

Food and Beverage Marketing to Children and Adolescents:

What Changes are Needed to Promote Healthy Eating Habits?

Healthy Eating Research

Building evidence to prevent childhood obesity

A Research Brief, October 2008

Although many social, cultural and environmental factors influence children's and adolescents' risk for obesity, marketing may have an especially powerful impact on what foods and beverages they consume. Promotions for food and beverage products permeate the daily lives of children and adolescents, and the majority of products advertised to them are high in calories, sugar, sodium and fat.

In the past four decades, the obesity rate has more than quadrupled among children ages 6 to 11 (from 4.2 to 17 percent) and more than tripled among adolescents ages 12 to 19 (from 4.6 to 17.6 percent).^{1,2} While findings from the latest National Health and Nutrition Examination Survey indicate that there was some stabilization of childhood obesity rates between 2003–2004 and 2005–2006, current rates are still far too high. Today, nearly one-third of American children and adolescents (more than 23 million) remain overweight or obese,² placing them at a heightened risk for hypertension, high cholesterol, sleep apnea, orthopedic problems, and type 2 diabetes.³

Given the epidemic rates of childhood obesity across the nation, it is critical to examine whether marketing negatively impacts children's and adolescents' food and beverage choices. At the same time, it also is important to consider whether marketing can be harnessed to promote healthy products and eating habits. This research brief provides an overview of the research on food and beverage marketing directed at children and adolescents in the United States.

How does food and beverage marketing reach children and adolescents in the United States?

Television and other media are efficient channels for reaching into the homes and lives of U.S. youth, who live in media-rich homes. Nationally representative surveys of children, adolescents and their families have found:

- The average young person (age 8 to 18) lives in a home with more than three televisions, three radios, two video game consoles and a computer.⁴
- Among school-age youth (ages 8 to 18), 74 percent live in a home where the computer has an Internet connection, and 60 percent have access to an instant messaging program⁴
- More than two-thirds of school-age youth (ages 8 to 18) and one-third of young children (ages 6 months to 6 years) have a television in their bedroom.^{4,5} Many school-age youth also have their own radio (84 percent), video game console (49 percent), computer (35 percent) and Internet connection (20 percent).⁴
- Three of every four adolescents ages 15 to 17 and 40 percent of youth ages 12 to 14 carry their own cell phone.⁶



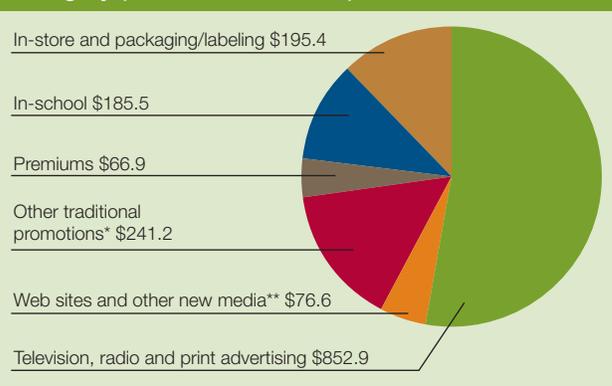
Youth (ages 8 to 18) spend an average of six hours per day using media, and they often use more than one medium at a time.^{4,7} If only one medium were used at a time (i.e., youth were not multitasking), this estimate would increase to a total of eight hours per day.⁴

- Computer and Internet use is increasing. Between 1999 and 2004, the average length of time that youth reported using a computer for recreation more than doubled from 27 to 62 minutes daily; surfing the Internet doubled from seven to 14 minutes.⁴
- Although the popularity of new, interactive communication technologies is rapidly growing and will likely change the media and marketing landscape in the next decade, youth devote the greatest proportion of media time to watching television. School-age youth (ages 8 to 18) spend an average of three hours per day watching television, and more than half of television time is devoted to no other activities.^{4,7} The activity most often paired with watching television is eating: Youth report eating 14 percent of the time that they spend watching television.⁷

How do food and beverage companies encourage children and adolescents to purchase their products?

An analysis by the Federal Trade Commission (FTC) indicates that the nation's largest food and beverage companies spent \$1.6 billion in 2006 to market their products to children and adolescents (Figure 1, Table 1).⁸ These companies use a number of different techniques to market food and beverage products (Table 2). Advertisers use multiple sponsored media channels (e.g., television, radio, magazines, signs/billboards and the Internet) to deliver their messages and raise public interest. Although the marketing of food and beverage products on the Internet and through other digital media is increasing rapidly, television remains the dominant medium for targeting children and adolescents. Many of the marketing techniques used on television are also used with new digital technologies. However, interactive techniques go beyond established techniques by engaging youth for longer periods of time and personalizing messages to individual youth. Little research has systematically examined the use of interactive marketing techniques that have been developed and tailored for new technology channels.

Figure 1. Reported Total Youth Marketing Expenditures in 2006 by Promotional Activity Category (in millions of dollars)



Federal Trade Commission. *Marketing Food to Children and Adolescents: A Review of Industry Expenditures, Activities, and Self-Regulation*. Washington, DC: Federal Trade Commission, July 2008. Available at www.ftc.gov/os/2008/07/P064504foodmktngreport.pdf. Accessed August 3, 2008.

* Other traditional promotions include product placements; movie theater, video, and video game advertising; character or cross-promotion license fees; athletic sponsorships; celebrity endorsement fees; events; and philanthropic activities tied to branding opportunities.

