



KIDS' MEALS: Obesity on the Menu

Report by Ameena Batada, Dr.P.H., with research assistance from Lauren Flewelling and Alexandra Goode, at the University of North Carolina Asheville, and Margo G. Wootan, D.Sc., Center for Science in the Public interest. Thanks to Jordan Hall Preston and Kanydah Bellamy for their assistance, and to Lisa Powell, Mary Story, and Jennifer Harris for their thoughtful review of the report.

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For more information on this report, contact:

Ameena Batada, Dr.P.H.
Department of Health and Wellness
University of North Carolina at Asheville
abatada@unca.edu

For more information on model policies, contact:

Margo G. Wootan, D.Sc.
Center for Science in the Public Interest (CSPI)
Phone: 202-777-8352
Email: nutritionpolicy@cspinet.org

**Kids' Meals II: Obesity and Poor Nutrition on the Menu is available online free of charge at
<www.cspinet.org/kidsmeals2>**

Executive Summary

Many restaurant chains offer menu items especially for, and marketed to, children. Given that children consume on average 25% of their daily calories at fast-food and other restaurants, the nutritional quality of those meals is important. This report investigates the types of children's menu items and the nutritional quality of children's meals at the largest restaurant chains in the United States.

Of the top 50 chains, 9 (18%) did not have dedicated children's menu items or meals. Of the 41 chains with children's items, 34 (83%) offered children's meal combinations and provided adequate information for nutrition analyses. We assessed the nutritional quality of all possible children's meal combinations against a set of standards developed by a panel of nutrition and health experts, and against the National Restaurant Association's (NRA) Kids LiveWell standards.

Of the 3,498 meal combinations, 97% do not meet the expert nutrition standards for children's meals and 91% do not meet the NRA's Kids LiveWell standards. Nineteen of the restaurant chains offering children's meals (56%) do not have even one meal that meets the expert nutrition standards and 9 chains (26%) do not have one meal that meets the Kids LiveWell standards.

We also assessed how the nutritional quality of children's meals has changed over time, comparing the nutritional quality of the meals now to the results of a similar study we conducted in 2008. The overall percentage of meals that met the nutrition standards increased since 2008, from 1% to 3%. The percentages of meals meeting the calorie and sodium limits increased and the percentage meeting the saturated fats limit decreased.

More restaurants offer non-soft drink beverage and fruit options, but soft drinks and fried potatoes are still more common options on children's menus.

To support parents' efforts to feed their children a healthy diet, restaurants should:

- Participate in the National Restaurant Association's Kids LiveWell program and reformulate meals so that *all* meet calorie, sodium, fats, and other nutrition standards;
- Offer more fruit and vegetable options and make those options the default side dishes with every children's meal;
- Remove soft drinks and other sugary drinks from children's menus;
- Offer more whole grains as a part of children's meals;
- Provide calorie information for all menu items on menus or menu boards;
- Market only healthy options to children through all marketing approaches used by the restaurant, including through mass media, websites, in-store promotions and toy give-aways, school-related activities, and other venues;
 - Only market the restaurant *brand* if the majority (>50%) of that restaurant's children's options are healthy items/meals; otherwise healthier meals should be prominently featured in advertisements rather than generically marketing the restaurant; and
 - Join the Children's Food and Beverage Advertising Initiative (CFBAI).



Introduction

Americans eat out much more today than 50 years ago, with nearly half of food dollars (48%) now spent on restaurant foods (National Restaurant Association, 2012), up from 26% in 1970 (Lin et al., 1999). Many restaurant chains offer menu items especially for, and marketed to, children. Given that children consume on average 25% of their daily calories at fast-food and other restaurants (Lin and Morrison, 2012), and consumption of restaurant food is associated with increased energy intake and poorer diet quality (Powell and Nguyen, 2012), assessing the nutritional quality of children's meals is of importance. Healthier children's meals support families' efforts to promote the healthy eating and weight of their children. This report investigates types of children's menu items and the nutritional quality of children's meals at the largest restaurant chains in the United States. It also summarizes the changes in nutritional quality of children's meals in the four years since we conducted a similar assessment in 2008.

