



Fast Food f.a.c.t.s.

Food Advertising to Children and Teens Score

2013



Measuring Progress in Nutrition and Marketing to Children and Teens



YALE RUDD CENTER
FOR FOOD POLICY & OBESITY

Fast Food FACTS 2013: Measuring Progress in Nutrition and Marketing to Children and Teens

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In 2010, researchers at the Yale Rudd Center for Food Policy & Obesity issued *Fast Food FACTS*.¹ 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.² 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.³ Restaurants also introduced healthier items to their regular menus, such as Burger King's grilled chicken wraps and fruit smoothies⁴ and Wendy's salads.⁵ 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.⁶

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).⁷ 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.⁸ 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,⁹ with a 5% drop from 2010 to 2011.¹⁰ 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.¹¹ 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.¹²

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.¹³ 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.¹⁴ 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 media¹⁵ and the National Restaurant Association's Kids LiveWell nutrition standards for healthy children's meals.¹⁶

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),¹⁷ 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^{18,19} – 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.²⁰ 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,²¹ while Kids LiveWell restaurants must offer

just one meal that meets program standards.²² 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 2013.²³ 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.²⁴

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.

In 2010, the Yale Rudd Center for Food Policy & Obesity issued *Fast Food FACTS*.¹ The report examined the nutritional quality of fast food menus, advertising on TV and the internet, and marketing practices inside restaurants. The report focused on the 12 largest fast food restaurants and highlighted marketing targeted to children, teens, and black and Hispanic youth in 2009.

The results demonstrated that fast food marketing contributes to poor diet and obesity among young people (see **Table 1**). Although all restaurants studied did offer some nutritious options, most fast food menu items – including kids' meal items – contained higher than recommended levels of calories, fat, sugar, and/or sodium. The industry spent \$4.2 billion on advertising to encourage frequent visits to fast food restaurants, while marketing inside the restaurants, including

signs, pricing, and default options, encouraged purchases of higher-calorie and less nutritious menu options. Children as young as two years old were frequent targets of marketing for kids' meals, and several restaurants targeted teens and minority youth with advertising for high-calorie and nutritionally poor items. Further, fast food advertising to youth increased by more than one-third from 2003 to 2009, and the majority of fast food ads viewed by children and teens promoted restaurants' regular menu items – not their kids' meals.

The 2010 *Fast Food FACTS* report also documented the consequences of aggressive marketing of nutritionally poor foods and beverages. Most children (84%) visited fast food restaurants at least once per week. McDonald's child-directed advertising was especially effective: customers reported that 41% of children under 12 asked to go to McDonald's at least once per week and 15% asked to go every day. Once inside McDonald's, Burger King, and Wendy's, customers automatically received french fries and soft drinks when

Table 1. Fast Food FACTS 2010: Key findings

Fast food menu nutritional quality

- Only 12 of 3,039 possible kids' meal combinations met nutrition criteria for preschoolers; 15 met nutrition criteria for older children.
- Of the 2,900 regular menu items examined, just 17% qualified as healthy choices for teens.
- Eight restaurants promoted healthy menus, and these menus contained items that were more likely to meet nutrition criteria. Some restaurants also offered dollar/value menu items with smaller portions (and fewer calories) at a lower price.
- Five restaurants offered 40-ounce or larger fountain drinks (470+ calories) and three offered french fries in a 180-gram or larger size (500+ calories).

Traditional advertising to children and teens

- Advertising spending was highly concentrated with seven restaurants responsible for 60% of spending. McDonald's alone spent \$900 million, 21% of the total.
- On average, preschoolers (2-5 years) saw 2.8 TV ads per day for fast food in 2009; children (6-11 years) saw 3.5; and teens (12-17 years) saw 4.7.
- Children's and teens' exposure to fast food TV ads increased from 2007 to 2009, including ads for McDonald's and Burger King. These restaurants had pledged to improve advertising to children through the Children's Food and Beverage Advertising Initiative (CFBAI).
- Child-targeted TV advertising did not promote healthy eating. McDonald's ads featured the smiling Happy Meal box, while Burger King ads focused on kids' meal promotions.
- Just one-third of TV ads viewed by children promoted healthier kids' meals. Children also frequently saw ads for lunch/dinner items (30% of ads viewed) and dollar/value menus (15%).
- Taco Bell and Burger King targeted teens with their TV advertising. Dairy Queen, Sonic, and Domino's targeted teens with ads for desserts and snacks.
- Snacks and desserts marketed directly to teens contained as many as 1,500 calories, five times the recommended calories for snacks consumed by active teens.

Digital marketing to children and teens

- McDonald's maintained 13 different websites that attracted 365,000 unique child visitors and 294,000 unique teen visitors per month.
- McDonald's also offered a website targeted to preschoolers (Ronald.com), and McDonald's and Burger King offered sophisticated child-targeted websites with advergames and virtual worlds (McWorld.com, HappyMeal.com, and ClubBK.com). Subway and Dairy Queen also targeted children online.
- On average, restaurants placed one-quarter of their banner advertising on youth-targeted websites. Domino's and Pizza Hut placed the most banner ads, seen on average seven times by 70 million viewers per month.
- Starbucks' Facebook page had more than 11 million Facebook fans as of July 2010, while eight other restaurants had more than one million fans. Four restaurants had more than one million video views on their YouTube channels.
- Eight fast food restaurants offered smartphone apps to reach young people anytime, anywhere.

Marketing targeted to black and Hispanic youth

- Hispanic preschoolers saw 290 fast food ads on Spanish-language TV in 2009. McDonald's was responsible for one-quarter of this exposure.
- Black children and teens saw at least 50% more TV ads for fast food than their white peers. McDonald's and KFC specifically targeted black youth with TV ads, targeted websites, and banner ads on third-party websites.
- Approximately one-half of fast food websites (20 of 39) were visited more often by black youth than by white youth.

Source: Fast Food FACTS (2010)

ordering a kids' meal. Not surprisingly, children were most likely to get chicken nuggets, french fries, and a sugary soft drink when they visited a fast food restaurant. Further, teens purchased 800 to 1,200 calories in an average fast food meal, with 30% or more of those calories consisting of sugar and saturated fat.

Continued concerns about fast food marketing to youth

Since Fast Food FACTS came out in 2010, new studies have further demonstrated harmful effects of consuming fast food. More than one-third of youth consumed fast food on the previous day, including 33% of children (2-11 years) and 41% of teens (12-17 years).² On days when they eat fast food, children consume 126 additional calories and teens consume 310 more.³ Fast food consumption also increases child and teen intake of sugar, saturated fat, total fat, sodium, and sugary drinks, while reducing milk intake. Middle school students (7th and 8th graders) who attend a school within one kilometer of a fast food restaurant have a worse overall diet than students in other schools.⁴

Recent research also shows that exposure to fast food advertising is associated with increased fast food consumption by young people. An increase in TV ads for fast food viewed by children is associated with a subsequent rise in fast food visits, as well as increased BMI for children already at risk of overweight.⁵ In Quebec, advertising targeted to children under age 13 is banned. As a result, researchers estimate that fast food visits by French Canadian households have been reduced by 13% per week and these households consume 5.6 to 7.8 billion fewer fast food calories per year.⁶

Despite evidence of its harmful effects, fast food restaurants continue to target children and teens in their marketing. The fast food category represented the highest proportion of food ads viewed by youth in 2011 on all child- and youth-oriented networks, except Nickelodeon (where children viewed cereal ads more often).⁷ Fast food represented 34 to 44% of food ads viewed on MTV, FX, and Adult Swim (programming that airs at night on the Cartoon Network channel). From 2006 to 2009, fast food marketing expenditures targeted to children and teens (excluding the cost of kids' meal toys) increased 22%, and TV advertising expenditures aimed at children increased 60%.⁸

Additional evidence demonstrates that fast food marketing disproportionately affects low-income, black, and Hispanic youth who are also at greater risk for overweight and obesity.⁹ A meta-analysis of studies measuring fast food restaurant prevalence found significantly greater access to fast food for young people living and/or going to school in low-income and minority neighborhoods.¹⁰ There was a stronger association between attending school near a fast food restaurant and higher body weight for black and Hispanic youth in low-income urban schools compared with white youth attending high-income, non-urban schools.¹¹ Fast food restaurants

located in lower-income areas and those with higher black and Latino populations also had more exterior advertising, which was more likely to promote dollar/value menus (i.e., the lowest priced items).¹² In the analysis of fast food consumption and diet quality among youth, lower-income children and teens also exhibited greater negative effects from consuming fast food than their higher-income peers.¹³ Further, fast food ads represented almost one-half of food ads that appear on Spanish-language children's TV¹⁴ and 30% of food ads viewed by Hispanic youth on Spanish-language TV,¹⁵ significantly higher than rates of fast food advertising on English-language TV.

However, marketing designed to increase children's consumption of healthier fast food choices could also be effective. In one experimental study, young children (3-8 years old) were randomly assigned to watch a McDonald's commercial that featured either apple dippers or french fries.¹⁶ Children were subsequently more likely to choose a coupon for the advertised side, whether or not their parent encouraged them to select the "healthy choice" or "whatever you want" (as randomly instructed by the researcher). This study also demonstrates how difficult it can be for parents to counteract the effects of unhealthy food advertising on their children. Another study showed that children (6-12 years old) were twice as likely to select a kids' meal with apples and water versus fries and a soda when only the meals with the healthy options were offered with a toy.¹⁷

Fast food industry actions

In light of powerful evidence that extensive fast food marketing to children and teens negatively affects their diet, the Rudd Center made a number of recommendations in our 2010 report to improve fast food nutritional quality and marketing to children and teens (see **Table 2**). Public health advocates also have called for improvements in restaurant menus and youth-targeted marketing practices. Both Santa Clara County and the city of San Francisco enacted legislation to require that kids' meals with toys meet minimum nutrition standards.¹⁸ The Food Marketing Workgroup, a coalition of more than 180 organizations and experts dedicated to improving the food marketing landscape to children, recently called on Dairy Queen and other restaurants to improve the nutritional quality of kids' meals.¹⁹ Corporate Accountability International has demanded that McDonald's retire its iconic "Ronald McDonald" clown character,²⁰ and the Center for Science in the Public Interest (CSPI) urged restaurants to include healthier options as the default items in kids' meals.²¹

Some fast food restaurants appear to have heard these concerns and have taken actions to address them, such as offering healthier kids' meal options. For example, in July 2011 McDonald's announced that it would reduce the portion size of french fries by more than half and automatically include a small portion of apples in its Happy Meals.²² Also in 2011, the National Restaurant Association launched its Kids LiveWell

Table 2. Fast Food FACTS 2010: Recommendations**Establish meaningful standards for child-targeted marketing**

- Apply standards to all fast food restaurants, not just to restaurants that voluntarily participate in the CFBAI (i.e., McDonald's and Burger King).
- Apply nutrition criteria to kids' meals served, not just items pictured in child-targeted advertising.
- Expand the definition of child-targeted marketing beyond marketing exclusively targeted to children under 12 to include TV ads for non-kids' meal products and other forms of marketing commonly viewed by children.

Stop marketing directly to preschoolers

- McDonald's was the only restaurant to exhibit this practice in 2009.

Develop more lower calorie and nutritious menu items

- Increase the number of healthy items on menus.
- Reformulate popular main dish items to decrease saturated fat, sodium, and calories.
- Develop kids' meal options that are appropriate for both preschoolers and older children.

Do more to promote lower calorie and more nutritious menu items inside restaurants

- Make healthier sides and beverages the default option when ordering kids' meals.
- Make the smallest size and healthier versions of all menu items the default.
- Make menu item portion sizes (e.g., small, medium, large) consistent across restaurants.

Source: Fast Food FACTS (2010)

program, in which participating fast food and other restaurants pledged to offer at least one full children's meal and one other individual menu item that met the program's standards for healthful menu options.²³ In 2012, Chick-fil-A announced that it would offer grilled chicken nuggets in its kids' meals to reduce calories by more than one-half.²⁴ Burger King also introduced healthier options to its regular menu, including chicken wraps, smoothies, and Caesar salads,²⁵ and Wendy's introduced a line of "Garden Sensation" salads.²⁶

Offering healthier options appears to be good for restaurants' business. *QSR Magazine* listed "healthy kids' meals" and "more fruits and vegetables" as two trends that are most likely to impact quick-service restaurants this year.²⁷ Chain restaurants that increased the number of lower-calorie items sold from 2006 to 2011 demonstrated a greater same-store sales increase than restaurants that did not increase sales of lower-calorie items.²⁸ McDonald's 2011 announcement that it was changing the default side options in its Happy Meals significantly increased the restaurant's "buzz score" among parents (i.e., they responded positively to the news).²⁹

In contrast, other recent developments raise questions about restaurants' commitments to increasing the overall nutritional quality of the products they sell. In addition to healthier trends, *QSR Magazine* also listed "snacks as meals" (i.e., offering smaller options for "around-the-clock eating") and "innovative beverages" (including juices, energy drinks, and soda options) as top trends for 2013.³⁰ McDonald's executives cited some of the less nutritious items on its menu (i.e., breakfast options, McCafe drinks, and Chicken McBites) as key drivers of sales growth in 2011.³¹ Restaurants also have introduced extreme items such as Taco Bell's Doritos Locos Tacos with a shell made out of Doritos,³² Dunkin' Donuts' glazed-doughnut breakfast sandwich,³³ and Burger King's Bacon sundae.³⁴ The Doritos Locos Taco launch was accompanied by an augmented reality smartphone app and extensive promotion via Facebook and Twitter "to amp up the social buzz around

the event," expected to be the "biggest launch in Taco Bell's 50-year history."³⁵

The low cost of items on restaurants' dollar/value menus also appears to have cut into sales of kids' meals as parents continue to purchase fewer kids' meals and more value menu items for their children³⁶ (which also tend to be higher calorie and less nutritious than kids' meal options³⁷). In a 2010 survey of parents who took their 2- to 11-year-old child to one of four fast food restaurants for lunch or dinner, 70% of parents ordered a kids' meal.³⁸ However, this number varied widely by restaurant and age of child. For example, 82% of parents ordered a kids' meal for their young child (2-5 years old) at McDonald's, but just 27% of parents ordered a kids' meal at Subway for their older child (6-11 years old). Orders of dollar/value menu items for their children ranged from 20% (for young children at McDonald's) to 47% (for older children at Subway). In 2012, the NPD Group reports that kids' meals were purchased at just 44% of visits to burger restaurants with children under 6 and 31% of visits with 6- to 12-year-olds.³⁹

Research also demonstrates that nutritious options remain a small proportion of restaurant menus. In an evaluation of the full menus of five popular fast food restaurants, all scored lower than 50 out of a possible 100 points on the Healthy Eating Index, a measure of diet quality.⁴⁰ Restaurants scored especially poorly on availability of total fruit, whole grains, and sodium. A comprehensive analysis of changes in menus offered by eight fast food restaurants over 12 years showed a 54% increase in the number of food items offered (from 85 items per restaurant on average in 1997/98 to 130 items in 2009/10), and median calories per item increased or remained stable for six of these restaurants.⁴¹ Despite improvements, even most kids' meal options do not qualify as healthy. An analysis of 400 chain restaurants found that just 11% of kids' meal main dishes and 33% of sides met the restaurant industry's Kids LiveWell standards in 2009.⁴² Similarly, CSPI examined the 50 top restaurant chains in 2012 and found that 97% of the 3,494

possible kids' meal combinations offered did not meet expert nutrition standards for children's meals; 91% did not meet the restaurant industry's Kids LiveWell standards.⁴³

Some restaurants also have promised to market more responsibly to children. In 2011, Burger King announced that french fries and soda would no longer be the default for its kids' meals, rather parents would be asked to select a side and beverage (from choices that also included healthier sides and beverages).⁴⁴ In its advertising to kids, McDonald's committed to adding messages about healthy lifestyles or nutrition benefits in 2012.⁴⁵ It also launched "Champions of Play," a campaign to promote children's wellness, in connection with its sponsorship of the Olympic Games.⁴⁶ Participants in Kids LiveWell agree to promote or identify the healthy items on their kids' menus.⁴⁷ However, McDonald's and Burger King remain the only two restaurants that participate in the voluntary CFBAI program to improve food advertising to children under 12.⁴⁸ Finally, restaurants have not made any commitments to improve marketing to children older than age 11.

Measuring progress

Given this conflicting evidence of fast food restaurants' progress in improving the nutritional quality and marketing of kids' meals and other menu items to children and teens, objective and transparent data are necessary. The purpose of this report is to quantify changes in the nutritional quality and marketing of fast food to children and teens over the past three years and to identify further opportunities for improvement.

We focus our analyses on 18 restaurants, the 12 restaurants highlighted in the 2010 Fast Food FACTS 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. Nutrition data were collected in February 2013, and marketing analyses primarily evaluate data through 2012.

Utilizing the same methods as the first Fast Food FACTS report, we measure changes in:

- The nutritional quality of:
 - Kids' meal individual menu items and combinations of main dishes, sides, and beverages;
 - All regular menu items for the top-five traditional fast food restaurants; and
 - Dollar/value menus, healthy menus, and advertised products for the 18 restaurants;
- Advertising spending and TV advertising exposure, including advertising targeted to children and teens;
- Messages and products promoted in advertising that appeared on children's TV networks;
- Child and teen visits to restaurants' websites;
- Advertising on third-party websites, including kids' sites, youth websites, and Facebook;
- Fast food advertising on mobile websites and through mobile apps;
- Social media marketing on Facebook, Twitter, and YouTube; and
- Targeted marketing to black and Hispanic youth, including Spanish- and English-language TV advertising, restaurant websites, and advertising on third-party websites.

As part of her Let's Move campaign, First Lady Michelle Obama has called on restaurants to help create a "marketing environment that supports, rather than undermines, the efforts of parents" to raise healthy children,⁴⁹ and the National Restaurant Association has expressed "the restaurant industry's commitment to offer healthful options for children."⁵⁰ However, previous research shows that fast food remains among the top-two food categories marketed most often to children and teens,^{51,52} and exposure to this marketing contributes most often to excess calorie consumption and poor diet quality for young people.⁵³⁻⁵⁵ The findings in this report serve to evaluate fast food restaurants' true commitment to improving the unhealthy food and marketing environment that surrounds today's children and teens.

Overview of fast food market

| Fast food market | Definition |
|----------------------|---|
| Fast food restaurant | Fast food restaurants feature a common menu above the counter and provide no wait staff. Customers typically pay before eating and choose and clear their own tables. They are also known as quick serve restaurants (QSRs). |
| 2010 report focus | Twelve restaurants analyzed in detail in the Rudd Center 2010 Fast Food FACTS report. ¹ |
| 2013 report focus | Eighteen restaurants analyzed in detail in this report, including the restaurants highlighted in the 2010 report, plus six additional restaurants that met at least one of two criteria: 1) ranked among the top 15 in 2012 U.S. sales, or 2) had child-targeted messages on its website and national TV advertising. |

Table 3 presents total U.S. sales in 2012 for the top-20 fast food restaurants, as well as six additional restaurants that ranked in the top-25 for advertising spending on national TV in 2012. We also indicate the 12 restaurants that were the focus of the 2010 Fast Food FACTS report and the 18 restaurants detailed in this report.

Total U.S. sales for the 50 fast food restaurants with the most sales reached \$157 billion in 2012 – on average, \$1,335 annually per household.² McDonald's remained number one with \$35.6 billion in sales, almost one-quarter of all sales by the top-50 restaurants and almost three times the sales of Subway, its closest competitor. Sales at both Subway and

Table 3. Fast food restaurant sales

| Sales ranking | | Parent company | Restaurant | 2012 sales (millions) | % change vs 2009 | Report focus | |
|--|------|---------------------------|--------------------|-----------------------|------------------|--------------|-----------|
| 2012 | 2009 | | | | | 2010 (12) | 2013 (18) |
| 1 | 1 | McDonald's | McDonald's | \$35,600 | 15% | X | X |
| 2 | 2 | Doctor's Associates | Subway | \$12,100 | 21% | X | X |
| 3 | 5 | Starbucks Corporation | Starbucks | \$10,600 | 27% | X | X |
| 4 | 4 | Wendy's Company | Wendy's | \$8,600 | 3% | X | X |
| 5 | 3 | Burger King Holdings | Burger King | \$8,587 | -5% | X | X |
| 6 | 6 | Yum! Brands | Taco Bell | \$7,478 | 10% | X | X |
| 7 | 7 | Dunkin' Brands | Dunkin' Donuts | \$6,264 | 10% | X | X |
| 8 | 8 | Yum! Brands | Pizza Hut | \$5,666 | 13% | X | X |
| 9 | 12 | Chick-fil-A | Chick-fil-A | \$4,621 | 44% | | X |
| 10 | 9 | Yum! Brands | KFC | \$4,459 | -9% | X | X |
| 11 | 15 | Panera Bread | Panera Bread | \$3,861 | 38% | | X |
| 12 | 10 | Sonic Corp | Sonic | \$3,790 | -1% | X | X |
| 13 | 14 | Domino's Pizza | Domino's | \$3,500 | 15% | X | X |
| 14 | 13 | Jack in the Box | Jack in the Box | \$3,085 | 0% | | X |
| 15 | 11 | Roark Capital Group | Arby's | \$2,992 | -7% | | X |
| 16 | 18 | Chipotle | Chipotle | \$2,731 | 48% | | |
| 17 | 17 | Papa John's | Papa John's | \$2,402 | 17% | | |
| 18 | 16 | Berkshire Hathaway | Dairy Queen | \$2,300 | -13% | X | X |
| 19 | 20 | Popeyes | Popeyes | \$2,253 | 41% | | |
| 20 | 19 | CKE Restaurants | Hardee's | \$1,900 | 14% | | |
| 22 | 24 | Little Caesars | Little Caesars | \$1,684 | 34% | | X |
| 24 | 23 | CKE Restaurants | Carl's Jr. | \$1,400 | 7% | | |
| 32 | 18 | Quiznos | Quiznos | \$838 | -53% | | |
| 34 | 32 | LJS Partners | Long John Silver's | \$723 | 3% | | |
| 42 | 41 | Boston Market Corporation | Boston Market | \$559 | 9% | | |
| 46 | 39 | CiCi Enterprises | CiCi's Pizza | \$505 | 7% | | X |
| Focus of 2010 report (12 restaurants) | | | | \$108,944 | 10% | | |
| Focus of 2013 report (18 restaurants) | | | | \$125,692 | 11% | | |
| Top 25 national TV advertisers in 2012 | | | | \$138,498 | 13% | | |
| Top 50 restaurants (by sales in 2012) | | | | \$156,875 | 13% | | |

Source: *QSR Magazine*,³ includes restaurants that ranked in the top 20 by 2012 U.S. systemwide sales or the top 25 in 2012 advertising spending on national TV

Starbucks exceeded \$10 billion in 2012, and sales of five additional restaurants exceeded \$5 billion (Wendy's, Burger King, Taco Bell, Dunkin' Donuts, and Pizza Hut). In 2012, Chick-fil-A replaced Sonic in the top-ten restaurants by U.S. sales. Chipotle was the only restaurant that ranked in the top 20 in sales, but not the top 25 in spending on national TV.

Sales at the top-50 U.S. fast food restaurants increased 13% on average from 2009 to 2012. Sales at three smaller restaurants

went up by 40% or more (Chipotle, Chick-fil-A, and Popeyes), and sales at two additional restaurants increased 30% or more (Panera Bread and Little Caesars). Starbucks and Subway also had higher-than-average sales increases of 27% and 21%, respectively. The traditional burger restaurants fared less well. McDonald's 15% sales increase was the highest for this segment, but its two largest competitors (Wendy's and Burger King) saw an increase of 3% and a decline of 5%, respectively.

Fast food menu composition

In the menu composition analysis, we first examine kids' meals offered by any of the 18 restaurants in our detailed analysis. We then evaluate changes in nutrition quality of full menus for McDonald's, Subway, Wendy's, Burger King and Taco Bell (the top five in sales for 2012 among traditional fast food restaurants). Finally, we analyze the dollar/value and healthy menus, as well as sizes of soft drinks and french fries, offered by the 18 restaurants in our detailed analysis.

Kids' meals

| Kids' meals | Definitions |
|---|---|
| Kids' meal | A menu of items specifically designed for children. Kids' meals typically contain a main dish, side, and beverage. Many also come with a toy or other giveaway. |
| Kids' meal combinations | Possible combinations of main dish, side, and beverage that can be ordered in one kids' meal. |
| Nutrient Profile Index (NPI) score | Measure of overall nutritional quality that considers positive and negative nutrients in foods. Scores range from 0 (very poor) to 100 (excellent). This scoring is based on one developed by researchers in the United Kingdom for the Office of Communications (OFCOM) guidelines prohibiting junk food advertising to children. ⁴ Food products with a score of 64 or higher and beverages with a score of 70 or higher qualify as nutritious products that can be advertised to children in the United Kingdom. |
| Calorie limits: Children | Maximum acceptable calories for kids' meals, based on the Institute of Medicine (IOM) Committee on School Meals guidelines. ⁵ Kids' meals served to elementary school-age children should not exceed 650 calories and those served to preschool-age children should not exceed 410 calories. |
| Sodium limits: Children | Maximum acceptable sodium for kids' meals, based on the IOM Committee on School Meals guidelines. ⁶ Kids' meals served to elementary school-age children should not exceed 636 milligrams of sodium and those served to preschool-age children should not exceed 544 milligrams. |
| Kids LiveWell nutrition standards | Standards of the National Restaurant Association's voluntary program to identify healthful meals for children. Participating restaurants must offer at least one kids' meal combination that meets the following criteria: ⁷ maximum 600 calories and 770 milligrams sodium; no more than 35% of calories from total fat, 10% of calories from saturated fat, and 35% of calories from sugar; and less than 0.5 grams trans fat. Qualifying meals must also contain two sources of fruit, vegetable, whole grain, lean protein, or low fat dairy, but this requirement was not included in our analysis. |
| Children's Food and Beverage Advertising Initiative (CFBAI) uniform nutrition standards | Participating companies pledge to advertise only foods that meet nutrition standards to children under 12. ⁸ New uniform standards for fast food meals (to be implemented by the end of 2013) require a maximum of 600 calories and 740 milligrams sodium, 10% or less of calories from saturated fat, and less than 20 grams of sugar. ⁹ Qualifying meals must also contain a fruit, vegetable, whole grain, lean protein, low fat dairy, or fortification, but this requirement was not included in our analysis. |
| Interagency Working Group (IWG) standards | Guidelines recommended by four U.S. government agencies to identify healthful foods and beverages that are appropriate to market to children and adolescents. ¹⁰ Recommended limits per meal include 450 milligrams of sodium, 10% of calories from saturated fat, 0 grams trans fat, and 13 grams of added sugar. |

Table 4. Kids' meals offered by restaurant

| Restaurant | Kids' meal | CFBAI member | Kids LiveWell member | Notes |
|-----------------|-------------------------------|--------------|----------------------|--|
| McDonald's | Happy Meal, Mighty Kids' Meal | X | | The Mighty Kids' Meal comes with larger main dishes and french fries |
| Subway | Fresh Fit for Kids Meal | | | |
| Wendy's | Kids' Meal | | X | |
| Burger King | BK Kids Meal | X | X | |
| Taco Bell | Kid's Meal | | | |
| Chick-fil-A | Kids' Meal | | X | |
| KFC | Kids Laptop Meal | | | The meal comes with string cheese in addition to a side |
| Panera Bread | Panera Kids | | | Beverage must be purchased separately |
| Sonic | Wacky Pack Kids' Meal | | X | |
| Jack in the Box | Kids' Meal | | | |
| Arby's | Kids Menu | | X | |
| Dairy Queen | Kids' Meal | | X | The meal comes with a dessert |

Source: Menu composition analysis (February 2013)

Twelve restaurants in our detailed analysis offered kids' meals as of February 2013: eight of the 12 restaurants analyzed in 2010, plus Arby's, Jack in the Box, Chick-fil-A, and Panera Bread (see **Table 4**). Restaurants typically provided a main dish, side dish, and beverage in their kids' meals, but there were a few exceptions. Two restaurants also offered snack items: KFC included string cheese and Dairy Queen included a dessert. Beverages had to be purchased separately at Panera Bread, but we included a beverage in the nutrition analysis for uniformity. McDonald's offered two types of kids' meals: Happy Meals and larger Mighty Kids' Meals.

The nutritional quality of kids' meal menu items was relatively consistent from 2010 to 2013, with few changes in the number or proportion of main dishes, sides, or beverages that qualified as healthy according to NPI score (see **Table 5**). For all restaurants except Taco Bell, it was possible to order at least one side dish and one or more beverages with a healthy NPI score. However, main dish items remained the least nutritious component of most kids' meals. Although Subway offered only main dish options with healthy NPI scores, seven of the twelve restaurants did not offer even one. **Appendix Table C1** provides nutrition information for all kids' meal items included in this analysis.

Main dishes. As in 2010, Subway sandwiches were the most nutritious kids' meal main dishes, with a high median NPI score of 74. Other main dish options with a healthy NPI score included the bean burrito from Taco Bell and the grilled chicken strips from Jack in the Box, with scores of 70 and 68, respectively. However, not all grilled chicken items qualified as healthy. For example, grilled chicken kids' meal main dishes from Chick-fil-A and KFC exceeded sodium limits when combined with a side. Grilled cheese sandwiches from Sonic and Dairy Queen had the lowest NPI scores at 32. The macaroni and cheese from Panera Bread and the Jr. Cheeseburger Deluxe from Sonic contained the most calories

at 490 and 450, respectively. Panera Bread's macaroni and cheese also contained the most sodium (1,240 mg). In total, 42 main dish items (58% of total options) contained at least 640 milligrams of sodium, exceeding the IOM recommendation for an entire children's meal.

Side items. Sides remained the most nutritious component of most kids' meals. Most restaurants offered a fruit or non-fried side, typically apple slices, but healthy options also included a banana, applesauce, fruit cup, and green beans or corn. However, french fries were the most common side option. As in 2010, Taco Bell did not offer any kids' meal sides with a healthy NPI score. Wendy's kids' meals had a notable decrease in proportion of sides with a healthy NPI score, from 100% of sides in 2010 to 50% in 2013. The restaurant reformulated its french fries with higher sodium and saturated fat, which substantially reduced the score. NPI scores for french fries varied widely, from 46 at Chick-fil-A to 68 at McDonald's, largely due to differences in sodium and saturated fat content. Dairy Queen also increased the size of its child-sized french fries by 39%, from 71 to 99 grams. McDonald's change in default side options for its kids' meals (including a smaller portion of french fries in Happy Meals and a portion of apples in all kids' meals) reduced the calories in the Happy Meal by 115. However, adding apples increased the calories in its larger-sized Mighty Kids' Meals by 15 as this meal continued to receive the larger portion of french fries. Further, the 34-gram portion of apples included in every Happy Meal does not provide a full serving of fruit, as defined by USDA.¹¹ Also of note, the apple slices offered by McDonald's had a lower NPI score (66) than apple slices from other restaurants (78 at Burger King and 80 at Wendy's) due largely to lower fiber content as the apples are peeled.

Beverages. Every restaurant offered healthy beverages with their kids' meals, ranging from 20% of options at Taco Bell to 100% at Panera Bread. Healthier options included plain low fat

Table 5. NPI scores for kids' meal menu options

| Restaurant | Main dishes | | | |
|------------------------------|----------------|------------|---|-------|
| | Median (range) | | # of items with a healthy NPI score/total items | |
| | 2010 | 2013 | 2010 | 2013 |
| Subway | 71 (64-78) | 74 (68-78) | 8/8 | 8/8 |
| Taco Bell | 52 (38-68) | 61 (38-70) | 2/5 | 2/4 |
| KFC | 47 (38-60) | 53 (38-62) | 0/4 | 0/4 |
| Arby's | * | 50 (48-66) | | 1/4 |
| Burger King | 48 (40-66) | 49 (40-64) | 1/9 | 2/6 |
| Jack in the Box | * | 48 (36-68) | | 1/8 |
| McDonald's Happy Meal | 45 (40-50) | 47 (42-50) | 0/3 | 0/4 |
| McDonald's Mighty Kids' Meal | 44 (40-46) | 44 (42-48) | 0/3 | 0/3 |
| Wendy's | 42 (38-62) | 44 (40-50) | 0/5 | 0/5 |
| Panera Bread | * | 44 (40-50) | | 0/6 |
| Sonic | 44 (28-48) | 44 (32-48) | 0/5 | 0/6 |
| Chick-fil-A | * | 42 (34-60) | | 0/10 |
| Dairy Queen | 40 (32-46) | 38 (32-44) | 0/5 | 0/4 |
| Restaurant | Sides | | | |
| | Median (range) | | # of items with a healthy NPI score/total items | |
| | 2010 | 2013 | 2010 | 2013 |
| Subway | 71 (70-72) | 82 (82) | 2/2 | 1/1 |
| Taco Bell | 40 (40) | 40 (40) | 0/1 | 0/1 |
| KFC | 67 (24-86) | 64 (24-86) | 5/10 | 7/14 |
| Arby's | * | 68 (54-78) | | 2/3 |
| Burger King | 74 (52-80) | 70 (62-78) | 3/5 | 1/2 |
| Jack in the Box | * | 58 (50-70) | | 1/3 |
| McDonald's Happy Meal | 66 (66-78) | 66 (66-78) | 3/3 | 3/3 |
| McDonald's Mighty Kids' Meal | 66 (66-78) | 70 (68-78) | 3/3 | 3/3 |
| Wendy's | 72 (68-76) | 68 (56-80) | 2/2 | 1/2 |
| Panera Bread | * | 66 (66) | | 1/1 |
| Sonic | 66 (50-82) | 67 (52-82) | 3/5 | 3/4 |
| Chick-fil-A | * | 74 (46-78) | | 2/3 |
| Dairy Queen | 68 (58-78) | 72 (58-78) | 1/2 | 2/3 |
| Restaurant | Beverages | | | |
| | Median (range) | | # of items with a healthy NPI score/total items | |
| | 2010 | 2013 | 2010 | 2013 |
| Subway | 74 (72-76) | 69 (66-76) | 2/2 | 2/4 |
| Taco Bell | 66 (66-68) | 66 (60-70) | 0/9 | 2/10 |
| KFC | 66 (66-70) | 68 (66-70) | 1/19 | 10/27 |
| Arby's | * | 70 (64-76) | | 6/10 |
| Burger King | 69 (68-70) | 68 (66-72) | 6/12 | 6/17 |
| Jack in the Box | * | 66 (66-70) | | 4/12 |
| McDonald's Happy Meal | 68 (66-76) | 69 (66-76) | 4/9 | 6/12 |
| McDonald's Mighty Kids' Meal | 70 (66-76) | 70 (66-76) | 5/9 | 7/13 |
| Wendy's | 68 (60-72) | 66 (60-76) | 1/12 | 6/15 |
| Panera Bread | * | 73 (70-78) | | 4/4 |
| Sonic | 66 (64-76) | 67 (44-72) | 6/37 | 13/44 |
| Chick-fil-A | * | 70 (66-76) | | 6/10 |
| Dairy Queen | 67 (66-68) | 66 (64-70) | 0/8 | 2/12 |

*These restaurants were not included in the 2010 analysis
Source: Menu composition analysis (February 2010, 2013)

milk (offered by 11 restaurants), flavored milk (9 restaurants), and 100% juice (7 restaurants). Kids' meal beverages showed the greatest improvement from 2010 to 2013; the percent of beverages with healthy NPI scores increased for six of eight restaurants. By 2013, at least 30% of kids' meal beverages at every restaurant, except Dairy Queen and Taco Bell, met healthy NPI scores. However, ten of the twelve restaurants also offered fountain drinks with their kids' meals (only Subway and Panera Bread did not) in sizes ranging from 10 ounces at Arby's to 16 ounces at KFC and Taco Bell.

Kids' meal combinations

There were 5,427 possible kids' meal combinations available from the 12 restaurants analyzed in 2013. The number of combinations at the restaurants included in our 2010 analysis increased 54%, from 3,039 to 4,695, and all restaurants but two offered more kids' meal combinations in 2013 than in 2010. This increase was due in large part to more beverage offerings at most restaurants (see **Table 5**). For instance, 44 different beverages could accompany Sonic's Wacky Pack kids' meal, an increase from 37 options three years earlier. On the other hand, Taco Bell reduced available combinations from 45 to

Table 6. Calorie and sodium content of kids' meal combinations

| Restaurant | Median (range) | Calories | | | |
|------------------------------|-----------------|---------------------------|-------------------------|---|-------------------------|
| | | Criteria for preschoolers | | Criteria for elementary school-age children | |
| | | Met calorie limits | Signif. diff. from 2010 | Met calorie limits | Signif. diff. from 2010 |
| Chick-fil-A*** | 390 (165-770) | 56% | | 93% | |
| Subway | 455 (285-565) | 47% | | 100% | |
| Arby's*** | 440 (205-670) | 42% | | 98% | |
| McDonald's Happy Meal | 455 (270-630) | 34% | | 100% | |
| KFC | 490 (165-790) | 32% | * | 91% | * |
| Wendy's | 515 (270-760) | 23% | | 88% | ** |
| Burger King | 532 (265-820) | 23% | | 79% | |
| Sonic | 565 (235-850) | 12% | * | 70% | ** |
| Jack in the Box*** | 608 (200-850) | 12% | | 59% | |
| Taco Bell | 560 (340-760) | 8% | | 78% | |
| McDonald's Mighty Kids' Meal | 685 (360-880) | 5% | | 41% | ** |
| Panera Bread*** | 555 (460-710) | 0% | | 83% | |
| Dairy Queen | 780 (450-1,040) | 0% | | 14% | * |

| Restaurant | Median (range) | Sodium | | | |
|------------------------------|-------------------|---------------------------|-------------------------|---|-------------------------|
| | | Criteria for preschoolers | | Criteria for elementary school-age children | |
| | | Met sodium limits | Signif. diff. from 2010 | Met sodium limits | Signif. diff. from 2010 |
| Chick-fil-A*** | 888 (330-1,350) | 9% | | 10% | |
| Subway | 670 (225-960) | 25% | | 41% | |
| Arby's*** | 733 (350-1,440) | 20% | | 31% | |
| McDonald's Happy Meal | 708 (480-955) | 6% | | 28% | * |
| KFC | 1,035 (465-1,845) | 9% | * | 15% | |
| Wendy's | 773 (490-1,170) | 9% | | 25% | |
| Burger King | 771 (415-1,250) | 15% | | 31% | |
| Sonic | 940 (475-1,810) | 6% | * | 16% | |
| Jack in the Box*** | 1,075 (565-1,440) | 0% | | 6% | |
| Taco Bell | 745 (520-1,370) | 18% | * | 23% | |
| McDonald's Mighty Kids' Meal | 1,010 (790-1,215) | 0% | | 0% | |
| Panera Bread*** | 1,058 (510-1,440) | 8% | | 13% | |
| Dairy Queen | 1,095 (810-1,600) | 0% | | 0% | |

*Significant increase in percent meeting limits ($p < .05$)

**Significant decrease in percent meeting limits ($p < .05$)

***These restaurants were not included in the 2010 analysis

Source: Menu composition analysis (February 2010, 2013)

Table 7. Kids' meal combinations available and the number that met all nutrition criteria

| Restaurant | 2010 | | | 2013 | | |
|------------------------------|------------------------|------------------------------|-------------------------------|------------------------|------------------------------|-------------------------------|
| | Available combinations | # met all preschool criteria | # met all elementary criteria | Available combinations | # met all preschool criteria | # met all elementary criteria |
| KFC | 760 | 0 | 0 | 1,512 | 0 | 0 |
| Dairy Queen | 880 | 0 | 0 | 1,440 | 0 | 0 |
| Sonic | 875 | 0 | 0 | 1,056 | 0 | 0 |
| Chick-fil-A | n/a | | | 300 | 0 | 0 |
| Jack in the Box | n/a | | | 288 | 0 | 2 |
| Burger King | 138 | 6 | 6 | 204 | 5 | 10 |
| Wendy's | 120 | 0 | 0 | 150 | 0 | 0 |
| McDonald's Happy Meal | 108 | 0 | 0 | 144 | 0 | 0 |
| Arby's | n/a | | | 120 | 11 | 12 |
| McDonald's Mighty Kids' Meal | 81 | 0 | 0 | 117 | 0 | 0 |
| Taco Bell | 45 | 0 | 0 | 40 | 0 | 0 |
| Subway | 32 | 6 | 9 | 32 | 6 | 9 |
| Panera Bread | n/a | | | 24 | 0 | 0 |
| Total | 3,039 | 12(.4%) | 15 (.5%) | 5,427 | 22(.4%) | 33(.6%) |

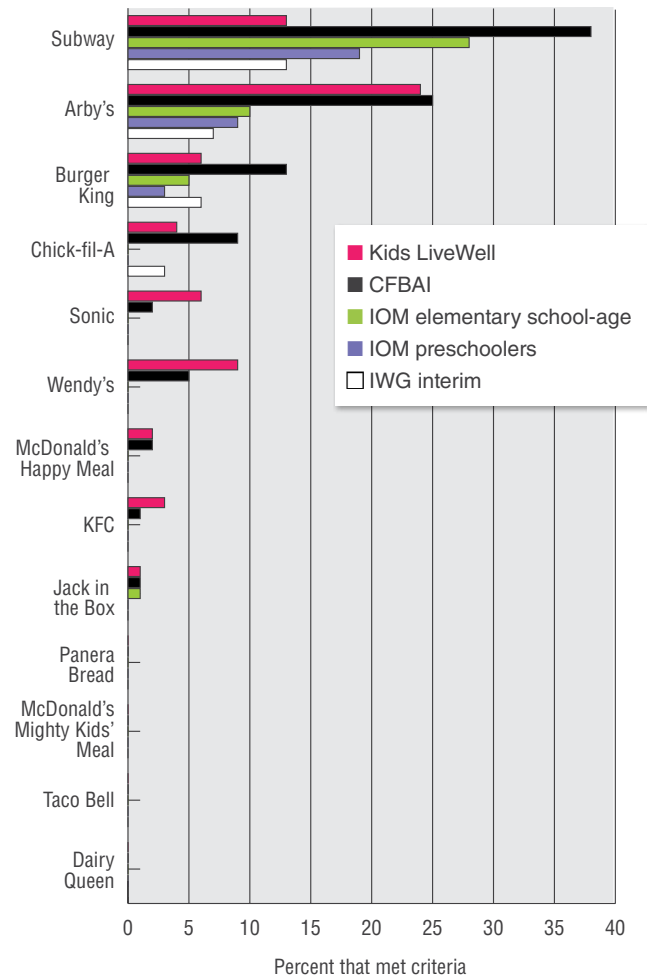
Source: Menu composition analysis (February 2010, 2013)

40, while Subway offered 32 combinations both years. KFC increased side options (from 10 to 14) and beverage options (from 19 to 27), allowing for a possible 1,512 combinations in 2013, the most for any restaurant in our analysis and an increase of 99% versus 2010.

Despite the increase in number of kids' meal combinations, median calorie and sodium content of possible kids' meal combinations did not change at most restaurants (see **Table 6**). Just one in five possible kids' meal combinations met calorie limits for preschoolers and 6% met sodium limits. The majority of combinations (63%) did not exceed the 650 calorie limit for elementary school-age children, but just 12% met the sodium limit.

There were improvements at some restaurants. The percent of combinations that met calorie and sodium criteria for preschoolers increased significantly at KFC and Sonic. Taco Bell also increased the number of combinations that met sodium limits for preschoolers. McDonald's offered a greater proportion of Happy Meals that met sodium limits for elementary school-age children. However, the percent of items that met calorie limits for elementary school-age children decreased significantly at Wendy's, Sonic, and McDonald's (Mighty Kids' Meal).

Further, the total number of kids' meal combinations that met all nutrition criteria did not increase for the restaurants in our 2010 analysis (see **Table 7**). In 2013, only 11 of 4,695 possible combinations (0.2%) met all criteria for preschoolers, down from 12 of 3,039 combinations (0.4%) in 2010. Subway and Burger King remained the only restaurants among those analyzed in 2010 to offer any meals that met all nutrition criteria for preschoolers (19% and 2% of possible combinations, respectively). Arby's (a restaurant that was not analyzed in 2010) also offered 11 qualifying meals, or 9% of its possible combinations, bringing the total number of healthy meal combinations available for preschoolers to 22.

Figure 1. Percent of kids' meals that met various nutrition standards for children

Source: Menu composition analysis (February 2010, 2013)

A few additional meal combinations met all criteria for elementary school-aged children, totaling 33 possible healthy combinations (0.6%). Qualifying meals offered by the restaurants in our 2010 analysis increased from 15 to 19 combinations. In addition to combinations from Subway, Arby's, and Burger King, Jack in the Box offered two options that met all criteria for this age group.

Figure 1 shows the percent of kids' meal combinations with healthy NPI scores that met calorie and sodium limits for preschool and elementary school-age children. This figure also shows the percent of combinations meeting other established nutrition standards. Kids' meals were somewhat more likely to meet the new CFBAI uniform nutrition standards with 153 qualifying combinations (3% of the total). Similarly, 176 kids' meal combinations (3%) met the restaurant industry's Kids LiveWell standards for healthy kids' meals. However, it is notable that 97% of kids' meal combinations *did not* meet the industry's own CFBAI or Kids LiveWell nutrition standards. Not one Dairy Queen, Taco Bell, or Panera Bread kids' meal, or McDonald's Mighty Kids' Meal, met either of these standards. The number of kids' meal combinations that met the IWG nutrition standards (34 possible combinations) was comparable to those meeting the criteria we used for preschool-age children.

Best and worst kids' meal choices

Although few restaurants offered kids' meals that met all nutrition criteria, most offered a range of "better" and "worse" meals. **Ranking Table 1** provides a list of the best kids' meal combinations available at the restaurants included in this

analysis. **Ranking Table 2** provides the least healthy kids' meal combinations at each restaurant.

Arby's, Burger King, and Subway offered the highest-ranking kids' meal combinations. Arby's macaroni and cheese, apple slices, and bottled water, totaling 205 calories and 350 milligrams of sodium, was the lowest-calorie healthy kids' meal. Arby's macaroni and cheese and apple sides could also be combined with plain or flavored milk to meet nutrition standards for preschoolers. At Burger King, a 4-piece chicken nugget meal with sweet and sour sauce, apple slices, and fat free milk was the healthiest option at 265 calories and 430 milligrams of sodium. Subway also offered a few meal combinations that qualified as healthy choices for children, including a Veggie Delite sandwich, side of apples, and 100% juice or plain low fat milk. Some restaurants also offered unsweetened iced tea with their kids' meals, which met the nutrition criteria but may not be appropriate for young children due to caffeine content.

The five least healthy kids' meals were found at McDonald's and Sonic. McDonald's Mighty Kids' Meals contained larger portions of each meal component, such as a McDouble burger or 6-piece Chicken McNuggets, plus a small drink (16 oz) and small fries (71 g) (compared with the 4-piece Chicken McNuggets, 12-ounce drink, and 31-gram fries in its Happy Meal). At Sonic, the Jr. Deluxe cheeseburger or grilled cheese sandwich combined with tots and a slush provided two of the five least nutritious meals in this analysis. Chick-fil-A also offered a very high-calorie meal: its 6-piece chicken (non-grilled) nuggets with buttermilk ranch sauce, waffle fries, and lemonade totaled 770 calories and 1,135 milligrams of sodium.

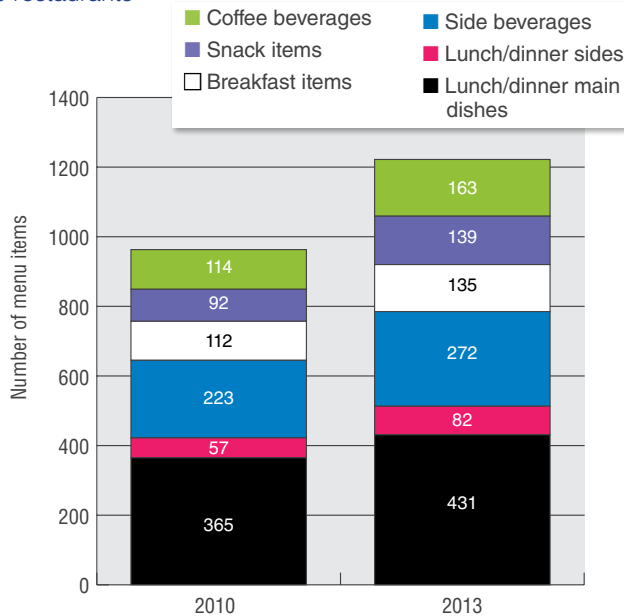
Main menu items

| Main menus | Definitions |
|--------------------------|--|
| Main menu items | Each food or beverage item listed on restaurants' regular menus and posted on their websites in February 2013. ¹² All components of menu items are evaluated as a single item, even when listed separately on the menu. For example, salads include dressing and croutons, and chicken nuggets include sauce. All sizes and flavors of each food or beverage are listed as separate menu items, as well as foods with different available options (e.g., egg sandwiches with egg whites or whole eggs, mashed potatoes with or without gravy). Food items customized by the customer (e.g., deli sandwiches) are listed as two menu items: the most and the least healthy versions. Foods sold as family-sized items are converted to one-person portion sizes. |
| Lunch/dinner main dishes | Individual menu items and meals typically consumed for lunch or dinner. |
| Lunch/dinner sides | Menu items typically consumed with a main dish for lunch or dinner. |
| Side beverages | Individual beverages typically consumed together with a main dish (e.g., soft drinks, juices, milk). |
| Breakfast items | Individual main dish and side breakfast foods, including breakfast platters. |
| Snack items | Individual items suggested as a snack, including sweet snacks (desserts) and snack beverages (e.g. shakes and frozen beverages). |
| Coffee beverages | Specialty coffee drinks, including cappuccinos, lattes, mochas, and flavored coffees (hot or iced). Plain coffee is categorized as a side beverage, and frozen coffee drinks are categorized as snack beverages. |

We analyzed 1,222 menu items from the full menus of the top-five traditional fast food restaurants: McDonald's, Burger King, Subway, Taco Bell, and Wendy's. Complete

nutrition information for these menu items is available at fastfoodmarketing.org/menuitems.

Figure 2. Number of menu items offered by type for the top-five restaurants



Source: Menu composition analysis (February 2010, 2013)

Figure 2 shows the number of menu items by type offered in 2010 and 2013. Total items available at these five restaurants increased 27%. Snack items and coffee beverages increased the most (51% and 43%, respectively), but overall restaurants offered more of every type of menu item. Further, there were few changes in menu composition. Lunch/dinner main dishes comprised slightly more than one-third of menu items both years, followed by side beverages at 22% of items in 2013. Breakfast items, snack items, and coffee beverages each made up 11 to 13% of total menu items, while lunch/dinner sides comprised the smallest proportion of total items available (7%). Of note, the proportion of snack items on the menus increased from 9% in 2010 to 12% in 2013.

The total number of menu items per restaurant ranged from 125 at Wendy's to 335 at Subway. Four of the five restaurants increased the size of their menus by 71 items on average (+35%) from 2010 to 2013 (see **Table 8**). Only Wendy's reduced the number of menu items offered (-16%). Burger King had the biggest overall increase (+66%), offering more than double the number of side and coffee beverages and snack items. Taco Bell began to offer breakfast items and almost tripled available snack items and lunch/dinner sides. Snack items at McDonald's increased 73%.

Table 8. Number of menu items per restaurant

| Restaurant | All items | | Lunch/dinner main dishes | | Lunch/dinner sides | | Side beverages | | Breakfast items | | Snack items | | Coffee beverages | |
|--------------|--------------------|------------------|--------------------------|------------------|--------------------|------------------|--------------------|------------------|--------------------|------------------|--------------------|------------------|--------------------|------------------|
| | # of items in 2013 | Change from 2010 | # of items in 2013 | Change from 2010 | # of items in 2013 | Change from 2010 | # of items in 2013 | Change from 2010 | # of items in 2013 | Change from 2010 | # of items in 2013 | Change from 2010 | # of items in 2013 | Change from 2010 |
| McDonald's | 331 | 28% | 55 | 25% | 7 | 17% | 44 | 33% | 28 | -7% | 57 | 73% | 140 | 24% |
| Subway | 335 | 26% | 170 | 21% | 36 | 57% | 53 | 4% | 65 | 51% | 11 | 22% | 0 | 0% |
| Burger King | 275 | 66% | 89 | 24% | 15 | 36% | 70 | 141% | 36 | 13% | 43 | 105% | 22 | 2100% |
| Wendy's | 125 | -16% | 46 | 39% | 13 | -7% | 53 | -24% | 0 | -100% | 13 | -48% | 0 | 0 |
| Taco Bell | 156 | 27% | 71 | -7% | 11 | 267% | 52 | 30% | 6 | n/a | 15 | 275% | 1 | n/a |
| Total | 1,222 | 27% | 431 | 18% | 82 | 44% | 272 | 22% | 135 | 21% | 139 | 51% | 163 | 43% |

Source: Menu composition analysis (February 2013)

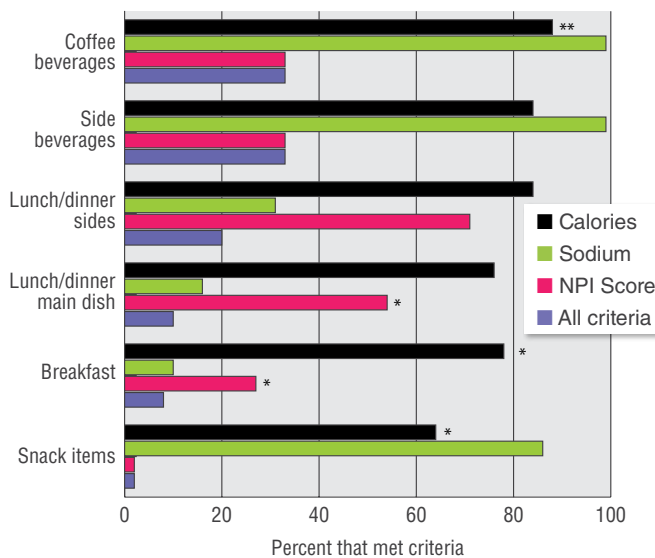
Nutritional quality of main menu items

Main menu nutritional quality

Definitions

| | |
|------------------------------------|---|
| Nutrient Profile Index (NPI) score | Measure of overall nutritional quality that considers positive and negative nutrients in foods. Foods with a score of 64 or higher and beverages with a score of 70 or higher qualify as healthy choices. |
| Calorie limits: teens | Based on the IOM Committee on School Meals guidelines for a moderately active 13- to 17-year-old. ¹³ Calories per item should not exceed 700 for lunch/dinner main dishes, 500 for breakfast main dishes, and 350 for sides, snack items, and beverages. |
| Sodium limits: teens | Based on the IOM Committee on School Meals guidelines for 13- to 17-year-olds, sodium milligrams per item should not exceed 720 for lunch/dinner main dishes, 480 for breakfast main dishes, and 340 for sides, snack items, and beverages. ¹⁴ |

Figure 3. Percent of menu items by type that met nutrition criteria



*Significant increase vs. 2010 ($p < .05$)

**Significant decrease vs. 2010 ($p < .05$)

Source: Menu composition analysis (February 2013)

Overall nutritional quality of different types of main menu items was evaluated using NPI scores, and calories and sodium criteria based on appropriate levels for a moderately active teen (13-17 years) (see **Figure 3**). In 2013, the majority of all types of menu items met calorie limits. Most coffee and side beverages also met sodium limits, but just one-third had healthy NPI scores. On the other hand, the majority of lunch/dinner sides had healthy NPI scores, but just 31% met sodium limits. Similarly, approximately one-half of lunch/dinner main dishes had healthy NPI scores, but 16% met sodium limits. Breakfast and snack items were least likely to meet all nutrition criteria (8% and 2%, respectively) due to low NPI scores, as well as high sodium in breakfast items.

Despite large increases in menu items offered by most restaurants from 2010 to 2013, there were few significant changes in the percent of items that met nutrition criteria. Snack items meeting calorie limits improved the most (from 48% to 64%). There were also significant increases in breakfast items meeting calorie limits (74% to 78%) and breakfast items and lunch/dinner main dishes with healthy NPI scores (9% to 27% and 46% to 54%, respectively). However, the percent of coffee beverages that met calorie limits declined significantly (99% to 88%). There were no significant changes in percent of menu items meeting sodium limits.

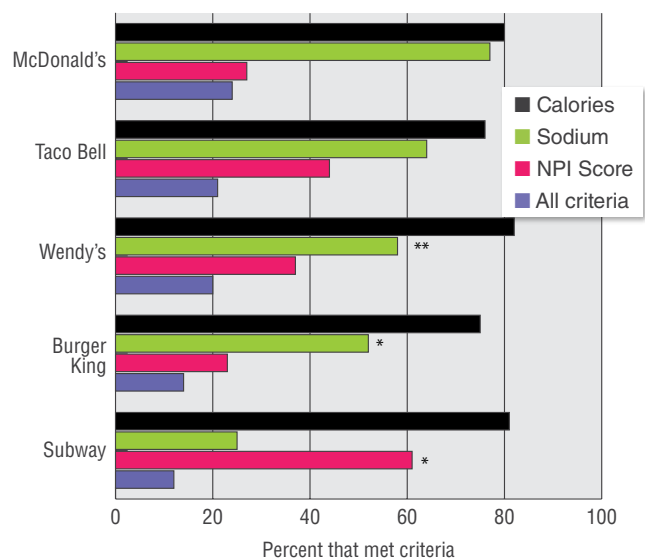
Overall, there were no significant changes in the percent of any type of menu item that met all nutrition criteria. Just 15% of menu items met all nutrition criteria for teens, compared with 14% of items offered by these five restaurants in 2010. Snack items remained the least nutritious type of menu item, only 2% met all nutrition criteria. Side beverages and coffee beverages were most likely to meet all criteria at 33% each.

Differences by restaurant

Ranking Table 3 provides nutrition information for each menu item type from the five restaurants in the detailed menu analysis. Taco Bell's lunch/dinner sides were the healthiest options at any restaurant, with 55% meeting all nutrition criteria. Lunch/dinner sides from McDonald's were the second healthiest menu items with 43% meeting all criteria. Wendy's lunch/dinner sides and lunch/dinner main dishes followed at 31% and 30% of items meeting all criteria, respectively. For all other restaurants and types of menu items, 14% or fewer items met all criteria. Only one snack item (snack-size Fruit and Walnut Salad from McDonald's) met all nutrition criteria, and it was not possible to order a breakfast item from Taco Bell or lunch/dinner main dish from Wendy's that met all nutrition criteria. Beverage nutrition information for the five restaurants in the detailed menu analysis is provided in **Ranking Table 4**. Side and coffee beverages from every restaurant were more likely to meet nutrition criteria, but Burger King was the only restaurant to offer any snack beverages that met all nutrition criteria (8%).

Table 9 summarizes the nutrient content of menu items at the five restaurants. Subway and Taco Bell offered the most food items with healthy NPI scores (approximately two-thirds of menu items). However, the median NPI score for food at McDonald's, Burger King, and Wendy's remained well below the healthy threshold of 64. Subway offered the overall healthiest drink choices (45% of beverage menu items had healthy NPI scores), followed by Wendy's with 33% and McDonald's with 30%. Taco Bell had the fewest healthy drinks at only 10%. The majority of menu items (75% or more) met calorie limits at all restaurants, but the percent of menu items

Figure 4. Percent of menu items by restaurant that met nutrition criteria



*Significant increase vs. 2010 ($p < .05$)

**Significant decrease vs. 2010 ($p < .05$)

Source: Menu composition analysis (February 2013)

Table 9. Nutrient content of all menu items by restaurant

| NPI score (foods) | | | | | |
|-----------------------|-----------------|--------------|----------------|--------------|----------------|
| Restaurant | 2010 | | 2013 | | Signif. change |
| | Median (range) | Met criteria | Median (range) | Met criteria | |
| McDonald's | 46 (18-74) | 23% | 48 (18-80) | 22% | |
| Taco Bell | 56 (38-80) | 56% | 66 (24-84) | 67% | |
| Wendy's | 52 (24-80) | 37% | 54 (32-76) | 41% | |
| Burger King | 46 (24-74) | 14% | 46 (18-78) | 21% | |
| Subway | 64 (18-78) | 52% | 65 (20-82) | 64% | * |
| NPI score (beverages) | | | | | |
| Restaurant | 2010 | | 2013 | | Signif. change |
| | Median (range) | Met criteria | Median (range) | Met criteria | |
| McDonald's | 68 (40-78) | 30% | 68 (44-78) | 30% | |
| Taco Bell | 66 (66-70) | 10% | 66 (64-76) | 10% | |
| Wendy's | 66 (44-72) | 24% | 66 (48-72) | 33% | |
| Burger King | 68 (54-76) | 35% | 68 (48-76) | 25% | |
| Subway | 68 (66-76) | 47% | 68 (66-76) | 45% | |
| Calories (kcal) | | | | | |
| Restaurant | 2010 | | 2013 | | Signif. change |
| | Median (range) | Met criteria | Median (range) | Met criteria | |
| McDonald's | 235 (0-1,370) | 85% | 260 (0-1,150) | 80% | |
| Taco Bell | 340 (0-1,000) | 81% | 310 (0-2,040) | 76% | |
| Wendy's | 230 (0-1,330) | 75% | 277 (0-1,060) | 82% | |
| Burger King | 400 (0-1,310) | 67% | 340 (0-1,510) | 75% | |
| Subway | 405 (0-1,420) | 74% | 342 (0-1,420) | 81% | |
| Sodium (mg) | | | | | |
| Restaurant | 2010 | | 2013 | | Signif. change |
| | Median (range) | Met criteria | Median (range) | Met criteria | |
| McDonald's | 140 (0-2,335) | 79% | 150 (0-2,260) | 77% | |
| Taco Bell | 650 (10-2,380) | 55% | 355 (10-3,600) | 64% | |
| Wendy's | 220 (0-3,150) | 72% | 160 (0-2,020) | 58% | ** |
| Burger King | 765 (0-2,350) | 35% | 390 (0-2,920) | 52% | * |
| Subway | 1,180 (0-5,520) | 27% | 990 (0-4,490) | 25% | |

*Significant increase in percent meeting criteria vs. 2010 ($p < .05$)

**Significant decrease in percent meeting criteria vs. 2010 ($p < .05$)

Source: Menu composition analysis (February 2010, 2013)

that met sodium limits varied widely. For example, just 25% of menu items at Subway met sodium criteria, compared with 75% of items at McDonald's. The median sodium content of Subway menu items was nearly 1,000 milligrams, and all restaurants offered at least one menu item in excess of 2,000 milligrams, nearly the recommended maximum amount for adults to consume in an entire day.¹⁵

There were few significant changes in the nutritional quality of menu items from 2010 to 2013 at any of the five restaurants. Subway showed improvement in menu items with healthy NPI scores. Menu items that met sodium limits also improved at Burger King, but decreased at Wendy's. There were no significant changes in the percent of menu items that met calorie criteria at any of the restaurants. Further, there were no significant changes in the percent of menu items that met all

nutrition criteria at any of the restaurants. McDonald's had the highest percent of menu items that met all nutrition criteria at 24%, followed by Taco Bell at 21% and Wendy's at 20% (see **Figure 4**). At Burger King and Subway, 14% and 12% of menu items, respectively, met all criteria.

