

COMMENTARY

Food Industry Promises to Address Childhood Obesity: Preliminary Evaluation

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Non-communicable conditions such as heart disease and cancer now account for the majority of all deaths worldwide (1). Obesity contributes to these conditions and its rising rates, especially among children, elicit much concern. In the United States, obesity rates among children have more than doubled since the late 1970s (2), and similar trends are occurring in most other countries (3). At issue are the causes of childhood obesity and the actions needed to reverse these trends.

As a result of increasing evidence that advertising induces children to eat too much of the wrong kinds of food (4), food marketing has emerged as an obvious target for action. Food (including beverage) companies have come under increasing pressure to produce more nutritious products and to market them more responsibly, and many have promised to do so. No agency, however, holds food companies accountable for such promises. In 2005, at the request of the World Health Organization (WHO), we conducted field comparisons of the promises and practices of two leading food companies, McDonald's and Kraft Foods, as expressed in the United States. This paper describes the rationale for these comparisons, our findings, and their implications for national policies to prevent childhood obesity.

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FOCUS ON FOOD MARKETING

Throughout the world, societal changes beginning in the early 1980s encouraged production of more food and, therefore, consumption of more energy than could be expended in physical activity; obesity rates began to climb among both children and adults (5,6). In the United States, calories in the food supply rose from 3,200 per day per capita in 1980 to 3,900 per day in 2000, roughly twice average need (7). The early 1980s also marked the beginning of the “shareholder value movement,” which demanded higher returns for investors and caused Wall Street to pressure companies to meet quarterly growth targets (8). Forced to expand sales in an already overabundant food economy, companies developed new products for new markets, heavily targeting children.

In the early 2000s, recognition of the health consequences of obesity, especially Type II diabetes, focused attention on the role of food marketing. In the United States, Congress commissioned the Institute of Medicine (IOM) to develop an action plan to combat childhood obesity. In the first of three reports, the IOM advised the government to develop guidelines for food marketing to children (5). A second study examined 123 peer-reviewed studies of the effects of food marketing on children’s food preferences, requests, consumption, and health, and found significant correlations (4). This study documented how advertising pervades children’s lives, mainly through television. Today’s food marketers spend an estimated \$10 billion annually to reach children through “measured” media – television, radio, print, and Internet – with additional expenditures for promotions, video games, and text messaging. Table 1 gives a few examples of advertising expenditures and the sales they generate for specific products. Because marketers are so successful in intentionally targeting children too young to recognize sales pitches, the IOM called on companies to change their practices and enforce “the highest standards for the marketing of foods, beverages, and meals to children and youth.” If they fail to do so, the IOM warned, “Congress should enact legislation mandating the shift” (4).

International agencies, however, had arrived at similar conclusions several years earlier. In 2000, WHO commissioned a series of consultations, conferences, and reports to address the rapid rise in obesity observed in most member states. The reports produced

Table 1: Sales and measured media expenditures for food products and fast food, 2004*

<i>Brand or company</i>	<i>Sales \$ (millions)</i>	<i>Measured media expenditures \$ (millions)</i>
Cheez-It Savory (Kellogg)	139.8	22.2
Goldfish (Pepperidge Farm/Campbell Soup)	167.8	9.1
Frosted Flakes cereal (Kellogg)	243.3	10.0
Snapple (Cadbury Schweppes)	531.1	10.5
Coke Classic (Coca-Cola)	1,832.7	123.4
Gatorade (PepsiCo)	2,648.9	127.6
Domino's Pizza	3,200.0	130.8
Dunkin' Donuts (Dunkin' Brands)	3,400.0	61.8
McDonald's	24,400.0	528.8

* Data are from the IOM Food Marketing report.⁴ Measured media include television, radio, print, and Internet advertising. Perhaps twice as much is spent on trade shows, coupon campaigns, slotting fees, and other less easily measured marketing.

compelling evidence that food industry marketing adversely influences the diets of adults (9,10) as well as children (11,12).

On this basis, WHO and the Food and Agriculture Organization (FAO) developed a Global Strategy on Diet, Physical Activity, and Health to address obesity and its health consequences. As ratified in 2004, the Global Strategy called on food companies to improve the nutritional quality of their products. Food companies, said WHO, should “practice responsible marketing that supports the Strategy, particularly with regard to the promotion and marketing of foods high in saturated fats, trans-fatty acids, free sugars, or salt, especially to children” (3).

