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Marketing of sugar-sweetened beverages to youth through U.S. university pouring rights contracts

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ABSTRACT

Child-targeted marketing can influence children's food preferences and childhood consumption of sugar-sweetened beverages (SSBs) is associated with negative health outcomes in both childhood and adulthood. This study explores how beverage companies are using pouring rights contracts (PRCs) with U.S. public universities to market SSBs to youth under 18 years of age.

We obtained 139 PRCs (64 Coca-Cola, 67 Pepsi, 8 Gatorade) from 132 universities between June 2019 and August 2020. Each contract was coded by two reviewers who extracted quotes relevant to youth-targeted marketing activities.

Twenty-two contracts in our sample (16%) contained a total of 25 provisions related to youth-targeted marketing. Nearly all youth-targeted marketing provisions (n=24 of 25) were tied to university athletics. Most provisions (n=19) described the marketing of specific beverages or involved the use of brand names that are also beverages (e.g., "Gatorade," "Coca-Cola"). Fifteen contracts included advertising or support for youth summer camps; five contracts allowed the beverage company to sponsor free experiences for children at university athletic events; three contracts allowed advertising at high school athletic events hosted at university facilities; and two contracts established programs for "underprivileged" or "disadvantaged" youth. Five contracts acknowledged that their provisions may be affected by laws or self-regulatory policies that limit advertising to children.

Beverage companies should reconsider marketing to youth through PRCs, universities should carefully consider PRCs with youth-targeted provisions, and the government should further regulate and prevent youth-targeted marketing.

1. Introduction

Many universities in the U.S. maintain pouring rights contracts (PRCs) with beverage companies (Cecil, 2017). Through PRCs, universities grant a company the right to sell, market, and/or advertise their products on campus in association with the university. In exchange, the company provides the university cash payments and other benefits. Most marketing activities outlined in these contracts are aimed at adults who attend or work at the university. However, some contracts include marketing activities that specifically target youth under age 18 from the surrounding community.

Prior studies have described how child-targeted food marketing can influence children's food preferences, consumption patterns, and associated health outcomes (Institute of Medicine, 2006; Chernin, 2008). Children under age 9 are particularly vulnerable to the influence of marketing due to their inability to detect the persuasive intent of advertising (Institute of Medicine, 2006). Older youth may be more capable of understanding the intent of advertising, but may still be uniquely susceptible to the influence of advertising (Institute of Medicine, 2006). Research on adolescent exposure to alcohol and tobacco marketing found that media can function as a "super peer," influencing adolescents' normative beliefs about peer substance use (e.g., beliefs

Abbreviations: PRCs, pouring rights contracts; SSBs, sugar-sweetened beverages; PA, public address; CFBAI, Children's Food and Beverage Advertising Initiative.

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about prevalence of use and degree of social acceptability) (Elmore et al., 2017; Scull et al., 2010). Other research suggests that adolescents' reduced ability to inhibit impulsive behaviors and resist immediate gratification may also make them vulnerable to food marketing (Harris et al., 2009).

The marketing of sugar-sweetened beverages (SSBs) to youth is concerning because SSB consumption is associated with increased dental caries and insulin resistance in children and higher rates of childhood obesity, a predictor of type 2 diabetes and coronary artery disease in adulthood (Bleich and Vercammen, 2018; Fang et al., 2019). The U.S. government does not consider SSBs a necessary part of the child or adolescent diet and recommends youth decrease SSB consumption (U.S. Department of Agriculture and U.S. Department of Health and Human Services, 2020). Prior research has documented the volume of youth exposure to SSB marketing in general, and on television and social media specifically, but no studies have examined how beverage companies may attempt to market to youth through university PRCs (Vanderlee et al., 2021; Harris et al., 2020; Brownbill et al., 2018). This study describes youth-related provisions documented in university PRCs.