In an examination of individual menu items, Burger King's White Chocolate Macadamia Nut cookie and McDonald's Sugar and Soft Baked Chocolate Chip cookies scored lowest in overall nutrition, with an NPI score of 18. Top scoring items were whole foods, including KFC's corn on the cob (with an NPI score of 86), Taco Bell's black beans and pintos n' cheese (84), and apple slices from Wendy's, Subway, and Sonic (82). Burger King's Ultimate Breakfast Platter had more calories than any other menu item in our analysis at 1,450; it also contained 2,920 milligrams of sodium. Subway offered many

high-calorie sandwiches, including the Footlong Pastrami Melt with cheese and mayo and the Footlong Meatball Marinara, with 1,400 or more calories. Many snack beverages also had low NPI scores and excessive calories, such as the Chocolate

and Strawberry McCafe Shakes from McDonald's with NPI scores of 44 and 46, respectively, and 74% of calories from sugar and saturated fat.

Special menus

| Special menus | Definition |
|-------------------|--|
| Special menu | Restaurant-designated subset of menu items (e.g., dollar/value menus, healthy menus). |
| Dollar/value menu | Individual menu items that are offered at a special price and promoted together as a group. Special menus offered for a limited time or only available at some locations are not included. |
| Healthy menu | Individual menu items that are designated by the restaurant as healthier in some way, including low(er) in calories. |

We identified all dollar/value menus and healthy menus offered by the restaurants in our detailed analysis as of February 2013, excluding pizza and coffee restaurants (see **Table 10**). Nine restaurants offered dollar/value menus and four had some type of healthy menu. There were some changes in special menus offered from 2010 to 2013. KFC discontinued its dollar/value and healthy menus, while McDonald's added a healthy menu ("Favorites Under 400"). Sonic's healthy menu changed from "395 Calorie Combo" to "Sonic Favorites 450 Calories and Under."

Dollar/value menus

Dollar/value menus continued to offer primarily items marketed as a bargain or "value" sized portions of main menu items. Only Subway offered a larger-sized portion of standard menu items at a discounted price. Dollar/value menus ranged in size from nine items at Taco Bell, Arby's, and Jack in the Box, to 49 items at Burger King (see **Table 11**). The average number of dollar/value menu items declined slightly from 23.7 in 2010

to 22.3 in 2013, although both Burger King and Wendy's increased the number of items on their dollar/value menus (by 172% and 65%, respectively). Lunch/dinner main dishes and snack items continued to be the most common items offered on this type of menu, at 37% and 28% of items, respectively.

Table 10. Special menus by restaurant

| Restaurant | Value menu | Healthy menu |
|-----------------|---------------------------------|--|
| McDonald's | Dollar Menu | Favorites Under 400 |
| Subway | Every Day Values, \$5 Footlongs | Fresh Fit Choices |
| Burger King | Value Menu | |
| Taco Bell | Why Pay More! | Fresco menu |
| Wendy's | Right Price Right Size | |
| Sonic | Everyday Deals | Sonic Favorites 450 Calories and Under |
| Dairy Queen | Sweet Deals | |
| Arby's | Value Menu | |
| Jack in the Box | Value Menu | |

Source: Menu composition analysis (February 2013)

Table 11. Menu items on dollar/value menus

| Restaurant | Total # of items | | Items offered by type in 2013 | | | | | |
|-----------------|-------------------|-------------------|-------------------------------|--------------------|----------------|-----------------|-------------|------------------|
| | All items in 2010 | All items in 2013 | Lunch/dinner main dishes | Lunch/dinner sides | Side beverages | Breakfast items | Snack items | Coffee beverages |
| McDonald's | 21 | 14 | 2 | 2 | 2 | 4 | 3 | 1 |
| Subway | 16 | 10 | 8 | 0 | 0 | 2 | 0 | 0 |
| Burger King | 18 | 49 | 8 | 2 | 18 | 5 | 11 | 5 |
| Wendy's | 20 | 33 | 14 | 4 | 13 | 0 | 2 | 0 |
| Taco Bell | 11 | 9 | 6 | 1 | 0 | 0 | 2 | 0 |
| Sonic | 49 | 13 | 5 | 2 | 0 | 1 | 5 | 0 |
| Arby's | * | 9 | 2 | 1 | 0 | 0 | 6 | 0 |
| Jack in the Box | * | 9 | 9 | 0 | 0 | 0 | 0 | 0 |
| Dairy Queen | 31 | 28 | 4 | 4 | 10 | 0 | 10 | 0 |
| Total | 166 | 156 | 58 (37%) | 16 (10%) | 43 (28%) | 12 (8%) | 39 (23%) | 6 (4%) |

*Arby's and Jack in the Box were not included in the 2010 report

Source: Menu composition analysis (February 2010, 2013)

Table 12. Nutrient content of menu items available on dollar/value menus

| Restaurant | NPI score (foods) | | | | Signif. change |
|-----------------|-----------------------|--------------|-------------------|--------------|----------------|
| | 2010 | | 2013 | | |
| | Median (range) | Met criteria | Median (range) | Met criteria | |
| Subway | 59 (38-76) | 44% | 67 (42-78) | 60% | |
| Taco Bell | 52 (38-72) | 27% | 62 (38-70) | 33% | |
| Jack in the Box | *** | | 46 (32-64) | 22% | |
| McDonald's | 50 (24-70) | 38% | 50 (18-68) | 18% | |
| Wendy's | 44 (38-64) | 11% | 44 (38-76) | 17% | |
| Dairy Queen | 56 (40-80) | 10% | 56 (36-76) | 11% | |
| Sonic | 54 (40-64) | 18% | 44 (36-64) | 8% | |
| Burger King | 44 (24-70) | 17% | 46 (24-64) | 5% | |
| Arby's | *** | | 45 (32-54) | 0% | |
| Restaurant | NPI score (beverages) | | | | Signif. change |
| | 2010 | | 2013 | | |
| | Median (range) | Met criteria | Median (range) | Met criteria | |
| McDonald's | 69 (66-70) | 50% | 68 (62-70) | 33% | |
| Wendy's | 66 (66-70) | 36% | 66 (60-70) | 40% | |
| Dairy Queen | 67 (66-70) | 20% | 66 (66-70) | 20% | |
| Sonic | 66 (64-76) | 34% | *** | | |
| Burger King | 70 (70-76) | 100% | 68 (52-76) | 34% | ** |
| Arby's | *** | | 58 (58) | 0% | |
| Restaurant | Calories (kcal) | | | | Signif. change |
| | 2010 | | 2013 | | |
| | Median (range) | Met criteria | Median (range) | Met criteria | |
| Subway | 960 (460-1,400) | 19% | 730 (460-1,060) | 30% | |
| Taco Bell | 260 (170-550) | 100% | 270 (170-550) | 100% | |
| Jack in the Box | *** | | 410 (320-570) | 100% | |
| McDonald's | 150 (0-430) | 100% | 165 (0-430) | 100% | |
| Wendy's | 120 (0-390) | 100% | 240 (0-390) | 100% | |
| Dairy Queen | 240 (0-400) | 97% | 240 (0-400) | 93% | |
| Sonic | 150 (0-420) | 100% | 440 (210-600) | 62% | ** |
| Burger King | 255 (5-490) | 94% | 160 (0-580) | 94% | |
| Arby's | *** | | 350 (210-520) | 62% | |
| Restaurant | Sodium (mg) | | | | Signif. change |
| | 2010 | | 2013 | | |
| | Median (range) | Met criteria | Median (range) | Met criteria | |
| Subway | 2,515 (830-4,240) | 0% | 1,845 (620-3,480) | 10% | |
| Taco Bell | 640 (200-1,640) | 64% | 450 (200-1,270) | 78% | |
| Jack in the Box | *** | | 920 (640-1,310) | 22% | |
| McDonald's | 160 (0-1,080) | 47% | 355 (0-1,080) | 50% | |
| Wendy's | 28 (0-880) | 80% | 250 (0-1,080) | 61% | |
| Dairy Queen | 105 (10-920) | 84% | 105 (10-930) | 75% | |
| Sonic | 30 (0-790) | 98% | 470 (220-1,350) | 62% | ** |
| Burger King | 393 (5-1,090) | 50% | 125 (0-1,090) | 84% | * |
| Arby's | *** | | 280 (200-900) | 78% | |

*Significant increase in percent meeting criteria vs. 2010 ($p < .05$)

**Significant decrease in percent meeting criteria vs. 2010 ($p < .05$)

***Restaurants did not offer these products or were not included in the 2010 analysis

Source: Menu composition analysis (February 2010, 2013)

Table 12 shows the nutrient content of items on dollar/value menus in 2010 and 2013 and the percent of items that met nutrition criteria for teens. The majority of Subway dollar/value menu food items had a healthy NPI score. However, items on other restaurants' menus were less nutritious. Just one-third of Taco Bell dollar/value menus had healthy NPI scores; approximately one in five food items at Jack in the Box, McDonald's, and Wendy's; and 11% or fewer food items on Dairy Queen, Sonic, and Burger King dollar/value menus. Arby's did not offer any dollar/value menu items with a healthy NPI score. As most items on dollar/value menus were smaller-sized portions, a high percent did meet calorie limits, including 100% of items at McDonald's, Jack in the Box, Taco Bell, and Wendy's. In contrast, two-thirds of Subway items were high in calories. Subway was also least likely to offer items that met sodium limits, and Jack in the Box dollar/value menu items had a very high median sodium content of 920 milligrams. In contrast, at least one-half of menu items at all other restaurants met sodium limits.

The only significant improvement in dollar/value menu items from 2010 to 2013 was at Burger King: one-half of items met sodium limits in 2010 versus 84% in 2013. In contrast, there was a significant decline in the percent of Sonic dollar/value menu items that met sodium limits and calorie limits. Further, Burger King beverages were less likely to have healthy NPI scores in 2013 than in 2010.

Approximately one-quarter of items on the dollar/value menus at Wendy's and Burger King met all three nutrition criteria, compared with 11% or less of dollar/value menu items at other restaurants. Items on McDonald's, Burger King, and Sonic dollar/value menus were less likely to meet nutrition criteria in 2013 than in 2010. At Burger King, 39% of items qualified as healthy in 2013 versus 22% in 2010, and 7% of McDonald's items met all criteria in 2013 versus 25% in 2010. At Sonic, just 8% of dollar/value menu items qualified as healthy in 2013 compared with 31% in 2010.

Healthy menus

As with dollar/value menus, the average number of menu items available on healthy menus also declined from 29.3 in 2010 to 24.0 in 2013. McDonald's new "Favorites under 400 Calories" menu was relatively large at 43 items, exceeded only by Sonic with 47 "Favorites 450 Calories and Under" options (see **Table 13**). Taco Bell had the fewest items on its "Fresco" menu at seven. As in 2010, the majority of items on healthy menus were main dishes (44%), but Sonic also offered many snack items on its healthy menu (47% of items).

Table 14 shows the nutrient content and percent of healthy menu items that met nutrition criteria. Taco Bell and Subway had the most nutritious healthy menus with 80% or more of items meeting healthy NPI scores and calorie criteria, although just 28% of Subway items met sodium limits. Sonic had the least nutritious healthy menu; just four food items had healthy NPI scores and less than one-half met calorie limits. Food items on McDonald's new "Favorites Under 400" menu had a relatively low median NPI score of 50, with approximately one-third qualifying as healthy. However, the majority of McDonald's healthy menu items met calorie and sodium limits for teens.

Taco Bell's healthy menu remained the "healthiest," with more than one-half of menu items (57%) meeting all three criteria, an improvement from the 43% that met all criteria in 2010. However, just four out of ten items on McDonald's healthy menu met all nutrition criteria. Approximately one-quarter (28%) of Subway healthy menu items met all criteria, a decline from 48% in 2010. In addition, Sonic's healthy menu became considerably less healthy. At 4% of healthy menu items meeting all nutrition criteria, it was even less nutritious than the restaurant's dollar/value menu.

Table 13. Number of menu items on healthy menus

| Restaurant | Total # items | | Items offered by type in 2013 | | | | | |
|------------|-------------------|-------------------|-------------------------------|--------------------|----------------|-----------------|-------------|------------------|
| | All items in 2010 | All items in 2013 | Lunch/dinner main dishes | Lunch/dinner sides | Side beverages | Breakfast items | Snack items | Coffee beverages |
| McDonald's | n/a | 43 | 15 | 5 | 8 | 5 | 8 | 2 |
| Subway | 29 | 18 | 16 | 1 | 1 | 0 | 0 | 0 |
| Taco Bell | 7 | 7 | 7 | 0 | 0 | 0 | 0 | 0 |
| Sonic | 52 | 47 | 13 | 10 | 0 | 1 | 22 | 1 |
| Total | 88 | 115 | 51 (44%) | 16 (14%) | 9 (8%) | 6 (5%) | 30 (26%) | 3 (3%) |

Source: Menu composition analysis (February 2010, 2013)

Table 14. Nutrient content of menu items available on healthy menus

| Restaurant | NPI score (foods) | | | | Signif. change |
|------------|-------------------|--------------|----------------|--------------|----------------|
| | 2010 | | 2013 | | |
| | Median (range) | Met criteria | Median (range) | Met criteria | |
| Taco Bell | 68 (64-74) | 100% | 72 (66-76) | 100% | |
| Subway | 70 (50-76) | 74% | 72 (62-82) | 82% | |
| McDonald's | *** | | 50 (36-80) | 39% | |
| Sonic | 68 (64-82) | 100% | 45 (34-70) | 14% | ** |

| Restaurant | NPI score (beverages) | | | | Signif. change |
|------------|-----------------------|--------------|----------------|--------------|----------------|
| | 2010 | | 2013 | | |
| | Median (range) | Met criteria | Median (range) | Met criteria | |
| Subway | 70 (70-72) | 100% | 70 (70) | 100% | |
| McDonald's | *** | | 70 (68-72) | 83% | |
| Sonic | 70 (60-76) | 78% | 54 (42-56) | 0% | ** |

| Restaurant | Calories (kcal) | | | | Signif. change |
|------------|-----------------|--------------|----------------|--------------|----------------|
| | 2010 | | 2013 | | |
| | Median (range) | Met criteria | Median (range) | Met criteria | |
| Taco Bell | 180 (150-340) | 100% | 170 (140-350) | 100% | |
| Subway | 280 (0-540) | 100% | 350 (0-540) | 100% | |
| McDonald's | *** | | 250 (0-390) | 98% | |
| Sonic | 10 (0-670) | 88% | 390 (110-450) | 49% | ** |

| Restaurant | Sodium (mg) | | | | Signif. change |
|------------|-----------------|--------------|-----------------|--------------|----------------|
| | 2010 | | 2013 | | |
| | Median (range) | Met criteria | Median (range) | Met criteria | |
| Taco Bell | 740 (350-1,410) | 43% | 500 (290-1,020) | 57% | |
| Subway | 750 (0-1,690) | 48% | 890 (0-1,650) | 28% | |
| McDonald's | *** | | 300 (0-1,040) | 70% | |
| Sonic | 30 (0-1,513) | 92% | 230 (60-2,310) | 60% | ** |

*Significant increase in percent meeting criteria vs. 2010 ($p < .05$)

**Significant decrease in percent meeting criteria vs. 2010 ($p < .05$)

***Restaurant did not offer a healthy menu in 2010

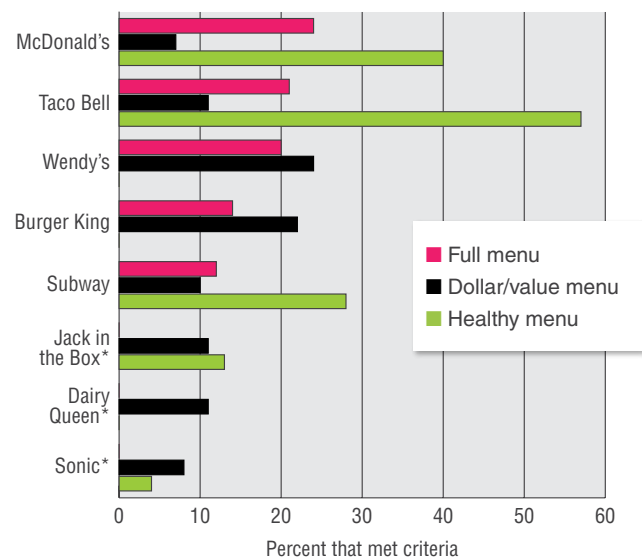
Source: Menu composition analysis (February 2010, 2013)

Comparison of special menus

Figure 5 shows the percent of menu items that met all nutrition criteria from the dollar/value menus and healthy menus in our special menu analysis, as well as the full menus for the five restaurants included in our detailed menu analysis.

Healthy menus at McDonald's, Taco Bell, and Subway were more likely to meet all nutrition criteria than the restaurants' full menus. However, only the dollar/value menus at Wendy's and Burger King were more likely to meet all nutrition criteria. Items on McDonald's value/menu were as likely to meet all nutrition criteria as the restaurant's full menu, while Taco Bell and Subway's value menus were less likely to meet all nutrition criteria. This marks a change from 2010 findings when ordering from the dollar/value menu was more likely to result in choosing a healthier item. However, in 2013, consumers were still more likely to select an item that met calorie limits when selecting items from the special menus at each of these restaurants.

Figure 5. Percent of items that met all nutrition criteria from full menus and special menus



*Full menus were not analyzed for these restaurants

Source: Menu composition analysis (February 2013)

Sizes of soft drinks and french fries

Table 15 shows portion sizes of soft drinks and french fries by restaurant in 2013. There were few changes over the three-year period. Arby's, Chick-fil-A, and Jack in the Box were new to our analysis this year, but offered drink sizes comparable to other restaurants. The greatest variation in drink sizes between restaurants continued to be found in the large size, ranging from 27 to 42 ounces. Six of the twelve restaurants offered 40-ounce drinks or larger, equivalent to five servings. KFC continued to offer the largest drink, the 64-ounce "Mega Jug" containing up to 850 calories. Of note, Subway reduced the size of its large and extra-large soft drinks by 2 to 4 ounces.

Sizes of french fries also varied widely. Arby's child size (128 g, 360 kcal) was considerably larger than the child size at any other restaurant and four times the size of McDonald's child-size fries. Small fries ranged from 71 grams at McDonald's and Sonic to 128 grams at Burger King and Arby's (340-360

kcal), while large fries exceeded 150 grams at all restaurants, reaching 201 grams and 610 calories at Arby's. Six of the seven restaurants offered sides of french fries totaling 500 calories or more.

Table 16 shows changes in soft drink sizes from 2002 to 2013 for McDonald's, Burger King, and Wendy's. McDonald's soft drink sizes have remained consistent since the Supersize was discontinued after 2002, and the only change in its french fries was the addition of the smaller 31-gram child size in the Happy Meal. Burger King reduced the size of its small, medium, and large drinks by 1 to 2 ounces, but increased the gram weight of every size of fries by 5 to 15%. Wendy's did not change the size of its soft drinks, but made several changes to portion sizes of french fries, including increasing the size of its child fries and adding an equivalent size to its value menu. The restaurant also slightly reduced the size of its small and large fries.

Table 15. Sizes of soft drinks and french fries by restaurant

| Restaurant | Soft drinks | | | | | | | | | | | |
|-----------------|-------------|-----------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-------------|-----------------|
| | Child | | Value | | Small | | Medium | | Large | | Extra-large | |
| | Size (oz) | Calories (kcal) | Size (oz) | Calories (kcal) | Size (oz) | Calories (kcal) | Size (oz) | Calories (kcal) | Size (oz) | Calories (kcal) | Size (oz) | Calories (kcal) |
| McDonald's | 12 | 120 | | | 16 | 160 | 21 | 240 | 32 | 350 | | |
| Subway | | | | | 16 | 220 | 21 | 288 | 30 | 411 | 40 | 550 |
| Burger King | 12 | 105 | 16 | 180 | 21 | 240 | 30 | 360 | 40 | 470 | | |
| Wendy's | 8 | 110 | 11 | 150 | 13 | 230 | 20 | 277 | 27 | 374 | | |
| Taco Bell | 16 | 220 | | | 16 | 220 | 20 | 280 | 30 | 410 | 40 | 550 |
| KFC | 16 | 190 | | | 16 | 190 | 20 | 250 | 30 | 390 | 64 | 850 |
| Sonic | | | | | 14 | 160 | 20 | 190 | 32 | 310 | 44 | 420 |
| Dairy Queen | 12 | 170 | | | 16 | 190 | 21 | 240 | 32 | 360 | | |
| Arby's | 10 | 140 | | | 15 | 200 | 21 | 285 | 27 | 360 | | |
| Chick-fil-A | 12 | 150 | | | 14 | 170 | 20 | 230 | 32 | 340 | | |
| Jack in the Box | 12 | 158 | 16 | 210 | 20 | 260 | 32 | 420 | 42 | 550 | | |

| Restaurant | French fries | | | | | | | | | |
|-----------------|--------------|-----------------|-----------|-----------------|------------|-----------------|------------|-----------------|------------|-----------------|
| | Child | | Value | | Small | | Medium | | Large | |
| | Size (oz) | Calories (kcal) | Size (oz) | Calories (kcal) | Size (oz) | Calories (kcal) | Size (oz) | Calories (kcal) | Size (oz) | Calories (kcal) |
| McDonald's | 31 | 100 | | | 71 | 230 | 117 | 380 | 154 | 500 |
| Burger King | 89 | 240 | 89 | 240 | 128 | 340 | 153 | 410 | 190 | 500 |
| Wendy's | 77 | 230 | 77 | 230 | 108 | 320 | 142 | 420 | 176 | 530 |
| Sonic | 71 | 220 | | | 71 | 220 | 120 | 360 | 156 | 470 |
| Dairy Queen | 99 | 190 | | | | | 113 | 310 | 184 | 500 |
| Arby's | 128 | 360 | | | 128 | 360 | 170 | 480 | 201 | 610 |
| Jack in the Box | 95 | 330 | | | 95 | 330 | 130 | 450 | 177 | 610 |

Bold numbers indicate a change from the 2010 serving size
Source: Menu composition analysis (February 2010, 2013)

Table 16. Changes in sizes of soft drinks and french fries

| | Soft drinks | | | | | | | |
|-------------|--------------|-------|---------------|------------|---------------|------------|--------------------|------------|
| | 2002 | | 2006 | | 2010 | | 2013 | |
| | Name | Fl oz | Name | Fl oz | Name | Fl oz | Name | Fl oz |
| McDonald's | Child | 12 | Child | 12 | Child | 12 | Child | 12 |
| | Small | 16 | Small | 16 | Small | 16 | Small | 16 |
| | Medium | 21 | Medium | 21 | Medium | 22 | Medium | 22 |
| | Large | 32 | Large | 32 | Large | 32 | Large | 32 |
| | Supersize | 42 | | | | | | |
| Burger King | Kiddie | 12 | Kiddie | 12 | Kiddie | 12 | Kid | 12 |
| | Small | 16 | Small | 16 | Value | 16 | Value | 16 |
| | Medium | 21 | Medium | 21 | Small | 21 | Small | 20 |
| | Large | 32 | Large | 32 | Medium | 32 | Medium | 30 |
| | King | 42 | King | 42 | Large | 42 | Large | 40 |
| Wendy's | Kid | 12 | Kid | 12 | Kid | 8 | Kid | 8 |
| | Small | 16 | | | Value | 11 | Value | 11 |
| | Medium | 20 | Small | 20 | Small | 13 | Small | 13 |
| | Biggie | 32 | Medium | 32 | Medium | 20 | Medium | 20 |
| | | | Large | 42 | Large | 27 | Large | 27 |
| | French fries | | | | | | | |
| | 2002 | | 2006 | | 2010 | | 2013 | |
| | Name | Gr | Name | Gr | Name | Gr | Name | Gr |
| McDonald's | | | | | | | Child | 31 |
| | Small | 68 | Small | 68 | Small | 71 | Small | 71 |
| | Medium | 150 | Medium | 113 | Medium | 117 | Medium | 117 |
| | Large | 179 | Large | 170 | Large | 154 | Large | 154 |
| | Supersize | 201 | | | | | | |
| Burger King | Small | 74 | Small | 74 | Value | 74 | Value | 89 |
| | Medium | 116 | Medium | 116 | Small | 116 | Small | 128 |
| | Large | 162 | Large | 147 | Medium | 147 | Medium | 153 |
| | King | 196 | King | 181 | Large | 181 | Large | 190 |
| Wendy's | Kids' | 91 | Kids' | 91 | Kids' | 71 | Kids'/Value | 77 |
| | Medium | 142 | Small | 142 | Small | 113 | Small | 108 |
| | Biggie | 159 | Medium | 159 | Medium | 142 | Medium | 142 |
| | Great Biggie | 190 | Large | 190 | Large | 184 | Large | 176 |

Bold indicates a change from the previous year

Source: Young & Nestle (2007)¹⁶ and menu composition analysis (February 2010, 2013)

Summary of fast food nutritional quality

Kids' meals

Despite a dramatic increase in the number of main dish, side, and beverage options available in kids' meals from 2010, it was even more difficult to find a kids' meal with nutritious items that met appropriate calorie and sodium limits for preschool and elementary school-age children in 2013. At the restaurants in our 2010 analysis, the proportion of kids' meal combinations that met all nutrition criteria for elementary school-age children declined from .5% in 2010 to .4% in 2013. Just 33 possible meals out of 5,427 met all nutrition criteria

for older children, and eight of the twelve restaurants in this analysis did not offer even one. Further, 97% of kids' meal combinations did not meet even the industry's own CFBAI or Kids LiveWell nutrition standards for healthy kids' meals.

Despite the overall poor quality of kids' meals, it was possible to find a nutritious kids' meal at some restaurants. Subway, Burger King, and Arby's each offered five or more combinations that were appropriate for preschool-age children, and Jack in the Box offered two additional combinations that met criteria for elementary school-age children. Most restaurants offered at least one healthy side and beverage option. However, main dishes tended to be the least nutritious kids' meal component, largely due to high levels of sodium and/or saturated fat.

Kids' meals nutritional quality

Signs of progress

- All restaurants except Taco Bell offered at least one healthy side option with their kids' meals. McDonald's new Happy Meal with apples and a smaller portion of french fries reduced calories in the default meal by 115.
- Additional milk and low-calorie beverage options increased the percent of kids' meal beverages with a healthy NPI score at six of the eight restaurants examined in 2010.
- A higher proportion of possible kids' meal combinations from KFC and Sonic met calorie limits for preschool-age children in 2013 than in 2010. Taco Bell, KFC, Sonic, and McDonald's Happy Meals delivered some improvements in the percent of kids' meal combinations that met sodium limits.

Continued reasons for concern

- Seven of the twelve restaurants did not offer even one main dish option with a healthy NPI score in their kids' meals. Sodium content was especially high; 58% of main dishes exceeded the sodium limit for the entire meal (640 mg).
- Even with the addition of a small side of apples, several Mighty Kids' Meal combinations from McDonald's ranked among the worst kids' meal options analyzed with up to 880 calories and 1,085 milligrams of sodium per meal.
- French fries remained the most common side option offered with kids' meals. Wendy's reformulated its french fries with more sodium and saturated fat, while Dairy Queen increased the size of its kids' meal portion of french fries by 39%.
- Despite a 54% increase in the number of kids' meal combinations available in 2013 (for the restaurants also analyzed in 2010), just 22 of 5,427 possible meals met all nutrition criteria for preschoolers and only 33 met criteria for elementary school-age children.
- Nearly all kids' meal combinations (97%) failed to meet the industry's own CFBAI and Kids LiveWell nutrition standards.
- Subway, Burger King, and Arby's were the only restaurants to offer any kids' meal combinations that met all criteria for preschool-age children. Jack in the Box was the only additional restaurant to offer options that met all criteria for elementary school-age children.
- Wendy's, Sonic, and McDonald's Mighty Kids' Meal offered fewer calorie-appropriate kids' meal combinations for elementary school-age children in 2013 than in 2010.

Main menu items and special menus

As found with kids' meal menus, the number of main menu items available at many restaurants greatly increased, with few changes in overall nutritional quality. Four of the top-five traditional fast food restaurants increased their offerings by approximately one-third from 2010 to 2013. However, the percent of menu items that met all nutrition criteria did not change at any of these restaurants. McDonald's menu was

healthiest overall, with 24% of items meeting all nutrition criteria. Further, the nutritional quality of menu items available on several restaurants' healthy and dollar/value menus declined from 2010 to 2013, including the McDonald's and Burger King dollar/value menus and both special menus from Sonic. Subway's dollar/value menu was the only special menu to improve in nutritional quality, with 10% of items meeting all nutrition criteria in 2013.

Main menu items and special menus nutritional quality

Signs of progress

- Two-thirds of foods offered at Subway and Taco Bell had healthy NPI scores, three-quarters or more of menu items at the top-five restaurants met calorie limits for a moderately active 13- to 17-year-old, and three-quarters of McDonald's menu items met sodium limits.
- There were significant improvements in some measures of nutrition quality at some restaurants from 2010 to 2013. The percent of food items with a healthy NPI score increased at Subway, and the percent of items that met sodium limits improved at Burger King.
- Four restaurants in our analysis offered menus that highlighted healthier and/or lower calorie items. Items on healthy menus at McDonald's, Taco Bell, and Subway were more likely to meet all nutrition criteria than items on the restaurants' full menus. Taco Bell had the "healthiest" healthy menu, with 57% of items meeting all criteria, an improvement versus 2010.
- The nutritional quality of Subway's \$5 Footlongs value menu improved somewhat, with 10% of items meeting all nutrition criteria in 2013 compared with 0% in 2010.

Continued reasons for concern

- The top-five traditional fast food restaurants increased the size of their menus by 27% items on average (52 additional menu items per restaurant). The number of snack items offered increased the most (+51%).
- Despite substantial increases in number of menu items, the percent that met all nutrition criteria did not change at any restaurant. McDonald's had the highest proportion of menu items that met all criteria (24%), while 20% of items or fewer qualified as nutritious options at Wendy's, Subway, and Burger King.
- Healthy menus were less likely to meet nutrition criteria in 2013 than in 2010. Less than one-half of menu items on healthy menus at McDonald's, Subway, and Sonic met all nutrition criteria. The majority of McDonald's healthy menu items did not have healthy NPI scores, while Subway items had high levels of sodium. Just 4% of Sonic items met all nutrition criteria, making its "healthy" menu less nutritious than its dollar/value menu. Further, the nutritional quality of Subway and Sonic healthy menus declined, with fewer items meeting all nutrition criteria in 2013 than in 2010.
- Less than one-quarter of items on all restaurants' dollar/value menus met all nutrition criteria. Items on McDonald's, Burger King, and Sonic dollar/value menus were less likely to meet nutrition criteria in 2013 than in 2010.
- There were few changes in serving sizes of soft drinks and french fries. All restaurants continued to offer large and extra-large soft drink sizes that contained 350 to 850 calories in one serving. Large sizes of french fries contained 470 to 610 calories in one serving.

Traditional media advertising

In this section, we examine traditional advertising by fast food restaurants in 2012 and changes versus 2009 when available. We first present advertising spending in measured media, including TV, radio, outdoor, and the internet. We then provide data on child and teen exposure to TV advertising in total and by restaurant. Sections on marketing to children and teens describe the product types and specific menu items in TV advertising viewed most often by these age groups, as well as advertising that appears to be targeted to them specifically. For most of these analyses, we focus on the 25 restaurants with the most advertising spending on national TV in 2012.

Advertising spending

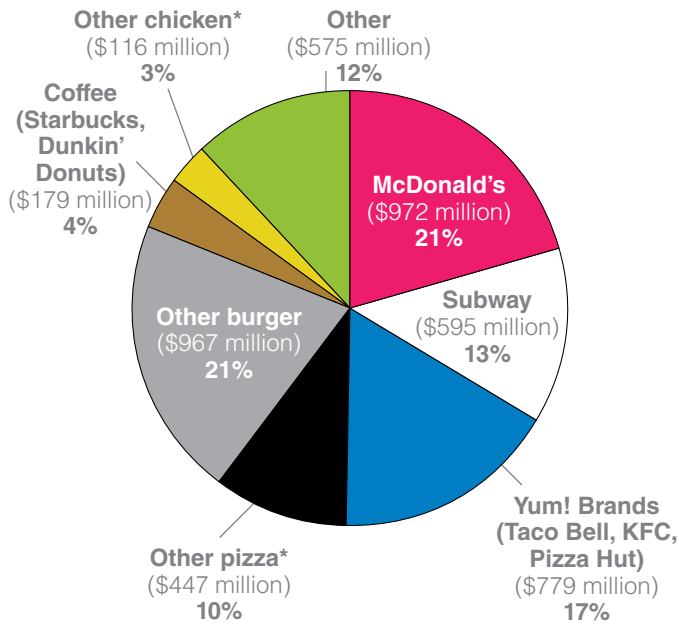
| Advertising spending | Definition |
|----------------------|---|
| Advertising spending | Amount spent on all measured media, including TV, magazines, internet, radio, newspapers, FSI coupons, and outdoor. |

Total advertising spending by fast food restaurants reached \$4.6 billion in 2012, an 8% increase over the \$4.3 billion spent in 2009. A total of 266 fast food restaurants advertised in at least one measured media during 2012, although spending continued to be highly concentrated among a few restaurants. Ten fast food restaurants were responsible for 73% of advertising spending in 2012, while 25 restaurants accounted for 93% of spending.

Ranking Table 5 presents advertising spending in 2009 and 2012 by the 25 restaurants with the most national TV advertising spending in 2012 and examines dollars allocated to TV, radio, outdoor, and internet in 2012. McDonald's alone spent \$972 million, accounting for nearly one-quarter of the total (see **Figure 6**). McDonald's spent 63% more than the second ranked restaurant, Subway, which spent \$595 million or 13% of total spending. Five restaurants spent between \$200 and \$300 million: Taco Bell, Wendy's, KFC, Pizza Hut,

and Burger King. Combined, the three Yum! Brand restaurants (Taco Bell, KFC, and Pizza Hut) spent a total of \$779 million, or 17% of all spending. Although Burger King had been the third largest advertiser in 2009, it dropped to seventh place in 2012. Combined, pizza restaurants in the top 25 (Pizza Hut, Domino's, Papa John's, Little Caesars, and CiCi's) accounted for 15% of total advertising spending. Of note, the two coffee restaurants in the top 25, Starbucks and Dunkin' Donuts, accounted for just 4%.

Fifteen of the top twenty-five restaurants increased advertising spending from 2009 to 2012, but Subway was the only restaurant in the top ten with a higher-than-average increase (+39%). Although they each represented less than 3% of total fast food spending in 2012, four additional restaurants exhibited noteworthy growth. Little Caesars increased spending more than four-fold, Boston Market increased nearly three-fold, and Panera Bread more than doubled its

Figure 6. Total fast food advertising spending

*In the top-25 restaurants with national TV advertising spending
Source: Nielsen (2012)

spending. In addition, Starbucks posted a 56% increase. In contrast, four of the top-ten restaurants decreased advertising spending versus 2009. Burger King reduced total spending by 17%, and Sonic, Wendy's, and KFC decreased their budgets by 3 to 7%.

TV continued to be the dominant medium accounting for 88% of all fast food advertising spending (\$4.1 billion in 2012). Consistent with 2009, all other media, including radio, outdoor, and internet, each accounted for 5% or less of total advertising spending (\$226 million, \$199 million, and \$68 million, respectively). **Ranking Table 5** also summarizes allocation of spending by media for the 25 restaurants in our analysis. While TV represented three-quarters or more of advertising spending for most restaurants, a few dedicated a greater proportion of their budget to other types of media. Starbucks, for example, spent 10% of its advertising dollars on the internet and 29% on magazines, but only 40% on TV advertising. The proportions of Panera Bread's budget allocated to radio and outdoor advertising were higher than average at 19% and 23%, respectively, and Chick-fil-A dedicated 26% of spending to outdoor advertising.

Overview of TV advertising exposure

TV advertising exposure Definitions

| | |
|------------------------------|---|
| Gross rating points (GRPs) | Measure of the per capita number of TV advertisements viewed by a specific demographic group over a period of time across all types of programming. GRPs for specific demographic groups are also known as targeted rating points (TRPs). |
| Average advertising exposure | GRPs divided by 100. Provides a measure of the number of ads viewed by individuals in a specific demographic group, on average, during the time period measured. |

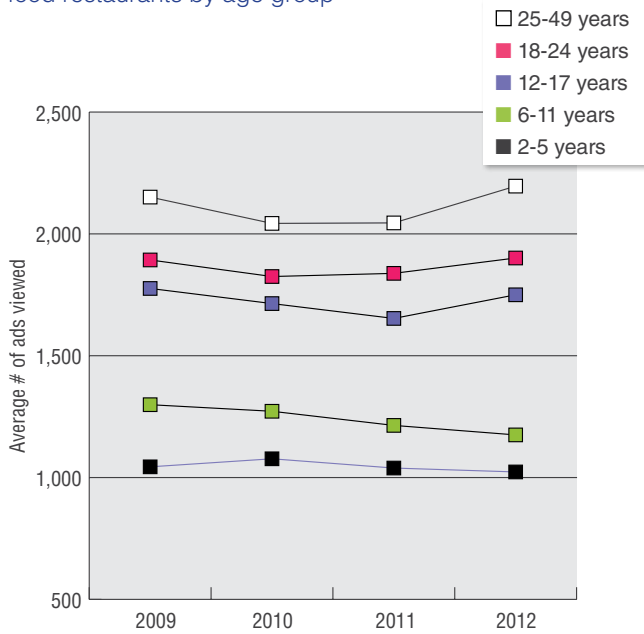
As **Figure 7** illustrates, changes in exposure to fast food TV advertising from 2009 to 2012 varied by age group. On average, youth under 18 viewed fewer fast food ads in 2012 than they had in 2009, while adults viewed somewhat more. Advertising to children (6-11 years) showed a steady decline, from 3.6 ads viewed per day in 2009 to 3.2 ads-per-day in 2012 (a 10% reduction). However, advertising to preschoolers (2-5 years) and teens (12-17 years) remained constant: 2.9 versus 2.8 ads viewed per day by preschoolers in 2009 and 2012 and 4.9 versus 4.8 ads-per-day viewed by adolescents. Of note, the number of ads viewed by teens increased 6% from 2011 to 2012, reversing a downward trend from 2009 to 2011.

Ranking Tables 6 and **7** detail the average number of ads viewed by preschoolers, children and teens by restaurant. As with advertising spending, TV advertising exposure was highly concentrated among a few fast food restaurants (see **Figure 8**). The top-25 restaurants were responsible for 97% of ads viewed by preschoolers and children and 98% of ads viewed by teens. The top-five restaurants advertised to children under 12 (McDonald's, Subway, Burger King, Domino's and Pizza

Hut) placed approximately one-half of all TV ads viewed by youth, while one restaurant (McDonald's) accounted for over one-quarter of ads viewed by children and 16% of ads viewed by adolescents. On average, preschoolers saw 5.1 ads-per-week for McDonald's in 2012, 6- to 11-year-olds saw 6.1, and adolescents saw 5.2.

Subway ranked a distant second with approximately two TV ads viewed per week by preschoolers and children, 60% fewer ads than McDonald's. Both preschoolers and children also viewed on average one or more ads per week for Burger King, Domino's, Pizza Hut, Wendy's, and Taco Bell. These same seven restaurants were the top advertisers to teens on TV. However, teens saw approximately double the number of ads that children saw for every restaurant except McDonald's. The top-three advertisers were the same for all youth, but Taco Bell replaced Domino's as the fourth most frequent advertiser to teens. In total, pizza restaurants accounted for 18 to 20% of all ads viewed by preschoolers, children, and teens in 2012. One pizza restaurant, Little Caesars, had not advertised on national TV in 2010 but ranked tenth in advertising to children in 2013.

Figure 7. Trends in exposure to TV advertising for all fast food restaurants by age group



Source: Nielsen (2009-2012)

Combined, Yum! Brands restaurants (Taco Bell, Pizza Hut, KFC) were responsible for 15 to 16% of ads viewed by children and 22% of ads viewed by teens. On average, teens saw one TV ad for a Yum! Brands restaurant every day in 2012.

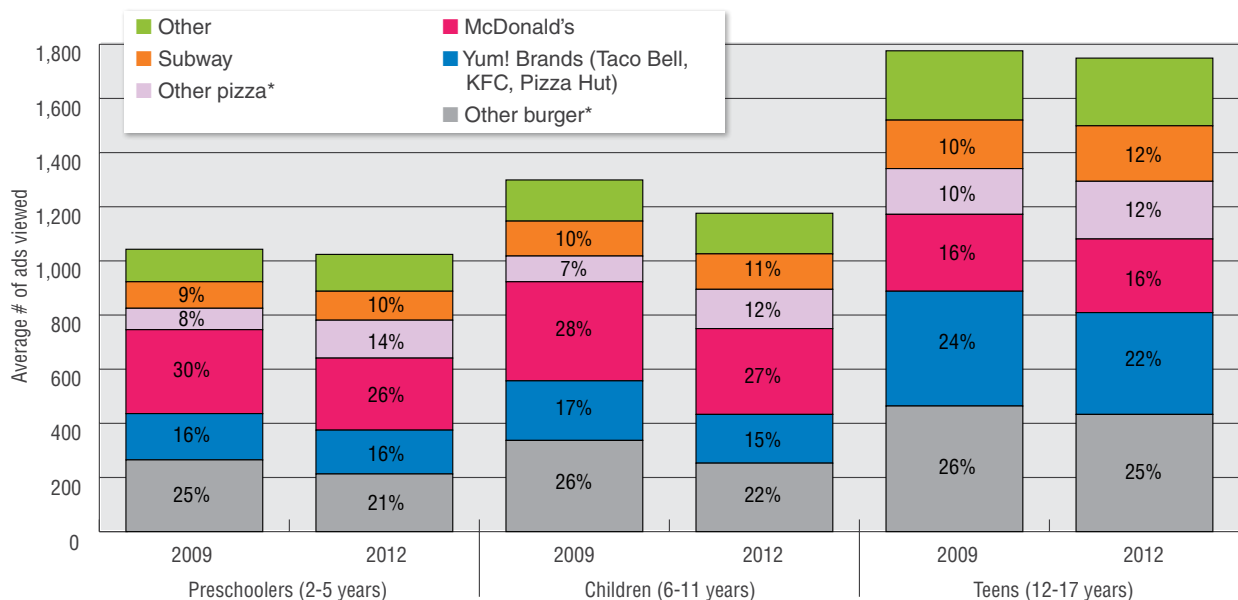
Changes in the number of ads viewed from 2009 to 2012 varied by restaurant and, in some cases, by age group. Of note, some restaurants had substantially greater increases in ads viewed by preschoolers and children than by teens. For example, preschoolers and children saw 44 to 59% more ads for Domino's

in 2012 versus 2009, but teens viewed just 7% more. Similarly, exposure to Wendy's ads increased 24% among preschoolers and 13% among older children, but just 2% among teens. Of note, the number of Wendy's ads viewed by preschoolers and children steadily increased from 2009 to 2012. The increase in number of ads viewed for Arby's and Popeyes between 2009 and 2012 was notably high for all youth: Arby's ads went up 57% for preschoolers, 38% for children, and 34% for teens, while Popeyes ads increased 41% for preschoolers, 30% for children, and 24% for teens. Preschoolers viewed 10 to 20% more ads for Dairy Queen, Pizza Hut, and Sonic in 2009 than in 2012, while teens viewed 10 to 20% more ads for Subway and Sonic.

In contrast, other restaurants reduced TV advertising to youth from 2009 to 2012, including the top-two advertisers in 2009. McDonald's ads to children under 12 decreased every year from 2009 to 2012, a reduction of 13 to 14% over the three-year period. Due to the large number of McDonald's ads, these reductions translated to 44 fewer ads viewed by preschoolers and 49 fewer ads viewed by children (almost one less ad per week). Exposure to TV ads for Burger King declined substantially for all youth. Children under 12 saw 47 to 50% fewer Burger King ads in 2012 than in 2009, and teens saw 21% fewer. The number of ads for all Yum! Brands restaurants also decreased by 5% among preschoolers, 18% for children, and 11% for teens due primarily to reductions in exposure to KFC ads of 28 to 38%.

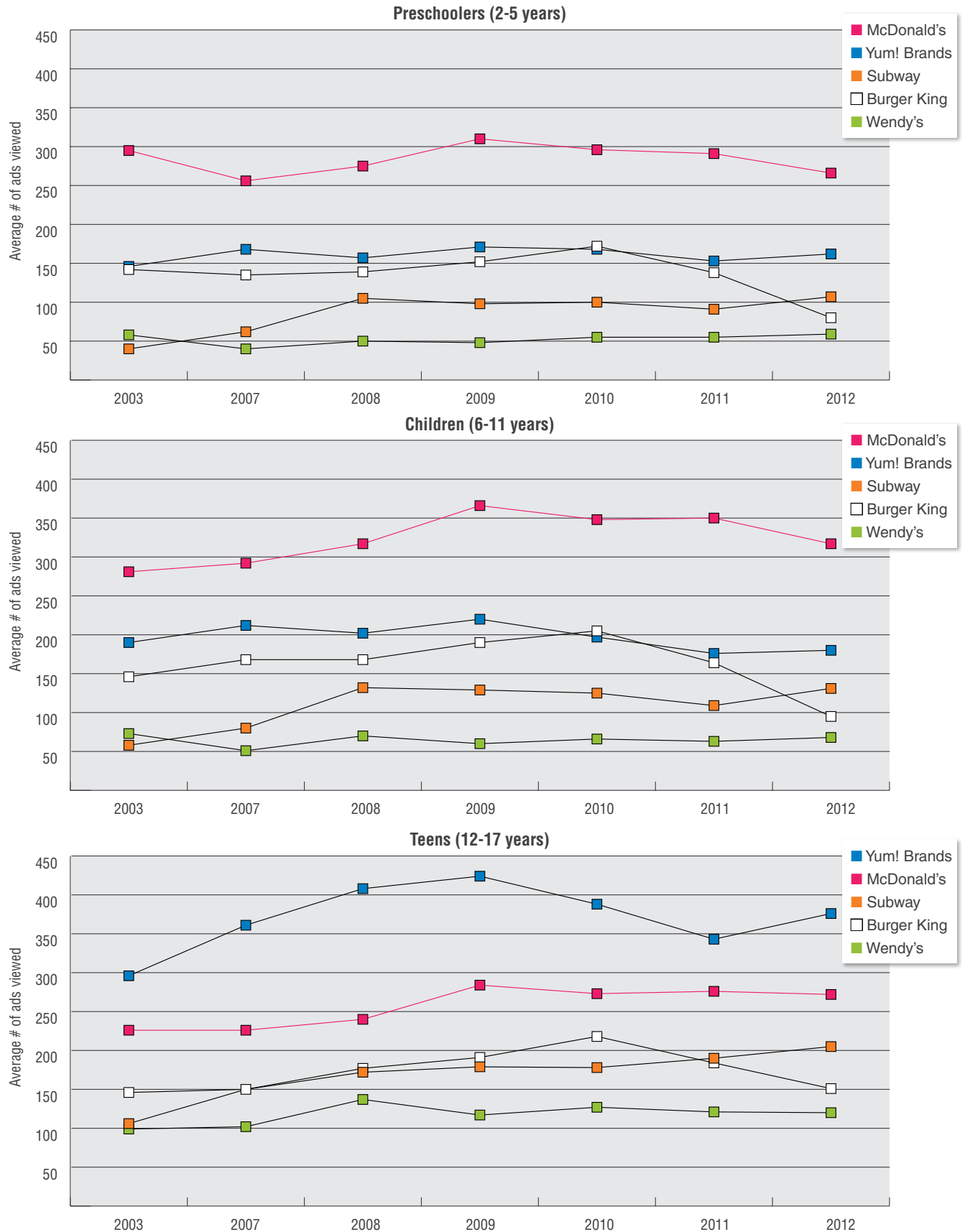
Figure 9 presents trends in advertising exposure for the top advertisers from 2003 to 2012. During the entire period, McDonald's remained the top advertiser to children under 12. In 2012, Subway replaced Burger King as the restaurant that ranked second in advertising to all youth age groups. However, the three Yum! Brand restaurants combined ranked second in advertising to children under twelve and were advertised most to teens.

Figure 8. TV advertising exposure by restaurant and age group



*In the top-25 restaurants with national TV advertising spending
Source: Nielsen (2009, 2012)

Figure 9. Trends in exposure to TV advertising by restaurant and by age group



Source: Powell et al. (2010);¹⁷ Nielsen (2008-2012)

TV advertising to children

| TV advertising to children | Definition |
|--|---|
| Targeted ratios: Preschooler:adult and child:adult | Provide a measure of relative exposure by youth versus adults, calculated by dividing GRPs for youth age groups (preschoolers or children) by GRPs for adults (25-49 years). |
| Product type | Describes the main type of product featured in the TV ad. |
| Kids' meals | Any ad for kids' meals, including those that do not picture a specific kids' meal menu item. |
| Branding only | The restaurant as a whole is the main point of the ad. Food may be pictured in the ad but no specific food products are mentioned. |
| Healthy options | Any ad that features a healthy menu, menu items, or healthy version of a meal. |
| Promotion only | Only a promotion is mentioned in the ad. Food may be pictured in the ad, but not mentioned. |
| Value menu/combo meals | Any ad that features a value menu, dollar menu, or other special pricing for a group of individual menu items. |
| Types of menu items featured | Any ad that features specific menu items, including breakfast items, coffee beverages (including hot and frozen varieties), lunch/dinner items (including main dishes, sides, and side beverages), and snacks/desserts (including snack beverages). |

Ranking Table 6 provides child:adult targeted ratios for the top-25 advertisers. In 2012, preschoolers and children viewed one-half the number of fast food ads that adults viewed in total. McDonald's was the only restaurant that advertised more to children than adults. Children (6-11 years) viewed 8% more ads for McDonald's than adults viewed, and preschoolers viewed just 9% fewer than adults. Domino's and Burger King had the next highest child:adult targeted ratios at .64 and .59 respectively. The average preschooler:adult targeted ratio was .47 and the average child:adult targeted ratio was .54.

Advertising by product type

In addition to measuring total TV advertising exposure, we examined national TV advertising exposure by the type of product featured in the ads for the 18 restaurants that are the

focus of this report. **Table 17** presents the average number of ads viewed by preschoolers and children for each product type as well as targeted ratios to identify those that may have been targeted to these age groups.

Not surprisingly, ads for kids' meals were highly targeted to preschoolers and children. Preschoolers saw almost five times as many ads for kids' meals than adults saw, while children saw almost six times more. However, kids' meals accounted for just one-quarter of fast food ads seen by children, while ads featuring lunch/dinner items accounted for almost one-half of ads viewed, averaging approximately one ad per day. Value menu/combo meals represented one in ten fast food ads viewed by children and preschoolers. Although branding-only ads and ads for promotions each accounted for less than 5% of fast food ads viewed, they had higher-than-average child:adult targeted ratios: children were almost as likely to see these ads compared with adults.

Table 17. Child exposure to TV advertising by product type and age group

| Product type | Preschoolers (2-5 years) | | | Children (6-11 years) | | |
|------------------------|--------------------------|-----------------------|----------------------------------|-------------------------|-----------------------|----------------------------|
| | Average # of ads viewed | % of total ads viewed | Preschooler:adult targeted ratio | Average # of ads viewed | % of total ads viewed | Child:adult targeted ratio |
| Lunch/dinner items | 394.0 | 48% | 0.41 | 448.5 | 47% | 0.47 |
| Kids' meals | 192.6 | 24% | 4.60 | 238.7 | 25% | 5.70 |
| Value menu/combo meals | 87.9 | 11% | 0.41 | 90.1 | 9% | 0.42 |
| Snacks/desserts | 36.3 | 4% | 0.36 | 43.5 | 5% | 0.44 |
| Branding only | 28.6 | 3% | 0.68 | 36.2 | 4% | 0.86 |
| Promotion only | 25.9 | 3% | 0.72 | 33.9 | 4% | 0.94 |
| Breakfast items | 21.5 | 3% | 0.35 | 25.8 | 3% | 0.42 |
| Healthy options | 17.1 | 2% | 0.40 | 20.2 | 2% | 0.47 |
| Coffee beverages | 12.9 | 2% | 0.35 | 14.7 | 2% | 0.40 |

Highlighting indicates higher-than-average child:adult targeted ratios
Source: Nielsen (2012), National TV only

Table 18. Restaurant and product types advertised most often to preschoolers and children

| Restaurant | Product type | Preschoolers (2-5 years) | | Children (6-11 years) | |
|----------------|------------------------|--------------------------|----------------------------------|-------------------------|----------------------------|
| | | Average # of ads viewed | Preschooler:adult targeted ratio | Average # of ads viewed | Child:adult targeted ratio |
| McDonald's | Kids' meals | 177.2 | 4.98 | 218.9 | 6.16 |
| Domino's | Lunch/dinner items | 59.9 | 0.54 | 70.9 | 0.64 |
| Subway | Lunch/dinner items | 46.2 | 0.39 | 55.6 | 0.47 |
| Wendy's | Lunch/dinner items | 41.6 | 0.43 | 48.1 | 0.50 |
| Pizza Hut | Lunch/dinner items | 42.9 | 0.39 | 47.4 | 0.43 |
| Taco Bell | Lunch/dinner items | 39.5 | 0.37 | 46.2 | 0.44 |
| Burger King | Lunch/dinner items | 29.9 | 0.35 | 33.8 | 0.39 |
| Little Caesars | Lunch/dinner items | 32.7 | 0.45 | 33.1 | 0.46 |
| KFC | Lunch/dinner items | 27.3 | 0.33 | 29.8 | 0.36 |
| McDonald's | Lunch/dinner items | 26.1 | 0.36 | 29.0 | 0.40 |
| Burger King | Promotion only | 16.2 | 1.49 | 22.3 | 2.05 |
| Arby's | Lunch/dinner items | 18.6 | 0.42 | 21.8 | 0.49 |
| Pizza Hut | Value menu/combo meals | 19.9 | 0.38 | 20.9 | 0.40 |
| Subway | Branding only | 14.0 | 1.26 | 20.8 | 1.88 |
| Sonic | Lunch/dinner items | 16.7 | 0.41 | 20.6 | 0.51 |
| Burger King | Kids' meals | 12.4 | 5.85 | 15.0 | 7.11 |
| CiCi's Pizza | Value menu/combo meals | 14.6 | 0.90 | 9.1 | 0.57 |
| McDonald's | Branding only | 4.4 | 0.59 | 5.7 | 0.76 |
| Subway | Kids' meals | 3.1 | 0.74 | 4.8 | 1.13 |
| Domino's | Branding only | 0.4 | 1.67 | 0.6 | 2.29 |
| CiCi's Pizza | Lunch/dinner items | 3.7 | 1.40 | 1.5 | 0.55 |

Highlighting indicates higher-than-average targeted ratios
Source: Nielsen (2012), National TV only

Table 18 details the average number of ads viewed by children and preschoolers in 2012 for each restaurant and product type highlighted in these ads, including products with 20 or more ads viewed by children or preschoolers in 2012 and those with a child:adult targeted ratio of .75 or higher.

Children saw more ads for McDonald's kids' meals than any other product type, averaging 3.4 ads per week for preschoolers and 4.2 for children. However, nine of the top-ten product types advertised to children were lunch/dinner items. Children saw approximately one ad per week for lunch/dinner items from Domino's and Subway. Further, children saw more ads for Burger King lunch/dinner items and promotions than they saw for the restaurants' kids' meals, and more ads for Subway lunch/dinner items and branding ads than ads for Subway kids' meals.

Targeted ratios indicate that ads for all kids' meals were targeted to children: preschoolers and children saw five to seven times more ads for McDonald's and Burger King kids' meals, compared with adults. Burger King promotions also appeared to be targeted to children, who saw 1.5 to 2 times more of these ads than adults, as well as Subway branding ads, which were viewed 30 to 90% more often by preschoolers and children. Targeted ratios for Subway's kids' meals were much lower than those of other restaurants kids' meals at .74 for preschoolers and 1.13 for children. In total, TV ads that appeared to be targeted to children (with targeted ratios > 1.0) represented 27% of preschoolers' total fast food advertising exposure and 30% of older children's exposure.

Content analysis of advertising on children's networks

| TV advertising content analysis | Definitions |
|---------------------------------|--|
| Children's networks | Networks with an average audience of 35% or more children under 12 that accept advertising, including Cartoon Network, Disney XD, Hub, Nickelodeon and NickToons. |
| Selling points | Any direct benefit of the product communicated in the ad, including new/improved, value/cheap, health/nutrition, quality food, and limited time special offers. |
| Product associations | Any indirect attributes or messages about the product implied in the ad, including physical activity, fun/cool, humor, and adults as negative or incompetent. |
| Main characters in the ad | Apparent age of purchasers and consumers or main characters (in absence of purchasing or consumption behaviors) depicted in the ad. Age categories include children (0 to 12 yrs), teens/young adults (13 to 29 yrs), older adults (30 and older), and parents (buying food for children). |
| Third party tie-ins | Featured appearances by outside (non brand-related) persons, characters or other companies/organizations, including celebrities, movies/TV shows/video games, and licensed characters. |
| Brand spokes-characters | Brand-specific characters (e.g. Ronald McDonald, Wendy). |
| Eating behaviors presented | Portrayals or suggestions of eating behaviors in the ad, including time and place of food consumption and whether food was a primary focus in the ad. |

To assess the messages presented in TV ads targeted to children, we analyzed the content of all ads from any fast food restaurant that aired on children's networks in 2012. A total of 203 English-language ads first appeared on these networks between January 1, 2012 and December 31, 2012. After removing duplicates, we obtained 76 unique ads for content analysis. The content analysis examined the products featured, as well as common selling points used, product associations, main characters in the ad, the use of third parties and brand spokes-characters, eating behaviors presented, and references to websites.

Only five fast food restaurants advertised on children's networks in 2012: Burger King, McDonald's, Sonic, Subway,

and Wendy's (see **Table 19**). Burger King and McDonald's placed ads on all five networks, whereas Subway and Wendy's did not advertise on NickToons or Disney XD. Sonic aired just one ad on Nickelodeon.

More than one-half of the ads that appeared on children's networks promoted kids' meals (59%), and McDonald's and Burger King only promoted their kids' meals on children's networks. However, Subway, Wendy's, and Sonic also advertised other types of products directly to children. Eleven of the twenty ads that Subway aired promoted its kids' meals, but Subway ads targeted to children also promoted \$5 Footlongs (2 ads) and other Footlong sandwiches (3 ads). Subway also aired four branding ads that did not focus on a

Table 19. Product types advertised on children's networks

| | # of ads analyzed | Networks where ads appeared | | | | |
|------------------------|-------------------|-----------------------------|-----------|-----------------|---------|-----------|
| | | Nickelodeon | NickToons | Cartoon Network | The Hub | Disney XD |
| McDonald's | | | | | | |
| Kids' meals | 31 | X | X | X | X | X |
| Subway | 20 | | | | | |
| Kids' meals | 11 | X | | X | | X |
| Branding only | 4 | X | | X | | X |
| Lunch/dinner items | 3 | | | | | X |
| Value menu/combo meals | 2 | | | | | X |
| Wendy's | 20 | | | | | |
| Lunch/dinner items | 16 | X | | X | X | |
| Branding only | 2 | X | | X | X | |
| Value menu/combo meals | 1 | | | X | X | |
| Snacks/desserts | 1 | X | | X | X | |
| Burger King | | | | | | |
| Kids' meals | 4 | X | X | X | X | X |
| Sonic | | | | | | |
| Lunch/dinner items | 1 | X | | | | |

Source: TV advertising content analysis (2012)

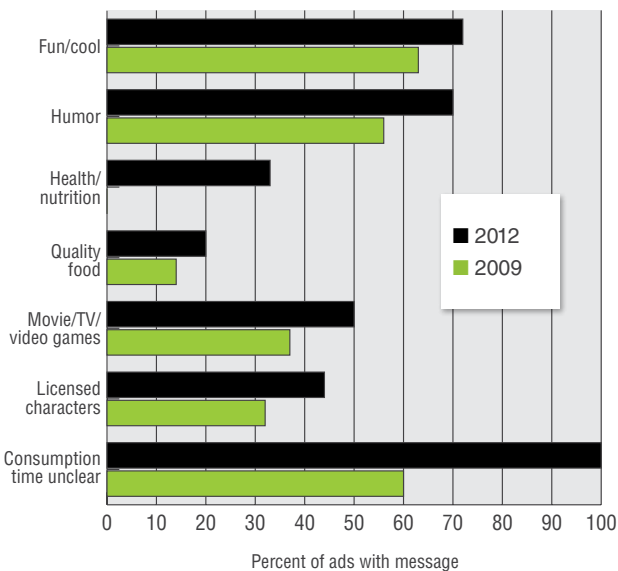
specific menu item. Of note, not one of Wendy's 20 ads that aired on children's networks featured its kids' meal. Wendy's targeted ads for 12 different products to children, ranging from salads and "signature sides" to Frosty's and Baconator and Son of Baconator burgers. Sonic's one child-targeted ad featured its Holy Guacamole and Chili Cheese Fritos Coney hot dogs. **Appendix Table C2** provides a list of items and nutrition information for all products that were advertised on children's networks in 2012.

