Goose Creek CISD CATCH Program

Year 1 Evaluation Summary

Project Overview

Be Well™ Baytown is an initiative of The University of Texas MD Anderson Cancer Center that aims to promote wellness and prevent cancer before it starts. The initiative unites individuals, schools, workplaces, government agencies, and health care providers in Baytown, Texas to carry out community-led solutions that will make positive, long-lasting change in people's health. A central component of this initiative is aligning programming with Goose Creek Consolidated Independent School District's (GCCISD) implementation of the CDC's Whole School, Whole Community, Whole Child (WSCC) model. During the 2017-2018 school year, programming included the implementation of the CATCH PE program in all GCCISD elementary and middle schools and implementation of the full CATCH Coordinated School Health program in four pilot elementary schools. The full CATCH program will be expanded to all elementary schools beginning in August 2018. This report summarizes the evaluation results for the first year of GCCISD's CATCH implementation.

The CATCH program consists of the following components: 1) Classroom lessons on nutrition, physical activity, and screen time reduction; 2) CATCH PE which includes strategies and activities to maximize the time spent in moderate-to-vigorous physical activity; 3) Guidance and resources for creating a school nutrition environment that promotes healthy foods and reinforces classroom learning; 4) The CATCH Coordination Kit which provides a step-by-step guide for engaging the school community and includes specific action items for increasing collaboration and creating healthier learning environments; and 5) Implementation training, technical assistance, and evaluation support.

Project activities included the following:

- A CATCH Champion and team were established in the four pilot schools to spearhead and coordinate program efforts.
- Baseline data was collected including student surveys from 4th and 5th grade students (pilot schools only) and System for Observing Fitness Instruction Time (SOFIT) observations in a sample of PE classes.
- A CATCH PE Implementation Training was conducted for all elementary and middle school PE teachers and a CATCH Coordination Kit & Implementation Training was conducted for the CATCH Champions and teams.

- Each school was provided with CATCH PE Guidebooks and Activity Boxes. The four pilot schools also received K-5th grade classroom teacher manuals, Eat Smart Guidebook for child nutrition staff, and the CATCH Coordination Kit.
- Outcome data was collected including 4th and 5th grade student surveys, SOFIT observations, and CATCH Champion surveys.

Data Collection Timeline

May 2017:	Baseline SOFIT observations
September 2017:	Baseline student survey
February 2018:	CATCH Champion survey (process measure)
April - May 2018:	Student survey, CATCH Champion survey, and SOFIT observations

Evaluation Results

CATCH Champion Survey

Using the CATCH Coordination Kit as a guide, CATCH Champions and teams are responsible for building campus-wide support for CATCH, coordinating messages about healthy eating and physical activity throughout the school, assisting classroom and PE teachers with integrating CATCH into their lesson planning, and developing and implementing a sustainability plan to continue CATCH in future years.

As a process measure, CATCH Champions were surveyed in February 2018 regarding the implementation of CATCH best practices during the first half of the school year. Five CATCH Champions completed the survey (one school had two champions). At that time, each of the schools had designated their CATCH team members and had met in person an average of four times. They had also implemented a number of best practices including displaying GO, SLOW, WHOA and other health-related signage; sharing information about CATCH with staff and parents; providing health tips to parents; and using the CATCH PE Activity Boxes. Each school also had a plan in place to teach the CATCH nutrition lessons and was working to implement this plan. All survey responses were shared with the district's Healthy Community School Coordinator who was able to target additional support to the CATCH Champions and teams based on their individual areas of need.

Upon repeating the survey in May, the following accomplishments were reported:

- All schools had an established CATCH Champion and team with a wide variety of positions represented (e.g., PE and classroom teachers, administrators, nutrition services staff, health services/nurses, counselors).
- All CATCH teams had presented to school faculty on the CATCH classroom curriculum; activity breaks; GO, SLOW, WHOA foods; and/or the CATCH Coordination Kit.
- All schools had displayed "Eat Smart and Be Active" posters and/or GO, SLOW, WHOA signage in their hallways.