** New media include company-sponsored Web sites, Internet, digital and word-of-mouth and viral marketing.

Table 1. Total Youth Marketing Expenditures* in 2006 by Food Category

Food category	Spending (in thousands of dollars)
Carbonated beverages	492,495
Restaurant foods	293,645
Breakfast cereal	236,553
Juices and noncarbonated beverages	146,731
Snack foods	138,713
Candy and frozen desserts	117,694
Prepared foods and meals	64,283
Baked goods	62,549
Dairy products	54,475
Fruits and vegetables	11,463
TOTAL	1,618,600

Federal Trade Commission. *Marketing Food to Children and Adolescents: A Review of Industry Expenditures, Activities, and Self-Regulation*. Washington, DC: Federal Trade Commission, July 2008. Available at www.ftc.gov/os/2008/07/P064504foodmktngreport.pdf. Accessed August 3, 2008.

* For brands represented by 44 of the nation's largest food and beverage companies.

Television

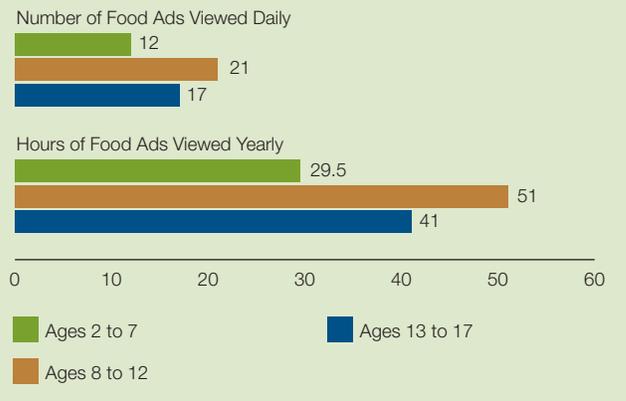
The largest share of advertising budgets—46 percent of all youth-marketing expenditures in 2006—is dedicated to television because it has the potential to reach a broad audience.⁸ High proportions of toddlers and preschoolers (75 percent), school-age children (84 percent) and adolescents (73 percent) watch television every day.^{4,5} Television exposure is high among youth of all racial and ethnic backgrounds. However, African-American and Hispanic youth spend more time watching television than do white youth.^{4,5}

Marketers have many opportunities to air advertisements targeted to youth. Major networks have programming specifically directed to children on Saturday mornings, and numerous programming networks only air shows for young people. About 50 percent of commercial advertisements targeted to young people during this type of programming are for food and beverage products.^{9–12}

Youth who view programming on Spanish-language stations and stations that predominantly target African-American audiences are also exposed to a large number of commercials for food and beverages. A content analysis of commercial programming aired during after-school hours on two major Spanish-language stations found that 15 percent of advertisements were for food or beverages.¹³ Research studies that have examined programming targeted to African-American adults and youth indicate that the stations with these programs air a higher proportion of food and beverage advertisements compared with general-audience stations. For example, one study that reviewed 36 hours of after-school programming found that Black Entertainment Television showed a significantly higher proportion of food and beverage commercials (63 percent) than did either Warner Brothers (33 percent) or the Disney Channel (4 percent).¹⁴ Moreover, many of the products advertised during African-American programs tend to be higher in calories and otherwise nutrient poor.^{14–18}

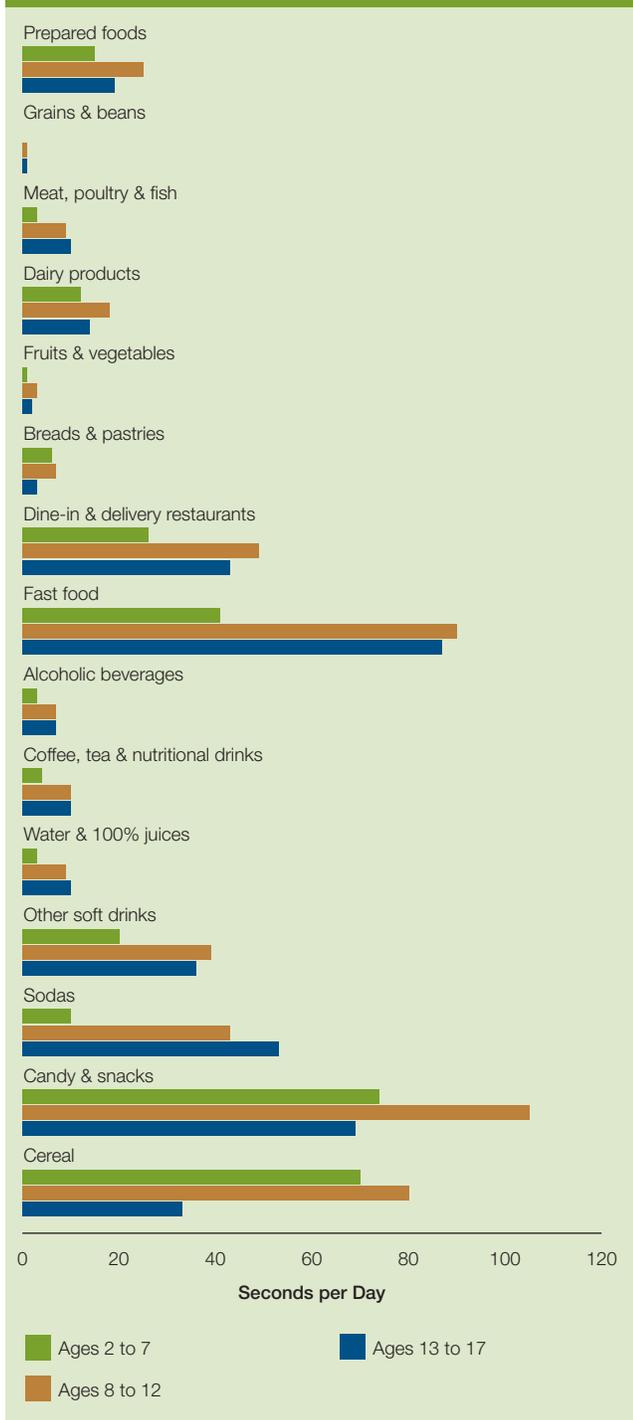
Common marketing techniques used in television commercials include repetition, celebrity endorsements, eye-catching spokes-characters, familiar fictional characters, sweepstakes and premiums (Table 2). Depending on their age, youth view between 12 and 21 commercials for food or beverages every day (Figure 2).¹² Approximately one-third (36 percent) of product advertisements viewed by children (ages 2 to 11) and 26 percent of product advertisements viewed by adolescents (ages 12 to 17) are for food or beverage products or restaurants.^{15, 19} Commercials for candy, snacks, cereals and fast food are viewed most often.^{12, 15, 19} Few commercials for dairy products, fruits or vegetables are viewed (Figure 3).^{12, 19}