Content of kids' meal ads

Figure 10 depicts the most common messages used in advertising for kids' meals in 2009 and 2012. McDonald's, Burger King, and Subway were the only restaurants to advertise kids' meals each year. Consistent with 2009, food was not the primary focus of these ads. Rather, product associations (primarily fun/cool and humor) were most common. However, due to new kids' meal advertising by McDonald's, health/nutrition was mentioned in one-third of kids' meal ads in 2012; this message did not appear in 2009 advertising. Other notable changes from 2009 include an increase in the use of the fun/cool message by all restaurants, as well as unclear portrayal of time of consumption in all ads (compared with 60% of ads in 2009). In addition, adults had been portrayed in a negative light in one-quarter of 2009 ads, but this message was not used in 2012. About 17% of kids' meal ads directed children to websites in 2012, about one-half the frequency of website referrals in 2009.

McDonald's kids' meal ads. McDonald's aired 31 different TV ads that promoted its Happy Meals. McDonald's was the only restaurant to use health/nutrition as a selling point. Almost one-half (45%) of ads touted health in some way, focusing

Figure 10. Messages in advertising for kids' meals on children's TV networks



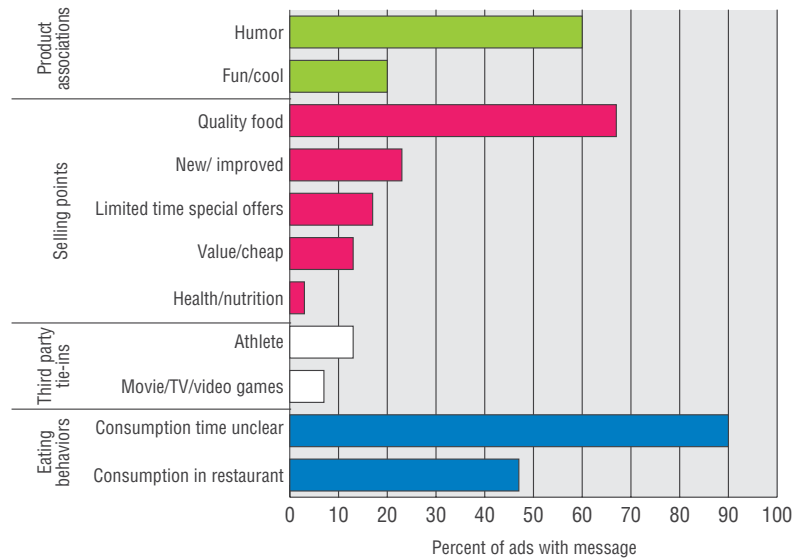
Source: TV advertising content analysis (2009, 2012)

on apple slices. A farm-fresh food theme carried throughout many of these ads. "Ferris's Funky Farm" ads depicted a boy on his farm, implying the source of the Happy Meal. These ads, as well as others, asserted that "eating well is about balance" or that "eating right can be magical when you choose milk and have fruit in your Happy Meal...along with a toy." A cartoon picture was repeatedly shown, depicting a farm in the background with bread, carrots, a chicken leg, an apple, and milk in the foreground. Approximately 36% of McDonald's ads featured promotions with two animated feature films: "Hotel Transylvania" and "Rise of the Guardians."



McDonald's Happy Meal ads depicting farm-fresh food

Subway kids' meal ads. Subway promoted its kids' meals in 11 different ads using quality food as a selling point in 82% of ads, consistent with the focus of its 2009 ads. It also used a fun/cool message in 55% of ads, an increase from 2009, but

Figure 11. Messages in advertising for other products on children's TV networks

Source: TV advertising content analysis (2012)

did not promote physical activity, which had been featured in the majority of its 2009 kids' meal ads. Approximately nine out of ten Subway ads featured a cross-promotion with an animated feature film, including Disney's "Brave" and "Wreck it Ralph." In addition, 55% of ads directed children to websites, including Subway.com, SubwayKids.com, and Disney.com/SubwayFreshTake, more often than other restaurants' ads. For example, ads instructed children to purchase a "Wreck it Ralph" collectors' edition Subway Fresh Fit for Kids meal to get a code to unlock exclusive bonuses in the online game "Hero's Duty" at Disney.com/SubwayFreshTake.

Burger King kids' meal ads. All Burger King ads focused on a fun/cool message, an increase from 2009. These ads touted "imagination is King" and encouraged children to "choose your own adventure." Two of the four Burger King ads directed children to BkCrown.com, an advergame site for children (replacing ClubBK.com, which was promoted in 2009). One Burger King ad promoted a crown design contest: the winner's design was featured on an actual BK crown, and the child won a trip to LegoLand.

Content of ads for other products

Figure 11 presents the most common messages used in advertising for other products that appeared on children's networks in 2012 from Wendy's, Subway, and Sonic. Quality food was the most common selling point used in two-thirds of these ads. In contrast to kids' meal ads, a health/nutrition message was rarely used. Also in contrast to ads for kids' meals, only 20% of these ads used a fun/cool message, although humor was used in the majority of both types of ads. Almost one-half of ads for other products showed food being consumed in the restaurant, compared with about 20% of kids' meal ads. Roughly one-quarter of these ads directed viewers to websites, somewhat more often than ads for kids' meals.

Although these ads aired on children's networks, they appeared to be designed to appeal to a much broader audience than the ads for kids' meals appearing on these same networks. For example, one-third of Subway's other child-targeted ads (not for kids' meals) featured a "Subprize Party" price promotion to celebrate Subway's birthday. During the month of September, "favorites" such as the Italian BMT were offered at only five dollars. About 44% of Subway's other ads promoted physical activity and featured celebrity athletes, including Michael Phelps. One ad boasted that Subway was "the official training restaurant of Robert Griffin III and athletes everywhere." The quality of Wendy's food was promoted in 60% of its ads that appeared on children's networks. Approximately one-quarter featured a teen or young adult as the main character in the ad, and 15% directed children to visit the restaurant late at night, "Better later: Open 1am or later." Sonic's one ad was a version of its long-running humorous campaign depicting two men eating in a car and discussing how the restaurant has reinvented itself for the summer.



Subway ads featured celebrity athletes and promoted physical activity

TV advertising to teens

TV advertising to teens Definition

Teen:adult targeted ratio Provides a measure of relative exposure by teens versus adults, calculated by dividing GRPs for teens (12-17 years) by GRPs for adults (25-49 years).

Ranking Table 7 provides teen:adult targeted ratios for the top-25 restaurants to identify TV advertising that may have been targeted to a teen audience. On average, teens saw 20% fewer fast food ads compared to adults (average targeted ratio of .80), but teens also watched 30% fewer hours of TV in 2012 than adults watched.¹⁸ Further, six restaurants had teen:adult targeted ratios of .90 or higher, indicating that teens saw more of these ads than expected given their TV-viewing habits. Starbucks advertising had the highest targeted ratio (1.26), although the average number of ads viewed by teens was low (approximately 10 ads per year). Teens saw nearly the same number of ads as adults for McDonald's, Burger King, Taco Bell, Sonic, and Popeyes.

Table 20 summarizes the number of ads that teens viewed by type of product for the 18 restaurants we focus on in this report. The majority of fast food ads viewed by teens promoted lunch/dinner items, which accounted for 59% of all ads viewed (compared to 47-48% of ads viewed by children). On average, teens saw two of these ads per day. Value/combo meals accounted for 12% of ads viewed by teens, more than double the number of these ads viewed by children. Ads for kids' meals represented less than 10% of ads seen by teens; not surprisingly, teens saw about one-third fewer kids' meal ads than children saw. The two product types with the highest overall teen:adult targeted ratios were also targeted to children: kids' meals and promotion-only ads.

Table 21 details the average number of ads viewed by teens in 2012 on national TV for each restaurant and product type, including products with 20 or more ads viewed on average and those with a teen:adult targeted ratio of .90 or higher. Ads for

Table 20. Teen exposure to TV advertising by product type and age group

| Product type | Teens (12-17 years) | | Teen: adult targeted ratio |
|------------------------|-------------------------|-----------------------|----------------------------|
| | Average # of ads viewed | % of total ads viewed | |
| Lunch/dinner items | 832.0 | 59% | 0.86 |
| Value menu/combo meals | 175.0 | 12% | 0.82 |
| Kids' meals | 119.6 | 8% | 2.86 |
| Snacks/desserts | 87.9 | 6% | 0.88 |
| Breakfast items | 53.6 | 4% | 0.88 |
| Promotion only | 39.5 | 3% | 1.09 |
| Branding only | 39.2 | 3% | 0.93 |
| Healthy options | 35.4 | 3% | 0.83 |
| Coffee beverages | 31.5 | 2% | 0.86 |

Highlighting indicates higher-than-expected teen:adult targeted ratios

Source: Nielsen (2012), National TV only

Table 21. Restaurants and product types advertised most often to teens

| Restaurant | Product type* | Teens (12-17 years) | |
|----------------|------------------------|-------------------------|----------------------------|
| | | Average # of ads viewed | Teen: adult targeted ratio |
| Taco Bell | Lunch/dinner items | 112.8 | 1.07 |
| McDonald's | Kids' meals | 107.8 | 3.03 |
| Subway | Lunch/dinner items | 96.8 | 0.83 |
| Domino's | Lunch/dinner items | 96.6 | 0.87 |
| Pizza Hut | Lunch/dinner items | 94.0 | 0.85 |
| Wendy's | Lunch/dinner items | 86.2 | 0.89 |
| Burger King | Lunch/dinner items | 73.2 | 0.85 |
| KFC | Lunch/dinner items | 60.5 | 0.74 |
| McDonald's | Lunch/dinner items | 52.0 | 0.72 |
| Little Caesars | Lunch/dinner items | 51.7 | 0.71 |
| Sonic | Lunch/dinner items | 43.6 | 1.07 |
| Arby's | Lunch/dinner items | 42.0 | 0.95 |
| Pizza Hut | Value menu/combo meals | 41.5 | 0.80 |
| Subway | Value menu/combo meals | 30.9 | 0.81 |
| KFC | Value menu/combo meals | 30.8 | 0.80 |
| Burger King | Snacks/desserts | 29.8 | 0.83 |
| Subway | Breakfast items | 24.0 | 0.88 |
| Dairy Queen | Snacks/desserts | 21.7 | 0.81 |
| McDonald's | Value menu/combo meals | 20.8 | 0.72 |
| Dairy Queen | Lunch/dinner items | 20.4 | 0.87 |
| Burger King | Promotion only | 18.8 | 1.73 |
| Taco Bell | Value menu/combo meals | 18.5 | 1.01 |
| Subway | Branding only | 15.8 | 1.43 |
| Sonic | Snacks/desserts | 15.8 | 1.27 |
| Wendy's | Healthy options | 15.1 | 1.03 |
| Sonic | Breakfast items | 11.1 | 1.16 |
| Starbucks | Coffee beverages | 8.1 | 1.50 |
| Burger King | Kids' meals | 7.0 | 3.30 |
| Burger King | Value menu/combo meals | 5.8 | 0.94 |
| Burger King | Breakfast items | 5.7 | 0.90 |
| Arby's | Promotion only | 5.5 | 1.12 |
| Subway | Kids' meals | 4.8 | 1.15 |
| Wendy's | Snacks/desserts | 2.7 | 1.20 |
| Taco Bell | Branding only | 2.3 | 0.94 |
| Burger King | Branding only | 1.4 | 1.11 |
| Sonic | Branding only | 0.9 | 2.17 |
| Dairy Queen | Promotion only | 0.8 | 1.02 |

*Includes products with 20 or more ads viewed by teens on average and those with a teen:adult targeted ratio of .90 or higher
Highlighting indicates menu items that appear to be targeted to teens

Source: Nielsen (2012), National TV only

Taco Bell's individual lunch/dinner menu items were viewed most frequently by teens, followed by McDonald's kids' meals (more than two ads per week). Adolescents also saw one to two ads per week for lunch/dinner items from Subway, Domino's, Pizza Hut, Wendy's, Burger King, KFC, McDonald's, and Little Caesars.

Kids' meal and promotion-only ads were targeted to teens as well as children. However, several restaurants also appeared to target teens with advertising for at least one of their menu items. Teens saw more ads than adults saw for Taco Bell lunch/dinner items and value/combo meals; Sonic lunch/dinner items, snacks/desserts, and breakfast items; Wendy's healthy options and snacks/desserts; and Starbucks coffee beverages. Starbucks coffee drinks had the highest targeted ratio of any type of menu item: adolescents saw 50% more of these ads compared to adults. In total, all ads that appeared to be targeted to teens (i.e., targeted ratios > 1.0) accounted for 28% of the total number of fast food ads they viewed.

TV advertising nutrient content analysis

Table 22 presents the 20 individual restaurant menu items seen most often by children (2-11 years) and teens (12-17 years) in TV advertising. Children viewed ads for McDonald's Happy Meal with Chicken McNuggets almost eight times

more than ads for any other menu item, averaging 3.6 ads per week. Burger King's Chicken Nuggets Kids' Meal and Dairy Queen Blizzards ranked second and third in ads viewed by children. Children viewed more ads for KFC biscuits and buckets of chicken and Burger King Real Fruit Smoothies than ads for Subway's Fresh Fit Kids' Meal.

The list of individual menu items in ads viewed most often by teens was similar to menu items viewed by children. Teens also saw more ads for Happy Meals than any other individual menu item, although they viewed 46% fewer of these ads than children. Teens also viewed fewer ads for Burger King and Subway kids' meals compared with children. However, teens saw at least twice as many ads for most other menu items compared to children. Wendy's ads for Baconators, fountain drinks, and french fries were an exception; teens saw just 60% more of these ads compared with children. Of note, these ads also aired on children's networks in 2012.

We also examined the nutrient content of menu items that appeared in ads seen by youth in 2012. The nutritional quality of items most often viewed in ads by children and teens varied widely by restaurant. As measured by NPI score, Taco Bell's options had the highest overall nutrition quality: all items scored higher than the minimum NPI score to be classified

Table 22. Menu items advertised most often to children and teens

| Restaurant | Menu item | Average # of ads viewed | | NPI score | Calories (kcal) | Sodium (mg) |
|-------------|---|-------------------------|---------------------|-----------|-----------------|-------------|
| | | Children (2-11 years) | Teens (12-17 years) | | | |
| McDonald's | Happy Meal (Chicken McNuggets) | 185.0 | 99.4 | 44-72 | 370-380 | 735-745 |
| Burger King | BK Kids' Meal (Chicken Nuggets) | 23.4 | 12.3 | 46-78 | 355-450 | 540-715 |
| Dairy Queen | DQ Blizzard | 22.9 | 45.0 | 40-60 | 570-1,070 | 230-690 |
| KFC | Biscuits | 18.3 | 38.1 | 24 | 180 | 530 |
| Burger King | Real Fruit Smoothies | 14.6 | 33.6 | 66-68 | 200-450 | 20-95 |
| KFC | Bucket of Chicken | 14.2 | 29.3 | 40-60 | 260-490 | 820-1,040 |
| Subway | Fresh Fit Kids' Meal (no specific sandwich) | 13.6 | 10.4 | 55-82 | 285-565 | 325-960 |
| KFC | Original Recipe Chicken Bites | 13.0 | 28.0 | 62 | 330 | 1,100 |
| KFC | Mashed Potatoes | 12.9 | 26.9 | 60 | 120 | 530 |
| Burger King | French Fries | 12.8 | 31.1 | 60-62 | 340-500 | 480-710 |
| KFC | Cole Slaw | 11.5 | 23.8 | 70 | 180 | 150 |
| Burger King | Sweet Potato Fries | 11.1 | 25.0 | 60 | 250 | 550 |
| Taco Bell | Doritos Locos Taco | 10.6 | 28.0 | 64 | 170 | 340 |
| Taco Bell | Chicken Cantina Bowl | 9.7 | 25.6 | 72 | 560 | 1520 |
| Taco Bell | Doritos Locos Taco Supreme | 9.4 | 26.0 | 66 | 200 | 370 |
| McDonald's | 20-piece Chicken McNuggets | 7.9 | 15.1 | 44-50 | 290-340 | 640-800 |
| Subway | Footlong Italian BMT | 7.4 | 15.4 | 44-64 | 820-1,140 | 2,600-4,040 |
| Wendy's | Baconator, Son of Baconator | 7.3 | 11.8 | 32-34 | 700-970 | 1,760-2,020 |
| Wendy's | Fountain Drink | 7.1 | 11.3 | 64-70 | 0-374 | 0-72 |
| Wendy's | French Fries | 7.1 | 11.3 | 64-66 | 230-530 | 250-570 |
| McDonald's | McChicken Sandwich | 7.0 | 13.8 | 50 | 360 | 800 |
| Dairy Queen | French Fries | 7.0 | 13.6 | 58 | 310 | 640 |
| Wendy's | Bacon Portabello Melt | 6.9 | 13.5 | 36 | 660 | 1450 |
| KFC | Macaroni and Cheese | 6.9 | 14.1 | 60 | 160 | 720 |
| Burger King | Texas BBQ Whopper | 6.8 | 16.6 | 48 | 760 | 1,600 |

Highlighting indicates that children viewed more ads than teens viewed
Source: Nielsen (2012), National TV only

Table 23. Total nutrient content of items in TV ads viewed by youth every day

| | Total calories (kcal) | | | Proportion of calories from sugar and saturated fat | |
|--------------------------|-----------------------|-------|--------|---|------|
| | 2009 | 2012 | Change | 2009 | 2012 |
| Preschoolers (2-5 years) | 948 | 790 | -17% | 40% | 28% |
| Children (6-11 years) | 1,186 | 937 | -21% | 39% | 28% |
| Teens (12-17 years) | 1,715 | 1,436 | -16% | 37% | 28% |

| | Total sodium (mg) | | |
|--------------------------|-------------------|-------|--------|
| | 2009 | 2012 | Change |
| Preschoolers (2-5 years) | 1,734 | 1,545 | -11% |
| Children (6-11 years) | 2,193 | 1,818 | -17% |
| Teens (12-17 years) | 3,353 | 2,937 | -12% |

Source: Nielsen (2009, 2012 ad exposure data); menu composition analysis (February 2013)

as healthy. In contrast, only one of the six items commonly featured in KFC ads qualified as healthy (cole slaw). Overall, three-quarters of items viewed most often were of poor nutritional quality. Calorie and sodium content were also high; five items exceeded 700 calories and eight items had sodium levels greater than 1,000 milligrams.

We also examined calories and sodium of all menu items presented in ads from the restaurants included in our 2009 analysis, excluding the pizza and coffee restaurants (eight restaurants, consistent with the nutrition analysis). **Table 23** shows the total calories, sodium, and calories from sugar and saturated fat viewed in fast food ads on average every day by preschoolers, children, and teens in 2009 and 2012.

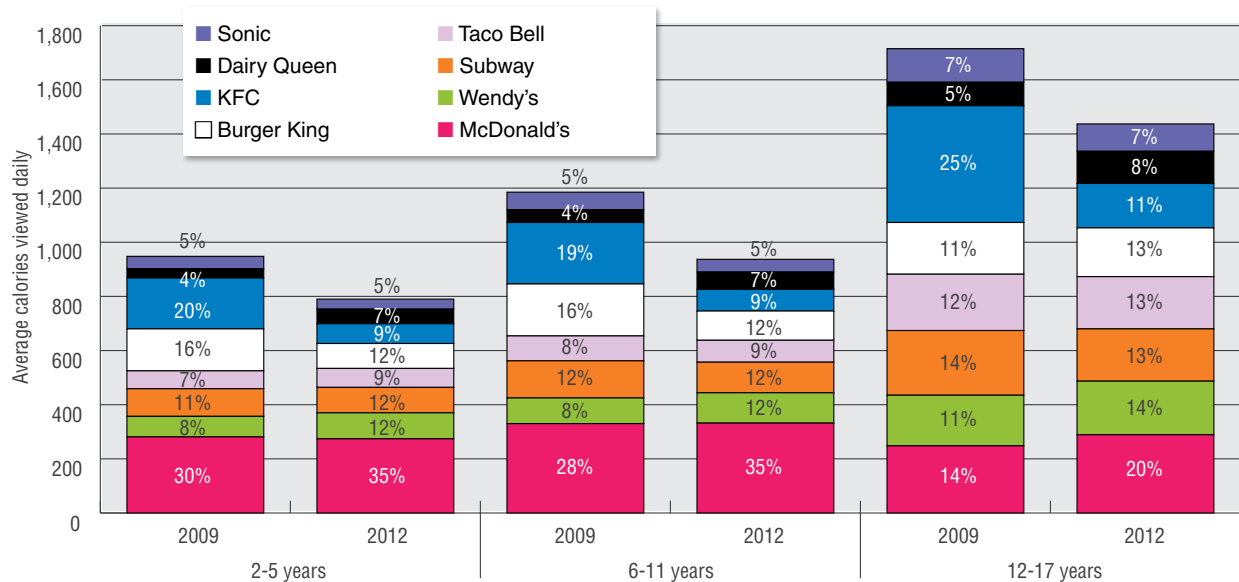
Total calories and sodium in daily ads viewed decreased across all age groups from 2009 to 2012. Calories decreased at a somewhat greater rate than decreases in total ads viewed (which were -14%, -18%, and -6%, for preschoolers, children, and teens, respectively for these eight restaurants), indicating reductions in calorie content of the menu items featured in the ads. Children saw the biggest decline in average calories, with a 21% reduction. The proportion of calories viewed from sugar and saturated fat also decreased from 37 to 40% of total calories to 28%, indicating that menu items featured in TV advertising tended to contain fewer empty calories. Reductions in sodium content were comparable to the reductions in ad exposure.

Table 24. Average calories and sodium in TV ads viewed by children and teens

| | Average calories per ad viewed (kcal) | | | | | |
|-------------|---------------------------------------|------|--------|---------------------|------|--------|
| | Children (6-11 years) | | | Teens (12-17 years) | | |
| | 2009 | 2012 | Change | 2009 | 2012 | Change |
| Dairy Queen | 777 | 908 | 17% | 775 | 911 | 18% |
| KFC | 1,242 | 691 | -44% | 1,196 | 696 | -42% |
| Wendy's | 631 | 657 | 4% | 626 | 649 | 4% |
| Sonic | 763 | 605 | -21% | 752 | 602 | -20% |
| Taco Bell | 566 | 549 | -3% | 570 | 537 | -6% |
| Subway | 493 | 540 | 10% | 635 | 566 | -11% |
| Burger King | 407 | 486 | 20% | 439 | 495 | 13% |
| McDonald's | 457 | 454 | -1% | 454 | 480 | 6% |

| | Average sodium per ad viewed (mg) | | | | | |
|-------------|-----------------------------------|-------|----------|---------------------|-------|----------|
| | Children (6-11 years) | | | Teens (12-17 years) | | |
| | 2009 | 2012 | % change | 2009 | 2012 | % change |
| Dairy Queen | 623 | 1,260 | 102% | 632 | 1,281 | 103% |
| KFC | 2,008 | 1,753 | -13% | 1,967 | 1,767 | -10% |
| Wendy's | 1,518 | 1,360 | -10% | 1,491 | 1,352 | -9% |
| Sonic | 978 | 1,358 | 39% | 959 | 1,354 | 41% |
| Taco Bell | 1,367 | 1,125 | -18% | 1,374 | 1,103 | -20% |
| Subway | 1,399 | 1,456 | 4% | 1,854 | 1,590 | -14% |
| Burger King | 607 | 776 | 28% | 742 | 813 | 9% |
| McDonald's | 800 | 746 | -7% | 821 | 799 | -3% |

Source: Nielsen (2009, 2012 ad exposure data); menu composition analysis (February 2013)

Figure 12. Calories viewed daily in TV ads for fast food restaurants

Source: Nielsen (2009, 2012 ad exposure data); menu composition analysis (February 2013)

However, the nutritional quality of menu items in fast food advertising viewed by children and teens varied widely by restaurant (see **Table 24**). Dairy Queen advertised the highest calorie items, averaging over 900 calories per ad, while Burger King and McDonald's ads contained the fewest calories, likely due to the higher proportion of lower-calorie kids' meals featured in ads for these two restaurants. In 2012, Dairy Queen and KFC were the only restaurants with an average calorie content in ads viewed by 6- to 11-year-olds that was higher than the 650 calorie limit for meals served to elementary school-age children.¹⁹ KFC ads viewed by teens had the highest sodium content at 1,767 milligrams viewed per ad, or 77% of the maximum recommended daily intake for adults,²⁰ while Burger King and McDonald's ads had the lowest sodium content. However, the average sodium per ad viewed exceeded meal standards for elementary school-age children for every restaurant.²¹

From 2009 to 2012, changes in average calories and sodium per ad also varied widely by restaurant. Calories per KFC ad viewed showed the greatest improvement, with decreases of 42 to 44%. Average calories also decreased by approximately 20% in Sonic ads. Smaller reductions occurred in Taco Bell ads viewed by children and teens, as well as Subway ads viewed by teens. Sodium followed a similar trend, with decreases in sodium per ad viewed by all youth at KFC, Wendy's, Taco Bell, and McDonald's. However, calories per ad viewed increased by as much as 18% at Dairy Queen, as well as at Burger King and Wendy's, for both age groups. Calories per ad viewed by teens also increased for McDonald's. Dairy Queen had the largest increase in sodium, double the sodium per ad in 2009, and Sonic and Burger King substantially increased the sodium content in their ads.

Figure 12 shows the breakdown of calories viewed daily by restaurant. McDonald's and Wendy's contributed a greater

proportion of calories viewed by preschoolers and children in 2012 than in 2009, while the proportion of calories viewed decreased for Burger King and KFC. Trends were similar for teens with one exception: Burger King contributed a greater proportion of the calories in ads they viewed in 2012 versus 2009.

Summary of traditional media advertising

In 2012, fast food restaurants continued to spend billions of dollars in advertising on traditional media. Positively, the total number of ads viewed by children (6-11 years) declined by 10% versus 2009. However, children still saw 3.2 ads per day, and preschoolers' exposure did not change (2.8 ads per day). Further, teens saw more ads in 2012 than they had in 2011, reversing a downward trend starting in 2009. However, there was variation in changes in advertising by restaurant. Both Burger King and KFC substantially reduced advertising to all youth, and McDonald's reduced its advertising to children. On the other hand, Wendy's and Domino's greatly increased advertising to children, but increased advertising to teens just slightly.

Ads for lunch/dinner items continued to account for the highest proportion of ads viewed by all youth, even though they did not appear to be targeted to them specifically. However, several restaurants did continue to target children and teens with advertising for specific product types. For example, ads featuring most restaurants' kids' meals were viewed two to seven times more often by children than adults, and teens were 1.5 times more likely than adults to see ads for Starbucks.

The nutritional quality of ads most often viewed by children and teens showed some improvement. Total calories in fast food ads viewed daily decreased across all age groups, with greater reductions for children. Menu items featured in TV

advertising also tended to contain fewer empty calories in 2012 as compared with 2009. However, more than 75% of individual items featured in ads most often viewed by children and teens still promoted unhealthy products. Dairy Queen advertised the highest calorie items, averaging over 900 calories per ad, and KFC ads had the highest sodium content, at 1,767 milligrams viewed per ad. In contrast, McDonald's and Burger King ads focused on lower-calorie kids' meals and thus had the lowest calorie and sodium content, although average calories increased for Burger King ads viewed by teens and children and McDonald's ads viewed by teens.

Messages in ads for kids' meals were similar to those found in 2009, although McDonald's ads also included messages about health and nutrition in 2012, which did not occur previously. Subway and Burger King also advertised kids' meals to children. However, our analysis of all ads that aired on children's networks in 2012 showed that Wendy's, Subway, and Sonic also targeted ads for other products (i.e., not kid's meals) to children. For example, Wendy's ads on children's networks featured its Baconator sandwiches and signature Frosty, while Subway advertised Footlong sandwiches to children.

Traditional media advertising

Signs of progress

- The number of fast food TV ads viewed by older children (6-11 years) declined by 10%, from 3.6 ads-per-day in 2009 to 3.2 ads-per-day in 2012.
- Both of the top advertisers in 2009 reduced their TV advertising to children in 2012. Children saw 50% fewer TV ads for Burger King and 13% fewer ads for McDonald's, resulting in a reduction of almost three ads viewed per week. Children also saw fewer TV ads for KFC.
- Preschoolers and children saw more TV ads for McDonald's healthier kids' meals than any other product type from any restaurant, accounting for 17 to 19% of all TV ads viewed in 2012.
- In compliance with their CFBAI pledges, McDonald's and Burger King only advertised their healthier kids' meals on children's TV networks. Many of McDonald's ads encouraged children to select the healthier apples and milk.
- Total calories in fast food ads viewed by children and teens went down by 11% or more from 2009 to 2012. Empty calories from sugar and saturated fat in featured menu items decreased from 37 to 40% of total calories in 2009 to 28% in 2012. The average number of calories in KFC and Sonic ads went down substantially (approximately 40% and 20%, respectively). Calories in Taco Bell and Subway ads viewed by teens also went down 6% and 11%.

Continued reasons for concern

- Total fast food advertising spending reached \$4.6 billion in 2012, an 8% increase versus 2009. Fifteen of the top twenty-five restaurants spent more in 2012 than in 2009, and four restaurants (Little Caesars, Boston Market, Panera Bread, and Starbucks) increased spending by 50% or more.
- In contrast to the trends in advertising to children (6-11 years), the number of fast food TV ads viewed by preschoolers (2-5 years) and teens (12-17 years) did not change from 2009 to 2012. In 2012, on average, preschoolers saw 2.8 fast food ads daily, and teens saw 4.8 ads per day.
- Despite an overall reduction in TV advertising to 6- to 11-year-olds, 11 of the top-25 restaurants increased advertising to children by 10% or more, including Domino's (+44%), Arby's (+38%), and Wendy's (+13%).
- Preschoolers saw more TV ads in 2012 versus 2009 for 19 of the top-25 restaurants, and teens saw more ads for 15 of the top 25. Preschoolers viewed 9% or more ads in 2012 from eight of the top-12 advertisers, while advertising to teens increased 7% or more for seven restaurants.
- McDonald's was the only restaurant to advertise more to children than to older age groups. Children (6-11 years) saw 16% more TV ads for McDonald's than teens saw and 8% more than adults saw.
- Ads for healthier kids' meals represented just one-quarter of fast food TV ads seen by preschoolers and children. Children saw more ads for lunch/dinner items from Domino's, Subway, Wendy's, Pizza Hut, Taco Bell, Burger King, KFC, McDonald's, Arby's, and Sonic, than they saw for Burger King or Subway kids' meals.
- Wendy's appeared to target children directly with advertising for its regular menu items. Despite a 3% decline in advertising spending from 2009 to 2012, preschoolers and children viewed 24% and 13% more Wendy's TV ads, respectively, while advertising to teens increased just 2%. Wendy's did not advertise its kids' meals on children's TV networks, but it did air 20 different ads for other products (including Frosty and Baconator burgers) on Nickelodeon, Cartoon Network, and The Hub.
- Burger King and Subway targeted promotional and branding ads to children that did not advertise a specific food product. Subway also advertised its Footlong sandwiches on children's TV networks.

- Overall, teens saw 20% fewer TV ads for fast food restaurants compared with adults. However, these numbers are higher than expected given that teens watch 30% fewer minutes of television than adults watch. A few restaurants appeared to target teens directly with ads for several product types. Starbucks coffee had the highest targeted ratio: teens saw 50% more of these ads than adults saw. Compared with adults, teens also saw more ads for Taco Bell lunch/dinner items and value/combo meals; Sonic lunch/dinner items, snacks/desserts, and breakfast items; and Wendy's healthy options and snacks/desserts.
- The average number of calories in Dairy Queen, Subway, and Burger King ads viewed by children and Dairy Queen and Burger King ads viewed by teens went up by 10% or more from 2009 to 2012. Dairy Queen averaged more than 900 calories per ad in 2012.

Digital media marketing

In this section, we examine four types of fast food marketing that occur in digital media: websites sponsored by fast food companies, display advertising on third-party websites, marketing on mobile devices (i.e., smartphones and tablets), and social media marketing. We report on the marketing practices of the 18 fast food restaurants that are the focus of this report.

Website exposure

| Website exposure | Definitions |
|---|--|
| Average monthly unique visitors ²² | Average number of different individuals visiting the website each month. Data are reported for the following demographic groups: children (2-11 years) and teens (12-17 years). |
| Average visits per month ²³ | Average number of times each unique visitor (in each demographic group) visits the website each month. |
| Average pages per month ²⁴ | Average number of pages viewed each month by each visitor (in each demographic group) to the website. |
| Average minutes per visit | Average number of minutes each visitor (in each demographic group) spends on the website each time he or she visits. |
| Targeted index by age ²⁵ | The percent of visitors to the website that are children or teens divided by the percent of child or teen visitors to the internet in total. A targeted index greater than 100 indicates that children or teens are more likely to visit the website compared to other websites. |

The 18 restaurants sponsored 32 different websites with enough youth visitors (2-17 years) to obtain 2012 exposure data from comScore (see **Ranking Table 8**). Additionally, two Papa John's websites were included in this analysis due to very high visits by youth to the restaurant's main website, for a total of 34 websites. One new website was introduced since our 2009 analysis (McDonald's PlayatMcD.com), while 14 sites were discontinued or no longer had enough unique visitors to be measured by comScore, including three previously popular children's sites: WendysKids.com (Wendy's), ClubBK.com (Burger King), and DeeQs.com (Dairy Queen).

Table 25 describes the 20 websites with the most youth visitors in 2012. The most common features found on these sites included menus, nutrition information, promotions, and store locators. Online ordering was also featured on many of the most popular sites for youth, including PizzaHut.com, Dominos.com, PapaJohns.com, and Subway.com. TacoBell.com and JackInTheBox.com further engaged youth by prominently

displaying social media features, including the restaurants' Facebook feeds and YouTube videos. HappyMeal.com was the only site on this list that contained content specifically targeting children, including games, videos, and toy promotions.

Of the 34 sites with data in 2012, two pizza websites (PizzaHut.com and Dominos.com) and two McDonald's sites (McDonalds.com and HappyMeal.com) had the most youth visitors. PapaJohns.com, Subway.com, and Starbucks.com followed, each with over 100,000 unique youth visitors per month. Engagement with PapaJohns.com was higher than that of any other fast food website in 2012: young visitors to the site spent on average six minutes per visit and visited eleven pages per month. Two other pizza websites, PizzaHut.com and Dominos.com, also had high youth engagement: young people visited five pages per month on average and spent three to five minutes per visit to these sites.

Table 25. Twenty fast food restaurant websites with the most youth visitors

| Website | Average monthly unique youth visitors in 2012 (000) | Change from 2009 | Content of website |
|--------------------|---|------------------|---|
| PizzaHut.com | 351.8 | -20% | Menu, nutrition, promotions, online ordering, store locator |
| McDonalds.com | 306.9 | 19% | Menu, nutrition, promotions |
| Dominos.com | 293.6 | -32% | Menu, nutrition, coupons, online ordering, store locator |
| HappyMeal.com | 160.6 | -35% | Child-targeted games, videos, and toy promotions |
| PapaJohns.com* | 147.6 | | Menu, nutrition, promotions, online ordering, store locator |
| Subway.com | 121.4 | 50% | Menu, nutrition, promotions, online ordering, store locator |
| Starbucks.com | 110.1 | 25% | Menu, nutrition, promotions, online store, store locator |
| McState.com | 89.1 | 42% | Store locator |
| TacoBell.com | 79.7 | 19% | Menu, store locator, nutrition, social media, restaurant news |
| BurgerKing.com | 77.0 | -8% | Menu, nutrition, promotions, online ordering, store locator |
| Wendys.com | 51.5 | -40% | Menu, nutrition, promotions, store locator |
| KFC.com | 49.1 | -42% | Menu, nutrition, promotions, store locator, catering |
| PaneraBread.com* | 45.6 | | Menu, promotions, store locator, nutrition, catering |
| Chick-fil-A.com* | 40.5 | | Menu, nutrition, store locator, events, child and family activities |
| Arbys.com* | 19.9 | | Menu, nutrition, promotions, restaurant news, store locator |
| DairyQueen.com | 32.1 | -34% | Menu, nutrition, promotions, store locator |
| DunkinDonuts.com | 31.0 | -46% | Menu, nutrition, promotions, store locator, online store, |
| LittleCaesars.com* | 30.7 | | Menu, nutrition, promotions, store locator |
| JackInTheBox.com* | 29.7 | | Menu, nutrition, promotions, store locator, social media |
| SonicDriveIn.com | 23.8 | -70% | Menu, nutrition, promotions, store locator |

*These sites were not included in our 2009 analysis

Source: comScore Media Metrix Key Measures Report (January-December 2012)

Child visitors to websites

In 2012, HappyMeal.com replaced PizzaHut.com as the fast food website that attracted the most child visitors (see **Ranking Table 8**). The site averaged 118,000 unique 2- to 11-year-olds per month in 2012, three times as many as PizzaHut.com. As in 2009, Dominos.com ranked third in popularity among children. However, the average number of child visitors to the top sites declined substantially from 2009 to 2012. Child visitors to HappyMeal.com went down 37%, while child visitors to PizzaHut.com and Dominos.com decreased more than 75%. Two other McDonald's sites that had ranked in the top five for child visitors in 2009 had reductions in the number of children visiting of almost 90%: McDonalds.com and McWorld.com. Unique child visitors to all McDonald's websites remained high (159,000 per month), but 39% fewer 2- to 11-year-olds visited these sites in 2012 than in 2009.

PapaJohns.com was not included in our 2009 analysis, but this site averaged 14,000 unique child visitors per month in

2012, ranking fourth in child visitors to restaurant websites. SubwayKids.com was the only site analyzed in 2009 with an increase in visits by 2- to 11-year-olds. The site launched at the end of 2008 and ranked fifth overall in child exposure in 2012. ClubBK.com had been seventh in child exposure for 2009, but no longer existed by the end of 2012. Burger King introduced a new child-targeted site, BKCrown.com (ClubBK.com currently redirects to this site), but the site did not have enough unique visitors to measure exposure in 2012.

Three of the 34 websites in our analysis appeared to target children under 12. These sites offered advergaming (i.e., branded games with advertising messages embedded within the game) tied to kids' meals and were more likely to be visited by children (see **Table 26**). Children were 3 or more times as likely to visit HappyMeal.com and McWorld.com, which is consistent with 2009 results. Children were also more than twice as likely to visit SubwayKids.com compared with other websites.

Table 26. Websites with relatively high compositions of child visitors

| Rank | Restaurant | Website | Average monthly unique child visitors in 2012 (000) | Targeted index |
|------|------------|----------------|---|----------------|
| 1 | McDonald's | McWorld.com | 10.1 | 333 |
| 2 | McDonald's | HappyMeal.com | 118.7 | 308 |
| 3 | Subway | SubwayKids.com | 13.3 | 231 |

Source: comScore Media Metrix Key Measures Report (January-December 2012)



HappyMeal.com "Be a Yummivore" game



'Superopolis' from McDonald's child- and teen-targeted McWorld.com



SubwayKids.com promotion for Disney's "Gravity Falls" TV show



PlayatMcD.com promoted McDonald's "Monopoly" sweepstakes

Teen visitors to websites

In contrast to declining website visits by 2- to 11-year-olds, teen visitors (12-17 years) increased for the majority of fast food websites (see **Ranking Table 8**). More than one-half of the sites examined in both 2009 and 2012 showed an increase in unique teen visitors, including eight of the ten sites with the highest teen exposure in 2012. Consistent with 2009, PizzaHut.com, McDonalds.com, and Dominos.com attracted the most unique teen visitors. These sites gained 27%, 75%, and 5% more monthly unique teen visitors, respectively. In addition, teen visitors to Subway.com more than doubled from 2009 to 2012. PapaJohns.com averaged 134,000 unique teen visitors per month in 2012, ranking fourth for teens as well as children. Teen visitors to Starbucks.com increased over 90%, and visitors to McDonald's Latino-targeted site, MeEncanta.com, almost quadrupled. A new McDonald's site hosted the restaurant's Monopoly game, PlayAtMcD.com, and was popular with teens. It launched at the end of the third quarter and attracted over 74,000 unique teen visitors per month in the fourth quarter alone. As a result, the site ranked

sixth in teen exposure for the fourth quarter of 2012, although it did not make the top-20 sites for the full year. McDonald's averaged more than 462,000 monthly unique teen visitors to all of its websites in 2012, an increase of 48% from 2009.

Teen visitors to some sites did decline, but most reductions were small. For instance, average monthly teen visitors to Wendys.com decreased by 3%, and the site remained in the top 12 for teen exposure. Teen visitors to KFC.com and DunkinDonuts.com both declined 10%. SonicDriveIn.com and HappyMeal.com had more substantial declines of -43% and -28%, respectively.

Teens made up a relatively high proportion of visitors to eight of the thirty-four websites in our analysis, including six McDonald's sites, KFCScholars.org (KFC's philanthropy site), and SubwayKids.com (see **Table 27**). Teens were almost 1.8 times more likely to visit McWorld.com and 1.2 to 1.4 times more likely to visit MeEncanta.com, RMHC.org, KFCScholars.org, and McState.com (McDonald's restaurant locator site).

Table 27. Websites with relatively high compositions of teen visitors

| Rank | Restaurant | Website | Average monthly unique teen visitors in 2012 (000) | Targeted index |
|------|------------|-----------------|--|----------------|
| 1 | McDonald's | McWorld.com | 5.3 | 176 |
| 2 | McDonald's | MeEncanta.com | 13.3 | 138 |
| 3 | McDonald's | RMHC.org | 9.7 | 134 |
| 4 | KFC | KFCScholars.org | 1.9 | 129 |
| 5 | McDonald's | McState.com | 86.9 | 118 |
| 6 | Subway | SubwayKids.com | 6.4 | 111 |
| 7 | McDonald's | HappyMeal.com | 41.9 | 108 |
| 8 | McDonald's | McDonalds.com | 104.9 | 102 |

Source: comScore Media Metrix Key Measures Report (January-December 2012)

Display advertising on third-party websites

Display advertising exposure

Definitions

| | |
|--|--|
| Third-party websites | Websites from other companies where fast food restaurants place their advertising. |
| Display advertising | Comparable to “banner advertising” (reported in the 2009 analysis), these ads appear on third-party websites as rich media (SWF files) and traditional image-based ads (JPEG and GIF files). They are usually placed in a sidebar or “banner” at the top of a web page. On Facebook, these ads appear on the side of the screen, next to the newsfeed. Text, video, and html-based ads are not included. |
| Kids' websites | Third-party websites where 20% or more of total unique visitors are 2-11 years old. |
| Youth websites | Third-party websites defined by comScore as “entertainment websites for youth” and websites with a percent of youth visitors (2-17 years) that exceeds the percent of youth visitors on the total internet in 2012 (19%). |
| Unique viewers per month ²⁶ | Average number of unique viewers exposed to a restaurant's display advertisements each month. |
| Ads viewed per viewer per month ²⁷ | Average number of display advertisements viewed per unique viewer each month. |
| Proportion of ads viewed on kids' websites, youth websites, and Facebook ²⁸ | Percent of a restaurant's total display advertisements that appear on each of these types of websites. |
| Average number of ad views on kids' websites, youth websites, and Facebook per month ²⁹ | Total number of display advertisements viewed on each of these types of websites on average every month in 2012. |

Ranking Table 9 presents exposure to display ads placed by the 18 restaurants in this analysis on kids' and youth websites, as well as on Facebook. On average, 246 million fast food ads appeared on youth websites every month in 2012, 6% of all fast food display ads placed on third-party websites; while 88 million of these ads appeared on kids' websites (2% of fast food display ads). From 2009 to 2012, the number of display ads on youth websites declined by 55% for the 12 restaurants analyzed in 2009. However, restaurants placed almost 6 billion ads on Facebook in 2012, or 19% of all display advertising, making Facebook the primary website for fast food advertising placements in 2012.

Examination of display advertising for individual restaurants demonstrates different internet marketing strategies. Domino's remained the top fast food advertiser on youth websites, although its advertising declined from 181 million ads viewed per month in 2009 to 84 million ads in 2012 (down 54%). As in 2009, McDonald's and Pizza Hut ranked second and third in fast food advertising on youth websites, but average monthly ads viewed also declined substantially for these restaurants (-37% and -80%, respectively). Wendy's reduced advertising on youth websites by 94%, but 54% of its 2012 display ads were placed on Facebook. Similarly, Dunkin' Donuts appeared to shift its advertising to Facebook, accounting for 68% of ads viewed, while its advertising on youth websites declined 73%.



Special offers by pizza restaurants dominated online advertising

Despite overall declines, three of the restaurants in our 2009 analysis substantially increased their advertising on youth websites, moving up in the ranking table. KFC ranked fourth in display advertising on youth websites in 2012, with 18 million ads viewed per month on average (138% increase over 2009); Subway ranked fifth (17 million ads viewed, up 450%); and Starbucks ranked seventh (9.5 million ads viewed, up 330%). Four restaurants that were not examined in 2009 rounded out the top-ten list: Panera Bread (#6), Arby's (#8), CiCi's (#9), and Little Caesars (#10).

Display advertising to children

To identify advertising targeted to children under 12 online, we first analyzed display advertising that promoted child-targeted websites and/or kids' meals. In 2009, three restaurants advertised four different child-targeted websites online, totaling over 52 million ads viewed per month (see **Ranking Table 9**). With the subsequent discontinuation of three of these sites, HappyMeal.com was the only child-targeted fast food website to advertise on third-party websites in 2012. However, average monthly display ads promoting HappyMeal.com on all third-party websites increased by 63%: from 20.7 million in 2009 to 33.7 million in 2012. Three-quarters of Happy Meal ads were viewed on youth websites in 2012, as compared to 57% in 2009. Additionally, Subway and Wendy's advertised their kids' meals on third-party websites in 2012 (5.4 and 1.8 million monthly ads viewed, respectively), but not in 2009. Two-thirds of Subway kids' meal advertisements were placed on kids' websites, while one-half of ads for Wendy's kids' meals were placed on Facebook.



NICK STARS VIDEO QUIZ



Display ads for HappyMeal.com ranged from illustrations of the food to celebrity endorsements and movie promotions

We also analyzed all display advertising that appeared on websites targeted to children (see **Table 28**). Although just 2% of fast food display ads appeared on kids' websites in 2012, they averaged 87.5 million ads viewed per month or 1.1 billion ads per year. More than 80% of these ads (approximately 875 million display ads) appeared on just four sites: Nick.com, Roblox.com (a Lego's site), Disney Online websites, and CartoonNetwork.com. Only four restaurants *did not* advertise on kids' websites (Jack in the Box, Dunkin' Donuts, Taco Bell, and Chick-fil-A).



Wendy's promoted its \$1.99 Kids' Meal offer online

Table 28. Top kids' websites with fast food display ads

| Third-party kids' website | 2012 yearly ad views (million) | Proportion of total unique visitors | |
|---------------------------|--------------------------------|-------------------------------------|-----------|
| | | Ages 2-17 | Ages 2-11 |
| Nick.com | 390.4 | 70% | 40% |
| Roblox.com | 211.1 | 73% | 49% |
| Disney Online websites | 172.9 | 31% | 20% |
| CartoonNetwork.com | 101.3 | 62% | 47% |
| Coolmath-Games.com | 61.5 | 54% | 36% |
| MiniClip.com | 51.7 | 50% | 29% |
| NeoPets.com | 51.0 | 50% | 26% |
| GirlsGoGames.com | 31.4 | 54% | 35% |

Source: comScore AdMetrix Advertiser Report (January-December 2012)

Table 29 presents the average monthly display ad views on kids' websites for individual products with more than 50,000 average monthly ad views. Ads for McDonald's Happy Meal were viewed on kids' websites more often than any other menu

Table 29. Display ads viewed on kids' websites by menu item

| Restaurant | Menu item | Average monthly ad views on kids' websites (000) | Proportion of ads viewed on kids' websites |
|----------------|-------------------|--|--|
| McDonald's | Happy Meal | 25,268.3 | 75% |
| Subway | Kids' meal | 3,649.4 | 67% |
| McDonald's | Filet-o-fish | 2,087.5 | 2% |
| McDonald's | McCafe | 700.7 | 2% |
| McDonald's | Chicken McBites | 329.4 | 4% |
| Wendy's | Frosty | 266.2 | 1% |
| Wendy's | Hamburgers | 221.2 | 1% |
| McDonald's | Chicken McNuggets | 176.2 | 1% |
| Wendy's | Value Menu | 150.3 | 2% |
| McDonald's | Dollar Menu | 128.9 | 1% |
| Wendy's | Kids' Meal | 112.6 | 6% |
| Little Caesars | Pizza Kit | 67.7 | 1% |

Source: comScore AdMetrix Advertiser Report (January-December 2012)

item or product: more than 25 million times per month in 2012. On average, 6 million unique viewers saw 5.4 ads for Happy Meals per month. Ads for Subway kids' meals were a distant second at 3.6 million monthly ad views. The majority of ads for both restaurants' kids' meals appeared on kids' websites.

Although kids' websites represented a small proportion of display ads viewed for most restaurants in 2012, there were a few notable ad placements. The top fast food items advertised on kids' websites included five McDonald's menu items that were not approved for child-directed advertising by the company's CFBAI pledge, as well as four non-kids' meal menu items from Wendy's. Of note, McDonald's Filet-o-fish sandwich ranked third in ads viewed on kids' websites, averaging more than 2 million per month, and its McCafe drinks ranked fourth.

Display advertising targeted to teens

More than 25 million fast food display advertisements appeared on sixteen other youth websites in 2012 (see **Table 30**). Approximately one-third or more of visitors to some of these sites were youth under 18, including DeviantART.com, AddictingGames.com, WeeWorld.com, and IMVU.com. Although Facebook did not qualify as a youth website according to its audience composition, it was very popular with young visitors. The site averaged over 18 million monthly visitors ages 2 to 17, 42% of all youth on the internet, in 2012.³⁰

On average, 6% of fast food restaurant display advertisements appeared on youth websites every month in 2012, down from

Table 30. Ad views on Facebook and top third-party youth websites

| Third-party website | 2012 yearly ad views (million) | Proportion of total unique visitors | |
|---------------------|--------------------------------|-------------------------------------|-----------|
| | | Ages 2-17 | Ages 2-11 |
| Facebook.com | 5,974.6 | 12% | 3% |
| DeviantART.com | 280.3 | 40% | 5% |
| AddictingGames.com | 165.6 | 31% | 12% |
| MeetMe.com | 153.2 | 15% | 0% |
| MyYearBook.com | 120.8 | 23% | 0% |
| MangaHere.com | 99.2 | 19% | 2% |
| GaiaOnline.com | 79.7 | 27% | 2% |
| WeeWorld.com | 74.8 | 35% | 10% |
| IMVU.com | 64.5 | 41% | 5% |
| Playlist.com | 55.4 | 19% | 1% |
| Video2MP3.net | 39.6 | 19% | 0% |
| FanFiction.net | 38.2 | 25% | 1% |
| Damnlol.com | 37.1 | 21% | 0% |
| Flvto.com | 27.9 | 20% | 1% |
| FunnyJunk.com | 26.8 | 19% | 1% |
| AnimeFreak.tv | 26.1 | 25% | 2% |
| ShockWave.com | 25.7 | 26% | 12% |

Source: comScore AdMetrix Advertiser Report (January-December 2012)

Table 31. Menu items with the most display advertising on Facebook.com and youth websites

| Restaurant | Menu item/product | Monthly average ad views (000) | | Proportion of total monthly ad views | |
|-----------------|---------------------|--------------------------------|-----------------|--------------------------------------|-----------------|
| | | Facebook | Youth websites* | Facebook | Youth websites* |
| Wendy's | Frosty | 297,196.7 | 85.4 | 54% | 0% |
| Starbucks | Coffee | 132,012.1 | 2,319.6 | 20% | 4% |
| McDonald's | Filet-o-fish | 73,222.3 | 3,400.1 | 6% | 3% |
| Wendy's | Hamburgers | 55,221.0 | 639.0 | 23% | 3% |
| Arby's | Burgers | 41,350.0 | 0 | 18% | 0% |
| Taco Bell | Feed the Beat | 37,668.0 | 0 | 87% | 0% |
| McDonald's | McCafe | 29,755.0 | 3,214.5 | 7% | 9% |
| Wendy's | Value Menu | 28,185.0 | 106.7 | 30% | 1% |
| McDonald's | MeEncanta.com | 25,144.0 | 97.2 | 32% | 2% |
| Little Caesars | Pizza Kit | 21,152.0 | 215.3 | 29% | 4% |
| KFC | Sauceless Hot Wings | 16,492.3 | 0 | 75% | 0% |
| Taco Bell | Fourth Meal | 12,716.0 | 0 | 81% | 0% |
| Jack in the Box | Burgers | 12,002.6 | 0 | 17% | 0% |
| Wendy's | Kids' Meal | 11,275.0 | 54.4 | 51% | 3% |
| Taco Bell | Big Bell Box Meal | 10,063.0 | 0 | 73% | 0% |
| McDonald's | Chicken McNuggets | 8,668.0 | 442.9 | 4% | 3% |
| McDonald's | Chicken McBites | 7,535.0 | 759.6 | 8% | 9% |
| McDonald's | Dollar Menu | 5,680.0 | 1,123.9 | 4% | 9% |
| McDonald's | Happy Meal | 5,197.0 | 58.7 | 1% | 0% |
| McDonald's | Monopoly | 2,096.0 | 96.6 | 3% | 2% |
| McDonald's | McRib | 1,389.4 | 298.0 | 4% | 10% |
| Starbucks | Frappuccino | 1,091.6 | 205.9 | 2% | 6% |

*Excludes advertising on kids' websites

Source: comScore AdMetrix Advertiser Report (January-December 2012)

23% in 2009. However, a few restaurants placed a higher-than-average proportion of ads on youth websites, including McDonald's (14% of display ads viewed), Domino's (10%), Burger King (9%), and Dairy Queen (9%), indicating that these restaurants likely targeted their internet advertising to a youth audience (see **Ranking Table 9**). In addition, six restaurants placed more than one-quarter of their display ads on Facebook: CiCi's, Little Caesars, Sonic, Wendy's, Dunkin' Donuts, and Taco Bell.

Table 31 shows display ads viewed for individual restaurant products with more than 1 million average monthly ad views on Facebook. This list excludes restaurants that only placed general advertisements not highlighting a specific product. Wendy's Frosty was the most advertised product on Facebook, followed by Starbucks coffee, McDonald's Filet-o-fish, and Wendy's hamburgers. Ads for McDonald's Filet-o-fish appeared most often on youth websites (excluding kids' sites), followed by McDonald's McCafe, Starbucks coffee, and McDonald's Dollar Menu.



McDonald's McCafe promotion



Frosty Waffle Cone ad appearing on Facebook



Starbucks ad appearing on Facebook

Mobile advertising

| Mobile advertising exposure | Definitions |
|-----------------------------|---|
| Mobile website | Any website accessed on an internet-equipped mobile device, such as a smartphone or iPad. |
| Unique visitors per month | Average number of different individuals visiting a mobile website each month. These numbers include data from mobile applications and mobile websites accessed through the Android and iOS platforms. |
| Monthly ad instance | The number of times an advertisement appears on a mobile website during the course of one month. |
| Mobile application | A software application designed to run on mobile devices, including smartphones and tablets. |

As marketing in mobile media is relatively new, there are fewer data available to measure exposure to mobile advertising and no reliable sources of exposure by youth under 18. However, we examined the incidence of marketing by fast food restaurants via mobile media in three ways: unique visitors to fast food mobile websites, fast food advertising on other mobile websites, and iPhone applications developed by fast food restaurants.

Mobile websites

We collected data from comScore to identify the top fast food websites visited by mobile device users (see **Table 32**). Data were available only for mobile users over 18 years old. We compared these results to unique visitors (ages 2+) to the restaurants' traditional websites.

Table 32. Average monthly unique visitors to mobile and traditional fast food websites

| Website | Mobile websites | | | Traditional websites |
|-------------------------|--|-------------------------------|-----------------------|---|
| | Average monthly unique visitors (ages 18+) (000) | Minutes per visitor per month | # of months with data | Average monthly unique visitors (ages 2+) (000) |
| Starbucks.com | 3,413.8 | 3.9 | 12 | 2,282.2 |
| PizzaHut.com | 2,681.9 | 8.1 | 12 | 5,195.0 |
| PapaJohns.com | 2,267.9 | 10.2 | 12 | 3,519.7 |
| Dominos.com | 1,682.6 | 6.9 | 12 | 4,475.8 |
| Subway.com | 1,393.7 | 4.0 | 12 | 2,000.3 |
| McDonalds.com | 1,003.7 | 2.4 | 11 | 3,384.3 |
| PaneraBread.com | 764.2 | 3.1 | 12 | 1,374.4 |
| TacoBell.com | 679.9 | 4.2 | 12 | 996.8 |
| DunkinDonuts.com | 600.1 | 3.2 | 12 | 549.4 |
| McState.com | 579.0 | 3.1 | 12 | 741.9 |
| BurgerKing.com | 548.4 | 3.0 | 12 | 857.8 |
| Wendys.com | 482.7 | 3.5 | 12 | 716.2 |
| KFC.com | 449.9 | 2.4 | 12 | 717.5 |
| Chick-fil-A.com | 433.6 | 3.1 | 12 | 657.4 |
| Arbys.com | 405.8 | 3.0 | 12 | 542.1 |
| SonicDriveIn.com | 397.0 | 3.0 | 12 | 367.3 |
| DairyQueen.com | 392.4 | 3.1 | 12 | 429.5 |
| LittleCaesars.com | 310.3 | 2.4 | 12 | 396.8 |
| PapaJohns-Specials.com | 278.8 | 1.1 | 12 | 44.9 |
| JackintheBox.com | 183.3 | 2.9 | 11 | 383.6 |
| CiCisPizza.com | 140.6 | 2.4 | 9 | 186.4 |
| Popeyes.com | 114.7 | 2.6 | 7 | 246.0 |
| Hardees.com | 51.4 | 1.3 | 4 | 146.5 |
| SubwayKids.com | 20.1 | 0.2 | 1 | 58.4 |
| HappyMeal.com | 13.0 | 0.5 | 1 | 390.8 |
| LimeadesforLearning.com | 11.9 | 0.3 | 1 | 39.6 |

Highlighting indicates that there were more visitors to the mobile website than the traditional website

Source: comScore Mobile Metrix report (March 2012-February 2013), comScore Key Measures report (January-December 2012)

In contrast to traditional restaurant websites where McDonald's and pizza restaurants attracted the most unique visitors, Starbucks had the most unique visitors of any mobile site: over 3 million visitors per month. Nevertheless, pizza restaurants made up three of the four most popular mobile sites, and McDonald's ranked sixth. There were three child-targeted mobile websites on the list (HappyMeal.com, SubwayKids.com, and Sonic's LimeadesforLearning.com), but these sites only had enough data to measure visitors during one month of the period analyzed (June 2012).

Although the numbers cannot be compared directly as unique visitors under age 18 were not tracked for mobile websites, most of the restaurants in our analysis had more unique visitors to their traditional websites than their mobile sites. However, there were a few exceptions: Starbucks.com, DunkinDonuts.com, PapaJohns-Specials.com, and SonicDriveIn.com each had more unique mobile visitors. On average, visitors to most of the mobile websites spent less than 3 minutes per visit, but visitors to the three top pizza mobile sites spent 7 to 10 minutes per visit on average. By comparison, visitors to restaurants' traditional websites spent 6 minutes or less per visit. Thus the mobile sites appeared to be more engaging for visitors.

Mobile display advertising

We also used comScore data to collect information about display ads viewed on mobile devices. The numbers were collected somewhat differently, so direct comparisons are not possible. However, two of the top-three advertisers on traditional websites were also among the top-three mobile advertisers: McDonald's and Pizza Hut. In contrast, Domino's placed the most traditional display ads, but advertised the least on mobile websites. Although Burger King reduced its display advertising on traditional websites from 2009 to 2012, it was the top advertiser on mobile devices during the time period examined. However, as a whole, very few display ads

Table 33. Mobile display ad instance by restaurant

| Restaurant | Monthly average ad instance |
|----------------|-----------------------------|
| Burger King | 21,446 |
| McDonald's | 14,865 |
| Pizza Hut | 5,889 |
| Subway | 5,719 |
| Wendy's | 4,343 |
| Starbucks | 3,817 |
| Dunkin' Donuts | 2,039 |
| Taco Bell | 1,468 |
| Panera Bread | 688 |
| Sonic | 542 |
| Arby's | 450 |
| KFC | 233 |
| Domino's | 37 |

Source: comScore Mobile AdMetrix report (March 2012-February 2013)

Table 34. Mobile display ad instance by menu item or product

| Restaurant | Product promoted | Monthly average ad instance |
|------------|--------------------|-----------------------------|
| McDonald's | Filet-o-fish | 10,003 |
| Wendy's | Hamburgers | 3,841 |
| Starbucks | Coffee | 1,311 |
| McDonald's | Dollar Menu | 722 |
| Wendy's | Value Menu | 495 |
| Arby's | Burgers | 450 |
| McDonald's | 365Black | 367 |
| McDonald's | Chicken McNuggets | 228 |
| McDonald's | McCafe | 210 |
| McDonald's | Happy Meal | 197 |
| McDonald's | Monopoly | 155 |
| McDonald's | Chicken McBites | 87 |
| McDonald's | McRib | 78 |
| Domino's | Pizza | 32 |
| Taco Bell | Quad Steak Burrito | 25 |
| Wendy's | Frosty | 7 |
| McDonald's | MyInspirAsian | 2 |
| Pizza Hut | WingStreet | 1 |

Source: comScore Mobile AdMetrix report (March 2012-February 2013)

were viewed on mobile websites compared with traditional third-party websites.

Table 34 shows the top menu items and products advertised on mobile devices. This list excludes restaurants that only placed general advertisements, but did not highlight a specific product. McDonald's Filet-o-fish was the most advertised product on mobile devices. Two of the remaining top-four products advertised on Facebook also topped the list of products advertised on mobile devices: Wendy's hamburgers and Starbucks coffee. Additionally, McDonald's and Wendy's dollar/value menus advertised relatively more often on mobile than on traditional websites.

Smartphone applications

As of August 15, 2013, ten of the eighteen fast food restaurants in our analysis plus Papa John's offered smartphone applications available for download by iPhone users. Four fast food restaurants launched new applications since 2009 (McDonald's, Wendy's, Domino's, and Chick-fil-A), while KFC and Dairy Queen discontinued their applications. In addition to their mobile websites, Papa John's and Pizza Hut also had popular mobile applications with almost 700,000 average monthly unique users each.

