

Childhood Obesity: Feats for Fitness

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EXECUTIVE SUMMARY:

The Tons of Fun team was initially formed to address obesity and decided to focus on childhood obesity due to our desire to help improve and educate the next generation. Our team wants children to get excited about fitness and nutrition so that they can have a healthy, full, and productive life. However, education alone is not enough to change the course of the childhood obesity epidemic and many children are obese despite education on healthy eating habits and physical activity. After reviewing numerous nutrition and physical activity interventions we chose the Kentucky Department for Education's Green and Healthy Schools Program. West Hardin Middle School in Stephensburg, KY was contacted and Joe Pike, Physical Education teacher became the liaison for the project. To encourage the students to eat nutritiously and become more active, it was decided that www.dailyfeats.com should be the way to track the activities that the students accomplished. They received points for each healthy activity that they did which is tracked on the website. The program is on-going and our project cost little to no money.

INTRODUCTION/BACKGROUND:

After the KPHLI orientation, we held our first team meeting on 5/24/10. We began our project with five team members but one had to leave due to family matters. It was hard for us to narrow down how to approach the complex problem of childhood obesity.

A literature review was conducted and we found that "childhood obesity continues to be a negative health outcome for many Kentucky children despite numerous existing initiatives and programs to combat the epidemic."^{1,2}

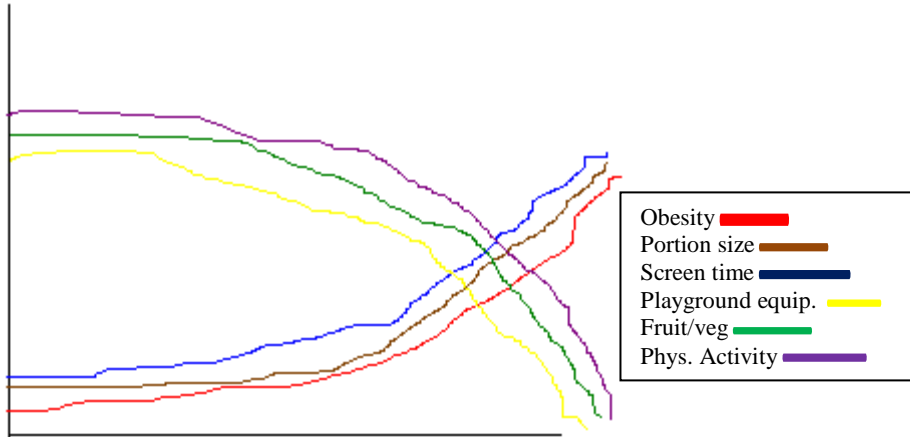
Since children spend most of their week in school, it was decided to work with a school on this project. "Schools offer many opportunities to develop strategies to prevent obesity by creating environments in which children eat healthfully and engage regularly in physical activity"³

While we encouraged unplugging from electronic devices, we realized that "the use of technology as a part of normal daily life is a given for the current generation of children with many owning multiple electronic devices of their own. Most children are familiar with and use the internet and computers giving us a potentially invaluable tool for nutrition education."⁵ Therefore, using the website www.dailyfeats.com was chosen to track the children's accomplishments.