FOOD INDUSTRY PROMISES VS. PRACTICES

Whether in response to such calls, or to the demands of investment companies (13), or to threatened lawsuits (14), food companies promised improvements. In 2005, WHO commissioned Tim Lang and his colleagues at City University, London to evaluate these promises. Lang *et al.* examined statements about diet, physical activity, and obesity prevention in published documents and

Websites of the world's 25 largest food corporations. Their report tabulated the companies' positions on 28 questions such as "Is there a commitment on sugar?" "Is there a commitment on portion size?" "Is there a policy specifically focused on children and food marketing?" Because few companies made such commitments, Lang *et al.* considered the industry "not yet fully engaged with the seriousness and urgency" of today's obesity challenge, particularly as it affects children (15). At the same time, WHO asked us to conduct case studies of the actual practices of two leading companies, McDonald's (foodservice) and Kraft Foods (food manufacturing), in marketing foods to children in the United States.

EXAMPLE #1: MCDONALD'S

McDonald's is the largest foodservice company in the world with over \$20 billion in 2005 sales, nearly half in the United States. The company serves 50 million people daily in more than 30,000 outlets in 119 countries (16). In 2005, McDonald's spent \$1.7 billion on worldwide marketing, roughly half on measured media (17).

With this kind of presence, McDonald's gets attention, and its products and marketing practices often draw criticism because of their influence on child health. McDonald's says it cares about the well-being issues that are so important to many of our customers. "With our balanced, active lifestyles initiatives, we are offering a variety of high-quality menu options, promoting physical activity, and providing information and education to help our customers around the world make smart choices for themselves and their families" (16).

Visits to McDonald's Website and outlets reveal evident efforts to promote health. McDonald's promised to remove Supersize portions and to introduce healthier food options, and has done so. It advertises these options widely on television, the Internet, and inside the restaurants. Its Website encourages healthful eating; it also encourages physical fitness in adults through celebrity endorsements and in children through its "spokesman," Ronald McDonald. The company partners with the Produce for Better Health Foundation to educate consumers about the importance of eating fruits and vegetables, and has appointed a Council on Healthy Lifestyles and a Worldwide Nutrition Director.

At the same time, McDonald's has taken actions that undermine such efforts. The company defines no measurable objectives and makes no promises to stop marketing less healthful foods to children or to reduce calories or sugars in most of its products. For every positive step, McDonald's takes countermeasures that could weaken efforts to promote more healthful eating. These contradictions are summarized in Table 2.

In 2002, McDonald's announced that it would eliminate *trans* fat from frying oils by February 2003, but to date has been unable to find a suitable replacement. Lawsuits accused McDonald's of misleading consumers about the use of *trans* fats, and the company agreed to pay a large settlement (18). In 2005, McDonald's promised to (and does) inform customers about *trans* fats in cooking oils in its restaurants and on its Website. As of summer 2005, McDonald's was still using partially hydrogenated oils in its French fries. Although McDonald's eliminated the Supersize option, it did not reduce the sizes of its small, medium, or large portions to levels typical of the 1980s (19). And although the company has introduced many new salads and lower fat dairy options, it also has introduced chicken sandwiches high in calories (450–660), fat (11–29 g), and sodium (1,500 to 1,800 mg).

Despite promises to promote more healthful foods to children, McDonald's continues to place toys inside Happy Meals and to market toys – such as Hummer trucks (20) – to young children. Packages of French fries and soda are illustrated with movie advertisements, and movie tie-ins appear on window posters, on gift cards, with Happy Meals, and on drive-thru signs. McDonald's stores advertise games and chances to win prizes such as trips to Disney World. Codes on Big Macs, Large Fries, and Large Drinks offer chances to win additional prizes. Although McDonald's provides nutrition information on the underside of tray liners, the visible side pictures hamburgers and soda. The company's Website provides games for children, movie tie-ins, Happy Meal advertisements, and “podcasts.” A Happy Meal Website advertises toys, links to other toy and game Websites, and promotions (21).