Figure 2. Youth Exposure to Television Commercials for Foods and Beverages



Gantz W, Schwartz N, Angelini J, et al. Food for Thought: Television Food Advertising to Children in the United States. Menlo Park, CA: Kaiser Family Foundation, March 2007. Available at www.kff.org/entmedia/entmedia032807pkg.cfm. Accessed June 14, 2008.

Figure 3. Average Daily Amount of Food Advertising Seen by Youth According to Product Category



Gantz W, Schwartz N, Angelini J, et al. *Food for Thought: Television Food Advertising to Children in the United States*. Menlo Park, CA: Kaiser Family Foundation, March 2007. Available at: <http://www.kff.org/entmedia/entmedia032807pkg.cfm>. Accessed June 14, 2008.

Several studies examining children’s programming have found that the types of foods and beverages represented in television commercials are predominantly low in nutrients and high in calories, fat, sugar and sodium.^{9–11, 20–23} One study reviewed approximately 98,000 advertisements from a sample of top-rated children’s television programs and evaluated the nutritional content of all advertised food items.²² The nutritional content of these items was then compared with the standards devised by the U.S. Department of Agriculture for foods sold in schools outside of the school meal program (competitive foods). The results showed:

- Nearly all (98 percent) food advertisements viewed by children and 89 percent of advertisements viewed by adolescents were for products that were high in fat, sugar or sodium.
- Among the advertisements viewed by children, almost all (98 percent) cereals were high in sugar, and most (79 percent) were low in fiber. Almost two-thirds of advertised snack products were high in sugar and one-third high in fat. Virtually all (99 percent) advertised beverages were high in sugar.
- The food products advertised to adolescents were somewhat less likely to be high in sugar but were more likely to be high in fat.

Little television airtime is devoted to donated or paid public service advertising, and particularly little time is focused on the promotion of healthy food choices. A study²⁴ that analyzed more than 1,600 hours of television content on 10 major broadcast and cable networks found:

- Donated public service announcements (PSAs) represented only 0.5 percent of all television airtime, and almost half of all time donated was slated to air between midnight and 6 a.m.
- On average across the 10 networks, 28 seconds per week were donated to PSAs promoting good nutrition. Most nutrition PSAs were shown on one children’s network that aired nutrition PSAs for an average of four minutes per week.
- Paid PSAs were shown for an average of 10 seconds per hour. Twenty-seven percent of the paid PSAs aired between midnight and 6 a.m. Not one network aired a paid PSA promoting good nutrition.

Web Sites

The Internet is also an efficient pathway for marketers to reach children and adolescents. More than two-thirds of the nation's largest food and beverage companies market their products to youth online.⁸ As a group, youth are early adopters of new technologies, and the majority of youth ages 8 to 18 (54 percent) uses a computer daily. Nearly all adolescents (93 percent) use the Internet, and 55 percent of teens who use the Internet use a social networking Web site.²⁵ Other popular online activities include surfing Web sites, playing games, checking e-mail and chatting with friends through instant messaging (IM) programs.

A content analysis completed in 2005 found that 85 percent of food and beverage brands promoted to youth on television also were featured on Web sites that target children or adolescents. The study identified 77 Web sites that contained at least one of the 96 brands selected for inclusion in the analysis (some sites featured multiple brands).²⁶ Several marketing techniques were common:

- Branded computer games, or advergames, were widely used. Overall, 73 percent of the Web sites included at least one advergame, and the analysis found a total of 546 advergames featuring one or more food brands.
- A viral marketing technique, encouraging users to send an e-mail and invite friends to visit a particular Web site, was used on 64 percent of the Web sites.
- Television commercials were available for viewing on more than half (53 percent) of the Web sites.
- An option to register, join a club or become a member was offered on 42 percent of the Web sites. Membership offers open to youth under the age of 13 were found on 25 percent of Web sites.
- Of all the Web sites in the study, 40 percent had a sweepstakes or contest, and 31 percent had a premium offer.
- Nearly one-third of the Web sites featured content tied to a popular movie.

Table 2. Marketing Techniques

Technique	Definition
Advergames	Advertiser-sponsored video games with embedded brand messages in colorful, fun and fast-paced adventures
Branded toys and books	Products designed to promote brand awareness and fun associations with a name or symbol that legally identifies a company or product
Celebrity endorsements	Popular musicians, athletes, actors and actresses allow their name to be associated with a specific product, brand or company
Character merchandising	Popular fictional characters are shown on product packaging or otherwise used to promote the sale of a product
Claims about nutrition or fitness	Images, messages and partnerships with sport organizations are used to associate a product with health and fitness
Clubs	A brand or product is promoted by mailing cards, newsletters or coupons to the home addresses or e-mail accounts of members
Premiums	A giveaway item (e.g., toy) is provided when consumers purchase a product
Product placements	Products or brand logos are included in highly visible scenes of movies, music videos, television programs and video games
Repetition of the message	Duplicating the same commercial message multiple times
Spokes-characters	Animated brand characters created by companies to build product awareness and brand loyalty
Sweepstakes	Contests that offer the chance to win toys or other prizes with the purchase of a product
Viral marketing	The promotion of products by "word of mouth," often through digital or electronic platforms

Calvert SL. "Children as Consumers: Advertising and Marketing." *Future Child*, 18(1): 205–234, 2008.