Two mobile applications featured child-targeted advergaming: McDonald's "McPlay" and Wendy's "Pet Play Games," a tie-in with "Animal Planet." On "McPlay," children could try to get the Happy Ball into the Happy Meal Box while gathering food groups, including dairy, fruit, and protein along the way. On "Pet Play Games," children could select one of six pet games

Table 35. Mobile smartphone applications

| Restaurant | Application name | Restaurant locator | Games | Ordering | Special offers | Nutrition info | Social media features* |
|----------------|---------------------|--------------------|-------|----------|-----------------------------|----------------|------------------------|
| McDonald's | McDonald's | X | | | Promotions for new products | X | |
| | McPlay | | X | | | | |
| Subway | Subway Express | X | | X | | | |
| Burger King | Burger King Rewards | X | | | Coupons | | |
| Pizza Hut | Pizza Hut | X | | X | Coupons/deals | | |
| Taco Bell | Taco Bell | X | | | | X | FB, TW, YT |
| Wendy's | My Wendy's | X | | X | | X | |
| | Pet Play Games | | X | | | | |
| Domino's | Domino's Pizza USA | X | | X | Coupons | | |
| Dunkin' Donuts | Dunkin' | X | | | Coupons | X | FB, TW |
| Starbucks | Starbucks | X | | | | X | FB |
| Papa John's | Papa John's Pizza | X | | X | Coupons/deals | | |
| Chick-fil-A | CFA Ordering | X | | X | | | |

*FB = Facebook, TW = Twitter, YT = YouTube

Source: Analysis of mobile applications (July 2013)

and use their fingers to guide their pet to achieve the goal of the game.



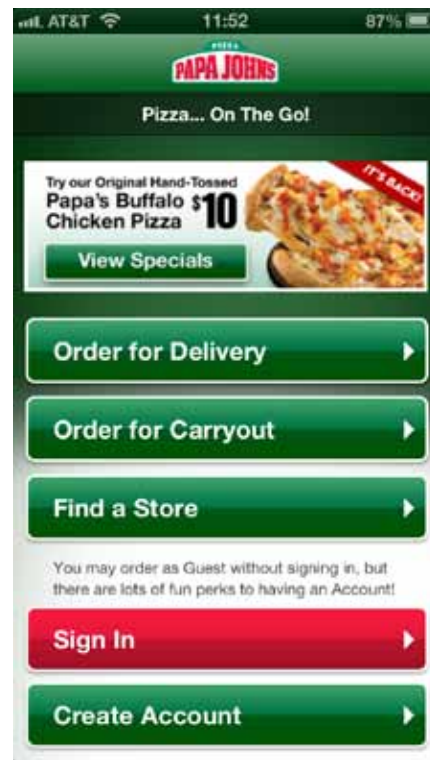
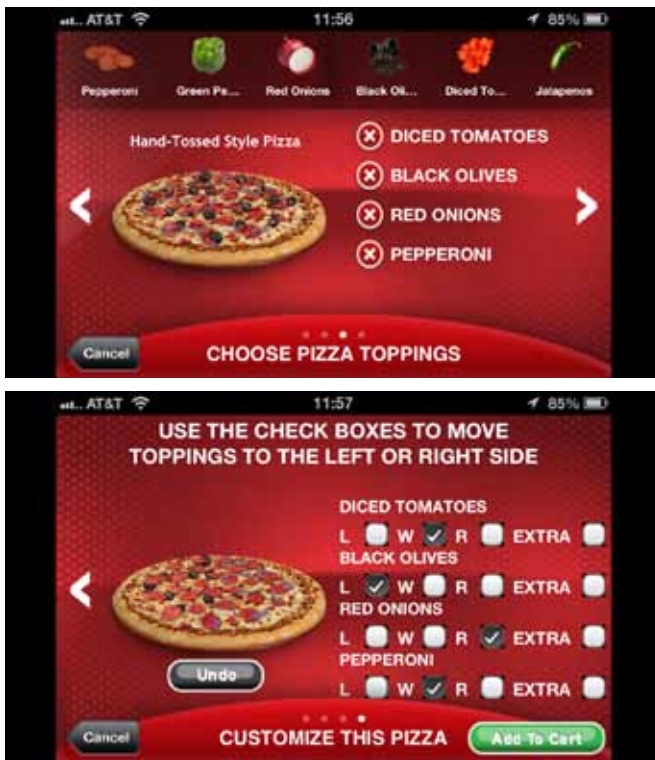
McDonald's child-targeted advergaming mobile application

As in 2009, restaurant locators were a popular feature of mobile applications. All restaurants allowed users to click a button to submit the current location of the phone and receive a list of nearby restaurants. Ordering and special offers were more widely available on smartphone applications in 2013, compared to 2009. Some ordering applications were very engaging. For example, Pizza Hut, Domino's, and Papa John's application users could fully customize their pizzas by adding toppings and selecting a crust to create a virtual pizza on the phone screen. These apps also offered a choice of "delivery" or "carryout." Pizza Hut users could add sauce or cheese to a virtual bowl if pasta or wings were desired. "Special offer" functions provided coupons or deals that could be presented to cashiers upon ordering. McDonald's

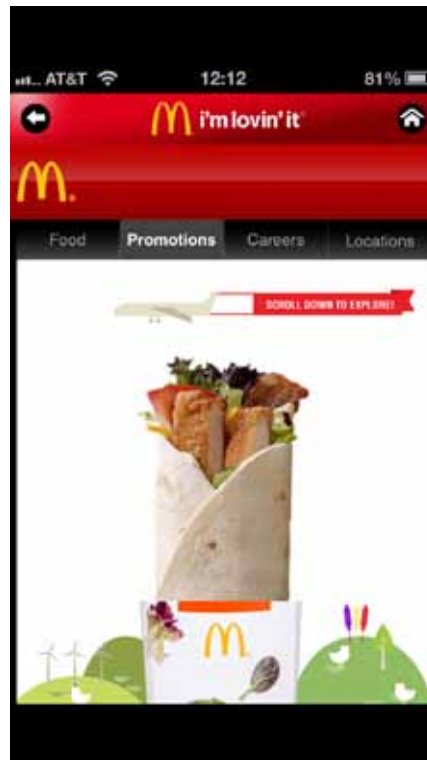


Wendy's child-targeted advergaming mobile application

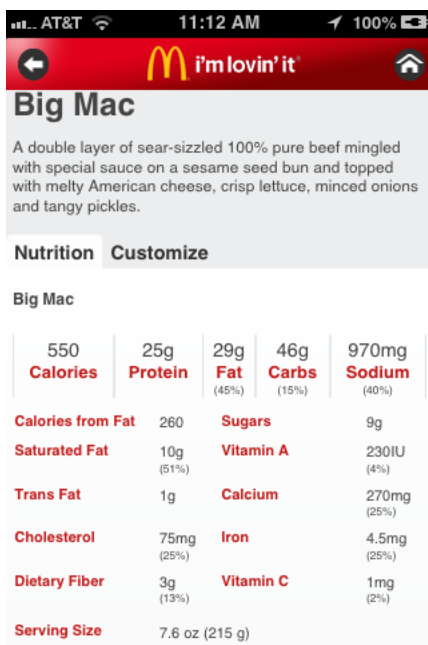
"Promotions" featured deals on new individual menu items. In addition, five restaurants allowed users to look up nutrition information on their mobile phones (up from one in 2009).



Pizza Hut's smartphone application allowed users to customize orders; Papa John's offered ordering options



Burger King's application provided coupons; McDonald's promoted its new Premium McWrap



McDonald's and Starbucks applications provided detailed nutrition information

McDonald's smartphone application provided detailed nutrition information, even including iron and vitamin A content of menu items. The application also allowed users to customize menu item options and recalculate nutritional values. The Starbucks application provided detailed profiles

of coffee products and nutrition information for all menu items. The Taco Bell and Dunkin' Donuts applications facilitated social interaction. Users could create personal profiles to share feelings or feedback by registering on the application or signing into their social media account on Facebook or Twitter.

Social media marketing

Social media marketing Definitions

| | |
|----------------|--|
| Facebook | Restaurants maintain Facebook pages where they present information about their restaurants and products, share links to other sites, upload photos and videos, and post messages. A typical restaurant Facebook page contains multiple tabs with a variety of content (e.g. notes, messages, polls, photos, videos, applications). |
| Facebook likes | Facebook users can "like" a restaurant and incorporate it into their network of friends (formerly called "fans"). Thumbnail photos of these individuals appear on the restaurant's Facebook page in the "people who like this" section. When the restaurant modifies its page, a notification may appear on the "newsfeed" (i.e., Facebook home page) of individuals who like the restaurant. The restaurant also shows up on these individuals' Facebook pages as something that they "like." |
| Facebook post | A message that the restaurant posts to its "timeline." These messages can be straightforward text or incorporate images, videos, links to other pages within Facebook, links to other websites, and polls. Posts also may appear on the "newsfeed" of individuals who like the restaurant for their friends to see. Individuals may also share restaurant posts, and they will appear on their friends' newsfeeds. |
| Twitter | Restaurants maintain Twitter accounts where they publish 140-character messages called "tweets" that are posted on their own profile pages. Individuals can "follow" restaurants. "Followers" receive copies of restaurants' tweets on their own Twitter home pages. Followers may also receive tweets on their mobile devices, through text messages, third-party Twitter applications, or Twitter's own mobile platform. |
| YouTube | YouTube is a website that enables restaurants to upload and share videos for the public to view. Restaurants maintain their own YouTube channels with playlists of videos available for viewing. Any internet user can watch the videos, but users can also "subscribe" to a channel and receive alerts whenever the restaurant posts a new video. YouTube reports the number of videos that have been "uploaded" on restaurants' YouTube channels and the number of views of uploaded videos. |

For the 18 restaurants in our detailed analysis, we examine marketing activity on the three most popular social media sites: Facebook, Twitter, and YouTube. We also evaluate changes in popularity of these sites from July 2010 to July 2013 (see **Ranking Table 10**). In addition, we analyze the amount and content of activity on restaurants' Facebook and Twitter accounts. We also briefly describe marketing activity on other popular social media sites.

Facebook

In 2010, 11 of the 12 restaurants in our analysis maintained a Facebook page (only Burger King did not). By July 2013, all 18 restaurants in this analysis had one. **Ranking Table 10** compares restaurants' Facebook likes (previously known as fans) in July of 2010 and 2013. Starbucks retained its number one spot, with approximately 35 million likes. McDonald's replaced Subway as the Facebook page that ranked second in popularity with more than 29 million likes, while Subway had almost 24 million. Taco Bell, Pizza Hut, and Dunkin' Donuts ranked fourth, fifth, and sixth with approximately 10 million likes each.

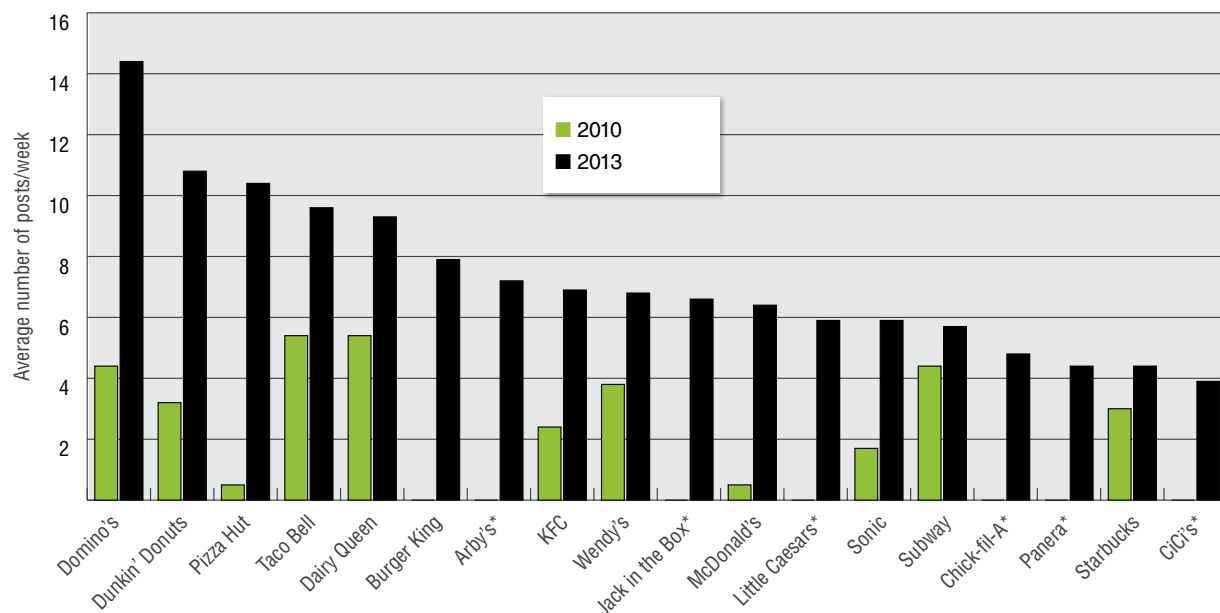
The popularity of these pages grew exponentially from 2010 to 2013. Of the restaurants examined in 2010, Starbucks had the lowest growth rate, increasing by just 208%, while Domino's had the biggest increase in popularity, with almost 16 times as many likes in 2013 as it had fans in 2010. Other notable increases include McDonald's (11-fold increase), Sonic (9-fold increase), and Subway and Pizza Hut (more than 7-fold increases). Burger King's relatively new Facebook page grew to 6.3 million likes in 2013.

To measure activity on Facebook, we collected and analyzed the content of all restaurant posts over a three-month period (December 1, 2012 through February 28, 2013). A total of 1,689 posts were coded. Inter-rater reliability was good. Cohen's Kappa coefficients for each variable ranged from good to almost perfect agreement (0.52 to 1.0).³¹ As in 2010, restaurants differed widely in level of activity on Facebook. Although Subway, Dairy Queen, and Taco Bell had been most active in 2010, Domino's, Dunkin' Donuts, and Pizza Hut led in 2013 (see **Figure 13**).

Across the board, the average number of weekly posts increased from 2010 to 2013, more than doubling in many cases. In 2010, restaurants averaged three posts per week, with no restaurant posting more than six times per week. During the 2012/2013 time period measured, restaurants posted seven times per week on average, and no restaurant posted less than approximately four times weekly. In 2012/2013, Domino's posted the most, on average 14 times per week, compared with about four messages per week in 2010. Dunkin' Donuts and Pizza Hut averaged 10 to 11 posts each, up from three or fewer posts in 2010.

Engagement devices in Facebook posts. As in 2010, Facebook pages continued to encourage fans to engage with the restaurants in many ways. Of note, Facebook transitioned to a "Timeline" format in 2011 and 2012. This format provides a more dynamic and visually appealing page that is well-suited for advertising. In addition to the small profile picture that had served as the focal point of a restaurant's page, a cover shot now fills the top portion of the page. This picture

Figure 13. Average number of posts per week on restaurants' Facebook pages



*Restaurants not included in the 2010 analysis.

Source: Analysis of Facebook posts (2010; December 2012-February 2013)



Facebook cover shots are well-suited for advertising messages

often changed, and restaurants used it to promote specific limited-time menu items and special offers, such as the Mint Chocolate Chip iced coffee from Dunkin' Donuts or the Hot Mess burger from Jack in the Box.

The most common tactics used to engage Facebook users who like a restaurant included showing a picture (74% of all posts), asking a question (39%), providing a link to an outside website (27%), and linking to the restaurant's own website (17%). Some of these engagement devices were very creative. For example, Chick-fil-A linked to a Facebook event, the "First 100 and Grand Opening" in 26% of its posts. This event rewarded the first 100 guests to the grand opening of a new store with one free Chick-fil-A meal per week for a year. Subway referred viewers to a contest in 23% of posts. One contest, the "Footlong Frenzy," promoted game codes available on 30-ounce promotional cups and bags of Doritos purchased at the restaurant. Codes could be entered online for a chance to win cash, cars, trips, and free Footlongs for life.

McDonald's and Taco Bell asked viewers to watch a video in 22% and 15% of posts, respectively. For example, one McDonald's video featured a look at its apple suppliers on a family farm. A Taco Bell video, "Grandpa Goes Wild - 2013 Taco Bell Game Day Commercial Teaser" featured "an 87-year-old with an appetite for adventure joyrides through a football field on a souped-up, high-speed mobility scooter." McDonald's was most likely to direct users to its company websites, in 67% of its Facebook posts, including links to pages featuring new or limited-time menu items (e.g. McRib,

Subway
February 19

Have you played FOOTLONG FRENZY yet? Like this post and use our FREE gameplay (JCH9HH6Y) now for your chance to win FREE FOOTLONGS™ for life! <http://bit.ly/XGwHzF>

 An advertisement for the "Footlong Frenzy" contest. The top part features the text "FREE FOOTLONGS™ FOR LIFE!" in large, bold, yellow and green letters. Below this is a large, appetizing image of a Footlong sandwich filled with meat, cheese, and vegetables. At the bottom right of the sandwich image is the text "WINNERS EVERY MINUTE!". Below the sandwich image is the text "NO PURCHASE NECESSARY. Ends 03/08/13. For rules, method of entry, and details: <http://footlongfrenzy.subway.com> All third party trademarks used under license." At the very bottom of the advertisement are the interaction buttons "Like · Comment · Share" and the engagement counts "34,279", "1,313", and "1,553".

Upholding family tradition, one hand-picked apple at a time.

An advertisement for McDonald's Apple Supplier, Leo Dietrich & Sons. The top part features a video player with a play button icon and a close-up image of a red apple. To the right of the video player is the text "McDonald's Apple Supplier, Leo Dietrich & Sons". Below the video player is the text "Bite into great taste and explore the real story behind our suppliers."

Examples of engagement features in restaurant Facebook posts

Shamrock Shake) and others exploring the "real stories" of its suppliers of apples, fish, beef, lettuce, and potatoes.

Menu items featured on Facebook posts

In addition to advertising non-food promotions, restaurants frequently mentioned specific menu items in their Facebook timelines. **Table 36** shows the top-two food items in posts by each restaurant. While most restaurants advertised a wide range of items, some focused on certain products. For example, one-quarter of Burger King posts featured its Whopper sandwich and 19% of Taco Bell posts promoted its Doritos Locos Taco. Nearly 25% of McDonald's posts featured either Fish McBites or Chicken McNuggets.

Table 36. Menu items featured most often in Facebook posts

| Restaurant | Menu items featured* | # posts |
|-----------------|-----------------------------|---------|
| Burger King | Whopper | 26 |
| Taco Bell | Doritos Locos Taco | 23 |
| Wendy's | Mozzarella Chicken Supreme | 17 |
| Dunkin' Donuts | Hot Chocolate | 13 |
| Arby's | Chocolate Molten Lava Cake | 12 |
| Dairy Queen | Shakes/Blizzards | 12 |
| McDonald's | Fish McBites | 11 |
| Wendy's | Right Price Right Size Menu | 11 |
| Dunkin' Donuts | Coffee/Iced Coffee | 11 |
| Sonic | Shakes | 11 |
| Pizza Hut | Big Pizza Sliders | 10 |
| McDonald's | Chicken McNuggets | 9 |
| Pizza Hut | Big Dinner Box | 9 |
| Little Caesars | Hot 'n Ready Pizzas | 9 |
| Subway | \$5 Footlongs | 8 |
| Burger King | BK Coffee | 8 |
| Chick-fil-A | Chicken Tortilla Soup | 8 |
| KFC | Gameday Bucket | 8 |
| Arby's | Curly Fries | 8 |
| Dairy Queen | DQ Cakes | 8 |
| Starbucks | Blonde Roast Coffees | 6 |
| Jack in the Box | Hot Mess Burger | 6 |
| Sonic | Cherry Limeade | 5 |

*Includes the top-two items featured in five or more posts from each restaurant

Source: Content analysis of Facebook posts (December 2012-February 2013)

Child-targeted content. Although Facebook's terms of agreement do not allow children under 13 to maintain accounts, younger children often visit the site. In 2012, at least 5.6 million Facebook users were under the age of 13.³² Of note, Facebook posts from Subway and Wendy's appeared to be directly targeted to children. In addition to placing display ads on Facebook, Wendy's also promoted its kids' meals in its Facebook posts. Seven of eighty-eight posts (8%) advertised its limited-time kids' meal



Just for January, Kids' Meals are \$1.99 after 4pm. (Kids' squeals are still free.)

Like · Comment · Share

2,530 303 471



Dinner is served. For a limited time kids' meals are only \$1.99 after 4pm.



Like · Comment · Share

2,010 77 120



Purchase a \$1.99 Kids' Meal with our coupon and receive a voucher for a \$10 Toys'R'Us Gift Card offer (that you can use with a \$75 or more Toys'R'Us purchase). Get details and Kids' Meal coupon now! <http://bit.ly/WendysTRU>

TURN YOUR HOLIDAYS FROM HECTIC TO HAPPY.



Like · Comment · Share

13,483 515 862



Hit 'Like' if you're a fan of Disney's Phineas & Ferb and want to grab one of our exclusive reusable bags!



Like · Comment · Share

23,052 632 793



Where's Perry? Find out at SUBWAY® Restaurants! Parents, check out our NEW Phineas and Ferb meal bags – each with a code for a Phineas and Ferb you can download! Free* with every kids meal purchase. <http://bit.ly/k3TtU8> (P&P Varies)



Like · Comment · Share

3,526 93 228

Examples of child-targeted content in Facebook posts

\$1.99 promotion. Although just two Subway posts referenced its kids' meal, the content of these posts appeared to be specifically directed to children. One asked viewers to "like" the post if they were fans of "Phineas and Ferb," a popular show on the Disney Channel.

Twitter

All 18 restaurants in this analysis also maintained Twitter accounts as of July 2013, although CiCi's profile was not available for public access. Starbucks was the first to join Twitter in 2006, while Arby's and Burger King joined most recently in 2010. Some restaurants maintained multiple Twitter accounts (including McDonald's, Starbucks, and Taco Bell), while others maintained a single account. An examination of total Twitter followers by restaurant shows that three restaurants dominated Twitter in 2013 (see **Ranking Table 10**). As in 2010, Starbucks was first in number of followers with over 4 million. McDonald's and Subway followed with 1.5 million and 1.4 million followers, respectively. Taco Bell had over 700,000 followers, while the rest had fewer than 500,000. As seen on Facebook, all restaurants greatly accumulated Twitter followers from 2010 to 2013. Starbucks had the lowest rate of growth (quadrupling in number, from approximately one million in 2010), and Subway had the greatest increase with 65 times more followers in 2013 than in 2010. In addition, McDonald's followers increased by almost 40-fold, and ten of the twelve restaurants examined in 2010 saw increases of 10 times or greater.

We also examined five months of activity on restaurants' main Twitter profiles from March 1 to August 1, 2013 (see **Table 37**). Average tweets per day for the top-ten restaurants totaled ten or more. @pizzahut averaged 356 tweets per day, far surpassing all other restaurants. @dominos and @Wendys came in second and third averaging 74 and 60 tweets per day, respectively. @panerabread and @TacoBell were fourth and fifth with an average of 41 and 38 tweets per day.

Of note, while @Starbucks, @McDonalds, and @SUBWAY had far more Twitter followers than other restaurants, these restaurants were not the most active tweeters. @McDonalds's averaged 25 tweets per day, placing it in sixth place, while @Starbucks and @SUBWAY ranked eleventh and twelfth with an average of eight tweets per day. However, McDonald's also maintained five other Twitter accounts. One of those accounts, @McDonaldsCorp, focused on McDonald's history, people, food, and restaurants around the world, and averaged 38 tweets per day. Wendy's also maintained another active account, @IamBaconator, which focused on its Baconator sandwiches and averaged 18 tweets per day.

Measures of Twitter engagement. Some restaurants consistently replied to users who mentioned them in a tweet, making direct interaction with followers a focus of their Twitter activity. More than 86% of tweets from the top-five restaurants' main Twitter accounts were replies to users. In addition, 87% of @Starbucks' average eight tweets per day were replies to users. Of the remaining eleven restaurants in the analysis, ten

Table 37. Activity on restaurants' main Twitter profiles

| Restaurant | Handle | Average # of tweets per day | Proportion of all tweets | | | Total analyzed tweets |
|-----------------|----------------|-----------------------------|--------------------------|--------------------------|--------------------------|-----------------------|
| | | | Replies to other users | Retweeted by other users | Favorited by other users | |
| Pizza Hut | @pizzahut | 355.6 | 99% | 64% | 57% | 3,200 |
| Domino's | @dominos | 74.4 | 97% | 31% | 33% | 3,200 |
| Wendy's | @Wendys | 60.4 | 97% | 30% | 38% | 3,200 |
| Panera Bread | @panerabread | 40.5 | 96% | 19% | 24% | 3,199 |
| Taco Bell | @TacoBell | 38.0 | 86% | 74% | 87% | 3,189 |
| McDonald's | @McDonalds | 25.4 | 65% | 69% | 67% | 3,196 |
| KFC | @kfc | 18.3 | 65% | 59% | 54% | 2,816 |
| Arby's | @Arbys | 16.8 | 69% | 45% | 51% | 2,587 |
| Dunkin' Donuts | @DunkinDonuts | 11.0 | 74% | 47% | 50% | 1,693 |
| Little Caesars | @littlecaesars | 10.7 | 63% | 35% | 33% | 1,654 |
| Chick-fil-A | @ChickfilA | 8.3 | 79% | 52% | 44% | 1,270 |
| Starbucks | @Starbucks | 7.9 | 87% | 66% | 81% | 1,221 |
| Subway | @SUBWAY | 7.6 | 64% | 63% | 59% | 1,171 |
| Dairy Queen | @DairyQueen | 6.6 | 70% | 53% | 56% | 1,016 |
| Sonic | @sonicdrive_in | 3.8 | 69% | 47% | 46% | 592 |
| Burger King | @BurgerKing | 2.3 | 26% | 61% | 65% | 346 |
| Jack in the Box | @JackBox | 1.3 | 52% | 69% | 69% | 193 |

Includes tweets posted March-August 2013 or the most recent 3,200 tweets as of August 1, 2013
 CiCi's Pizza maintains a protected Twitter account and its activity was not accessible for analysis
 Source: Twitonomy analysis (March-August 2013).

restaurants replied to more than one-half of tweets. Only 26% of @BurgerKing's tweets were replies to users, making it the least responsive restaurant on Twitter.

There was also variation in the percent of restaurants' tweets that were retweeted by their Twitter followers. Retweeting is an indicator of engagement and highly desirable as it exponentially increases the reach of restaurants' Twitter activity. @TacoBell had the highest retweet rate at 74%, followed by @McDonalds, @JackBox, @Starbucks, @pizzahut, @SUBWAY and @BurgerKing whose tweets were retweeted 61 to 69% of the time. @panerabread had the lowest rate of retweets at 19%. Twitter users can also mark tweets as "favorites," which are then saved to a list on that user's profile page. A user's "favorites" can be viewed by other users, thus marking a restaurant's tweet as a "favorite" is an indication that users find the tweet of interest or value. @TacoBell and @Starbucks had the highest proportion of tweets marked as "favorites" (87% and 81%, respectively). Tweets by @DairyQueen, @pizzahut, @SUBWAY, @BurgerKing, @McDonalds, and @JackBox were classified as favorites more than 55% of the time, while @panerabread had the lowest rate of favorites at 24%.

YouTube

In 2010, 11 of the 12 restaurants in our analysis maintained a YouTube channel (only Subway did not). By July 2013, 17 of the 18 restaurants analyzed had one (only Chick-fil-A did not). **Ranking Table 10** compares YouTube video upload views in July of 2010 and 2013. Taco Bell replaced Starbucks as the most viewed channel in 2013, with just under 14 million views. Starbucks ranked second in popularity with over eight million views, and McDonalds ranked third at just under eight million. Pizza Hut, KFC, and Domino's ranked fourth, fifth and sixth with two to three million views each.

Restaurants posted far more videos in 2012 than they had in 2009. Starbucks posted the most videos in 2009 at 61, followed by Domino's with 14 videos. In 2012, McDonald's, Panera Bread, and Starbucks uploaded 57, 53, and 45 videos, respectively to their YouTube channels. Subway, Pizza Hut, and Sonic also uploaded 24 or more videos in 2012. Further, the number of upload views on restaurant YouTube channels grew exponentially from 2010 to 2013. Of the restaurants examined in 2010, only two had fewer total views of uploaded videos in 2013. Burger King and Domino's saw the biggest decrease in views of 75% and 45%, respectively. Pizza Hut had the biggest increase in views, almost 200 times as many in 2013 versus 2010. McDonald's followed with the second greatest increase, videos on its channel had more than 67 times as many views in 2013 compared with 2010. Other notable increases include Taco Bell, Dairy Queen, and Sonic with increases of 400 to 600%.

Newer social media platforms

Fast food restaurants have also become active marketers on newer social media platforms, including Vine, Instagram, and

Tumblr. These types of marketing are difficult to track and data are not available to analyze them systematically. Nevertheless, it will be important to monitor restaurants' activity on these social media as they may provide a substantial opportunity to expand the reach of marketing activities.

Tumblr is a platform that allows users to post text, photos, quotes, links, music, and videos to a short-form blog. Tumblr launched in 2007 and began accepting paid advertising in 2012. In 2013, 13 of the 18 fast food restaurants in our social media analysis placed advertising on Tumblr.³³ Launched in 2010, Instagram enables users to apply digital filters to pictures and videos and share them on a variety of other social networking sites, such as Facebook, Twitter, and Tumblr. Both Taco Bell and Starbucks were highlighted as brands that have mastered the use of Instagram, noting Taco Bell's creative depictions of its products and Starbucks' use of fan-submitted photos of its coffee.³⁴ In January 2013, Twitter introduced a new video application called Vine. Vine allows users to create 6-second looping video clips and share them on networks such as Twitter, Facebook, or the Vine app itself. Taco Bell used Vine in February to announce the introduction of its new Cool Ranch Doritos Locos Tacos.³⁵

Some restaurants have successfully integrated multiple platforms in their social media campaigns. For example, Wendy's campaign for its Pretzel Bacon Cheeseburger encouraged Twitter and Facebook users to add #PretzelLoveSongs to tweets.³⁶ It then composed songs using some of the tweets, and famous singers performed them in music videos posted on Wendy's YouTube channel and Facebook page. During the summer of 2013, Jack in the Box ran a campaign using Vine and other social media platforms consisting of 101 videos that showed how to "Go Big" as part of its advertising campaign promoting big menu additions, such as Big Stack, Big Waffle Stack, Loaded Chili Cheese Wedges, and Really Big Chicken Sandwich.³⁷ The videos were accessible on Jack in the Box's website and Vine and promoted on its Twitter and Facebook accounts.

Summary of digital marketing

The most noticeable change since 2009 is that many restaurants appear to have shifted their youth-targeted marketing from children under 12 to older children and teens. The number of child visitors to fast food websites decreased significantly, even for sites such as HappyMeal.com, Dominos.com, and PizzaHut.com which ranked highest in child exposure in both 2009 and 2012. Additionally, the popular children's sites, DeeQs.com (Dairy Queen), ClubBK.com (Burger King), and LineRider.com (McDonald's) have been discontinued. As a result, child exposure to fast food company websites and display advertising on third-party youth websites has decreased.

Despite these declines, McDonald's and Subway continued to target children with sites like HappyMeal.com, McWorld.com, and SubwayKids.com. These websites offered advergames tied to kids' meals and were two to three times more likely to be

Figure 14. Social media footprint

Source: Facebook, Twitter, and YouTube social media analysis (July 2013)

visited by children compared to other websites. McDonald's also focused its display advertising on younger children. Seventy-five percent of Happy Meal ads were viewed on kids' websites.

In contrast, teen exposure to fast food websites increased for the majority of websites in our analysis. Six websites averaged 100,000 or more unique teen visitors per month in 2012. Additionally, a greater number of sites targeted teens as compared with children under 12. A shift in marketing focus also occurred in display advertisements. Overall, the number of display ads on youth websites decreased from 2010 to 2013. However, the majority of restaurants in our analysis placed the largest proportion of their display ads on Facebook, a popular medium for engaging young viewers. Wendy's had a particularly strong presence on Facebook, placing over half of its ads for kids' meals on the social network, as compared to 6% of kids' meal ads on youth websites.

As usage of smartphones and tablets has increased, so have the ways that restaurants place advertisements on mobile platforms. Most of the restaurants in our analysis still focus on

traditional PC advertisements, but the number of mobile ads is growing. Restaurants now offer mobile users numerous ways to interact with their brands, from simply finding a location nearby, to ordering online and playing child-targeted games. The increase in mobile advertisements and applications represents the importance of new media for engaging with potential customers and utilizing the "always on" nature of the internet.

In social media marketing, Starbucks continued to far surpass other restaurants in total reach (see **Figure 14**). However, the popularity of most other restaurants on Facebook, Twitter, and YouTube grew exponentially from 2010 to 2013, with typical increases of 500% or more. McDonald's ranked second in popularity on all social media with some of the highest rates of growth for any restaurant in our analysis. Subway, Taco Bell, and Pizza Hut rounded out the list of most popular restaurants on social media, each with 10 million or more Facebook likes.

Digital marketing

Signs of progress

- Three popular children's websites have been discontinued: DeeQs.com (Dairy Queen), LineRider.com (McDonald's), and ClubBK.com (Burger King). McDonald's also discontinued its website targeted to preschoolers (Ronald.com).
- The average number of child visitors declined for 95% of restaurants' websites. In 2009, two pizza websites and two McDonald's websites averaged 100,000 to 200,000 child visitors every month compared with just one website in 2012 (HappyMeal.com).
- The number of display ads placed on third-party youth websites decreased by almost one-half, representing 25% of all fast food display ads in 2009 versus 6% in 2012.

Continued reasons for concern

- McDonald's, Subway, and Burger King continued to target children with advergame websites promoting kids' meals. Burger King's site (BKCrown.com) did not have enough youth visitors to measure, but HappyMeal.com averaged 119,000 unique child visitors per month in 2012. SubwayKids.com had an 850% increase in child visitors since 2009 and ranked fifth in overall child exposure in 2012.
- Two restaurants also offered new mobile applications with child-targeted advergames: McDonald's "McPlay" and Wendy's "Pet Play Games."
- McDonald's, Subway, Burger King, and Wendy's advertised their child-targeted websites and/or kids' meals on third-party websites in 2012. McDonald's placed 33.7 million ads per month for HappyMeal.com, a 63% increase from 2009, and three-quarters were placed on kids' websites such as Nick.com, Roblox.com, CartoonNetwork.com, and Disney Online sites. On average, 6 million unique viewers saw 5.4 ads for Happy Meals per month.
- Just four of the eighteen restaurants in this analysis *did not* advertise on kids' websites in 2012, but only three of the twelve fast food products advertised most often were kids' meals. In addition to its Happy Meals, McDonald's advertised main menu items such as Filet-o-fish and McCafe coffee drinks, while Wendy's advertised its Frosty, hamburgers, and dollar menu.
- More than one-half of restaurant websites showed an increase in number of teen visitors. Teen visitors to Subway.com, Starbucks.com, and McDonald's MeEncanta.com (Spanish-language site) increased by over 90%.
- Websites such as DeviantART.com, where 35% or more of visitors are 2-17 years old, ranked among the highest in yearly display ad views, and three restaurants substantially increased display advertising on youth websites: KFC (+138%), Subway (+450%), and Starbucks (+330%). Fast food products advertised most often on these sites included McDonald's Filet-o-fish and coffee drinks and Starbucks coffee.
- Display advertising on Facebook appears to have substantially replaced advertising on third-party youth websites for many restaurants. For example, Dunkin' Donuts placed 68% of its display advertising on Facebook, and Wendy's placed 54%. Ads on Facebook totaled almost 6 billion and represented 19% of fast food display advertising in 2012.
- Starbucks.com was the most popular mobile website, averaging 3.4 million unique visitors per month and exceeding the number of visitors to Starbucks' traditional website. Some popular mobile websites were also more engaging than restaurants' traditional websites. Time spent on PizzaHut.com, PapaJohns.com, and Dominos.com mobile websites exceeded the average time spent on any restaurant's traditional websites.
- Ten restaurants offered branded applications for mobile devices. Six allowed users to order from their smartphones (Subway, Pizza Hut, Wendy's, Domino's, Papa John's, and Chick-fil-A), and six provided special offers via smartphone apps (McDonald's, Burger King, Pizza Hut, Domino's, Dunkin' Donuts, and Papa John's). Papa John's and Pizza Hut mobile applications were very popular, with more than 700,000 average monthly unique users.
- The popularity of fast food restaurant social media accounts grew exponentially from 2010 to 2013. For example, 17 of the 18 restaurants we evaluated had 1 million or more Facebook likes (compared with nine in 2010), and six had more than 10 million. Starbucks maintained its position as the top restaurant in social media overall, while McDonald's became the second most popular restaurant on Facebook and Twitter with an 11-fold increase in Facebook likes and 67-fold increase in Twitter followers from 2010. Taco Bell overtook Starbucks as the most popular restaurant on YouTube with almost 14 million video uploads.

Marketing to Hispanic and black youth

This section documents exposure to fast food advertising by Hispanic and black children and teens and compares their exposure to that of other youth. Hispanic targeted marketing includes advertising on Spanish-language TV. A few restaurants also maintained websites targeted to a specific racial or ethnic group (e.g., McDonald's MeEncanta.com and MyInspiraAsian.com). In addition, we compare TV advertising and website exposure for black and Hispanic youth to that of other youth. If Hispanic or black youth view relatively more fast food advertising than their non-Hispanic or white peers viewed, companies may have specifically targeted minority youth with their advertising.

Advertising on Spanish-language TV

TV advertising to Hispanic youth

Definition

Spanish-language TV TV programming presented on Spanish cable and broadcast programming (e.g., Univision, Telemundo). GRPs for Spanish-language TV are calculated based on the number of Hispanic persons in Nielsen's viewer panel.

Table 38 provides Spanish-language TV advertising spending by restaurant. In 2012, total spending by fast food restaurants on Spanish-language TV reached \$239 million, an 8% increase over 2009. The number of restaurants advertising on Spanish-language TV also increased from 12 restaurants in 2009 to 14 in 2012. Of the top-ten restaurants by sales, only Dunkin' Donuts and Chick-fil-A did not advertise on Spanish-language TV. Little Caesars, Starbucks, Taco Bell, and CiCi's advertised on Spanish-language in 2012 but not 2009, while Jack in the Box had advertised in 2009 but did not in 2012. Fast food restaurants dedicated on average 6% of their TV advertising budgets to Spanish-language programming.

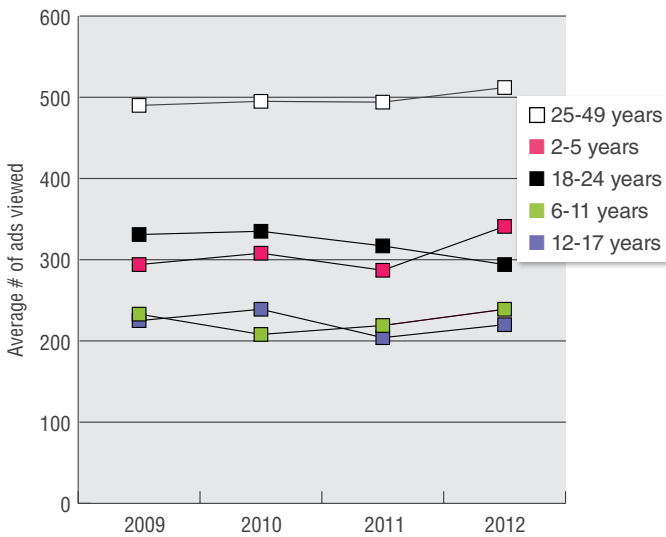
McDonald's maintained its position as the top Spanish-language TV advertiser, spending \$76 million or 10% of its total TV advertising budget in this medium, representing almost one-third of all fast food restaurant spending on Spanish-language TV. Four additional restaurants (Burger King, Domino's, Popeyes, and Starbucks) dedicated a higher-than-average proportion of spending to Spanish-language TV. Burger King ranked second in spending on Spanish-language TV at \$36 million, 17% of its TV budget in 2012. Of note, Burger King reduced total advertising spending by 17% from 2009 to 2012, but increased spending on Spanish-language TV by 41%. Domino's and Popeyes spent 15% and 20% of their TV budgets on Spanish-language, respectively. Starbucks allocated \$3 million, accounting for nearly one-fifth of its total TV budget.

Table 38. Spending on Spanish-language TV advertising

| | Spending on Spanish-language TV advertising (\$000) | | | % of total TV advertising spending in 2012 |
|-----------------|---|-----------|--------|--|
| | 2009 | 2012 | Change | |
| McDonald's | \$77,419 | \$75,520 | -3% | 10% |
| Burger King | \$25,539 | \$35,972 | 41% | 17% |
| Domino's | \$23,471 | \$27,166 | 16% | 15% |
| Subway | \$20,281 | \$23,643 | 17% | 5% |
| Wendy's | \$18,508 | \$15,641 | -16% | 7% |
| Sonic | \$18,944 | \$14,020 | -26% | 8% |
| KFC | \$9,849 | \$13,313 | 35% | 5% |
| Popeyes | \$15,213 | \$13,280 | -13% | 20% |
| Pizza Hut | \$9,880 | \$9,979 | 1% | 4% |
| Little Caesars | \$0 | \$4,398 | | 6% |
| Starbucks | \$0 | \$3,313 | | 18% |
| Taco Bell | \$13 | \$1,169 | 8756% | 0% |
| Papa Johns | \$619 | \$1,121 | 81% | 1% |
| CiCi's Pizza | \$0 | \$677 | | 5% |
| Jack in the Box | \$1,216 | \$0 | -100% | |
| Total | \$220,953 | \$239,216 | 8% | 6% |

Highlighting indicates a higher-than-average proportion of spending on Spanish-language TV in 2012
Source: Nielsen (2009, 2012)

Figure 15. Trends in exposure to TV advertising on Spanish-language TV by age group



Source: Nielsen (2009 to 2012)

Youth exposure to Spanish-language TV advertising

Preschoolers viewed more fast food advertising on Spanish-language TV than any other group of Hispanic youth. They saw on average 340 ads in 2012 or almost one ad per day (see **Figure 15**). This finding contrasts with English-language TV where teens saw more advertising for fast food restaurants compared with children. Further, Hispanic preschoolers saw 16% more Spanish-language fast food ads in 2012 than in 2009,

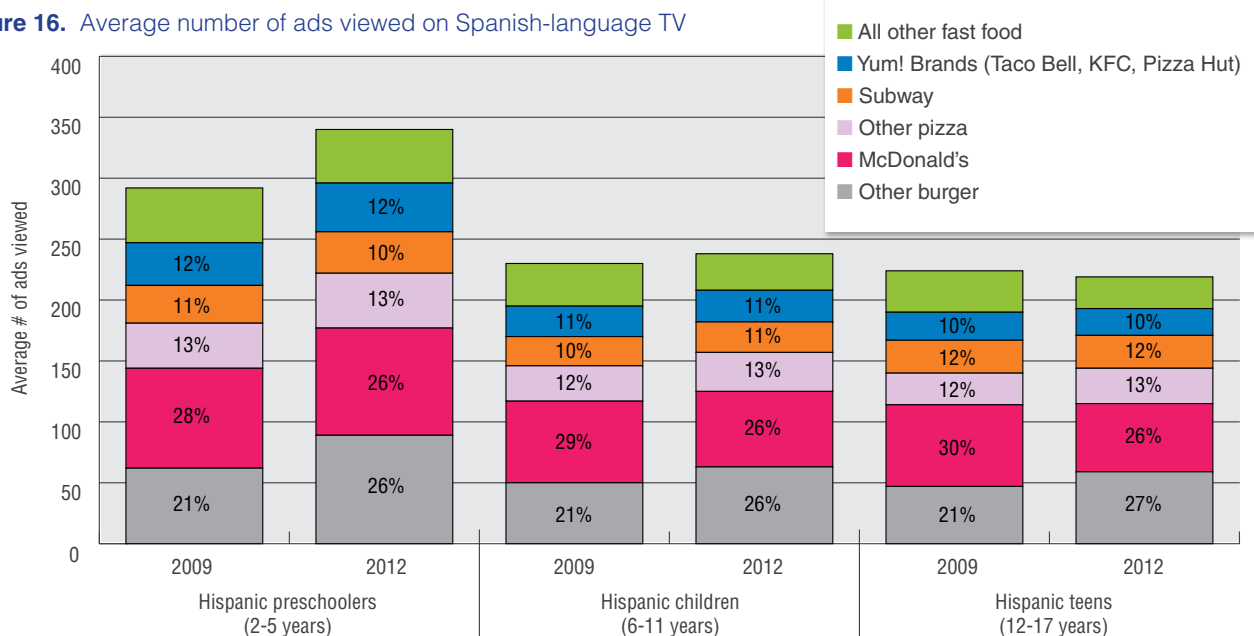
while adults (25-49 years) saw just 4% more. Preschoolers were the only Hispanic youth to experience a significant change in exposure. By comparison, older children saw 238 ads in 2012, just 2% more versus 2009, and teens saw 219 ads, a decrease of 3%.

McDonald's was responsible for approximately one-quarter of fast food ads viewed by Hispanic youth (see **Figure 16**). Preschoolers saw 6% more Spanish McDonald's ads in 2012 versus 2009, whereas ads viewed by children and teens decreased 7% and 17%, respectively. Burger King accounted for 18% of Spanish-language ads viewed by Hispanic youth with substantial increases versus 2009: +73% for preschoolers, +46% for children, and +44% for teens. Changes in Spanish-language TV advertising exposure by Hispanic youth for other restaurants also differed by age. For example, Hispanic preschoolers saw 7% more Spanish-language ads for Subway in 2012 compared with 2009, while teens' exposure increased 1%. Teens saw 15% more ads for Wendy's and preschoolers saw 7% more, while older children's exposure decreased by 1%. Further, Hispanic preschoolers saw 23% more ads for KFC and 6- to 11-year-olds saw 14% more, whereas ad exposure for teens increased 2%.

Products advertised on Spanish-language TV

As on English-language TV, lunch/dinner items were the most common types of fast food products advertised on Spanish-language TV (see **Table 39**). However, these ads accounted for a higher proportion of Spanish-language ads – nearly two-thirds compared with approximately one-half of English-language ads viewed. In contrast, ads featuring kids' meals were viewed far less frequently on Spanish-language TV. They represented one-quarter of fast food ads seen by preschoolers and children on English TV, but just 5% of ads viewed on Spanish TV. Value

Figure 16. Average number of ads viewed on Spanish-language TV



Source: Nielsen (2009, 2012)

Table 39. Hispanic youth exposure to Spanish-language TV advertising by product type

| | Hispanic preschoolers (2-5 years) | | Hispanic children (6-11 years) | | Hispanic teens (12-17 years) | |
|------------------------|--------------------------------------|--------------------------|-----------------------------------|--------------------------|---------------------------------|--------------------------|
| | Average # of ads viewed | % of total ads viewed | Average # of ads viewed | % of total ads viewed | Average # of ads viewed | % of total ads viewed |
| Lunch/dinner items | 193.4 | 60% | 135.3 | 60% | 124.6 | 60% |
| Value menu/combo meals | 42.1 | 13% | 28.7 | 13% | 26.0 | 13% |
| Snacks/desserts | 24.6 | 8% | 16.9 | 8% | 15.1 | 7% |
| Kids' meals | 14.9 | 5% | 10.8 | 5% | 10.1 | 5% |
| Coffee beverages | 11.7 | 4% | 8.3 | 4% | 7.6 | 4% |
| Promotion only | 10.1 | 3% | 7.7 | 3% | 7.2 | 3% |
| Healthy options | 9.8 | 3% | 7.5 | 3% | 7.4 | 4% |
| Branding only | 6.8 | 2% | 4.6 | 2% | 4.0 | 2% |
| Breakfast items | 6.6 | 2% | 4.5 | 2% | 4.2 | 2% |

Source: Nielsen (2012)

Table 40. Twenty individual menu items viewed most often by Hispanic youth in ads on Spanish-language TV

| Restaurant | Menu item | Average # of ads viewed | | Nutritional quality | | |
|-------------|---|-----------------------------|---------------------------|---------------------|--------------------|----------------|
| | | Children (2-11 years) | Teens (12-17 years) | NPI score | Calories (kcal) | Sodium (mg) |
| KFC | Biscuits* | 12.9 | 9.2 | 24 | 180 | 530 |
| KFC | Bucket of Chicken* | 11.3 | 8.0 | 40-60 | 260-490 | 820-1,040 |
| KFC | Mashed Potatoes | 10.8 | 7.6 | 60 | 120 | 530 |
| Burger King | French Fries | 9.5 | 7.3 | 60-62 | 340-500 | 480-710 |
| Burger King | Sweet Potato Fries | 9.0 | 7.6 | 60 | 250 | 550 |
| KFC | Cole Slaw | 8.1 | 5.5 | 70 | 180 | 150 |
| McDonald's | Happy Meal (Chicken McNuggets) | 7.8 | 5.8 | 44-72 | 370-380 | 735-745 |
| Burger King | Real Fruit Smoothies | 7.7 | 6.0 | 66-68 | 200-450 | 20-95 |
| McDonald's | 20-piece Chicken McNuggets* | 7.5 | 5.9 | 44-50 | 290-340 | 640-800 |
| Burger King | Frozen Lemonade | 5.7 | 5.0 | 70 | 80 | 10 |
| Burger King | Crispy Chicken Strips | 5.7 | 4.1 | 34-40 | 285-750 | 995-2,570 |
| Dairy Queen | Jumbo Popcorn Chicken** | 5.5 | 3.2 | -- | -- | -- |
| Burger King | Texas BBQ Whopper | 5.3 | 4.5 | 48 | 760 | 1,600 |
| McDonald's | Filet-o- Fish | 5.2 | 3.8 | 64 | 390 | 590 |
| Dairy Queen | Asiago Chicken Caesar Sandwich** | 4.7 | 3.3 | -- | -- | -- |
| Burger King | Chicken, Apple and Cranberry Garden Fresh Salad | 4.4 | 3.4 | 64-72 | 560-700 | 980-1,090 |
| McDonald's | Spicy Chicken McBites* | 4.4 | 3.9 | 44 | 270 | 600 |
| Subway | Footlong Italian BMT | 4.3 | 3.9 | 44-64 | 820-1,140 | 2,600-4,040 |
| Burger King | Carolina BBQ Whopper | 4.1 | 3.6 | 38 | 760 | 1620 |
| McDonald's | Favorites Under 400 Menu | 3.8 | 3.5 | 36-80 | 0-380 | 0-1,000 |
| McDonald's | Chicken McBites* | 3.5 | 2.2 | 42-44 | 285-288 | 634-678 |
| Subway | Fresh Fit Kids' Menu | 3.5 | 3.5 | 55-82 | 285-565 | 325-960 |

*Nutrition information based on one-person serving

**Nutrition data not available

Source: Analysis of Nielsen data (2012); Menu composition analysis (February 2013)

menu/combo meals accounted for another 13% of ads viewed by Hispanic youth. Snacks/desserts accounted for 8% of Spanish-language fast food ads viewed, compared with 4 to 6% of ads viewed by youth on English-language TV.

Table 40 presents the 20 individual menu items seen most often by either Hispanic children (2-11 years) or teens (12-17 years). Many of these same menu items appeared on the list of

products advertised most often to youth on English-language TV, including KFC biscuits, bucket of chicken, mashed potatoes, and cole slaw; and Burger King french fries, sweet potato fries, and Real Fruit Smoothies. Of note, McDonald's Happy Meals and Burger King's kids' meals topped the list of ads seen by children on English-language TV, but Happy Meal ads were seen relatively less often by Hispanic children on Spanish-

language TV. Of note, Burger King's kids' meals did not make the top-20 list. DQ Blizzards ranked third in ads viewed by youth on English TV, but these ads did not air frequently on Spanish-language TV. Rather Dairy Queen advertised more of its lunch/

dinner items on Spanish-TV. In contrast to English-language TV, there were no menu items from Taco Bell or Wendy's on the top-20 list of items viewed on Spanish-language TV.

Exposure to TV advertising by black youth

TV advertising to

Hispanic and black youth Definitions

Targeted ratio: Black:white children GRPs for black children (2-11 years) divided by GRPs for white children (2-11 years). Provides a measure of relative exposure to TV advertising for black children compared to white children.

Targeted ratio: Black:white teens GRPs for black teens (12-17 years) divided by GRPs for white teens (12-17 years). Provides a measure of relative exposure to TV advertising for black teens compared with white teens.

In 2012, black children (2-11 years) saw on average 1,440 fast food ads, or 3.9 ads per day, while black teens saw 2,302, or 6.3 ads per day (see **Ranking Table 12**). In contrast, white children and teens saw 914 and 1,439 fast food ads in 2012, respectively. Therefore, black children and teens saw 58 to 60% more ads compared to their white peers. These differences were similar to those recorded in 2009 (61-62%) and can partially be explained by differences in amount of TV viewing. On average, black children watched 42% more TV than white children watched in 2012 (4 hrs:48 min vs. 3 hrs:23 min daily), while black teens watched 68% more (4 hrs:55 min vs. 2 hrs:55 min daily).³⁸

Changes in the number of ads viewed in 2012 versus 2009 were comparable for black and white youth. Black children saw 4% fewer ads in 2012 and black teens saw 4% more ads, while white children saw 1% fewer and white teens saw 5% more.

TV ads viewed disproportionately more often by black versus white youth

Some restaurants appear to have placed their advertising during programming viewed disproportionately more often by black youth than by white youth (see **Table 41**). Although exposure to Starbucks advertising was low relative to other restaurants, black children and teens saw twice as many ads for this restaurant compared with white children and teens, the highest targeted ratio in our analysis. Black children also saw twice as many ads for Popeyes compared with white children. Seven additional restaurants had high black:white targeted ratios of 1.75 or more for children and/or teens.

Twenty-two product types offered by the eighteen restaurants in our analysis also had high targeted ratios of 1.75 or more for children and/or teens (see **Table 42**). Starbucks' coffee drinks were the products most highly targeted to black youth, while three Burger King product types were among the top five: value menu/combo meals, breakfast items, and branding only ads that focused on the restaurant and not specific menu items. Targeted ratios for black children also were high for Sonic and Wendy's ads featuring snacks/desserts. Of note, black:white targeted ratios for nearly all product types were higher for children than for teens.

Table 41. Restaurants with the highest black:white targeted ratios

| Restaurant | Black children (2-11 years) | | Black teens (12-17 years) | |
|-------------|-----------------------------|----------------------------|---------------------------|----------------------------|
| | Average # of ads viewed | Black:white targeted ratio | Average # of ads viewed | Black:white targeted ratio |
| Starbucks | 7.9 | 2.17 | 17.5 | 2.03 |
| Popeyes | 36.4 | 2.00 | 64.9 | 1.81 |
| Papa John's | 35.4 | 1.79 | 61.6 | 1.80 |
| Domino's | 97.7 | 1.67 | 148.8 | 1.78 |
| Wendy's | 93.5 | 1.76 | 177.1 | 1.75 |
| Burger King | 137.0 | 1.71 | 231.3 | 1.75 |
| Taco Bell | 84.2 | 1.79 | 191.9 | 1.59 |
| Sonic | 49.1 | 1.81 | 103.1 | 1.57 |
| Carl's Jr. | 3.9 | 1.75 | 7.0 | 1.34 |

Source: Nielsen (2012), National TV only

Table 43 presents total calories and sodium in ads viewed daily by black children and teens. As found in advertising to all youth, the average number of calories per ad viewed declined from 2010 to 2013 by 10 to 13% for black youth. Although average nutrient content of ads viewed by white and black youth did not differ, black youth saw 60% more calories and sodium per day in fast food advertising compared with their white peers. This difference was comparable to the differences in their higher exposure to fast food advertising.

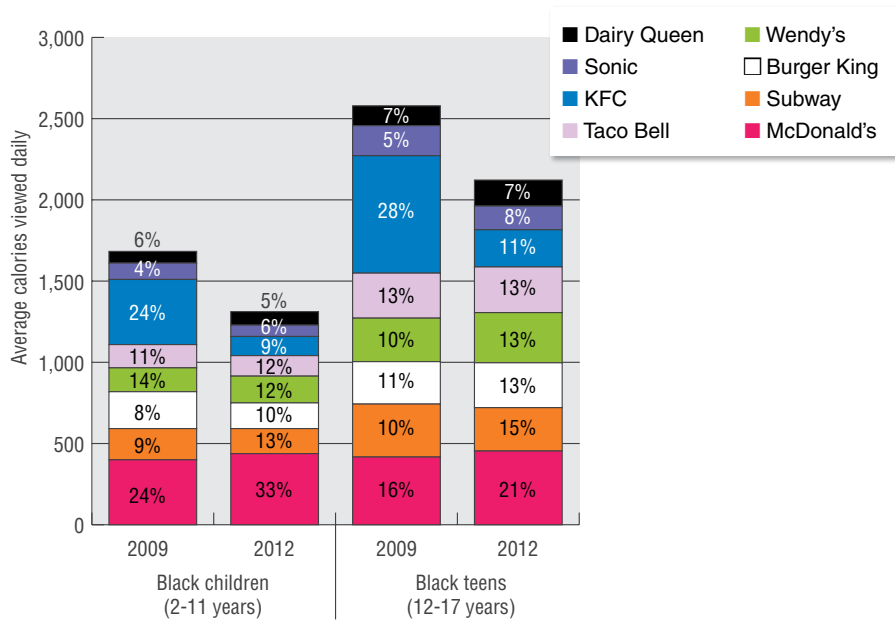
Figure 17 shows the average number of calories viewed daily by black children and teens in TV ads for eight restaurants. From 2009 to 2012, the proportion of calories viewed increased for two restaurants. McDonald's ads represented 33% of calories viewed by black children and 16% viewed by black teens in 2012 versus 24% and 16% in 2009. The proportion of calories viewed in Wendy's ads also increased for both black children (9% to 13%) and teens (10% to 15%). On the other hand, KFC represented a much smaller proportion of calories viewed by black youth in 2012 versus 2009, decreasing from 24 to 9% for children and 28 to 11% for teens.

Table 42. Restaurant product types with the highest black:white targeted ratios

| Restaurant | Product type | Black children (2-11 years) | | Black teens (12-17 years) | |
|-------------|------------------------|-----------------------------|----------------------------|---------------------------|----------------------------|
| | | Average # of ads viewed | Black:white targeted ratio | Average # of ads viewed | Black:white targeted ratio |
| Starbucks | Coffee beverages | 6.6 | 2.68 | 15.6 | 2.27 |
| Burger King | Value menu/combo meals | 4.9 | 2.43 | 9.8 | 1.96 |
| Burger King | Breakfast items | 4.5 | 2.17 | 9.0 | 1.85 |
| Burger King | Branding only | 0.9 | 2.06 | 2.3 | 1.95 |
| Sonic | Snacks/desserts | 10.8 | 2.00 | 23.1 | 1.61 |
| Wendy's | Snacks/desserts | 2.3 | 1.98 | 4.6 | 1.88 |
| Burger King | Lunch/dinner items | 55.9 | 1.92 | 114.6 | 1.78 |
| McDonald's | Coffee beverages | 15.5 | 1.92 | 28.0 | 1.79 |
| Taco Bell | Value menu/combo meals | 12.7 | 1.91 | 27.7 | 1.70 |
| McDonald's | Value menu/combo meals | 19.1 | 1.88 | 35.0 | 1.81 |
| Burger King | Snacks/desserts | 22.2 | 1.87 | 45.2 | 1.70 |
| Wendy's | Healthy options | 13.1 | 1.85 | 24.4 | 1.85 |
| McDonald's | Snacks/desserts | 13.8 | 1.84 | 26.8 | 1.79 |
| Taco Bell | Branding only | 1.4 | 1.83 | 3.0 | 1.42 |
| Burger King | Healthy options | 6.0 | 1.81 | 12.0 | 1.72 |
| Sonic | Breakfast items | 7.5 | 1.80 | 16.2 | 1.58 |
| McDonald's | Breakfast items | 6.6 | 1.78 | 12.6 | 1.80 |
| Sonic | Branding only | 0.4 | 1.77 | 1.0 | 1.26 |
| Taco Bell | Lunch/dinner items | 70.1 | 1.77 | 161.2 | 1.58 |
| Sonic | Lunch/dinner items | 30.4 | 1.75 | 62.8 | 1.56 |
| Wendy's | Lunch/dinner items | 71.6 | 1.75 | 135.6 | 1.74 |
| Domino's | Lunch/dinner items | 97.2 | 1.68 | 148.2 | 1.78 |

Source: Nielsen (2012), National TV only

Figure 17. Calories viewed daily by black children and teens in TV ads for fast food



Source: Nielsen (ad exposure data, 2009 and 2012); menu composition analysis (February 2013)

Table 43. Total nutrient content of items in TV ads viewed by black youth every day

| | Black children (2-11 years) | | | Black teens (12-17 years) | | |
|--|-----------------------------|-------|------------------|---------------------------|-------|------------------|
| | 2009 | 2012 | Change from 2009 | 2009 | 2012 | Change from 2009 |
| Calories (kcal) per ad viewed | 600 | 542 | -10% | 654 | 569 | -13% |
| Total calories (kcal) | 1,682 | 1,312 | -22% | 2,579 | 2,123 | -18% |
| % of calories from sugar and saturated fat | 39% | 28% | - | 38% | 28% | - |
| Total sodium (mg) | 3,136 | 2,568 | -18% | 4,968 | 4,311 | -13% |

Source: Nielsen (ad exposure data, 2009 and 2012); menu composition analysis (February 2013)

Targeted marketing on the internet

Internet targeted marketing

Definitions

| | |
|-------------------------------|--|
| Targeted website | A website that is designed to appeal to a specific racial or ethnic audience (e.g., Hispanics, blacks, Asians). |
| Hispanic youth targeted index | The percent of Hispanic youth (6-17 years) visiting the website divided by the percent of all youth (6-17 years) visiting. For example, if the Hispanic youth targeted index for a website is 200, then Hispanic youth are twice as likely to visit the website compared with all youth. |
| Black youth targeted index | The percent of black youth (6-17 years) visiting the website divided by the percent of all youth (6-17 years) visiting. |

To identify targeted marketing on the internet, we examine fast food restaurant websites specifically designed to appeal to different racial or ethnic groups. In addition, we quantify exposure by black and Hispanic youth (6-17 years) to all websites and identify those visited disproportionately more often by minority youth compared to all youth.

