$0	\$809
31	Nestle	Zephyrhills	Sparkling Water	Sparkling water	\$3,415	\$3,355	98%	\$0	\$50

Shading indicates a children's drink brand

continued

Most



Advertising spending by sub-brand* in 2018 (continued)

Rank	Company	Brand	Sub-brand	Category	Total advertising spending (\$'000)	Advertising spending by medium (\$'000)			
						TV	TV % of total	Magazine	Digital
32	National Grape Cooperative	Welchs		100% juice	\$3,301	\$3,005	91%	\$0	\$58
33	Talking Rain Beverage	Sparkling Ice		Sparkling water	\$3,134	\$456	15%	\$0	\$2,467
34	Essentia Water	Essentia Bottled		Plain water	\$2,678	\$0	-	\$0	\$309
35	PepsiCo	Tropicana		100% juice	\$2,506	\$2,383	95%	\$0	\$2
36	PepsiCo	Tropicana	Trop50	Fruit drink	\$2,261	\$2,190	97%	\$0	\$5
37	Kraft Heinz	Kool-Aid	Jammers	Fruit drink	\$2,203	\$2,200	100%	\$0	\$3
38	Citrus World	Floridas Natural		100% juice	\$2,128	\$2,012	95%	\$0	\$0
39	Dr Pepper Snapple Group	Bai		Brand	\$1,944	\$0	-	\$0	\$1,936
40	Nestle	Ozarka		Sparkling water	\$1,806	\$0	-	\$0	\$1,806
41	Nestle	Nestle Waters		Plain water	\$1,788	\$894	50%	\$0	\$392
42	Harvest Hill Beverage Company	Sunny D		Fruit drink	\$1,508	\$589	39%	\$0	\$548
43	Squeezed	Squeezed		100% juice	\$1,454	\$0	-	\$0	\$0
44	Coca-Cola	Minute Maid		Brand	\$1,387	\$1,379	99%	\$0	\$7
45	Kraft Heinz	Capri Sun	Organic	Juice/water blend	\$1,335	\$1,260	94%	\$0	\$75
46	All Market	Vita Coco		100% juice	\$1,164	\$277	24%	\$0	\$576
47	Kraft Heinz	Capri Sun	Roarin' Waters	Flavored water	\$1,050	\$1,050	100%	\$0	\$0
48	Pressed Partners	Good Cleansing		100% juice	\$1,025	\$0	-	\$0	\$1,025
49	PepsiCo	Lipton Brisk		Brand	\$1,003	\$0	-	\$0	\$282
50	Icelandic Water Holdings	Icelandic Glacial B		Plain water	\$987	\$0	-	\$462	\$289
51	Coca-Cola	Minute Maid		Fruit drink	\$899	\$0	-	\$696	\$0
52	Dannon	Evian		Plain water	\$792	\$0	-	\$417	\$46
53	Dr Pepper Snapple Group	Snapple	Fruit Drinks	Fruit drink	\$623	\$0	-	\$0	\$623
54	Nestle	Deer Park		Plain water	\$585	\$0	-	\$0	\$0
55	S Martinelli & Co	Martinelli's		100% juice	\$560	\$236	42%	\$0	\$301
56	Sunsweet Growers	Sunsweet		100% juice	\$558	\$369	66%	\$0	\$50
57	Harmless Harvest	Harmless Harvest		100% juice	\$511	\$0	-	\$0	\$1
58	Campbell Soup	Bolthouse Farms		Brand	\$479	\$0	-	\$0	\$3
59	PepsiCo	Aquafina		Plain water	\$458	\$0	-	\$0	\$141
60	Nestle	Poland Spring		Plain water	\$433	\$247	57%	\$0	\$90
61	Hy-Vee	Hy-Vee One Step		Plain water	\$406	\$406	100%	\$0	\$0
62	PepsiCo	Sobe Lifewater		Plain water	\$389	\$0	-	\$0	\$0
63	Nestle	Ozarka	Sparkling Water	Sparkling water	\$380	\$332	87%	\$0	\$38
64	Nestle	San Pellegrino	Fruit Drinks	Fruit drink	\$336	\$0	-	\$0	\$300

Shading indicates a children's drink brand

continued

Advertising spending by sub-brand* in 2018 (continued)

