The Los Fresnos CATCH Project: Promoting Physical Activity and Healthy Eating with Coordinated School Health

Final Report
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Executive Summary

Schools are a natural setting for addressing children’s health and wellbeing and helping them to establish lifelong healthy physical activity and dietary practices. In addition to children spending most of their time in the school environment, research supports a positive link between healthy eating and physical fitness and a student’s academic achievement. With support from a Healthy Kids, Healthy Families grant from Blue Cross and Blue Shield of Texas and in partnership with The University of Texas MD Anderson Cancer Center, the Los Fresnos CATCH project aimed to promote physical activity, healthy eating, and obesity prevention through the implementation of the CATCH Coordinated School Health program in the Los Fresnos Consolidated Independent School District (CISD). Located in the Lower Rio Grande Valley region of Texas, Los Fresnos CISD serves approximately 7,500 children in nine elementary and three middle schools. The children are predominantly Hispanic (97%) and economically disadvantaged (76% eligible for free or reduced lunch), key risk factors associated with higher rates of physical inactivity and obesity.

Following the CATCH implementation methodology, which has been developed over 25 years of research and practice, program components included:

- Establishing a CATCH Champion and team on each campus to spearhead and coordinate program efforts.
- Delivering implementation training for school staff including classroom and PE teachers, nutrition services staff, and select administrators.
- Providing each school with CATCH materials and resources including the classroom nutrition curriculum, PE guidebook and activity boxes, nutrition services guidebook, and CATCH Coordination Kit.
- Conducting onsite facilitation visits to provide technical assistance and assess implementation fidelity.
- Conducting evaluation activities including SOFIT (System for Observing Fitness Instruction Time) observations to assess physical activity levels in PE classes and CATCH Champion surveys to assess the activities of the CATCH teams.

Onsite observations and the CATCH Champion surveys indicated significant engagement in CATCH activities among CATCH teams, teachers, and students. As a result, moderate-to-vigorous physical activity (MVPA) engagement during PE classes increased 29% to 58% of the total class time being spent in MVPA. Additionally, there was a 27% increase in the proportion of students with a healthy body mass index measured during annual FitnessGram® testing as a result of this project.

Project Overview

The Los Fresnos CATCH project is a school-based health promotion initiative aimed at promoting physical activity, healthy eating, and obesity prevention among elementary and middle school students in the Los Fresnos Consolidated Independent School District. Funded by a generous grant from Blue Cross and Blue Shield of Texas, and in partnership with The University of Texas MD
Anderson Cancer Center, the project took place during the 2014-2015 school year in 9 elementary and 3 middle schools and has reached approximately 7,500 children.

The Los Fresnos community is located in Cameron County in the Lower Rio Grande Valley region of Texas. The student population is 97% Hispanic and 76% eligible for free or reduced lunch (FRL), key risk factors associated with higher rates of physical inactivity and obesity. Compared to Texas as a whole, students in Los Fresnos CISD are more likely to be classified as “high risk” based on FitnessGram® testing for Body Mass Index (BMI) and cardiovascular fitness.

The objectives for the Los Fresnos CATCH project were to increase physical activity and healthy eating, build community capacity to sustain a healthy environment, and reduce childhood obesity among elementary and middle school students in Los Fresnos CISD.

**Program Description**

CATCH (Coordinated Approach To Child Health) was first developed over 25 years ago by researchers from the University of Texas and is currently used in over 10,000 educational sites nationwide, including more than 50% of public schools in Texas. Unlike traditional health education programs that focus largely on building knowledge, CATCH also addresses a student’s environment through policy and organizational changes that support healthy eating and physical activity. These changes include the incorporation of physical activity and nutrition education into the classroom curriculum; improvements in the duration and quality of physical activity opportunities in and outside of school; healthier foods served and promoted in the cafeteria; greater family support for healthy eating and being active; and the use of a common language for reinforcing healthy living across school, home, and community settings. The CATCH program design aligns with the Centers for Disease Control and Prevention’s Whole School, Whole Community, Whole Child model, which recognizes the importance of schools, families, and communities working together to address the multiple factors that influence a child’s health and wellness.

The following program components have been fundamental to the implementation and sustainability of CATCH in Los Fresnos CISD.

**Establishing District, School, and Community Support**

The CATCH Project Manager and the district Curriculum Coordinator met with influential stakeholders, including each school principal, and presented at School Health Advisory Committee (SHAC) meetings to build support and develop a plan for district-wide implementation.