McDonald's pricing strategies also promote less healthful options. In summer 2006, we paid \$3.69 – 24 cents more – for a Mighty Kids Meal than for a \$3.45 Happy Meal, thereby obtaining one-third more Chicken McNuggets, a larger soda, and 120 additional

Table 2: McDonald's marketing strategies: promises vs. observations

<i>Promises</i>	<i>Observations</i>
Remove <i>trans</i> fat by February 2003	Reduced <i>trans</i> fat levels in certain chicken sandwiches. Despite settling a multi-million dollar lawsuit, continues to use <i>trans</i> fat in frying oils.
Remove Supersize option from stores	Did so but fails to reduce other serving sizes. Created Mighty Kids Meal (a supersized version of Happy Meal).
Add healthier menu options	Added salads, reduced-fat dairy products, but also new chicken sandwiches high in calories, fat, and sodium. Prices healthier items higher than other items. Uses Dollar Menu mostly to sell less healthful foods.
Advertise healthier food options in stores	Provides toys with Happy Meals. Advertises toddler toys for children under the age of 3 years. Advertises movie tie-ins on food packages, toys, gift cards, and on drive-thru sign. Advertises "junk" food choices on in-store movie posters and tray liners. Advertises chance to win Disney World trip with game piece from Happy Meal. Advertises codes found on Big Macs, Large Fries, and Large Drinks for chance to win prizes.
Advertise healthier foods and encourage physical fitness on Website (www.mcdonalds.com)	Created sections for Nutrition, Fitness, and Sports, but site also includes games, Happy Meal advertisements, movie promotions, blogs, and personal stories. Established www.happymeal.com for kids containing advertisements for toys and Kids Meals.
Promote physical fitness and nutrition	Appointed Ronald McDonald as "Fitness Ambassador." Distributes Fun Times Activity Book. Partners with Produce for Better Health Foundation. Created Advisory Council on Healthy Lifestyles. Appointed a Worldwide Nutrition Director, but engages in activities to discredit critics.

calories. Larger sizes of chicken nuggets, fries, and sodas usually cost less per unit. For just \$1.00 per item, children could have three cookies, an ice cream sundae, two apple pies, or a double cheeseburger, along with some healthier snacks, but a full salad costs nearly \$5.00. The extent to which pricing contributes to McDonald's sales patterns is uncertain, however. The manager of one McDonald's franchise told us that sales that day included 13 Apple Dippers and 49 Premium Salads, but 36 apple pies, 149 ice cream shakes, and 510 hamburgers. Clearly, McDonald's customers prefer hamburgers. While McDonald's has made efforts to offer more healthful options, its primary marketing methods to children continue to promote hamburgers, sodas, and fries.

Furthermore, critics of such policies can expect reprisals. In 2006, the *Wall Street Journal* reported that McDonald's had hired a Washington, DC-based public relations firm to attack Eric Schlosser (22), the author of a critique of the fast-food industry directed to teenagers (23). McDonald's, however, denied these charges and also denied responsibility for an employee's deletion of a reference to Schlosser's criticisms on the McDonald's entry in the online encyclopedia, Wikipedia (24).

EXAMPLE # 2: KRAFT FOODS

Kraft Foods is the largest food manufacturer in North America and its products are sold in 155 countries, with sales worth \$34 billion in 2005 (25). Kraft is a division of the Altria Group, the company that also owns Philip Morris cigarettes. The divisions share research information about taste preferences and might also be expected to share information about ways to stave off criticisms that might lead to marketing regulations (26,27).

Kraft was the first US food company to promise to address childhood obesity. In July 2003, the company proposed anti-obesity initiatives through an exclusive, front-page story in *USA Today* (28). Among the promises were some relating to children: eliminate all in-school marketing, establish criteria for products in school vending machines, and set guidelines for marketing practices (29). A year later, Kraft announced that it had begun to act on its promises (30), and announced its *Sensible Solution* program 6 months later (31).

Table 3 summarizes Kraft's principal promises to help address childhood obesity, along with some observations.

Develop Sensible Solution Products

Kraft introduced the *Sensible Solution* labeling program to help consumers identify "better-for-you" products (32). Kraft also said that for children aged 6–11 years, it would only advertise products that qualified as *Sensible Solutions* in measured media (31). This meant that Kraft would not advertise regular Kool-Aid beverages, Oreo and Chips Ahoy! cookies, some Post cereals, and most Lunchables to children under the age of 12 years. These promises, which did not mention Internet marketing (a loophole the company closed a year later (33)), were applauded by consumer advocacy groups (34), but angered officials of other food companies who feared that Kraft's voluntary restrictions would be interpreted as admitting wrongdoing and encourage regulation (35).