Rank	Company	Brand	Sub-brand	Category	Total advertising spending (\$'000)	Advertising spending by medium (\$'000)			
						TV	TV % of total	Magazine	Digital
65	PepsiCo	Tropicana		Brand	\$327	\$54	17%	\$0	\$273
66	Nestle	Ozarka		Plain water	\$318	\$2	1%	\$0	\$36
67	Nestle	Zephyrhills		Plain water	\$267	\$123	46%	\$0	\$32
68	Bevgrow	Nootra Fruit Juices		100% juice	\$252	\$0	-	\$0	\$252
69	Coca-Cola	Dasani		Plain water	\$252	\$0	-	\$0	\$24
70	Nestle	Ice Mountain		Plain water	\$252	\$12	5%	\$0	\$0
71	Nestle	Perrier		Sparkling water	\$223	\$0	-	\$0	\$181
72	Hint Inc	Hint		Plain water	\$209	\$4	2%	\$0	\$195
73	Dannon	Danone	Bottled Water	Plain water	\$206	\$0	-	\$0	\$0
74	Cyh.Com	Cherrish		Juice blend	\$205	\$0	-	\$205	\$0
75	Nestle	Arrowhead		Plain water	\$191	\$0	-	\$0	\$21
76	PepsiCo	Tropicana	Tropicana Kids	Juice/water blend	\$188	\$0	-	\$0	\$188
77	PepsiCo	Lifewtr		Plain water	\$180	\$0	-	\$0	\$180
78	Szent	Szent		Plain water	\$180	\$0	-	\$0	\$180
79	PepsiCo	Dole		100% juice	\$159	\$0	-	\$49	\$23
80	Sunraysia Natural Beverage Company	Sunraysia		100% juice	\$146	\$0	-	\$0	\$0
81	Dole Food	Dole	Fruit Juice	100% juice	\$143	\$0	-	\$0	\$5
82	PepsiCo	Tropicana	Fruit Drinks	Fruit drink	\$126	\$30	23%	\$0	\$97
83	National Beverage Corp	La Croix Seltzer	Key Lime	Sparkling water	\$126	\$0	-	\$0	\$0
84	Formula Four Beverages Usa	Formula Four		Plain water	\$125	\$0	-	\$0	\$0
85	Coca-Cola	Zico		100% juice	\$125	\$0	-	\$0	\$0
86	Dr Pepper Snapple Group	Mott's	Mott's For Tots	Juice/water blend	\$124	\$0	-	\$0	\$11
87	Dole Food	Dole	Jaya	100% juice	\$115	\$0	-	\$0	\$115
88	Dr Pepper Snapple Group	Schweppes	Seltzer Water Orange	Sparkling water	\$113	\$0	-	\$0	\$113
89	In Zone Brands	Good 2 Grow		Juice/water blend	\$100	\$0	-	\$4	\$93



Least

Shading indicates a children's drink brand

*Includes sub-brands with \$100,000 or more in 2018 advertising spending

Advertising spending by company** in 2018 (continued)

Company rankings

Most
↓
Least

Rank	Company	Total advertising spending (\$'000)	Advertising spending by medium (\$'000)			
			TV	TV % of total	Magazine	Digital
Sweetened drinks						
1	Coca-Cola	\$34,384	\$26,961	78%	\$6,676	\$294
2	Dr Pepper Snapple Group	\$15,775	\$13,553	86%	\$0	\$2,222
3	Ocean Spray	\$15,734	\$15,445	98%	\$0	\$284
4	PepsiCo	\$8,799	\$8,234	94%	\$0	\$499
5	Kraft Heinz	\$8,164	\$8,161	100%	\$0	\$3
6	Harvest Hill Beverage Company	\$1,508	\$589	39%	\$0	\$548

Most
↓
Least

Drinks without added sweeteners						
1	Coca-Cola	\$64,837	\$34,964	54%	\$20,389	\$1,937
2	Nestle	\$59,620	\$50,662	85%	\$1,096	\$5,548
3	PepsiCo	\$36,101	\$33,628	93%	\$0	\$1,416
4	Wonderful	\$27,739	\$17,262	62%	\$7,726	\$145
5	Kraft Heinz	\$14,130	\$1,502	11%	\$12,553	\$75
6	Harvest Hill Beverage Company	\$4,875	\$1,534	31%	\$3,132	\$0
7	Dr Pepper Snapple Group	\$4,661	\$0	-	\$4,266	\$232
8	Spindrift Beverage	\$4,052	\$0	-	\$3,042	\$103
9	Crystal Geyser Water	\$3,967	\$3,949	100%	\$0	\$18
10	National Grape Cooperative	\$3,301	\$3,005	91%	\$0	\$58
11	Talking Rain Beverage	\$3,134	\$456	15%	\$0	\$2,467
12	Essentia Water	\$2,678	\$0	-	\$0	\$309
13	Citrus World	\$2,128	\$2,012	95%	\$0	\$0
14	Squeezed	\$1,454	\$0	-	\$0	\$0
15	All Market	\$1,164	\$277	24%	\$0	\$576
16	Pressed Partners	\$1,025	\$0	-	\$0	\$1,025
17	Dannon	\$998	\$0	-	\$417	\$46

**Includes companies with \$1 million or more in 2018 advertising spending

Source: Analysis of 2018 Nielsen data

continued

Average number of TV ads viewed by children in 2018 by sub-brand and company

Ranked by ads viewed by children (6-11 y)