Methods

We examined children's menu items and meals (those found on children's/kids' menus or in children's/kids' sections of the menu) at the 50 largest (by revenue in 2009) chain restaurants in the United States (Reed Elsevier Inc., 2009).

Of the top 50 restaurant chains, 9 (18%) did not have dedicated children's menu items or meals: Domino's Pizza, Dunkin' Donuts, 7-Eleven, Papa John's, Golden Corral, Church's Chicken, Little Caesars Pizza, HomeTown Buffet/Old Country Buffet, and Starbucks. Of the remaining 41 chains that did offer children's menu items, 34 (83%) offered meal combinations and provided adequate

information for nutritional analysis. The chains that did not disclose nutrition information were: Cracker Barrel Old Country Store and Restaurant, Hooters, Waffle House, the Cheesecake Factory, and Texas Roadhouse. The Cheesecake Factory, did not list specific children's items online but indicated that customers should check with their server for children's meals. Pizza Hut did not disclose nutrition information for children's items. Baskin Robbins provided nutrition information but did not offer meals.

Nutrition information for each restaurant was obtained primarily in October-November 2012 from the restaurant's website or from corporate headquarters. When nutrition information for a particular item was not available, we used information from the U.S. Department of Agriculture Nutrition Analysis Tool (NAT) 2.0 (USDA, 2012). Fourteen restaurants did not make available information about menu item weights and eight restaurants did not make available information about certain individual nutrients, such as trans and/or saturated fat and sugars, and thus those nutrients for their foods could not be fully analyzed.

We analyzed the nutritional quality of all possible children's meal combinations (each possible combination of an entree, side item, and beverage from each restaurant's children's menu, as described on the restaurant website or on the in-restaurant menu). For example, a hamburger, fries, and soft drink were considered one possible combination; a hamburger, fries, and low-fat milk were considered another combination. Beverages of similar type were counted once (for example, all soft drinks were treated as one menu item, even when multiple flavors or varieties, including diet versions, were

available). Multiple flavors or varieties of sauces and salad dressings were averaged and included in meals with chicken nuggets/strips and salads or dipping vegetables.

Each meal combination was assessed against a set of nutrition standards (see Table 1) developed by a panel of nutrition and health experts. The nutrition standards were adapted from the National Alliance for Nutrition and Activity's *Model Local School Wellness Policies on Physical Activity and Nutrition* (NANA, 2005), which were developed and supported by more than 50 health, nutrition, and education organizations and were based on key nutrition recommendations in the *Dietary Guidelines for Americans* (USDHHS and USDA, 2010).

The nutrition standards were developed to assess the quality of meals marketed to children 4-8 years of age, which falls within the pre-school through elementary age range utilized in other similar research (Harris, Schwartz, and Brownell, 2010). We chose to compare the meals to this consistent set of standards, rather than newer standards, such as those proposed by the Interagency Working Group on Food Marketed to Children (IWG, 2011), so that we could assess changes in meal quality over time (Batada et al., 2012).

We also assessed the nutritional quality of the meals against the National Restaurant Association's (NRA) Kids LiveWell standards (see Table 2; NRA, 2011). The Kids LiveWell standards are similar to the expert standards with respect to total fat, saturated fat, and sodium allowances. Standards for sugars and positive nutrition content are somewhat similar. The major difference between the

two sets of standards is the calorie allowance (430 calories per meal compared to 600 calories, respectively). Further, meals containing beverages of poor nutritional quality are automatically categorized of poor nutritional quality overall according to the expert standards. Meals containing deep-fried items automatically do not meet the Kids LiveWell standards.

We compared the nutritional quality of children's meals in 2012 with 2008, when we conducted a similar assessment. The meals at the 22 restaurant chains that had both children's meals and nutrition information in the first assessment were included in the current study, as well as 13 additional restaurant chains.