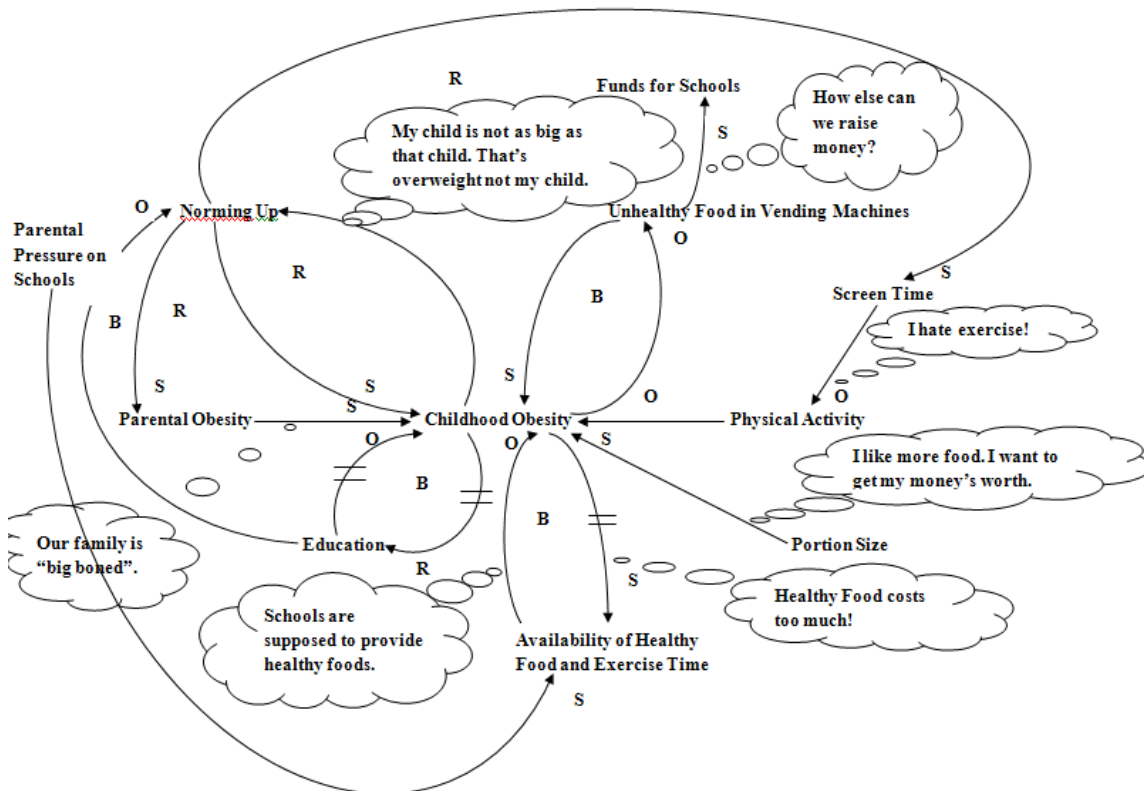
Problem Statement:

Why despite increased awareness of the childhood obesity epidemic has the problem continued to increase?

Behavior over Time Graph:



Causal Loop Diagram:



10 Essential Public Health Services/National Goals Supported:

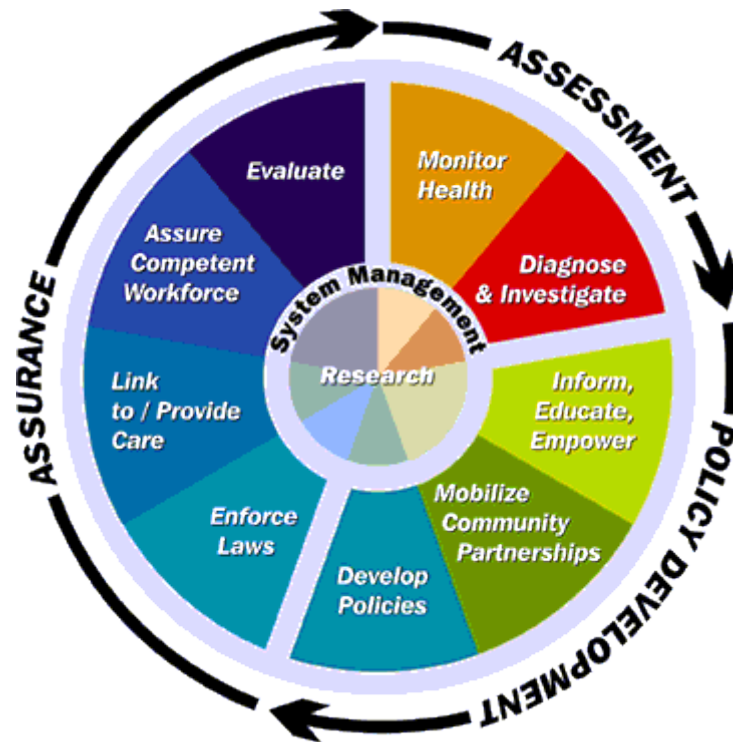


Figure 1: From CDC National Public Health Performance Standards Program

In 1994 the Centers for Disease Control and Prevention (CDC) developed the 10 Essential Public Health Services. These 10 Essential Services were established to identify and describe standards of public health practice/ performance as well as processes necessary to promote health and to prevent disease.