Rank	Company	Brand	Sub-brand	Category	Sweetened drink	Preschoolers (2-5 y)		Children (6-11 y)	
						Avg # of ads viewed	Ratio of ads viewed vs. adults	Avg # of ads viewed	Ratio of ads viewed vs. adults
1	Kraft Heinz	Kool-Aid	Jammers	Fruit drink	X	23.2	3.86	27.4	4.56
2	Kraft Heinz	Capri Sun	Organic	Juice/water blend		13.0	3.75	16.4	4.74
3	Kraft Heinz	Capri Sun	Roarin' Waters	Flavored water	X	9.5	3.94	12.6	5.22
4	PepsiCo	Bubly		Sparkling water		5.2	0.41	5.0	0.39
5	Wonderful	FIJI		Plain water		5.0	0.40	5.0	0.40
6	PepsiCo	Tropicana	Essentials	100% juice		4.6	0.41	4.5	0.40
7	Wonderful	POM Wonderful		100% juice		4.3	0.35	4.0	0.32
8	Coca-Cola	Glaceau	Vitaminwater	Flavored water	X	4.0	0.43	3.8	0.41
9	Ocean Spray	Ocean Spray		Fruit drink	X	4.1	0.46	3.8	0.42
10	Coca-Cola	Simply		100% juice		4.0	0.40	3.5	0.35
11	Dr Pepper Snapple Group	Bai	Antioxidant Infusion	Fruit drink	X	3.6	0.37	3.5	0.36
12	Coca-Cola	Minute Maid	Lemonade	Fruit drink	X	3.2	0.40	3.0	0.38
13	PepsiCo	Propel		Flavored water	X	2.6	0.36	2.5	0.35
14	Kraft Heinz	Capri Sun	Juice Drink	Fruit drink	X	2.4	0.58	2.3	0.56
15	Nestle	San Pelligrino		Sparkling water		2.6	0.39	2.3	0.35
16	Coca-Cola	Simply	Light	Juice/water blend		2.4	0.39	2.2	0.36
17	Nestle	Nestle Waters	Pure Life	Plain water		2.4	0.40	2.1	0.34
18	Coca-Cola	Simply		Fruit drink	X	1.7	0.39	1.8	0.40
19	Citrus World	Florida's Natural		100% juice		2.0	0.84	1.4	0.60
20	Coca-Cola	Minute Maid	100% Juice	100% juice		1.6	0.42	1.4	0.37
21	Coca-Cola	Minute Maid	Premium Orange Juice	100% juice		1.5	0.41	1.3	0.34
22	Coca-Cola	Simply	Light	Fruit drink	X	1.2	0.38	1.2	0.38
23	PepsiCo	Tropicana		100% juice		1.0	0.39	0.9	0.35
24	Harvest Hill Beverage Company	Juicy Juice	100% Juice	100% juice		0.7	0.45	0.5	0.36
25	PepsiCo	Tropicana	Trop50	Fruit drink	X	0.5	0.38	0.5	0.37
26	Nestle	Deer Park	Sparkling water	Sparkling water		0.3	0.34	0.3	0.34
27	Nestle	Arrowhead	Sparkling water	Sparkling water		0.3	0.34	0.3	0.32
28	Nestle	Poland Spring	Sparkling water	Sparkling water		0.3	0.33	0.3	0.28
29	Crystal Geyser Water	Crystal Geyser		Plain water		0.2	0.38	0.2	0.33

Shading indicates a children's drink brand

continued

Average number of TV ads viewed by children in 2018 by sub-brand and company (continued)



Rank	Company	Brand	Sub-brand	Category	Sweetened drink	Preschoolers (2-5 y)		Children (6-11 y)	
						Avg # of ads viewed	Ratio of ads viewed vs. adults	Avg # of ads viewed	Ratio of ads viewed vs. adults
30	National Grape Cooperative	Welch's		100% juice		0.3	0.36	0.2	0.28
31	Sunsweet Growers	Sunsweet		100% juice		0.2	0.50	0.2	0.39
32	Nestle	Ice Mountain	Sparkling water	Sparkling water		0.1	0.30	0.1	0.37
33	Nestle	Zephyrhills	Sparkling water	Sparkling water		0.1	0.27	0.1	0.33
34	Kraft Heinz	Capri Sun	Refreshers	Juice/water blend		0.1	0.37	0.0	0.33

Shading indicates a children's drink brand

Company rankings



Rank	Company	Preschoolers (2-5 y)		Children (6-11 y)	
		Avg # of ads viewed	Ratio of ads viewed vs. adults	Avg # of ads viewed	Ratio of ads viewed vs. adults
Sweetened drinks					
1	Kraft Heinz	35.1	2.79	42.3	3.36
2	Coca-Cola	10.1	0.41	9.7	0.39
3	Ocean Spray	4.1	0.46	3.8	0.42
4	Dr Pepper Snapple Group	3.6	0.37	3.5	0.36
5	PepsiCo	3.1	0.36	3.0	0.35