Institute of Medicine, Committee on Food Marketing and the Diets of Children and Youth, *Food and Nutrition Board, et al. Food Marketing to Children and Youth: Threat or Opportunity?* Washington, D.C.: The National Academies Press, 2006. Institute of Medicine, 2006.

A similar study of 40 food and beverage Web sites also found that advergames, sweepstakes and tie-ins to movies or cartoons are among the most popular marketing techniques.²⁷

- Twenty-three of the 40 Web sites (58 percent) had a designated children's area. All of these children's Web sites included advergames.
- Other common features on children's Web sites were branded downloads and background or scenery incorporating advertised products. Several of the techniques used on these Web sites (e.g., eye-catching spokes-characters, celebrity endorsements, prompts encouraging children to ask their parents to purchase a product) are also used on television.

At least one study has examined the presence of food and beverage advertising on children's Web sites.²⁸ Ten Web sites (e.g., *Nick.com*, *Disney.com*, *Barbie.com* and *Candystand.com*) were selected based on the results of the KidSay's February 2005 market research report, which identified popular Web sites among children ages 8 to 11.

- The study found a total of 308 food marketing instances, including product placements, specific marketing pages, advergames and traditional advertisements.
- The types of food products marketed mirrored the poor nutritional quality of products marketed to children on television. Marketing was observed only for six product categories: candy (248 instances), sweetened breakfast cereals (42 instances), quick-serve restaurants (nine instances), chips (three instances), dairy products (three instances), other (two instances) and sweet snacks (one instance).

Marketers also use social networking Web sites such as MySpace, Friendster and Facebook to reach adolescents. Expenditures for advertising on social networking Web sites are expected to reach \$1.8 billion by 2010. The participatory platforms of these Web sites are ideal vehicles for viral marketing.²⁹ For example, marketers such as Wendy's, Burger King and Pepsi have created profiles on MySpace where visitors can interact with the brand just as they would with the profiles of their friends.²⁹

Other Media Technologies

Instant messaging formats allow marketers to surround adolescents with their brand during everyday conversations. The three major instant messaging formats (AIM: America Online's Instant Messenger, Yahoo's Messenger, and Microsoft Network's Messenger) offer marketers multiple means to engage teens. Instant messaging users are

encouraged to choose a branded, interactive environment for talking with their friends, offered their choice of a branded virtual friend ("bots" or "buddy icons") and surrounded by flash ads. When users send messages from their branded environment, they spread advertisements virally to their friends.²⁹

Mobile marketing is expected to become one of the major forms of marketing as cell phone usage increases among U.S. youth. Wireless technology allows food and beverage marketers to directly target cell phone users based on their physical location, history of purchases and other profile information. Cell phone users may be sent tailored messages or coupons designed to promote purchases of a product when they are near specific stores or restaurants. Fast-food restaurants including Burger King, McDonald's and Subway have already launched several successful mobile campaigns.²⁹

In-school Marketing

Marketers frequently target schools because they can provide access to a large, captive audience of young consumers. In many cases, marketing may be accepted in schools because of chronic funding shortages and the potential for supporting student activities, school food services and other operations. Food and beverage marketing in schools takes multiple forms.

- Product sales: Food and beverage sales separate from the federal Child Nutrition Programs are the most prevalent form of commercial activity in schools. A nationally representative study conducted in 2006 found that, despite several recent improvements in state and district requirements relating to the sale of these products, snack foods and drinks were widely available at school. Students could purchase snacks and drinks from vending machines or snack bars in 33 percent of elementary schools, 71 percent of middle schools, and 89 percent of high schools.³⁰
- Direct advertising: Activities have included the distribution of products and promotional materials, screen media advertisements and the display of logos and messaging on school grounds, equipment and publications. For example, a 2005 survey in California public high schools found that 53 percent of school yearbooks included food and beverage advertising.³¹
- Indirect advertising: Common forms of indirect advertising include branded educational materials, contests, event sponsorship and incentive programs. One example is a reading program for elementary school students. This long-standing program gives a free pizza to students who reach their personal goal to read a specified number of books.³²

- Market research: Strategies involving students have included questionnaires, taste tests and monitoring Internet use.

Does food and beverage marketing influence the dietary patterns of youth? Could limiting exposure to food and beverage marketing reduce childhood and adolescent obesity?

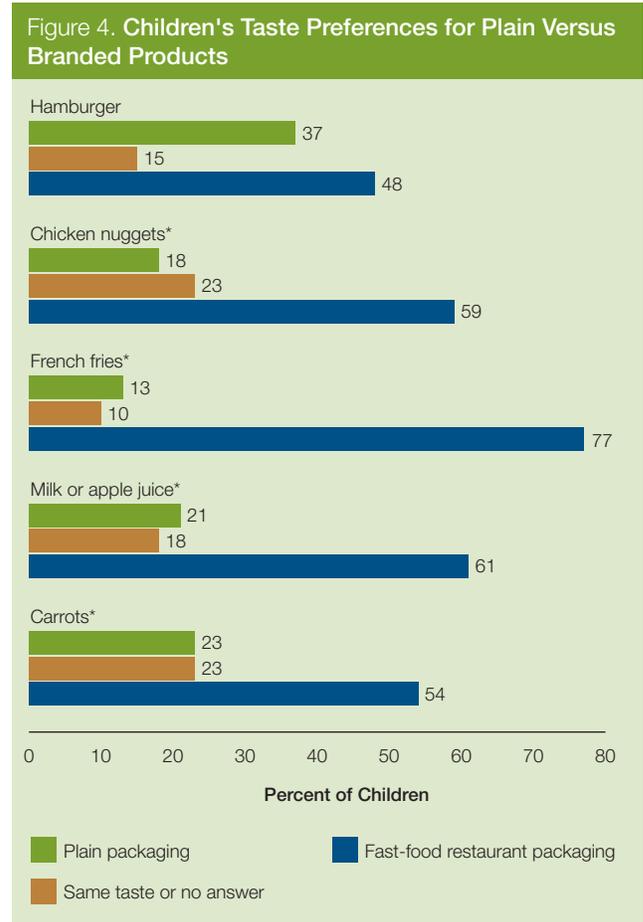
The majority of research relating to whether food and beverage marketing affects the dietary habits of youth has examined the influence of television advertising on attitudes and behaviors. Few studies have considered whether other marketing strategies (e.g., print advertisements, product placement in films, pricing and promotional strategies) influence eating behavior. In particular, very little research has examined the influence of interactive marketing techniques.