Targeted websites

In 2012, McDonald's was the only restaurant to maintain websites targeting specific racial or ethnic minority groups: MeEncanta.com, a Spanish-language website for Latino visitors; MyInspirAsian.com, targeting Asian visitors; and 365Black.com, targeting black visitors (now a sub-site of McDonalds.com). In 2009, KFC had also offered Pride360.com celebrating black culture, but that site was discontinued.

MeEncanta.com and 365Black.com were the only targeted websites with enough youth visitors to measure exposure, although the numbers of visitors were low compared to other fast food websites (see **Ranking Table 7**). MeEncanta.com averaged 1,000 unique child visitors and 13,300 unique teen visitors per month in 2012, ranking 23 out of 36 fast food websites. However, the number of teen visitors to the site increased four-fold from 2009. In contrast, 365Black.com had 2,500 monthly unique teen visitors in 2012, one-half the number of teen visitors in 2009, and not enough children visited the site to measure.

From 2009 to 2012, the total number of display ads viewed decreased substantially for McDonald's MeEncanta.com and 365Black.com, but increased for MyInspirAsian.com (see **Table 44**). Most of these ads included flash animation and advertised specific menu items, such as the McDonald's Dollar Menu.

Table 44. Exposure to racial and ethnic targeted display ads

| Restaurant | Website | Average # of ads viewed per month (000) | | | 2012 average proportion of ads viewed | | | |
|------------|-------------------|---|---------|--------|---------------------------------------|-------------------|-------------------|----------------------|
| | | 2009 | 2012 | Change | On Facebook | On youth websites | On kids' websites | Per viewer per month |
| McDonald's | MeEncanta.com | 11,727.6 | 6,475.0 | -45% | 32% | 2% | 0% | 3.9 |
| McDonald's | MyInspirAsian.com | 818.0 | 1,335.0 | -63% | 0% | 1% | 0% | 5.2 |
| McDonald's | 365Black.com | 402.4 | 48.0 | -88% | 0% | 0% | 0% | 3.5 |
| KFC | Pride360.com | 2,549.3 | 0 | | | | | |

Source: comScore AdMetrix Advertiser Report (January-December 2012)

Calidad en McDonald's



Sólo las mejores papas del mundo pueden hacer Papitas Mundialmente Famosas(TM).

McDonald's



Los McNuggets de McDonald's son lo mejor con el Fútbol Americano. ¡Agárralos hoy!

McDonald's Spanish-language ads on Facebook

Asian targeted ad promoting McDonald's Dollar menu

Hispanic youth exposure to fast food websites

Table 45 presents data for the fifteen fast food websites with the most unique Hispanic youth visitors (6-17 years) and those sites that were more likely to be visited by young Hispanics compared to all youth. Two of the top-three websites in youth exposure overall (PizzaHut.com and Dominos.com) also had the most Hispanic youth visitors. HappyMeal.com ranked third in Hispanic youth visitors, compared to fourth for all youth. Subway.com, PapaJohns.com, and McDonald's.com ranked among the top-six websites visited by Hispanic as well as by all youth.

Not surprisingly, McDonald's Latino-targeted MeEncanta.com had the highest Hispanic targeted index. Hispanic youth were 4.5 times more likely to visit the site compared to all youth. Hispanic youth also were 3.7 times more likely to visit Dunkin' Donuts' DunkinAtHome.com and nearly two times as likely to visit KFCScholars.org, although the absolute number of visitors to both sites were low. In addition, Hispanic youth were 30% more likely to visit McDonald's and Subway children's sites, including HappyMeal.com, SubwayKids.com, and RMHC.org (Ronald McDonald House charities). On average, Hispanic youth were 10% more likely to visit all fast food restaurant websites compared with all youth.

Table 45. Hispanic youth visitors to fast food websites

| Restaurant | Website | Average monthly Hispanic youth (6-17 years) unique visitors (000) | Targeted index |
|-----------------|------------------|---|----------------|
| Pizza Hut | PizzaHut.com | 52.2 | 92 |
| Domino's | Dominos.com | 48.8 | 103 |
| McDonald's | HappyMeal.com | 33.3 | 130 |
| Subway | Subway.com | 18.5 | 95 |
| Papa John's | PapaJohns.com | 16.3 | 68 |
| McDonald's | McDonalds.com | 14.2 | 77 |
| Burger King | BurgerKing.com | 14.2 | 115 |
| McDonald's | McState.com | 12.4 | 86 |
| Taco Bell | TacoBell.com | 11.4 | 88 |
| Starbucks | Starbucks.com | 10.9 | 63 |
| McDonald's | MeEncanta.com | 10.6 | 457 |
| KFC | KFC.com | 8.2 | 103 |
| Wendy's | Wendys.com | 7.9 | 94 |
| Panera Bread | PaneraBread.com | 6.1 | 84 |
| Jack in the Box | JackInTheBox.com | 5.8 | 121 |
| Dunkin' Donuts | DunkinAtHome.com | 0.9 | 368 |
| KFC | KFCScholars.org | 0.6 | 188 |
| McDonald's | RMHC.org | 2.1 | 130 |
| Subway | SubwayKids.com | 4.2 | 130 |
| McDonald's | 365Black.com | 0.5 | 117 |

Highlighting indicates a higher-than-average targeted index for Hispanic youth

Source: comScore Media Metrix Key Measures Report (January-December 2012)

Black youth exposure to fast food websites

Table 46 presents data for the fifteen websites with the most unique black youth visitors and those sites more likely to be visited by black youth compared with all youth. The three websites with the most black youth visitors (PizzaHut.com, Dominos.com, and HappyMeal.com) also had the most youth visitors overall. Of note, McDonald's black-targeted 365Black.com did not make this list; however, data for black youth visitors to the site were only available from comScore for the first and third quarters in 2012. The site has since been moved to McDonalds.com/365Black.

Of the 34 fast food restaurant websites examined in this analysis, almost one-half (44%) were more likely to be visited by black youth as compared with all youth. Dairy Queen's BlizzardFanClub.com had the highest black:white targeted index; black youth visited the site 3.1 times more often than all youth visited. Additionally, the percent of black youth visiting McDonald's McState.com (a restaurant finder website) was nearly twice the percent of all 6- to 17-year-olds visiting, and the site had the fourth highest number of black youth visitors. HappyMeal.com was visited by black youth 44% more often than all youth. The two main restaurant websites with the lowest targeted indices were Panera Bread and Starbucks, at 55 and

Table 46. Black youth visitors to fast food websites

| Restaurant | Website | Average monthly black youth (6-17 years) unique visitors (000) | Targeted index |
|----------------|---------------------|--|----------------|
| McDonald's | McDonalds.com | 51.3 | 93 |
| Pizza Hut | PizzaHut.com | 51.0 | 100 |
| Domino's | Dominos.com | 37.2 | 88 |
| McDonald's | HappyMeal.com | 32.8 | 144 |
| McDonald's | McState.com | 25.0 | 194 |
| Papa John's | PapaJohns.com | 19.8 | 93 |
| Subway | Subway.com | 16.8 | 96 |
| Burger King | BurgerKing.com | 13.8 | 126 |
| Taco Bell | TacoBell.com | 12.3 | 107 |
| Wendy's | Wendys.com | 11.9 | 159 |
| Starbucks | Starbucks.com | 10.1 | 65 |
| KFC | KFC.com | 9.5 | 134 |
| Chick-fil-A | Chick-fil-A.com | 6.6 | 113 |
| Little Caesars | LittleCaesars.com | 5.0 | 114 |
| Sonic | SonicDriveIn.com | 4.1 | 119 |
| Dairy Queen | BlizzardFanClub.com | 0.4 | 316 |
| Arby's | Arbys.com | 3.9 | 134 |
| KFC | KFCScholars.com | 0.4 | 133 |
| Subway | SubwayKids.com | 3.0 | 106 |

*Includes the top-15 sites by number of unique black youth visitors
Highlighting indicates a higher-than-average targeted index for black youth

Source: comScore Media Metrix Key Measures Report (January-December 2012)

65, respectively. However, on average black youth were 24% more likely to visit fast food restaurant websites compared with all youth.

Summary of marketing to Hispanic and black youth

Twelve fast food restaurants spent \$239 million to advertise on Spanish-language TV in 2012, an increase of 8% versus 2009. Three restaurants were new to Spanish-language TV (Little Caesars, CiCi's, and Starbucks), and two restaurants (Burger King and KFC) increased their presence on Spanish-language TV despite reductions in English-language advertising. From 2009 to 2012, the total number of ads viewed by Hispanic preschoolers increased by 16% and they continued to see more fast food ads than any other Hispanic youth group.

As in 2009, black youth continued to view 58 to 60% more TV ads for fast food restaurants than white youth. While variances in TV viewing partially explained these differences, a few restaurants appeared to target TV advertising for some or all of their products to black youth. For example, black children saw more than twice as many ads for Starbucks and Popeyes

than white children saw. They also saw more than twice as many ads for Burger King value/combo meals, breakfast items, and branding only ads, as well as Sonic ads for snacks/desserts. Targeted ratios for black teens were slightly lower.

Hispanic and black youth also continued to visit several fast food websites disproportionately more often than all youth.

One-third of fast food websites were more likely to be visited by Hispanic youth in 2012, while black youth were more likely to visit almost one-half (44%) of fast food websites. HappyMeal.com was the only website that both black and Hispanic youth were more likely to visit compared with all youth. This child-targeted site also ranked in the top four in number of both black and Hispanic youth visitors in 2012.

Marketing to Hispanic and black youth

Signs of progress

- Spanish-language TV ads viewed for McDonald's decreased by 7% among Hispanic children (6-11 years) and 17% among teens (12-17 years). Two additional restaurants reduced or stopped advertising on Spanish-language TV across all age groups (Popeyes and Jack in the Box).
- As found in TV ads viewed by all youth, average calories and sodium in ads viewed by black youth declined by 10% or more from 2009 to 2012.

Continued reasons for concern

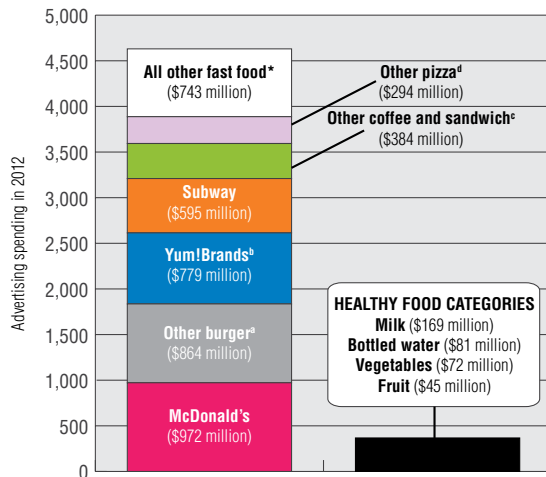
- Fast food restaurants spent 8% more to advertise on Spanish-language TV in 2012 than in 2009. Exposure to these ads increased more for preschoolers than for other age groups. In total, Hispanic preschoolers saw 16% more fast food ads on Spanish-language TV in 2012 than they had in 2009 (reaching almost one ad per day), compared to a 4% increase among adults (25-49 years) and changes of 2 to 3% among older children and teens. Preschoolers also saw more fast food ads than Hispanic children or teens saw. Healthier kids' meals represented just 5% of fast food ads on Spanish-language TV.
- Despite reductions in McDonald's ads viewed by older children on Spanish-language TV, Hispanic preschoolers saw 6% more ads for McDonald's in 2012 than in 2009.
- Two restaurants reduced advertising to children on English-language TV, but increased Spanish-language advertising. Burger King increased advertising to Hispanic preschoolers (+73%), children (+46%) and teens (+44%), and accounted for 18% of all ads viewed in 2012 by all Hispanic youth. Hispanic preschoolers also saw 23% more ads for KFC on Spanish-language TV in 2012 versus 2009, and 6- to 11-year-olds saw 14% more.
- As in 2009, black children and teens saw approximately 60% more fast food ads on TV compared with white children and teens. Much of this difference was due to greater TV viewing by black youth. However, black children and teens saw twice as many ads for Starbucks and Popeyes, as well as 75% or more additional ads for seven other restaurants. These differences were higher than expected given their TV-viewing habits.
- One-third of fast food websites were more likely to be visited by Hispanic youth as compared with all youth. Black youth were more likely to visit almost one-half (44%) of fast food websites. The one remaining large child-targeted website, HappyMeal.com, was visited 30% more often by Hispanic youth and 44% more often by black youth.

There have been some positive developments in the past three years. But fast food menus – including kids’ meals – have not improved overall, and restaurants continue to invest heavily in marketing to children and teens that promotes high-calorie, nutritionally poor products.

In 2010, we urged fast food restaurants to develop and promote lower-calorie and more nutritious menu items and reduce marketing of unhealthy options to children. Since then, both McDonald’s and Burger King reduced TV advertising to children. And child visitors to nearly all fast food restaurant websites declined substantially. Most restaurants also added healthier sides or beverages for their kids’ meals.

However, fast food restaurants also increased total advertising spending by 8% from 2009 to 2012, reaching \$4.6 billion. By comparison, advertising spending by all companies in four healthy food categories (milk, bottled water, and vegetables and fruit, including canned and frozen) totaled \$367 million in 2012 (see **Figure 18**). McDonald’s alone spent 2.7 times as much compared with all companies that advertise these healthy foods combined. And young people remained frequent targets of fast food marketing efforts. On average, children and teens viewed 2.8 to 4.8 fast food ads on TV *every day* in 2012, primarily for high-calorie, nutritionally poor regular menu items.

Figure 18. Advertising spending for fast food restaurants versus healthy food categories



Source: Nielsen (2012)

Restaurants analyzed in Fast Food FACTS 2013

| | | |
|------------------------|------------------------------|-----------------------------|
| McDonald's | Burger King ^a | Little Caesars ^d |
| Subway | Domino's ^d | Dairy Queen ^a |
| Taco Bell ^b | Sonic ^a | Starbucks ^c |
| Wendy's ^a | Arby's ^c | Panera Bread ^c |
| KFC ^b | Dunkin' Donuts ^c | Chick-fil-A ^c |
| Pizza Hut ^b | Jack in the Box ^a | Cici's Pizza ^d |

*266 different fast food restaurants advertised in 2012

Further, improvements in one area were often accompanied by negative developments in another. For example, despite an overall reduction in Burger King advertising to children, the restaurant increased Spanish-language TV advertising to Hispanic children by almost one-half. Wendy's reduced total advertising spending slightly, but substantially increased TV advertising to children. Further child visitors to fast food restaurant websites have been replaced by even more teen visitors, while marketing in social media and via mobile devices now surpasses the reach of traditional forms of online marketing.

The facts quantified in this report demonstrate that restaurants have a long way to go to be part of the solution, rather than a major contributor, to poor diets among young people.

Nutritional quality of kids' meals

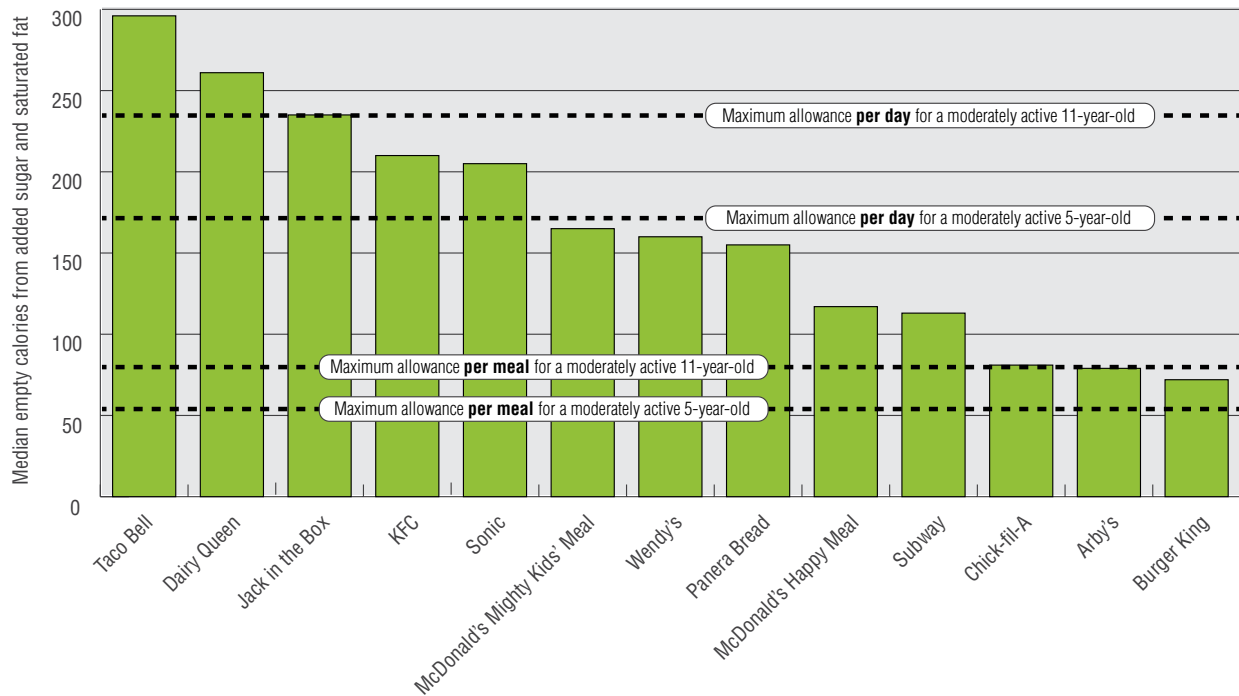
Twelve restaurants in our analysis offered kids' meals in 2013, and many of them improved the nutritional quality of available kids' meal sides and/or beverages. All restaurants except Taco Bell offered at least one healthy side option, and six of eight restaurants examined in 2010 increased the proportion of healthier kids' meal beverages (i.e., water, juice, and low fat milk). McDonald's introduced a new Happy Meal side of apples and a smaller portion of french fries as the default, reducing total calories by 115. However, Subway alone offered only healthy side options as the default, and all restaurants continued to offer sugary sodas as kids' meal beverage options.

Despite the addition of healthy kids' meal sides and beverages from 2010 to 2013, there was no improvement in the number of possible kids' meal combinations that qualified as a nutritious meal for children. There was a 50% increase in the total number of kids' meal combinations available at the restaurants examined in 2010, but just 22 out of 5,427 possible meals (0.4%) examined in this report met all nutrition criteria for preschoolers, and 33 (0.6%) met criteria for elementary school-age children. Subway, Burger King, and Arby's were the only restaurants to offer combinations that met all criteria for preschoolers and older children, while Jack in the Box offered nutritious combinations with calories and sodium levels appropriate for older children only. Further, 97% of kids' meal combinations did not even meet the food industry's own revised CFBAI nutrition standards or the restaurant industry's Kids LiveWell nutrition standards.

Empty calories from added sugar and saturated fat were problematic in most kids' meals (see **Figure 19**). The median number of empty calories in kids' meals at Burger King, Arby's, and Chick-fil-A were appropriate for children's meals. However, the 230 or more median empty calories per kids' meal at Taco Bell, Dairy Queen, and Jack in the Box exceeded recommended limits for an 11-year-old child for the entire day.

As a result, selecting healthier kids' meals was possible at most restaurants, but required parents to be informed and

Figure 19. Empty calories in kids' meal combinations



Source: Menu composition analysis (2013)¹

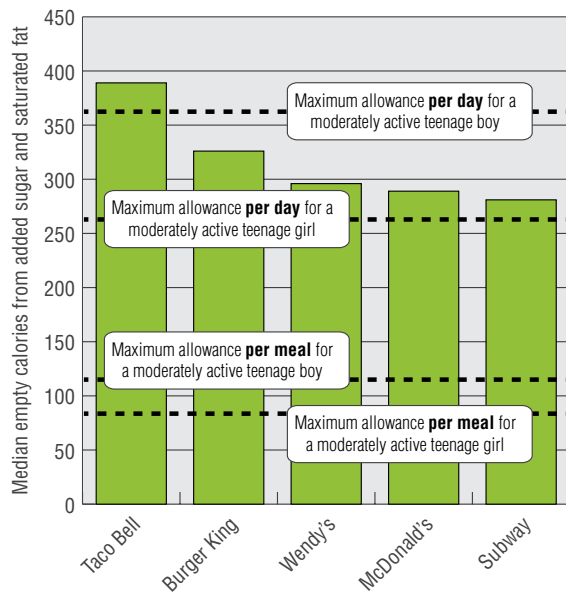
motivated to do so. As a rule, parents could order a fruit side and avoid fountain drinks, opting for plain milk, 100% juice, or water instead. Finding healthy main dishes was more difficult. Non-fried items such as sandwiches at Subway or Arby's tended to be the most nutritious options. However, eight of the twelve restaurants with kids' meals did not offer even one main dish that qualified as healthy according to NPI score, including McDonald's, Wendy's, and KFC. The nutrition content of grilled chicken options varied widely. These items tended to have fewer calories, but some contained very high levels of sodium, including grilled chicken items from Chick-fil-A and KFC. Choosing a lower-calorie sauce for chicken items was another way to reduce calories in kids' meals, as well as skipping the caramel or sugary yogurt dip sometimes offered with apple slices.

Since we collected nutrition data for this report in February 2013, restaurants have made further improvements to their kids' meals. Through their participation in Kids LiveWell, Dairy Queen added a turkey wrap, banana, and strawberry banana smoothie as options on its kids' menu² and Sonic added a meal with a Jr. Burger, apple slices with fat-free caramel dipping sauce, and 100% apple juice.³ However, neither restaurant has indicated that it will remove any of the over 1,000 possible kids' meal combinations available at each restaurant that fail to meet the Kids LiveWell nutrition standards. In September, McDonald's announced that it would "Promote and market only water, milk, and juice as the beverage in Happy Meals through its partnership with the Alliance for a Healthier Generation."⁴ After pressure from

advocacy groups, McDonald's later announced that it also would phase out listing soda on the Happy Meal section of its menu board over three years.⁵ However, these improvements do not apply to McDonald's Mighty Kids' Meals, which remain among the worst kids' meal options available at any of the restaurants we examined. In contrast to recent improvements in kids' meals at most restaurants, Taco Bell announced that it would no longer offer kids' meals, indicating that kids' meals are "not part of Taco Bell's long-term brand strategy."⁶ Although Taco Bell kids' meals did not qualify as healthy meals for children, at least they provided a lower-calorie option for children compared with most items on Taco Bell's regular menu.

Nutritional quality of regular menus and special menus

Our analysis of restaurants' regular menus confirms other recent research showing that the addition of healthier menu items has not increased the relative proportion of healthy versus unhealthy items on fast food menus.⁷ From 2010 to 2013, McDonald's, Subway, Burger King, and Taco Bell averaged 71 additional items on their menus (+35%). The number of dessert snack items, such as ice cream and frozen drinks, had the highest rate of increase (+88%) at these restaurants. Wendy's was the only top-five restaurant that did not increase the number of items on its menu. However, the percent of menu items that met all nutrition criteria for teens did not change at any restaurant. McDonald's menu items

Figure 20. Empty calories in a regular menu meal

Source: Menu composition analysis (2013)⁸

were most likely to meet all criteria (24% of total items), while 20% of items or fewer qualified as nutritious at Wendy's, Subway, and Burger King.

Empty calories in fast food regular menus also remained high. Ordering a meal consisting of a main dish, side, and beverage from the regular menu was likely to result in excessive empty calories from added sugar and saturated fat (see **Figure 20**). Median total calories in a meal combination ranged from 660 at McDonald's to 1,010 at Burger King. Although the majority of individual menu items did meet calorie limits for teens and therefore did not exceed total recommended calories for a meal, a large proportion of these calories were empty calories that provide no essential nutrients. For instance, McDonald's had the lowest median calories per meal, yet 44% were empty calories, comparable to the 45% empty calories in a Taco Bell meal. Meals from Subway, Wendy's, and Burger King also consisted of about one-third empty calories from added sugar and saturated fat (35%, 33%, and 32%, respectively). Empty calories in meals at all five restaurants exceeded recommended empty calories for a moderately-active teenage girl for an entire day. At Taco Bell, median empty calories also exceeded daily recommendations for a moderately-active teenage boy.

Snack items on regular menus also were problematic. Just 2% of snack items met all nutrition criteria, a smaller proportion than any other food category. This is particularly concerning as the majority of snack items in this report were high-fat, high-sugar desserts and snack beverages, which contribute primarily empty calories to an already unbalanced meal. For example, snack items had 340 median calories, approximately the 310 additional calories that teens consume on days they visit a fast food restaurant.⁹ Of note, teens are more likely to

visit fast food restaurants for an afternoon snack, compared with individuals in any other age group.¹⁰

Four restaurants did offer menus to identify lower-calorie and/or more nutritious menu items, including a new "Favorites Under 400 Calories" menu at McDonald's. Items on "healthy" menus were more likely to meet nutrition criteria for teens than regular menu items. However, Taco Bell had the only healthy menu where more than one-half of the items qualified as nutritious. Further, the nutritional quality of items available on healthy menus declined from 2010, and Sonic's "Favorites 450 Calories and Under" were less likely to meet nutrition criteria than items on its "Everyday Deals" value menu.

In contrast to the substantial increase in total menu items offered by most restaurants, restaurants tended to offer fewer items on their dollar/value menus in 2013 than in 2010. Only Wendy's and Burger King increased the size of their dollar/value menus. However, there was no improvement in the nutritional quality of items on these menus. Less than one-quarter of all dollar/value menu items met all nutrition criteria, and items on McDonald's, Burger King, and Sonic dollar/value menus were less likely to meet criteria in 2013 than in 2010. In addition, there were few changes in sizes of soft drinks and french fries offered. All restaurants continued to offer large or extra-large soft drinks with 350 to 850 calories per serving, and large sizes of french fries at seven restaurants contained 470 to 610 calories.

McDonald's and Burger King have announced improvements to some of their regular menu items since we collected our nutrition data in February 2013. Also through its partnership with the Alliance for a Healthier Generation, McDonald's announced that it would "Provide customers a choice of a side salad, fruit or vegetable as a substitute for French fries in value meals."¹¹ In September, Burger King introduced "Satisfries," another french fries option with 30% less fat and 20% fewer calories.¹² It also announced that Satisfries would be available in kids' meals for the same price as regular french fries, but the regular menu version would cost more. These announcements conform to the restaurant industry's trend to introduce new products that appeal to more health conscious consumers,¹³ but there is no evidence that restaurants also plan to reduce the preponderance of high-calorie, nutritionally poor items on their regular menus.

Marketing to children

We did find several positive developments in fast food marketing to children. Of note, the total number of TV ads seen by 6- to 11-year-olds declined 10%, from 3.6 ads-per-day in 2009 to 3.2 ads per day in 2012. Both of the largest advertisers in 2009 reduced TV advertising to this age group: McDonald's TV ads went down 13%, resulting in almost one less ad viewed per week; and Burger King TV ads went down by one-half, resulting in 94 fewer ads viewed in 2012. Taco Bell and KFC also reduced advertising to children 6-11 years old by 12% and 38%, respectively. Further, internet

advertising to children declined. Three popular child-targeted websites (Dairy Queen DeeQs.com, McDonald's LineRider.com, and Burger King ClubBK.com) and McDonald's site for preschoolers (Ronald.com) were discontinued. Just one site (HappyMeal.com) had more than 100,000 monthly unique child visitors in 2012, compared with four sites in 2009. Unique child visitors to all McDonald's websites declined by 39% from 2009 to 2012, but remained high at 159,000 per month. Just one restaurant website (SubwayKids.com) had an increase in child visitors.

However, we also found many reasons for continued concern about fast food marketing to children. Of note, despite the decline in TV advertising to 6- to 11-year-olds, TV advertising viewed by preschoolers did not change. These youngest viewers continued to see almost three fast food ads on TV every day. In addition, the majority of fast food restaurants stepped up their TV advertising to children. Among the top-25 advertisers, 19 increased TV advertising to preschoolers and 14 increased advertising to older children. Among the top-ten advertisers, Domino's advertising to preschoolers and children went up 59% and 44%, respectively, and Wendy's ads increased 24% and 13%, approximately six times their rates of increase in advertising to teens. Little Caesars did not advertise on national TV in 2009, but ranked tenth in fast food advertising to children in 2012 at approximately 33 ads viewed.

In addition, several restaurants appeared to target advertising for higher-calorie items from their regular menus directly to children. Wendy's and Subway advertised regular menu items – including Frostys, Baconator burgers, and Footlong sandwiches – on children's networks, including Nickelodeon and Cartoon Network. Other child-targeted ads did not focus primarily on the restaurant's food, including Subway branding-only ads and Burger King ads that featured promotions, such as a crown design contest. These ads appear to contradict Children's Advertising Review Unit requirements that the primary focus of advertising to children must be the product being sold (i.e., the food).¹⁴ Despite McDonald's CFBAI pledge to advertise only Happy Meals with milk and apple slices in child-directed media,¹⁵ ads for McDonald's Filet-o-fish sandwich, coffee drinks, and Chicken McBites appeared on kids' websites such as Nick.com, Roblox.com, and CartoonNetwork.com. However, the majority of kids' websites do not meet the minimum audience requirement to qualify as child-directed advertising in companies' CFBAI pledges.¹⁶

Further, even with the decline in its TV advertising to children from 2009 to 2012, McDonald's remained the only restaurant to advertise more to children than to teens or adults on TV. On average, every child in the United States continued to see more than 300 McDonald's ads on TV in 2012 (almost one ad every day). In addition, McDonald's increased advertising to children on the internet. It placed 34 million display ads per month for Happy Meals in 2012, an increase of 63% versus 2009, and three-quarters of these ads appeared on kids' websites. On average, six million unique viewers saw 5.4 Happy Meal ads on the internet per month in 2012. McDonald's also changed

the message in its advertising to children. In 2009, child-targeted ads mainly featured the smiling Happy Meal box with few references to the actual foods offered. In 2012, health and nutrition was the main point of McDonald's Happy Meal ads to children. They featured (visually and audibly) the apple slices and milk available with Happy Meals and repeatedly showed a cartoon picture depicting a farm in the background with bread, carrots, a chicken leg, an apple, and milk in the foreground. Although these ads emphasized the importance of eating well, the health consequences of these messages are unclear given that not one of McDonald's Happy Meals met all nutrition criteria and its Mighty Kids' Meals were among the worst kids' meal combinations available at any restaurant. Research is needed to determine whether these ads convey to children the message that all McDonald's kids' meals are healthy choices.

Finally, the amount of fast food advertising targeted primarily to an older audience, but also widely viewed by children, is extremely concerning. Although McDonald's Happy Meals were the most frequently advertised individual menu items to children, ads for kids' meals represented just one-quarter of all the fast food ads they saw. Domino's pizza was the second most common type of fast food advertised to children, followed by Subway sandwiches, Wendy's lunch/dinner items, and Pizza Hut pizza. In fact, children saw more ads for main menu items from ten different restaurants compared with ads for Burger King or Subway kids' meals, which ranked 16 and 19, respectively, in types of fast food advertised most to children. These findings demonstrate the need to improve the nutritional quality of foods advertised during programming to a larger audience, not just children specifically.

Marketing to teens

We found fewer positive trends to note regarding fast food marketing to teens, and most positive developments were offset by new concerns. For example, there was no change in teens' exposure to TV advertising in 2012 versus 2009 (4.8 and 4.9 ads-per-day, respectively). However, fast food ads viewed by teens increased 6% from 2011 to 2012, reversing a downward trend from 2009 to 2011. Further, from 2004 to 2008 there was a 34% increase in fast food TV advertising to teens.¹⁷ In addition, 15 of the top-25 advertisers increased TV advertising to teens from 2009 to 2012. Notably, there appears to be an overall trend of improvement in the nutritional quality of fast food products advertised to teens. Although TV ads viewed by teens did not decline, total calories in fast food ads viewed went down by 16% from 2009 to 2012. The proportion of calories from sugar and saturated fat also declined from 37% to 28%. KFC and Sonic had the biggest improvements in calories-per-ad viewed of -42% and -20%, respectively, whereas calories-per-ad viewed increased by 18% and 13% for Dairy Queen and Burger King. On the other hand, Burger King's Real Fruit Smoothie was the only nutritious item on the top-15 list of menu items advertised to teens.

Another positive trend was a dramatic decline in the number of display ads placed by fast food restaurants on third-party youth websites, from 470 million per month in 2009 to 246 million in 2012. In addition, restaurants placed just 6% of their display ads on youth websites in 2012 versus 25% in 2009. However, display ads on youth websites have been substantially replaced by display ads on Facebook. In 2012, fast food restaurants placed six billion display ads on Facebook, 19% of their total display advertising, and Dunkin' Donuts and Wendy's placed more than one-half of their ads on Facebook. Of note, Facebook averaged over 18 million monthly unique visitors aged 2 to 17 in 2012.¹⁸ Therefore, teens and even children were likely to see many of these ads. In addition, three restaurants substantially increased their display advertising on youth websites, including KFC (+138%), Subway (+450%), and Starbucks (+330%).

We also found evidence that some restaurants may have substituted advertising to children under 12 with increased advertising to somewhat older youth ages 12 and over. On TV, Pizza Hut advertising to children declined by 2% whereas ads to teens increased 7%. Similarly, Sonic ads to children went up 3% compared with 13% more ads to teens. This trend was most evident in visitors to restaurant websites. The overall decline in child visitors to restaurant websites from 2009 to 2012 was accompanied by an increase in 12- to 17-year-old visitors to more than one-half of websites. Restaurant websites with the greatest increases in teen visitors included Subway.com (+102%), Starbucks.com (+92%), and McDonald's.com (+75%). Three sites (PizzaHut.com, McDonalds.com, and Dominos.com) averaged 270,000 or more unique teen visitors per month. In addition, McDonald's introduced a new website, PlayatMcD.com, which focused on its Monopoly game promotion. Although data were available for only two quarters in 2012, the site averaged over 40,000 unique teen visitors per month during those quarters.

There is further evidence that some restaurants targeted teens directly with their advertising. Teens saw 20% fewer TV ads for fast food restaurants compared with adults. However, this difference is lower than expected given that teens watch 30% less television compared with adults.¹⁹ Therefore, fast food advertising appears relatively more often on TV programming with higher than average teen audiences. For example, fast food represents one-third or more of food ads viewed by youth (2-17 years) on MTV, FX, and Adult Swim,²⁰ three TV networks popular with teen viewers. Starbucks had the highest ratio of ads viewed by teens compared to adults: teens saw 50% more Starbucks ads than adults saw. Of note, a research report by Piper Jaffray & Co. featured Starbucks as a top stock pick due in part to its "accelerating mindshare" among teens.²¹ Teens also saw more Taco Bell and Sonic ads than adults, as well as more healthy options and snacks/desserts from Wendy's. On the internet, teens made up a relatively high proportion of visitors to restaurants' child-targeted websites, as well as three specialized McDonald's sites (MeEncanta.com, RMHC.com, and McState.com) and KFC's KFCScholars.com.

Fast food advertising targeted to teens is especially concerning as they are more likely than children or adults to visit fast food restaurants;²² consume over 300 extra calories on days they visit;²³ and the majority of products teens see advertised are high in calories, saturated fat, sugar, and/or sodium. It is important to note that advertisers include children aged 12 to 14 in their definition of "teens." Children of this age often have the ability and the means to visit fast food restaurants on their own, without parental supervision. However, they are also highly susceptible to advertising and peer influence and have less-developed impulse control.²⁴⁻²⁶ However, the food industry has given no indication that they consider it to be problematic to target children older than 11 years (i.e., their definition of "teens") with advertising for unhealthy products. When asked if the CFBAI would consider raising the age of children covered by food industry pledges to 14 years, the director of the program replied that she does not believe food companies would support such a change in the near future, "As children grow older, they have rights and responsibilities that younger children do not."²⁷

Marketing to Hispanic and black youth

Frequent exposure to fast food marketing by Hispanic and black children and teens raises additional concerns as these youth also face greater risk of obesity and related diseases that negatively affect their long-term health.²⁸⁻³⁰ Further, there is evidence that ethnic minorities are more responsive to marketing that is targeted to them directly, and they may be more susceptible to advertising influence in general.³¹⁻³³ Therefore, fast food restaurants should not target black and Hispanic youth with marketing for high-calorie products that contain high levels of calories, sugar, saturated fat, and sodium.

However, we found evidence that restaurants are targeting black and Hispanic youth directly. Fourteen fast food restaurants spent \$239 million to advertise on Spanish-language TV in 2012, an 8% increase versus 2009. On average, these restaurants allocated 6% of their TV advertising budgets to Spanish-language, but Spanish-language advertising represented a higher percent of TV advertising budgets for some restaurants, including Popeyes (20%), Starbucks (18%), Burger King (17%), and Domino's (15%). Further, four of the eight top fast food advertisers increased their advertising spending on Spanish-language TV by 16% or more (Burger King, Domino's, Subway, and KFC). These increases affected Hispanic preschoolers disproportionately more than older Hispanic children and teens due to higher levels of Spanish-language TV viewing by these youngest viewers.³⁴ On average, Hispanic preschoolers saw 340 fast food ads on Spanish-language TV in 2012, an increase of 16% versus 2009. Preschoolers saw 100 more Spanish-language ads per year than Hispanic children saw in 2012 and 120 more ads compared with Hispanic teens.

Further, some restaurants reduced advertising to children on English-language TV at the same time they increased advertising to Hispanic children on Spanish-language TV. For example, Burger King reduced advertising to children on English-language TV by one-half, but increased advertising to preschoolers and older children on Spanish-language TV by 73% and 46%, respectively. Similarly, preschoolers and children viewed 28 to 38% fewer KFC ads on English programming in 2012 than in 2009, but exposure to KFC ads on Spanish programming increased by 23% and 14% for Hispanic preschoolers and children. Hispanic preschoolers also viewed 6% more Spanish-language ads for McDonald's in 2012 versus 2009, while McDonald's advertising to preschoolers on English-language TV went down by 14%. However, just 5% of all Spanish-language fast food advertising viewed by preschoolers and children promoted kids' meals, substantially lower than the 25% of fast food ads viewed by children on English-language TV.

As in 2009, black children and teens saw approximately 60% more fast food ads compared with white youth in 2012. These differences can be attributed largely to greater TV viewing by black youth. On average, black children watch 42% more TV than white children (an additional 1 hr:25 min per day) and black teens watch 68% more than white teens (an additional 2 hrs daily).³⁵ However, some restaurants appear to have placed their advertising in programming viewed disproportionately more often by black youth. For example, black teens saw twice as many ads for Starbucks compared with their white peers. They also saw 75% or more additional ads for Popeyes, Papa John's, Domino's, Wendy's, and Burger King. Ratios for fast food ads viewed by black versus white children tended to be even higher, although black:white targeted ratios for kids' meal ads were lower than ratios for other types of menu items.

Black and Hispanic youth (6-17 years) also were frequent visitors to many fast food websites. Hispanic youth were 10% more likely to visit fast food websites compared with all youth, and black youth were 24% more likely to visit. Websites with the highest ratios of Hispanic youth visitors included McDonald's MeEncanta.com, Dunkin' Donuts DunkinAtHome.com, and KFCScholars.org. Black youth were much more likely to visit Dairy Queen's BlizzardFanClub.com, McDonald's McState.com, and Wendys.com compared with all youth. In addition, Hispanic youth visited HappyMeal.com, the one remaining child-targeted site, 30% more often compared with all youth, and black youth visited the site 44% more often.

Despite higher-than-average visits to many fast food websites by Hispanic and black youth, McDonald's was the only restaurant to appeal directly to minority youth on the internet with three targeted websites in 2012: MeEncanta.com, MyInspirAsian.com, and 365Black.com. McDonald's also placed display advertising for MeEncanta.com and MyInspirAsian.com. From 2009 to 2012, teen visitors to MeEncanta.com almost quadrupled, and Hispanic youth were 4.6 times as likely to visit compared with all youth. The site featured promotions for regular menu items, as well as

McDonald's sponsored Latin music events, scholarships, a fútbol advergence, and features promoting Latin pride. On average, McDonald's placed 6.5 million display ads for MeEncanta.com monthly, and 32% appeared on Facebook.

New developments in marketing to youth

As usage of social media and mobile devices has exploded over the past three years, so has fast food restaurants' marketing via these media. There are no reliable data to measure children's and teens' exposure to specific marketing messages in social and mobile media. However, numerous studies document the popularity of these new forms of media with teens and children. For example, each month teens view nearly eight hours of video on mobile phones as compared to five hours for adults ages 18 to 49.³⁶ In addition, 81% of online teens say they use social networking sites, compared with 67% of all online adults;³⁷ and three out of four teenagers currently have a profile on a social networking site.³⁸ Young children are also active on some social media sites. Although the terms of service for Facebook do not allow children under 13 to become members, Consumer Reports found that over five million Facebook users were under the age of 13.³⁹

In social media, Starbucks maintained its substantial lead in total reach with 35 million Facebook likes and 4.2 million Twitter followers as of July 2013. McDonald's was second with 29.2 million Facebook likes and 1.6 million Twitter followers, followed by Subway with 23.7 million Facebook likes and 1.5 million Twitter followers. Of note, Starbucks ranked seventh in popularity of all corporate brands on Facebook, and McDonald's and Subway ranked ninth and twelfth.⁴⁰ The popularity of restaurants' social media pages grew exponentially from 2010 to 2013, with increases in the numbers of Facebook likes and Twitter followers for individual restaurants ranging from 200% (Starbucks Facebook likes) to 6400% (Subway Twitter followers). In 2013, 17 of the 18 restaurants in our analysis had one million or more Facebook likes, compared with nine restaurants in 2010. Six restaurants had more than 10 million Facebook likes. Restaurant-initiated engagement was high for many of their social media accounts. Domino's, Dunkin' Donuts, Pizza Hut, Taco Bell, Dairy Queen, Burger King, and Arby's posted one or more times per day on their Facebook pages, and ten restaurants averaged ten or more tweets per day.

Of note, increases in all restaurants' Twitter followers were higher than increases in their Facebook likes. Twitter also has become more popular with teens. Teens' ranking of Twitter as their most important social media network now surpasses rankings for Facebook.⁴¹ Teens also rank Instagram as equal in importance to Facebook, and both Taco Bell and Starbucks have been highlighted as brands that have mastered the use of Instagram.⁴² As noted, these two restaurants also target teens in their TV advertising. On YouTube, Taco Bell overtook

Starbucks as the most popular restaurant with almost 14 million online video views versus 8 million views for Starbucks videos.

Fast food restaurants also have increased their advertising on mobile devices (i.e., smartphones and tablets). Starbucks maintained the most popular mobile website, averaging 3.4 million unique visitors per month, which exceeded the number of visitors to the restaurant's traditional website. Other restaurants' also maintained mobile websites that were more engaging than their traditional websites. The average amount of time spent on PizzaHut.com, PapaJohns.com, and Dominos.com mobile websites exceeded average time spent on these pizza restaurants' regular websites. In addition, ten restaurants offered branded applications for mobile devices (i.e., mobile apps) that allowed users to interact with the brand from virtually any location. Six mobile apps provided ordering capabilities via smartphones (Subway, Pizza Hut, Wendy's, Domino's, Papa John's, and Chick-fil-A) and six provided special offers (McDonald's, Burger King, Pizza Hut, Domino's, Dunkin' Donuts, and Papa John's). Papa John's and Pizza Hut mobile apps were very popular, with more than 700,000 average monthly unique users.

These newer forms of media are more difficult for parents to monitor and restrict their children's access. Parents indicate that they are less aware of food marketing to their teenage children through social and mobile media versus TV and other traditional forms of marketing, but they are more supportive of restrictions on marketing to their children through digital media.⁴³ Further, sophisticated mobile apps now allow children to order fast food directly from their mobile devices and receive special offers from restaurants as they pass by. New child-targeted mobile advergimes (McDonald's "McPlay" and Wendy's "Pet Play Games") mean that children no longer need to sit at a computer or TV to engage with advertising for these restaurants.

Recommendations

This pace of improvement is 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 and stop targeting children and teens with marketing that encourages frequent visits to these restaurants.

Nutritional quality of kids' meals and regular menu items

Most restaurants now offer one or more healthier sides or beverages with their kids' meals, an improvement versus 2010. A few restaurants also offer healthier main dishes. However, the number of unhealthy kids' meals combinations continues to overwhelm the number of healthy meals available at all restaurants. Restaurants must do much more to make healthy kids' meals the easiest and most prevalent options available:

- Participating restaurants are only required to apply CFBAI nutrition standards to kids' meals presented in their child-directed advertising,⁴⁴ while Kids LiveWell restaurants must offer just one meal that meets program standards.⁴⁵ Industry nutrition standards for healthy kids' meals should apply to the majority of kids' meal combinations available for purchase – not a mere 3%.
- McDonald's switch to smaller-sized portions of apples and french fries has increased the percent of children who receive fruit with their kids' meals from 28% in 2010 to 86% in 2013.⁴⁶ Automatically providing healthier sides as the default option for kids' meals works. All fast food restaurants should make healthy sides and beverages the default in their kids' meals. McDonald's also should also remove the french fries from its Happy Meals and make similar improvements to its Mighty Kids' Meals too.

The preponderance of inexpensive, appealing, high-calorie options that remain on restaurants' regular menus makes it difficult for consumers to identify and choose the handful of healthy options available at restaurants.

- Restaurants should increase the proportion – not just the absolute number – of lower calorie, healthy items on their menus and make them available at a reasonable price.

Marketing targeted to children

At the same time that fast food advertising during children's programming and on traditional websites has generally improved, some restaurants continue to target children directly in ways that take advantage of their vulnerability to advertising and often are more difficult for parents to monitor. Examples include, McDonald's and Wendy's child-targeted mobile apps; increased McDonald's display advertising for Happy Meals on third-party websites; and Subway's branding ads and Burger King's promotion ads on children's TV networks.

- Restaurants should stop targeting children with marketing that takes advantage of their developmental vulnerabilities and reaches them behind parents' backs. These practices include TV ads that focus on toys or promotions, not the food; mobile advergence apps; and online advertising with links to kids' advergence sites.

In addition, some restaurants appear to have taken advantage of loopholes in the CFBAI that technically allow them to advertise regular menu items that do not meet CFBAI nutrition criteria to children. Examples include Wendy's and Subway advertising of regular menu items on children's TV networks (these restaurants do not participate in the CFBAI) and McDonald's Filet-o-fish display ads on Nick.com and Roblox.com (these websites do not qualify as "child-directed" media according to the CFBAI).⁴⁷

- Restaurants should stop advertising anything but the healthiest kids' meal items directly to children on children's TV networks, third-party kids' websites, and other clearly child-targeted media and marketing venues.

Further, increases in fast food advertising on non-children's programming have disproportionately increased preschoolers' exposure to this advertising. In particular, increases in Spanish-language TV advertising have affected Hispanic preschoolers more than older Hispanic children or teens.

- Preschoolers should not be exposed to multiple fast food ads for regular menu items every day – 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 vulnerable young viewers.

However, just one-quarter of fast food ads seen by children on TV promoted kids' meals. Children's frequent exposure to marketing for high-calorie, nutritionally poor fast food – even ads not specifically targeted to them – raises further concerns. Improvements in fast food marketing targeted to teens will also lead to improvements in fast food advertising seen by children.

Marketing to teens

Although there has been an overall decline in fast food advertising directly targeted to children, many restaurants appear to have shifted their marketing focus to teens. Restaurants should not take advantage of children 12 years and older by advertising directly to them, especially for products that can harm their health such as sugary drinks, high-calorie desserts, and coffee.

- Restaurants must recognize that teens also are highly vulnerable to 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 through at least middle school age (12-14 years).

This report raises further concerns about the rapid expansion of unhealthy fast food marketing through social media and mobile devices, media that are very popular with teens.⁴⁸

- Age limits should be placed on fast food marketing to youth via social media and mobile devices – venues that take advantage of teens' greater susceptibility to peer influence and immediate impulsive actions.

In summary, many fast food restaurants have added healthy sides and beverages to their kids' meals, and the largest advertisers in 2009 have cut back their advertising directed to children ages 6 to 11. However, the industry continued to spend \$4.6 billion in 2012 on advertising that promoted mostly unhealthy products, and children and teens remained key audiences for these messages. In addition, Hispanic and black youth, who face higher risks of obesity and related diseases, view disproportionately more fast food advertising than their white non-Hispanic peers. Further, fast food restaurants have been early adopters of new forms of marketing through social and mobile media that are popular with teens.

To ensure the health of our children, fast food 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.

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Conclusions

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Best kids' meal combinations

Ranking of best possible kids' meal combinations by NPI score of food items

Includes all possible kids' meal combinations that met all nutrition criteria for preschool or elementary school-age children. Also includes up to three additional best combinations per restaurant that met calorie criteria for elementary school-age children, determined by selecting the items with the highest NPI score and lowest calorie content among the menu options at each restaurant. Calorie content was used to rank the final items. All beverages on the best list are free of artificial sweeteners. Inclusion on the best list does not necessarily indicate that the meal is healthy, only that it is a relatively better choice from that restaurant.

| Rank | Restaurant | Main dish | Side | Beverage | Snack or dessert | Total calories (kcal)* | Sodium (mg) | NPI score | | | Saturated fat and added sugar** | | |
|--|-------------|---|---|-----------------------------------|------------------|------------------------|-------------|-----------|-----------|----------|---------------------------------|-----------------|---------------------|
| | | | | | | | | Main dish | Side dish | Beverage | Snack or dessert | Calories (kcal) | % of total calories |
| Meals that meet all nutrition criteria for preschool and elementary school-age children | | | | | | | | | | | | | |
| 1 | Arby's | Kraft macaroni and cheese | Apple slices | Nestle bottled water | | 205 | 350 | 66 | 78 | 70 | | 30 | 15% |
| 2 | Arby's | Kraft macaroni and cheese | Apple slices | Iced tea | | 210 | 350 | 66 | 78 | 70 | | 30 | 14% |
| 3 | Arby's | Kraft macaroni and cheese | Apple slices with strawberry yogurt dip | Nestle bottled water | | 255 | 380 | 66 | 68 | 70 | | 62 | 24% |
| 4 | Arby's | Kraft macaroni and cheese | Apple slices with strawberry yogurt dip | Iced tea | | 260 | 380 | 66 | 68 | 70 | | 62 | 24% |
| 5 | Burger King | Chicken nuggets (4) with sweet and sour sauce | Apple slices | Nestea unsweetened tea | | 265 | 430 | 64 | 78 | 70 | | 58 | 22% |
| 6 | Burger King | Chicken nuggets (4) with sweet and sour sauce | Apple slices | Gold Peak unsweetened tea | | 265 | 415 | 64 | 78 | 70 | | 58 | 22% |
| 7 | Subway | Veggie Delite sandwich (wheat bread, no cheese) | Apple slices | 100% juice | | 285 | 225 | 78 | 82 | 76 | | 16 | 6% |
| 8 | Arby's | Kraft macaroni and cheese | Apple slices | Capri Sun 100% juice | | 285 | 375 | 66 | 78 | 76 | | 30 | 11% |
| 9 | Arby's | Kraft macaroni and cheese | Apple slices | Shamrock Farms low fat milk | | 295 | 455 | 66 | 78 | 72 | | 43 | 15% |
| 10 | Subway | Black forest ham sandwich (wheat bread, no cheese) | Apple slices | 100% juice | | 315 | 485 | 76 | 82 | 76 | | 25 | 8% |
| 11 | Subway | Turkey breast sandwich (wheat bread, no cheese) | Apple slices | 100% juice | | 315 | 475 | 76 | 82 | 76 | | 25 | 8% |
| 12 | Subway | Veggie Delite sandwich (white bread, American cheese) | Apple slices | 100% juice | | 315 | 415 | 72 | 82 | 76 | | 44 | 14% |
| 13 | Subway | Roast beef sandwich (wheat bread, no cheese) | Apple slices | 100% juice | | 335 | 425 | 78 | 82 | 76 | | 29 | 9% |
| 14 | Arby's | Kraft macaroni and cheese | Apple slices with strawberry yogurt dip | Capri Sun 100% juice | | 335 | 405 | 66 | 68 | 76 | | 62 | 19% |
| 15 | Subway | Veggie Delite sandwich (wheat bread, no cheese) | Apple slices | Low fat milk | | 345 | 390 | 78 | 82 | 72 | | 39 | 11% |
| 16 | Arby's | Kraft macaroni and cheese | Apple slices with strawberry yogurt dip | Shamrock Farms low fat milk | | 345 | 485 | 66 | 68 | 72 | | 75 | 22% |
| 17 | Arby's | Kraft macaroni and cheese | Apple slices | Shamrock Farms low fat milk | | 355 | 520 | 66 | 78 | 70 | | 75 | 21% |
| 18 | Burger King | Chicken nuggets (4) with sweet and sour sauce | Apple slices | Hershey's fat free chocolate milk | | 355 | 540 | 64 | 78 | 72 | | 58 | 16% |

Best



continued

Ranking Table 1

| Rank | Restaurant | Main dish | Side | Beverage | Snack or dessert | Total calories (kcal)* | Sodium (mg) | NPI score | | | Saturated fat and added sugar** | | |
|---|-----------------|---|---|---------------------------------------|------------------|------------------------|-------------|-----------|-----------|----------|---------------------------------|-----------------|---------------------|
| | | | | | | | | Main dish | Side dish | Beverage | Snack or dessert | Calories (kcal) | % of total calories |
| Meals that meet all nutrition criteria for elementary school-age children only | | | | | | | | | | | | | |
| 19 | Jack in the Box | Grilled chicken strips (2) | Chiquita apple bites with caramel | Gold Peak iced tea | | 205 | 610 | 68 | 70 | 70 | | 41 | 20% |
| 20 | Burger King | Chicken nuggets (6) with sweet and sour sauce | Apple slices | Nestea unsweetened tea | | 355 | 610 | 64 | 78 | 70 | | 67 | 19% |
| 21 | Burger King | Chicken nuggets (6) with sweet and sour sauce | Apple slices | Gold Peak unsweetened iced tea | | 355 | 595 | 64 | 78 | 70 | | 67 | 19% |
| 22 | Subway | Roast beef sandwich (white bread, American cheese) | Apple slices | 100% juice | | 365 | 615 | 72 | 82 | 76 | | 47 | 13% |
| 23 | Subway | Veggie Delite sandwich (white bread, American cheese) | Apple slices | Low fat milk | | 375 | 580 | 72 | 82 | 72 | | 57 | 15% |
| 24 | Subway | Roast beef sandwich (wheat bread, no cheese) | Apple slices | Shamrock Farms low fat chocolate milk | | 395 | 590 | 78 | 82 | 72 | | 52 | 13% |
| 25 | Arby's | Kraft macaroni and cheese | Apple slices with strawberry yogurt dip | Shamrock Farms low fat chocolate milk | | 405 | 550 | 66 | 68 | 70 | | 127 | 31% |
| 26 | Burger King | Chicken nuggets (4) with sweet and sour sauce | Apple slices | Hershey's low fat chocolate milk | | 425 | 565 | 64 | 78 | 70 | | 58 | 14% |
| Meals that meet maximum calories for elementary school-age children only | | | | | | | | | | | | | |
| 27 | Chick-fil-A | Chick-n-Strips (1) | Fruit cup | Low fat milk | | 255 | 425 | 60 | 78 | 72 | | 27 | 11% |
| 28 | Chick-fil-A | Grilled chicken nuggets (4) with barbeque sauce | Fruit cup | Low fat milk | | 260 | 835 | 42 | 78 | 72 | | 50 | 19% |
| 29 | Jack in the Box | Grilled chicken strips (2) | Chiquita apple bites with caramel | Reduced fat milk | | 320 | 715 | 68 | 70 | 70 | | 64 | 20% |
| 30 | Arby's | Jr. turkey and cheese sandwich | Apple slices | Shamrock Farms low fat milk | | 335 | 835 | 50 | 78 | 72 | | 48 | 14% |
| 31 | Arby's | Jr. roast beef sandwich | Apple slices | Shamrock Farms low fat milk | | 335 | 625 | 50 | 78 | 72 | | 44 | 13% |
| 32 | Sonic | Chicken strips (2) | Apple slices | Low fat milk | | 345 | 600 | 48 | 82 | 72 | | 32 | 9% |
| 33 | Burger King | Chicken nuggets (6) with sweet and sour sauce | Apple slices | Hershey's low fat chocolate milk | | 355 | 540 | 64 | 78 | 72 | | 58 | 16% |
| 34 | Sonic | Corn dog | Apple slices | Low fat milk | | 355 | 660 | 44 | 82 | 72 | | 61 | 17% |
| 35 | Burger King | Hamburger | Apple slices | Hershey's low fat chocolate milk | | 360 | 585 | 50 | 78 | 72 | | 60 | 17% |
| 36 | KFC | Chicken drumstick | Green beans | Low fat milk | String cheese | 365 | 910 | 62 | 78 | 70 | 36 | 67 | 18% |
| 37 | Wendy's | Chicken McNuggets (4) with sweet and sour sauce | Apple slices | TruMoo low fat milk | | 370 | 615 | 46 | 80 | 72 | | 80 | 22% |
| 38 | McDonald's | Chicken McNuggets (4) with barbeque sauce | Apple slices (double portion) | Low fat milk | | 370 | 745 | 44 | 78 | 72 | | 72 | 19% |
| 39 | Chick-fil-A | Chick-n-Strips (2) | Fruit cup | Low fat milk | | 375 | 755 | 50 | 78 | 72 | | 40 | 11% |
| 40 | KFC | Grilled chicken drumstick | Corn on the cob | Low fat milk | String cheese | 380 | 630 | 62 | 86 | 70 | 36 | 63 | 17% |

continued

Ranking Table 1

| Rank | Restaurant | Main dish | Side | Beverage | Snack or dessert | Total calories (kcal)* | Sodium (mg) | NPI score | | | | Saturated fat and added sugar** | |
|-----------|-----------------|--|-----------------------------------|---------------------|------------------|------------------------|-------------|-----------|-----------|-----------|------------------|---------------------------------|---------------------|
| | | | | | | | | Main dish | Side dish | Beverage | Snack or dessert | Calories (kcal) | % of total calories |
| 41 | McDonald's | Chicken McNuggets (4) with hot mustard sauce | Apple slices (double portion) | Low fat milk | | 380 | 735 | 50 | 78 | 72 | | 56 | 15% |
| 42 | McDonald's | Hamburger | Apple slices (double portion) | Low fat milk | | 380 | 605 | 50 | 78 | 72 | | 69 | 18% |
| 43 | Wendy's | Hamburger | Apple slices | TruMoo low fat milk | | 390 | 665 | 44 | 80 | 72 | | 70 | 18% |
| 44 | Wendy's | Crispy chicken sandwich | Apple slices | TruMoo low fat milk | | 470 | 815 | 50 | 80 | 72 | | 57 | 12% |
| 45 | Jack in the Box | Chicken nuggets (4) w/ barbeque sauce | Chiquita apple bites with caramel | Reduced fat milk | | 470 | 835 | 50 | 70 | 70 | | 105 | 22% |
| 46 | Sonic | Jr. burger | Apple slices | Low fat milk | | 485 | 770 | 44 | 82 | 72 | | 92 | 19% |
| 47 | Panera Bread | Roast beef deli sandwich (white bread) | Yogurt | Organic milk | | 490 | 885 | 50 | 60 | 70 | | 137 | 28% |
| 48 | Panera Bread | Peanut butter and jelly sandwich (white bread) | Yogurt | Organic milk | | 580 | 625 | 48 | 60 | 70 | | 183 | 32% |
| 49 | Dairy Queen | Chicken strips (2) | Banana | Low fat milk | Chocolate cone | 620 | 935 | 44 | 78 | 66 | 60 | 189 | 30% |

Bold numbers indicate that the item does not meet minimum healthy NPI score and/or maximum recommended calories or sodium

*Kids' meals with fewer than 400 calories may not provide adequate calories for some elementary school-age children

**Added sugar estimated by subtracting naturally-occurring sugar in fruit and dairy products from total sugar

Source: Menu composition analysis (February 2013)

Worst kids' meal combinations

Ranking from most to least calories

Includes the worst three combinations from each restaurant by NPI score. Each of these combinations exceed multiple nutrition recommendations for children and are never a healthful choice.*

Worst

| Restaurant | Main dish | Side | Beverage | Snack or dessert | Total calories (kcal) | Sodium (mg) | NPI score | | | Saturated fat and added sugar** | | |
|-----------------|---|--------------|--|------------------|-----------------------|-------------|-----------|-----------|----------|---------------------------------|-----------------|---------------------|
| | | | | | | | Main dish | Side dish | Beverage | Snack or dessert | Calories (kcal) | % of total calories |
| McDonald's | McDouble | French fries | Sugar-sweetened soft drink (Hi-C Orange Lavaburst) | | 880 | 1,085 | 42 | 68 | 66 | 294 | 33% | |
| Sonic | Jr. Deluxe cheeseburger | Tots | POWERADE Mountain Blast slush | | 840 | 1,405 | 44 | 52 | 66 | 299 | 36% | |
| McDonald's | Chicken McNuggets (6) with hot mustard sauce | French fries | Sugar-sweetened soft drink (Hi-C Orange Lavaburst) | | 830 | 1,025 | 48 | 68 | 66 | 245 | 30% | |
| McDonald's | Chicken McNuggets (6) with barbeque sauce | French fries | Sugar-sweetened soft drink (Hi-C Orange Lavaburst) | | 820 | 1,035 | 44 | 68 | 66 | 261 | 32% | |
| Sonic | Grilled cheese sandwich | Tots | POWERADE Mountain Blast slush | | 800 | 1,645 | 32 | 52 | 66 | 289 | 36% | |
| Burger King | Chicken Nuggets (6) with ranch sauce | French fries | Sweetened iced tea | | 795 | 1,115 | 48 | 62 | 66 | 67 | 8% | |
| Dairy Queen | Cheeseburger | French fries | Sugar-sweetened soft drink (Mountain Dew) | Heath Dilly Bar | 780 | 1,410 | 40 | 58 | 64 | 32 | 326 | 42% |
| Chick-fil-A | Chicken nuggets (6) with buttermilk ranch sauce | French fries | Lemonade | | 770 | 1,135 | 40 | 46 | 66 | 206 | 27% | |
| Jack in the Box | Grilled cheese | French fries | Sugar-sweetened soft drink (Hi-C Fruit Punch) | | 740 | 1,250 | 36 | 50 | 66 | 295 | 40% | |
| Jack in the Box | Cheeseburger | French fries | Sugar-sweetened soft drink (Hi-C Fruit Punch) | | 730 | 1,330 | 36 | 50 | 66 | 307 | 42% | |
| Sonic | Hot dog | Tots | POWERADE Mountain Blast slush | | 710 | 1,475 | 36 | 52 | 66 | 277 | 39% | |
| Chick-fil-A | Chicken nuggets (4) with buttermilk ranch sauce | French fries | Lemonade | | 700 | 875 | 34 | 46 | 66 | 202 | 29% | |
| Dairy Queen | Iron grilled cheese sandwich | French fries | Sugar-sweetened soft drink (Mountain Dew) | Heath Dilly Bar | 700 | 1,440 | 32 | 58 | 64 | 32 | 293 | 42% |
| Jack in the Box | Hamburger | French fries | Sugar-sweetened soft drink (Hi-C Fruit Punch) | | 690 | 1,130 | 44 | 50 | 66 | 285 | 41% | |
| Arby's | Prime-cut chicken tenders (2) | French fries | Sugar-sweetened soft drink (Mountain Dew) | | 670 | 1,215 | 48 | 54 | 64 | 248 | 37% | |
| Dairy Queen | Hot dog | French fries | Sugar-sweetened soft drink (Mountain Dew) | Heath Dilly Bar | 670 | 1,380 | 36 | 58 | 64 | 32 | 292 | 44% |
| Burger King | Cheeseburger | French fries | NESTEA Southern Style Iced Tea | | 655 | 1,035 | 40 | 62 | 66 | 96 | 15% | |
| Arby's | Jr. turkey and cheese sandwich | French fries | Sugar-sweetened soft drink (Mountain Dew) | | 650 | 1,295 | 50 | 54 | 64 | 268 | 41% | |

continued

Ranking Table 2

| Restaurant | Main dish | Side | Beverage | Snack or dessert | Total calories (kcal) | Sodium (mg) | NPI score | | | | Saturated fat and added sugar** | |
|--------------|---|-----------------|--|------------------|-----------------------|-------------|-----------|-----------|----------|------------------|---------------------------------|---------------------|
| | | | | | | | Main dish | Side dish | Beverage | Snack or dessert | Calories (kcal) | % of total calories |
| Arby's | Jr. Roast beef sandwich | French fries | Sugar-sweetened soft drink (Mountain Dew) | | 650 | 1,085 | 50 | 54 | 64 | | 264 | 41% |
| Chick-fil-A | Grilled chicken nuggets (4) with buttermilk ranch sauce | French fries | Lemonade | | 650 | 905 | 40 | 46 | 66 | | 184 | 28% |
| Burger King | Hamburger | French fries | Sweetened iced tea | | 615 | 805 | 50 | 62 | 66 | | 73 | 12% |
| Panera Bread | Grilled cheese sandwich (white bread) | Yogurt | Organic chocolate milk | | 610 | 1,200 | 40 | 66 | 70 | | 208 | 34% |
| Taco Bell | Beef soft taco | Cinnamon twists | Sugar-sweetened soft drink (Mountain Dew Baja Blast) | | 590 | 785 | 54 | 40 | 66 | | 312 | 53% |
| Taco Bell | Cheese roll-up | Cinnamon twists | Sugar-sweetened soft drink (Mountain Dew Baja Blast) | | 580 | 725 | 38 | 40 | 66 | | 321 | 55% |
| Taco Bell | Crunchy taco | Cinnamon twists | Sugar-sweetened soft drink (Mountain Dew Baja Blast) | | 560 | 565 | 68 | 40 | 66 | | 308 | 55% |
| Wendy's | Chicken nuggets (4) with ranch dipping sauce | French fries | Chocolate Frosty Jr. | | 530 | 705 | 42 | 56 | 60 | | 188 | 35% |
| Wendy's | Cheeseburger | French fries | Chocolate Frosty Jr. | | 530 | 845 | 40 | 56 | 60 | | 218 | 41% |
| Panera Bread | Macaroni and cheese | Yogurt | Organic chocolate milk | | 520 | 930 | 50 | 66 | 70 | | 164 | 31% |
| KFC | Chicken drumstick | Biscuit | Sugar-sweetened soft drink (Tropicana Pink Lemonade) | String cheese | 510 | 1,075 | 46 | 24 | 66 | 36 | 268 | 53% |
| Panera Bread | Smoked ham sandwich (white bread) | Yogurt | Organic chocolate milk | | 510 | 1,170 | 44 | 66 | 70 | | 160 | 31% |
| Wendy's | Hamburger | French fries | Chocolate Frosty Jr. | | 490 | 635 | 44 | 56 | 60 | | 200 | 41% |
| KFC | Popcorn chicken | Biscuit | Sugar-sweetened soft drink (Tropicana Pink Lemonade) | String cheese | 480 | 1,025 | 60 | 24 | 66 | 36 | 264 | 55% |
| KFC | Chicken drumstick | Biscuit | Sugar-sweetened soft drink (Tropicana Pink Lemonade) | String cheese | 480 | 1,025 | 60 | 24 | 66 | 36 | 264 | 55% |

*Excludes Subway as all of its kids' meal main dish items met healthy NPI scores

**Added sugar estimated by subtracting naturally-occurring sugar in fruit and dairy products from total sugar

Source: Menu composition analysis (February 2013)

Nutritional quality of food menu items by type

Ranking by percent of items that met all three nutrition criteria in 2013 and then by median NPI score

Includes all main menu food items from the top five traditional fast food restaurants.