2. Methods

This study is a cross-sectional descriptive analysis of youth-targeted marketing provisions in university PRCs. Utilizing state Freedom of Information laws, we requested copies of beverage contracts that were active at some point between 2018 and 2019 from all four-year degree-granting public universities in the U.S. with over 20,000 students (National Center for Education Statistics, 2019). We included contracts with beverage companies that established their rights to market soft drinks and/or isotonic beverages. The Johns Hopkins Bloomberg School of Public Health Institutional Review Board deemed this study to be exempt.

Two independent reviewers coded each contract and extracted quotes from provisions related to funding, marketing, and health. Reviewers reconciled differences in coding through group discussion. We then searched the coded provisions for youth-targeted marketing content using the terms "youth," "child," "kid," "teen," "high school," "boy," "girl," and "camp." We considered a provision to demonstrate youth-targeted marketing if it included one of these terms, described monetary or in-kind support to be provided by the company for a program that appeared to be aimed at pre-college youth (high school age or younger), or granted the company marketing rights at programs/events created specifically for youth. Once provisions were identified, we grouped them into categories based on shared characteristics and produced descriptive statistics.

3. Results

One-hundred forty-three universities met the inclusion criteria, and all responded to our Freedom of Information law requests in some way. We obtained 139 unique contracts (64 Coca-Cola, 67 Pepsi, 8 Gatorade) from 132 universities that met contract-inclusion criteria (nine universities provided two separate contracts held with different companies; two contracts each covered two universities in our sample). Twenty-two contracts in our sample of 139 (16%) contained a total of 25 provisions related to youth-targeted marketing (three contracts each included two different types of provisions). Six contracts were with Coca-Cola, 14 with Pepsi, and two with Gatorade (Gatorade contracts only mentioned Gatorade, not its parent company, Pepsi).

We identified four types of youth-targeted provisions: 1) advertising at or support for youth summer camps; 2) free experiences for youth at university athletic events; 3) advertising at high school athletic events; and 4) programs for disadvantaged/underprivileged youth (Table 1).

Twenty-four of the 25 youth-targeted provisions tied beverage marketing to university athletics. Nineteen of the 25 youth-targeted provisions described marketing of specific beverages and/or

marketing activities using brand names that are also beverages (e.g., "Coca-Cola," "Pepsi," "Gatorade"). Most provisions did not explicitly describe the age range of youth that would be targeted, but ages ranged from five to seventeen years in the one provision that did.

3.1. Advertising at or Support for Youth Summer Camps

Fifteen of the 139 contracts (11%; 2 Coca-Cola, 11 Pepsi, 2 Gatorade) contained provisions in which the company agreed to provide the university with drink products and branded merchandise at no cost, specifically for placement and use at youth athletic summer camp programming located at the university, and/or the university granted the company advertising rights at these camps.

Four contracts assigned potential cash values to this in-kind support provided, ranging from \$30,000 to \$220,000 per year. Six contracts stated that the level of in-kind support provided by the beverage company would ultimately depend on the number of camp attendees. Two contracts assigned cash values that were redacted when we received the contracts.

Two contracts explicitly designated Gatorade as the "exclusive Sports Performance Product" of sports camps, one of which also stated that university staff may be recruited as "Gatorade Coach[es]/Ambassador [s]." One contract stated that a "Gatorade expert" may be provided to the university to educate camp attendees on hydration.

Some contracts with youth summer camp provisions also included a clause stating that should their support of these programs be found to violate a new law or self-regulatory policy that limits or restricts advertising to children, the offending provisions will become null and void (n=5,3 Pepsi, 2 Gatorade). Three of these five provisions dictated that, should this occur, the parties would discuss a "reasonable replacement for this benefit" or "mutually agreed-upon replacement."