Kraft based criteria for the new *Sensible Solution* program on federal dietary guidelines (36). As interpreted by the company, however, its guidelines permit a wide range of products to qualify. The upper limit for calories in Convenient Meals, for example, is generous – 600, or more than 25% of an adult's estimated need for 2,000 kcal/day (32). The limit for sodium is 960 mg per product, or 40% of the Daily Value (DV), the highest level considered healthful for adults (37); DVs do not apply to children, who should be eating less sodium than adults.

Other criteria also leave room for flexibility. Products must either contain 10% of the DV of one or more of nine key nutrients; *or* contain a half-serving of fruit, vegetable, or 8 g whole grain; *or* have a functional nutrition benefit; *or* be low in calories, fat, saturated fat, sugar, or sodium; *or* have 25% less of one of these in comparison to a base reference product; *or* meet the FDA definition for lean or extra lean. In 2005, with criteria in place, Kraft introduced new products and reformulated existing products to qualify as *Sensible Solutions*. By July 2006, 350 products were considered to qualify (32).

Table 4 illustrates some examples of *Sensible Solution* products marketed to children. Kraft added a Kool-Aid Jammers 10 to its Jammers line by replacing most of the sugars with artificial sweeteners. It reformulated some versions of Fruity Pebbles cereal

Table 3: Kraft Foods' marketing strategies: promises vs. observations

<i>Promises</i>	<i>Observations</i>
Eliminate all in-school marketing; establish nutrition criteria for products sold in school vending machines; set guidelines for marketing practices directed at children (July 2003)	Did so in the United States.
Establish nutrition criteria for products (June 2004)	Did so, but flexible criteria will permit many questionable products to qualify.
Reformulate and introduce new products to meet <i>Sensible Solution</i> criteria (January 2005)	Percent DV applies to the diets of adults, not of children. Nutritional differences between <i>Sensible Solution</i> and other products appear marginal.
Advertise only <i>Sensible Solution</i> products to children aged 6–11 years in television, radio, and print media (January 2005)	Continues to advertise non- <i>Sensible Solution</i> products to older children. Uses licensed cartoon characters on all kinds of products targeted to children, <i>Sensible Solution</i> and not. Keeps budget for marketing to children at the same level (\$80 to \$90 million annually). Permits other forms of advertising (games, word-of-mouth campaigns, contests) for all products.
Advertise only <i>Sensible Solution</i> products to children aged 6–11 years on the Internet (September 2005)	The targeted ages for games on Websites are unclear. Non- <i>Sensible Solution</i> cereal packages direct children to Website. Other forms of entertainment promote all products.
Promote healthful eating and physical activity among children (since 2003)	Emphasizes physical activity on product labels and Websites. Joins Alliance to defend food industry's First Amendment rights to market to children.

Table 4: Examples of Kraft *Sensible Solution* products targeted to children*

<i>Sensible Solution product</i>	<i>Sensible Solution characteristics</i>	<i>Comparable product</i>
Kool-Aid Jammers 10 Cherry	2 g sugars, sweetened with Splenda and acesulfame-K	Kool-Aid Jammers Cherry: 24 g sugars
Post Fruity Pebbles Bronto-Bright cereal	"Good Source of Fiber:" 3 g polydextrose, 9 g sugars	Post Fruity Pebbles New Bedrock Berry Pink: 0 g fiber, 12 g sugars
Pizza Lunchables (Pepperoni Flavored Sausage)	570 mg sodium (24% DV), 8 g sugars, 4 g saturated fat in 310 kcal	Maxed Out Deep Dish Pizza Lunchables (Pepperoni Flavored Sausage): 770 mg sodium (32% DV), 37 g sugars, 6 g saturated fat in 530 kcal
Macaroni & Cheese Super Macaroni	490 mg sodium (20% DV), 6 g sugars, 3 g fiber in 250 kcal	Macaroni & Cheese Dinner Blues Clues: 560 mg sodium (23% DV), 7 g sugars, 1 g fiber in 260 kcal
Post Alpha-Bits cereal	Unsweetened; 0 g sugars, 3 g fiber, in 110 kcal	Former Alpha-Bits: 12 g sugars, 1 g fiber in 130 kcal

* Figures given are per serving.

by adding polydextrose (an artificial indigestible starch) to increase the "fiber" from 0 to 3 g per serving, but the box and ingredients in this version appear much the same as the original. Kraft improved some Pizza Lunchables by reducing the sodium, sugars, and saturated fat, and it increased the fiber content of Macaroni & Cheese.

