

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."<sup>1</sup> Yet companies continue to market sugary drinks to children and their parents,<sup>2</sup> and sugary drink marketing is disproportionately targeted to communities of color.<sup>3</sup>

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.<sup>4</sup>

Sugary drinks contribute almost half of all added sugar consumed by children ages 2 and older.<sup>5</sup> More than one-half of children (ages 2-11) consume sugary drinks on a given day, including 25% of toddlers (12-24 months)<sup>7</sup> and 45% of preschoolers (24-48 months).<sup>8</sup> 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.<sup>9</sup> One-third of 2- to 4-year-olds consume fruit drinks on a given day, which contribute 116 calories to their diets.<sup>10</sup>

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.<sup>11</sup> 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.<sup>12</sup>

Overconsumption of 100% juice by children also raises concerns, as it contributes to excess calorie intake,<sup>13</sup> malnutrition, and other negative health consequences.<sup>14</sup> 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.<sup>15</sup> Juice consumption on a given day declines to 45% of 2- to 4-year-olds,<sup>16</sup> 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.<sup>17</sup> 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.<sup>24</sup> 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) <sup>18, 19</sup>	Children (7-13 years) <sup>20</sup>	Adolescents (14-18 years) <sup>21</sup>
<b>Sugary drinks:</b> 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) <sup>22</sup>	Do not consume	Do not consume	Do not consume
<b>Drinks with low-calorie sweeteners:</b> 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 ( $\leq 40$ kcal per container) may be appropriate to help prevent excess weight gain
<b>100% juice,</b> including 100% juice combined with water <sup>23</sup>	<b>12-36 months:</b> No more than 4 oz/day;	No more than 8 oz/day	No more than 8 oz/day
	<b>3-6 years:</b> No more than 6 oz/day		
<b>Plain milk:</b> Recommended types	<b>12-24 months:</b> Unflavored whole milk;	Unflavored low-fat and non-fat milk and soy beverages	Unflavored low-fat and non-fat milk and soy beverages
	<b>2-6 years:</b> Unflavored low-fat and non-fat milk		
<b>Plain water,</b> 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.<sup>25</sup> 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 ( $\leq 40$  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.<sup>26</sup> 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 non-calorie and low-calorie beverages with caloric and low-calorie sweeteners ( $\leq 40$  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).<sup>27</sup> 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.<sup>28</sup> 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.<sup>29</sup>

### 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.<sup>30</sup> Furthermore, sugary drink brands disproportionately target their marketing to Black and Hispanic youth.<sup>31</sup>

The Rudd Center's previous Sugary Drink FACTS reports<sup>32, 33</sup> 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.<sup>34</sup> 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.<sup>35</sup>

### 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.<sup>36</sup>

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.<sup>37</sup> 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.<sup>38</sup>

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%.<sup>39</sup> 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.<sup>40</sup> 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.<sup>41</sup> 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).<sup>42</sup>

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.