Kids' Meals II: Obesity and Poor Nutrition on the Menu

Table 1. Nutrition Standards for Assessing Nutritional Quality of Children's Meals^a

Nutrient	Standards
Calories	No more than 430 calories ^b
Fat	No more than 35% of calories ^c
Saturated plus trans fat	No more than 10% of calories ^c
Added sugars	No more than 35% added sugars by weight ^{d,e}
Sodium	No more than 770 mg ^f
Positive nutritional content	Contains one or more of the following: 1) 10% of the DV of vitamins A or C, calcium, iron, or fiber, 2) half a serving of fruit or vegetable, or 3) 51% or more (by weight) whole grain ingredients

Beverages assessed as being of poor nutritional quality:

- Soft drinks; sports drinks; and sweetened iced teas
- Fruit-based drinks that contain less than 50% real fruit juice or that contain added sweeteners
- Beverages containing caffeine, excluding low-fat or fat-free chocolate milk (which contain trivial amounts of caffeine)
- High-fat (whole or 2%) milk

a. From Guidelines for Responsible Food Marketing to Children (<http://www.cspinet.org/marketingguidelines.pdf>)

b. Approximately one-third the daily requirements for a child 4-8 years old, based Dietary Guidelines for Americans, 2010

c. Based on Dietary Guidelines for Americans, 2010

d. Based on U.S. Department of Agriculture's Healthier US School Challenge (<http://www.fns.usda.gov/tn/healthierus/index.html>)

e. Total sugars was used if added sugars could not be determined

f. Based on one-third Dietary Reference Intakes (DRI) Tolerable Upper (daily) Intake Level (UL) for sodium

g. If the beverage that is part of a meal is assessed as poor nutritional quality, then the entire meal is considered of poor nutritional quality.

Table 2. Kids LiveWell Nutrition Standards* (National Restaurant Association)

Meals, including beverages, must have:

- 600 calories or less
- ≤35% of calories from total fat
- ≤10% of calories from saturated fat
- <0.5 grams artificial trans fat
- ≤35% of calories from total sugars (added and naturally occurring)
- ≤770 mg of sodium
- 2 or more food groups (see below)

Food Groups:

Full meals must include two sources of the following:

Fruit:	Vegetables:	Whole Grains:	Lean protein (skinless white meat poultry, fish, seafood, beef, pork, tofu, beans, eggs):	Dairy:
Fruit (includes 100% juice): ½ cup or more	½ cup or more	Contains whole grains	At least 2 ounces meat, 1 egg equivalent, 1 oz nuts/seeds/dry bean/peas	Lower-fat dairy (1% or skim milk and dairy): ½ cup or more (while not considered low-fat, 2% milk is allowed if included in the meal and meal still fits the criteria)

Deep fried items not permitted

* <http://www.restaurant.org/Industry-Impact/Food-Healthy-Living/Kids-LiveWell/About>

Children's Entrees, Side Items, and Beverages

Entrees

Of the 41 restaurant chains with identifiable children's menu items, 83% offer fried chicken entrees, such as chicken fingers or nuggets (see Figure 1). Two-thirds (65%) offer burgers, and half (50%) offer pasta/macaroni dishes, mostly macaroni and cheese. Almost half (45%) offer grilled cheese sandwiches, and 35% offer grilled chicken, one of the lowest-calorie entrees offered. Eight restaurant chains (20%) offer breakfast entrees specifically for children (Burger King, Jack in the Box, Denny's, IHOP, Bob Evans, Perkins, Cracker Barrel, and Waffle House).

The number of calories in children's entrees varies, from 30 calories in the steamed Baby Buddha's Feast at P.F. Chang's to 800 calories in the Beef Minis at Ruby Tuesday. Sodium levels also vary across entrees, from 25 mg of sodium in the Baby Buddha's Feast to 1,820 mg in the Fried Shrimp at Ruby Tuesday. Though most entrees include meat and/or dairy, few children's entrees incorporate whole grains or vegetables.

Side Items

Seven in 10 chains (73%) offer fried potatoes, such as French fries and potato chips, as a side item with children's meals. Just over half (53%) of restaurant chains offer vegetables other than fried potatoes with children's meals. The most common types of vegetable side items are broccoli (fresh and steamed),

carrots, celery, salad, corn, green beans, and mashed potatoes. P.F. Chang's does not offer any side items with children's meals, though some of the entrees contain non-potato vegetables. Panera Bread offers yogurt as its only side item.

The majority of restaurants (68%) offer fruit as a side item with children's meals. The most common types of fruit as side items are apples (slices and applesauce), fruit cups, mandarin oranges, and grapes. A few restaurants offer watermelon, bananas, and pineapple.

