

2016

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Recommended Citation

Khuong, Y-Lan, "Regulating Kids' Meals to Combat Childhood Obesity" (2016). *Family Medicine Clerkship Student Projects*. 202.
<https://scholarworks.uvm.edu/fmclerk/202>

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Regulating Kids' Meals to Combat Childhood Obesity

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Family Medicine Rotation 4, September 2016

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Community Health Centers of Burlington



2. The Issue: Childhood Obesity

- Obesity is defined as a Body Mass Index ≥ 30.0 kg/m² in adults and above the 95th percentile in children. It is an issue present among all genders, ages, racial/ethnic groups, socioeconomic statuses, and geographic regions throughout the United States.
- Contributing factors to obesity include “a tendency to eat meals away from home, increased soda consumption, large portion sizes, eating fewer fruits and vegetables, driving more than walking or biking, increased time spent in front of the television, and fewer opportunities for physical activity”⁸
- Between the ranges of 1999-2002 and 2007-2010 in the United States, obesity among boys 2 to 17 years increased from 15.4% to 18.6% and from 13.8% to 15.1% among girls¹
- In Vermont, 12.9% of 2 to 4-year olds from low-income families, 11.3% of 10 to 17-year olds, and 12.4% of high school student are considered obese⁷



2b: Nutrition and Dietary Statistics

- Nationwide, children consume 19% of their calories and 13% of their sodium at fast food and other restaurants⁶
- Children approximately double their amount of calories while eating out compared to when they eat at home⁶
- Vermont adolescents report several unhealthy dietary behaviors:²
 - 63.9% ate fruit or drank 100% fruit juice less than 2 times per day
 - 83.1% ate vegetables less than 3 times per day
 - 16.1% drank a can, bottle, or glass of soda at least once per day



3: Public Health Costs

- ▶ Obese children are at least twice as likely as nonobese children to become obese adults and have increased risk for developing negative health consequences:¹
 - ▶ Diabetes hypertension, hyperlipidemia, sleep apnea, early puberty, orthopedic problems, asthma, depression, risk for eating disorders, behavior and learning problems, heart disease, and more
- ▶ The estimated cost of medical care over a lifetime is \$19,000 per obese child versus \$12,900 for a normal weight child who becomes obese as an adult³
- ▶ Obesity-related medical expenditures in Vermont are approximately \$291 million annually^{4,5}
 - ▶ Medicare and Medicaid costs would be reduced by 8.5% and 11.8%, respectively, in the absence of obesity-related spending



4a: Community Perspective

- Dietician at the Community Health Center
 - “Childhood obesity is a concerning issue that can be tricky to navigate in a nutritional counseling setting, particularly for elementary aged children. The parents and the children need to be in board and it’s important to be sensitive to body image issues through creating a welcoming atmosphere and using appropriate language.”
 - “Pediatric obesity is often tied to food insecurity and limited structure around eating – for example, lack of family meals or eating in the bedroom or in front of the TV. Children might be eating 2 breakfasts every day or eating snack because it’s there and not because they are truly hungry.”
 - “Most people put pressure on school meals for childhood obesity, but honestly many of the school meals in Vermont are way ahead of the game in terms of providing local fruits and vegetables with interesting menus.”
 - “Physical activity could be improved. Many elementary schools only have gym 1-2x a week.”



4b: Community Perspective

- ▶ American Heart Association Representative

- ▶ “Nearly half of food dollars are spent on restaurant foods, up from 26% in 1970. Many of these kids’ meals are high in calories, saturated fat, sodium and sugar while lacking whole grains, fruits, and vegetables.”
- ▶ “About 95% of meals served in restaurants still fail to meet basic USDA nutrition standards.”
- ▶ “Today, due to work demands and hectic school and sport schedules, families are eating out more than ever. But our kids are paying the price. Only 3% of restaurant kids’ meals currently meet nutrition standards and this translates to kids getting one fourth of their calories from eating out.”
- ▶ “We want to make the nutrition standards higher. We can’t keep doing the same things and expect anything to change. Before we can bring it to legislation, we need to prove it is healthier and that it can be done. Before we can enact the legislation we need to educate the families and the restaurants”



5a: Intervention and Methodology

- ▶ Working alongside the American Heart Association, I helped organize healthy kids' meal events with seven family-style restaurants
 - ▶ Ramuntos Pizza in Bennington, Soup n' Greens in Barre, Little Harry's in Rutland, Twiggs American Gastropub in St. Albans, Sheri's place in Springfield, Lakeview House Restaurant in South Burlington, and Kingdom Taproom in St. Johnsbury
- ▶ At each restaurant, the first 50 kids received free kids' meals that fulfilled the nutritional standards proposed in legislation (H.759) last year
 - ▶ I worked one-on-one with the restaurant chefs to develop entirely new kids meal recipes or modify pre-existing recipes to fit nutritional criteria
- ▶ In person interviews were conducted with attendees to address feedback, response to H.759 legislation, taste, and general perceptions