The Institute of Medicine (IOM) committee on Food Marketing and the Diets of Children and Youth conducted the largest systematic review of the available research and concluded there is moderate to strong evidence that television advertising influences food and beverage preferences, purchase requests, beliefs and dietary intake.³³ Evidence of these relationships is generally stronger for children (ages 2 to 11) than for adolescents (ages 12 to 18), in part because so few studies have been conducted with adolescents. When this research is considered alongside the findings of several studies that have shown the food and beverage products advertised during children’s programming tend to be of poor nutritional quality, it may be surmised that television advertising promotes increased consumption of energy-dense, nutrient-poor foods and beverages.

Very few studies have considered the effects of marketing healthier, nutrient-dense foods and beverages, and no evidence was found to indicate that the marketing of these products would lead to improvements in dietary intake among youth.³³ The majority of studies have examined the effects of advertising energy-dense, nutrient-poor products.

For example, one recent study examined the effects of cumulative brand exposures on the preferences of young children (ages 3 to 5).³⁴ Children were asked to taste two sets of identical food products—one packaged in a popular fast-food restaurant wrapper/container and the other packaged in a generic wrapper/container.

After tasting identical products in each type of packaging, children were asked to indicate if they tasted the same or if one tasted better. In four of five comparisons, the results showed that children were significantly more likely to prefer the taste of a food or drink if they thought it was from the fast-food restaurant (Figure 4).



Robinson T, Borzekowski D, Matheson D, et al. "Effects of Fast Food Branding on Young Children's Taste Preferences." *Archives of Pediatric Adolescent Medicine*, 161(8): 792–797, August 2007.

* Statistically significant at $p < 0.05$.

Another example suggests that television advertising not only influences brand preference but also promotes increased consumption of other energy-dense food products. Buijzen and colleagues examined the effects of food and beverage advertising on consumption of advertised brands, advertised energy-dense product categories and products overall in a school-based sample of 234 children (ages 4 to 12).³⁵ The students' parents completed four-day food diaries and a survey including questions on their children's television viewing habits. The study found:

- Higher exposure to advertising (based on parents' reports of viewing habits and advertising broadcast data) was related to greater consumption of advertised brands and energy-dense product categories (sugared breakfast cereals, confectionery, savory snacks, soft drinks and products from fast-food restaurants).
- Overall food consumption was not related to advertising exposure but was related to television viewing time. The proportion of food choices from energy-dense product categories was found to be higher among children who spent more time viewing television.

Other observational research and at least one randomized controlled study have further observed that television viewing time is positively related to obesity in children and adolescents.^{33, 36} This research suggests that exposure to television advertising increases risk for obesity because television viewing time is strongly related to advertising exposure. However, other factors related to high television viewing time and weight gain (e.g., low physical activity, snacking while watching television) could be the true cause of the observed relationship and need to be investigated. More research is also needed to examine the potential for changes in advertising regulations and policy to reduce obesity and improve the food choices of youth.

What national regulations are in place to protect youth from deceptive marketing practices?

In contrast to the strict regulations on marketing to children in other countries (such as Sweden, Canada and Australia),³⁷ there are presently few U.S. regulations designed to protect children and adolescents from the influence of marketers. The U.S. advertising industry maintains its own self-regulatory policies, and two federal agencies have limited powers to regulate either advertising on broadcast media or advertising deemed to be unfair or deceptive.³⁸ Only two forms of in-school commercial activity—product sales and market research—are subject to federal regulation.

Children's Advertising Review Unit (CARU)

The self-regulatory body for the U.S. food and beverage industries reviews advertising directed at children under the age of 12 and online privacy practices relating to advertising directed at children under the age of 13. This body has no legal authority but encourages voluntary compliance with the *CARU Self-Regulatory Guidelines* and relevant legislation.^{38, 39} CARU guidelines encourage advertisers to promote the development of good nutritional practices and prohibit advertising that has the potential to mislead children or undermine parental control.⁴⁰ The CARU guidelines do not include specific nutritional standards for what types of foods should not be advertised to children.

U.S. Federal Trade Commission (FTC)

The FTC is authorized to regulate “unfair or deceptive acts or practices” and “false advertisements” that are likely to “induce, directly or indirectly, the purchase of food.” The FTC also enforces the Children's Online Privacy Protection Act, a law requiring Web site operators to obtain parental consent before collecting personal information from children under the age of 13 and to develop means for parental control of collected information.³⁸ However, the FTC has no authority to restrict advertising for the purpose of preventing members of the public from making “bad decisions” as long as the information stated in advertisements is truthful.³³

U.S. Federal Communications Commission (FCC)

The FCC is charged with the regulation of broadcast television and has the authority to make rules “to assure that broadcasters operate in the public interest.” Special FCC rules designed to protect children require that broadcasters limit the amount of advertising shown during children's programming (to no more than 10.5 minutes/hour on weekends and no more than 12 minutes/hour on weekdays); clearly separate program content from commercial messages; and distinguish when a program will transition to a commercial.^{33, 38}

Federal Regulation of Product Sales in Schools and School Wellness Policies

Federal regulations limit in-school sales of a few products (e.g., carbonated soda, gum and hard candies) that offer minimal nutritional value, or less than 5 percent of the Recommended Dietary Allowances per serving for each of eight key nutrients.⁴¹ Schools participating in the federal meals programs are required by law to have a wellness policy that addresses what types of foods and beverages may be sold at school. This law does not require schools to make their policy more restrictive than federal regulations.⁴²

Protection of Pupil Rights Amendment

Market research in schools is addressed by the Protection of Pupil Rights Amendment. This amendment requires that school districts have a policy on the gathering and release of personal student data for commercial purposes.³²

Based on the available research, what recommendations have been made to improve the current regulatory environment?