Beverages

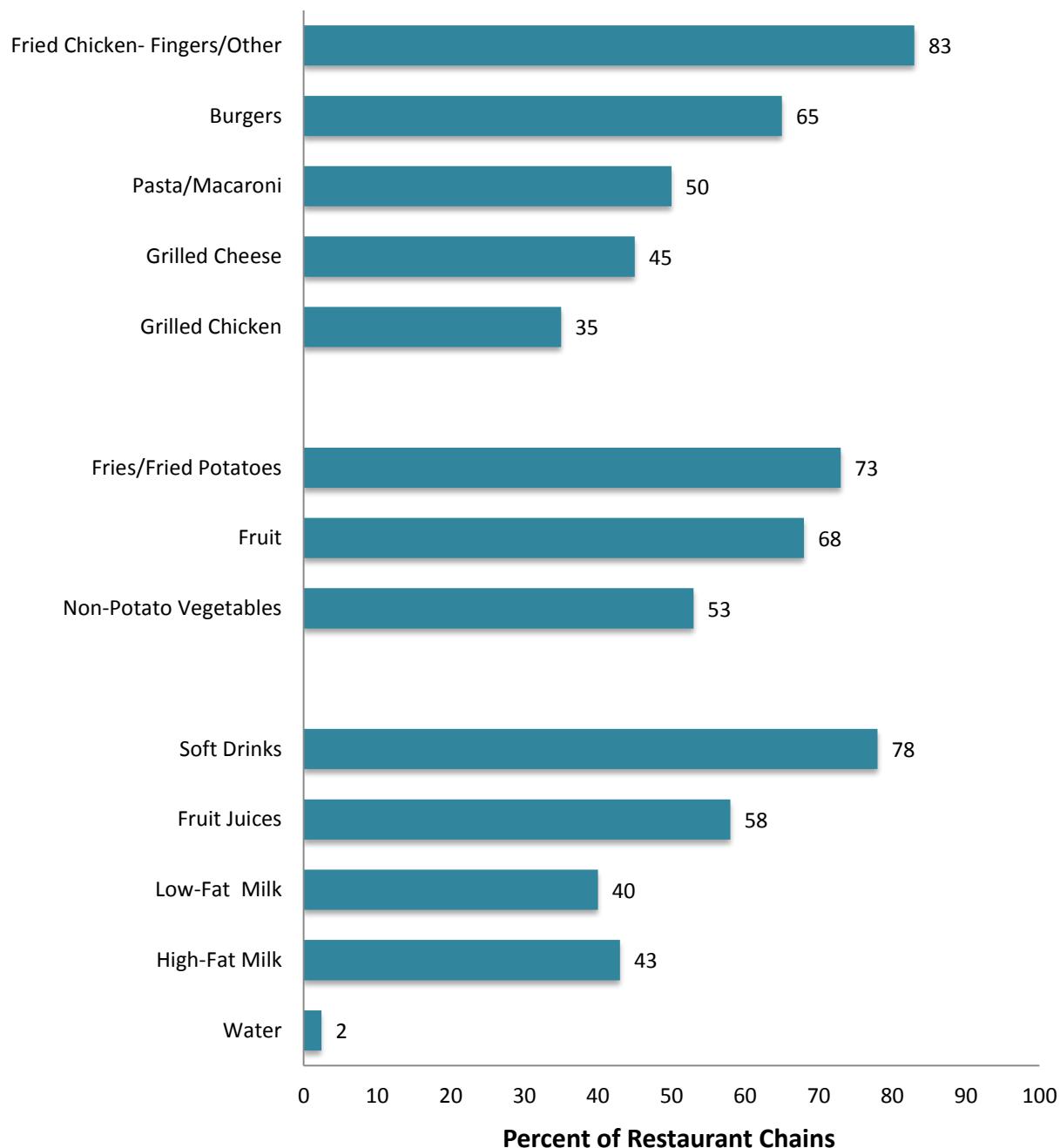
Over three-quarters (78%) of the restaurant chains offer soft drinks as children's beverage options. Over half the chains (58%) offer fruit juices. Nearly half (40%) of chains offer non-fat/low-fat (1% or fat-free) milk and 43% of chains offer high-fat (2% or whole) milk as children's beverages. Only one chain, Arby's, includes a bottle of water as an option with its children's meals. Denny's, Bob Evans, IHOP, Panera, and P.F. Chang's do not offer drinks as part of the children's meal (they must be purchased separately). The only restaurant that does not offer soft drinks as a children's drink option is Subway.

