

In 2010, researchers at the Yale Rudd Center for Food Policy & Obesity issued *Fast Food FACTS*.<sup>1</sup> The report examined the nutritional quality of fast food menus, advertising on TV and the internet, and marketing practices inside restaurants. Three years later – using the same methods as the original *Fast Food FACTS* – this report quantifies changes in nutrition and marketing of fast food to children and teens.

The findings in the 2010 *Fast Food FACTS* report raised significant concerns about the effects of fast food marketing on the health of young people. Although all restaurants studied did offer some nutritious options, most fast food menu items – including kids' meal items – contained more calories, saturated fat, sugar, and/or sodium than recommended. The industry spent \$4.2 billion on advertising to encourage frequent visits to fast food restaurants, targeting children as young as two years old. From 2003 to 2009, fast food TV advertising to children and teens increased by more than one-third, and the majority of fast food ads viewed by youth promoted restaurants' high-calorie, nutritionally poor regular menu items.

Since 2010, restaurants have implemented improvements. McDonald's and Chick-fil-A introduced healthier kids' meal options.<sup>2</sup> Burger King and Sonic were among the first restaurants to join the National Restaurant Association's Kids LiveWell program and promised to offer at least one healthy meal and individual item for children.<sup>3</sup> Restaurants also introduced healthier items to their regular menus, such as Burger King's grilled chicken wraps and fruit smoothies<sup>4</sup> and Wendy's salads.<sup>5</sup> At the same time, restaurants also introduced unhealthy items. For example, Taco Bell rolled out Doritos Locos Tacos, and Burger King introduced its Bacon Sundae. Both were supported by sophisticated marketing campaigns appealing to youth audiences.<sup>6</sup>

Research published since 2010 also documents the need for continued concern about potential negative effects of fast food marketing on the diets of children and teens. More than one-third of youth consumed fast food on the previous day, including 33% of children (ages 2-11) and 41% of teens (ages 12-19).<sup>7</sup> By comparison, 36% of adults consumed fast food on the previous day. When visiting fast food restaurants, the majority of children and teens order regular menu items, combo meals, and/or value menu items.<sup>8</sup> At burger restaurants, only 44% of children under 6 and 31% of children ages 6 to 12 receive a kids' meal. In addition, since 2007 visits to fast food restaurants that included a kids' meal purchase have declined,<sup>9</sup> with a 5% drop from 2010 to 2011.<sup>10</sup> Further, one-quarter of teen visits to fast food restaurants were for an afternoon snack, a higher proportion of visits compared with all other age groups.<sup>11</sup> Finally, consuming fast food increases daily calorie intake by 126 calories for children and 310 calories for teens, as well as consumption of sugary drinks, total sugar, saturated fat, and sodium.<sup>12</sup>

Objective and transparent data are necessary to evaluate restaurants' progress in reducing marketing that promotes consumption of unhealthy fast food by children and teens.

## Methods

Whenever possible, we used the same methods as the first *Fast Food FACTS* report to evaluate changes over time. The marketing analyses in this report focus on 18 restaurants: the 12 restaurants highlighted in the 2010 report plus six additional restaurants that ranked among the top-15 fast food restaurants in U.S. sales and/or had child-targeted messages on their websites and national TV advertising in 2012. The nutrition analyses exclude the pizza and coffee restaurants and focus on 12 restaurants. Time frames for the marketing analyses vary, but most analyses evaluate data through 2012. Nutrition data were collected in February 2013. It should be noted that fast food menus and marketing practices change continuously. The information presented in this report does not include new products or product reformulations, advertising campaigns, website redesigns, or other marketing programs introduced after July 2013.