5b: H.759 Nutrition Standards

- ▶ If the meal includes a beverage, that beverage must be:
 - ▶ Water, sparkling water or flavored water, with no added natural or artificial sweeteners;
 - ▶ Nonfat or 1 percent milk or non-dairy milk alternative containing no more than 130 calories per container and/or serving as offered for sale; or
 - ▶ 100 percent juice, with no added sweeteners, in a serving size of no more than eight ounces.
- ▶ The meal must contain no more than:
 - ▶ 600 calories
 - ▶ 770 milligrams of sodium
 - ▶ 35% of calories from total sugars
 - ▶ 35% of calories from fat
 - ▶ 10% of calories from saturated fat
 - ▶ 0.5 grams of trans fat
- ▶ The meal must include at least 0.5 cup (or equivalent) of non-fried fruit or non-fried vegetables (excluding white potatoes), and at least one of the following:
 - ▶ A whole grain product that contains no less than 51% by weight whole grain ingredients or lists whole grains as the first ingredient;
 - ▶ A lean protein food, consisting of at least two ounces of meat; one ounce of nuts, seeds, dry beans, or peas; or one egg. A lean protein contains less than 10 grams of fat, 4.5 grams or less of saturated fat, and less than 95 milligrams of cholesterol per 100 grams and per labeled serving; or
 - ▶ At least 0.5 cup or nonfat or 1 percent milk or low-fat yogurt, or 1 ounce of reduced fat cheese.



6: Results and Responses

- 23 Families were interviewed
 - Data is still being collected
- Overall feedback was positive
 - All parents supported the idea of having healthier kids' meals and the notion of legislative standards
 - The majority of children finished their plates and stated they enjoyed their food
- 9 parents expressed wanting more strict criteria for the determination of a healthy kids' meal
- 18 of the families did not know that these healthy kids' meal restaurant events were occurring
- 4 children did not enjoy the taste their meals, particularly the taste of the whole wheat products



7a: Evaluation of Effectiveness

- ▶ The project seemed to be fairly helpful in promoting the issue of childhood obesity and nutritional meals for children
 - ▶ The majority of children enjoyed eating their meals and all of the parents were supportive of improving the health standards of kids' meals
- ▶ The American Heart Association was able to gather more signatures in support of setting nutritional standards for restaurant kids' meals
 - ▶ These will eventually be sent to the state legislature
- ▶ Other suggestions for evaluating effectiveness include:
 - ▶ Give surveys for all participating families to qualitatively and quantitatively (via Likert scale) describe their opinions on the taste of the healthy kids' meals, the restaurant events, how much money they would be willing to spend for this meal, and the proposed nutritional legislation
 - ▶ Measure the number of attendees during the events
 - ▶ Monitor the number of customers who continue to ask for the healthy kids' meals at these seven restaurants over time



7b: Limitations

- I was only able to gather responses from a subpopulation of families participating in these events
- Attendance was less than expected, particularly for the first three events
 - This may have been due to restaurant events being on weekdays and only during a two hour period
- Advertising was limited, mostly due to time constraints
 - The restaurants and “Seven Days” newspaper advertised the events, but further promotion did not occur until five of the seven events had occurred
- I have yet to gather any responses from the chefs/restaurants regarding their opinions on the H.759 bill and whether making these healthy kids’ meals each night would be a feasible and profitable option
- For some of the children, there was initial bias against eating these kids’ meals because they were publicized as being “healthy”



Future Interventions

- Include more restaurants in kids' meal events and increase advertising
 - Hand out recipes on index cards for families to recreate at home
 - Create informational placemats for children to color and simultaneously learn about nutrition and healthy eating
- Survey other community members (i.e. not restricted to those who attended these restaurant events) about parental support for policy setting nutritional standards for kids' meals
 - Provide more qualitative evidence that can bolster support for the H.759 bill
- Hold sessions at schools, the City Market, the Healthy Living Market, and/or community centers on understanding nutrition labels in relation to healthy meal recommendations
 - Could have these in conjunction with an educational series addressing mindfulness while eating or cooking demonstrations on navigating healthy cooking on a budget
- Meet with elementary school leaders to discuss having more days of Physical Education class or having open gym days



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