3.2. Free Experiences for Youth at University Athletic Events

Five of the 139 contracts (4%; 3 Coca-Cola, 2 Pepsi) included provisions that allowed the beverage company to sponsor free experiences for children at university athletic events. In four of these five contracts, the university committed to supply tickets to university athletic events for the beverage company to provide to youth. The number of tickets varied between contracts from 20 to 500 tickets, as did the type and number of events. Three of these four contracts specified programs the tickets would be used for. Two described a "Coca-Cola Kids Section" and one described a "Ticket to College Partnership" with Pepsi. Pepsi received the rights to have its name and logo on 3,500 t-shirts, video board ads acknowledging Pepsi as a "Ticket to College" sponsor at home football games, full-page ads in the football and men's basketball programs, and public address (PA) announcements about its sponsorship of the program at all home athletic events.

One contract did not include an exchange of tickets, but instead established a Coca-Cola-sponsored "mop kids" program through which children had the opportunity to mop the floors of sweat during halftime of basketball games, while using mops featuring the Coca-Cola logo and wearing Coca-Cola-branded t-shirts. Coca-Cola was also allowed to advertise itself and the program in two PA announcements and one video announcement at each basketball game and in one "live ad" read during radio broadcasts of the basketball games.

3.3. Advertising at High School Athletic Events

Three of the 139 contracts (2%; all Pepsi) included provisions that granted beverage companies explicit permission to advertise during high school athletic events held on university property. Two of these contracts described Pepsi's rights to market beverages at university athletic facilities and specified that these would apply when high school sports events were hosted at those facilities.

The third contract granted the beverage company specific marketing

 Table 1

 Examples of different types of child marketing provisions found in university pouring rights contracts.

Provision Type	Number of Contracts	Percent of All Contracts (n = 139)	Key Features	Example
Advertising at or Support for Youth Summer Camps	15	11	Beverage company is granted sponsorship rights to university-sponsored youth athletic camps, typically in exchange for monetary or in-kind support	Pepsi & University of California – Irvine "Annual Gatorade Youth Camp Support: Pepsi will provide reasonable quantities of Gatorade product and Gatorade sideline merchandise associated with Summer Youth Camps. Product and sideline quantities and will be based on the number of camps and attendees each Year not subject to a cash payout should the program elements change. In return for this Gatorade product and merchandises commitment, University's athletics department will communicate to its camp program directors that Gatorade products are the exclusive Sports Performance Products for use at sports camps and clinics. In the event that (i) any law or regulation relating to advertising to children is passed or otherwise becomes effective or (ii) a self-regulatory body, public, or consumer interest group generates a voluntary policy or proposal limiting or restricting advertising to children and the benefits provided by or to Pepsi in this section violates such law, regulation, policy or proposal, then the provisions of this Section shall be considered null and void."
Free Experiences at University Athletic Events	5	4	Beverage companies are granted the right to sponsor free activities meant for youth at university athletic events	Coca-Cola & Purdue University "University agrees to provide Sponsor, and Sponsor will have the right to, the following sponsorship recognition signs/panels on the West Lafayette Campus, free and at no charge to Sponsor: 150 tickets each to one football and one men's basketball game from unsold inventory, if available, for the "Coca-Cola Kids Club Section" to be used
Advertising at High School Athletic Events	3	2	Athletic sponsorship rights granted to the beverage company are explicitly extended to youth athletic events that take place at the university	by Sponsor for promotional or charitable purposes." Pepsi & University of Utah "Utah High School Activities Association (UHSAA) Additional Events. SAES hosts the High School championship football and basketball games. Awarded supplier will be expected to be presenting sponsor for these events and will receive: USHA Football Presenting sponsorship of the High School Association tournament: Sixteen (16) tickets to sponsored football game; Opportunity for branded contest or recognition to be held on-field during time-out or half-time of sponsored game; Two (2) PA, LED, and video board recognitions as presenting sponsor; Opportunity to distribute co-branded game day premium items, to be produced and provided by sponsor. USHA Basketball Presenting sponsor of High School Association Basketball game; Two (2) PA, LED, and video board recognitions as presenting sponsor; Two (2):10 live reads during the basketball Coaches Show week of the game sponsorship; Opportunity to distribute co-branded premium items, to be produced and provided by sponsor."
"Disadvantaged" or "Underprivileged" Youth Programs	2	1	The beverage company provides in-kind or monetary support to a university's disadvantaged or underprivileged youth program	Coca-Cola & University of Houston "UH Athletics currently participates in the Underprivileged Youth Program, and to that end, will provide tickets for two hundred and fifty (250) underprivileged youth to attend various sports events on Campus. As long this program is active, each Agreement Year Bottler will provide UH Athletics with monetary and in-kind support for the Underprivileged Youth Program as follows: (i) Bottler will provide T-shirts for two hundred and fifty (250) youths. Such T-shirts will be valued at seven dollars (\$7) apiece for a total value of one thousand seven hundred and fifty dollars (\$1,750) each Agreement Year, or seventeen thousand five hundred dollars (\$17,500) for the Term (ii) Bottler will reimburse UH Athletics for meals for two hundred and fifty (250) youths attending UH Athletic events. Such meals will cost up to five dollars (\$5) for each of the youths up to a total value of one thousand two hundred and fifty dollars (\$1,250) each Agreement Year or twelve thousand five hundred dollars (\$12,500) during the Term. UH Athletics will invoice Bottler's Education Channel Account Executive (or designee) for payment of the meals. Bottler will reimburse UH Athletics within thirty (30) days of the invoice date."