Researchers collected menu item nutrient data from restaurant websites, supplemented by visits to fast food restaurants and calls to consumer helplines. We evaluate the nutritional quality of kids' meals and individual menu items on restaurant menus according to several criteria. The Nutrition Profiling Index (NPI) score provides a measure of the overall nutritional composition of individual menu items. The NPI score is based on the nutrition rating system established by Rayner and colleagues for the Food Standards Agency in the United Kingdom.<sup>13</sup> To identify reasonable portion sizes for children and adolescents, we also compare total calories and total sodium for kids' meals and regular menu items against standards established by the Institute of Medicine's (IOM) School Meal guidelines for preschoolers, elementary school-age children, and teenagers.<sup>14</sup> Lastly, we evaluate menu items according to other established criteria for nutrition quality, including the Children's Food and Beverage Advertising Initiative's (CFBAI) new uniform category-specific nutrition criteria for meals that can be advertised in child-directed media<sup>15</sup> and the National Restaurant Association's Kids LiveWell nutrition standards for healthy children's meals.<sup>16</sup>

The marketing analyses document advertising spending and marketing on TV and in digital media (restaurant websites, display advertising on third-party websites, social media, and mobile devices). We also identify marketing that appears to be targeted to children, teens, and black and Hispanic youth. Sources of marketing data include media exposure and spending data purchased from Nielsen and comScore, content analyses of advertisements on children's TV, and additional analyses using information collected from company websites and monitoring of business and consumer press.

## Nutrition results

Kids' meal options have improved since 2010. Most restaurants offer more healthy sides and beverages and some also offer healthy main dishes for their kids' meals. Restaurants also added a few new healthy options to their regular menus. However, nearly all items on fast food menus – including kids' meal items – exceed recommended levels of calories, saturated fat, sodium, and/or sugar for children and teens.

From 2010 to 2013, the nutritional quality of individual items offered with kids' meals improved at some restaurants. All restaurants except Taco Bell offered at least one healthy side option for their kids' meals; three-quarters of restaurants with kids' meals increased healthy beverage options; and McDonald's introduced half-portions of french fries and apples as the default sides in Happy Meals. There was also a 54% increase in the number of different kids' meals available, consisting of a kids' main dish, side, and beverage. In total, the 12 restaurants examined in 2013 with special kids' menus offered 5,427 possible kids' meal combinations.

However, there was no change in the percent of kids' meal combinations that qualified as healthy meals for children. As in 2010, less than 1% of all kids' meal combinations met recommended nutrition standards: just 33 possible kids' meals met all nutrition criteria for elementary school-age children and 15 met standards for preschoolers. Kids' meal main dishes were especially problematic. Only five restaurants (Subway, Burger King, Taco Bell, Arby's, and Jack in the Box) offered even one kids' meal main dish option that was not too high in saturated fat and/or sodium. Further, just 3% of kids' meal combinations met the industry's own revised CFBAI nutrition standards or Kids LiveWell standards.

On regular menus, there was also a dramatic increase in the number of menu items offered by fast food restaurants, but the proportion of healthy versus unhealthy menu items remained the same. From 2010 to 2013, McDonald's, Subway, Burger King, and Taco Bell averaged 71 additional menu items per restaurant (+35%), and the number of snack and dessert items offered increased 88%. McDonald's continued to have the highest proportion of menu items that met nutrition criteria for teens (24%). At Burger King, Subway, and Wendy's, no more than 20% of items qualified as nutritious. McDonald's, Subway, Taco Bell, and Sonic did advertise healthy menus consisting of items they designated as healthier or lower-calorie. However, less than half of healthy menu items at McDonald's, Subway, and Sonic met all nutrition criteria. Healthy menus from Subway and Sonic were less likely to meet nutrition criteria in 2013 than in 2010. In addition, all restaurants continued to offer large or extra-large soft drinks with 350 to 850 calories per serving and burger restaurants offered large french fries with 470 to 610 calories.

## Marketing results

In 2012, fast food restaurants spent \$4.6 billion in total on all advertising, an 8% increase over 2009. For context, the biggest advertiser, McDonald's, spent 2.7 times as much to advertise its products (\$972 million) as all fruit, vegetable, bottled water, and milk advertisers combined (\$367 million).

On average, U.S. preschoolers viewed 2.8 fast food ads on TV every day in 2012, children (6-11 years) viewed 3.2 ads per day, and teens viewed 4.8 ads per day. Six companies were responsible for more than 70% of all TV ads viewed by children and teens: McDonald's, Subway, Burger King, Domino's, Yum! Brands (Taco Bell, Pizza Hut, KFC), and Wendy's.