Whereas, the 10 Essential Public Health Services identify and describe the standards of public health practice, The National Public Health Performance Standards Program (NPHPSP) works toward improving “the quality of public health practice and the performance of public health systems...”⁴ NPHPSP is a collaborative effort of seven national public health organizations that use the 10 Essential Public Health Services as a framework to establish the optimal level of public health activities that should be provided in every jurisdiction. NPHPSP uses assessment instruments to evaluate how well a community/state is doing in providing the 10 Essential Public Health Services. They ask questions such as, “Are we doing the right things?” and “How can we improve our performance?”

The goal of this project was to address the problem of childhood obesity. If we are doing the right thing, why does the problem of childhood obesity persist? How can we improve the performance of public health actions to address this problem? In this change master

project the “Tons of Fun” Team addressed the following Essential Public Health Services:

EPHS # 3: Inform, Educate, and Empower People about Health Issues

EPHS # 4: Mobilize Partnerships to Identify and Solve Health Problems

EPHS # 5: Develop Policies and Plans that support Individual and Statewide Efforts

We partnered with West Hardin Middle School and the Green & Healthy Program to encourage and promote physical activity, reduce health risks and promote healthy behaviors. Students logged in to a self-monitoring website, dailyfeats.com to log in their physical activity and good nutritional choices for each day. They earned points for each activity they logged in to Daily Feats. Students could redeem their points for rewards or use their points to donate to charity. West Hardin Middle School participates with the “Hoops for Hearts” fundraiser each year. Students can donate their points and Daily Feats will make a charitable donation to the American Heart Association in honor of that student(s).

PROJECT OBJECTIVES/DESCRIPTION/DELIVERABLES:

Objectives:

- Utilize Kentucky Green and Healthy Schools approach to identify policies and practices at West Hardin Middle School that may be contributing to the childhood obesity epidemic.
- Implement appropriate evidence based nutrition and physical activity intervention to address identified needs.
- Assist the school in achieving model school status from the Kentucky Green and Healthy Schools Program.

Description:

The KY Public Health Leadership Institute (KPHLI) Team partnered with West Hardin Middle School to identify policies/practices that may be contributing to obesity. We utilized the KY Department for Education’s Green & Healthy Schools (KGHS) program. This student-centered program takes an inquiry-based approach that used the school as a learning lab to promote a healthier and safer environment. The teacher and students completed a Nutrition and Exercise Inventory to assess the school’s status. We worked with the Physical Education teacher who got students to take an active role in the assessment and facilitate a student-driven intervention. We assisted with the selection of an appropriate evidence-based nutrition and/or physical activity intervention.

Deliverables:

1. Sustainable Project Plan to address nutrition and physical activity at West Hardin Middle School.
2. Kentucky Green and Healthy Schools recognition and award for West Hardin Middle School as Model School.

METHODOLOGY:

Our focus in working with West Hardin Middle School was to improve physical activity and nutrition among related arts middle school students. We worked with the Physical Education teacher to implement a class challenge between the related arts teachers' classes during the period of February 8 - March 21, 2012. Each class was instructed to form teams using www.dailyfeats.com to track physical activity and nutrition habits daily.

Dailyfeats.com is a free website that allows people to create accounts, track "feats" such as working out, eating healthy, turning off lights, etc. Users are awarded points for each activity that they can then use to redeem for rewards such as gift cards, discount coupons, or they can donate points to organizations such as the American Heart Association. There is no cost to participate in dailyfeats and it encourages users to give "props" to others to encourage them to continue to "do good." Because the focus of our project was childhood obesity, we proposed the following guidelines for the classes participating in the challenge. To be counted towards our challenge, students must earn at least:

- 40% of their total points from exercise related daily feats.
- 40% of their total points from nutrition related daily feats.
- 20% of their total points can come from any category on daily feats.

We averaged the points earned based on the size of the team to account for variations in classroom size. At the end of the challenge period, the winning team received a trophy that they can continue to defend if the related arts classes choose to do another challenge after our project period ends. Each participating student decided what they wanted to do with their points. They chose between deciding to donate their points to the American Heart Association in support of the schools' Hoops for Heart Program, premium rewards, and local rewards for themselves.