Desserts

Sixteen restaurant chains (40%) offer desserts specifically for children. The most common desserts for children are ice cream, cookies, and shakes. Baskin Robbins offers only desserts specifically for children.

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Figure 1. Percent of Top U.S. Restaurant Chains Offering Children's Entrees, Side Items, and Beverages by Type (n=41)



Children's Meals

We analyzed a total of 3,498 meal combinations across the 34 restaurant chains that offer children's meals and provide sufficient nutrition information for analysis. Twenty-nine restaurant chains offer beverages as part of children's meals and all restaurant chains offer side items as a part of most meals. A few restaurants also offer a fourth item as part of the meal. For example, KFC offers low-fat string cheese, and Perkins Restaurant and Bakery offers a cookie.

Of the 3,498 meal combinations assessed, 97% do not meet the expert nutrition standards for children's meals (See "Expert" column in Table 3). Ninety-one percent of restaurant children's meals do not meet the National Restaurant Association's Kids LiveWell standards. Nineteen of the restaurant chains offering children's meals (56%) do not have a single meal that meets the expert nutrition standards and 9 chains (26%) do not have one meal that meets the Kids LiveWell standards.

While the reasons for not meeting the standards vary, 86% of meals have more than 430 calories (the expert standard) and 50% of meals have more than 600 calories (the Kids LiveWell standard). Based on the *Dietary Guidelines for Americans*, children ages 4 to 10 years should consume between 400 and 670 calories per meal, depending on their age, gender, and physical activity levels. Our standards use the lower end of the



calorie range, given that the average age of children's meal customers is six years old (Harris, Schwartz, and Brownell, 2010) and the majority of children are not vigorously active (Troiano et al., 2008).

Excess sodium is another common reason the meals do not meet the nutrition standards, with 66% of meals exceeding the sodium standard. The children's meal with the most sodium is the Mini Corn Dogs, French fries, and milk at Buffalo Wild Wings. That meal contains 3,200 mg of sodium, twice the recommended intake of sodium for a child for an entire day. The Dietary Reference Intake for sodium is no more than 1,200 mg per day for children ages 4-8 years (The National Academies, 2005). In addition, 47% of meals exceed the total fat limit and 55% exceed the saturated fat limit.

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Table 3. Nutritional Quality of Children's Meals at the Top 50 U.S. Restaurant Chains (N=34)

Restaurant Chain	Participates in Kids LiveWell Program	Number of Meal Combos	Meets Standards		Notes
			Expert (%)	Kids LiveWell (%)	
Buf Wild Wings		16	0	0	Nut info for only some meals available
Carl's Jr		12	0	0	Every meal comes with fries
Chipotle		349	0	0	All meal comes with chips & < 600 cal
Dairy Queen		108	0	0	All meals exceed cal and sodium limits
Hardee's		9	0	0	Fries is only side item option
McDonald's		12	0	0	All meals come with fries (and apple slices); belongs to CFBAl
Panda Express		44	0	0	Every meal comes with cookie; only soft drinks
Perkins		133	0	0	Every meal comes with cookie
Popeye's		64	0	0	Onion rings contain 1370 mg of sodium
Whataburger		32	0	3	All meals exceeded sodium limit
Ruby Tuesday		126	0	4	No info on saturated fats
Chili's	✓	363	0	8	11 fruit or veg; 3 entrees > 1000 mg sodium
Red Robin		398	0	9	Fruit/veg sides
Quizno's		10	0	10	Every meal comes with chips and cookie
T.G.I. Friday's		90	0	12	3 entrees >1000 mg sodium
KFC		130	0	16	Every meal comes with light string cheese
Panera		6	0	16	All meals come with yogurt
P. F. Chang's		22	0	27	Entrees only (sides & bev sold separately)
Taco Bell		4	0	50	Fruit punch is only beverage option
Olive Garden		780	1	11	Whole wheat pasta option; offer fruit or vegetable as default side option
Outback Stkhs	✓	57	3	10	9 in 10 meals exceed sat fat limit
Jack in the Box		72	4	4	2% milk only milk option
Applebee's	✓	119	4	8	Offers 1% & 2% milk
Sonic	✓	45	4	2	Offers slushies separately
Wendy's		40	5	5	>50% options too high in sodium and/or sat fat
Longhorn Stkhs		32	6	25	Every meal comes with fruit or veg
Bob Evans	✓	88	10	15	No beverages with meals
Denny's	✓	110	13	14	No beverages with meals
Chick-fil-A	✓	72	18	8	Many fried chicken options
Arby's	✓	48	19	19	Offers bottled water as option
Burger King	✓	15	20	20	Belongs to CFBAl
Red Lobster		64	28	42	No trans fat information; offer fruit or vegetable as default side option
IHOP	✓	16	31	25	Meals do not include beverages
Subway		8	100	100	Only apples, apple juice & low-fat milk, no soft drinks with children's meals
Total		3,498	3	9	





