



Brownsville ISD CATCH Coordinated School Health Initiative Evaluation Summary

Project Overview

The Brownsville ISD CATCH project took place in February 2017 to January 2018 and aimed to strengthen the district's coordinated school health programming to better support and promote healthy eating and physical activity for approximately 21,000 K-5th grade students in 37 elementary schools. Brownsville ISD first implemented CATCH district-wide in 2001 and the program has since become an integral part of the district's efforts to improve students' health-related behaviors. At the start of this project, each campus already had an established CATCH Champion and wellness team to lead program implementation efforts, in addition to there being a district-level CATCH Champion and CATCH team. Lack of funding, however, had prevented the district from updating their program materials (now 16 years old) or providing training for new staff, thus threatening the future sustainability of the program. Furthermore, the CATCH teams did not have the more recently developed CATCH Coordination Kit, which provides a framework for collaboration and a step-by-step plan for integrating messages on healthy eating and physical activity across children's learning environments. With funding support from the Valley Baptist Legacy Foundation and the Michael & Susan Dell Foundation, the Brownsville ISD CATCH project provided: (1) Updated CATCH materials to 37 elementary schools including the classroom nutrition curriculum, PE Activity Boxes, Eat Smart Guide for nutrition staff, and CATCH Coordination Kit, (2) Coordination Kit Implementation training to the campus CATCH Champions and teams, and (3) Booster training for PE teachers, many of whom joined BISD after 2001 and had never been trained to use the CATCH PE resources effectively.

Project Timeline

January 2017:	Baseline CATCH Champion surveys; SOFIT observations
February 2017:	CATCH materials delivered to schools; CATCH PE Implementation training for PE teachers
April 2017:	CATCH Coordination Kit & Implementation training for CATCH Champions and teams
May 2017:	CATCH PE Booster training for PE teachers; CATCH Champion surveys; SOFIT observations; school site visits
September 2017:	Student pre-surveys
November 2017:	School site visits
December 2017:	Student post-surveys
January 2018:	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 activities beyond the initial grant period.

The CATCH Champion survey was completed by CATCH Champions from 31 schools at baseline and 28 schools in May 2017, approximately one month after receiving implementation training. The CATCH Champion survey is designed to assess the activities of the CATCH team and implementation of best practices for creating a health-promoting school environment. Due to Brownsville ISD's long history with CATCH, most schools were already implementing many of the activities and strategies included in the questionnaire. However, there were areas of notable improvement including:

- 100% of respondents in May had attended a CATCH Implementation training, compared to 32% at baseline.
- 86% of schools had provided health tips to parents through PTA meetings, newsletters, family events, or other communication channels, compared to 71% at baseline.
- 75% of schools promoted health through displays of students' work, compared to 55% at baseline.
- 50% of schools had labeled foods GO, SLOW, and WHOA in the cafeteria serving line, compared to 39% at baseline.
- 57% of schools were using the CATCH PE resources most or all of the time, compared to 42% at baseline.

These survey results, which were collected just prior to conducting onsite visits, were used to identify individual areas of need and to target additional training and technical assistance to the CATCH Champions and teams.

Student Survey

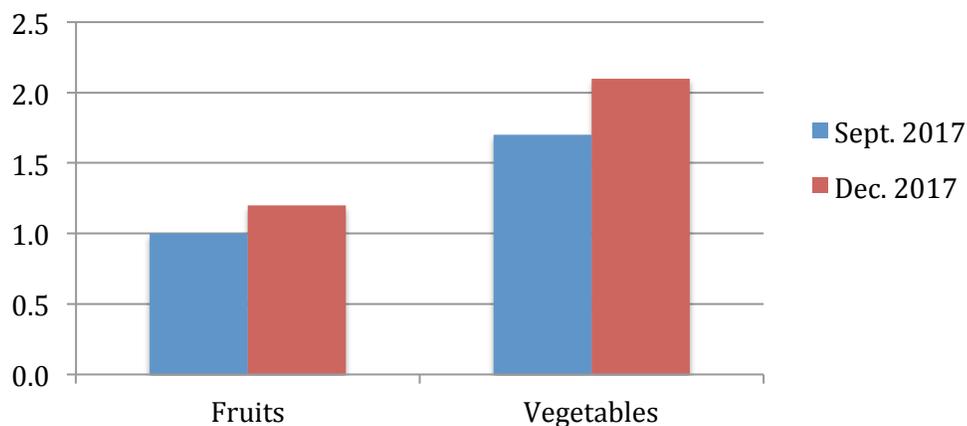
To assess the impact of providing updated CATCH materials and training on student outcomes, nine schools administered surveys to their 4th and 5th grade students at the start and end of the Fall 2017 semester.

	September 2017	December 2017
Sample (n)	1,293	1,223
Grade		
4 th grade	685 (52.9%)	653 (53.4%)
5 th grade	608 (47.0%)	570 (46.6%)
Gender		
Male	648 (50.3%)	632 (51.8%)
Female	641 (59.7%)	588 (48.2%)
Race & Ethnicity		
White	122 (9.5%)	105 (8.6%)
Black	59 (4.6%)	70 (5.8%)
Hispanic	889 (69.1%)	844 (69.3%)
Asian	3 (0.2%)	3 (0.3%)
Native Hawaiian or other Pacific Islander	4 (0.3%)	5 (0.4%)
American Indian or Alaskan Native	16 (1.2%)	18 (1.5%)
Other	194 (15.1%)	173 (14.2%)

Nutrition Outcomes:

- There was a significant increase in healthy food consumption with a change in mean scale score from 4.5 to 5.4 ($p < .001$). Healthy foods included: baked, grilled, broiled or steamed fish or chicken; nuts; whole grains; beans; vegetables; and fruit. There was a smaller increase in “unhealthy” food consumption with a change in mean scale score from 5.1 to 5.4 ($p < .05$). Unhealthy foods included: hamburger meat, hot dogs, sausage or chorizo, steak, bacon, or ribs; fried meat or fish; white or processed grains; French fries or chips; 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 1.0 to 1.2 ($p < .01$) and 1.7 to 2.1 ($p < .001$), respectively.
- There was a significant increase in plain (unflavored) milk consumption from .8 to .9 servings per day ($p < .05$). Among students who drank dairy milk, there was a 14% decrease in the percentage of students who reported choosing whole milk (41.4% to 35.7%) and a 10% increase in students choosing low fat or skim milk (58.6% to 64%) ($p < .05$).
- The average number of times students drank a bottle or glass of water on the previous day increased from 1.6 to 1.7 ($p < .05$).

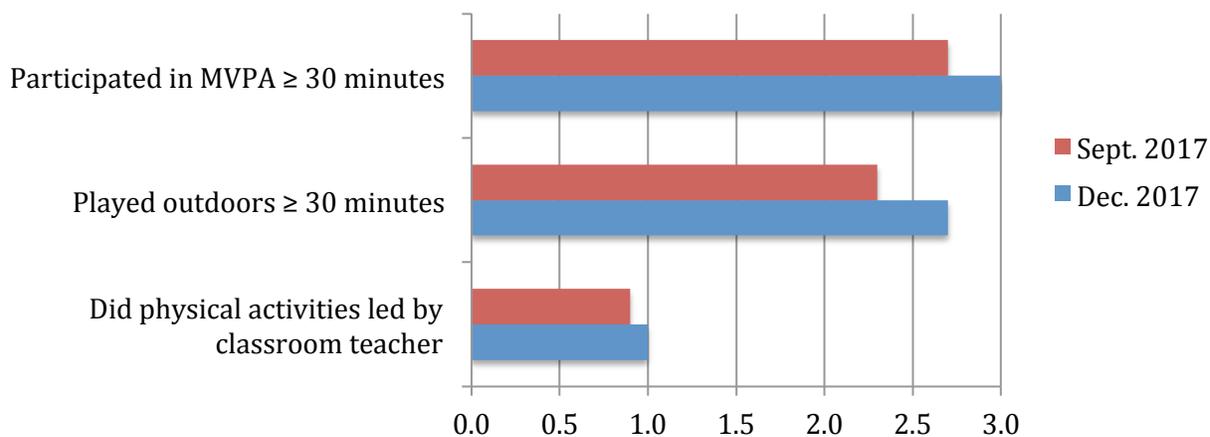
Average number of times students ate fruits & vegetables the previous day



Physical Activity Outcomes

- There were significant increases in the average number of days per week that students engaged in moderate-to-vigorous physical activity for at least 30 minutes (2.7 to 3.0, $p < .01$), played outdoors for at least 30 minutes (2.3 to 2.7, $p < .001$), and participated in physical activities led by their classroom teacher (.9 to 1.0, $p < .05$).
- There was no change in the number of hours per day that students spent watching TV, playing video games, or using a computer when not in school.

Average number of days per week students were physically active



Beliefs and Self-efficacy 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 scale score from 6.8 to 7.1 ($p < .001$).

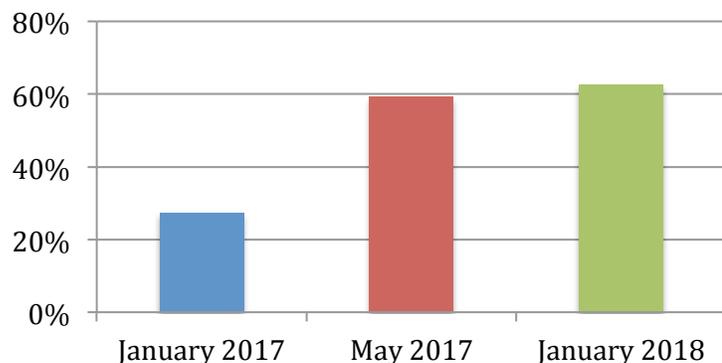
- The following questions were used to assess students' physical activity and nutrition self-efficacy:
 - How sure are you that you can be physically active after school instead of watching TV?
 - How sure are you that you can eat a piece of fruit instead of candy?

From pre to post-survey, the percentage of students who said they were sure or very sure to the first question increased from 78% to 82% ($p < .01$), indicating greater self-efficacy for physical activity. There was no change in self-efficacy for healthy eating, however this metric was high at baseline with 85% of students being sure or very sure that they could eat fruit instead of candy.

System for Observing Fitness Instructional Time (SOFIT)

System for Observing Fitness Instruction Time (SOFIT) observations were conducted in a sample of 8 PE classes in 3 schools in January 2017, 7 PE classes in 3 schools in May 2017, and 8 PE classes in 3 schools in January 2018. On average, the portion of PE class time that students spent in MVPA increased from 27% at baseline to 59% at the end of the spring semester ($p < .001$). This improvement was maintained at the end of the grant period with 63% of PE class time spent in MVPA. Where it was possible to match the school and grade levels observed, the portion of PE class time spent in MVPA increased 71% from January to May 2017 (34% to 58%) and was maintained from May 2017 to January 2018 (66% to 67%).

Percentage of PE class time spent in MVPA



Percentage of PE Class Time by Activity Level

