



Champions for bringing healthy choices to life.

A CASE REPORT:
BMI STUDY



THE PROBLEM



Childhood obesity has become a critical health epidemic, affecting a staggering 17% of all children and adolescents in the United States. In 2013, the Commonwealth of Pennsylvania was named the 20th most obese state in the country with 33% of school students either overweight or obese. Considerable weight fluctuations occur in the elementary school years, making interventions aimed at the prevention and treatment of early childhood obesity increasingly imperative.

Given the significant amount of time youth spend in school, school-based behavioral interventions are necessary in the fight against childhood obesity. Assessing body mass index (BMI) is a quick and simple screening method that can serve as an accurate measure of adiposity. Over 25% of states throughout the country, including Pennsylvania, implement BMI screening and parental notification programs in their schools. Although

BMI screening and notification programs look attractive at first glance, school-based interventions have been unsuccessful in reducing childhood obesity prevalence, potentially due to the lack of follow-up with appropriate nutritional education programming for children who screen positive for overweight or obesity. In addition to limited effect, studies have revealed that BMI screening procedures performed on school-aged children do not meet sufficient quality measures regarding policies and guidelines, screening practices, staff training, equipment, and data management. Further, school nurses cite multiple barriers to BMI screening, including workload, lack of privacy, lack of time, and lack of policy.

Despite a state mandate to perform BMI screening and notification within all schools, limited evidence supports best practices for accomplishing this formidable task.

THE SOLUTION





Committed to its mission of improving community health, the Highmark Foundation funded our efforts to develop and test an effective BMI screening letter that would lead parents to tools and resources for making healthy lifestyle changes for their families. The first phase of the project involved structured interviews with 42 parents from six Pennsylvania schools. Parents were asked to provide feedback on two different BMI notification letters – their school's standard letter and an expert-revised letter. Based on this feedback, a revised screening letter was created giving an explanation of health risks and specific actions that parents could take; the revised letter also included graphics. The second phase of the research involved schools being assigned to distribute either the standard letter (eight schools) or the revised letter (eight schools). Schools mailed the letters and parents were invited to participate in a survey to assess their intention and predicted actions based on information presented in the letter. 385 parents completed surveys.

SCHOOL INFORMATION

[Today's Date]

Dear Parent/Guardian:

On [insert screening date], [Child's First Name] was weighed and measured in school and his/her BMI (Body Mass Index) was recorded. BMI-for-age percentile was calculated using your child's BMI and comparing it to other children who are of the same age and sex. These measurements are used to screen for weight categories that may lead to health problems. Keep in mind, checking a child's growth over time is more important than a one-time measurement and it is necessary for all children, regardless of BMI, to be active and eat healthy.

[Child's First and Last Name]'s Results:			
[Child's First Name]'s BMI-for-age percentile is XX%.			
Underweight	Healthy Weight	Overweight	Obese
0% to 4%	5% to 84%	85% to 94%	95% to 100%
			
[Child's First Name]'s height is X ft. X in. and weight is XXX lbs.			

If [Child's First Name] is not in the healthy weight category, it is recommended that you schedule a visit with his/her health care provider and share these results.

What are the health risks of being overweight or obese?

- Increased risk of being overweight or obese as an adult.
- Increased risk for problems such as diabetes, heart disease, asthma, high blood pressure and poor self-esteem.

Here are some suggestions for your family to reach and/or maintain a healthy weight.

- Get up, get moving and limit screen time.
- Serve water instead of drinks with added sugar.
- Eat a variety of fruits and vegetables every day.
- For more tips visit www.pennstatehealth.org/P2O/wellness

For more information about BMI, visit www.cdc.gov/healthyweight/assessing/bmi or contact the School Nurse.

Sincerely,

Name of School Nurse
Phone: (555) 555-5555

Pennsylvania requires schools to report BMI for all children in the same way they report vision and hearing screenings. BMI-for-age percentile shows how your child's weight compares to that of other children of the same age and sex.

Revised BMI Letter

THE RESULTS



Our research team was pleased to learn that our revised letter showed favorable results. Among parents of overweight or obese children, more recipients of the revised letter intended to take action based on information it contained when compared to those receiving the standard letter (68% vs. 45%).

In addition, parents of overweight or obese children who received the revised as compared to the standard letter were more likely to read the entire letter (82% vs. 77%).

NEXT STEPS

The revised notification letter may prompt parents to take action to address their children's BMI. However, further research is necessary to identify more effective ways of supporting schools and parents to make healthful changes for their at-risk children. As noted previously, better follow-up for those who screen positive for overweight or obesity is needed. The research team at Penn State Hershey PRO Wellness Center will continue in these areas.

Penn State Hershey PRO Wellness Center will submit the final revised letter to the Pennsylvania Department of Health anticipating that all public school districts will adopt the new format across the Commonwealth.



"You wouldn't throw away a letter that says your child failed his or her vision test... So, if we're telling you that your child is underweight, overweight or obese, we want you, as parents, to realize the risks and take action."

– Donna Kephart, Executive Director

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ABOUT PENN STATE HERSHEY PRO WELLNESS CENTER

Penn State Hershey PRO Wellness Center helps Pennsylvania communities live healthier lives using evidence-based strategies for measurable and sustainable results. Historically focused on childhood obesity prevention, the Center has helped children and their families eat well, engage in regular physical activity and incorporate healthy habits into their everyday lives since 2003.

Our approach of Prevention, Research and Outreach provides schools, communities and like-minded organizations with educational programs, technical assistance, collaborative partnerships and access to proven wellness interventions.

PREVENTION

The Center provides an evidence-based approach to understanding and reducing the risks of childhood obesity. We facilitate proven interventions and capacity building, and offer technical assistance and hands-on project management to overcome obstacles that prevent access to healthy alternatives. In addition to educating and inspiring people to make healthy choices, the Center focuses on environmental and lifestyle changes that remove barriers and increase access to healthy behaviors where we learn, work, play and live.

RESEARCH

We recognize the importance of integrating research, evidence and data into our programs to ensure value and credibility to those we serve.

OUTREACH

We strive to educate and inspire youth and families to incorporate healthy lifestyle choices daily. Our outreach efforts include increasing public awareness through regional event participation as well as providing various materials related to nutrition, physical activity and other obesity related issues.



*PROGRAM DEVELOPMENT & IMPLEMENTATION • ASSESSMENT & EVALUATION
CAPACITY BUILDING • TECHNICAL ASSISTANCE • COLLABORATIVE PARTNERSHIPS
TRAINING • ACCESS TO PROVEN WELLNESS INTERVENTIONS*



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