

BACKGROUND

- Children are eating at restaurants at high rates.
- Consumption of restaurant-prepared foods has been associated with higher energy intake and lower diet quality (1).
- Policies and interventions addressing calories consumed in restaurants could improve children's energy balance.
- Assessing children's perceptions of restaurant meals can help shape opportunities for healthy eating that are congruent with their attitudes.

OBJECTIVES

- To assess children's perspectives about eating at restaurants, including their reported:
 - Frequency of eating at restaurants
 - Attitudes about kids' meals that come with fruits, vegetables, and French fries as side dishes
 - Reasons for these attitudes

PARTICIPANTS

- 8- to 18-year-old US children (n=1,178)
 - 44% tweens (8-12 years), 56% teens (13-18 years)
 - 48% boys, 52% girls
- Data were weighted to be nationally representative.

METHOD

- Harris Interactive (New York) was commissioned to administer an online survey in 2010, including 11 items about restaurants (1 open-ended).
- Open-ended responses were assigned to categories (all that applied) by 2 coders (97% agreement; discrepancies resolved by first author).
- Frequencies and ordinary least squares regression models were used to analyze the data.

MEASURE

Survey items of interest:

- How often do you eat food from a restaurant? This includes fast food restaurants such as McDonalds or Burger King, casual dining restaurants such as Applebee's or Chili's, or a local restaurant in your neighborhood.
- When you eat at restaurants, how often do you get a "kid's meal" or order from a "kid's menu"?
- How likely would you be to order a kid's meal if it came with each of the following as a side dish?
 - Vegetables such as a salad, green beans, or carrots
 - French fries
 - Fruit, such as apple slices, orange slices, or a fruit cup
- How happy or unhappy would you be if a kid's meal at a restaurant came with a vegetable or fruit side dish, but not French fries?
- Children indicating that they would be somewhat or very unhappy or somewhat or very happy were asked to provide an open-ended response explaining why.

RESULTS

- 95% of children reported eating at restaurants at least a few times per year, with 56% eating at restaurants at least a few times per month, and 14% eating at restaurants weekly.
- 59% percent reported ever ordering kids' meals (84% of tweens; 40% of teens).
 - The majority of these children would be (somewhat or very) likely to order a kid's meal that came with each of the following: vegetables (56%), fruits (77%), or French fries (89%).

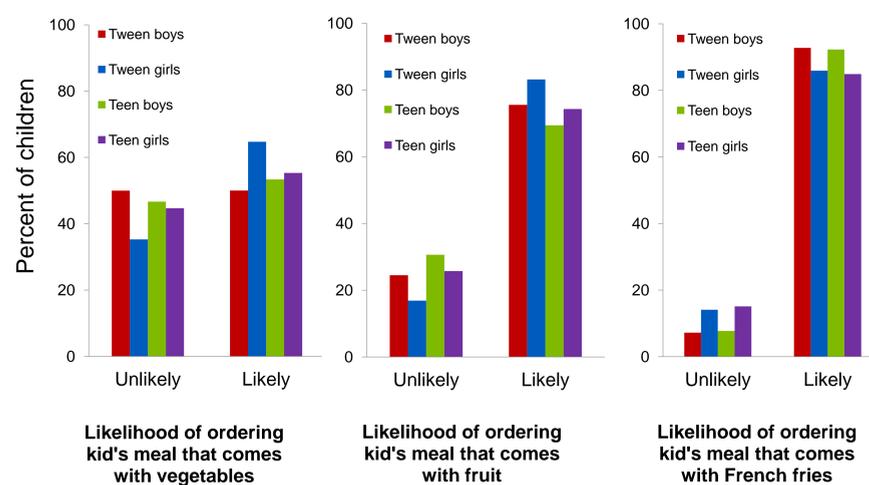
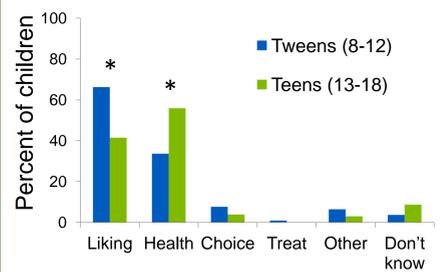


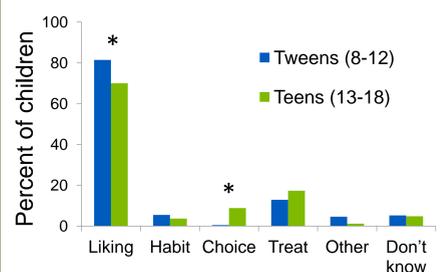
Figure 1. Children's reported likelihood of ordering kids' meals that come with vegetables, fruit, or French fries as side dishes.

- Age and sex differences ($p < .05$ - $p < .001$):
 - Girls were more likely than boys to order a kid's meal with vegetables.
 - Tweens and girls were more likely than teens and boys to order a kid's meal with fruit.
 - Tweens and boys were more likely than teens and girls to order a kid's meal with French fries.
- Children who ate at restaurants more frequently were more likely to order a kid's meal that came with vegetables ($p < .01$) and were more likely to be happy if their kid's meal came with a vegetable or fruit but not French fries ($p < .05$).

- About 2/3 of respondents felt happy or neutral about kids' meals that come with a vegetable or fruit but not French fries:
 - Unhappy: 34% of tweens, 31% of teens
 - Neutral: 33% of tweens, 38% of teens
 - Happy: 33% of tweens, 31% of teens



A. Happy children's reasons



B. Unhappy children's reasons

Figure 2. Reasons for being happy (A) or unhappy (B) if kid's meal came with vegetable or fruit but not French fries

*age differences at $p < .05$

- Among happy children, the most common reasons were related to liking (of fruits/vegetables) and health.
- Among unhappy children, most provided reasons related to liking (of French fries).

DISCUSSION

- Results suggest that fruit and vegetable side dishes would be accepted by a substantial number of children, particularly teens, girls, and those who eat at restaurants more often.
- The positive relationship between frequency of eating at restaurants and attitudes about fruit/vegetable side dishes has promising implications in terms of the potential public health impact of substituting these for higher-calorie side dishes.
- Taste is a key factor in children's attitudes, suggesting that successful incorporation of healthier kid's meal options requires the development and promotion of palatable, lower-calorie dishes.

1. Powell LM, Nguyen BT. Fast-food and full-service restaurant consumption among children and adolescents: Effect on energy, beverage, and nutrient intake. *JAMA Pediatrics*. 2013;167:14-20.