## Marketing to children

There were a few positive developments in fast food marketing to children. From 2009 to 2012, total fast food TV advertising seen by children ages 6 to 11 declined by 10%. McDonald's and Burger King (the two biggest advertisers in 2009) reduced their advertising to children by 13% and 50%, respectively. Marketing to children on the internet also declined. Three popular child-targeted websites (Dairy Queen's DeeQs.com, McDonald's LineRider.com, and Burger King's ClubBK.com) were discontinued, as was McDonald's site for preschoolers (Ronald.com). Just one site (HappyMeal.com) had more than 100,000 monthly unique child visitors in 2012, compared with four sites in 2009.

However, there are many reasons for continued concern. Despite the decline in TV advertising to 6- to 11-year-olds, advertising to very young children (ages 2-5) did not change from 2009 to 2012, and the majority of fast food restaurants stepped up their TV advertising to children. Among the top-25 advertisers, 19 increased advertising to preschoolers, and 14 increased ads to older children. Of note, Domino's and Wendy's increased advertising to children by 44% and 13%, respectively, which were approximately six times their rates of increase in advertising to teens. Further, McDonald's continued to advertise more to children than to teens or adults on TV – the only restaurant to do so. On the internet, McDonald's also placed 34 million display ads for Happy Meals per month – up 63% from 2009. Three-quarters of Happy Meal ads appeared on kids' websites, such as Nick.com, Roblox.com, and CartoonNetwork.com. In addition, child-targeted advergames (i.e., branded games) have gone mobile with McDonald's "McPlay" and Wendy's "Pet Play Games" mobile apps.

A few restaurants did advertise their healthier kids' meals, but kids' meals represented only one-quarter of fast food ads

viewed by children on TV. McDonald's Happy Meals were the most frequently advertised products to children, followed by Domino's pizza, Subway sandwiches, Wendy's lunch/dinner items, and Pizza Hut pizza. Burger King and Subway kids' meals ranked 16 and 19, respectively. In apparent contradiction of Children's Advertising Review Unit (CARU) guidelines that advertising to children must focus primarily on the product being sold (i.e., food),<sup>17</sup> Subway placed ads with a primary focus on the brand (not the food) on children's networks, and Burger King placed ads that focused primarily on child-targeted promotions. In addition, Wendy's and Subway advertised regular menu items – including Frostys, Baconator burgers, and Footlong sandwiches – directly to children on children's networks, including Nickelodeon and Cartoon Network. McDonald's advertised its Filet-o-fish sandwich and other regular menu items on kids' websites, including Nick.com and CartoonNetwork.com.

## Marketing to teens

There were fewer positive trends in fast food marketing to teens. The overall nutritional quality of fast food products advertised to teens on TV did improve. Although the average number of fast food TV ads viewed by teens did not change from 2009 to 2012, average calories in TV ads viewed declined 16%, and the proportion of calories from sugar and saturated fat improved from 37% in 2010 to 28% in 2013. In addition, the number of display ads placed by fast food restaurants on youth websites declined by more than half, from 470 million ad views per month in 2009 to 210 million in 2012.

However, several restaurants continued to target teens directly with marketing for unhealthy products. Although teens watch 30% less TV than do adults, they saw as many or more TV advertisements for Taco Bell, Sonic, and Starbucks compared with adults. Thus these restaurants likely purchased advertising in media viewed by relatively more adolescents than adults. Burger King Smoothies were the only nutritious regular menu item among those advertised most frequently to teens. In addition, three restaurants substantially increased their display advertising on youth websites: KFC (+138%), Subway (+450%), and Starbucks (+330%). In contrast to the decline in child visits to restaurant websites, the number of teen visitors increased for more than half of the websites analyzed both in 2010 and 2013, including Subway.com (+102%), Starbucks.com (+92%), and McDonald's.com (+75%). Three fast food websites (PizzaHut.com, McDonalds.com, and Dominos.com) averaged 270,000 or more unique teen visitors per month.