In order for the school to achieve model school status from Kentucky Green and Healthy Schools Program our KPHLI team helped them take the following steps:

1. Completed a Pledge Form.
2. Completed KGHS Training.

3. Formed a Green and Healthy Team: The team should include maintenance workers, cafeteria staff, administrators, teachers, and members of the community. The team should also include a “core” group of students that will be responsible for the school’s program. This is very flexible! Some schools conduct the program through an afterschool program or club, and others have entire grade levels working on the program.
4. Choose a Category: We chose Health focusing on Nutrition and Physical Activity.
5. Completed an Inventory: Inventories in the 9 categories served as needs assessments and helped students and staff identifies areas of improvement for the school. We completed the Nutrition and Physical Activity Inventories.
6. Completed a SMART Form: SMART Forms served as project proposals. After an inventory had been completed, students designed an improvement project and submitted a SMART Form that described the planned project. All SMART forms are submitted online through the KGHS website.
7. Completed an Improvement Project Report: After students submitted an inventory, SMART form, and then implemented the project, a brief report on the project should be submitted. Once this is submitted, the project is completed and will count toward awards in the KGHS program.

RESULTS:

With the help of Mr. Pike, the Physical Education teacher, West Hardin Middle School applied for Model School status for Green and Healthy Schools. The student Green and Healthy Schools’ Team completed an Exercise and Nutrition Inventory. The 6th, 7th, and 8th grade classes participated in a grueling competition of “Feats for Fitness” which lasted six weeks in duration. Four teachers, Mrs. Brangers, Mr. Pike, Ms. Perkins and Mrs. Benningfield, encouraged nine teams during 5th, 7th, and 8th periods, to outperform each other in “Feats of Fitness.” The carrot was extra gym time for the winning team.

Student participation was voluntary and each student picked which of the “Feats” they would perform. The students used www.dailyfeats.com to track their progress. At the conclusion of the competition, each student turned in a computer generated printout of their “Daily Feats” account. Seventy nine students participated in the competition. Mr. Pikes’ fifth period, 8th grade class was proclaimed the winner.

CONCLUSIONS:

Tons of Fun was successful in partnering with the community to implement an appropriate evidence based nutrition and physical activity intervention at the middle school level. The teachers at West Hardin Middle School observed the students performing some of the “Feats for Fitness” when they did not know anyone was watching them. The program helped the students see how easily physical activity could be incorporated into their daily lives. The program is inexpensive and easily sustainable with very little effort. Each semester there are new classes allowing for new teams for competitions. To have students willing to compete for increased gym time, by performing feats of fitness, is a win-win situation.

Tons of Fun is presently in the process of assisting with the completion of the final paperwork necessary for West Hardin Middle School to receive Model School status for Green and Healthy Schools.

LEADERSHIP DEVELOPMENT OPPORTUNITIES:

Elizabeth Hoo

When I first heard about the Kentucky Public Health Leadership Institute (KPHLI), and the training I could receive by participating, I was very excited to apply and begin the process. Once we identified teams and began working on the change master project, the magnitude of the topic and amount of work was a little overwhelming. It was a daunting task to narrow down a public health problem of epidemic proportions like childhood obesity into a project that could be designed, managed and implemented in the span of one year. Now that we are wrapping up our projects and drafting the reports, I can look back over the year and appreciate the process and everything that I learned from KPHLI, my team and myself.

Ida Butterworth

The time frame between May 2010 – October 2010 was very frustrating for me as we tried to focus on a small part of the obesity epidemic. Once we decided on a concrete plan, I became excited. . Being a supervisor for less than 2 years at the time, I was delighted to have the opportunity to learn new skills and sharpen others. The reading assignments have been very helpful as well as the feedback instruments. The summits were informative and supportive. I enjoyed meeting new people and working on a common interest.

Glenda Bastin

KPHLI has been an interesting learning experience. Parts of it were fun and enlightening; other parts were rather challenging and difficult. I especially enjoyed the personality assessments and seeing how all personality mixes are essential to good

teamwork. Our team worked well together and focused on working from each other's strengths/abilities. I would like to thank my team members, West Hardin Middle School faculty/staff/students, and Physical Education teacher, Mr. Joe Pike, for their dedication to making this projects a success.

Stephanie Mosley

KPHLI has been a learning experience. It has given me leadership opportunities and allowed me to network and work with people experienced in their field. The book club was enlightening and the skills learned will be useful in all of my future endeavors.

REFERENCES

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