Kraft makes no claim that the reformulated products are health foods. Instead, it offers them as “better-for-you” options. This strategy assumes that by reducing undesirable nutrients in food products – or adding desirable nutrients – products will be “healthier,” and so will children who consume them. Kraft explains that its enormous sales volume means that small nutritional improvements will have large effects on the food supply (30). It remains uncertain, however, whether this strategy produces measurable benefits or whether feeding children artificial sweeteners and polydextrose is healthier (38).

Nutritionists have long complained about the poor nutritional quality of Lunchables. Creating *Sensible Solution* versions neutralizes such criticisms, even when the reformulated product is still nutritionally questionable. The Chicken Dunks *Sensible Solution*, for example, may improve on the comparable version but it still includes five pre-cooked, breaded, nugget-shaped chicken patties, ketchup for dunking, candy, and juice, and offers no fiber, nearly a quarter of the adult DV for sodium, and more than 28 g (one ounce) of sugars. Products like these may be *better* choices, but they are not necessarily *good* choices. Even so, just six of 40 Lunchables products qualified as *Sensible Solutions* in August 2006 (32).

Also in 2006, boxes of Supermac & Cheese containing macaroni shaped like the cartoon character SpongeBob SquarePants were labeled with prominent self-generated health claims: “Excellent source of calcium,” “Good source of vitamins B, C, D & E,” and “Good source of whole grain.” But this product qualifies as a *Sensible Solution* only if prepared as suggested with fat-free milk and a table spread low in saturated and *trans* fats, a process that adds another 100 calories. One box contains two servings, which means that all amounts double if the entire box is consumed.

Kraft’s most striking reformulation is an entirely unsweetened Alpha-Bits cereal, developed as an “eat-ertainment” with *Reach Out and Read*, a program that promotes early childhood literacy (39). The partnership offers learning activities that incorporate Alpha-Bits into experiences such as “Serve letter-shaped cereal at snack time to toddlers while reading aloud an ABC book” or “Challenge them to a spelling game...” (40). We purchased this product in March 2006, but by August it had disappeared from most Manhattan stores. A search on Kraft’s Website for stores selling Alpha-Bits within an

8-km (5-mile) radius of New York University's 10003 zip code turned up just two, both across the Hudson River in New Jersey. In contrast, a search for Oreo O's Cereal with Marshmallow Bits identified 65 stores within 8 km, 47 of them in Manhattan. Either Kraft is not marketing such *Sensible Solution* products with the same zeal that it markets its other products or such products do not compete well in stores with limited space. A respondent to Kraft's consumer information line said that sales volume usually determines the choice of products in grocery stores.

Advertise to Children Aged 6–11 Years

Kraft spends \$80–\$90 million annually on measured media advertising to children. When the company said it would restrict advertising to young children, it did not reduce this amount (41). Kraft also markets products through displays and packages. In September 2005, we observed special supermarket displays of “Back to School Snacks” – Double Stuf Oreos, Ritz Bitz Sandwiches, and Cheese Nips – none of them *Sensible Solutions*. Kraft typically designs “kids’ food” packages – *Sensible Solution* and not – with cartoon characters from popular television programs or movies, a method well established to elicit demands for products (see Table 5) (42). In 2005, Kraft said that it was examining its use of licensed characters on products but had no plans to remove them (43).

Kraft packages encourage brand loyalty by offering children contests, games, promotions, prizes, and free “stuff.” “The Cheesiest Kids in America” contest asks children to send in three proofs of purchase and tell Kraft why “their love for Kraft Macaroni & Cheese makes them ‘The Cheesiest’” (44). Prizes place photographs of winners on product boxes and provide family vacations or scholarships. The Capri Sun Photo Contest offers children under the age of 13 years the chance to win an outdoor adventure vacation for their families (45). Additional promotions let children win toys by gathering 150 Kool-Aid “points” (a 570g – 19 ounce – powdered Kool-Aid container is worth 12 points); children can buy Kool-Aid Bursts for chances to win Chuck E. Cheese game tokens or Kool-Aid Jammers to win interactive musical toys.