A CATCH Champion and CATCH Coordinated School Health team was established on each campus to spearhead and coordinate program efforts.
**CATCH Training Workshops**

CATCH training workshops were conducted to provide school personnel with the knowledge and skills to successfully implement and maintain the CATCH program. Workshops are designed to orient participants to CATCH materials, demonstrate strategies for implementation, and address specific campus needs to facilitate solutions and guide schools toward success. CATCH implementation training was provided to campus teams comprised of classroom and physical education teachers, food service staff, and select administrators. Physical education teachers attended an additional CATCH PE training and later a CATCH PE Booster training.

**CATCH Materials and Resources**

CATCH materials and resources were provided to each campus including teacher manuals for each grade level, physical education “activity boxes” and equipment, a guidebook for nutrition services staff, and the CATCH Coordination Kit. The CATCH Coordination Kit is the key to school-based coordination and the integration of related messaging on physical activity and healthy eating across children’s learning environments. Organized into six-week periods, the Coordination Kit provides the campus CATCH team with a concrete plan and necessary tools to actively engage administrators, teachers, nutrition staff, parents and community constituents.

"Everything that you need is in that kit, and it just makes your life so much easier," said Los Fresnos Curriculum Coordinator Annice Garza of the Coordination Kits.

**Facilitation Visits**

The CATCH Project Manager conducted two facilitation visits per school during the spring semester to provide technical assistance and to ensure a high level of program fidelity. During the final facilitation visits, CATCH Champions were asked to complete a process evaluation survey designed to assess the activities of the CATCH teams and the impact of CATCH on the school information environment. These visits were also used to assist school and district leadership in developing a sustainability plan to continue CATCH beyond the initial grant period.
Evaluation Overview

The following process and outcome indicators were used to evaluate program success:

• Implementation of recommended support activities conducted by the CATCH teams
  
  *Measurement tool:* CATCH Champion Survey

• Change in moderate-to-vigorous physical activity (MVPA) engagement during physical education classes
  
  *Measurement tool:* System for Observing Fitness Instruction Time (SOFIT)

• Change in the proportion of students classified as in “Healthy Fitness Zone” based on FitnessGram® testing for body mass index (BMI)
  
  *Measurement tool:* FitnessGram® Testing

• Change in the proportion of students classified as in “Healthy Fitness Zone” based on FitnessGram® testing for cardiovascular fitness
  
  *Measurement tool:* FitnessGram® Testing

Project Results

Activities of the CATCH Teams

Using the CATCH Coordination Kit as a guide, CATCH Champions and teams on each campus are responsible for building support for CATCH among teachers, nutrition services staff, administrators, and parents; 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 beyond the initial grant period. To assess the effectiveness of the CATCH teams, CATCH Champions were surveyed in late spring regarding the implementation of CATCH best practices during the previous semester. Eleven out of 12 CATCH Champions completed the survey and the information provided is summarized below.

Characteristics of CATCH teams

Each of the 11 schools represented by the survey had CATCH teams that were active during the previous semester, with seven schools having regularly scheduled team meetings. All CATCH teams included at least one PE teacher and 10 of the teams included a school administrator. Most teams had a variety of positions represented including child nutrition staff, counseling, health services, health education, and a community liaison or parent.
**CATCH promotion within schools**

All CATCH teams presented information about CATCH at a faculty meeting or professional development session during the previous semester. The most discussed topics included the classroom nutrition curriculum, classroom activity breaks, Go/Slow/Whoa foods, and an introduction to the Coordination Kit and its organization into 6-week themes with tasks for various school personnel. Nine teams also provided written materials (e.g. “Eat Smart with Us” and “Why CATCH?” letters) and 6 teams distributed “Caught you being Healthy” postcards to recognize school staff whose healthy eating and physical activity behaviors provided positive role modeling for students.

**Campus-wide messaging**

CATCH messages about healthy eating and physical activity were on display in all schools, serving to reinforce children’s classroom learning and contributing to an information environment in which children are consistently encouraged to make healthy choices. Signage included contributions from CATCH teams, faculty, and students.
**Family and Community Engagement**

Ten out of 11 CATCH teams hosted a CATCH Family/Community Event during the previous semester. The remaining team was in the process of planning an event at the time the CATCH Champion survey was administered. Most of these events included health-related vendors from the community, healthy snack options, and opportunities for parents and community members to be active with students. CATCH teams also provided health tips and distributed written information about the CATCH program to parents.