Rank	Company	Preschoolers (2-5 y)		Children (6-11 y)	
		Avg # of ads viewed	Ratio of ads viewed vs. adults	Avg # of ads viewed	Ratio of ads viewed vs. adults
Drinks without added sweeteners					
1	Kraft Heinz	13.0	3.61	16.5	4.56
2	PepsiCo	10.8	0.41	10.4	0.39
3	Coca-Cola	9.4	0.40	8.3	0.35
4	Wonderful	9.3	0.37	9.0	0.36
5	Nestle	6.1	0.49	5.5	0.44
6	Citrus World	2.0	0.84	1.4	0.60
7	Harvest Hill Beverage Company	0.7	0.45	0.5	0.36
8	National Grape Cooperative	0.3	0.36	0.2	0.28
9	Crystal Geysers	0.2	0.38	0.2	0.33
10	Sunsweet Growers	0.2	0.50	0.2	0.39

Source: Analysis of 2018 Nielsen data

We used a variety of data sources and methods to assess children's drinks in the United States. Through publicly available data, we document and evaluate the nutrition content of children's drinks and marketing to promote them to children and their parents. Whenever possible, we used the same methods as our 2014 report, "Sugary Drink FACTS: Evaluating sugary drink nutrition and marketing to youth,"¹ to measure changes over time.

We first identified children's drink brands in the fruit drink, juice and water categories using IRI syndicated sales data and by examining marketing messages on brand websites. We evaluated the nutrition facts and ingredients in the most popular children's drinks; conducted a content analysis of product packaging, including nutrition-related, child-directed, and other marketing messages; and analyzed syndicated data from Nielsen to assess advertising spending in measured media and TV advertising exposure, including products targeted to children and to Hispanic and Black consumers. We supplemented these analyses with information collected from company websites, monitoring of business and consumer press, numerous visits to retail establishments, and calls to beverage company consumer helplines. These methods are described in detail in the following sections.

We did not have access to food industry proprietary documents, including privately commissioned market research, media, and marketing plans or other strategic documents. Therefore, we do not attempt to interpret beverage companies' goals or objectives for their marketing practices. Rather, we use publicly available data to document the sales, nutrition content, and marketing of children's drinks, assess changes over the past five years, and evaluate the products based on expert recommendations regarding healthy drinks for children.

Scope of the analysis

The analyses in this report focus on **children's drinks**, defined as drink products that companies market as intended for children to consume. Children's drinks may be marketed directly to children or to their parents. For some analyses, we also include other drink products (i.e., those not marketed for children) in the same categories for comparison purposes.

To identify children's drink brands to detail in this report, we obtained 2018 sales data from IRI for all fruit drink, juice, and water categories, including aseptic juices (i.e., boxes and pouches), shelf-stable bottled juices (bottled products that do not require refrigeration), and bottled water, as well as iced tea and sports drinks. For all products within these categories, IRI provided total dollar sales at U.S. supermarkets, convenience stores, drug stores, and mass merchandisers. Sales at vending

machines, smaller retailers (e.g., corner stores), and restaurants were not included in these data.

We first identified all brands in these categories with \$10 million or more of sales in 2018. Using this list of brands, researchers visited the brand websites to determine whether the brand had products marketed as specifically for children. Brands that had products with "kids" in the name and/or websites that referenced children drinking the product or parents serving it to their children (in text and/or pictures) were categorized as children's brands.

We did not identify any children's drink products offered by sports drink or iced tea brands, so these categories were excluded from our analysis.

The report includes the following analyses: 1) a description of the children's drink market, including brands, categories and product sales; 2) children's drink product nutrition; 3) marketing messages on children's drink packages; and 4) advertising of children's and other drink products in the same categories, including a) advertising spending by media, b) TV advertising exposure by children, and c) targeted marketing to Hispanic and Black consumers.

Children's drink market

All children's drink products identified above were assigned a company, brand, sub-brand, and drink category designation, as follows:

- **Company** refers to the company listed on the product package or that owns the official website for the product.
- **Brand** references the marketing unit for each beverage (e.g., Capri Sun, Minute Maid). Brands may include two or more sub-brands.

If a brand had products in more than one drink category, we also assigned a **sub-brand** (e.g., Capri Sun Juice Drink fruit drinks, Capri Sun Roarin' Waters flavored water, Capri Sun 100% Juice). If a brand's products in the same category differed substantially in nutrition quality, they were also assigned to a sub-brand (e.g., Kool-Aid Jammers, Sour Jammers, and Zero Sugar Jammers).

All sub-brands are presented separately in the results sections when data are available.

Children's drink categories

Category describes the type of beverage (e.g., fruit drink, 100% juice). Syndicated industry data sources (e.g., IRI, Nielsen) often do not differentiate between products with different ingredients or nutrient profiles. For example, IRI's aseptic juice and bottled juice categories include both fruit drinks and 100% juice. Similarly, both IRI and Nielsen categorize flavored waters with added sweeteners in their "water" categories.