Improving the diets of U.S. youth and reducing obesity will require food and beverage companies to make a number of changes and will require sustained efforts from multiple other sectors. An international working group developed the Sydney Principles, seven widely supported principles to guide national and transnational action on changing food and beverage marketing practices that target youth (see Table 3).⁴³ In addition, several recommendations for improving the current environment in the United States have been made by the IOM, FTC and Department of Health and Human Services.^{8, 33, 40} Recommended changes include:

- Food and beverage companies should make use of available resources and marketing strategies to promote and support healthful dietary behaviors (e.g., improve the nutritional profile of products marketed and sold in schools).
- Full-service, family and quick-serve restaurants should make use of available resources and marketing strategies to promote healthy meals (e.g., make calorie and nutrient information highly visible to customers on menus, menu boards and packaging).
- Trade associations that market food, beverages or restaurants should assume a leadership role in directing resources and marketing strategies to the promotion of healthy dietary behaviors (e.g., lead efforts to increase the availability of healthy food and beverage options in stores and restaurants).
- Companies that market food, beverages and restaurants should collaborate with government, scientific, public health and consumer groups to establish and enforce the highest standards for marketing practices (e.g., limit the use of licensed characters to promotions for healthy foods and beverages).
- Media and entertainment industries should promote healthy foods and beverages (e.g., incorporate simple, positive messages that promote healthful products into multiple media platforms).
- Government should create a long-term social marketing program in partnership with the private sector to

support parents, caregivers and families in promoting healthy diets (e.g., build skills for the selection and preparation of healthy foods and beverages).

- Schools and education authorities should promote and educate youth about healthy dietary behaviors in collaboration with parents, health authorities and other stakeholders (e.g., develop and implement nutrition standards for foods and beverages sold or served anywhere on campus).
- Public policy-makers should promote healthy diets through policy changes (e.g., reward food, beverage and restaurant companies that develop, provide and promote healthy products for young people).

Table 3. The Sydney Principles
Actions to Reduce Commercial Promotions of Foods and Beverages to Children Should:

1. Support the rights of children to adequate, safe and nutritious food
2. Afford substantial protection to children from commercial exploitation
3. Be statutory in nature
4. Take a wide definition of commercial promotions (e.g., television, print, Internet, etc) and be sufficiently flexible to include new marketing methods as they develop
5. Guarantee commercial-free childhood settings
6. Include cross-border media
7. Be evaluated, monitored and enforced

Swinburn B, Sacks G, Lobstein T, et al. "The 'Sydney Principles' for Reducing the Commercial Promotion of Foods and Beverages to Children." *Public Health Nutrition*, 11(9): 881–886, September 2008.

What changes have food and beverage corporations made in recent years to promote healthier food choices?

Although much work is still needed to create an environment that fully promotes healthy foods and beverages, growing concerns regarding the influence of marketing on children and adolescents have led corporations to increase self-regulatory efforts and make some positive changes:^{40, 44–46}

- The Council of Better Business Bureaus (CBBB) established the Children's Food and Beverage Advertising Initiative in November 2006 to provide companies that advertise foods and beverages to children with a voluntary advertising self-regulation program. A company signing onto the CBBB self-regulation program pledges, to devote at least 50 percent of its advertising directed at children under 12

to promoting healthier dietary choices, good nutrition and/or healthy lifestyles and to prepare an individual pledge tailored to that company's practices. As of October 2008, 15 food and beverage companies were participating in the CBBB initiative.^{44, 47}

- Many companies have introduced healthier alternative products and reformulated some existing products. For instance, Kraft Foods reformulated Oscar Mayer Lunchables to reduce the amount of calories, fat and sodium they contain.
- A few companies now offer calorie-limited snacks, and some restaurants have pledged to abandon supersized portions. Proctor and Gamble, General Mills and Nabisco are among those selling 100-calorie packs of cookies, crackers and popcorn.
- Logos or other marketing strategies have been developed by some companies to spotlight lower-calorie and healthier products within their product line. For example, Kraft Foods created the "Sensible Solutions" seal and PepsiCo created a "Smart Spot" seal to identify products that have reduced calories, fat, saturated fat, sodium or sugar.
- Many companies support nutrition education programs or use Web sites, phone lines and magazines to educate customers about good nutrition. For example, General Mills created a program that awards grants to organizations to support the development of youth nutrition and fitness programs
- Policies and efforts to restrict marketing to children have been implemented by a number of companies. For example, Kraft Foods and General Mills have implemented policies that restrict advertising on programs primarily reaching children under age 6.

What research is still needed to understand and limit the potential for food and beverage marketing to adversely influence the health of young people?

In addition to the recommendations set forth for improving the current food marketing environment, the IOM has emphasized that future research should utilize diverse methods; control for alternative explanations; use strong measures; and use methods with high relevance to everyday life. The IOM has also identified the following important research gaps and questions:³³

- What are the effects of new interactive marketing techniques (e.g., viral marketing) and venues (e.g., cell phones); marketing healthy foods, beverages, and portion sizes; and television advertising on diet and diet-related health?

