



# Medical Student Run Obesity Education for High School Students

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## INTRODUCTION

- Obesity in the pediatric population has escalated in the last 10 years.
- Significant challenges face high school teachers, including motivating adolescents to choose healthier behaviors.

### Obesity Initiative Objectives

- Educate high school students about the science behind unhealthy lifestyle choices and its contribution to obesity
- Establish a sustainable presence in the school after the presentation
- Encourage students to take responsibility to for their own health and choices

## BACKGROUND

- Childhood obesity is defined as children (age 2-19) who have a BMI > 95 percentile
- 1/3 of children are overweight or obese
- Children unhappy with their weight have increased risk for depression, substance abuse and/or eating disorders as well as multitude of physical health problems
- Obese children are likely to become obese adults

### Acknowledgments:

We would like to acknowledge Robert Treat, Ph.D. and the Office of Academic Affairs, MCW, for their assistance with the statistical analysis of the data.

## METHODS

- First and second year medical students developed a standardized instructional module to teach HS students.
- 25 medical student presenters were trained on module content prior to presentations.
- Multiple instructional strategies used in the high schools included:

- (1) a 1 hour interactive presentation by two medical students
- (2) a 30-day healthy behavior challenge
- (3) poster to be kept in the classroom - including "fast facts" to be rotated weekly by the class teacher and nutrition information from 6 area restaurants for students to browse
- (4) teacher reinforcement during the challenge

- Students were asked to complete a survey assessing knowledge and lifestyle behaviors prior to the presentation and at the end of the 30 day challenge

### Handouts:

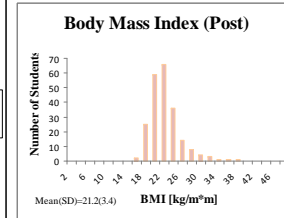
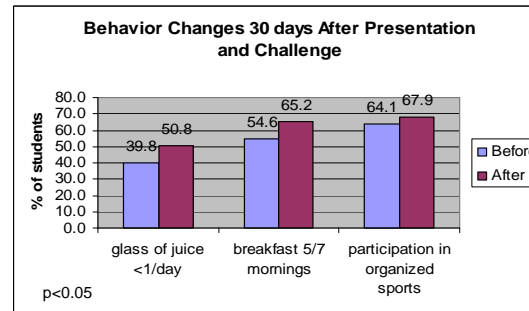
- Pre-presentation survey
- 30 day Challenge
- Post-presentation survey (after 30 day challenge)
- Teacher survey

### Statistical analysis:

- Student pre and post surveys were matched and results were compared.
- Knowledge questions were analyzed using dependent t-test.
- Behavior questions were analyzed for association within subject's responses by the following studies: Numerical scale: dependent t-test, ordinal scale: Wilcoxon sign-rank tests and nominal scale: chi-square tests

## RESULTS

- 6 health classes in 4 HS (N=335 students) were taught by medical student pairs (N=25) in a large metropolitan area
- Students showed significant behavior changes in various areas
- Students retained health knowledge 30 days after presentation
- 90% of students sometimes or always met their challenge goals
- 90% of students are sometimes or always happy with their weight



### Feedback from teachers:

"Excellent material and overview of nutrition and disease"  
 "The nutrition facts poster to display was very helpful"

### Feedback from Medical Students:

"We are at an age, that high school students look up to, and I feel we can be more influential to them at times than adults may be"  
 "This program gives young medical students the ability to be an advocate in the community and public, and contribute to preventative healthcare."

## CONCLUSION

- Small sustainable short term healthy behavior changes were easily implemented into the student's lives at local high schools
- Curriculum received positive feedback from both the teachers and the medical student presenters.

### Future Directions

1. Assess if behavior changes are sustainable beyond the 30 days
2. Coordinate with teachers to increase involvement throughout 30 days