Healthier Children's Meal Options

Nearly half (44%) of the restaurant chains do offer healthier meals for children. All of Subway's children's meals, which include apple slices and apple juice or low-fat milk, meet both the expert and industry nutrition standards.

Many restaurants offer fruit and vegetable options, which helps to lower the calorie amounts in meals and increase fiber and vitamin and mineral content; 72% of meal combinations contain some type of fruit or vegetable.

Though whole grain offerings as part of children's meals are rare, Burger King offers an oatmeal breakfast, the Olive Garden offers whole wheat pasta, and P.F. Chang's and Chipotle offer brown rice. Substituting refined grain options with whole grains, including buns, breads, pastas, rice, etc., would help children meet the *Dietary Guidelines for Americans* and support good health.

Changes Since 2008

This assessment follows up on our 2008 study of children's meals, which used a similar methodology and nutrition standards (Batada et al., 2012). Since 2008, the percent of meals that meet the expert nutrition standards increased from 1% to 3% ($p<0.001$). In 2008, one-third of the restaurant chains had at least one meal that met the nutrition standards, and in 2012, nearly half (44%) have at least one meal that meets the nutrition standards. The percentage of meals that meet calorie and sodium limits increased from 2008 to 2012. However, the percentage of meals meeting saturated fat limits decreased (see Table 4).

Table 4. Changes Since 2008

Meals that	2008	2012
Meet Standards for...	(%)	(%)
Calories	7	14
Sodium	15	34
Total Fat	54	54
Saturated Fat	54	45
Meals that meet		
nutrition standards	1	3

A higher percentage of restaurant chains now offer fruit and vegetable options than in 2008 (72% of chains in 2012 compared to 69% in 2008). For example, Sonic now includes a banana or apple slices as side options in addition to French fries or Tater Tots, which were the only two side item options available in 2008 (see Box 2).

Although more than half of the top restaurant chains now offer fruit juices and about four in 10 offer low-fat milk, the majority still offers soft drinks.

Box 2. Sonic's Wacky Pack meal now offers fruits as side items (right), which were not available in 2008 (below).



Soft drinks and fruit drinks are the biggest single source of calories and added sugars in the diets of children (USDA & HHS, 2010). Furthermore, a study conducted by the Harvard School of Public Health found that for each additional serving of soft drinks or juice drink a child consumes per day, the child's chance of becoming overweight increases by 60% (Ludwig, 2001). Restaurants can support families' efforts to feed their children healthfully and maintain a healthy weight for their children by offering water more explicitly as a children's beverage option and removing all sugary drinks from children's menus.

In 2005, the U.S. Institute of Medicine (IOM) recommended that the food and restaurant industries "shift their product portfolios in a direction that promotes new and reformulated child- and youth-oriented foods and beverages that are substantially lower in total calories, lower in fats, salt, and added

sugars, and higher in nutrient content" (IOM, 2005). While we see some small improvements over time, restaurant chains need to do much more.