Best
↓
Worst

| Rank | Restaurant | Menu item category | Total # of items in 2013 | Meet all criteria | | NPI score | | | Calories (kcal) | | | Sodium (mg) | | |
|------|-------------|--------------------------|--------------------------|-------------------|------|-----------|-------|---------------|-----------------|-----------|------------|-------------|-----------|------------|
| | | | | 2010 | 2013 | Median | Range | Healthy score | Median | Range | Meet limit | Median | Range | Meet limit |
| 1 | Taco Bell | Lunch/dinner sides | 11 | 0% | 55% | 72 | 60-84 | 82% | 230 | 35-320 | 100% | 260 | 85-620 | 64% |
| 2 | McDonald's | Lunch/dinner sides | 7 | 33% | 43% | 68 | 66-78 | 100% | 70 | 15-500 | 71% | 270 | 0-430 | 57% |
| 3 | Wendy's | Lunch/dinner sides | 13 | 43% | 31% | 66 | 46-76 | 85% | 320 | 105-570 | 62% | 460 | 25-1,330 | 38% |
| 4 | Taco Bell | Lunch/dinner main dishes | 71 | 24% | 30% | 68 | 38-78 | 75% | 390 | 140-2,040 | 80% | 990 | 290-3,600 | 37% |
| 5 | McDonald's | Breakfast | 28 | 7% | 14% | 41 | 24-72 | 14% | 440 | 150-1,150 | 68% | 1,080 | 115-2,260 | 21% |
| 6 | McDonald's | Lunch/dinner main dishes | 55 | 7% | 13% | 48 | 34-80 | 25% | 420 | 90-1,000 | 80% | 900 | 150-2,250 | 27% |
| 7 | Burger King | Breakfast | 36 | 0% | 8% | 42 | 24-76 | 8% | 390 | 140-1,450 | 78% | 935 | 100-2,920 | 17% |
| 8 | Burger King | Lunch/dinner sides | 15 | 9% | 7% | 60 | 36-78 | 20% | 340 | 30-800 | 60% | 610 | 0-1,730 | 13% |
| 9 | Subway | Breakfast | 65 | 2% | 6% | 62 | 42-76 | 46% | 276 | 150-860 | 89% | 880 | 115-2,380 | 6% |
| 10 | Subway | Lunch/dinner main dishes | 170 | 3% | 6% | 66 | 38-80 | 72% | 525 | 85-1,420 | 71% | 1,410 | 285-4,490 | 6% |
| 11 | Subway | Lunch/dinner sides | 36 | 9% | 6% | 66 | 46-82 | 78% | 130 | 35-280 | 100% | 745 | 0-1020 | 19% |
| 12 | McDonald's | Snack foods | 28 | 14% | 4% | 48 | 18-70 | 4% | 330 | 150-930 | 64% | 195 | 60-750 | 68% |
| 13 | Burger King | Lunch/dinner main dishes | 89 | 4% | 4% | 48 | 34-72 | 30% | 500 | 100-1,510 | 75% | 1,090 | 180-2,710 | 15% |
| 14 | Wendy's | Snack foods | 2 | 0% | 0% | 56 | 54-58 | 0% | 335 | 330-340 | 100% | 165 | 140-190 | 100% |
| 15 | Wendy's | Lunch/dinner main dishes | 46 | 0% | 0% | 46 | 32-74 | 30% | 435 | 240-1,060 | 85% | 1,090 | 620-2,020 | 9% |
| 16 | Taco Bell | Breakfast | 6 | * | 0% | 45 | 40-56 | 0% | 350 | 170-730 | 17% | 770 | 260-1,310 | 67% |
| 17 | Burger King | Snack foods | 17 | 0% | 0% | 44 | 18-60 | 0% | 310 | 130-530 | 76% | 250 | 125-390 | 82% |
| 18 | Taco Bell | Snack foods | 5 | 0% | 0% | 40 | 24-56 | 0% | 220 | 170-390 | 80% | 200 | 110-310 | 100% |
| 19 | Subway | Snack foods | 11 | 0% | 0% | 22 | 20-38 | 0% | 220 | 200-250 | 100% | 130 | 100-290 | 100% |

RESTAURANT RANKINGS

Best
↓
Worst

| Rank | Restaurant | Menu item category | Total # of items in 2013 | Meet all criteria | | NPI score | | | Calories (kcal) | | | Sodium (mg) | | |
|------|-------------|--------------------|--------------------------|-------------------|------|-----------|-------|---------------|-----------------|-----------|------------|-------------|----------|------------|
| | | | | 2010 | 2013 | Median | Range | Healthy score | Median | Range | Meet limit | Median | Range | Meet limit |
| 1 | Taco Bell | All food items | 93 | 22% | 29% | 66 | 24-84 | 67% | 350 | 35-2,040 | 82% | 810 | 85-3,600 | 42% |
| 2 | McDonald's | All food items | 118 | 10% | 13% | 48 | 18-80 | 22% | 400 | 15-1,150 | 72% | 750 | 0-2,260 | 36% |
| 3 | Wendy's | All food items | 61 | 10% | 7% | 54 | 32-76 | 41% | 400 | 105-1,060 | 80% | 950 | 25-2,020 | 18% |
| 4 | Subway | All food items | 282 | 3% | 6% | 65 | 20-82 | 64% | 395 | 35-1,420 | 80% | 1,200 | 0-4,490 | 11% |
| 5 | Burger King | All food items | 157 | 3% | 5% | 46 | 18-78 | 21% | 420 | 30-1,510 | 73% | 980 | 0-2,920 | 21% |

*Items not available in 2010

Source: Menu composition analysis (February 2013)

Nutritional quality of beverage menu items by type

Ranking by percent of items that met all three nutrition criteria in 2013 and then by median NPI score

Includes all main menu beverage items from the top five traditional fast food restaurants.

| Rank | Restaurant | Menu item category | Total # of items in 2013 | Meet all criteria | | NPI score | | Calories (kcal) | | | Sodium (mg) | | | |
|------|-------------|--------------------|--------------------------|-------------------|------|-----------|-------|-----------------|--------|-----------|-------------|--------|--------|------------|
| | | | | 2010 | 2013 | Median | Range | Healthy score | Median | Range | Meet limit | Median | Range | Meet limit |
| 1 | Subway | Side beverages | 53 | 47% | 45% | 68 | 66-76 | 45% | 150 | 0-550 | 85% | 80 | 0-300 | 100% |
| 2 | Wendy's | Side beverages | 53 | 30% | 40% | 66 | 64-72 | 40% | 140 | 0-374 | 94% | 20 | 0-170 | 100% |
| 3 | McDonald's | Side beverages | 44 | 39% | 39% | 68 | 60-78 | 39% | 170 | 0-460 | 91% | 38 | 0-320 | 100% |
| 4 | McDonald's | Coffee beverages | 140 | 34% | 34% | 68 | 46-72 | 34% | 205 | 40-760 | 90% | 130 | 40-280 | 100% |
| 5 | Burger King | Coffee beverages | 22 | 0% | 32% | 66 | 58-70 | 32% | 220 | 0-600 | 73% | 125 | 0-360 | 91% |
| 6 | Burger King | Side beverages | 70 | 59% | 30% | 68 | 66-76 | 30% | 170 | 0-470 | 86% | 20 | 0-150 | 100% |
| 7 | Taco Bell | Side beverages | 52 | 10% | 12% | 66 | 66-76 | 12% | 250 | 0-550 | 63% | 78 | 15-530 | 96% |
| 8 | Burger King | Snack beverages | 26 | 0% | 8% | 66 | 48-70 | 8% | 340 | 80-980 | 54% | 48 | 10-550 | 81% |
| 9 | Taco Bell | Coffee beverages | 1 | * | 0% | 68 | 68-68 | 0% | 200 | 200-200 | 100% | 80 | 80-80 | 100% |
| 10 | Taco Bell | Snack beverages | 10 | 0% | 0% | 66 | 64-66 | 0% | 290 | 230-370 | 80% | 60 | 10-160 | 100% |
| 11 | McDonald's | Snack beverages | 29 | 0% | 0% | 62 | 44-68 | 0% | 350 | 200-885 | 52% | 65 | 20-380 | 97% |
| 12 | Wendy's | Snack beverages | 11 | 0% | 0% | 58 | 48-62 | 0% | 550 | 190-1,000 | 36% | 170 | 90-500 | 82% |

Best
↓
Worst

RESTAURANT RANKINGS

| Rank | Restaurant | Menu item category | Total # of items in 2013 | Meet all criteria | | NPI score | | Calories (kcal) | | | Sodium (mg) | | | |
|------|-------------|--------------------|--------------------------|-------------------|------|-----------|-------|-----------------|--------|---------|-------------|--------|--------|------------|
| | | | | 2010 | 2013 | Median | Range | Healthy score | Median | Range | Meet limit | Median | Range | Meet limit |
| 1 | Subway | All beverages | 53 | 47% | 45% | 68 | 66-76 | 45% | 150 | 0-550 | 85% | 80 | 0-300 | 100% |
| 2 | Wendys | All beverages | 64 | 24% | 33% | 66 | 48-72 | 33% | 160 | 0-1,000 | 84% | 25 | 0-500 | 97% |
| 3 | McDonald's | All beverages | 213 | 32% | 30% | 68 | 44-78 | 30% | 220 | 0-885 | 85% | 115 | 0-380 | 100% |
| 4 | Burger King | All beverages | 118 | 35% | 25% | 68 | 48-76 | 25% | 200 | 0-980 | 76% | 30 | 0-550 | 94% |
| 5 | Taco Bell | All beverages | 63 | 10% | 10% | 66 | 64-76 | 10% | 250 | 0-550 | 67% | 75 | 10-530 | 97% |

Best
↓
Worst

*Items not available in 2010
Source: Menu composition analysis (February 2013)

Advertising spending

Ranking by total advertising spending in 2012

Includes total spending in all measured media for the 25 fast food restaurants with the most advertising spending on national TV in 2012.

Most



Least

| Rank | Restaurant | Total advertising spending* (\$ million) | | | 2012 advertising spending by medium (\$ million) | | | | |
|---------------------------|--------------------|--|-----------|--------|--|---------------|---------|---------|----------|
| | | 2009 | 2012 | Change | TV | TV % of total | Radio | Outdoor | Internet |
| 1 | McDonald's | \$901.1 | \$971.8 | 8% | \$767.0 | 79% | \$86.3 | \$88.2 | \$6.6 |
| 2 | Subway | \$427.6 | \$595.3 | 39% | \$508.1 | 85% | \$33.8 | \$12.0 | \$35.9 |
| 3 | Taco Bell | \$247.1 | \$274.7 | 11% | \$249.4 | 91% | \$17.5 | \$6.3 | \$0.7 |
| 4 | Wendy's | \$282.4 | \$274.5 | -3% | \$239.9 | 87% | \$14.2 | \$7.6 | \$1.6 |
| 5 | KFC | \$271.0 | \$258.1 | -5% | \$252.1 | 98% | \$0.1 | \$1.0 | \$3.0 |
| 6 | Pizza Hut | \$221.9 | \$245.8 | 11% | \$242.3 | 99% | \$0.4 | \$0.2 | \$2.4 |
| 7 | Burger King | \$284.9 | \$236.4 | -17% | \$221.0 | 93% | \$6.3 | \$8.1 | \$0.7 |
| 8 | Domino's | \$181.9 | \$191.1 | 5% | \$177.3 | 93% | \$6.6 | \$1.3 | \$5.6 |
| 9 | Sonic | \$186.0 | \$173.7 | -7% | \$166.2 | 96% | \$2.8 | \$4.5 | \$0.1 |
| 10 | Papa John's | \$142.1 | \$153.3 | 8% | \$147.8 | 96% | \$2.6 | \$0.4 | \$0.4 |
| 11 | Arby's | \$130.0 | \$137.8 | 6% | \$133.6 | 97% | \$1.2 | \$1.6 | \$0.6 |
| 12 | Dunkin' Donuts | \$121.6 | \$135.1 | 11% | \$111.0 | 82% | \$13.0 | \$8.4 | \$1.0 |
| 13 | Jack in the Box | \$113.5 | \$103.7 | -9% | \$93.5 | 90% | \$3.1 | \$6.7 | \$0.4 |
| 14 | Little Caesars | \$15.7 | \$88.5 | 463% | \$79.9 | 90% | \$5.9 | \$2.3 | \$0.2 |
| 15 | Dairy Queen | \$75.5 | \$75.8 | 0% | \$74.1 | 98% | \$0.2 | \$1.4 | \$0.0 |
| 16 | Popeyes | \$58.5 | \$68.8 | 18% | \$66.7 | 97% | \$1.4 | \$0.6 | \$0.0 |
| 17 | Carl's Jr. | \$62.5 | \$62.5 | 0% | \$58.8 | 94% | \$0.6 | \$3.0 | \$0.1 |
| 18 | Starbucks | \$28.4 | \$44.3 | 56% | \$17.9 | 40% | \$1.5 | \$0.3 | \$4.6 |
| 19 | Quiznos | \$53.5 | \$39.8 | -26% | \$38.9 | 98% | \$0.1 | \$0.1 | \$0.2 |
| 20 | Hardee's | \$33.2 | \$40.7 | 22% | \$37.0 | 91% | \$0.8 | \$2.8 | \$0.0 |
| 21 | Panera Bread | \$15.9 | \$37.3 | 134% | \$18.6 | 50% | \$7.0 | \$8.7 | \$2.3 |
| 22 | Chick-fil-A | \$26.4 | \$29.9 | 14% | \$21.6 | 72% | \$0.1 | \$7.9 | \$0.1 |
| 23 | Long John Silver's | \$31.5 | \$27.6 | -13% | \$27.4 | 100% | \$0.0 | \$0.1 | \$0.0 |
| 24 | Boston Market | \$4.5 | \$17.5 | 291% | \$17.1 | 98% | \$0.1 | \$0.0 | \$0.0 |
| 25 | CiCi's Pizza | \$21.5 | \$14.5 | -32% | \$14.0 | 96% | \$0.0 | \$0.2 | \$0.1 |
| All fast food restaurants | | \$4,285.9 | \$4,630.9 | 8% | \$4,062.6 | 88% | \$226.3 | \$198.5 | \$68,448 |

*Includes spending in 18 different media including television, magazine, internet, radio, newspaper, freestanding insert coupons, and outdoor advertising
Source: Nielsen (2009, 2012)

Television advertising exposure by children

Ranking by ads viewed by children (6-11 years) in 2012

Includes average number of advertisements viewed by children on national (network, cable and syndicated) and local (spot) TV.

Most



Least

| Rank | Restaurant | Average # of ads viewed | | | | | | 2012 targeted ratios | |
|------|---------------------------|--------------------------|---------|--------|-----------------------|---------|--------|----------------------|--------------|
| | | Preschoolers (2-5 years) | | | Children (6-11 years) | | | Preschooler:adult* | Child:adult* |
| | | 2009 | 2012 | Change | 2009 | 2012 | Change | | |
| 1 | McDonald's | 310.4 | 265.6 | -14% | 365.9 | 316.9 | -13% | 0.91 | 1.08 |
| 2 | Subway | 97.6 | 106.5 | 9% | 128.7 | 131.1 | 2% | 0.40 | 0.49 |
| 3 | Burger King | 151.7 | 79.8 | -47% | 189.6 | 95.3 | -50% | 0.49 | 0.59 |
| 4 | Domino's | 37.9 | 60.4 | 59% | 49.7 | 71.5 | 44% | 0.54 | 0.64 |
| 5 | Pizza Hut | 56.5 | 64.2 | 14% | 70.8 | 69.7 | -2% | 0.38 | 0.42 |
| 6 | Wendy's | 47.8 | 59.2 | 24% | 60.3 | 68.2 | 13% | 0.41 | 0.48 |
| 7 | Taco Bell | 51.6 | 52.6 | 2% | 69.9 | 61.2 | -12% | 0.37 | 0.43 |
| 8 | KFC | 62.9 | 45.5 | -28% | 79.2 | 48.9 | -38% | 0.34 | 0.37 |
| 9 | Sonic | 28.0 | 31.8 | 14% | 38.0 | 39.1 | 3% | 0.38 | 0.47 |
| 10 | Little Caesars | 1.5 | 33.3 | 2175% | 1.7 | 33.8 | 1883% | 0.45 | 0.45 |
| 11 | Arby's | 16.4 | 25.7 | 57% | 22.3 | 30.7 | 38% | 0.36 | 0.42 |
| 12 | Dairy Queen | 20.0 | 23.9 | 19% | 27.0 | 28.6 | 6% | 0.36 | 0.43 |
| 13 | Papa John's | 24.9 | 28.2 | 13% | 29.1 | 28.6 | -2% | 0.35 | 0.35 |
| 14 | Popeyes | 15.2 | 21.4 | 41% | 20.4 | 26.5 | 30% | 0.46 | 0.57 |
| 15 | Long John Silver's | 20.7 | 19.8 | -4% | 26.6 | 22.1 | -17% | 0.35 | 0.39 |
| 16 | Quiznos | 18.8 | 13.3 | -29% | 25.5 | 14.5 | -43% | 0.33 | 0.36 |
| 17 | Dunkin' Donuts | 11.7 | 13.5 | 15% | 15.5 | 14.2 | -8% | 0.24 | 0.26 |
| 18 | CiCi's Pizza | 15.0 | 18.3 | 22% | 14.5 | 10.6 | -26% | 0.97 | 0.56 |
| 19 | Carl's Jr. | 4.5 | 7.9 | 74% | 5.8 | 9.4 | 61% | 0.35 | 0.42 |
| 20 | Jack in the Box | 11.3 | 6.9 | -39% | 13.4 | 7.3 | -46% | 0.39 | 0.41 |
| 21 | Hardee's | 2.4 | 3.6 | 49% | 3.4 | 4.5 | 33% | 0.24 | 0.31 |
| 22 | Starbucks | 0.7 | 3.9 | 440% | 0.8 | 4.3 | 462% | 0.51 | 0.55 |
| 23 | Chick-fil-A | 1.7 | 3.6 | 110% | 1.9 | 3.2 | 68% | 0.62 | 0.55 |
| 24 | Panera Bread | 0.4 | 2.2 | 488% | 0.4 | 2.3 | 493% | 0.28 | 0.29 |
| 25 | Boston Market | 0.2 | 1.4 | 586% | 0.3 | 1.3 | 360% | 0.31 | 0.28 |
| | All fast food restaurants | 1,043.5 | 1,023.2 | -2% | 1,299.0 | 1,175.4 | -10% | 0.47 | 0.54 |

*Compared to adults (25-49 years)
Source: Nielsen (2009, 2012)

Television advertising exposure by teens

Ranking by ads viewed by teens (12-17 years) in 2012

Includes average number of advertisements viewed by teens in 2009 and 2012 on national (network, cable and syndicated) and local (spot) TV.

Most



Least

| Rank | Restaurant | Average # of ads viewed | | | 2012 targeted ratio Teen:adult* |
|---------------------------|--------------------|-------------------------|---------|--------|------------------------------------|
| | | 2009 | 2012 | Change | |
| 1 | McDonald's | 283.8 | 272.3 | -4% | 0.93 |
| 2 | Subway | 179.2 | 205.0 | 14% | 0.77 |
| 3 | Burger King | 190.6 | 151.2 | -21% | 0.94 |
| 4 | Taco Bell | 146.0 | 141.3 | -3% | 1.00 |
| 5 | Pizza Hut | 128.9 | 137.9 | 7% | 0.82 |
| 6 | Wendy's | 117.1 | 119.9 | 2% | 0.84 |
| 7 | Domino's | 91.1 | 97.2 | 7% | 0.87 |
| 8 | KFC | 149.2 | 97.1 | -35% | 0.73 |
| 9 | Sonic | 70.3 | 79.6 | 13% | 0.95 |
| 10 | Arby's | 42.2 | 56.4 | 34% | 0.78 |
| 11 | Little Caesars | 2.4 | 52.9 | 2102% | 0.71 |
| 12 | Dairy Queen | 48.0 | 51.8 | 8% | 0.78 |
| 13 | Papa John's | 53.5 | 46.9 | -12% | 0.58 |
| 14 | Popeyes | 36.6 | 45.3 | 24% | 0.97 |
| 15 | Long John Silver's | 39.6 | 34.2 | -14% | 0.60 |
| 16 | Quiznos | 48.4 | 29.6 | -39% | 0.74 |
| 17 | Dunkin' Donuts | 29.0 | 23.9 | -18% | 0.43 |
| 18 | CiCi's Pizza | 21.9 | 16.3 | -26% | 0.86 |
| 19 | Carl's Jr. | 8.5 | 14.6 | 72% | 0.65 |
| 20 | Starbucks | 1.4 | 9.7 | 602% | 1.26 |
| 21 | Jack in the Box | 24.6 | 9.0 | -64% | 0.51 |
| 22 | Hardee's | 5.2 | 7.5 | 44% | 0.51 |
| 23 | Panera Bread | 0.6 | 3.4 | 463% | 0.43 |
| 24 | Chick-fil-A | 2.7 | 3.2 | 19% | 0.55 |
| 25 | Boston Market | 0.4 | 1.8 | 366% | 0.38 |
| All fast food restaurants | | 1,775.6 | 1,749.6 | -1% | 0.80 |

*Compared to adults (25-49 years)
Source: Nielsen (2009,2012)

Website exposure

Ranking by average total visits per month by all youth (2-17 years) in 2012

Includes data for websites sponsored by the eighteen restaurants in our digital media analysis, plus Papa John's.*

Most

| Rank | Restaurant | Website | Average monthly unique visitors (000) | | | | | | 2012 average (all youth 2-17 years) | | | |
|------|-----------------|-------------------|---------------------------------------|-------|--------|---------------------|-------|--------|-------------------------------------|-------------------|-----------------|--------------------------------|
| | | | Children (2-11 years) | | | Teens (12-17 years) | | | Visits per month | Minutes per visit | Pages per month | # quarters with data available |
| | | | 2009 | 2012 | Change | 2009 | 2012 | Change | | | | |
| 1 | Pizza Hut | PizzaHut.com | 195.3 | 39.9 | -80% | 242.4 | 311.9 | 29% | 1.3 | 3.1 | 5 | 4 |
| 2 | McDonald's | McDonalds.com | 98.1 | 25.4 | -74% | 160.4 | 281.5 | 75% | 1.3 | 1.5 | 3.3 | 4 |
| 3 | Domino's | Dominos.com | 175.6 | 22.6 | -87% | 256.8 | 271.0 | 6% | 1.4 | 4.6 | 4.8 | 4 |
| 4 | McDonald's | HappyMeal.com | 189.3 | 118.7 | -37% | 58.2 | 41.9 | -28% | 1.3 | 2.2 | 2.2 | 4 |
| 5 | Papa John's | PapaJohns.com | ** | 13.7 | | ** | 133.9 | | 1.3 | 6.3 | 11.1 | 4 |
| 6 | Subway | Subway.com | 27.2 | 12.9 | -53% | 53.7 | 108.5 | 102% | 1.2 | 2.2 | 4 | 4 |
| 7 | Starbucks | Starbucks.com | 33.9 | 5.7 | -83% | 54.5 | 104.4 | 92% | 1.3 | 2.8 | 6.6 | 4 |
| 8 | McDonald's | McState.com | 9.5 | 2.2 | -77% | 53.4 | 86.9 | 63% | 1.3 | 2.5 | 6.1 | 4 |
| 9 | Taco Bell | TacoBell.com | 16 | 7.7 | -52% | 51.1 | 72.0 | 41% | 1.2 | 2.5 | 5.2 | 4 |
| 10 | Burger King | BurgerKing.com | 41.8 | 8.0 | -81% | 41.8 | 69.0 | 65% | 1.1 | 1.4 | 2.5 | 4 |
| 11 | Wendy's | Wendys.com | 34.4 | 1.2 | -97% | 52.0 | 50.3 | -3% | 1.2 | 2.4 | 6.9 | 4 |
| 12 | KFC | KFC.com | 34.9 | 4.0 | -89% | 50.5 | 45.1 | -11% | 1.1 | 1.5 | 3.1 | 4 |
| 13 | Panera Bread | PaneraBread.com | ** | 2.9 | | ** | 42.7 | | 1.5 | 1.9 | 5.4 | 4 |
| 14 | Chick-fil-A | Chick-fil-A.com | ** | 1.5 | | ** | 39.0 | | 1.2 | 2.4 | 5 | 4 |
| 15 | Arby's | Arbys.com | ** | 0.4 | | ** | 19.5 | | 1.1 | 1.4 | 3 | 4 |
| 16 | Dairy Queen | DairyQueen.com | 27.9 | 2.6 | -91% | 20.4 | 29.5 | 45% | 1.1 | 2.1 | 3.7 | 4 |
| 17 | Dunkin' Donuts | DunkinDonuts.com | 25.6 | 2.1 | -92% | 32.1 | 28.9 | -10% | 1.1 | 2 | 4.4 | 4 |
| 18 | Little Caesars | LittleCaesars.com | ** | 0.9 | | ** | 29.8 | | 1.1 | 1.1 | 6.4 | 4 |
| 19 | Jack in the Box | JackInTheBox.com | ** | 1.2 | | ** | 28.5 | | 1.1 | 2 | 5 | 4 |
| 20 | Sonic | SonicDriveIn.com | 43.4 | 2.4 | -94% | 37.4 | 21.4 | -43% | 1.1 | 2.3 | 6 | 4 |
| 21 | McDonald's | PlayAtMcD.com | ** | 1.4 | | ** | 21.2 | | *** | *** | *** | 2 |
| 22 | Subway | SubwayKids.com | 1.4 | 13.3 | 850% | 2.3 | 6.4 | 178% | 1.1 | 2.3 | 5.6 | 4 |
| 23 | CiCi's Pizza | CicisPizza.com | ** | 0.8 | | ** | 18.5 | | 1.2 | 3 | 4.2 | 4 |
| 24 | McDonald's | McWorld.com | 100.9 | 10.1 | -90% | 27.0 | 5.3 | -80% | 1.1 | 1.5 | 2 | 4 |
| 25 | McDonald's | MeEncanta.com | 1.3 | 1.0 | -23% | 3.5 | 13.3 | 280% | 1.1 | 1 | 1.3 | 4 |
| 26 | McDonald's | RMHC.org | 4.7 | 0.2 | -96% | 4.1 | 9.7 | 137% | 1.2 | 1.7 | 2.9 | 4 |
| 27 | McDonald's | 365Black.com | 0.3 | *** | | 5.0 | 2.5 | -50% | *** | *** | *** | 2 |
| 28 | KFC | KFCScholars.org | 3.7 | 0.0 | -99% | 4.5 | 1.9 | -58% | *** | *** | *** | 2 |
| 29 | Dunkin' Donuts | DunkinAtHome.com | 1.1 | 0.3 | -73% | 1.1 | 1.2 | 9% | *** | *** | *** | 2 |

continued

Ranking Table 8

| Rank | Restaurant | Website | Average monthly unique visitors (000) | | | | | | 2012 average (visitors 2-17 years) | | | |
|------|-------------|-------------------------|---------------------------------------|------|--------|-------------|------|--------|------------------------------------|-------------------|-----------------|--------------------------------|
| | | | 2-11 years | | | 12-17 years | | | Visits per month | Minutes per visit | Pages per month | # quarters with data available |
| | | | 2009 | 2012 | Change | 2009 | 2012 | Change | | | | |
| 30 | Starbucks | MyStarbucksVisit.com | 2.5 | 0.2 | -92% | 1.0 | 1.0 | 0% | *** | *** | *** | 3 |
| 31 | Dairy Queen | BlizzardFanClub.com | 4.4 | *** | | 4.3 | 0.9 | -79% | *** | *** | *** | 3 |
| 32 | Sonic | LimeadesForLearning.com | 1.4 | *** | | 22.2 | 0.7 | -97% | *** | *** | *** | 1 |
| 33 | Papa John's | PapaJohns-Specials.com | ** | *** | | ** | 0.3 | | *** | *** | *** | 2 |
| 34 | Pizza Hut | BookItProgram.com | 0.5 | *** | | 1.4 | 0.0 | -98% | *** | *** | *** | 2 |



*Papa John's was added to due to very high youth exposure to its main website
 **Restaurant was not included in 2009 analysis
 ***Data not available due to low numbers of visits or site was discontinued
 Source: comScore Media Metrics Key Measures Report (2009,2012)

Display advertising on youth websites

Ranking by total average monthly ads viewed on youth websites in 2012

Includes average monthly data for display ads viewed for the eighteen restaurants in our digital media analysis.*

Most
↓
Least

| Rank | Restaurant | Average # of monthly ads viewed on youth websites (000) | | | 2012 average | | | |
|------|-----------------|---|----------|--------|--------------------------------------|-----------------------------------|---|-----------------------------|
| | | 2009 | 2012 | Change | # of ads viewed per viewer per month | % of ads viewed on kids' websites | % of ads viewed on other youth websites | % of ads viewed on Facebook |
| 1 | Domino's | 181,115.6 | 83,980.9 | -54% | 9.6 | 2% | 10% | 16% |
| 2 | McDonald's | 67,802.6 | 42,806.6 | -37% | 6.0 | 10% | 14% | 10% |
| 3 | Pizza Hut | 141,634.3 | 28,550.1 | -80% | 7.2 | 1% | 6% | 13% |
| 4 | KFC | 7,589.0 | 18,066.4 | 138% | 5.5 | 2% | 7% | 8% |
| 5 | Subway | 3,101.6 | 17,086.8 | 451% | 6.4 | 4% | 6% | 13% |
| 6 | Panera Bread | ** | 13,825.9 | | 3.6 | 1% | 5% | 14% |
| 7 | Starbucks | 2,212.7 | 9,542.0 | 331% | 4.8 | 1% | 6% | 18% |
| 8 | Arby's | ** | 7,259.3 | | 3.0 | 2% | 7% | 18% |
| 9 | CiCi's Pizza | ** | 6,039.3 | | 3.7 | 1% | 1% | 40% |
| 10 | Little Caesars | ** | 5,867.6 | | 3.2 | 0% | 3% | 33% |
| 11 | Burger King | 13,832.1 | 4,398.4 | -68% | 4.5 | 8% | 9% | 13% |
| 12 | Jack in the Box | ** | 2,015.9 | | 3.4 | 0% | 1% | 17% |
| 13 | Sonic | 8,067.0 | 1,735.8 | -78% | 3.7 | 4% | 6% | 26% |
| 14 | Wendy's | 27,657.2 | 1,619.7 | -94% | 3.2 | 1% | 3% | 54% |
| 15 | Dairy Queen | 12,423.6 | 1,297.4 | -90% | 3.4 | 5% | 9% | 0% |
| 16 | Dunkin' Donuts | 3,381.9 | 910.8 | -73% | 5.9 | 0% | 1% | 68% |
| 17 | Taco Bell | 1,168.6 | 439.1 | -62% | 3.7 | 0% | 1% | 37% |
| 18 | Chick-fil-A | ** | 685.7 | | 4.7 | 0% | 1% | 19% |

*Comparable to banner ads as reported in 2009

**Restaurant was not included in 2009 analysis

Source: comScore Ad Metrix Advertiser Report (2009, 2012)

Social media marketing

Ranking by Facebook likes in 2013

Includes total Facebook likes, Twitter followers, and YouTube upload views for the 18 restaurants in our digital marketing analysis.

Most



Least

| Rank | Restaurant | Facebook likes* (000) | | | Twitter followers (000) | | | YouTube upload views (000) | | |
|------|-----------------|-----------------------|----------|----------|-------------------------|---------|----------|----------------------------|----------|--------|
| | | 2010 | 2013 | Increase | 2010 | 2013 | Increase | 2010 | 2013 | Change |
| 1 | Starbucks | 11,353.4 | 34,969.7 | 208% | 989.2 | 4,215.4 | 326% | 5,293.6 | 8,166.8 | 54% |
| 2 | McDonald's | 2,636.8 | 29,202.5 | 1007% | 39.5 | 1,573.1 | 3883% | 115.6 | 7,749.4 | 6602% |
| 3 | Subway | 3,088.1 | 23,651.2 | 666% | 22.8 | 1,483.4 | 6406% | 0.0 | 1,726.6 | |
| 4 | Taco Bell | 1,770.8 | 10,200.8 | 476% | 35.2 | 717.6 | 1939% | 2,073.8 | 13,756.3 | 563% |
| 5 | Pizza Hut | 1,414.8 | 10,623.6 | 651% | 31.3 | 439.9 | 1305% | 16.8 | 3,438.0 | 20400% |
| 6 | Dunkin' Donuts | 1,820.2 | 10,175.9 | 459% | 55.1 | 320.6 | 482% | 1,144.6 | 1,220.6 | 7% |
| 7 | Domino's | 538.5 | 8,452.3 | 1470% | 14.4 | 278.7 | 1835% | 3,805.9 | 2,101.3 | -45% |
| 8 | KFC | 1,653.2 | 6,350.9 | 284% | 15.1 | 223.4 | 1379% | 980.4 | 2,266.9 | 131% |
| 9 | Dairy Queen | 1,619.7 | 7,144.4 | 341% | 7.8 | 114.2 | 1364% | 243.8 | 1,570.3 | 544% |
| 10 | Chick-fil-A | ** | 6,959.8 | | ** | 278.7 | | ** | 0.0 | |
| 11 | Burger King | 0.0 | 6,321.3 | | 0.0 | 242.3 | | 195.6 | 48.0 | -75% |
| 12 | Wendy's | 978.4 | 3,834.4 | 292% | 10.2 | 348.4 | 3316% | 110.6 | 185.6 | 68% |
| 13 | Arby's | ** | 2,321.5 | | ** | 147.0 | | ** | 1,240.4 | |
| 14 | Little Caesars | ** | 1,526.6 | | ** | 20.0 | | ** | 1,895.8 | |
| 15 | Panera Bread | ** | 2,184.6 | | ** | 147.9 | | ** | 1,105.8 | |
| 16 | Sonic | 297.0 | 2,699.3 | 809% | 7.2 | 72.1 | 901% | 62.5 | 308.4 | 393% |
| 17 | CiCi's Pizza | ** | 1,096.7 | | ** | 1.6*** | | ** | 22.1 | |
| 18 | Jack in the Box | ** | 787.8 | | ** | 41.7 | | ** | 128.9 | |

*Known as fans in 2010

**Restaurant was not included in 2010 analysis

***Account not available for public access

Source: Social media analysis (July 2010, 2013)

Spanish-language TV advertising exposure

Ranking by ads viewed by Hispanic children (6-11 years) in 2012

Includes average number of TV ads viewed by Hispanic preschoolers, children, and teens for all restaurants advertising on Spanish-language TV.

Most
↓
Least

| Rank | Restaurant | Average # of ads viewed | | | | | | | | |
|---------------------------|-----------------|-----------------------------------|-------|--------|--------------------------------|-------|----------|------------------------------|-------|--------|
| | | Hispanic preschoolers (2-5 years) | | | Hispanic children (6-11 years) | | | Hispanic teens (12-17 years) | | |
| | | 2009 | 2012 | Change | 2009 | 2012 | % change | 2009 | 2012 | Change |
| 1 | McDonald's | 82.5 | 87.8 | 6% | 67.0 | 62.3 | -7% | 67.5 | 56.0 | -17% |
| 2 | Burger King | 35.3 | 61.0 | 73% | 28.4 | 41.6 | 46% | 26.9 | 38.7 | 44% |
| 3 | Domino's | 37.1 | 35.7 | -4% | 29.4 | 24.8 | -16% | 26.2 | 22.5 | -14% |
| 4 | Subway | 31.3 | 33.6 | 7% | 24.4 | 25.0 | 2% | 27.1 | 27.4 | 1% |
| 5 | Wendy's | 26.0 | 27.8 | 7% | 20.9 | 20.7 | -1% | 17.4 | 20.0 | 15% |
| 6 | Sonic | 20.3 | 21.3 | 5% | 15.3 | 14.5 | -5% | 13.9 | 11.6 | -17% |
| 7 | KFC | 15.1 | 18.5 | 23% | 11.2 | 12.8 | 14% | 10.6 | 10.8 | 2% |
| 8 | Popeyes | 25.1 | 19.1 | -24% | 20.3 | 12.9 | -36% | 19.9 | 11.8 | -41% |
| 9 | Pizza Hut | 19.8 | 18.8 | -5% | 13.8 | 12.0 | -13% | 12.4 | 10.2 | -18% |
| 10 | Little Caesars | 0.0 | 8.1 | | 0.0 | 5.7 | | 0.0 | 4.5 | |
| 11 | Starbucks | 0.0 | 3.9 | | 0.0 | 2.7 | | 0.0 | 2.3 | |
| 12 | Taco Bell | 0.0 | 1.5 | | 0.0 | 1.3 | | 0.0 | 1.2 | |
| 13 | Papa John's | 0.5 | 1.0 | 100% | 0.3 | 0.8 | 167% | 0.5 | 0.8 | 60% |
| 14 | CiCi's Pizza | 0.0 | 1.7 | | 0.0 | 1.1 | | 0.0 | 0.9 | |
| 15 | Jack in the Box | 1.4 | 0.0 | -100% | 1.5 | 0.0 | -100% | 3.0 | 0.0 | -100% |
| All fast food restaurants | | 294.3 | 340.0 | 16% | 232.5 | 238.1 | 2% | 225.3 | 218.7 | -3% |

Source: Nielsen (2009,2012)

TV advertising exposure by black children and teens

Ranking by ads viewed by black teens in 2012

Includes average number of advertisements viewed by black children and teens in 2009 and 2012 on national (network, cable and syndicated) television.

Most



Least

| Rank | Restaurant | Black children (2-11 years) | | | | | Black teens (12-17 years) | | | | |
|------|---------------------------|-----------------------------|---------|--------|--------------------------------|------|---------------------------|---------|--------|--------------------------------|------|
| | | Average # of ads viewed | | | Targeted ratio: black to white | | Average # of ads viewed | | | Targeted ratio: black to white | |
| | | 2009 | 2012 | Change | 2009 | 2012 | 2009 | 2012 | Change | 2009 | 2012 |
| 1 | McDonald's | 411.8 | 385.1 | -6% | 1.36 | 1.47 | 417.2 | 381.5 | -9% | 1.93 | 1.71 |
| 2 | Subway | 146.0 | 154.8 | 6% | 1.60 | 1.53 | 215.5 | 260.2 | 21% | 1.49 | 1.49 |
| 3 | Burger King | 218.0 | 137.0 | -37% | 1.39 | 1.71 | 252.2 | 231.3 | -8% | 1.47 | 1.75 |
| 4 | Pizza Hut | 84.7 | 97.3 | 15% | 1.72 | 1.56 | 153.6 | 194.6 | 27% | 1.45 | 1.52 |
| 5 | Taco Bell | 94.9 | 84.2 | -11% | 1.99 | 1.79 | 179.9 | 191.9 | 7% | 1.45 | 1.59 |
| 6 | Wendy's | 83.3 | 93.5 | 12% | 1.95 | 1.76 | 155.0 | 177.1 | 14% | 1.58 | 1.75 |
| 7 | Domino's | 69.6 | 97.7 | 40% | 2.03 | 1.67 | 132.6 | 148.8 | 12% | 1.79 | 1.78 |
| 8 | KFC | 118.6 | 68.8 | -42% | 2.33 | 1.59 | 222.9 | 133.5 | -40% | 1.91 | 1.49 |
| 9 | Sonic | 49.1 | 49.1 | 0% | 2.01 | 1.81 | 90.3 | 103.1 | 14% | 1.61 | 1.57 |
| 10 | Little Caesars | 0.0 | 46.2 | | | 1.41 | 0.1 | 76.0 | | | 1.53 |
| 11 | Popeyes | 34.0 | 36.4 | 7% | 2.82 | 2.00 | 63.8 | 64.9 | 2% | 2.42 | 1.81 |
| 12 | Dairy Queen | 34.1 | 34.2 | 0% | 1.85 | 1.38 | 58.2 | 64.8 | 11% | 1.43 | 1.32 |
| 13 | Papa John's | 28.0 | 35.4 | 26% | 1.71 | 1.79 | 52.1 | 61.6 | 18% | 1.39 | 1.80 |
| 14 | Arby's | 16.2 | 28.8 | 78% | 1.84 | 1.37 | 31.0 | 58.0 | 87% | 1.31 | 1.30 |
| 15 | Long John Silver's | 30.3 | 28.5 | -6% | 1.40 | 1.42 | 43.1 | 43.7 | 1% | 1.13 | 1.30 |
| 16 | Quiznos | 37.6 | 20.7 | -45% | 1.92 | 1.65 | 62.1 | 39.9 | -36% | 1.39 | 1.51 |
| 17 | CiCi's Pizza | 20.4 | 18.4 | -10% | 1.50 | 1.36 | 29.5 | 24.4 | -17% | 1.42 | 1.60 |
| 18 | Starbucks | 0.9 | 7.9 | 775% | 1.50 | 2.17 | 1.8 | 17.5 | 871% | 1.68 | 2.03 |
| 19 | Dunkin' Donuts | 12.1 | 6.6 | -45% | 1.62 | 1.37 | 22.2 | 13.2 | -40% | 1.15 | 1.22 |
| 20 | Carl's Jr. | 0.0 | 3.9 | | | 1.75 | 0.0 | 7.0 | | | 1.34 |
| 21 | Hardee's | 0.0 | 1.6 | | | 1.39 | 0.0 | 3.4 | | | 1.35 |
| 22 | Chick-fil-A | 1.2 | 2.6 | 121% | 1.14 | 0.95 | 2.3 | 3.2 | 40% | 1.43 | 1.24 |
| 23 | Panera Bread | 0.0 | 1.4 | | | 0.97 | 0.0 | 2.2 | | | 0.99 |
| 24 | Boston Market | 0.0 | 0.2 | | | 1.42 | 0.0 | 0.3 | | | 1.29 |
| 25 | Jack in the Box | 8.5 | 0.0 | -100% | 2.67 | | 18.6 | 0.0 | -100% | 1.57 | |
| | All fast food restaurants | 1,499.3 | 1,440.3 | -4% | 1.62 | 1.58 | 2,204.4 | 2,302.0 | 4% | 1.61 | 1.60 |

Source: Nielsen (2009, 2012)

We used a variety of data sources and methods to provide a comprehensive analysis of the U.S. fast food market. Through publicly available data, we thoroughly document and evaluate the menus and marketing practices of the nation's largest fast food restaurants. Whenever possible, we used the same methods as our 2010 report, "Fast Food FACTS: Evaluation of the nutritional quality and marketing of fast food to youth,"¹ to measure changes over time.

Our methods include analyzing the nutritional quality of restaurant menu items; analyzing purchased data on media exposure and spending from syndicated sources (i.e., Nielsen and comScore); conducting content analyses of advertisements on children's TV; and evaluating marketing to youth on company websites, internet display advertising, social media, and mobile marketing. We supplement these analyses with information collected from company websites, monitoring of business and consumer press, and numerous visits to fast food restaurants and calls to their consumer helplines. These methods are described in detail in the following sections.

We did not have access to food industry proprietary documents, including privately commissioned market research, media and marketing plans, or other strategic documents. Therefore, we do not attempt to interpret fast food companies' goals or objectives for their marketing practices. Rather, we provide transparent documentation of: 1) the nutritional quality of menu items offered by fast food restaurants; 2) the extent of children's and adolescents' exposure to common forms of fast food marketing, including exposure by black and Hispanic youth; 3) the specific products promoted and marketing messages conveyed in traditional and digital media; and 4) changes in nutrition and marketing that occurred from 2009 to 2013.

Scope of the analysis

To narrow down the list of restaurants to evaluate, we obtained 2012 sales data for the 50 largest fast food restaurants in the United States using figures estimated for *QSR Magazine*.² We also used Nielsen data to identify fast food restaurants with advertising spending on national TV in 2012. From these analyses, we identified 18 restaurants that are the focus of this report. These restaurants include the 12 restaurants highlighted in the 2010 Fast Food FACTS report, as well as six additional restaurants that met at least one of two criteria: 1) ranked among the top-15 in 2012 U.S. sales, or 2) had child-targeted messages on their websites and national TV advertising. We also conducted a more limited analysis of the 25 restaurants with the most advertising spending on national TV in 2012.

The data reflect marketing practices used to promote fast food restaurants from January 1, 2008 through July 30,

2013. Most of the analyses assess practices during the 2012 calendar year and compare them to 2009, although time frames available for analysis varied by type of data. Specific time frames examined are described in the following Methods sections. However, fast food menu items and marketing practices change continuously. The information presented in this report does not include any new products or product reformulations, advertising campaigns, website redesigns, or other marketing programs introduced after July 2013.

Fast food menus and nutritional quality

We analyzed the menus of 12 of the 18 restaurants examined in this report. The six pizza and coffee restaurants were excluded due to the predominance of one or two food item categories on those menus (e.g. pizza at pizza restaurants and snack items and coffee beverages at coffee restaurants), which limited our ability to compare these restaurants' menus to more traditional fast food restaurants. We obtained lists of all menu items and corresponding nutrition information for the 12 restaurants from menus posted on company websites as of February 15, 2013. We used these menus to conduct more detailed nutrition analyses of the full menus at the top-five traditional fast food restaurants (McDonald's, Subway, Burger King, Wendy's, and Taco Bell) and special menus (i.e., dollar/value and healthy menus) available at the 12 restaurants. These menus were also used for the nutrition analyses of advertised products, described in more detail later.

Food categories

Fast food restaurants typically have extensive menus with numerous types of foods. To systematically evaluate these menus, we defined **food categories** to describe different types of menu items. Menu items were assigned to one of 15 food categories according to whether they appeared on a special menu for children (i.e., **kids' meal** or menu) or the main menu, the eating occasion when foods are typically consumed (breakfast, lunch/dinner, or snack), and whether they are typically consumed alone, as a main dish, or as part of a meal in addition to a main dish (i.e., sides). We also classified types of beverages separately from foods. We defined beverages as any item that could be consumed using a straw.

- Menu items offered in kids' meals were classified as a **kids' main dish, kids' side, or kids' beverage**.
- Items traditionally consumed in the morning were classified as **breakfast main dishes** and **breakfast sides** (e.g., egg dishes, pancakes, and hash browns). **Breakfast meals** contained more than one breakfast item served together as one menu item, such as a pancake platter with sausage.
- Items traditionally consumed as the main item in a lunch or dinner meal were classified as **lunch/dinner main dishes**.

- **Lunch/dinner sides** and **side beverages** are items typically consumed in addition to a main dish at lunch or dinner. Common sides include french fries and fruit; common side beverages include soft drinks, milk, and water.
- Menu items that could be consumed on their own at non-meal times or after a meal were classified as **snacks** and **snack beverages**. Snack beverages include ice cream and other frozen beverages; and snacks include all dessert items as well as sweet baked goods, such as donuts and muffins.
- Due to the number of options available on many of the restaurant menus, **coffee beverages** were also classified as a separate food category and include lattes, cappuccinos, and mochas. Frozen coffee beverages (e.g., frappuccinos) were classified as snack beverages.

Special menus

In addition to individual menu items, many restaurants also promote a specific subset of items as a **special menu**. In addition to kids' menus, many restaurants also promote **dollar/value menus**, or groups of individual items offered at a special price (e.g., Dollar, Right Price Right Size, \$5 Footlongs menus). Some restaurants also promote **healthy menus**, or groups of items designated as healthier in some way (e.g., low(er) in calories). Researchers identified all special menus presented on company websites as of February 2013. We did not categorize limited-time pricing promotions for individual menu items as special menus.

Menu standardization

All restaurants in our analyses reported total grams or ounces, calories, fat, saturated fat, trans fat, sugar, sodium, protein, and fiber per menu item or serving except Wendy's and Chick-fil-A, which did not report grams. Items on the kids' menu at Chick-fil-A were weighed manually to obtain grams. One-half of Wendy's menu items were purchased and manually weighed. Third-party nutrition websites were used to obtain gram weights for the remaining items on Wendy's full menu. The accuracy of the weights provided by these websites was verified using weights obtained for the purchased products. Fruit, vegetable, and nut content estimations were based on our 2010 data.

To standardize menu items across different chains, we made several adjustments to the items as reported by some restaurants. Following are the general principles applied to all menus:

- **Only regular menu items are included.** If an item was listed as a regional or limited-time item, it was not included unless the item was also promoted in national TV advertising.
- **Regular menu items and kids' menu items are listed separately.** If an item was only available on the kids' menu, it was not included in the regular menu analysis. Kids' items

that were also available for sale on the regular menu (e.g., a regular hamburger or 16-ounce drink) were included on both menus.

- **All sizes of all items are listed as separate menu items,** including drinks, sides, and sandwiches.
- **All individual menu items are listed separately.** If a restaurant sold a combination of items as a meal (e.g., a kids' meal), those combinations were not included as individual menu items unless they also were listed on the restaurants' website menus as one item (e.g., pancakes and sausage).
- **Menu items with multiple components listed separately are combined into one item.** Examples include salads with dressing and croutons and chicken nuggets with sauce. If the item had a default combination (i.e., specific extra items that are automatically included with the main item), the default combination was used. If the item was typically offered with different choices (e.g., type of salad dressing or sauce), the item was reported as two separate items for both the healthiest and least nutritious options according to NPI score (e.g., chicken nuggets with barbecue sauce and chicken nuggets with ranch sauce).
- **Menu items are listed twice if consumers typically customize them by choosing individual ingredients** (e.g., deli sandwiches), including the most and least nutritious version of the item according to NPI score. For example, a deli sandwich with whole-grain bread, no cheese, and no sauce, as well as the same sandwich with a higher-calorie bread, cheese, and mayonnaise are listed separately.
- **Both the default and healthier options are listed as separate menu items if the restaurant provided an option on its menu to improve the overall nutritional quality of a specific item,** such as a sandwich without the usual mayonnaise or an egg dish made with egg whites.
- **A menu item is converted to a one-person portion size when listed as one item to be consumed by more than one person** (e.g., "sharable size"). Items indicated as "family-sized" were divided by four. When items did not have a suggested number of servings, we used another menu item that was indicated as a one-person item to identify an appropriate per-person portion.
- **A one-person portion size is calculated by combining menu items listed individually that are typically consumed in multiples** (e.g., chicken pieces). If the restaurant promoted meals containing multiple pieces of the same item, those meal suggestions were used to calculate a one-person portion of the menu item. If the items were typically sold in a family size or bucket, the criteria cited above were used to calculate the one-person portion.

Nutritional quality

We evaluated the nutritional quality of kids' meals and individual menu items on restaurant menus according to several criteria. The **Nutrition Profiling Index (NPI)** score provided an evaluation 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.³ To identify reasonable portion sizes for children and adolescents, we also compared **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.⁴ Lastly, we evaluated menu items according to other established criteria for nutritional quality. The following describes each of these criteria in more detail.

NPI score

The NPI score was calculated for each menu item. The score provides a measure of the overall nutritional quality of foods and beverage. It is adapted from the Nutrient Profiling model (NP) currently used by the U.K. Office of Communications (OFCOM) to identify nutritious foods that are appropriate to advertise to children on TV.⁵ The model also has been approved by Food Standards Australia New Zealand to identify products that are permitted to use health claims in their marketing.⁶ The NP model provides one score for a product based on total calories and proportion of healthy versus unhealthy nutrients, and specific food groups or items, including saturated fat, sugar, fiber, protein, sodium, and unprocessed fruit, nut, and vegetable content. All menu items, including individual items in kids' meals, received individual NPI scores.

The NP model has several advantages over other nutrient profiling systems. University of Oxford nutrition researchers developed the model independently of food industry funding. Its development and scoring method is publicly documented and transparent. It has been validated to reflect the judgment of professional nutritionists.⁷ The model also produces a continuous score that provides a relative evaluation of products, in contrast to threshold models that simply classify foods as "good" or "bad." In addition, the model includes only nutrients that are reasonable and well-justified based on existing nutrition science. In particular, the model does

not award points for micronutrient fortification, thereby not rewarding vitamins and minerals added to inherently unhealthy products. **Appendix B** provides a detailed description of the model design, scoring method, and benefits.

However, interpretation of the original scores produced by the NP model is not intuitively obvious. The original model is reverse scored (i.e., a higher score indicates a product of worse nutritional quality), and scores range from a high of +34 to a low of -15. In addition, a score of 3 points or lower identifies healthy foods that are allowed to be advertised to children in the United Kingdom. Therefore, we created an NP Index (NPI) score using the following formula: $NPI\ score = (-2) * NP\ score + 70$. For example, a relatively nutritious food with an NP score of -3 would receive an NPI score of 76 ($-2 * -3 + 70$). This recalculation produces a score from 0 (poorest nutritional quality) to 100 (highest nutritional quality) that is easier to interpret and compare.

To identify menu items with a healthy nutrient composition, we used the cut-offs established by the U.K. OFCOM to identify healthy products.⁸ Only food products with an NP score of 3 or lower and beverages with an NP score of 0 or lower are permitted to be advertised on children's TV programs in the United Kingdom or during programs with a disproportionate number of viewers under 16 years old. This score translates to a revised NPI score of 64 or higher to qualify as a healthy food product and 70 or higher for healthy beverages. All menu items, including individual items in kids' meals, received individual NPI scores.

Calorie and sodium upper limits

We also established maximum acceptable upper limits for calories and sodium in kids' meals and individual menu items and identified menu items that exceeded these upper limits. Children's menu items were evaluated as part of a total meal that included all possible combinations of individual menu items available with a kids' meal (typically a main dish, side, and beverage). All other menu items were evaluated individually.

Table A1 provides the maximum acceptable levels of calories and sodium for a) kids' meals served to both preschool and elementary school-age children; b) lunch or dinner main dish items or meals; c) breakfast main dish items or meals; and

Table A1. Maximum acceptable calories and sodium for kids' meals and individual menu items

| Kids' meals | Maximum calories (kcal) | Maximum sodium (mg) |
|---|-------------------------|---------------------|
| Elementary school-age children (per meal) | 650 | 636 |
| Preschool-age children (per meal) | 410 | 544 |
| Regular menu items (based on recommended upper limits for adolescents) | | |
| Lunch or dinner main dishes (per individual item or meal) | 700 | 720 |
| Breakfast main dishes (per individual item or meal) | 500 | 480 |
| Sides, snacks and beverages (per individual item) | 350 | 340 |

d) sides, beverages, snack foods, and sweet snacks. These criteria are based on the recommendations for upper limits of calories and sodium for school meals served as part of the National School Lunch Program established by the Institute of Medicine (IOM) Committee on School Meals.⁹

On an average visit to a fast food restaurant, 36% of children under 6, 21% of children between 6 and 12, and 2% of children between 13 and 17 order kids' meals.¹⁰ Because preschool-age children require fewer calories compared to older children, we established separate kids' meal criteria for elementary school-age and preschool-age children. We assumed that most adolescents would order from the restaurants' main menus, and therefore set the criteria for main menu items based on recommended calories and sodium for this age group.

- **Kids' meals for elementary school-age children.** The recommended maximum levels for lunch meals served to 5- to 10-year-olds specified in the IOM School Meals report were used to set the limits for elementary school-age children.¹¹
- **Kids' meals for preschool-age children.** To calculate maximum acceptable calories and sodium for kids' meals served to preschool-age children, we used the same method reported in the IOM School Meals report. The USDA recommends that a moderately active 2- to 5-year-old child should consume 1,275 calories daily¹² and should not consume more than 1,700 mg of sodium.¹³ Children consume on average 32% of their daily calories at lunch;¹⁴ therefore, maximum acceptable amounts for kids' meals served to preschoolers are 410 calories and 544 milligrams of sodium.
- **Lunch/dinner main dish items on the main menu.** To set limits for evaluating lunch/dinner and breakfast items for young people from 12 to 17 years, we averaged IOM recommendations for two age groups (11-13 and 14-18 years) for maximum amounts of calories and sodium for specific meals on the regular menu. No recommendations are available for individual meal items; therefore, we used recommended maximum amounts for meals to set limits for main dish lunch/dinner and breakfast items. Visitors to fast food restaurants order 2.4 menu items on average at an eating occasion.¹⁵ As a result, these limits represent the most calories and sodium that any young person should consume from one main dish item, especially if he or she also orders a side and/or beverage.
- **Individual items served as snacks, beverages, or sides.** The average daily amount recommended for a moderately active 13- to 17-year-old is 2,300 calories;¹⁶ and the recommended upper limit for sodium intake is 2,250 milligrams.¹⁷ Because young people consume on average 30% of their daily calories through snacks,¹⁸ and children consume on average two snacks per day,¹⁹ the maximum acceptable levels for a snack, beverage, or side consumed

in addition to a main dish item is 350 calories and 340 milligrams of sodium for adolescents.

Evaluating kids' meal combinations and main menu items

To evaluate kids' meals, we calculated NPI scores for individual kids' meal items and total calories and sodium for all possible combinations of main dish, side, and beverage items. We then identified kids' meal items with healthy NPI scores and combinations of items that met the acceptable calorie and sodium limits defined in **Table A1**. We also identified the best and worst kids' meal combinations as follows: for each restaurant, we selected the main dish, side, and beverage with the highest and lowest NPI scores and combined them to create the "best" and three "worst" kids' meal combinations for each restaurant. If more than one combination had the same NPI score, we chose the combined items with the lowest calorie content for the best list and the highest calorie content for the worst list. In addition, we provide estimated grams of added sugar for individual kids' meal menu items. We calculated added sugar in flavored milks by subtracting the sugar contained in plain milk offered with the same serving size and fat content.