Cereals such as Post Oreo's, Golden Crisp, and Waffle Crisp (all non-*Sensible Solution*) direct children to Postopia.Com as do codes

Table 5: Examples of licensed characters on Kraft packages

<i>Product</i>	<i>Licensed cartoon characters</i>
Macaroni & Cheese	Blues Clues, Rugrats, The Fairly Odd Parents, Scooby Doo, Spongebob Squarepants, Pokemon, Spiderman
Ritz Bits Sandwiches	The Simpsons
Teddy Grahams	Clifford the Big Red Dog, Dora the Explorer
Hulk Cereal	The Hulk
Fruity Pebbles Bronto-Bright	The Flintstones

inside the boxes. A child entering this Website can choose from among 90 games, some of which are “advergaming” that blur distinctions between advertising and entertainment (46). Children can “join” the Website to save and post scores, privileges likely to encourage repeat visits. Postopia.Com provides a fine-point disclosure at the bottom of every page – “Ad Break: The games and other activities on this website include messages about the products Kraft sells,” but it is uncertain whether children notice or understand the significance of this statement. Anyone is welcome to play the games and registration is optional. Children who choose to register must enter a birth year. If a child selects “after 1998,” a pop-up window states “Just a friendly reminder to get your parents’ permission before you register.” A simple “OK” permits registration to continue.

Kraft runs other sites that target children. Nabiscoworld.Com offers more than 50 games. A child who selects a game is first shown – for 3 seconds – a screen giving information about healthful food choices. Children must enter a birth date and a parent’s e-mail address to save scores or try for promotions. We had no difficulty registering as born in 2002, but parents are sent a message asking them to activate the account.

Specific products also sponsor sites. The Lunchables site permits children to watch the Lunchables Brigade Mission on television (“Tree-V”) or play any of the 16 available games (47). Children can go to TheCheesiest.Com to view raining cheese and use codes from

product boxes to play games. The Kool-Aid Website offers printable mazes and a coloring project featuring the Kool-Aid Man, surely appropriate for children under the age of 6 years (48). Some – but not all – of these sites provide advertising alerts.

Kraft Websites often use “viral” (word-of-mouth) techniques to attract children to specific brands. The sites offer children the opportunity to “Refer a Friend”, usually by sending an e-mail message. The Macaroni & Cheese Website lets users “tell a friend about the cool stuff going on at TheCheesiest.Com” (49), and the Capri Sun Website offers Capri Sun greeting or birthday cards: “Come back again and send as many Capri Sun Cards as you want to your family and friends. It’s the easy, fun way to lighten up anyone’s day” (45).

In August 2006, soon after the July release of a Kaiser Family Foundation report on advergaming (46), Kraft gave Postopia.Com a makeover; it changed the characters, the appearance, and the names of some games. Oreo O’s cereal Disc Toss (*non-Sensible Solution*) became Honeycomb Disc Toss (*Sensible Solution*). Some *non-Sensible Solution* names disappeared completely: Strawberry Blasted Sky Glide is now called Bronk’s Sky Glide and Oreo O’s Extreme Crème Control is now MorFit’s Farm. Nevertheless, it remains difficult to discern distinctions among products by quality – or by age targets – on most Kraft sites, and the extent of marketing on such sites is likely to be invisible to parents.

Promote Physical Activity

Like many food companies, Kraft shifts attention from the “calories in” side of the body weight equation to “calories out.” The Postopia.Com home page includes links to the US Department of Agriculture’s food guidance system, www.MyPyramid.gov. Children who click on the pyramid get this message: “Between your Postopia games and activities, why not grab your bike and go for a spin? Your body will thank you!” A second link is to Kidnetic.Com, a “healthy eating and active living Web site designed for kids aged 9–12 and their families” (50). This site is sponsored by the International Food Information Council (IFIC), a trade group representing food and beverage companies and supported generously by Kraft (51).

But Kraft also runs its own activity-promoting Website, "Active Gaming" (52). This site does not involve food products but provides four interactive computer games such as Groove Master, in which participants engage in dances of increasing difficulty. *Advertising Age* views this site as a public relations strategy: "In fending off critics, Kraft Foods' moves are as smooth as those in its new online game, Groove Master" (53). Kraft sponsors an after-school wellness program (Triple Play) (54), and a "healthy lifestyles educational program" for Hispanic families (Salsa, Sabor y Salud) (55). While engaged in such good works, however, Kraft was a charter member of the Alliance for American Advertising, established to "defend the industry's First Amendment rights to advertise to children and to promote its willingness to police itself" (56). Taken together, Kraft's efforts appear to be a mix of small improvements and business-as-usual.