Further, fast food marketing via mobile devices and social media – media that are popular with teens<sup>18,19</sup> – grew exponentially in the three years examined. Fast food restaurants placed six billion display ads on Facebook in 2012, 19% of all their online display advertising. Dunkin' Donuts and Wendy's placed more than one-half of their online ads on Facebook. Starbucks was most popular on social media, with 35 million Facebook

likes and 4.2 million Twitter followers, followed by McDonald's and Subway, which each had 23+ million Facebook likes and 1.4+ million Twitter followers. From 2010 to 2013, increases in the number of Facebook likes and Twitter followers ranged from 200% to 6400%. Six fast food restaurants had more than 10 million likes on Facebook in 2013. Taco Bell's YouTube videos were viewed nearly 14 million times. In addition, ten restaurants offered branded smartphone apps with interactive features, including order functions and special offers. Papa John's and Pizza Hut mobile apps averaged 700,000+ unique visitors per month.

## Targeted marketing to racial and ethnic minority youth

Fast food restaurants also continued to target black and Hispanic youth, populations at high risk for obesity and related diseases.<sup>20</sup> Increased advertising on Spanish-language TV raises special concerns. Combined advertising spending on Spanish-language TV by all fast food restaurants increased 8% from 2009 to 2012. KFC and Burger King increased their spending by 35% to 41% while reducing English-language advertising, and Domino's and Subway increased Spanish-language advertising by more than 15%. Hispanic preschoolers' exposure to fast food ads on Spanish-language TV increased by 16% reaching almost one ad viewed per day. They also saw 100 more of these ads than older Hispanic children or teens saw. However, just 5% of Spanish-language ads viewed by Hispanic children promoted kids' meals.

As in 2009, black children and teens saw approximately 60% more fast food ads than white youth, due largely to greater TV viewing. However, advertising for Starbucks, Popeyes, Papa John's, and some Burger King products appeared during programming watched relatively more often by black youth. Black and Hispanic youth were more likely than their white and non-Hispanic peers to visit one-third or more of all fast food websites. For instance, Hispanic youth were 30% more likely to visit HappyMeal.com, and black youth were 44% more likely to visit the site.

## Recommendations

This report documents a few positive developments in the nutritional quality of fast food menu offerings and marketing to children. However, the pace of improvement is slow and unlikely to reduce young people's overconsumption of high-calorie, nutritionally poor fast food.

**Fast food restaurants must do more to improve the overall nutritional quality of the products they sell.**

- Participating restaurants are only required to apply CFBAI nutrition standards to kids' meals presented in their advertising,<sup>21</sup> while Kids LiveWell restaurants must offer

just one meal that meets program standards.<sup>22</sup> Industry standards for healthy kids' meals should apply to the majority of kids' meal combinations available for purchase – not a mere 3%.

- Automatically providing healthier sides as the default option for kids' meals works. McDonald's switch to smaller portions of apples and french fries has increased the percent of children who receive fruit with their kids' meals: 28% in 2010 versus 86% in 2013.<sup>23</sup> All fast food restaurants should make healthy sides and beverages the default in their kids' meals.
- Restaurants should increase the proportion of lower-calorie, healthier items on their menus and make them available at a reasonable price.

### Fast food restaurants should stop targeting children and teens with marketing that encourages frequent visits to restaurants.

- Restaurants should stop advertising anything but the healthiest children's menu items on children's TV networks and third-party kids' websites.
- Restaurants should stop targeting children with marketing practices that take advantage of their developmental vulnerabilities or reach them behind parents' backs. These practices include TV ads that focus on branding or promotions instead of food, mobile advergame apps, and

online advertising with links to kids' advergame sites.

- Preschoolers should not be exposed to daily ads for regular menu items – advertisers should revise their media plans to ensure that very young children are protected from these messages. In particular, advertisers on Spanish-language TV must do more to keep their unhealthy messages from these very young and vulnerable viewers.
- Restaurants should acknowledge that teens are also highly influenced by advertising and deserve protection from marketing for fast food products that can damage their health.
- Definitions of child-targeted marketing used in industry self-regulation should include children in middle school aged 12-14.
- Restaurants also should establish age limits on fast food marketing to youth via social media and mobile devices – venues that take advantage of teens' greater susceptibility to peer influence and impulsive actions.<sup>24</sup>

To ensure the health of our children, restaurants must do much more to reduce young people's overconsumption of fast food that is high in calories, saturated fat, sodium, and sugar. If restaurants choose instead to make healthy menu items the norm, not the exception, and market them more effectively, fast food restaurants could attract lifelong customers who will also live longer, healthier lives.