- What strategies should be used as part of social marketing programs to promote healthy diets? What factors shape the health and nutrition attitudes and behaviors of children at different ages and in different circumstances?
- What changes should be made to current U.S. regulations to limit youth-targeted advertising for unhealthful food and beverage products? How were legal principles, practices, policies and government-industry agreements used to ban tobacco advertising on television and restrict tobacco advertising in magazines?
- How can previous work on tobacco advertising be used to inform future efforts to reduce food and beverage marketing?

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References

- Ogden C, Flegal K, Carroll M, et al. "Prevalence and Trends in Overweight among U.S. Children and Adolescents, 1999–2000." *Journal of the American Medical Association*, 288(14): 1728–1732, 2002.
- Ogden C, Carroll M and Flegal K. "High Body Mass Index for Age among U.S. Children and Adolescents, 2003–2006." *Journal of the American Medical Association*, 299(20): 2401–2405, May 2008.
- Institute of Medicine, Committee on Prevention of Obesity in Children and Youth, Food and Nutrition Board, et al. *Preventing Childhood Obesity: Health in the Balance*. Washington, DC: National Academies Press, 2005.
- Roberts D, Foehr U and Rideout V. *Generation M: Media in the Lives of 8–18 Year-Olds*. Menlo Park, CA: Kaiser Family Foundation, March 2005. Available at www.kff.org/entmedia/entmedia030905pkg.cfm. Accessed June 14, 2008.
- Rideout V, Hamel E. *The Media Family: Electronic Media in the Lives of Infants, Toddlers, Preschoolers and Their Parents*. Menlo Park, CA: Kaiser Family Foundation, May 2006. Available at www.kff.org/entmedia/7500.cfm. Accessed June 14, 2008.
- Perton M. *Study Finds High Cell Usage among Teens* 2005. Available at www.engadget.com/2005/03/12/study-finds-high-cell-usage-among-teens/. Accessed May 21, 2008.
- Foehr U. *Media Multitasking among American Youth: Prevalence, Predictors and Pairings*. Menlo Park, CA: Kaiser Family Foundation, December 2006. Available at www.kff.org/entmedia/entmedia121206pkg.cfm. Accessed June 14, 2008.
- Federal Trade Commission. *Marketing Food to Children and Adolescents: A Review of Industry Expenditures, Activities, and Self-Regulation*. Washington, DC: Federal Trade Commission, July 2008. Available at www.ftc.gov/os/2008/07/P064504foodmktngreport.pdf. Accessed August 3, 2008.
- Gamble M and Cotugno N. "A Quarter Century of TV Food Advertising Targeted at Children." *American Journal of Health Behavior*, 23(4): 261–267, August 1999.
- Taras H and Gage M. "Advertised Foods on Children's Television." *Archives of Pediatrics and Adolescent Medicine*, 149(6): 649–652, June 1995.
- Batada A, Seitz M, Wootan M, et al. "Nine out of 10 Food Advertisements Shown During Saturday Morning Children's Television Programming Are for Foods High in Fat, Sodium, or Added Sugars, or Low in Nutrients." *Journal of the American Dietetic Association*, 108(4): 673–678, April 2008.
- Gantz W, Schwartz N, Angelini J, et al. *Food for Thought: Television Food Advertising to Children in the United States*. Menlo Park, CA: Kaiser Family Foundation, March 2007. Available at www.kff.org/entmedia/entmedia032807pkg.cfm. Accessed June 14, 2008.
- Thompson D, Flores G, Ebel B, et al. "Comida En Venta: After-School Advertising on Spanish-Language Television in the United States." *Journal of Pediatrics*, 152(4): 576–581, April 2008.
- Outley C and Taddese A. "A Content Analysis of Health and Physical Activity Messages Marketed to African American Children During After-School Television Programming." *Archives of Pediatrics and Adolescent Medicine*, 160(4): 432–435, April 2006.
- Powell L, Szczypka G, Chaloupka F. "Adolescent Exposure to Food Advertising on Television." *American Journal of Preventive Medicine*, 33(4S): S251–S256, October 2007.
- Henderson V and Kelly B. "Food Advertising in the Age of Obesity: Content Analysis of Food Advertising on General Market and African American Television." *Journal of Nutrition Education and Behavior*, 37(4): 191–196, August 2005.
- Tirodkar M and Jain A. "Food Messages on African American Television Shows." *American Journal of Public Health*, 93(439–441), March 2003.
- Grier S, Kumanyika S. "The Context for Choice: Health Implications of Targeted Food and Beverage Marketing to African Americans." *American Journal of Public Health*, [Epub ahead of print], July 2008.
- Powell L, Szczypka G and Chaloupka F. "Exposure to Food Advertising on Television among U.S. Children." *Archives of Pediatrics and Adolescent Medicine*, 161(6): 553–560, June 2007.
- Harrison K and Marske A. "Nutritional Content of Foods Advertised During the Television Programs Children Watch Most." *American Journal of Public Health*, 95(9): 1568–1574, September 2005.
- Kotz K and Story M. "Food Advertisements During Children's Saturday Morning Television Programming: Are They Consistent with Dietary Recommendations?" *Journal of the American Dietetic Association*, 94(11): 1296–1300, November 1994.
- Powell L, Szczypka G, Chaloupka F, et al. "Nutritional Content of Television Food Advertisements Seen by Children and Adolescents in the United States." *Pediatrics*, 120(3): 576–583, September 2007.
- Batada A and Wootan M. "Nickelodeon Markets Nutrition-Poor Foods to Children." *American Journal of Preventive Medicine*, 33(1): 1–3, July 2007.
- Gantz W, Schwartz N, Angelini J, et al. *Shouting to Be Heard (2): Public Service Advertising in a Changing Television World*. Menlo Park, CA: Kaiser Family Foundation, 2008. Available at www.kff.org/entmedia/7715.cfm. Accessed May 14, 2008.
