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Combating Childhood Obesity

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Combating Childhood Obesity in Danbury, CT

Rebekah Misir
December 2017-January 2018
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Problem Identification and Need

- The national average of overweight (16.6) or obese (13.7) high school students is 30.3% ¹
- Similarly 26.2 % of CT high school students are overweight (13.9) or obese (12.3) ¹
- Danbury Pediatric Associates found that 24% of their patients (aged 2-18 yrs) are overweight or obese.
 - It should be noted that this demographic is not representative of Danbury's racially diverse population.
- Childhood obesity is associated with higher risks of developing type II DM and other adverse health outcomes
- According to the American Academy of Pediatrics:
 - Adolescents who are overweight have an estimated 80% chance of being obese as adults



Danbury Pediatric Associates CT
 Contact: Lindsay Accosta
 Office Manager
 (203) 744-1680

BMI Report By Age Group (85th to 94th percentile)

(10/1/2016 through 8/17/2017)

Group	Patient Count in Age Grp		%
	Grp	BMI	
Ages 2-4	1535	183	11.92
Ages 5-11	3294	436	13.24
Ages 12-14	1469	221	15.04
Ages 15-18	1709	242	14.16
Over All Groups	8007	1082	

BMI Report By Age Group (95th percentile and over)

(10/1/2016 through 8/17/2017)

Group	Patient Count in Age Grp		%
	Grp	BMI	
Ages 2-4	1535	88	5.73
Ages 5-11	3294	344	10.44
Ages 12-14	1469	187	12.73
Ages 15-18	1709	207	12.11
Over All Groups	8007	826	

Patient Practice Demographics

8,379 patients between the ages of 2-18 years old.

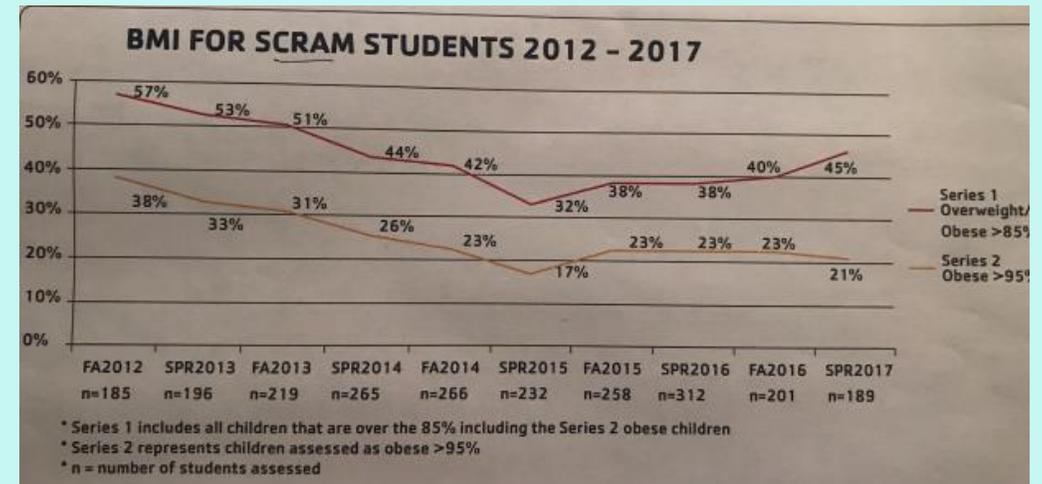
6,386 patients are White=76.2%
 657 patients are Asian=7.8%
 453 patients are Black=5.4%
 4 patients are Native American=0.04%
 733 patients declined to specify=8.7%
 76 patients are unknown=0.9%

Overweight and Obese >85%

2-4 years 16.86%
 5-11 years 25.49%
 12-14 years 28.63%
 15-18 years 27.02%

Public Health Cost in the Community

- \$147-\$210 billion in annual medical costs of adult obesity in the US goes towards treating preventable obesity-related diseases, such as diabetes. Childhood obesity is responsible for \$14.1 billion in direct costs. ³
- An estimated \$856 million in adult medical expenditures are attributable to obesity in Connecticut ³
- The Danbury YMCA SCRAM fitness program for low income children included dietary counseling for families, and physical activity 3x/week. The cost was enormous with families paying about \$180 for 8 weeks after insurance and scholarship coverage
 - When funding was cut in Fall of 2015, the program experienced less success. ⁴



Community Perspective

- One Primary care physician in WCHN, believes that one of the primary causes of poor diet and nutrition is due to a lack of education regarding nutrition.

