

## INTRODUCTION

Childhood obesity exists as an epidemic in South Carolina. In this state, 14% of students are obese<sup>1</sup>. With 65% of adults in SC overweight or obese<sup>2</sup>, the manifestation of these conditions as perpetual in nature is realized. Lack of access to fresh fruits and vegetables and the higher costs of produce impede nutritious food choices, and cheaper, processed foods prevail.

Partnering with Mr. Walter Campbell, the director of Nutrition and Food Services for Charleston County School District (CCSD), and Dr. Scottie Buff, director of Junior Doctors of Health, the needs of the school district were defined in terms of food behaviors and prompted a focus on nutrition. This project was a convergence of the goals to increase access to fresh fruits and vegetables and expose elementary-aged students to the benefits of nutritious food options to emphasize the importance of prevention and health promotion in the CCSD. By presenting healthy food in a delicious and appealing manner, the aim of this project was to introduce a way to incorporate nutritious food into a diet and promote healthy food behavior.

## METHODS

Vegetable wraps were distributed to students attending Mitchell Elementary, an inner-city school in Charleston, SC, upon class dismissal. This wrap contained sautéed carrots, bell peppers, broccoli, tomatoes, black beans wrapped in a flour tortilla. Instead of salt, Mrs. Dash was substituted. The wraps were cut in half in order to expose the array of colors from the various vegetables. Recipe cards were distributed to students and parents with nutrition information and variations.



Nutrition Facts	
Serving Size 1/2 wrap	
Amount Per Serving	
<b>Calories</b>	149
<b>Total Fat</b>	4.5g
<b>Cholesterol</b>	0mg
<b>Total Carbohydrate</b>	20g
Dietary Fiber 3g	
<b>Protein</b>	5g
<b>Vitamin A</b> 33%	<b>Calcium</b> 8%
<b>Vitamin C</b> 26%	<b>Iron</b> 8%

## RESULTS

Two-hundred servings were distributed in less than 20 minutes. The wraps were well received by parents, school staff and students. The following are comments and attitudes from recipients:

- "I think they look good!" – 9 year-old boy
- "Ooh, I want ice cream" – 6 year-old boy
- "What? No meat in them? We like vegetables, but not that much." – Mother of 2
- "Thank you for the Subway!" – 9 year-old boy
- "I didn't know about Mrs. Dash seasoning with great flavor and no salt!" – Parent
- "We love our vegetables" – Mother of 2
- "If I smell [vegetables] I'll throw up" – 8 year-old boy while holding his nose



The total cost for ingredients was \$75 making the cost per serving \$0.38. There is a potential for these wraps to be an addition to the CCSD lunch menu as discussions with Mr. Campbell are still ongoing.

### Obesity and Dietary Behaviors of Students in South Carolina

<b>Were obese</b>	<b>14.4%</b>
<b>Ate fruits and vegetables less than five times per day</b>	<b>82.9%</b>
<b>Drank a can, bottle, or glass of soda or pop at least one time per day</b>	<b>34.3%</b>

Figure 1. Obesity and dietary behaviors of students in S.C. in 2007<sup>1</sup>.

## DISCUSSION

With regards to Healthy People 2020 to "eliminate preventable disease, disability, injury, and premature death," our group sought a project that could enable people to live longer, healthier lives. Diabetes mellitus, hypertension, hyperlipidemia, and poor bone health can result from improper nutrition, leading to a premature death. First Lady Michelle Obama created an initiative, Let's Move, that will "give parents the support they need, provide healthier food in schools, help our kids to be more physically active, and make healthy, affordable food available in every part of our country." With these ideas in mind, our "Fresh Food Friday" program is consistent with the example set for the nation. The potential of this meal choice being implemented in the CCSD lunch menu could be the momentum to encourage healthy eating behaviors in students and thus alleviate childhood obesity. The recipe provided to the parents is a tool to reinforce this healthy behavior at home.

One future mission of our program is to improve access to fresh food to families despite income barrier, and perhaps through working with local farmers markets, electronic benefit transfer (EBT) cards could be applied to purchase fresh, local produce. Incentives that increase the value of food stamps are already in place in cities such as Boston<sup>3</sup> and New York<sup>4</sup>. Technology is such that now physical food stamps are now in the form of electronic benefit cards. Already in the low country, certain farmers markets accept these cards as a form of payment. If payments to these vendors could be programmed to increase the value of the EBT cards when purchasing foods from farmers markets, not only would federal funds be kept within the local economy, but the benefits of increasing the affordability of healthy food and supporting local farmers by increasing customers would be a way to resolve not only childhood obesity, but obesity in the population-at-large.

"Fresh Food Friday" increased public awareness about the social determinants of health; in this case, access was emphasized. This access to improved nutrition can improve eating habits and health, which, in turn, can prevent disease and lead to longer lives. We hope the program will continue to have a positive effect, improving lives.

## REFERENCES

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