To differentiate between children's products with various ingredients and nutrient profiles, we assigned all brand/sub-brands to one of six categories. We also report **sweetened children's drinks**, those that contain added sugars and/or low-calorie sweeteners, separately from **children's drinks without added sweeteners** (added sugar or low-calorie) as follows:

■ Sweetened children's drinks

- ❑ **Fruit drinks** are fruit-flavored, non-carbonated drinks that may contain some fruit juice (in addition to added sugars and/or low-calorie sweeteners). Manufacturers refer to these products as juice drinks, juice beverages, fruit cocktails, and fruit-flavored drinks.
- ❑ **Drink mixes** include powdered and liquid fruit drink mixes, such as pre-sweetened products and products with no sweeteners intended for consumers to add their own.
- ❑ **Flavored waters** include non-carbonated drinks described as a "water beverage" on the product container or that contain the word "water" in the drink name.

■ Children's drinks without added sweeteners

- ❑ **100% juice** products are labeled as 100% juice on the product package. They only contain fruit and/or vegetable juice, including reconstituted juice from concentrate.
- ❑ **Juice/water blends** contain juice concentrates and water, with no additional sweeteners. These products cannot be labeled 100% juice as they are less concentrated than 100% juice. They are typically lower in total sugar and calories.
- ❑ **Sparkling water** includes carbonated products labeled as "water." They may have flavors, but no sweeteners.
- ❑ There were no children's **plain water** (i.e., non-carbonated, still) products that met our minimum sales criteria to include in the report.

Sales by category

The IRI sales data specified all products sold in the aseptic juice, shelf-stable bottled juice, and bottled water categories in 2018. **Products** included all combinations of flavor, package type, and package size for each sub-brand, identified as a Universal Product Code (UPC). IRI also identified a category and sub-category for each UPC, as well as the brand name and other product descriptors. There were 12,824 UPCs in the dataset.

The IRI categories do not correspond directly to the children's drink categories used in this analysis. **Aseptic juices** include 100% juice, juice/water blend, and fruit drink products that come in single-serving non-resealable packages (e.g., juice boxes, pouches) and do not require refrigeration. **Shelf-**

stable bottled juices include 100% juice, juice/water blend, and fruit drink products that come in bottles (single-serving and multi-serving) and do not require refrigeration. **Bottled water** includes plain, sparkling, and flavored water products. These sales data do not include products in the drink mix or refrigerated juice categories.

Researchers first selected all brands and sub-brands of children's drinks identified above in the IRI data and assigned them to the appropriate product category (i.e., fruit drink, flavored water, 100% juice, juice/water blend, or sparkling water).

Researchers also assigned the remaining (i.e., not children's) products to **other drinks** in the same categories, but the coding method varied by IRI category and sub-category:

■ IRI shelf-stable bottled juice category

- ❑ Other fruit drinks include all remaining products (i.e., not children's drinks) in the following IRI sub-categories: cranberry cocktail/juice drink, fruit drinks, fruit nectar, grapefruit cocktail, lemonade, cranberry juice/cranberry juice/water blend, and tomato/vegetable juice/cocktail.
- ❑ Other juice/water blends include all remaining products in the following IRI sub-categories: fruit juice/water blend and sparkling juice.
- ❑ Other 100% juice includes all remaining products in the following IRI sub-categories: aloe vera juice, apple juice, apricot juice, cherry juice, cider, grape juice, grapefruit juice, orange juice, pineapple juice, prune/fig juice, and other fruit juices.

■ IRI aseptic juice category

- ❑ Researchers checked brand websites to determine product ingredients and assigned products to the appropriate category.
- ❑ Products in the IRI aseptic juice drinks sub-category include other fruit drinks (87%), other juice/water blends (11%), and other 100% juice (2%).
- ❑ Products in the IRI aseptic juices sub-category also include fruit drinks (13%), juice/water blends (25%), and other 100% juice (62%).

■ IRI bottled water category

- ❑ All products in the IRI jug/bulk still water sub-category were assigned to the plain water category.
- ❑ Researchers examined all remaining products in the IRI convenience/pet still water sub-category.
 - If the product did not contain a flavor in the name, it was assigned to the plain water category.
 - If the product did contain a flavor in the name, researchers checked the brand website to determine

whether it contained added sweeteners. Products with sweeteners were assigned to the flavored water category. Products without sweeteners were assigned to the plain water category.

- Researchers examined all remaining products in the IRI seltzer/sparkling/mineral sub-category.
 - If the product did not contain a flavor in the name, it was assigned to the other sparkling water category.
 - If the product did contain a flavor in the name, researchers checked the brand website to determine whether it contained added sweeteners. Products with sweeteners were assigned to the other flavored water category. Products without sweeteners were assigned to the other sparkling water category.