rights during high school football and basketball tournaments hosted at the university, separate from other rights to market at university athletic events. The rights specific to high school tournaments included signage featuring Pepsi's logo, PA announcements, video board advertisements, and promotional item giveaways.

3.4. Programs for "Disadvantaged"/"Underprivileged" Youth

Two of the 139 contracts (1%; 1 Coca-Cola, 1 Pepsi) established programs for "underprivileged" or "disadvantaged" youth. One contract established an "Underprivileged Youth Program" in which the university would provide 250 tickets to university athletic events, and Coca-Cola would provide monetary support for the program (amount unspecified) and in-kind support, including t-shirts and reimbursements for meals provided to participating youth. The other contract included a generic commitment from Pepsi of "support valued at up to \$12,000" toward a "disadvantaged youth program," with no further details provided.

4. Discussion

One in six PRCs at large public universities in the U.S. contained at least one youth-targeted marketing provision, nearly all of which were tied to university athletics. Our findings highlight how Coca-Cola and Pepsi are marketing their brands and products, including SSBs, to youth through PRCs.

Previous research has explored how companies use athletic sponsorships to market unhealthy foods and beverages to youth (Bragg et al., 2018). One review found multiple studies demonstrating the concept of "brand image transfer," whereby feelings of excitement toward a sponsored entity can be transferred to the sponsor. The authors posit that, in part through brand image transfer, sports-related marketing can affect food perceptions and preferences among youth (Bragg et al., 2018). Likewise, athletics and summer camp sponsorships by beverage companies through PRCs may contribute to the development of positive attitudes toward SSBs.

Government policy could address the harms of youth-targeted marketing. The American Academy of Pediatrics has recommended government prohibition of sugary drink-branded sponsorship of youth sporting events (Muth et al., 2019). The U.S. government has taken similar action in the past, banning tobacco companies from sponsoring sporting events under the Tobacco Control Act of 2009 (Family Smoking Prevention and Tobacco Control and Federal Retirement Reform, 2009). However, the U.S. government has done little to regulate marketing of unhealthy foods to youth thus far, unlike countries such as the United Kingdom and Chile, which have imposed restrictions on advertising of unhealthy food products to children (Tsai, 2016). In place of government regulation, the food industry formed the voluntary, self-regulatory Children's Food and Beverage Advertising Initiative (CFBAI) in 2006 with an explicit purpose: "to help address the challenge of childhood obesity" (Children's Food and Beverage Advertising Initiative, 2020). Coca-Cola and Pepsi are among 19 food and beverage companies that have pledged to only advertise products that meet CFBAI's Uniform Nutrition Criteria in settings covered under the Initiative when children under age 12 comprise ≥ 30% of the audience (Children's Food and Beverage Advertising Initiative, 2020; Children's Food and Beverage Advertising Initiative, 2018). While CFBAI prohibits the marketing of beverages with > 5 g of added sugar per serving, universities are not a covered setting (Children's Food and Beverage Advertising Initiative, 2020; Children's Food and Beverage Advertising Initiative, 2018).