The community in Los Fresnos has truly rallied behind CATCH. “Our police department helped create the route for our community bike event,” said Ms. Garza. “Local vendors helped create goodie bags for the families. I have phenomenal CATCH Champions. They met with their teams, solicited their community for donations, and really just ran with it.”

“Parents love the language that their kids are speaking,” says Ms. Garza of her community. In deep south Texas, like in many areas around the country, parents can fall behind the times. “We’re only just starting to get on trends like walking and biking more. Parents are so excited.”

**MVPA during PE Classes**

The primary goal of the CATCH physical education component is to increase the percentage of class time that children engage in MVPA to at least 50%. To evaluate the impact of CATCH on students’ MVPA engagement during PE, pre and post SOFIT observations were conducted in a sample of PE classes in two elementary schools and one middle school. The SOFIT (System for Observing Fitness Instruction Time) 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 with greater MVPA seen in elementary grades than middle school grades. Post-implementation, students in observed classes engaged in MVPA for 58% of class time, a statistically significant increase of 29%.
“Students and staff have redefined their need for adequate physical activity and rest during CATCH’s intervention on campus, and it’s spreading [within the community],” said Olmita Elementary School CATCH Coordinator Julio Araiza.

**Notable improvements in PE class attributes**

- After implementing CATCH, PE teachers spent less class time performing classroom management activities and more time engaging students in knowledge building activities.

- A key strategy for increasing time spent in MVPA is to have students be physically active concurrent with the teacher providing instructions on that day’s activities. During post-implementation observations, students were significantly more likely to be engaged in physical activity while receiving instructions from their teacher.

- After implementing CATCH, PE teachers were more likely to encourage students to exercise and offered more praise for physical activity. Students were more likely to demonstrate enjoyment of PE activities.

- Although not statistically significant, there were positive trends in teachers using more appropriate student-to-equipment ratios, more appropriate group sizes, and rewards for physical activity outside of class.

**“Healthy Fitness Zone” for BMI**

Los Fresnos CISD performs annual FitnessGram® testing for elementary and middle school students. To evaluate the impact of CATCH on body composition, the proportion of students classified as having a healthy BMI based on FitnessGram® testing in spring 2015 was compared to the proportion of students classified as having a healthy BMI the previous year. Following CATCH implementation, the percentage of students with a healthy BMI increased from 47% to 60%, a statistically significant
improvement of 27%. Note: Los Fresnos CISD changed from FitnessGram® version 8.3 in 2014 to version 10.0 in 2015 resulting in a change in the cutoffs used to categorize students as being in a “healthy fitness zone” for BMI. For each age level, the upper BMI limit was reduced. Therefore, our results still suggest a significant decrease in BMI across the intervention.

Percentage of Students with Healthy BMI

“Healthy Fitness Zone” for Cardiovascular Fitness

From spring 2014 to spring 2015, there was a decrease in the proportion of students who scored in the “healthy fitness zone” for aerobic capacity, as measured with the FitnessGram® PACER test. This result is inconsistent with observed improvements in MVPA during PE class time and the percentage of students with a healthy BMI. As previously noted, Los Fresnos CISD changed from FitnessGram® version 8.3 in 2014 to version 10.0 in 2015. These versions differ in the algorithm used to categorize students into at-risk and healthy fitness zones based on the PACER test, which likely explains the discrepancy in observed outcomes.

Program Sustainability

The goal of the CATCH program is to create sustainable environments for youth that support healthy nutrition and physical activity behaviors. This is accomplished by providing training, resources, and support that build a school’s capacity to continually improve and sustain coordinated school health efforts. Reports from Los Fresnos CISD indicate strong ongoing efforts to implement CATCH with fidelity during the 2015-2016 school year. CATCH Champions and teams continue to be active on their campuses, using the CATCH Coordination Kit as a guide for engaging school personnel, parents, and the community and coordinating messages about healthy eating and physical activity across learning environments. Additionally, enthusiasm for teaching CATCH nutrition and PE lessons remains strong. With ongoing implementation, the reach of CATCH in Los Fresnos CISD has grown, and will continue to grow, beyond the initial cohort of 7,500 students.