Finally, 2018 dollar sales were aggregated by category for a) all drink products, b) children's drink products, and c) other (not children's) drink products for analysis.

Nutrition information

Researchers collected nutrition information for 100% juice, juice/water blends, fruit drinks, flavored waters, drink mixes, and seltzers in our analysis from company or brand websites in April to May 2019. If nutrition and/or ingredient information was not provided online or had implausible data (e.g., 0 kcals and 10g of sugar), researchers visited local stores to obtain nutrition information directly from packages.

We report the nutrition information per single-serving container, including calories, sugar, sodium, and percent juice. Nutrition information for multi-serving containers is reported using the serving size on the nutrition facts panel (i.e., 8 oz).

- **Single-serving containers** include drinks in pouches, boxes, cans, and bottles up to 20 ounces.
- **Multi-serving containers** include drinks in bottles, canisters, and cartons with more than 20 ounces.

We report the following measures of nutrition content for the children's products in our analysis:

- **Nutrition information** includes calories, total sugar, and sodium content per serving as defined above from the nutrition facts panels. Medians and ranges of values per sub-brand are reported. Nutrition information by category was calculated by determining the median of medians by sub-brand.
- **Ingredient information** includes percent juice and types of sweeteners used in each product. This information is provided on product packages within the nutrition facts label. Juice content is reported as percent of total volume. Presence and type(s) of added sugar and low-calorie sweetener are noted.

- **Added sugars** are any type of sugar(s) listed on the nutrition facts panel that were added to the drink during processing, including (but not limited to) sugar, cane sugar, invert sugar, high fructose corn syrup, sucrose, and glucose.

- **Low-calorie sweeteners** refer to all nonnutritive (also known as non-caloric or zero-calorie) sweeteners, including acesulfame potassium, aspartame, sucralose, neotame, and stevia. These products are also referred to as high-intensity sweeteners.² Product packaging sometimes refers to stevia as a "natural" sweetener because it is obtained from the leaves of the stevia plant.

- **Reduced-calorie drinks** are lower-sugar, lower-calorie drinks with 40 or fewer calories per 8-ounce serving. This definition of reduced-calorie was adopted from *Recommendations for Healthier Beverages* developed by a national panel of experts.³ The experts recommended non-caffeinated, non-fortified beverages with no more than 40 calories per container as healthier drink choices for adolescents. Reduced-calorie drinks often contain low-calorie sweeteners in addition to added sugar. The drink name may contain the words "light" or "diet," or it may give no indication that the drink is lower in calories.

We also analyzed changes in nutrition content from 2014 by sub-brand for sub-brands with data available for both years. The 2014 Sugary Drink FACTS report included sweetened drinks only, so we could not assess changes in nutrition for 100% juice and juice/water blends.

On-package marketing

Researchers conducted a content analysis of the marketing messages that appeared on children's drink product packaging, including nutrition and other claims, promotions, and child features. Data were collected by surveying product packages in two large supermarkets in Manchester and East Hartford, Connecticut during February and March 2019, supplemented by visits to other stores and online orders for products not available at the two locations.

Researchers created an initial list of product packages for coding that included all flavors listed on brand websites for all children's drink products analyzed in this report. Prior to data collection, one researcher visited the supermarkets to identify the primary and secondary shelving locations, brands, sub-brands, flavors, and forms of packaging available for the drinks. The researcher also conducted a preliminary assessment of marketing messages that appeared on product packages. If children's drink products had more than one form of packaging, such as multipacks of single-serving containers and multi-serving bottles, all packages were coded. If a product had more than one version of a package with different messages (e.g., one version included a promotion and the other did not), both packages were coded. Packages for all flavors of each brand available for each package type were coded.

The following package types for each of the six children's drink categories were examined:

- Flavored water: multipacks of pouches or boxes, and single-serving bottles.
- Fruit drinks: multipacks of pouches or boxes, single-serving bottles, and multi-serving bottles.
- 100% juice: multipacks of pouches or boxes, single-serving bottles, and multi-serving bottles.
- Juice/water blends: multipacks of pouches or boxes, single-serving bottles, and multi-serving bottles.
- Drink mixes: multi-serving canisters, packets, and drops, and single-serving packets.
- Sparkling water: multipacks of single-serving cans.

The codebook for this analysis was based on the codebook from a previous analysis of marketing on sugary drink packages,⁴ with modifications based on new messages that appeared frequently on children's drink packages as identified in preliminary store visits.

The coding manual outlined two main categories of nutrition-related and real messages:

- **Nutrition-related messages** describe all types of messages that imply the product is nutritious and/or beneficial for children in some way, including ingredient, real, and other health-related claims.
 - **Ingredient claims** include messages about ingredients in the product, including sugar, micronutrients, and other types of ingredients.
 - **Other health-related claims** refer to messages that imply health-related benefits from consuming the products, including hydration, exercise performance, and energy. Images of fruit on the package were also coded in this category as they imply health-related benefits.
- **Real claims** include messages about natural or no artificial ingredients/flavors/colors, in addition to real, organic, and non-GMO messages.