School 1: Look-alike Smart Snacks	School 2: Regular unhealthy snacks	School 3: Repackaged Smart Snacks	School 4: Healthy brands
			
			
			

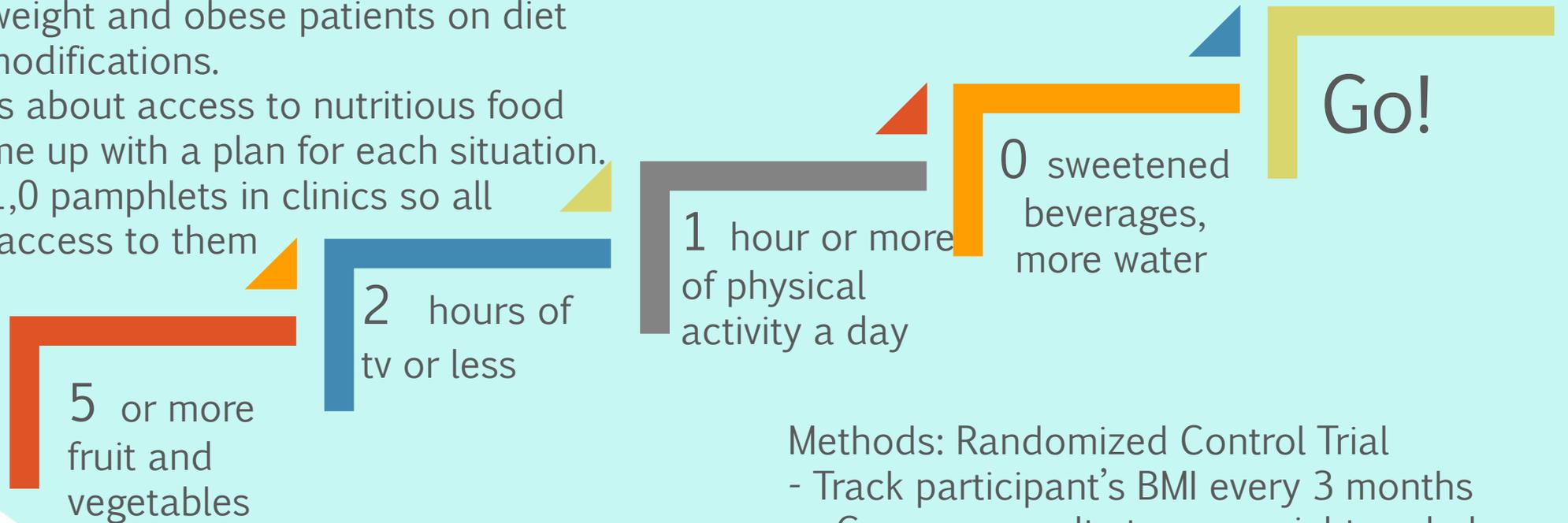
- The Director of Community Wellness at a YMCA in CT has been working to reduce childhood obesity rates in Western Connecticut over the past 10 years.
- She has noticed that the rates of childhood obesity in this community have increased. She attributes this to increasing amounts of processed foods, food desserts in low income areas and poor education surrounding nutrition.
- She gave an example of a study done at the UCONN Rudd Center study showing that big companies who sell “look alike” Smart snacks in schools confuses students and parents about healthy snacks while allowing junk food brands to promote their products in schools. ⁵
- She believes prevention is more cost effective than introducing fitness and diet routines to the community and is working to implement an initiative called Go! 5,2,1,0 that focuses on preventative measures in schools and other community organizations. ⁶