IMPLICATIONS

For decades, advocates in the United States have attempted to regulate food marketing to children but have been prevented from doing so by industry invocations of First Amendment protections of commercial speech (14) and the benefits of self-regulation (57). We summarize this history in Table 6.

From our observations, and those of many others (4,12,46), industry self-regulation does not adequately protect children from inappropriate marketing of unhealthful foods. Lang *et al.* concluded that even promises fall short: "In failing fully to respond ... companies appear to be distancing themselves from their responsibility for unhealthy consumer choices" (15). In September 2006, the IOM released its third report on childhood obesity, this time an assessment of preventive efforts by communities, schools, and the food industry (58). These reports make it clear that the industry's voluntary efforts to self-regulate are inadequate. Our case studies support this conclusion. McDonald's continues to emphasize marketing of its core products to children; at best, Kraft's marketing practices blur distinctions among products and age targets.

These companies' practices are typical of this industry. PepsiCo and General Mills, for example, also self-identify "better" choices with "Smart Spots" (59) and "Goodness Corners," respectively. In

Table 6: Selected events in attempts to regulate food marketing to children in the United States

<i>Year</i>	<i>Event</i>
1970	Action for Children's Television (ACT) petitions Federal Communications Commission (FCC) to ban advertising on children's television programs.
1971	Advertising industry creates the self-regulating National Advertisers Review Council (NARC).
1972	FCC denies ACT petition because "a commercial broadcast regime dependent on advertising revenue would eliminate most children's programs if ads on them were banned." Association of National Advertisers issues voluntary guidelines.
1974	FCC limits commercials on children's television programs to 12 min/h on weekdays, 9.5 min/h on weekends. Advertising industry establishes self-regulatory Children's Advertising Review Unit (CARU).
1975	CARU publishes self-regulatory guidelines for children's advertising.
1978	Federal Trade Commission (FTC) proposes banning television advertising to children under the age of 8 years and restricting advertising of sugary foods to children.
1980	Under industry pressure, Congress passes "FTC Improvement Act;" limits FTC's authority to regulate children's advertising.
1984	Cable Communications Policy Act deregulates commercial television; allows unlimited time for commercials.
1990	Children's Television Act limits commercials during children's weekday programs to 12 min/h and 10.5 min/h on weekends (limits still in effect).
2004	NARC publishes White Paper on industry self-regulation; promises improvements.
2005	FTC holds workshop on Marketing, Self-Regulation, and Childhood Obesity; urges better self-regulation.

2005, General Mills added whole grains to all of its cereals, thereby creating Whole Grain Cocoa Puffs and Count Chocula – and increasing the fiber content of both from zero to one gram per serving (60). Such small improvements permit companies to market products as "better" and to increase sales to health-conscious consumers.

Are such changes meaningful? “Better-for-you” products still contain calories. Whether eating nutritionally enhanced products helps prevent childhood obesity remains to be discovered. But the “better-for-you” approach raises a troubling question, one similar to that asked of cigarette companies (27): Why do companies *make* foods of inferior nutritional quality for children?

Childhood obesity poses an impossible dilemma for the food industry. Children should be eating fruits, vegetables, and whole grains, not highly processed convenience and junk foods, even if “better.” But food companies are businesses; their first allegiance is to investors. From a business standpoint, it costs less – and is more profitable – to develop “better” versions of usual products than to offer minimally processed foods that really are better for health.

Government agencies, consumer advocates, lawyers, and investment analysts have all placed food companies on notice that childhood obesity requires new business practices. In response, companies have tinkered with product formulas and promised to shift marketing efforts toward “healthier” products, while continuing to make and promote unhealthier versions. This “we offer choice” business strategy suggests that food companies cannot resolve the childhood obesity dilemma on their own. For business reasons alone, they cannot – and will not – stop making and marketing nutritionally questionable food products to children.

We see no way out of this dilemma except through regulatory intervention. The IOM food marketing report lists 50 countries that have instituted some curbs on advertising to children (4). These need to be extended to hold companies accountable for their public statements, and to set firm, enforceable limits on all forms of food and beverage marketing to children. We are aware of arguments that changing just one societal determinant of childhood obesity is insufficient for prevention. Perhaps, but the evidence that links food marketing to children’s health is strong enough to warrant immediate intervention.

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