Due to the many ingredient claims found, subsets of these messages were coded as follows:

- **Sugar claims** describe the sugar content of the product, including no sugar added, less or low sugar, no high fructose corn syrup, and no artificial sweeteners.
- **Other ingredient claims** refer to any other claims regarding ingredients, including juice and fruit/vegetable servings, micronutrients (i.e., vitamins and minerals), antioxidants, gluten-free, and caffeine.

The coding manual included two main types of **other marketing messages**:

- **Promotions** describe a wide range of marketing strategies such as licensed characters, contests and giveaways, celebrity endorsements, entertainment tie-ins (e.g., movies, music), cause-related marketing, and education. Eleven categories of promotional messages were coded, including brief descriptions of each promotion.
- **Child features** are features that indicate the product is intended for child consumption, including cartoon brand characters and other cartoon pictures, any reference to children or families, fun/cool messages, wacky names, and novelty shapes.

Researchers also coded additional marketing messages on the package, including Spanish-language information, recycle or environmentally friendly, and Good/Best/Promise. Finally, researchers coded the package and per-unit price listed on the shelf tag.

A team of six researchers conducted in-store surveys in pairs to ensure that all messages were recorded and coded correctly. In addition to coding the existence of each type of message, researchers recorded the specific message. They also wrote in any additional messages that were not included on the coding form. All messages were recorded regardless of their location on the package, excluding information contained in the nutrition facts panel. In addition to the original list of products for coding, researchers examined all products in the juice, fruit drink, and water aisles to identify additional products with child features. These packages, as well as the products that were obtained from other stores and online, were coded using the same procedures.

Researchers analyzed the on-package marketing data by brand and drink category. Duplicates of packages coded in both stores were removed from the analysis. In addition, if packages for different flavors of a brand/sub-brand were identical, except for the flavor name, only one package of the brand/sub-brand was included in the analysis. We provide the percentage of packages that included each type of message, as well as the average number of these messages per package (on packages that contained these messages). Ingredient claims and other health-related messages were coded separately and combined for total nutrition-related messages per package. Percentage of packages with promotions and any child features, as well as the average number of child features per package were also calculated.

Advertising in traditional media

To analyze advertising spending and TV advertising exposure, we licensed data from Nielsen for January through December of 2018 in the following non-alcoholic beverage categories: drink product, bottled water, fruit drinks, fruit juices, and drink mixes. These Nielsen categories incorporate all of the sweetened drink categories in our analysis, as well as 100% juice, juice/water blends, and sparkling and plain water. The

data include children's drinks in these categories, as well as all other drinks.

The Nielsen categories and brands do not always correspond directly with the categories and brands in our analyses. For example, Nielsen's fruit drink category includes fruit drinks as well as juice/water blends, and its bottled water category includes both plain and sweetened flavored waters. Therefore, we used the descriptions provided by Nielsen to assign each Nielsen brand to the appropriate brand, sub-brand, and category in our analysis. In some cases, the description could apply to more than one sub-brand and/or category (e.g., Capri Sun drink products). When brands included products in more than one category and the Nielsen data did not specify the product advertised, we labeled it as **brand-level advertising**.

Advertising spending

Nielsen tracks total media spending in 18 different media, including TV (including Spanish-language TV), internet, radio, magazines, newspaper, free-standing insert (FSI) coupons, and outdoor advertising. These data provide a measure of **advertising spending**.

We report total advertising spending by category for children's drinks and other drink brands. We also report total advertising spending for children's drinks by brand, sub-brand, and company, as well as advertising spending by media type (including TV, magazines, and digital). In addition, we report changes in advertising spending from 2010 and 2013 to 2018 by category for children's drinks and other drinks and by brand and sub-brand for children's drinks, using data from the 2014 Sugary Drink FACTS report.

TV advertising exposure

To measure exposure to TV advertising, we also licensed **gross rating points (GRP)** data from Nielsen for the same period and drink categories. GRPs measure the total audience delivered by a brand's media schedule. It is expressed as a percent of the population that was exposed to each commercial over a specified period of time across all types of TV programming. It is the advertising industry's standard measure to assess audience exposure to advertising campaigns, and Nielsen is the most widely used source for these data.⁵ GRPs, therefore, provide an objective assessment of advertising exposure.

In addition, GRPs can be used to measure advertisements delivered to a specific audience, such as an age or other demographic group (also known as target rating points or TRPs), and provide a per capita measure to examine relative exposure between groups. For example, if a sub-brand had 2,000 GRPs in 2018 for 2- to 5-year-olds and 1,000 GRPs for 18- to 49-year-olds, then we can conclude that on average preschoolers saw twice as many ads for that brand in 2018 compared with adults.