For each product category on the menus of the top-five traditional fast food restaurants, we calculated the range of per-item values and medians for NPI score, calories, and sodium. We also calculated percents of items with a healthy NPI score and that met maximum total calories and total milligrams of sodium compared to the limits for the product category (as defined in **Table A1**), in addition to items that met all three criteria. We calculated the same values for all items included in dollar/value menus and healthy menus for the 12 restaurants. We also used these measures to analyze advertised products for the eight non-pizza and non-coffee restaurants that were evaluated in the 2010 report.

Chi-square of significance tests were used to compare differences in percent of items that met criteria by year (2010 vs. 2013). The statistical comparisons include percent of kids' meal combinations by restaurant that met calorie and sodium limits for preschoolers and elementary school-age children, percent of all menu items by type and by restaurant that met nutrition criteria for adolescents for the top-five traditional fast food restaurants, and percent of menu items available on dollar/value menus and healthy menus that met nutrition criteria for adolescents. Statistical significance is reported for differences at $p \leq 0.05$.

Additional nutritional quality measures for kids' meal combinations

We also evaluated the nutritional quality of kids' meal combinations using other established nutrition criteria, including the Interagency Working Group (IWG) proposed

standards for foods marketed to children and adolescents, Kids LiveWell standards established by companies participating in the Children's Food and Beverage Advertising Initiative (CFBAI) to identify products that can be advertised to children, and Kids LiveWell standards established by the National Restaurant Association for healthy kids' meals.

- **IWG interim nutrition standards.** The Federal Trade Commission (FTC), FDA, the Centers for Disease Control and Prevention (CDC), and the USDA were commissioned by Congress in 2009 to develop recommendations for the nutritional quality of foods marketed to children and adolescents. These recommendations represent consensus among the experts in these federal agencies about appropriate standards. The IWG recommendations specify limiting four nutrients as follows:
 - Saturated fat: <10% of calories
 - Added sugars: < 13 grams of added sugar
 - Sodium: ≤450 milligrams of sodium
 - Trans fat: Zero grams
- **CFBAI new uniform standards** for fast food meals.²⁰ Through this Better Business Bureau program, participating companies pledge to advertise only foods that meet nutrition standards to children under 12. New uniform standards (to be implemented by the end of 2013) require that fast food meals featured in child-directed advertising contain no more than 600 calories and 740 milligrams sodium, 10% of calories from saturated fat, and 20 grams of sugar. The guidelines make some exceptions for sugar in fruit, dairy, and 100% juice. To be conservative, we included only added sugars in these limits. CFBAI qualifying meals must also contain a fruit, vegetable, whole grain, lean protein, low fat dairy, or fortification. However, this information was not available from the restaurants so we did not include this requirement in our analysis.
- **Kids LiveWell.** Kids LiveWell is a voluntary program of the National Restaurant Association to identify healthful meals for children. Participating restaurants must offer at least one kids' meal combination that meets the following criteria:²¹ maximum 600 calories and 770 milligrams sodium; no more than 35% of calories from total fat, 10% of calories from saturated fat, and 35% of calories from sugar; and less than 0.5 grams trans fat. Qualifying meals must also contain two sources of fruit, vegetable, whole grain, lean protein, or low fat dairy, but this requirement was not included in our analysis.

Marketing practices

The analysis of fast food marketing practices documents advertising spending and marketing on TV and in digital media, including 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.

Traditional media

To measure fast food restaurants' marketing practices in traditional media we licensed Nielsen data for advertising spending in all measured media and exposure to TV advertising (including Spanish-language) by age group and race. These data document total fast food restaurant advertising spending and TV exposure from 2009 to 2012.²² We also provide more detailed analyses of the 25 restaurants with the most national TV advertising spending in 2012. In addition, we conducted a content analysis of the messages and specific menu items promoted in TV advertising that appeared on children's commercial networks.

Advertising spending

Nielsen identified 264 restaurants in the Quick Serve Restaurant (QSR) category (Product Classification Code [PCC] = G330) with advertising spending in 2012. We also obtained Nielsen data for two additional restaurants in the *QSR Magazine* Top 50²³ that were classified by Nielsen as coffee/donut retail shops (PCC = G716) (Starbucks and Dunkin' Donuts). Nielsen tracks total media spending in 18 different media including TV, internet, radio, magazines, newspaper, free standing coupon inserts, and outdoor advertising. We licensed these data for all fast food restaurants for the four-year period. These data provide a measure of all fast food **advertising spending**.

TV advertising exposure

To measure exposure to fast food TV advertising, we also licensed gross rating points (GRP) data from Nielsen for the same period and restaurants. GRPs measure the total audience delivered by a brand's media schedule. It is expressed as a percent of the population that was exposed to each commercial over a specified period of time across all types of TV programming. It is the advertising industry's standard measure to assess audience exposure to advertising campaigns; and Nielsen is the most widely used source for these data.²⁴ GRPs, therefore, provide an objective assessment of advertising exposure. In addition, GRPs can be used to measure advertisements delivered to a specific audience, such as a specific age or other demographic group (also known as target rating points or TRPs), and provide a "per capita" measure to examine relative exposure among groups. For example, if a restaurant had 2,000 GRPs in 2012 for 2- to 11-year-olds and 1,000 GRPs for 25- to 49-year-olds, then we can conclude that children saw twice as many ads for that restaurant in 2012 as compared to adults.

The GRP measure differs from the measure used to evaluate food industry compliance with their CFBAI pledges. The pledges apply only to advertising in children's TV programming as defined by audience composition (e.g., programs in which at least 35% of the audience are under age 12); less than one-half of all advertisements viewed by children younger

than 12 occur during children's programming.²⁵ In contrast, GRPs measure children's total exposure to advertising during all types of TV programming. Therefore, evaluating GRPs will determine whether participating companies reduced total TV advertising to this age group.

In the TV advertising analyses, we first identified GRPs for the following demographic groups: 2-5 years, 6-11 years, 12-17 years, 18-24 years, and 25-49 years. These data provide exposure to national (network, cable, and syndicated) and local (spot market) TV combined. We also obtained GRPs for advertising viewed by black and white youth in the same age groups on national TV only; Nielsen does not provide spot market GRPs for blacks at the individual level. Spot TV advertising accounted for 11% of fast food restaurant advertising viewed by youth (2-17 years) during 2012. Therefore, these data reflect an estimated 89% of black youth exposure to TV fast food restaurant advertising. To assess exposure by Hispanic youth to Spanish-language advertising, we provide GRP data for advertising that occurred on Spanish-language TV.

Nielsen calculates GRPs as the sum total of all advertising exposures for all individuals within a demographic group, including multiple exposures for individuals (i.e., gross impressions), divided by the size of the population, and multiplied by 100. GRPs may be difficult to interpret. Therefore, we also use GRP data to calculate the following TV advertising measures:

- **Average advertising exposure.** This measure is calculated by dividing total GRPs for a demographic group during a specific time period by 100. It provides a measure of ads viewed by individuals in that demographic group, on average, during the time period measured. For example, if Nielsen reports 2,000 GRPs for 2- to 5-year-olds for a restaurant in 2012, we can conclude that on average all 2- to 5-year-olds viewed 20 ads for that restaurant in 2012.
- **Targeted GRP ratios.** As GRPs provide a per capita measure of advertising exposure for specific demographic groups, we also used GRPs to measure relative exposure to advertising between demographic groups. We report the following targeted GRP ratios:
 - Preschooler:adult targeted ratio = GRPs for 2-5 years/GRPs for 25-49 years
 - Child:adult targeted ratio = GRPs for 6-11 years/GRPs for 25-49 years
 - Teen:adult targeted ratio = GRPs for 12-17 years/GRPs for 25-49 years
 - Black:white child targeted ratio = GRPs for blacks 2-11 years/GRPs for whites 2-11 years. This measure uses only national GRPs.
 - Black:white teen targeted ratio = GRPs for blacks 12-17 years/GRPs for whites 12-17 years. This measure uses only national GRPs.

A targeted ratio greater than 1.0 indicates that on average persons in the group of interest (i.e., children in the child:adult ratio) viewed more advertisements than persons in the

comparison group (i.e., adults), while a targeted ratio less than 1.0 indicates that they viewed fewer ads. For example, a child:adult targeted ratio of 2.0 indicates that children viewed twice as many ads as adults viewed. If this ratio is greater than the relative difference in the amount of TV viewed by each group, we can conclude that the advertiser likely designed a media plan to reach this specific demographic group more often than would occur naturally.

TV advertising exposure by product type

In addition to the Nielsen GRP data at the restaurant level described above, we also obtained GRPs at the brand variant level for national advertising in 2012 for the 18 restaurants in our detailed analysis. Creative descriptions for all ads aired for each brand variant also were obtained. Researchers then categorized ads into **product types** based on the brand variant name and creative description. In some cases, the brand variant name and creative descriptions did not provide enough information to categorize the ads. For these ads, a researcher viewed copies of individual advertisements to determine which product type was the main focus of the ad.

Ads were classified as follows:

- **Kids' meals.** Any kids' meal, either with or without specific kids' meal menu items.
- **Branding only.** The restaurant as a whole is the main point of the ad. Food may be pictured, but no specific food products are mentioned.
- **Breakfast items.** Any menu items typically consumed for breakfast.
- **Coffee beverages.** Any type of coffee beverage, including hot and frozen varieties.
- **Healthy options.** Healthy menu, menu items, or healthy version of a meal (as designated by the restaurant).
- **Lunch/dinner items.** Individual lunch/dinner menu items or line of items including main dishes, sides, and side beverages.
- **Promotion only.** Only a promotion is mentioned. Food may be pictured in the ads, but not mentioned.
- **Snacks/desserts.** Items typically consumed as a dessert or snack, including snack beverages.
- **Value menu/combo meals.** Value menu, dollar menu, combo meals, or other special pricing for a group of individual menu items, including mentions of the entire menu or specific items included on the value menu or in a combo meal.

TV advertising content analysis

We conducted a content analysis to evaluate the messages and marketing techniques used in advertisements that

appeared on children's TV. Using the AdScope database from Kantar Media, we obtained digital copies of all fast food advertisements from the top 18 restaurants that aired nationally in the United States from January 1, 2012 through December 31, 2012 on five children's commercial networks: Nickelodeon, NickToons, Cartoon Network, The Hub, and Disney XD. Research assistants viewed each ad and removed duplicates, including 15-second shortened versions of 30-second ads.

We used the coding manual developed for the 2010 Fast Food FACTS report as the basis for the coding manual for the present study.²⁶ Two coders were trained to review the advertisements and code them for all items in the manual. In several pre-test group sessions, the project manager and coders evaluated 10 to 20 food advertisements during each session. These ads were selected from those used in the 2010 content analysis. Following these sessions, the project manager resolved coder disputes and revised and finalized the coding manual.

The final coding manual included six main categories:

- **Selling point**, or direct benefit of the product. Coders chose as many selling points as were present in the ad. These included: **new/improved** if the ad introduced a new product or an improvement to an old one; **value/cheap** if the ad highlighted the price of the product, such as "buy one get one free," "now for the low price of..." or "only 99 cents;" **health/nutrition** for claims about the nutrition, nutrients, or health outcomes of consuming the product; **quality food** if the ad used natural, fresh, real, quality, or similar words to describe the food; and **limited-time special offers** for short-term price promotions, giveaways, and new products that "won't be here long."
- **Product associations**, or indirect benefits of the product suggested or implied in the ad. Coders chose as many product associations as were present in the ad. These included: **physical activity** when the ad portrayed, suggested, or encouraged physical activity in any way; **fun/cool** claims, typically made implicitly by depicting enjoyable social occasions, excitement or adventure, standing out in a crowd, superiority, and pop-culture references; **humor** if the ad included comedic elements, obvious or subtle, irony, or sarcasm; and **adults as negative or incompetent** if the ad belittled or poked fun at adult figures, parents, or other authority figures.
- **Main characters in the ad** or purchasers/consumers when indicated. Age was categorized as children (0 to 12 years), teens/young adults (13 to 29 years), older adults (30 years and older), and parents (buying food for children).
- **Third-party tie-ins** included appearances by outside (not brand-related) persons, characters, or other companies/organizations, such as celebrities (famous actors, athletes, and musicians); **movies/TV shows/video games**; and **licensed characters** when a character from a TV, movie, or video game was featured in the ad (e.g., a "Shrek" toy promotion in a kids' meal).
- **Brand spokes-characters**, or fictional characters or mascots associated specifically with the brand or intrinsic to the identity of the brand (e.g., Ronald McDonald, Wendy).
- **Eating behaviors** that were portrayed or suggested. These included: **place of consumption** to describe where the food was apparently consumed (i.e., in the restaurant or other place); and **time of consumption** to describe when the food was consumed (e.g. late at night or unclear).
- **Website** references, either suggested or depicted on the screen. All references to websites were recorded, including reference to third-party sites.

Formal reliability testing was conducted using a sample of 37 ads from the final inventory. Cohen's Kappa²⁷ was used to measure inter-rater reliability. Each coder coded this same subset of ads. Kappa values ranged from .30 (fair) to 1.00 (perfect) agreement with 72% of the items receiving substantial to perfect agreement (.61 to 1.00) and only 1% receiving values in the fair range of agreement (.21 to .40). Items with Kappa values lower than .60 were discussed and redefined for clarity prior to moving forward with the final coding. The remaining advertisements were randomly assigned to the two coders, and final coding occurred over a three-week period.

TV advertising nutrient content analysis

We analyzed the nutrient content of products that appeared on television ads for eight restaurants: the restaurants in the 2010 analysis, excluding the pizza and coffee restaurants. Researchers viewed these ads to identify items that were prominently featured and how items were intended to be consumed (i.e., a single menu item, a combination of menu items, or one of a variety of advertised items).

To calculate the calorie and sodium content of individual ads, we used different procedures according to whether the ad appeared to encourage consumption of one type of food (e.g., one of several different sandwiches) or more than one food (e.g., a sandwich and a side item). If the ad encouraged consumption of one food, we averaged the nutrient information for all foods that were predominantly featured in the ad. If the ad encouraged consumption of more than one food, we added the nutrient information for all main foods presented to obtain total calories, sodium, saturated fat, and total sugar. In a few instances, ads promoted more than one food category and more than one main food within the categories. For those ads, we averaged the nutrient information for main foods within each category and added the average of the food categories together.

We then used 2012 GRPs for each ad to calculate the weighted **average calories** and **average sodium** per ad viewed by children and teens for each restaurant in our analysis. These measures provide a comparison of the nutrient content of foods featured in ads viewed by different age groups. We also multiplied the weighted average measures for each ad viewed by the average number of ads viewed per day by

preschoolers, children, and teens, and by black age groups to provide **total calories**, **proportion of calories from sugar and saturated fat**, and **total sodium** viewed in fast food TV ads daily. The breakdown of calories viewed per day by restaurant is also reported. We also compared differences between 2009 and 2012 results. Finally, we examined the nutrient content of menu items that appeared in individual restaurant ads seen most often by children and teens.

Internet and other digital media

We document three types of youth-targeted marketing on the internet: restaurant (i.e., company-sponsored) websites, display advertising on other (i.e., third-party) websites, and social media marketing. Additionally, we provide examples of mobile marketing conducted by fast food restaurants.

Website exposure

We began with a list of restaurant websites that were included in the 2010 Fast Food FACTS report and added new restaurant sites, as well as sites for the six additional restaurants examined in this report, that existed during January through December 2012. For the purposes of this analysis, a website is defined as all pages containing the same stem URL. For example, HappyMeal.com is the website of interest, and HappyMeal.com/#play is an example of a secondary page contained within the site.

We obtained data on exposure to these websites from comScore Media Metrix Key Measures Report.²⁸ The company captures the internet behavior of a representative panel of about 350,000 users in the United States.²⁹ It is the nation's largest existing internet audience measurement panel. The firm collects data at both the household and individual level using Session Assignment Technology, which can identify computer users without requiring them to log in. The company uses these panel data to extrapolate its findings to the total U.S. population. Companies participating with comScore can also have census tags placed on their web content and advertisements to further refine audience estimates. Using the comScore panel, we identified individuals' exposure to restaurant websites, including exposure for both children and adults in the same household. The Media Metrix database provides internet exposure data for all websites visited by at least 30 of their panel members in a given quarter.³⁰ Media Metrix also provides exposure information by visitor age, ethnicity, and race for larger volume websites.

We first searched the comScore Media Metrix database to identify the fast food restaurant websites for which exposure data were available from January through December 2012. For each quarter during this period, we also used the Media Metrix Key Measures Report to collect the following data for available restaurant websites: total unique visitors, total visits, average minute per visit, and average visits per unique visitor.

In addition, when enough website traffic was recorded in a given quarter we also collected these measures separately for children (2-11 years), teens (12-17 years), and all youth (2-17 years), and for black, Hispanic, and all youth (6-17 years).

For each of the demographic groups with data, we also report a **targeted index**, which measures the extent to which child or teen visitors to a website are over- or underrepresented compared to all visitors (2+ years) and the extent to which black or Hispanic youth visitors to a website are over- or underrepresented compared to all 6- to 17-year-old visitors. Targeted indices greater than 100 signify that the demographic group was overrepresented on a website in relation to the comparison group; and targeted indices less than 100 signify that it was underrepresented. For example, if 40% of black youth visited HappyMeal.com, but 20% of all youth visited HappyMeal.com, the black youth targeted index for HappyMeal.com would be 200.

For each website in our analysis, we report the following website exposure measures:

- **Average unique visitors per month** for children, teens, and black and Hispanic youth. This measure was calculated by adding average total unique visitors per month, as reported quarterly by comScore, from January through December 2012 for each demographic group divided by four (for four quarters).
- **Average visits per month**,³¹ **average pages per month**, and **average minutes per visit** for each unique visitor. Quarterly numbers, as reported by comScore, were averaged for each website. The company only reports these data for the larger demographic groups. If separate data were not available for the specific demographic group, we used the information for the next largest demographic group. For example, if data were not available for 2- to 11-year-olds specifically, we report the data for 2- to 17-year olds.
- **Child and teen targeted indices** were calculated by dividing the percent of visitors to the website who were children (2-11 years) or teens (12-17 years) by the percent of child and teen visitors to the total internet. First, the percent of visitors exposed to the website from each age group (2-11 years or 12-17 years) was obtained by averaging the number of monthly unique visitors to the website for that age group for the four quarters of 2012 and dividing that number by all average monthly unique visitors to the website (ages 2+). The same calculations were done for visitors to the total internet during the four quarters of 2012 for the same age group. The percent of child or teen visitors to the website was then divided by the percent of child or teen visitors to the total internet and multiplied by 100 to get the targeted index.
- **Black youth** and **Hispanic youth targeted indices** were calculated by dividing the percent of black or Hispanic youth (6-17 years) who visited the website by the percent of all youth who visited the website. First, the percent of black

or Hispanic youth who visited the website was obtained by averaging the number of monthly unique visitors to the website for that group for the four quarters of 2012 and dividing that number by all black or Hispanic youth visitors to the total internet. The same calculations were done for all youth visitors to the website during the four quarters of 2012. The percent of black or Hispanic youth who visited the website was then divided by the percent of all youth who visited the website and multiplied by 100 to get the targeted index.

Display advertising on third-party websites

Data for exposure to fast food advertising on **third-party websites** (i.e. websites sponsored by other companies) were extracted from the comScore Ad Metrix Advertiser Report.³² comScore Ad Metrix monitors the same panel of users as comScore Media Metrix but tracks advertisements that are completely downloaded and viewable on a user's web browser. Ad Metrix, therefore, measures individual exposure to display ads presented in rich media (SWF files) and traditional image-based ads (JPEG and GIF files). It does not capture text, video, or html-based ads. Ad Metrix also identifies the unique user viewing the advertisement, the third-party website on which the advertisement was viewed, and the company sponsoring the advertisement.

Third-party website data were collected for January through December 2012. During the time period of our analysis, Ad Metrix did not report demographic information about the individuals who were exposed to these advertisements. Consequently, we cannot differentiate between exposure by any specific age group, including children, adolescents, or Hispanic or black youth.

The Product Dictionary from comScore was used to determine the display advertisements of interest. The company provided display advertisement data for the 18 restaurants in our analysis. For some restaurants, comScore also provided detailed data for specific menu items or promotions. For example, comScore provided display ad exposure data for McDonald's Chicken McNuggets and Happy Meal ads in addition to data for all McDonald's display ads combined. The company provides data for display ads for any fast food restaurant, menu item, or promotion in its dictionary that was viewed at least ten times by comScore panel members on the internet or on a specific publisher site.

Measures available from comScore for each month include **display ad impressions** (i.e., the number of advertisements fully downloaded and viewed on publisher websites), **advertising exposed unique visitors** (i.e., the number of different individuals exposed to advertisements on a publisher website), and **average frequency of ad views** per unique visitor by fast food advertiser. This information is available for the total internet and for individual publisher websites.

As we could not separate ads viewed by age group, we identified websites on which the advertisements appeared that were disproportionately targeted to youth (i.e., youth websites) and children (i.e. kids' websites).

For the first three quarters of 2012, we defined a **youth website** as a website that met one of two conditions: 1) It was identified by comScore as an entertainment website for youth ages 2-17 or as a teen community website during the period examined; or 2) the proportion of visitors ages 2-17 to the website exceeded the total percentage of visitors to the internet ages 2-17 during the time period examined. In the last quarter of 2012, comScore changed its website classification system and eliminated the youth entertainment category. Therefore, we only used the proportion of visitors ages 2-17 to define youth websites for ads that appeared during the fourth quarter of 2012.

We also identified websites that were targeted to children. We defined a **kids' website** as a website that met two conditions: 1) It met the criteria for being considered a youth website; and 2) over 20 percent of the unique visitors to the website were ages 2-11 years. Because we are unable to differentiate between ads viewed by youth under 18 years versus adults, we instead assume that advertising on youth and kids' websites will be viewed by disproportionately more young people.

From the comScore data, we calculated the following measures for each fast food product (including websites, menu items, and promotions) for which display advertising was found. Total numbers also were calculated for all identified restaurant products:

- **Unique viewers per month**³³ was calculated by adding the number of unique visitors exposed to a product's advertising reported monthly from January through December 2012 and dividing by 12.
- **Ads viewed per viewer per month** was calculated by averaging the number of ads viewed per viewer for the product for each month from January through December 2012.
- **Proportion of ads viewed on kids' websites, youth websites, and Facebook** were calculated by dividing the restaurant product's total display ad impressions that appeared on kids' websites, youth websites, and Facebook by the total display ad impressions that appeared on all websites from January 2012 through December 2012.
- **Average ads viewed on kids' websites, youth websites, and Facebook per month** were calculated by adding a product's display ad impressions on kids' websites, youth websites, and Facebook reported monthly from January through December 2012 and dividing by 12.

Mobile advertising

We examined three types of marketing used by the 18 restaurants in our analysis to reach consumers on their mobile devices: restaurant-sponsored mobile websites, display ads on third-party mobile websites, and smart phone applications.

For both restaurant-sponsored mobile websites and display ads on third-party mobile websites, comScore is unable to track smartphone or tablet usage for persons under 18 years old. Therefore, our data reflect the websites visited and ads viewed by users 18 years and older.

We utilized data from comScore's Mobile Metrix³⁴ application to measure exposure to restaurants' **mobile websites** from March 2012 through February 2013. Mobile websites include special mobile versions of restaurant websites, as well as full versions of restaurant websites viewed on a smartphone or tablet. Mobile Metrix tracks a list of mobile websites four times per day over the course of a month. At the time of collection, we were unable to access data prior to March 2012, so we gathered 12 months of data starting from that point.

For each mobile website in our analysis, we report the following exposure measures:

- **Average monthly unique visitors** was calculated by adding total unique visitors reported each quarter from March 2012 through February 2013 divided by four (for four quarters).
- **Minutes per visitor per month** is the average amount of time per month that a visitor spent on a restaurant's website.

We also used comScore's Ad Metrix Mobile Report³⁵ to measure **mobile display ads**, or ads that appear at the top or bottom of third-party mobile web pages. Similar to internet display ads, they are graphic display ads (commonly accepted file types are GIF, Animated GIF, JPEG, and PNG) that click through to a page designated by the advertiser.

comScore's Ad Metrix Mobile product tracks display ads on more than 1,000 mobile URLs. This includes all sites linked to a mobile service provider's portal (effectively a carrier-specific home page for accessing the mobile internet). The company automatically collects data from these defined portal websites every six hours, or approximately 120 times per month. The **average monthly ad instance** measures how many times the application encounters a specific ad. Copies of the advertisements are captured and stored as a static image and classified four ways: by the company that owns the advertised product, the division responsible for the product, the product brand, and the product itself.

Restaurants also offer **smartphone applications**, or operating system specific (e.g., iOS and Android) applications that may be downloaded to smartphones and tablets and act as stand-alone programs. Using an iPhone, we downloaded all available applications offered by the restaurants in our analysis as of August 2013. We documented the features and

capabilities of each app, including ordering ability, restaurant locators, nutrition information, games, special offers, and social media connections.

Social media

We measured presence on three popular social media sites: Facebook, Twitter, and YouTube, for the 18 restaurants in our analysis. In addition, we examined the content of Facebook posts and restaurant activity on Twitter.

On **Facebook**, we recorded the number of **likes** for each fast food restaurant's page(s) in July 2013. We also collected Facebook **posts**, or the messages that restaurants post on their timelines, during a three-month period from December 1, 2012 to February 28, 2013. Using screen captures we conducted a content analysis of these posts. A codebook was developed and good inter-rater reliability was established prior to final coding of posts. Two coders identified the **menu items featured** in posts (including individual items, lines of items, and special menus); **engagement devices** used (i.e., showing a picture, asking a question, providing a link to an outside website, linking to a restaurant's own website, linking to Facebook events, contests, or sweepstakes, and watching a video); and **child-targeted content** (i.e., any content which spoke directly to a child, featured a kids' meal, animation, or any third-party characters, games, movies, TV shows, or celebrities that would appeal to children).

To measure marketing on **Twitter**, we recorded the number of followers for all of restaurants' page(s) in July 2013. **Followers** are users who have agreed to receive a restaurant's tweets through Twitter. In addition, we used Twitonomy to track activity on restaurants' main Twitter accounts from March to August 2013. Twitonomy is a web-based Twitter analytics program that analyzes the most recent 3,200 tweets of any user with a public Twitter account.³⁶ Twitter activities analyzed include average number of **tweets per day**, percent of tweets that were replies to users, and proportion of tweets that were retweeted or favorited by other users. **Replies** are direct responses by restaurants to tweets sent by other Twitter users. **Retweets** are restaurant tweets that users have re-posted for their own followers to see. Users have the ability to mark a tweet as a **favorite**, thereby saving it in special section on their profile page. A user's favorites can be viewed by other users, and indicates that the user finds the tweet of interest or value.

For **YouTube**, we recorded the following data as of July 2013: number of **subscribers** to each restaurant's YouTube channel, number of **video uploads** (i.e., videos available to view on the restaurant's channel), and **upload views** (i.e., number of times an uploaded video was viewed).

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2. *QSR Magazine* (2013). The QSR 50. Available at www.qsrmagazine.com/reports/qs50-2013-top-50-chart.
3. Food Standards Agency (2007). Nutrient profiling. Available at www.food.gov.uk/healthiereating/advertisingtochildren/nutlab/.
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10. The NPD Group/CREST@/2 Years Ending December 2009/2010.
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14. USDA/FNS (2007). *School Nutrition Dietary Assessment Study-III*. Available at www.fns.usda.gov/oane/MENU/Published/CNP/cnp/htm.
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30. comScore (2010). Media Metrix: Methodology Overview. Available at mymetrix.comscore.com/app/HelpGuideWindow.aspx?activeTab=helpIndexTab.
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32. comScore (2013). Ad Metrix. Available at comscore.net/Products_Services/Product_Index/Ad_Metrix.
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The UK Ofcom Nutrient Profiling (NP) Model

Defining 'healthy' and 'unhealthy' foods and drinks for TV advertising to children

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Consumer groups and public health organisations have called for bans on the advertising of 'unhealthy' food to children for several decades. The definition of 'unhealthy' has been a topic of considerable argument. Food companies have resisted having any products described as 'unhealthy' but have gradually developed a number of different schemes which define products they believe are 'healthy' (or at least 'healthier') and appropriate for advertising to children. Health and consumer groups have called for a single scheme - or 'nutrient profiling model' - consistent with international recommendations for preventing chronic disease and with national food-based dietary guidelines. A simple system which could be applied to all products and with a clearly defined cut-off for defining which foods are not suitable for advertising to children would be ideal.

What sort of nutrient profiling model?

There are a number of technical questions which need to be considered:

- Which nutrients should be included?
- Should the profiling criteria differ according to the type of food being profiled, or should all foods be assessed using the same criteria?
- What is the reference amount: for example, should foods be compared per 100g, per 100 kcal or per portion or serving?
- Should the final result be presented as a single figure or as a set of figures relating to different aspects of the nutritional quality of the food?

The answers to these questions depend on the purpose of the nutrient profiling model. If the requirement is simply to define the presence of 'high' or 'low' levels of nutrients, then the methodological questions are fairly easily answered, and indeed nutrient profiling in this sense has been widely accepted for national and international legislation. Codex Alimentarius and various other bodies have defined threshold values for making 'high' and 'low' claims for nutrients in food products, per unit of food, and include specific requirements for presenting information on which a nutrient-related claim is made. A similar approach is used for claims which make comparisons such as a 'higher' or 'lower' level of a nutrient relative to similar foods.

An extension of these principles is to combine several different nutrients into a single score which can be used to show that a product is nutritionally better than another, similar one. For example, a manufacturer or retailer may promote a 'healthy eating' range, or a government or public health body may endorse a labelling scheme to identify 'better for you' products. Several schemes to identify healthier options within classes of foods are already available, such as the US manufacturers' *Smart Choices* programme (<http://www.smartchoicesprogram.com/nutrition.html>) and the Swedish Keyhole labelling scheme (http://www.slv.se/upload/nfa/documents/food_regulations/Keyhole_2005_9.pdf).

In 2007 a review of nutrient profiling models commissioned by the UK Food Standards Agency identified over 40 different schemes (<http://www.food.gov.uk/healthiereating/advertisingtochildren/nutlab/nutprofilereview/nutprofilelitupdatetdec07>). More schemes have been developed since then. They vary considerably in the nutrients they consider (ranging from just a few to over 20) and whether they use different criteria according to the type of food being profiled or whether all foods are assessed using the same criteria. The *Smart Choices* scheme has different criteria for 19 different food categories, the *Keyhole* scheme has 26 food categories, and one scheme – used for the Australian Heart Foundation Tick Program (<http://www.heartfoundation.org.au/sites/tick/Pages/default.aspx>) has different criteria for more than 70 food categories. The schemes also vary in the reference amounts they are based upon, and in the measurement criteria they use to score the different aspects of nutritional quality.

For the purposes of defining foods suitable for advertising to children, the nutrient profiling model needs to be relatively simple to understand and to apply. An ideal model uses easily-available information, it should take into account 'positive' elements (e.g. micronutrients, fruit, vegetables and dietary fibre) and 'negative' elements (e.g. saturated fats, salt/sodium and added sugars) and it should provide a single answer which lies on a single scale that runs from 'healthy' to 'unhealthy'.

The UK model

The UK regulator for broadcast media is the Office of Communications, usually called Ofcom, and in anticipation of new regulations to control advertising to children, it requested advice on how to profile the nutrients in foods in

order to judge their suitability for advertising to children. In response, the UK Food Standards Agency commissioned the British Heart Foundation Health Promotion Research Group at Oxford University to carry out a research programme to develop a nutrient profiling model. The development of the model has been well-documented elsewhere (<http://www.food.gov.uk/foodlabelling/researchandreports/nutrientprofiles>). The model was formally passed to Ofcom at the end of 2005 and has subsequently been incorporated into a regulation (http://www.ofcom.org.uk/consult/condocs/foodads_new/statement). This prohibits advertising of specified food and beverages during children's programmes and programmes for which children under the age of 16 years form a disproportionate part of the audience.

In the development of the model, various prototypes were compared with each other and with a set of foods categorised for their compliance with healthy eating guidelines. This was first done relatively informally by a small 'expert group' consisting of academic nutritionists and representatives from industry, consumer organisations and public health bodies, but then more formally using an on-line survey of professional nutritionists in the UK. The survey asked the nutritionists to assess 40 foods for their 'healthiness'. The 40 foods were randomly drawn from 120 different food products representative of the UK diet. The professionals' ratings were compared with the ratings obtained from the prototype models (<http://www.food.gov.uk/multimedia/pdfs/npreportsept05.pdf>).

The best prototype model showed a close correlation with the professional ratings of $r = 0.80$ (95% CI 0.73-0.86). In this model, a single score based on a set of 'negative' indicators (energy, saturated fat, sugars and sodium) is counter-balanced by a score based on 'positive' indicators (protein, fibre and 'fruit, vegetables and nuts'). The protein score was found to be a good indicator of a range of micronutrients that would otherwise merit inclusion in the model. All measurement criteria were per 100 grams. The final model included various refinements to allow for some anomalous foods: in particular, the protein score was disallowed if the score for 'fruit, vegetables and nuts' was too low.

The model generates a final single score which determines whether the food can be advertised to children. Two threshold levels were set: one threshold for all food products and another for beverages.

Note that the model uses a 100g measure rather than actual serving size. This is justified on the basis that the model is designed to measure the nutritional quality of the food regardless of the way it is eaten. Using a 'per serving' approach would have been possible but to do so introduces several difficulties, not least of which is the fact that serving sizes and consumption patterns are an individual matter and cannot be standardised, especially across different age groups.

Early prototypes of the model gave a score for added sugars (technically non-milk extrinsic sugars), but this was later replaced with a score for total sugar, a move which received substantial support from food manufacturers who said they faced technical difficulties in analysing added sugars and that information on total sugars is a requirement of UK (based on European) food labelling legislation. The contribution of foods high in natural sugars to a balanced diet is addressed through the inclusion of criteria for protein (in which dairy products usually score well) and for fruit and vegetables.

Early prototypes also gave scores for calcium, iron and n-3 poly-unsaturated fatty acids. These were later replaced with a score for protein, primarily to make scoring foods easier (protein levels are required by food labelling legislation but calcium, iron and n-3 polyunsaturated fatty acid levels are not) but also because prototype models which gave a score for protein rather than the other three nutrients gave similar results.

Subsequent to the adoption of the model the British Heart Foundation Health Promotion Research Group have further investigated the validity of the model - and in particular have shown that people in the UK who have less healthy diets consume more of their calories in the form of foods defined as less healthy by the model.

The model was developed for the regulation of food advertising in the UK, and was tested on a range of foods in UK national databases. For use outside the UK the model should be assessed using relevant national food databases, and for international use it should be assessed on a broad range of products from different national cuisines.

Added value and further applications of nutrient profiling

A clear result of using nutrient profiling as a means of assessing eligibility for marketing is that the profiling scheme becomes a driver for product reformulation. Processed foods that fail to meet the criteria permitting their advertising to children might benefit from reformulation, enabling the manufacturer to continue to advertise them. For example, most breakfast cereals promoted on children's television are high in sugar, and some are also high in salt. It is hoped that the controls in marketing may stimulate manufacturers to produce products that are lower in sugar and salt, thereby avoiding the advertising restrictions.

Although developed for restrictions on marketing through broadcast media, the model also has the potential to be used as the basis for developing regulations for non-broadcast advertising and promotion - for example for product placements in films or for internet advertising.

Nutrient profiling models could clearly support a wide range of public health initiatives. They are already used extensively as the basis of food labelling schemes. Note however that the front-of-pack 'traffic light' labelling scheme recommended for use by the UK Food Standards Agency uses a different nutrient profiling scheme than the one that has been developed for restrictions on marketing of foods to children. The three 'traffic light' colours indicate high, medium and low levels, for each of four nutrients: fat, saturated fats, sugars and salt/sodium. Nutrient profiling could also be used to support labelling in catering outlets, where, for example, traffic light signalling could help customers select healthier items from menus in advance of ordering their food.

In order to prevent poor quality foods from being promoted with health claims on the basis of a single 'good' ingredient, nutrient profiling can be used to decide if a food is sufficiently 'healthy' to be allowed to carry a health claim. The government body responsible for health claims regulation in Australia and New Zealand (Food Standards Australia New Zealand) has adapted the UK Ofcom model for assessing whether foods should be allowed to carry health claims. Their site includes a calculator that returns a score from the model (<http://www.foodstandards.gov.au/foodmatters/healthnutritionandrelatedclaims/nutrientprofilingcal3499.cfm>). The European Commission is also in the process of developing a nutrient profiling scheme that would define which foods may carry a permitted nutrition or health claim.

The use of nutrient profiling can be extended to contractual relationships: for example the quality criteria for products supplied for school meal services and institutional catering in the workplace. The health sector, armed service, prisons and elderly care could include nutritional profiling standards, which in turn could be used for contract compliance and for health impact assessments of meal service policies.

Fiscal policies designed to benefit public health may, if they are considered appropriate, also benefit from using nutrient profiling as an assessment tool. One criticism made of the suggestion to impose a tax on foods such as soft drinks and snack foods is the difficulty of administering the tax because of the problem of defining what constitutes a soft drink, a snack food, etc. Nutrient profiling provides a method for categorising foods for taxation or subsidy. A taxation system based on nutrient profiling would also encourage manufacturers to reformulate their recipes and adjust their product portfolio.

The UK Ofcom nutrient profiling model in detail

The model provides a single score for any given food product, based on calculating the number of points for

'negative' nutrients which can be offset by points for 'positive' nutrients. Points are allocated on the basis of the nutritional content in 100g of a food or drink.

There are three steps to working out the overall score for the food or drink.

1. Calculate the total 'A' points

A maximum of ten points can be awarded for each ingredient (energy, saturated fat, sugar and sodium). The total 'A' points are the sum of the points scored for each ingredient.

Total 'A' points = [points for energy] + [points for saturated fat] + [points for sugars] + [points for sodium]

| Points | Energy (kJ) | Sat Fat (g) | Total Sugar (g) | Sodium (mg) |
|--------|-------------|-------------|-----------------|-------------|
| 0 | ≤ 335 | ≤ 1 | ≤ 4.5 | ≤ 90 |
| 1 | >335 | >1 | >4.5 | >90 |
| 2 | >670 | >2 | >9 | >180 |
| 3 | >1005 | >3 | >13.5 | >270 |
| 4 | >1340 | >4 | >18 | >360 |
| 5 | >1675 | >5 | >22.5 | >450 |
| 6 | >2010 | >6 | >27 | >540 |
| 7 | >2345 | >7 | >31 | >630 |
| 8 | >2680 | >8 | >36 | >720 |
| 9 | >3015 | >9 | >40 | >810 |
| 10 | >3350 | >10 | >45 | >900 |

If a food or drink scores 11 or more 'A' points then it cannot score points for protein unless it also scores 5 points for fruit, vegetables and nuts.

2. Calculate the total 'C' points

A maximum of five points can be awarded for each ingredient. The total 'C' points are the sum of the points for each ingredient (note that you should choose one or other of the dietary fibre columns according to how the fibre content of the food or beverage was calculated).

Total 'C' points = [points for fruit, vegetables and nut content] + [points for fibre (either NSP or AOAC)] + [points for protein]

NB. Guidance on scoring fruit, vegetables and nut content is available from the Food Standards Agency (<http://www.foodstandards.gov.uk/multimedia/pdfs/nutprofpguide.pdf>).

| Points | Fruit, Veg & Nuts (%) | NSP Fibre (g) | or AOAC Fibre (g) | Protein (mg) |
|--------|-----------------------|---------------|-------------------|--------------|
| 0 | ≤ 40 | ≤ 0.7 | ≤ 0.9 | ≤ 1.6 |
| 1 | >40 | >0.7 | >0.9 | >1.6 |
| 2 | >60 | >1.4 | >1.9 | >3.2 |
| 3 | - | >2.1 | >2.8 | >4.8 |
| 4 | - | >2.8 | >3.7 | >6.4 |
| 5 | >80 | >3.5 | >4.7 | >8.0 |

3. Calculate the overall score

If a food scores less than 11 'A' points then the overall score is calculated as follows:

Overall score = [total 'A' points] minus [total 'C' points].

If a food scores 11 or more 'A' points but scores 5 points for fruit, vegetables and nuts then the overall score is calculated as follows:

Overall score = [total 'A' points] minus [total 'C' points]

If a food scores 11 or more 'A' points but also scores less than 5 points for fruit, vegetables and nuts then the overall score is calculated without reference to the protein value, as follows:

Overall score = [total 'A' points] minus [fibre points + fruit, vegetables and nuts points only]

The model can be adjusted to take account of changes in public health nutritional policy. Within the model any threshold can be defined according to the judgment of the

policy makers and their scientific advisers. For the purposes of the advertising controls introduced in the United Kingdom:

a **food** is classified as 'less healthy' where it scores **4 points or more**, and

a **drink** is classified as 'less healthy' where it scores **1 point or more**.

Frequently asked questions

There are a number of frequently asked questions about how to use the model to calculate scores for products. One of the most frequently asked questions is: 'What counts as a food and what as a drink?' For the purpose of the model a drink is defined as 'any liquid food, excluding oils, soups, condiments (vinegar, salad cream etc.) and dressings.'

Answers to other questions such as 'Should scores be calculated for products as eaten or as sold?', 'How do you calculate the scores for foods where nutritional information is provided by volume rather than weight?' and worked examples are available in technical advice provided by the Food Standards Agency (<http://www.food.gov.uk/multimedia/pdfs/techguidenutprofiling.pdf>).

The model can be adjusted so that points for foods and drinks fall on a scale from 1 to 100 where 1 is the least healthy and 100 is the most healthy product using a simple formula: NUTRITION PROFILING INDEX SCORE = (-2)*OLD SCORE + 70

The table below gives an indication of how the model categorises foods.

Examples of foods that can and cannot be advertised according to the UK Ofcom nutrient profiling model

| Foods that can be advertised (points <4 for foods; <1 for drinks) | Foods that cannot be advertised (score ≥4 for foods; score ≥1 for drinks) |
|--|--|
| Wholemeal and white bread | Potato crisps including low fat |
| Muesli and wheat biscuit cereal with no added sugar | Most breakfast cereals |
| Fresh fruit | Cheddar cheese, half and full fat |
| Most nuts | Butter and margarine |
| Takeaway salads with no dressing or croutons | Most sausages and burgers |
| Most brands of baked beans | Raisins and sultanas |
| Some brands of baked oven chips | Cookies |
| Some brands of chicken nuggets | Confectionary |
| Fish fingers | French fries |
| Chicken breast | Peanut butter |
| Unsweetened fruit juice | Mayonnaise, reduced and full calorie |
| Skimmed, semi-skimmed and whole milk | Most pizzas |
| Diet cola | Sweetened milkshakes |
| | Cola and other carbonated sweetened drinks |

Note that some of these classifications depend on the particular recipe for the product.

Source: Annex II of Rayner M, Scarborough P, Boxer A, Stockley L. Nutrient profiles: Development of final model. London: Food Standards Agency, 2005. (<http://www.food.gov.uk/multimedia/pdfs/nutprofr.pdf>)

Annotated reading list about the UK Ofcom nutrient profile model

The history of the model.

These reports describe the development of the UK Ofcom nutrient profiling model.

1. Rayner M, Scarborough P, Stockley L. Nutrient Profiles: Options for definitions for use in relation to food promotion and children's diets. London: Food Standards Agency, 2004. <http://www.food.gov.uk/multimedia/pdfs/nutrientprofilingfullreport.pdf>
2. Stockley L. Report on a scientific workshop to assess the Food Standards Agency's proposed approach to nutrient profiling. London: Food Standards Agency, 2005. <http://www.food.gov.uk/multimedia/pdfs/nutprofworkshop250205.pdf>
3. Rayner M, Scarborough P, Stockley L, Boxer A. Nutrient Profiles: Further refinement and testing of model SSCg3d. London: Food Standards Agency, 2005. <http://www.food.gov.uk/multimedia/pdfs/npreportsept05.pdf>
4. Rayner M, Scarborough P, Boxer A, Stockley L. Nutrient profiles: Development of final model. London: Food Standards Agency, 2005. <http://www.food.gov.uk/multimedia/pdfs/nutprofr.pdf>

The model was agreed at a board meeting of the UK Food Standards Agency held on 13th October 2005. See the minutes of this meeting. <http://www.food.gov.uk/aboutus/ourboard/boardmeetings/boardmeetings2005/boardmeeting101305/boardminutes131005>

Ofcom agreed to use the model in February 2007. See Office of communications. Television Advertising of Food and Drink Products to Children Final statement. London: Ofcom, 2007. http://www.ofcom.org.uk/consult/condocs/foodads_new/statement/statement.pdf

In 2007 the UK Food Standards Agency set up an Independent Review Panel to assess 'the effectiveness of the nutrient profiling model at differentiating foods on the basis of their nutrient composition'. As part of that review the BHF Health Promotion Research Group was commissioned to carry out a review of nutrient profiling models. See:

5. Stockley L, Rayner M, Kaur A. Nutrient profiles for use in relation to food promotion and children's diet: Update of 2004 literature review. London: Food Standards Agency, 2008. <http://www.food.gov.uk/healthiereating/advertisingtochildren/nutlab/nutprofilereview/nutprofilelitupdatedec07>

The Independent Review Panel finished its work in March 2009. See the report of their review for a board meeting of the UK Food Standards Agency of 25th March 2009. <http://www.food.gov.uk/multimedia/pdfs/board/fsa090306v2.pdf>

At this meeting the UK Food Standards Agency accepted the finding of the Independent Review Panel 'that the nutrient profiling model was generally scientifically robust and fit for purpose' and considered that there was no need to modify the model for the time being. See the minutes of this meeting. <http://www.food.gov.uk/multimedia/pdfs/board/boardmins090325.pdf>

Papers on the model published in peer-reviewed journals

Meanwhile the BHF Health Promotion Research Group has published a series of papers relating to the development of the model and its validation. These publications include the following:

6. Rayner M, Scarborough P, Williams C. The origin of Guideline Daily Amounts and the Food Standards Agency's guidance on what counts as 'a lot' and 'a little'. *Public Health Nutrition* 2003; 7 (4); 549-556.
7. Scarborough P, Rayner M, Stockley L. Developing nutrient profile models: a systematic approach. *Public Health Nutrition* 2007; 10; 330-336.
8. Scarborough P, Rayner M, Stockley L, Black A. Nutrition professionals' perception of the 'healthiness' of individual foods, *Public Health Nutrition* 2007; 10; 346-353.
9. Scarborough P, Boxer A, Rayner M, Stockley L. Testing nutrient profile models using data from a survey of nutrition professionals, *Public Health Nutrition* 2007; 10; 337-345.
10. Arambepola C, Scarborough M, Rayner M. Validating a nutrient profile model, *Public Health Nutrition* 2008; 11; 371-378.
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Table C1. Nutrition information for kids' meal menu items

| Healthy NPI score | Restaurant | Meal name | Part of kids' meal | Individual item | Serving Size (g) | Serving Size (oz) | Total calories (kcal) | Total fat (g) | Saturated fat (g) | Trans fat (g) | Total sugar (g) | Added sugar (g) | Sodium (mg) | Fiber (g) | Protein (g) | NPI score |
|-------------------|------------|-------------------------|--------------------|--|------------------|-------------------|-----------------------|---------------|-------------------|---------------|-----------------|-----------------|-------------|-----------|-------------|-----------|
| | McDonald's | Happy Meal | Main | Hamburger | 100 | 3.5 | 250 | 9 | 3.5 | 0.5 | 6 | 6 | 480 | 2 | 12 | 50 |
| | McDonald's | Happy Meal | Main | Cheeseburger | 114 | 4 | 300 | 12 | 6 | 0.5 | 7 | 7 | 680 | 2 | 15 | 42 |
| | McDonald's | Happy Meal | Main | Chicken McNuggets (4 piece) with hot mustard sauce | 93 | | 250 | 14.5 | 2 | 0 | 6 | 6 | 610 | 3 | 10 | 50 |
| | McDonald's | Happy Meal | Main | Chicken McNuggets (4 piece) with barbeque sauce | 93 | | 240 | 12 | 2 | 0 | 10 | 10 | 620 | 1 | 9 | 44 |
| • | McDonald's | Happy Meal | Side | Apple slices (double portion) | 68 | 2.4 | 30 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 78 |
| • | McDonald's | Happy Meal | Side | Apple slices and kids' fries | 65 | 2.3 | 115 | 5 | 0.5 | 0 | 3 | 0 | 70 | 1 | 1 | 66 |
| • | McDonald's | Happy Meal | Side | Kids' fries (double portion) | 62 | 2.2 | 200 | 10 | 1 | 0 | 0 | 0 | 140 | 2 | 2 | 66 |
| • | McDonald's | Happy Meal | Beverage | 1% low fat milk jug | 236 | 8 | 100 | 2.5 | 1.5 | 0 | 12 | 0 | 125 | 0 | 8 | 72 |
| • | McDonald's | Happy Meal | Beverage | Fat free chocolate milk jug | 236 | 8 | 130 | 0 | 0 | 0 | 22 | 10 | 135 | 0 | 9 | 70 |
| • | McDonald's | Happy Meal | Beverage | Minute Maid apple juice box | 200 | 6.8 | 100 | 0 | 0 | 0 | 22 | 0 | 15 | 0 | 0 | 76 |
| | McDonald's | Happy Meal | Beverage | Coca-Cola Classic | 355 | 12 | 110 | 0 | 0 | 0 | 29 | 29 | 5 | 0 | 0 | 68 |
| • | McDonald's | Happy Meal | Beverage | Diet Coke | 355 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 70 |
| | McDonald's | Happy Meal | Beverage | Sprite | 355 | 12 | 110 | 0 | 0 | 0 | 28 | 28 | 30 | 0 | 0 | 68 |
| | McDonald's | Happy Meal | Beverage | Hi-C Orange Lavaburst | 355 | 12 | 120 | 0 | 0 | 0 | 32 | 32 | 0 | 0 | 0 | 66 |
| | McDonald's | Happy Meal | Beverage | POWERade Mountain Blast | 355 | 12 | 70 | 0 | 0 | 0 | 16 | 16 | 65 | 0 | 0 | 68 |
| • | McDonald's | Happy Meal | Beverage | Iced tea | 355 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 70 |
| | McDonald's | Happy Meal | Beverage | Sweet tea | 355 | 12 | 110 | 0 | 0 | 0 | 27 | 27 | 5 | 0 | 0 | 68 |
| • | McDonald's | Happy Meal | Beverage | Diet Dr Pepper | 259 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 0 | 0 | 70 |
| | McDonald's | Happy Meal | Beverage | Dr Pepper | 259 | 12 | 110 | 0 | 0 | 0 | 28 | 28 | 35 | 0 | 0 | 66 |
| | McDonald's | Mighty Kids' Meal | Main | McDouble | 151 | 5.3 | 390 | 19 | 8 | 1 | 7 | 7 | 850 | 2 | 23 | 42 |
| | McDonald's | Mighty Kids' Meal | Main | Chicken McNuggets (6 piece) with hot mustard sauce | 125 | | 340 | 20.5 | 3 | 0 | 6 | 6 | 790 | 3 | 14 | 48 |
| | McDonald's | Mighty Kids' Meal | Main | Chicken McNuggets (6 piece) with barbeque sauce | 125 | | 330 | 18 | 3 | 0 | 10 | 10 | 800 | 1 | 13 | 44 |
| • | McDonald's | Mighty Kids' Meal | Side | Small french fries and kids' fries | 102 | 3.6 | 330 | 16 | 2 | 0 | 0 | 0 | 230 | 4 | 4 | 68 |
| • | McDonald's | Mighty Kids' Meal | Side | Apple slices (double portion) | 68 | 2.4 | 30 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 78 |
| • | McDonald's | Mighty Kids' Meal | Side | Apple slices and small fries | 105 | | 245 | 11 | 1.5 | 0 | 3 | 0 | 160 | 3 | 3 | 70 |
| • | McDonald's | Mighty Kids' Meal | Beverage | 1% low fat milk jug | 236 | 8 | 100 | 2.5 | 1.5 | 0 | 12 | 0 | 125 | 0 | 8 | 72 |
| • | McDonald's | Mighty Kids' Meal | Beverage | Fat free chocolate milk jug | 236 | 8 | 130 | 0 | 0 | 0 | 22 | 10 | 135 | 0 | 9 | 70 |
| • | McDonald's | Mighty Kids' Meal | Beverage | Minute Maid Apple Juice Box | 200 | 6.8 | 100 | 0 | 0 | 0 | 22 | 0 | 15 | 0 | 0 | 76 |
| • | McDonald's | Mighty Kids' Meal | Beverage | Diet Dr Pepper | 473 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 0 | 0 | 70 |
| | McDonald's | Mighty Kids' Meal | Beverage | Dr Pepper | 473 | 16 | 150 | 0 | 0 | 0 | 39 | 39 | 50 | 0 | 0 | 68 |
| | McDonald's | Mighty Kids' Meal | Beverage | Orange Juice | 473 | 16 | 150 | 0 | 0 | 0 | 30 | 30 | 0 | 0 | 0 | 68 |
| | McDonald's | Mighty Kids' Meal | Beverage | Coca-Cola Classic | 473 | 16 | 150 | 0 | 0 | 0 | 40 | 40 | 10 | 0 | 0 | 68 |
| • | McDonald's | Mighty Kids' Meal | Beverage | Diet Coke | 473 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 70 |
| | McDonald's | Mighty Kids' Meal | Beverage | Sprite | 473 | 16 | 150 | 0 | 0 | 0 | 39 | 39 | 40 | 0 | 0 | 68 |
| | McDonald's | Mighty Kids' Meal | Beverage | Hi-C Orange Lavaburst | 473 | 16 | 160 | 0 | 0 | 0 | 44 | 44 | 5 | 0 | 0 | 66 |
| • | McDonald's | Mighty Kids' Meal | Beverage | POWERade Mountain Blast | 473 | 16 | 100 | 0 | 0 | 0 | 21 | 21 | 85 | 0 | 0 | 70 |
| • | McDonald's | Mighty Kids' Meal | Beverage | Iced tea | 473 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 70 |
| • | McDonald's | Mighty Kids' Meal | Beverage | Sweet tea | 473 | 16 | 150 | 0 | 0 | 0 | 36 | 36 | 10 | 0 | 0 | 68 |
| • | Subway | Fresh Fit for Kids Meal | Main | Kids' Veggie Delite® - wheat bread, no cheese | 108 | | 150 | 1.5 | 0 | 0 | 4 | 4 | 210 | 3 | 6 | 78 |

Source: Menu composition analysis (February 2013)

Table C1. Nutrition information for kids' meal menu items

| Healthy NPI score | Artificial sweeteners | Restaurant | Meal name | Part of kids' meal | Individual item | Serving Size (g) | Serving Size (oz) | Total calories (kcal) | Total fat (g) | Saturated fat (g) | Trans fat (g) | Total sugar (g) | Added sugar (g) | Sodium (mg) | Fiber (g) | Protein (g) | NPI score |
|-------------------|-----------------------|-------------|-------------------------|--------------------|---|------------------|-------------------|-----------------------|---------------|-------------------|---------------|-----------------|-----------------|-------------|-----------|-------------|-----------|
| • | | Subway | Fresh Fit for Kids Meal | Main | Kids' Black Forest Ham - wheat bread, no cheese | 136 | 180 | 2.5 | 0.5 | 0 | 0 | 5 | 5 | 470 | 3 | 10 | 76 |
| • | | Subway | Fresh Fit for Kids Meal | Main | Kids' Roast Beef - wheat bread, no cheese | 146 | 200 | 3 | 1 | 0 | 0 | 5 | 5 | 410 | 4 | 14 | 78 |
| • | | Subway | Fresh Fit for Kids Meal | Main | Kids' Turkey Breast - wheat bread, no cheese | 136 | 180 | 2 | 0.5 | 0 | 0 | 5 | 5 | 460 | 3 | 10 | 76 |
| • | | Subway | Fresh Fit for Kids Meal | Main | Kids' Veggie Delite® - white bread, Amer cheese | 114 | 180 | 5 | 2 | 0 | 0 | 4 | 4 | 400 | 1 | 8 | 72 |
| • | | Subway | Fresh Fit for Kids Meal | Main | Kids' Black Forest Ham - white bread, Amer cheese | 142 | 210 | 6 | 2.5 | 0 | 0 | 5 | 5 | 660 | 1 | 12 | 68 |
| • | | Subway | Fresh Fit for Kids Meal | Main | Kids' Roast Beef - white bread, Amer cheese | 152 | 230 | 6.5 | 3 | 0 | 0 | 5 | 5 | 600 | 2 | 16 | 72 |
| • | | Subway | Fresh Fit for Kids Meal | Main | Kids' Turkey Breast - white bread, Amer cheese | 142 | 210 | 5.5 | 2.5 | 0 | 0 | 5 | 5 | 650 | 1 | 12 | 68 |
| • | | Subway | Fresh Fit for Kids Meal | Side | Apple slices | 71 | 35 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 2 | 0 | 82 |
| • | | Subway | Fresh Fit for Kids Meal | Beverage | 100% juice box | 177 | 6 | 100 | 0 | 0 | 0 | 21 | 0 | 15 | 0 | 0 | 76 |
| • | | Subway | Fresh Fit for Kids Meal | Beverage | Low fat milk | 355 | 12 | 160 | 3.5 | 2.5 | 0 | 17 | 0 | 180 | 0 | 12 | 72 |
| | | Subway | Fresh Fit for Kids Meal | Beverage | Reduced fat chocolate milk | 355 | 12 | 300 | 8 | 5 | 0 | 43 | 26 | 300 | 0 | 15 | 66 |
| | | Subway | Fresh Fit for Kids Meal | Beverage | Reduced fat strawberry milk | 355 | 12 | 300 | 7 | 4.5 | 0 | 42 | 25 | 220 | 0 | 15 | 66 |
| | | Burger King | BK Kids Meal | Main | Hamburger | 101 | 240 | 8 | 3.5 | 0 | 0 | 7 | 7 | 460 | 1 | 12 | 50 |
| | | Burger King | BK Kids Meal | Main | Cheeseburger | 116 | 280 | 12 | 6 | 0 | 0 | 7 | 7 | 690 | 1 | 15 | 40 |
| | | Burger King | BK Kids Meal | Main | Chicken Nuggets (4 piece) with ranch sauce | 98 | 330 | 26 | 4.5 | 0 | 1 | 1 | 590 | 2 | 9 | 46 | |
| | | Burger King | BK Kids Meal | Main | Chicken Nuggets (6 piece) with ranch sauce | 133 | 420 | 32 | 5.5 | 0 | 1 | 1 | 770 | 3 | 14 | 48 | |
| • | | Burger King | BK Kids Meal | Main | Chicken Nuggets (4 piece) with sweet and sour sauce | 98 | 235 | 11 | 2 | 0 | 0 | 10 | 10 | 415 | 2 | 8 | 64 |
| • | | Burger King | BK Kids Meal | Main | Chicken Nugget (6 piece) with sweet and sour sauce | 133 | 325 | 17 | 3 | 0 | 0 | 10 | 10 | 595 | 3 | 13 | 64 |
| • | | Burger King | BK Kids Meal | Side | Apple slices | 57 | 30 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 1 | 0 | 78 |
| | | Burger King | BK Kids Meal | Side | French fries- value | 89 | 240 | 10 | 1.5 | 0 | 0 | 0 | 330 | 3 | 2 | 62 | |
| | | Burger King | BK Kids Meal | Beverage | Hershey's fat free milk | 236 | 8 | 90 | 0 | 0 | 0 | 12 | 0 | 125 | 0 | 9 | 72 |
| • | | Burger King | BK Kids Meal | Beverage | Hershey's 1% low fat chocolate milk | 236 | 8 | 160 | 0 | 0 | 0 | 25 | 13 | 150 | 0 | 8 | 70 |
| | | Burger King | BK Kids Meal | Beverage | Coca Cola Classic | 355 | 12 | 105 | 0 | 0 | 0 | 29 | 29 | 0 | 0 | 0 | 68 |
| • | | Burger King | BK Kids Meal | Beverage | Diet Coke | 355 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 70 |
| | | Burger King | BK Kids Meal | Beverage | Sprite | 355 | 12 | 105 | 0 | 0 | 0 | 29 | 29 | 23 | 0 | 0 | 68 |
| | | Burger King | BK Kids Meal | Beverage | Dr. Pepper | 355 | 12 | 105 | 0 | 0 | 0 | 29 | 29 | 26 | 0 | 0 | 68 |
| | | Burger King | BK Kids Meal | Beverage | Minute Maid Light Lemonade | 355 | 12 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 70 |
| | | Burger King | BK Kids Meal | Beverage | Barq's Root Beer | 355 | 12 | 120 | 0 | 0 | 0 | 35 | 0 | 15 | 0 | 0 | 66 |
| | | Burger King | BK Kids Meal | Beverage | Cherry Coke | 355 | 12 | 113 | 0 | 0 | 0 | 32 | 0 | 4 | 0 | 0 | 66 |
| | | Burger King | BK Kids Meal | Beverage | Fanta Orange | 355 | 12 | 120 | 0 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 66 |
| | | Burger King | BK Kids Meal | Beverage | Hi-C Fruit Punch | 355 | 12 | 113 | 0 | 0 | 0 | 32 | 0 | 11 | 0 | 0 | 66 |
| | | Burger King | BK Kids Meal | Beverage | NESTEA Southern Style Iced Tea | 355 | 12 | 135 | 0 | 0 | 0 | 38 | 0 | 15 | 0 | 0 | 66 |
| | | Burger King | BK Kids Meal | Beverage | NESTEA Sweetened Iced Tea | 355 | 12 | 68 | 0 | 0 | 0 | 18 | 0 | 15 | 0 | 0 | 68 |
| • | | Burger King | BK Kids Meal | Beverage | NESTEA Unsweetened Iced Tea | 355 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 70 |
| | | Burger King | BK Kids Meal | Beverage | Vault | 355 | 12 | 120 | 0 | 0 | 0 | 32 | 0 | 11 | 0 | 0 | 66 |
| • | | Burger King | BK Kids Meal | Beverage | Gold Peak Unsweetened Tea | 355 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 70 |
| | | Burger King | BK Kids Meal | Beverage | Gold Peak Sweet Green Tea | 355 | 12 | 90 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 68 |
| | | Wendy's | Wendy's Kids' Meal | Main | Hamburger | 94 | 250 | 10 | 4 | 0.5 | 5 | 5 | 540 | 1 | 15 | 44 | |
| | | Wendy's | Wendy's Kids' Meal | Main | Cheeseburger | 106 | 290 | 13 | 6 | 0.5 | 5 | 5 | 750 | 1 | 17 | 40 | |