This study adds to previous findings that companies still market to children through marketing channels and to older youth not presently covered under CFBAI (Fleming-Milici and Harris, 2020). To further address negative health outcomes associated with youth-targeted marketing, including youth-targeted marketing through PRCs, CFBAI could be updated to include additional settings, such as summer camps and

high school and college sporting events, even when children under age $12\ \text{comprise} < 30\%$ of the audience. CFBAI could also be expanded to include older youth.

Despite its strengths, this study also has limitations. Due to our sampling methods, our findings may not be relevant to PRCs at small, private, or non-U.S. universities. Future research should explore PRCs at smaller and/or non-U.S. universities, the financial impact of alternatives to PRCs on universities, and the health impact of removing SSBs from campus on the university community, including children. Research should also explore potential adverse effects of altering PRCs, including removal of opportunities for historically disenfranchised youth, and ways to avoid such adverse effects. Further, we only described the provisions present in these contracts and did not explore how they were operationalized. Finally, we were unable to distinguish the exact ages of youth targeted in all contracts.

5. Conclusions

Beverage companies may use university PRCs to market their brands to youth, encouraging consumption of unhealthy products. In the spirit of their commitments under CFBAI, beverage companies should reconsider these efforts to target youth, and universities should carefully consider PRCs with youth-targeted provisions. In the absence of voluntary actions, the federal government should consider actions to further regulate youth-targeted marketing.

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CRediT authorship contribution statement

Katherine Marx: Conceptualization, Investigation, Formal analysis, Writing – original draft. Eva Greenthal: Conceptualization, Investigation, Writing – review & editing. Sara Ribakove: Writing – review & editing. Elyse R. Grossman: Conceptualization, Investigation, Writing – review & editing. Stephanie Lucas: Conceptualization, Investigation, Writing – review & editing. Martha Ruffin: Conceptualization, Investigation, Writing – review & editing. Sara E. Benjamin-Neelon: Conceptualization, Methodology, Writing – review & editing.

Declaration of Competing Interest

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Appendix A. Supplementary data

Supplementary data to this article can be found online at $\frac{https:}{doi.}$ org/10.1016/j.pmedr.2021.101688.

References

Bleich, S.N., Vercammen, K.A., 2018. The negative impact of sugar-sweetened beverages on children's health: an update of the literature. BMC Obes. 5 (6) https://doi.org/ 10.1186/s40608-017-0178-9.