- All schools had promoted health messages through displays of student work.
- Three out of four schools had included health messages in their daily announcements at least once a month.
- All schools had provided health tips to parents through PTA meetings, school newsletters, family events, or other methods.
- Three out of four schools had started a campus-wide staff health promotion activity, such as a wellness challenge, walking club, etc.
- All schools had a plan in place for teaching the classroom nutrition lessons. Three schools had mostly implemented their plan. The remaining school had implemented some aspects of their plan.
- All schools had used the CATCH PE resources (lessons and activity box) at least some of the time.
- All schools had held a CATCH Family Fun Event with an average attendance of 160 people.

Student Survey

A modified version of the School Physical Activity and Nutrition (SPAN) survey was administered to 4th and 5th grade students in the four pilot schools prior to CATCH implementation and again at the end of the school year.

	September 2017	May 2018
Sample (n)	793	777
Grade		
4th grade	391 (49.3%)	383 (49.3%)
5th grade	402 (50.7%)	394 (50.7%)
Gender		
Male	380 (48.4%)	367 (47.5%)
Female	405 (51.6%)	405 (52.5%)
Race & Ethnicity		
White	76 (9.7%)	72 (9.3%)
Black	129 (16.4%)	131 (17.0%)
Hispanic	419 (53.3%)	438 (56.7%)
Asian	3 (0.4%)	0 (0.0%)
Native Hawaiian or Other Pacific Islander	6 (0.8%)	4 (0.5%)
American Indian or Alaskan Native	12 (1.5%)	8 (1.0%)
Other	141 (17.9%)	120 (15.5%)

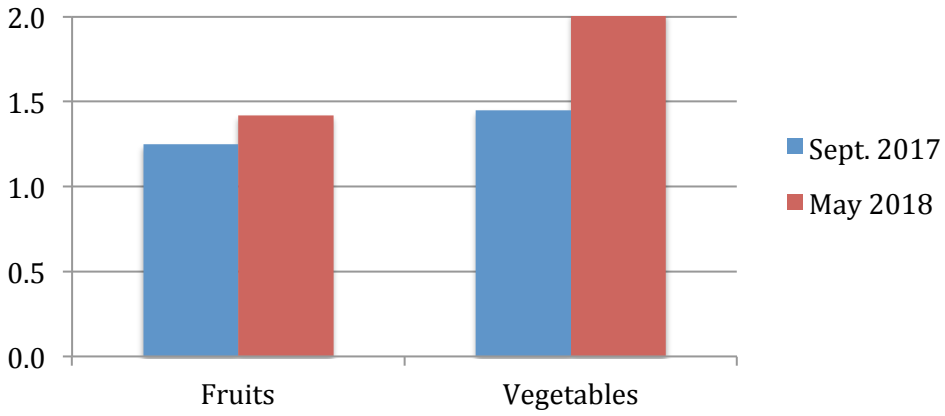
Nutrition Outcomes:

- There was a significant increase in healthy food consumption with a change in mean scale score from 4.3 to 5.1 ($p<.001$). Healthy foods included: baked, grilled, broiled or steamed fish or chicken; nuts; whole grains; beans; vegetables; and fruit. In addition, there was a decrease in mean scale score for unhealthy food consumption from 4.9 to 4.6 although this was not statistically significant. Unhealthy foods

included: hamburger meat, hot dogs, sausage, steak, bacon, or ribs; fried meats; French fries or chips; white breads or tortillas; sweet rolls, doughnuts, cookies, brownies, pies, or cake; candy; and frozen desserts.

- The average number of times students ate fruits and vegetables the previous day increased significantly from 1.3 to 1.4 ($p<.01$) and 1.5 to 2.0, respectively ($p<.0001$). Similarly, the percentage of students who reported eating fruits and vegetables three or more times per day increased from 17% to 23% ($p=.001$) and 22% to 30% ($p<.001$), respectively.
- The average number of times students drank a glass or bottle of water on the previous day increased from 1.6 to 1.8 ($p<.05$). There was also a small increase in the average number of times students drank regular soda from .6 to .7 ($p<.05$). The percentage of students who reported drinking soda three or more times per day, however, decreased from 7% to 4%.