"Kids LiveWell" & What the Restaurant Industry Could Do

Eleven of the chains participate in the National Restaurant Association's (NRA) Kids LiveWell program (NRA, 2011), including: Applebee's, Arby's, Bob Evans, Burger King, Chick-fil-A, Chili's, Denny's, IHOP, Sonic, Outback Steakhouse, and Cracker Barrel. (Though Cracker Barrel restaurant participates in Kids LiveWell, it does not make its nutrition information available to the public.) To participate in the Kids LiveWell program, restaurants must offer at least one full children's meal and one other individual item that meet the NRA standards (see Table 2), display or make available upon request the nutrition profile of the healthful

menu options, and promote/identify the healthful menu options.

Among the 10 Kids LiveWell participating restaurant chains that provide nutrition information, only 11% of the children's meals from those chains meet the Kids LiveWell standards. In comparison, 9% of children's meals at non-participating restaurant chains meet the NRA standards. In addition, 7% of children's meals at participating restaurants meet the expert nutrition standards, compared to only about 2% of meals at non-participating restaurants. To make the program effective, the requirements for participation must be strengthened by increasing the overall number of meals that must meet the standards. The NRA should encourage participating restaurants to move toward all meals meeting the standards by 2015, making healthier choices easier for families.

Another way that restaurant chains could support healthy eating is by joining the Children's Food and Beverage Advertising Initiative (CFBAI) of the Council of Better Business Bureaus (CBBB). The CFBAI includes food and restaurant companies that pledge to limit their marketing of foods to children to products meeting nutrition criteria. Currently, only two of the 16 participating companies are restaurant chains – Burger King and McDonald's. All restaurant chains that market to children using television ads, Internet websites, toy giveaways, school-based fundraisers, and other approaches should join. Such a pledge should be relatively easy for Subway given that all of its marketed meals meet nutrition standards; joining the CFBAI would add credibility and transparency to its efforts.

The Affordable Care Act, passed by the U.S. Congress and signed into law in 2010, requires national restaurant chains (with 20 or more outlets) to post calorie information on menus and menu boards and make available additional nutrition information in restaurants. As of January 2013 the law had still not taken effect.

Menu labeling can be an effective tool for identifying healthier options. For example, grilled cheese sandwiches vary across restaurants, ranging from 270 calories at Outback Steakhouse to 620 calories at Applebee's.

Box 3. How Much Happier Are the New Happy Meals at McDonald's?

Old Happy Meal: 590 calories, 20g total fat, 5g saturated fat, and 710mg sodium



Updated Happy Meal: 450 calories, 16g total fat, 5g saturated fat, and 715mg sodium



Five of the top 50 restaurant chains with children's menu items do not provide nutrition information (not even through websites or by calling the company), and several more that do have information provide incomplete nutrition information.

Although large restaurant chains will soon be required to post nutrition information, all restaurants, including independent and small chains, should post nutrition information for their children's and other menu items on menus and menu boards. Though the full impact of menu labeling will not be seen until consumers are accustomed to seeing calorie counts on menus, early research shows it can make a difference. In one study, parents presented with a menu that included calorie information ordered an average of 100 fewer calories for their children than did parents ordering off menus without calorie labeling (Tandon et al., 2010).

Another study, looking at Starbucks purchases before and after the chain started posting calorie information, found that calories in food purchases decreased by 14% (Bollinger et al., 2010). Disclosing full nutrition information is an important way that restaurants can support parents' efforts to feed their children healthfully.

This study demonstrates that while some chain restaurant have taken some steps to address the nutritional quality of their children's menus, more can and must be done to make healthy options more possible for families.

Restaurants offering children's menu items should:

- Participate in the National Restaurant Association's Kids LiveWell program and reformulate meals so that *all* meet calorie, sodium, fats, and other nutrition standards;
- Remove soft drinks and other sugary drinks from children's menus;
- Offer more fruit (not just fruit juice) and vegetable options and make them the default side dishes with every children's meal;
- Offer more whole grains;
- Provide nutrition information for all menu items on menus or menu boards;
- Market only healthy options to children through all marketing approaches used by the restaurant, including through mass media, websites, in-store promotions and toy give-aways, school-related activities, and other venues;
- Only market the restaurant *brand* if the majority (>50%) of that restaurant's children's options are healthy items/meals; otherwise healthier meals should be prominently featured in advertisements rather than generically marketing the restaurant; and
- Join the Children's Food and Beverage Advertising Initiative (CFBAI).

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