- Bragg, M.A., Roberto, C.A., Harris, J.L., Brownell, K.D., Elbel, B., 2018. Marketing food and beverages to youth through sports. J. Adolesc. Health 62 (1), 5–13. https://doi. org/10.1016/j.jadohealth.2017.06.016.
- Brownbill, A.L., Miller, C.L., Braunack-Mayer, A.J., 2018. The marketing of sugar-sweetened beverages to young people on Facebook. Aust. N. Z. J. Public Health 42 (4), 354–360. https://doi.org/10.1111/1753-6405.12801.
- Cecil, A.M., 2017. Pouring Rights: Academic Misconduct. https://journal.crossfit.com/ article/pouring-rights-cecil-2. Accessed November 9, 2021.
- Chernin, A., 2008. The Effects of Food Marketing on Children's Preferences: Testing the Moderating Roles of Age and Gender. Ann. Am. Acad. Polit. Social Sci. 615 (1), 101–118. https://doi.org/10.1177/0002716207308952.
- Children's Food and Beverage Advertising Initiative, 2018. CFBAI Category-Specific Uniform Nutrition Criteria, 2nd ed. In: BBB National Programs. https://bbbnp-bbbp-stf-use1-01.s3.amazonaws.com/docs/default-source/cfbai/cfbai-revised_criteria_chart_1-28-2019.pdf?sfvrsn=c31ce512_2.
- Children's Food and Beverage Advertising Initiative, 2020. CFBAI Core Principles, 5th Edition. In: BBB National Programs. https://bbbnp-bbbp-stf-use1-01.s3.amazonaws.com/docs/default-source/cfbai/cfbai-coreprinciples.pdf?sfvrsn=c9a1e3aa_4. Accessed November 9, 2021.
- Elmore, K., Scull, T.M., Kupersmidt, J.B., 2017. Media as a "Super Peer": How Adolescents Interpret Media Messages Predicts their Perception of Alcohol and Tobacco Use Norms. J. Youth Adolesc. 46 (2), 376–387. https://doi.org/10.1007/s10964-016-0609-9.
- Family Smoking Prevention and Tobacco Control and Federal Retirement Reform, 1776 (2009).
- Fang, X., Zuo, J., Zhou, J., et al., 2019. Childhood obesity leads to adult type 2 diabetes and coronary artery diseases: A 2-sample mendelian randomization study. Medicine 98 (32). https://doi.org/10.1097/MD.000000000016825.
- Fleming-Milici, F., Harris, J.L., 2020. Food marketing to children in the United States: Can industry voluntarily do the right thing for children's health? Physiol. Behav. 227, 113139. https://doi.org/10.1016/j.physbeh.2020.113139.

- Harris, J.L., Brownell, K.D., Bargh, J.A., 2009. The Food Marketing Defense Model: Integrating Psychological Research to Protect Youth and Inform Public Policy. Social Issues Policy Rev. 3 (1), 211–271. https://doi.org/10.1111/j.1751-2409.2009.0105.x
- Harris, J.L., Fleming-Milici, F., Kibwana-Jaff, A., Phaneuf, L., 2020. Sugary Drink FACTS 2020 Sugary drink advertising to youth: Continued barrier to public health progress. UConn Rudd Center for Food Policy & Obesity; June 2020. https://www.sugarydrinkfacts.org/resources/Sugary%20Drink%20FACTS%202020/Sugary_Drink FACTS Full%20Report final.pdf. Accessed November 9, 2021.
- Institute of Medicine, 2006. Food Marketing to Children and Youth: Threat or Opportunity? The National Academies Press. https://doi.org/10.17226/11514.
- Muth, N.D., Dietz, W.H., Magge, S.N., et al., 2019. Public policies to reduce sugary drink consumption in children and adolescents. Pediatrics 143 (4). https://doi.org/ 10.1542/peds.2019-0282.
- [dataset] National Center for Education Statistics, 2019. Integrated Postsecondary Education Data System. Institute of Education Sciences. https://nces.ed.gov/ipeds/.
- Scull, T.M., Kupersmidt, J.B., Parker, A.E., Elmore, K.C., Benson, J.W., 2010. Adolescents' Media-related Cognitions and Substance Use in the Context of Parental and Peer Influences. J. Youth Adolesc. 39 (9), 981–998. https://doi.org/10.1007/s10964-009-9455-3.
- Tsai, M., 2016. Eight Countries Taking Action Against Harmful Food Marketing. https://foodtank.com/news/2016/06/eight-countries-taking-action-against-harmful-food-marketing. Accessed November 9, 2021.
- U.S. Department of Agriculture, U.S. Department of Health and Human Services, 2020. Dietary Guidelines for Americans, 2020-2025. December 2020. https://www.dietaryguidelines.gov/sites/default/files/2021-03/Dietary_Guidelines_for_Americans-2020-2025.pdf. Accessed November 9, 2021.
- Vanderlee, L., Czoli, C.D., Pauzé, E., Potvin Kent, M., White, C.M., Hammond, D., 2021. A comparison of self-reported exposure to fast food and sugary drinks marketing among parents of children across five countries. Prev. Med. 147, 106521. https://doi.org/10.1016/j.ypmed.2021.106521.