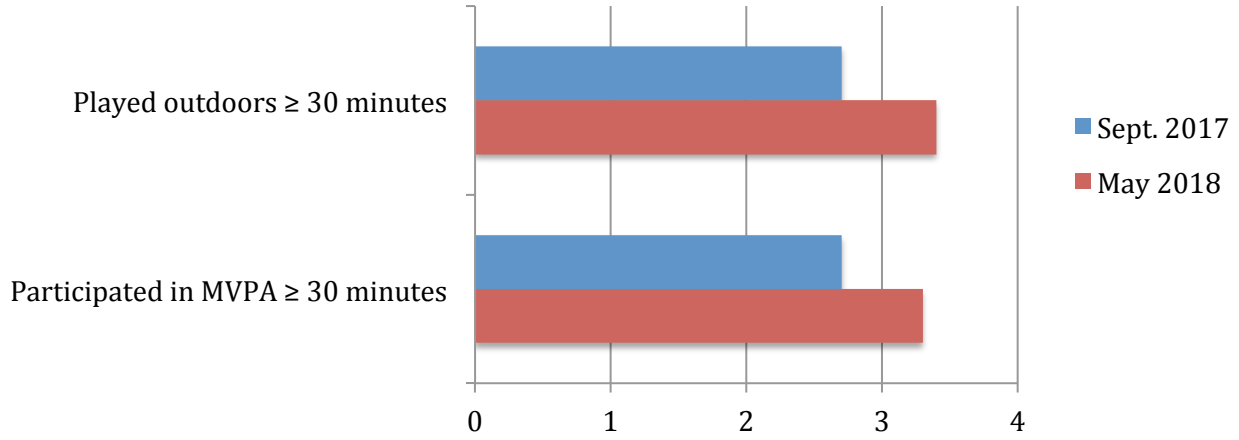
Average number of times students ate fruits & vegetables the previous day



Physical Activity Outcomes

- There was a significant increase in the mean number of days per week that students engaged in moderate-to-vigorous physical activity for at least 30 minutes (2.7 to 3.3, $p<.0001$) and played outdoors for 30 minutes or more (2.7 to 3.4, $p<.001$). Additionally, there was an 18% increase in the percentage of students who reported playing on at least one sports team during the previous year from 50% to 59% ($p<.001$).
- There was no change in the number of hours per day that students spent watching TV or playing video games. The number of hours per day that students used a computer when not in school increased from 2.2 to 2.4 ($p<.01$).

Average number of days per week students were physically active



Health Beliefs and Other Outcomes:

- The health beliefs scale included 3 statements:
  - If I eat healthy foods most of the time, I will have fewer health problems.
  - If I am physically active everyday, I will have fewer health problems.
  - If I am overweight, I am more likely to have more health problems like cancer or heart disease.

  A higher score on the scale (range: 3-9) indicates greater agreement with these statements. From pre to post-survey, there was a significant increase in mean score from 6.9 to 7.3 indicating greater agreement ($p<.0001$).

- Students were asked to respond to the statement "My teacher keeps us moving during PE class" with choices ranging from "never" to "always". From pre to post-survey, the percentage of students who felt that their teacher kept them moving always or almost always during PE increased from 81% to 87% ($p=.002$).

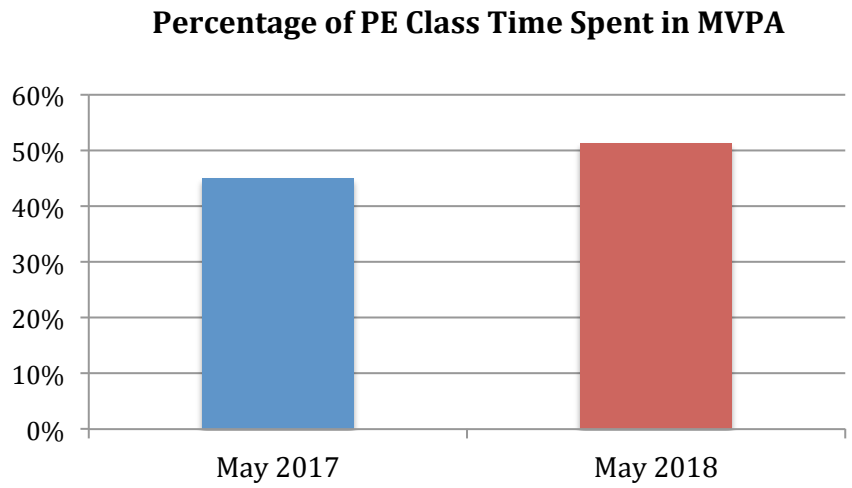
- Students were also asked two questions regarding their knowledge of physical activity and nutrition recommendations:
  - How much of your plate should be covered with fruits and vegetables during a meal?
  - How many minutes of physical activity/exercise should you have on all or most days of the week?