Interventions and Methods

Intervention

- Pair clinics with the YMCA 5,2,1,0 program to educate overweight and obese patients on diet and lifestyle modifications.
- Talk to parents about access to nutritious food and try to come up with a plan for each situation.
- Keep the 5,2,1,0 pamphlets in clinics so all families have access to them



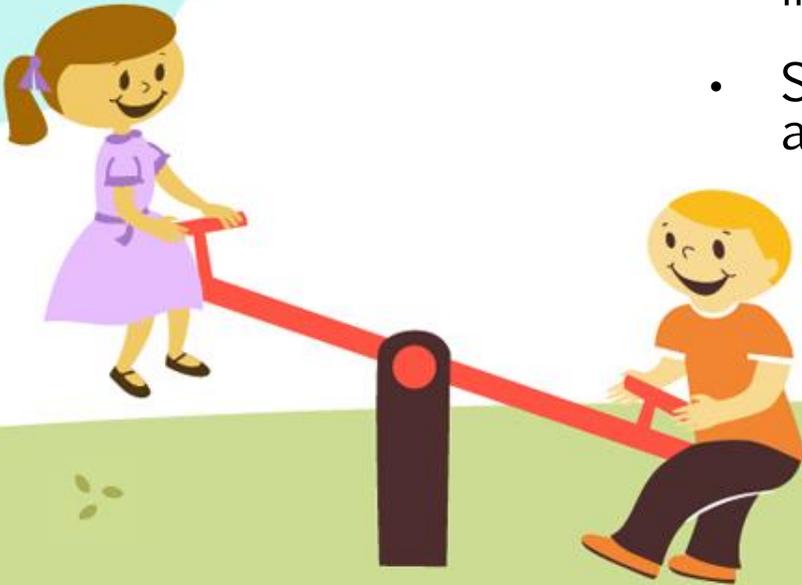
Methods: Randomized Control Trial

- Track participant's BMI every 3 months
- Compare results to overweight and obese patients who do not participate in the project
- The control group will still receive routine counseling at visits.



Results/Response

- Families seemed responsive to the 5,2,1,0 message. It is easy to remember and there are many angles to tackle health from. If a family had difficulty implementing all of it, they could tackle it down into more manageable pieces.
- The clinicians seemed receptive since it is a clear way to tell families about nutrition and exercise with pre-written instructions.
- Since the rotation is only 6 weeks, I was unable to collect any data



Effectiveness and Limitations

- Getting the 5,2,1,0 message out is easy due to the large number of schools and other organizations that are already partnered with the YMCA and educating children and their families about the Go! 5,2,1,0 program.
- Since this clinic sees a limited number of pediatric patients, the sample size will be low
- In addition, the rotation is only 6 weeks long and that is not enough time to implement and perform data collection.



Recommendations for future interventions/projects

- Family counseling with a dietician would be beneficial however this may not be possible economically
- Implementing a standard physical activity regimen for all the children participating in the program would standardize the treatment received by all the participants.
- Getting other clinics on board with the program would increase the size of the study and reach more children.



1. DPH Nutrition, Physical Activity & Obesity Program, November 2015
2. Committee on Nutrition. American Academy of Pediatrics Policy Statement: Prevention of pediatric overweight and obesity. *Pediatrics*. 2003 (reaffirmed 2006); 112(2):424-430.
3. *Connecticut State Obesity Data, Rates and Trends - The State of Obesity*, The State of Obesity Is a Project of The Trust for America's Health and Robert Wood Johnson Foundation, stateofobesity.org/states/ct, January, 2018.
4. "Students Can Run And Move.SCRAM. Summary of Results 2012 through 2016." *Regional YMCA of Western Connecticut*, Jan. 2017.
5. Harris JL, Hyary M, Schwartz MB (2016). Effects of Offering "look-alike" products as Smart Snacks in schools. *Childhood Obesity*. www.UConnRuddCenter.org/LookAlikeSmartSnacks
6. "Building Healthy Foundations." *The YMCA RSS*, Regional YMCA of Western CT, Dec. 2017, www.regionalymca.org/go-5-2-1-0-newsletter/.

References

