

## Meece Middle CATCH Initiative: 2018-2019 School Year

Lake Cumberland District Health Department  
500 Bourne Avenue  
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### Quality Improvement Story Board

Team Members:

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## PLAN

### Problem Statement

The adult obesity rate in the Lake Cumberland District is higher than the national average. Data shows that decreasing childhood obesity and increasing physical activity during childhood will impact future adult obesity rates.

### Aim Statement

An opportunity exists to improve participation in physical activities among 5th grade students at Meece Middle during the 2018-2019 school year. The Coordinated Approach to Child Health (CATCH) program to focus on healthy behavioral changes will be utilized to:

- increase student knowledge of effective physical activity;
- improve ability in physical activity participation; and
- positively influence BMI rates.

Success will be measured by:

- assessing student's average time to complete a 1-mile run/walk;
- students' ability to identify what is effective physical activity;
- BMI measurements pre-program implementation and at the end of the school year.

### Process Outline & Relevant Data

Students lack the knowledge of how to be adequately physically active and the need for less screen time. CDC data places adult obesity rates in Kentucky (33.20) and the LCDHD district (37.40) above national averages. Additionally, CDC data on Kentucky Childhood obesity rates showed 18.5% of students were obese; and 13.3% of WIC participants, between 2-4 years old, were obese. Meece Middle students completed an initial survey to determine baseline knowledge related to the importance of and how to be physically active. Measurements of the students initial BMI rates were obtained with an average of 21.34%. Students completed a 1-mile run/walk with an average time of 15.31 minutes.

## Identify Potential Causes

Potential causes of obesity among school aged children include:

- Limited availability of nutritional food options
- Lack of general knowledge related to nutritional food choices and being physical active.
- Interest in stationary hobbies (video games, computers, texting, etc.)

## Identify Potential Solutions

Potential solutions to improve/impact obesity among school aged children include:

- Gym class instructor focusing the physical activities taught in the school setting as those the students can participate on their own outside of school.
- Increasing student knowledge on the importance of healthy behavior changes, including nutritional food choices and being physically active.
- Encourage the students to participate in more physical activities during the day and decrease their current screen time.

## Improvement Theory

If the CATCH program is implemented, the students will increase recognition of healthy behaviors and begin adapting these changes into their current habits.

## DO

## Test the Theory

Education was provided to staff instructing them how to incorporate CATCH lessons into their current curriculum. The school wellness team submitted the CATCH program for consideration as part of the School Wellness Policy. The School Newsletter highlighted the program. However, the CATCH program curriculum/activities were primarily centered in the P.E. and health classes.

## CHECK

### Study the Results

Improvements were seen via comparison of the baseline data measurements and the post-program measurements as defined by the goals of this project:

- Students completed a 1-mile run/walk to assess their physical fitness abilities. Initial completion time of the mile averaged 15.3 minutes, with a post-program average completion rate of 11.7 minutes! The fastest time to complete the mile also improved from 7.3 minutes to 6.45 minutes.
- Another tool was the pre- and post-survey tool utilized to measure knowledge related to physical fitness habits (*Refer to Figure 1*), with outcomes that verified an increase of student's knowledge in the area.
- Initial BMI measurements averaged 22%, this decreased slightly at the end of this project to 21.8%.

## ACT

### Standardize or Develop New Theory

Meece Middle plans to continue the CATCH program with these students, following them the length of their time at the school (4 years). The 2018-19 assessments of the program were with the 5<sup>th</sup> grade students and will follow them through the 2019-20 school. At the end of each year the data will be evaluated to measure program success. At the end of the 4 year cycle the school will determine if the CATCH program has been beneficial enough to continue the curriculum.

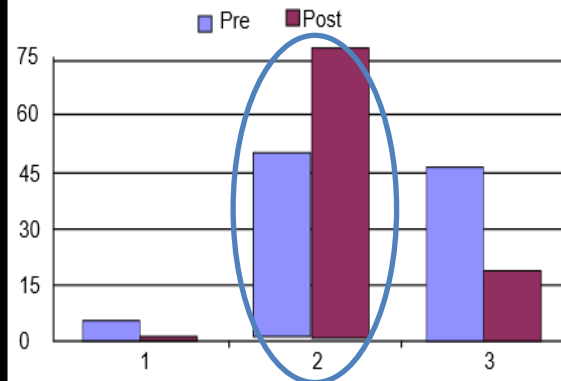
### Future Plans

Health & Wellness Night is planned at Meece Middle during the upcoming school year with all students and parents invited. This event will be a stepping stone to encourage continued participation throughout the year.

It will also be conveyed to teachers how easy CATCH activities would be to add to their current curriculum.

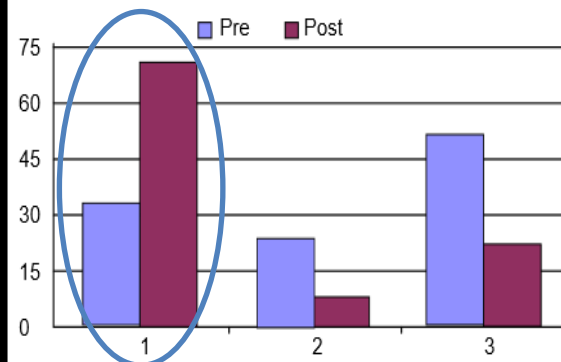
**Figure 1: Pre & Post Survey Responses**

1. Which activity would be best for being physically active?



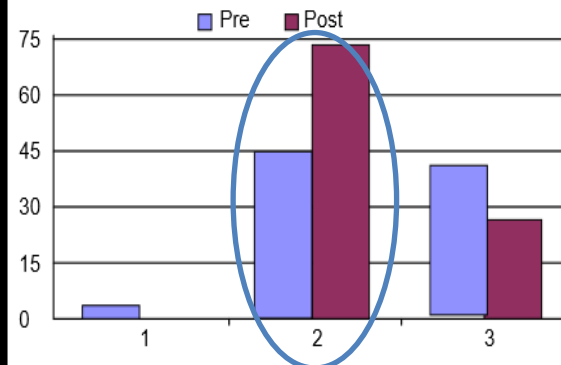
1. 60 minutes playing Fortnite ...	5	5%	1	2%
✓ 2. 60 minutes playing basketba...	31	50%	48	77%
3. 20 minutes walking at a slow...	35	45%	13	21%
Total Responses:	59		62	
Mean:	1.99		2.19	
Standard Deviation:	0.56		0.44	

2. Physical activity should meet what formula?



✓ 1. F.I.T. Frequently (everyday); In...	19	31%	44	71%
2. H.I.T. High Intensity Training	12	20%	5	8%
3. F.A.C.T. Fast; Appropriate; Ca...	31	49%	13	21%
Total Responses:	62		62	
Mean:	2.07		1.50	
Standard Deviation:	0.90		0.82	

3. Why be physically active?



1. Everyone says I should	3	5%	0	0%
✓ 2. Feel better about yourself and ...	37	45%	36	73%
3. It is good to move	27	40%	13	27%
Total Responses:	64		49	
Mean:	2.13		2.27	
Standard Deviation:	0.75		0.45	