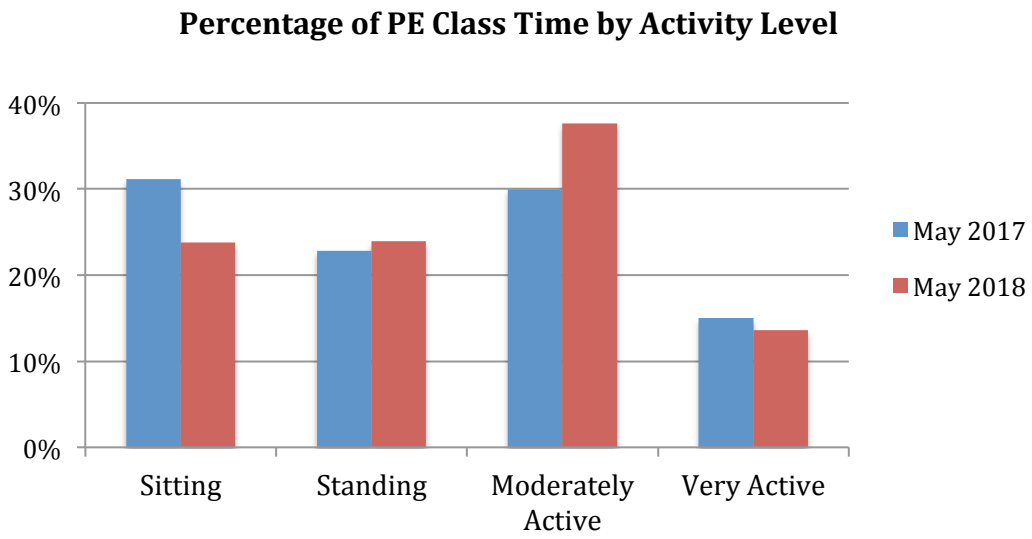
  There was not a significant change in the percentage of students who answered these questions correctly. At post-test, 41% answered the first question correctly (vs. 42% at pre-test) and 35% answered the second question correctly (vs. 32% at pre-test).

System for Observing Fitness Instructional Time (SOFIT)

To evaluate the impact of CATCH on students' moderate-to-vigorous physical activity (MVPA) engagement during physical education, pre and post SOFIT observations were

conducted in a sample of seven PE classes in three schools (2 elementary and 1 middle). The SOFIT tool assesses physical education practices by enabling direct observation and data collection on student activity levels and other class attributes. Prior to CATCH implementation, students in observed PE classes spent 45% of class time engaged in MVPA. There was a wide range of activity levels among the classes, however, with the percentage of time in MVPA ranging from 16% to 73%. Some GCCISD PE teachers had prior experience with CATCH, which may have contributed to the higher activity levels. Post-implementation, students in observed classes engaged in MVPA for 51% of class time. A primary goal of CATCH PE is for at least 50% of PE class time to be spent in MVPA in alignment with national guidelines. Although the observed increase in MVPA did not reach statistical significance, CATCH was successful in helping teachers reach this 50% threshold.





Summary

Results from the CATCH Champion survey reveal strong enthusiasm for CATCH within the four pilot schools. The CATCH teams have been active in engaging school faculty and parents and numerous strategies have been implemented for creating a healthier school environment. Each of the schools has a plan in place to teach the classroom nutrition lessons and is working toward full implementation of these plans. With the many demands on teachers' time, integrating a new classroom curriculum can be a challenge and often takes schools longer than one year to accomplish. The student survey results, which show gains in healthy eating and physical activity participation, are comparable to similar projects after their first year. Additionally, SOFIT results indicate that the CATCH PE Activity Boxes and training are helping PE teachers to increase moderate-to-vigorous physical activity with their students. With an average 51% of class time spent in MVPA at post-test, there remains room for improvement, however these results are also consistent with similar projects in their first year and continued progress is anticipated.