Source: Menu composition analysis (February 2013)

Table C1. Nutrition information for kids' meal menu items

| Healthy NPI score | Artificial sweeteners | Restaurant | Meal name | Part of kids' meal | Individual item | Serving Size (g) | Serving Size (oz) | Total calories (kcal) | Total fat (g) | Saturated fat (g) | Trans fat (g) | Total sugar (g) | Added sugar (g) | Sodium (mg) | Fiber (g) | Protein (g) | NPI score |
|-------------------|-----------------------|------------|--------------------|--------------------|--|------------------|-------------------|-----------------------|---------------|-------------------|---------------|-----------------|-----------------|-------------|-----------|-------------|-----------|
| | | Wendy's | Wendy's Kids' Meal | Main | Crispy chicken sandwich | 120 | 330 | 14 | 3 | 0 | 0 | 4 | 4 | 690 | 2 | 15 | 50 |
| | | Wendy's | Wendy's Kids' Meal | Main | Chicken nuggets (4 piece) with sweet & sour nugget sauce | 88 | 230 | 11 | 2.5 | 0 | 0 | 11 | 11 | 490 | 1 | 8.0 | 46 |
| | | Wendy's | Wendy's Kids' Meal | Main | Chicken nuggets (4 piece) with ranch dipping sauce | 88 | 290 | 23 | 4.0 | 0 | 0 | 2 | 2 | 610 | 1 | 9.0 | 42 |
| • | | Wendy's | Wendy's Kids' Meal | Side | Apple slices | 77 | 230 | 11 | 2.5 | 0 | 0 | 0 | 0 | 250 | 3 | 3 | 80 |
| • | | Wendy's | Wendy's Kids' Meal | Side | Natural-cut french fries- value | 68 | 40 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 2 | 0 | 56 |
| • | | Wendy's | Wendy's Kids' Meal | Beverage | Diet Coke | 236 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 70 |
| | | Wendy's | Wendy's Kids' Meal | Beverage | Sprite | 236 | 8 | 100 | 0 | 0 | 0 | 26 | 26 | 20 | 0 | 0 | 66 |
| | | Wendy's | Wendy's Kids' Meal | Beverage | Coca-Cola | 236 | 8 | 100 | 0 | 0 | 0 | 26 | 26 | 0 | 0 | 0 | 66 |
| • | | Wendy's | Wendy's Kids' Meal | Beverage | Minute Maid Light Lemonade | 236 | 8 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 70 |
| | | Wendy's | Wendy's Kids' Meal | Beverage | Hi-C Flashin' Fruit Punch | 236 | 8 | 100 | 0 | 0 | 0 | 28 | 28 | 10 | 0 | 0 | 66 |
| | | Wendy's | Wendy's Kids' Meal | Beverage | Barq's Root Beer | 236 | 8 | 110 | 0 | 0 | 0 | 30 | 30 | 25 | 0 | 0 | 66 |
| | | Wendy's | Wendy's Kids' Meal | Beverage | Fanta Orange | 236 | 8 | 110 | 0 | 0 | 0 | 29 | 29 | 15 | 0 | 0 | 66 |
| | | Wendy's | Wendy's Kids' Meal | Beverage | Pibb Xtra | 236 | 8 | 90 | 0 | 0 | 0 | 26 | 26 | 15 | 0 | 0 | 66 |
| • | | Wendy's | Wendy's Kids' Meal | Beverage | Coke Zero | 236 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 70 |
| • | | Wendy's | Wendy's Kids' Meal | Beverage | Dr Pepper | 236 | 8 | 90 | 0 | 0 | 0 | 26 | 26 | 25 | 0 | 0 | 66 |
| • | | Wendy's | Wendy's Kids' Meal | Beverage | Juicy Juice Apple Juice | 200 | 6.75 | 90 | 0 | 0 | 0 | 20 | 0 | 5 | 0 | 0 | 76 |
| • | | Wendy's | Wendy's Kids' Meal | Beverage | TruMoo Low Fat White Milk | 236 | 8 | 100 | 2.5 | 1.5 | 0 | 11 | 0 | 125 | 0 | 8 | 72 |
| | | Wendy's | Wendy's Kids' Meal | Beverage | TruMoo Low Fat Chocolate Milk | 236 | 8 | 140 | 2.5 | 1.5 | 0 | 20 | 9 | 170 | 0 | 7 | 70 |
| | | Wendy's | Wendy's Kids' Meal | Beverage | Chocolate Frosty Jr. | 143 | 200 | 5 | 3.5 | 0 | 0 | 28 | 28 | 95 | 0 | 5 | 60 |
| | | Wendy's | Wendy's Kids' Meal | Beverage | Vanilla Frosty Jr. | 139 | 190 | 5 | 3 | 0 | 0 | 28 | 28 | 90 | 0 | 5 | 60 |
| | | Taco Bell | Kid's Meal | Main | Cheese roll-up | 60 | 190 | 9 | 5 | 0 | 1 | 1 | 1 | 450 | 2 | 9 | 38 |
| • | | Taco Bell | Kid's Meal | Main | Crunchy taco | 78 | 170 | 10 | 3.5 | 0 | 1 | 1 | 1 | 290 | 3 | 8 | 68 |
| | | Taco Bell | Kid's Meal | Main | Soft taco - beef | 96 | 200 | 9 | 4 | 0 | 0 | 1 | 1 | 510 | 3 | 10 | 54 |
| • | | Taco Bell | Kid's Meal | Main | Bean burrito | 198 | 370 | 11 | 4 | 0 | 0 | 3 | 3 | 960 | 9 | 13 | 70 |
| | | Taco Bell | Kid's Meal | Side | Cinnamon twists | 35 | 170 | 7 | 0 | 0 | 0 | 10 | 10 | 200 | 1 | 1 | 40 |
| • | | Taco Bell | Kid's Meal | Beverage | Mountain Dew A.M. | 473 | 16 | 160 | 0 | 0 | 0 | 40 | 40 | 45 | 0 | 0 | 70 |
| | | Taco Bell | Kid's Meal | Beverage | MUG Root Beer | 473 | 16 | 200 | 0 | 0 | 0 | 52 | 52 | 30 | 0 | 0 | 66 |
| | | Taco Bell | Kid's Meal | Beverage | Pepsi | 473 | 16 | 200 | 0 | 0 | 0 | 56 | 56 | 40 | 0 | 0 | 66 |
| • | | Taco Bell | Kid's Meal | Beverage | Diet Pepsi | 473 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 0 | 0 | 70 |
| | | Taco Bell | Kid's Meal | Beverage | Sierra Mist | 473 | 16 | 200 | 0 | 0 | 0 | 54 | 54 | 40 | 0 | 0 | 66 |
| | | Taco Bell | Kid's Meal | Beverage | Tropicana Fruit Punch | 473 | 16 | 220 | 0 | 0 | 0 | 60 | 60 | 50 | 0 | 0 | 66 |
| | | Taco Bell | Kid's Meal | Beverage | Tropicana Pink Lemonade | 473 | 16 | 200 | 0 | 0 | 0 | 54 | 54 | 210 | 0 | 0 | 66 |
| • | | Taco Bell | Kid's Meal | Beverage | Lipton Raspberry Iced Tea | 473 | 16 | 160 | 0 | 0 | 0 | 42 | 42 | 50 | 0 | 0 | 68 |
| | | Taco Bell | Kid's Meal | Beverage | Dr. Pepper | 473 | 16 | 200 | 0 | 0 | 0 | 54 | 54 | 70 | 0 | 0 | 66 |
| | | Taco Bell | Kid's Meal | Beverage | Mountain Dew Baja Blast | 473 | 16 | 220 | 0 | 0 | 0 | 58 | 58 | 75 | 0 | 0 | 66 |
| | | KFC | Kids Laptop Meal | Main | Original recipe chicken drumstick | 51 | 120 | 7 | 1.5 | 0 | 0 | 0 | 0 | 310 | 0 | 11 | 60 |
| | | KFC | Kids Laptop Meal | Main | Extra crispy chicken drumstick | 59 | 150 | 10 | 2 | 0 | 0 | 0 | 0 | 360 | 0 | 12 | 46 |
| | | KFC | Kids Laptop Meal | Main | Grilled chicken drumstick | 50 | 90 | 4 | 1 | 0 | 0 | 0 | 0 | 290 | 0 | 13 | 62 |
| | | KFC | Kids Laptop Meal | Main | Popcorn chicken-kids' | 81 | 260 | 17 | 3.5 | 0 | 0 | 0 | 0 | 690 | 1 | 15 | 38 |

Source: Menu composition analysis (February 2013)

Table C1. Nutrition information for kids' meal menu items

| Healthy NPI score | Artificial sweeteners | Restaurant | Meal name | Part of kids' meal | Individual item | Serving Size (g) | Serving Size (oz) | Total calories (kcal) | Total fat (g) | Saturated fat (g) | Trans fat (g) | Total sugar (g) | Added sugar (g) | Sodium (mg) | Fiber (g) | Protein (g) | NPI score | |
|-------------------|-----------------------|------------|------------------|--------------------|---|------------------|-------------------|-----------------------|---------------|-------------------|---------------|-----------------|-----------------|-------------|-----------|-------------|-----------|----|
| • | | KFC | Kids Laptop Meal | Side | Green beans | 86 | 3.0 | 25 | 0 | 0 | 0 | 1 | 1 | 260 | 2 | 1 | 78 | |
| | | KFC | Kids Laptop Meal | Side | Mashed potatoes with gravy | 145 | 5.1 | 120 | 4 | 1 | 0 | 0 | 0 | 530 | 1 | 2 | 60 | |
| • | | KFC | Kids Laptop Meal | Side | Mashed potatoes without gravy | 102 | 3.6 | 90 | 3 | 0.5 | 0 | 0 | 0 | 320 | 1 | 2 | 66 | |
| | | KFC | Kids Laptop Meal | Side | Macaroni and cheese | 135 | 4.8 | 160 | 7 | 2.5 | 0 | 2 | 2 | 720 | 1 | 5 | 60 | |
| • | | KFC | Kids Laptop Meal | Side | Potato wedges | 108 | 3.8 | 290 | 15 | 2.5 | 0 | 0 | 0 | 810 | 2 | 4 | 46 | |
| • | | KFC | Kids Laptop Meal | Side | 3" Corn on the cob | 71 | 2.5 | 70 | 5 | 0.5 | 0 | 3 | 0 | 0 | 2 | 2 | 86 | |
| • | | KFC | Kids Laptop Meal | Side | 5.5" Corn on the cob | 146 | 5.2 | 140 | 10 | 1 | 0 | 5 | 0 | 5 | 4 | 5 | 86 | |
| • | | KFC | Kids Laptop Meal | Side | BBQ baked beans | 138 | 4.9 | 210 | 15 | 1.5 | 0 | 18 | 18 | 18 | 780 | 8 | 8 | 76 |
| • | | KFC | Kids Laptop Meal | Side | Potato salad | 135 | 4.8 | 210 | 11 | 2.5 | 0 | 6 | 6 | 560 | 3 | 2 | 62 | |
| • | | KFC | Kids Laptop Meal | Side | Cole slaw | 114 | 4.1 | 180 | 10 | 1.5 | 0 | 17 | 17 | 150 | 2 | 1 | 70 | |
| • | | KFC | Kids Laptop Meal | Side | Biscuit | 54 | 1.9 | 180 | 8 | 6 | 0 | 2 | 2 | 530 | 1 | 4 | 24 | |
| • | | KFC | Kids Laptop Meal | Side | Sweet kernel corn | 95 | 3.4 | 100 | 5 | 0.5 | 0 | 3 | 0 | 0 | 2 | 3 | 84 | |
| • | | KFC | Kids Laptop Meal | Side | Macaroni salad | 117 | 4.2 | 190 | 10 | 2 | 0 | 6 | 6 | 430 | 1 | 4 | 58 | |
| | | KFC | Kids Laptop Meal | Side | Combread muffin | 52 | 1.8 | 210 | 9 | 1.5 | 0 | 11 | 11 | 240 | 0 | 3 | 38 | |
| • | | KFC | Kids Laptop Meal | Beverage | Capri Sun Roarin' Waters Tropical Fruit | 177 | 6.3 | 30 | 0 | 0 | 0 | 8 | 8 | 15 | 0 | 0 | 68 | |
| | | KFC | Kids Laptop Meal | Beverage | 2% milk | 295 | 10.4 | 170 | 6 | 4 | 0 | 16 | 0 | 180 | 0 | 12 | 70 | |
| • | | KFC | Kids Laptop Meal | Beverage | Pepsi | 473 | 16.8 | 180 | 0 | 0 | 0 | 49 | 49 | 35 | 0 | 0 | 66 | |
| • | • | KFC | Kids Laptop Meal | Beverage | Diet Pepsi | 473 | 16.8 | 0 | 0 | 0 | 0 | 0 | 0 | 45 | 0 | 0 | 70 | |
| • | | KFC | Kids Laptop Meal | Beverage | Wild Cherry Pepsi | 473 | 16.8 | 180 | 0 | 0 | 0 | 49 | 49 | 35 | 0 | 0 | 66 | |
| • | | KFC | Kids Laptop Meal | Beverage | Sierra Mist | 473 | 16.8 | 180 | 0 | 0 | 0 | 47 | 47 | 35 | 0 | 0 | 66 | |
| • | | KFC | Kids Laptop Meal | Beverage | Diet Sierra Mist | 473 | 16.8 | 0 | 0 | 0 | 0 | 0 | 0 | 45 | 0 | 0 | 70 | |
| • | | KFC | Kids Laptop Meal | Beverage | Mirinda Strawberry | 473 | 16.8 | 190 | 0 | 0 | 0 | 51 | 51 | 90 | 0 | 0 | 66 | |
| • | | KFC | Kids Laptop Meal | Beverage | Manzanita Sol | 473 | 16.8 | 190 | 0 | 0 | 0 | 0 | 49 | 45 | 0 | 0 | 70 | |
| • | | KFC | Kids Laptop Meal | Beverage | Lipton Brisk tea | 473 | 16.8 | 0 | 0 | 0 | 0 | 0 | 0 | 55 | 0 | 0 | 70 | |
| • | | KFC | Kids Laptop Meal | Beverage | Lipton Brisk lemon tea | 473 | 16.8 | 120 | 0 | 0 | 0 | 35 | 35 | 25 | 0 | 0 | 68 | |
| • | | KFC | Kids Laptop Meal | Beverage | Lipton Brisk green with peach tea | 473 | 16.8 | 0 | 0 | 0 | 0 | 0 | 0 | 125 | 0 | 0 | 70 | |
| • | | KFC | Kids Laptop Meal | Beverage | Lipton Brisk peach tea | 473 | 16.8 | 140 | 0 | 0 | 0 | 37 | 37 | 45 | 0 | 0 | 68 | |
| • | | KFC | Kids Laptop Meal | Beverage | Lipton Brisk raspberry tea | 473 | 16.8 | 140 | 0 | 0 | 0 | 37 | 37 | 45 | 0 | 0 | 68 | |
| • | | KFC | Kids Laptop Meal | Beverage | Mountain Dew | 473 | 16.8 | 190 | 0 | 0 | 0 | 51 | 51 | 60 | 0 | 0 | 66 | |
| • | | KFC | Kids Laptop Meal | Beverage | Diet Mountain Dew | 473 | 16.8 | 190 | 0 | 0 | 0 | 0 | 0 | 70 | 0 | 0 | 70 | |
| • | | KFC | Kids Laptop Meal | Beverage | Code Red Mountain Dew | 473 | 16.8 | 180 | 0 | 0 | 0 | 54 | 54 | 60 | 0 | 0 | 66 | |
| • | | KFC | Kids Laptop Meal | Beverage | Tropicana lemonade | 473 | 16.8 | 180 | 0 | 0 | 0 | 47 | 47 | 185 | 0 | 0 | 66 | |
| • | | KFC | Kids Laptop Meal | Beverage | Tropicana sugar free lemonade | 473 | 16.8 | 180 | 0 | 0 | 0 | 0 | 0 | 165 | 0 | 0 | 70 | |
| • | | KFC | Kids Laptop Meal | Beverage | Tropicana pink lemonade | 473 | 16.8 | 180 | 0 | 0 | 0 | 47 | 47 | 185 | 0 | 0 | 66 | |
| • | | KFC | Kids Laptop Meal | Beverage | Tropicana fruit punch | 473 | 16.8 | 190 | 0 | 0 | 0 | 53 | 53 | 45 | 0 | 0 | 66 | |
| • | | KFC | Kids Laptop Meal | Beverage | Tropicana Twister orange | 473 | 16.8 | 190 | 0 | 0 | 0 | 53 | 53 | 45 | 0 | 0 | 66 | |
| • | | KFC | Kids Laptop Meal | Beverage | Mug root beer | 473 | 16.8 | 180 | 0 | 0 | 0 | 46 | 46 | 25 | 0 | 0 | 66 | |
| • | | KFC | Kids Laptop Meal | Beverage | Dr Pepper | 473 | 16.8 | 180 | 0 | 0 | 0 | 47 | 47 | 60 | 0 | 0 | 66 | |
| • | | KFC | Kids Laptop Meal | Beverage | Diet Dr Pepper | 473 | 16.8 | 0 | 0 | 0 | 0 | 0 | 0 | 60 | 0 | 0 | 70 | |

Source: Menu composition analysis (February 2013)

Table C1. Nutrition information for kids' meal menu items

| Healthy NPI score | Artificial sweeteners | Restaurant | Meal name | Part of kids' meal | Individual item | Serving Size (g) | Serving Size (oz) | Total calories (kcal) | Total fat (g) | Saturated fat (g) | Trans fat (g) | Total sugar (g) | Added sugar (g) | Sodium (mg) | Fiber (g) | Protein (g) | NPI score |
|-------------------|-----------------------|------------|-----------------------|--------------------|--|------------------|-------------------|-----------------------|---------------|-------------------|---------------|-----------------|-----------------|-------------|-----------|-------------|-----------|
| | | KFC | Kids Laptop Meal | Beverage | 7UP | 473 | 16 | 180 | 0 | 0 | 0 | 45 | 45 | 55 | 0 | 0 | 66 |
| • | | KFC | Kids Laptop Meal | Beverage | Pepsi MAX | 473 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 45 | 0 | 0 | 70 |
| | | KFC | Kids Laptop Meal | Snack/dessert | Sargento light string cheese | 21 | | 50 | 2.5 | 1.5 | 0 | 0 | 0 | 160 | 0 | 6 | 36 |
| | | Sonic | Wacky Pack Kid's Meal | Main | Grilled cheese sandwich | 121 | | 410 | 18 | 7 | 0 | 6 | 6 | 1040 | 1 | 14 | 32 |
| | | Sonic | Wacky Pack Kid's Meal | Main | Chicken strips (2 piece) | 70 | | 200 | 11 | 2 | 0 | 0 | 0 | 470 | 1 | 14 | 48 |
| | | Sonic | Wacky Pack Kid's Meal | Main | Jr. burger | 127 | | 340 | 17 | 6 | 0.5 | 6 | 6 | 640 | 1 | 15 | 44 |
| | | Sonic | Wacky Pack Kid's Meal | Main | Corn dog | 74 | | 210 | 11 | 3.5 | 0 | 4 | 4 | 530 | 2 | 6 | 44 |
| | | Sonic | Wacky Pack Kid's Meal | Main | Regular hot dog | 106 | | 320 | 18 | 7 | 0 | 3 | 3 | 870 | 1 | 11 | 36 |
| | | Sonic | Wacky Pack Kid's Meal | Main | Jr. deluxe cheeseburger | 162 | | 450 | 28 | 9 | 0.5 | 4 | 4 | 800 | 1 | 19 | 44 |
| | | Sonic | Wacky Pack Kid's Meal | Side | Tots - small | 90 | | 220 | 12 | 2 | 0 | 0 | 0 | 560 | 2 | 2 | 52 |
| • | | Sonic | Wacky Pack Kid's Meal | Side | French fries - small | 71 | | 220 | 10 | 2 | 0 | 0 | 0 | 220 | 2 | 3 | 64 |
| • | | Sonic | Wacky Pack Kid's Meal | Side | Apple slices | 68 | | 35 | 0 | 0 | 0 | 7 | 0 | 0 | 2 | 0 | 82 |
| • | | Sonic | Wacky Pack Kid's Meal | Side | Apple slices with fat-free caramel dipping sauce | 96 | | 110 | 0 | 0 | 0 | 15 | 8 | 60 | 2 | 0 | 70 |
| • | | Sonic | Wacky Pack Kid's Meal | Beverage | 1% milk | 244 | | 110 | 2.5 | 1.5 | 0 | 12 | 0 | 130 | 0 | 8 | 72 |
| • | | Sonic | Wacky Pack Kid's Meal | Beverage | 1% chocolate milk | 244 | | 160 | 2.5 | 1.5 | 0 | 25 | 13 | 210 | 0 | 8 | 70 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Lemon real fruit slush | 355 | 12 | 170 | 0 | 0 | 0 | 43 | 43 | 25 | 0 | 0 | 66 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Lemon-berry real fruit slush | 355 | 12 | 160 | 0 | 0 | 0 | 43 | 43 | 25 | 0 | 0 | 66 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Lime real fruit slush | 355 | 12 | 170 | 0 | 0 | 0 | 43 | 43 | 25 | 0 | 0 | 66 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Strawberry real fruit slush | 355 | 12 | 160 | 0 | 0 | 0 | 43 | 43 | 25 | 0 | 0 | 66 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Cherry slush | 355 | 12 | 170 | 0 | 0 | 0 | 45 | 45 | 25 | 0 | 0 | 66 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Grape slush | 355 | 12 | 170 | 0 | 0 | 0 | 44 | 44 | 30 | 0 | 0 | 66 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Orange slush | 355 | 12 | 170 | 0 | 0 | 0 | 45 | 45 | 25 | 0 | 0 | 66 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Blue coconut slush | 355 | 12 | 170 | 0 | 0 | 0 | 43 | 43 | 25 | 0 | 0 | 66 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Watermelon slush | 355 | 12 | 170 | 0 | 0 | 0 | 45 | 45 | 25 | 0 | 0 | 66 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Green apple slush | 355 | 12 | 180 | 0 | 0 | 0 | 45 | 45 | 25 | 0 | 0 | 66 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Minute Maid cranberry juice slush | 355 | 12 | 170 | 0 | 0 | 0 | 45 | 45 | 25 | 0 | 0 | 66 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Coca-Cola | 355 | 12 | 110 | 0 | 0 | 0 | 30 | 30 | 5 | 0 | 0 | 68 |
| • | | Sonic | Wacky Pack Kid's Meal | Beverage | Diet Coke | 355 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 70 |
| • | | Sonic | Wacky Pack Kid's Meal | Beverage | Diet Dr Pepper | 355 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 55 | 0 | 0 | 70 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Dr Pepper | 355 | 12 | 100 | 0 | 0 | 0 | 29 | 29 | 35 | 0 | 0 | 68 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Sprite | 355 | 12 | 110 | 0 | 0 | 0 | 29 | 29 | 25 | 0 | 0 | 68 |
| • | | Sonic | Wacky Pack Kid's Meal | Beverage | Sprite Zero | 355 | 12 | 5 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 70 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Barq's root beer | 355 | 12 | 130 | 0 | 0 | 0 | 34 | 34 | 25 | 0 | 0 | 66 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Hi-C fruit punch | 355 | 12 | 120 | 0 | 0 | 0 | 31 | 31 | 10 | 0 | 0 | 68 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Fanta orange | 355 | 12 | 120 | 0 | 0 | 0 | 33 | 33 | 5 | 0 | 0 | 66 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Mello Yello | 355 | 12 | 120 | 0 | 0 | 0 | 33 | 33 | 10 | 0 | 0 | 66 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Minute Maid cranberry | 355 | 12 | 130 | 0 | 0 | 0 | 35 | 35 | 15 | 0 | 0 | 66 |
| • | | Sonic | Wacky Pack Kid's Meal | Beverage | Minute Maid orange juice | 355 | 12 | 130 | 0 | 0 | 0 | 27 | 27 | 20 | 0 | 0 | 68 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Iced tea | 355 | 12 | 5 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 70 |

Source: Menu composition analysis (February 2013)

Table C1. Nutrition information for kids' meal menu items

| Healthy NPI score | Artificial sweeteners | Restaurant | Meal name | Part of kids' meal | Individual item | Serving Size (g) | Serving Size (oz) | Total calories (kcal) | Total fat (g) | Saturated fat (g) | Trans fat (g) | Total sugar (g) | Added sugar (g) | Sodium (mg) | Fiber (g) | Protein (g) | NPI score |
|-------------------|-----------------------|-----------------|-----------------------|--------------------|---|------------------|-------------------|-----------------------|---------------|-------------------|---------------|-----------------|-----------------|-------------|-----------|-------------|-----------|
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Sweet iced tea | 355 | 12 | 120 | 0 | 0 | 0 | 30 | 30 | 5 | 0 | 0 | 68 |
| • | | Sonic | Wacky Pack Kid's Meal | Beverage | Raspberry iced tea | 355 | 12 | 5 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 70 |
| • | | Sonic | Wacky Pack Kid's Meal | Beverage | Peach iced tea | 355 | 12 | 5 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 70 |
| • | | Sonic | Wacky Pack Kid's Meal | Beverage | Cranberry tea | 355 | 12 | 20 | 0 | 0 | 0 | 5 | 5 | 10 | 0 | 0 | 70 |
| • | | Sonic | Wacky Pack Kid's Meal | Beverage | Diet green tea | 355 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 70 |
| • | | Sonic | Wacky Pack Kid's Meal | Beverage | Limeade | 355 | 12 | 110 | 0 | 0 | 0 | 29 | 29 | 25 | 0 | 0 | 68 |
| • | | Sonic | Wacky Pack Kid's Meal | Beverage | Lo-cal diet lime limeade | 355 | 12 | 5 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 70 |
| • | | Sonic | Wacky Pack Kid's Meal | Beverage | Cherry limeade | 355 | 12 | 140 | 0 | 0 | 0 | 36 | 36 | 30 | 0 | 0 | 66 |
| • | | Sonic | Wacky Pack Kid's Meal | Beverage | Lo-cal diet cherry+ limeade | 355 | 12 | 10 | 0 | 0 | 0 | 1 | 1 | 10 | 0 | 0 | 70 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Strawberry limeade | 355 | 12 | 120 | 0 | 0 | 0 | 32 | 32 | 25 | 0 | 0 | 66 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Minute Maid cranberry limeade | 355 | 12 | 120 | 0 | 0 | 0 | 32 | 32 | 25 | 0 | 0 | 66 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | POWERADE Mountain Blast | 355 | 12 | 70 | 0 | 0 | 0 | 19 | 19 | 60 | 0 | 0 | 68 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | POWERADE Mountain Blast slush | 355 | 12 | 170 | 0 | 0 | 0 | 46 | 46 | 45 | 0 | 0 | 66 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Ocean Water | 355 | 12 | 120 | 0 | 0 | 0 | 32 | 32 | 25 | 0 | 0 | 66 |
| • | | Sonic | Wacky Pack Kid's Meal | Beverage | Coke Zero | 355 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 0 | 0 | 70 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Minute Maid lemonade | 355 | 12 | 140 | 0 | 0 | 0 | 36 | 36 | 55 | 0 | 0 | 66 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Minute Maid Apple Juice Box | 200 | 6.75 | 100 | 0 | 0 | 0 | 21 | 21 | 15 | 0 | 0 | 66 |
| | | Sonic | Wacky Pack Kid's Meal | Beverage | Green tea | 355 | 12 | 90 | 0 | 0 | 0 | 23 | 23 | 10 | 0 | 0 | 68 |
| | | Arby's | Kids Menu | Main | Jr turkey and cheese sandwich | 101 | | 210 | 5 | 2 | 0 | 4 | 4 | 730 | 1 | 16 | 50 |
| • | | Arby's | Kids Menu | Main | Kraft Macaroni and Cheese | 113 | | 170 | 5 | 1.5 | 0 | 4 | 4 | 350 | 1 | 6 | 66 |
| | | Arby's | Kids Menu | Main | Prime-cut chicken tenders (2 piece) | 87 | | 230 | 11 | 1.5 | 0 | 0 | 0 | 650 | 1 | 17 | 48 |
| • | | Arby's | Kids Menu | Main | Jr roast beef | 87 | | 210 | 6 | 2 | 0 | 3 | 3 | 520 | 1 | 12 | 50 |
| • | | Arby's | Kids Menu | Side | Apple slices | 62 | | 35 | 0 | 0 | 0 | 6 | 6 | 0 | 0 | 0 | 78 |
| • | | Arby's | Kids Menu | Side | Apple slices with strawberry yogurt dip | 105 | | 85 | 0 | 0 | 0 | 14 | 8 | 30 | 1 | 1 | 68 |
| | | Arby's | Kids Menu | Side | Curly fries- kids | 77 | | 240 | 13 | 2 | 0 | 0 | 0 | 540 | 3 | 3 | 54 |
| • | | Arby's | Kids Menu | Beverage | Capri Sun 100% fruit juice- fruit punch | 177 | 6 | 80 | 0 | 0 | 0 | 20 | 0 | 25 | 0 | 0 | 76 |
| • | | Arby's | Kids Menu | Beverage | Shamrock Farms lowfat whole milk | 207 | 7 | 90 | 2 | 1.5 | 0 | 10 | 0 | 105 | 0 | 7 | 72 |
| • | | Arby's | Kids Menu | Beverage | Shamrock Farms lowfat chocolate milk | 207 | 7 | 150 | 2.5 | 1.5 | 0 | 23 | 13 | 170 | 1 | 7 | 70 |
| • | | Arby's | Kids Menu | Beverage | Nestle Pure Life bottled water | 500 | 16.9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 70 |
| • | | Arby's | Kids Menu | Beverage | Brewed Iced Tea | 355 | 12 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 70 |
| | | Arby's | Kids Menu | Beverage | Pepsi | 355 | 12 | 180 | 0 | 0 | 0 | 49 | 49 | 0 | 0 | 0 | 64 |
| • | | Arby's | Kids Menu | Beverage | Diet Pepsi | 355 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 70 |
| | | Arby's | Kids Menu | Beverage | Mountain Dew | 355 | 12 | 200 | 0 | 0 | 0 | 54 | 54 | 25 | 0 | 0 | 64 |
| | | Arby's | Kids Menu | Beverage | Sierra Mist | 355 | 12 | 190 | 0 | 0 | 0 | 50 | 50 | 0 | 0 | 0 | 64 |
| | | Arby's | Kids Menu | Beverage | Dr Pepper | 355 | 12 | 180 | 0 | 0 | 0 | 48 | 48 | 45 | 0 | 0 | 64 |
| | | Jack in the Box | Kids' Meal | Main | Chicken Nuggets (5 piece) with BBQ dipping sauce | 105 | | 280 | 17 | 2 | 0 | 9 | 9 | 660 | 1 | 9 | 50 |
| | | Jack in the Box | Kids' Meal | Main | Chicken Nuggets (5 piece) with buttermilk dipping sauce | 102 | | 370 | 30 | 4 | 0 | 0 | 0 | 510 | 1 | 9 | 48 |
| | | Jack in the Box | Kids' Meal | Main | Chicken sandwich | 147 | | 410 | 21 | 3.5 | 0 | 4 | 4 | 880 | 2 | 15 | 50 |
| | | Jack in the Box | Kids' Meal | Main | Chicken strips, crispy (2 piece) | 98 | | 280 | 12 | 1.5 | 0 | 0 | 0 | 790 | 1 | 17 | 48 |

Source: Menu composition analysis (February 2013)

Table C1. Nutrition information for kids' meal menu items

| Healthy NPI score | Artificial sweeteners | Restaurant | Meal name | Part of kids' meal | Individual item | Serving Size (g) | Serving Size (oz) | Total calories (kcal) | Total fat (g) | Saturated fat (g) | Trans fat (g) | Total sugar (g) | Added sugar (g) | Sodium (mg) | Fiber (g) | Protein (g) | NPI score |
|-------------------|-----------------------|-----------------|------------|--------------------|---|------------------|-------------------|-----------------------|---------------|-------------------|---------------|-----------------|-----------------|-------------|-----------|-------------|-----------|
| • | | Jack in the Box | Kids' Meal | Main | Chicken strips, grilled (2 piece) | 100 | 3.5 | 130 | 4 | 1 | 0 | 1 | 1 | 540 | 0 | 22 | 68 |
| | | Jack in the Box | Kids' Meal | Main | Grilled cheese | 94 | 3.3 | 330 | 16 | 6 | 0 | 3 | 3 | 800 | 2 | 11 | 36 |
| | | Jack in the Box | Kids' Meal | Main | Hamburger | 105 | 3.7 | 280 | 11 | 4 | 0.5 | 5 | 5 | 680 | 1 | 14 | 44 |
| | | Jack in the Box | Kids' Meal | Main | Hamburger with cheese | 116 | 4.1 | 320 | 14 | 6 | 1 | 6 | 6 | 880 | 1 | 16 | 36 |
| • | | Jack in the Box | Kids' Meal | Side | Chiquita Apple Bites with caramel | 76 | 2.7 | 70 | 0 | 0 | 0 | 13 | 7 | 55 | 2 | 0 | 70 |
| | | Jack in the Box | Kids' Meal | Side | French fries- kids | 72 | 2.6 | 230 | 10 | 1 | 0 | 0 | 0 | 410 | 2 | 3 | 58 |
| | | Jack in the Box | Kids' Meal | Side | Seasoned curly fries- kids | 60 | 2.1 | 200 | 11 | 1 | 0 | 0 | 0 | 440 | 2 | 2 | 50 |
| | | Jack in the Box | Kids' Meal | Beverage | Barq's Root Beer | 473 | 16.8 | 180 | 0 | 0 | 0 | 54 | 54 | 40 | 0 | 0 | 66 |
| | | Jack in the Box | Kids' Meal | Beverage | Coca-Cola Classic | 473 | 16.8 | 180 | 0 | 0 | 0 | 50 | 50 | 0 | 0 | 0 | 66 |
| • | • | Jack in the Box | Kids' Meal | Beverage | Diet Coke | 473 | 16.8 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 70 |
| • | • | Jack in the Box | Kids' Meal | Beverage | Diet Dr Pepper | 473 | 16.8 | 0 | 0 | 0 | 0 | 0 | 0 | 65 | 0 | 0 | 70 |
| | | Jack in the Box | Kids' Meal | Beverage | Dr Pepper | 473 | 16.8 | 180 | 0 | 0 | 0 | 45 | 45 | 70 | 0 | 0 | 66 |
| | | Jack in the Box | Kids' Meal | Beverage | Fanta orange | 473 | 16.8 | 160 | 0 | 0 | 0 | 44 | 44 | 50 | 0 | 0 | 66 |
| | | Jack in the Box | Kids' Meal | Beverage | Fanta strawberry | 473 | 16.8 | 160 | 0 | 0 | 0 | 44 | 44 | 15 | 0 | 0 | 66 |
| • | | Jack in the Box | Kids' Meal | Beverage | Gold Peak fresh brewed iced tea | 473 | 16.8 | 5 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 70 |
| | | Jack in the Box | Kids' Meal | Beverage | Hi-C fruit punch | 473 | 16.8 | 210 | 0 | 0 | 0 | 55 | 55 | 10 | 0 | 0 | 66 |
| | | Jack in the Box | Kids' Meal | Beverage | Minute Maid lemonade | 473 | 16.8 | 180 | 0 | 0 | 0 | 45 | 45 | 75 | 0 | 0 | 66 |
| • | | Jack in the Box | Kids' Meal | Beverage | 2% reduced fat milk | 236 | 8.4 | 120 | 4.5 | 2.5 | 0 | 12 | 0 | 120 | 0 | 9 | 70 |
| | | Jack in the Box | Kids' Meal | Beverage | Sprite | 473 | 16.8 | 180 | 0 | 0 | 0 | 45 | 45 | 40 | 0 | 0 | 66 |
| | | Chick-fil-A | Kid's Meal | Main | Chick-n-Strips (2 piece) | 102 | 3.6 | 240 | 12 | 2.5 | 0 | 1 | 1 | 660 | 1 | 22 | 50 |
| | | Chick-fil-A | Kid's Meal | Main | Chick-n-Strips (1 piece) | 51 | 1.8 | 120 | 6 | 1 | 0 | 1 | 1 | 330 | 0 | 11 | 60 |
| | | Chick-fil-A | Kid's Meal | Main | Nuggets (4 piece) with BBQ sauce | 80 | 2.8 | 175 | 6 | 2 | 0 | 10 | 10 | 710 | 0 | 14 | 40 |
| | | Chick-fil-A | Kid's Meal | Main | Nuggets (6 piece) with BBQ sauce | 104 | 3.7 | 245 | 10 | 2 | 0 | 10 | 10 | 970 | 1 | 21 | 42 |
| | | Chick-fil-A | Kid's Meal | Main | Nuggets (4 piece) with buttermilk ranch sauce | 73 | 2.6 | 240 | 17 | 3 | 0 | 2 | 2 | 730 | 0 | 14 | 34 |
| | | Chick-fil-A | Kid's Meal | Main | Nuggets (6 piece) with buttermilk ranch sauce | 97 | 3.4 | 310 | 21 | 3.5 | 0 | 2 | 2 | 990 | 1 | 21 | 40 |
| | | Chick-fil-A | Kid's Meal | Main | Grilled Nuggets (4 piece) with BBQ sauce | 69 | 2.4 | 125 | 1 | 0 | 0 | 9 | 9 | 740 | 0 | 17 | 42 |
| | | Chick-fil-A | Kid's Meal | Main | Grilled Nuggets (4 piece) with buttermilk ranch sauce | 62 | 2.2 | 190 | 12 | 1.5 | 0 | 1 | 1 | 760 | 0 | 17 | 40 |
| | | Chick-fil-A | Kid's Meal | Main | Grilled Nuggets (6 piece) with BBQ sauce | 88 | 3.1 | 155 | 2 | 0 | 0 | 9 | 9 | 1020 | 0 | 25 | 42 |
| | | Chick-fil-A | Kid's Meal | Main | Grilled Nuggets (6 piece) with buttermilk ranch sauce | 81 | 2.9 | 220 | 12.5 | 1.5 | 0 | 1 | 1 | 1040 | 0 | 25 | 42 |
| • | | Chick-fil-A | Kid's Meal | Side | Waffle potato fries | 42 | 1.5 | 310 | 16 | 2.5 | 0 | 0 | 0 | 140 | 3 | 3 | 46 |
| • | | Chick-fil-A | Kid's Meal | Side | Fruit cup | 88 | 3.1 | 45 | 0 | 0 | 0 | 10 | 0 | 0 | 1 | 0 | 78 |
| • | | Chick-fil-A | Kid's Meal | Side | Cinnamon apple sauce (Buddy Fruits) | 91 | 3.2 | 60 | 0 | 0 | 0 | 14 | 0 | 10 | 0 | 0 | 74 |
| • | | Chick-fil-A | Kid's Meal | Beverage | Low-fat milk | 207 | 7.4 | 90 | 2 | 1.5 | 0 | 11 | 0 | 95 | 0 | 7 | 72 |
| • | | Chick-fil-A | Kid's Meal | Beverage | Chocolate low-fat milk | 207 | 7.4 | 150 | 2.5 | 1.5 | 0 | 23 | 12 | 170 | 0 | 7 | 70 |
| • | | Chick-fil-A | Kid's Meal | Beverage | Minute Maid apple juice | 200 | 7.1 | 100 | 0 | 0 | 0 | 21 | 0 | 15 | 0 | 0 | 76 |
| | | Chick-fil-A | Kid's Meal | Beverage | Iced tea- sweetened | 355 | 12.7 | 70 | 0 | 0 | 0 | 18 | 18 | 5 | 0 | 0 | 68 |
| • | | Chick-fil-A | Kid's Meal | Beverage | Iced tea- unsweetened | 355 | 12.7 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 70 |
| • | | Chick-fil-A | Kid's Meal | Beverage | Lemonade | 355 | 12.7 | 150 | 0 | 0 | 0 | 36 | 36 | 5 | 0 | 0 | 66 |
| • | | Chick-fil-A | Kid's Meal | Beverage | Diet lemonade | 355 | 12.7 | 10 | 0 | 0 | 0 | 1 | 1 | 5 | 0 | 0 | 70 |

Source: Menu composition analysis (February 2013)

Table C1. Nutrition information for kids' meal menu items

| Healthy NPI score | Restaurant | Meal name | Part of kids' meal | Individual item | Serving Size (g) | Total calories (kcal) | Total fat (g) | Saturated fat (g) | Trans fat (g) | Total sugar (g) | Added sugar (g) | Sodium (mg) | Fiber (g) | Protein (g) | NPI score |
|-------------------|--------------|-------------|--------------------|--|------------------|-----------------------|---------------|-------------------|---------------|-----------------|-----------------|-------------|-----------|-------------|-----------|
| • | Chick-fil-A | Kid's Meal | Beverage | Coca-Cola | 355 | 110 | 0 | 0 | 0 | 30 | 30 | 10 | 0 | 0 | 68 |
| • | Chick-fil-A | Kid's Meal | Beverage | Diet Coke | 355 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 70 |
| | Chick-fil-A | Kid's Meal | Beverage | Dr Pepper | 355 | 110 | 0 | 0 | 0 | 30 | 30 | 40 | 0 | 0 | 68 |
| | Panera Bread | Panera Kids | Main | Roast beef deli sandwich on all-natural white loaf | 139 | 310 | 10 | 6 | 0 | 4 | 4 | 730 | 2 | 23 | 50 |
| | Panera Bread | Panera Kids | Main | Mac & cheese | 218 | 490 | 30 | 13 | 0.5 | 7 | 7 | 1240 | 1 | 17 | 44 |
| | Panera Bread | Panera Kids | Main | Smoked ham deli sandwich on all-natural white loaf | 139 | 300 | 9 | 6 | 0 | 3 | 3 | 970 | 1 | 20 | 44 |
| | Panera Bread | Panera Kids | Main | Smoked turkey deli sandwich on all-natural white loaf | 139 | 280 | 8 | 5 | 0 | 3 | 3 | 1010 | 1 | 21 | 44 |
| | Panera Bread | Panera Kids | Main | Grilled cheese sandwich on all-natural white loaf | 143 | 400 | 13 | 10 | 0 | 6 | 6 | 1000 | 2 | 18 | 40 |
| | Panera Bread | Panera Kids | Main | Peanut butter and jelly sandwich on all-natural white loaf | 118 | 400 | 17 | 3.5 | 0 | 21 | 21 | 470 | 3 | 11 | 48 |
| • | Panera Bread | Panera Kids | Side | Organic yogurt (blueberry, strawberry) | 57 | 60 | 0.5 | 0 | 0 | 10 | 10 | 40 | 0 | 2 | 66 |
| • | Panera Bread | Panera Kids | Beverage | Premium orange juice | 340 | 160 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 3 | 78 |
| • | Panera Bread | Panera Kids | Beverage | Organic milk | 236 | 120 | 4.5 | 3 | 0 | 12 | 0 | 115 | 0 | 8 | 70 |
| • | Panera Bread | Panera Kids | Beverage | Organic chocolate milk | 236 | 150 | 2.5 | 1.5 | 0 | 22 | 10 | 160 | 0 | 8 | 70 |
| • | Panera Bread | Panera Kids | Beverage | Organic apple juice | 236 | 120 | 0 | 0 | 0 | 29 | 0 | 25 | 0 | 0 | 76 |
| | Dairy Queen | Kid's Meal | Main | Chicken strips (2 piece) | 81 | 220 | 12 | 2 | 0 | 0 | 0 | 750 | 2 | 13 | 44 |
| | Dairy Queen | Kid's Meal | Main | Iron grilled cheese sandwich | 103 | 320 | 13 | 8 | 0 | 2 | 2 | 960 | 1 | 13 | 32 |
| | Dairy Queen | Kid's Meal | Main | Original cheeseburger | 156 | 400 | 18 | 9 | 0.5 | 8 | 8 | 930 | 1 | 19 | 40 |
| | Dairy Queen | Kid's Meal | Main | All-beef hot dog | 110 | 290 | 17 | 7 | 0.5 | 4 | 4 | 900 | 1 | 11 | 36 |
| • | Dairy Queen | Kid's Meal | Side | French fries - kids' | 71 | 190 | 8 | 1 | 0 | 0 | 0 | 400 | 2 | 2 | 58 |
| • | Dairy Queen | Kid's Meal | Side | Applesauce | 113 | 90 | 0 | 0 | 0 | 22 | 22 | 30 | 1 | 0 | 72 |
| | Dairy Queen | Kid's Meal | Side | Banana | 126 | 110 | 0 | 0 | 0 | 15 | 0 | 0 | 3 | 1 | 78 |
| | Dairy Queen | Kid's Meal | Beverage | 2% milk | 236 | 110 | 4.5 | 3 | 0 | 11 | 11 | 105 | 0 | 0 | 66 |
| | Dairy Queen | Kid's Meal | Beverage | Coca-Cola | 355 | 120 | 0 | 0 | 0 | 43 | 43 | 10 | 0 | 0 | 66 |
| | Dairy Queen | Kid's Meal | Beverage | Pepsi | 355 | 120 | 0 | 0 | 0 | 44 | 44 | 40 | 0 | 0 | 66 |
| • | Dairy Queen | Kid's Meal | Beverage | Diet Coke | 355 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 70 |
| • | Dairy Queen | Kid's Meal | Beverage | Diet Pepsi | 355 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 0 | 0 | 70 |
| | Dairy Queen | Kid's Meal | Beverage | Sprite | 355 | 120 | 0 | 0 | 0 | 42 | 42 | 40 | 0 | 0 | 66 |
| | Dairy Queen | Kid's Meal | Beverage | Sierra Mist | 355 | 120 | 0 | 0 | 0 | 43 | 43 | 45 | 0 | 0 | 66 |
| | Dairy Queen | Kid's Meal | Beverage | Barq's Root Beer | 355 | 120 | 0 | 0 | 0 | 48 | 48 | 40 | 0 | 0 | 64 |
| | Dairy Queen | Kid's Meal | Beverage | Mug Root Beer | 355 | 120 | 0 | 0 | 0 | 47 | 47 | 65 | 0 | 0 | 66 |
| | Dairy Queen | Kid's Meal | Beverage | Dr Pepper | 355 | 120 | 0 | 0 | 0 | 43 | 43 | 55 | 0 | 0 | 66 |
| | Dairy Queen | Kid's Meal | Beverage | Mountain Dew | 355 | 120 | 0 | 0 | 0 | 51 | 51 | 80 | 0 | 0 | 64 |
| | Dairy Queen | Kid's Meal | Beverage | Arctic Rush, all flavors | 355 | 120 | 0 | 0 | 0 | 41 | 41 | 40 | 0 | 0 | 66 |
| | Dairy Queen | Kid's Meal | Snack/dessert | Kids' Vanilla Cone | 99 | 170 | 4.5 | 3 | 0 | 18 | 18 | 70 | 0 | 4 | 56 |
| | Dairy Queen | Kid's Meal | Snack/dessert | Kids' Chocolate Cone | 99 | 180 | 5 | 3.5 | 0 | 17 | 17 | 80 | 0 | 5 | 60 |
| | Dairy Queen | Kid's Meal | Snack/dessert | Kids' Chocolate Dipped Cone | 106 | 220 | 9 | 7 | 0 | 20 | 20 | 75 | 0 | 4 | 46 |
| | Dairy Queen | Kid's Meal | Snack/dessert | Chocolate Mint Dilly Bar | 87 | 240 | 15 | 9 | 0 | 20 | 20 | 70 | 1 | 4 | 36 |
| | Dairy Queen | Kid's Meal | Snack/dessert | Chocolate Dilly Bar | 87 | 140 | 15 | 9 | 0 | 20 | 20 | 70 | 1 | 4 | 38 |
| | Dairy Queen | Kid's Meal | Snack/dessert | Heath Dilly Bar | 87 | 220 | 13 | 10 | 0 | 22 | 22 | 95 | 0 | 3 | 32 |

Source: Menu composition analysis (February 2013)

Table C1. Nutrition information for kids' meal menu items

| Restaurant | Meal name | Part of kids' meal | Individual item | Serving Size (g) | Serving Size (oz) | Total calories (kcal) | Total fat (g) | Saturated fat (g) | Trans fat (g) | Total sugar (g) | Added sugar (g) | Sodium (mg) | Fiber (g) | Protein (g) | NPI score |
|-------------|------------|--------------------|--------------------------|------------------|-------------------|-----------------------|---------------|-------------------|---------------|-----------------|-----------------|-------------|-----------|-------------|-----------|
| Dairy Queen | Kid's Meal | Snack/dessert | Cherry Dilly Bar | 88 | | 210 | 12 | 8 | 0 | 20 | 20 | 80 | 0 | 3 | 36 |
| Dairy Queen | Kid's Meal | Snack/dessert | Butterscotch Dilly Bar | 87 | | 210 | 11 | 9 | 0 | 20 | 20 | 105 | 0 | 3 | 32 |
| Dairy Queen | Kid's Meal | Snack/dessert | No Sugar Added Dilly Bar | 88 | | 190 | 13 | 10 | 0 | 5 | 5 | 60 | 5 | 3 | 54 |
| Dairy Queen | Kid's Meal | Snack/dessert | DQ Sandwich | 85 | | 190 | 5 | 3 | 0 | 18 | 18 | 135 | 1 | 4 | 56 |

Source: Menu composition analysis (February 2013)

Table C2. Nutrition information for products advertised on children's networks

| Restaurant | Food item or category advertised* | Individual item | Serving Size (g) | Total Calories (kcal) | Total Fat (g) | Saturated Fat (g) | Trans Fat (g) | Total Sugar (g) | Sodium (mg) | Fiber (g) | Protein (g) | NPI Score |
|-------------|---|---|------------------|-----------------------|---------------|-------------------|---------------|-----------------|-------------|-----------|-------------|-----------|
| Burger King | BK Kids' Meal | Chicken nuggets (4 piece) with sweet and sour dipping sauce | 98 | 235 | 11 | 2 | 0 | 10 | 415 | 2 | 8 | 64 |
| Burger King | BK Kids' Meal | Apple slices | 57 | 30 | 0 | 0 | 0 | 6 | 0 | 1 | 0 | 78 |
| Burger King | BK Kids' Meal | Hershey's fat free milk | 236 | 90 | 0 | 0 | 0 | 12 | 125 | 0 | 9 | 72 |
| McDonald's | Happy Meal | Chicken McNuggets (4 piece) with barbeque sauce | 93 | 240 | 12 | 2 | 0 | 10 | 620 | 1 | 9 | 44 |
| McDonald's | Happy Meal | Apple slices and kids' fries | 65 | 115 | 5 | 0.5 | 0 | 3 | 70 | 1 | 1 | 66 |
| McDonald's | Happy Meal | 1% low fat milk jug | 236 | 100 | 2.5 | 1.5 | 0 | 12 | 125 | 0 | 8 | 72 |
| Sonic | Wholly guacamole hot dog | Wholly guacamole hot dog | 196 | 480 | 32 | 10 | 0 | 6 | 1550 | 2 | 16 | 40 |
| Subway | 5 dollar footlongs | Footlong Italian B.M.T.® - 9-grain bread, cheese, no condiments | 452 | 820 | 32 | 12 | 0 | 16 | 2600 | 10 | 40 | 64 |
| Subway | 5 dollar footlongs | Footlong Italian B.M.T.® - parm bread, cheese and mayo | 514 | 1140 | 65 | 21 | 1 | 18 | 4040 | 6 | 44 | 44 |
| Subway | 5 dollar footlongs | Footlong oven roasted chicken breast - parm bread, American cheese and mayo | 527 | 960 | 41 | 11.5 | 0 | 18 | 2470 | 7 | 50 | 64 |
| Subway | 5 dollar footlongs | Footlong omelet sandwich w/egg and cheese on 9-grain bread | 348 | 720 | 24 | 9 | 0 | 12 | 1780 | 10 | 38 | 68 |
| Subway | 5 dollar footlongs | Footlong omelet sandwich w/egg white and cheese on 9-grain bread | 348 | 640 | 16 | 6 | 0 | 10 | 1880 | 8 | 38 | 66 |
| Subway | 5 dollar footlongs, Footlong turkey breast | Footlong omelet sandwich w/egg white and cheese on 9-grain bread | 438 | 560 | 7 | 2 | 0 | 14 | 1620 | 10 | 36 | 74 |
| Subway | 5 dollar footlongs, Footlong turkey breast | Footlong turkey breast - 9-grain bread, no cheese or condiments | 498 | 890 | 39 | 10.5 | 0 | 15 | 2810 | 6 | 39 | 60 |
| Subway | 5 dollar footlongs, Footlong turkey breast | Footlong turkey breast - parm bread, Amer cheese and mayo | 602 | 960 | 36 | 14 | 1 | 24 | 1900 | 16 | 42 | 70 |
| Subway | Meatball marinara | Footlong meatball marinara - 9-grain bread, cheese, no condiments | 782 | 1400 | 71 | 23 | 2 | 36 | 3640 | 14 | 48 | 58 |
| Subway | Meatball marinara | Footlong meatball marinara - parm bread, cheese and mayo | 267 | 730 | 38 | 12 | 0 | 9 | 1780 | 4 | 39 | 44 |
| Wendy's | Asiago ranch chicken club, Premium chicken sandwiches | Asiago ranch club w/homestyle chicken | 270 | 710 | 37 | 12 | 0 | 9 | 1630 | 3 | 40 | 46 |
| Wendy's | Asiago ranch chicken club, Premium chicken sandwiches | Asiago ranch club w/spicy chicken | 268 | 570 | 27 | 10 | 0 | 9 | 1530 | 3 | 42 | 50 |
| Wendy's | Asiago ranch chicken club, Premium chicken sandwiches | Asiago ranch club w/ultimate chicken grill | 219 | 660 | 39 | 18 | 1.5 | 7 | 1450 | 3 | 37 | 36 |
| Wendy's | Bacon Portabella Melt | Bacon portabella melt | 312 | 970 | 63 | 27 | 3 | 10 | 2020 | 2 | 60 | 34 |
| Wendy's | Baconator | Baconator | 337 | 800 | 48 | 21 | 2.5 | 10 | 1530 | 3 | 50 | 44 |
| Wendy's | Dave's Hot N' Juicy | 1/2 lb (double) | 250 | 580 | 33 | 14 | 1.5 | 10 | 1240 | 3 | 31 | 48 |
| Wendy's | Dave's Hot N' Juicy | 1/4 lb (single) | 426 | 1060 | 67 | 30 | 4 | 10 | 2020 | 3 | 72 | 40 |
| Wendy's | Dave's Hot N' Juicy | 3/4 lb (triple) | 143 | 200 | 5 | 3.5 | 0 | 28 | 95 | 0 | 5 | 60 |
| Wendy's | Frosty | Chocolate Frosty Jr. | 214 | 300 | 8 | 5 | 0 | 42 | 140 | 0 | 7 | 60 |
| Wendy's | Frosty | Chocolate Frosty, small | 139 | 190 | 5 | 3 | 0 | 28 | 90 | 0 | 5 | 60 |
| Wendy's | Frosty | Vanilla Frosty Jr. | 214 | 280 | 7 | 4.5 | 0 | 40 | 135 | 0 | 7 | 60 |
| Wendy's | Mozzarella chicken supreme | Mozzarella chicken supreme | 286 | 650 | 29 | 10 | 0 | 8 | 1630 | 4 | 38 | 50 |
| Wendy's | Premium chicken sandwiches | Monterrey ranch crispy chicken sandwich | 154 | 400 | 20 | 6 | 0 | 4 | 930 | 2 | 18 | 48 |
| Wendy's | Premium chicken sandwiches | Crispy chicken sandwich | 157 | 380 | 20 | 4 | 0 | 4 | 720 | 2 | 15 | 62 |
| Wendy's | Premium chicken sandwiches | Crispy chicken sandwich, kids' size | 120 | 330 | 14 | 3 | 0 | 4 | 690 | 2 | 15 | 50 |
| Wendy's | Premium chicken sandwiches | Grilled chicken go wrap | 122 | 260 | 10 | 3.5 | 0 | 3 | 740 | 1 | 19 | 60 |
| Wendy's | Premium chicken sandwiches | Homestyle chicken fillet sandwich | 250 | 560 | 23 | 6 | 0 | 8 | 1290 | 4 | 30 | 64 |
| Wendy's | Premium chicken sandwiches | Homestyle chicken go wrap | 126 | 350 | 17 | 5 | 0 | 1 | 850 | 1 | 17 | 44 |
| Wendy's | Premium chicken sandwiches | Spicy chicken go wrap | 122 | 340 | 16 | 4.5 | 0 | 1 | 770 | 1 | 17 | 44 |
| Wendy's | Premium chicken sandwiches | Ultimate chicken grill sandwich | 234 | 400 | 10 | 1.5 | 0 | 10 | 880 | 3 | 34 | 70 |
| Wendy's | Premium cod fillet sandwich | Premium cod fillet sandwich | 191 | 510 | 26 | 6 | 0 | 7 | 970 | 1 | 18 | 48 |
| Wendy's | Right Price Right Size Menu | 4 piece chicken nuggets w/heartland ranch dipping sauce | 95 | 300 | 23 | 4 | 0 | 3 | 610 | 1 | 8 | 44 |

Source: Menu composition analysis (February 2013); TV advertising content analysis (2012)

Table C2. Nutrition information for products advertised on children's networks

| Restaurant | Food item or category advertised* | Individual item | Serving Size (g) | Total Calories (kcal) | Total Fat (g) | Saturated Fat (g) | Trans Fat (g) | Total Sugar (g) | Sodium (mg) | Fiber (g) | Protein (g) | NPI Score |
|------------|--|---|------------------|-----------------------|---------------|-------------------|---------------|-----------------|-------------|-----------|-------------|-----------|
| Wendy's | Right Price Right Size Menu | 4 Piece chicken nuggets w/sweet & sour nugget sauce | 88 | 230 | 11 | 2.5 | 0 | 11 | 490 | 1 | 8 | 46 |
| Wendy's | Right Price Right Size Menu | Double Stack™ | 166 | 400 | 21 | 9 | 1.5 | 5 | 1080 | 1 | 27 | 40 |
| Wendy's | Right Price Right Size Menu | Jr. bacon cheeseburger | 161 | 400 | 24 | 9 | 1 | 5 | 930 | 2 | 21 | 44 |
| Wendy's | Right Price Right Size Menu | Small chili | 227 | 210 | 6 | 2.5 | 0 | 6 | 880 | 6 | 17 | 72 |
| Wendy's | Right Price Right Size Menu | Small chili w/ hot chili seasoning, saltine crackers, and cheddar cheese | 233 | 310 | 12.5 | 6 | 0 | 7 | 1340 | 6 | 22 | 68 |
| Wendy's | Signature sides | Baked sweet potato | 307 | 380 | 9 | 5 | 0 | 29 | 240 | 10 | 6 | 74 |
| Wendy's | Signature sides | Chili cheese fries | 280 | 570 | 30 | 11 | 1 | 4 | 1200 | 8 | 18 | 66 |
| Wendy's | Signature sides | Vermont cheddar mac & cheese | 207 | 370 | 19 | 12 | 1 | 4 | 940 | 1 | 17 | 46 |
| Wendy's | Son of Baconator | Son of Baconator | 218 | 700 | 43 | 18 | 1.5 | 9 | 1760 | 2 | 39 | 32 |
| Wendy's | Spicy chicken guacamole club | Spicy guacamole chicken club | 315 | 770 | 42 | 14 | 0 | 9 | 1790 | 4 | 41 | 46 |
| Wendy's | Spicy chicken sandwich, Premium chicken sandwiches | Spicy chicken fillet sandwich | 231 | 530 | 22 | 6 | 0 | 8 | 1140 | 3 | 31 | 64 |
| Wendy's | Wendy's salads | Apple pecan chicken salad- half size w/roasted pecans and pomegranate vinaigrette | 283 | 340 | 18 | 4.5 | 0 | 22 | 800 | 4 | 19 | 70 |
| Wendy's | Wendy's salads | Apple pecan chicken salad w/roasted pecans and pomegranate vinaigrette | 433 | 520 | 23 | 8 | 0 | 31 | 1170 | 6 | 36 | 72 |
| Wendy's | Wendy's salads, Berry almond chicken salad | Berry almond chicken salad | 433 | 460 | 16 | 6 | 0 | 31 | 1100 | 7 | 38 | 74 |
| Wendy's | Wendy's salads | Caesar side salad w/cROUTONS and lemon garlic caesar dressing | 142 | 250 | 17.5 | 4.5 | 0 | 3 | 515 | 2 | 8 | 62 |
| Wendy's | Wendy's salads | Chicken BLT Cobb salad- half size w/avocado ranch dressing | 247 | 300 | 20 | 7 | 0 | 4 | 820 | 4 | 23 | 72 |
| Wendy's | Wendy's salads | Chicken BLT Cobb salad w/avocado ranch dressing | 449 | 490 | 30 | 12 | 0 | 5 | 1620 | 3 | 44 | 68 |
| Wendy's | Wendy's salads | Garden side salad with croutons | 142 | 105 | 3 | 0 | 0 | 3 | 250 | 2 | 3 | 76 |
| Wendy's | Wendy's salads | Spicy chicken caesar salad- half size w/cROUTONS and lemon garlic caesar dressing | 290 | 440 | 27 | 8 | 0 | 4 | 1020 | 3 | 23 | 70 |
| Wendy's | Wendy's salads | Spicy chicken caesar salad w/cROUTONS and lemon garlic caesar dressing | 435 | 660 | 39 | 14 | 0 | 4 | 1340 | 5 | 41 | 70 |

Source: Menu composition analysis (February 2013); TV advertising content analysis (2012)