- Lenhart A, Madden M. *Teens, Privacy, and Online Social Networks*. Washington, DC: Pew Internet & American Life Project, 2007. Available at www.pewinternet.org. Accessed May 24, 2008.
- Moore E. *It's Child Play: Advergaming and the Online Marketing of Food to Children*. Menlo Park, CA: Kaiser Family Foundation, July 2006. Available at www.kff.org/entmedia/entmedia071906pkg.cfm. Accessed June 14, 2008.
- Weber K, Story M and Harnack L. "Internet Food Marketing Strategies Aimed at Children and Adolescents: A Content Analysis of Food and Beverage Brand Web Sites." *Journal of the American Dietetic Association*, 106(9): 1463–1466, September 2006.
- Alvy L, Calvert S. "Food Marketing on Popular Children's Web Sites: A Content Analysis." *Journal of the American Dietetic Association*, 108(4): 710–713, April 2008.
- Chester J and Montgomery K. *Interactive Food and Beverage Marketing: Targeting Children and Youth in the Digital Age*. Berkeley, CA: Berkeley Media Studies Group, May 2007. Available at www.digitalads.org/. Accessed June 14, 2008.
- O'Toole T, Anderson S, Miller C, et al. "Nutrition Services and Foods and Beverages Available at School: Results from the School Health Policies and Programs Study 2006." *Journal of School Health*, 77(8): 500–521, October 2007.
- Samuels and Associates, Craypo L, Francisco S, et al. "Food and Beverage Marketing on California High School Campuses Survey: Findings and Recommendations." 2006. Available at www.phi.org/library.html. Accessed June 28, 2006.
- U.S. Government Accountability Office. *Commercial Activities in Schools. Use of Student Data Is Limited and Additional Dissemination of Guidance Could Help Districts Develop Policies*. Aug 2004. GAO-04-810. Available at www.gao.gov/new.items/d04810.pdf. Accessed June 14, 2008.
- Institute of Medicine, Committee on Food Marketing and the Diets of Children and Youth, Food and Nutrition Board, et al. *Food Marketing to Children and Youth: Threat or Opportunity?* Washington, DC: The National Academies Press, 2006.
- Robinson T, Borzekowski D, Matheson D, et al. "Effects of Fast Food Branding on Young Children's Taste Preferences." *Archives of Pediatric and Adolescent Medicine*, 161(8): 792–797, August 2007.
- Buijzen M, Schuurman J and Bomhof E. "Associations between Children's Television Advertising Exposure and Their Food Consumption Patterns: A Household Diary-Survey Study." *Appetite*, 50(2–3): 231–239, March–May 2008.
- Robinson T. "Reducing Children's Television Viewing to Prevent Obesity: A Randomized Controlled Trial." *Journal of the American Medical Association*, 282(16): 1561–1567, October 1999.
- Hawkes C. *Marketing Food to Children: The Global Regulatory Environment*. Geneva: World Health Organization, 2004. Available at <http://whqlibdoc.who.int/publications/2004/9241591579.pdf>. Accessed July 19, 2008.
- Jordan A. "Children's Media Policy." *Future Child*, 18(1): 235–253, 2008.
- Children's Advertising Review Unit. *Self-Regulatory Guidelines for Children's Advertising*. 2006. Available at www.caru.org/guidelines/index.asp. Accessed Sept 18, 2007.
- Federal Trade Commission, Department of Health and Human Services. *Perspectives on Marketing, Self-Regulation, and Childhood Obesity. A Report on a Joint Workshop of the Federal Trade Commission and the Department of Health and Human Services*. Washington, DC, 2006. Available at www.ftc.gov/bcp/workshops/foodmarketingtokids/. Accessed June 18, 2006.
- Food Research and Action Center. *Competitive Foods in Schools: Child Nutrition Policy Brief*. 2003. Available at www.frac.org. Accessed May 19, 2006.
- Food Research and Action Center. "School Wellness Policy and Practice: Meeting the Needs of Low-Income Students." 2006. Available at www.frac.org. Accessed June 21, 2006.
- Swinburn B, Sacks G, Lobstein T, et al. "The 'Sydney Principles' for Reducing the Commercial Promotion of Foods and Beverages to Children." *Public Health Nutrition*, 11(9): 881–886, September 2008.
- Better Business Bureau. *Children's Food and Beverage Advertising Initiative*. 2008. Available at <http://us.bbb.org/WWWRoot/SitePage.aspx?site=113&id=dba51fbb-9317-4f88-9bcb-3942d7336e87>. Accessed October 5, 2008.
- Langlois A and Crossley R. *The Proof of the Pudding... Benchmarking Ten of the World's Largest Food Companies' Response to Obesity and Related Health Concerns*. JPMorgan, April 2008. Available at <http://whattoeatbook.com/wp-content/uploads/2008/04/proof-of-the-pudding-final.pdf>. Accessed May 9, 2008.
- Grocery Manufacturers of America. *Industry Report on Health and Wellness*. 2006. Available at www.gmabrand.com/publications/docs/bwrreport.pdf. Accessed June 27, 2006.
- Kolish E and Peeler C. *Changing the Landscape of Food and Beverage Advertising*. Arlington, VA: Council of Better Business Bureaus, July 2008. Available at <http://us.bbb.org/WWWRoot/storage/16/documents/CFBABI/CFABI2008BBBreport.pdf>. Accessed August 11, 2008.

About Healthy Eating Research

Healthy Eating Research is a national program of the Robert Wood Johnson Foundation. Technical assistance and direction are provided by the University of Minnesota School of Public Health under the direction of Mary Story, Ph.D., R.D., program director, and Karen M. Kaphingst, M.P.H., deputy director. The Healthy Eating Research program supports research to identify, analyze and evaluate environmental and policy strategies that can promote healthy eating among children and prevent childhood obesity. Special emphasis is given to research projects that benefit children in low-income and racial-ethnic populations at highest risk for obesity.

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