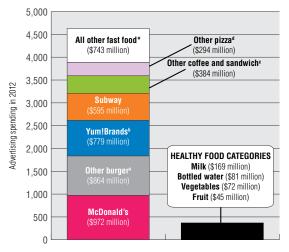
There have been some positive developments in the past three years. But fast food menus – including kids' meals – have not improved overall, and restaurants continue to invest heavily in marketing to children and teens that promotes high-calorie, nutritionally poor products.

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 Pizzad

*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 Further child visitors to fast food restaurant websites have been replaced by even more teen visitors, while marketing in social media and via mobile devices now surpasses the reach of traditional forms of online marketing.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

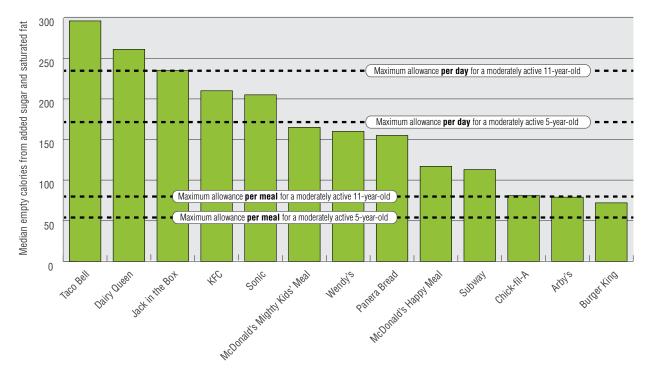
Twelve restaurants in our analysis offered kids' meals in 2013, and many of them improved the nutritional quality of available kids' meal sides and/or beverages. All restaurants except Taco Bell offered at least one healthy side option, and six of eight restaurants examined in 2010 increased the proportion 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 Chickfil-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.

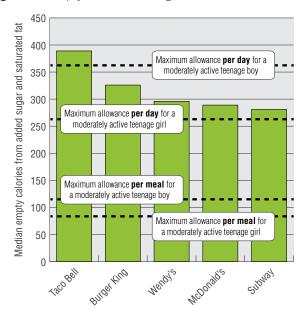
Since we collected nutrition data for this report in February 2013, restaurants have made further improvements to their kids' meals. Through their participation in Kids LiveWell, Dairy Queen added a turkey wrap, banana, and strawberry banana smoothie as options on its kids' menu² and Sonic added a meal 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." 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. 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." 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. 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-perday 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 brandingonly 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-ofish 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, childtargeted 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 Spanishlanguage 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). 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 advergame, 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 advergames (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 advergame apps; and online advertising with links to kids' advergame 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 selfregulation 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.