The GRP measure differs from the measure used to evaluate food industry compliance with their CFBAI pledges. The pledges apply only to advertising in children's TV programming as defined by audience composition (i.e., programs in which at least 35% of the audience is younger than age 12). However, less than one-half of all advertisements viewed by children younger than 12 occur during children's programming.⁶ In contrast, GRPs measure children's total exposure to advertising during all types of TV programming.

For the TV advertising exposure analyses, we used 2018 GRP data by age group and race. We first obtained GRPs for the following age groups (pre-defined by Nielsen): preschoolers (2-5 years), children (6-11 years), and adults (18-49 years). These data provide total exposure to national (network, cable, and syndicated) and local (spot market) TV combined. In addition, we obtained GRPs for ads viewed on **children's TV** programming (as defined by Nielsen), which 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).

To assess targeted marketing to Black consumers, we also obtained GRPs for advertising viewed by Black and White youth in the same age groups on national TV only, as Nielsen does not provide spot market GRPs by race at the individual level.

To assess exposure by Hispanic youth to Spanish-language advertising, we analyzed GRP data for advertising that occurred on **Spanish-language TV**. Spanish-language TV includes TV programming presented on Spanish cable and broadcast networks (e.g., Univision, Telemundo). Nielsen only provides data for ads viewed by consumers with a Hispanic head-of-household on Spanish-language TV programming. Therefore, we could not assess differences in exposure between Hispanic and non-Hispanic individuals on other types of TV programming.

Nielsen calculates GRPs as the sum of all advertising exposures for all individuals within a demographic group, including multiple exposures for individuals (i.e., gross impressions), divided by the size of the population, and multiplied by 100. GRPs can be difficult to interpret. Therefore, we also use GRP data to calculate the following TV advertising exposure measures:

- **Average number of TV ads viewed.** This measure is calculated by dividing total GRPs for a demographic group during a specific time period by 100. It provides a measure of ads viewed by individuals in that demographic group during the time period measured. For example, if Nielsen reports 2,000 GRPs for 2- to 5-year-olds for a brand in 2018, we can conclude that on average all 2- to 5-year-olds viewed 20 ads for that brand in 2018.

▪ **Targeted ratios.** GRPs provide a per capita measure of advertising exposure for specific demographic groups, so we also used GRPs to assess relative exposure to advertising between demographic groups. We report the following targeted GRP ratios:

- ❑ Preschooler-to-adult targeted ratio = GRPs for 2-5 years/GRPs for 18-49 years
- ❑ Child-to-adult targeted ratio = GRPs for 6-11 years/GRPs for 18-49 years
- ❑ Black-to-White preschooler targeted ratio = GRPs for Black preschoolers 2-5 years/GRPs for White preschoolers 2-5 years. This measure uses only national GRPs.
- ❑ Black-to-White child targeted ratio = GRPs for Black children 6-11 years/GRPs for White children 6-11 years. This measure uses only national GRPs.

A targeted ratio greater than 1.0 indicates that on average persons in the group of interest (e.g., children in the child-to-adult ratio) viewed more advertisements than persons in the comparison group (i.e., adults). A targeted ratio of less than 1.0 indicates that the person in the group of interest viewed fewer ads. For example, a child-to-adult targeted ratio of 2.0 indicates that children viewed twice as many ads as adults viewed.

If this ratio is greater than the relative difference in **TV viewing times**, or the amount of TV viewed by each group, we can conclude that the advertiser likely designed a media plan to

reach this specific demographic group more often than would occur by chance. We obtained the average weekly amount of time spent viewing TV in 2018 from Nielsen Market Breaks for each age and demographic group in the analysis.

Finally, we compared changes in children's exposure to TV advertising from 2010 and 2013 to 2018, using data from the 2014 Sugary Drink FACTS report. We report changes in exposure to ads for children's and other drinks by category, as well as by brand and sub-brand for children's drinks.

Endnotes

1. Harris JL, Schwartz MB, LoDolce M, et al. (2014). Sugary Drink Facts 2014. Sugary drink marketing to youth: some progress but much room to improve. Rudd Center for Food Policy & Obesity. www.sugarydrinkfacts.org.
2. U.S. Food & Drug Administration (FDA) (2017). High-Intensity Sweeteners. <https://www.fda.gov/food/food-additives-petitions/high-intensity-sweeteners>
3. Healthy Eating Research (HER) (2013). Recommendations for Healthier Beverages. healthyeatingresearch.org/research/recommendations-for-healthier-beverages
4. Harris et al. (2014).
5. Nielsen (2019). How we measure. <http://www.nielsen.com/us/en/solutions/measurement.html>
6. Harris JL, Sarda V, Schwartz MB, Brownell KD (2013). Redefining "child-directed advertising" to reduce unhealthy television food advertising. *American Journal of Preventive Medicine*, 44(4), 358-364.